TEST REPORT

FCC SAR Part 1 Test for SM-S731U
Certification

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-SR-2507-FC005-R2

DATE OF ISSUE
July 18, 2025

Tested by
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F-TP22-03(Rev.06)

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FCC Part 1 SAR Test for certification

REPORT NO.
HCT-SR-2507-FC005-R2

DATE OF ISSUE
Jul. 18, 2025

FCC ID
A3LSMS731U

Applicant	SAMSUNG Electronics Co., Ltd 129, Samsung-ro, Yeongtong-gu, Suwon-Si, Gyeonggi-do, 16677, Korea
Product Name	Mobile Phone
Model Name	SM-S731U
Additional Model Name	SM-S731U1
Date of Test	May 28, 2025~ Jul. 09, 2025
Location of Test	■ Permanent Testing Lab ☐ On Site Testing Lab (Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA)
FCC Rule Part(s)	CFR § 2.1093
Test Results	PASS (SAR Limit : 1.6 W/kg) Refer to the clause 3.2 Attestation of test result

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REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	Jul. 14, 2025	Initial Release
1	Jul. 17, 2025	Revised Sec 4.9, Sec13, Sec 16
2	Jul. 18, 2025	Revised Page 15

Notice

Content
The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated. The test results have only been applied with the test methods required by the standard(s). The laboratory is not accredited for the test results marked *. Information provided by the applicant is marked **. Test results provided by external providers are marked ***. When confirmation of authenticity of this test report is required, please contact www.hct.co.kr The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

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1. Test Regulations

The tests documented in this report were performed in accordance with FCC CFR § 2.1093, IEEE 1528-2013, ANSI C63.26-2015 the following FCC Published RF exposure KDB procedures:

- FCC KDB Publication 941225 D01 3G SAR Procedures v03r01
- FCC KDB Publication 941225 D06 Hot Spot SAR v02r01
- FCC KDB Publication 941225 D05 SAR for LTE Devices v02r05
- FCC KDB Publication 941225 D05A LTE Rel.10 KDB Inquiry sheet v01r02
- FCC KDB Publication 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB Publication 447498 D01 General RF Exposure Guidance v06
- FCC KDB Publication 648474 D04 Handset SAR v01r03
- FCC KDB Publication 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
- FCC KDB Publication 865664 D02 SAR Reporting v01r02
- FCC KDB Publication 690783 D01 SAR Listings on Grants v01r03
- FCC KDB Publication 971168 D01 Power Meas License Digital Systems v03r01

In Addition to the above, the following information was used.

- October 2013 TCB Workshop Notes (GPRS testing criteria)
- October 2014 TCB Workshop Notes (Overlapping LTE Bands)
- April 2015 TCB Workshop Notes (Overlapping LTE Bands Test exclusion)
- April 2015 TCB Workshop Notes (Simultaneous transmission summation clarified)
- October 2016 TCB Workshop Notes (Bluetooth Duty Factor)
- November 2017 TCBC Workshop Notes (LTE Carrier Aggregation)
- April 2018 TCBC Workshop Notes (LTE UL CA, DL CA SAR Test Exclusion)
- April 2022 TCBC Workshop Notes (Sum-Peak Location Separation Ratio)

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2. Test Location

2.1 Test Laboratory

Company Name	HCT Co., Ltd.
Address	74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si,Gyeonggi-do, 17383 KOREA
Telephone	031-645-6300
Fax.	031-645-6401

2.2 Test Facilities

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

Korea	National Radio Research Agency (Designation No. KR0032)
	KOLAS (Testing No. KT197)

3. Information of the EUT

3.1 General Information of the EUT

Model Name	SM-S731U
Additional Model Name	SM-S731U1
Equipment Type	Mobile Phone
FCC ID	A3LSMS731U
Application Type	Certification
Applicant	SAMSUNG Electronics Co., Ltd.

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3.2 Attestation of test result of device under test

The Highest Reported SAR						
Band	Tx. Frequency	Equipment Class	Reported SAR (W/kg)			
			1 g Head	1 g Body Worn	1 g Hotspot	10 g Extremity
GSM/GPRS/EDGE 850	824.2 ㎒ ~ 848.8 ㎒	PCE	0.43	0.65	0.65	N/A
GSM/GPRS/EDGE 1900	1 850.2 ㎒ ~ 1 909.8 ㎒	PCE	0.17	0.62	0.89	N/A
UMTS Band 5	826.4 ㎒ ~ 846.6 ㎒	PCE	0.37	1.00	1.00	N/A
UMTS Band 4	1 712.4 ㎒ ~ 1 752.6 ㎒	PCE	<0.10	0.74	0.98	N/A
UMTS Band 2	1 852.4 ㎒ ~ 1 907.6 ㎒	PCE	<0.10	0.68	1.10	N/A
LTE FDD Band 2 (PCS)	1 850.7 ㎒ ~ 1 909.3 ㎒	PCE	N/A	N/A	N/A	N/A
LTE FDD Band 4 (AWS)	1 710.7 ㎒ ~ 1 754.3 ㎒	PCE	N/A	N/A	N/A	N/A
LTE FDD Band 5 (Cell)	824.7 ㎒ ~ 848.3 ㎒	PCE	N/A	N/A	N/A	N/A
LTE FDD Band 7	2 502.5 ㎒ ~ 2 567.5 ㎒	PCE	0.62	0.76	0.76	N/A
LTE FDD Band 12	699.7 ㎒ ~ 715.3 ㎒	PCE	0.74	0.80	0.80	N/A
LTE FDD Band 13	779.5 ㎒ ~ 784.5 ㎒	PCE	0.56	0.68	0.68	N/A
LTE FDD Band 14	790.5 ㎒ ~ 795.5 ㎒	PCE	0.60	0.83	0.83	N/A
LTE FDD Band 25 (PCS)	1 850.7 ㎒ ~ 1 914.3 ㎒	PCE	0.89	0.61	0.98	N/A
LTE FDD Band 26 (Cell)	814.7 ㎒ ~ 848.3 ㎒	PCE	0.64	1.03	1.03	N/A
LTE FDD Band 30	2 307.5 ㎒ ~ 2 312.5 ㎒	PCE	0.65	0.34	0.81	N/A
LTE TDD Band 38	2 572.5 ㎒ ~ 2 617.5 ㎒	PCE	N/A	N/A	N/A	N/A
LTE TDD Band 41	2 498.5 ㎒ ~ 2 687.5 ㎒	PCE	1.03	0.99	0.99	N/A
LTE TDD Band 48	3 552.5 ㎒ ~ 3 697.5 ㎒	CBE	1.04	0.54	0.71	N/A
LTE FDD Band 66 (AWS)	1 710.7 ㎒ ~ 1 779.3 ㎒	PCE	0.80	0.57	1.08	N/A
LTE FDD Band 71	665.5 ㎒ ~ 695.5 ㎒	PCE	0.49	0.78	0.78	N/A
NR FDD Band n2 (PCS)	1 852.5 ㎒ ~ 1 907.5 ㎒	PCE	N/A	N/A	N/A	N/A
NR FDD Band n5	826.5 ㎒ ~ 846.5 ㎒	PCE	N/A	N/A	N/A	N/A
NR FDD Band n7	2 502.5 ㎒ ~ 2 567.5 ㎒	PCE	0.92	0.83	0.83	N/A
NR FDD Band n12	701.5 ㎒ ~ 713.5 ㎒	PCE	0.96	0.89	0.89	N/A
NR FDD Band n14	790.5 ㎒ ~795.5 ㎒	PCE	0.56	0.79	0.79	N/A
NR FDD Band n25 (PCS)	1 852.5 ㎒ ~ 1 912.5 ㎒	PCE	0.79	0.57	0.96	N/A
NR FDD Band n26	816.5 ㎒ ~ 846.5 ㎒	PCE	0.60	1.01	1.01	N/A
NR FDD Band n30	2 307.5 ㎒ ~ 2 312.5 ㎒	PCE	0.57	0.49	0.92	N/A
NR TDD Band n38	2 575 ㎒ ~ 2 615 ㎒	PCE	N/A	N/A	N/A	N/A
NR TDD Band n41	2 506.02 ㎒ ~ 2 679.99 ㎒	PCE	1.00	0.81	0.91	N/A
NR TDD Band n48	3 555 ㎒ ~ 3 695.01 ㎒	CBE	1.00	0.68	0.85	N/A
NR FDD Band n66	1 712.5 ㎒ ~ 1 777.5 ㎒	PCE	0.98	0.60	0.95	N/A
NR FDD Band n70	1 697.5 ㎒ ~ 1 707.5 ㎒	PCE	0.73	0.79	0.99	N/A
NR FDD Band n71	665.5 ㎒ ~ 695.5 ㎒	PCE	0.53	0.91	0.91	N/A
NR TDD Band n77	3 445.01 ㎒ ~ 3 544.98 ㎒ 3 705 ㎒ ~ 3 975 ㎒	PCE	0.90	0.78	0.78	N/A
NR TDD Band n78	3 445.01 ㎒ ~ 3 544.98 ㎒ 3 705 ㎒ ~ 3 975 ㎒	PCE	N/A	N/A	N/A	N/A
2.4 ㎓ WLAN	2 412 ㎒ ~ 2 462 ㎒	DTS	0.50	0.36	0.58	N/A
U-NII-1	5 180 ㎒ ~ 5 240 ㎒	NII	N/A	N/A	N/A	N/A
U-NII-2A	5 260 ㎒ ~ 5 320 ㎒	NII	0.81	0.47	0.47	N/A
U-NII-2C	5 500 ㎒ ~ 5 720 ㎒	NII	0.47	0.36	0.70	N/A
U-NII-3	5 745 ㎒ ~ 5 825 ㎒	NII	0.46	0.35	0.74	N/A
U-NII-4	5 845 ㎒ ~ 5 885 ㎒	NII	0.43	0.44	0.71	N/A
6 ㎓ WLAN	5 925 ㎒ ~ 7 115 ㎒	6CD/6VL	0.10	0.10	0.24	N/A
Bluetooth	2 402 ㎒ ~ 2 480 ㎒	DSS/DTS	0.26	0.19	0.35	N/A
NFC	13.56 ㎒	DXX	N/A	N/A	N/A	<0.10
Simultaneous SAR per KDB 690783 D01v01r03			1.52	1.53	1.59	<0.10
Date(s) of Tests:	May 28, 2025~ Jul. 09, 2025					

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The Highest Reported APD/PD						
Band	Tx. Frequency	Equipment Class	APD (4 ㎠)			
			㎽/㎠ Head	㎽/㎠ Body-Worn	㎽/㎠ Hotspot	㎽/㎠ Extremity
6 ㎓ WLAN	5 925 ㎒ ~ 7 115 ㎒	6CD/6VL	**0.04**	**0.05**	0.11	**N/A**
Band	Tx. Frequency	Equipment Class	iPD (4 ㎠)			
			㎽/㎠ psPD			
6 ㎓ WLAN	5 925 ㎒ ~ 7 115 ㎒	6CD/6VL	0.612			
Date(s) of Tests:	Jul. 01, 2025 ~ Jul. 05, 2025					

Summary table of SAR measurement results		
SAR test Configuration	The Highest SAR (W/kg)	Distance (mm)
Head SAR	1.04	
Body-worn accessory	1.03	5
Product specific(wireless router)	1.10	5
Simultaneous transmission analysis	1.59	

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4. Device Under Test Description

4.1 DUT specification

Device Wireless specification overview		
Band & Mode	Operating Mode	Tx Frequency
GSM850	Voice / Data	824.2 MHz ~ 848.8 MHz
GSM1900	Voice / Data	1 850.2 MHz ~ 1 909.8 MHz
UMTS Band 2	Voice / Data	1 852.4 MHz ~ 1 907.6 MHz
UMTS Band 4	Voice / Data	1 712.4 MHz ~ 1 752.6 MHz
UMTS Band 5	Voice / Data	826.4 MHz ~ 846.6 MHz
LTE FDD Band 2 (PCS)	Voice / Data	1 850.7 MHz ~ 1 909.3 MHz
LTE FDD Band 4 (AWS)	Voice / Data	1 710.7 MHz ~ 1 754.3 MHz
LTE FDD Band 5 (Cell)	Voice / Data	824.7 MHz ~ 848.3 MHz
LTE FDD Band 7	Voice / Data	2 502.5 MHz ~ 2 567.5 MHz
LTE FDD Band 12	Voice / Data	699.7 MHz ~ 715.3 MHz
LTE FDD Band 13	Voice / Data	779.5 MHz ~ 784.5 MHz
LTE FDD Band 14	Voice / Data	790.5 MHz ~ 795.5 MHz
LTE FDD Band 25	Voice / Data	1 850.7 MHz ~ 1 914.3 MHz
LTE FDD Band 26	Voice / Data	814.7 MHz ~ 848.3 MHz
LTE FDD Band 30	Voice / Data	2 307.5 MHz ~ 2 312.5 MHz
LTE TDD Band 38	Voice / Data	2 572.5 MHz ~ 2 617.5 MHz
LTE TDD Band 41	Voice / Data	2 498.5 MHz ~ 2 687.5 MHz
LTE TDD Band 48	Voice / Data	3 552.5 MHz ~ 3 697.5 MHz
LTE FDD Band 66 (AWS)	Voice / Data	1 710.7 MHz ~ 1 779.3 MHz
LTE FDD Band 71	Voice / Data	665.5 MHz ~ 695.5 MHz
NR FDD Band n2 (PCS)	Voice / Data	1 852.5 MHz ~ 1 907.5 MHz
NR FDD Band n5	Voice / Data	826.5 MHz ~ 846.5 MHz
NR FDD Band n7	Voice / Data	2 502.5 MHz ~ 2 567.5 MHz
NR FDD Band n12	Voice / Data	701.5 MHz ~ 713.5 MHz
NR FDD Band n14	Voice / Data	790.5 MHz ~795.5 MHz
NR FDD Band n25 (PCS)	Voice / Data	1 852.5 MHz ~ 1 912.5 MHz
NR FDD Band n26	Voice / Data	816.5 MHz ~ 846.5 MHz
NR FDD Band n30	Voice / Data	2 307.5 MHz ~ 2 312.5 MHz
NR TDD Band n38	Voice / Data	2 575 MHz ~ 2 615 MHz
NR TDD Band n41	Voice / Data	2 501.01 MHz ~ 2 685 MHz
NR TDD Band n48	Voice / Data	3 555 MHz ~ 3 695.01 MHz
NR FDD Band n66	Voice / Data	1 712.5 MHz ~ 1 777.5 MHz
NR FDD Band n70	Voice / Data	1 697.5 MHz ~ 1 707.5 MHz
NR FDD Band n71	Voice / Data	665.5 MHz ~ 695.5 MHz
NR TDD Band n77	Voice / Data	3 705 MHz ~ 3 975 MHz
NR TDD Band n77 DoD	Voice / Data	3 445.01 MHz ~ 3 544.98 MHz
NR TDD Band n78	Voice / Data	3 705 MHz ~ 3 795 MHz
NR TDD Band n78 DoD	Voice / Data	3 455.01 MHz ~ 3 544.98 MHz
U-NII-1	Voice / Data	5 180 MHz ~ 5 240 MHz
U-NII-2A	Voice / Data	5 260 MHz ~ 5 320 MHz
U-NII-2C	Voice / Data	5 500 MHz ~ 5 720 MHz
U-NII-3	Voice / Data	5 745 MHz ~ 5 825 MHz
U-NII-4	Voice / Data	5 845 MHz ~ 5 885 MHz
U-NII-5	Voice / Data	5 925 MHz – 6 425 MHz
U-NII-6	Voice / Data	6 425 MHz – 6 525 MHz
U-NII-7	Voice / Data	6 525 MHz – 6 865 MHz
U-NII-8	Voice / Data	6 865 MHz – 7 115 MHz
2.4 GHz WLAN	Voice / Data	2 412 MHz ~ 2 462 MHz
Bluetooth / LE	Data	2 402 MHz ~ 2 480 MHz
NFC	Data	13.56 MHz

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Device Description		
Device Serial Numbers	Mode	Serial Number
	GSM850, GSM1900, UMTS Band 2,4,5	YEJ0735M, YDP1688M
	LTE Band 5,12,13,14,26,71 NR Band n2,5,12,13,14,26,30,70	YEJ0554M, YFB0902M
	LTE Band 2,4,7,25,30,66 NR Band n41, n48 SRS2/3, n77 SRS 2/3	YEJ0554M, YFB0902M
	LTE Band 38,41,48, NR Band n41 SRS2/3/4	YEJ0518M, YFB0902M
	NR Band n7,25,30,38,41,48, 66,71,77,78 n48 SRS4, n77 SRS4, n78 SRS2/3/4	YEJ0515M, YFB0902M
	WLAN 2.4G, 5G, BT, NFC	YEJ0705M, YEJ0714M
	The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics are within operational tolerances expected for production units.	

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4.2 Time-Averaging Algorithm for RF Exposure Compliance

This device is enabled with the Samsung S.LSI proprietary TAS (Time Average SAR) algorithm to control and manage transmitting power in real time and to ensure that the time-averaged RF exposure from 2G/3G/4G/5G NR WWAN and WLAN/BT is in compliance with FCC requirements.

FCC RF exposure limit is based on time averaged RF exposure. The SAR regulatory specification is defined over certain measurement duration allowing for time-averaging. The Samsung S.LSI proprietary TAS (Time Average SAR) algorithm has been designed to meet the compliance limits over the required duration, while still allowing dynamic control of transmit power to satisfy the performance of the system
Part 0 Report shows SAR characterization of WWAN radios for 2G/3G/4G and 5G Sub-6 NR respectively. Characterization is achieved by determining Plimit for 2G/3G/4G and 5G Sub-6 NR and WLAN/BT correspond to the exposure design targets after accounting for all device design related uncertainties, i.e. SAR_design_target (< FCC SAR limit) for sub-6 radio.

This model is equipped with C-TAS, a TAS manager that controls S.LSI's WWAN TAS algorithm and S.LSI's WLAN/BT TAS algorithm to comply with FCC Limits. Combined-TAS (C-TAS) is allowing Cellular and Wi-Fi/BT to share the power budget dynamically. To support C-TAS, Cellular and Wi-Fi/BT chipset must first implement Standalone-TAS (S-TAS), ensuring that the average transmit power remains below the given P_limit within a predetermined sliding time window

The compliance test under the static transmission scenario and simultaneous transmission analysis are reported in Part 1 report. The validation of the time-averaging algorithm and compliance under the dynamic (time- varying) transmission scenario for WWAN /WLAN/BT technologies are reported in Part 2 report.

Both WWAN Mode and WLAN/BT Mode of this DUT are applied with S.LSI TAS algorithm, Combined-TAS (C-TAS) allows WWAN modes and WLAN/BT modes to control each other's transmit output power. they are interworked with each other through C-TAS, and the output power is controlled by operating the TAS algorithm independently in each mode to meet the FCC limit.

The Samsung S.LSI TAS algorithm allow the device to transmit at higher power instantaneously, as high as Pmax, when needed, but enforces power limiting to maintain time-averaged transmit power to Plimit. Below table shows Plimit NV settings and maximum tune up output power Pmax configured for this DUT for various transmit conditions (Radio SAR indicator RSI for Head /Body SAR of WWAN Mode and WLAN/BT Mode mode).
Note that the device uncertainty for sub-6GHz WLAN/WWAN is 1.0dB for this DUT.

The purpose of this report is to demonstrate that the DUT meets FCC SAR limits when transmitting in static transmission configurations at Plimit specified by manufacturer.

Measurement Condition: All conducted power and SAR measurements in this report were performed by Plimit in static Power condition.

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Plim values in green indicate Plimit < Pmax_alues in grey indicate Plimit ≥					
Plimit corresponding to 1 W/kg (1g) 2.5W/kg(10g) SAR_Design_target					Pmax
SAR Exposure Position			Body (Non-Head)	Head (RCV ON)	Maximum Tune-up Output Power (Frame Averaged Power) [dBm]
Averaging volume			1g,10g	1g	
separation Distance			5 mm	0 mm	
Mode	Band	Antenna	RSI=0	RSI=1	
GSM/GPRS/EDGE	850	A	20.8	34.4	25.4
GSM/GPRS/EDGE	850	E	18.8	18.8	25.4
GSM/GPRS/EDGE	1900	A	15.8	30.7	22.1
UMTS	2	A	15.0	18.0	23.5
UMTS	4	A	15.0	18.0	23.5
UMTS	5	A	22.0	22.0	24.0
UMTS	5	E	18.0	18.0	23.0
LTE FDD	25(2)	A	14.5	31.9	24.0
LTE FDD	25(2)	F	16.5	16.5	24.0
LTE FDD	66(4)	A	15.0	30.2	24.0
LTE FDD	66(4)	F	17.5	17.5	24.0
LTE FDD	7	B	16.5	34.3	24.0
LTE FDD	7	F	17.0	17.0	24.0
LTE FDD	12	A	21.5	32.7	24.5
LTE FDD	12	E	20.0	20.0	24.5
LTE FDD	13	A	21.5	33.7	24.5
LTE FDD	13	E	20.0	20.0	24.5
LTE FDD	14	A	21.5	33.0	24.5
LTE FDD	14	E	20.0	20.0	24.5
LTE FDD	26(5)	A	22.0	34.7	24.5
LTE FDD	26(5)	E	20.0	20.0	24.5
LTE FDD	30	A	16.5	34.3	23.0
LTE FDD	30	F	18.0	18.0	23.0
LTE TDD PC3	41(38)	B	17.5	36.9	22.0
LTE TDD PC3	41(38)	F	17.0	17.0	22.0
LTE TDD	48	F	14.0	14.0	21.0
LTE FDD	71	A	26.6	33.6	24.5
LTE FDD	71	E	20.0	20.0	24.5
NR FDD	25(2)	A	15.0	30.8	24.0
NR FDD	25(2)	F	17.0	17.0	23.0
NR FDD	7	B	17.5	33.3	24.0
NR FDD	7	F	16.5	16.5	23.0
NR FDD	12	A	21.0	34.0	24.5
NR FDD	12	E	20.0	20.0	24.5
NR FDD	14	A	21.0	31.6	24.5
NR FDD	14	E	20.0	20.0	24.5
NR FDD	26(5)	A	22.0	36.6	24.5
NR FDD	26(5)	E	20.0	20.0	24.5
NR FDD	30	A	16.0	36.6	23.0
NR FDD	30	F	17.0	17.5	23.0
NR TDD	38	B	18.0	37.5	24.0
NR TDD	38	F	17.0	17.0	23.0
NR TDD	41	B	18.0	37.5	26.0
NR TDD SRS 1 PC2	41	F	18.2	27.2	13.0
NR TDD SRS 2 PC2	41	D	14.4	40.1	13.0
NR TDD SRS 3 PC2	41	E	25.0	18.1	16.0
NR TDD Hopping	41	F	17.0	17.0	26.0
NR TDD SRS1_Hoping	41	B	15.0	15.0	20.0
NR TDD SRS2_Hoping	41	E	25.0	18.1	17.0
NR TDD SRS3_Hoping	41	D	14.4	40.1	14.0
NR TDD	48	F	16.0	16.0	23.0
NR TDD SRS 1	48	C	16.2	31.2	14.5
NR TDD SRS 2	48	I	15.0	15.0	22.0
NR TDD SRS 3	48	D	18.8	46.7	16.0
NR FDD	66	A	15.0	29.5	24.0
NR FDD	66	F	17.5	17.5	24.0
NR FDD	70	A	15.0	33.8	24.0
NR FDD	70	F	17.0	17.0	24.0
NR FDD	71	A	26.3	34.7	24.5
NR FDD	71	E	20.0	20.0	24.5
NR TDD	77/78	F	14.5	13.5	26.0
NR TDD SRS 1	77/78	C	12.0	11.0	23.0
NR TDD SRS 2	77/78	I	14.5	14.0	23.0
NR TDD SRS 3	77/78	D	11.0	10.0	20.0
NR TDD	77/78 DoD	F	14.5	13.5	26.0
NR TDD SRS 1	77/78 DoD	C	12.0	11.0	23.0
NR TDD SRS 2	77/78 DoD	I	14.5	14.0	23.0
NR TDD SRS 3	77/78 DoD	D	11.0	10.0	20.0
WLAN	2.4	H	17.0	17.0	20.0
WLAN	2.4	J	17.0	17.0	20.0
WLAN	2.4	H+J	17.0	17.0	20.0
WLAN	5	H	14.0	14.0	18.0
WLAN	5	E	14.0	14.0	18.0
WLAN	5	H+E	14.0	14.0	18.0
WLAN	6	H	8.0	8.0	16.0
WLAN	6	E	8.0	8.0	16.0
WLAN	6	H+E	8.0	8.0	16.0

Table 4-4 SAR Characterization

*Note all Plimit and maximum tune up output power Pmax levels entered in above Table correspond to average power levels after accounting for duty cycle in the case of TDD modulation schemes (for e.g., GSM, LTE TDD, 5G NR TDD).

*The maximum time-averaged output power (dBm) for any 2G/3G/4G/5G WWAN technology, band, and SAR Exposure condition=minimum of “Plimit” and “Maximum tune up output power: “Pmax” + 1dB device uncertainty.

The maximum time averaged output power means Plimit for each modes SAR values in this report were scaled to the maximum allowed output power to determine compliance per KDB Publication 447498 D01v06.

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4.3 Power Reduction for SAR

In this model, the output Power of the DUT in WWAN/WLAN mode is controlled by the application of The Samsung S.LSI proprietary TAS (Time Average SAR) algorithm, with the output Power depending on the RSI of the predefined DUT.

4.3.1 Nominal and Maximum Output Power Specifications

This device operates using the following maximum output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB publication 447498 D01v06.

4.3.1.1 2G/3G/4G/5G Nominal Output Power

A. GSM Modes

GSM/GPRS/EDGE 850_Antenna A									
Power Level	Voice (dBm)	Data - Burst Average GMSK (dBm)				Data - Burst Average 8-PSK (dBm)			
	1 TX Slot	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots
Pmax	34.0	34.0	31.0	29.8	27.6	26.5	23.5	22.3	21.1
RSI = 0 (Non Head)	30.0	30.0	27.0	24.0	24.0	26.5	23.5	22.3	21.1
RSI = 1 (Head)	34.0	34.0	31.0	29.8	27.6	26.5	23.5	22.3	21.1

GSM/GPRS/EDGE 850_Antenna E									
Power Level	Voice (dBm)	Data - Burst Average GMSK (dBm)				Data - Burst Average 8-PSK (dBm)			
	1 TX Slot	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots
Pmax	33.0	33.0	31.0	29.8	27.6	26.5	23.5	22.3	21.1
RSI = 0 (Non Head)	27.0	27.0	24.0	22.0	21.0	25.0	23.5	22.3	21.1
RSI = 1 (Head)	27.0	27.0	24.0	22.0	21.0	25.0	23.5	22.3	21.1

GSM/GPRS/EDGE 1900									
Power Level	Voice (dBm)	Data - Burst Average GMSK (dBm)				Data - Burst Average 8-PSK (dBm)			
	1 TX Slot	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots
Pmax	30.0	30.0	27.5	26.5	25.2	25.0	22.5	22.0	20.1
RSI = 0 (Non Head)	25.0	25.0	22.0	20.0	19.0	25.0	22.0	20.0	19.0
RSI = 1 (Head)	30.0	30.0	27.5	26.5	25.2	25.0	22.5	22.0	20.1

Tolerance: -1.5 dB ~ +1.0 dB

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B. UMTS Modes

UMTS Band 5 (850 ㎒)_Antenna A				
Power Level	Modulated Average Output Power (dBm)			
	3GPP UMTS Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
Pmax	**24.0**	**23.0**	**22.0**	**23.0**
RSI = 0 (Non Head)	**22.0**	**21.0**	**20.0**	**21.0**
RSI = 1 (Head)	**22.0**	**21.0**	**20.0**	**21.0**

UMTS Band 5 (850 ㎒)_Antenna E				
Power Level	Modulated Average Output Power (dBm)			
	3GPP UMTS Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
Pmax	**23.0**	**22.0**	**22.0**	**22.0**
RSI = 0 (Non Head)	**18.0**	**18.0**	**18.0**	**18.0**
RSI = 1 (Head)	**18.0**	**18.0**	**18.0**	**18.0**

UMTS Band 4 (1 750 ㎒)				
Power Level	Modulated Average Output Power (dBm)			
	3GPP UMTS Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
Pmax	**23.5**	**22.0**	**22.0**	**22.0**
RSI = 0 (Non Head)	**15.0**	**14.0**	**13.0**	**14.0**
RSI = 1 (Head)	**18.0**	**17.0**	**16.0**	**17.0**

UMTS Band 2 (1 900 ㎒)				
Power Level	Modulated Average Output Power (dBm)			
	3GPP UMTS Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
Pmax	**23.5**	**22.0**	**22.0**	**22.0**
RSI = 0 (Non Head)	**15.0**	**14.0**	**13.0**	**14.0**
RSI = 1 (Head)	**18.0**	**17.0**	**16.0**	**17.0**

Tolerance: -1.5 dB ~ +1.0 dB

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C. LTE Modes

Mode / Band	Antenna	Modulated Average Output Power (dBm)		
		Pmax	RSI = 0 (Non Head)	RSI = 1 (Head)
LTE Band 2 (PCS)	M1 (A)	24.0	14.5	24.0
LTE Band 2 (PCS)_HOPPING	S2 (F)	24.0	16.5	16.5
LTE Band 4 (AWS)	M1 (A)	24.0	15.0	24.0
LTE Band 4 (AWS)_HOPPING	S2 (F)	24.0	17.5	17.5
LTE Band 5 (Cell)	M1 (A)	24.5	22.0	24.5
LTE Band 5_AsDIV	S1 (E)	24.5	20.0	20.0
LTE Band 7	M2 (B)	24.0	16.5	24.0
LTE Band 7_HOPPING	S2 (F)	24.0	17.0	17.0
LTE Band 12	M1 (A)	24.5	21.5	24.5
LTE Band 12_AsDIV	S1 (E)	24.5	20.0	20.0
LTE Band 13	M1 (A)	24.5	21.5	24.5
LTE Band 13_AsDIV	S1 (E)	24.5	20.0	20.0
LTE Band 14	M1 (A)	24.5	21.5	24.5
LTE Band 14_AsDIV	S1 (E)	24.5	20.0	20.0
LTE Band 25 (PCS)	M1 (A)	24.0	14.5	24.0
LTE Band 25 (PCS)_HOPPING	S2 (F)	24.0	16.5	16.5
LTE Band 26 (Cell)	M1 (A)	24.5	22.0	24.5
LTE Band 26_AsDIV	S1 (E)	24.5	20.0	20.0
LTE Band 30	S2 (F)	23.0	18.0	18.0
LTE Band 30_HOPPING	M1 (A)	23.0	16.5	23.0
LTE Band 38 (PC3) duty 63%	M2 (B)	24.0	19.5	24.0
LTE Band 38 (PC3) duty 63%_HOPPING	S2 (F)	24.0	19.0	19.0
LTE Band 41 (PC3) duty 63%	M2 (B)	24.0	19.5	24.0
LTE Band 41 (PC3) duty 63%_HOPPING	S2 (F)	24.0	19.0	19.0
LTE Band 48 (PC3) duty 63%	S2 (F)	23.0	16.0	16.0
LTE Band 66 (AWS)	M1 (A)	24.0	15.0	24.0
LTE Band 66 (AWS)_HOPPING	S2 (F)	24.0	17.5	17.5
LTE Band 71	M1 (A)	24.5	24.5	24.5
LTE Band 71_AsDIV	S1 (E)	24.5	20.0	20.0

Tolerance: -1.5 dB ~ +1.0 dB

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D. 5G NR SUB 6

Mode / Band	Antenna	Modulated Average Output Power (dBm)		
		Pmax	RSI = 0 (Non Head)	RSI = 1 (Head)
NR Band n2	M1 (A)	24.0	15.0	24.0
NR Band n2_HOPPING	S2 (F)	23.0	17.0	17.0
NR Band n5	M1 (A)	24.5	22.0	24.5
NR Band n5_AsDIV	S1 (E)	24.5	19.5	19.5
NR Band n7	M2 (B)	24.0	17.5	24.0
NR Band n7_HOPPING	S2 (F)	23.0	16.5	16.5
NR Band n12	M1 (A)	24.5	21.0	24.5
NR Band n12_AsDIV	S1 (E)	24.5	20.0	20.0
NR Band n14	M1 (A)	24.5	21.0	24.5
NR Band n14_AsDIV	S1 (E)	24.5	20.0	20.0
NR Band n25	M1 (A)	24.0	15.0	24.0
NR Band n25_HOPPING	S2 (F)	23.0	17.0	17.0
NR Band n26	M1 (A)	24.5	22.0	24.5
NR Band n26_AsDIV	S1 (E)	24.5	20.0	20.0
NR Band n30	S2 (F)	23.0	17.0	17.5
NR Band n30_HOPPING	M1 (A)	23.0	16.0	23.0
NR Band n38 DUTY 100%	M2 (B)	24.0	18.0	24.0
NR Band n38_HOPPING DUTY 100%	S2 (F)	23.0	17.0	17.0
NR Band n41 (PC3) duty 100%	M2 (B)	24.0	18.0	24.0
NR Band n41 (PC3)_HOPPING duty 100%	S2 (F)	23.0	17.0	17.0
NR Band n41 (PC2) duty 100%	M2 (B)	26.0	18.0	26.0
NR Band n41 (PC2)_HOPPING duty 100%	S2 (F)	26.0	17.0	17.0
NR Band n41 SRS1 (PC3) duty 100%	S2 (F)	13.0	13.0	13.0
NR Band n41 SRS2 (PC3) duty 100%	M4 (D)	13.0	13.0	13.0
NR Band n41 SRS3 (PC3) duty 100%	S1 (E)	16.0	16.0	16.0
NR Band n41 SRS1 (PC2) duty 100%	S2 (F)	13.0	13.0	13.0
NR Band n41 SRS2 (PC2) duty 100%	M4 (D)	13.0	13.0	13.0
NR Band n41 SRS3 (PC2) duty 100%	S1 (E)	16.0	16.0	16.0
NR Band n41_HOPPING SRS1 (PC3) duty 100%	M2 (B)	20.0	17.0	17.0
NR Band n41_HOPPING SRS2 (PC3) duty 100%	S1 (E)	17.0	17.0	17.0
NR Band n41_HOPPING SRS3 (PC3) duty 100%	M4 (D)	14.0	14.0	14.0
NR Band n41_HOPPING SRS1 (PC2) duty 100%	M2 (B)	20.0	17.0	17.0
NR Band n41_HOPPING SRS2 (PC2) duty 100%	S1 (E)	17.0	17.0	17.0
NR Band n41_HOPPING SRS3 (PC2) duty 100%	M4 (D)	14.0	14.0	14.0
NR Band n66	M1 (A)	24.0	15.0	24.0
NR Band n66_HOPPING	S2 (F)	24.0	17.5	17.5
NR Band 70	M1 (A)	24.0	15.0	24.0
NR Band 70_HOPPING	S2 (F)	24.0	17.0	17.0
NR Band n71	M1 (A)	24.5	24.5	24.5
NR Band n71_AsDIV	S1 (E)	24.5	20.0	20.0
NR Band n48 duty 100%	S2 (F)	23.0	16.0	16.0
NR Band n48 SRS1 (PC3) duty 100%	M3 (C)	14.5	14.5	14.5
NR Band n48 SRS2 (PC3) duty 100%	S5 (I)	22.0	15.0	15.0

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NR Band n48 SRS3 (PC3) duty 100%	M4 (D)	16.0	16.0	16.0
NR Band n77 (PC3) duty 100%	S2 (F)	24.0	14.5	13.5
NR Band n77 (PC2) duty 100%	S2 (F)	26.0	14.5	13.5
NR Band n77 SRS1 (PC3) duty 100%	M3 (C)	21.0	12.0	11.0
NR Band n77 SRS2 (PC3) duty 100%	S5 (I)	23.0	14.5	14.0
NR Band n77 SRS3 (PC3) duty 100%	M4 (D)	20.0	11.0	10.0
NR Band n77 SRS1 (PC2) duty 100%	M3 (C)	23.0	12.0	11.0
NR Band n77 SRS2 (PC2) duty 100%	S5 (I)	23.0	14.5	14.0
NR Band n77 SRS3 (PC2) duty 100%	M4 (D)	20.0	11.0	10.0
NR Band n78 (PC3) duty 100%	S2 (F)	24.0	14.5	13.5
NR Band n78 (PC2) duty 100%	S2 (F)	26.0	14.5	13.5
NR Band n78 SRS1 (PC3) duty 100%	M3 (C)	21.0	12.0	11.0
NR Band n78 SRS2 (PC3) duty 100%	S5 (I)	23.0	14.5	14.0
NR Band n78 SRS3 (PC3) duty 100%	M4 (D)	20.0	11.0	10.0
NR Band n78 SRS1 (PC2) duty 100%	M3 (C)	23.0	12.0	11.0
NR Band n78 SRS2 (PC2) duty 100%	S5 (I)	23.0	14.5	14.0
NR Band n78 SRS3 (PC2) duty 100%	M4 (D)	20.0	11.0	10.0

Tolerance: -1.5 dB ~ +1.0 dB

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4.3.1.2 Maximum 2.4 GHz, 5 GHz, 6 GHz WIFI output power

a. Maximum Power

Mod	Band	SISO(ANT 1 / ANT 2)						MIMO					
		a	b	g	n	ac	ax(SU)	a	b	g	n	ac	ax(SU)
2.4GHz	2.45GHz		20	18 Ch.1 : 17	18 Ch.1 : 17	18 Ch.1 : 17	17		23	21 Ch.1 : 20	21 Ch.1 : 20	21 Ch.1 : 20	20
5GHZ (20MHz)	UNII 1	15			15	15	16	18			18	18	19
	UNII 2A	15			15	15	16	18			18	18	19
	UNII 2C	18			18	18	17 Ch100 : 11	21			21	21	20 Ch100 : 14
	UNII 3	18			18	18	17	21			21	21	20
	UNII 4	18			18	18	17	21			21	21	20
5GHZ (40MHz)	UNII 1				14 Ch.38 : 13	14 Ch.38 : 13	12 Ch38 : 12.5				17 Ch.38 : 16	17 Ch.38 : 16	15 Ch38 : 15.5
	UNII 2A				14	14	12				17	17	15
	UNII 2C				14	14	13 Ch102 : 10.5				17	17	16 Ch102 : 13.5
	UNII 3				14	14	13				17	17	16
	UNII 4				14	14	13				17	17	16
5GHZ (80MHz)	UNII 1					12	13.5					15	16.5
	UNII 2A					14	13.5					17	16.5
	UNII 2C					14	13.5					17	16.5
	UNII 3					14	13.5					17	16.5
	UNII 4					14	13.5					17	16.5
5GHz (160MHz)	UNII 1&2A					10.5	12					13.5	15
	UNII 2C					13	12					16	15
	UNII 3&4					13	12					16	15
6GHz_LPI (20MHz)	U-NII-5	12 Ch.2 12-> 6 Ch.45, 93 12->10					12 Ch.2 12-> 5 Ch.45, 93 12->10.5	15 Ch.2 15-> 9 Ch.45, 93 15->13					15 Ch.2 15-> 8 Ch.45, 93 15->13.5
	U-NII-6	12					12	15					15
	U-NII-7	12					12	15					15
	U-NII-8	12					12	15					15
6GHz_LPI (40MHz)	U-NII-5						10						13
	U-NII-6						10						13
	U-NII-7						10						13
	U-NII-8						10						13
6GHz_LPI (80MHz)	U-NII-5						10						13
	U-NII-6						10						13
	U-NII-7						10						13
	U-NII-8						10						13

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6GHz_LPI (160MHz)	U-NII-5						10						13
	U-NII-6						10						13
	U-NII-7						10						13
	U-NII-8						10						13
6GHz_LPI (320MHz)	U-NII-5												
	U-NII-6												
	U-NII-7												
	U-NII-8												
6GHz_SP (20MHz)	U-NII-5	16 Ch.2 16->6					16 Ch.2 16->5	19 Ch.2 19->9					19 Ch.2 19->8
	U-NII-7	16					16	19					19
6GHz_SP (40MHz)	U-NII-5						16						19
	U-NII-7						16						19
6GHz_SP (80MHz)	U-NII-5						16						19
	U-NII-7						16						19
6GHz_SP (160MHz)	U-NII-5						16						19
	U-NII-7						16						19
6GHz_SP (320MHz)	U-NII-5												
	U-NII-7												
6GHz_VLP (20MHz)	U-NII-5	5					5	8					8
	U-NII-6	5					5	8					8
	U-NII-7	5					5	8					8
	U-NII-8	5					5	8					8
6GHz_VLP (40MHz)	U-NII-5						5						8
	U-NII-6						5						8
	U-NII-7						5						8
	U-NII-8						5						8
6GHz_VLP (80MHz)	U-NII-5						5						8
	U-NII-6						5						8
	U-NII-7						5						8
	U-NII-8						5						8
6GHz_VLP (160MHz)	U-NII-5						5						8
	U-NII-6						5						8
	U-NII-7						5						8
	U-NII-8						5						8
6GHz_VLP (320MHz)	U-NII-5												
	U-NII-6												
	U-NII-7												
	U-NII-8												

(Upper Tolerance: target +1.0 dB)

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b. Reduced Power – Head, Body SAR

Mode	Band	SISO(ANT 1 / ANT 2)						MIMO					
		a	b	g	n	ac	ax(SU)	a	b	g	n	ac	ax(SU)
2.4GHz	2.45GHz		17	17	17	17	17		20	20	20	20	20
5GHZ (20MHz)	UNII 1	14			14	14	14	17			17	17	17
	UNII 2A	14			14	14	14	17			17	17	17
	UNII 2C	14			14	14	14 Ch100 : 11	17			17	17	17 Ch100 : 14
	UNII 3	14			14	14	14	17			17	17	17
	UNII 4	14			14	14	14	17			17	17	17
5GHZ (40MHz)	UNII 1				14 Ch.38 : 13	14 Ch.38 : 13	12 Ch38 : 12.5				17 Ch.38 : 16	17 Ch.38 : 16	15 Ch38 : 15.5
	UNII 2A				14	14	12				17	17	17
	UNII 2C				14	14	13 Ch102 : 10.5				17	17	16 Ch102 : 13.5
	UNII 3				14	14	13				17	17	16
	UNII 4				14	14	13				17	17	16
5GHZ (80MHz)	UNII 1					12	13.5					15	16.5
	UNII 2A					14	13.5					17	16.5
	UNII 2C					14	13.5					17	16.5
	UNII 3					14	13.5					17	16.5
	UNII 4					14	13.5					17	16.5
5GHz (160MHz)	UNII 1&2A					10.5	12					13.5	15
	UNII 2C					13	12					16	15
	UNII 3&4					13	12					16	15
6GHz_LPI (20MHz)	U-NII-5	8 Ch.2 8-> 6					8 Ch.2 8-> 5	11 Ch.2 11-> 9					11 Ch.2 11-> 8
	U-NII-6	8					8	11					11
	U-NII-7	8					8	11					11
	U-NII-8	8					8	11					11
6GHz_LPI (40MHz)	U-NII-5						8						11
	U-NII-6						8						11
	U-NII-7						8						11
	U-NII-8						8						11
6GHz_LPI (80MHz)	U-NII-5						8						11
	U-NII-6						8						11
	U-NII-7						8						11
	U-NII-8						8						11

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6GHz_LPI (160MHz)	U-NII-5						8						11
	U-NII-6						8						11
	U-NII-7						8						11
	U-NII-8						8						11
6GHz_LPI (320MHz)	U-NII-5												
	U-NII-6												
	U-NII-7												
	U-NII-8												
6GHz_SP (20MHz)	U-NII-5	8 Ch.2:6					8 Ch.2 :5	11 Ch.2:9					11 Ch.2:8
	U-NII-7	8					8	11					11
6GHz_SP (40MHz)	U-NII-5						8						11
	U-NII-7						8						11
6GHz_SP (80MHz)	U-NII-5						8						11
	U-NII-7						8						11
6GHz_SP (160MHz)	U-NII-5						8						11
	U-NII-7						8						11
6GHz_SP (320MHz)	U-NII-5												
	U-NII-7												
6GHz_VLP (20MHz)	U-NII-5	5					5	8					8
	U-NII-7	5					5	8					8
6GHz_VLP (40MHz)	U-NII-5						5						8
	U-NII-7						5						8
6GHz_VLP (80MHz)	U-NII-5						5						8
	U-NII-7						5						8
6GHz_VLP (160MHz)	U-NII-5						5						8
	U-NII-7						5						8
6GHz_VLP (320MHz)	U-NII-5												
	U-NII-7												

(Upper Tolerance: target +1.0 dB)

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c. Reduced Power – RSDB Mode [Head, Body]

Mode	Band	SISO(ANT 1 / ANT 2)						MIMO					
		a	b	g	n	ac	ax(SU)	a	b	g	n	ac	ax(SU)
2.4GHz	2.45GHz		14	14	14	14	14		17	17	17	17	17
5GHZ (20MHz)	UNII 1	11			11	11	11	14			14	14	14
	UNII 2A	11			11	11	11	14			14	14	14
	UNII 2C	11			11	11	11	14			14	14	14
	UNII 3	11			11	11	11	14			14	14	14
	UNII 4	11			11	11	11	14			14	14	14
5GHZ (40MHz)	UNII 1				11	11	11				14	14	14
	UNII 2A				11	11	11				14	14	14
	UNII 2C				11	11	11 Ch102 : 10.5				14	14	14 Ch102 : 13.5
	UNII 3				11	11	11				14	14	14
	UNII 4				11	11	11				14	14	14
5GHZ (80MHz)	UNII 1					11	11					14	14
	UNII 2A					11	11					14	14
	UNII 2C					11	11					14	14
	UNII 3					11	11					14	14
	UNII 4					11	11					14	14
5GHz (160MHz)	UNII 1&2A					10	10					13	13
	UNII 2C					10	10					13	13
	UNII 3&4					10	10					13	13
6GHz_LPI (20MHz)	U-NII-5	8 Ch.2: 6					8 Ch.2:5	11 Ch.2:9					11 Ch.2:8
	U-NII-6	8					8	11					11
	U-NII-7	8					8	11					11
	U-NII-8	8					8	11					11
6GHz_LPI (40MHz)	U-NII-5						8						11
	U-NII-6						8						11
	U-NII-7						8						11
	U-NII-8						8						11
6GHz_LPI (80MHz)	U-NII-5						8						11
	U-NII-6						8						11
	U-NII-7						8						11
	U-NII-8						8						11
6GHz_LPI (160MHz)	U-NII-5						8						11
	U-NII-6						8						11
	U-NII-7						8						11
	U-NII-8						8						11
6GHz_LPI (320MHz)	U-NII-5												
	U-NII-6												
	U-NII-7												
	U-NII-8												
6GHz_SP (20MHz)	U-NII-5	8 Ch.2:6					8 Ch.2:5	11 Ch.2:9					11 Ch.2:8
	U-NII-7	8					8	11					11
6GHz_SP (40MHz)	U-NII-5						8						11
	U-NII-7						8						11
	U-NII-5						8						11

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6GHz_SP (80MHz)	U-NII-7						8						11
6GHz_SP (160MHz)	U-NII-5						8						11
	U-NII-7						8						11
6GHz_SP (320MHz)	U-NII-5												
	U-NII-7												
6GHz_VLP (20MHz)	U-NII-5	5					5	8					8
	U-NII-7	5					5	8					8
6GHz_VLP (40MHz)	U-NII-5						5						8
	U-NII-7						5						8
6GHz_VLP (80MHz)	U-NII-5						5						8
	U-NII-7						5						8
6GHz_VLP (160MHz)	U-NII-5						5						8
	U-NII-7						5						8
6GHz_VLP (320MHz)	U-NII-5												
	U-NII-7												

(Upper Tolerance: target +1.0 dB)

d. Bluetooth Maximum and Reduced Conducted Output Power in Conducted Mode

a. Maximum Power

MODE	DATA RATE	SISO		Dual(iPA, ANT1 + ANT2)		
		ANT1	ANT2	ANT1	ANT2	Dual
BDR(in dBm)	1Mbps	18	19	12	13	16
EDR(in dBm)	2Mbps	14.5	15.5	10	10	13
	3Mbps	14.5	15.5	10	10	13
LE	1M	18	19	12.5	13.5	16
	2M	18	19	12.5	13.5	16
	125K	12	13	0.10	0.10	0.10
	500k	12	13	0.10	0.10	0.10

(Upper tolerance: target +1.0dB)

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b. Reduced Power – Head, Body SAR

- **When operating simultaneously with BT and NR Mode**
- **When operating simultaneously with BT and WIFI5Ghz**
- **When operating simultaneously with BT and WIFI6Ghz**
- **When RCV_ON is activated**

MODE	DATA RATE	SISO		Dual(iPA, ANT1 + ANT2)		
		ANT1	ANT2	ANT1	ANT2	Dual
BDR(in dBm)	1Mbps	12	13	12	13	16
EDR(in dBm)	2Mbps	12	13	10	10	13
	3Mbps	12	13	10	10	13
LE	1M	12.5	14 39ch : 12.5	12.5	13.5	16
	2M	12.5	14 39ch : 12.5	12.5	13.5	16
	125K	12	13	0.10	0.10	0.10
	500k	12	13	0.10	0.10	0.10

(Upper tolerance: target +1.0dB)

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4.4 LTE Information

Item.		Description
Frequency Range	LTE FDD Band 2 (PCS)	1 850.7 ㎒ ~ 1 909.3 ㎒
	LTE FDD Band 4 (AWS)	1 710.7 ㎒ ~ 1 754.3 ㎒
	LTE FDD Band 5 (Cell)	824.7 ㎒ ~ 848.3 ㎒
	LTE FDD Band 7	2 502.5 ㎒ ~ 2 567.5 ㎒
	LTE FDD Band 12	699.7 ㎒ ~ 715.3 ㎒
	LTE FDD Band 13	779.5 ㎒ ~ 784.5 ㎒
	LTE FDD Band 14	790.5 ㎒ ~ 795.5 ㎒
	LTE FDD Band 25	1 850.7 ㎒ ~ 1 914.3 ㎒
	LTE FDD Band 26	814.7 ㎒ ~ 848.3 ㎒
	LTE FDD Band 30	2 307.5 ㎒ ~ 2 312.5 ㎒
	LTE TDD Band 38	2 572.5 ㎒ ~ 2 617.5 ㎒
	LTE TDD Band 41	2 498.5 ㎒ ~ 2 687.5 ㎒
	LTE TDD Band 48	3 552.5 ㎒ ~ 3 697.5 ㎒
	LTE FDD Band 66 (AWS)	1 710.7 ㎒ ~ 1 779.3 ㎒
	LTE FDD Band 71	665.5 ㎒ ~ 695.5 ㎒
Channel Bandwidths	LTE FDD Band 2 (PCS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE FDD Band 4 (AWS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE FDD Band 5 (Cell)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒
	LTE FDD Band 7	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE FDD Band 12	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒
	LTE FDD Band 13	5 ㎒, 10 ㎒
	LTE FDD Band 14	5 ㎒, 10 ㎒
	LTE FDD Band 25	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE FDD Band 26	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒
	LTE FDD Band 30	5 ㎒, 10 ㎒
	LTE TDD Band 38	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE TDD Band 41	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE TDD Band 48	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE FDD Band 66 (AWS)	1.4 ㎒, 3 ㎒, 5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒
	LTE FDD Band 71	5 ㎒, 10 ㎒, 15 ㎒, 20 ㎒

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Ch. No.& Freq.(MHz)		Low / Low-Mid	Mid	Mid-High / High
LTE FDD Band 2 (PCS)	1.4 MHz	1 850.7 (18607)	1 880.0 (18900)	1 909.3 (19193)
	3 MHz	1 851.5 (18615)	1 880.0 (18900)	1 908.5 (19185)
	5 MHz	1 852.5 (18625)	1 880.0 (18900)	1 907.5 (19175)
	10 MHz	1 855.0 (18650)	1 880.0 (18900)	1 905.0 (19150)
	15 MHz	1 857.5 (18675)	1 880.0 (18900)	1 902.5 (19125)
	20 MHz	1 860.0 (18700)	1 880.0 (18900)	1 900.0 (19100)
LTE FDD Band 4 (AWS)	1.4 MHz	1 710.7 (19957)	1 732.5 (20175)	1 754.3 (20393)
	3 MHz	1 711.5 (19965)	1 732.5 (20175)	1 753.5 (20385)
	5 MHz	1 712.5 (19975)	1 732.5 (20175)	1 752.5 (20375)
	10 MHz	1 715.0 (20000)	1 732.5 (20175)	1 750.0 (20350)
	15 MHz	1 717.5 (20025)	1 732.5 (20175)	1 747.5 (20325)
	20 MHz		1 732.5 (20175)	
LTE FDD Band 5 (Cell)	1.4 MHz	824.7 (20407)	836.5 (20525)	848.3 (20643)
	3 MHz	825.5 (20415)	836.5 (20525)	847.5 (20635)
	5 MHz	826.5 (20425)	836.5 (20525)	846.5 (20625)
	10 MHz		836.5 (20525)	
LTE FDD Band 7	5 MHz	2 502.5 (20775)	2 535 (21100)	2 567.5 (21425)
	10 MHz	2 505 (20800)	2 535 (21100)	2 565 (21400)
	15 MHz	2 507.5 (20825)	2 535 (21100)	2 562.5 (21375)
	20 MHz	2 510 (20850)	2 535 (21100)	2 560 (21350)
LTE FDD Band 12	1.4 MHz	699.7 (23017)	707.5 (23095)	715.3 (23173)
	3 MHz	700.5 (23025)	707.5 (23095)	714.5 (23165)
	5 MHz	701.5 (23035)	707.5 (23095)	713.5 (23155)
	10 MHz		707.5 (23095)	
LTE FDD Band 13	5 MHz		782 (23230)	
	10 MHz		782 (23230)	
LTE FDD Band 14	5 MHz		793 (23330)	
	10 MHz		793 (23330)	
LTE FDD Band 25(PCS)	1.4 MHz	1 850.7 (26047)	1 882.5 (26365)	1 914.3 (26683)
	3 MHz	1 851.5 (26055)	1 882.5 (26365)	1 913.5 (26675)
	5 MHz	1 852.5 (26065)	1 882.5 (26365)	1 912.5 (26665)
	10 MHz	1 855 (26090)	1 882.5 (26365)	1 910 (26640)
	15 MHz	1 857.5 (26115)	1 882.5 (26365)	1 907.5 (26615)
	20 MHz	1 860 (26140)	1 882.5 (26365)	1 905 (26590)
LTE FDD Band 26 (Cell)	1.4 MHz	814.7 (26697)	831.5 (26865)	848.3 (27033)
	3 MHz	815.5 (26705)	831.5 (26865)	847.5 (27025)
	5 MHz	816.5 (26715)	831.5 (26865)	846.5 (27015)
	10 MHz	819.0 (26740)	831.5 (26865)	844.0 (26990)
	15 MHz		831.5 (26865)	
LTE FDD Band 30	5 MHz	2 307.5 (27685)	2 310 (27710)	2 312.5 (27735)
	10 MHz		2 310 (27710)	
LTE TDD Band 38	5 MHz	2 572.5 (37775)	2 595 (38000)	2 617.5 (38225)
	10 MHz	2 575 (37800)	2 595 (38000)	2 615 (38200)
	15 MHz	2 577.5 (37825)	2 595 (38000)	2 612.5 (38175)
	20 MHz	2 580 (37850)	2 595 (38000)	2 610 (38150)

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Ch. No.& Freq.(㎒)		Low / Low-Mid		Mid		Mid-High / High	
LTE FDD Band 66 (AWS)	1.4 ㎒	1 710.7 (131979)		1 745 (132322)		1 779.3 (132665)	
	3 ㎒	1 711.5 (131987)		1 745 (132322)		1 778.5 (132657)	
	5 ㎒	1 712.5 (131997)		1 745 (132322)		1 777.5 (132647)	
	10 ㎒	1 715.0 (132022)		1 745 (132322)		1 775.0 (132622)	
	15 ㎒	1 717.5 (132047)		1 745 (132322)		1 772.5 (132597)	
	20 ㎒	1 720.0 (132072)		1 745 (132322)		1 770.0 (132572)	
LTE FDD Band 71	5 ㎒	665.5 (133147)		680.5 (133297)		695.5 (133447)	
	10 ㎒	668 (133172)		680.5 (133297)		693 (133422)	
	15 ㎒	670.5 (133197)		680.5 (133297)		690.5 (133397)	
	20 ㎒			680.5 (133297)			
LTE TDD Band 41	5 ㎒	2 506.0(39750)	2 549.5(40185)	2 593.0(40620)	2 636.5(41055)	2 680.0(41490)	
	10 ㎒	2 506.0(39750)	2 549.5(40185)	2 593.0(40620)	2 636.5(41055)	2 680.0(41490)	
	15 ㎒	2 506.0(39750)	2 549.5(40185)	2 593.0(40620)	2 636.5(41055)	2 680.0(41490)	
	20 ㎒	2 506.0(39750)	2 549.5(40185)	2 593.0(40620)	2 636.5(41055)	2 680.0(41490)	
LTE TDD Band 48	5 ㎒	3 552.5(55265)	3 600.8(55748)	3 649.2(56232)	3 697.5(56715)		
	10 ㎒	3 555(55290)	3 601.7(55757)	3 648.3(56223)	3 695(56690)		
	15 ㎒	3 557.5(55315)	3 602.5(55765)	3 647.5(56215)	3 692.5(56665)		
	20 ㎒	3 560(55340)	3 603.3(55773)	3 646.7(56207)	3 690(56640)		

UE Category	LTE Rel. 16, DL: Category 20, UL: Category 18
HPUE Power Class	LTE TDD 41 Power Class 3 : (Duty : 63.3%)
Modulations Supported in UL	QPSK, 16QAM, 64QAM, 256 QAM
LTE MPR Permanently implemented per 3GPP TS 36.101 section 6.2.3	Yes
A-MPR disabled for SAR Testing.	Yes
LTE Carrier Aggregation	This device supports Inter-Band & Intra-Band DL-link Carrier aggregations and Intra-Band UL-link Carrier aggregations. Detailed information in Technical Description document.
LTE Release information	It supports only DL carrier aggregation. All other uplink communications are identical to the release 8 specifications. The following LTE Rel.16 Features are not supported: Relay, Hetnet, Enhanced elCl, MDH, cross-carrier Scheduling, Enhanced SC-FDMA,UL-CA.

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4.5 5G NR SUB 6 Information

Item.		Description
Frequency Range	NR FDD Band n2 (PCS)	1 852.5 MHz ~ 1 907.5 MHz
	NR FDD Band n5	826.5 MHz ~ 846.5 MHz
	NR FDD Band n7	2502.5 MHz ~ 2567.5 MHz
	NR FDD Band n12	701.5 MHz ~ 713.5 MHz
	NR FDD Band n14	790.5 MHz ~795.5 MHz
	NR FDD Band n25 (PCS)	1 852.5 MHz ~ 1 912.5 MHz
	NR FDD Band n26	816.5 MHz ~ 846.5 MHz
	NR FDD Band n30	2 307.5 MHz ~ 2 312.5 MHz
	NR TDD Band n38	2 575 MHz ~ 2 615 MHz
	NR TDD Band n41	2 501.01 MHz ~ 2 685 MHz
	NR TDD Band n48	3 555 MHz ~ 3 695.01 MHz
	NR FDD Band n66	1 712.5 MHz ~ 1 777.5 MHz
	NR FDD Band n70	1 697.5 MHz ~ 1 707.5 MHz
	NR FDD Band n71	665.5 MHz ~ 695.5 MHz
	NR TDD Band n77	3 705 MHz ~ 3 975 MHz
	NR TDD Band n77 DoD	3 445.01 MHz ~ 3 544.98 MHz
	NR TDD Band n78	3 705 MHz ~ 3 795 MHz
	NR TDD Band n78 DoD	3 455.01 MHz ~ 3 544.98 MHz
Channel Bandwidths	NR FDD Band n2 (PCS)	5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 35 MHz, 40 MHz
	NR FDD Band n5	5 MHz, 10 MHz, 15 MHz, 20 MHz
	NR FDD Band n7	5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 35 MHz, 40 MHz
	NR FDD Band n12	5 MHz, 10 MHz, 15 MHz
	NR FDD Band n14	5 MHz, 10 MHz
	NR FDD Band n25 (PCS)	5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 35 MHz, 40 MHz
	NR FDD Band n26	5 MHz, 10 MHz, 15 MHz, 20 MHz
	NR FDD Band n30	5 MHz, 10 MHz
	NR TDD Band n38	10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz
	NR TDD Band n41	10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz
	NR TDD Band n48	10 MHz, 15 MHz, 20 MHz, 30 MHz, 40 MHz,
	NR FDD Band n66	5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 35 MHz, 40 MHz
	NR FDD Band n70	5 MHz, 10 MHz, 15 MHz
	NR FDD Band n71	5 MHz, 10 MHz, 15 MHz, 20 MHz
	NR TDD Band n77	10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz
	NR TDD Band n77 DoD	10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz
	NR TDD Band n78	10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz
	NR TDD Band n78 DoD	10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz

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Ch. No.& Freq.(MHz)		Low / Low-Mid		Mid		Mid-High / High	
NR FDD Band n2 (PCS)	5 MHz	1 852.5(370500)		1 880(376000)		1 907.5(381500)	
	10 MHz	1 855(371000)		1 880(376000)		1 905(381000)	
	15 MHz	1 857.5(371500)		1 880(376000)		1 902.5(380500)	
	20 MHz	1 860(372000)		1 880(376000)		1 900(380000)	
	25 MHz	1 862.5(372500)		1 880(376000)		1 897.5(379500)	
	30 MHz	1 865(373000)		1 880(376000)		1 895(379000)	
	35 MHz	1 867.5(373500)		1 880(376000)		1 892.5(378500)	
	40 MHz	1 870(374000)		1 880(376000)		1 890(378000)	
NR FDD Band n5 (Cell)	5 MHz	826.5 (165300)		836.5(167300)		846.5 (169300)	
	10 MHz			836.5(167300)			
	15 MHz			836.5(167300)			
	20 MHz			836.5(167300)			
NR FDD Band n7	5 MHz	2 502.5(500500)		2 535(507000)		2 567.5(513500)	
	10 MHz	2 505(501000)		2 535(507000)		2 565(513000)	
	15 MHz	2 507.5(501500)		2 535(507000)		2 562.5(512500)	
	20 MHz	2 510(502000)		2 535(507000)		2 560(512000)	
	25 MHz	2 512.5(502500)		2 535(507000)		2 557.5(511500)	
	30 MHz	2 515(503000)		2 535(507000)		2 555(511000)	
	35 MHz	2 517.5(503500)		2 535(507000)		2 552.5(510500)	
	40 MHz			2 535(507000)			
NR FDD Band n12	5 MHz	701.5 (140300)		707.5 (141500)		713.5 (142700)	
	10 MHz			707.5 (141500)			
	15 MHz			707.5 (141500)			
NR FDD Band n14	5 MHz			793 (158600)			
	10 MHz			793 (158600)			
NR FDD Band n25	5 MHz	1 852.5(370500)		1 882.5(376500)		1 912.5(382500)	
	10 MHz	1 855(371000)		1 882.5(376500)		1 910(382000)	
	15 MHz	1 857.5(371500)		1 882.5(376500)		1 907.5(381500)	
	20 MHz	1 860(372000)		1 882.5(376500)		1 905(381000)	
	25 MHz	1 862.5(372500)		1 882.5(376500)		1 902.5(380500)	
	30 MHz	1 865(373000)		1 882.5(376500)		1 900(380000)	
	35 MHz			1 882.5(376500)			
	40 MHz			1 882.5(376500)			
NR FDD Band n26	5 MHz	816.5(163300)		831.5(166300)		846.5(169300)	
	10 MHz	819(163800)		831.5(166300)		844(168800)	
	15 MHz	821.5(164300)				841.5(168300)	
	20 MHz			831.5(166300)			
NR FDD Band n30	5 MHz			2 310 (462000)			
	10 MHz			2 310 (462000)			
NR TDD Band n38	10 MHz	2 575(515000)		2 595(519000)		2 615(523000)	
	15 MHz	2 577.5(515500)		2 595(519000)		2 612.5(522500)	
	20 MHz	2 580(516000)		2 595(519000)		2 610(522000)	
	25 MHz	2 582.5(516500)				2 607.5(521500)	
	30 MHz	2 585(517000)				2 605(521000)	
	40 MHz			2 595(519000)			
NR TDD Band n48	10 MHz	3 555(637000)	3 602.01(640134)	3 648(643200)		3 695.01(646334)	
	15 MHz	3 557.49(637166)	3 602.49(640166)	3 647.49(643166)		3 692.49(646166)	
	20 MHz	3 560.01(637334)	3 603.33(640222)	3 646.65(643110)		3 690(646000)	
	30 MHz	3 565.02 (637668)	3 605.01(640334)	3 645(643000)		3 684.99(645666)	
	40 MHz	3 570(638000)	3 624.99(641666)			3 679.98(645332)	
NR TDD Band n41	10 MHz	2 501.01(500202)	2 547(509400)	2 592.99(518598)	2 639.01(527802)	2 685(537000)	
	15 MHz	2 503.5(500700)	2 548.26(509652	2 592.99(518598)	2 637.75(527550)	2 682.51(536502)	
	20 MHz	2 506.02(501204)	2 549.49(509898)	2 592.99(518598)	2 636.49(527298)	2 679.99(535998)	
	25 MHz	2 508.51(501702)	2 550.75(510150)	2 592.99(518598)	2 635.23(527046)	2 677.50(535500)	
	30 MHz	2 511(502200)	2 552.01(510402)	2 592.99(518598)	2 634(526800)	2 674.98(534996)	
	40 MHz	2 516.01(503202)	2 567.34(513468)		2 618.67(523734)	2 670(534000)	
	50 MHz	2 521.02(504204)		2 592.99(518598)		2 664.99(532998)	
	60 MHz	2 526(505200)		2 592.99(518598)		2 659.98(531996)	
	70 MHz	2 531.01(506202)				2 655(531000)	
	80 MHz	2 536.02(507204)				2 649.99(529998)	
	90 MHz	2 541(508200)				2 644.98(528996)	
	100 MHz			2 592.99(518598)			

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Ch. No.& Freq.(MHz)		Low / Low-Mid		Mid		Mid-High / High	
NR FDD Band n66	5 MHz	1 712.5(342500)		1 745(349000)		1 777.5(355500)	
	10 MHz	1 715(343000)		1 745(349000)		1 775(355000)	
	15 MHz	1 717.5(343500)		1 745(349000)		1 772.5(354500)	
	20 MHz	1 720(344000)		1 745(349000)		1 770(354000)	
	25 MHz	1 722.5(344500)		1 745(349000)		1 767.5(353500)	
	30 MHz			1 745(349000)			
	35 MHz	1 727.5(345500)		1 745(349000)		1 762.5(352500)	
	40 MHz	1 730(346000)		1 745(349000)		1 760(352000)	
NR FDD Band n70	5 MHz	1 697.5(339500)				1 707.5(341500)	
	10 MHz	1 700(340000)		1 702.5(340500)		1 705 (341000)	
	15 MHz			1 702.5(340500)			
NR FDD Band n71	5 MHz	665.5(133100)		680.5(136100)		695.5(139100)	
	10 MHz	668(133600)		680.5(136100)		693(138600)	
	15 MHz			680.5(136100)			
	20 MHz			680.5(136100)			
NR TDD Band n77	10 MHz	3 705(647000)	3 759(650600)	3 813(654200)	3 867(657800)	3 921(661400)	3 975(665000)
	15 MHz	3 707.52(647168)	3 760.5(650700)	3 813.51(654234	3 866.49(657766)	3 919.5(661300)	3 972.48(664832)
	20 MHz	3 710.01 (647334)	3 762 (650800)	3 813.99(654266)	3 866.01 (657734)	3 918 (661200)	3 969.99 (664666)
	25 MHz	3 712.5(647500)	3 763.5(650900)	3 814.5(654300)	3 865.5(657700)	3 916.5(661100)	3 967.5(664500)
	30 MHz	3 715.02 (647668)	3 765 (651000)	3 815.01(654334)	3 864.99 (657666)	3 915 (661000)	3 964.98 (664332)
	40 MHz	3 720 (648000)	3 768 (651200)	3 816 (654400)	3 864 (657600)	3 912 (660800)	3 960 (664000)
	50 MHz	3 725.01 (648334)	3 782.49 (652166)	3 840 (656000)		3 897.51 (659834)	3 954.99 (663666)
	60 MHz	3 730.02 (648668)	3 803.34(653556)			3 876.66(658444)	3 949.98 (663332)
	70 MHz	3 735 (649000)	3 804.99 (654336)			3 875.01 (658334)	3 945(663000)
	80 MHz	3 740.01 (649334)		3 840 (656000)			3 939.99 (662666)
	90 MHz	3 745.02 (649668)		3 840 (656000)		3 934.98 (662332)	
	100 MHz	3 750 (650000)		3 840 (656000)		3 930 (662000)	
NR TDD Band n77 (DoD)	10 MHz	3 455.01(630334)		3 500.01(633334)		3 544.98(636332)	
	15 MHz	3 457.5(630500)		3 500.01(633334)		3 542.49(636166)	
	20 MHz	3 460.02 (630668)		3 500.01 (633334)		3 540 (636000)	
	25 MHz	3 462.99(630866)		3 500.01(633334)		3 537(635800)	
	30 MHz	3 465 (631000)		3 500.01 (633334)		3 534.99 (635666)	
	40 MHz	3 470.01 (631334)				3 529.98 (635332)	
	50 MHz	3 475.02 (631668)				3 525 (635000)	
	60 MHz			3 500.01 (633334)			
	70 MHz			3 500.01 (633334)			
	80 MHz			3 500.01 (633334)			
	90 MHz			3 500.01 (633334)			
	100 MHz			3 500.01 (633334)			
NR TDD Band n78	10 MHz	3 705(647000)		3 750(650000)		3 795(653000)	
	15 MHz	3 707.5(647166)		3 750(650000)		3 792.48(652832)	
	20 MHz	3 710.01(647334)		3 750(650000)		3 789.99(652666)	
	25 MHz	3 712.5(647500)		3 750(650000)		3 787.5(652500)	
	30 MHz	3 715(647666)		3 750(650000)		3 784.98(652332)	
	40 MHz	3 720(647800)				3 780(652000)	
	50 MHz	3 725.01(648334)				3 774.99(651666)	
	60 MHz			3 750(650000)			
	70 MHz			3 750(650000)			
	80 MHz			3 750(650000)			
	90 MHz			3 750(650000)			
	100 MHz			3 750(650000)			

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Ch. No.& Freq.(㎒)		Low / Low-Mid	Mid	Mid-High / High
NR TDD Band n78 (DoD)	10 ㎒	3 455.01(630334)	3 500.01(633334)	3 544.98(636332)
	15 ㎒	3 457.5(630500)	3 500.01(633334)	3 542.49(636166)
	20 ㎒	3 460.02(630668)	3 500.01(633334)	3 540(636000)
	25 ㎒	3 462.99(630866)	3 500.01(633334)	3 537(635800)
	30 ㎒	3 465(631000)	3 500.01(633334)	3 534.99(635666)
	40 ㎒	3 470.01(631334)		3 529.98(635332)
	50 ㎒	3 475.02(631668)		3 525(635000)
	60 ㎒		3 500.01(633334)	
	70 ㎒		3 500.01(633334)	
	80 ㎒		3 500.01(633334)	
	90 ㎒		3 500.01(633334)	
	100 ㎒		3 500.01(633334)	

Item.	Description
NR FDD Band n2/n5/n7/n12/n25/n26/n30/n66/n70/n71 SCS	15 ㎑
NR TDD Band n38/n41/n48/n77/n78 SCS	30 ㎑
3GPP Rel.	Rel.16
A-MPR disabled for SAR Testing.	Yes
5G NR UL/DL FR1	CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM DFT-s-OFDM: π/2-BPSK(UL Only), QPSK, 16QAM, 64QAM, 256QAM
Non-Standalone & Standalone are supported. 5G NR FR1 Bands, except n7,n26,n30,n38,n48,n70,n78 are supported to NSA and SA Connectivity. n7,n26,n30,n38,n48,n70,n78 is only supported to SA connectivity More detailed specifications of the 5G NR bands are contained in the Technical description document.	
EN-DC Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations
LTE Anchor Bands for NR Band n2 (PCS)	LTE Band 4/5/12/13/14/30/48/66
LTE Anchor Bands for NR Band n5 (Cell)	LTE Band 2/4/30/48/66
LTE Anchor Bands for NR Band n7	N/A
LTE Anchor Bands for NR Band n12	LTE Band 2/48/66
LTE Anchor Bands for NR Band n25	LTE Band 12
LTE Anchor Bands for NR Band n26	N/A
LTE Anchor Bands for NR Band n30	N/A
LTE Anchor Bands for NR Band n38	N/A
LTE Anchor Bands for NR Band n41	LTE Band 2/4/5/12/66/71
LTE Anchor Bands for NR Band n48	N/A
LTE Anchor Bands for NR Band n66 (AWS)	LTE Band 2/5/12/13/14/30/48
LTE Anchor Bands for NR Band n70	N/A
LTE Anchor Bands for NR Band n71	LTE Band 2/48/66
LTE Anchor Bands for NR Band n77	LTE Band 2/5/12/13/14/30/66/71
LTE Anchor Bands for NR Band n78	N/A

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4.6 DUT Antenna Locations

The overall dimensions of this device are > 9 X 5 cm. A diagram showing device antenna can be found in SAR_setup_photos. Since the diagonal dimension of this device is > 160 ㎜ and < 200 ㎜, it is considered a “phablet”.

This model allows users to exchange data or media files with other Bluetooth enabled devices using Bluetooth, which means they can connect to other Bluetooth enabled devices via Bluetooth tethering. Therefore, SAR test was performed for additional simultaneous transmissions.
Head and Bluetooth Tethering SAR were evaluated for BT BR tethering applications.

Antenna	Mode	Rear	Front	Left	Right	Bottom	Top
MAIN1 [Ant A]	GSM/GPRS/EDGE 850	Yes	Yes	Yes	Yes	Yes	No
SUB1 [Ant E]	GSM/GPRS/EDGE 850	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	GSM/GPRS/EDGE 1900	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	UMTS Band 5	Yes	Yes	Yes	Yes	Yes	No
SUB1 [Ant E]	UMTS Band 5	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	UMTS Band 4	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	UMTS Band 2	Yes	Yes	Yes	Yes	Yes	No
MAIN1 [Ant A]	LTE FDD Band 2 (PCS)	Yes	Yes	Yes	Yes	Yes	No
SUB2 [Ant F]	LTE FDD Band 2 (PCS)	Yes	Yes	Yes	No	Yes	No
MAIN1 [Ant A]	LTE FDD Band 4 (AWS)	Yes	Yes	Yes	Yes	Yes	No
SUB2 [Ant F]	LTE FDD Band 4 (AWS)	Yes	Yes	Yes	No	No	Yes
MAIN1 [Ant A]	LTE FDD Band 5	Yes	Yes	Yes	Yes	Yes	No
SUB1 [Ant E]	LTE FDD Band 5	Yes	Yes	No	Yes	No	Yes
MAIN2 [Ant B]	LTE FDD Band 7	Yes	Yes	Yes	No	Yes	No
SUB2 [Ant F]	LTE FDD Band 7	Yes	Yes	Yes	No	No	Yes
MAIN1 [Ant A]	LTE FDD Band 12	Yes	Yes	Yes	Yes	Yes	No
SUB1 [Ant E]	LTE FDD Band 12	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	LTE FDD Band 13	Yes	Yes	Yes	Yes	Yes	No
SUB1 [Ant E]	LTE FDD Band 13	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	LTE FDD Band 14	Yes	Yes	Yes	Yes	Yes	No
SUB1 [Ant E]	LTE FDD Band 14	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	LTE FDD Band 25 (PCS)	Yes	Yes	Yes	Yes	Yes	No
SUB2 [Ant F]	LTE FDD Band 25 (PCS)	Yes	Yes	Yes	No	Yes	No
MAIN1 [Ant A]	LTE FDD Band 26 (Cell)	Yes	Yes	Yes	Yes	Yes	No
SUB1 [Ant E]	LTE FDD Band 26 (Cell)	Yes	Yes	No	Yes	No	Yes
SUB2 [Ant F]	LTE FDD Band 30	Yes	Yes	Yes	No	No	Yes
MAIN2 [Ant B]	LTE TDD Band 38	Yes	Yes	Yes	No	Yes	No
SUB2 [Ant F]	LTE TDD Band 38	Yes	Yes	Yes	No	No	Yes
MAIN2 [Ant B]	LTE TDD Band 41 (PC3)	Yes	Yes	Yes	No	Yes	No
SUB2 [Ant F]	LTE TDD Band 41 (PC3)	Yes	Yes	Yes	No	No	Yes
SUB2 [Ant F]	LTE TDD Band 48	Yes	Yes	Yes	No	No	Yes
MAIN1 [Ant A]	LTE FDD Band 66 (AWS)	Yes	Yes	Yes	Yes	Yes	No
SUB2 [Ant F]	LTE FDD Band 66 (AWS)	Yes	Yes	Yes	No	No	Yes
MAIN1 [Ant A]	LTE FDD Band 71	Yes	Yes	Yes	Yes	Yes	No
SUB1 [Ant E]	LTE FDD Band 71	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	NR FDD Band n2 (PCS)	Yes	Yes	Yes	Yes	Yes	No
SUB2 [Ant F]	NR FDD Band n2 (PCS)	Yes	Yes	Yes	No	No	Yes
MAIN1 [Ant A]	NR FDD Band n5	Yes	Yes	Yes	Yes	Yes	No
SUB1 [Ant E]	NR FDD Band n5	Yes	Yes	No	Yes	No	Yes

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Antenna	Mode	Rear	Front	Left	Right	Bottom	Top
MAIN2 [Ant B]	NR FDD Band n7	Yes	Yes	Yes	No	Yes	No
SUB2 [Ant F]	NR FDD Band n7	Yes	Yes	Yes	No	No	Yes
MAIN1 [Ant A]	NR FDD Band n12	Yes	Yes	Yes	Yes	Yes	No
SUB1 [Ant E]	NR FDD Band n12	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	NR FDD Band n14	Yes	Yes	Yes	Yes	Yes	No
SUB1 [Ant E]	NR FDD Band n14	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	NR FDD Band n25 (PCS)	Yes	Yes	Yes	Yes	Yes	No
SUB2 [Ant F]	NR FDD Band n25 (PCS)	Yes	Yes	Yes	No	No	Yes
MAIN1 [Ant A]	NR FDD Band n26	Yes	Yes	Yes	Yes	Yes	No
SUB1 [Ant E]	NR FDD Band n26	Yes	Yes	No	Yes	No	Yes
MAIN1 [Ant A]	NR FDD Band n30	Yes	Yes	Yes	Yes	Yes	No
SUB2 [Ant F]	NR FDD Band n30	Yes	Yes	Yes	No	No	Yes
MAIN2 [Ant B]	NR TDD Band n38	Yes	Yes	Yes	No	Yes	No
SUB2 [Ant F]	NR TDD Band n38	Yes	Yes	Yes	No	No	Yes
MAIN2 [Ant B]	NR TDD Ban n41 (PC2, PC3)	Yes	Yes	Yes	No	Yes	No
SUB2 [Ant F]	NR TDD Ban n41 (PC2, PC3)	Yes	Yes	Yes	No	No	Yes
SUB2 [Ant F]	NR TDD Ban n41 (PC2, PC3)	Yes	Yes	Yes	No	No	Yes
MAIN4 [Ant D]	NR TDD Ban n41 (PC2, PC3)	Yes	Yes	No	Yes	Yes	No
SUB1 [Ant E]	NR TDD Ban n41 (PC2, PC3)	Yes	Yes	No	Yes	No	Yes
SUB2 [Ant F]	NR TDD Band n48	Yes	Yes	Yes	No	No	Yes
MAIN3 [Ant C]	NRTDD Band n48	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	NR TDD Band n48	Yes	Yes	Yes	No	No	No
MAIN4 [Ant D]	NRTDD Band n48	Yes	Yes	No	Yes	Yes	No
MAIN1 [Ant A]	NR FDD Band n66	Yes	Yes	Yes	Yes	Yes	No
SUB2 [Ant F]	NR FDD Band n66	Yes	Yes	Yes	No	No	Yes
MAIN1 [Ant A]	NR FDD Band n70	Yes	Yes	Yes	Yes	Yes	No
SUB2 [Ant F]	NR FDD Band n70	Yes	Yes	Yes	No	No	Yes
MAIN1 [Ant A]	NR FDD Band n71	Yes	Yes	Yes	Yes	Yes	No
SUB1 [Ant E]	NR FDD Band n71	Yes	Yes	No	Yes	No	Yes
SUB2 [Ant F]	NR TDD Band n77 (PC2)	Yes	Yes	Yes	No	No	Yes
MAIN3 [Ant C]	NR TDD Band n77 (PC2)	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	NR TDD Band n77 (PC2)	Yes	Yes	Yes	No	No	No
MAIN4 [Ant D]	NR TDD Band n77 (PC2)	Yes	Yes	No	Yes	Yes	No
SUB2 [Ant F]	NR TDD Band n77 DoD (PC2)	Yes	Yes	Yes	No	Yes	No
MAIN3 [Ant C]	NR TDD Band n77 DoD (PC2)	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	NR TDD Band n77 DoD (PC2)	Yes	Yes	Yes	No	No	No
MAIN4 [Ant D]	NR TDD Band n77 DoD (PC2)	Yes	Yes	No	Yes	Yes	No
SUB2 [Ant F]	NR TDD Band n77 (PC3)	Yes	Yes	Yes	No	No	Yes
MAIN3 [Ant C]	NR TDD Band n77 (PC3)	Yes	Yes	Yes	No	Yes	No

Antenna	Mode	Rear	Front	Left	Right	Bottom	Top
SUB5 [Ant I]	NR TDD Band n77 (PC3)	Yes	Yes	Yes	No	No	No
MAIN4 [Ant D]	NR TDD Band n77 (PC3)	Yes	Yes	No	Yes	Yes	No
SUB2 [Ant F]	NR TDD Band n77 DoD (PC3)	Yes	Yes	Yes	No	No	Yes
MAIN3 [Ant C]	NR TDD Band n77 DoD (PC3)	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	NR TDD Band n77 DoD (PC3)	Yes	Yes	Yes	No	No	No
MAIN4 [Ant D]	NR TDD Band n77 DoD	Yes	Yes	No	Yes	Yes	No

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	(PC3)						
SUB2 [Ant F]	NR TDD Band n78	Yes	Yes	Yes	No	No	Yes
SUB5 [Ant I]	NR TDD Band n78	Yes	Yes	Yes	No	No	No
MAIN4 [Ant D]	NR TDD Band n78	Yes	Yes	No	Yes	Yes	No
SUB2 [Ant F]	NR TDD Band n78 DoD	Yes	Yes	Yes	No	No	Yes
MAIN3 [Ant C]	NR TDD Band n78 DoD	Yes	Yes	Yes	No	Yes	No
SUB5 [Ant I]	NR TDD Band n78 DoD	Yes	Yes	Yes	No	No	No
MAIN4 [Ant D]	NR TDD Band n78 DoD	Yes	Yes	No	Yes	Yes	No
SUB4 [Ant H] WIFI1	2.4 GHz WLAN	Yes	Yes	Yes	No	No	Yes
SUB6 [Ant J] WIFI2	2.4 GHz WLAN	Yes	Yes	No	Yes	No	Yes
SUB4 [Ant H] BT1	Bluetooth	Yes	Yes	Yes	No	No	Yes
SUB6 [Ant J] BT2	Bluetooth	Yes	Yes	No	Yes	No	Yes
SUB4 [Ant H] WIFI1	5 GHz WLAN	Yes	Yes	Yes	No	No	Yes
SUB1 [Ant E] WIFI2	5 GHz WLAN	Yes	Yes	No	Yes	No	Yes
SUB4 [Ant H] WIFI1	6 GHz WLAN	Yes	Yes	Yes	No	No	Yes
SUB1 [Ant E] WIFI2	6 GHz WLAN	Yes	Yes	No	Yes	No	Yes
NFC Ant	NFC	Yes	Yes	Yes	No	No	Yes

Particular EUT edges were not required to be evaluated for Bluetooth Tethering and Hotspot SAR if the edges were > 25 mm from the transmitting antenna according to FCC KDB 941225 D06v02r01 on page 2. The distance between the transmit antennas and the edges of the device are included in the filing.

- Note: All test configurations are based on front view position.

4.7 Near Field Communications (NFC) Antenna

This EUT has NFC operations. The NFC antenna is integrated into the device for this model. Therefore, all SAR tests were performed with the device which already incorporates the NFC antenna. A diagram showing the location of the NFC antenna can be found in SAR _ Setup_ photos.

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4.8 SAR Summation Scenario

According to FCC KDB 447498 D01v06, transmitters are considered to be transmitting simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds. Possible transmission paths for the EUT are shown below paths and are mode in same rectangle to indicate communication modes which share the same path. Modes which share the same transmission path cannot transmit simultaneously with one another.
This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB 447498 D01v06.

Scenario
WWAN + 2.4 GHz Wi-Fi Ant.1
WWAN + 2.4 GHz Wi-Fi MIMO
WWAN + 5 GHz Wi-Fi Ant.1
WWAN + 5 GHz Wi-Fi MIMO
WWAN + 6 GHz Wi-Fi Ant.1
WWAN + 6 GHz Wi-Fi MIMO
WWAN + Bluetooth Ant.1
WWAN + Bluetooth Ant.1 + 5 GHz Wi-Fi Ant.1
WWAN + Bluetooth Ant.1 + 5 GHz Wi-Fi MIMO
WWAN + Bluetooth Ant.1 + 6 GHz Wi-Fi Ant.1
WWAN + Bluetooth Ant.1 + 6 GHz Wi-Fi MIMO
WWAN + 2.4 GHz Wi-Fi Ant.1 + 5 GHz Wi-Fi Ant.1
WWAN + 2.4 GHz Wi-Fi MIMO + 5 GHz Wi-Fi Ant.1
WWAN + 2.4 GHz Wi-Fi Ant.1 + 6 GHz Wi-Fi Ant.1
WWAN + 2.4 GHz Wi-Fi MIMO + 6 GHz Wi-Fi Ant.1
WWAN + 2.4 GHz Wi-Fi Ant.1 + 5 GHz Wi-Fi MIMO
WWAN + 2.4 GHz Wi-Fi MIMO + 5 GHz Wi-Fi MIMO
WWAN + 2.4 GHz Wi-Fi Ant.1 + 6 GHz Wi-Fi MIMO
WWAN + 2.4 GHz Wi-Fi MIMO + 6 GHz Wi-Fi MIMO

Note:
1. UMTS +WLAN scenario also represents the UMTS Voice/DATA + WLAN hotspot scenario.
2. VoIP is supported in GPRS/EDGE
3. The highest reported SAR for each exposure condition is used for SAR summation purpose.
4. Wi-Fi Hotspot is supported for 2.4 GHz/UNII-3 of 5 GHz WLAN.
5. * Pre-installed VOIP applications are considered
6. Per the manufacturer, WIFI Direct is not expected to be used in conjunction with a held to ear or Body worn accessory voice call. Therefore, there are no simultaneous transmission scenarios involving WIFi Direct beyond that listed in the above table.
7. This device supports VoLTE/ VoWiFi.
8. LTE + 5G NR FR1 Scenarios are supported NSA and SA Connectivity.
9. NFC was evaluated for phablet based on expected usage conditions.

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4.9 SAR Test Considerations

4.9.1 WiFi

Since wireless router operations are not allowed by the chipset firmware using U-NII-1, U-NII-2A and U-NII-2C,U-NII-4 WiFi, WiFi Hotspot SAR test and combinations are considered only 2.4 GHz and U-NII-3 for SAR with respected to wireless router configurations according to FCC KDB 941225 D06v02r01.

Since U-NII-1 and U-NII-2A Bands have the same maximum output power and the highest reported SAR for U-NII-2A is less than 1.2 W/kg for 1g SAR and is less than 3.0 W/kg for 10g SAR, SAR is not required for U-NII-1 Band according to FCC KDB 248227D01v02r02.

This device supports IEEE 802.11ax with the following features:

a) Up to 160 MHz Bandwidth only for 5/6 GHz
b) Up to 20 MHz Bandwidth only for 2.4 GHz
c) 2Tx antenna output
d)TDWR and Band gap channels are supported for 5 GHz
e) MU-MIMO UL Operations are not supported

Per FCC KDB Publication 648474 D04v01r03, this device is considered a "phablet" since the diagonal dimension is greater than 160mm and less than 200mm. Phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg. Because wireless router operations are not supported for U-NII-1, U-NII-2A & U-NII-2C, U-NII-4 WLAN, phablet SAR tests were performed. Phablet SAR was not evaluated for 2.4 GHz WIFI, 2.4 GHz Bluetooth, and U-NII-3 WLAN operations since wireless router 1g SAR was < 1.2 W/kg.

Per Oct. 2020 TCBC Workshop note, SAR was performed using 6.5 GHz SAR probe calibration factors for WIFI 6GHz. FCC KDB 648474, FCC KDB 941225 D07 and FCC KDB 248227 were followed for test positions, distances, and modes. Absorbed power density (APD) using a 4cm2 averaging area is reported based on SAR measurements. Incident power density is evaluated at 2mm ensuring that the resolution is sufficient such that integrated power density(iPD) between d=2mm and d=λ/5mm is ≥ -1dB per equipment manufacturer guidance. Power density results are scaled up for uncertainty above 30%. Per TCB workshop October 2020 notes, 5 channels were tested for WIFI 6GHz.

DASY6 Module mmWave is optimized for incident Power Density (PD) evaluations EUT at distances as close as 2mm for frequencies in the 6–110 GHz range.
The software Module mmWave V3.0+ features the novel Equivalent Source Reconstruction (ESR) method:
This new method will greatly simplify compliance testing for distances as close as λ/25 (2mm at 6 GHz)
from any surface and improve the overall flexibility and precision.
With this method, the reconstruction uncertainty (REC) is below 0.6 dB for d > λ/25, corresponding to a test distance of 2mm at 6 GHz. The above-mentioned REC value is valid if the following conditions on the grid resolution (ℓ_{grid}) and grid extent (v_{grid}) are met:

$$\ell_{\text{grid}} = \begin{cases} 1.25d & \text{for } d < \lambda/10 \\ \lambda/8 & \text{for } d \geq \lambda/10 \end{cases}.$$

$$\nu_{\text{grid}} \geq 2\lambda$$

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In accordance with the October 2020 TCBC document, the novel Equivalent Source Reconstruction (ESR), a post-processing technology of SPEAG's The Module mmWave V3.0+, a source reconstruction method, was used to evaluate the IPD of a portable device in the 6-8.5 GHz band, and the measurement uncertainty was evaluated to be 1.51 dB.

4.9.2 Licensed Transmitter(s)

GSM/GPRS/EDGE DTM is not supported for US Bands. Therefore, the GSM Voice modes in this report do not transmit simultaneously with GPRS/EDGE Data.

This device is only capable of QPSK HSUPA in the uplink. Therefore, no additional SAR tests are required beyond that described for devices with HSUPA in KDB 941225 D01v03r01.
LTE SAR for the higher modulations and lower Bandwidths were not tested since the maximum average output power of all required channels and configurations was not more than 0.5 dB higher than the highest Bandwidth; and the reported LTE SAR for the highest Bandwidth was less than 1.45 W/kg for all configurations according to FCC KDB 941225 D05v02r05.

Per FCC KDB 648474 D04v01r03, this device is considered a “Phablet” since the diagonal dimension is greater than 160 mm and less than 200 mm. Therefore, extremity SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR >1.2 W/kg. When hotspot mode applies, 10g SAR required only for the surfaces and edges with hotspot mode scaled to the maximum output power (including tolerance) is 1g SAR > 1.2 W/kg.

This Device supports 64QAM and 256QAM on the uplink and 256QAM on the downlink for LTE Operations. Conducted powers for 64QAM and 256QAM uplink configurations were measured per section 5.1 of FCC KDB 941225 D05v02r05. SAR was not required for 64QAM or 256QAM since the highest maximum output power for 64QAM and 256QAM is ≤ 0.5dB higher than the same configuration in QPSK and the reported SAR for QPSK configuration is ≤1.45 W/Kg, per section 5.2.4 for FCC KDB941225 D05v02r05.

This device supports LTE capabilities with overlapping transmission frequency ranges. When the supported frequency range of LTE Band falls completely within an LTE Band with a larger transmission frequency range, both LTE Bands have the same target power or the Band with the larger transmission frequency range has a higher target power and both LTE Bands share the same transmission path and signal characteristics, SAR was only tested for the Band with the larger transmission frequency range.

LTE capabilities with overlapping transmission frequency ranges were applied to LTE Band 5 (824.7 MHz ~ 848.3MHz) is covered by LTE Band 26(814.7 MHz ~ 848.3 MHz), LTE Band 4 (1 712.4 MHz ~ 1 752.6MHz) is covered by LTE Band 66(1 712.5 MHz ~ 1 777.5 MHz), LTE Band 2(1 850.7 MHz ~ 1 909.3MHz) is covered by LTE Band 25(1 850.7 MHz ~ 1 914.3MHz), LTE Band 38(2 572.5 MHz ~ 2 617.5MHz) is covered by LTE Band 41(2 498.5 MHz ~ 2 687.5MHz) of this model each both LTE bands have the same target powers.
NR capabilities with overlapping transmission frequency ranges were applied to n2(1 852.5 MHz ~ 1 907.5MHz) is covered by n25(1 852.5 MHz ~ 1 912.5MHz), n5(826.5 MHz ~ 846.5MHz) is covered by n26(816.5 MHz ~ 846.5MHz), n38(2 575 MHz ~ 2 615MHz) is covered by n41(2 501.01 MHz ~ 2 685MHz), n78(3 705 MHz ~ 3 795MHz) is covered by n77(3 705 MHz ~ 3 795MHz), n78 DoD(3 455.01 MHz ~ 3 544.98MHz) is covered by n77 DoD(3 455.01 MHz ~ 3 544.98MHz)of this model each both NR bands have the same target powers.

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This device supports LTE Carrier Aggregation (CA) in the downlink. All uplink communications are identical to Release 8 specifications. Per FCC KDB publication 941225 D05A v01r02, SAR for LTE DL CA operations was not needed since the maximum average output power in LTE CA mode was not >0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive.

This product supported Intra-band LTE Carrier Aggregation for 48C with two component carriers in the uplink. SAR Measurement and conducted Powers were measured according to Nov 2019 TCBC Workshop guide.

Per FCC Guidance, C-Band for NR n77 (3705 –3975 MHz) was fully tested according to FCC procedures. For each exposure condition and antenna, the worst-case position was additionally evaluated for the NR n77 DoD (3455.01 –3544.98 MHz).
This device uses two transmit pathways for n41 operations (Path 1 and Path 2). For each exposure condition, the pathway with the highest target power was fully evaluated. The worst case for each antenna and exposure condition was additionally evaluated using the other path.

This device supports NSA(Non-standalone) and SA (Standalone) connectivity for 5G NR FR1 Bands,

more detailed specifications of the Bands are contained in the Technical description document.

This device is only capable of QPSK HSUPA in the uplink. Therefore, no additional SAR tests are required beyond that described for devices with HSUPA in KDB 941225 D01v03r01.

Per FCC KDB 941225 D01v03r01, 12.2 kbps RMC is the primary mode and HSPA (HSUPA/HSDPA with RMC) is the secondary mode.
Per FCC KDB 941225 D01v03r01, The SAR test exclusion is applied to the secondary mode by the following equation.

$$Adjusted\ \ SAR = Highest\ \ Reported\ \ SAR\ \ x \frac{Secondary\ \ Max\ \ tune - up\ \ (mW)}{Primary\ \ Max\ \ tune\ \ tune - up(mW)} \leq 1.2\ \ \text{W/kg}.$$

Based on the highest Reported SAR, the secondary mode is not required.

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5. Introduction

The FCC has adopted the guidelines for evaluating the environmental effects of radio frequency radiation in ET Docket 93-62 on Aug. 6, 1996 to protect the public and workers from the potential hazards of RF emissions due to FCC-regulated portable devices.

The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz. 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York 10017. The measurement procedure described in IEEE/ANSI C95.3-1992 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields – RF and Microwave is used for guidance in measuring SAR due to the RF radiation exposure from the Equipment Under Test (EUT). These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in Biological Effects and Exposure Criteria for Radio Frequency Electromagnetic Fields," NCRP Report No. 86 NCRP, 1986, Bethesda, MD 20814. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards.

SAR Definition

Specific Absorption Rate (SAR) is defined as the time derivative of the incremental electromagnetic energy (d*W*) absorbed by (dissipated in) an incremental mass (d*m*) contained in a volume element (d*V*) of a given density (*r*). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body.

$$SAR = \frac{d}{dt}\left(\frac{dU}{dm}\right)$$

Figure 1. SAR Mathematical Equation

SAR is expressed in units of Watts per Kilogram (W/kg)

Where:
= conductivity of the tissue-simulant material (S/m)
= mass density of the tissue-simulant material (kg/m³)
= Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relations to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.

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6. Description of test equipment

6.1 SAR MEASUREMENT SETUP

These measurements are performed using the DASY4 automated dosimetric assessment system. It is made by Schmid& Partner Engineering AG (SPEAG) in Zurich, Switzerland. It consists of high precision robotics system (Staubli), robot controller, Pentium III computer, near-field probe, probe alignment sensor, and the generic twin phantom containing the brain equivalent material. The robot is a six-axis industrial robot performing precise movements to position the probe to the location (points) of maximum electromagnetic field (EMF) (see Figure.2).

A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and remote control, is used to drive the robot motors. The PC with Windows XP or Windows 7 or Window 10 or Window 11 is working with SAR Measurement system DASY4 & DASY5 & DASY6 &DASY8 A/D interface card, monitor, mouse, and keyboard. The Staubli Robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electro-optical coupler (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC plug-in card.

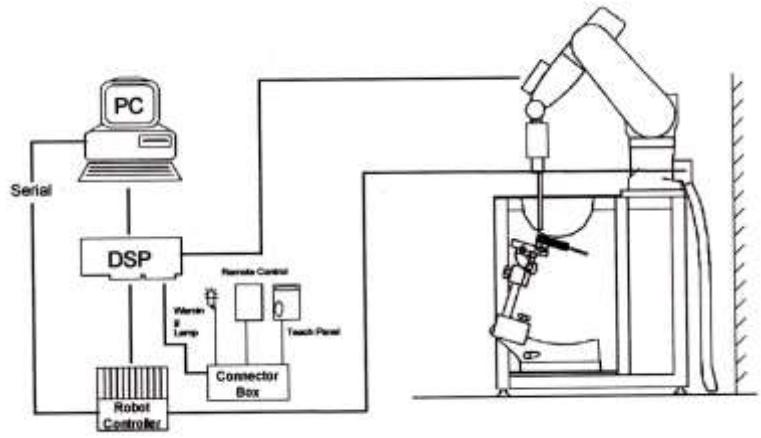


Figure 2. HCT SAR Lab. Test Measurement Set-up

The DAE consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the PC-card is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe mounting device includes two different sensor systems for frontal and sidewise probe contacts. They are also used for mechanical surface detection and probe collision detection. The robot uses its own controller with a built in VME-bus computer. The system is described in detail in.

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7. SAR Measurement Procedure

The evaluation was performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013.

1. The SAR distribution at the exposed side of the head or body was measured at a distance no more than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the DUT's head and body area and the horizontal grid resolution was depending on the FCC KDB 865664 D01v01r04 table 4-1 & IEEE 1528-2013.

2. Based on step, the area of the maximum absorption was determined by sophisticated interpolations routines implemented in DASY software. When an Area Scan has measured all reachable point. DASY system computes the field maximal found in the scanned are, within a range of the maximum. SAR at this fixed point was measured and used as a reference value.

3. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB 865664 D01v01r04 table 4-1 and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (reference from the DASY manual.)

   a. The data at the surface were extrapolated, since the center of the dipoles is no more than 2.7 ㎜ away from the tip of the probe (it is different from the probe type) and the distance between the surface and the lowest measuring point is 1.2 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.

   b. The maximum interpolated value was searched with a straight-forward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed using the 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the "Not a knot" condition (in x, y, and z directions. The volume was integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.

   c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan. If the value changed by more than 5 %, the SAR evaluation and drift measurements were repeated.

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Area scan and zoom scan resolution setting follow KDB 865664 D01v01r04 quoted below.

			≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5±1 mm	·δ·ln(2)±0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30°±1°	20°±1°
Maximum area scan Spatial resolution: Δx_{Area},Δy_{Area}			≤ 2 GHz: ≤15 mm 2-3 GHz: ≤12 mm	3-4 GHz: ≤12 mm 4-6 GHz: ≤10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan Spatial resolution: Δx_{zoom},Δy_{zoom}			≤ 2 GHz: ≤8mm 2-3 GHz: ≤5mm*	3-4 GHz: ≤5 mm* 4-6 GHz: ≤4 mm*
Maximum zoom scan Spatial resolution normal to phantom surface	uniform grid:$\Delta z_{zoom}(n)$		≤ 5 mm	3-4 GHz: ≤4 mm 4-5 GHz: ≤3 mm 5-6 GHz: ≤2 mm
	graded grid	$\Delta z_{zoom}(1)$: between1st two Points closest to phantom surface	≤ 4 mm	3-4 GHz: ≤3 mm 4-5 GHz: ≤2.5 mm 5-6 GHz: ≤2 mm
		$\Delta z_{zoom}(n>1)$:between subsequent Points	≤1.5·$\Delta z_{zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3-4 GHz: ≥28 mm 4-5 GHz: ≥25 mm 5-6 GHz: ≥22 mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details. * When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

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8. Description of Test Position

8.1 EAR REFERENCE POINT

Figure 8-2 shows the front, back and side views of the SAM phantom. The center-of-mouth reference point is labeled “M”, the left ear reference point (ERP) is marked “LE”, and the right ERP is marked “RE.” Each ERP is on the B-M (back-mouth) line located 15 mm behind the entrance-to-ear-canal (EEC) point, as shown in Figure 6-1. The Reference Plane is defined as passing through the two ear reference points and point M. The line N-F (Neck-Front), also called the Reference Pivoting Line, is not perpendicular to the reference plane (See Figure 5-1), Line B-M is perpendicular to the N-F line. Both N-F and B-M lines are marked on the external phantom shell to facilitate handset positioning.

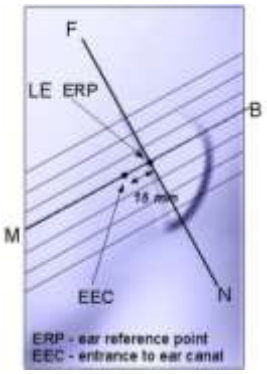


Figure 8-1
Close-up side view of ERP

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8.2 Handset Reference Points

Two imaginary lines on the handset were established: the vertical centerline and the horizontal line. The device under test was placed in a normal operating position with the acoustic output located along the “vertical centerline” on the front of the device aligned to the “ear reference point”(see Figure 8-3). The acoustic output was than located at the same level as the center of the ear reference point. The device under test was positioned so that the “vertical centerline” was bisecting the front surface of the handset at its top and bottom edges, positioning the “ear reference point” on the outer surface of the both the left and right head phantoms on the ear reference point.



Figure 8-2
Front, back and side views of SAM Twin Phantom

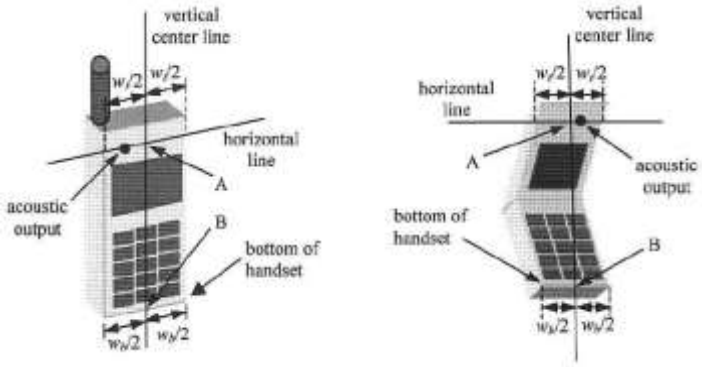


Figure 8-3. Handset vertical and horizontal reference lines

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8.3 Device Holder

The device holder is made out of low-loss POM material having the following dielectric parameter; relative permittivity ε=3 and loss tangent σ =0.02.

8.4 Position for Touch

Figure 8.4. shows Touch or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

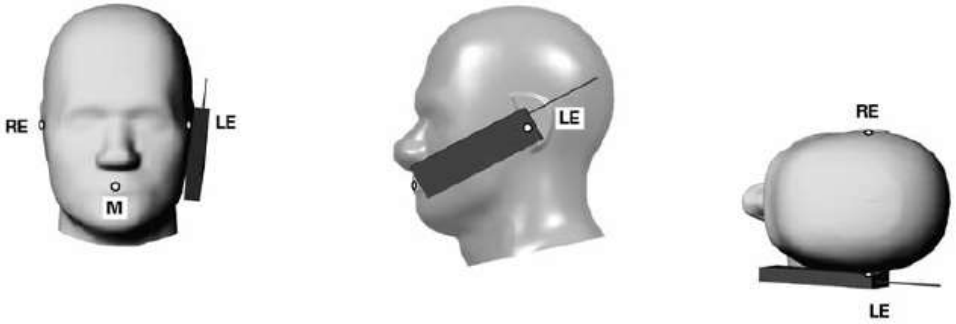


Figure 8.4 Touch/ Touch position of the wireless device

8.5 Definition of the “tilted” position

Figure 8.5. shows tilted position. Place the device in the Touch position. Then while maintaining the orientation of the device, retract the device parallel to the reference plane far enough away from the phantom to enable a rotation of the device by 15°.



Figure 8.5. Tilt 15°position of the wireless device

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8.6 Body-Worn Accessory Configurations

Body-worn operating configurations are tested with the belt-dips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 8.6). Per FCC KDB Publication 648474 D04v01r03 Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in Body-worn accessories. The Body-worn accessory procedures in FCC KDB Publication 447498 D01v06 should be used to test for Body-worn accessory SAR compliance, without a headset connected to it. When the reported SAR for a body- worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency Band should be repeated for that body- worn accessory with a headset attached to the handset.



Figure 8.6
Sample Body-Worn Diagram

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-dip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

8.7 Wireless Router Configurations

Some battery-operated handsets have the capability to transmit and receive user data through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06v02r01 where SAR test considerations for handsets (L x W≥9cmx5 cm) are based on *a* composite test separation distance of 5 ㎜ from the front back and edges of the device containing transmitting antennas within 2.5 cm of their edges, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the Body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some Body-worn accessory SAR tests.

In the closed configuration, only a simple display/interaction of notifications occurs and overall dimensions are <9 X 5 cm. Therefore Per 941225 D06v02r01, when the device is closed, test separation for hotspot mode is 5 ㎜.

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When the user enables the personal wireless router functions for the handset actual operations include simultaneous transmission of both the WIFI transmitter and another licensed transmitter. Both transmitters often do not transmit at the same transmitting frequency and thus cannot be evaluated for SAR under actual use conditions due to the limitations of the SAR assessment probes. Therefore, SAR must be evaluated for each frequency transmission and mode separately and spatially summed with the WIFI transmitter according to FCC KDB Publication 447498 D01v06 publication procedures. The Portable Hotspot feature on the handset was NOT activated during SAR assessments, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal at a time.

8.8 Extremity Exposure Configurations

Devices that are designed or intended for use on extremities or mainly operated in extremity only exposure conditions: i.e., hands, wrists, feet and ankles, may require extremity SAR evaluation. When the device also operates in close proximity to the user's body, SAR compliance for the body is also required. The 1-g body and 10-g extremity SAR Exclusion Thresholds found in KDB Publication 447498 D01v06 should be applied to determine SAR test requirements.

For smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear. The phablets procedures outlined in KDB Publication 648474 D04 v01r03 should be applied to evaluate SAR compliance. A device marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance. In addition to the normally required head and body-worm accessory SAR test procedures required for handsets, the UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna ≤25 mm from that surface or edge, in direct contact with the phantom, for 10-g SAR. The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g SAR is required only for the surfaces and edges with hotspot mode scaled to the maximum output power (including tolerance) is 1-g SAR > 1.2 W/kg.

8.9 Bluetooth tethering Configurations

Per May 2017 TCBC Workshop Document, When Bluetooth tethering applies, simultaneous transmission SAR needs consideration.

This model allows users to exchange data or media files with other Bluetooth enabled devices using Bluetooth, which means they can connect to other Bluetooth enabled devices via Bluetooth tethering. Therefore, SAR test was performed for additional simultaneous transmissions.

Head and Bluetooth tethering SAR were evaluated for BT BDR tethering applications.

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9. RF Exposure Limits

HUMAN EXPOSURE	UNCONTROLLED ENVIRONMENT General Population (W/kg)	CONTROLLED ENVIRONMENT Occupational (W/kg)
SPATIAL PEAK SAR * (Partial Body)	1.6	8.0
SPATIAL AVERAGE SAR ** (Whole Body)	0.08	0.4
SPATIAL PEAK SAR *** (Hands / Feet / Ankle / Wrist)	4.0	20.0

NOTES:

* The Spatial Peak value of the SAR averaged over any 1 g of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

** The Spatial Average value of the SAR averaged over the whole-body.

*** The Spatial Peak value of the SAR averaged over any 10 g of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be mad fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e.as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

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10. FCC SAR General Measurement Procedures

Power Measurements for licensed transmitters are performed using a base simulator under digital average power.

10.1 Measured and Reported SAR

Per FCC KDB Publication 447498 D01v06, when SAR is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance. For simultaneous transmission, the measured aggregate SAR must be scaled according to the sum of the differences between the maximum tune-up tolerance and actual power used to test each transmitter. When SAR is measured at or scaled to the maximum tune-up tolerance limit, the results are referred to as Reported SAR. The highest reported SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r03.

10.2 3G SAR Test Reduction Procedure

10.2.1 GSM, GPRS and EDGE

The following procedures may be considered for each frequency Band to determine SAR test reduction for devices operating in GSM/GPRS/EDGE modes to demonstrate RF exposure compliance. GSM voice mode transmits with 1 time-slot. GPRS and EDGE may transmit up to 4 time slots in the 8 time-slot frame according to the multi-slot class implemented in a device.

10.2.2 SAR Test Reduction

In FCC KDB 941225 D01v03r01, certain transmission modes within a frequency Band and wireless mode evaluated for SAR are defined as primary modes. The equivalent modes considered for SAR test reduction are denoted as secondary modes. When the maximum output power including tune-up tolerance specified for production units in a secondary mode is $\leq$ 0.25 dB higher than the primary mode or when the highest reported SAR of the primary mode, scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode, is $\leq$ 1.2 W/kg, SAR measurements are not required for the secondary mode. These criteria are referred to as the 3G SAR test reduction procedure. When the 3G SAR test reduction procedure is not satisfied, SAR measurements are additionally required for the secondary mode.
SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested

10.2.3 Procedures Used to Establish RF Signal for SAR

The following procedures are according to FCC KDB 941225 D01v03r01-3G SAR Measurement Procedures.
The handset was placed into a simulated call using a base station simulator in a shielded chamber. Such test signals offer a consistent means for testing SAR and are recommended for evaluation SAR measurements were taken with a fully charged battery. In order to verify that the device was tested and maintained at full power, this was configured with the base station simulator. The SAR

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measurement Software calculates a reference point at the start and end of the test to Touch for power drifts. Lf conducted Power deviations of more than 5 % occurred, the tests were repeated.

10.3 SAR Measurement Conditions for UMTS

10.3.1 Output Power Verification

Maximum output power is verified on the High, Middle and Low channels according to the general descriptions in sec. 5.2 of 3GPP TS 34.121, using the appropriate RMC with TPC (transmit power control) set to all “1s” or applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active. Results for all applicable physical channel configurations (DPCCH, DPDCHn and spreading codes, HS-DPCCH etc.) are tabulated in this test report. All configurations that are not supported by the DUT or cannot be measured due to technical or equipment limitations are identified.

10.3.2 Body SAR measurements

SAR for body exposure configurations is measured using the 12.2kbps RMC with the TPC bits all “1s”. the 3G SAR test reduction procedure is applied to other spreading codes and multiple DPDCHn configurations supported by the handset with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured using and applicable RMC configuration with the corresponding spreading code or DPDCHn, for the highest reported SAR configuration in 12.2kbps RMC.

10.3.3 SAR Measurements with Rel. 5 HSDPA

The 3G SAR test reduction procedure is applied to HSDPA body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSDPA is measured using and FRC with H-SET 1 in Sub-test and a 12.2 kbps RMC without HSDPA. Handsets with both HSDPA and HSUPA are tested according to release 6 HSPA test procedures. 8.4.5 SAR Measurement with Rel.6 HSUPA The 3G SAR test Reduction Procedure is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSPA is measured with E-DCH Sub-test 5, Using H-Set 1 and QPSK for FRC and a 12.2kbps RMC configured in Test Loop Mode 1 and Power Control algorithm 2, according to the highest reported body SAR configuration in 12.2 kbps RMC without HSPA. When VOIP applies to head exposure, the 3G SAR test reduction procedure is applied with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body SAR measurements are applied to head exposure testing.

10.3.4 SAR Measurements with Rel. 6 HSUPA

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 and power control algorithm 2, according to the highest reported body SAR configuration in 12.2 kbps RMC without HSPA.

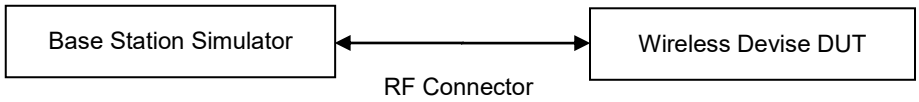
10.3.5 DC-HSDPA

SAR is required for Rel.8 DC-HSDPA when SAR is required for Rel.5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in table C.8.1.12 of 3GPP TS34.121-1 to determine SAR test reduction. Primary and secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

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DC-HSDPA Configurations

- 3GPP specification TS 34.121-1 Release 8. Was used for used for DC-HSDPA guidance.
- H-set 12(QPSK)was conformed to be used during DC-HSDPA measurements.



10.4 SAR Measurement Conditions for LTE

LTE modes are tested according to FCC KDB 941225 D05v02r05publication. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluation SAR [4]. The R&S CMW500 or Anritsu MT8820C simulators are used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

10.4.1 Spectrum Plots for RB Configurations

A properly configured base station simulator was used for SAR tests and power measurements. Therefore, spectrum plots for RB configurations were not required to be included in this report.

10.4.2 MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36. 101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

10.4.3 A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

10.4.4 Required RB Size and RB offsets for SAR testing

According to FCC KDB 941225 D05v02r05

a. Per sec 4.2.1, SAR is required for QPSK 1 RB Allocation for the largest Bandwidth
   i. The required channel and offset combination with the highest maximum output power is required for SAR.
   ii. When the reported SAR is ≤ 0.8 W/Kg, testing of the remaining RB offset configurations and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the RB offset configuration with highest output power for that channel.
   iii. When the reported SAR for a required test channel is > 1.45 W/kg, SAR is required for all RB offset configurations for that channel.

b. Per Sec 4.2.2, SAR is required for 50% RB allocation using the largest Bandwidth following the same procedures outlined in Sec 4.2.1.

c. Per Sec. 4.2.3, QPSK SAR is not required for the 100% allocation when the highest maximum output power for the 100% allocation is less than the highest maximum output power of the 1 RB and 50% RB allocations and the reported SAR for the 1 RB and 50% RB allocations is < 0.8 W/kg.

d. Per Sec. 4.2.4 and 4.3, SAR test for higher order modulations and lower Bandwidths configurations are not required when the conducted power of the required test configurations determined by Sec. 4.2.1 through 4.2.3 is less than or equal to 1/2 dB higher than the equivalent

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configuration using QPSK modulation and when the QPSK SAR for those configurations is < 1.45 W/Kg.

10.4.5 Downlink Carrier Aggregation

Conducted power measurements with LTE Carrier aggregation (CA) downlink only active are made in accordance to KDB publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. For every supported combination of downlink only carrier aggregation, additional conducted output Powers are measured with downlink carrier aggregation active for the configuration with highest measured maximum conducted power with the downlink carrier aggregation inactive measured among the channel Bandwidth, modulation and RB combinations in each frequency Band. Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for carrier aggregation configurations when the average output power with downlink only carrier aggregation active is not more than 0.25dB higher than the average output power with downlink only carrier aggregation inactive.

10.4.7 LTE(TDD) Considerations

According to KDB 941225 D05v02r05, for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.
SAR was tested with the highest transmission duty factor (63.33 %) using Uplink-downlink configuration 0 and Special subframe configuration 6. LTE TDD Band 41 supports 3GPP TS 36.211 section 4.2 for Type 2 Frame and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special sub frame configurations.

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Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Calculated Duty Cycle – Extended cyclic prefix in uplink x (T_s) x no of S + no of U

Table 4.2-2: Uplink-downlink configurations.

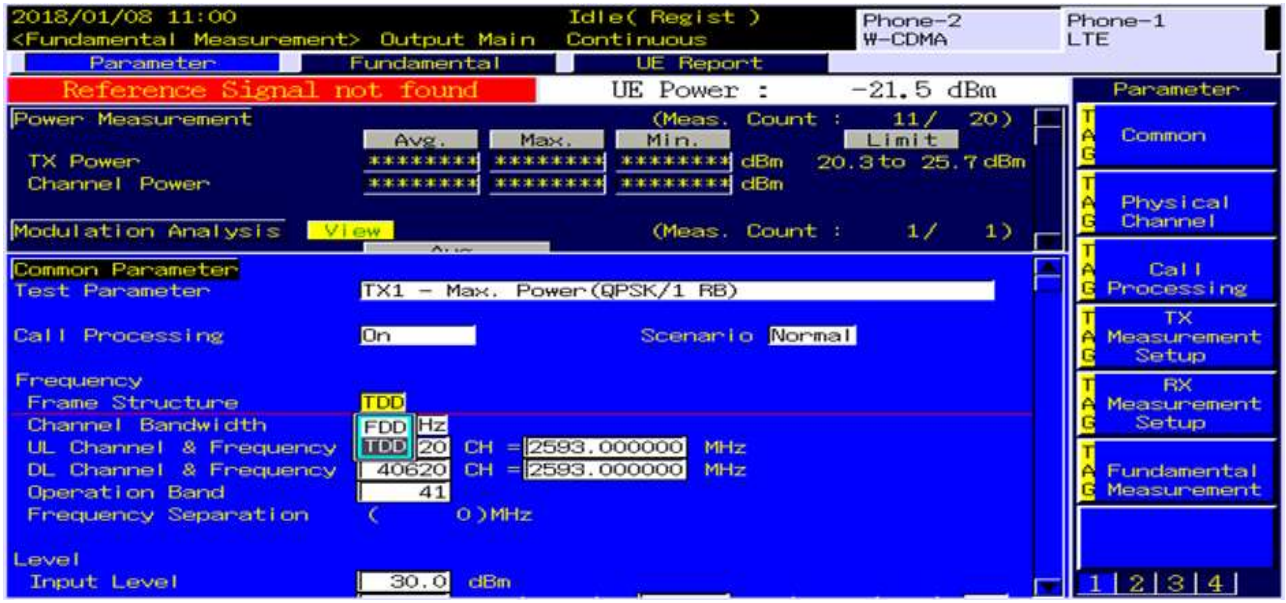
Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

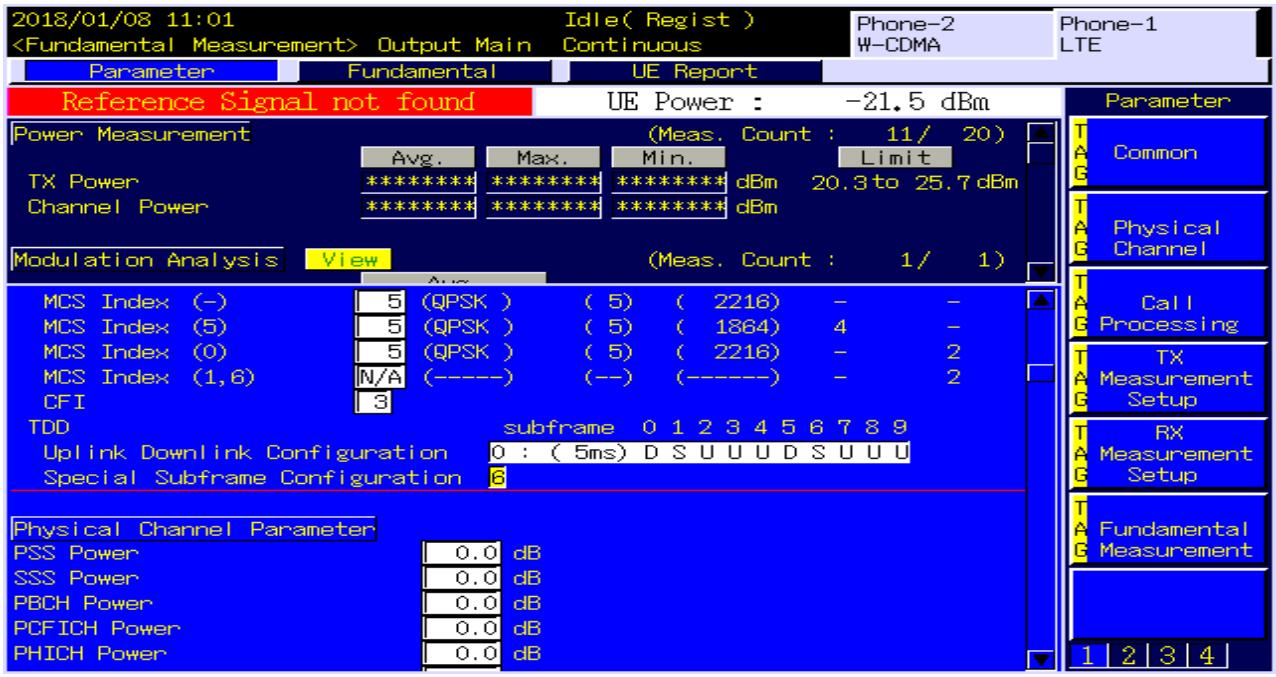
Example for calculated Duty Cycle for Uplink-Downlink Configuration 0:
Calculated Duty Cycle = (5120 x (1/(15000 x 2048)) x 2 + 0.006)/0.01 = 63.33 %
Where
T_s = 1/(15000 x 2048) seconds

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10.4.8 The Call Box Setup for LTE(TDD)

When you Want to Test for LTE TDD, Please Change Frame Structure TDD and TDD Uplink Downlink Configuration 0 and Special Subframe Configuration 6.





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10.5 SAR Testing with 802.11 Transmitters

The normal network operating configurations of 802.11 transmitters are not suitable for SAR measurements. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure the results are consistent and reliable. See KDB Publication 248227 D01v02r02 for more details.

10.5.1 General Device Setup

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters.
A periodic duty factor is required for current generation SAR system to measure SAR. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92-96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR is scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

10.5.2 U-NII-1 and U-NII-2A

For devices that operate in both U-NII-1 and U-NII2A Bands, when the same maximum output power is specified for both Bands, SAR measurement using OFDM SAR test procedures is not required for U-NII-1 unless the highest reported SAR for U-NII-2A is > 1.2 W/kg for 1g SAR or > 3.0 W/kg for 10g SAR. When different maximum output powers are specified for the Bands, SAR measurement for the U-NII Band with the lower maximum output power is not required unless the highest reported SAR for the U-NII Band with the higher maximum output power, adjusted by the ratio of lower to higher specified maximum output power for the two Bands, is > 1.2 W/kg for 1g SAR or > 3.0 W/kg for 10g SAR.

10.5.3 U-NII-2C and U-NII-3

The frequency range covered by U-NII-2C and U-NII-3 is 380 ㎒ (5.47 ㎓ – 5.85 ㎓), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. When Terminal Doppler Weather Radar (TDWR) restriction applies, the channels at 5.60 ㎓ – 5.65 ㎓ in U-NII-2C Band must be disabled with acceptable mechanisms and documented in the equipment certification.
Unless Band gap channels are permanently disabled, SAR must be considered for these channels.

10.5.4 Initial Test Position Procedure

For exposure conditions with multiple test positions, such as handset operating nest to the ear, devices with hotspot mode or UMPC mini-tablet, procedures for initial test position can be applied. Using the transmission mode determined by the DSSS procedure or initial test configuration, area scans are measured for all positions in an exposure condition. The test position with the highest extrapolated (peak) SAR is used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg for 1g SAR and ≤ 1.0 W/kg for 10g SAR, no additional testing for the remaining test position is required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg for 1g SAR and ≤ 2.0 W/kg for 10g SAR or all test positions are measured.

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10.5.5 2.4 GHz SAR test Requirements

SAR is measured for 2.4 GHz 802.11b DSSS using either the fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:
1) When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS is that exposure configuration.
2) When the reported SAR is > 0.8 W/kg, SAR is required for that position using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

2.4 GHz 802.11 g/n OFDM are additionally evaluated for SAR if the highest reported SAR for 802.11b, adjusted by the ratio of the OFDM to DSSS specified maximum output power, is > 1.2 W/kg. When SAR is required for OFDM modes in 2.4 GHz Band, the Initial Test Configuration Procedures should be followed.

10.5.6 OFDM Transmission Mode and SAR Test Channel Selection

For the 2.4 GHz and 5 GHz Bands, when the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency Band or aggregated Band, SAR is measured using the configuration with the largest channel Bandwidth, lowest order modulation and lowest data rate and lowest order 802.11 a/g/n/ac mode. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11a, 802.11n and 802.11 ac or 802.11g and 802.11n with the same channel Bandwidth, modulation and data rate etc., the lower order 802.11 mode i.2., 802.11a, then 802.11n and 802.11ac or 802.11g then 802.11n, is used for SAR measurement. When the maximum output power are the same for multiple test channels, either according to the default or additional power measurement requirements, SAR is measured using the channel closest to the middle of the frequency Band or aggregated Band. When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

10.5.7 Initial Test Configuration Procedure

For OFDM, in both 2.4 GHz and 5 GHz Bands, an initial test configuration is determined for each frequency Band and aggregated Band, according to the transmission mode with the highest maximum output power specified for SAR measurements. When the same maximum output power is specified for multiple OFDM transmission mode configurations in a frequency Band or aggregated Band, SAR is measured using the configuration(s) with the largest channel Bandwidth, lowest order modulation, and lowest data rate. If the average RF output powers of the highest identical transmission modes are within 0.25 dB of each other, mid channel of the transmission mode with highest average RF output power is the initial test channel. Otherwise, the channel of the transmission mode with the highest average RF output conducted power will be the initial test configuration.

When the reported SAR is ≤ 0.8 W/kg, no additional measurements on other test channels are required. Otherwise, SAR is evaluated using the subsequent highest average RF output channel until the reported SAR result is 1.2 W/kg or all channels are measured. When there are multiple untested channels having the same subsequent highest average RF output power, the channel with higher frequency from the lowest 802.11 mode is considered for SAR measurements.

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10.5.8 Subsequent Test Configuration Procedures

For OFDM configurations in each frequency Band and aggregated Band, SAR is evaluated for initial test configuration using the fixed test position or the initial test position on procedure. When the highest reported SAR (for the initial test configuration), adjusted by the ratio of the specified maximum output power of the subsequent test configuration to initial test configuration, is ≤ 1.2 W/kg for 1g SAR and ≤ 3.0 W/kg for 10g SAR, no additional SAR tests for the subsequent test configurations are required.

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11. Output Power Specifications

This device operates using the following maximum output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB publication 447498 D01v06.

Licensed Bands

Test Description	Test Procedure Used
Conducted Output Power	- KDB 971168 D01 v03r01 – Section 5.2.4 - ANSI C63.26-2015 – Section 5.2.1 & 5.2.4.2

Test Overview

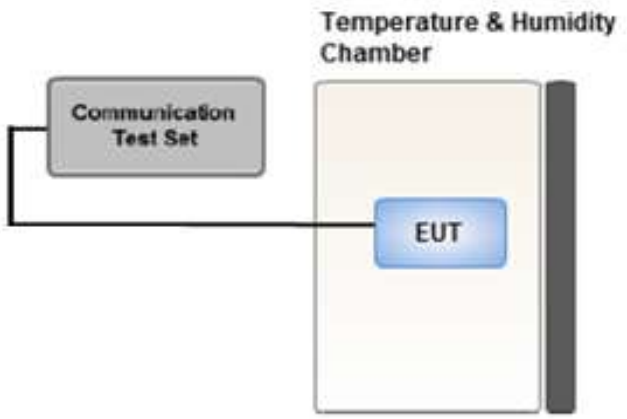
According to ANSI C63.26-2015 Section 5.2.1 when measuring the maximum RF output power from such devices, control over the EUT must be provided either through special test software (provided by manufacturer specifically for compliance testing, but not accessible by an end user) or through use of a base station emulator, communications test set, call box, or similar instrumentation that is capable of establishing a communications link with the EUT to enable control over variable parameters (e.g., output power, OBW, etc.).

In some cases, these instruments also include basic digital spectrum analyzer and/or power meter capabilities that can be utilized to measure the RF output power if the specified detectors and requirements can be realized and the measurement functions have been calibrated.

Test Procedure

1. The RF port of the EUT was connected to the Communication Tester via an RF cable.
2. Conducted average power was measured using a calibrated Radio Communication Tester.

Test setup



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11.1.1 GSM 850 Maximum Conducted Output Power

GSM 850 – Antenna A

Measured *Pmax*, RSI = 1

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		35.00	35.00	32.00	30.80	28.60	27.50	24.50	23.30	22.10
Nominal		34.00	34.00	31.00	29.80	27.60	26.50	23.50	22.30	21.10
GSM 850	128	34.64	34.68	31.55	29.60	27.88	26.73	24.38	22.99	21.07
	190	34.68	34.53	31.51	29.42	27.85	26.74	24.30	22.84	21.23
	251	34.71	34.58	31.60	29.47	27.72	26.62	24.22	22.92	21.20

GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		25.97	25.97	25.98	26.54	25.59	18.47	18.48	19.04	19.09
Nominal		24.97	24.97	24.98	25.54	24.59	17.47	17.48	18.04	18.09
GSM 850	128	25.61	25.65	25.53	25.34	24.87	17.70	18.36	18.73	18.06
	190	25.65	25.50	25.49	25.16	24.84	17.71	18.28	18.58	18.22
	251	25.68	25.55	25.58	25.21	24.71	17.59	18.20	18.66	18.19

GSM Conducted output powers (Frame-Average)

Measured RSI = 0

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		31.00	31.00	28.00	25.00	25.00	27.50	24.50	23.30	22.00
Nominal		30.00	30.00	27.00	24.00	24.00	26.50	23.50	22.30	21.00
GSM 850	128	29.12	29.43	26.14	24.30	23.40				
	190	29.14	29.86	26.35	24.58	23.50				
	251	29.13	29.76	26.29	24.30	23.43				

GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		21.97	21.97	21.98	20.74	21.99	18.47	18.48	19.04	18.99
Nominal		20.97	20.97	20.98	19.74	20.99	17.47	17.48	18.04	17.99
GSM 850	128	20.09	20.40	20.12	20.04	20.39				
	190	20.11	20.83	20.33	20.32	20.49				
	251	20.10	20.73	20.27	20.04	20.42				

GSM Conducted output powers (Frame-Average)

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GSM 850 – Antenna E

Measured *Pmax*

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		34.00	34.00	32.00	30.80	28.60	27.50	24.50	23.30	22.10
Nominal		33.00	33.00	31.00	29.80	27.60	26.50	23.50	22.30	21.10
GSM 850	128	32.69	32.68	30.31	29.00	27.34	25.16	23.23	21.92	20.22
	190	32.86	32.82	30.32	29.10	27.45	25.73	23.42	22.08	20.41
	251	32.83	32.84	30.39	29.01	27.42	25.67	23.23	21.95	20.29

GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		24.97	24.97	25.98	26.54	25.59	18.47	18.48	19.04	19.09
Nominal		23.97	23.97	24.98	25.54	24.59	17.47	17.48	18.04	18.09
GSM 850	128	23.66	23.65	24.29	24.74	24.33	16.13	17.21	17.66	17.21
	190	23.83	23.79	24.30	24.84	24.44	16.70	17.40	17.82	17.40
	251	23.80	23.81	24.37	24.75	24.41	16.64	17.21	17.69	17.28

GSM Conducted output powers (Frame-Average)

Measured RSI = 0,1

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		28.00	28.00	25.00	23.00	22.00	26.00	24.50	22.50	21.00
Nominal		27.00	27.00	24.00	22.00	21.00	25.00	23.50	21.50	20.00
GSM 850	128	27.12	27.40	24.36	22.45	21.29	24.94	23.00	21.92	20.44
	190	27.20	27.54	24.52	22.63	21.33	25.01	23.01	22.03	20.51
	251	27.17	27.45	24.55	22.66	21.31	24.87	22.88	21.76	20.39

GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		18.97	18.97	18.98	18.74	18.99	16.97	18.48	18.24	17.99
Nominal		17.97	17.97	17.98	17.74	17.99	15.97	17.48	17.24	16.99
GSM 850	128	18.09	18.37	18.34	18.19	18.28	15.91	16.98	17.66	17.43
	190	18.17	18.51	18.50	18.37	18.32	15.98	16.99	17.77	17.50
	251	18.14	18.42	18.53	18.40	18.30	15.84	16.86	17.50	17.38

GSM Conducted output powers (Frame-Average)

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11.1.2 GSM 1900 Maximum Conducted Output Power

GSM1900 – Antenna A

Measured *Pmax*

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		31.00	31.00	28.50	27.50	26.20	26.00	23.50	23.00	21.10
Nominal		30.00	30.00	27.50	26.50	25.20	25.00	22.50	22.00	20.10
GSM 1900	512	30.94	30.94	27.79	26.64	24.88	25.25	22.83	21.65	20.35
	661	30.90	30.88	27.91	26.82	25.09	25.63	23.40	22.09	20.47
	810	30.87	30.98	28.11	27.04	25.16	25.68	23.44	22.42	20.90

GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		21.97	21.97	22.48	23.24	23.19	16.97	17.48	18.74	18.09
Nominal		20.97	20.97	21.48	22.24	22.19	15.97	16.48	17.74	17.09
GSM 1900	512	21.91	21.91	21.77	22.38	21.87	16.22	16.81	17.39	17.34
	661	21.87	21.85	21.89	22.56	22.08	16.60	17.38	17.83	17.46
	810	21.84	21.95	22.09	22.78	22.15	16.65	17.42	18.16	17.89

GSM Conducted output powers (Frame-Average)

Measured RSI = 0,1

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		26.00	26.00	23.00	21.00	20.00	26.00	23.50	23.00	21.10
Nominal		25.00	25.00	22.00	20.00	19.00	25.00	22.50	22.00	20.10
GSM 1900	512	25.06	25.05	21.84	19.92	19.44				
	661	25.16	25.18	22.06	20.08	19.51				
	810	25.08	25.17	21.67	19.92	19.34				

GSM Conducted output powers (Burst-Average)

Mode / Band		Voice	GPRS(GMSK) Data – CS1(dBm)				EDGE Data (dBm)			
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Maximum		16.97	16.97	16.98	16.74	16.99	16.97	17.48	18.74	18.09
Nominal		15.97	15.97	15.98	15.74	15.99	15.97	16.48	17.74	17.09
GSM 1900	512	16.03	16.02	15.82	15.66	16.43				
	661	16.13	16.15	16.04	15.82	16.50				
	810	16.05	16.14	15.65	15.66	16.33				

GSM Conducted output powers (Frame-Average)

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Note:

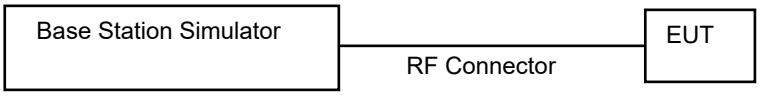
Time slot average factor is as follows:

1 Tx slot = 9.19 dB, Frame-Average output power = Burst-Average output power – 9.19 dB

2 Tx slot = 6.18 dB, Frame-Average output power = Burst-Average output power – 6.18 dB

3 Tx slot = 4.42 dB, Frame-Average output power = Burst-Average output power – 4.42 dB

4 Tx slot = 3.17 dB, Frame-Average output power = Burst-Average output power – 3.17 dB



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11.2 UMTS Maximum Output Power

HSPA+
This DUT is only capable of QPSK HSPA+ in uplink. Therefore, the RF conducted power is not measured according to 941225 D01v03r01 3G SAR.

11.2.1 UMTS Band 5 Maximum Conducted Output Power

UMTS Band 5 Maximum Conducted Output Power – Antenna A

Measured *Pmax*

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 5 [dBm]			3GPP MPR
		Subtest	UL4132 DL4357	UL4183 DL4408	UL4233 DL4458	
99	UMTS	12.2 kbps RMC	24.08	24.21	24.23	-
99		12.2 kbps AMR	23.99	24.18	24.15	-
5	HSDPA	Subtest 1	23.34	23.47	23.46	0
5		Subtest 2	22.40	22.47	22.47	0
5		Subtest 3	21.40	21.50	21.47	0.5
5		Subtest 4	21.40	21.49	21.49	0.5
6	HSUPA	Subtest 1	21.37	20.88	21.40	0
6		Subtest 2	19.33	19.43	19.37	2
6		Subtest 3	20.33	20.36	20.41	1
6		Subtest 4	19.29	19.37	19.37	2
6		Subtest 5	22.29	22.37	22.37	0
8	DC-HSDPA	Subtest1	23.30	23.10	23.01	0
8		Subtest2	22.65	22.41	22.33	0
8		Subtest3	21.68	21.49	21.35	0.5
8		Subtest4	21.52	21.30	21.20	0.5

UMTS Average Conducted output powers

Measured RSI = 0,1

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 5 [dBm]			3GPP MPR
		Subtest	UL4132 DL4357	UL4183 DL4408	UL4233 DL4458	
99	UMTS	12.2 kbps RMC	22.66	22.68	22.53	-
99		12.2 kbps AMR	22.58	22.60	22.50	-
5	HSDPA	Subtest 1	21.14	21.02	20.97	0
5		Subtest 2	20.90	21.03	20.97	0
5		Subtest 3	21.13	21.05	21.12	0
5		Subtest 4	20.58	20.55	20.34	0
6	HSUPA	Subtest 1	19.68	20.60	19.53	0
6		Subtest 2	19.12	19.64	19.22	0
6		Subtest 3	18.69	18.85	18.70	0
6		Subtest 4	19.09	19.68	19.00	0
6		Subtest 5	19.99	20.71	20.00	0
8	DC-HSDPA	Subtest1	21.12	20.98	20.87	0
8		Subtest2	20.97	20.99	20.88	0
8		Subtest3	21.05	20.98	21.05	0
8		Subtest4	20.48	20.50	20.30	0

UMTS Average Conducted output powers

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UMTS Band 5 Maximum Conducted Output Power – Antenna E

Measured *Pmax*

3GPP Release Version	Mode	3GPP 34.121 Subtest	UMTS Band 5 [dBm] UL4132 DL4357	UL4183 DL4408	UL4233 DL4458	3GPP MPR
99	UMTS	12.2 kbps RMC	22.75	22.86	22.86	-
99		12.2 kbps AMR	22.72	22.70	22.68	-
5	HSDPA	Subtest 1	22.67	22.72	22.76	0
5		Subtest 2	22.13	22.23	22.19	0
5		Subtest 3	20.68	20.76	20.79	0.5
5		Subtest 4	21.19	21.30	21.29	0.5
6	HSUPA	Subtest 1	21.62	21.23	21.71	0
6		Subtest 2	19.63	19.15	19.70	2
6		Subtest 3	20.66	20.69	20.73	1
6		Subtest 4	19.58	19.12	19.68	2
6		Subtest 5	22.59	21.16	22.70	0
8	DC-HSDPA	Subtest1	22.81	22.80	22.62	0
8		Subtest2	22.49	22.52	22.44	0
8		Subtest3	21.04	21.07	21.02	0.5
8		Subtest4	21.44	21.53	21.48	0.5

UMTS Average Conducted output powers

Measured RSI = 0,1

3GPP Release Version	Mode	3GPP 34.121 Subtest	UMTS Band 5 [dBm] UL4132 DL4357	UL4183 DL4408	UL4233 DL4458	3GPP MPR
99	UMTS	12.2 kbps RMC	18.23	18.33	18.32	-
99		12.2 kbps AMR	18.17	18.22	18.16	-
5	HSDPA	Subtest 1	17.36	17.46	17.37	0
5		Subtest 2	17.99	18.06	18.06	0
5		Subtest 3	17.51	17.54	17.45	0
5		Subtest 4	18.02	18.04	18.04	0
6	HSUPA	Subtest 1	17.09	18.16	17.17	0
6		Subtest 2	17.12	18.16	17.17	0
6		Subtest 3	17.07	18.17	17.14	0
6		Subtest 4	17.05	18.13	17.16	0
6		Subtest 5	18.14	18.00	18.25	0
8	DC-HSDPA	Subtest1	17.41	17.53	17.43	0
8		Subtest2	18.06	18.11	18.08	0
8		Subtest3	17.56	17.57	17.50	0
8		Subtest4	18.09	18.10	18.09	0

UMTS Average Conducted output powers

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11.2.2 UMTS Band 4 Maximum Conducted Output Power

UMTS Band 4 Maximum Conducted Output Power – Antenna A

Measured *Pmax*

3GPP Release Version	Mode	3GPP 34.121 Subtest	UMTS Band 4 [dBm] UL 1312 DL 1537	UL 1412 DL 1637	UL 1513 DL 1738	3GPP MPR
99	UMTS	12.2 kbps RMC	23.78	23.46	23.29	-
99		12.2 kbps AMR	23.69	23.41	23.11	-
5	HSDPA	Subtest 1	22.54	22.23	22.05	0
5		Subtest 2	21.55	21.25	21.10	0
5		Subtest 3	20.64	20.29	20.12	0.5
5		Subtest 4	20.67	20.27	20.09	0.5
6	HSUPA	Subtest 1	21.50	21.18	21.09	0
6		Subtest 2	19.51	19.10	18.94	2
6		Subtest 3	20.47	20.16	20.06	1
6		Subtest 4	19.42	19.06	18.91	2
6		Subtest 5	22.41	22.07	21.94	0
8	DC-HSDPA	Subtest1	22.51	22.50	22.39	0
8		Subtest2	21.85	21.82	21.68	0
8		Subtest3	20.94	20.85	20.70	0.5
8		Subtest4	20.69	20.64	20.44	0.5

UMTS Average Conducted output powers

Measured RSI = 0

3GPP Release Version	Mode	3GPP 34.121 Subtest	UMTS Band 4 [dBm] UL 1312 DL 1537	UL 1412 DL 1637	UL 1513 DL 1738	3GPP MPR
99	UMTS	12.2 kbps RMC	14.77	14.37	14.29	-
99		12.2 kbps AMR	14.70	14.30	14.03	-
5	HSDPA	Subtest 1	13.71	13.34	13.17	0
5		Subtest 2	13.76	13.35	13.22	0
5		Subtest 3	13.72	13.32	13.18	0
5		Subtest 4	13.72	13.35	13.17	0
6	HSUPA	Subtest 1	12.23	11.78	11.60	0
6		Subtest 2	12.26	11.80	11.63	0
6		Subtest 3	12.23	11.83	11.64	0
6		Subtest 4	12.28	11.83	11.83	0
6		Subtest 5	12.93	12.91	12.69	0
8	DC-HSDPA	Subtest1	13.79	13.42	13.42	0
8		Subtest2	13.87	13.62	13.60	0
8		Subtest3	13.77	13.52	13.51	0
8		Subtest4	13.85	13.62	13.59	0

UMTS Average Conducted output powers

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Measured RSI = 1

3GPP Release Version	Mode	3GPP 34.121 Subtest	UMTS Band 4 [dBm] UL 1312 DL 1537	UL 1412 DL 1637	UL 1513 DL 1738	3GPP MPR
99	UMTS	12.2 kbps RMC	17.57	17.17	17.09	-
99		12.2 kbps AMR	17.50	17.10	16.83	-
5	HSDPA	Subtest 1	16.11	15.74	15.57	0
5		Subtest 2	16.16	15.75	15.62	0
5		Subtest 3	16.12	15.72	15.58	0
5		Subtest 4	16.12	15.75	15.57	0
6	HSUPA	Subtest 1	15.23	14.78	14.60	0
6		Subtest 2	15.26	14.80	14.63	0
6		Subtest 3	15.23	14.83	14.64	0
6		Subtest 4	15.28	14.83	14.83	0
6		Subtest 5	15.93	15.91	15.69	0
8	DC-HSDPA	Subtest1	16.07	15.70	15.70	0
8		Subtest2	16.15	15.90	15.88	0
8		Subtest3	16.05	15.80	15.79	0
8		Subtest4	16.13	15.90	15.87	0

UMTS Average Conducted output powers

11.2.3 UMTS Band 2 Maximum Conducted Output Power

UMTS Band 2 Maximum Conducted Output Power – Antenna A

Measured *Pmax*

3GPP Release Version	Mode	3GPP 34.121 Subtest	UMTS Band 2 [dBm] UL9262 DL9662	UL9400 DL9800	UL9538 DL9938	3GPP MPR
99	UMTS	12.2 kbps RMC	23.61	23.73	23.85	-
99		12.2 kbps AMR	23.55	23.64	23.77	-
5	HSDPA	Subtest 1	22.22	22.47	22.65	0
5		Subtest 2	21.43	21.57	21.66	0
5		Subtest 3	20.53	20.59	20.65	0.5
5		Subtest 4	20.49	20.59	20.68	0.5
6	HSUPA	Subtest 1	21.38	21.54	21.63	0
6		Subtest 2	19.38	19.50	19.60	2
6		Subtest 3	20.33	20.42	20.50	1
6		Subtest 4	19.23	19.33	19.46	2
6		Subtest 5	22.25	22.33	22.46	0
8	DC-HSDPA	Subtest 1	22.53	22.50	22.30	0
8		Subtest2	21.82	21.70	21.51	0
8		Subtest3	20.75	20.70	20.53	0.5
8		Subtest4	20.67	20.50	20.31	0.5

UMTS Average Conducted output powers

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Measured RSI = 0

3GPP Release Version	Mode	3GPP 34.121	UMTS Band 2 [dBm]			3GPP MPR
		Subtest	UL9262 DL9662	UL9400 DL9800	UL9538 DL9938	
99	UMTS	12.2 kbps RMC	14.66	14.75	14.79	-
99		12.2 kbps AMR	14.59	14.70	14.66	-
5	HSDPA	Subtest 1	13.43	13.53	13.63	0
5		Subtest 2	13.47	13.56	13.61	0
5		Subtest 3	13.49	13.59	13.64	0
5		Subtest 4	13.50	13.59	13.63	0
6	HSUPA	Subtest 1	11.89	12.05	12.13	0
6		Subtest 2	11.96	12.03	13.13	0
6		Subtest 3	11.92	12.01	12.14	0
6		Subtest 4	11.96	12.01	12.15	0
6		Subtest 5	12.94	13.07	13.15	0
8	DC-HSDPA	Subtest 1	13.50	13.70	13.80	0
8		Subtest2	13.91	14.10	14.21	0
8		Subtest3	13.52	13.70	13.79	0
8		Subtest4	13.69	13.80	13.91	0

UMTS Average Conducted output powers

Measured RSI = 1

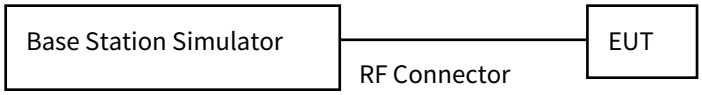
3GPP Release Version	Mode	3GPP 34.121	UMTS Band 2 [dBm]			3GPP MPR
		Subtest	UL9262 DL9662	UL9400 DL9800	UL9538 DL9938	
99	UMTS	12.2 kbps RMC	17.56	17.58	17.43	-
99		12.2 kbps AMR	17.48	17.50	17.40	-
5	HSDPA	Subtest 1	16.54	16.42	16.37	0
5		Subtest 2	16.30	16.43	16.37	0
5		Subtest 3	16.53	16.45	16.52	0
5		Subtest 4	15.98	15.95	15.74	0
6	HSUPA	Subtest 1	15.08	16.00	14.93	0
6		Subtest 2	14.52	15.04	14.62	0
6		Subtest 3	14.59	14.75	14.55	0
6		Subtest 4	14.99	15.58	14.90	0
6		Subtest 5	15.39	16.11	15.40	0
8	DC-HSDPA	Subtest 1	16.52	16.38	16.27	0
8		Subtest2	16.37	16.39	16.28	0
8		Subtest3	16.45	16.38	16.45	0
8		Subtest4	15.88	15.90	15.70	0

UMTS Average Conducted output powers

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HSDPA Configurations

- 3GPP specification TS 34.121-1 Release 8. Was used for used for DC-HSDPA guidance.
- H-set 12(QPSK)was conformed to be used during DC-HSDPA measurements.



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11.3 LTE Maximum Output Power

Only the Conducted Power measurement results of the maximum bandwidth, which is the SAR test condition of LTE Bands according to FCC KDB 941225 D05v02r05, are included, and the measurement results of other bandwidths are listed in Appendix J.

LTE B4/B5/B12/B13/B14/B26/B30/B71 at Max Bandwidth does not support three non-overlapping channels. Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel Bandwidth configuration, the mid channel of the group of overlapping channels should be selected for testing.

11.3.1 LTE FDD Band 2 Maximum Conducted Output Power

LTE FDD Band 2 Conducted Power _ Measured *Pmax*, RSI = 1 _ Antenna A

LTE FDD Band 2 _ 20 MHz Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 MHz	18900 Ch. 1880 MHz	19100 Ch. 1900 MHz		
20 MHz	QPSK	1	0	24.35	24.41	24.34	0	0
		1	49	24.10	24.37	24.26	0	0
		1	99	24.33	24.46	24.50	0	0
		50	0	23.32	23.43	23.32	0-1	1
		50	25	23.29	23.46	23.40	0-1	1
		50	49	23.24	23.38	23.45	0-1	1
		100	0	23.30	23.48	23.44	0-1	1
	16QAM	1	0	23.62	23.53	23.59	0-1	1
		1	49	23.34	23.56	23.68	0-1	1
		1	99	23.52	23.75	23.85	0-1	1
		50	0	22.29	22.35	22.38	0-2	2
		50	25	22.26	22.45	22.46	0-2	2
		50	49	22.23	22.37	22.52	0-2	2
		100	0	22.30	22.46	22.48	0-2	2
	64QAM	1	0	22.41	22.48	22.44	0-2	2
		1	49	21.89	21.96	21.94	0-2	2
		1	99	22.55	22.61	22.58	0-2	2
		50	0	21.37	21.38	21.30	0-3	3
		50	25	21.41	21.47	21.45	0-3	3
		50	49	21.32	21.39	21.39	0-3	3
		100	0	21.48	21.51	21.49	0-3	3
	256QAM	1	0	19.37	19.43	19.39	0-5	5
		1	49	19.75	19.77	19.76	0-5	5
		1	99	19.43	19.50	19.43	0-5	5
		50	0	19.32	19.36	19.34	0-5	5
		50	25	19.43	19.49	19.44	0-5	5
		50	49	19.42	19.45	19.44	0-5	5
		100	0	19.44	19.50	19.47	0-5	5

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LTE FDD Band 2 Conducted Power _ Measured RSI = 0_ Antenna A

LTE FDD Band 2 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	14.73	14.88	14.80	0	0
		1	49	14.71	14.86	14.74	0	0
		1	99	14.88	14.83	14.58	0	0
		50	0	14.71	14.93	14.71	0-1	0
		50	25	14.74	14.94	14.69	0-1	0
		50	49	14.75	14.87	14.60	0-1	0
		100	0	14.74	14.93	14.68	0-1	0
	16QAM	1	0	14.94	15.01	14.99	0-1	0
		1	49	15.01	15.32	14.94	0-1	0
		1	99	15.08	14.96	14.79	0-1	0
		50	0	14.68	14.90	14.66	0-2	0
		50	25	14.72	14.94	14.63	0-2	0
		50	49	14.72	14.84	14.62	0-2	0
		100	0	14.71	14.94	14.68	0-2	0
	64QAM	1	0	14.90	14.94	14.86	0-2	0
		1	49	14.70	14.84	14.62	0-2	0
		1	99	14.87	14.90	14.56	0-2	0
		50	0	14.73	14.99	14.77	0-3	0
		50	25	14.72	15.01	14.71	0-3	0
		50	49	14.75	14.94	14.58	0-3	0
		100	0	14.73	14.91	14.68	0-3	0
	256QAM	1	0	14.83	14.84	14.76	0-5	0
		1	49	14.82	14.91	14.66	0-5	0
		1	99	14.87	14.84	14.61	0-5	0
		50	0	14.70	14.95	14.69	0-5	0
		50	25	14.70	14.93	14.69	0-5	0
		50	49	14.74	14.84	14.61	0-5	0
		100	0	14.72	14.95	14.65	0-5	0

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LTE FDD Band 2 (Upper) Conducted Power _ Measured *Pmax* _ Antenna F

LTE FDD Band 2 (Upper) _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	23.08	23.02	23.05	0	0
		1	49	22.94	22.97	22.94	0	0
		1	99	23.02	22.93	22.91	0	0
		50	0	21.95	21.96	21.86	0-1	1
		50	25	22.01	22.03	22.00	0-1	1
		50	49	22.00	22.01	21.98	0-1	1
		100	0	22.05	22.09	22.05	0-1	1
	16QAM	1	0	22.25	22.36	22.25	0-1	1
		1	49	22.32	22.12	22.32	0-1	1
		1	99	22.27	22.27	22.43	0-1	1
		50	0	20.97	21.02	20.98	0-2	2
		50	25	21.09	21.04	20.94	0-2	2
		50	49	21.05	21.03	21.08	0-2	2
		100	0	21.12	21.14	21.12	0-2	2
	64QAM	1	0	21.23	21.19	21.13	0-2	2
		1	49	20.80	20.63	20.67	0-2	2
		1	99	21.26	21.26	21.33	0-2	2
		50	0	20.02	20.08	20.03	0-3	3
		50	25	20.08	20.11	20.05	0-3	3
		50	49	20.09	20.04	20.03	0-3	3
		100	0	20.12	20.11	20.09	0-3	3
	256QAM	1	0	18.15	18.43	18.25	0-5	5
		1	49	18.57	18.52	18.62	0-5	5
		1	99	18.35	18.12	18.32	0-5	5
		50	0	18.10	18.25	18.12	0-5	5
		50	25	18.22	18.18	18.25	0-5	5
		50	49	18.18	18.14	18.14	0-5	5
		100	0	18.28	18.18	18.22	0-5	5

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LTE FDD Band 2 (Upper) Conducted Power _ Measured RSI = 0, 1_ Antenna F

LTE FDD Band 2 (Upper) _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				18700 Ch. 1860 ㎒	18900 Ch. 1880 ㎒	19100 Ch. 1900 ㎒		
20 ㎒	QPSK	1	0	16.48	16.59	16.59	0	0
		1	49	16.52	16.73	16.70	0	0
		1	99	16.62	16.56	16.60	0	0
		50	0	16.48	16.57	16.48	0-1	0
		50	25	16.54	16.57	16.54	0-1	0
		50	49	16.53	16.52	16.53	0-1	0
		100	0	16.56	16.60	16.58	0-1	0
	16QAM	1	0	16.62	16.85	16.79	0-1	0
		1	49	16.94	16.89	16.98	0-1	0
		1	99	16.95	16.80	16.73	0-1	0
		50	0	16.46	16.52	16.53	0-2	0
		50	25	16.59	16.59	16.59	0-2	0
		50	49	16.54	16.53	16.54	0-2	0
		100	0	16.62	16.62	16.62	0-2	0
	64QAM	1	0	16.63	16.78	16.70	0-2	0
		1	49	16.57	16.54	16.65	0-2	0
		1	99	16.78	16.70	16.68	0-2	0
		50	0	16.48	16.58	16.55	0-3	0
		50	25	16.55	16.55	16.60	0-3	0
		50	49	16.57	16.51	16.60	0-3	0
		100	0	16.57	16.60	16.55	0-3	0
	256QAM	1	0	16.55	16.65	16.60	0-5	0
		1	49	16.65	16.65	16.78	0-5	0
		1	99	16.73	16.55	16.53	0-5	0
		50	0	16.46	16.57	16.50	0-5	0
		50	25	16.59	16.58	16.52	0-5	0
		50	49	16.53	16.52	16.50	0-5	0
		100	0	16.62	16.59	16.61	0-5	0

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11.3.2 LTE FDD Band 4 Maximum Conducted Output Power

LTE FDD Band 4 Conducted Power _ Measured *Pmax*, RSI = 1 _ Antenna A

LTE FDD Band 4 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20050 Ch. 1720 ㎒	20175 Ch. 1732.5 ㎒	20300 Ch. 1745 ㎒		
20 ㎒	QPSK	1	0	23.89	23.80	23.54	0	0
		1	49	23.74	23.56	23.41	0	0
		1	99	23.72	23.59	23.49	0	0
		50	0	22.98	22.70	22.46	0-1	1
		50	25	22.91	22.57	22.44	0-1	1
		50	49	22.80	22.57	22.49	0-1	1
		100	0	23.95	23.83	23.56	0-1	1
	16QAM	1	0	23.16	23.02	22.84	0-1	1
		1	49	23.16	22.89	22.65	0-1	1
		1	99	23.10	22.86	22.72	0-1	1
		50	0	22.00	21.75	21.52	0-2	2
		50	25	21.95	21.66	21.50	0-2	2
		50	49	21.83	21.57	21.50	0-2	2
		100	0	22.88	22.87	22.77	0-2	2
	64QAM	1	0	22.10	21.92	21.72	0-2	2
		1	49	21.57	21.25	21.14	0-2	2
		1	99	21.93	21.72	21.61	0-2	2
		50	0	21.03	20.77	20.55	0-3	3
		50	25	20.93	20.66	20.53	0-3	3
		50	49	20.86	20.61	20.49	0-3	3
		100	0	21.91	21.93	21.70	0-3	3
	256QAM	1	0	19.08	19.01	18.62	0-5	5
		1	49	19.26	18.93	18.84	0-5	5
		1	99	18.89	18.73	18.62	0-5	5
		50	0	18.96	18.70	18.49	0-5	5
		50	25	18.95	18.59	18.46	0-5	5
		50	49	18.82	18.58	18.48	0-5	5
		100	0	19.10	18.90	18.71	0-5	5

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LTE FDD Band 4 Conducted Power _ Measured RSI = 0 _ Antenna A

LTE FDD Band 4 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20050 Ch. 1720 ㎒	20175 Ch. 1732.5 ㎒	20300 Ch. 1745 ㎒		
20 ㎒	QPSK	1	0	15.09	15.00	14.69	0	0
		1	49	15.06	14.84	14.67	0	0
		1	99	14.80	14.71	14.66	0	0
		50	0	15.10	14.83	14.59	0-1	0
		50	25	15.03	14.67	14.56	0-1	0
		50	49	14.97	14.69	14.58	0-1	0
		100	0	15.09	14.72	14.60	0-1	0
	16QAM	1	0	15.27	15.23	14.80	0-1	0
		1	49	15.39	15.14	14.81	0-1	0
		1	99	15.19	14.93	14.83	0-1	0
		50	0	15.08	14.85	14.63	0-2	0
		50	25	15.01	14.76	14.56	0-2	0
		50	49	14.96	14.70	14.59	0-2	0
		100	0	15.10	14.71	14.35	0-2	0
	64QAM	1	0	15.13	15.01	14.77	0-2	0
		1	49	14.99	14.59	14.44	0-2	0
		1	99	14.89	14.76	14.74	0-2	0
		50	0	15.11	14.85	14.64	0-3	0
		50	25	15.06	14.72	14.59	0-3	0
		50	49	14.98	14.71	14.61	0-3	0
		100	0	15.04	14.69	14.61	0-3	0
	256QAM	1	0	15.06	14.96	14.77	0-5	0
		1	49	15.08	14.83	14.86	0-5	0
		1	99	14.89	14.79	14.71	0-5	0
		50	0	15.10	14.80	14.59	0-5	0
		50	25	15.06	14.67	14.60	0-5	0
		50	49	14.95	14.64	14.59	0-5	0
		100	0	15.10	14.68	14.61	0-5	0

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LTE FDD Band 4 (Upper) Conducted Power _ Measured *Pmax* _ Antenna F

LTE FDD Band 4 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20050 Ch. 1720 ㎒	20175 Ch. 1732.5 ㎒	20300 Ch. 1745 ㎒		
20 ㎒	QPSK	1	0	23.91	24.09	23.71	0	0
		1	49	24.19	23.85	23.29	0	0
		1	99	23.91	23.50	23.20	0	0
		50	0	23.20	22.96	22.45	0-1	0
		50	25	23.18	22.81	22.23	0-1	0
		50	49	23.08	22.63	22.25	0-1	0
		100	0	23.22	22.83	22.38	0-1	0
	16QAM	1	0	23.28	23.26	22.94	0-1	0
		1	49	23.28	23.01	22.56	0-1	0
		1	99	23.30	22.76	22.55	0-1	0
		50	0	22.19	21.96	21.54	0-2	0
		50	25	22.27	21.89	21.42	0-2	0
		50	49	22.12	21.72	21.35	0-2	0
		100	0	22.23	21.93	21.55	0-2	0
	64QAM	1	0	22.35	22.29	21.86	0-2	0
		1	49	22.10	21.43	21.06	0-2	0
		1	99	22.15	21.85	21.48	0-2	0
		50	0	21.20	21.08	20.62	0-3	0
		50	25	21.32	20.97	20.53	0-3	0
		50	49	21.12	20.84	20.44	0-3	0
		100	0	21.25	21.05	20.62	0-3	0
	256QAM	1	0	19.52	19.39	18.88	0-5	0
		1	49	19.63	19.29	19.02	0-5	0
		1	99	19.23	18.92	18.66	0-5	0
		50	0	19.29	19.18	18.73	0-5	0
		50	25	19.39	19.05	18.67	0-5	0
		50	49	19.23	18.90	18.53	0-5	0
		100	0	19.41	19.10	18.67	0-5	0

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LTE FDD Band 4 (Upper) Conducted Power _ Measured RSI=0,1 _ Antenna F

LTE FDD Band 4 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20050 Ch. 1720 ㎒	20175 Ch. 1732.5 ㎒	20300 Ch. 1745 ㎒		
20 ㎒	QPSK	1	0	17.68	17.46	17.10	0	0
		1	49	17.44	17.32	17.05	0	0
		1	99	17.37	17.14	16.72	0	0
		50	0	17.60	17.33	16.96	0-1	0
		50	25	17.66	17.24	16.88	0-1	0
		50	49	17.53	17.07	16.78	0-1	0
		100	0	17.64	17.25	16.94	0-1	0
	16QAM	1	0	17.87	17.64	17.37	0-1	0
		1	49	17.72	17.53	17.25	0-1	0
		1	99	17.46	17.47	16.96	0-1	0
		50	0	17.61	17.31	17.05	0-2	0
		50	25	17.61	17.24	16.91	0-2	0
		50	49	17.47	17.12	16.83	0-2	0
		100	0	17.59	17.25	16.95	0-2	0
	64QAM	1	0	17.75	17.48	17.23	0-2	0
		1	49	17.36	17.22	16.94	0-2	0
		1	99	17.38	17.29	16.88	0-2	0
		50	0	17.64	17.27	17.06	0-3	0
		50	25	17.64	17.24	16.99	0-3	0
		50	49	17.45	17.16	16.85	0-3	0
		100	0	17.54	17.22	16.96	0-3	0
	256QAM	1	0	17.67	17.41	17.26	0-5	0
		1	49	17.57	17.36	17.15	0-5	0
		1	99	17.32	17.24	16.92	0-5	0
		50	0	17.59	17.30	17.00	0-5	0
		50	25	17.55	17.25	16.97	0-5	0
		50	49	17.50	17.16	16.83	0-5	0
		100	0	17.58	17.27	17.00	0-5	0

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11.3.3 LTE FDD Band 5 Maximum Conducted Output Power

LTE FDD Band 5 Conducted Power _ Measured *Pmax*, RSI = 1 _ Antenna A

LTE FDD Band 5 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 20525 Ch. 836.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	24.70	0	0
		1	24	24.85	0	0
		1	49	24.66	0	0
		25	0	23.72	0-1	1
		25	12	23.71	0-1	1
		25	24	23.68	0-1	1
		50	0	23.73	0-1	1
	16QAM	1	0	23.81	0-1	1
		1	24	23.99	0-1	1
		1	49	23.74	0-1	1
		25	0	22.69	0-2	2
		25	12	22.67	0-2	2
		25	24	22.65	0-2	2
		50	0	22.72	0-2	2
	64QAM	1	0	22.83	0-2	2
		1	24	22.71	0-2	2
		1	49	22.84	0-2	2
		25	0	21.68	0-3	3
		25	12	21.74	0-3	3
		25	24	21.68	0-3	3
		50	0	21.77	0-3	3
	256QAM	1	0	19.97	0-5	5
		1	24	19.94	0-5	5
		1	49	19.85	0-5	5
		25	0	19.80	0-5	5
		25	12	19.82	0-5	5
		25	24	19.81	0-5	5
		50	0	19.83	0-5	5

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LTE FDD Band 5 Conducted Power _ Measured RSI = 0 _ Antenna A

LTE FDD Band 5 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 20525 Ch. 836.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	21.70	0	0
		1	24	21.79	0	0
		1	49	21.78	0	0
		25	0	21.65	0-1	0
		25	12	21.60	0-1	0
		25	24	21.63	0-1	0
		50	0	21.56	0-1	0
	16QAM	1	0	21.88	0-1	0
		1	24	22.12	0-1	0
		1	49	22.04	0-1	0
		25	0	21.38	0-2	0.5
		25	12	21.31	0-2	0.5
		25	24	21.34	0-2	0.5
		50	0	21.37	0-2	0.5
	64QAM	1	0	21.63	0-2	0.5
		1	24	21.58	0-2	0.5
		1	49	21.65	0-2	0.5
		25	0	20.35	0-3	1.5
		25	12	20.30	0-3	1.5
		25	24	20.32	0-3	1.5
		50	0	20.33	0-3	1.5
	256QAM	1	0	18.47	0-5	3.5
		1	24	18.46	0-5	3.5
		1	49	18.44	0-5	3.5
		25	0	18.37	0-5	3.5
		25	12	18.34	0-5	3.5
		25	24	18.35	0-5	3.5
		50	0	18.33	0-5	3.5

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LTE FDD Band 5 Conducted Power _ Measured *Pmax*_ Antenna E

LTE FDD Band 5 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 20525 Ch. 836.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	24.56	0	0
		1	24	24.57	0	0
		1	49	24.35	0	0
		25	0	23.48	0-1	2
		25	12	23.46	0-1	2
		25	24	23.41	0-1	2
		50	0	23.45	0-1	2
	16QAM	1	0	23.73	0-1	2
		1	24	23.83	0-1	2
		1	49	23.80	0-1	2
		25	0	22.47	0-2	3
		25	12	22.45	0-2	3
		25	24	22.43	0-2	3
		50	0	22.51	0-2	3
	64QAM	1	0	22.68	0-2	3
		1	24	22.53	0-2	3
		1	49	22.55	0-2	3
		25	0	21.52	0-3	4
		25	12	21.49	0-3	4
		25	24	21.49	0-3	4
		50	0	21.51	0-3	4
	256QAM	1	0	19.78	0-5	5
		1	24	19.57	0-5	5
		1	49	19.61	0-5	5
		25	0	19.40	0-5	5
		25	12	19.52	0-5	5
		25	24	19.48	0-5	5
		50	0	19.53	0-5	5

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LTE FDD Band 5 Conducted Power _ Measured RSI = 0,1 _ Antenna E

LTE FDD Band 5 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 20525 Ch. 836.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	19.84	0	0
		1	24	19.58	0	0
		1	49	19.55	0	0
		25	0	19.76	0-1	0
		25	12	19.66	0-1	0
		25	24	19.66	0-1	0
		50	0	19.73	0-1	0
	16QAM	1	0	19.92	0-1	0
		1	24	20.03	0-1	0
		1	49	19.93	0-1	0
		25	0	19.70	0-2	0
		25	12	19.65	0-2	0
		25	24	19.64	0-2	0
		50	0	19.64	0-2	0
	64QAM	1	0	19.88	0-2	0
		1	24	19.84	0-2	0
		1	49	19.78	0-2	0
		25	0	19.67	0-3	0
		25	12	19.60	0-3	0
		25	24	19.62	0-3	0
		50	0	19.63	0-3	0
	256QAM	1	0	19.68	0-5	0
		1	24	19.40	0-5	0
		1	49	19.61	0-5	0
		25	0	19.54	0-5	0
		25	12	19.47	0-5	0
		25	24	19.44	0-5	0
		50	0	19.48	0-5	0

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11.3.4 LTE FDD Band 7 Maximum Conducted Output Power

LTE FDD Band 7 Conducted Power Measured *Pmax*, RSI = 1 _ Antenna B

LTE FDD Band 7 _ 20 MHz Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20850 Ch. 2510 MHz	21100 Ch. 2535 MHz	21350 Ch. 2560 MHz		
20 MHz	QPSK	1	0	24.43	24.34	24.42	0	0
		1	49	24.20	24.23	24.03	0	0
		1	99	24.34	24.39	24.36	0	0
		50	0	23.29	23.14	23.23	0-1	1
		50	25	23.21	23.08	23.20	0-1	1
		50	49	23.26	23.14	23.27	0-1	1
		100	0	23.20	23.04	23.22	0-1	1
	16QAM	1	0	23.53	23.49	23.56	0-1	1
		1	49	23.44	23.38	23.47	0-1	1
		1	99	23.48	23.61	23.58	0-1	1
		50	0	22.13	22.07	22.13	0-2	2
		50	25	22.13	22.07	22.17	0-2	2
		50	49	22.19	22.15	22.27	0-2	2
		100	0	22.18	22.03	22.18	0-2	2
	64QAM	1	0	22.37	22.35	22.43	0-2	2
		1	49	22.00	21.93	22.06	0-2	2
		1	99	22.31	22.40	22.34	0-2	2
		50	0	21.10	21.07	21.11	0-3	3
		50	25	21.15	21.04	21.13	0-3	3
		50	49	21.18	21.10	21.23	0-3	3
		100	0	21.08	21.04	21.11	0-3	3
	256QAM	1	0	19.08	19.14	19.33	0-5	5
		1	49	19.29	19.40	19.52	0-5	5
		1	99	19.23	19.19	19.34	0-5	5
		50	0	19.05	18.99	19.25	0-5	5
		50	25	19.05	18.99	19.17	0-5	5
		50	49	19.05	18.96	19.14	0-5	5
		100	0	19.13	18.98	19.21	0-5	5

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LTE FDD Band 7 Conducted Power _ Measured RSI = 0 _ Antenna B

LTE FDD Band 7 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20850 Ch. 2510 ㎒	21100 Ch. 2535 ㎒	21350 Ch. 2560 ㎒		
20 ㎒	QPSK	1	0	17.36	17.01	16.58	0	0
		1	49	17.16	17.07	16.70	0	0
		1	99	17.16	16.81	16.76	0	0
		50	0	17.48	17.10	16.87	0-1	0
		50	25	17.35	17.02	16.82	0-1	0
		50	49	17.33	16.95	16.79	0-1	0
		100	0	17.41	16.99	16.85	0-1	0
	16QAM	1	0	17.43	17.29	17.16	0-1	0
		1	49	17.39	17.25	17.21	0-1	0
		1	99	17.21	17.29	17.01	0-1	0
		50	0	17.23	17.08	16.83	0-2	0
		50	25	17.20	17.03	16.81	0-2	0
		50	49	17.32	16.92	16.84	0-2	0
		100	0	17.17	16.97	16.81	0-2	0
	64QAM	1	0	17.01	17.16	17.04	0-2	0
		1	49	17.14	17.20	16.29	0-2	0
		1	99	17.23	17.06	16.90	0-2	0
		50	0	17.08	17.08	16.84	0-3	0
		50	25	17.28	16.77	16.82	0-3	0
		50	49	16.75	16.94	16.80	0-3	0
		100	0	16.90	16.97	16.75	0-3	0
	256QAM	1	0	17.07	17.01	16.94	0-5	0
		1	49	16.94	16.70	17.06	0-5	0
		1	99	17.27	16.79	16.76	0-5	0
		50	0	17.34	17.04	16.81	0-5	0
		50	25	17.24	17.03	16.72	0-5	0
		50	49	17.07	16.97	16.82	0-5	0
		100	0	17.28	17.02	16.78	0-5	0

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LTE FDD Band 7 Conducted Power Measured *Pmax*_ Antenna F

LTE FDD Band 7 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20850 Ch. 2510 ㎒	21100 Ch. 2535 ㎒	21350 Ch. 2560 ㎒		
20 ㎒	QPSK	1	0	22.63	22.50	22.81	0	0
		1	49	22.51	22.50	22.64	0	0
		1	99	22.67	22.53	22.83	0	0
		50	0	21.54	21.60	21.85	0-1	1
		50	25	21.58	21.59	21.87	0-1	1
		50	49	21.61	21.59	21.80	0-1	1
		100	0	21.62	21.59	21.87	0-1	1
	16QAM	1	0	21.88	21.93	22.12	0-1	1
		1	49	21.67	21.72	22.10	0-1	1
		1	99	21.85	22.06	22.16	0-1	1
		50	0	20.56	20.70	20.92	0-2	2
		50	25	20.67	20.66	20.95	0-2	2
		50	49	20.62	20.69	20.89	0-2	2
		100	0	20.70	20.71	20.95	0-2	2
	64QAM	1	0	20.72	20.89	21.09	0-2	2
		1	49	20.55	20.53	20.54	0-2	2
		1	99	20.87	21.05	21.11	0-2	2
		50	0	19.74	19.79	19.57	0-3	3
		50	25	19.78	19.83	20.05	0-3	3
		50	49	19.82	19.91	20.02	0-3	3
		100	0	19.74	19.84	20.02	0-3	3
	256QAM	1	0	17.71	17.89	18.12	0-5	5
		1	49	18.14	18.09	18.29	0-5	5
		1	99	17.80	18.21	18.09	0-5	5
		50	0	17.70	17.89	17.98	0-5	5
		50	25	17.80	17.88	18.01	0-5	5
		50	49	17.79	17.96	17.98	0-5	5
		100	0	17.73	17.97	18.03	0-5	5

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LTE FDD Band 7 Conducted Power Measured RSI=0,1_ Antenna F

LTE FDD Band 7 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				20850 Ch. 2510 ㎒	21100 Ch. 2535 ㎒	21350 Ch. 2560 ㎒		
20 ㎒	QPSK	1	0	17.24	17.38	17.70	0	0
		1	49	17.18	17.47	17.57	0	0
		1	99	17.36	17.56	17.53	0	0
		50	0	17.32	17.44	17.58	0-1	0
		50	25	17.39	17.52	17.59	0-1	0
		50	49	17.36	17.48	17.58	0-1	0
		100	0	17.28	17.53	17.60	0-1	0
	16QAM	1	0	17.45	17.48	17.79	0-1	0
		1	49	17.56	17.85	17.83	0-1	0
		1	99	17.62	17.88	17.81	0-1	0
		50	0	17.18	17.40	17.52	0-2	0
		50	25	17.32	17.49	17.52	0-2	0
		50	49	17.36	17.53	17.58	0-2	0
		100	0	17.38	17.49	17.63	0-2	0
	64QAM	1	0	17.30	17.46	17.71	0-2	0
		1	49	17.02	17.22	17.27	0-2	0
		1	99	17.52	17.69	17.61	0-2	0
		50	0	17.33	17.50	17.60	0-3	0
		50	25	17.37	17.47	17.60	0-3	0
		50	49	17.37	17.55	17.60	0-3	0
		100	0	17.40	17.48	17.55	0-3	0
	256QAM	1	0	17.26	17.44	17.70	0-5	0
		1	49	17.67	17.84	17.70	0-5	0
		1	99	17.42	17.65	17.58	0-5	0
		50	0	17.17	17.43	17.51	0-5	0
		50	25	17.28	17.50	17.58	0-5	0
		50	49	17.38	17.57	17.56	0-5	0
		100	0	17.29	17.51	17.60	0-5	0

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11.3.5 LTE FDD Band 12 Maximum Conducted Output Power

LTE FDD Band 12 Conducted Power _ Measured *Pmax*, RSI=1 _ Antenna A

LTE FDD Band 12 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23095 Ch. 707.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	24.45	0	0
		1	24	24.41	0	0
		1	49	24.17	0	0
		25	0	23.30	0-1	1
		25	12	23.21	0-1	1
		25	24	23.13	0-1	1
		50	0	23.23	0-1	1
	16QAM	1	0	23.64	0-1	1
		1	24	23.60	0-1	1
		1	49	23.38	0-1	1
		25	0	22.31	0-2	2
		25	12	22.21	0-2	2
		25	24	22.19	0-2	2
		50	0	22.28	0-2	2
	64QAM	1	0	22.53	0-2	2
		1	24	22.37	0-2	2
		1	49	22.33	0-2	2
		25	0	21.27	0-3	3
		25	12	21.25	0-3	3
		25	24	21.16	0-3	3
		50	0	21.31	0-3	3
	256QAM	1	0	19.40	0-5	5
		1	24	19.36	0-5	5
		1	49	19.38	0-5	5
		25	0	19.31	0-5	5
		25	12	19.28	0-5	5
		25	24	19.21	0-5	5
		50	0	19.27	0-5	5

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LTE FDD Band 12 Conducted Power _ Measured RSI = 0 _ Antenna A

LTE FDD Band 12 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23095 Ch. 707.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	22.01	0	0
		1	24	21.98	0	0
		1	49	21.91	0	0
		25	0	21.95	0-1	0
		25	12	21.83	0-1	0
		25	24	21.86	0-1	0
		50	0	21.90	0-1	0
	16QAM	1	0	22.11	0-1	0
		1	24	22.25	0-1	0
		1	49	22.13	0-1	0
		25	0	21.87	0-2	0
		25	12	21.85	0-2	0
		25	24	21.89	0-2	0
		50	0	21.89	0-2	0
	64QAM	1	0	22.00	0-2	0
		1	24	22.05	0-2	0
		1	49	22.05	0-2	0
		25	0	21.66	0-3	0
		25	12	21.68	0-3	0
		25	24	21.67	0-3	0
		50	0	21.70	0-3	0
	256QAM	1	0	19.77	0-5	2
		1	24	19.61	0-5	2
		1	49	19.70	0-5	2
		25	0	19.65	0-5	2
		25	12	19.64	0-5	2
		25	24	19.68	0-5	2
		50	0	19.67	0-5	2

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LTE FDD Band 12 Conducted Power _ Measured *Pmax* _ Antenna E

LTE FDD Band 12 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23095 Ch. 707.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	24.39	0	0
		1	24	24.52	0	0
		1	49	24.38	0	0
		25	0	23.34	0-1	1
		25	12	23.32	0-1	1
		25	24	23.31	0-1	1
		50	0	23.32	0-1	1
	16QAM	1	0	23.56	0-1	1
		1	24	23.69	0-1	1
		1	49	23.51	0-1	1
		25	0	22.35	0-2	2
		25	12	22.34	0-2	2
		25	24	22.36	0-2	2
		50	0	22.44	0-2	2
	64QAM	1	0	22.51	0-2	2
		1	24	22.64	0-2	2
		1	49	22.61	0-2	2
		25	0	21.34	0-3	3
		25	12	21.37	0-3	3
		25	24	21.38	0-3	3
		50	0	21.40	0-3	3
	256QAM	1	0	19.49	0-5	5
		1	24	19.41	0-5	5
		1	49	19.50	0-5	5
		25	0	19.37	0-5	5
		25	12	19.37	0-5	5
		25	24	19.41	0-5	5
		50	0	19.39	0-5	5

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LTE FDD Band 12 Conducted Power _ Measured RSI = 0,1_ Antenna E

LTE FDD Band 12 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23095 Ch. 707.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	20.88	0	0
		1	24	20.94	0	0
		1	49	20.92	0	0
		25	0	20.83	0-1	0
		25	12	20.80	0-1	0
		25	24	20.79	0-1	0
		50	0	20.89	0-1	0
	16QAM	1	0	20.91	0-1	0
		1	24	20.95	0-1	0
		1	49	20.95	0-1	0
		25	0	20.77	0-2	0
		25	12	20.80	0-2	0
		25	24	20.83	0-2	0
		50	0	20.81	0-2	0
	64QAM	1	0	20.90	0-2	0
		1	24	20.96	0-2	0
		1	49	20.99	0-2	0
		25	0	20.75	0-3	0
		25	12	20.75	0-3	0
		25	24	20.81	0-3	0
		50	0	20.83	0-3	0
	256QAM	1	0	19.20	0-5	1
		1	24	19.13	0-5	1
		1	49	19.24	0-5	1
		25	0	19.16	0-5	1
		25	12	19.14	0-5	1
		25	24	19.15	0-5	1
		50	0	19.17	0-5	1

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11.3.6 LTE FDD Band 13 Maximum Conducted Output Power

LTE FDD Band 13 Conducted Power _ Measured *Pmax*, RSI = 1 _ Antenna A

LTE FDD Band 13 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23230 Ch. 782 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	24.48	0	0
		1	24	24.58	0	0
		1	49	24.49	0	0
		25	0	23.59	0-1	1
		25	12	23.56	0-1	1
		25	24	23.51	0-1	1
		50	0	23.52	0-1	1
	16QAM	1	0	23.48	0-1	1
		1	24	23.80	0-1	1
		1	49	23.57	0-1	1
		25	0	22.39	0-2	2
		25	12	22.43	0-2	2
		25	24	22.40	0-2	2
		50	0	22.44	0-2	2
	64QAM	1	0	22.37	0-2	2
		1	24	22.43	0-2	2
		1	49	22.46	0-2	2
		25	0	21.33	0-3	3
		25	12	21.36	0-3	3
		25	24	21.34	0-3	3
		50	0	21.32	0-3	3
	256QAM	1	0	19.42	0-5	5
		1	24	19.35	0-5	5
		1	49	19.67	0-5	5
		25	0	19.44	0-5	5
		25	12	19.36	0-5	5
		25	24	19.25	0-5	5
		50	0	19.65	0-5	5

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LTE FDD Band 13 Conducted Power _ Measured RSI = 0_ Antenna A

LTE FDD Band 13 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23230 Ch. 782 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	21.53	0	0
		1	24	21.71	0	0
		1	49	21.67	0	0
		25	0	21.79	0-1	0
		25	12	21.69	0-1	0
		25	24	21.76	0-1	0
		50	0	21.71	0-1	0
	16QAM	1	0	21.53	0-1	0
		1	24	21.80	0-1	0
		1	49	21.73	0-1	0
		25	0	21.48	0-2	0
		25	12	21.51	0-2	0
		25	24	21.56	0-2	0
		50	0	21.48	0-2	0
	64QAM	1	0	21.36	0-2	0
		1	24	21.59	0-2	0
		1	49	21.57	0-2	0
		25	0	20.76	0-3	0
		25	12	20.83	0-3	0
		25	24	20.87	0-3	0
		50	0	20.78	0-3	0
	256QAM	1	0	18.73	0-5	2
		1	24	18.72	0-5	2
		1	49	18.83	0-5	2
		25	0	18.79	0-5	2
		25	12	18.88	0-5	2
		25	24	18.91	0-5	2
		50	0	18.76	0-5	2

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LTE FDD Band 13 Conducted Power _ Measured *Pmax*_Antenna E

LTE FDD Band 13 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23230 Ch. 782 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	23.99	0	0
		1	24	24.08	0	0
		1	49	24.22	0	0
		25	0	23.06	0-1	1
		25	12	23.10	0-1	1
		25	24	23.14	0-1	1
		50	0	23.11	0-1	1
	16QAM	1	0	23.10	0-1	1
		1	24	23.27	0-1	1
		1	49	23.27	0-1	1
		25	0	21.93	0-2	2
		25	12	22.05	0-2	2
		25	24	22.09	0-2	2
		50	0	22.02	0-2	2
	64QAM	1	0	21.98	0-2	2
		1	24	22.02	0-2	2
		1	49	22.17	0-2	2
		25	0	20.88	0-3	3
		25	12	20.99	0-3	3
		25	24	21.06	0-3	3
		50	0	20.91	0-3	3
	256QAM	1	0	18.89	0-5	5
		1	24	18.82	0-5	5
		1	49	19.05	0-5	5
		25	0	18.88	0-5	5
		25	12	18.99	0-5	5
		25	24	19.03	0-5	5
		50	0	18.87	0-5	5

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LTE FDD Band 13 Conducted Power _ Measured RSI = 0,1_ Antenna E

LTE FDD Band 13 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23230 Ch. 782 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	20.24	0	0
		1	24	20.22	0	0
		1	49	20.38	0	0
		25	0	20.30	0-1	0
		25	12	20.30	0-1	0
		25	24	20.40	0-1	0
		50	0	20.24	0-1	0
	16QAM	1	0	20.31	0-1	0
		1	24	20.43	0-1	0
		1	49	20.38	0-1	0
		25	0	20.11	0-2	0
		25	12	20.12	0-2	0
		25	24	20.25	0-2	0
		50	0	20.07	0-2	0
	64QAM	1	0	20.14	0-2	0
		1	24	20.16	0-2	0
		1	49	20.19	0-2	0
		25	0	20.04	0-3	0
		25	12	20.11	0-3	0
		25	24	20.20	0-3	0
		50	0	20.02	0-3	0
	256QAM	1	0	18.36	0-5	1
		1	24	18.30	0-5	1
		1	49	18.60	0-5	1
		25	0	18.37	0-5	1
		25	12	18.45	0-5	1
		25	24	18.55	0-5	1
		50	0	18.31	0-5	1

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11.3.7 LTE FDD Band 14 Maximum Conducted Output Power

LTE FDD Band 14 Conducted Power _ Measured *Pmax*, RSI = 1 _ Antenna A

LTE FDD Band 14 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23330 Ch. 793 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	24.87	0	0
		1	24	24.95	0	0
		1	49	24.71	0	0
		25	0	23.85	0-1	1
		25	12	23.79	0-1	1
		25	24	23.78	0-1	1
		50	0	23.80	0-1	1
	16QAM	1	0	23.98	0-1	1
		1	24	23.87	0-1	1
		1	49	23.76	0-1	1
		25	0	22.80	0-2	2
		25	12	22.75	0-2	2
		25	24	22.66	0-2	2
		50	0	22.80	0-2	2
	64QAM	1	0	22.95	0-2	2
		1	24	22.83	0-2	2
		1	49	22.72	0-2	2
		25	0	21.69	0-3	3
		25	12	21.67	0-3	3
		25	24	21.61	0-3	3
		50	0	21.70	0-3	3
	256QAM	1	0	19.65	0-5	5
		1	24	19.73	0-5	5
		1	49	19.59	0-5	5
		25	0	19.50	0-5	5
		25	12	19.55	0-5	5
		25	24	19.41	0-5	5
		50	0	19.63	0-5	5

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LTE FDD Band 14 Conducted Power _ Measured RSI = 0_ Antenna A

LTE FDD Band 14 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23330 Ch. 793 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	21.98	0	0
		1	24	22.00	0	0
		1	49	21.72	0	0
		25	0	21.99	0-1	0
		25	12	21.91	0-1	0
		25	24	21.87	0-1	0
		50	0	21.99	0-1	0
	16QAM	1	0	22.07	0-1	0
		1	24	22.15	0-1	0
		1	49	21.73	0-1	0
		25	0	21.84	0-2	0
		25	12	21.80	0-2	0
		25	24	21.69	0-2	0
		50	0	21.81	0-2	0
	64QAM	1	0	21.91	0-2	0
		1	24	21.96	0-2	0
		1	49	21.57	0-2	0
		25	0	21.63	0-3	0
		25	12	21.59	0-3	0
		25	24	21.49	0-3	0
		50	0	21.63	0-3	0
	256QAM	1	0	19.58	0-5	2
		1	24	19.46	0-5	2
		1	49	19.26	0-5	2
		25	0	19.57	0-5	2
		25	12	19.55	0-5	2
		25	24	19.45	0-5	2
		50	0	19.42	0-5	2

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LTE FDD Band 14 Conducted Power _ Measured *Pmax*,_ Antenna E

LTE FDD Band 14 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23330 Ch. 793 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	24.51	0	0
		1	24	24.38	0	0
		1	49	24.29	0	0
		25	0	23.38	0-1	1
		25	12	23.32	0-1	1
		25	24	23.29	0-1	1
		50	0	23.36	0-1	1
	16QAM	1	0	23.57	0-1	1
		1	24	23.69	0-1	1
		1	49	23.39	0-1	1
		25	0	22.39	0-2	2
		25	12	22.32	0-2	2
		25	24	22.27	0-2	2
		50	0	22.30	0-2	2
	64QAM	1	0	22.53	0-2	2
		1	24	22.46	0-2	2
		1	49	22.32	0-2	2
		25	0	21.30	0-3	3
		25	12	21.25	0-3	3
		25	24	21.22	0-3	3
		50	0	21.26	0-3	3
	256QAM	1	0	19.26	0-5	5
		1	24	19.10	0-5	5
		1	49	18.99	0-5	5
		25	0	19.21	0-5	5
		25	12	19.22	0-5	5
		25	24	19.10	0-5	5
		50	0	19.07	0-5	5

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LTE FDD Band 14 Conducted Power _ Measured RSI = 0,1_ Antenna E

LTE FDD Band 14 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 23330 Ch. 793 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	20.83	0	0
		1	24	20.70	0	0
		1	49	20.62	0	0
		25	0	20.80	0-1	0
		25	12	20.74	0-1	0
		25	24	20.71	0-1	0
		50	0	20.75	0-1	0
	16QAM	1	0	20.93	0-1	0
		1	24	20.91	0-1	0
		1	49	20.61	0-1	0
		25	0	20.71	0-2	0
		25	12	20.66	0-2	0
		25	24	20.55	0-2	0
		50	0	20.61	0-2	0
	64QAM	1	0	20.76	0-2	0
		1	24	20.71	0-2	0
		1	49	20.54	0-2	0
		25	0	20.65	0-3	0
		25	12	20.63	0-3	0
		25	24	20.51	0-3	0
		50	0	20.61	0-3	0
	256QAM	1	0	18.91	0-5	1
		1	24	18.76	0-5	1
		1	49	18.70	0-5	1
		25	0	18.88	0-5	1
		25	12	18.85	0-5	1
		25	24	18.75	0-5	1
		50	0	18.74	0-5	1

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11.3.8 LTE FDD Band 25 Maximum Conducted Output Power

LTE FDD Band 25 Conducted Power_ Measured *Pmax*, RSI = 1 _ Antenna A

LTE FDD Band 25 _ 20 MHz Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 MHz	26365 Ch. 1882.5 MHz	26590 Ch. 1905 MHz		
20 MHz	QPSK	1	0	24.70	24.75	24.57	0	0
		1	49	24.41	24.29	24.33	0	0
		1	99	24.70	24.57	24.47	0	0
		50	0	23.58	23.69	23.60	0-1	0
		50	25	23.55	23.64	23.67	0-1	0
		50	49	23.56	23.58	23.67	0-1	0
		100	0	24.64	24.62	24.55	0-1	0
	16QAM	1	0	23.81	23.77	23.88	0-1	0
		1	49	23.61	23.72	23.78	0-1	0
		1	99	23.85	23.87	23.72	0-1	0
		50	0	22.56	22.59	22.67	0-2	1
		50	25	22.54	22.61	22.80	0-2	1
		50	49	22.52	22.62	22.71	0-2	1
		100	0	23.85	23.86	23.82	0-2	1
	64QAM	1	0	22.76	22.77	22.76	0-2	1
		1	49	22.06	22.18	22.38	0-2	1
		1	99	22.79	22.71	22.73	0-2	1
		50	0	21.60	21.60	21.69	0-3	2
		50	25	21.55	21.64	21.80	0-3	2
		50	49	21.57	21.62	21.75	0-3	2
		100	0	22.72	22.71	22.75	0-3	2
	256QAM	1	0	19.77	19.75	19.71	0-5	4
		1	49	19.94	19.98	20.16	0-5	4
		1	99	19.73	19.67	19.61	0-5	4
		50	0	19.60	19.62	19.72	0-5	4
		50	25	19.63	19.67	19.76	0-5	4
		50	49	19.58	19.70	19.73	0-5	4
		100	0	19.85	19.75	19.73	0-5	4

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LTE FDD Band 25 Conducted Power_ Measured RSI = 0_ Antenna A

LTE FDD Band 25 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 ㎒	26365 Ch. 1882.5 ㎒	26590 Ch. 1905 ㎒		
20 ㎒	QPSK	1	0	14.91	15.09	14.91	0	0
		1	49	14.86	15.18	14.72	0	0
		1	99	15.09	15.03	14.60	0	0
		50	0	14.99	15.15	14.91	0-1	0
		50	25	14.97	15.13	14.77	0-1	0
		50	49	15.00	15.06	14.62	0-1	0
		100	0	14.98	15.10	14.76	0-1	0
	16QAM	1	0	15.19	15.33	15.05	0-1	0
		1	49	15.13	15.34	15.10	0-1	0
		1	99	15.26	15.25	14.89	0-1	0
		50	0	14.96	15.12	14.88	0-2	0
		50	25	14.90	15.12	14.74	0-2	0
		50	49	14.96	14.96	14.68	0-2	0
		100	0	14.94	15.16	14.76	0-2	0
	64QAM	1	0	15.08	15.22	15.00	0-2	0
		1	49	14.72	15.06	14.70	0-2	0
		1	99	15.21	15.04	14.83	0-2	0
		50	0	14.95	15.11	14.81	0-3	0
		50	25	14.92	15.08	14.79	0-3	0
		50	49	14.96	15.07	14.81	0-3	0
		100	0	14.94	15.06	14.77	0-3	0
	256QAM	1	0	14.97	15.20	15.00	0-5	0
		1	49	15.20	15.39	15.01	0-5	0
		1	99	15.16	14.98	14.71	0-5	0
		50	0	14.95	15.10	14.83	0-5	0
		50	25	14.95	15.08	14.78	0-5	0
		50	49	14.98	14.99	14.73	0-5	0
		100	0	14.99	15.14	14.68	0-5	0

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LTE FDD Band 25 Conducted Power_ Measured *Pmax* _ Antenna F

LTE FDD Band 25 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 ㎒	26365 Ch. 1882.5 ㎒	26590 Ch. 1905 ㎒		
20 ㎒	QPSK	1	0	23.09	23.00	22.95	0	0
		1	49	22.90	22.97	22.90	0	0
		1	99	23.01	22.90	23.08	0	0
		50	0	21.94	21.94	22.00	0-1	1
		50	25	22.01	22.01	21.99	0-1	1
		50	49	21.92	22.01	22.05	0-1	1
		100	0	22.03	22.04	22.02	0-1	1
	16QAM	1	0	22.16	22.17	22.31	0-1	1
		1	49	22.26	22.18	22.10	0-1	1
		1	99	22.21	22.38	22.39	0-1	1
		50	0	21.01	21.01	20.99	0-2	2
		50	25	21.07	21.08	20.93	0-2	2
		50	49	21.02	21.01	21.02	0-2	2
		100	0	21.11	21.09	20.99	0-2	2
	64QAM	1	0	21.13	21.23	21.21	0-2	2
		1	49	20.67	20.72	20.65	0-2	2
		1	99	21.18	21.15	21.25	0-2	2
		50	0	19.97	19.99	20.01	0-3	3
		50	25	20.07	20.05	20.02	0-3	3
		50	49	20.02	20.06	20.10	0-3	3
		100	0	20.11	20.12	20.12	0-3	3
	256QAM	1	0	18.25	18.39	18.36	0-5	5
		1	49	18.55	18.59	18.54	0-5	5
		1	99	18.37	18.34	18.36	0-5	5
		50	0	18.13	18.15	18.25	0-5	5
		50	25	18.22	18.18	18.17	0-5	5
		50	49	18.23	18.21	18.28	0-5	5
		100	0	18.26	18.23	18.26	0-5	5

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LTE FDD Band 25 Conducted Power_ Measured RSI=0,1 _ Antenna F

LTE FDD Band 25 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				26140 Ch. 1860 ㎒	26365 Ch. 1882.5 ㎒	26590 Ch. 1905 ㎒		
20 ㎒	QPSK	1	0	16.45	16.57	16.56	0	0
		1	49	16.52	16.75	16.65	0	0
		1	99	16.61	16.65	16.59	0	0
		50	0	16.46	16.50	16.51	0-1	0
		50	25	16.52	16.54	16.51	0-1	0
		50	49	16.47	16.52	16.57	0-1	0
		100	0	16.58	16.57	16.51	0-1	0
	16QAM	1	0	16.62	16.79	16.78	0-1	0
		1	49	16.95	16.87	16.89	0-1	0
		1	99	16.96	16.83	16.84	0-1	0
		50	0	16.46	16.47	16.54	0-2	0
		50	25	16.58	16.51	16.46	0-2	0
		50	49	16.54	16.53	16.58	0-2	0
		100	0	16.57	16.55	16.52	0-2	0
	64QAM	1	0	16.52	16.67	16.73	0-2	0
		1	49	16.53	16.53	16.51	0-2	0
		1	99	16.79	16.75	16.66	0-2	0
		50	0	16.47	16.47	16.55	0-3	0
		50	25	16.59	16.53	16.52	0-3	0
		50	49	16.52	16.47	16.57	0-3	0
		100	0	16.55	16.56	16.53	0-3	0
	256QAM	1	0	16.57	16.44	16.57	0-5	0
		1	49	16.63	16.66	16.64	0-5	0
		1	99	16.73	16.66	16.74	0-5	0
		50	0	16.48	16.49	16.55	0-5	0
		50	25	16.57	16.52	16.50	0-5	0
		50	49	16.54	16.50	16.62	0-5	0
		100	0	16.61	16.58	16.52	0-5	0

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11.3.9 LTE FDD Band 26 Maximum Conducted Output Power

LTE FDD Band 26 Conducted Power _ Measured *Pmax*, RSI = 1 _ Antenna A

LTE FDD Band 26 _ 15 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 26865 Ch. 831.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
15 ㎒	QPSK	1	0	24.86	0	0
		1	36	24.62	0	0
		1	74	24.89	0	0
		36	0	23.91	0-1	1
		36	18	23.92	0-1	1
		36	39	24.00	0-1	1
		75	0	23.97	0-1	1
	16QAM	1	0	24.06	0-1	1
		1	36	24.20	0-1	1
		1	74	24.20	0-1	1
		36	0	22.80	0-2	2
		36	18	22.88	0-2	2
		36	39	22.92	0-2	2
		75	0	22.91	0-2	2
	64QAM	1	0	23.09	0-2	2
		1	36	22.85	0-2	2
		1	74	23.06	0-2	2
		36	0	21.84	0-3	3
		36	18	21.93	0-3	3
		36	39	21.94	0-3	3
		75	0	21.90	0-3	3
	256QAM	1	0	20.01	0-5	5
		1	36	19.98	0-5	5
		1	74	20.14	0-5	5
		36	0	19.92	0-5	5
		36	18	19.93	0-5	5
		36	39	19.92	0-5	5
		75	0	19.96	0-5	5

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LTE FDD Band 26 Conducted Power _ Measured RSI = 0_ Antenna A

LTE FDD Band 26 _ 15 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 26865 Ch. 831.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
15 ㎒	QPSK	1	0	22.16	0	0
		1	36	21.72	0	0
		1	74	22.18	0	0
		36	0	22.08	0-1	0
		36	18	22.02	0-1	0
		36	39	22.09	0-1	0
		75	0	22.26	0-1	0
	16QAM	1	0	22.33	0-1	0
		1	36	22.38	0-1	0
		1	74	22.33	0-1	0
		36	0	22.04	0-2	0
		36	18	22.01	0-2	0
		36	39	22.04	0-2	0
		75	0	22.00	0-2	0
	64QAM	1	0	22.31	0-2	0
		1	36	22.02	0-2	0
		1	74	22.26	0-2	0
		36	0	21.85	0-3	0.5
		36	18	21.83	0-3	0.5
		36	39	21.90	0-3	0.5
		75	0	21.85	0-3	0.5
	256QAM	1	0	20.05	0-5	2.5
		1	36	19.87	0-5	2.5
		1	74	20.09	0-5	2.5
		36	0	19.77	0-5	2.5
		36	18	19.77	0-5	2.5
		36	39	19.83	0-5	2.5
		75	0	19.79	0-5	2.5

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LTE FDD Band 26 Conducted Power _ Measured *Pmax*_ Antenna E

LTE FDD Band 26 _ 15 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 26865 Ch. 831.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
15 ㎒	QPSK	1	0	24.66	0	0
		1	36	24.20	0	0
		1	74	24.53	0	0
		36	0	23.60	0-1	1
		36	18	23.53	0-1	1
		36	39	23.55	0-1	1
		75	0	23.59	0-1	1
	16QAM	1	0	23.94	0-1	1
		1	36	23.81	0-1	1
		1	74	23.79	0-1	1
		36	0	22.57	0-2	2
		36	18	22.54	0-2	2
		36	39	22.48	0-2	2
		75	0	22.53	0-2	2
	64QAM	1	0	22.79	0-2	2
		1	36	22.49	0-2	2
		1	74	22.64	0-2	2
		36	0	21.59	0-3	3
		36	18	21.55	0-3	3
		36	39	21.53	0-3	3
		75	0	21.53	0-3	3
	256QAM	1	0	19.81	0-5	5
		1	36	19.65	0-5	5
		1	74	19.71	0-5	5
		36	0	19.59	0-5	5
		36	18	19.53	0-5	5
		36	39	19.53	0-5	5
		75	0	19.55	0-5	5

The report shall not be (partly) reproduced except in full without approval of the laboratory.

LTE FDD Band 26 Conducted Power _ Measured RSI = 0,1_ Antenna E

LTE FDD Band 26 _ 15 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 26865 Ch. 831.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
15 ㎒	QPSK	1	0	19.88	0	0
		1	36	19.34	0	0
		1	74	19.76	0	0
		36	0	19.75	0-1	0
		36	18	19.71	0-1	0
		36	39	19.71	0-1	0
		75	0	19.73	0-1	0
	16QAM	1	0	20.11	0-1	0
		1	36	20.03	0-1	0
		1	74	19.88	0-1	0
		36	0	19.76	0-2	0
		36	18	19.70	0-2	0
		36	39	19.69	0-2	0
		75	0	19.71	0-2	0
	64QAM	1	0	20.00	0-2	0
		1	36	19.70	0-2	0
		1	74	19.87	0-2	0
		36	0	19.77	0-3	0
		36	18	19.69	0-3	0
		36	39	19.71	0-3	0
		75	0	19.70	0-3	0
	256QAM	1	0	19.79	0-5	0
		1	36	19.59	0-5	0
		1	74	19.63	0-5	0
		36	0	19.57	0-5	0
		36	18	19.52	0-5	0
		36	39	19.51	0-5	0
		75	0	19.55	0-5	0

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11.3.10 LTE FDD Band 30 Maximum Conducted Output Power

LTE FDD Band 30 Conducted Power_ Measured *Pmax*, RSI = 1 _ Antenna A

LTE TDD Band 30 _ 10 MHz Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 27710 Ch. 2310 MHz	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 MHz	QPSK	1	0	23.31	0	0
		1	24	23.13	0	0
		1	49	23.05	0	0
		25	0	23.20	0-1	1
		25	12	23.14	0-1	1
		25	24	23.10	0-1	1
		50	0	23.23	0-1	1
	16QAM	1	0	22.40	0-1	1
		1	24	22.36	0-1	1
		1	49	22.28	0-1	1
		25	0	22.20	0-2	2
		25	12	22.19	0-2	2
		25	24	22.11	0-2	2
		50	0	22.45	0-2	2
	64QAM	1	0	21.31	0-2	2
		1	24	21.09	0-2	2
		1	49	21.22	0-2	2
		25	0	21.21	0-3	3
		25	12	21.24	0-3	3
		25	24	21.19	0-3	3
		50	0	21.43	0-3	3
	256QAM	1	0	18.53	0-5	5
		1	24	18.76	0-5	5
		1	49	18.43	0-5	5
		25	0	18.30	0-5	5
		25	12	18.26	0-5	5
		25	24	18.33	0-5	5
		50	0	18.54	0-5	5

The report shall not be (partly) reproduced except in full without approval of the laboratory.

LTE FDD Band 30 Conducted Power_ Measured RSI = 0_ Antenna A

LTE TDD Band 30 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 27710 Ch. 2310 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	17.01	0	0
		1	24	16.77	0	0
		1	49	16.99	0	0
		25	0	16.97	0-1	0
		25	12	16.96	0-1	0
		25	24	16.99	0-1	0
		50	0	17.00	0-1	0
	16QAM	1	0	17.24	0-1	0
		1	24	17.15	0-1	0
		1	49	17.30	0-1	0
		25	0	16.95	0-2	0
		25	12	16.99	0-2	0
		25	24	16.95	0-2	0
		50	0	17.01	0-2	0
	64QAM	1	0	17.13	0-2	0
		1	24	16.51	0-2	0
		1	49	17.15	0-2	0
		25	0	16.97	0-3	0
		25	12	16.97	0-3	0
		25	24	16.94	0-3	0
		50	0	17.03	0-3	0
	256QAM	1	0	17.14	0-5	0
		1	24	17.29	0-5	0
		1	49	17.21	0-5	0
		25	0	17.01	0-5	0
		25	12	16.99	0-5	0
		25	24	17.02	0-5	0
		50	0	17.02	0-5	0

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LTE FDD Band 30 Conducted Power_ Measured *Pmax* _ Antenna F

LTE TDD Band 30 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 27710 Ch. 2310 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	22.91	0	0
		1	24	22.64	0	0
		1	49	22.81	0	0
		25	0	21.78	0-1	1
		25	12	21.78	0-1	1
		25	24	21.74	0-1	1
		50	0	21.79	0-1	1
	16QAM	1	0	22.13	0-1	1
		1	24	21.89	0-1	1
		1	49	21.96	0-1	1
		25	0	20.80	0-2	2
		25	12	20.79	0-2	2
		25	24	20.75	0-2	2
		50	0	20.82	0-2	2
	64QAM	1	0	21.03	0-2	2
		1	24	20.25	0-2	2
		1	49	20.93	0-2	2
		25	0	19.84	0-3	3
		25	12	19.81	0-3	3
		25	24	19.78	0-3	3
		50	0	19.81	0-3	3
	256QAM	1	0	18.10	0-5	5
		1	24	18.27	0-5	5
		1	49	17.96	0-5	5
		25	0	17.87	0-5	5
		25	12	17.85	0-5	5
		25	24	17.84	0-5	5
		50	0	17.88	0-5	5

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LTE FDD Band 30 Conducted Power_ Measured RSI=0,1_ Antenna F

LTE TDD Band 30 _ 10 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 27710 Ch. 2310 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
10 ㎒	QPSK	1	0	18.46	0	0
		1	24	18.31	0	0
		1	49	18.58	0	0
		25	0	18.61	0-1	0
		25	12	18.54	0-1	0
		25	24	18.58	0-1	0
		50	0	18.52	0-1	0
	16QAM	1	0	18.81	0-1	0
		1	24	18.61	0-1	0
		1	49	18.85	0-1	0
		25	0	18.49	0-2	0
		25	12	18.51	0-2	0
		25	24	18.46	0-2	0
		50	0	18.53	0-2	0
	64QAM	1	0	18.59	0-2	0
		1	24	18.06	0-2	0
		1	49	18.62	0-2	0
		25	0	18.43	0-3	0
		25	12	18.56	0-3	0
		25	24	18.48	0-3	0
		50	0	18.58	0-3	0
	256QAM	1	0	18.70	0-5	0
		1	24	18.80	0-5	0
		1	49	18.78	0-5	0
		25	0	18.48	0-5	0
		25	12	18.50	0-5	0
		25	24	18.54	0-5	0
		50	0	18.57	0-5	0

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11.3.11 LTE TDD Band 38 Maximum Conducted Output Power

LTE TDD Band 38 Conducted Power_ Measured *Pmax*, RSI = 1 _ Antenna B

LTE TDD Band 38 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37850 2580 ㎒	38000 Ch. 2595 ㎒	38150 2610 ㎒		
20 ㎒	QPSK	1	0	23.53	23.69	23.57	0	0
		1	49	23.60	23.54	23.28	0	0
		1	99	23.53	23.41	23.23	0	0
		50	0	22.68	22.72	22.52	0-1	1
		50	25	22.67	22.71	22.41	0-1	1
		50	49	22.67	22.60	22.37	0-1	1
		100	0	22.70	22.73	22.45	0-1	1
	16QAM	1	0	22.66	22.72	22.60	0-1	1
		1	49	22.82	22.83	22.61	0-1	1
		1	99	22.62	22.49	22.32	0-1	1
		50	0	21.71	21.74	21.55	0-2	2
		50	25	21.69	21.73	21.47	0-2	2
		50	49	21.69	21.63	21.40	0-2	2
		100	0	21.73	21.78	21.50	0-2	2
	64QAM	1	0	21.40	21.47	21.36	0-2	2
		1	49	21.35	21.42	21.14	0-2	2
		1	99	21.32	21.19	21.01	0-2	2
		50	0	20.80	20.83	20.64	0-3	3
		50	25	20.76	20.82	20.56	0-3	3
		50	49	20.76	20.70	20.47	0-3	3
		100	0	20.71	20.74	20.47	0-3	3
	256QAM	1	0	19.20	18.69	18.59	0-5	5
		1	49	18.63	18.21	18.02	0-5	5
		1	99	18.53	18.40	18.23	0-5	5
		50	0	18.73	18.77	18.60	0-5	5
		50	25	18.71	18.77	18.50	0-5	5
		50	49	18.72	18.68	18.47	0-5	5
		100	0	18.69	18.74	18.50	0-5	5

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LTE TDD Band 38 Conducted Power_ Measured RSI = 0_ Antenna B

LTE TDD Band 38 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37850 2580 ㎒	38000 Ch. 2595 ㎒	38150 2610 ㎒		
20 ㎒	QPSK	1	0	20.00	20.09	20.24	0	0
		1	49	19.94	19.99	20.13	0	0
		1	99	19.91	20.16	20.22	0	0
		50	0	19.99	20.04	20.22	0-1	0
		50	25	20.07	20.07	20.22	0-1	0
		50	49	20.00	20.15	20.20	0-1	0
		100	0	20.07	20.11	20.28	0-1	0
	16QAM	1	0	20.00	20.01	20.18	0-1	0
		1	49	20.19	20.24	20.44	0-1	0
		1	99	19.98	20.20	20.32	0-1	0
		50	0	19.99	20.07	20.22	0-2	0
		50	25	20.07	20.09	20.26	0-2	0
		50	49	20.00	20.17	20.24	0-2	0
		100	0	20.12	20.14	20.29	0-2	0
	64QAM	1	0	19.74	19.76	19.92	0-2	0
		1	49	19.60	19.61	19.75	0-2	0
		1	99	19.65	19.87	19.95	0-2	0
		50	0	20.03	20.11	20.28	0-3	0
		50	25	20.13	20.16	20.29	0-3	0
		50	49	20.03	20.23	20.33	0-3	0
		100	0	20.03	20.09	20.28	0-3	0
	256QAM	1	0	19.03	19.05	19.19	0-5	1
		1	49	18.71	18.74	18.90	0-5	1
		1	99	18.93	19.16	19.29	0-5	1
		50	0	19.11	19.21	19.38	0-5	1
		50	25	19.18	19.26	19.37	0-5	1
		50	49	19.14	19.35	19.38	0-5	1
		100	0	19.14	19.18	19.37	0-5	1

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LTE TDD Band 38 Conducted Power_ Measured *Pmax* _ Antenna F

LTE TDD Band 38 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37850 2580 ㎒	38000 Ch. 2595 ㎒	38150 2610 ㎒		
20 ㎒	QPSK	1	0	21.85	21.84	21.76	0	0
		1	49	21.65	21.56	21.44	0	0
		1	99	21.64	21.54	21.46	0	0
		50	0	20.78	20.71	20.59	0-1	1
		50	25	20.80	20.66	20.53	0-1	1
		50	49	20.70	20.60	20.48	0-1	1
		100	0	20.81	20.68	20.55	0-1	1
	16QAM	1	0	20.88	20.80	20.70	0-1	1
		1	49	21.02	20.93	20.80	0-1	1
		1	99	20.74	20.64	20.57	0-1	1
		50	0	19.82	19.75	19.62	0-2	2
		50	25	19.83	19.69	19.55	0-2	2
		50	49	19.74	19.65	19.51	0-2	2
		100	0	19.87	19.74	19.62	0-2	2
	64QAM	1	0	19.62	19.53	19.43	0-2	2
		1	49	19.37	19.26	19.13	0-2	2
		1	99	19.42	19.32	19.24	0-2	2
		50	0	18.91	18.85	18.72	0-3	3
		50	25	18.93	18.78	18.66	0-3	3
		50	49	18.82	18.73	18.60	0-3	3
		100	0	18.86	18.73	18.59	0-3	3
	256QAM	1	0	16.83	16.74	16.65	0-5	5
		1	49	16.45	16.32	16.16	0-5	5
		1	99	16.65	16.53	16.44	0-5	5
		50	0	16.89	16.81	16.70	0-5	5
		50	25	16.92	16.78	16.65	0-5	5
		50	49	16.82	16.73	16.58	0-5	5
		100	0	16.87	16.73	16.60	0-5	5

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LTE TDD Band 38 Conducted Power_ Measured RSI = 0,1_ Antenna F

LTE TDD Band 38 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				37850 2580 ㎒	38000 Ch. 2595 ㎒	38150 2610 ㎒		
20 ㎒	QPSK	1	0	23.25	23.24	23.16	0	0
		1	49	23.05	22.96	22.84	0	0
		1	99	23.04	22.94	22.86	0	0
		50	0	22.18	22.11	21.99	0-1	1
		50	25	22.20	22.06	21.93	0-1	1
		50	49	22.10	22.00	21.88	0-1	1
		100	0	22.21	22.08	21.95	0-1	1
	16QAM	1	0	22.28	22.20	22.10	0-1	1
		1	49	22.42	22.33	22.20	0-1	1
		1	99	22.14	22.04	21.97	0-1	1
		50	0	21.22	21.15	21.02	0-2	2
		50	25	21.23	21.09	20.95	0-2	2
		50	49	21.14	21.05	20.91	0-2	2
		100	0	21.27	21.14	21.02	0-2	2
	64QAM	1	0	21.02	20.93	20.83	0-2	2
		1	49	20.77	20.66	20.53	0-2	2
		1	99	20.82	20.72	20.64	0-2	2
		50	0	20.31	20.25	20.12	0-3	3
		50	25	20.33	20.18	20.06	0-3	3
		50	49	20.22	20.13	20.00	0-3	3
		100	0	20.26	20.13	19.99	0-3	3
	256QAM	1	0	18.23	18.14	18.05	0-5	5
		1	49	17.85	17.72	17.56	0-5	5
		1	99	18.05	17.93	17.84	0-5	5
		50	0	18.29	18.21	18.10	0-5	5
		50	25	18.32	18.18	18.05	0-5	5
		50	49	18.22	18.13	17.98	0-5	5
		100	0	18.27	18.13	18.00	0-5	5

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11.3.12 LTE TDD Band 41 Maximum Conducted Output Power

LTE TDD Band 41 Conducted Power _ Measured *Pmax*, RSI = 1 _ Antenna B

LTE TDD Band 41 _ 20 ㎒ Bandwidth Conducted Power

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	24.04	23.99	24.33	23.83	24.23	0	0
		1	49	24.09	23.82	24.04	24.00	24.15	0	0
		1	99	24.06	23.96	23.96	23.92	24.23	0	0
		50	0	23.24	23.12	23.40	23.03	23.37	0-1	1
		50	25	23.29	23.06	23.21	23.02	23.35	0-1	1
		50	49	23.28	23.06	23.16	22.98	23.35	0-1	1
		100	0	23.32	23.06	23.23	23.01	23.36	0-1	1
	16QAM	1	0	23.04	22.85	23.20	22.94	23.20	0-1	1
		1	49	23.17	23.03	23.31	23.06	23.39	0-1	1
		1	99	23.02	22.98	23.00	22.94	23.25	0-1	1
		50	0	22.17	22.06	22.22	22.04	22.36	0-2	2
		50	25	22.21	22.03	22.23	22.02	22.34	0-2	2
		50	49	22.20	22.03	22.18	21.98	22.35	0-2	2
		100	0	22.26	22.04	22.26	22.06	22.39	0-2	2
	64QAM	1	0	21.81	21.60	21.95	21.69	21.96	0-2	2
		1	49	21.71	21.66	21.88	21.74	22.00	0-2	2
		1	99	21.74	21.67	21.70	21.65	21.95	0-2	2
		50	0	21.23	21.12	21.30	21.12	21.43	0-3	3
		50	25	21.26	21.08	21.30	21.08	21.40	0-3	3
		50	49	21.25	21.08	21.25	21.05	21.41	0-3	3
		100	0	21.22	20.99	21.24	21.02	21.35	0-3	3
	256QAM	1	0	19.10	18.84	19.19	19.05	19.18	0-5	5
		1	49	19.28	18.49	18.67	18.65	18.73	0-5	5
		1	99	19.12	18.90	18.93	18.97	19.15	0-5	5
		50	0	19.34	19.07	19.28	19.22	19.40	0-5	5
		50	25	19.32	19.00	19.28	19.19	19.38	0-5	5
		50	49	19.33	19.05	19.23	19.15	19.39	0-5	5
		100	0	19.30	19.00	19.23	19.24	19.33	0-5	5

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

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LTE TDD Band 41 Conducted Power (Power Class 3) _ Measured RSI = 0_ Antenna B

LTE TDD Band 41 _ 20 ㎒ Bandwidth Conducted Power

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	20.01	19.92	20.22	19.89	20.07	0	0
		1	49	19.87	19.78	19.86	19.84	20.00	0	0
		1	99	19.97	19.80	19.85	19.87	20.02	0	0
		50	0	20.08	19.86	20.21	19.85	20.10	0-1	0
		50	25	20.05	19.86	19.87	19.76	20.05	0-1	0
		50	49	20.05	19.83	19.83	19.83	20.04	0-1	0
		100	0	20.06	19.85	19.90	19.81	20.08	0-1	0
	16QAM	1	0	20.01	19.87	20.00	19.80	20.01	0-1	0
		1	49	20.16	19.95	20.10	19.90	20.21	0-1	0
		1	99	20.06	19.86	19.88	19.86	20.09	0-1	0
		50	0	20.10	19.89	19.94	19.79	20.05	0-2	0
		50	25	20.05	19.83	19.93	19.78	20.06	0-2	0
		50	49	20.09	19.81	19.91	19.81	20.08	0-2	0
		100	0	20.09	19.88	19.99	19.85	20.15	0-2	0
	64QAM	1	0	19.73	19.63	19.66	19.52	19.71	0-2	0
		1	49	19.61	19.40	19.49	19.34	19.66	0-2	0
		1	99	19.73	19.52	19.56	19.54	19.76	0-2	0
		50	0	20.18	19.94	19.99	19.83	20.15	0-3	0
		50	25	20.14	19.92	19.97	19.86	20.14	0-3	0
		50	49	20.14	19.90	19.98	19.85	20.16	0-3	0
		100	0	20.07	19.90	19.92	19.80	20.11	0-3	0
	256QAM	1	0	19.07	18.88	18.96	18.80	19.03	0-5	2
		1	49	18.93	18.71	18.73	18.62	18.90	0-5	2
		1	99	19.05	18.80	18.85	18.80	19.07	0-5	2
		50	0	19.23	19.01	19.10	18.96	19.22	0-5	2
		50	25	19.25	19.02	19.07	18.95	19.25	0-5	2
		50	49	19.22	18.96	19.07	18.96	19.22	0-5	2
		100	0	19.16	18.97	19.06	18.88	19.25	0-5	2

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

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LTE TDD Band 41 Conducted Power _ Measured *Pmax* _ Antenna F

LTE TDD Band 41 _ 20 ㎒ Bandwidth Conducted Power

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	22.60	22.93	22.91	22.65	23.29	0	0
		1	49	22.59	22.87	22.78	22.74	23.17	0	0
		1	99	22.78	22.92	22.73	22.93	23.18	0	0
		50	0	21.89	22.08	21.95	21.83	22.29	0-1	1
		50	25	21.87	22.10	21.91	21.89	22.31	0-1	1
		50	49	21.87	22.06	21.86	21.93	22.28	0-1	1
		100	0	21.89	22.10	21.93	21.90	22.33	0-1	1
	16QAM	1	0	21.66	21.94	21.96	21.77	22.22	0-1	1
		1	49	21.90	22.16	22.10	22.03	22.47	0-1	1
		1	99	21.80	21.98	21.82	21.93	22.23	0-1	1
		50	0	20.85	21.05	20.97	20.84	21.30	0-2	2
		50	25	20.84	21.06	20.92	20.89	21.31	0-2	2
		50	49	20.85	21.03	20.88	20.92	21.28	0-2	2
		100	0	20.88	21.08	20.97	20.92	21.36	0-2	2
	64QAM	1	0	20.55	20.71	20.72	20.52	20.97	0-2	2
		1	49	20.53	20.57	20.57	20.52	20.83	0-2	2
		1	99	20.53	20.71	20.52	20.64	20.94	0-2	2
		50	0	19.91	20.11	20.03	19.90	20.36	0-3	3
		50	25	19.90	20.13	20.00	19.96	20.39	0-3	3
		50	49	19.90	20.08	19.95	19.98	20.34	0-3	3
		100	0	19.83	20.05	19.95	19.89	20.32	0-3	3
	256QAM	1	0	17.70	17.93	17.95	17.72	18.17	0-5	5
		1	49	17.51	17.63	17.51	17.54	17.85	0-5	5
		1	99	17.75	17.92	17.74	17.84	18.14	0-5	5
		50	0	17.88	18.11	18.02	17.90	18.34	0-5	5
		50	25	17.87	18.12	17.99	17.94	18.37	0-5	5
		50	49	17.89	18.09	17.95	17.97	18.34	0-5	5
		100	0	17.84	18.07	17.96	17.90	18.33	0-5	5

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

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LTE TDD Band 41 Conducted Power (Power Class 3) _ Measured RSI = 0,1_ Antenna F

LTE TDD Band 41 _ 20 ㎒ Bandwidth Conducted Power

Band width	Modulation	RB Size	RB Offset	Max. Average Power [dBm]					MPR Allowed Per 3GPP [dB]	MPR [dB]
				39750 Ch. 2506.0 ㎒	40185 Ch. 2549.5 ㎒	40620 Ch. 2593.0 ㎒	41055 Ch. 2636.5 ㎒	41490 Ch. 2680.0 ㎒		
20 ㎒	QPSK	1	0	18.97	19.32	19.36	19.07	19.58	0	0
		1	49	18.93	19.43	19.38	18.99	19.56	0	0
		1	99	19.16	19.29	19.07	19.21	19.52	0	0
		50	0	19.10	19.33	19.21	19.09	19.59	0-1	0
		50	25	19.07	19.34	19.16	19.13	19.60	0-1	0
		50	49	19.07	19.30	19.11	19.18	19.55	0-1	0
		100	0	19.12	19.32	19.18	19.18	19.62	0-1	0
	16QAM	1	0	19.08	19.31	19.33	19.13	19.53	0-1	0
		1	49	19.13	19.38	19.30	19.19	19.64	0-1	0
		1	99	19.16	19.33	19.19	19.31	19.57	0-1	0
		50	0	19.13	19.35	19.26	19.11	19.58	0-2	0
		50	25	19.13	19.35	19.20	19.18	19.59	0-2	0
		50	49	19.10	19.31	19.16	19.19	19.56	0-2	0
		100	0	19.12	19.37	19.27	19.21	19.62	0-2	0
	64QAM	1	0	18.77	19.05	19.02	18.84	19.28	0-2	0
		1	49	18.70	18.94	18.78	18.71	19.17	0-2	0
		1	99	18.83	19.01	18.83	18.93	19.25	0-2	0
		50	0	19.18	19.42	19.33	19.19	19.64	0-3	0
		50	25	19.20	19.43	19.29	19.25	19.67	0-3	0
		50	49	19.21	19.37	19.23	19.31	19.62	0-3	0
		100	0	19.11	19.34	19.24	19.18	19.62	0-3	0
	256QAM	1	0	18.08	18.30	18.36	18.10	18.53	0-5	1
		1	49	18.03	18.21	18.15	18.04	18.48	0-5	1
		1	99	18.14	18.29	18.15	18.25	18.51	0-5	1
		50	0	18.28	18.46	18.43	18.28	18.76	0-5	1
		50	25	18.24	18.52	18.40	18.32	18.76	0-5	1
		50	49	18.28	18.48	18.35	18.38	18.74	0-5	1
		100	0	18.21	18.48	18.37	18.30	18.73	0-5	1

Note; LTE Band 41 has 5 required test channels per FCC KDB 447498 D01v06.

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11.3.13 LTE TDD Band 48 Maximum Conducted Output Power

LTE TDD Band 48 Conducted Power_ Measured *Pmax*_ Antenna F

LTE TDD Band 48 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR Allowed Per 3GPP [dB]	MPR [dB]
				55340Ch. 3560.0 ㎒	55773 Ch. 3603.3 ㎒	56207 Ch. 3646.7 ㎒	56640 Ch. 3690.0 ㎒		
20 ㎒	QPSK	1	0	23.03	23.16	23.05	23.08	0	0
		1	49	23.25	23.23	23.07	23.04	0	0
		1	99	23.02	23.30	23.05	23.06	0	0
		50	0	22.13	22.19	22.07	22.15	0-1	1
		50	25	22.10	22.24	22.05	22.10	0-1	1
		50	49	22.10	22.31	22.04	22.00	0-1	1
		100	0	22.12	22.25	22.05	22.09	0-1	1
	16QAM	1	0	22.13	22.18	22.06	22.05	0-1	1
		1	49	22.13	22.23	22.03	22.02	0-1	1
		1	99	22.10	22.37	22.11	22.13	0-1	1
		50	0	21.14	21.20	21.06	21.04	0-2	2
		50	25	21.11	21.25	21.05	21.15	0-2	2
		50	49	21.10	21.32	21.04	21.04	0-2	2
		100	0	21.15	21.29	21.08	21.14	0-2	2
	64QAM	1	0	20.86	20.90	20.78	20.79	0-2	2
		1	49	21.09	21.24	21.06	20.85	0-2	2
		1	99	20.78	21.04	20.79	20.64	0-2	2
		50	0	20.23	20.26	20.14	20.12	0-3	3
		50	25	20.19	20.31	20.12	20.09	0-3	3
		50	49	20.18	20.37	20.11	19.94	0-3	3
		100	0	20.14	20.25	20.05	20.17	0-3	3
	256QAM	1	0	18.06	18.08	17.97	17.87	0-5	5
		1	49	17.84	17.98	17.81	17.72	0-5	5
		1	99	17.96	18.21	17.96	17.85	0-5	5
		50	0	18.21	18.25	18.13	18.01	0-5	5
		50	25	18.17	18.28	18.09	18.04	0-5	5
		50	49	18.18	18.38	18.11	18.05	0-5	5
		100	0	18.15	18.27	18.08	18.00	0-5	5

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LTE TDD Band 48 Conducted Power_ Measured RSI = 0,1_Antenna F

LTE TDD Band 48 _ 20 MHz Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR Allowed Per 3GPP [dB]	MPR [dB]
				55340Ch. 3560.0 MHz	55773 Ch. 3603.3 MHz	56207 Ch. 3646.7 MHz	56640 Ch. 3690.0 MHz		
20 MHz	QPSK	1	0	15.81	15.93	15.84	15.78	0	0
		1	49	15.90	15.86	15.69	16.03	0	0
		1	99	15.84	16.12	15.85	16.24	0	0
		50	0	15.89	15.93	15.83	15.95	0-1	0
		50	25	15.85	15.99	15.82	15.99	0-1	0
		50	49	15.84	16.05	15.81	16.20	0-1	0
		100	0	15.87	15.99	15.81	16.02	0-1	0
	16QAM	1	0	15.89	15.93	15.84	15.86	0-1	0
		1	49	16.02	16.14	15.95	16.17	0-1	0
		1	99	15.85	16.12	15.89	16.24	0-1	0
		50	0	15.88	15.93	15.83	15.94	0-2	0
		50	25	15.86	15.99	15.82	15.99	0-2	0
		50	49	15.84	16.06	15.82	16.12	0-2	0
		100	0	15.89	16.02	15.85	16.04	0-2	0
	64QAM	1	0	15.60	15.65	15.54	15.59	0-2	0
		1	49	15.52	15.67	15.50	15.62	0-2	0
		1	99	15.52	15.79	15.55	15.91	0-2	0
		50	0	15.95	16.01	15.90	16.02	0-3	0
		50	25	15.94	16.07	15.88	16.07	0-3	0
		50	49	15.91	16.13	15.86	16.18	0-3	0
		100	0	15.87	16.00	15.82	16.02	0-3	0
	256QAM	1	0	15.39	15.44	15.34	15.38	0-5	0
		1	49	14.90	15.04	14.86	15.07	0-5	0
		1	99	15.32	15.60	15.34	15.70	0-5	0
		50	0	15.55	15.62	15.50	15.62	0-5	0
		50	25	15.53	15.68	15.49	15.66	0-5	0
		50	49	15.52	15.74	15.49	15.79	0-5	0
		100	0	15.49	15.63	15.44	15.64	0-5	0

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11.3.14 LTE FDD Band 66 Maximum Conducted Output Power

LTE FDD Band 66 Conducted Power_ Measured *Pmax*, RSI = 1 _ Antenna A

LTE FDD Band 66 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	23.94	23.59	23.47	0	0
		1	49	23.72	23.34	23.44	0	0
		1	99	23.81	23.50	23.71	0	0
		50	0	22.99	22.53	22.51	0-1	1
		50	25	22.95	22.44	22.55	0-1	1
		50	49	22.82	22.51	22.59	0-1	1
		100	0	23.99	23.52	23.48	0-1	1
	16QAM	1	0	23.20	22.82	22.76	0-1	1
		1	49	23.11	22.64	22.65	0-1	1
		1	99	23.06	22.72	22.90	0-1	1
		50	0	22.04	21.56	21.52	0-2	2
		50	25	21.96	21.52	21.64	0-2	2
		50	49	21.86	21.50	21.67	0-2	2
		100	0	22.89	22.78	22.73	0-2	2
	64QAM	1	0	22.21	21.66	21.60	0-2	2
		1	49	21.83	21.47	21.48	0-2	2
		1	99	21.98	21.64	21.96	0-2	2
		50	0	21.06	20.59	20.59	0-3	3
		50	25	20.99	20.59	20.71	0-3	3
		50	49	20.93	20.47	20.74	0-3	3
		100	0	21.97	21.59	21.71	0-3	3
	256QAM	1	0	19.06	19.03	19.04	0-5	5
		1	49	19.09	19.03	19.04	0-5	5
		1	99	19.02	19.04	19.07	0-5	5
		50	0	18.96	18.99	18.96	0-5	5
		50	25	18.93	18.95	18.97	0-5	5
		50	49	18.99	18.97	18.92	0-5	5
		100	0	18.96	18.92	18.95	0-5	5

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LTE FDD Band 66 Conducted Power_ Measured RSI = 0_ Antenna A

LTE FDD Band 66 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	15.15	15.04	14.72	0	0
		1	49	14.88	14.34	15.03	0	0
		1	99	15.02	14.72	15.02	0	0
		50	0	15.20	14.66	14.75	0-1	0
		50	25	15.19	14.73	15.03	0-1	0
		50	49	15.07	14.79	15.08	0-1	0
		100	0	15.23	14.65	14.84	0-1	0
	16QAM	1	0	14.94	14.52	14.34	0-1	0
		1	49	14.97	14.50	14.79	0-1	0
		1	99	14.76	14.45	14.82	0-1	0
		50	0	14.70	14.16	14.30	0-2	0
		50	25	14.65	14.23	14.36	0-2	0
		50	49	14.61	14.23	14.37	0-2	0
		100	0	14.68	14.16	14.35	0-2	0
	64QAM	1	0	14.74	14.49	14.29	0-2	0
		1	49	14.54	14.20	14.26	0-2	0
		1	99	14.65	14.34	14.57	0-2	0
		50	0	14.66	14.26	14.27	0-3	0
		50	25	14.71	14.30	14.32	0-3	0
		50	49	14.53	14.26	14.43	0-3	0
		100	0	14.64	14.20	14.31	0-3	0
	256QAM	1	0	14.51	14.35	14.23	0-5	0
		1	49	14.77	14.32	14.46	0-5	0
		1	99	14.46	14.34	14.41	0-5	0
		50	0	14.65	14.22	14.21	0-5	0
		50	25	14.41	14.23	14.33	0-5	0
		50	49	14.55	14.23	14.35	0-5	0
		100	0	14.61	14.22	14.35	0-5	0

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LTE FDD Band 66 (Upper) Conducted Power_ Measured *Pmax* _ Antenna F

LTE FDD Band 66 (Upper)_ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	23.99	23.71	23.31	0	0
		1	49	24.25	23.26	23.22	0	0
		1	99	23.90	23.22	23.20	0	0
		50	0	23.29	22.36	22.42	0-1	1
		50	25	23.23	22.29	22.37	0-1	1
		50	49	23.07	22.16	22.38	0-1	1
		100	0	23.23	22.28	22.35	0-1	1
	16QAM	1	0	23.36	22.95	22.65	0-1	1
		1	49	23.40	22.55	22.52	0-1	1
		1	99	23.13	22.49	22.55	0-1	1
		50	0	22.19	21.59	21.44	0-2	2
		50	25	22.24	21.44	21.39	0-2	2
		50	49	22.21	21.35	21.38	0-2	2
		100	0	22.20	21.54	21.43	0-2	2
	64QAM	1	0	22.34	21.95	21.43	0-2	2
		1	49	22.49	21.01	20.99	0-2	2
		1	99	22.26	21.46	21.54	0-2	2
		50	0	21.24	20.63	20.48	0-3	3
		50	25	21.34	20.54	20.35	0-3	3
		50	49	21.18	20.41	20.54	0-3	3
		100	0	21.27	20.61	20.53	0-3	3
	256QAM	1	0	18.99	18.98	19.03	0-5	5
		1	49	19.03	19.01	19.01	0-5	5
		1	99	19.03	19.01	19.00	0-5	5
		50	0	18.93	18.94	18.96	0-5	5
		50	25	18.92	18.88	18.90	0-5	5
		50	49	18.94	18.89	18.86	0-5	5
		100	0	18.94	18.86	18.93	0-5	5

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LTE FDD Band 66 (Upper) Conducted Power_ Measured RSI = 0,1 _ Antenna F

LTE FDD Band 66 (Upper)_ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR Allowed Per 3GPP [dB]	MPR [dB]
				132072 Ch. 1720 ㎒	132322 Ch. 1745 ㎒	132572 Ch. 1770 ㎒		
20 ㎒	QPSK	1	0	17.75	17.01	17.13	0	0
		1	49	17.51	16.94	17.25	0	0
		1	99	17.52	16.69	17.21	0	0
		50	0	17.72	17.01	17.18	0-1	0
		50	25	17.56	16.98	17.16	0-1	0
		50	49	17.52	16.82	17.14	0-1	0
		100	0	17.58	16.98	17.13	0-1	0
	16QAM	1	0	17.93	17.40	17.34	0-1	0
		1	49	17.92	17.26	17.45	0-1	0
		1	99	17.84	17.04	17.49	0-1	0
		50	0	17.61	17.04	17.16	0-2	0
		50	25	17.56	16.96	17.13	0-2	0
		50	49	17.55	16.84	17.18	0-2	0
		100	0	17.60	16.93	17.20	0-2	0
	64QAM	1	0	17.77	17.33	17.27	0-2	0
		1	49	17.55	17.22	17.04	0-2	0
		1	99	17.64	17.02	17.45	0-2	0
		50	0	17.59	17.04	17.17	0-3	0
		50	25	17.56	16.95	17.19	0-3	0
		50	49	17.55	16.65	17.15	0-3	0
		100	0	17.58	16.95	17.16	0-3	0
	256QAM	1	0	17.72	17.31	17.28	0-5	0
		1	49	17.69	17.24	17.41	0-5	0
		1	99	17.58	16.82	17.32	0-5	0
		50	0	17.58	17.03	17.16	0-5	0
		50	25	17.60	16.97	17.11	0-5	0
		50	49	17.57	16.82	17.17	0-5	0
		100	0	17.61	16.92	17.21	0-5	0

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11.3.15 LTE FDD Band 71 Maximum Conducted Output Power

LTE FDD Band 71 Conducted Power _ Measured *Pmax*, RSI = 0,1_ Antenna A

LTE FDD Band 71 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 133297 Ch. 680.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
20 ㎒	QPSK	1	0	24.90	0	0
		1	49	24.61	0	0
		1	99	24.44	0	0
		50	0	23.90	0-1	1
		50	25	23.71	0-1	1
		50	49	23.58	0-1	1
		100	0	23.71	0-1	1
	16QAM	1	0	23.71	0-1	1
		1	49	23.77	0-1	1
		1	99	23.70	0-1	1
		50	0	22.88	0-2	2
		50	25	22.59	0-2	2
		50	49	22.53	0-2	2
		100	0	22.70	0-2	2
	64QAM	1	0	23.04	0-2	2
		1	49	22.55	0-2	2
		1	99	22.67	0-2	2
		50	0	21.90	0-3	3
		50	25	21.58	0-3	3
		50	49	21.53	0-3	3
		100	0	21.67	0-3	3
	256QAM	1	0	19.91	0-5	5
		1	49	19.55	0-5	5
		1	99	19.43	0-5	5
		50	0	19.78	0-5	5
		50	25	19.57	0-5	5
		50	49	19.47	0-5	5
		100	0	19.65	0-5	5

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LTE FDD Band 71 Conducted Power _ Measured *Pmax*_ Antenna E

LTE FDD Band 71 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 133297 Ch. 680.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
20 ㎒	QPSK	1	0	24.12	0	0
		1	49	23.98	0	0
		1	99	23.85	0	0
		50	0	22.99	0-1	1
		50	25	22.85	0-1	1
		50	49	22.82	0-1	1
		100	0	22.90	0-1	1
	16QAM	1	0	23.45	0-1	1
		1	49	22.95	0-1	1
		1	99	23.20	0-1	1
		50	0	21.98	0-2	2
		50	25	21.90	0-2	2
		50	49	21.81	0-2	2
		100	0	21.89	0-2	2
	64QAM	1	0	23.40	0-2	2
		1	49	23.06	0-2	2
		1	99	23.03	0-2	2
		50	0	22.06	0-3	3
		50	25	21.89	0-3	3
		50	49	21.88	0-3	3
		100	0	21.91	0-3	3
	256QAM	1	0	19.30	0-5	5
		1	49	19.32	0-5	5
		1	99	19.00	0-5	5
		50	0	19.03	0-5	5
		50	25	18.88	0-5	5
		50	49	18.82	0-5	5
		100	0	18.83	0-5	5

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LTE FDD Band 71 Conducted Power _ Measured RSI=0,1_ Antenna E

LTE FDD Band 71 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 133297 Ch. 680.5 ㎒	MPR Allowed Per 3GPP [dB]	MPR [dB]
20 ㎒	QPSK	1	0	20.71	0	0
		1	49	20.55	0	0
		1	99	20.55	0	0
		50	0	20.59	0-1	0
		50	25	20.49	0-1	0
		50	49	20.53	0-1	0
		100	0	20.47	0-1	0
	16QAM	1	0	20.86	0-1	0
		1	49	20.82	0-1	0
		1	99	20.79	0-1	0
		50	0	20.58	0-2	0
		50	25	20.49	0-2	0
		50	49	20.48	0-2	0
		100	0	20.47	0-2	0
	64QAM	1	0	20.84	0-2	0
		1	49	20.54	0-2	0
		1	99	20.57	0-2	0
		50	0	20.58	0-3	0
		50	25	20.43	0-3	0
		50	49	20.44	0-3	0
		100	0	20.40	0-3	0
	256QAM	1	0	18.95	0-5	1
		1	49	18.49	0-5	1
		1	99	18.66	0-5	1
		50	0	18.74	0-5	1
		50	25	18.61	0-5	1
		50	49	18.67	0-5	1
		100	0	18.60	0-5	1

The EUT enables maximum power reduction in accordance with 3GPP 36.101. The MPR settings are configured during the manufacture process and are not configurable by the network, carrier, or end user.

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11.3.16 LTE Uplink Carrier Aggregation Maximum Conducted Output Power

Combination	PCC							SCC						Tx Power	
	Band	BW	PCC UL Channel	PCC UL Frequency	Mode	RB	offset	Band	BW	SCC UL Channel	SCC UL Frequency	RB	offset	LTE Single Carrier Tx Power (dBm)	LTE Tx Power witU UL CA Enabled(dBm)
48C	48	20	56640	3690	QPSK	50	0	48	20	56442	3670.2	50	49	16.2	16.18

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11.4 NR Maximum Output Power

Only the Conducted Power measurement results of the maximum bandwidth, which is the SAR test condition of NR Bands according to FCC KDB 941225 D05v02r05, are included, and the measurement results of other bandwidths are listed in Appendix K.

11.4.1 NR FDD Band n2 Maximum Conducted Power

NR FDD Band n2 Conducted Power_ Measured *Pmax*, RSI = 1 _ Antenna A

NR FDD Band n2 _ 40 MHz Bandwidth Conducted Power

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 376000 1880 MHz	MPR [dB]
40 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	23.88	0
				1	108	24.27	0
				1	214	23.90	0
				108	0	23.65	0.5
				108	54	24.12	0
				108	108	23.57	0.5
				216	0	23.63	0.5
			QPSK	1	1	23.90	0
				1	108	24.16	0
				1	214	23.83	0
				108	0	23.13	1
				108	54	24.18	0
				108	108	23.06	1
				216	0	23.11	1
			16QAM	1	1	22.97	1
			64QAM	1	1	21.50	2.5
			256QAM	1	1	19.42	4.5
		CP	QPSK	1	1	22.42	1.5

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NR FDD Band n2 Conducted Power_ Measured RSI = 0_ Antenna A

NR FDD Band n2 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 376000 1880 ㎒	MPR [dB]
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	14.01	0
				1	108	14.44	0
				1	214	13.98	0
				108	0	14.20	0
				108	54	14.27	0
				108	108	14.14	0
				216	0	14.26	0
			QPSK	1	1	14.03	0
				1	108	14.37	0
				1	214	13.91	0
				108	0	14.18	0
				108	54	14.26	0
				108	108	14.07	0
				216	0	14.26	0
			16QAM	1	1	14.05	0
			64QAM	1	1	14.05	0
			256QAM	1	1	14.11	0
		CP	QPSK	1	1	14.03	0

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NR FDD Band n2 Conducted Power_ Measured Pmax _ Antenna F

NR FDD Band n2 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							376000		
							1 880 ㎒		
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1		22.46		0
				1	108		22.64		0
				1	214		22.42		0
				108	0		22.00		0.5
				108	54		22.52		0
				108	108		21.98		0.5
				216	0		21.97		0.5
			QPSK	1	1		22.47		0
				1	108		22.55		0
				1	214		22.43		0
				108	0		21.53		1
				108	54		22.50		0
				108	108		21.47		1
				216	0		21.53		1
			16QAM	1	1		21.64		1
			64QAM	1	1		20.26		2.5
			256QAM	1	1		18.07		4.5
		CP	QPSK	1	1		21.06		1.5

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NR FDD Band n2 Conducted Power_ Measured RSI = 0,1_ Antenna F

NR FDD Band n2 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 376000 1880 ㎒	MPR [dB]
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	16.15	0
				1	108	16.39	0
				1	214	16.17	0
				108	0	16.19	0
				108	54	16.25	0
				108	108	16.19	0
				216	0	16.23	0
			QPSK	1	1	16.25	0
				1	108	16.23	0
				1	214	16.16	0
				108	0	16.23	0
				108	54	16.28	0
				108	108	16.18	0
				216	0	16.21	0
			16QAM	1	1	16.29	0
			64QAM	1	1	16.28	0
			256QAM	1	1	16.06	0
		CP	QPSK	1	1	16.24	0

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11.4.2. NR FDD Band n5 Maximum Conducted Power

NR FDD Band n5 Conducted Power_ Measured *Pmax*, RSI = 1 _ Antenna A

NR FDD Band n5_ 20 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 167300 836.5 ㎒	MPR [dB]
20 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	24.84	0
				1	53	25.02	0
				1	104	24.65	0
				50	0	24.30	0.5
				50	28	24.83	0
				50	56	24.29	0.5
				100	0	24.34	0.5
			QPSK	1	1	24.83	0
				1	53	24.86	0
				1	104	24.68	0
				50	0	23.84	0
				50	28	24.85	0
				50	56	23.84	0
				100	0	23.82	0
			16QAM	1	1	23.87	1
			64QAM	1	1	22.43	2.5
			256QAM	1	1	20.48	4.5
		CP	QPSK	1	1	23.35	1.5

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NR FDD Band n5 Conducted Power_ Measured RSI = 0_ Antenna A

NR FDD Band n5_ 20 MHz Bandwidth Conducted Power

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 167300 836.5 MHz	MPR [dB]
20 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	21.32	0
				1	53	21.45	0
				1	104	21.24	0
				50	0	21.39	0
				50	28	21.43	0
				50	56	21.28	0
				100	0	21.42	0
			QPSK	1	1	21.39	0
				1	53	21.40	0
				1	104	21.22	0
				50	0	21.43	0
				50	28	21.41	0
				50	56	21.28	0
				100	0	21.39	0
			16QAM	1	1	21.43	0
			64QAM	1	1	21.43	0
			256QAM	1	1	19.71	0
		CP	QPSK	1	1	21.43	0

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NR FDD Band n5 Conducted Power_ Measured *Pmax*_ Antenna E

NR FDD Band n5_ 20 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 167300 836.5 ㎒	MPR [dB]
20 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	24.99	0
				1	53	25.11	0
				1	104	24.80	0
				50	0	24.43	0.5
				50	28	24.94	0
				50	56	24.39	0.5
				100	0	24.46	0.5
			QPSK	1	1	25.00	0
				1	53	25.02	0
				1	104	24.79	0
				50	0	24.02	0
				50	28	24.93	0
				50	56	23.87	0
				100	0	23.95	0
			16QAM	1	1	24.04	1
			64QAM	1	1	22.60	2.5
			256QAM	1	1	20.46	4.5
		CP	QPSK	1	1	23.49	1.5

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NR FDD Band n5 Conducted Power_ Measured RSI = 0,1_ Antenna E

NR FDD Band n5_ 20 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 167300 836.5 ㎒	MPR [dB]
20 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	20.04	0
				1	53	20.27	0
				1	104	19.86	0
				50	0	20.01	0
				50	28	19.93	0
				50	56	19.96	0
				100	0	19.98	0
			QPSK	1	1	20.07	0
				1	53	20.04	0
				1	104	19.85	0
				50	0	20.07	0
				50	28	19.94	0
				50	56	19.94	0
				100	0	19.98	0
			16QAM	1	1	20.12	0
			64QAM	1	1	20.13	0
			256QAM	1	1	20.10	0
		CP	QPSK	1	1	20.00	0

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11.4.3 NR FDD Band n7 Maximum Conducted Power

NR FDD Band n7 Conducted Power_ Measured *Pmax,* RSI = 1 _ Antenna B

NR FDD Band n7 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 507000 2 535 ㎒	MPR [dB]
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	23.91	0
				1	108	23.99	0
				1	214	23.70	0
				108	0	23.36	0.5
				108	54	23.80	0
				108	108	23.23	0.5
				216	0	23.27	0.5
			QPSK	1	1	23.81	0
				1	108	23.78	0
				1	214	23.70	0
				108	0	22.77	1
				108	54	23.82	0
				108	108	22.70	1
				216	0	22.74	1
			16QAM	1	1	22.71	1
			64QAM	1	1	21.52	2.5
			256QAM	1	1	19.55	4.5
		CP	QPSK	1	1	22.42	1.5

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NR FDD Band n7 Conducted Power_ Measured RSI = 0_ Antenna B

NR FDD Band n7 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 507000 2 535 ㎒	MPR [dB]
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	18.24	0
				1	108	18.34	0
				1	214	18.06	0
				108	0	18.25	0
				108	54	18.19	0
				108	108	18.12	0
				216	0	18.21	0
			QPSK	1	1	18.27	0
				1	108	18.20	0
				1	214	18.03	0
				108	0	18.27	0
				108	54	18.27	0
				108	108	18.05	0
				216	0	18.20	0
			16QAM	1	1	18.37	0
			64QAM	1	1	18.32	0
			256QAM	1	1	18.20	0
		CP	QPSK	1	1	18.23	0

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NR FDD Band n7 Conducted Power_ Measured *Pmax* _ Antenna F

NR FDD Band n7 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 507000 2 535 ㎒	MPR [dB]
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	22.71	0
				1	108	22.66	0
				1	214	22.55	0
				108	0	22.10	0.5
				108	54	22.53	0
				108	108	22.06	0.5
				216	0	22.09	0.5
			QPSK	1	1	22.65	0
				1	108	22.53	0
				1	214	22.54	0
				108	0	21.63	1
				108	54	22.53	0
				108	108	21.58	1
				216	0	21.61	1
			16QAM	1	1	21.70	1
			64QAM	1	1	20.43	2.5
			256QAM	1	1	18.34	4.5
		CP	QPSK	1	1	21.22	1.5

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NR FDD Band n7 Conducted Power_ Measured RSI = 0,1_ Antenna F

NR FDD Band n7 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 507000 2 535 ㎒	MPR [dB]
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	16.45	0
				1	108	16.51	0
				1	214	16.32	0
				108	0	16.38	0
				108	54	16.37	0
				108	108	16.33	0
				216	0	16.40	0
			QPSK	1	1	16.47	0
				1	108	16.48	0
				1	214	16.30	0
				108	0	16.43	0
				108	54	16.40	0
				108	108	16.38	0
				216	0	16.39	0
			16QAM	1	1	16.41	0
			64QAM	1	1	16.58	0
			256QAM	1	1	16.49	0
		CP	QPSK	1	1	16.48	0

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11.4.4 NR FDD Band n12 Maximum Conducted Power

NR FDD Band n12 Conducted Power_ Measured *Pmax*, RSI=1 _ Antenna A

NR FDD Band n12_ 15 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 141500 707.5 ㎒	MPR [dB]
15 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	24.54	0
				1	40	24.56	0
				1	77	24.69	0
				36	0	24.05	0.5
				36	22	24.54	0
				36	43	24.18	0.5
				75	0	24.08	0.5
			QPSK	1	1	24.49	0
				1	40	24.47	0
				1	77	24.68	0
				36	0	23.56	1
				36	22	24.54	0
				36	43	23.72	1
				75	0	23.58	1
			16QAM	1	1	23.58	1
			64QAM	1	1	22.04	2.5
			256QAM	1	1	20.19	4.5
		CP	QPSK	1	1	23.03	1.5

NR FDD Band n12 Conducted Power_ Measured RSI=0_ Antenna A

NR FDD Band n12_ 15 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 141500 707.5 ㎒	MPR [dB]
15 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	21.18	0
				1	40	21.23	0
				1	77	21.28	0
				36	0	21.27	0
				36	22	21.34	0
				36	43	21.33	0
				75	0	21.31	0
			QPSK	1	1	21.15	0
				1	40	21.23	0
				1	77	21.25	0
				36	0	21.32	0
				36	22	21.36	0
				36	43	21.32	0
				75	0	21.30	0
			16QAM	1	1	21.34	0
			64QAM	1	1	21.38	0
			256QAM	1	1	19.38	2
		CP	QPSK	1	1	21.17	0

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NR FDD Band n12 Conducted Power_ Measured *Pmax*_ Antenna E

NR FDD Band n12_ 15 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 141500 707.5 ㎒	MPR [dB]
15 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	24.57	0
				1	40	24.39	0
				1	77	24.38	0
				36	0	24.04	0.5
				36	22	24.46	0
				36	43	23.94	0.5
				75	0	24.00	0.5
			QPSK	1	1	24.58	0
				1	40	24.39	0
				1	77	24.44	0
				36	0	23.54	1
				36	22	24.45	0
				36	43	23.40	1
				75	0	23.47	1
			16QAM	1	1	23.63	1
			64QAM	1	1	22.20	2.5
			256QAM	1	1	20.05	4.5
		CP	QPSK	1	1	23.13	1.5

NR FDD Band n12 Conducted Power_ Measured RSI=0,1_ Antenna E

NR FDD Band n12_ 15 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 141500 707.5 ㎒	MPR [dB]
15 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	20.02	0
				1	40	19.88	0
				1	77	19.79	0
				36	0	20.01	0
				36	22	19.89	0
				36	43	19.82	0
				75	0	19.88	0
			QPSK	1	1	19.97	0
				1	40	19.82	0
				1	77	19.82	0
				36	0	20.00	0
				36	22	19.92	0
				36	43	19.82	0
				75	0	19.84	0
			16QAM	1	1	20.19	0
			64QAM	1	1	20.24	0
			256QAM	1	1	20.00	0
		CP	QPSK	1	1	20.01	0

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11.4.5 NR FDD Band n14 Maximum Conducted Power

NR FDD Band n14 Conducted Power_ Measured *Pmax*, RSI=1_ Antenna A

NR FDD Band n14_ 10 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 158600 793 ㎒	MPR [dB]
10 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	24.62	0
				1	26	24.74	0
				1	50	24.55	0
				25	0	24.10	0.5
				25	14	24.61	0
				25	27	24.07	0.5
				50	0	24.10	0.5
			QPSK	1	1	24.66	0
				1	26	24.72	0
				1	50	24.58	0
				25	0	23.64	1
				25	14	24.60	0
				25	27	23.60	1
				50	0	23.62	1
			16QAM	1	1	23.73	1
			64QAM	1	1	22.15	2.5
			256QAM	1	1	20.26	4.5
		CP	QPSK	1	1	23.10	1.5

NR FDD Band n14 Conducted Power_ Measured RSI=0_ Antenna A

NR FDD Band n14_ 10 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 158600 793 ㎒	MPR [dB]
10 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	21.36	0
				1	26	21.40	0
				1	50	21.17	0
				25	0	21.24	0
				25	14	21.26	0
				25	27	21.22	0
				50	0	21.24	0
			QPSK	1	1	21.35	0
				1	26	21.36	0
				1	50	21.13	0
				25	0	21.24	0
				25	14	21.29	0
				25	27	21.22	0
				50	0	21.22	0
			16QAM	1	1	21.42	0
			64QAM	1	1	21.46	0
			256QAM	1	1	19.72	2
		CP	QPSK	1	1	21.29	0

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NR FDD Band n14 Conducted Power_ Measured *Pmax*_ Antenna E

NR FDD Band n14_ 10 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 158600 793 ㎒	MPR [dB]
10 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	24.78	0
				1	26	24.88	0
				1	50	24.76	0
				25	0	24.26	0.5
				25	14	24.76	0
				25	27	24.26	0.5
				50	0	24.26	0.5
			QPSK	1	1	24.82	0
				1	26	24.91	0
				1	50	24.80	0
				25	0	23.80	1
				25	14	24.78	0
				25	27	23.79	1
				50	0	23.77	1
			16QAM	1	1	23.79	1
			64QAM	1	1	22.36	2.5
			256QAM	1	1	20.29	4.5
		CP	QPSK	1	1	23.30	1.5

NR FDD Band n14 Conducted Power_ Measured RSI=0,1_ Antenna E

NR FDD Band n14_ 10 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 158600 793 ㎒	MPR [dB]
10 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	20.89	0
				1	26	20.99	0
				1	50	20.87	0
				25	0	20.92	0
				25	14	20.86	0
				25	27	20.85	0
				50	0	20.90	0
			QPSK	1	1	20.91	0
				1	26	20.83	0
				1	50	20.82	0
				25	0	20.87	0
				25	14	20.88	0
				25	27	20.86	0
				50	0	20.87	0
			16QAM	1	1	20.89	0
			64QAM	1	1	20.85	0
			256QAM	1	1	20.90	0
		CP	QPSK	1	1	20.88	0

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11.4.6. NR FDD Band n25 Maximum Conducted Power

NR FDD Band n25 Conducted Power_ Measured *Pmax*, RSI = 1 _ Antenna A

NR FDD Band n25 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 376500 1882.5 ㎒	MPR [dB]
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	23.94	0
				1	108	24.15	0
				1	214	23.75	0
				108	0	23.54	0.5
				108	54	24.06	0
				108	108	23.44	0.5
				216	0	23.58	0.5
			QPSK	1	1	23.97	0
				1	108	24.10	0
				1	214	23.75	0
				108	0	23.08	1
				108	54	24.09	0
				108	108	22.96	1
				216	0	23.06	1
			16QAM	1	1	23.01	1
			64QAM	1	1	21.44	2.5
			256QAM	1	1	19.60	4.5
		CP	QPSK	1	1	22.48	1.5

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NR FDD Band n25 Conducted Power_ Measured RSI = 0_ Antenna A

NR FDD Band n25 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 376500 1882.5 ㎒	MPR [dB]
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	15.12	0
				1	108	15.38	0
				1	214	15.00	0
				108	0	15.31	0
				108	54	15.30	0
				108	108	15.15	0
				216	0	15.29	0
			QPSK	1	1	15.09	0
				1	108	15.30	0
				1	214	15.05	0
				108	0	15.32	0
				108	54	15.37	0
				108	108	15.18	0
				216	0	15.31	0
			16QAM	1	1	15.13	0
			64QAM	1	1	15.23	0
			256QAM	1	1	15.15	0
		CP	QPSK	1	1	15.12	0

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NR FDD Band n25 Conducted Power_ Measured *Pmax* _ Antenna F

NR FDD Band n25 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 376500 1882.5 ㎒	MPR [dB]
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	22.45	0
				1	108	22.63	0
				1	214	22.35	0
				108	0	21.99	0.5
				108	54	22.52	0
				108	108	21.99	0.5
				216	0	21.99	0.5
			QPSK	1	1	22.44	0
				1	108	22.63	0
				1	214	22.39	0
				108	0	21.54	1
				108	54	22.49	0
				108	108	21.51	1
				216	0	21.49	1
			16QAM	1	1	21.51	1
			64QAM	1	1	19.95	2.5
			256QAM	1	1	18.13	4.5
		CP	QPSK	1	1	20.94	1.5

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NR FDD Band n25 Conducted Power_ Measured RSI = 0 ,1_ Antenna F

NR FDD Band n25 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						376500	
						1882.5 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	17.81	0
				1	108	17.98	0
				1	214	17.73	0
				108	0	17.88	0
				108	54	17.86	0
				108	108	17.84	0
				216	0	17.85	0
			QPSK	1	1	17.77	0
				1	108	17.89	0
				1	214	17.81	0
				108	0	17.98	0
				108	54	17.89	0
				108	108	17.86	0
				216	0	17.84	0
			16QAM	1	1	17.68	0
			64QAM	1	1	17.94	0
			256QAM	1	1	17.76	0
		CP	QPSK	1	1	17.77	0

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11.4.7 NR FDD Band n26 Maximum Conducted Power

NR FDD Band n26 Conducted Power_ Measured *Pmax*, RSI = 1 _ Antenna A

NR FDD Band n26 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 166300 831.5 ㎒	MPR [dB]
20 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	24.88	0
				1	53	24.96	0
				1	104	24.81	0
				50	0	24.41	0.5
				50	28	24.91	0
				50	56	24.41	0.5
				100	0	24.45	0.5
			QPSK	1	1	24.99	0
				1	53	25.00	0
				1	104	24.90	0
				50	0	23.93	1
				50	28	24.97	0
				50	56	23.94	1
				100	0	23.97	1
			16QAM	1	1	24.00	1
			64QAM	1	1	22.66	2.5
			256QAM	1	1	20.45	4.5
		CP	QPSK	1	1	23.51	1.5

NR FDD Band n26 Conducted Power_ Measured RSI = 0_ Antenna A

NR FDD Band n26 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 166300 831.5 ㎒	MPR [dB]
20 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	22.21	0
				1	53	22.24	0
				1	104	22.05	0
				50	0	22.19	0
				50	28	22.09	0
				50	56	22.11	0
				100	0	22.11	0
			QPSK	1	1	22.21	0
				1	53	22.23	0
				1	104	22.06	0
				50	0	22.25	0
				50	28	22.31	0
				50	56	22.20	0
				100	0	22.12	0
			16QAM	1	1	22.28	0
			64QAM	1	1	22.39	0
			256QAM	1	1	20.50	2
		CP	QPSK	1	1	22.31	0

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NR FDD Band n26 Conducted Power_ Measured *Pmax* _ Antenna E

NR FDD Band n26 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 166300 831.5 ㎒	MPR [dB]
20 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	25.14	0
				1	53	25.18	0
				1	104	24.98	0
				50	0	24.66	0.5
				50	28	25.11	0
				50	56	24.59	0.5
				100	0	24.62	0.5
			QPSK	1	1	25.19	0
				1	53	25.19	0
				1	104	25.04	0
				50	0	24.02	1
				50	28	25.11	0
				50	56	24.05	1
				100	0	24.13	1
			16QAM	1	1	24.17	1
			64QAM	1	1	22.72	2.5
			256QAM	1	1	20.73	4.5
		CP	QPSK	1	1	23.73	1.5

NR FDD Band n26 Conducted Power_ Measured RSI = 0,1 _ Antenna E

NR FDD Band n26 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 166300 831.5 ㎒	MPR [dB]
20 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	19.98	0
				1	53	19.99	0
				1	104	19.81	0
				50	0	20.05	0
				50	28	19.95	0
				50	56	19.91	0
				100	0	19.96	0
			QPSK	1	1	20.02	0
				1	53	19.93	0
				1	104	19.81	0
				50	0	20.02	0
				50	28	20.00	0
				50	56	19.97	0
				100	0	19.97	0
			16QAM	1	1	19.89	0
			64QAM	1	1	20.06	0
			256QAM	1	1	20.05	0
		CP	QPSK	1	1	19.99	0

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11.4.8. NR FDD Band n30 Maximum Conducted Power

NR FDD Band n30 Conducted Power_ Measured *Pmax*, RSI = 1 _ Antenna A

NR FDD Band n30_ 10 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 462000 2310 ㎒	MPR [dB]
10 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	22.63	0
				1	26	22.80	0
				1	50	22.73	0
				25	0	22.20	0.5
				25	14	22.69	0
				25	27	22.25	0.5
				50	0	22.24	0.5
			QPSK	1	1	22.90	0
				1	26	22.74	0
				1	50	22.76	0
				25	0	21.73	1
				25	14	22.77	0
				25	27	21.75	1
				50	0	21.73	1
			16QAM	1	1	21.66	1
			64QAM	1	1	20.40	2.5
			256QAM	1	1	18.23	4.5
		CP	QPSK	1	1	21.22	1.5

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NR FDD Band n30 Conducted Power_ Measured RSI = 0_ Antenna A

NR FDD Band n30_ 10 MHz Bandwidth Conducted Power

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 462000 2310 MHz	MPR [dB]
10 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	16.82	0
				1	26	16.82	0
				1	50	16.70	0
				25	0	16.81	0
				25	14	16.71	0
				25	27	16.75	0
				50	0	16.73	0
			QPSK	1	1	16.84	0
				1	26	16.84	0
				1	50	16.72	0
				25	0	16.75	0
				25	14	16.86	0
				25	27	16.74	0
				50	0	16.77	0
			16QAM	1	1	16.90	0
			64QAM	1	1	16.92	0
			256QAM	1	1	16.83	0
		CP	QPSK	1	1	16.82	0

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NR FDD Band n30 Conducted Power_ Measured *Pmax*_ Antenna F

NR FDD Band n30_ 10 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 462000 2310 ㎒	MPR [dB]
10 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	22.05	0
				1	26	22.09	0
				1	50	21.92	0
				25	0	21.51	0.5
				25	14	22.02	0
				25	27	21.49	0.5
				50	0	21.55	0.5
			QPSK	1	1	22.00	0
				1	26	22.07	0
				1	50	21.95	0
				25	0	21.05	1
				25	14	22.04	0
				25	27	21.05	1
				50	0	21.08	1
			16QAM	1	1	21.04	1
			64QAM	1	1	19.63	2.5
			256QAM	1	1	17.60	4.5
		CP	QPSK	1	1	20.58	1.5

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NR FDD Band n30 Conducted Power_ Measured RSI = 0_ Antenna F

NR FDD Band n30_ 10 MHz Bandwidth Conducted Power

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 462000 2310 MHz	MPR [dB]
10 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	17.79	0
				1	26	17.87	0
				1	50	17.79	0
				25	0	17.80	0
				25	14	17.82	0
				25	27	17.77	0
				50	0	17.80	0
			QPSK	1	1	17.77	0
				1	26	17.90	0
				1	50	17.72	0
				25	0	17.87	0
				25	14	17.84	0
				25	27	17.78	0
				50	0	17.82	0
			16QAM	1	1	17.91	0
			64QAM	1	1	17.84	0
			256QAM	1	1	17.79	0
		CP	QPSK	1	1	17.79	0

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NR FDD Band n30 Conducted Power_ Measured RSI = 1_ Antenna F

NR FDD Band n30_ 10 MHz Bandwidth Conducted Power

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 462000 2310 MHz	MPR [dB]
10 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	18.28	0
				1	26	18.33	0
				1	50	18.26	0
				25	0	18.29	0
				25	14	18.28	0
				25	27	18.26	0
				50	0	18.29	0
			QPSK	1	1	18.26	0
				1	26	18.37	0
				1	50	18.18	0
				25	0	18.35	0
				25	14	18.32	0
				25	27	18.27	0
				50	0	18.30	0
			16QAM	1	1	18.39	0
			64QAM	1	1	18.30	0
			256QAM	1	1	18.28	0
		CP	QPSK	1	1	18.26	0

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11.4.9 NR TDD Band n38 Maximum Conducted Power

NR TDD Band n38 Conducted Power_ Measured *Pmax*, RSI = 1_ Antenna B

NR TDD Band n38 _ 40 MHz Bandwidth Conducted Power

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							519000		
							2 595 MHz		
40 MHz	30	DFT-s OFDM	pi/2 BPSK	1	1		23.77		0
				1	53		23.85		0
				1	104		23.57		0
				50	0		23.30		0.5
				50	28		23.81		0
				50	56		23.14		0.5
				100	0		23.31		0.5
			QPSK	1	1		23.95		0
				1	53		23.83		0
				1	104		23.57		0
				50	0		22.81		1
				50	28		24.01		0
				50	56		22.66		1
				100	0		22.82		1
			16QAM	1	1		22.96		1
			64QAM	1	1		21.37		2.5
			256QAM	1	1		19.27		4.5
		CP	QPSK	1	1		22.38		1.5

NR TDD Band n38 Conducted Power_ Measured RSI = 0_ Antenna B

NR TDD Band n38 _ 40 MHz Bandwidth Conducted Power

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							519000		
							2 595 MHz		
40 MHz	30	DFT-s OFDM	pi/2 BPSK	1	1		17.81		0
				1	53		17.94		0
				1	104		18.23		0
				50	0		17.82		0
				50	28		17.81		0
				50	56		18.11		0
				100	0		17.94		0
			QPSK	1	1		17.80		0
				1	53		17.96		0
				1	104		17.86		0
				50	0		17.85		0
				50	28		17.94		0
				50	56		17.83		0
				100	0		17.95		0
			16QAM	1	1		17.76		0
			64QAM	1	1		17.83		0
			256QAM	1	1		17.80		0
		CP	QPSK	1	1		17.83		0

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NR TDD Band n38 Conducted Power_ Measured *Pmax*_ Antenna F

NR TDD Band n38 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							519000		
							2 595 ㎒		
40 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1		22.64		0
				1	53		22.65		0
				1	104		22.56		0
				50	0		22.11		0.5
				50	28		22.59		0
				50	56		22.08		0.5
				100	0		22.09		0.5
			QPSK	1	1		22.65		0
				1	53		22.62		0
				1	104		22.55		0
				50	0		21.61		1
				50	28		22.58		0
				50	56		21.58		1
				100	0		21.61		1
			16QAM	1	1		21.52		1
			64QAM	1	1		20.35		2.5
			256QAM	1	1		18.06		4.5
		CP	QPSK	1	1		21.88		1.5

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NR TDD Band n38 Conducted Power_ Measured RSI = 0,1_ Antenna F

NR TDD Band n38 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]			MPR [dB]
							519000		
							2 595 ㎒		
40 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1		16.62		0
				1	53		16.64		0
				1	104		16.55		0
				50	0		16.63		0
				50	28		16.61		0
				50	56		16.58		0
				100	0		16.62		0
			QPSK	1	1		16.66		0
				1	53		16.64		0
				1	104		16.55		0
				50	0		16.62		0
				50	28		16.61		0
				50	56		16.59		0
				100	0		16.61		0
			16QAM	1	1		16.51		0
			64QAM	1	1		16.55		0
			256QAM	1	1		16.60		0
		CP	QPSK	1	1		16.61		0

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11.4.10. NR TDD Band n41 Maximum Conducted Power

NR TDD Band n41(PC3) Conducted Power_ Measured *Pmax,* RSI = 1 _ Antenna B

NR TDD Band n41 (PC3)_100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
								518598			
								2592.99 ㎒			
100 ㎒	30	DFT-s	pi/2 BPSK	1	1			24.17			0
				1	137			24.00			0
				1	271			24.07			0
				135	0			23.54			0.5
				135	69			24.00			0
				135	138			23.52			0.5
				270	0			23.53			0.5
			QPSK	1	1			24.15			0
				1	137			24.03			0
				1	271			24.02			0
				135	0			23.10			1
				135	69			24.00			0
				135	138			23.03			1
				270	0			23.02			1
			16QAM	1	1			23.14			1
			64QAM	1	1			21.68			2.5
			256QAM	1	1			19.69			4.5
		CP	QPSK	1	1			22.62			1.5

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NR TDD Band n41(PC3) Conducted Power_ Measured RSI = 0_ Antenna B

NR TDD Band n41 (PC3)_100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
								518598			
								2592.99 ㎒			
100 ㎒	30	DFT-s	pi/2 BPSK	1	1			18.56			0
				1	137			18.27			0
				1	271			18.46			0
				135	0			18.23			0
				135	69			18.31			0
				135	138			18.34			0
				270	0			18.39			0
			QPSK	1	1			18.61			0
				1	137			18.65			0
				1	271			18.48			0
				135	0			18.22			0
				135	69			18.37			0
				135	138			18.38			0
				270	0			18.52			0
			16QAM	1	1			18.66			0
			64QAM	1	1			18.69			0
			256QAM	1	1			18.56			0
		CP	QPSK	1	1			18.65			0

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NR TDD Band n41(PC3) Conducted Power_ Measured *Pmax*_ Antenna F

NR TDD Band n41 (PC3)_100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
								518598			
								2592.99 ㎒			
100 ㎒	30	DFT-s	pi/2 BPSK	1	1			23.34			0
				1	137			23.00			0
				1	271			23.16			0
				135	0			22.70			0.5
				135	69			23.06			0
				135	138			22.51			0.5
				270	0			22.59			0.5
			QPSK	1	1			23.34			0
				1	137			23.08			0
				1	271			23.24			0
				135	0			22.15			1
				135	69			23.06			0
				135	138			22.02			1
				270	0			22.08			1
			16QAM	1	1			22.33			1
			64QAM	1	1			20.86			2.5
			256QAM	1	1			18.81			4.5
		CP	QPSK	1	1			22.42			1.5

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NR TDD Band n41(PC3) Conducted Power_ Measured RSI =0, 1 _ Antenna F

NR TDD Band n41 (PC3)_100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
								518598			
								2592.99 ㎒			
100 ㎒	30	DFT-s	pi/2 BPSK	1	1			17.34			0
				1	137			16.99			0
				1	271			17.20			0
				135	0			16.61			0
				135	69			17.04			0
				135	138			16.87			0
				270	0			17.08			0
			QPSK	1	1			17.35			0
				1	137			17.36			0
				1	271			17.21			0
				135	0			16.87			0
				135	69			16.88			0
				135	138			16.71			0
				270	0			16.77			0
			16QAM	1	1			17.05			0
			64QAM	1	1			17.33			0
			256QAM	1	1			17.53			0
		CP	QPSK	1	1			15.45			0

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NR TDD Band n41(PC2) Conducted Power_ Measured *Pmax* _ Antenna B

NR TDD Band n41 (PC2)_100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
								518598			
								2592.99 ㎒			
100 ㎒	30	DFT-s	pi/2 BPSK	1	1			26.30			0
				1	137			26.48			0
				1	271			26.06			0
				135	0			26.19			0.5
				135	69			26.56			0
				135	138			25.97			0.5
				270	0			26.08			0.5
			QPSK	1	1			26.06			0
				1	137			26.57			0
				1	271			26.15			0
				135	0			25.99			1
				135	69			26.58			0
				135	138			26.60			0
				270	0			25.63			1
			16QAM	1	1			25.25			1
			64QAM	1	1			24.02			2.5
			256QAM	1	1			22.44			4.5
		CP	QPSK	1	1			24.91			1.5

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NR TDD Band n41(PC2) Conducted Power_ Measured *Pmax* _ Antenna F

NR TDD Band n41 (PC2)_100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)					MPR [dB]
								518598			
								2592.99 ㎒			
100 ㎒	30	DFT-s	pi/2 BPSK	1	1			26.85			0
				1	137			26.53			0
				1	271			26.73			0
				135	0			26.51			0
				135	69			26.57			0
				135	138			26.61			0
				270	0			26.68			0
			QPSK	1	1			26.88			0
				1	137			26.55			0
				1	271			26.74			0
				135	0			26.50			0
				135	69			26.64			0
				135	138			26.63			0
				270	0			26.77			0
			16QAM	1	1			25.91			0
			64QAM	1	1			24.98			1
			256QAM	1	1			22.85			3
		CP	QPSK	1	1			24.90			1

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11.4.11. NR TDD Band n48 Maximum Conducted Power

NR TDD Band n48 Conducted Power_ Measured *Pmax*_ Antenna F

NR TDD Band n48 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR [dB]
						638000	641666		645332	
						3570 ㎒	3624.99 ㎒		3679.98 ㎒	
40 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1	23.31	22.77		22.56	0
				1	53	23.40	22.87		22.70	0
				1	104	23.38	23.10		22.35	0
				50	0	22.85	22.55		22.26	0.5
				50	28	23.38	22.84		22.62	0
				50	56	22.87	22.42		21.89	0.5
				100	0	22.87	22.35		22.06	0.5
			QPSK	1	1	23.36	23.31		22.74	0
				1	53	23.44	22.86		22.45	0
				1	104	23.41	23.15		22.12	0
				50	0	22.36	22.07		21.58	1
				50	28	23.37	22.86		22.47	0
				50	56	22.39	21.91		21.26	1
				100	0	22.37	21.84		21.44	1
			16QAM	1	1	22.25	22.20		21.61	1
			64QAM	1	1	21.00	20.87		20.01	2.5
			256QAM	1	1	18.97	18.76		18.16	4.5
		CP	QPSK	1	1	21.88	21.86		21.03	1.5

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NR TDD Band n48 Conducted Power_ Measured RSI = 0,1_ Antenna F

NR TDD Band n48 _ 40 MHz Bandwidth Conducted Power

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]				MPR [dB]
						638000	641666		645332	
						3570 MHz	3624.99 MHz		3679.98 MHz	
40 MHz	30	DFT-s OFDM	pi/2 BPSK	1	1	15.72	16.06		15.87	0
				1	53	15.60	16.19		15.96	0
				1	104	15.74	15.95		15.96	0
				50	0	15.56	16.10		15.92	0
				50	28	15.53	16.08		15.85	0
				50	56	15.62	16.03		15.90	0
				100	0	15.56	16.10		15.92	0
			QPSK	1	1	15.78	16.05		15.82	0
				1	53	15.57	16.19		15.94	0
				1	104	15.86	15.90		16.01	0
				50	0	15.56	16.06		15.81	0
				50	28	15.55	16.09		15.90	0
				50	56	15.65	16.02		15.87	0
				100	0	15.55	16.10		15.90	0
			16QAM	1	1	15.70	15.96		15.83	0
			64QAM	1	1	16.00	15.88		15.78	0
			256QAM	1	1	15.67	16.14		15.73	0
		CP	QPSK	1	1	15.63	15.98		15.83	0

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11.4.12. NR FDD Band n66 Maximum Conducted Power

NR FDD Band n66 Conducted Power_ Measured *Pmax*, RSI = 1 _ Antenna A

NR FDD Band n66 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 349000 1745 ㎒	MPR [dB]
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	23.87	0
				1	108	23.61	0
				1	214	23.51	0
				108	0	23.10	0.5
				108	54	23.54	0
				108	108	23.04	0.5
				216	0	23.04	0.5
			QPSK	1	1	23.85	0
				1	108	23.55	0
				1	214	23.53	0
				108	0	22.62	1
				108	54	23.52	0
				108	108	22.55	1
				216	0	22.55	1
			16QAM	1	1	22.94	1
			64QAM	1	1	21.35	2.5
			256QAM	1	1	19.38	4.5
		CP	QPSK	1	1	22.42	1.5

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NR FDD Band n66 Conducted Power_ Measured RSI = 0_ Antenna A

NR FDD Band n66 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 349000 1745 ㎒	MPR [dB]
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	15.10	0
				1	108	14.90	0
				1	214	14.93	0
				108	0	14.88	0
				108	54	14.84	0
				108	108	14.87	0
				216	0	14.86	0
			QPSK	1	1	15.06	0
				1	108	14.84	0
				1	214	14.93	0
				108	0	14.87	0
				108	54	14.84	0
				108	108	14.83	0
				216	0	14.84	0
			16QAM	1	1	15.06	0
			64QAM	1	1	15.23	0
			256QAM	1	1	15.09	1
		CP	QPSK	1	1	15.09	0

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NR FDD Band n66 Conducted Power_ Measured Pmax _ Antenna F

NR FDD Band n66 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 349000 1745 ㎒	MPR [dB]
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	23.86	0
				1	108	23.52	0
				1	214	23.24	0
				108	0	23.17	0.5
				108	54	23.43	0
				108	108	22.78	0.5
				216	0	22.95	0.5
			QPSK	1	1	23.98	0
				1	108	23.63	0
				1	214	23.31	0
				108	0	22.70	1
				108	54	23.46	0
				108	108	22.30	1
				216	0	22.46	1
			16QAM	1	1	23.03	1
			64QAM	1	1	21.54	2.5
			256QAM	1	1	19.42	4.5
		CP	QPSK	1	1	22.42	1.5

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NR FDD Band n66 Conducted Power_ Measured RSI = 0,1_ Antenna I

NR FDD Band n66 _ 40 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm]	MPR [dB]
						349000	
						1745 ㎒	
40 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	17.34	0
				1	108	16.90	0
				1	214	16.71	0
				108	0	17.13	0
				108	54	16.93	0
				108	108	16.73	0
				216	0	16.90	0
			QPSK	1	1	17.44	0
				1	108	17.00	0
				1	214	17.01	0
				108	0	17.14	0
				108	54	17.02	0
				108	108	17.07	0
				216	0	17.06	0
			16QAM	1	1	17.55	0
			64QAM	1	1	17.50	0
			256QAM	1	1	17.48	0
		CP	QPSK	1	1	17.51	0

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11.4.13 NR FDD Band n70 Maximum Conducted Power

NR FDD Band n70 Conducted Power_ Measured *Pmax*, RSI = 1 _ Antenna A

NR FDD Band n70 _ 15 MHz Bandwidth Conducted Power

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 340500 1 702.5 MHz	MPR [dB]
15 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	23.70	0
				1	40	23.69	0
				1	77	23.82	0
				36	0	23.25	0.5
				36	22	23.80	0
				36	43	23.35	0.5
				75	0	23.29	0.5
			QPSK	1	1	23.71	0
				1	40	23.66	0
				1	77	23.83	0
				36	0	22.75	1
				36	22	23.79	0
				36	43	22.84	1
				75	0	22.80	1
			16QAM	1	1	22.70	1
			64QAM	1	1	21.24	2.5
			256QAM	1	1	19.26	4.5
		CP	QPSK	1	1	22.25	1.5

NR FDD Band n70 Conducted Power_ Measured RSI = 0_ Antenna A

NR FDD Band n70 _ 15 MHz Bandwidth Conducted Power

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 340500 1 702.5 MHz	MPR [dB]
15 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	15.57	0
				1	40	15.64	0
				1	77	15.85	0
				36	0	15.57	0
				36	22	15.68	0
				36	43	15.83	0
				75	0	15.68	0
			QPSK	1	1	15.55	0
				1	40	15.64	0
				1	77	15.87	0
				36	0	15.61	0
				36	22	15.92	0
				36	43	15.88	0
				75	0	15.69	0
			16QAM	1	1	15.58	0
			64QAM	1	1	15.64	0
			256QAM	1	1	15.51	0
		CP	QPSK	1	1	15.56	0

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NR FDD Band n70 Conducted Power_ Measured *Pmax* _ Antenna F

NR FDD Band n70 _ 15 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 340500 1 702.5 ㎒	MPR [dB]
15 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	23.87	0
				1	40	24.00	0
				1	77	24.06	0
				36	0	23.43	0.5
				36	22	24.05	0
				36	43	23.61	0.5
				75	0	23.59	0.5
			QPSK	1	1	23.96	0
				1	40	24.04	0
				1	77	24.14	0
				36	0	22.97	1
				36	22	24.11	0
				36	43	23.14	1
				75	0	23.13	1
			16QAM	1	1	22.92	1
			64QAM	1	1	21.53	2.5
			256QAM	1	1	19.44	4.5
		CP	QPSK	1	1	22.39	1.5

NR FDD Band n70 Conducted Power_ Measured RSI = 0,1 _ Antenna F

NR FDD Band n70 _ 15 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power [dBm] 340500 1 702.5 ㎒	MPR [dB]
15 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	17.80	0
				1	40	17.92	0
				1	77	17.91	0
				36	0	17.82	0
				36	22	17.95	0
				36	43	17.96	0
				75	0	17.94	0
			QPSK	1	1	17.82	0
				1	40	17.90	0
				1	77	17.99	0
				36	0	17.85	0
				36	22	17.92	0
				36	43	17.98	0
				75	0	17.96	0
			16QAM	1	1	17.85	0
			64QAM	1	1	17.91	0
			256QAM	1	1	17.77	0
		CP	QPSK	1	1	17.81	0

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11.4.14. NR FDD Band n71 Maximum Conducted Power

NR FDD Band n71 Conducted Power_ Measured Pmax, RSI =0,1_ Antenna A

NR FDD Band n71 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)	MPR [dB]
						136100	
						680.5 ㎒	
20 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	24.58	0
				1	53	24.52	0
				1	104	24.33	0
				50	0	23.91	0.5
				50	28	24.32	0
				50	56	23.87	0.5
				100	0	23.86	0.5
			QPSK	1	1	24.52	0
				1	53	24.37	0
				1	104	24.35	0
				50	0	23.42	1
				50	28	24.31	0
				50	56	23.33	1
				100	0	23.38	1
			16QAM	1	1	23.51	1
			64QAM	1	1	22.15	2.5
			256QAM	1	1	20.16	4.5
		CP	QPSK	1	1	23.05	1.5

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NR FDD Band n71 Conducted Power_ Measured Pmax_ Antenna E

NR FDD Band n71 _ 20 MHz Bandwidth Conducted Power

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm) 136100 680.5 MHz	MPR [dB]
20 MHz	15	DFT-s OFDM	pi/2 BPSK	1	1	24.37	0
				1	53	24.45	0
				1	104	24.12	0
				50	0	23.83	0.5
				50	28	24.25	0
				50	56	23.70	0.5
				100	0	23.76	0.5
			QPSK	1	1	24.38	0
				1	53	24.28	0
				1	104	24.13	0
				50	0	23.32	1
				50	28	24.27	0
				50	56	23.18	1
				100	0	23.29	1
			16QAM	1	1	23.45	1
			64QAM	1	1	21.94	2.5
			256QAM	1	1	19.94	4.5
		CP	QPSK	1	1	22.81	1.5

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NR FDD Band n71 Conducted Power_ Measured RSI = 0,1_ Antenna E

NR FDD Band n71 _ 20 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm) 136100 680.5 ㎒	MPR [dB]
20 ㎒	15	DFT-s OFDM	pi/2 BPSK	1	1	20.55	0
				1	53	20.46	0
				1	104	20.26	0
				50	0	20.45	0
				50	28	20.34	0
				50	56	20.30	0
				100	0	20.41	0
			QPSK	1	1	20.52	0
				1	53	20.36	0
				1	104	20.24	0
				50	0	20.41	0
				50	28	20.39	0
				50	56	20.32	0
				100	0	20.42	0
			16QAM	1	1	20.49	0
			64QAM	1	1	20.79	0
			256QAM	1	1	20.44	0
		CP	QPSK	1	1	20.33	0

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11.4.15. NR TDD Band n77 Maximum Conducted Power

NR TDD Band n77(PC3) Conducted Power_ Measured Pmax _ Antenna F

NR TDD Band n77(PC3)_ 100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						650000				662000		
						3 750 ㎒				3 930 ㎒		
100 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1	22.73				23.00		0
				1	137	23.04				23.83		0
				1	271	22.59				22.91		0
				135	0	22.53				23.23		0.5
				135	69	23.09				23.86		0
				135	138	22.25				22.28		0.5
				270	0	22.68				23.44		0.5
			QPSK	1	1	22.70				23.72		0
				1	137	23.05				23.90		0
				1	271	22.54				22.96		0
				135	0	22.03				22.66		1
				135	69	23.11				23.86		0
				135	138	21.73				21.71		1
				270	0	22.17				22.96		1
			16QAM	1	1	21.79				22.51		1
			64QAM	1	1	20.21				21.20		2.5
			256QAM	1	1	18.22				19.21		4.5
		CP	QPSK	1	1	21.29				22.16		1.5

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NR TDD Band n77(PC3) Conducted Power_ Measured RSI = 0_ Antenna F

NR TDD Band n77(PC3)_ 100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						650000				662000		
						3 750 ㎒				3 930 ㎒		
100 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1	14.01				13.98		0
				1	137	14.00				13.84		0
				1	271	13.84				14.02		0
				135	0	13.97				13.97		0
				135	69	14.00				14.23		0
				135	138	14.22				14.09		0
				270	0	14.09				13.63		0
			QPSK	1	1	13.61				13.98		0
				1	137	14.10				14.04		0
				1	271	13.88				14.02		0
				135	0	14.01				13.96		0
				135	69	14.14				14.10		0
				135	138	14.07				14.06		0
				270	0	14.09				14.10		0
			16QAM	1	1	13.43				13.59		0
			64QAM	1	1	13.57				13.55		0
			256QAM	1	1	13.53				13.61		0
		CP	QPSK	1	1	13.57				13.59		0

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NR TDD Band n77(PC3) Conducted Power_ Measured RSI = 1 _ Antenna F

NR TDD Band n77(PC3)_ 100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						650000				662000		
						3 750 ㎒				3 930 ㎒		
100 ㎒	30	DFT-s OFDM	pi/2 BPSK	1	1	13.32				13.28		0
				1	137	13.33				13.16		0
				1	271	13.12				13.32		0
				135	0	13.25				13.27		0
				135	69	13.26				13.56		0
				135	138	13.48				13.36		0
				270	0	13.36				12.97		0
			QPSK	1	1	12.90				13.26		0
				1	137	13.35				13.32		0
				1	271	13.16				13.30		0
				135	0	13.30				13.23		0
				135	69	13.30				13.41		0
				135	138	13.54				13.42		0
				270	0	13.43				12.79		0
			16QAM	1	1	12.77				12.87		0
			64QAM	1	1	12.87				12.82		0
			256QAM	1	1	12.82				12.93		0
		CP	QPSK	1	1	12.89				12.82		0

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NR TDD Band n77(PC2) Conducted Power_ Measured Pmax _ Antenna F

NR TDD Band n77(PC2)_ 100 MHz Bandwidth Conducted Power

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)						MPR [dB]
						650000				662000		
						3 750 MHz				3 930 MHz		
100 MHz	30	DFT-s OFDM	pi/2 BPSK	1	1	26.01				25.81		0
				1	137	26.34				25.76		0
				1	271	26.32				25.43		0
				135	0	25.86				25.44		0.5
				135	69	26.41				25.79		0
				135	138	26.15				24.99		0.5
				270	0	25.98				25.28		0.5
			QPSK	1	1	25.94				25.87		0
				1	137	26.39				25.77		0
				1	271	26.32				25.44		0
				135	0	25.39				24.96		1
				135	69	26.40				25.75		0
				135	138	25.65				24.47		1
				270	0	25.47				24.81		1
			16QAM	1	1	24.98				24.82		1
			64QAM	1	1	23.46				23.37		2.5
			256QAM	1	1	21.53				21.33		4.5
		CP	QPSK	1	1	24.50				24.38		1.5

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11.4.16. NR TDD Band n77 DoD Maximum Conducted Power

NR TDD Band n77 DoD(PC3) Conducted Power_ Measured Pmax _ Antenna F

NR TDD Band n77 DoD(PC3)_100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							633334		
							3500.01 ㎒		
100㎒	30	DFT-s	pi/2 BPSK	1	1		23.49		0
				1	137		23.31		0
				1	271		23.32		0
				135	0		22.75		0.5
				135	69		23.33		0
				135	138		22.72		0.5
				270	0		22.85		0.5
			QPSK	1	1		23.50		0
				1	137		23.32		0
				1	271		23.36		0
				135	0		22.26		1
				135	69		23.32		0
				135	138		22.24		1
				270	0		22.37		1
			16QAM	1	1		22.46		1
			64QAM	1	1		20.98		2.5
			256QAM	1	1		19.02		4.5
		CP	QPSK	1	1		22.04		1.5

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NR TDD Band n77 DoD Conducted Power_ Measured RSI = 0_ Antenna F

NR TDD Band n77 DoD_100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							633334		
							3500.01 ㎒		
100 ㎒	30	DFT-s	pi/2 BPSK	1	1		13.78		0
				1	137		14.14		0
				1	271		14.99		0
				135	0		14.14		0
				135	69		14.12		0
				135	138		14.39		0
				270	0		14.12		0
			QPSK	1	1		13.91		0
				1	137		14.08		0
				1	271		14.34		0
				135	0		14.06		0
				135	69		14.13		0
				135	138		14.44		0
				270	0		14.20		0
			16QAM	1	1		13.91		0
			64QAM	1	1		13.78		0
			256QAM	1	1		13.88		0
		CP	QPSK	1	1		14.05		0

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NR TDD Band n77 DoD Conducted Power_ Measured RSI = 1 _ Antenna F

NR TDD Band n77 DoD_100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							633334		
							3500.01 ㎒		
100 ㎒	30	DFT-s	pi/2 BPSK	1	1		13.24		0
				1	137		13.18		0
				1	271		13.31		0
				135	0		13.23		0
				135	69		13.56		0
				135	138		13.40		0
				270	0		12.95		0
			QPSK	1	1		13.29		0
				1	137		13.22		0
				1	271		13.37		0
				135	0		13.23		0
				135	69		13.46		0
				135	138		13.49		0
				270	0		12.78		0
			16QAM	1	1		12.86		0
			64QAM	1	1		12.86		0
			256QAM	1	1		12.93		0
		CP	QPSK	1	1		12.85		0

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NR TDD Band n77 DoD(PC2) Conducted Power_ Measured *Pmax* _ Antenna F

NR TDD Band n77 DoD(PC2)_100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							633334		
							3500.01 ㎒		
100 ㎒	30	DFT-s	pi/2 BPSK	1	1		13.78		0
				1	137		14.14		0
				1	271		14.99		0
				135	0		14.14		0
				135	69		14.12		0
				135	138		14.39		0
				270	0		14.12		0
			QPSK	1	1		13.91		0
				1	137		14.08		0
				1	271		14.34		0
				135	0		14.06		0
				135	69		14.13		0
				135	138		14.44		0
				270	0		14.20		0
			16QAM	1	1		13.91		0
			64QAM	1	1		13.78		0
			256QAM	1	1		13.88		0
		CP	QPSK	1	1		14.05		0

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11.4.17. NR TDD Band n78 Maximum Conducted Power

NR TDD Band n78(PC3) Conducted Power_ Measured Pmax _ Antenna F

NR TDD Band n78(PC3) _100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							650000		
							3750 ㎒		
100 ㎒	30	DFT-s	pi/2 BPSK	1	1		22.81		0
				1	137		23.09		0
				1	271		22.53		0
				135	0		22.64		0.5
				135	69		23.16		0
				135	138		22.33		0.5
				270	0		22.77		0.5
			QPSK	1	1		22.81		0
				1	137		23.14		0
				1	271		22.53		0
				135	0		22.11		1
				135	69		23.20		0
				135	138		21.81		1
				270	0		22.27		1
			16QAM	1	1		21.68		1
			64QAM	1	1		20.38		2.5
			256QAM	1	1		18.20		4.5
		CP	QPSK	1	1		21.25		1.5

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NR TDD Band n78(PC3) Conducted Power_ Measured RSI = 0_ Antenna F

NR TDD Band n78(PC3) _100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							650000		
							3750 ㎒		
100 ㎒	30	DFT-s	pi/2 BPSK	1	1		13.49		0
				1	137		13.82		0
				1	271		13.63		0
				135	0		13.85		0
				135	69		13.94		0
				135	138		14.17		0
				270	0		13.96		0
			QPSK	1	1		13.37		0
				1	137		13.78		0
				1	271		13.68		0
				135	0		13.80		0
				135	69		13.83		0
				135	138		14.09		0
				270	0		13.92		0
			16QAM	1	1		13.49		0
			64QAM	1	1		13.39		0
			256QAM	1	1		13.48		0
		CP	QPSK	1	1		13.43		0

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NR TDD Band n78(PC3) Conducted Power_ Measured RSI = 1 _ Antenna F

NR TDD Band n78(PC3) _100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							650000		
							3750 ㎒		
100 ㎒	30	DFT-s	pi/2 BPSK	1	1		12.67		0
				1	137		13.01		0
				1	271		12.82		0
				135	0		13.06		0
				135	69		13.06		0
				135	138		13.29		0
				270	0		13.18		0
			QPSK	1	1		12.54		0
				1	137		12.94		0
				1	271		12.82		0
				135	0		12.98		0
				135	69		13.03		0
				135	138		13.31		0
				270	0		13.09		0
			16QAM	1	1		12.70		0
			64QAM	1	1		12.62		0
			256QAM	1	1		12.65		0
		CP	QPSK	1	1		12.82		0

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NR TDD Band n78(PC2) Conducted Power_ Measured Pmax _ Antenna F

NR TDD Band n78(PC2) _100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							650000		
							3750 ㎒		
100 ㎒	30	DFT-s	pi/2 BPSK	1	1		25.96		0
				1	137		26.36		0
				1	271		26.19		0
				135	0		25.90		0.5
				135	69		26.43		0
				135	138		26.19		0.5
				270	0		25.98		0.5
			QPSK	1	1		25.97		0
				1	137		26.40		0
				1	271		26.24		0
				135	0		25.40		1
				135	69		26.41		0
				135	138		25.68		1
				270	0		25.50		1
			16QAM	1	1		25.07		1
			64QAM	1	1		23.48		2.5
			256QAM	1	1		21.45		4.5
		CP	QPSK	1	1		24.53		1.5

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11.4.18. NR TDD Band n78 DoD Maximum Conducted Power

NR TDD Band n78 DoD(PC3) Conducted Power_ Measured Pmax _ Antenna F

NR TDD Band n78 DoD(PC3)_100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							633334		
							3500.01 ㎒		
100 ㎒	30	DFT-s	pi/2 BPSK	1	1		23.18		0
				1	137		23.37		0
				1	271		24.05		0
				135	0		22.87		0.5
				135	69		23.39		0
				135	138		22.84		0.5
				270	0		22.96		0.5
			QPSK	1	1		23.10		0
				1	137		23.35		0
				1	271		24.08		0
				135	0		22.37		1
				135	69		23.40		0
				135	138		22.35		1
				270	0		22.48		1
			16QAM	1	1		22.21		1
			64QAM	1	1		20.68		2.5
			256QAM	1	1		18.69		4.5
		CP	QPSK	1	1		21.56		1.5

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NR TDD Band n78 DoD(PC3) Conducted Power_ Measured RSI = 0_ Antenna F

NR TDD Band n78 DoD(PC3)_100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							633334		
							3500.01 ㎒		
100 ㎒	30	DFT-s	pi/2 BPSK	1	1		13.51		0
				1	137		13.82		0
				1	271		13.64		0
				135	0		13.89		0
				135	69		13.95		0
				135	138		14.21		0
				270	0		13.99		0
			QPSK	1	1		13.82		0
				1	137		13.92		0
				1	271		13.91		0
				135	0		13.85		0
				135	69		13.87		0
				135	138		14.13		0
				270	0		13.95		0
			16QAM	1	1		13.52		0
			64QAM	1	1		13.41		0
			256QAM	1	1		13.51		0
		CP	QPSK	1	1		13.47		0

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NR TDD Band n78 DoD(PC3) Conducted Power_ Measured RSI = 1 _ Antenna F

NR TDD Band n78 DoD(PC3)_100 ㎒ Bandwidth Conducted Power

Bandwidth	SCS(㎑)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							633334		
							3500.01 ㎒		
100 ㎒	30	DFT-s	pi/2 BPSK	1	1		12.64		0
				1	137		12.97		0
				1	271		12.78		0
				135	0		13.03		0
				135	69		13.05		0
				135	138		13.25		0
				270	0		13.17		0
			QPSK	1	1		12.52		0
				1	137		12.91		0
				1	271		12.81		0
				135	0		12.94		0
				135	69		12.98		0
				135	138		13.29		0
				270	0		13.06		0
			16QAM	1	1		12.68		0
			64QAM	1	1		12.58		0
			256QAM	1	1		12.62		0
		CP	QPSK	1	1		12.79		0

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NR TDD Band n78 DoD(PC2) Conducted Power_ Measured Pmax_ Antenna F

NR TDD Band n78 DoD(PC2)_100 MHz Bandwidth Conducted Power

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max. Average Power (dBm)			MPR [dB]
							633334		
							3500.01 MHz		
100 MHz	30	DFT-s	pi/2 BPSK	1	1		24.72		0
				1	137		25.33		0
				1	271		26.85		0
				135	0		24.86		0.5
				135	69		25.38		0
				135	138		25.14		0.5
				270	0		24.96		0.5
			QPSK	1	1		24.75		0
				1	137		25.38		0
				1	271		26.91		0
				135	0		24.38		1
				135	69		25.38		0
				135	138		24.64		1
				270	0		24.42		1
			16QAM	1	1		23.71		1
			64QAM	1	1		22.22		2.5
			256QAM	1	1		20.33		4.5
		CP	QPSK	1	1		23.15		1.5

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11.4.19 NR Band SRS Conducted Power

[NR TDD Band n41 (PC2) SRS Conducted Power_ Antenna B / MAIN2]

NR TDD Band n41_ 100 ㎒ Bandwidth Conducted Power_ Antenna F/SUB2, SRS #1

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm] 518598 2 592.99 ㎒	MPR [dB]
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	13.72	0
RSI = 0,1	100 ㎒	30	DFT-s QPSK	13.79	0

NR TDD Band n41_ 100 ㎒ Bandwidth Conducted Power_ Antenna D/MAIN4, SRS #2

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm] 518598 2 592.99 ㎒	MPR [dB]
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	13.12	0
RSI = 0,1	100 ㎒	30	DFT-s QPSK	13.10	0

NR TDD Band n41_ 100 ㎒ Bandwidth Conducted Power_ Antenna E/SUB1, SRS #3

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm] 518598 2 592.99 ㎒	MPR [dB]
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	16.32	0
RSI = 0,1	100 ㎒	30	DFT-s QPSK	16.22	0

[NR TDD Band n41 (PC2) SRS Conducted Power_ Antenna F / SUB2]

NR TDD Band n41_ 100 ㎒ Bandwidth Conducted Power_ Antenna B/MAIN2, SRS #1

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm] 518598 2 592.99 ㎒	MPR [dB]
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	20.06	0
RSI = 0,1	100 ㎒	30	DFT-s QPSK	17.67	0

NR TDD Band n41_ 100 ㎒ Bandwidth Conducted Power_ Antenna E/SUB1, SRS #2

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm] 518598 2 592.99 ㎒	MPR [dB]
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	17.48	0
RSI = 0,1	100 ㎒	30	DFT-s QPSK	17.42	0

NR TDD Band n41_ 100 ㎒ Bandwidth Conducted Power_ Antenna D/MAIN4, SRS #3

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm] 518598 2 592.99 ㎒	MPR [dB]
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	14.76	0
RSI = 0,1	100 ㎒	30	DFT-s QPSK	14.70	0

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[NR TDD Band n48 SRS Conducted Power]

NR TDD Band n48_ 40 ㎒ Bandwidth Conducted Power_ Antenna C/MAIN3, SRS#1

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				638000	641666	645332	
				3 570 ㎒	3 624.99 ㎒	3 679.98 ㎒	
Measured *Pmax*	40 ㎒	30	DFT-s QPSK	15.13	15.21	14.40	0
RSI = 0,1,2,3,4	40 ㎒	30	DFT-s QPSK	15.10	15.20	14.45	0

NR TDD Band n48_ 40 ㎒ Bandwidth Conducted Power_ Antenna I/SUB5, SRS#2

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				638000	641666	645332	
				3 570 ㎒	3 624.99 ㎒	3 679.98 ㎒	
Measured *Pmax*	40 ㎒	30	DFT-s QPSK	22.84	22.96	22.95	0
RSI = 0,1,2,3,4	40 ㎒	30	DFT-s QPSK	15.80	15.93	15.90	0

NR TDD Band n48_ 40 ㎒ Bandwidth Conducted Power_ Antenna D/MAIN4, SRS#3

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]			MPR [dB]
				638000	641666	645332	
				3 570 ㎒	3 624.99 ㎒	3 679.98 ㎒	
Measured *Pmax*	40 ㎒	30	DFT-s QPSK	16.01	16.72	15.72	0
RSI = 0,1,2,3,4	40 ㎒	30	DFT-s QPSK	16.10	16.68	15.70	0

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[NR TDD Band n77(Power Class 2) SRS Conducted Power]

NR TDD Band n77(Power Class 2)_ 100 ㎒ Bandwidth Conducted Power_ Antenna C/MAIN3, SRS#1

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]		MPR [dB]
				650000	662000	
				3 750 ㎒	3 930 ㎒	
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	22.03	21.93	0
RSI = 0,2,3,4	100 ㎒	30	DFT-s QPSK	12.06	12.04	0
RSI = 1	100 ㎒	30	DFT-s QPSK	11.12	11.10	0

NR TDD Band n77(Power Class 2)_ 100 ㎒ Bandwidth Conducted Power_ Antenna I/SUB5, SRS#2

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]		MPR [dB]
				650000	662000	
				3 750 ㎒	3 930 ㎒	
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	23.05	23.04	0
RSI = 0,2,3,4	100 ㎒	30	DFT-s QPSK	15.15	15.06	0
RSI = 1	100 ㎒	30	DFT-s QPSK	14.12	14.03	0

NR TDD Band n77(Power Class 2)_ 100 ㎒ Bandwidth Conducted Power_ Antenna D/MAIN4, SRS#3

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]		MPR [dB]
				650000	662000	
				3 750 ㎒	3 930 ㎒	
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	20.10	19.09	0
RSI = 0,2,3,4	100 ㎒	30	DFT-s QPSK	11.31	10.56	0
RSI = 1	100 ㎒	30	DFT-s QPSK	10.11	9.84	0

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[NR TDD Band n77_DoD(Power Class 2) SRS Conducted Power]

NR TDD Band n77_DoD(Power Class 2)_ 100 ㎒ Bandwidth Conducted Power_ Antenna C/MAIN3, SRS#1

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]	MPR
				633334	[dB]
				3 500.01 ㎒	
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	23.81	0
RSI = 0,2,3,4	100 ㎒	30	DFT-s QPSK	12.94	0
RSI = 1	100 ㎒	30	DFT-s QPSK	11.95	0

NR TDD Band n77_DoD(Power Class 2)_ 100 ㎒ Bandwidth Conducted Power_ Antenna I/SUB5, SRS#2

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]	MPR
				633334	[dB]
				3 500.01 ㎒	
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	23.07	0
RSI = 0,2,3,4	100 ㎒	30	DFT-s QPSK	14.72	0
RSI = 1	100 ㎒	30	DFT-s QPSK	13.64	0

NR TDD Band n77_DoD(Power Class 2)_ 100 ㎒ Bandwidth Conducted Power_ Antenna D/MAIN4, SRS#3

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]	MPR
				633334	[dB]
				3 500.01 ㎒	
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	20.84	0
RSI = 0,2,3,4	100 ㎒	30	DFT-s QPSK	11.96	0
RSI = 1	100 ㎒	30	DFT-s QPSK	10.95	0

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[NR TDD Band n78(Power Class 2) SRS Conducted Power]

NR TDD Band n78(Power Class 2)_100 ㎒ Bandwidth Conducted Power_ Antenna C/MAIN3, SRS#1

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm] 650000 3 750 ㎒	MPR [dB]
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	22.07	0
RSI = 0,2,3,4	100 ㎒	30	DFT-s QPSK	11.20	0
RSI = 1	100 ㎒	30	DFT-s QPSK	10.54	0

NR TDD Band n78(Power Class 2)_100 ㎒ Bandwidth Conducted Power_ Antenna E/SUB1, SRS#2

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm] 650000 3 750 ㎒	MPR [dB]
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	23.01	0
RSI = 0,2,3,4	100 ㎒	30	DFT-s QPSK	14.62	0
RSI = 1	100 ㎒	30	DFT-s QPSK	13.68	0

NR TDD Band n78(Power Class 2)_100 ㎒ Bandwidth Conducted Power_ Antenna D/MAIN4, SRS#3

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm] 650000 3 750 ㎒	MPR [dB]
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	20.02	0
RSI = 0,2,3,4	100 ㎒	30	DFT-s QPSK	11.27	0
RSI = 1	100 ㎒	30	DFT-s QPSK	10.29	0

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[NR TDD Band n78_DoD(Power Class 2) SRS Conducted Power]

NR TDD Band n78_DoD(Power Class 2)_ 100 ㎒ Bandwidth Conducted Power_ Antenna C/MAIN3, SRS#1

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]	MPR
				633334	[dB]
				3 500.01 ㎒	
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	23.74	0
RSI = 0,2,3,4	100 ㎒	30	DFT-s QPSK	12.97	0
RSI = 1	100 ㎒	30	DFT-s QPSK	11.91	0

NR TDD Band n78_DoD(Power Class 2)_ 100 ㎒ Bandwidth Conducted Power_ Antenna I/SUB5, SRS#2

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]	MPR
				633334	[dB]
				3 500.01 ㎒	
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	23.06	0
RSI = 0,2,3,4	100 ㎒	30	DFT-s QPSK	14.62	0
RSI = 1	100 ㎒	30	DFT-s QPSK	13.65	0

NR TDD Band n78_DoD(Power Class 2)_ 100 ㎒ Bandwidth Conducted Power_ Antenna C/MAIN3, SRS#3

	Bandwidth	SCS(㎑)	Modulation	Max. Average Power [dBm]	MPR
				633334	[dB]
				3 500.01 ㎒	
Measured *Pmax*	100 ㎒	30	DFT-s QPSK	20.94	0
RSI = 0,2,3,4	100 ㎒	30	DFT-s QPSK	11.95	0
RSI = 1	100 ㎒	30	DFT-s QPSK	10.94	0

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11.5 WIFI Conducted Power measurement method

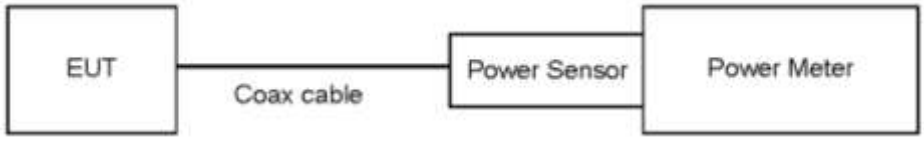
Un-Licensed Bands (DTS Band)

Test Description	Test Procedure Used
Conducted Output Power	- KDB 558074 v05 – Section 8.3.2.3 - ANSI 63.10-2013 – Section 11.9.2.3

Test Procedure

1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Test setup



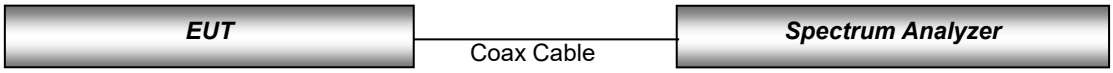
Un-Licensed Bands (NII Band)

Test Description	Test Procedure Used
Conducted Output Power	- KDB 789033 D02 v02r01 – Section E.3.a

Test Procedure

1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Test setup



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11.5.1 IEEE 802.11 (2.4 ㎓) Maximum and Reduced Conducted Power

Mode	Frequency [㎒]	Channel	Plimit (Head, Body)		
			IEEE 802.11 (2.4 ㎓) Average RF Conducted Power [dBm]		
			WIFI 1	WIFI 2	MIMO
802.11b	2 412	1	17.96	17.76	20.87
	2 437	6	17.40	17.44	20.43
	2 462	11	16.98	17.80	20.42

Mode	Frequency [㎒]	Channel	Plimit (RSDB)		
			IEEE 802.11 (2.4 ㎓) Average RF Conducted Power [dBm]		
			WIFI 1	WIFI 2	MIMO
802.11b	2 412	1	14.93	14.80	17.87
	2 437	6	14.30	14.35	17.33
	2 462	11	13.85	14.76	17.33

11.5.2 IEEE 802.11 (5 ㎓) Maximum and Reduced Conducted Power

Frequency [㎒]	Channel	Plimit (Head, Body)		
		IEEE 802.11 ac (80 ㎒ BW) Conducted Power [dBm]		
		Ant.1	Ant.2	MIMO
42	5210	12.54	11.31	14.98
58	5290	14.27	14.72	17.51
106	5530	13.72	14.31	17.03
122	5610	13.86	14.89	17.42
138	5690	13.75	14.04	16.91
155	5775	13.23	14.88	17.14
171	5855	13.55	14.79	17.22

Frequency [㎒]	Channel	Plimit (RSDB)		
		IEEE 802.11 ac (80 ㎒ BW) Conducted Power [dBm]		
		Ant.1	Ant.2	MIMO
42	5210	9.44	8.36	11.94
58	5290	11.21	11.60	14.42
106	5530	10.77	11.26	14.03
122	5610	10.87	11.89	14.42
138	5690	10.79	11.01	13.91
155	5775	10.30	11.83	14.14
171	5855	10.58	11.75	14.21

11.5.3 IEEE 802.11 (6-7 ㎓) Maximum and Reduced Conducted Power

Frequency [㎒]	Channel	Plimit (Head/Body)		
		IEEE 802.11ax (40 ㎒ BW) Conducted Power [dBm]		
		Ant.1	Ant.2	MIMO
3	5965	8.00	8.20	11.11
43	6165	8.09	8.31	11.21
115	6525	7.99	8.69	11.36
179	6845	7.27	7.18	10.23
227	7085	8.04	7.69	10.87

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Note:

Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02:

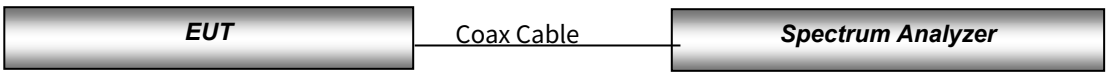
▪ Power measurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.

▪ For transmission mode with the same maximum output power specification, powers were measured for the largest channel Bandwidth, lowest order modulation and lowest data rate.

▪ For transmission modes with identical maximum specified output power, channel Bandwidth, modulation and data rates, power measurements were required for all identical configurations.

▪ For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-Band channel(s) when there were at least 3 channels supported. For configurations with multiple mid-Band channels, due to an even number of channels, both channels were measured.

Test Configuration



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11.6 Bluetooth Maximum Conducted Power

Bluetooth SISO Burst Averaged-conducted power

Mode	Channel	Max. Average Conducted Power [dBm]	
		Ant.1	Ant.2
DH5	0	18.67	19.41
	39	17.74	19.31
	78	17.45	18.67
2-DH5	0	15.04	16.26
	39	13.69	16.28
	78	13.20	14.7
3-DH5	0	15.08	16.27
	39	13.68	16.29
	78	13.21	14.7

Bluetooth Dual Burst Averaged-conducted power

Mode	Channel	Max. Average Conducted Power [dBm]		
		Ant.1	Ant.2	DUAl Tx
DH5	0	12.28	13.84	16.14
	39	11.95	13.99	16.1
	78	12.97	11.15	15.16
2-DH5	0	9.81	10.87	13.38
	39	9.8	10.04	12.93
	78	10.34	7.94	12.29
3-DH5	0	9.82	10.87	13.39
	39	9.81	10.05	12.94
	78	10.32	7.96	12.3

Mode	Channel	Max. Average Conducted Power [dBm]		
		Dual BT Ant.1	Dual BT Ant.2	Dual BT Ant.1+Ant.2
LE 1M	37	12.48	13.91	16.26
	17	12.39	14.00	16.28
	39	12.91	11.12	15.12

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11.6.1 Bluetooth Reduced Conducted Power – Receiver Active (Head/Body)

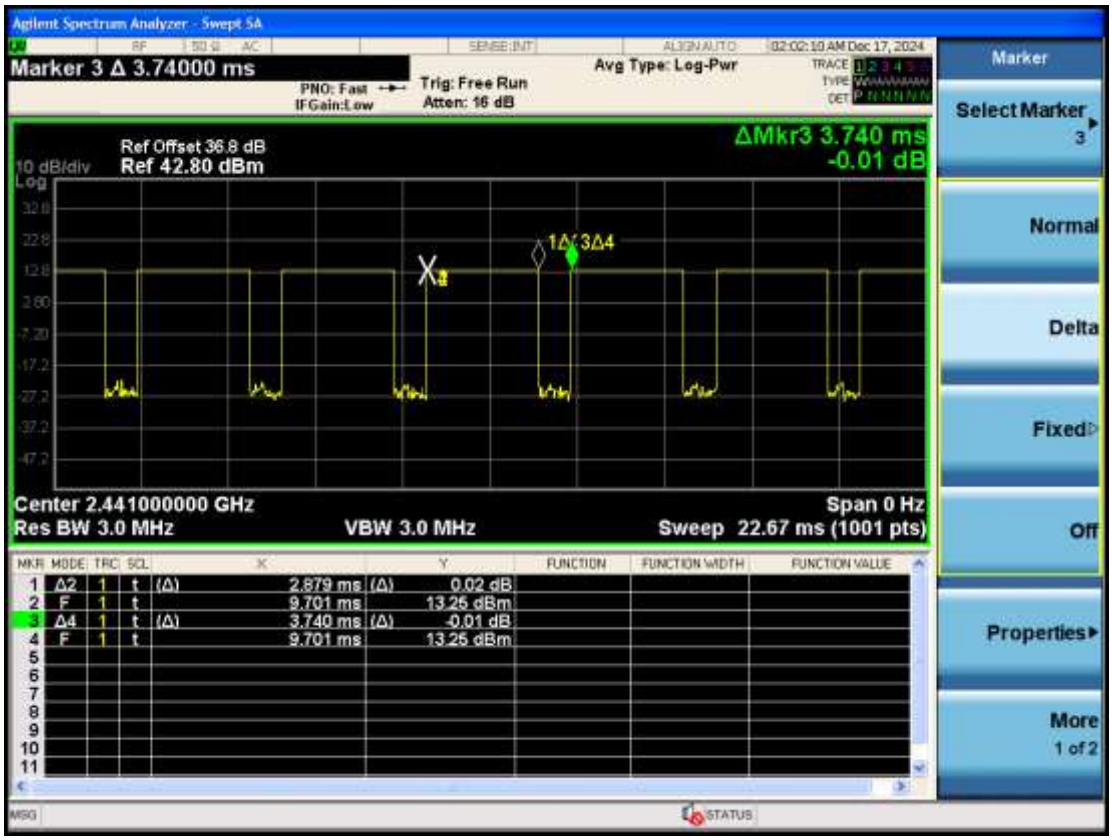
Bluetooth SISO Burst Averaged-conducted power

Mode	Channel	Max. Average Conducted Power [dBm]	
		Ant.1	Ant.2
DH5	0	12.42	12.57
	39	11.72	13.82
	78	11.45	12.35
2-DH5	0	12.69	13.01
	39	11.79	13.55
	78	11.46	12.31
3-DH5	0	12.67	13.03
	39	11.80	13.54
	78	11.42	12.29

Mode	Channel	Max. Average Conducted Power [dBm]	
		Ant.1	Ant.2
LE 1M	37	13.09	13.83
	17	12.30	14.63
	39	11.55	12.69

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Bluetooth DH 5 Mode



Duty Cycle

= (BT-On time /BT-Full time) =(2.879/3.740) = 0.770 (DH5)

BT DH5 Maximum Duty Factor:
The theoretical maximum duty cycle defined by chipset manufacturer is 79.0 % In the ideal theory Duty Cycle, the test error tolerance [1%] of the test equipment was considered and applied to the measurement results. Duty cycle of DH5 measured by DUT was 77.0%, and the duty cycle was compensated by applying test error tolerance 1%. For more information on BT, please refer to the technical description document.

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Bluetooth LE 1M Mode



Duty Cycle

= (BT-On time /BT-Full time) =(2.131/2.502) = 0.852 (1M)

BT LE 1M(255) Maximum Duty Factor:

The theoretical maximum duty cycle defined by chipset manufacturer is 88 % In the ideal theory Duty Cycle, the test error tolerance [1%] of the test equipment was considered and applied to the measurement results. Duty cycle of DH5 measured by DUT was 97.6%, and the duty cycle was compensated by applying test error tolerance 1%. For more information on BT , please refer to the technical description document.

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12. System Verification

12.1 Tissue Verification

The head simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity.

◆ GSM/ UMTS/ LTE/ WLAN/ NFC Band

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. [°C]	Tissue Type	Freq. [㎒]	Measured Conductivity σ [S/m]	Measured Dielectric Constant, ε	Target Conductivity σ [S/m]	Target Dielectric Constant, ε	dev σ [%]	dev ε [%]
06/28/2025	22.4	13H	12	0.737	54.710	0.750	55.000	- 1.73	- 0.53
			13	0.719	53.850	0.750	55.000	- 4.13	- 2.09
			14	0.749	54.190	0.750	55.000	- 0.13	- 1.47
06/02/2025	21.7	750H	705	0.859	43.310	0.889	42.174	- 3.37	+ 2.69
			710	0.864	43.230	0.890	42.148	- 2.92	+ 2.57
			750	0.907	42.630	0.893	41.940	+ 1.57	+ 1.65
06/03/2025	21.4	750H	705	0.857	43.300	0.889	42.174	- 3.60	+ 2.67
			710	0.859	43.270	0.890	42.148	- 3.48	+ 2.66
			750	0.874	43.070	0.893	41.940	- 2.13	+ 2.69
06/04/2025	21.8	750H	750	0.906	42.440	0.893	41.940	+ 1.46	+ 1.19
			785	0.931	41.950	0.896	41.758	+ 3.91	+ 0.46
06/05/2025	21.7	750H	750	0.873	42.430	0.893	41.940	- 2.24	+ 1.17
			785	0.886	42.260	0.896	41.758	- 1.12	+ 1.20
06/06/2025	21.6	750H	750	0.905	42.430	0.893	41.940	+ 1.34	+ 1.17
			785	0.931	41.950	0.896	41.758	+ 3.91	+ 0.46
06/13/2025	21.7	750H	750	0.876	42.720	0.893	41.940	- 1.90	+ 1.86
			785	0.890	42.545	0.896	41.758	- 0.67	+ 1.88
05/28/2025	21.6	750H	705	0.902	42.130	0.889	42.174	+ 1.46	- 0.10
			710	0.908	42.140	0.890	42.148	+ 2.02	- 0.02
			750	0.920	41.700	0.893	41.940	+ 3.02	- 0.57
05/21/2025	22.6	750H	705	0.859	42.975	0.889	42.174	- 3.37	+ 1.90
			710	0.862	42.950	0.890	42.148	- 3.15	+ 1.90
			750	0.877	42.740	0.893	41.940	- 1.79	+ 1.91
06/11/2025	21.3	835H	820	0.912	40.970	0.899	41.577	+ 1.45	- 1.46
			835	0.918	40.900	0.900	41.500	+ 2.00	- 1.45
			850	0.925	40.840	0.916	41.500	+ 0.98	- 1.59
06/10/2025	21.6	835H	820	0.913	41.970	0.899	41.577	+ 1.56	+ 0.95
			835	0.920	41.900	0.900	41.500	+ 2.22	+ 0.96
			850	0.927	41.840	0.916	41.500	+ 1.20	+ 0.82

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Table for Head Tissue Verification									
Date of Tests	Tissue Temp.	Tissue Type	Freq.	Measured Conductivity σ	Measured Dielectric Constant, ε	Target Conductivity σ	Target Dielectric Constant, ε	dev σ	dev ε
	[°C]		[MHz]	[S/m]		[S/m]		[%]	[%]
06/16/2025	21.6	835H	820	0.925	41.270	0.899	41.577	+ 2.89	- 0.74
			835	0.937	41.200	0.900	41.500	+ 4.11	- 0.72
			850	0.940	41.140	0.916	41.500	+ 2.62	- 0.87
06/12/2025	21.9	835H	820	0.927	42.270	0.899	41.577	+ 3.11	+ 1.67
			835	0.934	42.200	0.900	41.500	+ 3.78	+ 1.69
			850	0.941	42.140	0.916	41.500	+ 2.73	+ 1.54
05/30/2025	21.5	835H	820	0.912	41.170	0.899	41.577	+ 1.45	- 0.98
			835	0.919	40.710	0.900	41.500	+ 2.11	- 1.90
			850	0.948	40.320	0.916	41.500	+ 3.49	- 2.84
05/29/2025	21.6	835H	820	0.909	42.470	0.899	41.577	+ 1.11	+ 2.15
			835	0.916	42.400	0.900	41.500	+ 1.78	+ 2.17
			850	0.923	42.340	0.916	41.500	+ 0.76	+ 2.02
06/11/2025	21.4	1800H	1710	1.351	40.660	1.348	40.144	+ 0.22	+ 1.29
			1750	1.373	40.690	1.371	40.080	+ 0.15	+ 1.52
			1800	1.408	40.640	1.400	40.000	+ 0.57	+ 1.60
06/28/2025	22.5	1800H	1710	1.349	40.420	1.348	40.144	+ 0.07	+ 0.69
			1750	1.370	40.440	1.371	40.080	- 0.07	+ 0.90
			1800	1.406	40.380	1.400	40.000	+ 0.43	+ 0.95
06/22/2025	21.6	1800H	1710	1.352	40.670	1.348	40.144	+ 0.30	+ 1.31
			1750	1.374	40.700	1.371	40.080	+ 0.22	+ 1.55
			1800	1.409	40.650	1.400	40.000	+ 0.64	+ 1.62
06/13/2025	21.2	1800H	1710	1.328	41.690	1.348	40.144	- 1.48	+ 3.85
			1750	1.377	41.340	1.371	40.080	+ 0.44	+ 3.14
			1800	1.416	40.690	1.400	40.000	+ 1.14	+ 1.72
07/08/2025	21.6	1900H	1850	1.391	39.090	1.400	40.000	- 0.64	- 2.27
			1900	1.391	39.040	1.400	40.000	- 0.64	- 2.40
			1910	1.398	39.130	1.400	40.000	- 0.14	- 2.18
06/09/2025	22.2	1900H	1850	1.375	39.240	1.400	40.000	- 1.79	- 1.90
			1900	1.372	39.300	1.400	40.000	- 2.00	- 1.75
			1910	1.404	38.800	1.400	40.000	+ 0.29	- 3.00
06/10/2025	21.9	1900H	1850	1.385	39.310	1.400	40.000	- 1.07	- 1.72
			1900	1.385	39.260	1.400	40.000	- 1.07	- 1.85
			1910	1.391	39.350	1.400	40.000	- 0.64	- 1.63
06/27/2025	22.7	1900H	1850	1.346	39.410	1.400	40.000	- 3.86	- 1.48
			1900	1.389	39.190	1.400	40.000	- 0.79	- 2.03
			1910	1.398	39.140	1.400	40.000	- 0.14	- 2.15
06/09/2025	21.7	1900H	1850	1.387	39.290	1.400	40.000	- 0.93	- 1.78
			1900	1.387	39.240	1.400	40.000	- 0.93	- 1.90
			1910	1.393	39.330	1.400	40.000	- 0.50	- 1.68
06/02/2025	21.7	1900H	1850	1.368	39.580	1.400	40.000	- 2.29	- 1.05
			1900	1.378	38.900	1.400	40.000	- 1.57	- 2.75
			1910	1.407	39.290	1.400	40.000	+ 0.50	- 1.78
06/28/2025	21.5	2300H	2300	1.651	39.030	1.667	39.470	- 0.96	- 1.11
			2310	1.663	38.990	1.676	39.452	- 0.78	- 1.17

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Table for Head Tissue Verification									
Date of Tests	Tissue Temp. [°C]	Tissue Type	Freq. [MHz]	Measured Conductivity σ [S/m]	Measured Dielectric Constant, ε	Target Conductivity σ [S/m]	Target Dielectric Constant, ε	dev σ [%]	dev ε [%]
06/04/2025	21.7	2300H	2300	1.729	39.040	1.667	39.470	+ 3.72	- 1.09
			2310	1.741	39.540	1.676	39.452	+ 3.88	+ 0.22
06/06/2025	21.8	2300H	2300	1.730	39.080	1.667	39.470	+ 3.78	- 0.99
			2310	1.727	39.610	1.676	39.452	+ 3.04	+ 0.40
06/27/2025	21.0	2450H	2400	1.758	39.270	1.756	39.290	+ 0.11	- 0.05
			2450	1.812	39.120	1.800	39.200	+ 0.67	- 0.20
			2500	1.867	39.000	1.855	39.140	+ 0.65	- 0.36
07/07/2025	21.4	2450H	2400	1.708	39.570	1.756	39.290	- 2.73	+ 0.71
			2450	1.761	39.420	1.800	39.200	- 2.17	+ 0.56
			2500	1.815	39.300	1.855	39.140	- 2.16	+ 0.41
06/14/2025	21.5	2450H	2400	1.814	39.940	1.756	39.290	+ 3.30	+ 1.65
			2450	1.842	40.140	1.800	39.200	+ 2.33	+ 2.40
			2500	1.891	39.500	1.855	39.140	+ 1.94	+ 0.92
06/17/2025	20.9	2450H	2400	1.801	39.840	1.756	39.290	+ 2.56	+ 1.40
			2450	1.828	40.040	1.800	39.200	+ 1.56	+ 2.14
			2500	1.877	39.400	1.855	39.140	+ 1.19	+ 0.66
06/15/2025	21.3	2450H	2400	1.758	38.760	1.756	39.290	+ 0.11	- 1.35
			2450	1.812	38.600	1.800	39.200	+ 0.67	- 1.53
			2500	1.867	38.470	1.855	39.140	+ 0.65	- 1.71
06/16/2025	21.6	2450H	2400	1.741	38.650	1.756	39.290	- 0.85	- 1.63
			2450	1.796	38.470	1.800	39.200	- 0.22	- 1.86
			2500	1.852	38.300	1.855	39.140	- 0.16	- 2.15
06/18/2025	21.6	2450H	2400	1.757	38.740	1.756	39.290	+ 0.06	- 1.40
			2450	1.810	38.590	1.800	39.200	+ 0.56	- 1.56
			2500	1.862	38.440	1.855	39.140	+ 0.38	- 1.79
06/28/2025	21.5	2600H	2500	1.867	38.400	1.855	39.140	+ 0.65	- 1.89
			2600	1.982	38.010	1.964	39.010	+ 0.92	- 2.56
			2690	2.080	37.500	2.062	38.894	+ 0.87	- 3.58
06/12/2025	21.7	2600H	2500	1.852	39.210	1.855	39.140	- 0.16	+ 0.18
			2600	1.935	38.460	1.964	39.010	- 1.48	- 1.41
			2690	2.059	38.290	2.062	38.894	- 0.15	- 1.55
06/21/2025	21.7	2600H	2500	1.821	38.720	1.855	39.140	- 1.83	- 1.07
			2600	1.938	38.700	1.964	39.010	- 1.32	- 0.79
			2690	2.043	37.830	2.062	38.894	- 0.92	- 2.74
07/05/2025	20.4	2600H	2500	1.831	38.610	1.855	39.140	- 1.29	- 1.35
			2600	1.934	38.140	1.964	39.010	- 1.53	- 2.23
			2690	2.020	37.740	2.062	38.894	- 2.04	- 2.97
06/03/2025	21.6	2600H	2500	1.821	39.120	1.855	39.140	- 1.83	- 0.05
			2600	1.923	38.700	1.964	39.010	- 2.09	- 0.79
			2690	2.045	38.390	2.062	38.894	- 0.82	- 1.30
06/16/2025	22.4	2600H	2500	1.831	39.160	1.855	39.140	- 1.29	+ 0.05
			2600	1.933	38.840	1.964	39.010	- 1.58	- 0.44
			2690	2.055	37.790	2.062	38.894	- 0.34	- 2.84

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Table for Head Tissue Verification									
Date of Tests	Tissue Temp. [°C]	Tissue Type	Freq. [MHz]	Measured Conductivity σ [S/m]	Measured Dielectric Constant, ε	Target Conductivity σ [S/m]	Target Dielectric Constant, ε	dev σ [%]	dev ε [%]
06/14/2025	22.0	3500H-3700H	3500	2.889	38.890	2.913	37.930	- 0.82	+ 2.53
			3550	2.934	38.790	2.964	37.870	- 1.01	+ 2.43
			3650	3.029	38.640	3.066	37.760	- 1.21	+ 2.33
			3700	3.075	38.570	3.118	37.770	- 1.38	+ 2.12
07/01/2025	22.3	5180H-5320H	5180	4.517	37.150	4.635	36.010	- 2.55	+ 3.17
			5250	4.639	36.860	4.706	35.930	- 1.42	+ 2.59
			5280	4.679	36.480	4.737	35.894	- 1.22	+ 1.63
			5320	4.753	36.970	4.778	35.846	- 0.52	+ 3.14
07/01/2025	22.3	5500H-5600H	5500	4.832	36.830	4.963	35.640	- 2.64	+ 3.34
			5600	4.921	36.520	5.065	35.530	- 2.84	+ 2.79
			5750	5.188	36.250	5.219	35.360	- 0.59	+ 2.52
07/02/2025	22.5	5750H-5825H	5750	5.245	36.120	5.219	35.360	+ 0.50	+ 2.15
			5800	5.191	36.520	5.270	35.300	- 1.50	+ 3.46
			5825	5.183	36.345	5.296	35.270	- 2.13	+ 3.05
07/02/2025	22.5	5800H-5885H	5800	5.191	36.520	5.270	35.300	- 1.50	+ 3.46
			5835	5.198	36.100	5.306	35.258	- 2.04	+ 2.39
			5845	5.218	36.135	5.316	35.246	- 1.84	+ 2.52
			5855	5.222	36.170	5.326	35.235	- 1.95	+ 2.65
			5865	5.209	36.035	5.337	35.225	- 2.40	+ 2.30
			5875	5.240	35.985	5.347	35.215	- 2.00	+ 2.19
			5885	5.243	35.895	5.357	35.205	- 2.13	+ 1.96
07/01/2025	22.6	5180H-5320H	5180	4.655	35.430	4.635	36.010	+ 0.43	- 1.61
			5250	4.740	35.190	4.706	35.930	+ 0.72	- 2.06
			5280	4.784	35.130	4.737	35.894	+ 0.99	- 2.13
			5320	4.841	35.100	4.778	35.846	+ 1.32	- 2.08
07/02/2025	21.9	5500H-5600H	5500	4.845	34.930	4.963	35.640	- 2.38	- 1.99
			5600	4.952	34.740	5.065	35.530	- 2.23	- 2.22
			5750	5.158	34.660	5.219	35.360	- 1.17	- 1.98
07/03/2025	21.9	5750H-5825H	5750	5.286	34.660	5.219	35.360	+ 1.28	- 1.98
			5800	5.213	34.380	5.270	35.300	- 1.08	- 2.61
			5825	5.180	34.640	5.296	35.270	- 2.19	- 1.79
07/04/2025	21.8	5800H-5885H	5800	5.210	34.670	5.270	35.300	- 1.14	- 1.78
			5835	5.168	34.605	5.306	35.258	- 2.60	- 1.85
			5845	5.162	34.565	5.316	35.246	- 2.90	- 1.93
			5855	5.159	34.515	5.326	35.235	- 3.14	- 2.04
			5865	5.159	34.465	5.337	35.225	- 3.34	- 2.16
			5875	5.162	34.410	5.347	35.215	- 3.46	- 2.29
			5885	5.170	34.350	5.357	35.205	- 3.49	- 2.43
06/14/2025	21.6	5180H-5320H	5180	4.459	37.350	4.635	36.010	- 3.80	+ 3.72
			5250	4.581	37.060	4.706	35.930	- 2.66	+ 3.15
			5280	4.620	36.680	4.737	35.894	- 2.47	+ 2.19
			5320	4.693	37.170	4.778	35.846	- 1.78	+ 3.69

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Date of Tests	Tissue Temp. [°C]	Tissue Type	Freq. [MHz]	Measured Conductivity σ [S/m]	Measured Dielectric Constant, ε	Target Conductivity σ [S/m]	Target Dielectric Constant, ε	dev σ [%]	dev ε [%]
06/15/2025	22.6	5500H-5600H	5500	4.843	36.650	4.963	35.640	- 2.42	+ 2.83
			5600	4.894	36.540	5.065	35.530	- 3.38	+ 2.84
			5750	5.156	36.670	5.219	35.360	- 1.21	+ 3.70
06/17/2025	20.8	5750H-5825H	5750	5.213	36.220	5.219	35.360	- 0.11	+ 2.43
			5800	5.159	36.620	5.270	35.300	- 2.11	+ 3.74
			5825	5.151	36.445	5.296	35.270	- 2.74	+ 3.33
06/18/2025	21.7	5800H-5885H	5800	5.063	36.590	5.270	35.300	- 3.93	+ 3.65
			5835	5.127	36.470	5.306	35.258	- 3.37	+ 3.44
			5845	5.147	36.410	5.316	35.246	- 3.18	+ 3.30
			5855	5.134	36.300	5.326	35.235	- 3.60	+ 3.02
			5865	5.111	36.210	5.337	35.225	- 4.23	+ 2.80
			5875	5.112	36.240	5.347	35.215	- 4.39	+ 2.91
			5885	5.127	36.025	5.357	35.205	- 4.29	+ 2.33
06/24/2025	21.9	5180H-5320H	5180	4.488	37.250	4.635	36.010	- 3.17	+ 3.44
			5250	4.610	36.960	4.706	35.930	- 2.04	+ 2.87
			5280	4.650	36.580	4.737	35.894	- 1.84	+ 1.91
			5320	4.723	37.070	4.778	35.846	- 1.15	+ 3.41
06/25/2025	22.2	5500H-5600H	5500	4.874	36.550	4.963	35.640	- 1.79	+ 2.55
			5600	4.925	36.440	5.065	35.530	- 2.76	+ 2.56
			5750	5.188	36.570	5.219	35.360	- 0.59	+ 3.42
06/26/2025	22.7	5750H-5825H	5750	5.245	36.120	5.219	35.360	+ 0.50	+ 2.15
			5800	5.191	36.520	5.270	35.300	- 1.50	+ 3.46
			5825	5.183	36.345	5.296	35.270	- 2.13	+ 3.05
06/27/2025	21.8	5800H-5885H	5800	5.096	36.490	5.270	35.300	- 3.30	+ 3.37
			5835	5.160	36.370	5.306	35.258	- 2.75	+ 3.15
			5845	5.180	36.310	5.316	35.246	- 2.56	+ 3.02
			5855	5.166	36.200	5.326	35.235	- 3.00	+ 2.74
			5865	5.149	36.110	5.337	35.225	- 3.52	+ 2.51
			5875	5.145	36.140	5.347	35.215	- 3.78	+ 2.63
			5885	5.160	35.925	5.357	35.205	- 3.68	+ 2.05
07/01/2025	21.8	6500H	5 930	5.393	35.260	5.407	35.170	- 0.26	+ 0.26
			6 000	5.526	35.230	5.480	35.100	+ 0.84	+ 0.37
			6 300	5.825	34.370	5.834	34.740	- 0.15	- 1.07
			6 500	6.113	34.460	6.070	34.500	+ 0.71	- 0.12
			6 700	6.420	34.350	6.302	34.260	+ 1.87	+ 0.26
			7 000	6.534	33.070	6.650	33.900	- 1.74	- 2.45
			7 150	6.759	33.490	6.827	33.720	- 1.00	- 0.68
07/02/2025	22.1	6500H	5930	5.378	34.730	5.407	35.170	- 0.54	- 1.25
			6000	5.533	34.630	5.480	35.100	+ 0.97	- 1.34
			6300	5.910	34.170	5.834	34.740	+ 1.30	- 1.64
			6500	6.191	34.100	6.070	34.500	+ 1.99	- 1.16
			6700	6.475	33.520	6.302	34.260	+ 2.75	- 2.16
			7000	6.792	33.080	6.650	33.900	+ 2.14	- 2.42
			7150	6.965	33.120	6.827	33.720	+ 2.02	- 1.78

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◆ 5G NR SUB 6 Band

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Date of Tests	Tissue Temp.	Tissue Type	Freq.	Measured Conductivity σ	Measured Dielectric Constant, ε	Target Conductivity σ	Target Dielectric Constant, ε	dev σ	dev ε
	[°C]		[MHz]	[S/m]		[S/m]		[%]	[%]
06/02/2025	22.3	750H	705	0.919	41.745	0.889	42.174	+ 3.37	- 1.02
			710	0.919	41.870	0.890	42.148	+ 3.26	- 0.66
			750	0.929	40.980	0.893	41.940	+ 4.03	- 2.29
06/13/2025	22.0	750H	705	0.916	41.935	0.889	42.174	+ 3.04	- 0.57
			710	0.918	41.630	0.890	42.148	+ 3.15	- 1.23
			750	0.919	41.530	0.893	41.940	+ 2.91	- 0.98
06/04/2025	22.5	750H	705	0.867	41.885	0.889	42.174	- 2.47	- 0.69
			710	0.873	42.140	0.890	42.148	- 1.91	- 0.02
			750	0.870	40.930	0.893	41.940	- 2.58	- 2.41
06/05/2025	21.6	750H	705	0.856	42.330	0.889	42.174	- 3.71	+ 0.37
			710	0.853	42.270	0.890	42.148	- 4.16	+ 0.29
			750	0.868	41.020	0.893	41.940	- 2.80	- 2.19
06/12/2025	22.4	750H	705	0.897	42.485	0.889	42.174	+ 0.90	+ 0.74
			710	0.901	42.120	0.890	42.148	+ 1.24	- 0.07
			750	0.898	41.470	0.893	41.940	+ 0.56	- 1.12
06/11/2025	22.3	750H	705	0.910	41.675	0.889	42.174	+ 2.36	- 1.18
			710	0.913	41.510	0.890	42.148	+ 2.58	- 1.51
			750	0.932	41.070	0.893	41.940	+ 4.37	- 2.07
06/06/2025	22.5	835H	820	0.912	41.170	0.899	41.577	+ 1.45	- 0.98
			835	0.919	40.710	0.900	41.500	+ 2.11	- 1.90
			850	0.948	40.320	0.916	41.500	+ 3.49	- 2.84
06/09/2025	21.9	835H	820	0.928	43.060	0.899	41.577	+ 3.23	+ 3.57
			835	0.935	42.990	0.900	41.500	+ 3.89	+ 3.59
			850	0.942	42.920	0.916	41.500	+ 2.84	+ 3.42
06/16/2025	22.8	1640H	1640	1.258	41.710	1.307	40.255	- 3.75	+ 3.61
			1690	1.321	41.080	1.336	40.176	- 1.12	+ 2.25
			1700	1.325	40.680	1.342	40.160	- 1.27	+ 1.29
06/17/2025	22.4	1640H	1640	1.281	40.770	1.307	40.255	- 1.99	+ 1.28
			1690	1.330	40.600	1.336	40.176	- 0.45	+ 1.06
			1700	1.348	40.540	1.342	40.160	+ 0.45	+ 0.95
06/26/2025	21.6	1800H	1710	1.349	40.970	1.348	40.144	+ 0.07	+ 2.06
			1750	1.371	41.000	1.371	40.080	+ 0.00	+ 2.30
			1800	1.406	40.950	1.400	40.000	+ 0.43	+ 2.38
06/06/2025	21.2	1800H	1710	1.302	41.340	1.348	40.144	- 3.41	+ 2.98
			1750	1.340	41.160	1.371	40.080	- 2.26	+ 2.69
			1800	1.389	40.850	1.400	40.000	- 0.79	+ 2.13
06/25/2025	21.8	1900H	1850	1.384	39.590	1.400	40.000	- 1.14	- 1.02
			1900	1.384	39.540	1.400	40.000	- 1.14	- 1.15
			1910	1.390	39.630	1.400	40.000	- 0.71	- 0.92

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	[°C]		[MHz]	[S/m]		[S/m]		[%]	[%]
06/03/2025	21.5	1900H	1850	1.381	39.890	1.400	40.000	- 1.36	- 0.28
			1900	1.381	39.840	1.400	40.000	- 1.36	- 0.40
			1910	1.387	39.930	1.400	40.000	- 0.93	- 0.17
06/20/2025	22.7	2300H	2300	1.701	38.330	1.667	39.470	+ 2.04	- 2.89
			2310	1.694	38.390	1.676	39.452	+ 1.07	- 2.69
06/17/2025	21.1	2300H	2300	1.635	40.040	1.667	39.470	- 1.92	+ 1.44
			2310	1.645	40.060	1.676	39.452	- 1.85	+ 1.54
06/19/2025	22.1	2 600H	2500	1.849	39.210	1.855	39.140	- 0.32	+ 0.18
			2600	1.959	38.800	1.964	39.010	- 0.25	- 0.54
			2690	2.061	38.380	2.062	38.894	- 0.05	- 1.32
06/16/2025	21.1	2 600H	2500	1.893	39.570	1.855	39.140	+ 2.05	+ 1.10
			2600	2.000	39.250	1.964	39.010	+ 1.83	+ 0.62
			2690	2.092	38.690	2.062	38.894	+ 1.45	- 0.52
06/03/2025	21.5	1900H	1850	1.381	39.890	1.400	40.000	- 1.36	- 0.28
			1900	1.381	39.840	1.400	40.000	- 1.36	- 0.40
			1910	1.387	39.930	1.400	40.000	- 0.93	- 0.17
06/20/2025	22.7	2300H	2300	1.701	38.330	1.667	39.470	+ 2.04	- 2.89
			2310	1.694	38.390	1.676	39.452	+ 1.07	- 2.69
06/17/2025	21.1	2300H	2300	1.635	40.040	1.667	39.470	- 1.92	+ 1.44
			2310	1.645	40.060	1.676	39.452	- 1.85	+ 1.54
06/19/2025	22.1	2 600H	2500	1.849	39.210	1.855	39.140	- 0.32	+ 0.18
			2600	1.959	38.800	1.964	39.010	- 0.25	- 0.54
			2690	2.061	38.380	2.062	38.894	- 0.05	- 1.32
06/16/2025	21.1	2 600H	2500	1.893	39.570	1.855	39.140	+ 2.05	+ 1.10
			2600	2.000	39.250	1.964	39.010	+ 1.83	+ 0.62
			2690	2.092	38.690	2.062	38.894	+ 1.45	- 0.52
06/04/2025	21.4	2 600H	2500	1.838	39.110	1.855	39.140	- 0.92	- 0.08
			2600	1.920	38.360	1.964	39.010	- 2.24	- 1.67
			2690	2.044	38.190	2.062	38.894	- 0.87	- 1.81
06/05/2025	20.6	2 600H	2500	1.820	39.190	1.855	39.140	- 1.89	+ 0.13
			2600	1.928	38.340	1.964	39.010	- 1.83	- 1.72
			2690	2.030	38.170	2.062	38.894	- 1.55	- 1.86
07/09/2025	21.5	2 600H	2500	1.852	39.210	1.855	39.140	- 0.16	+ 0.18
			2600	1.935	38.460	1.964	39.010	- 1.48	- 1.41
			2690	2.059	38.290	2.062	38.894	- 0.15	- 1.55
06/26/2025	22.5	3500H-3700H	3500	2.830	38.290	2.913	37.930	- 2.85	+ 0.95
			3550	2.875	38.190	2.964	37.870	- 3.00	+ 0.84
			3650	2.968	38.040	3.066	37.760	- 3.20	+ 0.74
			3700	3.014	37.970	3.118	37.770	- 3.34	+ 0.53

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Table for Head Tissue Verification									
Date of Tests	Tissue Temp.	Tissue Type	Freq.	Measured Conductivity σ	Measured Dielectric Constant, ε	Target Conductivity σ	Target Dielectric Constant, ε	dev σ	dev ε
	[°C]		[MHz]	[S/m]		[S/m]		[%]	[%]
06/27/2025	22.7	3500H-3700H	3500	2.889	37.790	2.913	37.930	- 0.82	- 0.37
			3550	2.934	37.690	2.964	37.870	- 1.01	- 0.48
			3650	3.029	37.540	3.066	37.760	- 1.21	- 0.58
			3700	3.075	37.470	3.118	37.770	- 1.38	- 0.79
06/28/2025	22.5	3500H	3400	2.802	38.230	2.810	38.040	- 0.28	+ 0.50
			3500	2.900	38.070	2.913	37.930	- 0.45	+ 0.37
			3550	2.953	37.950	2.964	37.870	- 0.37	+ 0.21
06/28/2025	22.5	3700H-3970	3700	3.092	37.660	3.118	37.700	- 0.83	- 0.11
			3750	3.144	37.600	3.169	37.640	- 0.79	- 0.11
			3800	3.191	37.550	3.220	37.590	- 0.90	- 0.11
			3900	3.280	37.420	3.233	37.470	+ 1.45	- 0.13
			3970	3.354	37.340	3.394	37.390	- 1.18	- 0.13
06/29/2025	21.8	3500H	3400	2.841	38.840	2.810	38.040	+ 1.10	+ 2.10
			3500	2.944	38.680	2.913	37.930	+ 1.06	+ 1.98
			3550	2.997	38.560	2.964	37.870	+ 1.11	+ 1.82
06/29/2025	21.8	3700H-3970	3700	3.137	38.290	3.118	37.700	+ 0.61	+ 1.56
			3750	3.189	38.210	3.169	37.640	+ 0.63	+ 1.51
			3800	3.236	38.180	3.220	37.590	+ 0.50	+ 1.57
			3900	3.327	38.050	3.233	37.470	+ 2.91	+ 1.55
			3970	3.401	37.950	3.394	37.390	+ 0.21	+ 1.50

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12.2 System Verification

◆ GSM/ UMTS/ LTE/ WLAN Band

Input Power: 50 ㎽

Freq.	Date	Probe	Dipole	Liquid	Amb. Temp.	Liquid Temp.	1 W Target SAR_{1g} (Speag)	50 ㎽ Measured SAR_{1g}	1 W Normalized SAR_{1g}	Dev.	Limit
[㎒]		(S/N)	(S/N)		[°C]	[°C]	[W/kg]	[W/kg]	[W/kg]	[%]	[%]
750	06/02/2025	7622	1014	Head	21.8	21.7	8.80	0.426	8.52	- 3.18	± 10
750	06/03/2025	7622	1014	Head	21.5	21.4	8.80	0.416	8.32	- 5.45	± 10
750	06/04/2025	7622	1014	Head	21.9	21.8	8.80	0.427	8.54	- 2.95	± 10
750	06/05/2025	7622	1014	Head	21.8	21.7	8.80	0.419	8.38	- 4.77	± 10
750	06/06/2025	7622	1014	Head	21.7	21.6	8.80	0.427	8.54	- 2.95	± 10
750	06/13/2025	7622	1014	Head	21.8	21.7	8.80	0.421	8.42	- 4.32	± 10
750	05/28/2025	7622	1014	Head	21.7	21.6	8.80	0.440	8.80	+ 0.00	± 10
750	05/21/2025	7622	1014	Head	22.7	22.6	8.80	0.422	8.44	- 4.09	± 10
835	06/11/2025	7622	441	Head	21.4	21.3	9.73	0.525	10.50	+ 7.91	± 10
835	06/10/2025	7622	441	Head	21.7	21.6	9.73	0.507	10.14	+ 4.21	± 10
835	06/16/2025	7622	441	Head	21.7	21.6	9.73	0.514	10.28	+ 5.65	± 10
835	06/12/2025	7622	441	Head	22.0	21.9	9.73	0.514	10.28	+ 5.65	± 10
835	05/30/2025	7622	441	Head	21.6	21.5	9.73	0.520	10.40	+ 6.89	± 10
835	05/29/2025	7622	441	Head	21.7	21.6	9.73	0.524	10.48	+ 7.71	± 10
1800	06/11/2025	3797	2d007	Head	21.5	21.4	39.00	1.990	39.80	+ 2.05	± 10
1800	06/28/2025	3768	2d007	Head	22.6	22.5	39.00	1.940	38.80	- 0.51	± 10
1800	06/22/2025	3797	2d007	Head	21.7	21.6	39.00	1.930	38.60	- 1.03	± 10
1800	06/13/2025	3797	2d007	Head	21.3	21.2	39.00	1.950	39.00	+ 0.00	± 10
1900	07/08/2025	3797	5d061	Head	21.7	21.6	38.80	1.860	37.20	- 4.12	± 10
1900	06/09/2025	7622	5d061	Head	22.3	22.2	38.80	2.050	41.00	+ 5.67	± 10
1900	06/10/2025	3797	5d061	Head	22.0	21.9	38.80	2.130	42.60	+ 9.79	± 10
1900	06/27/2025	3768	5d061	Head	22.8	22.7	38.80	1.990	39.80	+ 2.58	± 10
1900	06/09/2025	3797	5d061	Head	21.8	21.7	38.80	2.130	42.60	+ 9.79	± 10
1900	06/02/2025	3797	5d061	Head	21.8	21.7	38.80	2.120	42.40	+ 9.28	± 10
2 300	06/28/2025	3797	1010	Head	21.6	21.5	48.60	2.270	45.40	- 6.58	± 10
2 300	06/04/2025	3076	1010	Head	21.8	21.7	48.60	2.340	46.80	- 3.70	± 10
2 300	06/06/2025	3076	1010	Head	21.9	21.8	48.60	2.340	46.80	- 3.70	± 10
2 450	06/27/2025	3797	743	Head	21.1	21.0	52.60	2.520	50.40	- 4.18	± 10
2 450	07/07/2025	3797	743	Head	21.5	21.4	52.60	2.600	52.00	- 1.14	± 10
2 450	06/14/2025	7655	743	Head	21.6	21.5	52.60	2.620	52.40	- 0.38	± 10
2 450	06/17/2025	7655	743	Head	21.0	20.9	52.60	2.580	51.60	- 1.90	± 10
2 450	06/15/2025	7655	743	Head	21.5	21.3	52.60	2.560	51.20	- 2.66	± 10
2 450	06/16/2025	7655	743	Head	21.7	21.6	52.60	2.550	51.00	- 3.04	± 10
2 450	06/18/2025	7655	743	Head	21.7	21.6	52.60	2.550	51.00	- 3.04	± 10
2 600	06/28/2025	3797	1015	Head	21.6	21.5	56.40	2.590	51.80	- 8.16	± 10
2 600	06/12/2025	3797	1015	Head	21.8	21.7	56.40	2.760	55.20	- 2.13	± 10
2 600	06/21/2025	3797	1015	Head	21.8	21.7	56.40	2.740	54.80	- 2.84	± 10
2 600	07/05/2025	3797	1015	Head	20.5	20.4	56.40	2.760	55.20	- 2.13	± 10

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2 600	06/03/2025	3076	1015	Head	21.7	21.6	56.40	2.860	57.20	+ 1.42	± 10
Freq.	Date	Probe	Dipole	Liquid	Amb. Temp.	Liquid Temp.	1 W Target SAR_{1g} (Speag)	50 mW Measured SAR_{1g}	1 W Normalized SAR_{1g}	Dev.	Limit
[MHz]		(S/N)	(S/N)		[°C]	[°C]	[W/kg]	[W/kg]	[W/kg]	[%]	[%]
2 600	06/16/2025	3076	1015	Head	22.5	22.4	56.40	2.880	57.60	+ 2.13	± 10
3 500	06/14/2025	3903	1040	Head	22.1	22.0	65.20	3.390	67.800	+ 3.99	± 10
3 700	06/14/2025	3903	1040	Head	22.1	22.0	69.30	3.530	70.600	+ 1.88	± 10
5 250	07/01/2025	7654	1107	Head	22.4	22.3	80.20	3.950	79.000	- 1.50	± 10
5 250	07/01/2025	7309	1107	Head	22.7	22.6	80.20	4.030	80.600	+ 0.50	± 10
5 250	06/14/2025	7622	1107	Head	21.7	21.6	80.20	4.320	86.400	+ 7.73	± 10
5 250	06/24/2025	7622	1107	Head	22.0	21.9	80.20	4.070	81.400	+ 1.50	± 10
5 600	07/01/2025	7654	1107	Head	22.4	22.3	82.10	3.910	78.200	- 4.75	± 10
5 600	07/02/2025	7309	1107	Head	22.0	21.9	82.10	3.770	75.400	- 8.16	± 10
5 600	06/15/2025	7622	1107	Head	22.8	22.6	82.10	4.320	86.400	+ 5.24	± 10
5 600	06/25/2025	7622	1107	Head	22.3	22.2	82.10	4.140	82.800	+ 0.85	± 10
5 750	07/02/2025	7654	1107	Head	22.6	22.5	79.90	3.810	76.200	- 4.63	± 10
5 750	07/03/2025	7309	1107	Head	22.0	21.9	79.90	3.950	79.000	- 1.13	± 10
5 750	06/17/2025	7622	1107	Head	20.9	20.8	79.90	3.920	78.400	- 1.88	± 10
5 750	06/26/2025	7622	1107	Head	22.8	22.7	79.90	3.940	78.800	- 1.38	± 10
5 800	07/02/2025	7654	1107	Head	22.6	22.5	79.30	3.620	72.400	- 8.70	± 10
5 800	07/04/2025	7309	1107	Head	21.9	21.8	79.30	4.010	80.200	+ 1.13	± 10
5 800	06/18/2025	7622	1107	Head	21.9	21.7	79.30	3.790	75.800	- 4.41	± 10
5 800	06/27/2025	7622	1107	Head	21.9	21.8	79.30	3.860	77.200	- 2.65	± 10
6 500	07/01/2025	7622	1012	Head	21.9	21.8	297	14.50	290.000	- 2.36	± 10
6 500	07/02/2025	7622	1012	Head	22.2	22.1	297	14.40	288.000	- 3.03	± 10

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◆ 5G NR SUB 6 Band

Input Power: 50 ㎽

Freq.	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp.	Liquid Temp.	1 W Target SAR_{1g} (Speag)	50 ㎽ Measured SAR_{1g}	1 W Normalized SAR_{1g}	Deviation	Limit
[㎒]					[°C]	[°C]	[W/kg]	[W/kg]	[W/kg]	[%]	[%]
750	06/02/2025	3768	1014	Head	22.4	22.3	8.80	0.426	8.520	- 3.18	± 10
750	06/13/2025	3768	1014	Head	22.1	22.0	8.80	0.422	8.440	- 4.09	± 10
750	06/04/2025	3768	1014	Head	22.6	22.5	8.80	0.399	7.980	- 9.32	± 10
750	06/05/2025	3768	1014	Head	21.7	21.6	8.80	0.399	7.980	- 9.32	± 10
750	06/12/2025	3768	1014	Head	22.5	22.4	8.80	0.422	8.440	- 4.09	± 10
750	06/11/2025	3768	1014	Head	22.4	22.3	8.80	0.428	8.560	- 2.73	± 10
835	06/06/2025	3768	441	Head	22.6	22.5	9.73	0.505	10.100	+ 3.80	± 10
835	06/09/2025	3768	441	Head	22.0	21.9	9.73	0.514	10.280	+ 5.65	± 10
1640	06/16/2025	7370	345	Head	22.9	22.8	33.80	1.690	33.800	+ 0.00	± 10
1640	06/17/2025	7370	345	Head	22.5	22.4	33.80	1.740	34.800	+ 2.96	± 10
1800	06/26/2025	3797	2d007	Head	21.7	21.6	39.00	1.760	35.200	- 9.74	± 10
1800	06/06/2025	3797	2d007	Head	21.3	21.2	39.00	1.810	36.200	- 7.18	± 10
1900	06/25/2025	3797	5d061	Head	21.9	21.8	38.80	1.850	37.000	- 4.64	± 10
1900	06/03/2025	3797	5d061	Head	21.6	21.5	38.80	1.840	36.800	- 5.15	± 10
2300	06/20/2025	7622	1010	Head	22.9	22.7	48.60	2.460	49.200	+ 1.23	± 10
2300	06/17/2025	3797	1010	Head	21.3	21.1	48.60	2.270	45.400	- 6.58	± 10
2 600	06/19/2025	7622	1015	Head	22.2	22.1	56.40	2.590	51.800	- 8.16	± 10
2 600	06/16/2025	3797	1015	Head	21.3	21.1	56.40	2.670	53.400	- 5.32	± 10
2 600	06/04/2025	3797	1015	Head	21.5	21.4	56.40	2.640	52.800	- 6.38	± 10
2 600	06/05/2025	3797	1015	Head	20.7	20.6	56.40	2.670	53.400	- 5.32	± 10
2 600	07/09/2025	3797	1015	Head	21.6	21.5	56.40	2.730	54.600	- 3.19	± 10
3 500	06/28/2025	3903	1040	Head	22.6	22.5	65.20	3.180	63.600	- 2.45	± 10
3 500	06/26/2025	3903	1040	Head	22.6	22.5	65.20	3.450	69.000	+ 5.83	± 10
3 500	06/27/2025	3903	1040	Head	22.8	22.7	65.20	3.540	70.800	+ 8.59	± 10
3 500	06/29/2025	3903	1040	Head	21.9	21.8	65.20	3.210	64.200	- 1.53	± 10
3 700	06/26/2025	3903	1105	Head	22.6	22.5	69.30	3.600	72.000	+ 3.90	± 10
3 700	06/27/2025	3903	1105	Head	22.8	22.7	69.30	3.540	70.800	+ 2.16	± 10
3 700	06/28/2025	3903	1105	Head	22.6	22.5	69.30	3.620	72.400	+ 4.47	± 10
3 700	06/29/2025	3903	1105	Head	21.9	21.8	69.30	3.610	72.200	+ 4.18	± 10
3 900	06/28/0025	3903	1019	Head	22.6	22.5	70.30	3.500	70.000	- 0.43	± 10
3 900	06/29/2025	3903	1019	Head	21.9	21.8	70.30	3.560	71.200	+ 1.28	± 10

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◆ System Verification Results – Extremity SAR

Input Power: 50 ㎽

Freq.	Date	Probe (S/N)	Dipole (S/N)	Liquid	Amb. Temp.	Liquid Temp.	1 W Target SAR_{10g} (SPEAG)	50 ㎽ Measured SAR_{10g}	1 W Normalized SAR_{10g}	Deviation	Limit
[㎒]					[°C]	[°C]	[W/kg]	[W/kg]	[W/kg]	[%]	[%]
13	06/28/2025	3076	1016	Head	22.5	22.4	0.554	0.028	0.56	+ 1.08	± 10

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12.3 SAR Test System Verification Procedure

SAR measurement was prior to assessment; the system is verified to the ± 10 % of the specifications at each frequency Band by using the system verification kit. (Graphic Plots Attached)
- Cabling the system, using the verification kit equipment.
- Dipole antenna was placed below the flat phantom.
- The measured one-gram SAR at the surface of the phantom above the dipole feed-point should be within 10 % of the target reference value.

Note;
SAR Verification was performed according to the FCC KDB 865664 D01v01r04.

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13. SAR Test Data Summary

13.1 SAR Measurement Results

13.1.1 Head SAR Measurement Results

GSM 850 Head SAR												
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(W/kg)		(W/kg)	
836.6	190	Voice	A	35.0	34.68	-0.06	Left Touch	1:8.3	0.110	1.076	0.118	-
836.6	190	Voice	A	35.0	34.68	0.02	Left Tilt	1:8.3	0.076	1.076	0.082	-
836.6	190	Voice	A	35.0	34.68	0.04	Right Touch	1:8.3	0.148	1.076	0.159	-
836.6	190	Voice	A	35.0	34.68	0.08	Right Tilt	1:8.3	0.071	1.076	0.076	-
836.6	190	GPRS 3Tx	A	30.8	29.42	-0.19	Left Touch	1:2.77	0.105	1.374	0.144	-
836.6	190	GPRS 3Tx	A	30.8	29.42	-0.04	Left Tilt	1:2.77	0.068	1.374	0.093	-
836.6	190	GPRS 3Tx	A	30.8	29.42	0.00	Right Touch	1:2.77	0.116	1.374	0.159	-
836.6	190	GPRS 3Tx	A	30.8	29.42	0.07	Right Tilt	1:2.77	0.054	1.374	0.074	-
836.6	190	Voice	E	28.0	27.20	0.01	Left Touch	1:8.3	0.250	1.202	0.301	-
836.6	190	Voice	E	28.0	27.20	-0.11	Left Tilt	1:8.3	**0.356**	1.202	**0.428**	**A1**
836.6	190	Voice	E	28.0	27.20	-0.02	Right Touch	1:8.3	0.217	1.202	0.261	-
836.6	190	Voice	E	28.0	27.20	0.02	Right Tilt	1:8.3	0.237	1.202	0.285	-
836.6	190	GPRS 4Tx	E	22.0	21.33	0.17	Left Touch	1:2.07	0.206	1.167	0.240	-
836.6	190	GPRS 4Tx	E	22.0	21.33	-0.01	Left Tilt	1:2.07	0.251	1.167	0.293	-
836.6	190	GPRS 4Tx	E	22.0	21.33	0.01	Right Touch	1:2.07	0.209	1.167	0.244	-
836.6	190	GPRS 4Tx	E	22.0	21.33	-0.01	Right Tilt	1:2.07	0.218	1.167	0.254	-
ANSI/ IEEE C95.1 – 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram					

GSM 1900 Head SAR												
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(W/kg)		(W/kg)	
1 880	661	Voice	A	31.0	30.90	0.13	Left Touch	1:8.3	0.137	1.023	0.140	-
1 880	661	Voice	A	31.0	30.90	0.02	Left Tilt	1:8.3	0.061	1.023	0.062	-
1 880	661	Voice	A	31.0	30.90	0.04	Right Touch	1:8.3	0.078	1.023	0.080	-
1 880	661	Voice	A	31.0	30.90	-0.16	Right Tilt	1:8.3	0.056	1.023	0.057	-
1 880	661	GPRS 3Tx	A	27.5	26.82	-0.09	Left Touch	1:2.77	**0.149**	1.169	**0.174**	**A2**
1 880	661	GPRS 3Tx	A	27.5	26.82	-0.08	Left Tilt	1:2.77	0.076	1.169	0.089	-
1 880	661	GPRS 3Tx	A	27.5	26.82	0.01	Right Touch	1:2.77	0.082	1.169	0.096	-
1 880	661	GPRS 3Tx	A	27.5	26.82	-0.10	Right Tilt	1:2.77	0.067	1.169	0.078	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram					

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UMTS Band 5 Head SAR												
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(W/kg)		(W/kg)	
836.6	4183	RMC	A	23.0	22.68	-0.12	Left Touch	1:1	0.076	1.076	0.082	-
836.6	4183	RMC	A	23.0	22.68	-0.11	Left Tilt	1:1	0.079	1.076	0.085	-
836.6	4183	RMC	A	23.0	22.68	-0.10	Right Touch	1:1	0.119	1.076	0.128	-
836.6	4183	RMC	A	23.0	22.68	-0.07	Right Tilt	1:1	0.058	1.076	0.062	-
836.6	4183	RMC	E	19.0	18.33	-0.01	Left Touch	1:1	0.305	1.167	0.356	-
836.6	4183	RMC	E	19.0	18.33	0.03	Left Tilt	1:1	**0.316**	1.167	**0.369**	**A3**
836.6	4183	RMC	E	19.0	18.33	-0.02	Right Touch	1:1	0.230	1.167	0.268	-
836.6	4183	RMC	E	19.0	18.33	-0.01	Right Tilt	1:1	0.254	1.167	0.296	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram					

UMTS Band 4 Head SAR												
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(W/kg)		(W/kg)	
1 732.4	1412	RMC	A	19.0	17.17	0.19	Left Touch	1:1	**0.050**	1.524	**0.076**	**A4**
1 732.4	1412	RMC	A	19.0	17.17	0.07	Left Tilt	1:1	0.023	1.524	0.035	-
1 732.4	1412	RMC	A	19.0	17.17	0.02	Right Touch	1:1	0.033	1.524	0.050	-
1 732.4	1412	RMC	A	19.0	17.17	0.05	Right Tilt	1:1	0.025	1.524	0.038	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram					

UMTS Band 2 Head SAR												
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(W/kg)		(W/kg)	
1 880	9400	RMC	A	19.0	17.58	0.02	Left Touch	1:1	**0.044**	1.387	**0.061**	**A5**
1 880	9400	RMC	A	19.0	17.58	0.03	Left Tilt	1:1	0.033	1.387	0.046	-
1 880	9400	RMC	A	19.0	17.58	-0.15	Right Touch	1:1	0.026	1.387	0.036	-
1 880	9400	RMC	A	19.0	17.58	0.19	Right Tilt	1:1	0.019	1.387	0.026	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Head 1.6 W/kg Averaged over 1 gram					

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LTE FDD Band 7 Head SAR																
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2 510	20850	QPSK	B	20	25.0	24.43	-0.10	Left Touch	0	1	0	1:1	0.102	1.140	0.116	-
2 510	20850	QPSK	B	20	24.0	23.29	-0.07	Left Touch	1	50	49	1:1	0.089	1.178	0.105	-
2 510	20850	QPSK	B	20	25.0	24.43	0.09	Left Tilt	0	1	0	1:1	0.054	1.140	0.062	-
2 510	20850	QPSK	B	20	24.0	23.29	-0.18	Left Tilt	1	50	49	1:1	0.043	1.178	0.051	-
2 510	20850	QPSK	B	20	25.0	24.43	0.12	Right Touch	0	1	0	1:1	0.032	1.140	0.036	-
2 510	20850	QPSK	B	20	24.0	23.29	0.10	Right Touch	1	50	49	1:1	0.027	1.178	0.032	-
2 510	20850	QPSK	B	20	25.0	24.43	0.11	Right Tilt	0	1	0	1:1	0.04	1.140	0.046	-
2 510	20850	QPSK	B	20	24.0	23.29	-0.13	Right Tilt	1	50	49	1:1	0.029	1.178	0.034	-
2 560	21350	QPSK	F	20	18.0	17.70	0.08	Left Touch	0	1	0	1:1	0.241	1.072	0.258	-
2 560	21350	QPSK	F	20	18.0	17.59	0.12	Left Touch	0	50	25	1:1	0.243	1.099	0.267	-
2 560	21350	QPSK	F	20	18.0	17.70	0.15	Left Tilt	0	1	0	1:1	0.286	1.072	0.307	-
2 560	21350	QPSK	F	20	18.0	17.59	0.17	Left Tilt	0	50	25	1:1	0.291	1.099	0.320	-
2 560	21350	QPSK	F	20	18.0	17.70	-0.04	Right Touch	0	1	0	1:1	0.528	1.072	0.566	-
2 560	21350	QPSK	F	20	18.0	17.59	0.03	Right Touch	0	50	25	1:1	0.539	1.099	0.592	-
2 560	21350	QPSK	F	20	18.0	17.70	0.09	Right Tilt	0	1	0	1:1	0.546	1.072	0.585	-
2 560	21350	QPSK	F	20	18.0	17.59	0.00	Right Tilt	0	50	25	1:1	**0.561**	1.099	**0.617**	**A6**
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

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LTE FDD Band 12 Head SAR																
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
707.5	23095	QPSK	A	10	25.5	24.45	0.08	Left Touch	0	1	0	1:1	0.149	1.274	0.190	-
707.5	23095	QPSK	A	10	24.5	23.30	-0.03	Left Touch	1	25	0	1:1	0.145	1.318	0.191	-
707.5	23095	QPSK	A	10	25.5	24.45	-0.05	Left Tilt	0	1	0	1:1	0.01	1.274	0.013	-
707.5	23095	QPSK	A	10	24.5	23.30	0.12	Left Tilt	1	25	0	1:1	0.008	1.318	0.011	-
707.5	23095	QPSK	A	10	25.5	24.45	-0.18	Right Touch	0	1	0	1:1	0.046	1.274	0.059	-
707.5	23095	QPSK	A	10	24.5	23.30	0.10	Right Touch	1	25	0	1:1	0.037	1.318	0.049	-
707.5	23095	QPSK	A	10	25.5	24.45	-0.12	Right Tilt	0	1	0	1:1	0.016	1.274	0.020	-
707.5	23095	QPSK	A	10	24.5	23.30	0.10	Right Tilt	1	25	0	1:1	0.012	1.318	0.016	-
707.5	23095	QPSK	E	10	21.0	20.94	0.03	Left Touch	0	1	24	1:1	0.701	1.014	0.711	-
707.5	23095	QPSK	E	10	21.0	20.83	-0.03	Left Touch	0	25	0	1:1	0.711	1.040	**0.739**	-
707.5	23095	QPSK	E	10	21.0	20.94	-0.06	Left Tilt	0	1	24	1:1	0.664	1.014	0.673	-
707.5	23095	QPSK	E	10	21.0	20.83	-0.05	Left Tilt	0	25	0	1:1	0.639	1.040	0.665	-
707.5	23095	QPSK	E	10	21.0	20.94	-0.14	Right Touch	0	1	24	1:1	**0.724**	1.014	0.734	A7
707.5	23095	QPSK	E	10	21.0	20.83	-0.10	Right Touch	0	25	0	1:1	0.706	1.040	0.734	-
707.5	23095	QPSK	E	10	21.0	20.94	0.00	Right Tilt	0	1	24	1:1	0.583	1.014	0.591	-
707.5	23095	QPSK	E	10	21.0	20.83	0.11	Right Tilt	0	25	0	1:1	0.558	1.040	0.580	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

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LTE FDD Band 13 Head SAR																
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
782	23230	QPSK	A	10	25.5	24.58	0.02	Left Touch	0	1	24	1:1	0.122	1.236	0.151	-
782	23230	QPSK	A	10	24.5	23.59	0.03	Left Touch	1	25	0	1:1	0.092	1.233	0.113	-
782	23230	QPSK	A	10	25.5	24.58	-0.14	Left Tilt	0	1	24	1:1	0.012	1.236	0.015	-
782	23230	QPSK	A	10	24.5	23.59	-0.16	Left Tilt	1	25	0	1:1	0.013	1.233	0.016	-
782	23230	QPSK	A	10	25.5	24.58	0.13	Right Touch	0	1	24	1:1	0.037	1.236	0.046	-
782	23230	QPSK	A	10	24.5	23.59	0.19	Right Touch	1	25	0	1:1	0.031	1.233	0.038	-
782	23230	QPSK	A	10	25.5	24.58	0.18	Right Tilt	0	1	24	1:1	0.01	1.236	0.012	-
782	23230	QPSK	A	10	24.5	23.59	-0.02	Right Tilt	1	25	0	1:1	0.007	1.233	0.009	-
782	23230	QPSK	E	10	21.0	20.38	0.01	Left Touch	0	1	49	1:1	0.482	1.153	0.556	-
782	23230	QPSK	E	10	21.0	20.40	0.01	Left Touch	0	25	24	1:1	0.476	1.148	0.546	-
782	23230	QPSK	E	10	21.0	20.38	-0.08	Left Tilt	0	1	49	1:1	0.465	1.153	0.536	-
782	23230	QPSK	E	10	21.0	20.40	0.00	Left Tilt	0	25	24	1:1	**0.487**	1.148	**0.559**	A8
782	23230	QPSK	E	10	21.0	20.38	-0.07	Right Touch	0	1	49	1:1	0.439	1.153	0.506	-
782	23230	QPSK	E	10	21.0	20.40	-0.02	Right Touch	0	25	24	1:1	0.463	1.148	0.532	-
782	23230	QPSK	E	10	21.0	20.38	-0.09	Right Tilt	0	1	49	1:1	0.417	1.153	0.481	-
782	23230	QPSK	E	10	21.0	20.40	0.02	Right Tilt	0	25	24	1:1	0.429	1.148	0.492	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

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LTE FDD Band 14 Head SAR																
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
793	23330	QPSK	A	10	25.5	24.95	0.02	Left Touch	0	1	24	1:1	0.158	1.135	0.179	-
793	23330	QPSK	A	10	24.5	23.85	-0.15	Left Touch	1	25	0	1:1	0.123	1.161	0.143	-
793	23330	QPSK	A	10	25.5	24.95	-0.15	Left Tilt	0	1	24	1:1	0.017	1.135	0.019	-
793	23330	QPSK	A	10	24.5	23.85	-0.11	Left Tilt	1	25	0	1:1	0.018	1.161	0.021	-
793	23330	QPSK	A	10	25.5	24.95	0.11	Right Touch	0	1	24	1:1	0.051	1.135	0.058	-
793	23330	QPSK	A	10	24.5	23.85	0.12	Right Touch	1	25	0	1:1	0.044	1.161	0.051	-
793	23330	QPSK	A	10	25.5	24.95	0.11	Right Tilt	0	1	24	1:1	0.011	1.135	0.012	-
793	23330	QPSK	A	10	24.5	23.85	0.12	Right Tilt	1	25	0	1:1	0.009	1.161	0.010	-
793	23330	QPSK	E	10	21.0	20.83	0.02	Left Touch	0	1	0	1:1	0.521	1.040	0.542	-
793	23330	QPSK	E	10	21.0	20.80	0.05	Left Touch	0	25	0	1:1	0.529	1.047	0.554	-
793	23330	QPSK	E	10	21.0	20.83	-0.15	Left Tilt	0	1	0	1:1	**0.575**	1.040	**0.598**	**A9**
793	23330	QPSK	E	10	21.0	20.80	-0.06	Left Tilt	0	25	0	1:1	0.561	1.047	0.587	-
793	23330	QPSK	E	10	21.0	20.83	-0.05	Right Touch	0	1	0	1:1	0.536	1.040	0.557	-
793	23330	QPSK	E	10	21.0	20.80	-0.01	Right Touch	0	25	0	1:1	0.514	1.047	0.538	-
793	23330	QPSK	E	10	21.0	20.83	-0.09	Right Tilt	0	1	0	1:1	0.498	1.040	0.518	-
793	23330	QPSK	E	10	21.0	20.80	-0.14	Right Tilt	0	25	0	1:1	0.484	1.047	0.507	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

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LTE FDD Band 25 (PCS) Head SAR																
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
1 882.5	26365	QPSK	A	20	25.0	24.75	-0.12	Left Touch	0	1	0	1:1	0.194	1.059	0.205	-
1 882.5	26365	QPSK	A	20	24.0	23.69	0.17	Left Touch	0	50	0	1:1	0.147	1.074	0.158	-
1 882.5	26365	QPSK	A	20	25.0	24.75	0.11	Left Tilt	0	1	0	1:1	0.054	1.059	0.057	-
1 882.5	26365	QPSK	A	20	24.0	23.69	0.09	Left Tilt	0	50	0	1:1	0.052	1.074	0.056	-
1 882.5	26365	QPSK	A	20	25.0	24.75	0.07	Right Touch	0	1	0	1:1	0.084	1.059	0.089	-
1 882.5	26365	QPSK	A	20	24.0	23.69	0.13	Right Touch	0	50	0	1:1	0.072	1.074	0.077	-
1 882.5	26365	QPSK	A	20	25.0	24.75	0.11	Right Tilt	0	1	0	1:1	0.083	1.059	0.088	-
1 882.5	26365	QPSK	A	20	24.0	23.69	0.15	Right Tilt	0	50	0	1:1	0.061	1.074	0.066	-
1 882.5	26365	QPSK	F	20	17.5	16.75	-0.01	Left Touch	0	1	49	1:1	0.378	1.189	0.449	-
1 905	26590	QPSK	F	20	17.5	16.57	0.02	Left Touch	0	50	49	1:1	0.422	1.239	0.523	-
1 882.5	26365	QPSK	F	20	17.5	16.75	0.02	Left Tilt	0	1	49	1:1	0.567	1.189	0.674	-
1 905.0	26590	QPSK	F	20	17.5	16.57	0.03	Left Tilt	0	50	49	1:1	0.526	1.239	0.652	-
1 882.5	26365	QPSK	F	20	17.5	16.75	-0.13	Right Touch	0	1	49	1:1	0.667	1.189	0.793	-
1 905	26590	QPSK	F	20	17.5	16.57	0.06	Right Touch	0	50	49	1:1	0.642	1.239	0.795	-
1 882.5	26365	QPSK	F	20	17.5	16.75	0.02	Right Tilt	0	1	49	1:1	**0.745**	1.189	**0.886**	**A10**
1 860	26140	QPSK	F	20	17.5	16.61	-0.10	Right Tilt	0	1	99	1:1	0.623	1.227	0.764	-
1 905	26590	QPSK	F	20	17.5	16.65	0.01	Right Tilt	0	1	49	1:1	0.588	1.216	0.715	-
1 905	26590	QPSK	F	20	17.5	16.57	0.04	Right Tilt	0	50	49	1:1	0.685	1.239	0.849	-
1 860	26140	QPSK	F	20	17.5	16.52	-0.04	Right Tilt	0	50	25	1:1	0.649	1.253	0.813	-
1 882.5	26365	QPSK	F	20	17.5	16.54	-0.04	Right Tilt	0	50	25	1:1	0.652	1.247	0.813	-
1 860.0	26140	QPSK	F	20	17.5	16.58	-0.02	Right Tilt	0	100	0	1:1	0.639	1.236	0.790	-
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LTE FDD Band 26 (Cell) Head SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
831.5	26865	QPSK	A	15	25.5	24.89	-0.07	Left Touch	0	1	74	1:1	0.104	1.151	0.120	-
831.5	26865	QPSK	A	15	24.5	24.00	-0.16	Left Touch	1	36	39	1:1	0.095	1.122	0.107	-
831.5	26865	QPSK	A	15	25.5	24.89	-0.04	Left Tilt	0	1	74	1:1	0.035	1.151	0.040	-
831.5	26865	QPSK	A	15	24.5	24.00	-0.04	Left Tilt	1	36	39	1:1	0.022	1.122	0.025	-
831.5	26865	QPSK	A	15	25.5	24.89	0.12	Right Touch	0	1	74	1:1	0.080	1.151	0.092	-
831.5	26865	QPSK	A	15	24.5	24.00	0.19	Right Touch	1	36	39	1:1	0.074	1.122	0.083	-
831.5	26865	QPSK	A	15	25.5	24.89	-0.02	Right Tilt	0	1	74	1:1	0.033	1.151	0.038	-
831.5	26865	QPSK	A	15	24.5	24.00	-0.13	Right Tilt	1	36	39	1:1	0.032	1.122	0.036	-
831.5	26865	QPSK	E	15	21.0	19.88	0.06	Left Touch	0	1	0	1:1	0.488	1.294	0.631	-
831.5	26865	QPSK	E	15	21.0	19.75	0.05	Left Touch	0	36	0	1:1	0.473	1.334	0.631	-
831.5	26865	QPSK	E	15	21.0	19.88	0.08	Left Tilt	0	1	0	1:1	**0.491**	1.294	**0.635**	**A11**
831.5	26865	QPSK	E	15	21.0	19.75	0.12	Left Tilt	0	36	0	1:1	0.450	1.334	0.600	-
831.5	26865	QPSK	E	15	21.0	19.88	-0.05	Right Touch	0	1	0	1:1	0.414	1.294	0.536	-
831.5	26865	QPSK	E	15	21.0	19.75	0.11	Right Touch	0	36	0	1:1	0.408	1.334	0.544	-
831.5	26865	QPSK	E	15	21.0	19.88	0.08	Right Tilt	0	1	0	1:1	0.326	1.294	0.422	-
831.5	26865	QPSK	E	15	21.0	19.75	0.14	Right Tilt	0	36	0	1:1	0.327	1.334	0.436	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram									

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LTE FDD Band 30 Head SAR																
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2 310	27710	QPSK	A	10	24.0	23.31	0.14	Left Touch	0	1	0	1:1	0.022	1.172	0.026	-
2 310	27710	QPSK	A	10	24.0	23.20	-0.14	Left Touch	0	25	0	1:1	0.018	1.202	0.022	-
2 310	27710	QPSK	A	10	24.0	23.31	0.15	Left Tilt	0	1	0	1:1	0.021	1.172	0.025	-
2 310	27710	QPSK	A	10	24.0	23.20	0.19	Left Tilt	0	25	0	1:1	0.017	1.202	0.020	-
2 310	27710	QPSK	A	10	24.0	23.31	-0.10	Right Touch	0	1	0	1:1	0.016	1.172	0.019	-
2 310	27710	QPSK	A	10	24.0	23.20	-0.12	Right Touch	0	25	0	1:1	0.013	1.202	0.016	-
2 310	27710	QPSK	A	10	24.0	23.31	-0.12	Right Tilt	0	1	0	1:1	0.032	1.172	0.038	-
2 310	27710	QPSK	A	10	24.0	23.20	0.11	Right Tilt	0	25	0	1:1	0.025	1.202	0.030	-
2 310	27710	QPSK	F	10	19.0	18.58	0.10	Left Touch	0	1	49	1:1	0.293	1.102	0.323	-
2 310	27710	QPSK	F	10	19.0	18.61	0.04	Left Touch	0	25	0	1:1	0.288	1.094	0.315	-
2 310	27710	QPSK	F	10	19.0	18.58	-0.01	Left Tilt	0	1	49	1:1	0.350	1.102	0.386	-
2 310	27710	QPSK	F	10	19.0	18.61	0.06	Left Tilt	0	25	0	1:1	0.348	1.094	0.381	-
2 310	27710	QPSK	F	10	19.0	18.58	0.04	Right Touch	0	1	49	1:1	0.581	1.102	0.640	-
2 310	27710	QPSK	F	10	19.0	18.61	0.07	Right Touch	0	25	0	1:1	**0.590**	1.094	**0.645**	A12
2 310	27710	QPSK	F	10	19.0	18.58	0.10	Right Tilt	0	1	49	1:1	0.571	1.102	0.629	-
2 310	27710	QPSK	F	10	19.0	18.61	0.13	Right Tilt	0	25	0	1:1	0.561	1.094	0.614	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

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LTE TDD Band 41 (Power Class 3) Head SAR																
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2 593	40620	QPSK	B	20	25.0	24.33	0.18	Left Touch	0	1	0	1:1.58	0.035	1.167	0.041	-
2 593	40620	QPSK	B	20	24.0	23.40	-0.19	Left Touch	0	50	0	1:1.58	0.026	1.148	0.030	-
2 593	40620	QPSK	B	20	25.0	24.33	0.18	Left Tilt	0	1	0	1:1.58	0.019	1.167	0.022	-
2 593	40620	QPSK	B	20	24.0	23.40	0.17	Left Tilt	0	50	0	1:1.58	0.015	1.148	0.017	-
2 593	40620	QPSK	B	20	25.0	24.33	0.18	Right Touch	0	1	0	1:1.58	0.028	1.167	0.033	-
2 593	40620	QPSK	B	20	24.0	23.40	0.15	Right Touch	0	50	0	1:1.58	0.023	1.148	0.026	-
2 593	40620	QPSK	B	20	25.0	24.33	-0.12	Right Tilt	0	1	0	1:1.58	0.028	1.167	0.033	-
2 593	40620	QPSK	B	20	24.0	23.40	-0.16	Right Tilt	0	50	0	1:1.58	0.022	1.148	0.025	-
2 680	41490	QPSK	F	20	20.0	19.58	-0.11	Left Touch	0	1	0	1:1.58	0.402	1.102	0.443	-
2 680	41490	QPSK	F	20	20.0	19.60	0.10	Left Touch	0	50	25	1:1.58	0.399	1.096	0.437	-
2 680	41490	QPSK	F	20	20.0	19.58	0.15	Left Tilt	0	1	0	1:1.58	0.508	1.102	0.560	-
2 680	41490	QPSK	F	20	20.0	19.60	0.15	Left Tilt	0	50	25	1:1.58	0.523	1.096	0.573	-
2 680	41490	QPSK	F	20	20.0	19.58	-0.04	Right Touch	0	1	0	1:1.58	**0.919**	1.102	1.013	**A13**
2 593	40620	QPSK	F	20	20.0	19.38	0.15	Right Touch	0	1	49	1:1.58	0.881	1.153	1.016	-
2 506	39750	QPSK	F	20	20.0	19.16	-0.04	Right Touch	0	1	99	1:1.58	0.640	1.213	0.776	-
2 549.5	40185	QPSK	F	20	20.0	19.43	0.01	Right Touch	0	1	49	1:1.58	0.712	1.140	0.812	-
2 636.5	41055	QPSK	F	20	20.0	19.21	-0.12	Right Touch	0	1	99	1:1.58	0.623	1.199	0.747	-
2 680	41490	QPSK	F	20	20.0	19.60	-0.11	Right Touch	0	50	25	1:1.58	0.832	1.096	0.912	-
2 593	40620	QPSK	F	20	20.0	19.21	0.10	Right Touch	0	50	0	1:1.58	0.623	1.199	0.747	-
2 506	39750	QPSK	F	20	20.0	19.10	0.08	Right Touch	0	50	0	1:1.58	0.421	1.230	0.518	-
2 549.5	40185	QPSK	F	20	20.0	19.34	0.10	Right Touch	0	50	25	1:1.58	0.522	1.164	0.608	-
2 636.5	41055	QPSK	F	20	20.0	19.18	0.13	Right Touch	0	50	49	1:1.58	0.612	1.208	0.739	-
2 680	41490	QPSK	F	20	20.0	19.62	0.10	Right Touch	0	100	0	1:1.58	0.650	1.091	0.709	-
2 680	41490	QPSK	F	20	20.0	19.58	0.11	Right Tilt	0	1	0	1:1.58	0.888	1.102	0.979	-
2 593	40620	QPSK	F	20	20.0	19.38	0.10	Right Tilt	0	1	49	1:1.58	0.841	1.153	0.970	-
2 506	39750	QPSK	F	20	20.0	19.16	0.15	Right Tilt	0	1	99	1:1.58	0.521	1.213	0.632	-
2 549.5	40185	QPSK	F	20	20.0	19.43	-0.01	Right Tilt	0	1	49	1:1.58	0.671	1.140	0.765	-
2 636.5	41055	QPSK	F	20	20.0	19.21	0.14	Right Tilt	0	1	99	1:1.58	0.856	1.199	**1.026**	-
2 680	41490	QPSK	F	20	20.0	19.60	0.16	Right Tilt	0	50	25	1:1.58	0.913	1.096	1.001	-
2 593	40620	QPSK	F	20	20.0	19.21	0.17	Right Tilt	0	50	0	1:1.58	0.807	1.199	0.968	-
2 506	39750	QPSK	F	20	20.0	19.10	0.06	Right Tilt	0	50	0	1:1.58	0.475	1.230	0.584	-
2 549.5	40185	QPSK	F	20	20.0	19.34	0.15	Right Tilt	0	50	25	1:1.58	0.630	1.164	0.733	-
2 636.5	41055	QPSK	F	20	20.0	19.18	0.14	Right Tilt	0	50	49	1:1.58	0.835	1.208	1.009	-
2 680	41490	QPSK	F	20	20.0	19.62	0.12	Right Tilt	0	100	0	1:1.58	0.895	1.091	0.976	-
2 680	41490	QPSK	F	20	20.0	19.58	-0.17	Right Touch	0	1	0	1:1.58	0.853	1.102	0.940	#

ANSI/ IEEE C95.1 - 2005– Safety Limit	Head
Spatial Peak	1.6 W/kg
Uncontrolled Exposure/ General Population	Averaged over 1 gram

Note: # Data entry indicate Variability measurement.

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LTE TDD Band 48 Head SAR

Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
3 690	56640	QPSK	F	20	17.0	16.24	0.14	Left Touch	0	1	99	1:1.58	0.357	1.191	0.425	-
3 690	56640	QPSK	F	20	17.0	16.20	0.12	Left Touch	0	50	0	1:1.58	0.356	1.202	0.428	-
3 690	56640	QPSK	F	20	17.0	16.24	0.01	Left Tilt	0	1	99	1:1.58	0.463	1.191	0.551	-
3 690	56640	QPSK	F	20	17.0	16.20	-0.09	Left Tilt	0	50	0	1:1.58	0.496	1.202	0.596	-
3 690	56640	QPSK	F	20	17.0	16.24	0.04	Right Touch	0	1	99	1:1.58	0.773	1.191	0.921	-
3 560	55340	QPSK	F	20	17.0	15.90	-0.10	Right Touch	0	1	49	1:1.58	0.556	1.288	0.716	-
3 603	55773	QPSK	F	20	17.0	16.12	0.08	Right Touch	0	1	99	1:1.58	0.663	1.225	0.812	-
3 646	56207	QPSK	F	20	17.0	15.85	-0.11	Right Touch	0	1	99	1:1.58	0.617	1.303	0.804	-
3 690	56640	QPSK	F	20	17.0	16.20	0.14	Right Touch	0	50	0	1:1.58	0.631	1.202	0.758	-
3 560	55340	QPSK	F	20	17.0	15.89	0.16	Right Touch	0	50	0	1:1.58	0.415	1.291	0.536	-
3 603	55773	QPSK	F	20	17.0	16.05	-0.08	Right Touch	0	50	49	1:1.58	0.479	1.245	0.596	-
3 646	56207	QPSK	F	20	17.0	15.83	0.18	Right Touch	0	50	0	1:1.58	0.662	1.309	0.867	-
3 690	56640	QPSK	F	20	17.0	16.02	0.14	Right Touch	0	100	0	1:1.58	0.729	1.253	0.913	-
3 690	56640	QPSK	F	20	17.0	16.24	0.14	Right Tilt	0	1	99	1:1.58	0.786	1.191	0.936	-
3 560	55340	QPSK	F	20	17.0	15.90	0.10	Right Tilt	0	1	49	1:1.58	0.597	1.288	0.769	-
3 603	55773	QPSK	F	20	17.0	16.12	0.05	Right Tilt	0	1	99	1:1.58	0.666	1.225	0.816	-
3 646	56207	QPSK	F	20	17.0	15.85	0.11	Right Tilt	0	1	99	1:1.58	0.794	1.303	**1.035**	-
3 690	56640	QPSK	F	20	17.0	16.20	0.10	Right Tilt	0	50	0	1:1.58	0.798	1.202	0.959	-
3 560	55340	QPSK	F	20	17.0	15.89	0.14	Right Tilt	0	50	0	1:1.58	0.593	1.291	0.766	-
3 603	55773	QPSK	F	20	17.0	16.05	0.16	Right Tilt	0	50	49	1:1.58	0.661	1.245	0.823	-
3 646	56207	QPSK	F	20	17.0	15.83	0.15	Right Tilt	0	50	0	1:1.58	0.736	1.309	0.963	-
3 690	56640	QPSK	F	20	17.0	16.02	-0.01	Right Tilt	0	100	0	1:1.58	**0.806**	1.253	1.010	**A14**
3 690	56640	QPSK	F	20	17.0	16.02	0.11	Right Tilt	0	100	0	1:1.58	0.806	1.253	1.010	#
Uplink Carrier Aggregation																
PCC 3 690		56640	QPSK	F	20	17.0	16.18	0.13	Right Tilt	0	50	0	1:1.58	0.784	1.208	0.947	-
SCC 3 670.2		56442	QPSK	F	20	17.0				0	50	49				

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Head 1.6 W/kg Averaged over 1 gram

Note: # Data entry indicate Variability measurement.

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LTE FDD Band 66 (AWS) Head SAR																
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
1 720	132072	QPSK	A	20	25.0	23.94	0.15	Left Touch	0	1	0	1:1	0.238	1.276	0.304	-
1 720	132072	QPSK	A	20	24.0	22.99	0.18	Left Touch	0	50	0	1:1	0.193	1.262	0.244	-
1 720	132072	QPSK	A	20	25.0	23.94	0.08	Left Tilt	0	1	0	1:1	0.129	1.276	0.165	-
1 720	132072	QPSK	A	20	24.0	22.99	0.11	Left Tilt	0	50	0	1:1	0.101	1.262	0.127	-
1 720	132072	QPSK	A	20	25.0	23.94	0.12	Right Touch	0	1	0	1:1	0.150	1.276	0.191	-
1 720	132072	QPSK	A	20	24.0	22.99	0.10	Right Touch	0	50	0	1:1	0.114	1.262	0.144	-
1 720	132072	QPSK	A	20	25.0	23.94	0.13	Right Tilt	0	1	0	1:1	0.112	1.276	0.143	-
1 720	132072	QPSK	A	20	24.0	22.99	0.16	Right Tilt	0	50	0	1:1	0.088	1.262	0.111	-
1 720	132072	QPSK	F	20	18.5	17.75	0.03	Left Touch	0	1	0	1:1	0.397	1.189	0.472	-
1 720	132072	QPSK	F	20	18.5	17.72	0.08	Left Touch	0	50	0	1:1	0.397	1.197	0.475	-
1 720	132072	QPSK	F	20	18.5	17.75	0.12	Left Tilt	0	1	0	1:1	0.276	1.189	0.328	-
1 720	132072	QPSK	F	20	18.5	17.72	0.04	Left Tilt	0	50	0	1:1	0.272	1.197	0.326	-
1 720	132072	QPSK	F	20	18.5	17.75	0.05	Right Touch	0	1	0	1:1	0.638	1.189	0.759	-
1 720	132072	QPSK	F	20	18.5	17.72	0.01	Right Touch	0	50	0	1:1	0.639	1.197	0.765	-
1 720	132072	QPSK	F	20	18.5	17.75	0.01	Right Tilt	0	1	0	1:1	0.666	1.189	0.792	-
1 720	132072	QPSK	F	20	18.5	17.72	0.02	Right Tilt	0	50	0	1:1	**0.666**	1.197	**0.797**	**A15**
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

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LTE FDD Band 71 Head SAR																
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
680.5	133297	QPSK	A	20	25.5	24.90	0.18	Left Touch	0	1	0	1:1	0.109	1.148	0.125	-
680.5	133297	QPSK	A	20	24.5	23.90	-0.12	Left Touch	1	50	0	1:1	0.082	1.148	0.094	-
680.5	133297	QPSK	A	20	25.5	24.90	-0.13	Left Tilt	0	1	0	1:1	0.057	1.148	0.065	-
680.5	133297	QPSK	A	20	24.5	23.90	-0.01	Left Tilt	1	50	0	1:1	0.039	1.148	0.045	-
680.5	133297	QPSK	A	20	25.5	24.90	0.18	Right Touch	0	1	0	1:1	0.134	1.148	0.154	-
680.5	133297	QPSK	A	20	24.5	23.90	0.10	Right Touch	1	50	0	1:1	0.099	1.148	0.114	-
680.5	133297	QPSK	A	20	25.5	24.90	0.15	Right Tilt	0	1	0	1:1	0.055	1.148	0.063	-
680.5	133297	QPSK	A	20	24.5	23.90	0.14	Right Tilt	1	50	0	1:1	0.040	1.148	0.046	-
680.5	133297	QPSK	E	20	21.0	20.71	-0.03	Left Touch	0	1	0	1:1	0.414	1.069	0.443	-
680.5	133297	QPSK	E	20	21.0	20.59	0.02	Left Touch	0	50	0	1:1	0.388	1.099	0.426	-
680.5	133297	QPSK	E	20	21.0	20.71	0.00	Left Tilt	0	1	0	1:1	0.379	1.069	0.405	-
680.5	133297	QPSK	E	20	21.0	20.59	0.00	Left Tilt	0	50	0	1:1	0.348	1.099	0.382	-
680.5	133297	QPSK	E	20	21.0	20.71	-0.04	Right Touch	0	1	0	1:1	**0.454**	1.069	**0.485**	**A16**
680.5	133297	QPSK	E	20	21.0	20.59	-0.02	Right Touch	0	50	0	1:1	0.412	1.099	0.453	-
680.5	133297	QPSK	E	20	21.0	20.71	-0.05	Right Tilt	0	1	0	1:1	0.326	1.069	0.348	-
680.5	133297	QPSK	E	20	21.0	20.59	-0.01	Right Tilt	0	50	0	1:1	0.302	1.099	0.332	-

ANSI/ IEEE C95.1 - 2005– Safety Limit	Head
Spatial Peak	1.6 W/kg
Uncontrolled Exposure/ General Population	Averaged over 1 gram

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NR FDD Band n7 Head SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2 535	507000	DFT-s QPSK	B	40	25.0	23.81	-0.03	Left Touch	0	1	1	1:1	0.112	1.315	0.147	-
2 535	507000	DFT-s QPSK	B	40	25.0	23.82	-0.08	Left Touch	0	108	54	1:1	0.087	1.312	0.114	-
2 535	507000	DFT-s QPSK	B	40	25.0	23.81	-0.07	Left Tilt	0	1	1	1:1	0.027	1.315	0.036	-
2 535	507000	DFT-s QPSK	B	40	25.0	23.82	-0.10	Left Tilt	0	108	54	1:1	0.025	1.312	0.033	-
2 535	507000	DFT-s QPSK	B	40	25.0	23.81	0.05	Right Touch	0	1	1	1:1	0.035	1.315	0.046	-
2 535	507000	DFT-s QPSK	B	40	25.0	23.82	-0.05	Right Touch	0	108	54	1:1	0.029	1.312	0.038	-
2 535	507000	DFT-s QPSK	B	40	25.0	23.81	-0.02	Right Tilt	0	1	1	1:1	0.037	1.315	0.049	-
2 535	507000	DFT-s QPSK	B	40	25.0	23.82	-0.01	Right Tilt	0	108	54	1:1	0.023	1.312	0.030	-
2 535	507000	CP QPSK	B	40	23.5	22.42	-0.11	Left Touch	1.5	1	1	1:1	0.072	1.282	0.092	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.48	0.07	Left Touch	0	1	108	1:1	0.293	1.265	0.371	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.43	0.09	Left Touch	0	108	0	1:1	0.274	1.279	0.350	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.48	0.05	Left Tilt	0	1	108	1:1	0.328	1.265	0.415	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.43	0.04	Left Tilt	0	108	0	1:1	0.300	1.279	0.384	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.48	0.04	Right Touch	0	1	108	1:1	0.565	1.265	0.715	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.43	-0.10	Right Touch	0	108	0	1:1	0.508	1.279	0.650	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.48	0.03	Right Tilt	0	1	108	1:1	0.651	1.265	0.824	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.43	0.03	Right Tilt	0	108	0	1:1	0.635	1.279	0.812	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.39	0.03	Right Tilt	0	216	0	1:1	**0.713**	1.291	**0.920**	**A17**
2 535	507000	CP QPSK	F	40	17.5	16.48	0.11	Right Tilt	0	1	1	1:1	0.647	1.265	0.818	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

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NR FDD Band n12 Head SAR																
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
707.5	141500	DFT-s QPSK	A	15	25.5	24.68	-0.05	Left Touch	0	1	77	1:1	0.088	1.208	0.106	-
707.5	141500	DFT-s QPSK	A	15	25.5	24.54	0.02	Left Touch	0	36	22	1:1	0.078	1.247	0.097	-
707.5	141500	DFT-s QPSK	A	15	25.5	24.68	-0.15	Left Tilt	0	1	77	1:1	0.038	1.208	0.046	-
707.5	141500	DFT-s QPSK	A	15	25.5	24.54	0.11	Left Tilt	0	36	22	1:1	0.046	1.247	0.057	-
707.5	141500	DFT-s QPSK	A	15	25.5	24.68	-0.11	Right Touch	0	1	77	1:1	0.118	1.208	0.143	-
707.5	141500	DFT-s QPSK	A	15	25.5	24.54	0.05	Right Touch	0	36	22	1:1	0.070	1.247	0.087	-
707.5	141500	DFT-s QPSK	A	15	25.5	24.68	0.03	Right Tilt	0	1	77	1:1	0.011	1.208	0.013	-
707.5	141500	DFT-s QPSK	A	15	25.5	24.54	0.05	Right Tilt	0	36	22	1:1	0.011	1.247	0.014	-
707.5	141500	CP QPSK	A	15	24.0	23.03	-0.05	Right Touch	0	1	1	1:1	0.029	1.250	0.036	-
707.5	141500	DFT-s QPSK	E	15	21.0	19.97	-0.18	Left Touch	0	1	1	1:1	0.712	1.268	0.903	-
707.5	141500	DFT-s QPSK	E	15	21.0	20.00	-0.10	Left Touch	0	36	0	1:1	0.699	1.259	0.880	-
707.5	141500	DFT-s QPSK	E	15	21.0	19.84	-0.04	Left Touch	0	75	0	1:1	0.734	1.306	**0.959**	-
707.5	141500	DFT-s QPSK	E	15	21.0	19.97	-0.11	Left Tilt	0	1	1	1:1	0.671	1.268	0.851	-
707.5	141500	DFT-s QPSK	E	15	21.0	20.00	-0.19	Left Tilt	0	36	0	1:1	0.651	1.259	0.820	-
707.5	141500	DFT-s QPSK	E	15	21.0	19.84	-0.14	Left Tilt	0	75	0	1:1	0.628	1.306	0.820	-
707.5	141500	DFT-s QPSK	E	15	21.0	19.97	-0.08	Right Touch	0	1	1	1:1	0.644	1.268	0.817	-
707.5	141500	DFT-s QPSK	E	15	21.0	20.00	-0.17	Right Touch	0	36	0	1:1	0.644	1.259	0.811	-
707.5	141500	DFT-s QPSK	E	15	21.0	19.84	-0.06	Right Touch	0	75	0	1:1	0.636	1.306	0.831	-
707.5	141500	DFT-s QPSK	E	15	21.0	19.97	-0.04	Right Tilt	0	1	1	1:1	0.514	1.268	0.652	-
707.5	141500	DFT-s QPSK	E	15	21.0	20.00	-0.08	Right Tilt	0	36	0	1:1	0.520	1.259	0.655	-
707.5	141500	CP QPSK	E	15	21.0	20.01	-0.18	Left Touch	0	1	1	1:1	**0.738**	1.256	0.927	**A18**
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NR FDD Band n14 Head SAR																
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
793	158600	DFT-s QPSK	A	10	25.5	24.72	0.02	Left Touch	0	1	26	1:1	0.151	1.197	0.181	-
793	158600	DFT-s QPSK	A	10	25.5	24.60	-0.07	Left Touch	0	25	14	1:1	0.150	1.230	0.185	-
793	158600	DFT-s QPSK	A	10	25.5	24.72	0.08	Left Tilt	0	1	26	1:1	0.018	1.197	0.022	-
793	158600	DFT-s QPSK	A	10	25.5	24.60	0.18	Left Tilt	0	25	14	1:1	0.092	1.230	0.113	-
793	158600	DFT-s QPSK	A	10	25.5	24.72	-0.10	Right Touch	0	1	26	1:1	0.204	1.197	0.244	-
793	158600	DFT-s QPSK	A	10	25.5	24.60	0.15	Right Touch	0	25	14	1:1	0.201	1.230	0.247	-
793	158600	DFT-s QPSK	A	10	25.5	24.72	-0.04	Right Tilt	0	1	26	1:1	0.015	1.197	0.018	-
793	158600	DFT-s QPSK	A	10	25.5	24.60	0.05	Right Tilt	0	25	14	1:1	0.013	1.230	0.016	-
793	158600	CP QPSK	A	10	24.0	23.10	-0.04	Right Touch	1.5	1	1	1:1	0.201	1.230	0.247	-
793	158600	DFT-s QPSK	E	10	21.0	20.91	-0.10	Left Touch	0	1	1	1:1	**0.546**	1.021	**0.557**	**A19**
793	158600	DFT-s QPSK	E	10	21.0	20.88	0.01	Left Touch	0	25	14	1:1	0.505	1.028	0.519	-
793	158600	DFT-s QPSK	E	10	21.0	20.91	-0.03	Left Tilt	0	1	1	1:1	0.523	1.021	0.534	-
793	158600	DFT-s QPSK	E	10	21.0	20.88	-0.08	Left Tilt	0	25	14	1:1	0.481	1.028	0.494	-
793	158600	DFT-s QPSK	E	10	21.0	20.91	-0.06	Right Touch	0	1	1	1:1	0.502	1.021	0.513	-
793	158600	DFT-s QPSK	E	10	21.0	20.88	-0.08	Right Touch	0	25	14	1:1	0.466	1.028	0.479	-
793	158600	DFT-s QPSK	E	10	21.0	20.91	-0.09	Right Tilt	0	1	1	1:1	0.442	1.021	0.451	-
793	158600	DFT-s QPSK	E	10	21.0	20.88	-0.01	Right Tilt	0	25	14	1:1	0.408	1.028	0.419	-
793	158600	CP QPSK	E	10	21.0	20.88	-0.18	Left Touch	0	1	1	1:1	0.540	1.028	0.555	-
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NR FDD Band n25 Head SAR																
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
1 882.5	376500	DFT-s QPSK	A	40	25.0	24.10	0.02	Left Touch	0	1	108	1:1	0.216	1.230	0.266	-
1 882.5	376500	DFT-s QPSK	A	40	25.0	24.09	-0.06	Left Touch	0	108	54	1:1	0.218	1.233	0.269	-
1 882.5	376500	DFT-s QPSK	A	40	25.0	24.10	0.06	Left Tilt	0	1	108	1:1	0.060	1.230	0.074	-
1 882.5	376500	DFT-s QPSK	A	40	25.0	24.09	0.06	Left Tilt	0	108	54	1:1	0.061	1.233	0.075	-
1 882.5	376500	DFT-s QPSK	A	40	25.0	24.10	0.04	Right Touch	0	1	108	1:1	0.062	1.230	0.076	-
1 882.5	376500	DFT-s QPSK	A	40	25.0	24.09	-0.08	Right Touch	0	108	54	1:1	0.061	1.233	0.075	-
1 882.5	376500	DFT-s QPSK	A	40	25.0	24.10	0.02	Right Tilt	0	1	108	1:1	0.064	1.230	0.079	-
1 882.5	376500	DFT-s QPSK	A	40	25.0	24.09	-0.03	Right Tilt	0	108	54	1:1	0.060	1.233	0.074	-
1 882.5	376500	CP QPSK	A	40	23.5	22.48	0.00	Left Touch	1.5	1	1	1:1	0.147	1.265	0.186	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.89	0.01	Left Touch	0	1	108	1:1	0.298	1.026	0.306	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.98	0.06	Left Touch	0	108	0	1:1	0.295	1.005	0.296	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.89	0.00	Left Tilt	0	1	108	1:1	0.558	1.026	0.573	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.98	0.03	Left Tilt	0	108	0	1:1	0.543	1.005	0.546	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.89	0.02	Right Touch	0	1	108	1:1	0.634	1.026	0.650	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.98	0.00	Right Touch	0	108	0	1:1	0.604	1.005	0.607	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.89	-0.11	Right Tilt	0	1	108	1:1	0.521	1.026	0.535	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.98	0.00	Right Tilt	0	108	0	1:1	0.502	1.005	0.505	-
1 882.5	376500	CP QPSK	F	40	18.0	17.77	-0.07	Right Tilt	0	1	1	1:1	**0.748**	1.054	**0.788**	A20
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NR FDD Band n26 Head SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
831.5	166300	DFT-s QPSK	A	20	25.5	25.00	0.02	Left Touch	0	1	53	1:1	0.059	1.122	0.066	-
831.5	166300	DFT-s QPSK	A	20	25.5	24.97	0.13	Left Touch	0	50	28	1:1	0.058	1.130	0.066	-
831.5	166300	DFT-s QPSK	A	20	25.5	25.00	0.04	Left Tilt	0	1	53	1:1	0.036	1.122	0.040	-
831.5	166300	DFT-s QPSK	A	20	25.5	24.97	0.04	Left Tilt	0	50	28	1:1	0.034	1.130	0.038	-
831.5	166300	DFT-s QPSK	A	20	25.5	25.00	0.15	Right Touch	0	1	53	1:1	0.069	1.122	0.077	-
831.5	166300	DFT-s QPSK	A	20	25.5	24.97	0.19	Right Touch	0	50	28	1:1	0.073	1.130	0.082	-
831.5	166300	DFT-s QPSK	A	20	25.5	25.00	0.19	Right Tilt	0	1	53	1:1	0.037	1.122	0.042	-
831.5	166300	DFT-s QPSK	A	20	25.5	24.97	0.08	Right Tilt	0	50	28	1:1	0.037	1.130	0.042	-
831.5	166300	CP QPSK	A	20	24.0	23.51	0.05	Right Touch	1.5	1	1	1:1	0.058	1.119	0.065	-
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	-0.08	Left Touch	0	1	1	1:1	**0.482**	1.253	**0.604**	**A21**
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	-0.09	Left Touch	0	50	0	1:1	0.463	1.253	0.580	-
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	-0.03	Left Tilt	0	1	1	1:1	0.433	1.253	0.543	-
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	0.02	Left Tilt	0	50	0	1:1	0.419	1.253	0.525	-
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	-0.04	Right Touch	0	1	1	1:1	0.393	1.253	0.492	-
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	-0.02	Right Touch	0	50	0	1:1	0.388	1.253	0.486	-
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	-0.07	Right Tilt	0	1	1	1:1	0.358	1.253	0.449	-
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	-0.02	Right Tilt	0	50	0	1:1	0.348	1.253	0.436	-
831.5	166300	CP QPSK	E	20	21.0	19.99	-0.13	Left Touch	0	1	1	1:1	0.328	1.262	0.414	-
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NR FDD Band n30 Head SAR																
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2 310	462000	DFT-s QPSK	A	10	24.0	22.90	0.05	Left Touch	0	1	1	1:1	0.043	1.288	0.055	-
2 310	462000	DFT-s QPSK	A	10	24.0	22.77	0.10	Left Touch	0	25	14	1:1	0.041	1.327	0.054	-
2 310	462000	DFT-s QPSK	A	10	24.0	22.90	-0.09	Left Tilt	0	1	1	1:1	0.02	1.288	0.026	-
2 310	462000	DFT-s QPSK	A	10	24.0	22.77	-0.09	Left Tilt	0	25	14	1:1	0.019	1.327	0.025	-
2 310	462000	DFT-s QPSK	A	10	24.0	22.90	0.05	Right Touch	0	1	1	1:1	0.02	1.288	0.026	-
2 310	462000	DFT-s QPSK	A	10	24.0	22.77	0.15	Right Touch	0	25	14	1:1	0.025	1.327	0.033	-
2 310	462000	DFT-s QPSK	A	10	24.0	22.90	-0.11	Right Tilt	0	1	1	1:1	0.035	1.288	0.045	-
2 310	462000	DFT-s QPSK	A	10	24.0	22.77	0.02	Right Tilt	0	25	14	1:1	0.036	1.327	0.048	-
2 310	462000	CP QPSK	A	10	22.5	21.22	-0.17	Left Touch	1.5	1	1	1:1	0.021	1.343	0.028	-
2 310	462000	DFT-s QPSK	F	10	18.5	18.37	-0.06	Left Touch	0	1	26	1:1	0.273	1.030	0.281	-
2 310	462000	DFT-s QPSK	F	10	18.5	18.35	0.03	Left Touch	0	25	0	1:1	0.271	1.035	0.280	-
2 310	462000	DFT-s QPSK	F	10	18.5	18.37	0.02	Left Tilt	0	1	26	1:1	0.310	1.030	0.319	-
2 310	462000	DFT-s QPSK	F	10	18.5	18.35	-0.03	Left Tilt	0	25	0	1:1	0.303	1.035	0.314	-
2 310	462000	DFT-s QPSK	F	10	18.5	18.37	0.01	Right Touch	0	1	26	1:1	0.522	1.030	0.538	-
2 310	462000	DFT-s QPSK	F	10	18.5	18.35	0.12	Right Touch	0	25	0	1:1	0.509	1.035	0.527	-
2 310	462000	DFT-s QPSK	F	10	18.5	18.37	-0.04	Right Tilt	0	1	26	1:1	**0.543**	1.030	0.559	**A22**
2 310	462000	DFT-s QPSK	F	10	18.5	18.35	0.01	Right Tilt	0	25	0	1:1	0.532	1.035	0.551	-
2 310	462000	CP QPSK	F	10	18.5	18.26	-0.03	Right Tilt	0	1	1	1:1	0.539	1.057	**0.570**	-
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NR TDD Band n41 Head SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
2 593	518598	DFT-s QPSK	B	100	27.0	26.57	-0.12	Left Touch	0	1	137	1:1	0.08	1.104	0.088	-
2 593	518598	DFT-s QPSK	B	100	27.0	26.60	0.12	Left Touch	0	135	138	1:1	0.089	1.096	0.098	-
2 593	518598	DFT-s QPSK	B	100	27.0	26.57	-0.01	Left Tilt	0	1	137	1:1	0.039	1.104	0.043	-
2 593	518598	DFT-s QPSK	B	100	27.0	26.60	0.11	Left Tilt	0	135	138	1:1	0.064	1.096	0.070	-
2 593	518598	DFT-s QPSK	B	100	27.0	26.57	0.06	Right Touch	0	1	137	1:1	0.065	1.104	0.072	-
2 593	518598	DFT-s QPSK	B	100	27.0	26.60	0.15	Right Touch	0	135	138	1:1	0.072	1.096	0.079	-
2 593	518598	DFT-s QPSK	B	100	27.0	26.57	0.12	Right Tilt	0	1	137	1:1	0.062	1.104	0.068	-
2 593	518598	DFT-s QPSK	B	100	27.0	26.60	0.12	Right Tilt	0	135	138	1:1	0.061	1.096	0.067	-
2 593	518598	CP QPSK	B	100	25.5	24.91	0.03	Left Touch	0	1	1	1:1	0.115	1.146	0.132	-
2 593	518598	DFT-s QPSK	SRS F	100	14.00	13.79	-0.16	Left Touch	0	1	137	1:1	0.046	1.050	0.048	
2 593	518598	DFT-s QPSK	SRS F	100	14.00	13.79	0.19	Left Tilt	0	1	137	1:1	0.02	1.050	0.021	
2 593	518598	DFT-s QPSK	SRS F	100	14.00	13.79	0.15	Right Touch	0	1	137	1:1	0.036	1.050	0.038	
2 593	518598	DFT-s QPSK	SRS F	100	14.00	13.79	-0.03	Right Tilt	0	1	137	1:1	0.012	1.050	0.013	
2 593	518598	DFT-s QPSK	F	100	18.0	17.36	0.07	Left Touch	0	1	137	1:1	0.218	1.159	0.253	-
2 593	518598	DFT-s QPSK	F	100	18.0	16.88	0.07	Left Touch	0	135	69	1:1	0.287	1.294	0.371	-
2 593	518598	DFT-s QPSK	F	100	18.0	17.36	0.02	Left Tilt	0	1	137	1:1	0.300	1.159	0.348	-
2 593	518598	DFT-s QPSK	F	100	18.0	16.88	0.05	Left Tilt	0	135	69	1:1	0.304	1.294	0.393	-
2 593	518598	DFT-s QPSK	F	100	18.0	17.36	-0.01	Right Touch	0	1	137	1:1	0.656	1.159	0.760	-
2 593	518598	DFT-s QPSK	F	100	18.0	16.88	0.01	Right Touch	0	135	69	1:1	0.634	1.294	0.820	-
2 593	518598	DFT-s QPSK	F	100	18.0	16.77	0.04	Right Touch	0	270	0	1:1	0.512	1.327	0.679	-
2 593	518598	DFT-s QPSK	F	100	18.0	17.36	0.02	Right Tilt	0	1	137	1:1	0.718	1.159	0.832	-
2 593	518598	DFT-s QPSK	F	100	18.0	16.88	0.01	Right Tilt	0	135	69	1:1	0.773	1.294	**1.000**	-
2 593	518598	DFT-s QPSK	F	100	18.0	16.77	0.00	Right Tilt	0	270	0	1:1	0.683	1.327	0.906	-
2 593	518598	CP QPSK	F	100	18.0	17.31	-0.01	Right Tilt	0	1	1	1:1	0.551	1.172	0.646	-
2 593	518598	DFT-s QPSK	SRS B	100	18.0	17.67	0.10	Left Touch	0	1	137	1:1	0.002	1.079	0.002	-
2 593	518598	DFT-s QPSK	SRS B	100	18.0	17.67	0.13	Left Tilt	0	1	137	1:1	0.004	1.079	0.004	-
2 593	518598	DFT-s QPSK	SRS B	100	18.0	17.67	0.10	Right Touch	0	1	137	1:1	0.006	1.079	0.006	-
2 593	518598	DFT-s QPSK	SRS B	100	18.0	17.67	0.05	Right Tilt	0	1	137	1:1	0.006	1.079	0.006	-
2 593	518598	DFT-s QPSK	SRS E	100	18.0	17.42	-0.11	Left Touch	0	1	137	1:1	**0.850**	1.143	0.972	A23
2 593	518598	DFT-s QPSK	SRS E	100	18.0	17.42	-0.15	Left Tilt	0	1	137	1:1	0.690	1.143	0.789	-
2 593	518598	DFT-s QPSK	SRS E	100	18.0	17.42	-0.11	Right Touch	0	1	137	1:1	0.478	1.143	0.546	-
2 593	518598	DFT-s QPSK	SRS E	100	18.0	17.42	-0.08	Right Tilt	0	1	137	1:1	0.482	1.143	0.551	-
2 593	518598	DFT-s QPSK	SRS D	100	14.00	13.10	0.10	Left Touch	0	1	137	1:1	0.000	1.230	0.000	-
2 593	518598	DFT-s QPSK	SRS D	100	14.00	13.10	0.00	Left Tilt	0	1	137	1:1	0.000	1.230	0.000	-
2 593	518598	DFT-s QPSK	SRS D	100	14.00	13.10	0.11	Right Touch	0	1	137	1:1	0.002	1.230	0.002	-
2 593	518598	DFT-s QPSK	SRS D	100	14.00	13.10	0.00	Right Tilt	0	1	137	1:1	0.000	1.230	0.000	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

@Note. Ant. F, B, E, D SRS was tested with DFT-s OFDM QPSK 1RB 137offset as CW was the Limitation of the manufacturer's S/W tool setup.

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NR TDD Band n48 Head SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.19	0.15	Left Touch	0	1	53	1:1	0.291	1.205	0.351	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.09	-0.19	Left Touch	0	50	28	1:1	0.238	1.233	0.293	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.19	0.14	Left Tilt	0	1	53	1:1	0.408	1.205	0.492	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.09	0.12	Left Tilt	0	50	28	1:1	0.395	1.233	0.487	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.19	0.09	Right Touch	0	1	53	1:1	0.592	1.205	0.713	-
3 570	638000	DFT-s QPSK	F	40	17.0	15.86	0.15	Right Touch	0	1	104	1:1	0.422	1.300	0.549	-
3 680.01	645334	DFT-s QPSK	F	40	17.0	16.01	-0.10	Right Touch	0	1	104	1:1	0.701	1.256	0.880	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.09	-0.16	Right Touch	0	50	28	1:1	0.577	1.233	0.711	-
3 570	638000	DFT-s QPSK	F	40	17.0	15.65	0.14	Right Touch	0	50	56	1:1	0.543	1.365	0.741	-
3 680.01	645334	DFT-s QPSK	F	40	17.0	15.90	0.08	Right Touch	0	50	28	1:1	0.639	1.288	0.823	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.19	0.01	Right Tilt	0	1	53	1:1	0.712	1.205	0.858	-
3 570	638000	DFT-s QPSK	F	40	17.0	15.86	-0.15	Right Tilt	0	1	104	1:1	0.719	1.300	0.935	-
3 680.01	645334	DFT-s QPSK	F	40	17.0	16.01	-0.11	Right Tilt	0	1	104	1:1	**0.782**	1.256	0.982	**A24**
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.09	0.09	Right Tilt	0	50	28	1:1	0.723	1.233	0.891	-
3 570	638000	DFT-s QPSK	F	40	17.0	15.65	-0.05	Right Tilt	0	50	56	1:1	0.647	1.365	0.883	-
3 680.01	645334	DFT-s QPSK	F	40	17.0	15.90	-0.16	Right Tilt	0	50	28	1:1	0.775	1.288	**0.998**	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.10	-0.19	Right Tilt	0	100	0	1:1	0.710	1.230	0.873	-
3 624.99	641666	CP QPSK	F	40	17.0	15.98	0.10	Right Tilt	0	1	1	1:1	0.677	1.265	0.856	-
3 624.99	641666	DFT-s QPSK	SRS C	40	15.5	15.20	0.00	Left Touch	0	1	53	1:1	0.025	1.072	0.027	
3 624.99	641666	DFT-s QPSK	SRS C	40	15.5	15.20	0.00	Left Tilt	0	1	53	1:1	0.000	1.072	0.000	
3 624.99	641666	DFT-s QPSK	SRS C	40	15.5	15.20	0.00	Right Touch	0	1	53	1:1	0.000	1.072	0.000	
3 624.99	641666	DFT-s QPSK	SRS C	40	15.5	15.20	-0.17	Right Tilt	0	1	53	1:1	0.017	1.072	0.018	
3 624.99	641666	DFT-s QPSK	SRS I	40	16.0	15.93	-0.18	Left Touch	0	1	53	1:1	0.235	1.016	0.239	
3 624.99	641666	DFT-s QPSK	SRS I	40	16.0	15.93	0.10	Left Tilt	0	1	53	1:1	0.015	1.016	0.015	
3 624.99	641666	DFT-s QPSK	SRS I	40	16.0	15.93	0.12	Right Touch	0	1	53	1:1	0.504	1.016	0.512	
3 624.99	641666	DFT-s QPSK	SRS I	40	16.0	15.93	0.15	Right Tilt	0	1	53	1:1	0.048	1.016	0.049	
3 624.99	641666	DFT-s QPSK	SRS D	40	17.0	16.68	0.00	Left Touch	0	1	53	1:1	0.000	1.076	0.000	
3 624.99	641666	DFT-s QPSK	SRS D	40	17.0	16.68	0.00	Left Tilt	0	1	53	1:1	0.000	1.076	0.000	
3 624.99	641666	DFT-s QPSK	SRS D	40	17.0	16.68	0.00	Right Touch	0	1	53	1:1	0.000	1.076	0.000	
3 624.99	641666	DFT-s QPSK	SRS D	40	17.0	16.68	0.00	Right Tilt	0	1	53	1:1	0.000	1.076	0.000	
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

@Note. Ant. C, I, D SRS was tested with DFT-s OFDM QPSK 1RB 53offset as CW was the Limitation of the manufacturer's S/W tool setup.

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NR FDD Band n66 Head SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
1 745	349000	DFT-s QPSK	A	40	25.0	23.85	0.04	Left Touch	0	1	1	1:1	0.271	1.303	0.353	-
1 745	349000	DFT-s QPSK	A	40	25.0	23.52	0.13	Left Touch	0	108	54	1:1	0.237	1.406	0.333	-
1 745	349000	DFT-s QPSK	A	40	25.0	23.85	-0.08	Left Tilt	0	1	1	1:1	0.091	1.303	0.119	-
1 745	349000	DFT-s QPSK	A	40	25.0	23.52	-0.01	Left Tilt	0	108	54	1:1	0.098	1.406	0.138	-
1 745	349000	DFT-s QPSK	A	40	25.0	23.85	-0.07	Right Touch	0	1	1	1:1	0.136	1.303	0.177	-
1 745	349000	DFT-s QPSK	A	40	25.0	23.52	0.14	Right Touch	0	108	54	1:1	0.131	1.406	0.184	-
1 745	349000	DFT-s QPSK	A	40	25.0	23.85	-0.05	Right Tilt	0	1	1	1:1	0.117	1.303	0.152	-
1 745	349000	DFT-s QPSK	A	40	25.0	23.52	-0.02	Right Tilt	0	108	54	1:1	0.104	1.406	0.146	-
1 745	349000	CP QPSK	A	40	23.5	22.42	0.07	Left Touch	1.5	1	1	1:1	0.185	1.282	0.237	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.44	0.00	Left Touch	0	1	1	1:1	0.289	1.276	0.369	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.14	0.04	Left Touch	0	108	0	1:1	0.290	1.368	0.397	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.44	0.03	Left Tilt	0	1	1	1:1	0.496	1.276	0.633	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.14	0.02	Left Tilt	0	108	0	1:1	0.487	1.368	0.666	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.44	-0.05	Right Touch	0	1	1	1:1	0.556	1.276	0.709	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.14	0.16	Right Touch	0	108	0	1:1	0.545	1.368	0.746	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.44	0.05	Right Tilt	0	1	1	1:1	0.598	1.276	0.763	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.14	-0.19	Right Tilt	0	108	0	1:1	**0.716**	1.368	**0.979**	A25
1 745	349000	DFT-s QPSK	F	40	18.5	17.06	-0.07	Right Tilt	0	216	0	1:1	0.553	1.393	0.770	-
1 745	349000	CP QPSK	F	40	18.5	17.51	0.19	Right Tilt	0	1	1	1:1	0.569	1.256	0.715	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

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NR FDD Band n70 Head SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
1 702.5	340500	DFT-s QPSK	A	15	25.0	23.83	-0.19	Left Touch	0	1	77	1:1	0.101	1.309	0.132	-
1 702.5	340500	DFT-s QPSK	A	15	25.0	23.79	0.15	Left Touch	0	36	22	1:1	0.100	1.321	0.132	-
1 702.5	340500	DFT-s QPSK	A	15	25.0	23.83	0.07	Left Tilt	0	1	77	1:1	0.040	1.309	0.052	-
1 702.5	340500	DFT-s QPSK	A	15	25.0	23.79	0.10	Left Tilt	0	36	22	1:1	0.034	1.321	0.045	-
1 702.5	340500	DFT-s QPSK	A	15	25.0	23.83	-0.16	Right Touch	0	1	77	1:1	0.049	1.309	0.064	-
1 702.5	340500	DFT-s QPSK	A	15	25.0	23.79	0.19	Right Touch	0	36	22	1:1	0.050	1.321	0.066	-
1 702.5	340500	DFT-s QPSK	A	15	25.0	23.83	0.00	Right Tilt	0	1	77	1:1	0.028	1.309	0.037	-
1 702.5	340500	DFT-s QPSK	A	15	25.0	23.79	0.14	Right Tilt	0	36	22	1:1	0.029	1.321	0.038	-
1 702.5	340500	CP QPSK	A	15	23.5	22.25	-0.11	Left Touch	1.5	1	1	1:1	0.047	1.334	0.063	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.99	0.04	Left Touch	0	1	77	1:1	0.383	1.002	0.384	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.98	0.03	Left Touch	0	36	43	1:1	0.379	1.005	0.381	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.99	0.05	Left Tilt	0	1	77	1:1	0.490	1.002	0.491	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.98	0.15	Left Tilt	0	36	43	1:1	0.481	1.005	0.483	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.99	-0.07	Right Touch	0	1	77	1:1	0.608	1.002	0.609	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.98	0.01	Right Touch	0	36	43	1:1	0.605	1.005	0.608	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.99	-0.05	Right Tilt	0	1	77	1:1	**0.708**	1.002	0.709	**A26**
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.98	0.02	Right Tilt	0	36	43	1:1	0.701	1.005	0.705	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.96	-0.09	Right Tilt	0	75	0	1:1	0.683	1.009	0.689	-
1 702.5	340500	CP QPSK	E	15	18.0	17.81	-0.07	Right Tilt	1.5	1	1	1:1	0.701	1.045	**0.733**	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

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NR FDD Band n71 Head SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
680.5	136100	DFT-s QPSK	A	20	25.50	24.52	0.09	Left Touch	0	1	1	1:1	0.071	1.253	0.089	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.31	0.14	Left Touch	1	50	28	1:1	0.078	1.315	0.103	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.52	0.09	Left Tilt	0	1	1	1:1	0.00583	1.253	0.007	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.31	0.19	Left Tilt	1	50	28	1:1	0.0046	1.315	0.006	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.52	0.04	Right Touch	0	1	1	1:1	0.097	1.253	0.122	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.31	0.13	Right Touch	1	50	28	1:1	0.093	1.315	0.122	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.52	-0.11	Right Tilt	0	1	1	1:1	0.046	1.253	0.058	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.31	-0.14	Right Tilt	1	50	28	1:1	0.038	1.315	0.050	-
680.5	136100	CP QPSK	A	20	24.00	23.05	0.00	Right Touch	1	1	1	1:1	0.00789	1.245	0.010	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.52	-0.03	Left Touch	0	1	1	1:1	**0.478**	1.117	**0.534**	**A27**
680.5	136100	DFT-s QPSK	E	20	21.0	20.41	-0.06	Left Touch	0	50	0	1:1	0.424	1.146	0.486	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.52	-0.14	Left Tilt	0	1	1	1:1	0.432	1.117	0.483	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.41	-0.02	Left Tilt	0	50	0	1:1	0.387	1.146	0.444	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.52	-0.17	Right Touch	0	1	1	1:1	0.419	1.117	0.468	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.41	-0.03	Right Touch	0	50	0	1:1	0.388	1.146	0.445	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.52	0.01	Right Tilt	0	1	1	1:1	0.367	1.117	0.410	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.41	0.05	Right Tilt	0	50	0	1:1	0.332	1.146	0.380	-
680.5	136100	CP QPSK	E	20	21.0	20.33	0.06	Left Touch	0	1	1	1:1	0.416	1.167	0.485	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

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NR TDD Band n77 Head SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(W/kg)		(W/kg)	
3 750	650000	DFT-s QPSK	F	100	14.5	13.35	-0.15	Left Touch	0	1	137	1:1	0.343	1.303	0.447	-
3 930	662000	DFT-s QPSK	F	100	14.5	13.32	-0.19	Left Touch	0	1	137	1:1	0.237	1.312	0.311	-
3 750	650000	DFT-s QPSK	F	100	14.5	13.54	-0.19	Left Touch	0	135	138	1:1	0.214	1.247	0.267	-
3 750	650000	DFT-s QPSK	F	100	14.5	13.35	0.11	Left Tilt	0	1	137	1:1	0.320	1.303	0.417	-
3 930	662000	DFT-s QPSK	F	100	14.5	13.32	-0.18	Left Tilt	0	1	137	1:1	0.306	1.312	0.401	-
3 750	650000	DFT-s QPSK	F	100	14.5	13.54	-0.06	Left Tilt	0	135	138	1:1	0.197	1.247	0.246	-
3 750	650000	DFT-s QPSK	F	100	14.5	13.35	-0.04	Right Touch	0	1	137	1:1	0.668	1.303	0.870	-
3 930	662000	DFT-s QPSK	F	100	14.5	13.32	0.03	Right Touch	0	1	137	1:1	0.493	1.312	0.647	-
3 750	650000	CP QPSK	F	100	14.5	13.54	-0.10	Right Touch	0	135	138	1:1	0.637	1.247	0.794	-
3 930	662000	DFT-s QPSK	F	100	14.5	13.42	0.19	Right Touch	0	135	138	1:1	0.450	1.282	0.577	-
3 750	650000	DFT-s QPSK	F	100	14.5	13.35	-0.18	Right Tilt	0	1	137	1:1	**0.687**	1.303	**0.895**	**A28**
3 930	662000	DFT-s QPSK	F	100	14.5	13.32	-0.07	Right Tilt	0	1	137	1:1	0.572	1.312	0.750	-
3 750	650000	DFT-s QPSK	F	100	14.5	13.54	0.19	Right Tilt	0	135	138	1:1	0.361	1.247	0.450	-
3 930	662000	DFT-s QPSK	F	100	14.5	13.42	-0.12	Right Tilt	0	135	138	1:1	0.515	1.282	0.660	-
3 750	650000	DFT-s QPSK	F	100	14.5	13.43	-0.17	Right Tilt	0	270	0	1:1	0.362	1.279	0.463	-
3 750	650000	CP QPSK	F	100	14.5	12.89	0.12	Right Tilt	0	1	1	1:1	0.481	1.449	0.697	-
3 500.01	633334	DFT-s QPSK	F	100	14.5	13.37	-0.19	Right Tilt	0	1	271	1:1	0.340	1.297	0.441	-
3 500.01	633334	DFT-s QPSK	F	100	14.5	13.49	-0.19	Right Tilt	0	135	138	1:1	0.376	1.262	0.475	-
3 930	662000	DFT-s QPSK	SRS C	100	12.0	11.12	0.00	Left Touch	0	1	137	1:1	0.000	1.225	0.000	-
3 930	662000	DFT-s QPSK	SRS C	100	12.0	11.12	0.00	Left Tilt	0	1	137	1:1	0.000	1.225	0.000	-
3 930	662000	DFT-s QPSK	SRS C	100	12.0	11.12	0.00	Right Touch	0	1	137	1:1	0.000	1.225	0.000	-
3 930	662000	DFT-s QPSK	SRS C	100	12.0	11.12	0.00	Right Tilt	0	1	137	1:1	0.000	1.225	0.000	-
3 500.01	633334	DFT-s QPSK	SRS C	100	12.0	11.95	0.00	Right Touch	0	1	137	1:1	0.000	1.012	0.000	
3 930	662000	DFT-s QPSK	SRS I	100	15.0	14.12	0.18	Left Touch	0	1	137	1:1	0.211	1.225	0.258	-
3 930	662000	DFT-s QPSK	SRS I	100	15.0	14.12	0.04	Left Tilt	0	1	137	1:1	0.237	1.225	0.290	-
3 930	662000	DFT-s QPSK	SRS I	100	15.0	14.12	0.18	Right Touch	0	1	137	1:1	0.354	1.225	0.434	-
3 750	650000	DFT-s QPSK	SRS I	100	15.0	14.03	0.111	Right Touch	0	1	137	1:1	0.329	1.250	0.411	
3 930	662000	DFT-s QPSK	SRS I	100	15.0	14.12	0.13	Right Tilt	0	1	137	1:1	0.026	1.225	0.031	-
3 500.01	633334	DFT-s QPSK	SRS I	100	15.0	13.64	0.12	Right Touch	0	1	137	1:1	0.232	1.368	0.318	
3 930	662000	DFT-s QPSK	SRS D	100	11.0	10.11	0.00	Left Touch	0	1	137	1:1	0.000	1.227	0.000	-
3 930	662000	DFT-s QPSK	SRS D	100	11.0	10.11	0.00	Left Tilt	0	1	137	1:1	0.000	1.227	0.000	-
3 930	662000	DFT-s QPSK	SRS D	100	11.0	10.11	0.00	Right Touch	0	1	137	1:1	0.000	1.227	0.000	-
3 930	662000	DFT-s QPSK	SRS D	100	11.0	10.11	0.00	Right Tilt	0	1	137	1:1	0.000	1.227	0.000	-
3 500.01	633334	DFT-s QPSK	SRS D	100	11.0	10.95	0.00	Right Touch	0	1	137	1:1	0.000	1.012	0.000	
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Head 1.6 W/kg Averaged over 1 gram								

@Note. Ant. C, I, D SRS was tested with DFT-s OFDM QPSK 1RB 137offset as CW was the Limitation of the manufacturer's S/W tool setup.

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DTS Head SAR – RCV ON															
Frequency		Mode	Ant.	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(Mbps)	(dBm)	(dBm)	(dB)			(W/kg)		(Duty)	(W/kg)	
2 412	1	802.11b	H	20	1Mbps	18.0	17.96	-0.11	Left Touch	99	0.115	1.009	1.010	0.117	-
2 412	1	802.11b	H	20	1Mbps	18.0	17.96	-0.18	Left Tilt	99	0.083	1.009	1.010	0.085	-
2 412	1	802.11b	H	20	1Mbps	18.0	17.96	-0.17	Right Touch	99	0.391	1.009	1.010	0.399	-
2 412	1	802.11b	H	20	1Mbps	18.0	17.96	-0.01	Right Tilt	99	0.278	1.009	1.010	0.283	-
2 462	11	802.11b	J	20	1Mbps	18.0	17.80	0.05	Left Touch	99	0.303	1.047	1.010	0.320	-
2 462	11	802.11b	J	20	1Mbps	18.0	17.80	0.06	Left Tilt	99	0.043	1.047	1.010	0.045	-
2 462	11	802.11b	J	20	1Mbps	18.0	17.80	0.01	Right Touch	99	0.179	1.047	1.010	0.189	-
2 462	11	802.11b	J	20	1Mbps	18.0	17.80	0.07	Right Tilt	99	0.023	1.047	1.010	0.024	-
2 412	1	802.11b	H+J	20	1Mbps	21.0	20.87	0.06	Left Touch	99	0.346	1.057	1.010	0.369	-
2 412	1	802.11b	H+J	20	1Mbps	21.0	20.87	-0.18	Left Tilt	99	0.154	1.057	1.010	0.164	-
2 412	1	802.11b	H+J	20	1Mbps	21.0	20.87	0.12	Right Touch	99	**0.470**	1.057	1.010	**0.502**	A29
2 412	1	802.11b	H+J	20	1Mbps	21.0	20.87	-0.03	Right Tilt	99	0.374	1.057	1.010	0.399	-
DTS Head SAR RSDB RCV ON															
2 412	1	802.11b	H	20	1Mbps	15.0	14.93	0.11	Left Touch	99	0.041	1.016	1.010	0.042	-
2 412	1	802.11b	H	20	1Mbps	15.0	14.93	0.15	Left Tilt	99	0.042	1.016	1.010	0.043	-
2 412	1	802.11b	H	20	1Mbps	15.0	14.93	0.00	Right Touch	99	0.228	1.016	1.010	0.234	-
2 412	1	802.11b	H	20	1Mbps	15.0	14.93	0.15	Right Tilt	99	0.132	1.016	1.010	0.135	-
2 412	1	802.11b	H+J	20	1Mbps	18.0	17.87	0.11	Left Touch	99	0.176	1.047	1.010	0.186	-
2 412	1	802.11b	H+J	20	1Mbps	18.0	17.87	0.18	Left Tilt	99	0.099	1.047	1.010	0.105	-
2 412	1	802.11b	H+J	20	1Mbps	18.0	17.87	0.16	Right Touch	99	0.307	1.047	1.010	0.325	-
2 412	1	802.11b	H+J	20	1Mbps	18.0	17.87	0.11	Right Tilt	99	0.239	1.047	1.010	0.253	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Head 1.6 W/kg Averaged over 1 gram						

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5 GHz WLAN Head SAR – RCV ON															
Frequency		Mode	Ant.	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(Mbps)	(dBm)	(dBm)	(dB)			(W/kg)		(Duty)	(W/kg)	
5 290	58	802.11ac	H	80	MCS0	15.0	14.27	0.10	Left Touch	85.9	0.144	1.183	1.164	0.198	-
5 290	58	802.11ac	H	80	MCS0	15.0	14.27	0.10	Left Tilt	85.9	0.121	1.183	1.164	0.167	-
5 290	58	802.11ac	H	80	MCS0	15.0	14.27	0.11	Right Touch	85.9	**0.587**	1.183	1.164	**0.808**	A30
5 290	58	802.11ac	H	80	MCS0	15.0	14.27	0.17	Right Tilt	85.9	0.332	1.183	1.164	0.457	-
5 610	122	802.11ac	H	80	MCS0	15.0	13.86	-0.05	Left Touch	85.9	0.055	1.300	1.164	0.083	
5 610	122	802.11ac	H	80	MCS0	15.0	13.86	0.02	Left Tilt	85.9	0.043	1.300	1.164	0.065	
5 610	122	802.11ac	H	80	MCS0	15.0	13.86	0.05	Right Touch	85.9	0.274	1.300	1.164	0.415	
5 610	122	802.11ac	H	80	MCS0	15.0	13.86	-0.13	Right Tilt	85.9	0.200	1.300	1.164	0.303	
5 775	155	802.11ac	H	80	MCS0	15.0	13.23	-0.04	Left Touch	85.9	0.050	1.503	1.164	0.087	-
5 775	155	802.11ac	H	80	MCS0	15.0	13.23	-0.07	Left Tilt	85.9	0.034	1.503	1.164	0.059	-
5 775	155	802.11ac	H	80	MCS0	15.0	13.23	0.08	Right Touch	85.9	0.222	1.503	1.164	0.388	-
5 775	155	802.11ac	H	80	MCS0	15.0	13.23	-0.16	Right Tilt	85.9	0.168	1.503	1.164	0.294	-
5 855	171	802.11ac	H	80	MCS0	15.0	13.55	-0.08	Left Touch	85.9	0.032	1.396	1.164	0.052	
5 855	171	802.11ac	H	80	MCS0	15.0	13.55	-0.03	Left Tilt	85.9	0.040	1.396	1.164	0.065	
5 855	171	802.11ac	H	80	MCS0	15.0	13.55	-0.01	Right Touch	85.9	0.263	1.396	1.164	0.427	
5 855	171	802.11ac	H	80	MCS0	15.0	13.55	-0.05	Right Tilt	85.9	0.179	1.396	1.164	0.291	
5 290	58	802.11ac	E	80	MCS0	15.0	14.72	0.01	Left Touch	85.9	0.161	1.222	1.164	0.229	
5 290	58	802.11ac	E	80	MCS0	15.0	14.72	-0.03	Left Tilt	85.9	0.152	1.222	1.164	0.216	
5 290	58	802.11ac	E	80	MCS0	15.0	14.72	0.09	Right Touch	85.9	0.036	1.222	1.164	0.051	
5 290	58	802.11ac	E	80	MCS0	15.0	14.72	-0.11	Right Tilt	85.9	0.064	1.222	1.164	0.091	
5 610	122	802.11ac	E	80	MCS0	15.0	14.89	0.12	Left Touch	85.9	0.036	1.089	1.164	0.046	
5 610	122	802.11ac	E	80	MCS0	15.0	14.89	-0.05	Left Tilt	85.9	0.042	1.089	1.164	0.053	
5 610	122	802.11ac	E	80	MCS0	15.0	14.89	-0.10	Right Touch	85.9	0.011	1.089	1.164	0.014	
5 610	122	802.11ac	E	80	MCS0	15.0	14.89	0.03	Right Tilt	85.9	0.009	1.089	1.164	0.011	
5 775	155	802.11ac	E	80	MCS0	15.0	14.88	-0.08	Left Touch	85.9	0.087	1.045	1.164	0.106	
5 775	155	802.11ac	E	80	MCS0	15.0	14.88	-0.12	Left Tilt	85.9	0.104	1.045	1.164	0.127	
5 775	155	802.11ac	E	80	MCS0	15.0	14.88	0.03	Right Touch	85.9	0.041	1.045	1.164	0.050	
5 775	155	802.11ac	E	80	MCS0	15.0	14.88	-0.03	Right Tilt	85.9	0.047	1.045	1.164	0.057	
5 855	171	802.11ac	E	80	MCS0	15.0	14.79	0.14	Left Touch	85.9	0.094	1.057	1.164	0.116	
5 855	171	802.11ac	E	80	MCS0	15.0	14.79	0.01	Left Tilt	85.9	0.092	1.057	1.164	0.113	
5 855	171	802.11ac	E	80	MCS0	15.0	14.79	0.18	Right Touch	85.9	0.059	1.057	1.164	0.073	
5 855	171	802.11ac	E	80	MCS0	15.0	14.79	-0.15	Right Tilt	85.9	0.053	1.057	1.164	0.065	
5 290	58	802.11ac	H+E	80	MCS0	18.0	17.51	0.01	Left Touch	85.9	0.136	1.183	1.164	0.187	
5 290	58	802.11ac	H+E	80	MCS0	18.0	17.51	0.10	Left Tilt	85.9	0.226	1.183	1.164	0.311	
5 290	58	802.11ac	H+E	80	MCS0	18.0	17.51	-0.09	Right Touch	85.9	0.374	1.183	1.164	0.515	
5 290	58	802.11ac	H+E	80	MCS0	18.0	17.51	-0.06	Right Tilt	85.9	0.227	1.183	1.164	0.313	
5 610	122	802.11ac	H+E	80	MCS0	18.0	17.42	-0.07	Left Touch	85.9	0.121	1.300	1.164	0.183	
5 610	122	802.11ac	H+E	80	MCS0	18.0	17.42	-0.04	Left Tilt	85.9	0.081	1.300	1.164	0.123	
5 610	122	802.11ac	H+E	80	MCS0	18.0	17.42	0.10	Right Touch	85.9	0.310	1.300	1.164	0.469	
5 610	122	802.11ac	H+E	80	MCS0	18.0	17.42	-0.06	Right Tilt	85.9	0.147	1.300	1.164	0.222	

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5 GHz WLAN Head SAR – RCV ON															
Frequency		Mode	Ant.	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(Mbps)	(dBm)	(dBm)	(dB)			(W/kg)		(Duty)	(W/kg)	
5 775	155	802.11ac	H+E	80	MCS0	18.0	17.14	0.19	Left Touch	85.9	0.113	1.503	1.164	0.198	-
5 775	155	802.11ac	H+E	80	MCS0	18.0	17.14	-0.11	Left Tilt	85.9	0.152	1.503	1.164	0.266	-
5 775	155	802.11ac	H+E	80	MCS0	18.0	17.14	0.18	Right Touch	85.9	0.262	1.503	1.164	0.458	-
5 775	155	802.11ac	H+E	80	MCS0	18.0	17.14	0.17	Right Tilt	85.9	0.127	1.503	1.164	0.222	-
5 855	171	802.11ac	H+E	80	MCS0	18.0	17.22	-0.08	Left Touch	85.9	0.165	1.396	1.164	0.268	-
5 855	171	802.11ac	H+E	80	MCS0	18.0	17.22	-0.14	Left Tilt	85.9	0.095	1.396	1.164	0.154	-
5 855	171	802.11ac	H+E	80	MCS0	18.0	17.22	0.07	Right Touch	85.9	0.257	1.396	1.164	0.418	-
5 855	171	802.11ac	H+E	80	MCS0	18.0	17.22	-0.05	Right Tilt	85.9	0.142	1.396	1.164	0.231	-
5 GHz WLAN Head SAR RSDB RCV ON															
5 290	58	802.11ac	H	80	MCS0	12.0	11.21	0.10	Left Touch	85.9	0.064	1.199	1.164	0.089	-
5 290	58	802.11ac	H	80	MCS0	12.0	11.21	0.13	Left Tilt	85.9	0.048	1.199	1.164	0.067	-
5 290	58	802.11ac	H	80	MCS0	12.0	11.21	-0.11	Right Touch	85.9	0.284	1.199	1.164	0.396	-
5 290	58	802.11ac	H	80	MCS0	12.0	11.21	-0.16	Right Tilt	85.9	0.179	1.199	1.164	0.250	-
5 610	122	802.11ac	H	80	MCS0	12.0	10.87	-0.13	Left Touch	85.9	0.044	1.297	1.164	0.066	-
5 610	122	802.11ac	H	80	MCS0	12.0	10.87	-0.18	Left Tilt	85.9	0.043	1.297	1.164	0.065	-
5 610	122	802.11ac	H	80	MCS0	12.0	10.87	0.10	Right Touch	85.9	0.082	1.297	1.164	0.124	-
5 610	122	802.11ac	H	80	MCS0	12.0	10.87	-0.13	Right Tilt	85.9	0.150	1.297	1.164	0.226	-
5 775	155	802.11ac	H	80	MCS0	12.0	10.30	0.11	Left Touch	85.9	0.019	1.479	1.164	0.033	-
5 775	155	802.11ac	H	80	MCS0	12.0	10.30	0.10	Left Tilt	85.9	0.027	1.479	1.164	0.046	-
5 775	155	802.11ac	H	80	MCS0	12.0	10.30	0.19	Right Touch	85.9	0.127	1.479	1.164	0.219	-
5 775	155	802.11ac	H	80	MCS0	12.0	10.30	0.11	Right Tilt	85.9	0.077	1.479	1.164	0.133	-
5 855	171	802.11ac	H	80	MCS0	12.0	10.58	0.08	Left Touch	85.9	0.033	1.387	1.164	0.053	-
5 855	171	802.11ac	H	80	MCS0	12.0	10.58	-0.15	Left Tilt	85.9	0.03	1.387	1.164	0.048	-
5 855	171	802.11ac	H	80	MCS0	12.0	10.58	-0.17	Right Touch	85.9	0.118	1.387	1.164	0.191	-
5 855	171	802.11ac	H	80	MCS0	12.0	10.58	-0.01	Right Tilt	85.9	0.062	1.387	1.164	0.100	-
5 290	58	802.11ac	H+E	80	MCS0	15.0	14.42	0.14	Left Touch	85.9	0.111	1.199	1.164	0.155	-
5 290	58	802.11ac	H+E	80	MCS0	15.0	14.42	-0.11	Left Tilt	85.9	0.113	1.199	1.164	0.158	-
5 290	58	802.11ac	H+E	80	MCS0	15.0	14.42	0.12	Right Touch	85.9	0.205	1.199	1.164	0.286	-
5 290	58	802.11ac	H+E	80	MCS0	15.0	14.42	0.12	Right Tilt	85.9	0.121	1.199	1.164	0.169	-
5 610	122	802.11ac	H+E	80	MCS0	15.0	14.42	0.18	Left Touch	85.9	0.029	1.297	1.164	0.044	-
5 610	122	802.11ac	H+E	80	MCS0	15.0	14.42	0.11	Left Tilt	85.9	0.031	1.297	1.164	0.047	-
5 610	122	802.11ac	H+E	80	MCS0	15.0	14.42	-0.13	Right Touch	85.9	0.133	1.297	1.164	0.201	-
5 610	122	802.11ac	H+E	80	MCS0	15.0	14.42	-0.11	Right Tilt	85.9	0.063	1.297	1.164	0.095	-
5 775	155	802.11ac	H+E	80	MCS0	15.0	14.14	0.07	Left Touch	85.9	0.026	1.479	1.164	0.045	-
5 775	155	802.11ac	H+E	80	MCS0	15.0	14.14	0.09	Left Tilt	85.9	0.045	1.479	1.164	0.077	-
5 775	155	802.11ac	H+E	80	MCS0	15.0	14.14	0.14	Right Touch	85.9	0.103	1.479	1.164	0.177	-
5 775	155	802.11ac	H+E	80	MCS0	15.0	14.14	-0.13	Right Tilt	85.9	0.041	1.479	1.164	0.071	-

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5 GHz WLAN Head SAR RSDB ON															
Frequency		Mode	Ant.	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(Mbps)	(dBm)	(dBm)	(dB)			(W/kg)		(Duty)	(W/kg)	
5 855	171	802.11ac	H+E	80	MCS0	15.0	14.21	0.06	Left Touch	85.9	0.025	1.387	1.164	0.040	-
5 855	171	802.11ac	H+E	80	MCS0	15.0	14.21	0.19	Left Tilt	85.9	0.034	1.387	1.164	0.055	-
5 855	171	802.11ac	H+E	80	MCS0	15.0	14.21	-0.11	Right Touch	85.9	0.111	1.387	1.164	0.179	-
5 855	171	802.11ac	H+E	80	MCS0	15.0	14.21	0.01	Right Tilt	85.9	0.053	1.387	1.164	0.086	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Head 1.6 W/kg Averaged over 1 gram						

6 GHz WLAN Head SAR – RCV-ON															
Frequency		Mode	Ant.	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(Mbps)	(dBm)	(dBm)	(dB)			(W/kg)		(Duty)	(W/kg)	
6 185	47	802.11ax	H	160	MCS0	9.0	8.09	-0.18	Left Touch	90.7	0.000	1.233	1.103	0.000	-
6 185	47	802.11ax	H	160	MCS0	9.0	8.09	-0.11	Left Tilt	90.7	0.005	1.233	1.103	0.007	-
6 185	47	802.11ax	H	160	MCS0	9.0	8.09	-0.16	Right Touch	90.7	0.068	1.233	1.103	0.092	-
6 185	47	802.11ax	H	160	MCS0	9.0	8.09	0.18	Right Tilt	90.7	0.004	1.233	1.103	0.005	-
6 025	15	802.11ax	H	160	MCS0	9.0	8.00	0.10	Right Touch	90.7	**0.073**	1.259	1.103	**0.101**	**A31**
6 505	111	802.11ax	H	160	MCS0	9.0	7.99	-0.14	Right Touch	90.7	0.038	1.262	1.103	0.053	-
6 665	143	802.11ax	H	160	MCS0	9.0	7.27	0.12	Right Touch	90.7	0.028	1.489	1.103	0.046	-
6 985	207	802.11ax	H	160	MCS0	9.0	8.04	-0.17	Right Touch	90.7	0.030	1.247	1.103	0.041	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.69	0.10	Left Touch	90.7	0.000	1.074	1.103	0.000	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.69	0.13	Left Tilt	90.7	0.005	1.074	1.103	0.006	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.69	0.13	Right Touch	90.7	0.000	1.074	1.103	0.000	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.69	0.18	Right Tilt	90.7	0.000	1.074	1.103	0.000	-
6 025	15	802.11ax	E	160	MCS0	9.0	8.20	-0.16	Left Tilt	90.7	0.036	1.202	1.103	0.048	-
6 185	47	802.11ax	E	160	MCS0	9.0	8.31	0.10	Left Tilt	90.7	0.010	1.172	1.103	0.013	-
6 665	143	802.11ax	E	160	MCS0	9.0	7.18	0.16	Left Tilt	90.7	0.000	1.521	1.103	0.000	-
6 985	207	802.11ax	E	160	MCS0	9.0	7.69	0.11	Left Tilt	90.7	0.009	1.352	1.103	0.013	-
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DSS Head SAR – RCV ON												
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)		(W/kg)		(Duty)	(W/kg)	
2 402	0	2DH5	H	13.0	12.69	-0.15	Left Touch	0.059	1.074	1.016	0.064	-
2 402	0	2DH5	H	13.0	12.69	0.15	Left Tilt	0.048	1.074	1.016	0.052	-
2 402	0	2DH5	H	13.0	12.69	-0.12	Right Touch	**0.235**	1.074	1.016	**0.256**	**A32**
2 402	0	2DH5	H	13.0	12.69	0.18	Right Tilt	0.148	1.074	1.016	0.161	-
2 441	39	DH5	J	14.0	13.82	-0.06	Left Touch	0.077	1.042	1.016	0.082	-
2 441	39	DH5	J	14.0	13.82	0.11	Left Tilt	0.009	1.042	1.016	0.010	-
2 441	39	DH5	J	14.0	13.82	0.10	Right Touch	0.056	1.042	1.016	0.059	-
2 441	39	DH5	J	14.0	13.82	0.04	Right Tilt	0.005	1.042	1.016	0.005	-
2 402	37	LE 1M	H	13.5	13.06	-0.01	Left Touch	0.031	1.107	1.033	0.035	-
2 402	37	LE 1M	H	13.5	13.06	-0.12	Left Tilt	0.024	1.107	1.033	0.027	-
2 402	37	LE 1M	H	13.5	13.06	0.01	Right Touch	0.145	1.107	1.033	0.166	-
2 402	37	LE 1M	H	13.5	13.06	-0.17	Right Tilt	0.088	1.107	1.033	0.101	-
2 440	17	LE 1M	J	15.0	14.52	-0.05	Left Touch	0.036	1.117	1.033	0.042	-
2 440	17	LE 1M	J	15.0	14.52	0.08	Left Tilt	0.042	1.117	1.033	0.048	-
2 440	17	LE 1M	J	15.0	14.52	-0.05	Right Touch	0.178	1.117	1.033	0.205	-
2 440	17	LE 1M	J	15.0	14.52	-0.10	Right Tilt	0.025	1.117	1.033	0.029	-
2 402	0	2DH5	H+J	17.0	16.14	0.07	Left Touch	0.083	1.219	1.016	0.103	-
2 402	0	2DH5	H+J	17.0	16.14	-0.01	Left Tilt	0.020	1.219	1.016	0.025	-
2 402	0	2DH5	H+J	17.0	16.14	0.07	Right Touch	0.068	1.219	1.016	0.084	-
2 402	0	2DH5	H+J	17.0	16.14	0.15	Right Tilt	0.017	1.219	1.016	0.021	-
2 440	17	LE 1M	H+J	17.0	16.28	-0.19	Left Touch	0.167	1.180	1.033	0.204	-
2 440	17	LE 1M	H+J	17.0	16.28	0.11	Left Tilt	0.035	1.180	1.033	0.043	-
2 440	17	LE 1M	H+J	17.0	16.28	-0.12	Right Touch	0.180	1.180	1.033	0.219	-
2 440	17	LE 1M	H+J	17.0	16.28	0.17	Right Tilt	0.102	1.180	1.033	0.124	-
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13.1.2 Hotspot SAR Measurement Considerations

GSM 850 Hotspot SAR													
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(mm)	(W/kg)		(W/kg)	
836.6	190	GPRS 4Tx	A	25.0	23.50	-0.19	Rear	1:2.07	5	**0.441**	1.413	0.623	**B1**
836.6	190	GPRS 4Tx	A	25.0	23.50	-0.14	Front	1:2.07	5	0.259	1.413	0.366	-
836.6	190	GPRS 4Tx	A	25.0	23.50	0.02	Left	1:2.07	5	0.038	1.413	0.054	-
836.6	190	GPRS 4Tx	A	25.0	23.50	-0.07	Right	1:2.07	5	0.083	1.413	0.117	-
836.6	190	GPRS 4Tx	A	25.0	23.50	-0.05	Bottom	1:2.07	5	0.264	1.413	0.373	-
836.6	190	Voice	A	31.0	29.14	-0.14	Rear	1:8.3	5	0.424	1.535	**0.651**	-
836.6	190	Voice	A	31.0	29.14	-0.05	Front	1:8.3	5	0.223	1.535	0.342	-
836.6	190	GPRS 4Tx	E	22.0	21.33	-0.08	Rear	1:2.07	5	0.189	1.167	0.221	-
836.6	190	GPRS 4Tx	E	22.0	21.33	-0.01	Front	1:2.07	5	0.094	1.167	0.110	-
836.6	190	GPRS 4Tx	E	22.0	21.33	-0.06	Right	1:2.07	5	0.148	1.167	0.173	-
836.6	190	GPRS 4Tx	E	22.0	21.33	0.04	Top	1:2.07	5	0.219	1.167	0.256	-
836.6	190	Voice	E	28.0	27.20	-0.17	Rear	1:8.3	5	0.159	1.202	0.191	-
836.6	190	Voice	E	28.0	27.20	-0.12	Front	1:8.3	5	0.097	1.202	0.117	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

GSM 1900 Hotspot SAR													
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(mm)	(W/kg)		(W/kg)	
1 880	661	GPRS 4Tx	A	20.0	19.51	-0.10	Rear	1:4.15	5	0.515	1.119	0.576	-
1 880	661	GPRS 4Tx	A	20.0	19.51	-0.18	Front	1:4.15	5	0.553	1.119	0.619	-
1 880	661	GPRS 4Tx	A	20.0	19.51	-0.15	Left	1:4.15	5	0.065	1.119	0.073	-
1 880	661	GPRS 4Tx	A	20.0	19.51	-0.12	Right	1:4.15	5	0.070	1.119	0.078	-
1 880	661	GPRS 4Tx	A	20.0	19.51	-0.04	Bottom	1:4.15	5	0.744	1.119	0.833	-
1 880	661	Voice	A	26.0	25.18	-0.12	Rear	1:8.3	5	0.402	1.208	0.486	-
1 880	661	Voice	A	26.0	25.18	-0.97	Front	1:8.3	5	0.339	1.208	0.410	-
1 850.2	512	GPRS 4Tx	A	20.0	19.44	0.02	Bottom	1:4.15	5	0.696	1.138	0.792	-
1 909.8	810	GPRS 4Tx	A	20.0	19.34	0.01	Bottom	1:4.15	5	**0.766**	1.164	**0.892**	**B2**
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UMTS Band 5 Hotspot SAR													
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(mm)	(W/kg)		(W/kg)	
836.6	4183	RMC	A	23.0	22.68	-0.02	Rear	1:1	5	0.751	1.076	0.808	-
836.6	4183	RMC	A	23.0	22.68	-0.05	Front	1:1	5	0.545	1.076	0.586	-
836.6	4183	RMC	A	23.0	22.68	-0.11	Left	1:1	5	0.122	1.076	0.131	-
836.6	4183	RMC	A	23.0	22.68	0.00	Right	1:1	5	0.166	1.076	0.179	-
836.6	4183	RMC	A	23.0	22.68	0.00	Bottom	1:1	5	0.420	1.076	0.452	-
826.4	4132	RMC	A	23.0	22.66	0.12	Rear	1:1	5	0.881	1.081	0.952	-
846.6	4233	RMC	A	23.0	22.53	0.05	Rear	1:1	5	**0.898**	1.114	**1.000**	**B3**
846.6	4233	RMC	A	23.0	22.53	-0.03	Rear	1:1	5	0.894	1.114	0.996	-
836.6	4183	RMC	E	19.0	18.33	-0.13	Rear	1:1	5	0.287	1.167	0.335	-
836.6	4183	RMC	E	19.0	18.33	-0.10	Front	1:1	5	0.144	1.167	0.168	-
836.6	4183	RMC	E	19.0	18.33	-0.03	Right	1:1	5	0.172	1.167	0.201	-
836.6	4183	RMC	E	19.0	18.33	-0.08	Top	1:1	5	0.276	1.167	0.322	-
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UMTS Band 4 Hotspot SAR													
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(mm)	(W/kg)		(W/kg)	
1 732.4	1412	RMC	A	16.0	14.37	-0.11	Rear	1:1	5	0.438	1.455	0.637	-
1 732.4	1412	RMC	A	16.0	14.37	-0.02	Front	1:1	5	0.509	1.455	0.741	-
1 732.4	1412	RMC	A	16.0	14.37	-0.18	Left	1:1	5	0.074	1.455	0.108	-
1 732.4	1412	RMC	A	16.0	14.37	0.13	Right	1:1	5	0.050	1.455	0.073	-
1 732.4	1412	RMC	A	16.0	14.37	0.13	Bottom	1:1	5	0.674	1.455	**0.981**	-
1 712.4	1312	RMC	A	16.0	14.77	-0.08	Bottom	1:1	5	**0.689**	1.327	0.914	**B4**
1 752.6	1513	RMC	A	16.0	14.29	-0.12	Bottom	1:1	5	0.649	1.483	0.962	-
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UMTS Band 2 Hotspot SAR													
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(mm)	(W/kg)		(W/kg)	
1 880	9400	RMC	A	16.0	14.75	0.01	Rear	1:1	5	0.509	1.334	0.679	-
1 880	9400	RMC	A	16.0	14.75	-0.13	Front	1:1	5	0.361	1.334	0.482	-
1 880	9400	RMC	A	16.0	14.75	-0.06	Left	1:1	5	0.036	1.334	0.048	-
1 880	9400	RMC	A	16.0	14.75	0.05	Right	1:1	5	0.059	1.334	0.079	-
1 880	9400	RMC	A	16.0	14.75	-0.04	Bottom	1:1	5	**0.822**	1.334	**1.097**	**B5**
1 852.4	9262	RMC	A	16.0	14.66	-0.03	Bottom	1:1	5	0.786	1.361	1.070	-
1 907.6	9538	RMC	A	16.0	14.79	0.00	Bottom	1:1	5	0.773	1.321	1.021	-
1 880	9400	RMC	A	16.0	14.75	-0.02	Bottom	1:1	5	0.813	1.334	1.085	#
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Note: # Data entry indicate Variability measurement.

LTE FDD Band 7 Hotspot SAR																
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 510	20850	QPSK	B	20	17.5	17.36	0.17	Rear	0	1	0	1:1	5	0.736	1.033	**0.760**	-
2 510	20850	QPSK	B	20	17.5	17.48	0.03	Rear	0	50	0	1:1	5	**0.752**	1.005	0.756	**B6**
2 510	20850	QPSK	B	20	17.5	17.36	0.17	Front	0	1	0	1:1	5	0.507	1.033	0.524	-
2 510	20850	QPSK	B	20	17.5	17.48	0.13	Front	0	50	0	1:1	5	0.520	1.005	0.523	-
2 510	20850	QPSK	B	20	17.5	17.36	0.15	Left	0	1	0	1:1	5	0.516	1.033	0.533	-
2 510	20850	QPSK	B	20	17.5	17.48	0.19	Left	0	50	0	1:1	5	0.544	1.005	0.547	-
2 510	20850	QPSK	B	20	17.5	17.36	0.10	Bottom	0	1	0	1:1	5	0.493	1.033	0.509	-
2 510	20850	QPSK	B	20	17.5	17.48	0.14	Bottom	0	50	0	1:1	5	0.502	1.005	0.505	-
2 560	21350	QPSK	F	20	18.0	17.70	0.11	Rear	0	1	0	1:1	5	0.325	1.072	0.348	-
2 560	21350	QPSK	F	20	18.0	17.59	-0.11	Rear	0	50	25	1:1	5	0.319	1.099	0.351	-
2 560	21350	QPSK	F	20	18.0	17.70	0.00	Front	0	1	0	1:1	5	0.199	1.072	0.213	-
2 560	21350	QPSK	F	20	18.0	17.59	0.14	Front	0	50	25	1:1	5	0.263	1.099	0.289	-
2 560	21350	QPSK	F	20	18.0	17.70	0.12	Left	0	1	0	1:1	5	0.037	1.072	0.040	-
2 560	21350	QPSK	F	20	18.0	17.59	0.08	Left	0	50	25	1:1	5	0.029	1.099	0.032	-
2 560	21350	QPSK	F	20	18.0	17.70	0.05	Top	0	1	0	1:1	5	0.368	1.072	0.394	-
2 560	21350	QPSK	F	20	18.0	17.59	-0.05	Top	0	50	25	1:1	5	0.377	1.099	0.414	-
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LTE FDD Band 12 Hotspot SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
707.5	23095	QPSK	A	10	22.5	22.01	0.07	Rear	0	1	0	1:1	5	0.698	1.119	0.781	-
707.5	23095	QPSK	A	10	22.5	21.95	-0.06	Rear	0	25	0	1:1	5	0.704	1.135	**0.799**	-
707.5	23095	QPSK	A	10	22.5	22.01	-0.07	Front	0	1	0	1:1	5	0.430	1.119	0.481	-
707.5	23095	QPSK	A	10	22.5	21.95	0.04	Front	0	25	0	1:1	5	0.424	1.135	0.481	-
707.5	23095	QPSK	A	10	22.5	22.01	0.02	Left	0	1	0	1:1	5	0.107	1.119	0.120	-
707.5	23095	QPSK	A	10	22.5	21.95	0.00	Left	0	25	0	1:1	5	0.102	1.135	0.116	-
707.5	23095	QPSK	A	10	22.5	22.01	0.03	Right	0	1	0	1:1	5	0.162	1.119	0.181	-
707.5	23095	QPSK	A	10	22.5	21.95	0.03	Right	0	25	0	1:1	5	0.160	1.135	0.182	-
707.5	23095	QPSK	A	10	22.5	22.01	-0.06	Bottom	0	1	0	1:1	5	0.282	1.119	0.316	-
707.5	23095	QPSK	A	10	22.5	21.95	0.03	Bottom	0	25	0	1:1	5	0.371	1.135	0.421	-
707.5	23095	QPSK	E	10	21.0	20.94	-0.10	Rear	0	1	24	1:1	5	**0.708**	1.014	0.718	**B7**
707.5	23095	QPSK	E	10	21.0	20.83	-0.04	Rear	0	25	0	1:1	5	0.692	1.040	0.720	-
707.5	23095	QPSK	E	10	21.0	20.94	-0.04	Front	0	1	24	1:1	5	0.544	1.014	0.552	-
707.5	23095	QPSK	E	10	21.0	20.83	-0.13	Front	0	25	0	1:1	5	0.512	1.040	0.532	-
707.5	23095	QPSK	E	10	21.0	20.94	-0.04	Right	0	1	24	1:1	5	0.358	1.014	0.363	-
707.5	23095	QPSK	E	10	21.0	20.83	-0.04	Right	0	25	0	1:1	5	0.337	1.040	0.350	-
707.5	23095	QPSK	E	10	21.0	20.94	0.03	Top	0	1	24	1:1	5	0.598	1.014	0.606	-
707.5	23095	QPSK	E	10	21.0	20.83	0.02	Top	0	25	0	1:1	5	0.560	1.040	0.582	-
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LTE FDD Band 13 Hotspot SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
782	23230	QPSK	A	10	22.5	21.71	0.01	Rear	0	1	24	1:1	5	**0.570**	1.199	**0.683**	**B8**
782	23230	QPSK	A	10	22.5	21.79	0.02	Rear	1	25	0	1:1	5	0.546	1.178	0.643	-
782	23230	QPSK	A	10	22.5	21.71	-0.13	Front	0	1	24	1:1	5	0.432	1.199	0.518	-
782	23230	QPSK	A	10	22.5	21.79	-0.02	Front	1	25	0	1:1	5	0.408	1.178	0.481	-
782	23230	QPSK	A	10	22.5	21.71	-0.02	Left	0	1	24	1:1	5	0.089	1.199	0.107	-
782	23230	QPSK	A	10	22.5	21.79	0.01	Left	1	25	0	1:1	5	0.086	1.178	0.101	-
782	23230	QPSK	A	10	22.5	21.71	0.02	Right	0	1	24	1:1	5	0.183	1.199	0.219	-
782	23230	QPSK	A	10	22.5	21.79	0.02	Right	1	25	0	1:1	5	0.177	1.178	0.209	-
782	23230	QPSK	A	10	22.5	21.71	-0.06	Bottom	0	1	24	1:1	5	0.237	1.199	0.284	-
782	23230	QPSK	A	10	22.5	21.79	-0.06	Bottom	1	25	0	1:1	5	0.223	1.178	0.263	-
782	23230	QPSK	E	10	21.0	20.38	0.03	Rear	0	1	49	1:1	5	0.481	1.153	0.555	-
782	23230	QPSK	E	10	21.0	20.40	-0.05	Rear	0	25	24	1:1	5	0.473	1.148	0.543	-
782	23230	QPSK	E	10	21.0	20.38	0.07	Front	0	1	49	1:1	5	0.402	1.153	0.464	-
782	23230	QPSK	E	10	21.0	20.40	-0.06	Front	0	25	24	1:1	5	0.407	1.148	0.467	-
782	23230	QPSK	E	10	21.0	20.38	-0.07	Right	0	1	49	1:1	5	0.247	1.153	0.285	-
782	23230	QPSK	E	10	21.0	20.40	-0.04	Right	0	25	24	1:1	5	0.256	1.148	0.294	-
782	23230	QPSK	E	10	21.0	20.38	0.12	Top	0	1	49	1:1	5	0.462	1.153	0.533	-
782	23230	QPSK	E	10	21.0	20.40	0.11	Top	0	25	24	1:1	5	0.467	1.148	0.536	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

The report shall not be (partly) reproduced except in full without approval of the laboratory.

LTE FDD Band 14 Hotspot SAR

Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
793	23330	QPSK	A	10	22.5	22.00	0.03	Rear	0	1	24	1:1	5	0.715	1.122	0.802	-
793	23330	QPSK	A	10	22.5	21.99	0.04	Rear	1	25	0	1:1	5	**0.738**	1.125	**0.830**	**B9**
793	23330	QPSK	A	10	22.5	21.99	-0.01	Rear	1	50	0	1:1	5	0.734	1.125	0.826	-
793	23330	QPSK	A	10	22.5	22.00	-0.11	Front	0	1	24	1:1	5	0.441	1.122	0.495	-
793	23330	QPSK	A	10	22.5	21.99	-0.07	Front	1	25	0	1:1	5	0.418	1.125	0.470	-
793	23330	QPSK	A	10	22.5	22.00	-0.03	Left	0	1	24	1:1	5	0.123	1.122	0.138	-
793	23330	QPSK	A	10	22.5	21.99	-0.09	Left	1	25	0	1:1	5	0.118	1.125	0.133	-
793	23330	QPSK	A	10	22.5	22.00	0.01	Right	0	1	24	1:1	5	0.280	1.122	0.314	-
793	23330	QPSK	A	10	22.5	21.99	0.03	Right	1	25	0	1:1	5	0.267	1.125	0.300	-
793	23330	QPSK	A	10	22.5	22.00	0.05	Bottom	0	1	24	1:1	5	0.324	1.122	0.364	-
793	23330	QPSK	A	10	22.5	21.99	0.06	Bottom	1	25	0	1:1	5	0.309	1.125	0.348	-
793	23330	QPSK	E	10	21.0	20.83	-0.06	Rear	0	1	0	1:1	5	0.548	1.040	0.570	-
793	23330	QPSK	E	10	21.0	20.80	-0.12	Rear	0	25	0	1:1	5	0.533	1.047	0.558	-
793	23330	QPSK	E	10	21.0	20.83	-0.07	Front	0	1	0	1:1	5	0.471	1.040	0.490	-
793	23330	QPSK	E	10	21.0	20.80	-0.12	Front	0	25	0	1:1	5	0.455	1.047	0.476	-
793	23330	QPSK	E	10	21.0	20.83	-0.03	Right	0	1	0	1:1	5	0.290	1.040	0.302	-
793	23330	QPSK	E	10	21.0	20.80	0.00	Right	0	25	0	1:1	5	0.292	1.047	0.306	-
793	23330	QPSK	E	10	21.0	20.83	-0.08	Top	0	1	0	1:1	5	0.557	1.040	0.579	-
793	23330	QPSK	E	10	21.0	20.80	0.04	Top	0	25	0	1:1	5	0.542	1.047	0.567	-

ANSI/ IEEE C95.1 - 2005– Safety Limit	Body
Spatial Peak	1.6 W/kg
Uncontrolled Exposure/ General Population	Averaged over 1 gram

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LTE FDD Band 25 (PCS) Hotspot SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 882.5	26365	QPSK	A	20	15.5	15.18	0.01	Rear	0	1	49	1:1	5	0.544	1.076	0.585	-
1 882.5	26365	QPSK	A	20	15.5	15.15	0.09	Rear	0	50	0	1:1	5	0.559	1.084	0.606	-
1 882.5	26365	QPSK	A	20	15.5	15.18	-0.02	Front	0	1	49	1:1	5	0.534	1.076	0.575	-
1 882.5	26365	QPSK	A	20	15.5	15.15	0.12	Front	0	50	0	1:1	5	0.544	1.084	0.590	-
1 882.5	26365	QPSK	A	20	15.5	15.18	0.11	Left	0	1	49	1:1	5	0.051	1.076	0.055	-
1 882.5	26365	QPSK	A	20	15.5	15.15	-0.16	Left	0	50	0	1:1	5	0.047	1.084	0.051	-
1 882.5	26365	QPSK	A	20	15.5	15.18	0.12	Right	0	1	49	1:1	5	0.064	1.076	0.069	-
1 882.5	26365	QPSK	A	20	15.5	15.15	0.11	Right	0	50	0	1:1	5	0.062	1.084	0.067	-
1 882.5	26365	QPSK	A	20	15.5	15.18	-0.09	Bottom	0	1	49	1:1	5	**0.893**	1.076	0.961	**B10**
1 860	26140	QPSK	A	20	15.5	15.09	-0.03	Bottom	0	1	99	1:1	5	0.795	1.099	0.874	-
1 905	26590	QPSK	A	20	15.5	14.91	0.01	Bottom	0	1	0	1:1	5	0.854	1.146	**0.979**	-
1 882.5	26365	QPSK	A	20	15.5	15.15	0.01	Bottom	0	50	0	1:1	5	0.799	1.084	0.866	-
1 860	26140	QPSK	A	20	15.5	15.00	0.08	Bottom	0	50	49	1:1	5	0.760	1.122	0.853	-
1 905	26590	QPSK	A	20	15.5	14.91	-0.03	Bottom	0	50	0	1:1	5	0.847	1.146	0.971	-
1 882.5	26365	QPSK	A	20	15.5	15.10	-0.02	Bottom	0	100	0	1:1	5	0.809	1.096	0.887	-
1 882.5	26365	QPSK	A	20	15.5	15.18	-0.01	Bottom	0	1	49	1:1	5	0.806	1.076	0.867	#
1 882.5	26365	QPSK	F	20	17.5	16.75	-0.11	Rear	0	1	49	1:1	5	0.232	1.189	0.276	-
1 905	26590	QPSK	F	20	17.5	16.57	-0.07	Rear	0	50	49	1:1	5	0.223	1.239	0.276	-
1 882.5	26365	QPSK	F	20	17.5	16.75	0.10	Front	0	1	49	1:1	5	0.321	1.189	0.382	-
1 905	26590	QPSK	F	20	17.5	16.57	0.08	Front	0	50	49	1:1	5	0.301	1.239	0.373	-
1 882.5	26365	QPSK	F	20	17.5	16.75	0.08	Left	0	1	49	1:1	5	0.080	1.189	0.095	-
1 905	26590	QPSK	F	20	17.5	16.57	-0.02	Left	0	50	49	1:1	5	0.081	1.239	0.100	-
1 882.5	26365	QPSK	F	20	17.5	16.75	0.01	Top	0	1	49	1:1	5	0.687	1.189	0.817	-
1 860	26140	QPSK	F	20	17.5	16.61	-0.03	Top	0	1	99	1:1	5	0.663	1.227	0.814	-
1 905	26590	QPSK	F	20	17.5	16.65	-0.02	Top	0	1	49	1:1	5	0.606	1.216	0.737	-
1 905	26590	QPSK	F	20	17.5	16.57	-0.06	Top	0	50	49	1:1	5	0.646	1.239	0.800	-
1 860	26140	QPSK	F	20	17.5	16.52	0.00	Top	0	50	25	1:1	5	0.682	1.253	0.855	-
1 882.5	26365	QPSK	F	20	17.5	16.54	0.00	Top	0	50	25	1:1	5	0.682	1.247	0.850	-
1 860	26140	QPSK	F	20	17.5	16.58	0.00	Top	0	100	0	1:1	5	0.677	1.236	0.837	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

Note: # Data entry indicate Variability measurement.

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LTE FDD Band 26 (Cell) Hotspot SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
831.5	26865	QPSK	A	15	23.0	22.18	-0.04	Rear	0	1	74	1:1	5	**0.840**	1.208	1.015	**B11**
831.5	26865	QPSK	A	15	23.0	22.09	-0.06	Rear	1	36	39	1:1	5	0.835	1.233	**1.030**	-
831.5	26865	QPSK	A	15	23.0	22.26	0.04	Rear	1	75	0	1:1	5	0.839	1.186	0.995	-
831.5	26865	QPSK	A	15	23.0	22.18	-0.07	Front	0	1	74	1:1	5	0.489	1.208	0.591	-
831.5	26865	QPSK	A	15	23.0	22.09	-0.19	Front	1	36	39	1:1	5	0.498	1.233	0.614	-
831.5	26865	QPSK	A	15	23.0	22.18	-0.05	Left	0	1	74	1:1	5	0.091	1.208	0.110	
831.5	26865	QPSK	A	15	23.0	22.09	-0.09	Left	1	36	39	1:1	5	0.092	1.233	0.113	-
831.5	26865	QPSK	A	15	23.0	22.18	0.02	Right	0	1	74	1:1	5	0.162	1.208	0.196	-
831.5	26865	QPSK	A	15	23.0	22.09	-0.04	Right	1	36	39	1:1	5	0.169	1.233	0.208	-
831.5	26865	QPSK	A	15	23.0	22.18	-0.03	Bottom	0	1	74	1:1	5	0.350	1.208	0.423	-
831.5	26865	QPSK	A	15	23.0	22.09	0.00	Bottom	1	36	39	1:1	5	0.357	1.233	0.440	-
831.5	26865	QPSK	A	15	23.0	22.18	-0.09	Rear	0	1	74	1:1	5	0.802	1.208	0.969	#
831.5	26865	QPSK	E	15	21.0	19.88	-0.03	Rear	0	1	0	1:1	5	0.349	1.294	0.452	-
831.5	26865	QPSK	E	15	21.0	19.75	-0.17	Rear	0	36	0	1:1	5	0.430	1.334	0.574	-
831.5	26865	QPSK	E	15	21.0	19.88	-0.09	Front	0	1	0	1:1	5	0.240	1.294	0.311	-
831.5	26865	QPSK	E	15	21.0	19.75	-0.15	Front	0	36	0	1:1	5	0.191	1.334	0.255	-
831.5	26865	QPSK	E	15	21.0	19.88	-0.13	Right	0	1	0	1:1	5	0.269	1.294	0.348	-
831.5	26865	QPSK	E	15	21.0	19.75	-0.01	Right	0	36	0	1:1	5	0.273	1.334	0.364	-
831.5	26865	QPSK	E	15	21.0	19.88	0.02	Top	0	1	0	1:1	5	0.400	1.294	0.518	-
831.5	26865	QPSK	E	15	21.0	19.75	0.01	Top	0	36	0	1:1	5	0.400	1.334	0.534	-

ANSI/ IEEE C95.1 - 2005– Safety Limit	Body
Spatial Peak	1.6 W/kg
Uncontrolled Exposure/ General Population	Averaged over 1 gram

Note: # Data entry indicate Variability measurement.

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LTE FDD Band 30 Hotspot SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 310	27710	QPSK	A	10	17.5	17.01	0.15	Rear	0	1	0	1:1	5	0.238	1.119	0.266	-
2 310	27710	QPSK	A	10	17.5	16.99	-0.19	Rear	0	25	24	1:1	5	0.299	1.125	0.336	-
2 310	27710	QPSK	A	10	17.5	17.01	0.18	Front	0	1	0	1:1	5	0.292	1.119	0.327	-
2 310	27710	QPSK	A	10	17.5	16.99	0.17	Front	0	25	24	1:1	5	0.292	1.125	0.329	-
2 310	27710	QPSK	A	10	17.5	17.01	0.02	Left	0	1	0	1:1	5	0.084	1.119	0.094	-
2 310	27710	QPSK	A	10	17.5	16.99	0.18	Left	0	25	24	1:1	5	0.081	1.125	0.091	-
2 310	27710	QPSK	A	10	17.5	17.01	0.10	Right	0	1	0	1:1	5	0.037	1.119	0.041	-
2 310	27710	QPSK	A	10	17.5	16.99	0.18	Right	0	25	24	1:1	5	0.037	1.125	0.042	-
2 310	27710	QPSK	A	10	17.5	17.01	0.16	Bottom	0	1	0	1:1	5	0.707	1.119	0.791	-
2 310	27710	QPSK	A	10	17.5	16.99	0.10	Bottom	0	25	24	1:1	5	0.713	1.125	0.802	-
2 310	27710	QPSK	A	10	17.5	17.00	0.11	Bottom	0	50	0	1:1	5	**0.721**	1.122	**0.809**	**B12**
2 310	27710	QPSK	F	10	19.0	18.58	0.19	Rear	0	1	49	1:1	5	0.291	1.102	0.321	-
2 310	27710	QPSK	F	10	19.0	18.61	0.14	Rear	0	25	0	1:1	5	0.283	1.094	0.310	-
2 310	27710	QPSK	F	10	19.0	18.58	0.10	Front	0	1	49	1:1	5	0.178	1.102	0.196	-
2 310	27710	QPSK	F	10	19.0	18.61	0.09	Front	0	25	0	1:1	5	0.180	1.094	0.197	-
2 310	27710	QPSK	F	10	19.0	18.58	0.04	Left	0	1	49	1:1	5	0.040	1.102	0.044	-
2 310	27710	QPSK	F	10	19.0	18.61	0.06	Left	0	25	0	1:1	5	0.029	1.094	0.032	-
2 310	27710	QPSK	F	10	19.0	18.58	0.02	Top	0	1	49	1:1	5	0.303	1.102	0.334	-
2 310	27710	QPSK	F	10	19.0	18.61	0.06	Top	0	25	0	1:1	5	0.292	1.094	0.319	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

The report shall not be (partly) reproduced except in full without approval of the laboratory.

LTE TDD Band 41 Hotspot SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 593	40620	QPSK	B	20	20.5	20.22	-0.13	Rear	0	1	0	1:1.58	5	0.678	1.067	0.723	-
2 506	39750	QPSK	B	20	20.5	20.01	0.01	Rear	0	1	0	1:1.58	5	0.806	1.119	0.902	-
2 549.5	40185	QPSK	B	20	20.5	19.92	0.04	Rear	0	1	0	1:1.58	5	0.825	1.143	0.943	-
2 636.5	41055	QPSK	B	20	20.5	19.89	0.01	Rear	0	1	0	1:1.58	5	0.635	1.151	0.731	-
2 680	41490	QPSK	B	20	20.5	20.07	0.01	Rear	0	1	0	1:1.58	5	0.737	1.104	0.814	-
2 593	40620	QPSK	B	20	20.5	20.21	0.08	Rear	0	50	0	1:1.58	5	0.688	1.069	0.735	-
2 506	39750	QPSK	B	20	20.5	20.08	0.11	Rear	0	50	0	1:1.58	5	0.698	1.102	0.769	-
2 549.5	40185	QPSK	B	20	20.5	19.86	0.13	Rear	0	50	0	1:1.58	5	0.826	1.159	0.957	-
2 636.5	41055	QPSK	B	20	20.5	19.85	-0.14	Rear	0	50	0	1:1.58	5	0.638	1.161	0.741	-
2 680	41490	QPSK	B	20	20.5	20.10	0.18	Rear	0	50	0	1:1.58	5	0.807	1.096	0.884	-
2 680	41490	QPSK	B	20	20.5	20.08	0.15	Rear	0	100	0	1:1.58	5	0.804	1.102	0.886	-
2 593	40620	QPSK	B	20	20.5	20.22	0.15	Front	0	1	0	1:1.58	5	0.360	1.067	0.384	-
2 593	40620	QPSK	B	20	20.5	20.21	0.17	Front	0	50	0	1:1.58	5	0.367	1.069	0.392	-
2 593	40620	QPSK	B	20	20.5	20.22	0.06	Left	0	1	0	1:1.58	5	0.458	1.067	0.489	-
2 593	40620	QPSK	B	20	20.5	20.21	0.07	Left	0	50	0	1:1.58	5	0.465	1.069	0.497	-
2 593	40620	QPSK	B	20	20.5	20.22	0.13	Bottom	0	1	0	1:1.58	5	0.673	1.067	0.718	-
2 506	39750	QPSK	B	20	20.5	20.01	0.10	Bottom	0	1	0	1:1.58	5	0.626	1.119	0.700	-
2 549.5	40185	QPSK	B	20	20.5	19.92	0.13	Bottom	0	1	0	1:1.58	5	0.681	1.143	0.778	-
2 636.5	41055	QPSK	B	20	20.5	19.89	-0.04	Bottom	0	1	0	1:1.58	5	0.761	1.151	0.876	-
2 680	41490	QPSK	B	20	20.5	20.07	0.07	Bottom	0	1	0	1:1.58	5	0.728	1.104	0.804	-
2 593	40620	QPSK	B	20	20.5	20.21	0.15	Bottom	0	50	0	1:1.58	5	0.708	1.069	0.757	-
2 506	39750	QPSK	B	20	20.5	20.08	0.14	Bottom	0	50	0	1:1.58	5	0.649	1.102	0.715	-
2 549.5	40185	QPSK	B	20	20.5	19.86	0.12	Bottom	0	50	0	1:1.58	5	0.689	1.159	0.799	-
2 636.5	41055	QPSK	B	20	20.5	19.85	0.08	Bottom	0	50	0	1:1.58	5	0.758	1.161	0.880	-
2 680	41490	QPSK	B	20	20.5	20.10	0.10	Bottom	0	50	0	1:1.58	5	0.785	1.096	0.860	-
2 680	41490	QPSK	B	20	20.5	20.08	0.07	Bottom	0	100	0	1:1.58	5	0.790	1.102	0.871	-
2 549.5	40185	QPSK	B	20	20.5	19.86	0.17	Rear	0	50	0	1:1.58	5	**0.850**	1.159	**0.985**	**B13#**
2 680	41490	QPSK	F	20	20.0	19.58	0.10	Rear	0	1	0	1:1.58	5	0.459	1.102	0.506	-
2 680	41490	QPSK	F	20	20.0	19.60	-0.19	Rear	0	50	25	1:1.58	5	0.473	1.096	0.518	-
2 680	41490	QPSK	F	20	20.0	19.58	0.15	Front	0	1	0	1:1.58	5	0.447	1.102	0.493	-
2 680	41490	QPSK	F	20	20.0	19.60	0.15	Front	0	50	25	1:1.58	5	0.395	1.096	0.433	-
2 680	41490	QPSK	F	20	20.0	19.58	0.13	Left	0	1	0	1:1.58	5	0.075	1.102	0.083	-
2 680	41490	QPSK	F	20	20.0	19.60	0.03	Left	0	50	25	1:1.58	5	0.062	1.096	0.068	-
2 680	41490	QPSK	F	20	20.0	19.58	0.05	Top	0	1	0	1:1.58	5	0.700	1.102	0.771	-
2 593	40620	QPSK	F	20	20.0	19.38	0.05	Top	0	1	49	1:1.58	5	0.774	1.153	0.892	-
2 506	39750	QPSK	F	20	20.0	19.16	0.06	Top	0	1	99	1:1.58	5	0.469	1.213	0.569	-
2 549.5	40185	QPSK	F	20	20.0	19.43	0.03	Top	0	1	49	1:1.58	5	0.551	1.140	0.628	-

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LTE TDD Band 41 Hotspot SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 636.5	41055	QPSK	F	20	20.0	19.21	0.01	Top	0	1	99	1:1.58	5	0.711	1.199	0.852	-
2 680	41490	QPSK	F	20	20.0	19.60	0.01	Top	0	50	25	1:1.58	5	0.710	1.096	0.778	-
2 593	40620	QPSK	F	20	20.0	19.21	0.05	Top	0	50	0	1:1.58	5	0.782	1.199	0.938	-
2 506	39750	QPSK	F	20	20.0	19.10	0.12	Top	0	50	0	1:1.58	5	0.479	1.230	0.589	-
2 549.5	40185	QPSK	F	20	20.0	19.34	0.02	Top	0	50	25	1:1.58	5	0.586	1.164	0.682	-
2 636.5	41055	QPSK	F	20	20.0	19.18	0.09	Top	0	50	49	1:1.58	5	0.719	1.208	0.869	-
2 680	41490	QPSK	F	20	20.0	19.62	0.10	Top	0	100	0	1:1.58	5	0.740	1.091	0.807	-
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Note: # Data entry indicate Variability measurement.

LTE TDD Band 48 Hotspot SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
3 690	56640	QPSK	F	20	17.0	16.24	0.19	Rear	0	1	99	1:1.58	5	0.454	1.191	0.541	-
3 690	56640	QPSK	F	20	17.0	16.20	-0.18	Rear	0	50	0	1:1.58	5	0.449	1.202	0.540	-
3 690	56640	QPSK	F	20	17.0	16.24	0.10	Front	0	1	99	1:1.58	5	0.441	1.191	0.525	-
3 690	56640	QPSK	F	20	17.0	16.20	0.14	Front	0	50	0	1:1.58	5	0.437	1.202	0.525	-
3 690	56640	QPSK	F	20	17.0	16.24	0.00	Left	0	1	99	1:1.58	5	0.054	1.191	0.064	-
3 690	56640	QPSK	F	20	17.0	16.20	0.00	Left	0	50	0	1:1.58	5	0.055	1.202	0.066	-
3 690	56640	QPSK	F	20	17.0	16.24	0.17	Top	0	1	99	1:1.58	5	0.540	1.191	0.643	-
3 560	55340	QPSK	F	20	17.0	15.90	0.14	Top	0	1	49	1:1.58	5	0.442	1.288	0.569	-
3 603.3	55773	QPSK	F	20	17.0	16.12	0.11	Top	0	1	99	1:1.58	5	0.455	1.225	0.557	-
3 646.3	56207	QPSK	F	20	17.0	15.85	0.14	Top	0	1	99	1:1.58	5	0.521	1.303	0.679	-
3 690	56640	QPSK	F	20	17.0	16.20	0.18	Top	0	50	0	1:1.58	5	0.544	1.202	0.654	-
3 560	55340	QPSK	F	20	17.0	15.89	0.11	Top	0	50	0	1:1.58	5	0.447	1.291	0.577	-
3 603.3	55773	QPSK	F	20	17.0	16.05	0.16	Top	0	50	49	1:1.58	5	0.452	1.245	0.563	-
3 646.3	56207	QPSK	F	20	17.0	15.83	0.10	Top	0	50	0	1:1.58	5	0.541	1.309	**0.708**	-
3 690	56640	QPSK	F	20	17.0	16.02	0.14	Top	0	100	0	1:1.58	5	**0.550**	1.253	0.689	**B14**
3 690	56640	QPSK	F	20	17.0	15.88	0.19	Top	0	50	0	1:1.58	5	0.534	1.294	0.691	-
Uplink Carrier Aggregation																	
PCC	3 690	56640	QPSK	F	20	17.0	16.18	0.19	Top	0	50	0	1:1.58	5	0.534	1.208	0.645	-
SCC	3 670.2	56442	QPSK	F	20	17.0				0	50	49						
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LTE FDD Band 66 (AWS) Hotspot SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 720	132072	QPSK	A	20	16.0	15.15	-0.08	Rear	0	1	0	1:1	5	0.446	1.216	0.542	-
1 720	132072	QPSK	A	20	16.0	15.20	-0.01	Rear	0	50	0	1:1	5	0.471	1.202	0.566	-
1 720	132072	QPSK	A	20	16.0	15.15	0.03	Front	0	1	0	1:1	5	0.424	1.216	0.516	-
1 720	132072	QPSK	A	20	16.0	15.20	-0.11	Front	0	50	0	1:1	5	0.422	1.202	0.507	-
1 720	132072	QPSK	A	20	16.0	15.15	-0.03	Left	0	1	0	1:1	5	0.124	1.216	0.151	-
1 720	132072	QPSK	A	20	16.0	15.20	-0.12	Left	0	50	0	1:1	5	0.105	1.202	0.126	-
1 720	132072	QPSK	A	20	16.0	15.15	-0.11	Right	0	1	0	1:1	5	0.079	1.216	0.096	-
1 720	132072	QPSK	A	20	16.0	15.20	-0.10	Right	0	50	0	1:1	5	0.077	1.202	0.093	-
1 720	132072	QPSK	A	20	16.0	15.15	0.00	Bottom	0	1	0	1:1	5	0.847	1.216	1.030	-
1 745	132322	QPSK	A	20	16.0	15.04	-0.01	Bottom	0	1	0	1:1	5	**0.865**	1.247	**1.079**	**B15**
1 770	132572	QPSK	A	20	16.0	15.03	0.00	Bottom	0	1	49	1:1	5	0.851	1.250	1.064	-
1 720	132072	QPSK	A	20	16.0	15.20	-0.02	Bottom	0	50	0	1:1	5	0.785	1.202	0.944	-
1 745	132322	QPSK	A	20	16.0	14.79	0.01	Bottom	0	50	49	1:1	5	0.785	1.321	1.037	-
1 770	132572	QPSK	A	20	16.0	15.08	0.01	Bottom	0	50	49	1:1	5	0.829	1.236	1.025	-
1 720	132072	QPSK	A	20	16.0	15.23	-0.01	Bottom	0	100	0	1:1	5	0.795	1.194	0.949	-
1 745	132322	QPSK	A	20	16.0	15.04	-0.01	Bottom	0	1	0	1:1	5	0.803	1.247	1.001	-
1 720	132072	QPSK	F	20	18.5	17.75	-0.02	Rear	0	1	0	1:1	5	0.240	1.189	0.285	-
1 720	132072	QPSK	F	20	18.5	17.72	0.03	Rear	0	50	0	1:1	5	0.236	1.197	0.282	-
1 720	132072	QPSK	F	20	18.5	17.75	-0.05	Front	0	1	0	1:1	5	0.302	1.189	0.359	-
1 720	132072	QPSK	F	20	18.5	17.72	-0.10	Front	0	50	0	1:1	5	0.301	1.197	0.360	-
1 720	132072	QPSK	F	20	18.5	17.75	-0.02	Left	0	1	0	1:1	5	0.090	1.189	0.107	-
1 720	132072	QPSK	F	20	18.5	17.72	0.03	Left	0	50	0	1:1	5	0.087	1.197	0.104	-
1 720	132072	QPSK	F	20	18.5	17.75	-0.13	Top	0	1	0	1:1	5	0.588	1.189	0.699	-
1 720	132072	QPSK	F	20	18.5	17.72	-0.01	Top	0	50	0	1:1	5	0.572	1.197	0.685	-
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LTE FDD Band 71 Hotspot SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
680.5	133297	QPSK	A	20	25.5	24.90	0.00	Rear	0	1	0	1:1	5	**0.679**	1.148	**0.779**	**B16**
680.5	133297	QPSK	A	20	24.5	23.90	0.02	Rear	1	50	0	1:1	5	0.558	1.148	0.641	-
680.5	133297	QPSK	A	20	25.5	24.90	0.06	Front	0	1	0	1:1	5	0.364	1.148	0.418	-
680.5	133297	QPSK	A	20	24.5	23.90	-0.09	Front	1	50	0	1:1	5	0.294	1.148	0.338	-
680.5	133297	QPSK	A	20	25.5	24.90	0.02	Left	0	1	0	1:1	5	0.341	1.148	0.391	-
680.5	133297	QPSK	A	20	24.5	23.90	-0.02	Left	1	50	0	1:1	5	0.258	1.148	0.296	-
680.5	133297	QPSK	A	20	25.5	24.90	0.02	Right	0	1	0	1:1	5	0.172	1.148	0.197	-
680.5	133297	QPSK	A	20	24.5	23.90	0.05	Right	1	50	0	1:1	5	0.130	1.148	0.149	-
680.5	133297	QPSK	A	20	25.5	24.90	0.00	Bottom	0	1	0	1:1	5	0.193	1.148	0.222	-
680.5	133297	QPSK	A	20	24.5	23.90	-0.07	Bottom	1	50	0	1:1	5	0.153	1.148	0.176	-
680.5	133297	QPSK	E	20	21.0	20.71	-0.10	Rear	0	1	0	1:1	5	0.373	1.069	0.399	-
680.5	133297	QPSK	E	20	21.0	20.59	-0.05	Rear	0	50	0	1:1	5	0.344	1.099	0.378	-
680.5	133297	QPSK	E	20	21.0	20.71	-0.17	Front	0	1	0	1:1	5	0.255	1.069	0.273	-
680.5	133297	QPSK	E	20	21.0	20.59	-0.10	Front	0	50	0	1:1	5	0.232	1.099	0.255	-
680.5	133297	QPSK	E	20	21.0	20.71	-0.05	Right	0	1	0	1:1	5	0.177	1.069	0.189	-
680.5	133297	QPSK	E	20	21.0	20.59	-0.06	Right	0	50	0	1:1	5	0.159	1.099	0.175	-
680.5	133297	QPSK	E	20	21.0	20.71	-0.01	Top	0	1	0	1:1	5	0.280	1.069	0.299	-
680.5	133297	QPSK	E	20	21.0	20.59	-0.01	Top	0	50	0	1:1	5	0.261	1.099	0.287	-
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NR FDD Band n7 Hotspot SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 535	507000	DFT-s QPSK	B	40	18.5	18.27	-0.16	Rear	0	1	1	1:1	5	0.763	1.054	0.804	-
2 535	507000	DFT-s QPSK	B	40	18.5	18.27	-0.08	Rear	0	108	54	1:1	5	0.778	1.054	0.820	-
2 535	507000	DFT-s QPSK	B	40	18.5	18.20	-0.17	Rear	0	216	0	1:1	5	0.753	1.072	0.807	-
2 535	507000	DFT-s QPSK	B	40	18.5	18.27	0.03	Front	0	1	1	1:1	5	0.322	1.054	0.339	-
2 535	507000	DFT-s QPSK	B	40	18.5	18.27	0.07	Front	0	108	54	1:1	5	0.308	1.054	0.325	-
2 535	507000	DFT-s QPSK	B	40	18.5	18.27	0.00	Left	0	1	1	1:1	5	0.486	1.054	0.512	-
2 535	507000	DFT-s QPSK	B	40	18.5	18.27	-0.09	Left	0	108	54	1:1	5	0.454	1.054	0.479	-
2 535	507000	DFT-s QPSK	B	40	18.5	18.27	-0.06	Bottom	0	1	1	1:1	5	0.510	1.054	0.538	-
2 535	507000	DFT-s QPSK	B	40	18.5	18.27	0.01	Bottom	0	108	54	1:1	5	0.665	1.054	0.701	-
2 535	507000	CP QPSK	B	40	18.5	18.23	0.16	Rear	0	1	1	1:1	5	**0.783**	1.064	**0.833**	**B17**
2 535	507000	DFT-s QPSK	F	40	17.5	16.48	-0.05	Rear	0	1	108	1:1	5	0.487	1.265	0.616	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.43	-0.18	Rear	0	108	0	1:1	5	0.478	1.279	0.611	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.48	-0.03	Front	0	1	108	1:1	5	0.352	1.265	0.445	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.43	-0.10	Front	0	108	0	1:1	5	0.346	1.279	0.443	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.48	-0.18	Left	0	1	108	1:1	5	0.060	1.265	0.076	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.43	-0.14	Left	0	108	0	1:1	5	0.066	1.279	0.084	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.48	0.01	Top	0	1	108	1:1	5	0.454	1.265	0.574	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.43	-0.01	Top	0	108	0	1:1	5	0.189	1.279	0.242	-
2 535	507000	CP QPSK	F	40	17.5	16.48	-0.17	Rear	0	1	1	1:1	5	0.149	1.265	0.188	-
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NR FDD Band n12 Hotspot SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
707.5	141500	DFT-s QPSK	A	15	22.0	21.25	0.03	Rear	0	1	77	1:1	5	0.686	1.189	0.816	-
707.5	141500	DFT-s QPSK	A	15	22.0	21.36	-0.03	Rear	0	36	22	1:1	5	0.670	1.159	0.777	-
707.5	141500	DFT-s QPSK	A	15	22.0	21.30	-0.08	Rear	0	75	0	1:1	5	**0.754**	1.175	**0.886**	**B18**
707.5	141500	DFT-s QPSK	A	15	22.0	21.25	0.15	Front	0	1	77	1:1	5	0.415	1.189	0.493	-
707.5	141500	DFT-s QPSK	A	15	22.0	21.36	0.05	Front	0	36	22	1:1	5	0.425	1.159	0.493	-
707.5	141500	DFT-s QPSK	A	15	22.0	21.25	0.16	Left	0	1	77	1:1	5	0.073	1.189	0.087	-
707.5	141500	DFT-s QPSK	A	15	22.0	21.36	0.10	Left	0	36	22	1:1	5	0.076	1.159	0.088	-
707.5	141500	DFT-s QPSK	A	15	22.0	21.25	-0.07	Right	0	1	77	1:1	5	0.114	1.189	0.136	-
707.5	141500	DFT-s QPSK	A	15	22.0	21.36	-0.19	Right	0	36	22	1:1	5	0.151	1.159	0.175	-
707.5	141500	DFT-s QPSK	A	15	22.0	21.25	0.16	Bottom	0	1	77	1:1	5	0.430	1.189	0.511	-
707.5	141500	DFT-s QPSK	A	15	22.0	21.36	0.17	Bottom	0	36	22	1:1	5	0.436	1.159	0.505	-
707.5	141500	CP QPSK	A	15	22.0	21.17	-0.01	Rear	0	1	1	1:1	5	0.732	1.211	0.886	-
707.5	141500	DFT-s QPSK	E	15	21.0	19.97	-0.09	Rear	0	1	1	1:1	5	0.594	1.268	0.753	-
707.5	141500	DFT-s QPSK	E	15	21.0	20.00	-0.11	Rear	0	36	0	1:1	5	0.595	1.259	0.749	-
707.5	141500	DFT-s QPSK	E	15	21.0	19.97	-0.10	Front	0	1	1	1:1	5	0.410	1.268	0.520	-
707.5	141500	DFT-s QPSK	E	15	21.0	20.00	-0.14	Front	0	36	0	1:1	5	0.517	1.259	0.651	-
707.5	141500	DFT-s QPSK	E	15	21.0	19.97	0.09	Right	0	1	1	1:1	5	0.337	1.268	0.427	-
707.5	141500	DFT-s QPSK	E	15	21.0	20.00	0.11	Right	0	36	0	1:1	5	0.344	1.259	0.433	-
707.5	141500	DFT-s QPSK	E	15	21.0	19.97	0.14	Top	0	1	1	1:1	5	0.510	1.268	0.647	-
707.5	141500	DFT-s QPSK	E	15	21.0	20.00	0.13	Top	0	36	0	1:1	5	0.523	1.259	0.658	-
707.5	141500	CP QPSK	E	15	21.0	20.01	-0.04	Rear	0	1	1	1:1	5	0.537	1.256	0.674	-
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NR FDD Band n14 Hotspot SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
793	158600	DFT-s QPSK	A	10	22.0	21.36	0.08	Rear	0	1	26	1:1	5	0.610	1.159	0.707	-
793	158600	DFT-s QPSK	A	10	22.0	21.29	-0.15	Rear	0	25	14	1:1	5	0.638	1.178	0.752	-
793	158600	DFT-s QPSK	A	10	22.0	21.36	-0.02	Front	0	1	26	1:1	5	0.362	1.159	0.420	-
793	158600	DFT-s QPSK	A	10	22.0	21.29	0.08	Front	0	25	14	1:1	5	0.373	1.178	0.439	-
793	158600	DFT-s QPSK	A	10	22.0	21.36	0.17	Left	0	1	26	1:1	5	0.076	1.159	0.088	-
793	158600	DFT-s QPSK	A	10	22.0	21.29	0.03	Left	0	25	14	1:1	5	0.074	1.178	0.087	-
793	158600	DFT-s QPSK	A	10	22.0	21.36	0.02	Right	0	1	26	1:1	5	0.277	1.159	0.321	-
793	158600	DFT-s QPSK	A	10	22.0	21.29	-0.09	Right	0	25	14	1:1	5	0.267	1.178	0.315	-
793	158600	DFT-s QPSK	A	10	22.0	21.36	0.18	Bottom	0	1	26	1:1	5	0.343	1.159	0.398	-
793	158600	DFT-s QPSK	A	10	22.0	21.29	0.16	Bottom	0	25	14	1:1	5	0.353	1.178	0.416	-
793	158600	CP QPSK	A	10	22.0	21.29	-0.14	Rear	0	1	1	1:1	5	**0.672**	1.178	**0.792**	**B19**
793	158600	DFT-s QPSK	E	10	21.0	20.91	-0.08	Rear	0	1	1	1:1	5	0.479	1.021	0.489	-
793	158600	DFT-s QPSK	E	10	21.0	20.88	-0.12	Rear	0	25	14	1:1	5	0.446	1.028	0.458	-
793	158600	DFT-s QPSK	E	10	21.0	20.91	0.02	Front	0	1	1	1:1	5	0.454	1.021	0.464	-
793	158600	DFT-s QPSK	E	10	21.0	20.88	0.09	Front	0	25	14	1:1	5	0.423	1.028	0.435	-
793	158600	DFT-s QPSK	E	10	21.0	20.91	0.19	Right	0	1	1	1:1	5	0.281	1.021	0.287	-
793	158600	DFT-s QPSK	E	10	21.0	20.88	0.11	Right	0	25	14	1:1	5	0.292	1.028	0.300	-
793	158600	DFT-s QPSK	E	10	21.0	20.91	0.16	Top	0	1	1	1:1	5	0.523	1.021	0.534	-
793	158600	DFT-s QPSK	E	10	21.0	20.88	0.18	Top	0	25	14	1:1	5	0.498	1.028	0.512	-
793	158600	CP QPSK	E	10	21.0	20.88	-0.18	Top	0	1	1	1:1	5	0.538	1.028	0.553	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

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NR FDD Band n25 Hotspot SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 882.5	376500	DFT-s QPSK	A	40	16.0	15.30	-0.18	Rear	0	1	108	1:1	5	0.488	1.175	0.573	-
1 882.5	376500	DFT-s QPSK	A	40	16.0	15.37	-0.11	Rear	0	108	54	1:1	5	0.482	1.156	0.557	-
1 882.5	376500	DFT-s QPSK	A	40	16.0	15.30	-0.10	Front	0	1	108	1:1	5	0.402	1.175	0.472	-
1 882.5	376500	DFT-s QPSK	A	40	16.0	15.37	-0.10	Front	0	108	54	1:1	5	0.375	1.156	0.434	-
1 882.5	376500	DFT-s QPSK	A	40	16.0	15.30	-0.10	Left	0	1	108	1:1	5	0.091	1.175	0.107	-
1 882.5	376500	DFT-s QPSK	A	40	16.0	15.37	-0.14	Left	0	108	54	1:1	5	0.085	1.156	0.098	-
1 882.5	376500	DFT-s QPSK	A	40	16.0	15.30	0.07	Right	0	1	108	1:1	5	0.054	1.175	0.063	-
1 882.5	376500	DFT-s QPSK	A	40	16.0	15.37	-0.09	Right	0	108	54	1:1	5	0.054	1.156	0.062	-
1 882.5	376500	DFT-s QPSK	A	40	16.0	15.30	-0.01	Bottom	0	1	108	1:1	5	0.814	1.175	0.956	-
1 882.5	376500	DFT-s QPSK	A	40	16.0	15.37	0.02	Bottom	0	108	54	1:1	5	0.807	1.156	0.933	-
1 882.5	376500	DFT-s QPSK	A	40	16.0	15.31	0.01	Bottom	0	216	0	1:1	5	0.805	1.172	0.943	-
1 882.5	376500	CP QPSK	A	40	16.0	15.12	0.12	Bottom	0	1	1	1:1	5	0.764	1.225	0.936	-
1 882.5	376500	DFT-s QPSK	A	40	16.0	15.30	0.00	Bottom	0	1	108	1:1	5	**0.817**	1.175	**0.960**	**B20**
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.89	0.07	Rear	0	1	108	1:1	5	0.438	1.026	0.449	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.98	0.01	Rear	0	108	0	1:1	5	0.437	1.005	0.439	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.89	-0.05	Front	0	1	108	1:1	5	0.320	1.026	0.328	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.98	0.10	Front	0	108	0	1:1	5	0.324	1.005	0.326	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.89	-0.06	Left	0	1	108	1:1	5	0.122	1.026	0.125	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.98	-0.08	Left	0	108	0	1:1	5	0.121	1.005	0.122	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.89	0.03	Top	0	1	108	1:1	5	0.800	1.026	0.821	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.98	0.01	Top	0	108	0	1:1	5	0.803	1.005	0.807	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.84	0.03	Top	0	216	0	1:1	5	0.789	1.038	0.819	-
1 882.5	376500	CP QPSK	F	40	18.0	17.77	0.01	Top	0	1	1	1:1	5	0.720	1.054	0.759	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.98	0.01	Top	0	108	0	1:1	5	0.801	1.005	0.805	-

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NR FDD Band n26 Hotspot SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
831.5	166300	DFT-s QPSK	A	20	23.0	22.23	-0.01	Rear	0	1	53	1:1	5	0.760	1.194	0.907	-
831.5	166300	DFT-s QPSK	A	20	23.0	22.31	-0.10	Rear	0	50	28	1:1	5	0.752	1.172	0.881	-
831.5	166300	DFT-s QPSK	A	20	23.0	22.12	0.02	Rear	0	100	0	1:1	5	**0.823**	1.225	**1.008**	**B21**
831.5	166300	DFT-s QPSK	A	20	23.0	22.23	0.13	Front	0	1	53	1:1	5	0.438	1.194	0.523	-
831.5	166300	DFT-s QPSK	A	20	23.0	22.31	-0.12	Front	0	50	28	1:1	5	0.434	1.172	0.509	-
831.5	166300	DFT-s QPSK	A	20	23.0	22.23	0.00	Left	0	1	53	1:1	5	0.056	1.194	0.067	-
831.5	166300	DFT-s QPSK	A	20	23.0	22.31	0.12	Left	0	50	28	1:1	5	0.056	1.172	0.066	-
831.5	166300	DFT-s QPSK	A	20	23.0	22.23	0.14	Right	0	1	53	1:1	5	0.157	1.194	0.187	-
831.5	166300	DFT-s QPSK	A	20	23.0	22.31	-0.07	Right	0	50	28	1:1	5	0.157	1.172	0.184	-
831.5	166300	DFT-s QPSK	A	20	23.0	22.23	0.16	Bottom	0	1	53	1:1	5	0.364	1.194	0.435	-
831.5	166300	DFT-s QPSK	A	20	23.0	22.31	0.16	Bottom	0	50	28	1:1	5	0.346	1.172	0.406	-
831.5	166300	CP QPSK	A	20	23.0	22.31	-0.11	Rear	0	1	1	1:1	5	0.814	1.172	0.954	-
831.5	166300	DFT-s QPSK	A	20	23.0	22.12	-0.15	Rear	0	100	0	1:1	5	0.822	1.225	1.007	#
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	-0.07	Rear	0	1	1	1:1	5	0.381	1.253	0.477	-
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	-0.15	Rear	0	50	0	1:1	5	0.376	1.253	0.471	-
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	0.03	Front	0	1	1	1:1	5	0.412	1.253	0.516	-
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	0.07	Front	0	50	0	1:1	5	0.408	1.253	0.511	-
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	0.09	Right	0	1	1	1:1	5	0.262	1.253	0.328	-
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	-0.05	Right	0	50	0	1:1	5	0.261	1.253	0.327	-
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	0.19	Top	0	1	1	1:1	5	0.234	1.253	0.293	-
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	0.14	Top	0	50	0	1:1	5	0.249	1.253	0.312	-
831.5	166300	CP QPSK	E	20	21.0	19.99	0.07	Front	0	1	1	1:1	5	0.410	1.262	0.517	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

Note: # Data entry indicate Variability measurement.

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NR FDD Band n30 Hotspot SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 310	462000	DFT-s QPSK	A	10	17.0	16.84	0.10	Rear	0	1	1	1:1	5	0.421	1.038	0.437	-
2 310	462000	DFT-s QPSK	A	10	17.0	16.86	-0.14	Rear	0	25	14	1:1	5	0.423	1.033	0.437	-
2 310	462000	DFT-s QPSK	A	10	17.0	16.84	0.09	Front	0	1	1	1:1	5	0.254	1.038	0.264	-
2 310	462000	DFT-s QPSK	A	10	17.0	16.86	0.15	Front	0	25	14	1:1	5	0.257	1.033	0.265	-
2 310	462000	DFT-s QPSK	A	10	17.0	16.84	0.11	Left	0	1	1	1:1	5	0.097	1.038	0.101	-
2 310	462000	DFT-s QPSK	A	10	17.0	16.86	0.07	Left	0	25	14	1:1	5	0.096	1.033	0.099	-
2 310	462000	DFT-s QPSK	A	10	17.0	16.84	0.08	Right	0	1	1	1:1	5	0.037	1.038	0.038	-
2 310	462000	DFT-s QPSK	A	10	17.0	16.86	-0.14	Right	0	25	14	1:1	5	0.035	1.033	0.036	-
2 310	462000	DFT-s QPSK	A	10	17.0	16.84	-0.02	Bottom	0	1	1	1:1	5	0.862	1.038	0.895	-
2 310	462000	DFT-s QPSK	A	10	17.0	16.86	0.02	Bottom	0	25	14	1:1	5	0.872	1.033	0.901	-
2 310	462000	DFT-s QPSK	A	10	17.0	16.77	0.01	Bottom	0	50	0	1:1	5	0.872	1.054	**0.919**	-
2 310	462000	CP QPSK	A	10	17.0	16.82	0.01	Bottom	0	1	1	1:1	5	**0.874**	1.042	0.911	**B22**
2 310	462000	CP QPSK	A	10	17.0	16.82	0.01	Bottom	0	1	1	1:1	5	0.873	1.042	0.910	#
2 310	462000	DFT-s QPSK	F	10	18.0	17.90	-0.15	Rear	0	1	26	1:1	5	0.481	1.023	0.492	-
2 310	462000	DFT-s QPSK	F	10	18.0	17.87	-0.03	Rear	0	25	0	1:1	5	0.465	1.030	0.479	-
2 310	462000	DFT-s QPSK	F	10	18.0	17.90	-0.04	Front	0	1	26	1:1	5	0.324	1.023	0.331	-
2 310	462000	DFT-s QPSK	F	10	18.0	17.87	-0.17	Front	0	25	0	1:1	5	0.323	1.030	0.333	-
2 310	462000	DFT-s QPSK	F	10	18.0	17.90	0.01	Left	0	1	26	1:1	5	0.041	1.023	0.042	-
2 310	462000	DFT-s QPSK	F	10	18.0	17.87	-0.16	Left	0	25	0	1:1	5	0.043	1.030	0.044	-
2 310	462000	DFT-s QPSK	F	10	18.0	17.90	-0.01	Top	0	1	26	1:1	5	0.457	1.023	0.468	-
2 310	462000	DFT-s QPSK	F	10	18.0	17.87	-0.03	Top	0	25	0	1:1	5	0.456	1.030	0.470	-
2 310	462000	CP QPSK	F	10	18.0	17.79	-0.18	Rear	0	1	1	1:1	5	0.336	1.050	0.353	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

Note: # Data entry indicate Variability measurement.

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NR TDD Band 41 Hotspot SAR

Frequency		Mode	Ant	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 593	518598	DFT-s QPSK	B	100	19.0	18.65	-0.19	Rear	0	1	137	1:1	5	0.447	1.084	0.485	-
2 593	518598	DFT-s QPSK	B	100	19.0	18.38	-0.18	Rear	0	135	138	1:1	5	0.538	1.153	0.620	-
2 593	518598	DFT-s QPSK	B	100	19.0	18.65	-0.16	Front	0	1	137	1:1	5	0.332	1.084	0.360	-
2 593	518598	DFT-s QPSK	B	100	19.0	18.38	-0.19	Front	0	135	138	1:1	5	0.310	1.153	0.357	-
2 593	518598	DFT-s QPSK	B	100	19.0	18.65	-0.04	Left	0	1	137	1:1	5	0.397	1.084	0.430	-
2 593	518598	DFT-s QPSK	B	100	19.0	18.38	-0.07	Left	0	135	138	1:1	5	0.345	1.153	0.398	-
2 593	518598	DFT-s QPSK	B	100	19.0	18.65	-0.05	Bottom	0	1	137	1:1	5	0.751	1.084	0.814	-
2 593	518598	DFT-s QPSK	B	100	19.0	18.38	-0.02	Bottom	0	135	138	1:1	5	**0.772**	1.153	0.890	**B23**
2 593	518598	DFT-s QPSK	B	100	19.0	18.52	-0.03	Bottom	0	270	0	1:1	5	0.718	1.117	0.802	-
2 593	518598	CP QPSK	B	100	19.0	18.65	-0.03	Bottom	0	1	1	1:1	5	0.618	1.084	0.670	-
2 593	518598	DFT-s QPSK	SRS F	100	14.0	13.79	0.11	Rear	0	1	137	1:1	5	0.233	1.050	0.245	-
2 593	518598	DFT-s QPSK	SRS F	100	14.0	13.79	-0.06	Front	0	1	137	1:1	5	0.177	1.050	0.186	-
2 593	518598	DFT-s QPSK	SRS F	100	14.0	13.79	-0.19	Left	0	1	137	1:1	5	0.022	1.050	0.023	-
2 593	518598	DFT-s QPSK	SRS F	100	14.0	13.79	-0.03	Top	0	1	137	1:1	5	0.364	1.050	0.382	-
2 593	518598	DFT-s QPSK	F	100	18.0	17.36	0.00	Rear	0	1	137	1:1	5	0.231	1.159	0.268	-
2 593	518598	DFT-s QPSK	F	100	18.0	16.88	0.02	Rear	0	135	69	1:1	5	0.379	1.294	0.490	-
2 593	518598	DFT-s QPSK	F	100	18.0	17.36	-0.08	Front	0	1	137	1:1	5	0.240	1.159	0.278	-
2 593	518598	DFT-s QPSK	F	100	18.0	16.88	0.01	Front	0	135	69	1:1	5	0.278	1.294	0.360	-
2 593	518598	DFT-s QPSK	F	100	18.0	17.36	0.01	Left	0	1	137	1:1	5	0.036	1.159	0.042	-
2 593	518598	DFT-s QPSK	F	100	18.0	16.88	0.02	Left	0	135	69	1:1	5	0.056	1.294	0.072	-
2 593	518598	DFT-s QPSK	F	100	18.0	17.36	-0.13	Top	0	1	137	1:1	5	0.708	1.159	0.821	-
2 593	518598	DFT-s QPSK	F	100	18.0	16.88	-0.06	Top	0	135	69	1:1	5	0.700	1.294	**0.906**	-
2 593	518598	DFT-s QPSK	F	100	18.0	16.77	-0.01	Top	0	270	0	1:1	5	0.683	1.327	0.906	-
2 593	518598	CP QPSK	F	100	18.0	17.31	-0.04	Top	0	1	1	1:1	5	0.585	1.172	0.686	-
2 593	518598	DFT-s QPSK	SRSB	100	18.0	17.67	-0.12	Rear	0	1	137	1:1	5	0.598	1.230	0.736	-
2 593	518598	DFT-s QPSK	SRSB	100	18.0	17.67	0.10	Front	0	1	137	1:1	5	0.015	1.230	0.018	-
2 593	518598	DFT-s QPSK	SRSB	100	18.0	17.67	-0.10	Left	0	1	137	1:1	5	0.013	1.230	0.016	-
2 593	518598	DFT-s QPSK	SRSB	100	18.0	17.67	-0.08	Bottom	0	1	137	1:1	5	0.022	1.230	0.027	-
2 593	518598	DFT-s QPSK	SRS E	100	18.0	17.42	0.05	Rear	0	1	137	1:1	5	0.144	1.143	0.165	-
2 593	518598	DFT-s QPSK	SRS E	100	18.0	17.42	-0.10	Front	0	1	137	1:1	5	0.111	1.143	0.127	-
2 593	518598	DFT-s QPSK	SRS E	100	18.0	17.42	0.03	Right	0	1	137	1:1	5	0.021	1.143	0.024	-
2 593	518598	DFT-s QPSK	SRS E	100	18.0	17.42	-0.10	Top	0	1	137	1:1	5	0.175	1.143	0.200	-
2 593	518598	DFT-s QPSK	SRS D	100	14.0	13.10	0.14	Rear	0	1	137	1:1	5	0.749	1.079	0.808	-
2 593	518598	DFT-s QPSK	SRS D	100	14.0	13.10	0.09	Front	0	1	137	1:1	5	0.095	1.079	0.103	-
2 593	518598	DFT-s QPSK	SRS D	100	14.0	13.10	-0.09	Right	0	1	137	1:1	5	0.233	1.079	0.251	-
2 593	518598	DFT-s QPSK	SRS D	100	14.0	13.10	0.01	Bottom	0	1	137	1:1	5	0.515	1.079	0.556	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population														Body 1.6 W/kg Averaged over 1 gram			

@Note. Ant. F, B, E, D SRS was tested with DFT-s OFDM QPSK 1RB 137offset as CW was the Limitation of the manufacturer's S/W tool setup.

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NR TDD Band n48 Hotspot SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.19	-0.10	Rear	0	1	53	1:1	5	0.277	1.205	0.334	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.09	0.00	Rear	0	50	28	1:1	5	0.402	1.233	0.496	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.19	-0.18	Front	0	1	53	1:1	5	0.288	1.205	0.347	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.09	-0.06	Front	0	50	28	1:1	5	0.293	1.233	0.361	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.19	0.09	Left	0	1	53	1:1	5	0.041	1.205	0.049	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.09	-0.17	Left	0	50	28	1:1	5	0.030	1.233	0.037	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.19	0.10	Top	0	1	53	1:1	5	0.442	1.205	0.533	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.09	0.02	Top	0	50	28	1:1	5	0.441	1.233	0.544	-
3 624.99	641666	CP QPSK	F	40	17.0	15.98	0.08	Top	0	1	1	1:1	5	0.432	1.265	0.546	-
3 624.99	641666	DFT-s QPSK	SRS C	40	15.5	15.20	-0.11	Rear	0	1	53	1:1	5	0.272	1.072	0.292	-
3 624.99	641666	DFT-s QPSK	SRS C	40	15.5	15.20	0.05	Front	0	1	53	1:1	5	0.106	1.072	0.114	-
3 624.99	641666	DFT-s QPSK	SRS C	40	15.5	15.20	0.17	Left	0	1	53	1:1	5	**0.790**	1.072	0.847	**B24**
3 570	638000	DFT-s QPSK	SRS C	40	15.5	15.10	-0.03	Left	0	1	53	1:1	5	0.775	1.096	**0.849**	-
3 680	645334	DFT-s QPSK	SRS C	40	15.5	14.45	0.09	Left	0	1	53	1:1	5	0.615	1.274	0.784	-
3 624.99	641666	DFT-s QPSK	SRS C	40	15.5	15.20	0.19	Bottom	0	1	53	1:1	5	0.131	1.072	0.140	-
3 624.99	641666	DFT-s QPSK	SRS I	40	16.0	15.93	-0.11	Rear	0	1	53	1:1	5	0.228	1.016	0.232	-
3 624.99	641666	DFT-s QPSK	SRS I	40	16.0	15.93	0.15	Front	0	1	53	1:1	5	0.189	1.016	0.192	-
3 624.99	641666	DFT-s QPSK	SRS I	40	16.0	15.93	0.10	Left	0	1	53	1:1	5	0.177	1.016	0.180	-
3 624.99	641666	DFT-s QPSK	SRS D	40	17.0	16.68	0.13	Rear	0	1	53	1:1	5	0.615	1.076	0.662	-
3 570	638000	DFT-s QPSK	SRS D	40	17.0	16.10	-0.16	Rear	0	1	53	1:1	5	0.528	1.230	0.649	-
3 680	645334	DFT-s QPSK	SRS D	40	17.0	15.70	-0.09	Rear	0	1	53	1:1	5	0.502	1.349	0.677	-
3 624.99	641666	DFT-s QPSK	SRS D	40	17.0	16.68	0.00	Front	0	1	53	1:1	5	0.000	1.076	0.000	-
3 624.99	641666	DFT-s QPSK	SRS D	40	17.0	16.68	0.00	Right	0	1	53	1:1	5	0.011	1.076	0.012	-
3 624.99	641666	DFT-s QPSK	SRS D	40	17.0	16.68	0.12	Bottom	0	1	53	1:1	5	0.038	1.076	0.041	-

ANSI/ IEEE C95.1 - 2005– Safety Limit	Body
Spatial Peak	1.6 W/kg
Uncontrolled Exposure/ General Population	Averaged over 1 gram

@Note. Ant. C, I, D SRS was tested with DFT-s OFDM QPSK 1RB 53offset as CW was the Limitation of the manufacturer's S/W tool setup

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NR FDD Band n66 Hotspot SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 745	349000	DFT-s QPSK	A	40	16.0	15.06	0.01	Rear	0	1	1	1:1	5	0.235	1.242	0.292	-
1 745	349000	DFT-s QPSK	A	40	16.0	14.87	0.02	Rear	0	108	0	1:1	5	0.236	1.297	0.306	-
1 745	349000	DFT-s QPSK	A	40	16.0	15.06	-0.18	Front	0	1	1	1:1	5	0.386	1.242	0.479	-
1 745	349000	DFT-s QPSK	A	40	16.0	14.87	-0.14	Front	0	108	0	1:1	5	0.384	1.297	0.498	-
1 745	349000	DFT-s QPSK	A	40	16.0	15.06	-0.10	Left	0	1	1	1:1	5	0.096	1.242	0.119	-
1 745	349000	DFT-s QPSK	A	40	16.0	14.87	-0.12	Left	0	108	0	1:1	5	0.093	1.297	0.121	-
1 745	349000	DFT-s QPSK	A	40	16.0	15.06	-0.09	Right	0	1	1	1:1	5	0.052	1.242	0.065	-
1 745	349000	DFT-s QPSK	A	40	16.0	14.87	-0.16	Right	0	108	0	1:1	5	0.055	1.297	0.071	-
1 745	349000	DFT-s QPSK	A	40	16.0	15.06	0.01	Bottom	0	1	1	1:1	5	0.702	1.242	0.872	-
1 745	349000	DFT-s QPSK	A	40	16.0	14.87	0.01	Bottom	0	108	0	1:1	5	0.699	1.297	0.907	-
1 745	349000	DFT-s QPSK	A	40	16.0	14.84	0.02	Bottom	0	216	0	1:1	5	0.696	1.306	0.909	-
1 745	349000	CP QPSK	A	40	16.0	15.09	-0.01	Bottom	1	1	0	1:1	5	**0.703**	1.233	0.867	**B25**
1 745	349000	DFT-s QPSK	F	40	18.5	17.44	-0.06	Rear	0	1	1	1:1	5	0.429	1.276	0.547	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.14	-0.01	Rear	0	108	0	1:1	5	0.438	1.368	0.599	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.44	0.10	Front	0	1	1	1:1	5	0.312	1.276	0.398	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.14	0.05	Front	0	108	0	1:1	5	0.314	1.368	0.430	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.44	-0.10	Left	0	1	1	1:1	5	0.117	1.276	0.149	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.14	0.06	Left	0	108	0	1:1	5	0.106	1.368	0.145	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.44	0.00	Top	0	1	1	1:1	5	0.680	1.276	0.868	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.14	0.01	Top	0	108	0	1:1	5	0.697	1.368	**0.953**	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.06	0.00	Top	0	216	0	1:1	5	0.634	1.393	0.883	-
1 745	349000	CP QPSK	F	40	18.5	17.51	0.02	Top	0	1	1	1:1	5	0.627	1.256	0.788	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

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NR FDD Band n70 Hotspot SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 702.5	340500	DFT-s QPSK	A	15	16.0	15.87	0.10	Rear	0	1	77	1:1	5	0.766	1.030	0.789	-
1 702.5	340500	DFT-s QPSK	A	15	16.0	15.92	-0.09	Rear	0	36	22	1:1	5	0.660	1.019	0.673	-
1 702.5	340500	DFT-s QPSK	A	15	16.0	15.87	0.06	Front	0	1	77	1:1	5	0.591	1.030	0.609	-
1 702.5	340500	DFT-s QPSK	A	15	16.0	15.92	-0.15	Front	0	36	22	1:1	5	0.569	1.019	0.580	-
1 702.5	340500	DFT-s QPSK	A	15	16.0	15.87	-0.05	Left	0	1	77	1:1	5	0.060	1.030	0.062	-
1 702.5	340500	DFT-s QPSK	A	15	16.0	15.92	0.14	Left	0	36	22	1:1	5	0.056	1.019	0.057	-
1 702.5	340500	DFT-s QPSK	A	15	16.0	15.87	0.13	Right	0	1	77	1:1	5	0.038	1.030	0.039	-
1 702.5	340500	DFT-s QPSK	A	15	16.0	15.92	-0.05	Right	0	36	22	1:1	5	0.035	1.019	0.036	-
1 702.5	340500	DFT-s QPSK	A	15	16.0	15.87	0.17	Bottom	0	1	77	1:1	5	0.951	1.030	0.980	
1 702.5	340500	DFT-s QPSK	A	15	16.0	15.92	0.10	Bottom	0	36	22	1:1	5	0.929	1.019	0.947	-
1 702.5	340500	DFT-s QPSK	A	15	16.0	15.69	0.11	Bottom	0	75	0	1:1	5	0.915	1.074	0.983	-
1 702.5	340500	CP QPSK	A	15	16.0	15.56	0.11	Bottom	0	1	1	1:1	5	0.861	1.107	0.953	-
1 702.5	340500	DFT-s QPSK	A	15	16.0	15.87	0.12	Bottom	0	1	77	1:1	5	**0.959**	1.030	**0.988**	**B26#**
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.99	-0.14	Rear	0	1	77	1:1	5	0.353	1.002	0.354	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.98	-0.14	Rear	0	36	43	1:1	5	0.347	1.005	0.349	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.99	-0.10	Front	0	1	77	1:1	5	0.281	1.002	0.282	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.98	-0.13	Front	0	36	43	1:1	5	0.278	1.005	0.279	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.99	-0.12	Left	0	1	77	1:1	5	0.098	1.002	0.098	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.98	0.19	Left	0	36	43	1:1	5	0.100	1.005	0.101	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.99	0.14	Top	0	1	77	1:1	5	0.607	1.002	0.608	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.98	0.18	Top	0	36	43	1:1	5	0.604	1.005	0.607	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.96	0.05	Top	0	75	0	1:1	5	0.552	1.009	0.557	-
1 702.5	340500	CP QPSK	E	15	18.0	17.81	-0.01	Top	1.5	1	1	1:1	5	0.584	1.045	0.610	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

Note: # Data entry indicate Variability measurement.

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NR FDD Band n71 Hotspot SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
680.5	136100	DFT-s QPSK	A	20	25.50	24.52	-0.10	Rear	0	1	1	1:1	5	0.667	1.253	0.836	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.31	0.03	Rear	1	50	28	1:1	5	**0.694**	1.315	**0.913**	**B27**
680.5	136100	DFT-s QPSK	A	20	24.50	23.38	-0.10	Rear	1	100	0	1:1	5	0.587	1.294	0.760	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.52	-0.12	Front	0	1	1	1:1	5	0.363	1.253	0.455	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.31	0.11	Front	1	50	28	1:1	5	0.374	1.315	0.492	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.52	0.09	Left	0	1	1	1:1	5	0.069	1.253	0.086	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.31	0.17	Left	1	50	28	1:1	5	0.051	1.315	0.067	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.52	-0.06	Right	0	1	1	1:1	5	0.179	1.253	0.224	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.31	-0.02	Right	1	50	28	1:1	5	0.165	1.315	0.217	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.52	0.06	Bottom	0	1	1	1:1	5	0.198	1.253	0.248	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.31	0.17	Bottom	1	50	28	1:1	5	0.163	1.315	0.214	-
680.5	136100	CP QPSK	A	20	24.00	23.05	0.04	Rear	1	1	1	1:1	5	0.508	1.245	0.632	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.52	-0.13	Rear	0	1	1	1:1	5	0.413	1.117	0.461	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.41	-0.12	Rear	0	50	0	1:1	5	0.379	1.146	0.434	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.52	0.02	Front	0	1	1	1:1	5	0.440	1.117	0.491	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.41	0.03	Front	0	50	0	1:1	5	0.406	1.146	0.465	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.52	0.09	Right	0	1	1	1:1	5	0.198	1.117	0.221	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.41	0.02	Right	0	50	0	1:1	5	0.186	1.146	0.213	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.52	0.14	Top	0	1	1	1:1	5	0.426	1.117	0.476	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.41	0.10	Top	0	50	0	1:1	5	0.401	1.146	0.460	-
680.5	136100	CP QPSK	E	20	21.0	20.33	0.13	Front	0	1	1	1:1	5	0.439	1.167	0.512	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

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NR TDD Band n77 Hotspot SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
3 750	650000	DFT-s QPSK	F	100	15.5	14.10	-0.04	Rear	0	1	137	1:1	5	0.332	1.380	0.458	-
3 930	662000	DFT-s QPSK	F	100	15.5	14.04	0.00	Rear	0	1	137	1:1	5	0.359	1.400	0.503	-
3 750	650000	DFT-s QPSK	F	100	15.5	14.14	-0.19	Rear	0	135	138	1:1	5	**0.569**	1.368	**0.778**	**B28**
3 930	662000	DFT-s QPSK	F	100	15.5	14.10	0.00	Rear	0	135	138	1:1	5	0.340	1.380	0.469	-
3 750	650000	DFT-s QPSK	F	100	15.5	14.10	-0.05	Front	0	1	137	1:1	5	0.354	1.380	0.489	-
3 930	662000	DFT-s QPSK	F	100	15.5	14.04	-0.14	Front	0	1	137	1:1	5	0.367	1.400	0.514	-
3 750	650000	DFT-s QPSK	F	100	15.5	14.14	-0.10	Front	0	135	138	1:1	5	0.480	1.368	0.657	-
3 930	662000	DFT-s QPSK	F	100	15.5	14.10	0.06	Front	0	135	138	1:1	5	0.326	1.380	0.450	-
3 750	650000	DFT-s QPSK	F	100	15.5	14.10	-0.09	Left	0	1	137	1:1	5	0.037	1.380	0.051	-
3 750	650000	DFT-s QPSK	F	100	15.5	14.14	0.00	Left	0	135	138	1:1	5	0.033	1.368	0.045	-
3 750	650000	DFT-s QPSK	F	100	15.5	14.10	0.06	Top	0	1	137	1:1	5	0.522	1.380	0.720	-
3 930	662000	DFT-s QPSK	F	100	15.5	14.04	0.17	Top	0	1	137	1:1	5	0.420	1.400	0.588	-
3 750	650000	DFT-s QPSK	F	100	15.5	14.14	0.16	Top	0	135	138	1:1	5	0.518	1.368	0.709	-
3 930	662000	DFT-s QPSK	F	100	15.5	14.10	0.02	Top	0	135	138	1:1	5	0.488	1.380	0.673	-
3 930	662000	CP QPSK	F	100	15.5	13.59	-0.13	Rear	0	1	1	1:1	5	0.391	1.552	0.607	-
3 500.01	633334	DFT-s QPSK	F	100	15.5	14.34	-0.10	Rear	0	1	271	1:1	5	0.390	1.306	0.509	-
3 500.01	633334	DFT-s QPSK	F	100	15.5	14.44	-0.16	Rear	0	135	138	1:1	5	0.442	1.276	0.564	-
3 750	650000	DFT-s QPSK	SRS C	100	11.5	11.38	0.12	Rear	0	1	137	1:1	5	0.151	1.028	0.155	-
3 750	650000	DFT-s QPSK	SRS C	100	11.5	11.38	0.00	Front	0	1	137	1:1	5	0.116	1.028	0.119	-
3 750	650000	DFT-s QPSK	SRS C	100	11.5	11.38	0.12	Left	0	1	137	1:1	5	0.335	1.028	0.344	-
3 750	650000	DFT-s QPSK	SRS C	100	11.5	11.38	0.19	Bottom	0	1	137	1:1	5	0.093	1.028	0.096	-
3 500.01	633334	DFT-s QPSK	SRS C	100	11.0	10.53	0.15	Left	0	1	137	1:1	5	0.272	1.114	0.303	-
3 750	650000	DFT-s QPSK	SRS I	100	14.0	13.76	-0.10	Rear	0	1	137	1:1	5	0.335	1.057	0.354	-
3 750	650000	DFT-s QPSK	SRS I	100	14.0	13.76	-0.03	Front	0	1	137	1:1	5	0.269	1.057	0.284	-
3 750	650000	DFT-s QPSK	SRS I	100	14.0	13.76	0.00	Left	0	1	137	1:1	5	0.170	1.057	0.180	-
3 500.01	633334	DFT-s QPSK	SRS I	100	14.0	13.96	-0.02	Rear	0	1	137	1:1	5	0.162	1.009	0.163	-
3 930	662000	DFT-s QPSK	SRS D	100	10.5	10.03	0.00	Rear	0	1	137	1:1	5	0.339	1.114	0.378	-
3 930	662000	DFT-s QPSK	SRS D	100	10.5	10.03	0.00	Front	0	1	137	1:1	5	0.008 69	1.114	0.010	-
3 930	662000	DFT-s QPSK	SRS D	100	10.5	10.03	0.00	Right	0	1	137	1:1	5	0.015	1.114	0.017	-
3 930	662000	DFT-s QPSK	SRS D	100	10.5	10.03	0.02	Bottom	0	1	137	1:1	5	0.044	1.114	0.049	-
3 500.01	633334	DFT-s QPSK	SRS D	100	10.0	9.97	0.06	Rear	0	1	137	1:1	5	0.184	1.007	0.185	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population														Body 1.6 W/kg Averaged over 1 gram			

@Note. Ant. C, I, D SRS was tested with DFT-s OFDM QPSK 1RB 137offset as CW was the Limitation of the manufacturer's S/W tool setup.

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DTS Hotspot SAR																
Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.															
2 412	1	802.11b	H	20	1Mbps	18.0	17.96	0.09	Rear	99	5	0.309	1.009	1.010	0.315	-
2 412	1	802.11b	H	20	1Mbps	18.0	17.96	-0.10	Front	99	5	0.283	1.009	1.010	0.288	-
2 412	1	802.11b	H	20	1Mbps	18.0	17.96	-0.02	Left	99	5	0.512	1.009	1.010	0.522	-
2 412	1	802.11b	H	20	1Mbps	18.0	17.96	-0.14	Top	99	5	0.206	1.009	1.010	0.210	-
2 462	11	802.11b	J	20	1Mbps	18.0	17.80	0.02	Rear	99	5	0.117	1.079	1.010	0.128	-
2 462	11	802.11b	J	20	1Mbps	18.0	17.80	0.03	Front	99	5	0.112	1.079	1.010	0.122	-
2 462	11	802.11b	J	20	1Mbps	18.0	17.80	0.09	Right	99	5	0.063	1.079	1.010	0.069	-
2 462	11	802.11b	J	20	1Mbps	18.0	17.80	0.01	Top	99	5	0.000	1.047	1.010	0.000	-
2 412	1	802.11b	H+J	20	1Mbps	21.0	20.87	0.12	Rear	99	5	0.344	1.057	1.010	0.364	-
2 412	1	802.11b	H+J	20	1Mbps	21.0	20.87	0.06	Front	99	5	0.249	1.057	1.010	0.263	-
2 412	1	802.11b	H+J	20	1Mbps	21.0	20.87	0.01	Left	99	5	**0.545**	1.057	1.010	**0.576**	**B29**
2 412	1	802.11b	H+J	20	1Mbps	21.0	20.87	0.02	Right	99	5	0.064	1.057	1.010	0.068	-
2 412	1	802.11b	H+J	20	1Mbps	21.0	20.87	0.02	Top	99	5	0.262	1.057	1.010	0.277	-
DTS Hotspot SAR RSDB ON																
2 412	1	802.11b	H	20	1Mbps	15.0	14.93	-0.02	Rear	99	5	0.254	1.016	1.010	0.261	-
2 412	1	802.11b	H	20	1Mbps	15.0	14.93	-0.06	Front	99	5	0.130	1.016	1.010	0.133	-
2 412	1	802.11b	H	20	1Mbps	15.0	14.93	-0.02	Left	99	5	0.313	1.016	1.010	0.321	-
2 412	1	802.11b	H	20	1Mbps	15.0	14.93	-0.18	Top	99	5	0.105	1.016	1.010	0.108	-
2 412	1	802.11b	H+J	20	1Mbps	18.0	17.87	0.12	Rear	99	5	0.168	1.047	1.010	0.178	-
2 412	1	802.11b	H+J	20	1Mbps	18.0	17.87	0.06	Front	99	5	0.121	1.047	1.010	0.128	-
2 412	1	802.11b	H+J	20	1Mbps	18.0	17.87	-0.12	Left	99	5	0.269	1.047	1.010	0.284	-
2 412	1	802.11b	H+J	20	1Mbps	18.0	17.87	0.02	Right	99	5	0.047	1.047	1.010	0.050	-
2 412	1	802.11b	H+J	20	1Mbps	18.0	17.87	0.02	Top	99	5	0.082	1.047	1.010	0.087	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population												Body 1.6 W/kg Averaged over 1 gram				

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5 GHz WLAN Hotspot SAR																
Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.															
5 290	58	802.11ac	H	80	MCS0	15.0	14.27	0.07	Rear	85.9	5	0.184	1.183	1.164	0.253	-
5 290	58	802.11ac	H	80	MCS0	15.0	14.27	0.10	Front	85.9	5	0.123	1.183	1.164	0.169	-
5 290	58	802.11ac	H	80	MCS0	15.0	14.27	-0.11	Left	85.9	5	0.288	1.183	1.164	0.397	-
5 290	58	802.11ac	H	80	MCS0	15.0	14.27	-0.07	Top	85.9	5	0.088	1.183	1.164	0.121	-
5 610	122	802.11ac	H	80	MCS0	15.0	13.86	0.05	Rear	85.9	5	0.237	1.300	1.164	0.359	-
5 610	122	802.11ac	H	80	MCS0	15.0	13.86	0.12	Front	85.9	5	0.123	1.300	1.164	0.186	-
5 610	122	802.11ac	H	80	MCS0	15.0	13.86	0.12	Left	85.9	5	0.386	1.300	1.164	0.584	-
5 610	122	802.11ac	H	80	MCS0	15.0	13.86	-0.14	Top	85.9	5	0.099	1.300	1.164	0.150	-
5 775	155	802.11ac	H	80	MCS0	15.0	13.23	0.10	Rear	85.9	5	0.201	1.503	1.164	0.352	-
5 775	155	802.11ac	H	80	MCS0	15.0	13.23	0.00	Front	85.9	5	0.090	1.503	1.164	0.157	-
5 775	155	802.11ac	H	80	MCS0	15.0	13.23	-0.14	Left	85.9	5	0.423	1.503	1.164	**0.740**	-
5 775	155	802.11ac	H	80	MCS0	15.0	13.23	-0.11	Top	85.9	5	0.081	1.503	1.164	0.142	-
5 855	171	802.11ac	H	80	MCS0	15.0	13.55	0.08	Rear	85.9	5	0.273	1.396	1.164	0.444	-
5 855	171	802.11ac	H	80	MCS0	15.0	13.55	0.02	Front	85.9	5	0.119	1.396	1.164	0.193	-
5 855	171	802.11ac	H	80	MCS0	15.0	13.55	0.01	Left	85.9	5	0.434	1.396	1.164	0.705	-
5 855	171	802.11ac	H	80	MCS0	15.0	13.55	0.01	Top	85.9	5	0.092	1.396	1.164	0.150	-
5 290	58	802.11ac	E	80	MCS0	15.0	14.72	0.06	Rear	85.9	5	0.280	1.222	1.164	0.398	-
5 290	58	802.11ac	E	80	MCS0	15.0	14.72	-0.06	Front	85.9	5	0.041	1.222	1.164	0.058	-
5 290	58	802.11ac	E	80	MCS0	15.0	14.72	0.01	Right	85.9	5	0.046	1.222	1.164	0.065	-
5 290	58	802.11ac	E	80	MCS0	15.0	14.72	-0.11	Top	85.9	5	0.134	1.222	1.164	0.191	-
5 610	122	802.11ac	E	80	MCS0	15.0	14.89	-0.16	Rear	85.9	5	0.086	1.089	1.164	0.109	-
5 610	122	802.11ac	E	80	MCS0	15.0	14.89	0.18	Front	85.9	5	0.002	1.089	1.164	0.003	-
5 610	122	802.11ac	E	80	MCS0	15.0	14.89	0.12	Right	85.9	5	0.016	1.089	1.164	0.020	-
5 610	122	802.11ac	E	80	MCS0	15.0	14.89	0.10	Top	85.9	5	0.023	1.089	1.164	0.029	-
5 775	155	802.11ac	E	80	MCS0	15.0	14.88	0.19	Rear	85.9	5	0.036	1.045	1.164	0.044	-
5 775	155	802.11ac	E	80	MCS0	15.0	14.88	0.19	Front	85.9	5	0.026	1.045	1.164	0.032	-
5 775	155	802.11ac	E	80	MCS0	15.0	14.88	0.11	Right	85.9	5	0.018	1.045	1.164	0.022	-
5 775	155	802.11ac	E	80	MCS0	15.0	14.88	-0.18	Top	85.9	5	0.026	1.045	1.164	0.032	-
5 855	171	802.11ac	E	80	MCS0	15.0	14.79	0.01	Rear	85.9	5	0.050	1.057	1.164	0.062	-
5 855	171	802.11ac	E	80	MCS0	15.0	14.79	0.03	Front	85.9	5	0.059	1.057	1.164	0.073	-
5 855	171	802.11ac	E	80	MCS0	15.0	14.79	0.02	Right	85.9	5	0.064	1.057	1.164	0.079	-
5 855	171	802.11ac	E	80	MCS0	15.0	14.79	0.03	Top	85.9	5	0.066	1.057	1.164	0.081	-
5 290	58	802.11ac	H+E	80	MCS0	18.0	17.51	0.09	Rear	85.9	5	0.344	1.183	1.164	0.474	-
5 290	58	802.11ac	H+E	80	MCS0	18.0	17.51	-0.17	Front	85.9	5	0.127	1.183	1.164	0.175	-
5 290	58	802.11ac	H+E	80	MCS0	18.0	17.51	-0.18	Left	85.9	5	0.300	1.183	1.164	0.413	-
5 290	58	802.11ac	H+E	80	MCS0	18.0	17.51	-0.01	Right	85.9	5	0.043	1.183	1.164	0.059	-
5 290	58	802.11ac	H+E	80	MCS0	18.0	17.51	0.12	Top	85.9	5	0.137	1.183	1.164	0.189	-
5 610	122	802.11ac	H+E	80	MCS0	18.0	17.42	0.01	Rear	85.9	5	0.137	1.300	1.164	0.207	-
5 610	122	802.11ac	H+E	80	MCS0	18.0	17.42	0.04	Front	85.9	5	0.131	1.300	1.164	0.198	-

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5 GHz WLAN Hotspot SAR																
Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.															
5 610	122	802.11ac	H+E	80	MCS0	18.0	17.42	-0.06	Left	85.9	5	**0.460**	1.300	1.164	0.696	**B30**
5 610	122	802.11ac	H+E	80	MCS0	18.0	17.42	-0.01	Right	85.9	5	0.043	1.300	1.164	0.065	-
5 610	122	802.11ac	H+E	80	MCS0	18.0	17.42	0.08	Top	85.9	5	0.119	1.300	1.164	0.180	-
5 775	155	802.11ac	H+E	80	MCS0	18.0	17.14	0.15	Rear	85.9	5	0.195	1.503	1.164	0.341	-
5 775	155	802.11ac	H+E	80	MCS0	18.0	17.14	0.15	Front	85.9	5	0.076	1.503	1.164	0.133	-
5 775	155	802.11ac	H+E	80	MCS0	18.0	17.14	-0.11	Left	85.9	5	0.310	1.503	1.164	0.542	-
5 775	155	802.11ac	H+E	80	MCS0	18.0	17.14	-0.11	Right	85.9	5	0.050	1.503	1.164	0.087	-
5 775	155	802.11ac	H+E	80	MCS0	18.0	17.14	-0.03	Top	85.9	5	0.084	1.503	1.164	0.147	-
5 855	171	802.11ac	H+E	80	MCS0	18.0	17.22	0.12	Rear	85.9	5	0.204	1.396	1.164	0.332	-
5 855	171	802.11ac	H+E	80	MCS0	18.0	17.22	0.02	Front	85.9	5	0.098	1.396	1.164	0.159	-
5 855	171	802.11ac	H+E	80	MCS0	18.0	17.22	0.11	Left	85.9	5	0.382	1.396	1.164	0.621	-
5 855	171	802.11ac	H+E	80	MCS0	18.0	17.22	0.11	Right	85.9	5	0.040	1.396	1.164	0.065	-
5 855	171	802.11ac	H+E	80	MCS0	18.0	17.22	-0.17	Top	85.9	5	0.090	1.396	1.164	0.146	-
5 GHz WLAN Hotspot SAR RSDB ON																
5 290	58	802.11ac	H	80	MCS0	12.0	11.21	0.00	Rear	85.9	5	0.146	1.199	1.164	0.204	-
5 290	58	802.11ac	H	80	MCS0	12.0	11.21	0.00	Front	85.9	5	0.123	1.199	1.164	0.172	-
5 290	58	802.11ac	H	80	MCS0	12.0	11.21	0.15	Left	85.9	5	0.165	1.199	1.164	0.230	-
5 290	58	802.11ac	H	80	MCS0	12.0	11.21	0.00	Top	85.9	5	0.04	1.199	1.164	0.056	-
5 610	122	802.11ac	H	80	MCS0	12.0	10.87	0.00	Rear	85.9	5	0.043	1.297	1.164	0.065	-
5 610	122	802.11ac	H	80	MCS0	12.0	10.87	0.00	Front	85.9	5	0.06	1.297	1.164	0.091	-
5 610	122	802.11ac	H	80	MCS0	12.0	10.87	0.00	Left	85.9	5	0.203	1.297	1.164	0.307	-
5 610	122	802.11ac	H	80	MCS0	12.0	10.87	0.00	Top	85.9	5	0.054	1.297	1.164	0.082	-
5 775	155	802.11ac	H	80	MCS0	12.0	10.30	0.00	Rear	85.9	5	0.084	1.479	1.164	0.145	-
5 775	155	802.11ac	H	80	MCS0	12.0	10.30	0.00	Front	85.9	5	0.035	1.479	1.164	0.060	-
5 775	155	802.11ac	H	80	MCS0	12.0	10.30	0.15	Left	85.9	5	0.168	1.479	1.164	0.289	-
5 775	155	802.11ac	H	80	MCS0	12.0	10.30	0.00	Top	85.9	5	0.032	1.479	1.164	0.055	-
5 855	171	802.11ac	H	80	MCS0	12.0	10.58	0.00	Rear	85.9	5	0.119	1.387	1.164	0.192	-
5 855	171	802.11ac	H	80	MCS0	12.0	10.58	0.00	Front	85.9	5	0.026	1.387	1.164	0.042	-
5 855	171	802.11ac	H	80	MCS0	12.0	10.58	0.08	Left	85.9	5	0.196	1.387	1.164	0.316	-
5 855	171	802.11ac	H	80	MCS0	12.0	10.58	0.02	Top	85.9	5	0.032	1.387	1.164	0.052	-
5 290	58	802.11ac	H+E	80	MCS0	15.0	14.42	0.00	Rear	85.9	5	0.138	1.199	1.164	0.193	-
5 290	58	802.11ac	H+E	80	MCS0	15.0	14.42	0.00	Front	85.9	5	0.102	1.199	1.164	0.142	-
5 290	58	802.11ac	H+E	80	MCS0	15.0	14.42	0.13	Left	85.9	5	0.113	1.199	1.164	0.158	-
5 290	58	802.11ac	H+E	80	MCS0	15.0	14.42	-0.16	Top	85.9	5	0.041	1.199	1.164	0.057	-
5 610	122	802.11ac	H+E	80	MCS0	15.0	14.42	0.00	Rear	85.9	5	0.095	1.297	1.164	0.143	-
5 610	122	802.11ac	H+E	80	MCS0	15.0	14.42	0.00	Front	85.9	5	0.023	1.297	1.164	0.035	-
5 610	122	802.11ac	H+E	80	MCS0	15.0	14.42	0.08	Left	85.9	5	0.173	1.297	1.164	0.261	-
5 610	122	802.11ac	H+E	80	MCS0	15.0	14.42	0.13	Top	85.9	5	0.00909	1.297	1.164	0.014	-
5 775	155	802.11ac	H+E	80	MCS0	15.0	14.14	0.00	Rear	85.9	5	0.076	1.479	1.164	0.131	-
5 775	155	802.11ac	H+E	80	MCS0	15.0	14.14	0.00	Front	85.9	5	0.021	1.479	1.164	0.036	-
5 775	155	802.11ac	H+E	80	MCS0	15.0	14.14	-0.01	Left	85.9	5	0.128	1.479	1.164	0.220	-
5 775	155	802.11ac	H+E	80	MCS0	15.0	14.14	-0.09	Top	85.9	5	0.022	1.479	1.164	0.038	-

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5 GHz WLAN Hotspot SAR RSDB ON																
Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.															
5 855	171	802.11ac	H+E	80	MCS0	15.0	14.21	0.00	Rear	85.9	5	0.109	1.387	1.164	0.176	-
5 855	171	802.11ac	H+E	80	MCS0	15.0	14.21	0.00	Front	85.9	5	0.011	1.387	1.164	0.018	-
5 855	171	802.11ac	H+E	80	MCS0	15.0	14.21	-0.13	Left	85.9	5	0.123	1.387	1.164	0.199	-
5 855	171	802.11ac	H+E	80	MCS0	15.0	14.21	-0.08	Top	85.9	5	0.026	1.387	1.164	0.042	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population										Body 1.6 W/kg Averaged over 1 gram						

6 GHz WLAN Hotspot SAR																
Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.															
6 185	47	802.11ax	H	160	MCS0	9.0	8.09	-0.19	Rear	90.7	0	0.075	1.233	1.103	0.102	-
6 185	47	802.11ax	H	160	MCS0	9.0	8.09	0.15	Front	90.7	0	0.029	1.233	1.103	0.039	-
6 185	47	802.11ax	H	160	MCS0	9.0	8.09	0.19	Left	90.7	0	0.142	1.233	1.103	0.193	-
6 185	47	802.11ax	H	160	MCS0	9.0	8.09	0.18	Top	90.7	0	0.015	1.233	1.103	0.020	-
6 025	15	802.11ax	H	160	MCS0	9.0	8.00	0.10	Left	90.7	0	**0.176**	1.259	1.103	**0.244**	**B31**
6 505	111	802.11ax	H	160	MCS0	9.0	7.99	0.04	Left	90.7	0	0.080	1.262	1.103	0.111	-
6 665	143	802.11ax	H	160	MCS0	9.0	7.27	0.08	Left	90.7	0	0.047	1.489	1.103	0.077	-
6 985	207	802.11ax	H	160	MCS0	9.0	8.04	0.09	Left	90.7	0	0.039	1.247	1.103	0.054	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.69	0.11	Rear	90.7	0	0.000	1.074	1.103	0.000	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.69	0.15	Front	90.7	0	0.000	1.074	1.103	0.000	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.69	0.14	Right	90.7	0	0.000	1.074	1.103	0.000	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.69	0.14	Top	90.7	0	0.000	1.074	1.103	0.000	-
6 025	15	802.11ax	E	160	MCS0	9.0	8.20	0.03	Rear	90.7	0	0.004	1.202	1.103	0.005	-
6 185	47	802.11ax	E	160	MCS0	9.0	8.31	0.00	Rear	90.7	0	0.000	1.172	1.103	0.000	-
6 665	143	802.11ax	E	160	MCS0	9.0	7.18	0.07	Rear	90.7	0	0.000	1.521	1.103	0.000	-
6 985	207	802.11ax	E	160	MCS0	9.0	7.69	0.02	Rear	90.7	0	0.000	1.352	1.103	0.000	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population										Body 1.6 W/kg Averaged over 1 gram						

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DSS Tethering SAR													
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Distance	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)		(mm)	(W/kg)		(Duty)	(W/kg)	
2 402	0	2DH5	H	13.0	12.69	-0.10	Rear	5	0.171	1.074	1.016	0.187	-
2 402	0	2DH5	H	13.0	12.69	-0.13	Front	5	0.125	1.074	1.016	0.136	-
2 402	0	2DH5	H	13.0	12.69	-0.06	Left	5	**0.319**	1.074	1.016	**0.348**	**B32**
2 402	0	2DH5	H	13.0	12.69	0.03	Top	5	0.106	1.074	1.016	0.116	-
2 441	39	DH5	J	14.0	13.82	0.19	Rear	5	0.046	1.042	1.016	0.049	-
2 441	39	DH5	J	14.0	13.82	0.13	Front	5	0.130	1.042	1.016	0.138	-
2 441	39	DH5	J	14.0	13.82	0.07	Right	5	0.019	1.042	1.016	0.020	-
2 441	39	DH5	J	14.0	13.82	0.00	Top	5	0.000	1.042	1.016	0.000	-
2 402	37	LE 1M	H	13.5	13.06	0.05	Rear	5	0.109	1.107	1.033	0.125	-
2 402	37	LE 1M	H	13.5	13.06	-0.05	Front	5	0.077	1.107	1.033	0.088	-
2 402	37	LE 1M	H	13.5	13.06	-0.05	Left	5	0.202	1.107	1.033	0.231	-
2 402	37	LE 1M	H	13.5	13.06	-0.18	Top	5	0.060	1.107	1.033	0.069	-
2 440	17	LE 1M	J	15.0	14.52	0.09	Rear	5	0.035	1.117	1.033	0.040	-
2 440	17	LE 1M	J	15.0	14.52	-0.15	Front	5	0.065	1.117	1.033	0.075	-
2 440	17	LE 1M	J	15.0	14.52	-0.10	Right	5	0.008	1.117	1.033	0.009	-
2 440	17	LE 1M	J	15.0	14.52	0.10	Top	5	0.005	1.117	1.033	0.006	-
2 402	0	2DH5	H+J	17.0	16.14	-0.02	Rear	5	0.066	1.219	1.016	0.082	-
2 402	0	2DH5	H+J	17.0	16.14	-0.02	Front	5	0.047	1.219	1.016	0.058	-
2 402	0	2DH5	H+J	17.0	16.14	0.18	Left	5	0.123	1.219	1.016	0.152	-
2 402	0	2DH5	H+J	17.0	16.14	0.10	Right	5	0.012	1.219	1.016	0.015	-
2 402	0	2DH5	H+J	17.0	16.14	-0.03	Top	5	0.034	1.219	1.016	0.042	-
2 440	17	LE 1M	H+J	17.0	16.28	-0.08	Rear	5	0.063	1.180	1.033	0.077	-
2 440	17	LE 1M	H+J	17.0	16.28	0.09	Front	5	0.046	1.180	1.033	0.056	-
2 440	17	LE 1M	H+J	17.0	16.28	-0.08	Left	5	0.122	1.180	1.033	0.149	-
2 440	17	LE 1M	H+J	17.0	16.28	0.10	Right	5	0.012	1.180	1.033	0.015	-
2 440	17	LE 1M	H+J	17.0	16.28	0.10	Top	5	0.033	1.180	1.033	0.040	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram					

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DSS Tethering SAR – Stand alone													
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Distance	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
Mhz	Ch.			(dBm)	(dBm)	(dB)		(mm)	(W/kg)		(Duty)	(W/kg)	
2 402	0	DH5	H	19.0	18.67	0.03	Rear	5	0.033	1.079	1.016	0.036	-
2 402	0	DH5	H	19.0	18.67	0.02	Front	5	0.061	1.079	1.016	0.067	-
2 402	0	DH5	H	19.0	18.67	0.01	Left	5	0.132	1.079	1.016	0.145	-
2 402	0	DH5	H	19.0	18.67	0.01	Top	5	0.026	1.079	1.016	0.029	-
2 441	39	DH5	H	19.0	17.74	-0.05	Left	5	0.176	1.337	1.016	0.239	-
2 480	78	DH5	H	19.0	17.45	0.04	Left	5	0.158	1.429	1.016	0.229	-
2 402	0	DH5	J	20.0	19.41	0.05	Rear	5	0.051	1.146	1.016	0.059	-
2 402	0	DH5	J	20.0	19.41	0.06	Front	5	0.028	1.146	1.016	0.033	-
2 402	0	DH5	J	20.0	19.41	0.07	Right	5	0.018	1.146	1.016	0.021	-
2 402	0	DH5	J	20.0	19.41	0.02	Top	5	0.000	1.146	1.016	0.000	-
2 441	39	DH5	J	20.0	19.31	0.19	Rear	5	0.247	1.172	1.016	0.294	-
2 480	78	DH5	J	20.0	18.67	-0.03	Rear	5	0.140	1.358	1.016	0.193	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram					

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13.1.3 Body-Worn SAR Measurement Results

GSM 850 Bodyworn SAR													
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(mm)	(W/kg)		(W/kg)	
836.6	190	GPRS 4Tx	A	25.0	23.50	-0.19	Rear	1:2.07	5	**0.441**	1.413	0.623	**C1**
836.6	190	GPRS 4Tx	A	25.0	23.50	-0.14	Front	1:2.07	5	0.259	1.413	0.366	-
836.6	190	Voice	A	31.0	29.14	-0.14	Rear	1:8.3	5	0.424	1.535	**0.651**	**-**
836.6	190	Voice	A	31.0	29.14	-0.05	Front	1:8.3	5	0.223	1.535	0.342	-
836.6	190	GPRS 4Tx	E	22.0	21.33	-0.08	Rear	1:2.07	5	0.189	1.167	0.221	-
836.6	190	GPRS 4Tx	E	22.0	21.33	-0.01	Front	1:2.07	5	0.094	1.167	0.110	-
836.6	190	Voice	E	28.0	27.20	-0.17	Rear	1:8.3	5	0.159	1.202	0.191	-
836.6	190	Voice	E	28.0	27.20	-0.12	Front	1:8.3	5	0.097	1.202	0.117	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

GSM 1900 Bodyworn SAR													
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(mm)	(W/kg)		(W/kg)	
1 880	661	GPRS 4Tx	A	20.0	19.51	-0.10	Rear	1:2.07	5	0.515	1.119	0.576	-
1 880	661	GPRS 4Tx	A	20.0	19.51	-0.18	Front	1:2.07	5	**0.553**	1.119	**0.619**	**C2**
1 880	661	Voice	A	26.0	25.18	-0.12	Rear	1:8.3	5	0.402	1.208	0.486	-
1 880	661	Voice	A	26.0	25.18	-0.97	Front	1:8.3	5	0.339	1.208	0.410	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

UMTS Band 5 Bodyworn SAR													
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(mm)	(W/kg)		(W/kg)	
836.6	4183	RMC	A	23.0	22.68	-0.02	Rear	1:1	5	0.751	1.076	0.808	-
836.6	4183	RMC	A	23.0	22.68	-0.05	Front	1:1	5	0.545	1.076	0.586	-
826.4	4132	RMC	A	23.0	22.66	0.12	Rear	1:1	5	0.881	1.081	0.952	-
846.6	4233	RMC	A	23.0	22.53	0.05	Rear	1:1	5	**0.898**	1.114	**1.000**	**C3**
846.6	4233	RMC	A	23.0	22.53	-0.03	Rear	1:1	5	0.894	1.114	0.996	-
836.6	4183	RMC	E	19.0	18.33	-0.13	Rear	1:1	5	0.287	1.167	0.335	-
836.6	4183	RMC	E	19.0	18.33	-0.10	Front	1:1	5	0.144	1.167	0.168	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population							Body 1.6 W/kg Averaged over 1 gram						

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UMTS Band 4 Bodyworn SAR													
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(mm)	(W/kg)		(W/kg)	
1 732.4	1412	RMC	A	16.0	14.37	-0.11	Rear	1:1	5	0.438	1.455	0.637	-
1 732.4	1412	RMC	A	16.0	14.37	-0.02	Front	1:1	5	**0.509**	1.455	**0.741**	**C4**
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram					

UMTS Band 2 Bodyworn SAR													
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)			(mm)	(W/kg)		(W/kg)	
1 880	9400	RMC	A	16.0	14.75	0.01	Rear	1:1	5	**0.509**	1.334	**0.679**	**C5**
1 880	9400	RMC	A	16.0	14.75	-0.13	Front	1:1	5	0.361	1.334	0.482	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram					

LTE FDD Band 7 Bodyworn SAR																
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 510	20850	QPSK	B	20	17.5	17.36	0.17	Rear	0	1	0	1:1	5	0.736	1.033	**0.760**	-
2 510	20850	QPSK	B	20	17.5	17.48	0.03	Rear	0	50	0	1:1	5	**0.752**	1.005	0.756	**C6**
2 510	20850	QPSK	B	20	17.5	17.36	0.17	Front	0	1	0	1:1	5	0.507	1.033	0.524	-
2 510	20850	QPSK	B	20	17.5	17.48	0.13	Front	0	50	0	1:1	5	0.520	1.005	0.523	-
2 560	21350	QPSK	F	20	18.0	17.70	0.11	Rear	0	1	0	1:1	5	0.325	1.072	0.348	
2 560	21350	QPSK	F	20	18.0	17.59	-0.11	Rear	0	50	25	1:1	5	0.319	1.099	0.351	
2 560	21350	QPSK	F	20	18.0	17.70	0.00	Front	0	1	0	1:1	5	0.199	1.072	0.213	
2 560	21350	QPSK	F	20	18.0	17.59	0.14	Front	0	50	25	1:1	5	0.263	1.099	0.289	
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram							

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LTE FDD Band 12 Bodyworn SAR

Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
707.5	23095	QPSK	A	10	22.5	22.01	0.07	Rear	0	1	0	1:1	5	0.698	1.119	0.781	-
707.5	23095	QPSK	A	10	22.5	21.95	-0.06	Rear	0	25	0	1:1	5	0.704	1.135	**0.799**	-
707.5	23095	QPSK	A	10	22.5	22.01	-0.07	Front	0	1	0	1:1	5	0.430	1.119	0.481	-
707.5	23095	QPSK	A	10	22.5	21.95	0.04	Front	0	25	0	1:1	5	0.424	1.135	0.481	-
707.5	23095	QPSK	E	10	21.0	20.94	-0.10	Rear	0	1	24	1:1	5	**0.708**	1.014	0.718	C7
707.5	23095	QPSK	E	10	21.0	20.83	-0.04	Rear	0	25	0	1:1	5	0.692	1.040	0.720	-
707.5	23095	QPSK	E	10	21.0	20.94	-0.04	Front	0	1	24	1:1	5	0.544	1.014	0.552	-
707.5	23095	QPSK	E	10	21.0	20.83	-0.13	Front	0	25	0	1:1	5	0.512	1.040	0.532	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

LTE FDD Band 13 Bodyworn SAR

Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
782	23230	QPSK	A	10	22.5	21.71	0.01	Rear	0	1	24	1:1	5	**0.570**	1.199	**0.683**	C8
782	23230	QPSK	A	10	22.5	21.79	0.02	Rear	1	25	0	1:1	5	0.546	1.178	0.643	-
782	23230	QPSK	A	10	22.5	21.71	-0.13	Front	0	1	24	1:1	5	0.432	1.199	0.518	-
782	23230	QPSK	A	10	22.5	21.79	-0.02	Front	1	25	0	1:1	5	0.408	1.178	0.481	-
782	23230	QPSK	E	10	21.0	20.38	0.03	Rear	0	1	49	1:1	5	0.481	1.153	0.555	-
782	23230	QPSK	E	10	21.0	20.40	-0.05	Rear	0	25	24	1:1	5	0.473	1.148	0.543	-
782	23230	QPSK	E	10	21.0	20.38	0.07	Front	0	1	49	1:1	5	0.402	1.153	0.464	-
782	23230	QPSK	E	10	21.0	20.40	-0.06	Front	0	25	24	1:1	5	0.407	1.148	0.467	-

ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population	Body 1.6 W/kg Averaged over 1 gram

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LTE FDD Band 14 Bodyworn SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
793	23330	QPSK	A	10	22.5	22.00	0.03	Rear	0	1	24	1:1	5	0.715	1.122	0.802	-
793	23330	QPSK	A	10	22.5	21.99	0.04	Rear	1	25	0	1:1	5	**0.738**	1.125	**0.830**	C9
793	23330	QPSK	A	10	22.5	21.99	-0.01	Rear	1	50	0	1:1	5	0.734	1.125	0.826	-
793	23330	QPSK	A	10	22.5	22.00	-0.11	Front	0	1	24	1:1	5	0.441	1.122	0.495	-
793	23330	QPSK	A	10	22.5	21.99	-0.07	Front	1	25	0	1:1	5	0.418	1.125	0.470	-
793	23330	QPSK	E	10	21.0	20.83	-0.06	Rear	0	1	0	1:1	5	0.548	1.040	0.570	-
793	23330	QPSK	E	10	21.0	20.80	-0.12	Rear	0	25	0	1:1	5	0.533	1.047	0.558	-
793	23330	QPSK	E	10	21.0	20.83	-0.07	Front	0	1	0	1:1	5	0.471	1.040	0.490	-
793	23330	QPSK	E	10	21.0	20.80	-0.12	Front	0	25	0	1:1	5	0.455	1.047	0.476	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

LTE FDD Band 25 (PCS) Bodyworn SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 882.5	26365	QPSK	A	20	15.5	15.18	0.01	Rear	0	1	49	1:1	5	0.544	1.076	0.585	-
1 882.5	26365	QPSK	A	20	15.5	15.15	0.09	Rear	0	50	0	1:1	5	**0.559**	1.084	**0.606**	C10
1 882.5	26365	QPSK	A	20	15.5	15.18	-0.02	Front	0	1	49	1:1	5	0.534	1.076	0.575	-
1 882.5	26365	QPSK	A	20	15.5	15.15	0.12	Front	0	50	0	1:1	5	0.544	1.084	0.590	-
1 882.5	26365	QPSK	F	20	17.5	16.75	-0.11	Rear	0	1	49	1:1	5	0.232	1.189	0.276	-
1 905	26590	QPSK	F	20	17.5	16.57	-0.07	Rear	0	50	49	1:1	5	0.223	1.239	0.276	-
1 882.5	26365	QPSK	F	20	17.5	16.75	0.10	Front	0	1	49	1:1	5	0.321	1.189	0.382	-
1 905	26590	QPSK	F	20	17.5	16.57	0.08	Front	0	50	49	1:1	5	0.301	1.239	0.373	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

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LTE FDD Band 26 (Cell) Bodyworn SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
831.5	26865	QPSK	A	15	23.0	22.18	-0.04	Rear	0	1	74	1:1	5	**0.840**	1.208	1.015	**C11**
831.5	26865	QPSK	A	15	23.0	22.09	-0.06	Rear	1	36	39	1:1	5	0.835	1.233	**1.030**	-
831.5	26865	QPSK	A	15	23.0	22.26	0.04	Rear	1	75	0	1:1	5	0.839	1.186	0.995	-
831.5	26865	QPSK	A	15	23.0	22.18	-0.07	Front	0	1	74	1:1	5	0.489	1.208	0.591	-
831.5	26865	QPSK	A	15	23.0	22.09	-0.19	Front	1	36	39	1:1	5	0.498	1.233	0.614	-
831.5	26865	QPSK	A	15	23.0	22.18	-0.09	Rear	0	1	74	1:1	5	0.802	1.208	0.969	#
831.5	26865	QPSK	E	15	21.0	19.88	-0.03	Rear	0	1	0	1:1	5	0.349	1.294	0.452	-
831.5	26865	QPSK	E	15	21.0	19.75	-0.17	Rear	0	36	0	1:1	5	0.430	1.334	0.574	-
831.5	26865	QPSK	E	15	21.0	19.88	-0.09	Front	0	1	0	1:1	5	0.240	1.294	0.311	-
831.5	26865	QPSK	E	15	21.0	19.75	-0.15	Front	0	36	0	1:1	5	0.191	1.334	0.255	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

Note: # Data entry indicate Variability measurement.

LTE FDD Band 30 Bodyworn SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 310	27710	QPSK	A	10	17.5	17.01	0.15	Rear	0	1	0	1:1	5	0.238	1.119	0.266	-
2 310	27710	QPSK	A	10	17.5	16.99	-0.19	Rear	0	25	24	1:1	5	**0.299**	1.125	**0.336**	**C12**
2 310	27710	QPSK	A	10	17.5	17.01	0.18	Front	0	1	0	1:1	5	0.292	1.119	0.327	-
2 310	27710	QPSK	A	10	17.5	16.99	0.17	Front	0	25	24	1:1	5	0.292	1.125	0.329	-
2 310	27710	QPSK	F	10	19.0	18.58	0.19	Rear	0	1	49	1:1	5	0.291	1.102	0.321	-
2 310	27710	QPSK	F	10	19.0	18.61	0.14	Rear	0	25	0	1:1	5	0.283	1.094	0.310	-
2 310	27710	QPSK	F	10	19.0	18.58	0.10	Front	0	1	49	1:1	5	0.178	1.102	0.196	-
2 310	27710	QPSK	F	10	19.0	18.61	0.09	Front	0	25	0	1:1	5	0.180	1.094	0.197	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

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LTE TDD Band 41 Bodyworn SAR

Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 593	40620	QPSK	B	20	20.5	20.22	-0.13	Rear	0	1	0	1:1.58	5	0.678	1.067	0.723	-
2 506	39750	QPSK	B	20	20.5	20.01	0.01	Rear	0	1	0	1:1.58	5	0.806	1.119	0.902	-
2 549.5	40185	QPSK	B	20	20.5	19.92	0.04	Rear	0	1	0	1:1.58	5	0.825	1.143	0.943	-
2 636.5	41055	QPSK	B	20	20.5	19.89	0.01	Rear	0	1	0	1:1.58	5	0.635	1.151	0.731	-
2 680	41490	QPSK	B	20	20.5	20.07	0.01	Rear	0	1	0	1:1.58	5	0.737	1.104	0.814	-
2 593	40620	QPSK	B	20	20.5	20.21	0.08	Rear	0	50	0	1:1.58	5	0.688	1.069	0.735	-
2 506	39750	QPSK	B	20	20.5	20.08	0.11	Rear	0	50	0	1:1.58	5	0.698	1.102	0.769	-
2 549.5	40185	QPSK	B	20	20.5	19.86	0.13	Rear	0	50	0	1:1.58	5	0.826	1.159	0.957	-
2 636.5	41055	QPSK	B	20	20.5	19.85	-0.14	Rear	0	50	0	1:1.58	5	0.638	1.161	0.741	
2 680	41490	QPSK	B	20	20.5	20.10	0.18	Rear	0	50	0	1:1.58	5	0.807	1.096	0.884	
2 680	41490	QPSK	B	20	20.5	20.08	0.15	Rear	0	100	0	1:1.58	5	0.804	1.102	0.886	
2 593	40620	QPSK	B	20	20.5	20.22	0.15	Front	0	1	0	1:1.58	5	0.360	1.067	0.384	
2 593	40620	QPSK	B	20	20.5	20.21	0.17	Front	0	50	0	1:1.58	5	0.367	1.069	0.392	
2 549.5	40185	QPSK	B	20	20.5	19.86	0.17	Rear	0	50	0	1:1.58	5	**0.850**	1.159	**0.985**	C13#
2 680	41490	QPSK	F	20	20.0	19.58	0.10	Rear	0	1	0	1:1.58	5	0.459	1.102	0.506	
2 680	41490	QPSK	F	20	20.0	19.60	-0.19	Rear	0	50	25	1:1.58	5	0.473	1.096	0.518	
2 680	41490	QPSK	F	20	20.0	19.58	0.15	Front	0	1	0	1:1.58	5	0.447	1.102	0.493	
2 680	41490	QPSK	F	20	20.0	19.60	0.15	Front	0	50	25	1:1.58	5	0.395	1.096	0.433	

ANSI/IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/General Population	Body 1.6 W/kg Averaged over 1 gram

Note: # Data entry indicate Variability measurement.

LTE TDD Band 48 Bodyworn SAR

Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
3 690	56640	QPSK	F	20	17.0	16.24	0.19	Rear	0	1	99	1:1.58	5	**0.454**	1.191	**0.541**	C14
3 690	56640	QPSK	F	20	17.0	16.20	-0.18	Rear	0	50	0	1:1.58	5	0.449	1.202	0.540	-
3 690	56640	QPSK	F	20	17.0	16.24	0.10	Front	0	1	99	1:1.58	5	0.441	1.191	0.525	-
3 690	56640	QPSK	F	20	17.0	16.20	0.14	Front	0	50	0	1:1.58	5	0.437	1.202	0.525	-

ANSI/IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/General Population	Body 1.6 W/kg Averaged over 1 gram

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LTE FDD Band 66 (AWS) Bodyworn SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 720	132072	QPSK	A	20	16.0	15.15	-0.08	Rear	0	1	0	1:1	5	0.446	1.216	0.542	-
1 720	132072	QPSK	A	20	16.0	15.20	-0.01	Rear	0	50	0	1:1	5	**0.471**	1.202	**0.566**	**C15**
1 720	132072	QPSK	A	20	16.0	15.15	0.03	Front	0	1	0	1:1	5	0.424	1.216	0.516	-
1 720	132072	QPSK	A	20	16.0	15.20	-0.11	Front	0	50	0	1:1	5	0.422	1.202	0.507	-
1 720	132072	QPSK	F	20	18.5	17.75	-0.02	Rear	0	1	0	1:1	5	0.240	1.189	0.285	-
1 720	132072	QPSK	F	20	18.5	17.72	0.03	Rear	0	50	0	1:1	5	0.236	1.197	0.282	-
1 720	132072	QPSK	F	20	18.5	17.75	-0.05	Front	0	1	0	1:1	5	0.302	1.189	0.359	-
1 720	132072	QPSK	F	20	18.5	17.72	-0.10	Front	0	50	0	1:1	5	0.301	1.197	0.360	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

LTE FDD Band 71 Bodyworn SAR																	
Frequency		Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
680.5	133297	QPSK	A	20	25.5	24.90	0.00	Rear	0	1	0	1:1	5	**0.679**	1.148	**0.779**	**C16**
680.5	133297	QPSK	A	20	24.5	23.90	0.02	Rear	1	50	0	1:1	5	0.558	1.148	0.641	-
680.5	133297	QPSK	A	20	25.5	24.90	0.06	Front	0	1	0	1:1	5	0.364	1.148	0.418	-
680.5	133297	QPSK	A	20	24.5	23.90	-0.09	Front	1	50	0	1:1	5	0.294	1.148	0.338	-
680.5	133297	QPSK	E	20	21.0	20.71	-0.10	Rear	0	1	0	1:1	5	0.373	1.069	0.399	-
680.5	133297	QPSK	E	20	21.0	20.59	-0.05	Rear	0	50	0	1:1	5	0.344	1.099	0.378	-
680.5	133297	QPSK	E	20	21.0	20.71	-0.17	Front	0	1	0	1:1	5	0.255	1.069	0.273	-
680.5	133297	QPSK	E	20	21.0	20.59	-0.10	Front	0	50	0	1:1	5	0.232	1.099	0.255	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

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NR FDD Band n7 Bodyworn SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 535	507000	DFT-s QPSK	B	40	18.5	18.27	-0.16	Rear	0	1	1	1:1	5	0.763	1.054	0.804	-
2 535	507000	DFT-s QPSK	B	40	18.5	18.27	0.16	Rear	0	108	54	1:1	5	0.778	1.054	0.820	-
2 535	507000	DFT-s QPSK	B	40	18.5	18.20	-0.17	Rear	0	216	0	1:1	5	0.753	1.072	0.807	-
2 535	507000	DFT-s QPSK	B	40	18.5	18.27	0.03	Front	0	1	1	1:1	5	0.322	1.054	0.339	-
2 535	507000	DFT-s QPSK	B	40	18.5	18.27	0.07	Front	0	108	54	1:1	5	0.308	1.054	0.325	-
2 535	507000	CP QPSK	B	40	18.5	18.23	0.16	Rear	0	1	1	1:1	5	**0.783**	1.064	**0.833**	**C17**
2 535	507000	DFT-s QPSK	F	40	17.5	16.48	-0.05	Rear	0	1	108	1:1	5	0.487	1.265	0.616	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.43	-0.18	Rear	0	108	0	1:1	5	0.478	1.279	0.611	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.48	-0.03	Front	0	1	108	1:1	5	0.352	1.265	0.445	-
2 535	507000	DFT-s QPSK	F	40	17.5	16.43	-0.10	Front	0	108	0	1:1	5	0.346	1.279	0.443	-
2 535	507000	CP QPSK	F	40	17.5	16.48	-0.17	Rear	0	1	1	1:1	5	0.149	1.265	0.188	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

NR FDD Band n12 Bodyworn SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
707.5	141500	DFT-s QPSK	A	15	22.0	21.25	0.03	Rear	0	1	77	1:1	5	0.686	1.189	0.816	-
707.5	141500	DFT-s QPSK	A	15	22.0	21.36	-0.03	Rear	0	36	22	1:1	5	0.670	1.159	0.777	-
707.5	141500	DFT-s QPSK	A	15	22.0	21.30	-0.08	Rear	0	75	0	1:1	5	**0.754**	1.175	**0.886**	**C18**
707.5	141500	DFT-s QPSK	A	15	22.0	21.25	0.15	Front	0	1	77	1:1	5	0.415	1.189	0.493	-
707.5	141500	DFT-s QPSK	A	15	22.0	21.36	0.05	Front	0	36	22	1:1	5	0.425	1.159	0.493	-
707.5	141500	CP QPSK	A	15	22.0	21.17	-0.01	Rear	0	1	1	1:1	5	0.732	1.211	0.886	-
707.5	141500	DFT-s QPSK	E	15	21.0	19.97	-0.09	Rear	0	1	1	1:1	5	0.594	1.268	0.753	-
707.5	141500	DFT-s QPSK	E	15	21.0	20.00	-0.11	Rear	0	36	0	1:1	5	0.595	1.259	0.749	-
707.5	141500	DFT-s QPSK	E	15	21.0	19.97	-0.10	Front	0	1	1	1:1	5	0.410	1.268	0.520	-
707.5	141500	DFT-s QPSK	E	15	21.0	20.00	-0.14	Front	0	36	0	1:1	5	0.517	1.259	0.651	-
707.5	141500	CP QPSK	E	15	21.0	20.01	-0.04	Rear	0	1	1	1:1	5	0.537	1.256	0.674	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

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NR FDD Band n14 Bodyworn SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
793	158600	DFT-s QPSK	A	10	22.0	21.36	0.08	Rear	0	1	26	1:1	5	0.610	1.159	0.707	-
793	158600	DFT-s QPSK	A	10	22.0	21.29	-0.15	Rear	0	25	14	1:1	5	0.638	1.178	0.752	-
793	158600	DFT-s QPSK	A	10	22.0	21.36	-0.02	Front	0	1	26	1:1	5	0.362	1.159	0.420	-
793	158600	DFT-s QPSK	A	10	22.0	21.29	0.08	Front	0	25	14	1:1	5	0.373	1.178	0.439	-
793	158600	CP QPSK	A	10	22.0	21.29	-0.14	Rear	0	1	1	1:1	5	**0.672**	1.178	**0.792**	C19
793	158600	DFT-s QPSK	E	10	21.0	20.91	-0.08	Rear	0	1	1	1:1	5	0.479	1.021	0.489	-
793	158600	DFT-s QPSK	E	10	21.0	20.88	-0.12	Rear	0	25	14	1:1	5	0.446	1.028	0.458	-
793	158600	DFT-s QPSK	E	10	21.0	20.91	0.02	Front	0	1	1	1:1	5	0.454	1.021	0.464	-
793	158600	DFT-s QPSK	E	10	21.0	20.88	0.09	Front	0	25	14	1:1	5	0.423	1.028	0.435	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

NR FDD Band n25 Bodyworn SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 882.5	376500	DFT-s QPSK	A	40	16.0	15.30	-0.18	Rear	0	1	108	1:1	5	**0.488**	1.175	**0.573**	C20
1 882.5	376500	DFT-s QPSK	A	40	16.0	15.37	-0.11	Rear	0	108	54	1:1	5	0.482	1.156	0.557	-
1 882.5	376500	DFT-s QPSK	A	40	16.0	15.30	-0.10	Front	0	1	108	1:1	5	0.402	1.175	0.472	-
1 882.5	376500	DFT-s QPSK	A	40	16.0	15.37	-0.10	Front	0	108	54	1:1	5	0.375	1.156	0.434	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.89	0.07	Rear	0	1	108	1:1	5	0.438	1.026	0.449	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.98	0.01	Rear	0	108	0	1:1	5	0.437	1.005	0.439	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.89	-0.05	Front	0	1	108	1:1	5	0.320	1.026	0.328	-
1 882.5	376500	DFT-s QPSK	F	40	18.0	17.98	0.10	Front	0	108	0	1:1	5	0.324	1.005	0.326	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

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NR FDD Band n26 Bodyworn SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
831.5	166300	DFT-s QPSK	A	20	23.0	22.23	-0.01	Rear	0	1	53	1:1	5	0.760	1.194	0.907	-
831.5	166300	DFT-s QPSK	A	20	23.0	22.31	-0.10	Rear	0	50	28	1:1	5	0.752	1.172	0.881	-
831.5	166300	DFT-s QPSK	A	20	23.0	22.12	0.02	Rear	0	100	0	1:1	5	**0.823**	1.225	**1.008**	C21
831.5	166300	DFT-s QPSK	A	20	23.0	22.23	0.13	Front	0	1	53	1:1	5	0.438	1.194	0.523	-
831.5	166300	DFT-s QPSK	A	20	23.0	22.31	-0.12	Front	0	50	28	1:1	5	0.434	1.172	0.509	
831.5	166300	CP QPSK	A	20	23.0	22.31	-0.11	Rear	0	1	1	1:1	5	0.814	1.172	0.954	-
831.5	166300	DFT-s QPSK	A	20	23.0	22.12	-0.15	Rear	0	100	0	1:1	5	0.822	1.225	1.007	#
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	-0.07	Rear	0	1	1	1:1	5	0.381	1.253	0.477	-
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	-0.15	Rear	0	50	0	1:1	5	0.376	1.253	0.471	-
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	0.03	Front	0	1	1	1:1	5	0.412	1.253	0.516	
831.5	166300	DFT-s QPSK	E	20	21.0	20.02	0.07	Front	0	50	0	1:1	5	0.408	1.253	0.511	
831.5	166300	CP QPSK	E	20	21.0	19.99	0.07	Front	0	1	1	1:1	5	0.410	1.262	0.517	
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

Note: # Data entry indicate Variability measurement.

NR FDD Band n30 Bodyworn SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 310	462000	DFT-s QPSK	A	10	17.0	16.84	0.10	Rear	0	1	1	1:1	5	0.421	1.038	0.437	-
2 310	462000	DFT-s QPSK	A	10	17.0	16.86	-0.14	Rear	0	25	14	1:1	5	0.423	1.033	0.437	-
2 310	462000	DFT-s QPSK	A	10	17.0	16.84	0.09	Front	0	1	1	1:1	5	0.254	1.038	0.264	-
2 310	462000	DFT-s QPSK	A	10	17.0	16.86	0.15	Front	0	25	14	1:1	5	0.257	1.033	0.265	-
2 310	462000	DFT-s QPSK	F	10	18.0	17.90	-0.15	Rear	0	1	26	1:1	5	**0.481**	1.023	**0.492**	C22
2 310	462000	DFT-s QPSK	F	10	18.0	17.87	-0.03	Rear	0	25	0	1:1	5	0.465	1.030	0.479	-
2 310	462000	DFT-s QPSK	F	10	18.0	17.90	-0.04	Front	0	1	26	1:1	5	0.324	1.023	0.331	-
2 310	462000	DFT-s QPSK	F	10	18.0	17.87	-0.17	Front	0	25	0	1:1	5	0.323	1.030	0.333	-
2 310	462000	CP QPSK	F	10	18.0	17.79	-0.18	Rear	0	1	1	1:1	5	0.336	1.050	0.353	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

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NR TDD Band 41 Bodyworn SAR

Frequency		Mode	Ant	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
2 593	518598	DFT-s QPSK	B	100	19.0	18.65	-0.19	Rear	0	1	137	1:1	5	0.447	1.084	0.485	-
2 593	518598	DFT-s QPSK	B	100	19.0	18.38	-0.18	Rear	0	135	138	1:1	5	0.538	1.153	0.620	-
2 593	518598	DFT-s QPSK	B	100	19.0	18.65	-0.16	Front	0	1	137	1:1	5	0.332	1.084	0.360	-
2 593	518598	DFT-s QPSK	B	100	19.0	18.38	-0.19	Front	0	135	138	1:1	5	0.310	1.153	0.357	-
2 593	518598	DFT-s QPSK	F	100	14.0	13.79	0.11	Rear	0	1	137	1:1	5	0.233	1.050	0.245	-
2 593	518598	DFT-s QPSK	F	100	14.0	13.79	-0.06	Front	0	1	137	1:1	5	0.177	1.050	0.186	-
2 593	518598	DFT-s QPSK	F	100	18.0	17.36	0.00	Rear	0	1	137	1:1	5	0.231	1.159	0.268	-
2 593	518598	DFT-s QPSK	F	100	18.0	16.88	0.02	Rear	0	135	69	1:1	5	0.379	1.294	0.490	-
2 593	518598	DFT-s QPSK	F	100	18.0	17.36	-0.08	Front	0	1	137	1:1	5	0.240	1.159	0.278	-
2 593	518598	DFT-s QPSK	F	100	18.0	16.88	0.01	Front	0	135	69	1:1	5	0.278	1.294	0.360	-
2 593	518598	DFT-s QPSK	B	100	18.0	17.67	-0.12	Rear	0	1	137	1:1	5	0.274	1.079	0.296	-
2 593	518598	DFT-s QPSK	B	100	18.0	17.67	0.10	Front	0	1	137	1:1	5	0.095	1.079	0.103	-
2 593	518598	DFT-s QPSK	E	100	17.0	16.22	0.05	Rear	0	1	137	1:1	5	0.144	1.197	0.172	-
2 593	518598	DFT-s QPSK	E	100	17.0	16.22	-0.10	Front	0	1	137	1:1	5	0.111	1.197	0.133	-
2 593	518598	DFT-s QPSK	D	100	14.0	13.10	0.14	Rear	0	1	137	1:1	5	**0.749**	1.079	**0.808**	C23
2 593	518598	DFT-s QPSK	D	100	14.0	13.10	0.09	Front	0	1	137	1:1	5	0.095	1.079	0.103	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

@Note. Ant. F, B, E, D SRS was tested with DFT-s OFDM QPSK 1RB 137offset as CW was the Limitation of the manufacturer's S/W tool setup.

NR TDD Band n48 Bodyworn SAR

Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.19	-0.10	Rear	0	1	53	1:1	5	0.277	1.205	0.334	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.09	0.00	Rear	0	50	28	1:1	5	0.402	1.233	0.496	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.19	-0.18	Front	0	1	53	1:1	5	0.288	1.205	0.347	-
3 624.99	641666	DFT-s QPSK	F	40	17.0	16.09	-0.06	Front	0	50	28	1:1	5	0.293	1.233	0.361	-
3 624.99	641666	DFT-s QPSK	C	40	15.5	15.20	-0.11	Rear	0	1	53	1:1	5	0.272	1.072	0.292	-
3 624.99	641666	DFT-s QPSK	C	40	15.5	15.20	0.05	Front	0	1	53	1:1	5	0.106	1.072	0.114	-
3 624.99	641666	DFT-s QPSK	I	40	16.0	15.93	-0.11	Rear	0	1	53	1:1	5	0.228	1.016	0.232	-
3 624.99	641666	DFT-s QPSK	I	40	16.0	15.93	0.15	Front	0	1	53	1:1	5	0.189	1.016	0.192	-
3 624.99	641666	DFT-s QPSK	D	40	17.0	16.68	0.13	Rear	0	1	53	1:1	5	**0.615**	1.076	0.662	C24
3 570	638000	DFT-s QPSK	D	40	17.0	16.10	-0.16	Rear	0	1	53	1:1	5	0.528	1.230	0.649	-
3 680	645334	DFT-s QPSK	D	40	17.0	15.70	-0.09	Rear	0	1	53	1:1	5	0.502	1.349	**0.677**	-
3 624.99	641666	DFT-s QPSK	D	40	17.0	16.68	0.00	Front	0	1	53	1:1	5	0.000	1.076	0.000	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

@Note. Ant. C, I, D SRS was tested with DFT-s OFDM QPSK 1RB 53offset as CW was the limit of the setup.

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NR FDD Band n66 Bodyworn SAR

Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 745	349000	DFT-s QPSK	A	40	16.0	15.06	0.01	Rear	0	1	1	1:1	5	0.235	1.242	0.292	-
1 745	349000	DFT-s QPSK	A	40	16.0	14.87	0.02	Rear	0	108	0	1:1	5	0.236	1.297	0.306	-
1 745	349000	DFT-s QPSK	A	40	16.0	15.06	-0.18	Front	0	1	1	1:1	5	0.386	1.242	0.479	-
1 745	349000	DFT-s QPSK	A	40	16.0	14.87	-0.14	Front	0	108	0	1:1	5	0.384	1.297	0.498	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.44	-0.06	Rear	0	1	1	1:1	5	0.429	1.276	0.547	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.14	-0.01	Rear	0	108	0	1:1	5	**0.438**	1.368	**0.599**	**C25**
1 745	349000	DFT-s QPSK	F	40	18.5	17.44	0.10	Front	0	1	1	1:1	5	0.312	1.276	0.398	-
1 745	349000	DFT-s QPSK	F	40	18.5	17.14	0.05	Front	0	108	0	1:1	5	0.314	1.368	0.430	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

NR FDD Band n70 Bodyworn SAR

Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
1 702.5	340500	DFT-s QPSK	A	15	16.0	15.87	0.10	Rear	0	1	77	1:1	5	**0.766**	1.030	**0.789**	**C26**
1 702.5	340500	DFT-s QPSK	A	15	16.0	15.92	-0.09	Rear	0	36	22	1:1	5	0.660	1.019	0.673	-
1 702.5	340500	DFT-s QPSK	A	15	16.0	15.87	0.06	Front	0	1	77	1:1	5	0.591	1.030	0.609	-
1 702.5	340500	DFT-s QPSK	A	15	16.0	15.92	-0.15	Front	0	36	22	1:1	5	0.569	1.019	0.580	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.99	-0.14	Rear	0	1	77	1:1	5	0.353	1.002	0.354	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.98	-0.14	Rear	0	36	43	1:1	5	0.347	1.005	0.349	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.99	-0.10	Front	0	1	77	1:1	5	0.281	1.002	0.282	-
1 702.5	340500	DFT-s QPSK	E	15	18.0	17.98	-0.13	Front	0	36	43	1:1	5	0.278	1.005	0.279	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

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NR FDD Band n71 Bodyworn SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
680.5	136100	DFT-s QPSK	A	20	25.50	24.52	-0.10	Rear	0	1	1	1:1	5	0.667	1.253	0.836	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.31	0.03	Rear	1	50	28	1:1	5	**0.694**	1.315	**0.913**	C27
680.5	136100	DFT-s QPSK	A	20	24.50	23.38	-0.10	Rear	1	100	0	1:1	5	0.587	1.294	0.760	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.52	-0.12	Front	0	1	1	1:1	5	0.363	1.253	0.455	-
680.5	136100	DFT-s QPSK	A	20	25.50	24.31	0.11	Front	1	50	28	1:1	5	0.374	1.315	0.492	-
680.5	136100	CP QPSK	A	20	24.00	23.05	0.04	Rear	1	1	1	1:1	5	0.508	1.245	0.632	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.52	-0.13	Rear	0	1	1	1:1	5	0.413	1.117	0.461	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.41	-0.12	Rear	0	50	0	1:1	5	0.379	1.146	0.434	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.52	0.02	Front	0	1	1	1:1	5	0.440	1.117	0.491	-
680.5	136100	DFT-s QPSK	E	20	21.0	20.41	0.03	Front	0	50	0	1:1	5	0.406	1.146	0.465	-
680.5	136100	CP QPSK	E	20	21.0	20.33	0.13	Front	0	1	1	1:1	5	0.439	1.167	0.512	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

NR TDD Band n77 Bodyworn SAR																	
Frequency		OFDM Mode	Ant.	Band width	Tune-Up Limit	Meas. Power	Power Drift	Test Position	MPR	RB Size	RB offset	Duty Cycle	Distance	Meas. SAR	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(MHz)	(dBm)	(dBm)	(dB)		(dB)				(mm)	(W/kg)		(W/kg)	
3 750	650000	DFT-s QPSK	F	100	15.5	14.10	-0.04	Rear	0	1	137	1:1	5	0.332	1.380	0.458	-
3 930	662000	DFT-s QPSK	F	100	15.5	14.04	0	Rear	0	1	137	1:1	5	0.359	1.400	0.503	-
3 750	650000	DFT-s QPSK	F	100	15.5	14.14	-0.19	Rear	0	135	138	1:1	5	**0.569**	1.368	**0.778**	C28
3 930	662000	DFT-s QPSK	F	100	15.5	14.10	0	Rear	0	135	138	1:1	5	0.340	1.380	0.469	-
3 750	650000	DFT-s QPSK	F	100	15.5	14.10	-0.05	Front	0	1	137	1:1	5	0.354	1.380	0.489	-
3 930	662000	DFT-s QPSK	F	100	15.5	14.04	-0.14	Front	0	1	137	1:1	5	0.367	1.400	0.514	-
3 750	650000	DFT-s QPSK	F	100	15.5	14.14	-0.1	Front	0	135	138	1:1	5	0.480	1.368	0.657	-
3 930	662000	DFT-s QPSK	F	100	15.5	14.10	0.06	Front	0	135	138	1:1	5	0.326	1.380	0.450	-
3 930	662000	CP QPSK	F	100	15.5	13.59	-0.13	Rear	0	1	1	1:1	5	0.391	1.552	0.607	-
3 500.01	633334	DFT-s QPSK	F	100	15.5	14.34	-0.1	Rear	0	1	271	1:1	5	0.390	1.306	0.509	-
3 500.01	633334	DFT-s QPSK	F	100	15.5	14.44	-0.16	Rear	0	135	138	1:1	5	0.442	1.276	0.564	-
3 750	650000	DFT-s QPSK	C	100	13.0	12.06	0.12	Rear	0	1	137	1:1	5	0.151	1.242	0.188	-
3 750	650000	DFT-s QPSK	C	100	13.0	12.06	0.00	Front	0	1	137	1:1	5	0.116	1.242	0.144	-
3 750	650000	DFT-s QPSK	I	100	15.5	15.15	-0.10	Rear	0	1	137	1:1	5	0.335	1.084	0.363	-
3 750	650000	DFT-s QPSK	I	100	15.5	15.15	-0.03	Front	0	1	137	1:1	5	0.269	1.084	0.292	-
3 930	662000	DFT-s QPSK	D	100	12.0	11.31	0.00	Rear	0	1	137	1:1	5	0.339	1.172	0.397	-
3 930	662000	DFT-s QPSK	D	100	12.0	11.31	0.00	Front	0	1	137	1:1	5	0.008 69	1.172	0.010	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population									Body 1.6 W/kg Averaged over 1 gram								

@Note. Ant. C, I, D SRS was tested with DFT-s OFDM QPSK 1RB 137offset as CW was the limit of the setup.

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DTS Bodyworn SAR																
Frequency		Mode	Ant.	Band width (㎒)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (㎜)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
㎒	Ch.															
2 412	1	802.11b	H	20	1Mbps	18.0	17.96	0.09	Rear	99	5	0.309	1.009	1.010	0.315	-
2 412	1	802.11b	H	20	1Mbps	18.0	17.96	-0.10	Front	99	5	0.283	1.009	1.010	0.288	-
2 462	11	802.11b	J	20	1Mbps	18.0	17.80	0.02	Rear	99	5	0.117	1.079	1.010	0.128	-
2 462	11	802.11b	J	20	1Mbps	18.0	17.80	0.03	Front	99	5	0.112	1.079	1.010	0.122	-
2 412	1	802.11b	H+J	20	1Mbps	21.0	20.87	0.12	Rear	99	5	**0.344**	1.057	1.010	**0.364**	C29
2 412	1	802.11b	H+J	20	1Mbps	21.0	20.87	0.06	Front	99	5	0.249	1.057	1.010	0.263	-
DTS Bodyworn SAR RSDB ON																
2 412	1	802.11b	H	20	1Mbps	15.0	14.93	-0.02	Rear	99	5	0.254	1.016	1.010	0.261	-
2 412	1	802.11b	H	20	1Mbps	15.0	14.93	-0.06	Front	99	5	0.130	1.016	1.010	0.133	-
2 412	1	802.11b	H+J	20	1Mbps	18.0	17.87	0.12	Rear	99	5	0.168	1.047	1.010	0.178	-
2 412	1	802.11b	H+J	20	1Mbps	18.0	17.87	0.06	Front	99	5	0.121	1.047	1.010	0.128	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population										Body 1.6 W/kg Averaged over 1 gram						

5 ㎓ WLAN Body worn SAR																
Frequency		Mode	Ant.	Band width (㎒)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (㎜)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
㎒	Ch.															
5 290	58	802.11ac	H	80	MCS0	15.0	14.27	0.07	Rear	85.9	5	0.184	1.183	1.164	0.253	-
5 290	58	802.11ac	H	80	MCS0	15.0	14.27	0.10	Front	85.9	5	0.123	1.183	1.164	0.169	-
5 610	122	802.11ac	H	80	MCS0	15.0	13.86	0.05	Rear	85.9	5	0.237	1.300	1.164	0.359	-
5 610	122	802.11ac	H	80	MCS0	15.0	13.86	0.12	Front	85.9	5	0.123	1.300	1.164	0.186	-
5 775	155	802.11ac	H	80	MCS0	15.0	13.23	0.10	Rear	85.9	5	0.201	1.503	1.164	0.352	-
5 775	155	802.11ac	H	80	MCS0	15.0	13.23	0.00	Front	85.9	5	0.090	1.503	1.164	0.157	-
5 855	171	802.11ac	H	80	MCS0	15.0	13.55	0.08	Rear	85.9	5	0.273	1.396	1.164	0.444	-
5 855	171	802.11ac	H	80	MCS0	15.0	13.55	0.02	Front	85.9	5	0.119	1.396	1.164	0.193	-
5 290	58	802.11ac	E	80	MCS0	15.0	14.72	0.06	Rear	85.9	5	0.280	1.222	1.164	0.398	-
5 290	58	802.11ac	E	80	MCS0	15.0	14.72	-0.06	Front	85.9	5	0.041	1.222	1.164	0.058	-
5 610	122	802.11ac	E	80	MCS0	15.0	14.89	-0.16	Rear	85.9	5	0.086	1.089	1.164	0.109	-
5 610	122	802.11ac	E	80	MCS0	15.0	14.89	0.18	Front	85.9	5	0.002	1.089	1.164	0.003	-
5 775	155	802.11ac	E	80	MCS0	15.0	14.88	0.19	Rear	85.9	5	0.036	1.045	1.164	0.044	-
5 775	155	802.11ac	E	80	MCS0	15.0	14.88	0.19	Front	85.9	5	0.026	1.045	1.164	0.032	-
5 855	171	802.11ac	E	80	MCS0	15.0	14.79	0.01	Rear	85.9	5	0.050	1.057	1.164	0.062	-
5 855	171	802.11ac	E	80	MCS0	15.0	14.79	0.03	Front	85.9	5	0.059	1.057	1.164	0.073	-
5 290	58	802.11ac	H+E	80	MCS0	18.0	17.51	0.09	Rear	85.9	5	**0.344**	1.183	1.164	**0.474**	C30
5 290	58	802.11ac	H+E	80	MCS0	18.0	17.51	-0.17	Front	85.9	5	0.127	1.183	1.164	0.175	-
5 610	122	802.11ac	H+E	80	MCS0	18.0	17.42	0.01	Rear	85.9	5	0.137	1.300	1.164	0.207	-
5 610	122	802.11ac	H+E	80	MCS0	18.0	17.42	0.04	Front	85.9	5	0.131	1.300	1.164	0.198	-
5 775	155	802.11ac	H+E	80	MCS0	18.0	17.14	0.15	Rear	85.9	5	0.195	1.503	1.164	0.341	-
5 775	155	802.11ac	H+E	80	MCS0	18.0	17.14	0.15	Front	85.9	5	0.076	1.503	1.164	0.133	-
5 855	171	802.11ac	H+E	80	MCS0	18.0	17.22	0.12	Rear	85.9	5	0.204	1.396	1.164	0.332	-
5 855	171	802.11ac	H+E	80	MCS0	18.0	17.22	0.02	Front	85.9	5	0.098	1.396	1.164	0.159	-

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5 GHz WLAN Bodyworn SAR RSDB ON																
Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.															
5 290	58	802.11ac	H	80	MCS0	12.0	11.21	0.00	Rear	85.9	5	0.146	1.199	1.164	0.204	-
5 290	58	802.11ac	H	80	MCS0	12.0	11.21	0.00	Front	85.9	5	0.123	1.199	1.164	0.172	-
5 610	122	802.11ac	H	80	MCS0	12.0	10.87	0.00	Rear	85.9	5	0.043	1.297	1.164	0.065	-
5 610	122	802.11ac	H	80	MCS0	12.0	10.87	0.00	Front	85.9	5	0.060	1.297	1.164	0.091	-
5 775	155	802.11ac	H	80	MCS0	12.0	10.30	0.00	Rear	85.9	5	0.084	1.479	1.164	0.145	-
5 775	155	802.11ac	H	80	MCS0	12.0	10.30	0.00	Front	85.9	5	0.035	1.479	1.164	0.060	-
5 855	171	802.11ac	H	80	MCS0	12.0	10.58	0.00	Rear	85.9	5	0.119	1.387	1.164	0.192	-
5 855	171	802.11ac	H	80	MCS0	12.0	10.58	0.00	Front	85.9	5	0.026	1.387	1.164	0.042	-
5 290	58	802.11ac	H+E	80	MCS0	15.0	14.42	0.00	Rear	85.9	5	0.138	1.199	1.164	0.193	-
5 290	58	802.11ac	H+E	80	MCS0	15.0	14.42	0.00	Front	85.9	5	0.102	1.199	1.164	0.142	-
5 610	122	802.11ac	H+E	80	MCS0	15.0	14.42	0.00	Rear	85.9	5	0.095	1.297	1.164	0.143	-
5 610	122	802.11ac	H+E	80	MCS0	15.0	14.42	0.00	Front	85.9	5	0.023	1.297	1.164	0.035	-
5 775	155	802.11ac	H+E	80	MCS0	15.0	14.14	0.00	Rear	85.9	5	0.076	1.479	1.164	0.131	-
5 775	155	802.11ac	H+E	80	MCS0	15.0	14.14	0.00	Front	85.9	5	0.021	1.479	1.164	0.036	-
5 855	171	802.11ac	H+E	80	MCS0	15.0	14.21	0.00	Rear	85.9	5	0.109	1.387	1.164	0.176	-
5 855	171	802.11ac	H+E	80	MCS0	15.0	14.21	0.00	Front	85.9	5	0.011	1.387	1.164	0.018	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population										Body 1.6 W/kg Averaged over 1 gram						

6 GHz WLAN Body worn SAR																
Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Duty Cycle	Distance (mm)	Meas. SAR (W/kg)	Scaling Factor	Scaling Factor (Duty)	Reported SAR (W/kg)	Plot No.
MHz	Ch.															
6 185	47	802.11ax	H	160	MCS0	9.0	8.09	-0.19	Rear	90.7	5	**0.075**	1.233	1.103	0.102	**C31**
6 185	47	802.11ax	H	160	MCS0	9.0	8.09	0.15	Front	90.7	5	0.029	1.233	1.103	0.039	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.69	0.11	Rear	90.7	5	0.000	1.074	1.103	0.000	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.69	0.15	Front	90.7	5	0.000	1.074	1.103	0.000	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.69	0.11	Rear	90.7	5	0.000	1.074	1.103	0.000	
6 505	111	802.11ax	E	160	MCS0	9.0	8.69	0.15	Front	90.7	5	0.000	1.074	1.103	0.000	
6 025	15	802.11ax	E	160	MCS0	9.0	8.20	0.03	Rear	90.7	5	0.004	1.202	1.103	0.005	
6 185	47	802.11ax	E	160	MCS0	9.0	8.31	0.00	Rear	90.7	5	0.000	1.172	1.103	0.000	
6 665	143	802.11ax	E	160	MCS0	9.0	7.18	0.07	Rear	90.7	5	0.000	1.521	1.103	0.000	
6 985	207	802.11ax	E	160	MCS0	9.0	7.69	0.02	Rear	90.7	5	0.000	1.352	1.103	0.000	
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population										Body 1.6 W/kg Averaged over 1 gram						

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DSS Tethering SAR													
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Distance	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)		(mm)	(W/kg)		(Duty)	(W/kg)	
2 402	0	2DH5	H	13.0	12.69	-0.10	Rear	5	**0.171**	1.074	1.016	**0.187**	C32
2 402	0	2DH5	H	13.0	12.69	-0.13	Front	5	0.125	1.074	1.016	0.136	-
2 441	39	DH5	J	14.0	13.82	0.19	Rear	5	0.046	1.042	1.016	0.049	-
2 441	39	DH5	J	14.0	13.82	0.13	Front	5	0.130	1.042	1.016	0.138	-
2 402	37	LE 1M	H	13.5	13.06	0.05	Rear	5	0.109	1.107	1.033	0.125	-
2 402	37	LE 1M	H	13.5	13.06	-0.05	Front	5	0.077	1.107	1.033	0.088	-
2 440	17	LE 1M	J	15.0	14.52	0.09	Rear	5	0.035	1.117	1.033	0.040	-
2 440	17	LE 1M	J	15.0	14.52	-0.15	Front	5	0.065	1.117	1.033	0.075	-
2 402	0	2DH5	H+J	17.0	16.14	-0.02	Rear	5	0.066	1.219	1.016	0.082	
2 402	0	2DH5	H+J	17.0	16.14	-0.02	Front	5	0.047	1.219	1.016	0.058	
2 440	17	LE 1M	H+J	17.0	16.28	-0.08	Rear	5	0.063	1.180	1.033	0.077	
2 440	17	LE 1M	H+J	17.0	16.28	0.09	Front	5	0.046	1.180	1.033	0.056	
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram					

DSS Tethering SAR – Stand alone													
Frequency		Mode	Ant.	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Distance	Meas. SAR	Scaling Factor	Scaling Factor	Scaled SAR	Plot No.
MHz	Ch.			(dBm)	(dBm)	(dB)		(mm)	(W/kg)		(Duty)	(W/kg)	
2 402	0	DH5	H	19.0	18.67	-0.10	Rear	5	0.033	1.079	1.016	0.036	-
2 402	0	DH5	H	19.0	18.67	-0.13	Front	5	0.061	1.079	1.016	0.067	-
2 402	0	DH5	J	20.0	19.41	0.19	Rear	5	0.051	1.146	1.016	0.059	-
2 402	0	DH5	J	20.0	19.41	0.13	Front	5	0.028	1.146	1.016	0.033	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population								Body 1.6 W/kg Averaged over 1 gram					

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13.1.4 Phablet SAR Measurement Considerations

The 1g SAR test for Body worn and Hotspot conditions in WWAN mode and WLAN/BT mode of this DUT is performed at 5 mm separation distance, so 10g Phablet SAR is not required per FCC KDB 941225 D07 UMPC Mini Tablet v01r02.

13.1.5 Phablet SAR Measurement Results

NFC Phablet SAR _10g							
Frequency	Mode	Data Rate	Power Drift	Test Position	Distance	Meas. SAR	Plot No.
MHz		(Kbps)	(dB)		(mm)	(W/kg)	
13.56	NFC (Type A)	106	0.18	Rear	0	0.017	-
13.56	NFC (Type B)	106	0.12	Rear	0	**0.018**	D1
13.56	NFC (Type F)	106	0.00	Rear	0	0.000 000 000	-
13.56	NFC (Type A)	106	0.00	Front	0	0.000 000 040 7	-
13.56	NFC (Type A)	106	0.00	Left	0	0.000	-
13.56	NFC (Type A)	106	0.00	Top	0	0.000	-
ANSI/ IEEE C95.1 - 2005 – Safety Limit Spatial Peak Uncontrolled Exposure/ General Population			Hand 4.0 W/kg Averaged over 10 gram				

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SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, FCC KDB Procedure.
2. Batteries are fully charged at the beginning of the SAR measurements. A standard battery was used for all SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB 447498 D01v06.
6. Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 5 mm was considered because the manufacturer has determined that there will be body-worn accessories available in the marketplace for users to support this separation distance.
7. Per FCC KDB 648474 D04v01r03, SAR was evaluated without a headset connected to the device. Since the standalone reported SAR was 1.2 W/kg, no additional SAR evaluation using a headset cable were required.
8. The 1g SAR test for Body worn and Hotspot in WWAN mode and WLAN/BT mode of this DUT is performed at 5 mm separation distance, so 10g Phablet SAR is not required per FCC KDB 941225 D07 UMPC Mini Tablet v01r02.
9. Per FCC KDB 865664 D01v01r04, variability SAR measurement were performed when the measured SAR results for a frequency Band were greater than or equal to 0.8 W/kg for 1g SAR and >2 for 10g SAR Please see Section 15 for variability analysis.
10. This device utilizes power reduction for some wireless mode and technologies, as outlined in sec. 4 The maximum output power allowed for each transmitter and exposure condition was evaluated for SAR compliance based on expected use conditions and simultaneous scenarios.
11. During SAR testing for the Hotspot conditions per KDB 941225 D06v02r01, the actual portable hotspot operation (with actual simultaneous transmission of a transmitter with WiFi) was not activated.

GSM/GPRS Test Notes:

1. This EUT'S GSM and GPRS device class is B.
2. This device supports GPRS VOIP in the head and the body-worn configurations therefore GPRS was additionally evaluated for head and body-worn compliance.
3. Justification for reduced test configurations per KDB 941225 D01v03r01: The source-based time-averaged output power was evaluated for all multi-slot operations. The multi-slot configuration with the highest frame averaged output power including tolerance was evaluated for SAR.
4. Per FCC KDB 447498 D04v01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is 0.8 W/kg then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is 1/2 dB, instead of the middle channel, the highest output power channel must be used.

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UMTS Notes:

1. The 12.2 kbps RMC mode is the primary mode per KDB 941225 D01v03r01.
2. UMTS SAR was tested under RMC 12.2 kbps with HSPA inactive per KDB publication 941225 D01v03r01. AMR and HSPA SAR was not required per the 3G Test Reduction Procedure in KDB Publication 941225 D01v03r01.
3. Per FCC KDB 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is 0.8 W/kg then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the channel highest output power channel was used.

LTE Notes:

1. LTE Considerations: LTE test configurations are determined according to SAR Evaluation Consideration for LTE Devices in FCC KDB 941225 D05v02r05.
2. According to FCC KDB 941225 D05v02r05:
   When the reported SAR is 0.8 W/kg, testing of the 100% RB allocation and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the 1RB, 50%RB and 100%RB allocation with highest output power for that channel.
   Only one channel, and as reported SAR values for 1RB allocation and 50%RB allocation were less than 1.45W/Kg only the highest power RB offset for each allocation was required.
3. MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to target MPR is indicated alongside the SAR results.
4. When Power reduction is applied, MPR is 0 for some modes.
5. A-MPR was disabled for all SAR tests by setting NS=01 on the base station simulator.
6. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) LTE TDD Band 41 SAR measured at the highest output power channel for each test configuration is 0.6 W/kg then testing at the other channels is not required for such test configurations.
7. TDD LTE (Power Class 3) was tested using UL-DL configuration 0 with 6 UL sub frames and 2S sub frames using extended cyclic prefix only and special sub frame configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor in extended cyclic prefix. Per 3GPP 36.211 Sec. 4, the duty factor using extended cyclic prefix is 0.633(cf=1.58).
8. Per KDB 941225 D05Av01r02, SAR for LTE Carrier Aggregation operations was not needed because the maximum average output power in LTE CA mode was not > 0.25 dB higher than the maximum output power when downlink CA was not activated.
9. This device supports LTE Carrier Aggregation (CA) in Uplink for LTE Band 48C with two component carriers in the uplink. SAR measurements and conducted powers were evaluated per Fall 2017 TCBC Workshop notes (LTE Carrier aggregation).
   For LTE Band per 2018 TCBC Workshop notes, SAR was first measured with only a single carrier active in the uplink (carrier aggregation not active). For each exposure condition, the uplink CA scenario with two component carriers was additionally tested for the configuration with the highest SAR when carrier aggregation was not active.
   Because the maximum output for UL CA of LTE Band 48C is ≤ standalone LTE mode (without CA), SAR for LTE Band 48C Up link CA was performed at the highest standalone SAR configuration without CA and also UL CA SAR is not required for all required test channels, Because the reported SAR for UL CA configuration is < 1.4 W/kg.
   The SCC was configured with the closest available contiguous channel. The two component carriers were configured so the resource blocks are physically allocated side by side to achieve the maximum output power.
10. SAR test reduction is applied using the following criteria:

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Start with the largest channel Bandwidth and measure SAR for QPSK with 1 RB, and 50 % RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is >0.8 W/kg, testing for other Channels is performed at the highest output power level for 1RB, and 50 % RB configuration for that channel. Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High Channel when the highest reported SAR for 1 RB and 50% RB are >0.8 W/kg, testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation <1.45 W/kg. Testing for 16-QAM modulation is not required because the reported SAR for QPSK is <1.45 W/kg and its output power is not more than 0.5 dB higher than that a QPSK. Testing for the other channel Bandwidths is not required because the reported SAR for the highest channel Bandwidth is <1.45 W/kg and its output power is not more than 0.5 dB higher than that of the highest channel Bandwidth.

NR Notes:

1. NR This device supports SA and NSA mode for NR implementation. In EN-DC Mode, NR operate with the LTE Bands shown in the NR FR1 checklist acting as anchor Bands.
2. Due to Limitations of the SAR measurement equipment, SAR testing for NR TDD Bands was performed separately using test mode (FTM) software.
3. More detailed specifications of the NR Bands are contained in the technical description document.
4. This device additionally supports some EN-DC conditions where additional LTE carriers are added on the downlink only.
5. For NR modulations and RB Sizes/Offsets were selected for testing such that configurations with the highest output power was evaluated for SAR tests.
6. SRS was tested with DFT-s OFDM QPSK 1RB 53,137offset as CW was the Limitation of the manufacturer's S/W tool(FTM) setup.

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WLAN Notes:

1. For held-to-ear and hotspot operations, the initial test position procedures were applied. For initial test position, the highest extrapolated peak SAR will be used. When reported SAR for the initial test position is ≤ 0.4 W/kg for 1g SAR and ≤ 1.0 W/kg for 10g SAR, no additional testing for the remaining test positions was required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR results is ≤ 0.8 W/kg for 1g SAR and ≤ 2.0 W/kg for 10 g SAR or all test position are measured.
2. Per KDB 2482227 D01v02r02 justification for test configurations of 2.4 GHz WiFi Single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement.
3. Per KDB 2482227 D01v02r02 justification for test configurations of 5 GHz WiFi Single transmission chain operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission mode was not investigated since the highest reported SAR for initial test configuration adjusted by the ration of maximum output powers is less than 1.2 W/kg for 1 g SAR and less than 3.0 W/kg for 10 g SAR.
4. When the maximum reported 1g averaged SAR is ≤ 0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg or all test channels were measured.
5. The device was configured to transmit continuously at the required data rated, channel Bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated WLAN test reports.
6. WIFI 6 GHz operations are supported by SISO and MIMO both. WLAN Per KDB Publication 248227 D01v02r02, the simultaneous SAR provisions in KDB Publication 447498 D01v06 should be applied to determine simultaneous transmission SAR test exclusion for WIFI MIMO. If the sum of 1g single transmission chain SAR measurements is <1.6 W/kg, no additional SAR measurements for MIMO are required.
7. For testing the WIFI 6 GHz of this DUT, the selection of test channels was based on FCC guidance, with five channels selected across the entire WIFI 6 GHz Bands.
8. The device was configured to transmit continuously at the required data rated, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated WLAN test reports.
9. For testing the WIFI 6 GHz of this DUT, the selection of test channels was based on FCC guidance, with five channels selected across the entire WIFI 6 GHz Bands.

Bluetooth Notes:

1. Bluetooth SAR was measured with the device connected to a call box with hopping disabled with DH5 operation and Tx Tests mode type. In the technical documentation, the maximum duty factor of the declared BT was applied to the SAR results. Please see sec.11 for the time-domain plot and calculation for duty factor of the device.
2. Head and Bluetooth tethering SAR were evaluated for BT BDR tethering applications.

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13.2 Absorbed Power Density Results

13.2.1 Head Absorbed Power Density Results

6 GHz WLAN Head Absorbed Power Density – RCV-ON											
Frequency		Mode	Ant.	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Meas. APD 4 cm²	Plot No.
MHz	Ch.			(MHz)	(Mbps)	(dBm)	(dBm)	(dB)		(mW/cm²)	
6 185	47	802.11ax	H	160	MCS0	9.0	8.33	-0.18	Left Touch	0.000	-
6 185	47	802.11ax	H	160	MCS0	9.0	8.33	-0.11	Left Tilt	0.003 3	-
6 185	47	802.11ax	H	160	MCS0	9.0	8.33	-0.16	Right Touch	0.003 59	-
6 185	47	802.11ax	H	160	MCS0	9.0	8.33	0.18	Right Tilt	0.000 5	-
6 025	15	802.11ax	H	160	MCS0	9.0	8.02	0.03	Right Touch	**0.037 9**	**E1**
6 505	111	802.11ax	H	160	MCS0	9.0	8.16	-0.14	Right Touch	0.018 9	-
6 665	143	802.11ax	H	160	MCS0	9.0	7.64	0.12	Right Touch	0.012	-
6 985	207	802.11ax	H	160	MCS0	9.0	8.21	-0.17	Right Touch	0.012 8	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.41	0.10	Left Touch	0.000	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.41	0.13	Left Tilt	0.003 7	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.41	0.13	Right Touch	0.000 2	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.41	0.18	Right Tilt	0.000 1	-
6 025	15	802.11ax	E	160	MCS0	9.0	7.42	-0.16	Left Tilt	0.015 8	-
6 185	47	802.11ax	E	160	MCS0	9.0	8.39	0.10	Left Tilt	0.003 7	-
6 665	143	802.11ax	E	160	MCS0	9.0	7.01	0.16	Left Tilt	0.000	-
6 985	207	802.11ax	E	160	MCS0	9.0	7.46	0.10	Left Tilt	0.000 7	-

13.2.2 Body Worn Absorbed Power Density Results

6 GHz WLAN BodyWorn Absorbed Power Density												
Frequency		Mode	Ant.	Band width	Data Rate	Tune-Up Limit	Meas. Power	Power Drift	Test Position	Distance	Meas. APD 4 cm²	Plot No.
MHz	Ch.			(MHz)	(Mbps)	(dBm)	(dBm)	(dB)		(mm)	(mW/cm²)	
6 185	47	802.11ax	H	160	MCS0	9.0	8.33	-0.19	Rear	5	**0.052 8**	**E2**
6 185	47	802.11ax	H	160	MCS0	9.0	8.33	0.15	Front	5	0.015 3	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.41	0.00	Rear	5	0.000	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.41	0.01	Front	5	0.000	-
6 025	15	802.11ax	E	160	MCS0	9.0	8.02	0.10	Rear	5	0.000 6	-
6 185	47	802.11ax	E	160	MCS0	9.0	8.33	-0.09	Rear	5	0.000 9	-
6 665	143	802.11ax	E	160	MCS0	9.0	7.64	0.12	Rear	5	0.007	-
6 985	207	802.11ax	E	160	MCS0	9.0	8.21	0.14	Rear	5	0.000 3	-

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13.2.3 Hotspot Absorbed Power Density Results

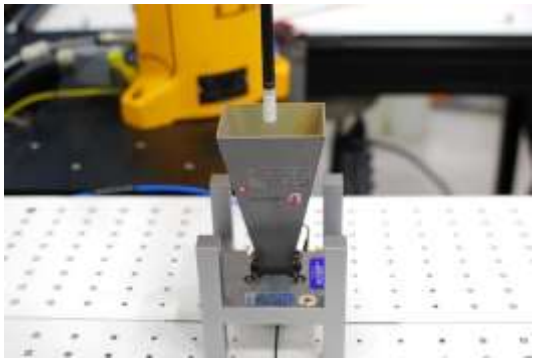
6 GHz WLAN Hotspot Absorbed Power Density												
Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas. Power (dBm)	Power Drift (dB)	Test Position	Distance (mm)	Meas. APD 4 cm² (mW/cm²)	Plot No.
MHz	Ch.											
6 185	47	802.11ax	H	160	MCS0	9.0	8.33	-0.19	Rear	5	0.052 8	-
6 185	47	802.11ax	H	160	MCS0	9.0	8.33	0.15	Front	5	0.015 3	-
6 185	47	802.11ax	H	160	MCS0	9.0	8.33	0.19	Left	5	0.004 1	-
6 185	47	802.11ax	H	160	MCS0	9.0	8.33	0.18	Top	5	0.011 1	-
6 025	15	802.11ax	H	160	MCS0	9.0	8.02	0.03	Left	5	**0.109**	E3
6 505	111	802.11ax	H	160	MCS0	9.0	8.16	0.04	Left	5	0.051 5	-
6 665	143	802.11ax	H	160	MCS0	9.0	7.64	0.08	Left	5	0.025 8	-
6 985	207	802.11ax	H	160	MCS0	9.0	8.21	0.09	Left	5	0.020 3	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.41	0.00	Rear	5	0.000	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.41	0.01	Front	5	0.000	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.41	-0.10	Right	5	0.000	-
6 505	111	802.11ax	E	160	MCS0	9.0	8.41	0.00	Top	5	0.000	-
6 025	15	802.11ax	E	160	MCS0	9.0	8.02	0.10	Rear	5	0.000 6	-
6 185	47	802.11ax	E	160	MCS0	9.0	8.33	-0.09	Rear	5	0.000 9	-
6 665	143	802.11ax	E	160	MCS0	9.0	7.64	0.12	Rear	5	0.007	-
6 985	207	802.11ax	E	160	MCS0	9.0	8.21	0.14	Rear	5	0.000 3	-

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13.3 Power density System Verification

The system was verified to be within ±0.66 dB of the power density targets on the calibration certificate according to the test system specification in the user's manual and calibration facility recommendation. The 0.66 dB deviation threshold represents the expanded uncertainty for system performance checks using SPEAG's mmWave verification sources. The same spatial resolution and measurement region used in the source calibration was applied during the system check.

The measured power density distribution of verification source was also confirmed through visual inspection to have no noticeable differences, both spatially (shape) and numerically (level) from the distribution provide by the manufacturer, per November 2017 TCBC Workshop Notes.



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◆ 10 ㎓ Power Density System Verification Results

Input Power: 50 ㎽

Freq. [㎓]	Date	Probe (S/N)	Dipole (S/N)	Amb. Temp. [℃]	Normal psPD (W/m² over 4 cm²)			Deviation [dB]	Total psPD (W/m² over 4 cm²)			Deviation [dB]
					Measured	Normalized	Target		Measured	Normalized	Target	
10	07/02/2025	9464	1018	22.1	2.44	48.8	56.5	- 0.64	2.46	49.2	56.5	- 0.60
10	07/03/2025	9464	1018	22.3	2.62	52.4	56.5	- 0.33	2.64	52.8	56.5	- 0.29
10	07/04/2025	9464	1018	22.2	2.48	49.6	56.5	- 0.57	2.49	49.8	56.5	- 0.55
10	07/05/2025	9464	1018	21.8	2.56	51.2	56.5	- 0.43	2.63	52.6	56.5	- 0.31

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13.3.4 6 GHz WLAN Power Density Results

6 GHz WLAN Power Density																		
Frequency		Mode	Ant.	Band width (MHz)	Data Rate (Mbps)	Tune-Up Limit (dBm)	Meas Power (dBm)	Power Drift (dB)	Distance (mm)	Test Position	Duty Cycle	Grid Step (λ)	Scaling Factor for Measurement Uncertainty per IEC 62479	Normal psPD (mW/cm²)	Scaled Normal psPD (mW/cm²)	Total psPD (mW/cm²)	Reported 4 cm² psPD (mW/cm²)	Plot No.
MHz	Ch.																	
6 185	47	802.11ax	H	160	MCS0	9.0	8.09	-0.15	2	Rear	85.2	0.042	1.116	0.339	0.378	0.489	0.546	-
6 185	47	802.11ax	H	160	MCS0	9.0	8.09	-0.12	2	Front	99.6	0.042	1.116	0.241	0.269	0.440	0.491	-
6 185	47	802.11ax	H	160	MCS0	9.0	8.09	-0.17	2	Left	85.2	0.042	1.116	0.284	0.317	**0.548**	**0.612**	**E4**
6 185	47	802.11ax	H	160	MCS0	9.0	8.09	0.19	2	Top	85.2	0.042	1.116	0.0541	0.060	0.101	0.113	-
6 025	15	802.11ax	H	160	MCS0	9.0	8.00	0.05	2	Left	85.2	0.041	1.116	0.212	0.237	0.413	0.461	-
6 505	111	802.11ax	H	160	MCS0	9.0	7.99	-0.05	2	Left	85.2	0.044	1.116	0.232	0.259	0.478	0.533	-
6 665	143	802.11ax	H	160	MCS0	9.0	7.27	-0.09	2	Left	85.2	0.045	1.116	0.188	0.210	0.367	0.410	-
6 985	207	802.11ax	H	160	MCS0	9.0	8.04	-0.07	2	Left	85.2	0.047	1.116	0.0858	0.096	0.159	0.177	-
6505	111	802.11ax	E	160	MCS0	9.0	8.69	-0.07	2	Rear	99.6	0.047	1.116	0.0735	0.082	0.114	0.127	-
6505	111	802.11ax	E	160	MCS0	9.0	8.69	0.08	2	Front	99.6	0.047	1.116	0.0728	0.081	0.106	0.118	-
6505	111	802.11ax	E	160	MCS0	9.0	8.69	0.09	2	Right	99.6	0.047	1.116	0.03	0.033	0.053	0.059	-
6505	111	802.11ax	E	160	MCS0	9.0	8.69	-0.07	2	Top	99.6	0.047	1.116	0.0185	0.021	0.031	0.034	-
6025	15	802.11ax	E	160	MCS0	9.0	8.2	0.12	2	Rear	99.6	0.041	1.116	0.139	0.155	0.209	0.233	-
6185	47	802.11ax	E	160	MCS0	9.0	8.31	-0.07	2	Rear	99.6	0.042	1.116	0.102	0.114	0.160	0.179	-
6665	143	802.11ax	E	160	MCS0	9.0	7.18	0.12	2	Rear	99.6	0.044	1.116	0.0606	0.068	0.098	0.109	-
6985	207	802.11ax	E	160	MCS0	9.0	7.69	0.16	2	Rear	99.6	0.045	1.116	0.0962	0.107	0.185	0.206	-
47 CFR § 1.1310 – Safety Limit Spatial Average Uncontrolled Exposure/ General Population														Power Density 1mW/cm² Averaged over 4 cm²				

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Power Density Notes:

1. The manufacturer has confirmed that the device tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.

2. Batteries are fully charged at the beginning of the measurements. The DUT was connected to a wall charger for some measurements due to the test duration. It was confirmed that the charger plugged into this DUT did not impact the near-field PD test results.

3. DASY6 Module mmWave is optimized for incident Power Density (PD) evaluations EUT at distances as close as 2mm for frequencies in the 6–110 GHz range.
The software Module mmWave V3.0+ features the novel Equivalent Source Reconstruction (ESR) method:This new method will greatly simplify compliance testing for distances as close as λ/25 (2mm at 6 GHz) from any surface and improve the overall flexibility and precision.
With this method, the reconstruction uncertainty (REC) is below 0.6 dB for d > λ/25, corresponding to a test distance of 2mm at 6 GHz. The above-mentioned REC value is valid if the following conditions on the grid resolution (ℓ_{grid}) and grid extent (ν_{grid}) are met:

$$\ell_{\text{grid}} = \begin{cases} 1.25d & \text{for } d < \lambda/10 \\ \lambda/8 & \text{for } d \geq \lambda/10 \end{cases}.$$

$$\nu_{\text{grid}} \geq 2\lambda$$

Power density was calculated by repeated E-field measurements on two measurement planes separated by λ/4.

4. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools.

5. Per FCC guidance and equipment manufacturer guidance, power density results were scaled according to IEC 62479:2010 for the portion of the measurement uncertainty >30%. Total expanded uncertainty of 1.51 dB(41.6%) was used to determine the psPD measurement scaling factor.

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14. Simultaneous SAR Analysis

This device contains transmitters that may operate simultaneously. Therefore, simultaneous transmission analysis is required. Per KDB Publication 447498 D01v06 section 4.3.2 and IEEE 1528-2013 section 6.3.4.1.2, simultaneous transmission SAR test exclusion may be applied when the sum of 1g SAR and 10g SAR for all the simultaneous transmitting antennas in a specific a physical test configuration is ≤1.6W/kg for 1g SAR and ≤4 W/kg for 10g SAR. The different test positions in an exposure condition may be considered collectively to determine SAR exclusion according to the sum of 1g or 10g SAR.

When operating in the same antenna group, Samsung S.LSI TAS algorithm in WWAN directly adds the time-averaged RF exposure from 4G and time-averaged RF exposure from 5G NR. S.LSI algorithm controls the total RF exposure from both 4G and 5G NR to not exceed FCC limit. Therefore, simultaneous transmission compliance between 4G+5G operations within an antenna group is demonstrated in the Part 2 Report during algorithm validation.

Part 2 Report also verifies that the output power of WWAN and WLAN/BT modes is controlled by Combined-TAS (C-TAS), ensuring that multi-Tx simultaneous transmission (WWAN+WLAN/BT) mode always complies with FCC Limits.

This device is enabled with S.LSI Time average SAR algorithm with pre-defined sub6 antenna groups (AG0 and AG1). Simultaneous transmission analysis is performed per antenna groups. Section 14.5 contains analysis to demonstrate the AG0 and AG1 are operate mutually exclusive.

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14.1 Sub6 Antenna Groups

S.LSI Time average SAR(TAS) algorithm operates based on pre-defined sub6 antenna groups (AG). Sub6 Tx antennas in the device are grouped based on spatial variation of RF exposure distributions, where the RF exposure of one AG is mutually exclusive from other AG. This is accomplished by demonstrating either of below conditions for all exposure scenarios:

Sum of SAR of one antenna from each of the sub6 AGs and the RF exposure from radios outside TAS is less than regulatory limits. This condition must be demonstrated for all antenna combinations of sub6 AGs. This device supports two sub6 AG: AG0 and AG1, with AG0 having 4 antennas (A, B, C, D) and AG1 having 5 antennas (E, F, H, I, J). The conditions are verified through the following criteria.

Due to the C-TAS algorithm, the AG0(Antenna Group 0 –upper side position) includes the upper side cellular Ant + WLAN.

The highest reported SAR at Plimit (or Pmax when Plimit > Pmax) for each antenna should be obtained out of all supported WWAN technologies and frequency bands for each exposure condition Demonstrate that the sum of reported SAR of antenna from each of the sub6 AGs and the sum of RF exposure of TAS should be less than the regulatory limit as given below for each RSI.

Obtain the worst-case reported SAR for each antenna group (i.e., maximum reported SAR at Plimit (or Pmax when Plimit > Pmax) out of all supported technologies, frequency bands and antennas in AG0 and AG1), denoted as max.SAR.AG0 and max.SAR.AG1, and obtain the worst-case RF exposure, and demonstrate that the sum of these RF exposures meets

Max.SAR.AG0 + Max.SAR.AG1 + Max.Bluetooth $\leq$ 1.6 (for 1g SAR or 4.0 for 10g)

If sum result with both antenna group and BT/WAN exceeds the FCC SAR limit of 1.6 W/kg 1g,

4.0W/kg 10g, can use below contents.

If the sum result with each antenna group and BT/WLAN exceeds the FCC SAR limit of 1.6 W/kg 1g ,4.0 W/kg 10g, the SPLSR was re-evaluated according to FCC KDB 447498 D01v06 4.3.2.

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AG0, AG1, WLAN/BT are described in the table below.

AG0	
Ant.A	GSM 850, GSM 1900 / UMTS Band 2, UMTS Band 4, UMTS Band 5/ LTE Band 2, LTE Band 4, LTE Band 5, LTE Band 12, LTE Band 13, LTE Band 14, LTE Band 25, LTE Band 26, LTE Band 30, LTE Band 66, LTE Band 71 / NR Band n2, NR Band n5, NR Band n12, NR Band n14, NR Band n25, NR Band n26, NR Band n30, NR Band n66, NR Band n70, NR Band n71
Ant.B	LTE Band 7, LTE Band 38, LTE Band 41 / NR Band n7, NR Band n38, NR Band n41, NR Band n41 SRS1(Sub)
Ant.C	NR Band n48 SRS1, NR Band n77 SRS1, n77 DoD SRS1
Ant.D	NR Band n41 SRS2, NR Band n48 SRS3, NR Band n77, n77 DoD SRS3

AG1	
Ant.E	GSM 850 / UMTS Band 5 / LTE Band 5, LTE Band 12, LTE Band 13, LTE Band 14, LTE Band 26, LTE Band 71 / NR Band n5, NR Band n12, NR Band n14, NR Band n26, NR Band n41 SRS3, NR Band n71 WLAN 5 ㎓, WLAN 6E
Ant.F	LTE Band 2, LTE Band 4, LTE Band 7, LTE Band 25, LTE Band 30, LTE Band 38, LTE Band 41, LTE Band 48, LTE Band 66 NR Band n2,NR Band n7, NR Band n25, NR Band n30, NR Band n38, NR Band n41, NR Band n41 SRS1, NR Band n48, NR Band n66, NR Band n70, NR Band n77, n77 DoD, NR Band n78, n78 DoD
Ant.H	WLAN 2.4 ㎓, WLAN 5 ㎓, WLAN6E
Ant.I	NR Band n48 SRS2, NR Band n77 SRS2, n77 DoD SRS2
Ant.J	WLAN 2.4 ㎓

BT Ant	
Ant.H	Bluetooth
Ant.J	Bluetooth

14.2 Head SAR Simultaneous Transmission Analysis

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The Maximum measurement result for AG0					
Position	Ant A	Ant.B	Ant.C	Ant.D	Max.AG0
Left Touch	0.353	0.147	0.027	0.002	0.353
Left Tilt	0.165	0.070	0.000	0.004	0.165
Right Touch	0.247	0.079	0.000	0.006	0.247
Right Tilt	0.152	0.068	0.018	0.006	0.152

The Maximum measurement result for AG1				
Position	Ant.E	Ant.F	Ant.I	Max.AG1
Left Touch	1.000	0.523	0.258	1.000
Left Tilt	0.851	0.674	0.290	0.851
Right Touch	0.831	1.016	0.512	1.016
Right Tilt	0.655	1.035	0.049	1.035

The measurement result for WLAN 2.4 GHz			
Position	Ant.H	Ant.J	MIMO
Left Touch	0.117	0.320	0.366
Left Tilt	0.085	0.045	0.163
Right Touch	0.399	0.189	0.497
Right Tilt	0.283	0.024	0.396

The measurement result for WLAN 2.4 GHz RSDB			
Position	Ant.H	Ant.J	MIMO
Left Touch	0.042		0.186
Left Tilt	0.043		0.105
Right Touch	0.234		0.325
Right Tilt	0.135		0.253

The Maximum measurement result for WLAN 5 GHz			
Position	Ant.H	Ant.E	MIMO
Left Touch	0.198	0.229	0.268
Left Tilt	0.167	0.216	0.311
Right Touch	0.808	0.073	0.515
Right Tilt	0.457	0.091	0.313

The Maximum measurement result for WLAN 5 GHz RSDB			
Position	Ant.H	Ant.E	MIMO
Left Touch	0.089		0.155
Left Tilt	0.067		0.158
Right Touch	0.396		0.286
Right Tilt	0.250		0.169

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The Maximum measurement result for WLAN 6E			
Position	Ant.H	Ant.E	MIMO
Left Touch	0.000	0.000	0.000
Left Tilt	0.007	0.048	0.055
Right Touch	0.101	0.000	0.101
Right Tilt	0.005	0.000	0.005

The measurement result for Bluetooth			
Position	Ant.H	Ant.J	Dual
Left Touch	0.064	0.082	0.103
Left Tilt	0.052	0.010	0.025
Right Touch	0.256	0.059	0.084
Right Tilt	0.161	0.005	0.021

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Simultaneous Transmission analysis for WLAN Head SAR		
Position	WLAN 2.4 GHz Ant.1 + WLAN 5 GHz Ant.1	WLAN 2.4 GHz MIMO + WLAN 5 GHz Ant.1
Left Touch	0.131	0.275
Left Tilt	0.110	0.172
Right Touch	0.630	0.721
Right Tilt	0.385	0.503

Simultaneous Transmission analysis for WLAN Head SAR		
Position	WLAN 2.4 GHz Ant.1 + WLAN 5 GHz MIMO	WLAN 2.4 GHz MIMO + WLAN 5 GHz MIMO
Left Touch	0.197	0.341
Left Tilt	0.201	0.263
Right Touch	0.520	0.611
Right Tilt	0.304	0.422

Simultaneous Transmission analysis for WLAN Head SAR		
Position	WLAN 2.4 GHz Ant.1 + WLAN 6E Ant.1	WLAN 2.4 GHz MIMO + WLAN 6E Ant.1
Left Touch	0.042	0.186
Left Tilt	0.050	0.112
Right Touch	0.335	0.426
Right Tilt	0.140	0.258

Simultaneous Transmission analysis for WLAN Head SAR		
Position	WLAN 2.4 GHz Ant.1 + WLAN 6E MIMO	WLAN 2.4 GHz MIMO + WLAN 6E MIMO
Left Touch	0.042	0.186
Left Tilt	0.098	0.160
Right Touch	0.335	0.426
Right Tilt	0.140	0.258

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The Maximum measurement result for AG1 and Simultaneous Transmission analysis for WLAN			
Position	AG1	WLAN	Max Result
Left Touch	1.000	0.366	1.000
Left Tilt	0.851	0.311	0.851
Right Touch	1.016	0.808	1.016
Right Tilt	1.035	0.457	1.035

Simultaneous Transmission analysis for AG0, Bluetooth and Maximum result of AG1 and WLAN Summation				
Position	AG0	Max result	Bluetooth Ant.1	Result
Left Touch	0.353	1.000	0.064	1.417
Left Tilt	0.165	0.851	0.052	1.068
Right Touch	0.247	1.016	0.256	**1.519**
Right Tilt	0.152	1.035	0.161	1.348

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14.3 Hotspot/BodyWorn SAR Simultaneous Transmission Analysis

The Maximum measurement result for AG0					
Position	Ant A	Ant.B	Ant.C	Ant.D	Max.AG0
Rear	1.030	0.957	0.188	0.921	1.030
Front	0.741	0.524	0.144	0.018	0.741
Left	0.391	0.547	0.416		0.547
Right	0.321			0.016	0.321
Top					
Bottom	1.097	0.890	0.116	0.027	1.097

The Maximum measurement result for AG1				
Position	Ant.E	Ant.F	Ant.I	Max.AG1
Rear	0.753	0.778	0.363	0.778
Front	0.651	0.657	0.292	0.657
Left	0.221	0.149	0.184	0.221
Right	0.433			0.433
Top	0.658	0.953		0.953
Bottom				

The measurement result for WLAN 2.4 GHz			
Position	Ant.H	Ant.J	MIMO
Rear	0.315	0.124	0.364
Front	0.288	0.118	0.263
Left	0.522		0.576
Right		0.067	0.068
Top	0.210	0.000	0.277
Bottom			

The measurement result for WLAN 2.4 GHz RSDB			
Position	Ant.H	Ant.J	MIMO
Rear	0.261		0.178
Front	0.133		0.128
Left	0.321		0.284
Right			0.050
Top	0.108		0.087
Bottom			

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The Maximum measurement result for WLAN 5 ㎓			
Position	Ant.H	Ant.E	MIMO
Rear	0.444	0.398	0.474
Front	0.193	0.073	0.198
Left	0.740		0.696
Right		0.079	0.087
Top	0.150	0.191	0.189
Bottom			

The Maximum measurement result for WLAN 5 ㎓ RSDB			
Position	Ant.H	Ant.E	MIMO
Rear	0.204		0.193
Front	0.172		0.142
Left	0.316		0.261
Right			
Top	0.082		0.057
Bottom			

The Maximum measurement result for WLAN 6E			
Position	Ant.H	Ant.E	MIMO
Rear	0.102	0.005	0.107
Front	0.039	0.000	0.039
Left	0.244		0.244
Right		0.000	0.000
Top	0.020	0.000	0.020
Bottom			

The measurement result for Bluetooth			
Position	Ant.H	Ant.J	Dual
Rear	0.187	0.049	0.082
Front	0.136	0.138	0.058
Left	0.348		0.152
Right		0.020	0.015
Top	0.116	0.000	0.042
Bottom			

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Simultaneous Transmission analysis for WLAN and Bluetooth Body SAR		
Position	WLAN 2.4 GHz Ant.1 + WLAN 5 GHz Ant.1	WLAN 2.4 GHz MIMO + WLAN 5 GHz Ant.1
Rear	0.465	0.382
Front	0.305	0.300
Left	0.637	0.600
Right	0.000	0.050
Top	0.190	0.169
Bottom	0.000	0.000

Simultaneous Transmission analysis for WLAN and Bluetooth Body SAR		
Position	WLAN 2.4 GHz Ant.1 + WLAN 5 GHz MIMO	WLAN 2.4 GHz MIMO + WLAN 5 GHz MIMO
Rear	0.454	0.371
Front	0.275	0.270
Left	0.582	0.545
Right	0.000	0.050
Top	0.165	0.144
Bottom	0.000	0.000

Simultaneous Transmission analysis for WLAN and Bluetooth Body SAR		
Position	WLAN 2.4 GHz Ant.1 + WLAN 6E Ant.1	WLAN 2.4 GHz MIMO + WLAN 6E Ant.1
Rear	0.363	0.280
Front	0.172	0.167
Left	0.565	0.528
Right	0.000	0.050
Top	0.128	0.107
Bottom	0.000	0.000

Simultaneous Transmission analysis for WLAN and Bluetooth Body SAR		
Position	WLAN 2.4 GHz Ant.1 + WLAN 6E MIMO	WLAN 2.4 GHz MIMO + WLAN 6E MIMO
Rear	0.368	0.285
Front	0.172	0.167
Left	0.565	0.528
Right	0.000	0.050
Top	0.128	0.107
Bottom	0.000	0.000

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The Maximum measurement result for AG1 and Simultaneous Transmission analysis for WLAN			
Position	AG1	WLAN	Max Result
Rear	0.778	0.474	0.778
Front	0.657	0.288	0.657
Left	0.221	0.740	0.740
Right	0.433	0.087	0.433
Top	0.953	0.277	0.953
Bottom	0.000	0.000	0.000

Simultaneous Transmission analysis for AG0, Bluetooth and Maximum result of AG1 and WLAN Summation				
Position	AG0	Max result	Bluetooth Ant.1	Result
Rear	1.030	0.778	0.187	See sec.14.5
Front	0.741	0.657	0.136	**1.534**
Left	0.849	0.740	0.348	See sec.14.5
Right	0.321	0.433	0.000	0.754
Top	0.000	0.953	0.116	1.069
Bottom	1.097	0.000	0.000	1.097

14.4 Phablet SAR Simultaneous Transmission Analysis

Position	NFC	Worst
Rear	0.017	0.017
Front	0.018	0.018
Left	0	0
Right	0.0000000407	0.0000000407
Top	0	0
Bottom	0	0

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14.5 SAR to Peak Location Separation Ratio (SPLSR)

FCC KDB 447498 D01v06 General RF Exposure Guidance introduces a new formula for calculating the SAR a Peak Location Separation Ratio (SPLSR) between pairs of simultaneously transmitting antennas:

$$\boldsymbol{SPLSR_i = (SAR_1 + SAR_2)^{1.5}/R_i}$$

Where:

$\boldsymbol{SAR_1}$ is the highest measured or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

$\boldsymbol{SAR_2}$ is the highest measured of estimated SAR for the second of a pair of simultaneous transmitting antennas, in the same test operating mode and exposure condition as the first

$\boldsymbol{R_i}$ is the separation distance between the pair of simultaneous transmitting antennas, When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of $[(\mathbf{X_1 - X_2})^2 + (\mathbf{Y_1 - Y_2})^2 + (\mathbf{Z_1 - Z_2})^2]$

In order for a pair of simultaneous transmitting antennas with the sum 1-g of SAR> 1.6 W/kg and with the sum 10-g of SAR >4 W/kg to qualify for exemption from Simultaneous Transmission SAR measurements, it has to satisfy the condition of:
$(\boldsymbol{SAR_1 + SAR_2})^{1.5}/\boldsymbol{R_i} \leq \mathbf{0.04}$ for 1g SAR and $(\boldsymbol{SAR_1 + SAR_2})^{1.5}/\boldsymbol{R_i} \leq \mathbf{0.1}$ for 10g SAR

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14.5.1 Hotspot/BodyWorn(Rear) SPLSR Evaluation

Ant Group 0

Mode/Band	Antenna	X(mm)	Y(mm)	Z(mm)	Reported SAR [W/kg]
GSM850	Ant A	-50.2	79.5	-207.0	0.623
GSM1900	Ant A	-21.1	84.8	-207.0	0.576
UMTS B5	Ant A	-49.1	66.8	-207.0	0.808
UMTS B4	Ant A	-25.9	79.8	-207.0	0.637
UMTS B2	Ant A	-26.8	74.4	-207.0	0.679
LTE Band 71	Ant A	-41.6	72.3	-207.0	0.779
LTE Band 12	Ant A	-44.5	78.0	-207.0	0.799
LTE Band 13	Ant A	-44.2	76.5	-207.0	0.683
LTE Band 14	Ant A	-43.9	76.5	-207.0	0.830
LTE Band 26	Ant A	-46.6	75.3	-207.0	**1.030**
LTE Band 66	Ant A	-26.2	76.4	-207.0	0.566
LTE Band 25	Ant A	-25.4	77.4	-207.0	0.606
LTE Band 30	Ant B	-53.0	72.0	-205.0	0.336
LTE Band 7	Ant B	-65.5	75.0	-207.0	0.760
LTE Band 41	Ant A	-41.0	84.0	-205.0	0.957
NR n71	Ant A	-32.0	67.5	-204.0	0.913
NR n12	Ant A	-32.0	80.0	-204.0	0.886
NR n14	Ant A	-32.0	77.0	-204.0	0.792
NR n30	Ant A	-42.3	78.6	-207.0	0.437
NR n26	Ant A	-38.0	78.5	-204.0	1.008
NR n66	Ant A	-23.0	76.2	-207.0	0.306
NR n70	Ant A	-27.5	78.0	-205.0	0.789
NR n25	Ant A	-24.4	76.8	-207.0	0.579
NR n7	Ant B	-55.3	77.9	-207.0	0.833
NR n41	Ant B	-69.5	79.0	-207.0	0.620
NR n41 SRS2	Ant B	-4.0	65.0	-207.0	0.921
NR n48 SRS1	Ant C	-78.2	50.8	-208.0	0.292
NR n48 SRS3	Ant D	-9.4	71.0	-208.0	0.677
NR n77 SRS1	Ant C	-69.8	79.4	-208.0	0.188
NR n77 SRS3	Ant D	-20.2	63.8	-208.0	0.397

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Ant Group 1/WLAN

Mode/Band	Antenna	X(mm)	Y(mm)	Z(mm)	Reported SAR [W/kg]
GSM 850	Ant E	-18.7	-79.7	-207.0	0.221
UMTS 5	Ant E	-20.7	-78.9	-207.0	0.335
LTE Band 26	Ant E	-12.4	-82.3	-207.0	0.574
LTE Band 71	Ant E	-7.3	-83.7	-207.0	0.399
LTE Band 12	Ant E	-22.3	-80.2	-207.0	0.720
LTE Band 13	Ant E	-19.9	-81.1	-207.0	0.555
LTE Band 14	Ant E	-19.9	-81.1	-207.0	0.570
LTE Band 66	Ant F	-37.8	-86.6	-207.0	0.285
LTE Band 25	Ant F	-39.3	-87.1	-207.0	0.276
LTE Band 30	Ant F	-41.0	-72.0	-204.0	0.321
LTE Band 7	Ant F	-48.0	-84.0	-208.6	0.351
LTE Band 41	Ant F	-41.0	-84.0	-204.0	0.518
LTE Band 48	Ant F	-61.0	-72.0	-208.0	0.541
NR n71	Ant E	-41.0	-84.0	-204.0	0.461
NR n12	Ant E	-17.0	-81.0	-204.0	0.753
NR n14	Ant E	-15.5	-83.5	-204.0	0.489
NR n26	Ant E	-15.5	-84.0	-204.0	0.477
NR n25	Ant F	-48.9	-84.1	-208.3	0.449
NR n30	Ant F	-43.0	-78.0	-207.0	0.492
NR n70	Ant F	-45.5	-72.0	-205.0	0.354
NR n7	Ant F	-36.0	-81.5	-207.0	0.616
NR n41	Ant F	-49.0	-86.0	-207.0	0.490
NR n41 SRS1	Ant F	-51.0	-79.5	-207.0	0.245
NR n41 SRS3	Ant E	-20.0	-68.0	-207.0	0.172
NR n48	Ant F	-53.8	-76.8	-208.0	0.496
NR n48 SRS2	Ant I	-66.2	-39.6	-20.8	0.232
NR n66	Ant F	-46.9	-83.4	-208.4	0.599
NR n77	Ant F	-59.8	-73.2	-208.0	**0.778**
NR n77 SRS2	Ant I	-67.4	-37.0	-208.0	0.363
WLAN2.4 GHz Ant 1	Ant H	-68.5	-53.0	-207.0	0.315
WLAN2.4 GHz MIMO	Ant H+J	-60.5	-61.5	-207.0	0.367
WLAN5 GHz Ant 1	Ant H	-63.1	-65.8	-207.0	0.444
WLAN5 GHz MIMO	Ant H+E	-16.8	-70.0	-207.0	0.474
WLAN2.4 GHz Ant 1 RSDB	Ant H	-59.0	-53.0	-207.0	0.261
WLAN2.4 GHz MIMO RSDB	Ant H+J	-62.0	-57.0	-207.0	0.178
WLAN5 GHz Ant 1 RSDB	Ant H	-64.0	-69.0	-208.0	0.204
WLAN5 GHz MIMO RSDB	Ant H+E	-18.0	-84.0	-208.0	0.193

BT Ant.

Mode/Band	Antenna	X(mm)	Y(mm)	Z(mm)	Reported SAR [W/kg]
BT Ant 1	Ant H	-62.5	-55.0	-207.0	0.187

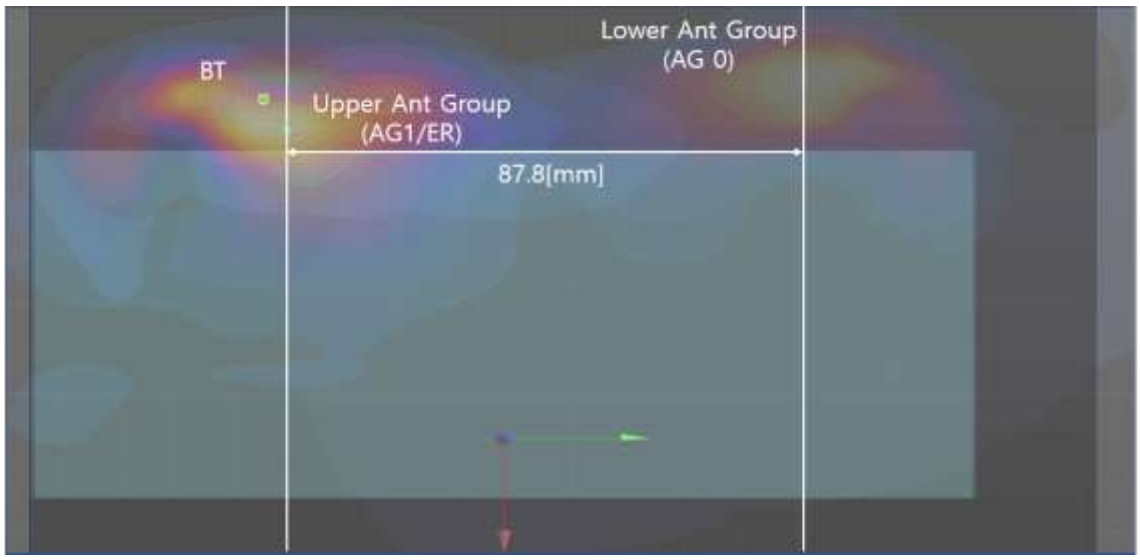
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Group analysis SPLSR AG0 + AG1 + BT

	AG0	AG1/WLAN	BT
Min Y-axis(mm)	50.8		
Max SAR(W/kg)	1.030		
Max Y-axis(mm)		-37	-53
Max SAR(W/kg)		0.778	0.187
AG0, AG1/WLAN Distance(mm)		87.8	
(AG0+AG1+ER) SAR(W/kg)		1.995	
AG0, AG1+5 GHz WLAN+BT(SPLSR)		**0.032**	

SPLSR Plot for AG0 + AG1 + BT

AG0 + AG1 + BT



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14.5.2 Hotspot/BodyWorn(Left) SPLSR Evaluation

Ant Group 0

Mode/Band	Antenna	X(mm)	Y(mm)	Z(mm)	Reported SAR [W/kg]
GSM850	Ant A	-33.8	65.4	-207	0.054
GSM1900	Ant A	-28.1	54.3	-20.7	0.073
UMTS B5	Ant A	-23.5	70.8	-207	**0.131**
UMTS B4	Ant A	-34.9	69.6	-207	0.108
UMTS B2	Ant A	-31.2	33	-207	0.048
LTE Band 71	Ant A	-26.5	2.5	-207	0.391
LTE Band 12	Ant A	-26.4	-2.7	-207	0.12
LTE Band 13	Ant A	-26.4	-16.8	-207	0.107
LTE Band 14	Ant A	-26.4	-15	-207	0.138
LTE Band 26	Ant A	-23.6	67.8	-207	0.113
LTE Band 66	Ant A	-27.7	61.5	-207	0.151
LTE Band 25	Ant A	-37.7	53.8	-207	0.055
LTE Band 30	Ant B	-20.6	64.8	-205	0.094
LTE Band 7	Ant B	-36	66	-207	0.547
LTE Band 41	Ant A	-20.6	68.4	-204	0.497
NR n71	Ant A	-21.5	67.5	-205	0.086
NR n12	Ant A	-18.5	-10.5	-204	0.088
NR n14	Ant A	-48.5	65	-204	0.088
NR n26	Ant A	-18.5	15	-204	0.067
NR 30	Ant A	-27.1	64.1	-207	0.101
NR n66	Ant A	-25.8	71.1	-207	0.121
NR 70	Ant A	-21.5	67.5	-205	0.039
NR 25	Ant A	-25.8	73.8	-207	0.107
NR 7	Ant B	-26.9	61.3	-207	0.512
NR 41	Ant B	-29.9	69	-207	0.43
NR 77 SRS1	Ant C	-38.2	55.2	-208	0.416
NR 77 SRS3	Ant D	N/A	N/A	N/A	N/A
NR 48 SRS1	Ant C	-26.2	56.8	-208	0.849
NR 48 SRS3	Ant D	N/A	N/A	N/A	N/A

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Ant Group 1 _WLAN

Mode/Band	Antenna	X(mm)	Y(mm)	Z(mm)	Reported SAR [W/kg]
GSM 850	Ant E	N/A	N/A	N/A	N/A
UMTS 5	Ant E	N/A	N/A	N/A	N/A
LTE 5	Ant E	N/A	N/A	N/A	N/A
LTE 71	Ant E	N/A	N/A	N/A	N/A
LTE 12	Ant E	N/A	N/A	N/A	N/A
LTE 13	Ant E	N/A	N/A	N/A	N/A
LTE 66	Ant F	-33.5	-60.3	-207.0	0.107
LTE 25	Ant F	-32.8	-62.6	-207.0	0.1
LTE 30	Ant F	-21.8	-56.4	-204.0	0.044
LTE 7	Ant F	-30.0	-70.0	-207.0	0.04
LTE 41	Ant F	-17.0	-74.4	-204.0	0.083
LTE 48	Ant F	-41.8	-68.4	-208.0	0.066
NR71	Ant E	N/A	N/A	N/A	N/A
NR12	Ant E	N/A	N/A	N/A	N/A
NR5	Ant E	N/A	N/A	N/A	N/A
N25	Ant F	-29.5	-59.2	-208.4	0.125
N7	Ant F	-29.9	-56	-207	0.084
N41	Ant F	-32.1	-82	-207	0.072
N30	Ant F	-29.6	-66	-207	0.044
N70	Ant F	-21.5	-54	-205	0.101
N41 SRS1	Ant F	-20.7	-78	-207	0.023
N41 SRS3	Ant E	N/A	N/A	N/A	N/A
N66	Ant F	-28.6	-70	-208.4	0.149
N48	Ant F	-50	-70.5	-204	0.049
N48 SRS2	Ant I	-31	-43.2	-208	0.18
N77	Ant F	-39.4	-60	-208	0.051
N77 SRS2	Ant I	-37	-54	-208	0.184
WLAN2.4 GHz Ant 1	Ant H	-30.1	-55.0	-210.0	0.522
WLAN2.4 GHz MIMO	Ant H+J	-27.8	-54.0	-210.0	0.582
WLAN5 GHz Ant 1	Ant H	-27.8	-65.0	-207.0	0.74
WLAN5 GHz MIMO	Ant H+E	-21.2	-66.4	-207.0	0.696
WLAN2.4 GHz Ant 1 RSDB	Ant H	-25.7	-55.0	-207.0	0.321
WLAN2.4 GHz MIMO RSDB	Ant H+J	-28.5	-56.0	-207.0	0.284
WLAN5 GHz Ant 1 RSDB	Ant H	-25.0	-66.0	-208.0	0.316
WLAN5 GHz MIMO RSDB	Ant H+E	-24.0	-68.0	-208.0	0.261

BT Ant

Mode/Band	Antenna	X(mm)	Y(mm)	Z(mm)	Reported SAR [W/kg]
BT Ant 1	Ant H	-27	-52	-210	**0.348**

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Group analysis SPLSR AG0 + AG1 + BT

	AG0	AG1	BT
Min Y-axis(mm)	-16.8		
Max SAR(W/kg)	0.849		
Max Y-axis(mm)		-43.2	-52
Max SAR(W/kg)		0.74	0.348
AG0, AG1/WLAN Distance(mm)		26.4	
(AG0+AG1+ BT) SAR(W/kg)		1.937	
AG0, AG1+5 ㎓ WLAN+BT(SPLSR)		See the Below	

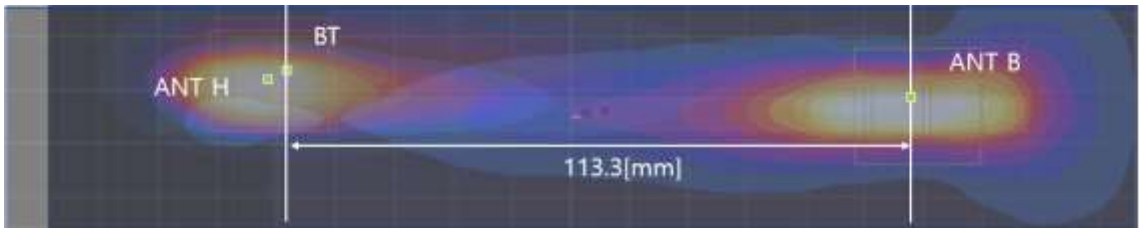
Group analysis SPLSR Ant. A,B,C + Ant. F,I + BT

	Ant A	Ant B	Ant C	Ant F	Ant I	Ant H	Ant H+E	Ant H+J	BT
Min Y-axis(mm)	-16.8	61.3	55.2						
Max SAR(W/kg)	0.391	0.547	0.849						
Max Y-axis(mm)				-54	-43.2	-55	-66.4	-54	-52
Max SAR(W/kg)				0.149	0.184	0.74	0.696	0.582	0.348
AG0, Ant F, BT Distance(mm)	35.2	113.3	107.2						
(AG0+Ant F+BT) SAR(W/kg)	0.888	1.044	1.346						
AG0, Ant.F, BT(SPLSR)									
AG0, Ant I, BT Distance(mm)	26.4	104.5	98.4						
(AG0+Ant I+BT) SAR(W/kg)	0.923	1.079	1.381						
AG0, Ant.I, BT(SPLSR)									
AG0, Ant H, BT Distance(mm)	35.2	113.3	107.2						
(AG0+Ant H+BT) SAR(W/kg)	1.479	1.635	1.937						
AG0, Ant.H, BT(SPLSR)		0.018	0.025						
AG0, Ant H+E, BT Distance(mm)	35.2	113.3	107.2						
(AG0+Ant H+E+BT) SAR(W/kg)	1.435	**1.591**	1.893						
AG0, Ant.H+E, BT(SPLSR)			0.024						
AG0, Ant H+J, BT Distance(mm)	35.2	113.3	107.2						
(AG0+Ant H+J+BT) SAR(W/kg)	1.321	1.477	1.779						
AG0, Ant.H+J, BT(SPLSR)			0.022						

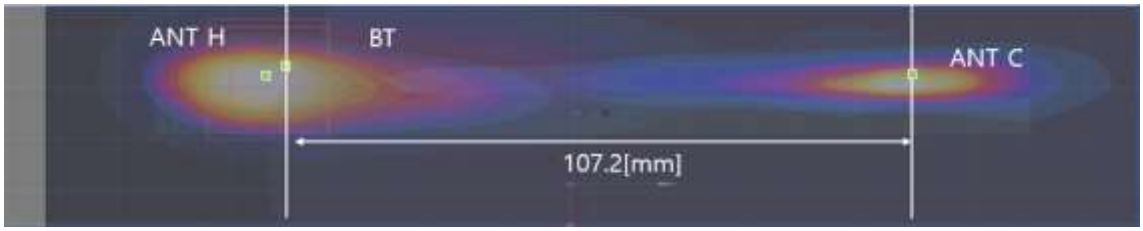
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SPLSR Plot for Antenna Group

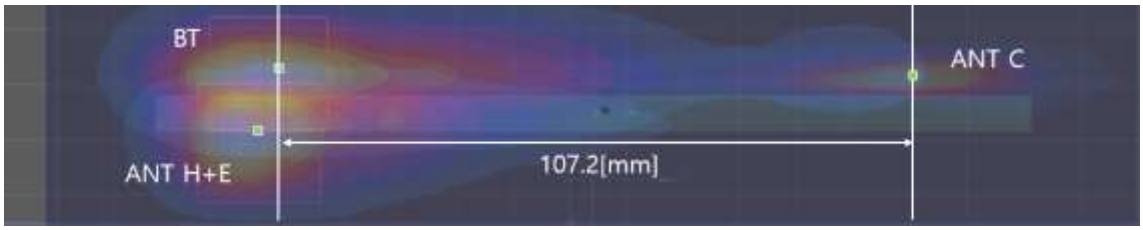
Ant. B + Ant. H + BT



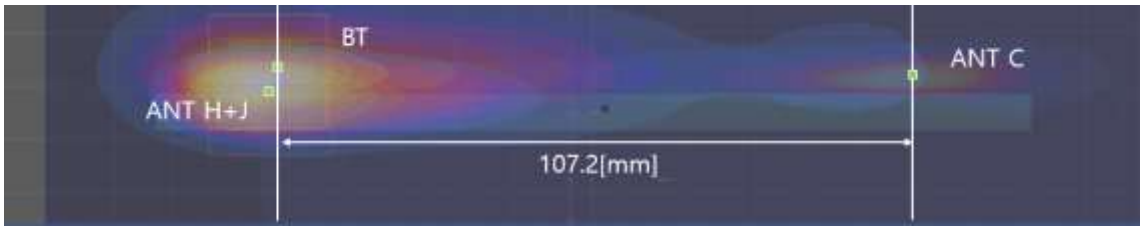
Ant. C + Ant. H + BT



Ant. C + Ant. H+E + BT



Ant. C + Ant. H+J + BT



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15. SAR Measurement Variability and Uncertainty

In accordance with KDB procedure 865664 D01v01r04 SAR measurement 100 ㎒ to 6 ㎓, SAR additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency Band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement variability was assessed using the following procedures for each frequency Band:

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg for 1g SAR or < 2.0 W/kg for 10g SAR; steps 2) through 4) do not apply.

2) When the original highest measured 1g SAR is ≥ 0.80 W/kg or 10g SAR ≥ 2.0W/kg, repeat that measurement once.

3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg for 1g SAR or ≥ 3.625 W/kg for 10g SAR (~ 10% from the 1-g SAR limit).

4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥1.5 W/kg for 1g SAR or ≥3.75 W/kg for 10g SAR and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

Head SAR measurement variability Results

Frequency		Mode,Band/Configuration	Position	Measured SAR (W/kg)	Repeated SAR (W/kg)	SAR Ratio
㎒	Channel					
2 680	41490	LTE Band 41 / QPSK 1RB 0offset	Right Touch	0.919	0.853	1.08
3 690	56640	LTE Band 48 / QPSK 100RB 0offset	Right Tilt	0.806	0.806	1.00

Body SAR measurement variability Results

Frequency		Mode,Band/Configuration	Position	Measured SAR (W/kg)	Repeated SAR (W/kg)	SAR Ratio
㎒	Channel					
1 800	9400	UMTS Band 2 / RMC	Bottom	0.822	0.813	1.01
1 882.5	26365	LTE Band 25 / QPSK 1RB 49offset	Bottom	0.893	0.806	1.11
831.5	26865	LTE Band 26 / QPSK 1RB 74offset	Rear	0.840	0.802	1.05
2 549.5	40185	LTE Band 41 / QPSK 50RB 0offset	Rear	0.826	0.850	1.03
831.5	166300	NR Band n26 / DFT-s QPSK 100RB 0offset	Rear	0.823	0.822	1.00
2 310	462000	NR Band n30 / CP QPSK 1RB 1offset	Bottom	0.874	0.873	1.00
1 702.5	340500	NR Band n70 / DFT-s QPSK 1RB 77offset	Bottom	0.951	0.959	1.01

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Bodyworn SAR measurement variability Results

Frequency		Mode,Band/Configuration	Position	Measured SAR (W/kg)	Repeated SAR (W/kg)	SAR Ratio
MHz	Channel					
831.5	26865	LTE Band 26 / QPSK 1RB 74offset	Rear	0.840	0.802	1.05
2 549.5	40185	LTE Band 41 / QPSK 50RB 0offset	Rear	0.826	0.850	1.03
831.5	166300	NR Band n26 / DFT-s QPSK 100RB 0offset	Rear	0.823	0.822	1.00

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16. Measurement Uncertainty

The measured SAR was <1.5 W/Kg for 1g SAR and <3.75 W/Kg, for 10g SAR for all frequency Bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE1528-2013 was not required.

For SAR Measurement Uncertainty for Frequencies Above 6 GHz

Measurement Uncertainty for handset SAR test According to IEEE 1528 and IEC 62209-1528 (6 - 10 GHz range)									
a	*b*	*c*	*d*	*e*	*f*	*g*	*h = c x f / e*	*i = c x g / e*	*k*
Source of uncertainty	**Simbol**	**Uncertainty ± %**	**Probability distribution**	**Div.**	**ci**	**ci**	**Standard Uncertainty**	**Standard Uncertainty**	**vi or veff**
Description					**(1 g)**	**(10 g)**	**± % (1 g)**	**± % (10 g)**	
Measurement system									
Probe calibration	CF	18.60	N	2	1	1	9.30	9.30	∞
Probe Calibration Drift	CFdrift	1.70	N	1	1	1	1.00	1.00	∞
Probe Linearity	LIN	4.70	R	1.73	1.00	1.00	2.71	2.71	∞
Broadband Signal	BBS	3.00	R	1.73	1.00	1.00	1.73	1.73	∞
Probe Isotropy	ISO	7.60	R	1.73	1	1	4.39	4.39	∞
Data Acquisition	DAE	2.40	N	1	1	1	2.40	2.40	∞
RF Ambient	AMB	1.80	N	1	1	1	1.80	1.80	∞
Probe Positioning	Δsys	0.20	N	1	0.33	0.33	0.07	0.07	∞
Data Processing	DAT	3.50	N	1	1	1	3.50	3.50	∞
Phantom and Device Errors									
Conductivity (meas.)DAK	LIQ(σ)	2.50	N	1	0.78	0.71	1.95	1.78	∞
Conductivity (temp.)BB	LIQ(Tσ)	3.40	R	1.73	0.78	0.71	1.53	1.39	∞
Phantom Permittivity	EPS	14.00	R	1.73	0.25	0.25	2.02	2.02	∞
Distance DUT - TSL	DAS	2.00	N	1	2	2	4.00	4.00	∞
Device Holder	H	3.60	N	1	1	1	3.60	3.60	∞
DUT Modulation	MOD	2.40	R	1.73	1	1	1.39	1.39	∞
DUT drift	RFdrift	2.50	N	1	1	1	2.50	2.50	∞
Deviation to Target	C(ε, σ)	1.90	N	1	1	0.84	1.90	1.60	∞
SAR scaling	C(R)	0.00	R	1.73	1	1	0.00	0.00	∞
Combined standard uncertainty	u(ΔSAR)		RSS				13.72	13.65	
Expanded uncertainty (95% confidence interval)	U		*k = 2*				**27.44**	**27.30**	

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For Power Density Measurements Uncertainty for Frequencies Above 6GHz

DASY6 Uncertainty Budget for PD (avg ≥1cm2) Evaluation Distances to the Antennas ≥ λ/25 in Compliance with IEC/IEEE 63195						
Source of uncertainty Description	**Uncertainty (±dB)**	**Probability distribution**	**Div.**	**ci**	**Standard Uncertainty (±dB)**	(vi) veff
Uncertainty terms dependent on the measurement system						
Calibration	0.49	N	1	1	0.49	∝
Probe correction	0.00	R	1.73	1	0.00	∝
Frequency response (BW ≤ 1 GHz)	0.20	R	1.73	1	0.12	∝
Sensor cross coupling	0.00	R	1.73	1	0.00	∝
Isotropy	0.50	R	1.73	1	0.29	∝
Linearity	0.20	R	1.73	1	0.12	∝
Probe scattering	0.00	R	1.73	1	0.00	∝
Probe positioning offset	0.30	R	1.73	1	0.17	∝
Probe positioning repeatability	0.04	N	1	1	0.04	∝
Sensor mechanical offset	0.00	N	1	1	0.00	∝
Probe spatial resolution	0.00	N	1	1	0.00	∝
Field impedance dependence	0.00	N	1	1	0.00	∝
Measurement drift	0.05	N	1	1	0.05	∝
Amplitude and phase noise	0.04	N	1	1	0.04	∝
Measurement area truncation	0.00	N	1	1	0.00	∝
Data acquisition	0.03	N	1	1	0.03	∝
Sampling	0.00	N	1	1	0.00	∝
Field reconstruction	0.60	N	1	1	0.60	∝
Signal-to-Noise Ratio	0.00	N	1	1	0.00	∝
Spatial averaging	0.10	N	1	1	0.10	∝
Uncertainty terms dependent on the DUT and environmental factors						
Probe coupling with DUT	0.00	R	1.73	1	0.00	∝
Modulation response	0.40	R	1.73	1	0.23	∝
Integration time	0.00	R	1.73	1	0.00	∝
Response time	0.00	N	1.73	1	0.00	∝
Device holder influence	0.10	R	1.73	1	0.06	∝
DUT alignment	0.00	R	1.73	1	0.00	∝
RF ambient conditions	0.04	R	1.73	1	0.02	∝
Laboratory Temperature	0.05	R	1.73	1	0.03	∝
Laboratory Reflections	0.04	R	1.73	1	0.02	∝
Immunity / secondary reception	0.00	R	1.73	1	0.00	∝
Drift of the DUT	-	R	1.73	1	-	∝
Combined uncertainty (k= 1)					0.75	∝
Expanded uncertainty(k = 2)					**1.51**	

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17. SAR Test Equipment List

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	SAM Phantom	-	N/A	N/A	N/A
SPEAG	ELI Phantom	-	N/A	N/A	N/A
SPEAG	cDASY6 5G Module Phantom	-	N/A	N/A	N/A
HP	SAR System Control PC	-	N/A	N/A	N/A
Staubli 1-L	CS8Cspeag-TX90	F11/ 5K3RA1/ C/ 01	N/A	N/A	N/A
Staubli 1-R	CS8Cspeag-TX90	F12/ 5K9GA1/ C/ 01	N/A	N/A	N/A
Staubli 2	CS8Cspeag-TX90	F13/ 5R4XF1/ C/ 01	N/A	N/A	N/A
Staubli 5	CS8Cspeag-TX90	F17/ 59RAA1/ C/ 01	N/A	N/A	N/A
Staubli 7	CS8Cspeag-TX90	F08/5AJ0A1/C/01	N/A	N/A	N/A
Staubli 8	CS8Cspeag-TX60	F/20/0018446/C/001	N/A	N/A	N/A
Staubli 1-L	TX90 Lspeag	F11/ 5K3RA1/ A/ 01	N/A	N/A	N/A
Staubli 1-R	TX90 XLspeag	F12/ 5K9GA1/ C/ 01	N/A	N/A	N/A
Staubli 2	TX90 XLspeag	F13/ 5R4XF1/ A/ 01	N/A	N/A	N/A
Staubli 5	TX90 XLspeag	F17/ 59RAA1/ A/ 01	N/A	N/A	N/A
Staubli 7	TX90 XLspeag	F08/5AJ0A1/A/01	N/A	N/A	N/A
Staubli 8	TX60 Lspeag	F/20/0018446/A/001	N/A	N/A	N/A
Staubli 1-L	Teach Pendant (Joystick)	S-1203 0309	N/A	N/A	N/A
Staubli 1-R	Teach Pendant (Joystick)	S-1206 0513	N/A	N/A	N/A
Staubli 2	Teach Pendant (Joystick)	S-1338 1332	N/A	N/A	N/A
Staubli 5	Teach Pendant (Joystick)	011578	N/A	N/A	N/A
Staubli 7	Teach Pendant (Joystick)	S-0008	N/A	N/A	N/A
Staubli 8	Teach Pendant (Joystick)	020885	N/A	N/A	N/A
TESTO 1	175-H1/Thermometer	40331936309	12/26/2025	Annual	12/26/2026
TESTO 2	175-H1/Thermometer	40331953309	01/16/2025	Annual	01/16/2026
TESTO 5	175-H1/Thermometer	40331922309	12/26/2025	Annual	12/26/2026
TESTO 7	175-H1/Thermometer	40331949309	12/26/2025	Annual	12/26/2026
TESTO 8	175-H1/Thermometer	44606611906	03/20/2025	Annual	03/20/2026
TESTO 15	608-H1/Thermometer	83406789	06/26/2025	Annual	06/26/2026
SPEAG	DAE4	869	03/19/2025	Annual	03/19/2026
SPEAG	DAE4	1750	09/13/2024	Annual	09/13/2025
SPEAG	DAE4	1417	02/18/2025	Annual	02/18/2026
SPEAG	DAE4	868	09/19/2024	Annual	09/19/2025
SPEAG	DAE4	446	03/19/2025	Annual	03/19/2026
SPEAG	DAE4	1254	05/21/2025	Annual	05/21/2026
SPEAG	E-Field Probe EX3DV4	3768	10/07/2024	Annual	10/07/2025
SPEAG	E-Field Probe EX3DV4	3797	01/21/2025	Annual	01/21/2026
SPEAG	E-Field Probe EX3DV4	7654	06/02/2025	Annual	06/02/2026
SPEAG	E-Field Probe EX3DV4	7622	11/22/2024	Annual	11/22/2025
SPEAG	E-Field Probe ES3DV3	3076	07/17/2024	Annual	07/17/2025
SPEAG	E-Field Probe EUmmWV4	9464	02/24/2025	Annual	02/24/2026
SPEAG	CLA13	1016	11/19/2024	Annual	11/19/2025
SPEAG	Dipole D750V3	1014	05/20/2025	Annual	05/20/2026
SPEAG	Dipole D835V2	441	04/18/2024	Biennial	04/18/2026
SPEAG	Dipole D1800V2	2d007	04/15/2024	Biennial	04/15/2026
SPEAG	Dipole D1900V2	5d061	01/20/2025	Annual	01/20/2026
SPEAG	Dipole D2300V2	1010	07/19/2023	Biennial	07/19/2025
SPEAG	Dipole D2450V2	1049	03/13/2025	Annual	03/13/2026
SPEAG	Dipole D2600V2	1015	04/22/2024	Biennial	04/22/2026
SPEAG	Dipole D3500V2	1040	01/16/2025	Annual	01/16/2026
SPEAG	Dipole D3700V2	1105	09/18/2024	Annual	09/18/2025
SPEAG	Dipole D3900V2	1019	05/21/2025	Annual	05/21/2026
SPEAG	Dipole D5GHzV2	1107	04/19/2024	Biennial	04/19/2026
SPEAG	Dipole D6.5GHzV2	1012	09/17/2024	Annual	09/17/2025
SPEAG	5G Power Verification Source 10GHz	1018	04/11/2025	Annual	04/11/2026

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Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
Agilent	Power Meter E4419B	MY41291386	09/11/2024	Annual	09/11/2025
Agilent	Power Meter N1911A	MY45101406	05/19/2025	Annual	05/19/2026
Agilent	Power Sensor 8481A	SG1091286	09/12/2024	Annual	09/12/2025
H.P	Power Sensor 8481A	MY41090675	09/12/2024	Annual	09/12/2025
Agilent	Power Meter E4419B	MY41291386	09/11/2024	Annual	09/11/2025
Agilent	Wideband Power Sensor N1921A	MY55220026	07/30/2024	Annual	07/30/2025
Agilent	11636B/Power Divider	58698	01/13/2025	Annual	01/13/2026
SPEAG	DAKS 3.5	1038	01/20/2025	Annual	01/20/2026
SPEAG	Vector Reflectometer	0141013	01/13/2025	Annual	01/13/2026
SPEAG	MXA Signal Analyzer	MY49100108	01/07/2025	Annual	01/07/2026
H.P	Network Analyzer /8753E	JP38451384	08/20/2024	Annual	08/20/2025
Protek	NETWORK ANALYZER	X11-15305	02/10/2025	Annual	02/10/2026
Agilent	WIRELESS COMMUNICATION E5515C	MY48361100	09/11/2024	Annual	09/11/2025
Agilent	WIRELESS COMMUNICATION E5515C	MY48360252	07/29/2024	Annual	07/29/2025
R&S	Wireless Communication Test Set CMW500	115733	03/20/2025	Annual	03/20/2026
R&S	Wireless Communication Test Set CMW500	139333	12/09/2024	Annual	12/09/2025
Agilent	SIGNAL GENERATOR N5182A	MY47070230	03/18/2025	Annual	03/18/2026
Agilent	SIGNAL GENERATOR N5182A	MY47070230	03/18/2025	Annual	03/18/2026
Keysight	PSG Vector Signal Generator	MY50350097	03/05/2025	Annual	03/05/2026
EMPOWER	RF Power Amplifier	1084	05/20/2025	Annual	05/20/2026
EMPOWER	RF Power Amplifier	1041D/C0508	05/20/2025	Annual	05/20/2026
EMPOWER	RF Power Amplifier	1011	09/11/2024	Annual	09/11/2025
MICRO LAB	LP Filter / LA-15N	10453	09/11/2024	Annual	09/11/2025
MICRO LAB	LP Filter / LA-30N	-	09/11/2024	Annual	09/11/2025
MICRO LAB	LP Filter / LA-60N	32011	09/11/2024	Annual	09/11/2025
Agilent	Attenuator (3dB) 8693B	MY39260298	08/20/2024	Annual	08/20/2025
HP	Attenuator (20dB) 8493C	09271	08/21/2024	Annual	08/21/2025
Agilent	Directional Bridge 86205A	3140A04581	04/18/2025	Annual	04/18/2026
Agilent	Directional Bridge 86205A	3140A04581	04/18/2025	Annual	04/18/2026
OSI	Power Divider	#1	05/20/2025	Annual	05/20/2026
OSI	Power Divider	#2	05/20/2025	Annual	05/20/2026
OSI	Power Divider	#3	05/20/2025	Annual	05/20/2026
OSI	Power Divider	#4	05/20/2025	Annual	05/20/2026
Agilent	MXA Signal Analyzer N9020A	MY50510407	06/09/2025	Annual	06/09/2026
HP	Dual Directional Coupler	16072	09/11/2024	Annual	09/11/2025
Anritsu	Radio Communication Test Station MT8000A	6262036812	11/27/2024	Annual	11/27/2025
Anritsu	Radio Communication Test Station MT8000A	6262148305	12/23/2024	Annual	12/23/2025
Anritsu	Radio Communication Tester MT8820C	6201074225	01/13/2025	Annual	01/13/2026
Anritsu	Radio Communication Tester MT8820C	6200695605	03/21/2025	Annual	03/21/2026
Anritsu	Radio Communication Tester MT8821C	6201502997	05/21/2025	Annual	05/21/2026
Anritsu	Radio Communication Tester MT8821C	6262044720	11/27/2024	Annual	11/27/2025
Anritsu	Radio Communication Tester MT8821C	6201664725	01/13/2025	Annual	01/13/2026
Agilent	WIRELESS COMMUNICATION E5515C	MY50260992	05/20/2025	Annual	05/20/2026
ROHDE&SCHWARZ	BLUETOOTH TESTER CBT	100272	01/13/2025	Annual	01/13/2026
Keysight	PSG Vector Signal Generator	MY50350097	03/05/2025	Annual	03/05/2026

Note: All measurements were performed within the valid calibration period of the specific equipment.

* The E-field probe was calibrated by SPEAG, by the waveguide technique procedure. Dipole Verification measurement is performed by HCT Lab. before each test. The brain/body simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity (dielectric constant) of the brain/body-equivalent material.

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18. Conclusion

The SAR and RF Exposure measurement indicates that the EUT complies with the RF radiation exposure limits of the ANSI/ IEEE C95.1 - 2005.

These measurements were taken to simulate the RF effects exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested.

Please note that the abortion and distribution of electromagnetic energy in the body are very complex phenomena the depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because various factors may interact with one another to vary the specific biological outcome of an exposure to electromagnetic fields, any protection guide should consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.

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Appendix A. DUT Ant. Information & SETUP PHOTO

Please refer to test DUT Ant. Information &setup photo file no. as follows:

Report No.
HCT-SR-2507-FC005-P

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