

TEST REPORT



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1. Report No : DRRFCC2511-0063

2. Customer

• Name (FCC) : LG Electronics Inc.

• Address (FCC) : 222 LG-ro, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, South Korea, 17709

3. Use of Report : FCC Original Certification

4. Product Name / Model Name : Telematics / TF26SENI

FCC ID : 2BO3LTF26SENI

5. FCC Regulation(s) : CFR 47 Part 2 subpart 2.1093

Test Method Used : FCC SAR KDB Publications (Details in test report)

IEC/IEEE 62209-1528:2020

6. Date of Test : 2025.09.22 ~ 2025.10.20

7. Location of Test : ☒ Permanent Testing Lab ☐ On Site Testing

8. Testing Environment : Refer to appended test report.

9. Test Result : Refer to attached test report.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.

This test report is not related to KOLAS accreditation.

Affirmation	Tested by	Reviewed by
	Name : SeoYeon Choi 	Name : HakMin Kim 

2025 . 11 . 25 .

Dt&C Co., Ltd.

If this report is required to confirmation of authenticity, please contact to report@dtnc.net

Test Report Version

Test Report No.	Date	Description	Tested by	Reviewed by
DRRFCC2511-0063	Nov. 25, 2025	Initial issue	SeoYeon Choi	HakMin Kim

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1. DESCRIPTION OF DEVICE

1.1 General Information

Product Name	Telematics				
FCC ID	2B03LTF26SENI				
Equipment model name(s)	TF26SENI				
PMN(Product Marketing Name)	TF26SENI				
Equipment serial no.	Identical prototype				
FVIN (Firmware Version Identification Number)	N/A				
Host Marketing Name	TF26SENI				
FCC & ISED MRA Designation No.	KR0034				
FCC Test Firm Registration No.	704742				
ISED#	5740A				
TX Frequency Range	Band	Mode	Operating Modes	Bandwidth	Frequency
	LTE Band 12	LTE	Voice/Data	1.4/3/5/10 MHz	699.7 ~ 715.3 MHz
	LTE Band 14	LTE	Voice/Data	5/10 MHz	790.5 ~ 795.5 MHz
	LTE Band 5	LTE	Voice/Data	1.4/3/5/10 MHz	824.7 ~ 848.3 MHz
	LTE Band 66	LTE	Voice/Data	1.4/3/5/10/15/20 MHz	1 710.7 ~ 1 779.3 MHz
	LTE Band 4	LTE	Voice/Data	1.4/3/5/10/15/20 MHz	1 710.7 ~ 1 754.3 MHz
	LTE Band 2	LTE	Voice/Data	1.4/3/5/10/15/20 MHz	1 850.7 ~ 1 909.3 MHz
	NR Band n12	NR(SCS 15 kHz)	Voice/Data	5/10/15 MHz	701.5 ~713.5 MHz
	NR Band n5	NR(SCS 15 kHz)	Voice/Data	5/10/15/20 MHz	826.5 ~ 846.5 MHz
	NR Band n66	NR(SCS 15 kHz)	Voice/Data	5/10/15/20 MHz	1 712.5 ~ 1 777.5 MHz
	NR Band n2	NR(SCS 15 kHz)	Voice/Data	5/10/15/20 MHz	1 852.5 ~ 1 907.5 MHz
	NR Band n77	NR(SCS 30 kHz)	Voice/Data	20/40/60/80/100 MHz	3 460.02 ~ 3 540.00 MHz
	NR Band n77	NR(SCS 30 kHz)	Voice/Data	20/40/60/80 MHz	3 710.01 ~ 3 969.99 MHz
	2.4 GHz WLAN	802.11b/g/n/ac	Data	HT20/VHT20	2 412 ~ 2 462 MHz
		802.11n/ac	Data	HT40/VHT40	2 422 ~ 2 452 MHz
	5 GHz W-LAN (UNII 1)	802.11a/n/ac	Data	HT20/VHT20	5 180 ~ 5 240 MHz
		802.11n/ac	Data	HT40/VHT40	5 190 ~ 5 230 MHz
	5 GHz W-LAN (UNII 3)	802.11ac	Data	VHT80	5 210 MHz
		802.11a/n/ac	Data	HT20/VHT20	5 745 ~ 5 825 MHz
		802.11n/ac	Data	HT40/VHT40	5 755 ~ 5 795 MHz
		802.11ac	Data	VHT80	5 775 MHz
Equipment Class	Band	Reported SAR			
		1g SAR (W/kg)			
		Head			
PCE	LTE Band 12	0.35			
PCE	LTE Band 14	0.45			
PCE	LTE Band 5	0.34			
PCE	LTE Band 66	0.29			
PCE	LTE Band 4	0.32			
PCE	LTE Band 2	0.16			
PCE	NR Band n12	0.29			
PCE	NR Band n5	0.39			
PCE	NR Band n66	0.26			
PCE	NR Band n2	0.14			
PCE	NR Band n77	0.62			
DTS	2.4 GHz W-LAN	0.11			
UNII 1	5 GHz W-LAN	0.13			
UNII 3		0.16			
Simultaneous SAR per KDB 690783 D01v01r03		1.15			
FCC Equipment Class	Licensed Portable Transmitter Held to Ear (PCE) Digital Transmission System(DTS) Unlicensed National Information Infrastructure (UNII)				
Date(s) of Tests	2025.09.22 ~ 2025.10.20				

1.2 Power Reduction for SAR

The Power Reductions are in section 8 of this test report.

1.3 Nominal and Maximum Output Power Specifications

The Nominal and Maximum Output Power Specifications are in section 8 of this test report.

1.4 DUT Antenna Locations

The closest distance between the antenna and the human body is 15 mm, details are in the OpDesc file.

1.5 Simultaneous Transmission Capabilities

The Simultaneous Transmission Capabilities are in section 11 of this test report.

1.6 Miscellaneous SAR Test Considerations

Licensed Transmitter(s)

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 D05v02r04.

This device supports LTE Carrier Aggregation (CA) in the downlink. All uplink communications are identical to Release 8 specifications. Per FCC KDB Publication 941225 D05v01r02, SAR for LTE 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. The downlink carrier aggregation exclusion analysis can be found in Downlink LTE CA RF Conducted Powers.

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

NR implementation supports SA and NSA mode. In EN-DC mode, NR operates with the LTE Bands shown in the NR RF1 checklist acting as anchor bands. Per FCC guidance, SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.

1.7 Guidance Applied

- IEEE 1528-2013
- IEC 62209-2 2010
- IEC 62209-2 2010/AMD1:2019
- IEC/IEEE 62209-1528:2020
- FCC KDB Publication 941225 D05v02r05 (SAR for LTE Devices)
- FCC KDB Publication 941225 D05Av01r02 (LTE Rel.10 KDB Inquiry Sheet)
- FCC KDB Publication 248227 D01v02r02 (802.11 Wi-Fi SAR)
- FCC KDB Publication 447498 D01v06 (General RF Exposure Guidance)
- FCC KDB Publication 690783 D01v01r03 (SAR Listings on Grants)
- FCC KDB Publication 865664 D01v01r04 (SAR Measurement 100 MHz to 6 GHz)
- FCC KDB Publication 865664 D02v01r02 (RF Exposure Reporting)
- October 2014 TCB Workshop Notes (Overlapping LTE Bands, Other LTE Considerations)
- April 2015 TCB Workshop Notes (Simultaneous transmission summation clarified)
- October 2016 TCB Workshop Notes (DUT Holder Perturbations)
- May 2017 TCB Workshop Notes (LTE Test Conditions)
- November 2017 TCB Workshop Notes (LTE UL/DL Carrier Aggregation SAR)
- April 2018 TCB Workshop Notes (LTE DLCA SAR Test Exclusion Update)
- April 2019 TCB Workshop Notes (Tissue Simulating Liquids)
- October 2020 TCB Workshop Notes (Intra-band and Inter-band NSA-EN-DC evaluation)
- April 2022 TCB Workshop Notes (5G NR FR1 Measurement)
- October 2022 TCB Workshop Notes (SAR test frequencies in multi-rule)

1.8 Device Serial Numbers

The serial numbers used for each test are indicated alongside the results in Section 10.

2. LTE AND NR INFORMATION

LTE Information			
Frequency Range of each LTE transmission Band	LTE Band 12 (699.7 ~ 715.3 MHz) LTE Band 14 (790.5 ~ 795.5 MHz) LTE Band 5 (Cell) (824.7 ~ 848.3 MHz) LTE Band 66 (AWS) (1 710.7 ~ 1 779.3 MHz) LTE Band 4 (AWS) (1 710.7 ~ 1 754.3 MHz) LTE Band 2 (PCS) (1 850.7 ~ 1 909.3 MHz)		
Channel Bandwidths	LTE Band 12 : 1.4 MHz, 3 MHz, 5 MHz, 10 MHz LTE Band 14 : 5 MHz, 10 MHz LTE Band 5 : 1.4 MHz, 3 MHz, 5 MHz, 10 MHz LTE Band 66 : 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz LTE Band 4 : 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz LTE Band 2 : 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz		
Channel Number and Frequencies(MHz)	Low	Mid	High
LTE Band 12: 1.4 MHz	699.7 (23017)	707.5 (23095)	715.3 (23173)
LTE Band 12: 3 MHz	700.5 (23025)	707.5 (23095)	714.5 (23165)
LTE Band 12: 5 MHz	701.5 (23035)	707.5 (23095)	713.5 (23155)
LTE Band 12: 10 MHz	704.0 (23060)	707.5 (23095) ^{Note1}	711.0 (23130)
LTE Band 14: 5 MHz	790.5(23305)	793.0(23330) ^{Note2}	795.5(23355)
LTE Band 14: 10 MHz	N/A	793.0(23330) ^{Note2}	N/A
LTE Band 5 (Cell): 1.4 MHz	824.7 (20407)	836.5 (20525)	848.3 (20643)
LTE Band 5 (Cell): 3 MHz	825.5 (20415)	836.5 (20525)	847.5 (20635)
LTE Band 5 (Cell): 5 MHz	826.5 (20425)	836.5 (20525)	846.5 (20625)
LTE Band 5 (Cell): 10 MHz	829.0 (20450)	836.5 (20525) ^{Note3}	844.0 (20600)
LTE Band 66 (AWS): 1.4 MHz	1 710.7 (131979)	1 745.0 (132322)	1 779.3 (132665)
LTE Band 66 (AWS): 3 MHz	1 711.5 (131987)	1 745.0 (132322)	1 778.5 (132657)
LTE Band 66 (AWS): 5 MHz	1 712.5 (131997)	1 745.0 (132322)	1 777.5 (132647)
LTE Band 66 (AWS): 10 MHz	1 715.0 (132022)	1 745.0 (132322)	1 775.0 (132622)
LTE Band 66 (AWS): 15 MHz	1 717.5 (132047)	1 745.0 (132322)	1 772.5 (132597)
LTE Band 66 (AWS): 20 MHz	1 720.0 (132072)	1 745.0 (132322)	1 770.0 (132572)
LTE Band 4 (AWS): 1.4 MHz	1 710.7 (19957)	1 732.5 (20175)	1 754.3 (20393)
LTE Band 4 (AWS): 3 MHz	1 711.5 (19965)	1 732.5 (20175)	1 753.5 (20385)
LTE Band 4 (AWS): 5 MHz	1 712.5 (19975)	1 732.5 (20175)	1 752.5 (20375)
LTE Band 4 (AWS): 10 MHz	1 715.0 (20000)	1 732.5 (20175)	1 750.0 (20350)
LTE Band 4 (AWS): 15 MHz	1 717.5 (20025)	1 732.5 (20175)	1 747.5 (20325)
LTE Band 4 (AWS): 20 MHz	1 720.0 (20050)	1 732.5 (20175) ^{Note4}	1 745.0 (20300)
LTE Band 2 (PCS): 1.4 MHz	1 850.7 (18607)	1 880.0 (18900)	1 909.3 (19193)
LTE Band 2 (PCS): 3 MHz	1 851.5 (18615)	1 880.0 (18900)	1 908.5 (19185)
LTE Band 2 (PCS): 5 MHz	1 852.5 (18625)	1 880.0 (18900)	1 907.5 (19175)
LTE Band 2 (PCS): 10 MHz	1 855.0 (18650)	1 880.0 (18900)	1 905.0 (19150)
LTE Band 2 (PCS): 15 MHz	1 857.5 (18675)	1 880.0 (18900)	1 902.5 (19125)
LTE Band 2 (PCS): 20 MHz	1 860.0 (18700)	1 880.0 (18900)	1 900.0 (19100)
UE Category	DL UE Cat 16, UL UE Cat 18		
Modulations Supported in UL	QPSK, 16QAM, 64QAM,		
LTE MPR Permanently implemented per 3GPP TS 36.101 section 6.2.3~6.2.5? (manufacturer attestation to be provided)	Yes		
A-MPR (Additional MPR) disabled for SAR Testing?	Yes		
LTE Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations		
LTE Additional Information	This device does not support full CA features on 3GPP Release 16. It supports only downlink carrier aggregation. All uplink communications are identical to the Release 8 Specifications. Uplink communications are done on the PCC. The following LTE Release 16 Features are not supported: Relay, HetNet, Enhanced MIMO, eICIC, WiFi Offloading, MDH, eMBMS, Cross-Carrier Scheduling, Enhanced SC-FDMA.		

Note(s)

1. LTE B12 can not contain three non-overlapping channels of 10 MHz bandwidth.
Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
2. LTE B14 can not contain three non-overlapping channels of 10 MHz, 5 MHz bandwidth.
Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
3. LTE B5 (Cell) can not contain three non-overlapping channels of 10 MHz bandwidth.
Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
4. LTE B4 (AWS) can not contain three non-overlapping channels of 20 MHz bandwidth.
Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

NR Information							
Frequency Range of each NR transmission Band	NR Band n12 (701.5 ~ 713.5 MHz) NR Band n5 (826.5 ~ 846.5 MHz) NR Band n66 (1 712.5 ~ 1 777.5 MHz) NR Band n2 (1 852.5 ~ 1 907.5 MHz) NR Band n77 (3 460.02 ~ 3 540.00 MHz, 3 710.01 ~ 3 969.99 MHz)						
Channel Bandwidths	NR Band n12: 5 MHz, 10 MHz, 15 MHz NR Band n5: 5 MHz, 10 MHz, 15 MHz, 20 MHz NR Band n66: 5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz NR Band n2: 5 MHz, 10 MHz, 15 MHz, 20 MHz NR Band n77: 20 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz						
Channel Number and Frequencies(MHz)	Low	Low-Mid	Mid-A	Mid	Mid-B	Mid-High	High
NR Band n12: 5 MHz	701.5 (140300)	N/A	N/A	707.5 (141500)	N/A	N/A	713.5 (142700)
NR Band n12: 10 MHz	704.0 (140800)	N/A	N/A	707.5 (141500) ^{Note1}	N/A	N/A	711.0 (142200)
NR Band n12: 15 MHz	706.5 (141300)	N/A	N/A	707.5 (141500) ^{Note1}	N/A	N/A	708.5 (141700)
NR Band n5: 5 MHz	826.5 (165300)	N/A	N/A	836.5 (167300)	N/A	N/A	846.5 (169300)
NR Band n5: 10 MHz	829.0 (165800)	N/A	N/A	836.5 (167300) ^{Note2}	N/A	N/A	844.0 (168800)
NR Band n5: 15 MHz	831.5 (166300)	N/A	N/A	836.5 (167300) ^{Note2}	N/A	N/A	841.5 (168300)
NR Band n5: 20 MHz	834.0 (166800)	N/A	N/A	836.5 (167300) ^{Note2}	N/A	N/A	839.0 (167800)
NR Band n66: 5 MHz	1 712.5 (342500)	N/A	N/A	1 745.0 (349000)	N/A	N/A	1 777.5 (355500)
NR Band n66: 10 MHz	1 715.0 (343000)	N/A	N/A	1 745.0 (349000)	N/A	N/A	1 775.0 (355000)
NR Band n66: 15 MHz	1 717.5 (343500)	N/A	N/A	1 745.0 (349000)	N/A	N/A	1 772.5 (354500)
NR Band n66: 20 MHz	1 720.0 (344000)	N/A	N/A	1 745.0 (349000)	N/A	N/A	1 770.0 (354000)
NR Band n66: 25 MHz	1 722.5 (344500)	N/A	N/A	1 745.0 (349000)	N/A	N/A	1 767.5 (353500)
NR Band n66: 30 MHz	1 725.0 (345000)	N/A	N/A	1 745.0 (349000)	N/A	N/A	1 765.0 (353000)
NR Band n66: 40 MHz	1 730.0 (346000)	N/A	N/A	1 745.0 (349000)	N/A	N/A	1 760.0 (352000)
NR Band n2: 5 MHz	1 852.5 (370500)	N/A	N/A	1 880.0 (376000)	N/A	N/A	1 907.5 (381500)
NR Band n2: 10 MHz	1 855.0 (371000)	N/A	N/A	1 880.0 (376000)	N/A	N/A	1 905.0 (381000)
NR Band n2: 15 MHz	1 857.5 (371500)	N/A	N/A	1 880.0 (376000)	N/A	N/A	1 902.5 (380500)
NR Band n2: 20 MHz	1 860.0 (372000)	N/A	N/A	1 880.0 (376000)	N/A	N/A	1 900.0 (380000)
NR Band n77 DoD: 20 MHz	3 460.02 (630668)	N/A	N/A	3 500.01 (633334)	N/A	N/A	3 540.00 (636000)
NR Band n77 DoD: 30 MHz	3 465.00 (631000)	N/A	N/A	3 500.01 (633334)	N/A	N/A	3 534.99 (635666)
NR Band n77 DoD: 40 MHz	3 470.01 (631334)	N/A	N/A	N/A	N/A	N/A	3 529.98 (635332)
NR Band n77 DoD: 50 MHz	3 475.02 (631668)	N/A	N/A	N/A	N/A	N/A	3 525.00 (635000)
NR Band n77 DoD: 60 MHz	N/A	N/A	N/A	3 500.01 (633334)	N/A	N/A	N/A
NR Band n77 DoD: 70 MHz	N/A	N/A	N/A	3 500.01 (633334)	N/A	N/A	N/A
NR Band n77 DoD: 80 MHz	N/A	N/A	N/A	3 500.01 (633334)	N/A	N/A	N/A
NR Band n77 DoD: 90 MHz	N/A	N/A	N/A	3 500.01 (633334)	N/A	N/A	N/A
NR Band n77 DoD: 100 MHz	N/A	N/A	N/A	3 500.01 (633334)	N/A	N/A	N/A
NR Band n77: 20 MHz	3 710.01 (647334)	3 762.00 (650800)	3 813.99 (654266)	N/A	3 866.01 (657734)	3 918.00 (661200)	3 969.99 (664666)
NR Band n77: 30 MHz	3 715.02 (647668)	3 765.00 (651000)	3 815.01 (654334)	N/A	3 864.99 (657666)	3 915.00 (661000)	3 964.98 (664332)
NR Band n77: 40 MHz	3 720.00 (648000)	3 768.00 (651200)	3 816.00 (654400)	N/A	3 864.00 (657800)	3 912.00 (660800)	3 960.00 (664000)
NR Band n77: 50 MHz	3 725.01 (648334)	3 762.49 (652166)	N/A	3 840.00 (656000)	N/A	3 897.51 (659834)	3 954.99 (663666)
NR Band n77: 60 MHz	3 730.02 (648668)	3 803.34 (653556)	N/A	N/A	N/A	3 976.66 (658444)	3 949.98 (663332)
NR Band n77: 70 MHz	3 735.00 (649000)	3 804.99 (653666)	N/A	N/A	N/A	3 875.01 (658334)	3 945.00 (663000)
NR Band n77: 80 MHz	3 740.01 (649334)	N/A	N/A	3 840.00 (656000)	N/A	N/A	3 939.99 (662666)
NR Band n77: 90 MHz	3 745.02 (649668)	N/A	N/A	3 840.00 (656000)	N/A	N/A	3 934.98 (662332)
NR Band n77: 100 MHz	3 750.00 (650000)	N/A	N/A	N/A	N/A	N/A	3 930.00 (662000)
SCS for NR Band n12/n5/n66/n2	15 kHz						
SCS for NR Band n77	30 kHz						
Modulations Supported in UL	DFT-s-OFDM: $\pi/2$ BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM						
A-MPR (Additional MPR) disabled for SAR Testing?	YES						
EN-DC Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations						
LTE Anchor Bands for NR Band n12	N/A						
LTE Anchor Bands for NR Band n5	66/2						
LTE Anchor Bands for NR Band n66	12/14/66/2						
LTE Anchor Bands for NR Band n2	12/14/5/66/2						
LTE Anchor Bands for NR Band n77	12/14/5/66/2						
LTE Anchor Bands for NR Band n77 DoD	12/14/5/66/2						

Note(s)

1. n12 can not contain three non-overlapping channels of 15 MHz, 10 MHz bandwidth. Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
2. n5 can not contain three non-overlapping channels of 20 MHz, 15 MHz, 10 MHz bandwidth. Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

3. INTROCUCTION

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

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. The measurement procedure described in IEEE/ANSI C95.3-2002 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 (rate) of the incremental energy (dU) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (ρ) It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body (see Fig. 3.1)

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

Fig. 3.1 SAR Mathematical Equation

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

$$SAR = \frac{\sigma \cdot E^2}{\rho}$$

where:

- σ = conductivity of the tissue-simulating material (S/m)
- ρ = mass density of the tissue-simulating material (kg/m³)
- E = 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.

4. DOSIMETRIC ASSESSMENT

4.1 Measurement Procedure

The evaluation was performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04:

1. The SAR distribution at the exposed side of the head or body was measured at a distance no greater than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the device-head and body interface and the horizontal grid resolution was determined per FCC KDB Publication 865664 D01v01r04 (See Table 4.1).
2. The point SAR measurement was taken at the maximum SAR region determined from Step 1 to enable the monitoring of SAR fluctuations/drifts during the 1g/10g cube evaluation. SAR at this fixed point was measured and used as a reference value.
3. Based on the area scan data, the peak of the region with maximum SAR was determined by spline interpolation. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB Publication 865664 D01v01r04 (See Table 4.1). On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (see references or the DASY manual online for more details):
 - a. SAR values at the inner surface of the phantom are extrapolated from the measured values along the line away from the surface with spacing no greater than that in Table 4.1. The extrapolation was based on a least-squares algorithm. A polynomial of the fourth order was calculated through the points in the z-axis (normal to the phantom shell).
 - b. After the maximum interpolated values were calculated between the points in the cube, the SAR was averaged over the spatial volume (1g or 10g) using a 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 then integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were obtained through interpolation, in order to calculate the averaged SAR.
 - 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 was complete to calculate the SAR drift. If the drift deviated by more than 5%, the SAR test and drift measurements were repeated.

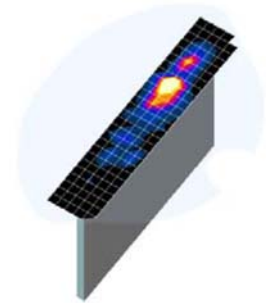


Figure 4.1
Sample SAR Area Scan

			≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5 mm $\pm$ 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2)$ mm $\pm$ 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30° $\pm$ 1°	20° $\pm$ 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 $\leq$ 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: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	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	$\Delta z_{Zoom}(1)$: between 1 st 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	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$ mm	
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 IEEE Std 1528-2013 for details.				
* When zoom scan is required and the <u>reported</u> SAR from the <u>area scan based 1-g SAR estimation</u> procedures of KDB Publication 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.				

Table 4.1 Area and Zoom Scan Resolutions per FCC KDB Publication 865664 D01v01r04*

5. TEST CONFIGURATION POSITIONS FOR HANDSETS

5.1 Device Holder

The device holder is made out of low-loss POM material having the following dielectric parameters: relative permittivity $\epsilon = 3$ and loss tangent $\delta = 0.02$.

5.2 Generic device

The SAR evaluation shall be performed for all surfaces of the DUT that are accessible during intended use, as indicated in Figure 5.1. The separation distance in testing shall correspond to the intended use distance as specified in the user instructions provided by the manufacturer. If the intended use is not specified, all surfaces of the DUT shall be tested directly against the flat phantom.

The surface of the generic device (or the surface of the carry accessory holding the DUT) pointing towards the flat phantom shall be parallel to the surface of the phantom.

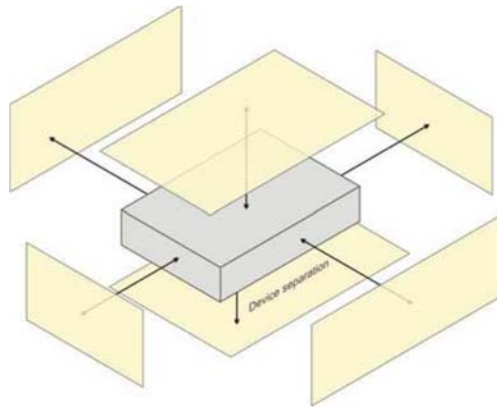


Figure 5.1 Test positions for a generic device

6. RF EXPOSURE LIMITS

Uncontrolled Environment:

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 made 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 Environment:

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 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.

Table 6.1.SAR Human Exposure Specified in ANSI/IEEE C95.1-1992

	HUMAN EXPOSURE LIMITS	
	General Public Exposure (W/kg) or (mW/g)	Occupational Exposure (W/kg) or (mW/g)
SPATIAL PEAK SAR * (Brain)	1.60	8.00
SPATIAL AVERAGE SAR ** (Whole Body)	0.08	0.40
SPATIAL PEAK SAR *** (Hands / Feet / Ankle / Wrist)	4.00	20.0

1. The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
2. The Spatial Average value of the SAR averaged over the whole body.
3. The Spatial Peak value of the SAR averaged over any 10 grams 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.

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).

7. FCC MEASUREMENT PROCEDURES

Power measurements were performed using a base station simulator under digital average power.

7.1 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.

7.2 Procedures Used to Establish RF Signal for SAR

The following procedures are according to FCC KDB Publication 941225 D01v03r01.

The device was placed into a simulated call using a base station simulator in a RF shielded chamber. Establishing connections in this manner ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. Devices under test were evaluated prior to testing, with a fully charged battery and were configured to operate at maximum output power. In order to verify that the device was tested throughout the SAR test at maximum output power, the SAR measurement system measures a “point SAR” at an arbitrary reference point at the start and end of the 1 gram SAR evaluation, to assess for any power drifts during the evaluation. If the power drift deviated by more than 5%, the SAR test and drift measurements were repeated.

7.3 SAR Measurement Conditions for LTE

LTE modes were tested according to FCC KDB 941225 D05v02r05 publication. Please see notes after the tabulated SAR data for required test configurations. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR. The call simulator was used for LTE output power measurement 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).

7.3.1 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.

7.3.2 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.

7.3.3 A-MPR

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

7.3.4 Required RB Size and RB Offsets for SAR Testing

According to FCC KDB 941225 D05v02r05:

- a. Per Section 5.2.1, 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 channel 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 Section 5.2.2, SAR is required for 50% RB allocation using the largest bandwidth following the same procedures outlined in Section 5.2.1.
- c. Per Section 5.2.3, 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. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
- d. Per Section 5.2.4 and 5.3, SAR tests for higher order modulations and lower bandwidths configurations are not required when the conducted power of the required test configurations determined by Sections 5.2.1 through 5.2.3 is less than or equal to 0.5 dB higher than the equivalent configuration using QPSK modulation and when the QPSK SAR for those configurations is < 1.45 W/kg.

7.3.5 64QAM uplink

(1) Per KDB 941225 D05 V02r05, we'll measure conducted powers per Section 5.1 for all uplink modulations (QPSK, 16QAM, 64QAM) and include in the test report.

(2) From these power measurements, we will apply the procedures in Section 5.2.4 ("Higher Order Modulations") to determine SAR test reduction for 16QAM and 64QAM test cases.

8. RF CONDUCTED POWERS

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

8.1 LTE Nominal and Maximum Output Power Spec and Conducted Powers

Band & Mode		Modulated Average[dBm]
LTE Band 12	Maximum	24.0
	Nominal	23.0

Table 8.1.1.1 Nominal and Maximum Output Power Spec

1. LTE Band 12

LTE Band 12 Conducted Power~ 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23095 (707.5 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	23.25	≤ 1	0
	1	25	23.45		
	1	49	23.43		
	25	0	22.29		1
	25	12	22.36		
	25	25	22.34		
16QAM	50	0	22.34	≤ 1	1
	1	0	22.35		1
	1	25	22.63		
	1	49	22.62		
	25	0	21.12		2
	25	12	21.30		
64QAM	25	25	21.28		
	50	0	21.27	≤ 2	2
	1	0	21.30		2
	1	25	21.63		
	1	49	21.50		
	25	0	20.16		3
16QAM	25	12	20.27		
	25	25	20.16		
	50	0	20.39	≤ 3	3
	1	0	21.30		2
	1	25	21.63		
	1	49	21.50		
64QAM	25	0	20.16		3
	25	12	20.27		
	25	25	20.16		
	50	0	20.39		3

Table 8.1.1.2 LTE Conducted Power

Note: LTE B12 can not contain three non-overlapping channels of 10 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

LTE Band 12 Conducted Power~ 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23035 (701.5 MHz)	23095 (707.5 MHz)	23155 (713.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	23.23	23.25	23.18	≤ 1	0
	1	12	23.35	23.31	23.31		
	1	24	23.25	23.16	23.26		
	12	0	22.22	22.17	22.26		1
	12	6	22.29	22.20	22.33		
	12	13	22.28	22.14	22.32		
	25	0	22.31	22.25	22.21		
16QAM	1	0	22.34	22.42	22.27	≤ 1	1
	1	12	22.54	22.46	22.41		
	1	24	22.34	22.21	22.33		
	12	0	21.38	21.31	21.27	≤ 2	2
	12	6	21.38	21.36	21.36		
	12	13	21.38	21.31	21.34		
	25	0	21.46	21.34	21.40		
64QAM	1	0	21.40	21.33	21.30	≤ 2	2
	1	12	21.51	21.42	21.42		
	1	24	21.40	21.31	21.22		
	12	0	20.24	20.20	20.30	≤ 3	3
	12	6	20.32	20.31	20.34		
	12	13	20.28	20.17	20.25		
	25	0	20.33	20.28	20.37		

Table 8.1.1.3 LTE Conducted Power

LTE Band 12 Conducted Power~ 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23025 (700.5 MHz)	23095 (707.5 MHz)	23165 (714.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	23.37	23.30	23.27	≤ 1	0
	1	7	23.44	23.37	23.29		
	1	14	23.35	23.33	23.20		
	8	0	22.28	22.09	22.14		1
	8	4	22.29	22.21	22.25		
	8	7	22.17	22.14	22.19		
	15	0	22.26	22.30	22.22		
16QAM	1	0	22.57	22.45	22.36	≤ 1	1
	1	7	22.62	22.49	22.38		
	1	14	22.53	22.47	22.34		
	8	0	21.37	21.27	21.26	≤ 2	2
	8	4	21.46	21.37	21.42		
	8	7	21.37	21.25	21.21		
	15	0	21.40	21.21	21.35		
64QAM	1	0	21.54	21.41	21.39	≤ 2	2
	1	7	21.57	21.50	21.44		
	1	14	21.51	21.49	21.33		
	8	0	20.40	20.23	20.25	≤ 3	3
	8	4	20.42	20.36	20.26		
	8	7	20.25	20.33	20.21		
	15	0	20.39	20.35	20.35		

Table 8.1.1.4 LTE Conducted Power

LTE Band 12 Conducted Power~ 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23017 (699.7 MHz)	23095 (707.5 MHz)	23173 (715.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	23.15	23.27	23.15	≤ 1	0
	1	2	23.24	23.43	23.29		
	1	5	23.22	23.39	23.24		
	3	0	23.29	23.36	23.20		0
	3	2	23.30	23.41	23.32		
	3	3	23.26	23.27	23.20		
	6	0	22.23	22.22	22.17		
16QAM	1	0	22.31	22.44	22.34	≤ 1	1
	1	2	22.43	22.52	22.39		
	1	5	22.23	22.47	22.38		
	3	0	22.49	22.37	22.34		1
	3	2	22.49	22.49	22.44		
	3	3	22.34	22.29	22.37		
	6	0	21.42	21.33	21.37		
64QAM	1	0	21.27	21.34	21.33	≤ 2	2
	1	2	21.39	21.46	21.36		
	1	5	21.22	21.45	21.26		
	3	0	21.21	21.42	21.25		2
	3	2	21.40	21.47	21.46		
	3	3	21.35	21.40	21.24		
	6	0	20.40	20.19	20.22		

Table 8.1.1.5 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 12	Maximum	21.0
	Nominal	20.0

Table 8.1.1-1.1 Nominal and Maximum Output Power Spec

1-1. LTE Band 12 (ENDC)

LTE Band 12 Conducted Power– 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23095 (707.5 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	20.24	≤ 1	0
	1	25	20.50		1
	1	49	20.37		
	25	0	19.38		
	25	12	19.48		
	25	25	19.41		
	50	0	19.38		1
16QAM	1	0	19.33	≤ 1	1
	1	25	19.57		
	1	49	19.44		
	25	0	18.48	≤ 2	2
	25	12	18.54		
	25	25	18.45		
	50	0	18.46		
64QAM	1	0	18.26	≤ 2	2
	1	25	18.54		
	1	49	18.41		
	25	0	17.46	≤ 3	3
	25	12	17.56		
	25	25	17.45		
	50	0	17.49		

Table 8.1.1-1.2 LTE Conducted Power

Note: LTE B12 can not contain three non-overlapping channels of 10 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

LTE Band 12 Conducted Power- 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23035 (701.5 MHz)	23095 (707.5 MHz)	23155 (713.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	20.29	20.15	20.10	≤ 1	0
	1	12	20.44	20.37	20.32		
	1	24	20.06	19.99	20.14		
	12	0	19.08	18.97	19.16		1
	12	6	19.34	19.26	19.40		
	12	13	19.14	19.08	19.24		
	25	0	19.29	19.15	19.14		
16QAM	1	0	19.33	19.23	19.19	≤ 1	1
	1	12	19.50	19.45	19.37		
	1	24	19.12	19.07	19.19		
	12	0	18.13	18.05	18.24		≤ 2
	12	6	18.47	18.37	18.49		
	12	13	18.26	18.17	18.33		
	25	0	18.33	18.29	18.18		
64QAM	1	0	18.37	18.21	18.19	≤ 2	2
	1	12	18.57	18.47	18.35		
	1	24	18.19	18.09	18.17		
	12	0	17.15	17.04	17.19	≤ 3	3
	12	6	17.44	17.38	17.50		
	12	13	17.24	17.17	17.29		
	25	0	17.33	17.28	17.17		

Table 8.1.1-1.3 LTE Conducted Power

LTE Band 12 Conducted Power~ 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23025 (700.5 MHz)	23095 (707.5 MHz)	23165 (714.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	20.27	20.15	20.11	≤ 1	0
	1	7	20.47	20.33	20.29		
	1	14	20.30	20.25	20.11		
	8	0	19.30	18.96	19.05		
	8	4	19.38	19.29	19.21		1
	8	7	19.19	19.07	19.06		
	15	0	19.29	19.25	19.16		1
16QAM	1	0	19.30	19.29	19.19	≤ 1	1
	1	7	19.54	19.40	19.37		
	1	14	19.36	19.32	19.19		
	8	0	18.37	18.06	18.16		
	8	4	18.46	18.30	18.30		2
	8	7	18.26	18.14	18.14		
	15	0	18.30	18.30	18.16		2
64QAM	1	0	18.37	18.24	18.18	≤ 2	2
	1	7	18.57	18.44	18.38		
	1	14	18.39	18.36	18.20		
	8	0	17.36	17.05	17.17		
	8	4	17.41	17.34	17.31		3
	8	7	17.29	17.15	17.07		
	15	0	17.36	17.31	17.17		3

Table 8.1.1-1.4 LTE Conducted Power

LTE Band 12 Conducted Power~ 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23017 (699.7 MHz)	23095 (707.5 MHz)	23173 (715.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	20.24	20.20	20.11	≤ 1	0
	1	2	20.25	20.38	20.29		
	1	5	20.23	20.30	20.11		
	3	0	20.25	20.24	20.15		
	3	2	20.36	20.44	20.31		0
	3	3	20.14	20.24	20.13		
	6	0	19.25	19.14	19.12		1
16QAM	1	0	19.33	19.26	19.19	≤ 1	1
	1	2	19.38	19.46	19.42		
	1	5	19.36	19.38	19.24		
	3	0	19.33	19.38	19.19		
	3	2	19.42	19.58	19.36		1
	3	3	19.27	19.37	19.17		
	6	0	18.30	18.27	18.20		2
64QAM	1	0	18.28	18.24	18.17	≤ 2	2
	1	2	18.35	18.46	18.36		
	1	5	18.30	18.38	18.18		
	3	0	18.30	18.30	18.19		
	3	2	18.47	18.51	18.39		2
	3	3	18.20	18.30	18.21		
	6	0	17.39	17.22	17.23		3

Table 8.1.1-1.5 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 12	Maximum	11.0
	Nominal	10.0

Table 8.1.1-2.1 Nominal and Maximum Output Power Spec

1-2. LTE Band 12 (ENDC)

LTE Band 12 Conducted Power- 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23095 (707.5 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	10.31	≤ 1	0
	1	25	10.74		
	1	49	10.38		
	25	0	9.27		1
	25	12	9.39		
	25	25	9.39		
16QAM	50	0	9.33	≤ 1	1
	1	0	9.37		
	1	25	9.58		
	1	49	9.50		2
	25	0	8.35		
	25	12	8.47		
64QAM	25	25	8.45	≤ 2	2
	50	0	8.37		
	1	0	8.42		3
	1	25	8.62		
	1	49	8.44		
	25	0	7.33	≤ 3	3
64QAM	25	12	7.51		
	25	25	7.48		
	50	0	7.36		

Table 8.1.1-2.2 LTE Conducted Power

Note: LTE B12 can not contain three non-overlapping channels of 10 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

LTE Band 12 Conducted Power- 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23035 (701.5 MHz)	23095 (707.5 MHz)	23155 (713.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	10.26	10.17	10.15	≤ 1	0
	1	12	10.44	10.38	10.34		
	1	24	10.26	10.23	10.23		
	12	0	9.23	9.19	9.22		
	12	6	9.30	9.24	9.29		
	12	13	9.16	9.05	9.26		
	25	0	9.27	9.19	9.18	1	
16QAM	1	0	9.39	9.29	9.21	≤ 1	1
	1	12	9.50	9.47	9.36		
	1	24	9.32	9.32	9.25		
	12	0	8.29	8.29	8.32	≤ 2	2
	12	6	8.33	8.31	8.33		
	12	13	8.25	8.11	8.32		
	25	0	8.31	8.26	8.28		
64QAM	1	0	8.31	8.28	8.21	≤ 2	2
	1	12	8.50	8.43	8.40		
	1	24	8.32	8.28	8.29		
	12	0	7.29	7.26	7.27	≤ 3	3
	12	6	7.33	7.35	7.38		
	12	13	7.26	7.17	7.33		
	25	0	7.31	7.31	7.23		

Table 8.1.1-2.3 LTE Conducted Power

LTE Band 12 Conducted Power~ 3 MHz Bandwidth										
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)			
			23025 (700.5 MHz)	23095 (707.5 MHz)	23165 (714.5 MHz)					
			Conducted Power (dBm)							
QPSK	1	0	10.27	10.19	10.27	≤ 1	0			
	1	7	10.42	10.35	10.29					
	1	14	10.34	10.27	10.11					
	8	0	9.28	8.94	9.15		1			
	8	4	9.37	9.24	9.26					
	8	7	9.16	9.08	9.17					
	15	0	9.23	9.27	9.25					
	1	0	9.32	9.27	9.34			≤ 1	1	
1	7	9.52	9.38	9.37						
1	14	9.44	9.30	9.16						
16QAM	8	0	8.35	8.05	8.18	≤ 2	2			
	8	4	8.46	8.30	8.30					
	8	7	8.25	8.11	8.29					
	15	0	8.34	8.33	8.38		2			
	64QAM	1	0	8.35	8.21				8.32	≤ 2
		1	7	8.56	8.46			8.35		
		1	14	8.48	8.38			8.17		
		8	0	7.36	7.01			7.18	≤ 3	
8		4	7.46	7.35	7.26					
8		7	7.23	7.15	7.24					
15		0	7.42	7.30	7.34	3				

Table 8.1.1-2.4 LTE Conducted Power

LTE Band 12 Conducted Power~ 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23017 (699.7 MHz)	23095 (707.5 MHz)	23173 (715.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	10.26	10.20	10.14	≤ 1	0
	1	2	10.30	10.37	10.34		
	1	5	10.29	10.35	10.16		
	3	0	10.27	10.38	10.16		
	3	2	10.37	10.48	10.25		0
	3	3	10.18	10.27	10.21		
	6	0	9.22	9.17	9.15		
	6	0	9.22	9.17	9.15		
16QAM	1	0	9.28	9.29	9.20	≤ 1	1
	1	2	9.32	9.44	9.42		
	1	5	9.30	9.42	9.24		
	3	0	9.33	9.40	9.20		
	3	2	9.41	9.55	9.31		1
	3	3	9.26	9.32	9.26		
	6	0	8.26	8.25	8.25		
	6	0	8.26	8.25	8.25		
64QAM	1	0	8.28	8.24	8.20	≤ 2	2
	1	2	8.31	8.44	8.34		
	1	5	8.30	8.42	8.16		
	3	0	8.30	8.44	8.19		
	3	2	8.48	8.57	8.34		2
	3	3	8.21	8.34	8.32		
	6	0	7.33	7.25	7.17		
	6	0	7.33	7.25	7.17		

Table 8.1.1-2.5 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 12	Maximum	-4.0
	Nominal	-5.0

Table 8.1.1-3.1 Nominal and Maximum Output Power Spec

1-3. LTE Band 12 (ENDC)

LTE Band 12 Conducted Power- 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23095 (707.5 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	-4.74	≤ 1	0
	1	25	-4.42		
	1	49	-4.95		
	25	0	-5.90		1
	25	12	-5.56		
	25	25	-5.86		
16QAM	50	0	-5.63	≤ 1	1
	1	0	-5.70		
	1	25	-5.48		
	1	49	-5.86		2
	25	0	-6.90		
	25	12	-6.54		
64QAM	25	25	-6.74	≤ 2	2
	50	0	-6.73		
	1	0	-6.68		
	1	25	-6.48		3
	1	49	-6.86		
	25	0	-7.81		
64QAM	25	12	-7.56	≤ 3	3
	25	25	-7.72		
	50	0	-7.77		

Table 8.1.1-3.2 LTE Conducted Power

Note: LTE B12 can not contain three non-overlapping channels of 10 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

LTE Band 12 Conducted Power- 5 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)	
			23035 (701.5 MHz)	23095 (707.5 MHz)	23155 (713.5 MHz)			
			Conducted Power (dBm)					
QPSK	1	0	-4.61	-4.75	-4.80	≤ 1	0	
	1	12	-4.52	-4.53	-4.59			
	1	24	-4.80	-4.91	-4.97			
	12	0	-5.81	-5.94	-5.94		1	
	12	6	-5.70	-5.82	-5.88			
	12	13	-5.74	-5.86	-5.89			
	25	0	-5.76	-5.75	-5.79			
16QAM	1	0	-5.56	-5.67	-5.65	≤ 1	1	
	1	12	-5.41	-5.44	-5.50			
	1	24	-5.79	-5.82	-5.88			
	12	0	-6.77	-6.90	-6.85		≤ 2	2
	12	6	-6.63	-6.71	-6.75			
	12	13	-6.65	-6.76	-6.78			
	25	0	-6.63	-6.65	-6.67			
64QAM	1	0	-6.52	-6.63	-6.66	≤ 2	2	
	1	12	-6.33	-6.50	-6.53			
	1	24	-6.71	-6.88	-6.91			
	12	0	-7.76	-7.83	-7.86		≤ 3	3
	12	6	-7.67	-7.73	-7.79			
	12	13	-7.70	-7.79	-7.81			
	25	0	-7.60	-7.64	-7.71			

Table 8.1.1-3.3 LTE Conducted Power

LTE Band 12 Conducted Power~ 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23025 (700.5 MHz)	23095 (707.5 MHz)	23165 (714.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-4.60	-4.70	-4.77	≤ 1	0
	1	7	-4.43	-4.58	-4.58		
	1	14	-4.81	-4.96	-4.96		
	8	0	-5.83	-5.95	-5.98		1
	8	4	-5.60	-5.61	-5.66		
	8	7	-5.76	-5.84	-5.88		
	15	0	-5.84	-5.96	-5.97		
16QAM	1	0	-5.58	-5.63	-5.65	≤ 1	1
	1	7	-5.40	-5.43	-5.49		
	1	14	-5.78	-5.81	-5.87		
	8	0	-6.76	-6.86	-6.86	≤ 2	2
	8	4	-6.45	-6.60	-6.56		
	8	7	-6.63	-6.72	-6.81		
	15	0	-6.75	-6.84	-6.94		
64QAM	1	0	-6.51	-6.63	-6.71	≤ 2	2
	1	7	-6.36	-6.46	-6.52		
	1	14	-6.74	-6.84	-6.90		
	8	0	-7.72	-7.87	-7.92	≤ 3	3
	8	4	-7.45	-7.51	-7.56		
	8	7	-7.66	-7.73	-7.75		
	15	0	-7.75	-7.87	-7.94		

Table 8.1.1-3.4 LTE Conducted Power

LTE Band 12 Conducted Power~ 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23017 (699.7 MHz)	23095 (707.5 MHz)	23173 (715.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-4.80	-5.05	-5.08	≤ 1	0
	1	2	-4.65	-4.72	-4.76		
	1	5	-4.83	-4.84	-4.88		
	3	0	-4.96	-4.73	-4.79		0
	3	2	-4.84	-4.60	-4.69		
	3	3	-4.96	-4.70	-4.74		
	6	0	-5.92	-5.71	-5.76		
16QAM	1	0	-5.78	-5.91	-5.99	≤ 1	1
	1	2	-5.57	-5.65	-5.72		
	1	5	-5.75	-5.77	-5.84		
	3	0	-5.84	-5.70	-5.67		1
	3	2	-5.77	-5.57	-5.57		
	3	3	-5.82	-5.63	-5.69		
	6	0	-6.84	-6.64	-6.69		
64QAM	1	0	-6.78	-6.91	-7.03	≤ 2	2
	1	2	-6.53	-6.70	-6.71		
	1	5	-6.71	-6.82	-6.83		
	3	0	-6.88	-6.63	-6.74		2
	3	2	-6.75	-6.60	-6.57		
	3	3	-6.86	-6.68	-6.73		
	6	0	-7.83	-7.63	-7.69		
					≤ 3	3	

Table 8.1.1-3.5 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 14	Maximum	24.0
	Nominal	23.0

Table 8.1.2.1 Nominal and Maximum Output Power Spec

2. LTE Band 14

LTE Band 14 Conducted Power- 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23330 (793.0 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	23.40	≤ 1	0
	1	25	23.44		
	1	49	23.39		
	25	0	22.23		1
	25	12	22.34		
	25	25	22.29		
	50	0	22.27		1
16QAM	1	0	22.58	≤ 1	1
	1	25	22.62		
	1	49	22.58		
	25	0	21.33	≤ 2	2
	25	12	21.38		
	25	25	21.31		
	50	0	21.26		
64QAM	1	0	21.47	≤ 2	2
	1	25	21.60		
	1	49	21.51		
	25	0	20.27	≤ 3	3
	25	12	20.29		
	25	25	20.21		
	50	0	20.25		

Table 8.1.2.2 LTE Conducted Power

LTE Band 14 Conducted Power- 5 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23330 (793.0 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	23.21	≤ 1	0
	1	12	23.29		
	1	24	23.17		
	12	0	22.19		1
	12	6	22.22		
	12	13	22.17		
	25	0	22.19		1
16QAM	1	0	22.32	≤ 1	1
	1	12	22.43		
	1	24	22.15		
	12	0	21.14	≤ 2	2
	12	6	21.25		
	12	13	21.10		
	25	0	21.20		
64QAM	1	0	21.37	≤ 2	2
	1	12	21.39		
	1	24	21.32		
	12	0	20.16	≤ 3	3
	12	6	20.18		
	12	13	20.15		
	25	0	20.15		

Table 8.1.2.3 LTE Conducted Power

Note: LTE B14 can not contain three non-overlapping channels of 5 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

Band & Mode		Modulated Average[dBm]
LTE Band 14	Maximum	21.0
	Nominal	20.0

Table 8.1.2-1.1 Nominal and Maximum Output Power Spec

2-1. LTE Band 14 (ENDC)

LTE Band 14 Conducted Power- 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23330 (793.0 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	20.36	≤ 1	0
	1	25	20.48		
	1	49	20.40		
	25	0	19.36		1
	25	12	19.40		
	25	25	19.27		
	50	0	19.25		
16QAM	1	0	19.44	≤ 1	1
	1	25	19.51		
	1	49	19.43		
	25	0	18.42		
	25	12	18.48	≤ 2	2
	25	25	18.33		
	50	0	18.37		
64QAM	1	0	18.45	≤ 2	2
	1	25	18.50		
	1	49	18.42		
	25	0	17.45		
	25	12	17.49	≤ 3	3
	25	25	17.30		
	50	0	17.30		

Table 8.1.2-1.2 LTE Conducted Power

LTE Band 14 Conducted Power- 5 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23330 (793.0 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	20.24	≤ 1	0
	1	12	20.36		
	1	24	20.18		
	12	0	19.20		1
	12	6	19.26		
	12	13	19.25		
	25	0	19.15	1	
16QAM	1	0	19.31	≤ 1	1
	1	12	19.42		
	1	24	19.24		
	12	0	18.28	≤ 2	2
	12	6	18.37		
	12	13	18.34		
	25	0	18.26	2	
64QAM	1	0	18.34	≤ 2	2
	1	12	18.39		
	1	24	18.21		
	12	0	17.27	≤ 3	3
	12	6	17.35		
	12	13	17.31		
	25	0	17.23		3

Table 8.1.2-1.3 LTE Conducted Power

Note: LTE B14 can not contain three non-overlapping channels of 5 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

Band & Mode		Modulated Average[dBm]
LTE Band 14	Maximum	11.0
	Nominal	10.0

Table 8.1.2-2.1 Nominal and Maximum Output Power Spec

2-2. LTE Band 14 (ENDC)

LTE Band 14 Conducted Power- 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23330 (793.0 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	10.34	≤ 1	0
	1	25	10.53		
	1	49	10.35		
	25	0	9.16		1
	25	12	9.50		
	25	25	9.29		
	50	0	9.21		1
16QAM	1	0	9.46	≤ 1	1
	1	25	9.63		
	1	49	9.45		
	25	0	8.24	≤ 2	2
	25	12	8.53		
	25	25	8.31		
	50	0	8.25		
64QAM	1	0	8.40	≤ 2	2
	1	25	8.64		
	1	49	8.46		
	25	0	7.29	≤ 3	3
	25	12	7.59		
	25	25	7.39		
	50	0	7.23		

Table 8.1.2-2.2 LTE Conducted Power

LTE Band 14 Conducted Power- 5 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23330 (793.0 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	10.34	≤ 1	0
	1	12	10.36		
	1	24	10.16		
	12	0	9.19		1
	12	6	9.27		
	12	13	9.25		
	25	0	9.15		1
16QAM	1	0	9.41	≤ 1	1
	1	12	9.42		
	1	24	9.24		
	12	0	8.29	≤ 2	2
	12	6	8.37		
	12	13	8.35		
	25	0	8.23		
64QAM	1	0	8.41	≤ 2	2
	1	12	8.46		
	1	24	8.28		
	12	0	7.27	≤ 3	3
	12	6	7.31		
	12	13	7.30		
	25	0	7.20		

Table 8.1.2-2.3 LTE Conducted Power

Note: LTE B14 can not contain three non-overlapping channels of 5 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

Band & Mode		Modulated Average[dBm]
LTE Band 14	Maximum	-4.0
	Nominal	-5.0

Table 8.1.2-3.1 Nominal and Maximum Output Power Spec

2-3. LTE Band 14 (ENDC)

LTE Band 14 Conducted Power- 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23330 (793.0 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	-4.61	≤ 1	0
	1	25	-4.44		
	1	49	-4.54		
	25	0	-5.55		1
	25	12	-5.51		
	25	25	-5.70		
16QAM	50	0	-5.52	≤ 1	1
	1	0	-5.51		1
	1	25	-5.38		
	1	49	-5.46		
	25	0	-6.49		2
	25	12	-6.46		
64QAM	25	25	-6.68		
	50	0	-6.45	≤ 2	2
	1	0	-6.57		2
	1	25	-6.34		
	1	49	-6.42		
	25	0	-7.49		3
	25	12	-7.43		
	25	25	-7.66		
	50	0	-7.45	≤ 3	3

Table 8.1.2-3.2 LTE Conducted Power

LTE Band 14 Conducted Power- 5 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23330 (793.0 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	-4.72	≤ 1	0
	1	12	-4.57		
	1	24	-4.65		
	12	0	-5.65		1
	12	6	-5.60		
	12	13	-5.85		
16QAM	25	0	-5.63	≤ 1	1
	1	0	-5.61		1
	1	12	-5.51		
	1	24	-5.59		
	12	0	-6.58		2
	12	6	-6.52		
64QAM	12	13	-6.78		
	25	0	-6.53	≤ 2	2
	1	0	-6.62		2
	1	12	-6.44		
	1	24	-6.52		
	12	0	-7.56		3
	12	6	-7.52		
	12	13	-7.76		
	25	0	-7.55	≤ 3	3

Table 8.1.2-3.3 LTE Conducted Power

Note: LTE B14 can not contain three non-overlapping channels of 5 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

Band & Mode		Modulated Average[dBm]
LTE Band 5	Maximum	24.0
	Nominal	23.0

Table 8.1.3.1 Nominal and Maximum Output Power Spec

3. LTE Band 5 (Cell)

LTE Band 5 (Cell) Conducted Power- 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20525 (836.5 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	23.14	≤ 1	0
	1	25	23.15		
	1	49	23.09		
	25	0	22.01		1
	25	12	22.20		
	25	25	22.19		
	50	0	22.14		1
16QAM	1	0	22.15	≤ 1	1
	1	25	22.29		
	1	49	22.26		
	25	0	21.09	≤ 2	2
	25	12	21.17		
	25	25	21.07		
	50	0	21.01		
64QAM	1	0	21.24	≤ 2	2
	1	25	21.29		
	1	49	21.26		
	25	0	20.15	≤ 3	3
	25	12	20.18		
	25	25	20.15		
	50	0	20.09		

Table 8.1.3.2 LTE Conducted Power

Note: LTE B26 can not contain three non-overlapping channels of 10 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

LTE Band 5 (Cell) Conducted Power- 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20425 (826.5 MHz)	20525 (836.5 MHz)	20625 (846.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	23.01	23.06	22.98	≤ 1	0
	1	12	23.09	23.09	23.09		
	1	24	22.93	23.06	22.91		
	12	0	21.98	22.03	22.05		1
	12	6	22.02	22.18	22.08		
	12	13	22.01	22.17	22.01		
	25	0	21.96	21.98	21.96		
16QAM	1	0	22.12	22.14	22.09	≤ 1	1
	1	12	22.27	22.17	22.27		
	1	24	22.05	22.16	22.03		
	12	0	21.10	21.10	20.97	≤ 2	2
	12	6	21.14	21.13	21.16		
	12	13	21.09	21.11	20.99		
	25	0	21.07	21.10	21.06		
64QAM	1	0	21.14	21.12	21.16	≤ 2	2
	1	12	21.21	21.21	21.28		
	1	24	21.01	21.03	21.06		
	12	0	20.04	20.10	20.00	≤ 3	3
	12	6	20.18	20.12	20.13		
	12	13	20.11	20.11	20.10		
	25	0	20.02	20.15	20.03		

Table 8.1.3.3 LTE Conducted Power

LTE Band 5 (Cell) Conducted Power- 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20415 (825.5 MHz)	20525 (836.5 MHz)	20635 (847.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.87	23.08	22.95	≤ 1	0
	1	7	22.97	23.12	23.08		
	1	14	22.90	23.10	22.71		
	8	0	21.90	21.99	21.95		1
	8	4	22.01	22.13	22.10		
	8	7	22.00	22.10	22.00		
	15	0	22.03	21.96	21.94		1
16QAM	1	0	21.95	22.22	22.14	≤ 1	1
	1	7	22.09	22.24	22.22		
	1	14	22.08	22.23	21.84		
	8	0	21.01	21.00	21.06	≤ 2	2
	8	4	21.17	21.09	21.07		
	8	7	21.15	21.06	21.03		
	15	0	21.14	21.07	21.10		2
64QAM	1	0	21.06	21.15	21.12	≤ 2	2
	1	7	21.15	21.30	21.23		
	1	14	21.04	21.17	20.80		
	8	0	20.07	20.11	20.00	≤ 3	3
	8	4	20.16	20.24	20.18		
	8	7	20.14	20.14	19.96		
	15	0	20.22	20.03	20.04		3

Table 8.1.3.4 LTE Conducted Power

LTE Band 5 (Cell) Conducted Power- 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20407 (824.7 MHz)	20525 (836.5 MHz)	20643 (848.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	23.04	22.94	22.81	0	0
	1	2	23.04	23.09	22.84		
	1	5	22.94	23.09	22.77		
	3	0	22.93	23.06	22.64	0	0
	3	2	22.97	23.09	22.72		
	3	3	22.90	22.92	22.64		
	6	0	21.96	21.96	21.90	0-1	1
16QAM	1	0	22.16	21.99	21.90	0-1	1
	1	2	22.21	22.19	21.96		
	1	5	22.04	22.12	21.88		
	3	0	22.05	22.04	21.77	0-1	1
	3	2	22.09	22.15	21.86		
	3	3	22.02	22.00	21.76		
	6	0	21.08	21.14	21.09	0-2	2
64QAM	1	0	20.94	20.98	20.98	0-2	2
	1	2	21.11	21.20	21.00		
	1	5	21.04	21.14	20.89		
	3	0	20.99	20.97	20.82	0-2	2
	3	2	21.11	21.10	20.89		
	3	3	21.06	20.99	20.69		
	6	0	20.07	20.11	20.05	0-3	3

Table 8.1.3.5 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 5	Maximum	21.0
	Nominal	20.0

Table 8.1.3-1.1 Nominal and Maximum Output Power Spec

3-1. LTE Band 5 (Cell) (ENDC)

LTE Band 5 (Cell) Conducted Power- 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20525 (836.5 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	20.18	≤ 1	0
	1	25	20.28		
	1	49	20.00		
	25	0	18.97		1
	25	12	19.21		
	25	25	19.06		
	50	0	19.10		1
16QAM	1	0	19.20	≤ 1	1
	1	25	19.26		
	1	49	19.02		
	25	0	18.06	≤ 2	2
	25	12	18.19		
	25	25	18.13		
	50	0	18.04		
64QAM	1	0	18.22	≤ 2	2
	1	25	18.27		
	1	49	18.04		
	25	0	17.00	≤ 3	3
	25	12	17.17		
	25	25	17.15		
	50	0	17.03		

Table 8.1.3-1.2 LTE Conducted Power

Note: LTE B26 can not contain three non-overlapping channels of 10 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

LTE Band 5 (Cell) Conducted Power- 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20425 (826.5 MHz)	20525 (836.5 MHz)	20625 (846.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	20.02	19.96	19.94	≤ 1	0
	1	12	20.06	20.17	20.14		
	1	24	19.87	19.99	19.91		
	12	0	18.89	18.98	18.90		1
	12	6	19.14	19.08	19.00		
	12	13	18.97	19.06	18.86		
	25	0	18.88	18.97	18.87		
16QAM	1	0	19.10	19.05	19.03	≤ 1	1
	1	12	19.14	19.25	19.23		
	1	24	18.92	19.07	19.00		
	12	0	17.96	18.09	17.98	≤ 2	2
	12	6	18.26	18.18	18.10		
	12	13	18.03	18.11	17.95		
	25	0	17.98	18.05	17.95		
64QAM	1	0	18.12	18.01	17.98	≤ 2	2
	1	12	18.16	18.27	18.16		
	1	24	17.98	18.09	17.93		
	12	0	16.94	17.07	16.92	≤ 3	3
	12	6	17.20	17.15	17.06		
	12	13	17.01	17.10	16.90		
	25	0	16.97	17.06	16.96		

Table 8.1.3-1.3 LTE Conducted Power

LTE Band 5 (Cell) Conducted Power- 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20415 (825.5 MHz)	20525 (836.5 MHz)	20635 (847.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	20.04	19.99	19.94	≤ 1	0
	1	7	20.06	20.17	20.10		
	1	14	19.88	19.79	19.72		
	8	0	18.89	18.76	18.74		1
	8	4	19.17	19.07	19.03		
	8	7	18.97	18.85	18.84		
	15	0	18.84	18.75	18.73		1
16QAM	1	0	19.14	19.07	19.04	≤ 1	1
	1	7	19.17	19.26	19.14		
	1	14	18.90	18.88	18.76		
	8	0	17.93	17.82	17.82	≤ 2	2
	8	4	18.29	18.12	18.15		
	8	7	18.00	17.91	17.93		
	15	0	17.99	17.80	17.82		2
64QAM	1	0	18.17	18.08	18.03	≤ 2	2
	1	7	18.19	18.25	18.15		
	1	14	17.97	17.87	17.77		
	8	0	16.95	16.89	16.77	≤ 3	3
	8	4	17.24	17.17	17.08		
	8	7	17.05	16.97	16.93		
	15	0	16.97	16.84	16.77		3

Table 8.1.3-1.4 LTE Conducted Power

LTE Band 5 (Cell) Conducted Power~ 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20407 (824.7 MHz)	20525 (836.5 MHz)	20643 (848.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	20.04	19.94	19.90	0	0
	1	2	20.05	20.14	20.10		
	1	5	19.86	19.96	19.72		
	3	0	19.87	19.95	19.71	0	0
	3	2	19.97	20.09	20.04		
	3	3	19.94	19.85	19.86		
	6	0	18.88	18.80	18.76	0-1	1
16QAM	1	0	19.13	19.04	18.98	0-1	1
	1	2	19.19	19.24	19.16		
	1	5	18.95	19.06	18.78		
	3	0	18.90	19.07	18.85	0-1	1
	3	2	19.04	19.13	19.13		
	3	3	19.03	18.99	18.88		
	6	0	17.94	17.82	17.79	0-2	2
64QAM	1	0	18.12	18.05	18.02	0-2	2
	1	2	18.17	18.19	18.14		
	1	5	17.99	18.01	17.76		
	3	0	17.94	18.09	17.82	0-2	2
	3	2	18.03	18.11	18.08		
	3	3	18.01	17.90	17.91		
	6	0	16.99	16.86	16.80	0-3	3

Table 8.1.3-1.5 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 5	Maximum	11.0
	Nominal	10.0

Table 8.1.3-2.1 Nominal and Maximum Output Power Spec

3-2. LTE Band 5 (Cell) (ENDC)

LTE Band 5 (Cell) Conducted Power- 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20525 (836.5 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	10.03	≤ 1	0
	1	25	10.13		
	1	49	9.99		
	25	0	8.96		1
	25	12	9.20		
	25	25	9.08		
	50	0	9.08		1
16QAM	1	0	8.99	≤ 1	1
	1	25	9.16		
	1	49	9.05		
	25	0	8.01	≤ 2	2
	25	12	8.12		
	25	25	7.90		
	50	0	7.97		
64QAM	1	0	8.10	≤ 2	2
	1	25	8.20		
	1	49	8.13		
	25	0	7.01	≤ 3	3
	25	12	7.11		
	25	25	7.05		
	50	0	6.97		

Table 8.1.3-2.2 LTE Conducted Power

Note: LTE B26 can not contain three non-overlapping channels of 10 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

LTE Band 5 (Cell) Conducted Power- 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20425 (826.5 MHz)	20525 (836.5 MHz)	20625 (846.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	10.02	10.02	9.97	≤ 1	0
	1	12	10.06	10.11	9.99		
	1	24	9.90	10.04	9.77		
	12	0	9.03	8.95	8.90		1
	12	6	9.07	9.16	9.04		
	12	13	8.93	9.14	8.99		
	25	0	8.84	8.83	8.94		1
	16QAM	1	0	9.01	9.17		8.99
1		12	9.15	9.18	9.19		
1		24	9.03	9.13	8.78		
12		0	8.15	8.06	7.86	≤ 2	2
12		6	8.20	8.13	8.09		
12		13	8.07	8.05	7.96		
25		0	7.94	7.93	8.05		
64QAM		1	0	8.10	8.07	7.99	≤ 2
	1	12	8.12	8.17	8.00		
	1	24	7.92	8.00	7.93		
	12	0	7.10	7.05	6.88	≤ 3	3
	12	6	7.17	7.06	6.99		
	12	13	6.96	7.03	6.98		
	25	0	6.95	6.99	6.91		

Table 8.1.3-2.3 LTE Conducted Power

LTE Band 5 (Cell) Conducted Power- 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20415 (825.5 MHz)	20525 (836.5 MHz)	20635 (847.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.87	9.97	9.94	≤ 1	0
	1	7	9.90	10.10	10.05		
	1	14	9.84	9.98	9.72		
	8	0	8.92	8.84	8.89		1
	8	4	9.03	9.14	9.02		
	8	7	8.93	9.13	9.00		
	15	0	8.98	8.97	8.88		
16QAM	1	0	8.94	9.04	9.03	≤ 1	1
	1	7	9.02	9.19	9.20		
	1	14	8.95	9.16	8.74		
	8	0	7.99	7.81	7.96	≤ 2	2
	8	4	8.18	8.15	8.11		
	8	7	7.97	8.10	7.98		
	15	0	8.02	8.08	7.89		
64QAM	1	0	7.95	7.94	7.95	≤ 2	2
	1	7	8.00	8.20	8.17		
	1	14	7.91	8.07	7.84		
	8	0	6.99	6.89	7.05	≤ 3	3
	8	4	7.16	7.31	7.11		
	8	7	7.10	7.28	6.90		
	15	0	7.00	7.07	7.02		

Table 8.1.3-2.4 LTE Conducted Power

LTE Band 5 (Cell) Conducted Power~ 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20407 (824.7 MHz)	20525 (836.5 MHz)	20643 (848.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.98	9.78	9.91	0	0
	1	2	10.09	10.00	9.93		
	1	5	10.04	9.93	9.80		
	3	0	9.87	9.92	9.71	0	0
	3	2	9.99	10.05	9.82		
	3	3	9.96	9.82	9.71		
	6	0	8.97	8.89	8.89	0-1	1
16QAM	1	0	9.14	8.88	8.89	0-1	1
	1	2	9.15	9.12	8.92		
	1	5	9.07	9.09	8.91		
	3	0	9.00	8.90	8.81	0-1	1
	3	2	9.05	9.06	8.92		
	3	3	9.04	8.82	8.84		
	6	0	8.11	7.98	8.08	0-2	2
64QAM	1	0	7.92	7.97	7.98	0-2	2
	1	2	8.10	8.10	8.10		
	1	5	8.06	8.01	7.97		
	3	0	7.94	7.92	7.82	0-2	2
	3	2	8.07	7.93	7.95		
	3	3	7.86	7.83	7.78		
	6	0	7.14	7.08	7.04	0-3	3

Table 8.1.3-2.5 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 5	Maximum	-4.0
	Nominal	-5.0

Table 8.1.3-3.1 Nominal and Maximum Output Power Spec

3-3. LTE Band 5 (Cell) (ENDC)

LTE Band 5 (Cell) Conducted Power- 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20525 (836.5 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	-4.81	≤ 1	0
	1	25	-4.52		
	1	49	-5.04		
	25	0	-6.00		1
	25	12	-5.60		
	25	25	-5.92		
	50	0	-5.90		1
16QAM	1	0	-5.76	≤ 1	1
	1	25	-5.59		
	1	49	-5.97		
	25	0	-6.94	≤ 2	2
	25	12	-6.62		
	25	25	-6.88		
	50	0	-6.96		
64QAM	1	0	-6.72	≤ 2	2
	1	25	-6.53		
	1	49	-6.91		
	25	0	-7.94	≤ 3	3
	25	12	-7.63		
	25	25	-7.82		
	50	0	-7.93		

Table 8.1.3-3.2 LTE Conducted Power

Note: LTE B26 can not contain three non-overlapping channels of 10 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

LTE Band 5 (Cell) Conducted Power- 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20425 (826.5 MHz)	20525 (836.5 MHz)	20625 (846.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-4.94	-5.05	-5.07	≤ 1	0
	1	12	-4.77	-4.82	-4.89		
	1	24	-5.15	-5.20	-5.27		
	12	0	-6.11	-6.26	-6.24		1
	12	6	-5.83	-5.90	-5.94		
	12	13	-6.05	-6.15	-6.16		
	25	0	-6.14	-6.22	-6.30		
16QAM	1	0	-5.84	-6.00	-5.96	≤ 1	1
	1	12	-5.66	-5.73	-5.78		
	1	24	-6.04	-6.11	-6.16		
	12	0	-7.06	-7.17	-7.20	≤ 2	2
	12	6	-6.72	-6.84	-6.92		
	12	13	-6.97	-7.09	-7.11		
	25	0	-7.09	-7.17	-7.17		
64QAM	1	0	-6.89	-6.99	-7.00	≤ 2	2
	1	12	-6.71	-6.78	-6.86		
	1	24	-7.09	-7.16	-7.24		
	12	0	-8.05	-8.11	-8.23	≤ 3	3
	12	6	-7.80	-7.87	-7.88		
	12	13	-7.99	-8.08	-8.10		
	25	0	-8.05	-8.18	-8.23		

Table 8.1.3-3.3 LTE Conducted Power

LTE Band 5 (Cell) Conducted Power- 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20415 (825.5 MHz)	20525 (836.5 MHz)	20635 (847.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-4.92	-5.06	-5.08	≤ 1	0
	1	7	-4.77	-4.88	-4.90		
	1	14	-5.15	-5.26	-5.28		
	8	0	-6.14	-6.26	-6.27		1
	8	4	-5.86	-5.92	-5.99		
	8	7	-6.04	-6.12	-6.20		
	15	0	-6.20	-6.20	-6.26		1
16QAM	1	0	-5.85	-5.96	-6.02	≤ 1	1
	1	7	-5.64	-5.73	-5.83		
	1	14	-6.02	-6.11	-6.21		
	8	0	-7.08	-7.14	-7.15	≤ 2	2
	8	4	-6.74	-6.89	-6.89		
	8	7	-6.92	-7.07	-7.05		
	15	0	-7.06	-7.12	-7.24		2
64QAM	1	0	-6.83	-6.98	-7.01	≤ 2	2
	1	7	-6.66	-6.81	-6.85		
	1	14	-7.04	-7.19	-7.23		
	8	0	-8.05	-8.16	-8.23	≤ 3	3
	8	4	-7.80	-7.83	-7.94		
	8	7	-7.98	-8.10	-8.13		
	15	0	-8.05	-8.13	-8.20		3

Table 8.1.3-3.4 LTE Conducted Power

LTE Band 5 (Cell) Conducted Power~ 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20407 (824.7 MHz)	20525 (836.5 MHz)	20643 (848.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-4.95	-5.05	-5.10	0	0
	1	2	-4.86	-4.84	-4.86		
	1	5	-5.10	-5.22	-5.24		
	3	0	-5.31	-5.24	-5.30	0	0
	3	2	-5.29	-5.06	-5.19		
	3	3	-5.33	-5.13	-5.49		
	6	0	-6.25	-6.25	-6.28	0-1	1
16QAM	1	0	-5.89	-5.92	-5.99	0-1	1
	1	2	-5.69	-5.81	-5.85		
	1	5	-6.07	-6.19	-6.23		
	3	0	-6.19	-6.11	-6.19	0-1	1
	3	2	-6.18	-5.99	-6.08		
	3	3	-6.22	-6.02	-6.38		
	6	0	-7.20	-7.15	-7.20	0-2	2
64QAM	1	0	-6.90	-6.95	-6.97	0-2	2
	1	2	-6.71	-6.74	-6.86		
	1	5	-7.09	-7.12	-7.24		
	3	0	-7.20	-7.14	-7.19	0-2	2
	3	2	-7.18	-6.91	-7.06		
	3	3	-7.27	-7.07	-7.43		
	6	0	-8.13	-8.13	-8.24	0-3	3

Table 8.1.3-3.5 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 66 (AWS)	Maximum	24.0
	Nominal	23.0

Table 8.1.4.1 Nominal and Maximum Output Power Spec

4. LTE Band 66 (AWS)

LTE Band 66 (AWS) Conducted Power- 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			132072 (1 720.0 MHz)	132322 (1 745.0 MHz)	132572 (1 770.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.80	22.99	22.87	≤ 1	0
	1	50	22.83	23.07	22.94		
	1	99	22.79	22.82	22.76		
	50	0	21.82	21.93	21.91		1
	50	25	21.92	21.99	21.95		
	50	50	21.80	21.98	21.88		
	100	0	21.77	21.81	21.80		1
16QAM	1	0	21.79	22.07	21.98	≤ 1	1
	1	50	21.91	22.24	22.07		
	1	99	21.87	21.99	21.81		
	50	0	20.96	20.74	20.92	≤ 2	2
	50	25	21.04	20.82	20.98		
	50	50	20.97	20.79	20.97		
	100	0	20.85	20.97	20.86		2
64QAM	1	0	20.90	20.97	20.95	≤ 2	2
	1	50	20.98	21.08	21.11		
	1	99	20.92	21.00	20.89		
	50	0	19.94	19.77	19.79	≤ 3	3
	50	25	20.06	19.84	19.84		
	50	50	19.88	19.79	19.81		
	100	0	19.93	19.92	19.96		3

Table 8.1.4.2 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power– 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			132047 (1 717.5 MHz)	132322 (1 745.0 MHz)	132597 (1 772.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.91	22.97	22.83	≤ 1	0
	1	36	22.93	23.00	22.84		
	1	74	22.92	22.96	22.79		
	36	0	21.82	21.78	21.95		1
	36	18	21.84	21.90	21.98		
	36	37	21.72	21.84	21.85		
	75	0	21.74	21.79	21.71		1
16QAM	1	0	22.03	21.94	21.88	≤ 1	1
	1	36	22.09	22.07	21.96		
	1	74	21.96	22.01	21.78		
	36	0	20.91	20.89	20.90	≤ 2	2
	36	18	21.01	20.97	20.94		
	36	37	20.85	20.90	20.91		
	75	0	20.86	20.89	20.85		2
64QAM	1	0	20.89	21.11	20.87	≤ 2	2
	1	36	21.05	21.17	20.97		
	1	74	20.93	20.94	20.94		
	36	0	19.78	19.81	19.86	≤ 3	3
	36	18	19.86	19.87	19.98		
	36	37	19.82	19.75	19.80		
	75	0	19.82	19.85	19.82		3

Table 8.1.4.3 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power- 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			132022 (1 715.0 MHz)	132322 (1 745.0 MHz)	132622 (1 775.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.73	22.81	22.87	≤ 1	0
	1	25	22.76	22.93	22.91		
	1	49	22.69	22.77	22.80		
	25	0	21.78	21.79	21.82		1
	25	12	21.91	21.93	21.87		
	25	25	21.86	21.91	21.77		
	50	0	21.76	21.79	21.79		1
16QAM	1	0	21.70	21.92	22.03	≤ 1	1
	1	25	21.89	22.00	22.08		
	1	49	21.76	21.86	21.83		
	25	0	20.88	20.98	20.73	≤ 2	2
	25	12	20.96	21.03	20.88		
	25	25	20.93	20.99	20.86		
	50	0	20.95	20.82	20.83		2
64QAM	1	0	20.76	20.94	20.93	≤ 2	2
	1	25	20.95	20.99	21.02		
	1	49	20.75	20.87	20.96		
	25	0	19.87	19.88	19.94	≤ 3	3
	25	12	19.90	19.91	20.06		
	25	25	19.76	19.88	19.86		
	50	0	19.94	19.86	19.85		3

Table 8.1.4.4 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power~ 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			131997 (1 712.5 MHz)	132322 (1 745.0 MHz)	132647 (1 777.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.71	22.93	22.83	≤ 1	0
	1	12	22.83	23.05	23.04		
	1	24	22.74	22.96	22.81		
	12	0	21.82	21.89	21.76		1
	12	6	21.86	21.94	21.85		
	12	13	21.85	21.92	21.81		
	25	0	21.62	21.80	21.81		
16QAM	1	0	21.82	21.87	21.92	≤ 1	1
	1	12	21.83	22.22	22.09		
	1	24	21.73	22.03	21.88		
	12	0	20.96	20.99	20.82	≤ 2	2
	12	6	21.04	21.03	21.01		
	12	13	20.88	20.98	20.99		
	25	0	20.75	20.89	20.91		
64QAM	1	0	20.76	21.05	20.88	≤ 2	2
	1	12	20.86	21.21	21.19		
	1	24	20.76	21.05	21.00		
	12	0	19.91	19.91	19.94	≤ 3	3
	12	6	20.00	20.00	19.97		
	12	13	19.86	19.98	19.89		
	25	0	19.77	19.91	19.89		

Table 8.1.4.5 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power~ 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			131987 (1 711.5 MHz)	132322 (1 745.0 MHz)	132657 (1 778.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.73	22.90	22.90	≤ 1	0
	1	7	22.93	23.01	22.94		
	1	14	22.66	22.79	22.78		
	8	0	21.82	21.72	21.81		1
	8	4	21.94	21.84	21.83		
	8	7	21.82	21.82	21.78		
	15	0	21.79	21.79	21.74		1
16QAM	1	0	21.80	21.93	21.99	≤ 1	1
	1	7	21.94	22.05	22.05		
	1	14	21.81	21.97	21.93		
	8	0	20.96	20.88	20.90	≤ 2	2
	8	4	21.14	20.93	20.99		
	8	7	20.95	20.76	20.88		
	15	0	20.93	20.91	20.90		2
64QAM	1	0	20.80	21.07	20.96	≤ 2	2
	1	7	21.10	21.10	21.01		
	1	14	20.83	20.97	20.92		
	8	0	19.96	19.86	19.91	≤ 3	3
	8	4	20.01	19.91	19.98		
	8	7	19.98	19.78	19.97		
	15	0	19.90	19.86	19.93		3

Table 8.1.4.6 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power– 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			131979 (1 710.7 MHz)	132322 (1 745.0 MHz)	132665 (1 779.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.70	22.75	22.62	≤ 1	0
	1	2	22.75	22.85	22.93		
	1	5	22.70	22.77	22.93		
	3	0	22.65	22.79	22.73		0
	3	2	22.75	22.83	22.82		
	3	3	22.74	22.75	22.79		
	6	0	21.71	21.64	21.75		1
16QAM	1	0	21.89	21.90	21.71	≤ 1	1
	1	2	21.95	22.05	22.12		
	1	5	21.81	21.83	22.09		
	3	0	21.72	21.86	21.86		1
	3	2	21.94	21.96	21.99		
	3	3	21.90	21.78	21.97		
	6	0	20.76	20.76	20.84		≤ 2
64QAM	1	0	20.80	20.83	20.67	≤ 2	2
	1	2	20.87	20.91	21.10		
	1	5	20.82	20.82	21.08		
	3	0	20.80	20.96	20.84		2
	3	2	20.88	21.00	20.86		
	3	3	20.77	20.83	20.81		
	6	0	19.86	19.78	19.92		≤ 3

Table 8.1.4.7 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 66 (AWS)	Maximum	21.0
	Nominal	20.0

Table 8.1.4-1.1 Nominal and Maximum Output Power Spec

4-1. LTE Band 66 (AWS) (ENDC)

LTE Band 66 (AWS) Conducted Power~ 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			132072 (1 720.0 MHz)	132322 (1 745.0 MHz)	132572 (1 770.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.76	19.95	19.82	≤ 1	0
	1	50	19.96	19.99	19.86		1
	1	99	19.78	19.74	19.79		
	50	0	18.77	18.78	18.90		
	50	25	18.86	18.96	18.92		
	50	50	18.85	18.85	18.91		
	100	0	18.77	18.92	18.80		1
16QAM	1	0	18.84	18.97	18.88	≤ 1	1
	1	50	19.01	19.06	18.90		
	1	99	18.83	18.89	18.85		
	50	0	17.81	17.86	17.99	≤ 2	2
	50	25	17.95	17.95	18.06		
	50	50	17.92	17.87	17.99		
	100	0	17.88	17.86	17.82		
64QAM	1	0	17.84	17.95	17.85	≤ 2	2
	1	50	18.06	18.05	17.87		
	1	99	17.88	17.87	17.84		
	50	0	16.88	16.80	16.96	≤ 3	3
	50	25	16.95	16.91	17.04		
	50	50	16.92	16.85	16.94		
	100	0	16.84	16.88	16.89		

Table 8.1.4-1.2 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power– 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			132047 (1 717.5 MHz)	132322 (1 745.0 MHz)	132597 (1 772.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.89	19.82	19.84	≤ 1	0
	1	36	19.98	19.96	19.86		
	1	74	19.85	19.94	19.81		
	36	0	18.82	18.78	18.78		1
	36	18	18.87	18.88	18.92		
	36	37	18.69	18.79	18.90		
	75	0	18.73	18.79	18.78		1
16QAM	1	0	18.95	18.94	18.87	≤ 1	1
	1	36	19.04	19.06	18.93		
	1	74	18.91	18.94	18.90		
	36	0	17.93	17.86	17.90	≤ 2	2
	36	18	17.97	17.97	18.04		
	36	37	17.73	17.84	17.98		
	75	0	17.76	17.87	17.89		2
64QAM	1	0	17.98	17.92	17.85	≤ 2	2
	1	36	18.06	18.09	17.92		
	1	74	17.93	17.97	17.81		
	36	0	16.89	16.89	16.87	≤ 3	3
	36	18	16.91	16.96	16.98		
	36	37	16.78	16.86	16.96		
	75	0	16.80	16.83	16.88		3

Table 8.1.4-1.3 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power- 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			132022 (1 715.0 MHz)	132322 (1 745.0 MHz)	132622 (1 775.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.74	19.82	19.83	≤ 1	0
	1	25	19.91	19.86	19.84		
	1	49	19.72	19.64	19.75		
	25	0	18.72	18.69	18.71		1
	25	12	18.87	18.93	18.90		
	25	25	18.85	18.78	18.75		
	50	0	18.75	18.69	18.66		
16QAM	1	0	18.83	18.90	18.93	≤ 1	1
	1	25	19.09	18.92	18.95		
	1	49	18.81	18.72	18.85		
	25	0	17.80	17.77	17.77	≤ 2	2
	25	12	17.95	18.09	18.05		
	25	25	17.91	17.82	17.76		
	50	0	17.84	17.78	17.68		
64QAM	1	0	17.84	17.93	17.85	≤ 2	2
	1	25	18.09	17.94	17.88		
	1	49	17.81	17.76	17.77		
	25	0	16.81	16.73	16.77	≤ 3	3
	25	12	16.96	17.00	17.04		
	25	25	16.92	16.85	16.83		
	50	0	16.80	16.77	16.72		

Table 8.1.4-1.4 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power~ 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			131997 (1 712.5 MHz)	132322 (1 745.0 MHz)	132647 (1 777.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.74	19.87	19.85	≤ 1	0
	1	12	19.96	19.97	19.93		
	1	24	19.78	19.79	19.79		
	12	0	18.74	18.79	18.79		1
	12	6	18.86	18.95	18.90		
	12	13	18.84	18.90	18.88		
	25	0	18.75	18.74	18.80		1
16QAM	1	0	18.89	18.93	18.92	≤ 1	1
	1	12	19.06	19.01	19.06		
	1	24	18.88	18.85	18.83		
	12	0	17.83	17.88	17.87	≤ 2	2
	12	6	17.96	18.12	17.98		
	12	13	17.90	17.91	17.96		
	25	0	17.84	17.88	17.83		2
64QAM	1	0	17.86	17.92	17.92	≤ 2	2
	1	12	18.05	18.00	18.06		
	1	24	17.87	17.84	17.83		
	12	0	16.86	16.89	16.87	≤ 3	3
	12	6	16.95	17.08	16.97		
	12	13	16.92	16.97	16.94		
	25	0	16.86	16.80	16.87		3

Table 8.1.4-1.5 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power~ 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			131987 (1 711.5 MHz)	132322 (1 745.0 MHz)	132657 (1 778.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.78	19.89	19.82	≤ 1	0
	1	7	19.93	19.96	19.98		1
	1	14	19.75	19.70	19.80		
	8	0	18.77	18.66	18.74		
	8	4	18.89	18.76	18.83		
	8	7	18.86	18.75	18.72		
	15	0	18.77	18.68	18.63		1
16QAM	1	0	18.80	18.92	18.91	≤ 1	1
	1	7	19.07	19.13	19.10		
	1	14	18.89	18.75	18.92		
	8	0	17.86	17.70	17.85	≤ 2	2
	8	4	17.96	17.87	17.95		
	8	7	17.93	17.82	17.84		
	15	0	17.82	17.71	17.75		
64QAM	1	0	17.88	17.92	17.94	≤ 2	2
	1	7	18.00	18.09	18.04		
	1	14	17.82	17.71	17.86		
	8	0	16.88	16.79	16.80	≤ 3	3
	8	4	16.99	16.87	16.95		
	8	7	16.98	16.83	16.79		
	15	0	16.87	16.71	16.75		

Table 8.1.4-1.6 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power-- 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			131979 (1 710.7 MHz)	132322 (1 745.0 MHz)	132665 (1 779.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.75	19.66	19.61	≤ 1	0
	1	2	19.76	19.83	19.93		
	1	5	19.67	19.75	19.81		
	3	0	19.66	19.75	19.73		0
	3	2	19.76	19.80	19.76		
	3	3	19.74	19.79	19.75		
	6	0	18.68	18.64	18.76		1
16QAM	1	0	18.80	18.76	18.73	≤ 1	1
	1	2	18.81	18.93	19.02		
	1	5	18.73	18.85	18.90		
	3	0	18.71	18.88	18.81		1
	3	2	18.88	18.89	18.83		
	3	3	18.86	18.82	18.81		
	6	0	17.77	17.78	17.81		≤ 2
64QAM	1	0	17.78	17.76	17.71	≤ 2	2
	1	2	17.81	17.89	17.99		
	1	5	17.70	17.81	17.87		
	3	0	17.72	17.80	17.81		2
	3	2	17.88	17.84	17.85		
	3	3	17.80	17.80	17.76		
	6	0	16.72	16.70	16.80		≤ 3

Table 8.1.4-1.7 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 66 (AWS)	Maximum	11.0
	Nominal	10.0

Table 8.1.4-2.1 Nominal and Maximum Output Power Spec

4-2. LTE Band 66 (AWS) (ENDC)

LTE Band 66 (AWS) Conducted Power- 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			132072 (1 720.0 MHz)	132322 (1 745.0 MHz)	132572 (1 770.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.83	9.77	9.76	≤ 1	0
	1	50	9.89	10.07	9.91		
	1	99	9.65	9.79	9.73		
	50	0	8.67	8.76	8.71		
	50	25	8.99	9.00	8.85		
	50	50	8.76	8.84	8.80		
	100	0	8.77	8.88	8.75	1	
16QAM	1	0	8.97	8.89	8.79	≤ 1	1
	1	50	8.99	9.04	8.94		
	1	99	8.79	8.86	8.76		
	50	0	7.70	7.84	7.79	≤ 2	2
	50	25	8.03	7.99	7.92		
	50	50	7.82	7.91	7.87		
	100	0	7.93	7.87	7.80		2
64QAM	1	0	7.90	7.87	7.85	≤ 2	2
	1	50	7.92	8.01	7.98		
	1	99	7.74	7.83	7.80		
	50	0	6.70	6.83	6.77	≤ 3	3
	50	25	7.03	6.92	6.92		
	50	50	6.86	6.91	6.89		
	100	0	6.78	6.83	6.76		3

Table 8.1.4-2.2 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power– 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			132047 (1 717.5 MHz)	132322 (1 745.0 MHz)	132597 (1 772.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.90	9.77	9.72	≤ 1	0
	1	36	10.05	9.94	9.88		
	1	74	9.87	9.76	9.80		
	36	0	8.88	8.77	8.80		1
	36	18	8.95	8.88	8.85		
	36	37	8.80	8.88	8.83		
	75	0	8.64	8.79	8.71		
16QAM	1	0	8.90	8.80	8.84	≤ 1	1
	1	36	9.09	9.07	9.00		
	1	74	8.91	8.89	8.92		
	36	0	7.99	7.80	7.87	≤ 2	2
	36	18	8.04	7.93	7.94		
	36	37	7.89	7.91	7.87		
	75	0	7.73	7.86	7.83		
64QAM	1	0	7.99	7.87	7.77	≤ 2	2
	1	36	8.10	8.05	7.99		
	1	74	7.92	7.87	7.91		
	36	0	6.98	6.87	6.90	≤ 3	3
	36	18	7.02	6.99	6.92		
	36	37	6.81	6.90	6.91		
	75	0	6.70	6.81	6.80		

Table 8.1.4-2.3 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power- 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			132022 (1 715.0 MHz)	132322 (1 745.0 MHz)	132622 (1 775.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.84	9.77	9.76	≤ 1	0
	1	25	10.06	9.98	9.93		
	1	49	9.68	9.80	9.75		
	25	0	8.65	8.77	8.70		1
	25	12	8.94	8.88	8.80		
	25	25	8.79	8.70	8.64		
	50	0	8.67	8.78	8.71		1
16QAM	1	0	8.98	8.86	8.81	≤ 1	1
	1	25	9.17	9.06	8.97		
	1	49	8.79	8.88	8.79		
	25	0	7.71	7.87	7.76		
	25	12	8.07	7.98	7.89	≤ 2	2
	25	25	7.87	7.79	7.70		
	50	0	7.72	7.86	7.80		
64QAM	1	0	7.94	7.88	7.79	≤ 2	2
	1	25	8.11	8.04	7.95		
	1	49	7.73	7.86	7.77		
	25	0	6.79	6.85	6.76		
	25	12	7.07	6.97	6.90	≤ 3	3
	25	25	6.89	6.70	6.67		
	50	0	6.70	6.84	6.78		

Table 8.1.4-2.4 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power~ 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			131997 (1 712.5 MHz)	132322 (1 745.0 MHz)	132647 (1 777.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.88	9.78	9.72	≤ 1	0
	1	12	10.04	9.97	9.91		1
	1	24	9.66	9.79	9.78		
	12	0	8.68	8.80	8.79		
	12	6	8.96	8.90	8.91		
	12	13	8.74	8.85	8.86		
	25	0	8.67	8.78	8.77		1
16QAM	1	0	8.92	8.80	8.76	≤ 1	1
	1	12	9.15	9.03	9.00		
	1	24	8.77	8.85	8.87		
	12	0	7.79	7.89	7.87		
	12	6	8.01	7.95	7.99	≤ 2	2
	12	13	7.85	7.90	7.89		
	25	0	7.76	7.84	7.88		
64QAM	1	0	7.95	7.86	7.79	≤ 2	2
	1	12	8.13	8.00	8.03		
	1	24	7.75	7.82	7.90		
	12	0	6.79	6.88	6.88		
	12	6	7.08	6.98	6.94	≤ 3	3
	12	13	6.81	6.95	6.90		
	25	0	6.74	6.80	6.89		

Table 8.1.4-2.5 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power~ 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			131987 (1 711.5 MHz)	132322 (1 745.0 MHz)	132657 (1 778.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.84	9.76	9.71	≤ 1	0
	1	7	10.03	9.98	9.92		
	1	14	9.65	9.80	9.79		
	8	0	8.69	8.79	8.77		1
	8	4	8.97	8.89	8.81		
	8	7	8.74	8.87	8.63		
	15	0	8.67	8.77	8.75		
16QAM	1	0	8.91	8.83	8.84	≤ 1	1
	1	7	9.13	9.01	8.95		
	1	14	8.75	8.83	8.82		
	8	0	7.79	7.83	7.86		
	8	4	8.05	7.97	7.95	≤ 2	2
	8	7	7.86	7.90	7.69		
	15	0	7.73	7.87	7.86		
64QAM	1	0	7.90	7.89	7.84	≤ 2	2
	1	7	8.12	8.01	7.99		
	1	14	7.74	7.83	7.86		
	8	0	6.76	6.85	6.88		
	8	4	7.08	6.98	6.90	≤ 3	3
	8	7	6.88	6.95	6.68		
	15	0	6.76	6.87	6.83		

Table 8.1.4-2.6 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power-- 1.4 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)	
			131979 (1 710.7 MHz)	132322 (1 745.0 MHz)	132665 (1 779.3 MHz)			
			Conducted Power (dBm)					
QPSK	1	0	9.69	9.74	9.51	≤ 1	0	
	1	2	9.84	9.76	10.01			
	1	5	9.63	9.72	9.93			
	3	0	9.61	9.79	9.65		0	
	3	2	9.76	9.85	9.75			
	3	3	9.74	9.68	9.63			
	6	0	8.64	8.60	8.61		1	
	16QAM	1	0	8.76	8.81		8.60	≤ 1
1		2	8.89	8.89	9.11			
1		5	8.68	8.83	9.03			
3		0	8.70	8.89	8.75			
3		2	8.87	8.96	8.85	1		
3		3	8.82	8.79	8.66			
6		0	7.67	7.60	7.71	≤ 2	2	
64QAM		1	0	7.77	7.87	7.58	≤ 2	
	1	2	7.91	7.89	8.12			
	1	5	7.70	7.89	8.04			
	3	0	7.72	7.82	7.72			
	3	2	7.80	7.97	7.81	2		
	3	3	7.79	7.75	7.74			
	6	0	6.76	6.65	6.66	≤ 3		3

Table 8.1.4-2.7 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 66 (AWS)	Maximum	-4.0
	Nominal	-5.0

Table 8.1.4-3.1 Nominal and Maximum Output Power Spec

4-3. LTE Band 66 (AWS) (ENDC)

LTE Band 66 (AWS) Conducted Power- 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			132072 (1 720.0 MHz)	132322 (1 745.0 MHz)	132572 (1 770.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-5.11	-5.04	-5.18	≤ 1	0
	1	50	-5.06	-4.73	-4.99		
	1	99	-5.31	-5.24	-5.37		
	50	0	-6.36	-6.25	-6.36		1
	50	25	-6.05	-5.81	-6.05		
	50	50	-6.21	-6.13	-6.29		
	100	0	-6.34	-6.11	-6.36		1
16QAM	1	0	-6.09	-5.99	-6.10	≤ 1	1
	1	50	-5.88	-5.77	-5.96		
	1	99	-6.26	-6.15	-6.34		
	50	0	-7.30	-7.14	-7.33	≤ 2	2
	50	25	-6.95	-6.88	-6.95		
	50	50	-7.11	-7.08	-7.19		
	100	0	-7.30	-7.15	-7.33		2
64QAM	1	0	-7.06	-6.97	-7.10	≤ 2	2
	1	50	-6.87	-6.82	-6.88		
	1	99	-7.25	-7.20	-7.26		
	50	0	-8.26	-8.20	-8.28	≤ 3	3
	50	25	-7.96	-7.89	-7.99		
	50	50	-8.15	-8.09	-8.17		
	100	0	-8.27	-8.16	-8.25		3

Table 8.1.4-3.2 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power– 15 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)	
			132047 (1 717.5 MHz)	132322 (1 745.0 MHz)	132597 (1 772.5 MHz)			
			Conducted Power (dBm)					
QPSK	1	0	-5.05	-5.04	-5.17	≤ 1	0	
	1	36	-4.85	-4.83	-4.99			
	1	74	-5.23	-5.21	-5.37			
	36	0	-6.21	-6.20	-6.35		1	
	36	18	-5.94	-5.95	-6.08			
	36	37	-6.14	-6.15	-6.29			
	75	0	-6.30	-6.26	-6.35		1	
16QAM	1	0	-5.99	-5.97	-6.06	≤ 1	1	
	1	36	-5.82	-5.74	-5.92			
	1	74	-6.20	-6.12	-6.30			
	36	0	-7.11	-7.17	-7.31		≤ 2	2
	36	18	-6.85	-6.86	-6.96			
	36	37	-7.10	-7.05	-7.16			
	75	0	-7.16	-7.15	-7.33			2
64QAM	1	0	-6.94	-6.91	-7.11	≤ 2	2	
	1	36	-6.73	-6.78	-6.95			
	1	74	-7.11	-7.16	-7.33			
	36	0	-8.17	-8.11	-8.25		≤ 3	3
	36	18	-7.86	-7.87	-7.95			
	36	37	-8.08	-8.03	-8.22			
	75	0	-8.16	-8.18	-8.34			3

Table 8.1.4-3.3 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power- 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			132022 (1 715.0 MHz)	132322 (1 745.0 MHz)	132622 (1 775.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-5.10	-5.15	-5.16	≤ 1	0
	1	25	-4.97	-4.93	-4.96		
	1	49	-5.35	-5.31	-5.34		
	25	0	-6.33	-6.36	-6.39		1
	25	12	-6.03	-6.06	-6.10		
	25	25	-6.22	-6.24	-6.29		
	50	0	-6.32	-6.36	-6.37		
16QAM	1	0	-6.05	-6.06	-6.06	≤ 1	1
	1	25	-5.84	-5.91	-5.87		
	1	49	-6.22	-6.29	-6.25		
	25	0	-7.24	-7.25	-7.27	≤ 2	2
	25	12	-6.96	-6.92	-7.04		
	25	25	-7.14	-7.19	-7.18		
	50	0	-7.27	-7.26	-7.28		
64QAM	1	0	-7.02	-7.01	-7.12	≤ 2	2
	1	25	-6.88	-6.83	-6.93		
	1	49	-7.26	-7.21	-7.31		
	25	0	-8.26	-8.23	-8.30	≤ 3	3
	25	12	-7.95	-7.91	-7.99		
	25	25	-8.18	-8.11	-8.22		
	50	0	-8.24	-8.27	-8.32		

Table 8.1.4-3.4 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power~ 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			131997 (1 712.5 MHz)	132322 (1 745.0 MHz)	132647 (1 777.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-5.02	-5.10	-5.20	≤ 1	0
	1	12	-4.84	-4.95	-4.96		
	1	24	-5.22	-5.33	-5.34		
	12	0	-6.26	-6.33	-6.35		1
	12	6	-5.93	-6.03	-6.04		
	12	13	-6.14	-6.23	-6.28		
	25	0	-6.24	-6.33	-6.35		
16QAM	1	0	-5.91	-6.04	-6.06	≤ 1	1
	1	12	-5.81	-5.90	-5.89		
	1	24	-6.19	-6.28	-6.27		
	12	0	-7.18	-7.22	-7.32		≤ 2
	12	6	-6.90	-6.94	-6.97		
	12	13	-7.07	-7.15	-7.16		
	25	0	-7.14	-7.24	-7.29	2	
64QAM	1	0	-6.96	-7.05	-7.06	≤ 2	2
	1	12	-6.77	-6.84	-6.92		
	1	24	-7.15	-7.22	-7.30		
	12	0	-8.17	-8.25	-8.26		≤ 3
	12	6	-7.88	-8.00	-8.00		
	12	13	-8.07	-8.15	-8.17		
	25	0	-8.18	-8.29	-8.29	3	

Table 8.1.4-3.5 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power~ 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			131987 (1 711.5 MHz)	132322 (1 745.0 MHz)	132657 (1 778.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-5.12	-5.16	-5.17	≤ 1	0
	1	7	-4.95	-4.96	-4.99		
	1	14	-5.33	-5.34	-5.37		
	8	0	-6.36	-6.35	-6.37		1
	8	4	-6.02	-6.04	-6.04		
	8	7	-6.25	-6.26	-6.24		
	15	0	-6.34	-6.33	-6.37		
16QAM	1	0	-6.05	-6.03	-6.07	≤ 1	1
	1	7	-5.84	-5.90	-5.89		
	1	14	-6.22	-6.28	-6.27		
	8	0	-7.26	-7.30	-7.32	≤ 2	2
	8	4	-6.96	-6.93	-6.98		
	8	7	-7.12	-7.11	-7.20		
	15	0	-7.29	-7.21	-7.25		
64QAM	1	0	-7.06	-7.06	-7.13	≤ 2	2
	1	7	-6.88	-6.88	-6.92		
	1	14	-7.26	-7.26	-7.30		
	8	0	-8.24	-8.27	-8.34	≤ 3	3
	8	4	-7.92	-7.94	-7.96		
	8	7	-8.15	-8.18	-8.21		
	15	0	-8.23	-8.25	-8.25		

Table 8.1.4-3.6 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power-- 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			131979 (1 710.7 MHz)	132322 (1 745.0 MHz)	132665 (1 779.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-5.13	-5.15	-5.18	≤ 1	0
	1	2	-4.94	-4.92	-5.01		
	1	5	-5.32	-5.30	-5.24		
	3	0	-5.31	-5.36	-5.24		0
	3	2	-5.03	-5.04	-5.09		
	3	3	-5.23	-5.26	-5.15		
	6	0	-6.33	-6.32	-6.24		1
16QAM	1	0	-6.03	-6.03	-6.13	≤ 1	1
	1	2	-5.92	-5.91	-5.93		
	1	5	-6.30	-6.29	-6.16		
	3	0	-6.21	-6.24	-6.16		1
	3	2	-5.94	-5.96	-5.96		
	3	3	-6.12	-6.14	-6.03		
	6	0	-7.30	-7.27	-7.15		≤ 2
64QAM	1	0	-7.06	-7.05	-7.14	≤ 2	2
	1	2	-6.90	-6.89	-6.93		
	1	5	-7.28	-7.27	-7.16		
	3	0	-7.30	-7.25	-7.18		2
	3	2	-6.96	-7.00	-6.99		
	3	3	-7.19	-7.14	-7.05		
	6	0	-8.23	-8.22	-8.18		≤ 3

Table 8.1.4-3.7 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 4	Maximum	24.0
	Nominal	23.0

Table 8.1.4-4.1 Nominal and Maximum Output Power Spec

4-4. LTE Band 4

LTE Band 4 (AWS) Conducted Power- 20 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20175 (1 732.5 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	22.56	≤ 1	0
	1	50	22.62		
	1	99	22.39		
	50	0	21.43		1
	50	25	21.50		
	50	50	21.41		
	100	0	21.49		1
16QAM	1	0	21.70	≤ 1	1
	1	50	21.77		
	1	99	21.51		
	50	0	20.34	≤ 2	2
	50	25	20.47		
	50	50	20.31		
	100	0	20.50		2
64QAM	1	0	20.55	≤ 2	2
	1	50	20.65		
	1	99	20.44		
	50	0	19.32	≤ 3	3
	50	25	19.41		
	50	50	19.37		
	100	0	19.45		3

Table 8.1.4-4.2 LTE Conducted Power

LTE Band 4 (AWS) Conducted Power- 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20025 (1 717.5 MHz)	20175 (1 732.5 MHz)	20325 (1 747.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.20	22.47	22.43	≤ 1	0
	1	36	22.29	22.49	22.55		
	1	74	22.26	22.45	22.52		
	36	0	21.37	21.35	21.31		1
	36	18	21.39	21.42	21.40		
	36	37	21.33	21.41	21.31		
	75	0	21.27	21.35	21.40		
	16QAM	1	0	21.25	21.56		21.56
1		36	21.34	21.62	21.74		
1		74	21.28	21.55	21.63		
36		0	20.23	20.41	20.45	≤ 2	2
36		18	20.46	20.43	20.50		
36		37	20.43	20.42	20.40		
75		0	20.27	20.51	20.37		
64QAM		1	0	20.25	20.52	20.61	≤ 2
	1	36	20.32	20.61	20.70		
	1	74	20.30	20.56	20.57		
	36	0	19.20	19.34	19.35	≤ 3	3
	36	18	19.38	19.39	19.47		
	36	37	19.32	19.37	19.27		
	75	0	19.39	19.37	19.50		

Table 8.1.4-4.3 LTE Conducted Power

LTE Band 4 (AWS) Conducted Power- 10 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)		
			20000 (1 715.0 MHz)	20175 (1 732.5 MHz)	20350 (1 750.0 MHz)				
			Conducted Power (dBm)						
QPSK	1	0	22.31	22.38	22.24	≤ 1	0		
	1	25	22.36	22.40	22.37				
	1	49	22.26	22.34	22.25				
	25	0	21.22	21.25	21.28		1		
	25	12	21.27	21.40	21.31				
	25	25	21.23	21.34	21.27				
	50	0	21.28	21.38	21.27				
	50	0	21.22	21.55	21.41		≤ 1	1	
1	25	21.37	21.57	21.47					
1	49	21.30	21.43	21.38					
16QAM	25	0	20.26	20.36	20.22	≤ 2		2	
	25	12	20.42	20.41	20.34				
	25	25	20.23	20.40	20.23				
	50	0	20.39	20.55	20.38		2		
	1	0	20.36	20.41	20.31			≤ 2	2
	1	25	20.42	20.46	20.39				
	1	49	20.36	20.44	20.27				
	64QAM	25	0	19.24	19.25		19.37		≤ 3
25		12	19.46	19.45	19.48				
25		25	19.31	19.39	19.37				
50		0	19.33	19.44	19.36	3			

Table 8.1.4-4.4 LTE Conducted Power

LTE Band 4 (AWS) Conducted Power– 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			19975 (1 712.5 MHz)	20175 (1 732.5 MHz)	20375 (1 752.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.30	22.34	22.36	≤ 1	0
	1	12	22.41	22.42	22.54		
	1	24	22.23	22.28	22.41		
	12	0	21.37	21.40	21.20		1
	12	6	21.45	21.48	21.28		
	12	13	21.37	21.46	21.21		
	25	0	21.44	21.43	21.39		1
16QAM	1	0	21.45	21.49	21.48	≤ 1	1
	1	12	21.60	21.57	21.60		
	1	24	21.35	21.42	21.60		
	12	0	20.30	20.57	20.29	≤ 2	2
	12	6	20.35	20.66	20.42		
	12	13	20.34	20.44	20.37		
	25	0	20.37	20.52	20.50		2
64QAM	1	0	20.34	20.41	20.53	≤ 2	2
	1	12	20.41	20.50	20.68		
	1	24	20.31	20.47	20.47		
	12	0	19.32	19.46	19.26	≤ 3	3
	12	6	19.42	19.60	19.40		
	12	13	19.33	19.50	19.26		
	25	0	19.41	19.38	19.38		3

Table 8.1.4-4.5 LTE Conducted Power

LTE Band 4 (AWS) Conducted Power– 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			19965 (1 711.5 MHz)	20175 (1 732.5 MHz)	20385 (1 753.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.23	22.39	22.36	≤ 1	0
	1	7	22.44	22.42	22.38		
	1	14	22.26	22.26	22.24		
	8	0	21.30	21.37	21.30		1
	8	4	21.31	21.43	21.35		
	8	7	21.24	21.43	21.32		
	15	0	21.31	21.38	21.27		
	1	0	21.32	21.55	21.29		≤ 1
1	7	21.47	21.56	21.41			
1	14	21.44	21.38	21.33			
16QAM	8	0	20.36	20.45	20.41	≤ 2	
	8	4	20.46	20.48	20.51		
	8	7	20.30	20.44	20.39		
	15	0	20.37	20.42	20.34		
	1	0	20.42	20.49	20.41	≤ 2	2
	1	7	20.54	20.56	20.52		
	1	14	20.44	20.38	20.41		
	64QAM	8	0	19.45	19.39		19.35
8		4	19.47	19.49	19.52		
8		7	19.33	19.46	19.49		
15		0	19.36	19.52	19.39		

Table 8.1.4-4.6 LTE Conducted Power

TE Band 4 (AWS) Conducted Power– 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			19957 (1 710.7 MHz)	20175 (1 732.5 MHz)	20393 (1 754.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.33	22.42	22.30	≤ 1	0
	1	2	22.37	22.44	22.33		
	1	5	22.25	22.27	22.29		
	3	0	22.21	22.33	22.24		0
	3	2	22.23	22.43	22.33		
	3	3	22.20	22.26	22.21		
	6	0	21.21	21.31	21.28		1
16QAM	1	0	21.37	21.29	21.22	≤ 1	1
	1	2	21.44	21.58	21.34		
	1	5	21.42	21.35	21.33		
	3	0	21.26	21.46	21.39		1
	3	2	21.37	21.49	21.44		
	3	3	21.33	21.46	21.36		
	6	0	20.34	20.39	20.40		≤ 2
64QAM	1	0	20.52	20.54	20.35	≤ 2	2
	1	2	20.53	20.60	20.37		
	1	5	20.42	20.43	20.35		
	3	0	20.25	20.46	20.38		2
	3	2	20.39	20.51	20.41		
	3	3	20.32	20.41	20.28		
	6	0	19.38	19.36	19.39		≤ 3

Table 8.1.4-4.7 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 4	Maximum	21.0
	Nominal	20.0

Table 8.1.4-5.1 Nominal and Maximum Output Power Spec

4-5. LTE Band 4 (ENDC)

LTE Band 4 (AWS) Conducted Power- 20 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20175 (1 732.5 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	19.46	≤ 1	0
	1	50	19.77		
	1	99	19.30		
	50	0	18.29		1
	50	25	18.61		
	50	50	18.37		
	100	0	18.39		1
16QAM	1	0	18.55	≤ 1	1
	1	50	18.77		
	1	99	18.39		
	50	0	17.34	≤ 2	2
	50	25	17.48		
	50	50	17.46		
	100	0	17.33		
64QAM	1	0	17.56	≤ 2	2
	1	50	17.71		
	1	99	17.33		
	50	0	16.34	≤ 3	3
	50	25	16.51		
	50	50	16.45		
	100	0	16.33		

Table 8.1.4-5.2 LTE Conducted Power

LTE Band 4 (AWS) Conducted Power- 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20025 (1 717.5 MHz)	20175 (1 732.5 MHz)	20325 (1 747.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.25	19.47	19.42	≤ 1	0
	1	36	19.37	19.50	19.59		
	1	74	19.34	19.29	19.41		
	36	0	18.34	18.27	18.24		
	36	18	18.51	18.57	18.50		1
	36	37	18.49	18.35	18.32		
	75	0	18.35	18.27	18.26		
16QAM	1	0	18.29	18.50	18.46	≤ 1	1
	1	36	18.50	18.55	18.71		
	1	74	18.47	18.32	18.53		
	36	0	17.44	17.32	17.30		
	36	18	17.53	17.60	17.56	≤ 2	2
	36	37	17.51	17.44	17.41		
	75	0	17.42	17.39	17.29		
64QAM	1	0	17.29	17.51	17.53	≤ 2	2
	1	36	17.43	17.52	17.72		
	1	74	17.40	17.33	17.54		
	36	0	16.43	16.37	16.32		
	36	18	16.59	16.67	16.61	≤ 3	3
	36	37	16.46	16.41	16.40		
	75	0	16.46	16.38	16.31		

Table 8.1.4-5.3 LTE Conducted Power

LTE Band 4 (AWS) Conducted Power- 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20000 (1 715.0 MHz)	20175 (1 732.5 MHz)	20350 (1 750.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.30	19.45	19.21	≤ 1	0
	1	25	19.44	19.48	19.40		
	1	49	19.36	19.30	19.22		
	25	0	18.39	18.26	18.22		1
	25	12	18.57	18.38	18.36		
	25	25	18.46	18.36	18.31		
	50	0	18.37	18.27	18.26		
	16QAM	1	0	18.32	18.51		18.27
1		25	18.53	18.53	18.48		
1		49	18.45	18.35	18.30		
25		0	17.45	17.31	17.35	≤ 2	2
25		12	17.75	17.45	17.43		
25		25	17.51	17.44	17.41		
50		0	17.47	17.31	17.28		2
64QAM		1	0	17.37	17.49	17.35	≤ 2
	1	25	17.48	17.57	17.49		
	1	49	17.40	17.31	17.31		
	25	0	16.41	16.35	16.27	≤ 3	
	25	12	16.74	16.49	16.44		
	25	25	16.53	16.44	16.37		
	50	0	16.45	16.39	16.34		3

Table 8.1.4-5.4 LTE Conducted Power

LTE Band 4 (AWS) Conducted Power– 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			19975 (1 712.5 MHz)	20175 (1 732.5 MHz)	20375 (1 752.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.35	19.34	19.44	≤ 1	0
	1	12	19.53	19.43	19.61		
	1	24	19.35	19.25	19.23		
	12	0	18.37	18.29	18.22		1
	12	6	18.49	18.60	18.32		
	12	13	18.45	18.36	18.28		
	25	0	18.34	18.27	18.20		1
16QAM	1	0	18.47	18.47	18.53	≤ 1	1
	1	12	18.67	18.48	18.68		
	1	24	18.49	18.30	18.30		
	12	0	17.49	17.30	17.29	≤ 2	2
	12	6	17.52	17.67	17.40		
	12	13	17.50	17.45	17.38		
	25	0	17.48	17.31	17.27		2
64QAM	1	0	17.49	17.44	17.48	≤ 2	2
	1	12	17.63	17.53	17.65		
	1	24	17.45	17.35	17.27		
	12	0	16.48	16.31	16.32	≤ 3	3
	12	6	16.57	16.61	16.39		
	12	13	16.53	16.47	16.36		
	25	0	16.46	16.31	16.35		3

Table 8.1.4-5.5 LTE Conducted Power

LTE Band 4 (AWS) Conducted Power- 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			19965 (1 711.5 MHz)	20175 (1 732.5 MHz)	20385 (1 753.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.29	19.47	19.42	≤ 1	0
	1	7	19.46	19.51	19.43		
	1	14	19.38	19.28	19.25		
	8	0	18.37	18.28	18.25		1
	8	4	18.47	18.59	18.52		
	8	7	18.25	18.39	18.31		
	15	0	18.37	18.28	18.25		
	16QAM	1	0	18.34	18.50		18.45
1		7	18.51	18.60	18.47		
1		14	18.43	18.37	18.27		
8		0	17.44	17.37	17.26	≤ 2	2
8		4	17.57	17.66	17.61		
8		7	17.39	17.45	17.39		
15		0	17.44	17.35	17.27		
64QAM		1	0	17.35	17.53	17.48	≤ 2
	1	7	17.54	17.58	17.50		
	1	14	17.46	17.30	17.30		
	8	0	16.48	16.35	16.28	≤ 3	
	8	4	16.54	16.69	16.58		
	8	7	16.35	16.47	16.41		
	15	0	16.44	16.32	16.33		

Table 8.1.4-5.6 LTE Conducted Power

TE Band 4 (AWS) Conducted Power- 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			19957 (1 710.7 MHz)	20175 (1 732.5 MHz)	20393 (1 754.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.37	19.50	19.42	≤ 1	0
	1	2	19.48	19.62	19.60		
	1	5	19.39	19.24	19.22		
	3	0	19.34	19.29	19.23		0
	3	2	19.47	19.58	19.52		
	3	3	19.24	19.37	19.30		
	6	0	18.35	18.27	18.25		1
16QAM	1	0	18.40	18.50	18.46	≤ 1	1
	1	2	18.59	18.70	18.70		
	1	5	18.41	18.32	18.32		
	3	0	18.48	18.32	18.30		1
	3	2	18.57	18.69	18.58		
	3	3	18.35	18.41	18.37		
	6	0	17.40	17.30	17.32		≤ 2
64QAM	1	0	17.45	17.50	17.47	≤ 2	2
	1	2	17.58	17.70	17.66		
	1	5	17.40	17.32	17.28		
	3	0	17.49	17.31	17.31		2
	3	2	17.55	17.62	17.58		
	3	3	17.30	17.48	17.39		
	6	0	16.41	16.37	16.28		≤ 3

Table 8.1.4-5.7 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 4	Maximum	11.0
	Nominal	10.0

Table 8.1.4-4.1 Nominal and Maximum Output Power Spec

4-6. LTE Band 4 (ENDC)

LTE Band 4 (AWS) Conducted Power- 20 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20175 (1 732.5 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	9.58	≤ 1	0
	1	50	9.63		
	1	99	9.42		
	50	0	8.39		1
	50	25	8.59		
	50	50	8.54		
	100	0	8.57		1
16QAM	1	0	8.70	≤ 1	1
	1	50	8.72		
	1	99	8.51		
	50	0	7.40	≤ 2	2
	50	25	7.47		
	50	50	7.39		
	100	0	7.41		
64QAM	1	0	7.58	≤ 2	2
	1	50	7.61		
	1	99	7.52		
	50	0	6.31	≤ 3	3
	50	25	6.44		
	50	50	6.41		
	100	0	6.38		

Table 8.1.4-6.2 LTE Conducted Power

LTE Band 4 (AWS) Conducted Power- 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20025 (1 717.5 MHz)	20175 (1 732.5 MHz)	20325 (1 747.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.22	9.47	9.48	≤ 1	0
	1	36	9.39	9.53	9.61		
	1	74	9.37	9.42	9.59		
	36	0	8.33	8.43	8.31		1
	36	18	8.35	8.46	8.41		
	36	37	8.31	8.40	8.38		
	75	0	8.36	8.50	8.50		
	16QAM	1	0	8.23	8.60		8.58
1		36	8.44	8.71	8.79		
1		74	8.31	8.59	8.76		
36		0	7.22	7.46	7.42	≤ 2	2
36		18	7.50	7.52	7.50		
36		37	7.49	7.45	7.47		
75		0	7.27	7.60	7.47		
64QAM		1	0	7.33	7.53	7.66	≤ 2
	1	36	7.36	7.62	7.71		
	1	74	7.31	7.61	7.65		
	36	0	6.28	6.37	6.36	≤ 3	
	36	18	6.45	6.51	6.49		
	36	37	6.32	6.38	6.30		
	75	0	6.45	6.42	6.62		

Table 8.1.4-6.3 LTE Conducted Power

LTE Band 4 (AWS) Conducted Power-10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20000 (1 715.0 MHz)	20175 (1 732.5 MHz)	20350 (1 750.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.34	9.33	9.23	≤ 1	0
	1	25	9.37	9.40	9.37		
	1	49	9.34	9.38	9.29		
	25	0	8.24	8.23	8.31		1
	25	12	8.35	8.42	8.48		
	25	25	8.27	8.41	8.26		
	50	0	8.27	8.41	8.30		
	16QAM	1	0	8.33	8.50		8.30
1		25	8.50	8.56	8.40		
1		49	8.42	8.54	8.37		
25		0	7.35	7.32	7.43	≤ 2	2
25		12	7.42	7.42	7.55		
25		25	7.38	7.38	7.28		
50		0	7.41	7.54	7.22		2
64QAM		1	0	7.50	7.43	7.22	≤ 2
	1	25	7.51	7.46	7.42		
	1	49	7.50	7.45	7.29		
	25	0	6.25	6.20	6.46	≤ 3	
	25	12	6.43	6.44	6.65		
	25	25	6.30	6.35	6.25		
	50	0	6.33	6.38	6.26		3

Table 8.1.4-6.4 LTE Conducted Power

LTE Band 4 (AWS) Conducted Power– 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			19975 (1 712.5 MHz)	20175 (1 732.5 MHz)	20375 (1 752.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.26	9.34	9.40	≤ 1	0
	1	12	9.40	9.44	9.50		
	1	24	9.31	9.38	9.44		
	12	0	8.43	8.47	8.32		1
	12	6	8.51	8.50	8.32		
	12	13	8.42	8.42	8.27		
	25	0	8.39	8.53	8.39		1
16QAM	1	0	8.43	8.45	8.43	≤ 1	1
	1	12	8.54	8.54	8.62		
	1	24	8.31	8.46	8.58		
	12	0	7.28	7.66	7.42	≤ 2	2
	12	6	7.40	7.70	7.47		
	12	13	7.37	7.47	7.43		
	25	0	7.44	7.49	7.50		2
64QAM	1	0	7.27	7.50	7.55	≤ 2	2
	1	12	7.50	7.59	7.69		
	1	24	7.23	7.54	7.51		
	12	0	6.41	6.41	6.29	≤ 3	3
	12	6	6.48	6.55	6.47		
	12	13	6.40	6.55	6.30		
	25	0	6.38	6.47	6.45		3

Table 8.1.4-6.5 LTE Conducted Power

LTE Band 4 (AWS) Conducted Power- 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			19965 (1 711.5 MHz)	20175 (1 732.5 MHz)	20385 (1 753.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.35	9.32	9.34	≤ 1	0
	1	7	9.47	9.48	9.35		
	1	14	9.32	9.33	9.28		
	8	0	8.40	8.39	8.34		1
	8	4	8.40	8.47	8.37		
	8	7	8.28	8.37	8.27		
	15	0	8.30	8.29	8.28		
	16QAM	1	0	8.34	8.45		8.37
1		7	8.56	8.60	8.43		
1		14	8.41	8.42	8.28		
8		0	7.38	7.38	7.51	≤ 2	2
8		4	7.51	7.58	7.56		
8		7	7.39	7.46	7.40		
15		0	7.44	7.33	7.35		2
64QAM		1	0	7.44	7.51	7.47	≤ 2
	1	7	7.60	7.54	7.51		
	1	14	7.47	7.31	7.41		
	8	0	6.49	6.33	6.31	≤ 3	3
	8	4	6.58	6.56	6.48		
	8	7	6.35	6.43	6.46		
	15	0	6.48	6.45	6.44		3

Table 8.1.4-6.6 LTE Conducted Power

TE Band 4 (AWS) Conducted Power- 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			19957 (1 710.7 MHz)	20175 (1 732.5 MHz)	20393 (1 754.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.34	9.42	9.33	≤ 1	0
	1	2	9.43	9.48	9.47		
	1	5	9.31	9.37	9.41		
	3	0	9.24	9.42	9.26		0
	3	2	9.38	9.43	9.41		
	3	3	9.31	9.28	9.30		
	6	0	8.31	8.32	8.39		1
16QAM	1	0	8.35	8.31	8.34	≤ 1	1
	1	2	8.56	8.51	8.39		
	1	5	8.50	8.34	8.36		
	3	0	8.33	8.51	8.40		1
	3	2	8.38	8.54	8.59		
	3	3	8.35	8.33	8.34		
	6	0	7.46	7.47	7.40		≤ 2
64QAM	1	0	7.36	7.47	7.51	≤ 2	2
	1	2	7.60	7.60	7.55		
	1	5	7.41	7.35	7.42		
	3	0	7.34	7.39	7.39		2
	3	2	7.56	7.48	7.57		
	3	3	7.47	7.26	7.46		
	6	0	6.39	6.35	6.46		≤ 3

Table 8.1.4-6.7 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 4	Maximum	-4.0
	Nominal	-5.0

Table 8.1.4-4.1 Nominal and Maximum Output Power Spec

4-7. LTE Band 4 (ENDC)

LTE Band 4 (AWS) Conducted Power- 20 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20175 (1 732.5 MHz)		
			Conducted Power (dBm)		
QPSK	1	0	-5.41	≤ 1	0
	1	50	-5.11		
	1	99	-5.62		
	50	0	-6.62		1
	50	25	-6.23		
	50	50	-6.51		
	100	0	-6.50		1
16QAM	1	0	-6.31	≤ 1	1
	1	50	-6.29		
	1	99	-6.59		
	50	0	-7.55	≤ 2	2
	50	25	-7.23		
	50	50	-7.47		
	100	0	-7.56		2
64QAM	1	0	-7.35	≤ 2	2
	1	50	-7.24		
	1	99	-7.52		
	50	0	-8.56	≤ 3	3
	50	25	-8.22		
	50	50	-8.42		
	100	0	-8.60		3

Table 8.1.4-7.2 LTE Conducted Power

LTE Band 4 (AWS) Conducted Power- 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20025 (1 717.5 MHz)	20175 (1 732.5 MHz)	20325 (1 747.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-5.64	-5.52	-5.49	≤ 1	0
	1	36	-5.45	-5.34	-5.29		
	1	74	-5.73	-5.72	-5.67		
	36	0	-6.72	-6.75	-6.70		
	36	18	-6.66	-6.42	-6.56		1
	36	37	-6.76	-6.65	-6.62		
	75	0	-6.72	-6.76	-6.69		
16QAM	1	0	-6.58	-6.41	-6.36	≤ 1	1
	1	36	-6.37	-6.29	-6.20		
	1	74	-6.75	-6.67	-6.58		
	36	0	-7.77	-7.66	-7.62		
	36	18	-7.49	-7.35	-7.50	≤ 2	2
	36	37	-7.65	-7.59	-7.50		
	75	0	-7.80	-7.67	-7.62		
64QAM	1	0	-7.56	-7.47	-7.38	≤ 2	2
	1	36	-7.41	-7.25	-7.17		
	1	74	-7.79	-7.63	-7.55		
	36	0	-8.79	-8.67	-8.55		
	36	18	-8.52	-8.31	-8.50	≤ 3	3
	36	37	-8.61	-8.53	-8.52		
	75	0	-8.76	-8.69	-8.59		

Table 8.1.4-7.3 LTE Conducted Power

LTE Band 4 (AWS) Conducted Power-10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20000 (1 715.0 MHz)	20175 (1 732.5 MHz)	20350 (1 750.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-5.53	-5.61	-5.66	≤ 1	0
	1	25	-5.44	-5.47	-5.51		
	1	49	-5.50	-5.65	-5.69		
	25	0	-6.52	-6.65	-6.64		1
	25	12	-6.45	-6.50	-6.60		
	25	25	-6.62	-6.76	-6.77		
	50	0	-6.54	-6.66	-6.64		
	16QAM	1	0	-6.47	-6.51		-6.61
1		25	-6.31	-6.41	-6.41		
1		49	-6.49	-6.59	-6.59		
25		0	-7.48	-7.53	-7.55	≤ 2	2
25		12	-7.31	-7.41	-7.50		
25		25	-7.55	-7.62	-7.73		
50		0	-7.43	-7.57	-7.55		2
64QAM		1	0	-7.50	-7.51	-7.56	≤ 2
	1	25	-7.29	-7.42	-7.37		
	1	49	-7.47	-7.60	-7.55		
	25	0	-8.45	-8.51	-8.59	≤ 3	
	25	12	-8.33	-8.48	-8.53		
	25	25	-8.56	-8.63	-8.65		
	50	0	-8.44	-8.55	-8.57		3

Table 8.1.4-7.4 LTE Conducted Power

LTE Band 4 (AWS) Conducted Power– 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			19975 (1 712.5 MHz)	20175 (1 732.5 MHz)	20375 (1 752.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-5.56	-5.64	-5.66	≤ 1	0
	1	12	-5.33	-5.46	-5.49		
	1	24	-5.51	-5.64	-5.67		
	12	0	-6.50	-6.64	-6.67		1
	12	6	-6.46	-6.52	-6.59		
	12	13	-6.66	-6.76	-6.78		
	25	0	-6.56	-6.63	-6.70		1
16QAM	1	0	-6.45	-6.56	-6.57	≤ 1	1
	1	12	-6.28	-6.41	-6.39		
	1	24	-6.46	-6.59	-6.57		
	12	0	-7.45	-7.60	-7.57	≤ 2	2
	12	6	-7.33	-7.50	-7.48		
	12	13	-7.60	-7.70	-7.74		
	25	0	-7.42	-7.57	-7.63		2
64QAM	1	0	-7.43	-7.58	-7.56	≤ 2	2
	1	12	-7.23	-7.38	-7.41		
	1	24	-7.41	-7.56	-7.59		
	12	0	-8.48	-8.57	-8.60	≤ 3	3
	12	6	-8.31	-8.41	-8.48		
	12	13	-8.58	-8.70	-8.74		
	25	0	-8.46	-8.60	-8.57		3

Table 8.1.4-7.5 LTE Conducted Power

LTE Band 4 (AWS) Conducted Power– 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			19965 (1 711.5 MHz)	20175 (1 732.5 MHz)	20385 (1 753.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-5.73	-5.65	-5.69	≤ 1	0
	1	7	-5.53	-5.47	-5.52		
	1	14	-5.70	-5.65	-5.70		
	8	0	-6.70	-6.65	-6.66		1
	8	4	-6.65	-6.52	-6.57		
	8	7	-6.66	-6.76	-6.74		
	15	0	-6.66	-6.64	-6.67		
	1	0	-6.69	-6.59	-6.62		≤ 1
1	7	-6.47	-6.33	-6.44			
1	14	-6.65	-6.51	-6.62			
8	0	-7.69	-7.51	-7.63	≤ 2	2	
8	4	-7.51	-7.43	-7.54			
8	7	-7.55	-7.70	-7.66			
15	0	-7.50	-7.54	-7.59		2	
64QAM	1	0	-7.66	-7.57	-7.61	≤ 2	2
	1	7	-7.44	-7.35	-7.46		
	1	14	-7.62	-7.53	-7.64		
	8	0	-8.68	-8.60	-8.55		≤ 3
	8	4	-8.51	-8.44	-8.51		
	8	7	-8.60	-8.64	-8.69		
	15	0	-8.53	-8.52	-8.56	3	

Table 8.1.4-7.6 LTE Conducted Power

TE Band 4 (AWS) Conducted Power– 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			19957 (1 710.7 MHz)	20175 (1 732.5 MHz)	20393 (1 754.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-5.50	-5.61	-5.68	≤ 1	0
	1	2	-5.37	-5.44	-5.47		
	1	5	-5.55	-5.62	-5.65		
	3	0	-5.50	-5.62	-5.68		0
	3	2	-5.41	-5.56	-5.58		
	3	3	-5.61	-5.76	-5.80		
	6	0	-6.53	-6.65	-6.70		1
16QAM	1	0	-6.46	-6.53	-6.64	≤ 1	1
	1	2	-6.26	-6.39	-6.41		
	1	5	-6.44	-6.57	-6.59		
	3	0	-6.47	-6.60	-6.61		1
	3	2	-6.36	-6.50	-6.54		
	3	3	-6.53	-6.63	-6.71		
	6	0	-7.43	-7.58	-7.64		≤ 2
64QAM	1	0	-7.44	-7.53	-7.63	≤ 2	2
	1	2	-7.28	-7.37	-7.39		
	1	5	-7.46	-7.55	-7.57		
	3	0	-7.41	-7.52	-7.56		2
	3	2	-7.36	-7.44	-7.48		
	3	3	-7.53	-7.61	-7.66		
	6	0	-8.43	-8.59	-8.61		≤ 3

Table 8.1.4-7.7 LTE Conducted Power

LTE Band 2(PCS)	Band & Mode	Modulated Average(dBm)
	Maximum Nominal	24.0 23.0

Table 8.1.5.1 Nominal and Maximum Output Power Spec

5. LTE Band 2 (PCS)

LTE Band 2 (PCS) Conducted Power– 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18700 (1 860.0 MHz)	18900 (1 880.0 MHz)	19100 (1 900.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.81	22.84	22.51	≤ 1	0
	1	50	22.83	22.90	22.54		
	1	99	22.81	22.82	22.53		
	50	0	21.62	21.72	21.62		1
	50	25	21.68	21.76	21.63		
	50	50	21.64	21.68	21.60		
	100	0	21.67	21.80	21.67		1
16QAM	1	0	21.97	22.01	21.55	≤ 1	1
	1	50	21.98	22.06	21.57		
	1	99	21.91	22.01	21.52		
	50	0	20.58	20.83	20.67	≤ 2	2
	50	25	20.61	20.84	20.68		
	50	50	20.60	20.61	20.63		
	100	0	20.53	20.76	20.73		2
64QAM	1	0	20.95	20.92	20.51	≤ 2	2
	1	50	20.98	21.04	20.58		
	1	99	20.97	20.87	20.56		
	50	0	19.62	19.74	19.61	≤ 3	3
	50	25	19.66	19.84	19.73		
	50	50	19.64	19.58	19.60		
	100	0	19.74	19.78	19.66		3

Table 8.1.5.2 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power– 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18675 (1 857.5 MHz)	18900 (1 880.0 MHz)	19125 (1 902.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.80	22.76	22.54	≤ 1	0
	1	36	22.83	22.80	22.63		
	1	74	22.68	22.68	22.57		
	36	0	21.49	21.61	21.57		1
	36	18	21.57	21.74	21.71		
	36	37	21.52	21.69	21.66		
	75	0	21.68	21.70	21.64		1
16QAM	1	0	21.94	21.88	21.72	≤ 1	1
	1	36	21.96	21.97	21.80		
	1	74	21.75	21.81	21.75		
	36	0	20.57	20.61	20.58	≤ 2	2
	36	18	20.62	20.66	20.63		
	36	37	20.58	20.59	20.60		
	75	0	20.70	20.65	20.63		2
64QAM	1	0	20.89	20.86	20.68	≤ 2	2
	1	36	20.92	20.94	20.79		
	1	74	20.84	20.84	20.73		
	36	0	19.56	19.68	19.60	≤ 3	3
	36	18	19.59	19.73	19.62		
	36	37	19.53	19.59	19.59		
	75	0	19.61	19.63	19.57		3

Table 8.1.5.3 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power– 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18650 (1 855.0 MHz)	18900 (1 880.0 MHz)	19150 (1 905.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.60	22.65	22.54	≤ 1	0
	1	25	22.68	22.81	22.62		
	1	49	22.63	22.79	22.58		
	25	0	21.55	21.65	21.61		1
	25	12	21.62	21.74	21.66		
	25	25	21.58	21.72	21.64		
	50	0	21.63	21.69	21.60		
16QAM	1	0	21.67	21.78	21.61	≤ 1	1
	1	25	21.87	21.97	21.69		
	1	49	21.81	21.92	21.58		
	25	0	20.68	20.67	20.63		
	25	12	20.76	20.88	20.70	≤ 2	2
	25	25	20.66	20.71	20.68		
	50	0	20.72	20.71	20.54		
64QAM	1	0	20.69	20.82	20.72	≤ 2	2
	1	25	20.81	20.88	20.78		
	1	49	20.62	20.86	20.71		
	25	0	19.59	19.70	19.65		
	25	12	19.71	19.83	19.71	≤ 3	3
	25	25	19.64	19.73	19.62		
	50	0	19.71	19.85	19.59		

Table 8.1.5.4 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power– 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18625 (1 852.5 MHz)	18900 (1 880.0 MHz)	19175 (1 907.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.49	22.73	22.64	≤ 1	0
	1	12	22.56	22.79	22.65		
	1	24	22.51	22.67	22.54		
	12	0	21.48	21.67	21.59		1
	12	6	21.60	21.74	21.68		
	12	13	21.55	21.68	21.64		
	25	0	21.68	21.64	21.57		
16QAM	1	0	21.53	21.92	21.71	≤ 1	1
	1	12	21.68	21.96	21.75		
	1	24	21.59	21.81	21.68		
	12	0	20.67	20.75	20.51		
	12	6	20.70	20.82	20.64	≤ 2	2
	12	13	20.56	20.72	20.56		
	25	0	20.66	20.72	20.68		
64QAM	1	0	20.66	20.86	20.68	≤ 2	2
	1	12	20.74	20.98	20.75		
	1	24	20.68	20.77	20.62		
	12	0	19.63	19.59	19.66	≤ 3	3
	12	6	19.77	19.76	19.71		
	12	13	19.57	19.64	19.68		
	25	0	19.60	19.78	19.67		

Table 8.1.5.5 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power- 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18615 (1 851.5 MHz)	18900 (1 880.0 MHz)	19185 (1 908.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.49	22.80	22.48	≤ 1	0
	1	7	22.56	22.83	22.63		
	1	14	22.47	22.56	22.43		
	8	0	21.54	21.65	21.62		1
	8	4	21.66	21.72	21.70		
	8	7	21.56	21.67	21.63		
	15	0	21.52	21.67	21.67		
16QAM	1	0	21.64	21.85	21.56	≤ 1	1
	1	7	21.71	21.92	21.65		
	1	14	21.66	21.64	21.48		
	8	0	20.67	20.62	20.69	≤ 2	2
	8	4	20.77	20.75	20.74		
	8	7	20.59	20.68	20.64		
	15	0	20.70	20.65	20.73		
64QAM	1	0	20.48	20.94	20.62	≤ 2	2
	1	7	20.52	21.00	20.73		
	1	14	20.47	20.67	20.56		
	8	0	19.66	19.65	19.57	≤ 3	3
	8	4	19.77	19.78	19.64		
	8	7	19.63	19.74	19.63		
	15	0	19.54	19.84	19.60		

Table 8.1.5.6 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power- 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18607 (1 850.7 MHz)	18900 (1 880.0 MHz)	19193 (1 909.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	22.54	22.77	22.49	≤ 1	0
	1	2	22.66	22.82	22.52		
	1	5	22.47	22.68	22.47		
	3	0	22.53	22.48	22.53		0
	3	2	22.63	22.62	22.57		
	3	3	22.48	22.52	22.47		
	6	0	21.56	21.76	21.56		1
16QAM	1	0	21.65	21.81	21.52	≤ 1	1
	1	2	21.74	21.88	21.67		
	1	5	21.51	21.79	21.63		
	3	0	21.59	21.57	21.61		1
	3	2	21.75	21.64	21.66		
	3	3	21.59	21.61	21.62		
	6	0	20.52	20.91	20.72		≤ 2
64QAM	1	0	20.58	20.90	20.59	≤ 2	2
	1	2	20.84	20.92	20.65		
	1	5	20.64	20.86	20.61		
	3	0	20.59	20.62	20.68		2
	3	2	20.65	20.71	20.73		
	3	3	20.62	20.64	20.65		
	6	0	19.63	19.86	19.71		≤ 3

Table 8.1.5.7 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 2(PCS)	Maximum	21.0
	Nominal	20.0

Table 8.1.5-1.1 Nominal and Maximum Output Power Spec

5-1. LTE Band 2 (PCS) (ENDC)

LTE Band 2 (PCS) Conducted Power-- 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18700 (1 860.0 MHz)	18900 (1 880.0 MHz)	19100 (1 900.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.78	19.78	19.53	≤ 1	0
	1	50	19.83	19.88	19.60		1
	1	99	19.80	19.85	19.52		
	50	0	18.59	18.66	18.52		
	50	25	18.69	18.80	18.62		
	50	50	18.65	18.65	18.61		
	100	0	18.65	18.76	18.56		1
16QAM	1	0	18.85	18.83	18.60	≤ 1	1
	1	50	18.95	18.98	18.69		
	1	99	18.87	18.86	18.61		
	50	0	17.61	17.70	17.62	≤ 2	2
	50	25	17.74	17.76	17.75		
	50	50	17.68	17.72	17.72		
	100	0	17.76	17.61	17.65		
64QAM	1	0	17.85	17.88	17.65	≤ 2	2
	1	50	17.97	17.93	17.71		
	1	99	17.89	17.81	17.63		
	50	0	16.61	16.73	16.61	≤ 3	3
	50	25	16.70	16.79	16.73		
	50	50	16.66	16.76	16.68		
	100	0	16.73	16.61	16.58		

Table 8.1.5-1.2 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power– 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18675 (1 857.5 MHz)	18900 (1 880.0 MHz)	19125 (1 902.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.69	19.60	19.50	≤ 1	0
	1	36	19.82	19.75	19.73		
	1	74	19.64	19.57	19.55		
	36	0	18.46	18.59	18.55		1
	36	18	18.55	18.67	18.65		
	36	37	18.54	18.44	18.63		
	75	0	18.55	18.61	18.56		1
16QAM	1	0	18.76	18.67	18.60	≤ 1	1
	1	36	18.90	18.84	18.76		
	1	74	18.72	18.66	18.58		
	36	0	17.57	17.65	17.59	≤ 2	2
	36	18	17.63	17.75	17.73		
	36	37	17.62	17.57	17.69		
	75	0	17.63	17.74	17.56		2
64QAM	1	0	17.72	17.65	17.58	≤ 2	2
	1	36	17.93	17.79	17.81		
	1	74	17.75	17.61	17.63		
	36	0	16.57	16.67	16.59	≤ 3	3
	36	18	16.68	16.71	16.74		
	36	37	16.62	16.50	16.70		
	75	0	16.68	16.65	16.58		3

Table 8.1.5-1.3 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power– 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18650 (1 855.0 MHz)	18900 (1 880.0 MHz)	19150 (1 905.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.57	19.55	19.55	≤ 1	0
	1	25	19.76	19.74	19.74		
	1	49	19.58	19.66	19.56		
	25	0	18.58	18.64	18.56		1
	25	12	18.64	18.67	18.64		
	25	25	18.56	18.64	18.63		
	50	0	18.57	18.55	18.53		
16QAM	1	0	18.67	18.61	18.60	≤ 1	1
	1	25	18.84	18.84	18.76		
	1	49	18.66	18.76	18.58		
	25	0	17.60	17.70	17.61		
	25	12	17.78	17.79	17.75	≤ 2	2
	25	25	17.69	17.75	17.70		
	50	0	17.68	17.61	17.57		
64QAM	1	0	17.62	17.69	17.62	≤ 2	2
	1	25	17.86	17.80	17.74		
	1	49	17.68	17.72	17.56		
	25	0	16.64	16.74	16.65		
	25	12	16.77	16.79	16.70	≤ 3	3
	25	25	16.60	16.71	16.69		
	50	0	16.71	16.65	16.62		

Table 8.1.5-1.4 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power-- 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18625 (1 852.5 MHz)	18900 (1 880.0 MHz)	19175 (1 907.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.49	19.74	19.53	≤ 1	0
	1	12	19.61	19.81	19.69		
	1	24	19.48	19.68	19.56		
	12	0	18.44	18.68	18.56		1
	12	6	18.62	18.80	18.61		
	12	13	18.60	18.65	18.42		
	25	0	18.61	18.50	18.59		
16QAM	1	0	18.60	18.81	18.60	≤ 1	1
	1	12	18.64	18.90	18.76		
	1	24	18.51	18.77	18.63		
	12	0	17.53	17.75	17.62	≤ 2	2
	12	6	17.69	17.93	17.66		
	12	13	17.65	17.72	17.49		
	25	0	17.66	17.61	17.67		
64QAM	1	0	17.63	17.81	17.61	≤ 2	2
	1	12	17.65	17.83	17.75		
	1	24	17.52	17.70	17.62		
	12	0	16.53	16.70	16.69	≤ 3	3
	12	6	16.69	16.92	16.70		
	12	13	16.67	16.68	16.51		
	25	0	16.66	16.59	16.64		

Table 8.1.5-1.5 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power- 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18615 (1 851.5 MHz)	18900 (1 880.0 MHz)	19185 (1 908.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.60	19.76	19.54	≤ 1	0
	1	7	19.70	19.78	19.71		
	1	14	19.47	19.58	19.33		
	8	0	18.50	18.55	18.36		1
	8	4	18.69	18.69	18.65		
	8	7	18.55	18.64	18.64		
	15	0	18.49	18.58	18.54		
16QAM	1	0	18.64	18.80	18.61	≤ 1	1
	1	7	18.79	18.83	18.74		
	1	14	18.51	18.65	18.36		
	8	0	17.58	17.64	17.40	≤ 2	2
	8	4	17.78	17.78	17.73		
	8	7	17.67	17.71	17.70		
	15	0	17.52	17.68	17.60		
64QAM	1	0	17.70	17.82	17.61	≤ 2	2
	1	7	17.74	17.86	17.75		
	1	14	17.57	17.68	17.37		
	8	0	16.52	16.62	16.43	≤ 3	3
	8	4	16.75	16.77	16.75		
	8	7	16.64	16.72	16.72		
	15	0	16.50	16.69	16.65		

Table 8.1.5-1.6 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power- 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18607 (1 850.7 MHz)	18900 (1 880.0 MHz)	19193 (1 909.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	19.64	19.60	19.54	≤ 1	0
	1	2	19.70	19.75	19.68		0
	1	5	19.47	19.67	19.45		
	3	0	19.49	19.47	19.51		
	3	2	19.80	19.68	19.62		
	3	3	19.57	19.47	19.46		
	6	0	18.44	18.69	18.59		1
16QAM	1	0	18.76	18.64	18.56	≤ 1	1
	1	2	18.80	18.81	18.78		
	1	5	18.57	18.73	18.55		
	3	0	18.55	18.50	18.54		
	3	2	18.80	18.70	18.75		
	3	3	18.64	18.51	18.50		
	6	0	17.55	17.78	17.63		2
64QAM	1	0	17.70	17.67	17.57	≤ 2	2
	1	2	17.79	17.84	17.76		
	1	5	17.56	17.76	17.53		
	3	0	17.59	17.54	17.52		
	3	2	17.82	17.75	17.71		
	3	3	17.64	17.59	17.50		
	6	0	16.50	16.75	16.63		3

Table 8.1.5-1.7 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 2(PCS)	Maximum	11.0
	Nominal	10.0

Table 8.1.5-2.1 Nominal and Maximum Output Power Spec

5-2. LTE Band 2 (PCS) (ENDC)

LTE Band 2 (PCS) Conducted Power-- 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18700 (1 860.0 MHz)	18900 (1 880.0 MHz)	19100 (1 900.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.76	9.79	9.55	≤ 1	0
	1	50	9.79	9.88	9.66		
	1	99	9.75	9.77	9.58		
	50	0	8.56	8.69	8.56		1
	50	25	8.65	8.89	8.67		
	50	50	8.59	8.66	8.66		
	100	0	8.66	8.88	8.61		1
16QAM	1	0	8.93	8.90	8.53	≤ 1	1
	1	50	8.97	9.00	8.60		
	1	99	8.82	8.74	8.49		
	50	0	7.57	7.75	7.73	≤ 2	2
	50	25	7.67	7.76	7.80		
	50	50	7.59	7.66	7.76		
	100	0	7.63	7.87	7.80		2
	64QAM	1	0	7.87	7.86	7.54	≤ 2
1		50	7.90	7.94	7.56		
1		99	7.85	7.61	7.53		
50		0	6.59	6.72	6.68	≤ 3	3
50		25	6.71	6.76	6.74		
50		50	6.70	6.73	6.67		
100		0	6.67	6.77	6.62		3

Table 8.1.5-2.2 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power– 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18675 (1 857.5 MHz)	18900 (1 880.0 MHz)	19125 (1 902.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.80	9.63	9.68	≤ 1	0
	1	36	9.84	9.74	9.74		
	1	74	9.62	9.66	9.57		
	36	0	8.50	8.51	8.64		1
	36	18	8.56	8.77	8.74		
	36	37	8.49	8.66	8.69		
	75	0	8.64	8.61	8.65		1
16QAM	1	0	8.93	8.73	8.76	≤ 1	1
	1	36	8.94	8.82	8.88		
	1	74	8.81	8.69	8.63		
	36	0	7.55	7.57	7.58	≤ 2	2
	36	18	7.73	7.59	7.77		
	36	37	7.57	7.53	7.61		
	75	0	7.82	7.53	7.69		2
64QAM	1	0	7.83	7.76	7.81	≤ 2	2
	1	36	8.00	7.84	7.88		
	1	74	7.81	7.75	7.74		
	36	0	6.62	6.62	6.67	≤ 3	3
	36	18	6.68	6.66	6.73		
	36	37	6.48	6.53	6.70		
	75	0	6.55	6.60	6.58		3

Table 8.1.5-2.3 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power– 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18650 (1 855.0 MHz)	18900 (1 880.0 MHz)	19150 (1 905.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.66	9.66	9.53	≤ 1	0
	1	25	9.79	9.76	9.62		1
	1	49	9.68	9.72	9.59		
	25	0	8.60	8.61	8.65		
	25	12	8.75	8.80	8.68		
	25	25	8.67	8.77	8.64		
	50	0	8.78	8.65	8.60		1
16QAM	1	0	8.80	8.74	8.56	≤ 1	1
	1	25	8.95	8.93	8.68		
	1	49	8.83	8.85	8.60		
	25	0	7.79	7.59	7.57	≤ 2	2
	25	12	7.91	7.84	7.73		
	25	25	7.78	7.75	7.64		
	50	0	7.94	7.65	7.57		
64QAM	1	0	7.81	7.80	7.68	≤ 2	2
	1	25	7.87	7.84	7.80		
	1	49	7.75	7.73	7.72		
	25	0	6.76	6.62	6.70	≤ 3	3
	25	12	6.83	6.95	6.74		
	25	25	6.77	6.80	6.59		
	50	0	6.85	6.74	6.51		

Table 8.1.5-2.4 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power-- 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18625 (1 852.5 MHz)	18900 (1 880.0 MHz)	19175 (1 907.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.45	9.77	9.66	≤ 1	0
	1	12	9.57	9.81	9.72		1
	1	24	9.44	9.71	9.64		
	12	0	8.42	8.62	8.61		
	12	6	8.67	8.67	8.70		
	12	13	8.49	8.61	8.63		
	25	0	8.64	8.55	8.53		1
16QAM	1	0	8.61	8.91	8.74	≤ 1	1
	1	12	8.65	9.00	8.75		
	1	24	8.61	8.88	8.67		
	12	0	7.57	7.67	7.51	≤ 2	2
	12	6	7.77	7.76	7.74		
	12	13	7.62	7.71	7.67		
	25	0	7.73	7.68	7.72		
64QAM	1	0	7.62	7.75	7.64	≤ 2	2
	1	12	7.69	7.93	7.85		
	1	24	7.59	7.82	7.58		
	12	0	6.56	6.49	6.63	≤ 3	3
	12	6	6.72	6.72	6.85		
	12	13	6.54	6.55	6.64		
	25	0	6.61	6.70	6.63		

Table 8.1.5-2.5 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power- 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18615 (1 851.5 MHz)	18900 (1 880.0 MHz)	19185 (1 908.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.57	9.77	9.52	≤ 1	0
	1	7	9.67	9.79	9.62		1
	1	14	9.46	9.65	9.48		
	8	0	8.60	8.65	8.66		
	8	4	8.70	8.75	8.68		
	8	7	8.52	8.65	8.65		
	15	0	8.52	8.67	8.66		1
16QAM	1	0	8.74	8.81	8.57	≤ 1	1
	1	7	8.85	8.90	8.59		
	1	14	8.63	8.57	8.45		
	8	0	7.65	7.59	7.65	≤ 2	2
	8	4	7.73	7.79	7.82		
	8	7	7.69	7.70	7.64		
	15	0	7.67	7.54	7.79		
64QAM	1	0	7.47	7.90	7.59	≤ 2	2
	1	7	7.63	7.94	7.77		
	1	14	7.53	7.69	7.66		
	8	0	6.70	6.61	6.62	≤ 3	3
	8	4	6.82	6.75	6.66		
	8	7	6.66	6.71	6.61		
	15	0	6.64	6.78	6.69		

Table 8.1.5-2.6 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power- 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18607 (1 850.7 MHz)	18900 (1 880.0 MHz)	19193 (1 909.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	9.54	9.80	9.56	≤ 1	0
	1	2	9.58	9.84	9.59		
	1	5	9.32	9.63	9.51		
	3	0	9.41	9.56	9.51		0
	3	2	9.54	9.72	9.64		
	3	3	9.44	9.57	9.47		
	6	0	8.67	8.79	8.55		1
16QAM	1	0	8.56	8.91	8.48	≤ 1	1
	1	2	8.61	9.00	8.67		
	1	5	8.52	8.79	8.57		
	3	0	8.54	8.72	8.59		1
	3	2	8.69	8.87	8.79		
	3	3	8.63	8.62	8.64		
	6	0	7.56	7.93	7.64		≤ 2
64QAM	1	0	7.45	7.94	7.53	≤ 2	2
	1	2	7.62	8.00	7.70		
	1	5	7.49	7.81	7.63		
	3	0	7.56	7.64	7.69		2
	3	2	7.65	7.86	7.76		
	3	3	7.61	7.69	7.66		
	6	0	6.64	6.90	6.73		≤ 3

Table 8.1.5-2.7 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 2(PCS)	Maximum	-4.0
	Nominal	-5.0

Table 8.1.5-3.1 Nominal and Maximum Output Power Spec

5-3. LTE Band 2 (PCS) (ENDC)

LTE Band 2 (PCS) Conducted Power–20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18700 (1 860.0 MHz)	18900 (1 880.0 MHz)	19100 (1 900.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-5.14	-5.21	-5.25	≤ 1	0
	1	50	-5.13	-4.92	-5.24		
	1	99	-5.15	-5.22	-5.46		
	50	0	-6.33	-6.20	-6.45		1
	50	25	-6.21	-6.00	-6.35		
	50	50	-6.23	-6.31	-6.37		
	100	0	-6.33	-6.30	-6.47		
16QAM	1	0	-6.07	-6.11	-6.20	≤ 1	1
	1	50	-6.04	-5.97	-6.16		
	1	99	-6.05	-6.15	-6.38		
	50	0	-7.22	-7.15	-7.41	≤ 2	2
	50	25	-7.12	-7.06	-7.26		
	50	50	-7.16	-7.27	-7.28		
	100	0	-7.29	-7.38	-7.44		
64QAM	1	0	-7.08	-7.13	-7.23	≤ 2	2
	1	50	-7.07	-6.97	-7.20		
	1	99	-7.09	-7.15	-7.41		
	50	0	-8.23	-8.18	-8.43	≤ 3	3
	50	25	-8.13	-8.07	-8.28		
	50	50	-8.15	-8.30	-8.30		
	100	0	-8.28	-8.31	-8.35		

Table 8.1.5-3.2 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power– 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18675 (1 857.5 MHz)	18900 (1 880.0 MHz)	19125 (1 902.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-5.11	-5.24	-5.38	≤ 1	0
	1	36	-4.95	-5.03	-5.30		
	1	74	-5.33	-5.41	-5.46		
	36	0	-6.34	-6.42	-6.49		1
	36	18	-6.15	-6.11	-6.20		
	36	37	-6.20	-6.33	-6.37		
	75	0	-6.44	-6.46	-6.46		
16QAM	1	0	-6.08	-6.16	-6.27	≤ 1	1
	1	36	-5.88	-5.93	-6.20		
	1	74	-6.26	-6.31	-6.35		
	36	0	-7.30	-7.32	-7.38	≤ 2	2
	36	18	-6.98	-7.04	-7.11		
	36	37	-7.14	-7.22	-7.33		
	75	0	-7.31	-7.34	-7.38		
64QAM	1	0	-7.01	-7.12	-7.33	≤ 2	2
	1	36	-6.89	-6.94	-7.18		
	1	74	-7.27	-7.32	-7.41		
	36	0	-8.29	-8.35	-8.39	≤ 3	3
	36	18	-8.13	-8.02	-8.10		
	36	37	-8.16	-8.27	-8.30		
	75	0	-8.32	-8.35	-8.40		

Table 8.1.5-3.3 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power– 10 MHz Bandwidth										
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)			
			18650 (1 855.0 MHz)	18900 (1 880.0 MHz)	19150 (1 905.0 MHz)					
			Conducted Power (dBm)							
QPSK	1	0	-5.40	-5.22	-5.26	≤ 1	0			
	1	25	-5.24	-5.06	-5.09		1			
	1	49	-5.32	-5.44	-5.47					
	25	0	-6.32	-6.45	-6.45					
	25	12	-6.20	-6.15	-6.19					
	25	25	-6.32	-6.35	-6.39					
	50	0	-6.34	-6.42	-6.50		1			
16QAM	1	0	-6.36	-6.15	-6.23	≤ 1	1			
	1	25	-6.16	-6.00	-5.99					
	1	49	-6.24	-6.38	-6.37					
	16QAM	25	0	-7.28	-7.39	-7.38	≤ 2	2		
		25	12	-7.15	-7.01	-7.08				
		25	25	-7.22	-7.23	-7.32				
		64QAM	50	0	-7.26	-7.34			-7.42	≤ 2
1			0	-7.37	-7.12	-7.19				
1	25		-7.18	-6.96	-7.02					
1	49		-7.26	-7.34	-7.40					
25	0		-8.23	-8.37	-8.38					
64QAM	25	12	-8.11	-8.08	-8.13	≤ 3	3			
	25	25	-8.21	-8.23	-8.29					
	50	0	-8.21	-8.38	-8.41					

Table 8.1.5-3.4 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power-- 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18625 (1 852.5 MHz)	18900 (1 880.0 MHz)	19175 (1 907.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-5.38	-5.23	-5.30	≤ 1	0
	1	12	-5.29	-5.05	-5.29		
	1	24	-5.30	-5.43	-5.48		
	12	0	-6.57	-6.41	-6.46		1
	12	6	-6.30	-6.12	-6.34		
	12	13	-6.47	-6.30	-6.35		
	25	0	-6.33	-6.43	-6.44		
16QAM	1	0	-6.29	-6.17	-6.23	≤ 1	1
	1	12	-6.11	-5.93	-6.21		
	1	24	-6.24	-6.31	-6.39		
	12	0	-7.52	-7.33	-7.38		
	12	6	-7.24	-7.03	-7.29	≤ 2	2
	12	13	-7.43	-7.22	-7.31		
	25	0	-7.24	-7.38	-7.39		
64QAM	1	0	-7.28	-7.19	-7.25	≤ 2	2
	1	12	-7.19	-7.02	-7.21		
	1	24	-7.22	-7.40	-7.43		
	12	0	-8.51	-8.37	-8.39		
	12	6	-8.18	-8.10	-8.30	≤ 3	3
	12	13	-8.39	-8.24	-8.34		
	25	0	-8.25	-8.33	-8.36		

Table 8.1.5-3.5 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power- 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18615 (1 851.5 MHz)	18900 (1 880.0 MHz)	19185 (1 908.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-5.51	-5.23	-5.58	≤ 1	0
	1	7	-5.35	-5.04	-5.36		1
	1	14	-5.53	-5.42	-5.44		
	8	0	-6.32	-6.42	-6.46		
	8	4	-6.25	-6.11	-6.16		
	8	7	-6.41	-6.33	-6.38		
	15	0	-6.34	-6.44	-6.45		1
16QAM	1	0	-6.44	-6.18	-6.54	≤ 1	1
	1	7	-6.32	-6.00	-6.28		
	1	14	-6.50	-6.38	-6.36		
	8	0	-7.24	-7.40	-7.35	≤ 2	2
	8	4	-7.19	-7.07	-7.13		
	8	7	-7.34	-7.24	-7.32		
	15	0	-7.27	-7.40	-7.41		
64QAM	1	0	-7.44	-7.15	-7.49	≤ 2	2
	1	7	-7.30	-7.02	-7.33		
	1	14	-7.48	-7.40	-7.41		
	8	0	-8.28	-8.37	-8.42	≤ 3	3
	8	4	-8.19	-8.07	-8.11		
	8	7	-8.36	-8.23	-8.34		
	15	0	-8.24	-8.31	-8.42		

Table 8.1.5-3.6 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power- 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18607 (1 850.7 MHz)	18900 (1 880.0 MHz)	19193 (1 909.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	-5.46	-5.22	-5.47	≤ 1	0
	1	2	-5.25	-5.05	-5.30		
	1	5	-5.53	-5.43	-5.45		
	3	0	-5.32	-5.44	-5.45		0
	3	2	-5.31	-5.11	-5.37		
	3	3	-5.55	-5.32	-5.42		
	6	0	-6.31	-6.44	-6.49		1
16QAM	1	0	-6.32	-6.20	-6.40	≤ 1	1
	1	2	-6.22	-6.02	-6.17		
	1	5	-6.50	-6.40	-6.38		
	3	0	-6.30	-6.32	-6.44		1
	3	2	-6.23	-6.02	-6.33		
	3	3	-6.41	-6.30	-6.35		
	6	0	-7.30	-7.34	-7.43		
64QAM	1	0	-7.38	-7.12	-7.37	≤ 2	2
	1	2	-7.15	-6.99	-7.15		
	1	5	-7.43	-7.37	-7.35		
	3	0	-7.27	-7.32	-7.37		2
	3	2	-7.21	-7.03	-7.25		
	3	3	-7.43	-7.26	-7.33		
	6	0	-8.24	-8.32	-8.38		

Table 8.1.5-3.7 LTE Conducted Power

8.2 LTE Downlink CA Conducted Powers

8.2.1 LTE Downlink Only Carrier Aggregation Test Reduction Methodology

SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number of component carriers (CCs) supported by the product implementation. Per April 2018 TCBC Workshop Notes, the following test reduction methodology was applied to determine the combinations required for conducted power measurements.

LTE DL CA Test Reduction Methodology:

- (1) Test supported combinations were arranged by the number of component carriers in columns.
- (2) Any limitations on the PCC or SCC for each combination were identified alongside the combination (e.g. CA_2A-2A-4A-12A, but B12 can only be configured as a SCC).
- (3) Power measurements were performed for “supersets” (LTE CA combinations with multiple components carriers) and any “subsets” (LTE CA combinations with fewer component carriers) that were not completely covered by the supersets.
- (4) Only subsets that have the exact same components as a superset were excluded for measurement.
- (5) When there were certain restrictions on component carriers that existed in the superset that were not applied for the subset, the subset configuration was additionally evaluated.
- (6) Both inter-band and intra-band downlink carrier aggregation scenarios were considered.

Index	2CC	Restriction	Completely Covered by Measurement Superset	Index	3CC	Restriction	Completely Covered by Measurement Superset	Index	4CC	Restriction	Completely Covered by Measurement Superset	Index	5CC	Restriction	Completely Covered by Measurement Superset
RCC #1	CA 2C		3CC #7	RCC #1	CA 2A-2A-4A		4CC #1	RCC #1	CA 2A-2A-4A-4A		No	SCC #1	CA 2A-2A-4A-6D	B46 SCC Only	No
RCC #2	CA 2A-2A		4CC #1	RCC #2	CA 2A-2A-5A		4CC #2	RCC #2	CA 2A-2A-4A-5A		No	SCC #2	CA 2A-5B-30A-66A		No
RCC #3	CA 2A-4A (2)		4CC #1	RCC #3	CA 2A-2A-12A		No	RCC #3	CA 2A-2A-4A-12A	B12 SCC Only	No	SCC #3	CA 2A-5B-66A-66A		No
RCC #4	CA 2A-5A		4CC #2	RCC #4	CA 2A-2A-13A		4CC #8	RCC #4	CA 2A-2A-5A-30A		No	SCC #4	CA 2A-46D-66A	B46 SCC Only	No
RCC #5	CA 2A-7A		4CC #16	RCC #5	CA 2A-2A-29A	B29 SCC Only	4CC #9	RCC #5	CA 2A-2A-5A-66A		No	SCC #5	CA 2A-46A-46C-66A	B46 SCC Only	No
RCC #6	CA 2A-12A (1)		3CC #3	RCC #6	CA 2A-2A-30A		4CC #9	RCC #6	CA 2A-2A-12A-30A	B12 SCC Only	No	SCC #6	CA 41C-41D		No
RCC #7	CA 2A-13A		4CC #31	RCC #7	CA 2C-66A		No	RCC #7	CA 2A-2A-12A-66A	B12 SCC Only	No	SCC #7	CA 46D-66A-66A	B46 SCC Only	No
RCC #8	CA 2A-14A		3CC #27	RCC #8	CA 2A-2A-66A		4CC #7	RCC #8	CA 2A-2A-13A-66A		No	SCC #8			
RCC #9	CA 2A-17A		No	RCC #9	CA 2A-2A-71A	B71 SCC Only	No	RCC #9	CA 2A-2A-29A-30A	B29 SCC Only	No	SCA 9			
RCC #10	CA 2A-29A (2)	B29 SCC Only	4CC #9	RCC #10	CA 2A-4A-4A		4CC #1	RCC #10	CA 2A-2A-66A-66A		No	SCA 10			
RCC #11	CA 2A-30A		4CC #9	RCC #11	CA 2A-4A-5A		4CC #2	RCC #11	CA 2A-4A-4A-5A		No	SCA 11			
RCC #12	CA 2A-46A	B46 SCC Only	5CC #5	RCC #12	CA 2A-4A-7A		4CC #16	RCC #12	CA 2A-4A-4A-12A	B12 SCC Only	No	SCA 12			
RCC #13	CA 2A-66A		5CC #2	RCC #13	CA 2A-4A-12A		No	RCC #13	CA 2A-4A-5B		No	SCA 13			
RCC #14	CA 2A-71A	B71 SCC Only	3CC #17	RCC #14	CA 2A-4A-13A		No	RCC #14	CA 2A-4A-5A-30A		No	SCA 14			
RCC #15	CA 4A-4A		4CC #1	RCC #15	CA 2A-4A-29A	B29 SCC Only	4CC #20	RCC #15	CA 2A-4A-7C		No	SCA 15			
RCC #16	CA 4A-5A (1)		4CC #2	RCC #16	CA 2A-4A-30A		4CC #19	RCC #16	CA 2A-4A-7A-7A		No	SCA 16			
RCC #17	CA 4A-7A (1)		4CC #16	RCC #17	CA 2A-4A-71A	B71 SCC Only	No	RCC #17	CA 2A-4A-7A-12A	B12 SCC Only	No	SCA 17			
RCC #18	CA 4A-12A (2)		4CC #3	RCC #18	CA 2A-5B		4CC #13	RCC #18	CA 2A-4A-12B	B12 SCC Only	No	SCA 18			
RCC #19	CA 4A-13A		3CC #14	RCC #19	CA 2A-5A-30A		4CC #23	RCC #19	CA 2A-4A-12A-30A		No	SCA 19			
RCC #20	CA 4A-17A	B17 SCC Only	No	RCC #20	CA 2A-5A-66A		4CC #23	RCC #20	CA 2A-4A-29A-30A	B29 SCC Only	No	SCA 20			
RCC #21	CA 4A-29A (2)	B29 SCC Only	4CC #20	RCC #21	CA 2A-7A-7A		4CC #16	RCC #21	CA 2A-5B-30A		SCC #2	SCA 21			
RCC #22	CA 4A-30A		4CC #19	RCC #22	CA 2A-7A-12A		No	RCC #22	CA 2A-5B-66A		SCC #3	SCA 22			
RCC #23	CA 4A-46A	B46 SCC Only	4CC #42	RCC #23	CA 2A-12B		No	RCC #23	CA 2A-5A-30A-66A		No	SCA 23			
RCC #24	CA 4A-71A	B71 SCC Only	3CC #43	RCC #24	CA 2A-12A-30A		No	RCC #24	CA 2A-5A-66B		No	SCA 24			
RCC #25	CA 5B		5CC #2	RCC #25	CA 2A-12A-66A		No	RCC #25	CA 2A-5A-66C		No	SCA 25			
RCC #26	CA 5A-25A		No	RCC #26	CA 2A-13A-66A		4CC #31	RCC #26	CA 2A-5A-66A-66A		No	SCA 26			
RCC #27	CA 5A-30A		4CC #23	RCC #27	CA 2A-14A-30A		No	RCC #27	CA 2A-12A-30A-66A	B12 SCC Only	No	SCA 27			
RCC #28	CA 5A-66A		4CC #23	RCC #28	CA 2A-29A-30A	B29 SCC Only	4CC #9	RCC #28	CA 2A-12A-66A-66A		No	SCA 28			
RCC #29	CA 7A-7A (1)		4CC #16	RCC #29	CA 2A-30A-66A		4CC #23	RCC #29	CA 2A-13A-66B		No	SCA 29			
RCC #30	CA 7A-12A		3CC #22	RCC #30	CA 2A-46C	B46 SCC Only	SCC #5	RCC #30	CA 2A-13A-66C		No	SCA 30			
RCC #31	CA 7A-46A (1)	B46 SCC Only	No	RCC #31	CA 2A-46A-46A	B46 SCC Only	4CC #34	RCC #31	CA 2A-13A-66A-66A		No	SCA 31			
RCC #32	CA 12B		3CC #23	RCC #32	CA 2A-46A-66A	B46 SCC Only	4CC #34	RCC #32	CA 2A-46D	B46 SCC Only	SCC #1	SCA 32			
RCC #33	CA 12A-25A		No	RCC #33	CA 2A-66B		4CC #24	RCC #33	CA 2A-46A-46C	B46 SCC Only	SCC #5	SCA 33			
RCC #34	CA 12A-30A		4CC #4	RCC #34	CA 2A-66C		4CC #25	RCC #34	CA 2A-46A-46A-66A		No	SCA 34			
RCC #35	CA 12A-66A (1)		3CC #25	RCC #35	CA 2A-66A-66A		4CC #26	RCC #35	CA 2A-46C-66A	B46 SCC Only	SCC #5	SCA 35			
RCC #36	CA 13A-46A	B46 SCC Only	No	RCC #36	CA 2A-66A-71A	B71 SCC Only	No	RCC #36	CA 4A-4A-5B		No	SCA 36			
RCC #37	CA 13A-66A		4CC #8	RCC #37	CA 4A-4A-5A		4CC #37	RCC #37	CA 4A-4A-5A-30A		No	SCA 37			
RCC #38	CA 14A-30A		3CC #27	RCC #38	CA 4A-4A-7A (1)		No	RCC #38	CA 4A-4A-12A-30A	B12 SCC Only	No	SCA 38			
RCC #39	CA 14A-66A		3CC #66	RCC #39	CA 4A-4A-12A		4CC #38	RCC #39	CA 4A-4A-29A-30A	B29 SCC Only	No	SCA 39			
RCC #40	CA 25A-25A (1)		4CC #49	RCC #40	CA 4A-4A-13A		No	RCC #40	CA 4A-5B-30A		No	SCA 40			

Table 8.2.1.1 Example of Exclusion Table for LTE DL CA

8.2.2 LTE Downlink Only Carrier Aggregation Test Selection and Setup

SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number of component carriers (CCs) supported by the product implementation. For those configurations required by April 2018 TCBC Workshop Notes, 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(s) (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. Additional conducted output powers are measured with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with 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 0.25 dB higher than the average output power with downlink only carrier aggregation inactive.

General PCC and SCC configuration selection procedure

PCC uplink channel, channel bandwidth, modulation and RB configurations were selected based on section C)3)b)ii) of KDB 941225 D05v01r02. The downlink PCC channel was paired with the selected PCC uplink channel according to normal configurations without carrier aggregation.

To maximize aggregation bandwidth, highest channel bandwidth available for that CA combination was selected for SCC. For inter-band CA, the SCC downlink channels were selected near the middle of their transmission bands. For contiguous intra-band CA, the downlink channel spacing between the component carriers was set to multiple of 300 kHz less than the nominal channel spacing defined in section 5.4.1A of 3GPP TS 36.521. For non-contiguous intra-band CA, the downlink channel spacing between the component carriers was set to be larger than the nominal channel spacing and provided maximum separation between the component carriers.

All selected PCC and SCC(s) remained fully within the uplink/downlink transmission band of the respective component carrier.

When a device supports LTE capabilities with overlapping transmission frequency ranges, the standalone powers from the band with a larger transmission frequency range can be used to select measurement configurations for the band with the fully covered transmission frequency range.

8.2.3 LTE DL Carrier Aggregation Conducted Powers

- Below downlink CA configurations were determined based on Manufacturer's information.

Table 8.2.3.1 CA BW Class

Class	ATBC		Maximum number of CC
	NRB.agg	MHz	
A	$N \leq 100$	20	1
B	$25 < N \leq 100$	20	2
C	$100 < N \leq 200$	40	2
D	$200 < N \leq 300$	60	3
E	$300 < N \leq 400$	80	4
F	$400 < N \leq 500$	100	5
I	$700 < N \leq 800$	160	8

Table 8.2.3.2 Exclusion Table for LTE DL CA (2CC)

Index	2CC	Supported Channel Bandwidth [MHz]		Restriction	Completely Covered by Measurement Superset
		CC1	CC2		
2CC #1	CA_2A-2A (0)	5, 10, 15, 20	5, 10, 15, 20		No
2CC #2	CA_2A-4A (0)	1.4, 3, 5, 10, 15, 20	5, 10, 15, 20		No
2CC #3	CA_2A-4A (1)	5, 10	5, 10		No
2CC #4	CA_2A-4A (2)	5, 10, 15, 20	5, 10, 15, 20		No
2CC #5	CA_2A-5A (0)	5, 10, 15, 20	5, 10		No
2CC #6	CA_2A-5A (1)	5, 10	5, 10		No
2CC #7	CA_2A-12A (0)	5, 10, 15, 20	5, 10		No
2CC #8	CA_2A-12A (1)	5, 10, 15, 20	3, 5, 10		No
2CC #9	CA_2A-12A (2)	5, 10	5, 10		No
2CC #10	CA_2A-14A (0)	5, 10, 15, 20	5, 10		No
2CC #11	CA_2A-66A (0)	1.4, 3, 5, 10, 15, 20	5, 10, 15, 20		No
2CC #12	CA_2A-66A (1)	5, 10	5, 10		No
2CC #13	CA_2A-66A (2)	5, 10, 15, 20	5, 10, 15, 20		No
2CC #14	CA_2C (0)	5, 10, 15, 20	5, 10, 15, 20		No
2CC #15	CA_4A-4A (0)	5, 10, 15, 20	5, 10, 15, 20		No
2CC #16	CA_4A-4A (1)	5, 10	5, 10		No
2CC #17	CA_4A-5A (0)	5, 10	5, 10		No
2CC #18	CA_4A-5A (1)	5, 10, 15, 20	5, 10		No
2CC #19	CA_4A-12A (0)	1.4, 3, 5, 10	5, 10		No
2CC #20	CA_4A-12A (1)	1.4, 3, 5, 10, 15, 20	5, 10		No
2CC #21	CA_4A-12A (2)	5, 10, 15, 20	3, 5, 10		No
2CC #22	CA_4A-12A (3)	5, 10	5, 10		No
2CC #23	CA_4A-12A (4)	5, 10, 15, 20	5, 10		No
2CC #24	CA_4A-12A (5)	5, 10, 15	5		No
2CC #25	CA_5A-5A (0)	5, 10	5, 10		No
2CC #26	CA_5A-5A (1)	3	5		No
2CC #27	CA_5A-12A (0)	5, 10	5, 10		No
2CC #28	CA_5A-66A (0)	5, 10	5, 10, 15, 20		No
2CC #29	CA_5B (0)	5, 10	5, 10		No
2CC #30	CA_5B (1)	3, 5	3, 5		No
2CC #31	CA_12A-12A (0)	5	5		No
2CC #32	CA_12A-66A (0)	5, 10	1.4, 3, 5, 10		No
2CC #33	CA_12A-66A (1)	5, 10	1.4, 3, 5, 10, 15, 20		No
2CC #34	CA_12A-66A (2)	3, 5, 10	5, 10, 15, 20		No
2CC #35	CA_12A-66A (3)	5, 10	5, 10		No
2CC #36	CA_12A-66A (4)	5, 10	5, 10, 15, 20		No
2CC #37	CA_12A-66A (5)	5	5, 10, 15		No
2CC #38	CA_12B (0)	5	5, 10		No
2CC #39	CA_14A-66A (0)	5, 10	5, 10, 15, 20		No
2CC #40	CA_66A-66A (0)	5, 10, 15, 20	5, 10, 15, 20		No
2CC #41	CA_66B (0)	5, 10, 15	5, 10, 15		No
2CC #42	CA_66C (0)	5, 10, 15, 20	5, 10, 15, 20		No

Note: Orange and blue highlighted cells need power measurement.

Table 8.2.3.3 LTE Band 2 as PCC

PCC										SCC				Power	
Combination	PCC Band	PCC BW (MHz)	PCC (UL) CH.	PCC (UL) Freq. (MHz)	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) CH.	PCC (DL) Freq. (MHz)	SCC Band	SCC BW (MHz)	SCC (DL) CH.	SCC (DL) Freq. (MHz)	LTE Tx. Power with DL CA Enabled (dBm)	LTE Single Carrier Tx. Power (dBm)
CA_2A-2A(0)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B2	20	1100	1 980.0	22.80	22.90
CA_2A-4A (0)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B4	20	2175	2 132.5	22.79	22.90
CA_2A-4A (1)	LTE B2	10	18900	1 880.0	QPSK	1	25	900	1 960.0	LTE B4	10	2175	2 132.5	22.69	22.81
CA_2A-4A (2)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B4	20	2175	2 132.5	22.77	22.90
CA_2A-5A (0)	LTE B2	20	18900	1 880.0	QPSK	1	0	900	1 960.0	LTE B5	10	2525	881.5	22.71	22.90
CA_2A-5A (1)	LTE B2	10	18900	1 880.0	QPSK	1	25	900	1 960.0	LTE B5	10	2525	881.5	22.66	22.81
CA_2A-12A (0)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B12	10	5095	737.5	22.74	22.90
CA_2A-12A (1)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B12	10	5095	737.5	22.75	22.90
CA_2A-12A (2)	LTE B2	10	18900	1 880.0	QPSK	1	25	900	1 960.0	LTE B12	10	5095	737.5	22.65	22.81
CA_2A-14A (0)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B14	10	5330	763.0	22.76	22.90
CA_2A-66A (0)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B66	20	66786	2 145.0	22.74	22.90
CA_2A-66A (1)	LTE B2	10	18900	1 880.0	QPSK	1	25	900	1 960.0	LTE B66	10	66786	2 145.0	22.67	22.81
CA_2A-66A (2)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B66	20	66786	2 145.0	22.75	22.90
CA_2C (0)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B2	20	1098	1 979.8	22.76	22.90

Table 8.2.3.4 LTE Band 4 as PCC

PCC										SCC				Power	
Combination	PCC Band	PCC BW (MHz)	PCC (UL) CH.	PCC (UL) Freq. (MHz)	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) CH.	PCC (DL) Freq. (MHz)	SCC Band	SCC BW (MHz)	SCC (DL) CH.	SCC (DL) Freq. (MHz)	LTE Tx. Power with DL CA Enabled (dBm)	LTE Single Carrier Tx. Power (dBm)
CA_2A-4A (0)	LTE B4	20	20175	1 732.5	QPSK	1	50	2175	2 132.5	LTE B2	20	900	1 960.0	22.45	22.62
CA_2A-4A (1)	LTE B4	10	20175	1 732.5	QPSK	1	25	2175	2 132.5	LTE B2	10	900	1 960.0	21.44	21.50
CA_2A-4A (2)	LTE B4	20	20175	1 732.5	QPSK	1	50	2175	2 132.5	LTE B2	20	900	1 960.0	22.43	22.62
CA_4A-4A (0)	LTE B4	20	20175	1 732.5	QPSK	1	50	2175	2 132.5	LTE B4	20	2300	2 145.0	22.41	22.62
CA_4A-4A (1)	LTE B4	10	20175	1 732.5	QPSK	1	25	2175	2 132.5	LTE B4	10	2350	2 150.0	21.40	21.50
CA_4A-5A (0)	LTE B4	10	20175	1 732.5	QPSK	1	25	2175	2 132.5	LTE B5	10	2525	881.5	21.42	21.50
CA_4A-5A (1)	LTE B4	20	20175	1 732.5	QPSK	1	50	2175	2 132.5	LTE B5	10	2525	881.5	22.44	22.62
CA_4A-12A (0)	LTE B4	10	20175	1 732.5	QPSK	1	25	2175	2 132.5	LTE B12	10	5095	737.5	21.40	21.50
CA_4A-12A (1)	LTE B4	20	20175	1 732.5	QPSK	1	50	2175	2 132.5	LTE B12	10	5095	737.5	22.42	22.62
CA_4A-12A (2)	LTE B4	20	20175	1 732.5	QPSK	1	50	2175	2 132.5	LTE B12	10	5095	737.5	22.46	22.62
CA_4A-12A (3)	LTE B4	10	20175	1 732.5	QPSK	1	25	2175	2 132.5	LTE B12	10	5095	737.5	21.41	21.50
CA_4A-12A (4)	LTE B4	20	20175	1 732.5	QPSK	1	50	2175	2 132.5	LTE B12	10	5095	737.5	22.45	22.62
CA_4A-12A (5)	LTE B4	15	20325	1 747.5	QPSK	1	36	2325	2 147.5	LTE B12	5	5095	737.5	22.51	22.55

Table 8.2.3.5 LTE Band 5 as PCC

PCC										SCC				Power	
Combination	PCC Band	PCC BW (MHz)	PCC (UL) CH.	PCC (UL) Freq. (MHz)	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) CH.	PCC (DL) Freq. (MHz)	SCC Band	SCC BW (MHz)	SCC (DL) CH.	SCC (DL) Freq. (MHz)	LTE Tx. Power with DL CA Enabled (dBm)	LTE Single Carrier Tx. Power (dBm)
CA_2A-5A (0)	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B2	20	900	1960.0	23.06	23.15
CA_2A-5A (1)	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B2	10	900	1960.0	23.05	23.15
CA_4A-5A (0)	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B4	10	2175	2132.5	23.02	23.15
CA_4A-5A (1)	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B4	20	2175	2132.5	23.02	23.15
CA_5A-5A (0)	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B5	10	2600	889.0	23.04	23.15
CA_5A-5A (1)	LTE B5	3	20525	836.5	QPSK	1	7	2525	881.5	LTE B5	5	2625	891.5	23.05	23.12
CA_5A-12A (0)	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B12	10	5095	737.5	23.06	23.15
CA_5A-66A (0)	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B66	20	66786	2145.0	23.05	23.15
CA_5B (0)	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B5	10	2624	891.4	23.04	23.15
CA_5B (1)	LTE B5	5	20525	836.5	QPSK	1	12	2525	881.5	LTE B5	3	2564	885.4	23.04	23.09

Table 8.2.3.6 LTE Band 12 as PCC

PCC										SCC				Power	
Combination	PCC Band	PCC BW (MHz)	PCC (UL) CH.	PCC (UL) Freq. (MHz)	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) CH.	PCC (DL) Freq. (MHz)	SCC Band	SCC BW (MHz)	SCC (DL) CH.	SCC (DL) Freq. (MHz)	LTE Tx. Power with DL CA Enabled (dBm)	LTE Single Carrier Tx. Power (dBm)
CA_2A-12A (0)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B2	20	900	1 960.0	23.41	23.45
CA_2A-12A (1)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B2	20	900	1 960.0	23.39	23.45
CA_2A-12A (2)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B2	10	900	1 960.0	23.38	23.45
CA_4A-12A (0)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B4	10	2175	2 132.5	23.35	23.45
CA_4A-12A (1)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B4	20	2175	2 132.5	23.36	23.45
CA_4A-12A (2)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B4	20	2175	2 132.5	23.37	23.45
CA_4A-12A (3)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B4	10	2175	2 132.5	23.40	23.45
CA_4A-12A (4)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B4	20	2175	2 132.5	23.37	23.45
CA_4A-12A (5)	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B4	15	2175	2 132.5	23.33	23.35
CA_5A-12A (0)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B5	10	2525	881.5	23.38	23.45
CA_12A-12A (0)	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B12	5	5155	743.5	23.31	23.35
CA_12A-66A (0)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B66	10	66786	2 145.0	23.37	23.45
CA_12A-66A (1)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B66	20	66786	2 145.0	23.36	23.45
CA_12A-66A (2)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B66	20	66786	2 145.0	23.40	23.45
CA_12A-66A (3)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B66	10	66786	2 145.0	23.35	23.45
CA_12A-66A (4)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B66	20	66786	2 145.0	23.39	23.45
CA_12A-66A (5)	LTE B12	5	23095	707.5	QPSK	1	12	5095	737.5	LTE B66	15	66786	2 145.0	23.32	23.35
CA_12B (0)	LTE B12	5	23095	707.5	QPSK	1	12	5095	737.5	LTE B12	10	5167	744.7	23.30	23.35

Table 8.2.3.7 LTE Band 14 as PCC

PCC										SCC				Power	
Combination	PCC Band	PCC BW (MHz)	PCC (UL) CH.	PCC (UL) Freq. (MHz)	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) CH.	PCC (DL) Freq. (MHz)	SCC Band	SCC BW (MHz)	SCC (DL) CH.	SCC (DL) Freq. (MHz)	LTE Tx. Power with DL CA Enabled (dBm)	LTE Single Carrier Tx. Power (dBm)
CA_14A-66A (0)	LTE B14	10	23330	793.0	QPSK	1	25	5330	763.0	LTE B66	20	66786	2 145.0	23.40	23.44

Table 8.2.3.8 LTE Band 66 as PCC

PCC										SCC				Power	
Combination	PCC Band	PCC BW (MHz)	PCC (UL) CH.	PCC (UL) Freq. (MHz)	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) CH.	PCC (DL) Freq. (MHz)	SCC Band	SCC BW (MHz)	SCC (DL) CH.	SCC (DL) Freq. (MHz)	LTE Tx. Power with DL CA Enabled (dBm)	LTE Single Carrier Tx. Power (dBm)
CA_2A-66A (0)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B2	20	900	1 960.0	23.05	23.07
CA_2A-66A (1)	LTE B66	10	132322	1 745.0	QPSK	1	25	66786	2 145.0	LTE B2	10	900	1 960.0	22.91	22.93
CA_2A-66A (2)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B2	20	900	1 960.0	23.03	23.07
CA_5A-66A (0)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B5	10	2525	881.5	23.02	23.07
CA_12A-66A (0)	LTE B66	10	132322	1 745.0	QPSK	1	25	66786	2 145.0	LTE B12	10	5095	737.5	22.90	22.93
CA_12A-66A (1)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B12	10	5095	737.5	23.04	23.07
CA_12A-66A (2)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B12	10	5095	737.5	23.01	23.07
CA_12A-66A (3)	LTE B66	10	132322	1 745.0	QPSK	1	25	66786	2 145.0	LTE B12	10	5095	737.5	22.88	22.93
CA_12A-66A (4)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B12	10	5095	737.5	23.03	23.07
CA_12A-66A (5)	LTE B66	15	132322	1 745.0	QPSK	1	36	66786	2 145.0	LTE B12	5	5095	737.5	22.91	23.00
CA_14A-66A (0)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B14	10	5330	763.0	23.00	23.07
CA_66A-66A (0)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B66	20	67036	2 170.0	23.02	23.07
CA_66B (0)	LTE B66	15	132322	1 745.0	QPSK	1	36	66786	2 145.0	LTE B66	5	66879	2 154.3	22.89	23.00
CA_66C (0)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B66	20	66984	2 164.8	23.04	23.07

Table 8.2.3.9 LTE DL Carrier Aggregation Conducted Powers for comparing DL 2X2 MIMO and DL Intra-band CA

LTE Band	Maximum DL 2X2 MIMO Power (dBm)	Maximum DL Inter-band DL CA Power (dBm)	Maximum DL Intra-band Contiguous DL CA Power (dBm)	Maximum DL Intra-band Non-Contiguous DL CA Power (dBm)
B12	23.28 <	23.41	23.30	23.31
B14	23.27 <	23.41	23.30	23.31
B5	23.12 <	23.41	23.30	23.31
B66	23.05 <	23.41	23.30	23.31
B4	22.58 <	23.41	23.30	23.31
B2	22.87 <	23.41	23.30	23.31

Note(s):

- The device only supports downlink Carrier Aggregation. Uplink Carrier Aggregation is not supported. The DL carrier aggregation powers were measured according to the April 2018 TCB Workshop Notes (LTE Carrier Aggregation). Per Fall 2017 TCB Workshop Notes (LTE Carrier Aggregation) and FCC KDB Publication 941225 D05Av01r02, no further power measurements and SAR measurements are required for DL carrier aggregation configurations when the average output power with downlink only carrier aggregation active is not more than 0.25 dB higher than the average output power with downlink only carrier aggregation inactive.
- For downlink carrier aggregation combinations, PCC uplink channel was selected based on section C.3)b)ii) of KDB 941225 D05Av01r02.

8.2.4 LTE 2x2 DL MIMO with DL Carrier Aggregation Conducted Powers

- Below DL MIMO and DL CA configurations were determined based on Manufacturer's information.

Table 8.2.4.1 DL 2X2 MIMO Configuration

LTE 2x2 DL MIMO	
2A[2x2]	Table 8.2.4.2
4A[2x2]	Table 8.2.4.2
5A[2x2]	Table 8.2.4.2
12A[2x2]	Table 8.2.4.2
14A[2x2]	Table 8.2.4.2
66A[2x2]	Table 8.2.4.2

Table 8.2.4.2 LTE DL 2X2 MIMO Conducted Power

PCC / DL 2X2 MIMO									Power	
PCC Band	PCC BW (MHz)	PCC (UL) CH	PCC (UL) Freq. (MHz)	Modulation	PCC UL# RB	PCC UL RB Offset	PCC (DL) CH	PCC (DL) Freq. (MHz)	LTE Tx. Power with DL4x4 MIMO Enabled (dBm)	LTE Single Carrier Tx. Power (dBm)
LTE B12[2x2]	10	23095	707.5	QPSK	1	25	5095	737.5	23.28	23.45
LTE B12[2x2]	5	23095	707.5	QPSK	1	12	5095	737.5	23.22	23.35
LTE B12[2x2]	3	23095	707.5	QPSK	1	7	5095	737.5	23.25	23.44
LTE B12[2x2]	1.4	23095	707.5	QPSK	1	2	5095	737.5	23.21	23.43
LTE B14[2x2]	10	23330	793.0	QPSK	1	25	5330	763.0	23.27	23.44
LTE B14[2x2]	5	23330	793.0	QPSK	1	12	5330	763.0	23.26	23.29
LTE B5[2x2]	10	20525	836.5	QPSK	1	25	2525	881.5	23.12	23.15
LTE B5[2x2]	5	20525	836.5	QPSK	1	12	2525	881.5	23.05	23.09
LTE B5[2x2]	3	20525	836.5	QPSK	1	7	2525	881.5	23.08	23.12
LTE B5[2x2]	1.4	20525	836.5	QPSK	1	2	2525	881.5	23.02	23.09
LTE B66[2x2]	20	132322	1745.0	QPSK	1	50	66786	2145.0	23.05	23.07
LTE B66[2x2]	15	132322	1745.0	QPSK	1	36	66786	2145.0	22.98	23.00
LTE B66[2x2]	10	132322	1745.0	QPSK	1	25	66786	2145.0	22.88	22.93
LTE B66[2x2]	5	132322	1745.0	QPSK	1	12	66786	2145.0	22.91	23.05
LTE B66[2x2]	3	132322	1745.0	QPSK	1	7	66786	2145.0	22.99	23.01
LTE B66[2x2]	1.4	132322	1745.0	QPSK	1	2	66786	2145.0	22.79	22.83
LTE B4[2x2]	20	20175	1732.5	QPSK	1	50	2175	2132.5	22.62	22.82
LTE B4[2x2]	15	20175	1732.5	QPSK	1	36	2175	2132.5	22.47	22.55
LTE B4[2x2]	10	20175	1732.5	QPSK	1	25	2175	2132.5	22.35	22.40
LTE B4[2x2]	5	20175	1732.5	QPSK	1	12	2175	2132.5	22.48	22.54
LTE B4[2x2]	3	20175	1732.5	QPSK	1	7	2175	2132.5	22.41	22.44
LTE B4[2x2]	1.4	20175	1732.5	QPSK	1	2	2175	2132.5	22.42	22.44
LTE B2[2x2]	20	18900	1880.0	QPSK	1	50	900	1960.0	22.87	22.90
LTE B2[2x2]	15	18900	1880.0	QPSK	1	36	900	1960.0	22.78	22.83
LTE B2[2x2]	10	18900	1880.0	QPSK	1	25	900	1960.0	22.77	22.81
LTE B2[2x2]	5	18900	1880.0	QPSK	1	12	900	1960.0	22.71	22.79
LTE B2[2x2]	3	18900	1880.0	QPSK	1	7	900	1960.0	22.78	22.83
LTE B2[2x2]	1.4	18900	1880.0	QPSK	1	2	900	1960.0	22.79	22.82

Note(s):

1. The device supports downlink 4x4 MIMO. The DL 4x4 MIMO powers were measured applying the May 2017 TCB Workshop Notes (LTE 4x4 Downlink MIMO). Per May 2017 TCB Workshop Notes (LTE 4x4 Downlink MIMO) and FCC KDB Publication 941225 D05Av01r02, no further power measurements and SAR measurements are required for DL MIMO configurations when the average output power with downlink MIMO active is not more than 0.25 dB higher than the average output power with downlink MIMO inactive.

2. PCC uplink channel was selected based on section C.3(b)(i) of KDB 941225 D05Av01r02.

Table 8.2.4.3 CA BW Class

Class	ATBC		Maximum number of CC
	NRB.agg	MHz	
A	$N \leq 100$	20	1
B	$25 < N \leq 100$	20	2
C	$100 < N \leq 200$	40	2
D	$200 < N \leq 300$	60	3
E	$300 < N \leq 400$	80	4
F	$400 < N \leq 500$	100	5
I	$700 < N \leq 800$	160	8

Table 8.2.4.4 Exclusion Table for LTE DL 2x2 MIMO and DL CA (2CC)

Index	2CC	Supported Channel Bandwidth [MHz]		Restriction	Completely Covered by Measurement Superset
		CC1	CC2		
2CC #1	CA_2A[2x2]-2A[2x2] (0)	5, 10, 15, 20	5, 10, 15, 20		No
2CC #2	CA_2A[2x2]-4A[2x2] (0)	1.4, 3, 5, 10, 15, 20	5, 10, 15, 20		No
2CC #3	CA_2A[2x2]-4A[2x2] (1)	5, 10	5, 10		No
2CC #4	CA_2A[2x2]-4A[2x2] (2)	5, 10, 15, 20	5, 10, 15, 20		No
2CC #5	CA_2A[2x2]-5A[2x2] (0)	5, 10, 15, 20	5, 10		No
2CC #6	CA_2A[2x2]-5A[2x2] (1)	5, 10	5, 10		No
2CC #7	CA_2A[2x2]-12A[2x2] (0)	5, 10, 15, 20	5, 10		No
2CC #8	CA_2A[2x2]-12A[2x2] (1)	5, 10, 15, 20	3, 5, 10		No
2CC #9	CA_2A[2x2]-12A[2x2] (2)	5, 10	5, 10		No
2CC #10	CA_2A[2x2]-14A[2x2] (0)	5, 10, 15, 20	5, 10		No
2CC #11	CA_2A[2x2]-66A[2x2] (0)	1.4, 3, 5, 10, 15, 20	5, 10, 15, 20		No
2CC #12	CA_2A[2x2]-66A[2x2] (1)	5, 10	5, 10		No
2CC #13	CA_2A[2x2]-66A[2x2] (2)	5, 10, 15, 20	5, 10, 15, 20		No
2CC #14	CA_2C[2x2] (0)	5, 10, 15, 20	5, 10, 15, 20		No
2CC #15	CA_4A[2x2]-4A[2x2] (0)	5, 10, 15, 20	5, 10, 15, 20		No
2CC #16	CA_4A[2x2]-4A[2x2] (1)	5, 10	5, 10		No
2CC #17	CA_4A[2x2]-5A[2x2] (0)	5, 10	5, 10		No
2CC #18	CA_4A[2x2]-5A[2x2] (1)	5, 10, 15, 20	5, 10		No
2CC #19	CA_4A[2x2]-12A[2x2] (0)	1.4, 3, 5, 10	5, 10		No
2CC #20	CA_4A[2x2]-12A[2x2] (1)	1.4, 3, 5, 10, 15, 20	5, 10		No
2CC #21	CA_4A[2x2]-12A[2x2] (2)	5, 10, 15, 20	3, 5, 10		No
2CC #22	CA_4A[2x2]-12A[2x2] (3)	5, 10	5, 10		No
2CC #23	CA_4A[2x2]-12A[2x2] (4)	5, 10, 15, 20	5, 10		No
2CC #24	CA_4A[2x2]-12A[2x2] (5)	5, 10, 15	5		No
2CC #25	CA_5A[2x2]-5A[2x2] (0)	5, 10	5, 10		No
2CC #26	CA_5A[2x2]-5A[2x2] (1)	3	5		No
2CC #27	CA_5A[2x2]-12A[2x2] (0)	5, 10	5, 10		No
2CC #28	CA_5A[2x2]-66A[2x2] (0)	5, 10	5, 10, 15, 20		No
2CC #29	CA_5B[2x2] (0)	5, 10	5, 10		No
2CC #30	CA_5B[2x2] (1)	3, 5	3, 5		No
2CC #31	CA_12A[2x2]-12A[2x2] (0)	5	5		No
2CC #32	CA_12A[2x2]-66A[2x2] (0)	5, 10	1.4, 3, 5, 10		No
2CC #33	CA_12A[2x2]-66A[2x2] (1)	5, 10	1.4, 3, 5, 10, 15, 20		No
2CC #34	CA_12A[2x2]-66A[2x2] (2)	3, 5, 10	5, 10, 15, 20		No
2CC #35	CA_12A[2x2]-66A[2x2] (3)	5, 10	5, 10		No
2CC #36	CA_12A[2x2]-66A[2x2] (4)	5, 10	5, 10, 15, 20		No
2CC #37	CA_12A[2x2]-66A[2x2] (5)	5	5, 10, 15		No
2CC #38	CA_12B[2x2] (0)	5	5, 10		No
2CC #39	CA_14A[2x2]-66A[2x2] (0)	5, 10	5, 10, 15, 20		No
2CC #40	CA_66A[2x2]-66A[2x2] (0)	5, 10, 15, 20	5, 10, 15, 20		No
2CC #41	CA_66B[2x2] (0)	5, 10, 15	5, 10, 15		No
2CC #42	CA_66C (0)	5, 10, 15, 20	5, 10, 15, 20		No

Table 8.2.4.5 LTE DL 2x2 MIMO and DL CA Powers, Band 2 as PCC

PCC										SCC				Power	
Combination	PCC Band	PCC BW (MHz)	PCC (UL) CH.	PCC (UL) Freq. (MHz)	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) CH.	PCC (DL) Freq. (MHz)	SCC Band	SCC BW (MHz)	SCC (DL) CH.	SCC (DL) Freq. (MHz)	LTE Tx. Power with DL CA Enabled (dBm)	LTE Single Carrier Tx. Power (dBm)
CA 2A[2x2]-2A[2x2] (0)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B2	20	1100	1 980.0	22.77	22.90
CA 2A[2x2]-4A[2x2] (0)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B4	20	2175	2 132.5	22.75	22.90
CA 2A[2x2]-4A[2x2] (1)	LTE B2	10	18900	1 880.0	QPSK	1	25	900	1 960.0	LTE B4	10	2175	2 132.5	22.66	22.81
CA 2A[2x2]-4A[2x2] (2)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B4	20	2175	2 132.5	22.72	22.90
CA 2A[2x2]-5A[2x2] (0)	LTE B2	20	18900	1 880.0	QPSK	1	0	900	1 960.0	LTE B5	10	2525	881.5	22.70	22.90
CA 2A[2x2]-5A[2x2] (1)	LTE B2	10	18900	1 880.0	QPSK	1	25	900	1 960.0	LTE B5	10	2525	881.5	22.63	22.81
CA 2A[2x2]-12A[2x2] (0)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B12	10	5095	737.5	22.72	22.90
CA 2A[2x2]-12A[2x2] (1)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B12	10	5095	737.5	22.74	22.90
CA 2A[2x2]-12A[2x2] (2)	LTE B2	10	18900	1 880.0	QPSK	1	25	900	1 960.0	LTE B12	10	5095	737.5	22.63	22.81
CA 2A[2x2]-14A[2x2] (0)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B14	10	5330	763.0	22.72	22.90
CA 2A[2x2]-66A[2x2] (0)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B66	20	66786	2 145.0	22.71	22.90
CA 2A[2x2]-66A[2x2] (1)	LTE B2	10	18900	1 880.0	QPSK	1	25	900	1 960.0	LTE B66	10	66786	2 145.0	22.66	22.81
CA 2A[2x2]-66A[2x2] (2)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B66	20	66786	2 145.0	22.73	22.90
CA 2C[2x2] (0)	LTE B2	20	18900	1 880.0	QPSK	1	50	900	1 960.0	LTE B2	20	1098	1 979.8	22.74	22.90

Table 8.2.4.6 LTE DL 2x2 MIMO and DL CA Powers, Band 4 as PCC

PCC										SCC				Power	
Combination	PCC Band	PCC BW (MHz)	PCC (UL) CH.	PCC (UL) Freq. (MHz)	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) CH.	PCC (DL) Freq. (MHz)	SCC Band	SCC BW (MHz)	SCC (DL) CH.	SCC (DL) Freq. (MHz)	LTE Tx. Power with DL CA Enabled (dBm)	LTE Single Carrier Tx. Power (dBm)
CA 2A[2x2]-4A[2x2] (0)	LTE B4	20	20175	1 732.5	QPSK	1	50	2175	2 132.5	LTE B2	20	900	1 960.0	22.44	22.62
CA 2A[2x2]-4A[2x2] (1)	LTE B4	10	20175	1 732.5	QPSK	1	25	2175	2 132.5	LTE B2	10	900	1 960.0	21.42	21.50
CA 2A[2x2]-4A[2x2] (2)	LTE B4	20	20175	1 732.5	QPSK	1	50	2175	2 132.5	LTE B2	20	900	1 960.0	22.41	22.62
CA 4A[2x2]-4A[2x2] (0)	LTE B4	20	20175	1 732.5	QPSK	1	50	2175	2 132.5	LTE B4	20	2300	2 145.0	22.40	22.62
CA 4A[2x2]-4A[2x2] (1)	LTE B4	10	20175	1 732.5	QPSK	1	25	2175	2 132.5	LTE B4	10	2350	2 150.0	21.38	21.50
CA 4A[2x2]-5A[2x2] (0)	LTE B4	10	20175	1 732.5	QPSK	1	25	2175	2 132.5	LTE B5	10	2525	881.5	21.40	21.50
CA 4A[2x2]-5A[2x2] (1)	LTE B4	20	20175	1 732.5	QPSK	1	50	2175	2 132.5	LTE B5	10	2525	881.5	22.42	22.62
CA 4A[2x2]-12A[2x2] (0)	LTE B4	10	20175	1 732.5	QPSK	1	25	2175	2 132.5	LTE B12	10	5095	737.5	21.39	21.50
CA 4A[2x2]-12A[2x2] (1)	LTE B4	20	20175	1 732.5	QPSK	1	50	2175	2 132.5	LTE B12	10	5095	737.5	22.41	22.62
CA 4A[2x2]-12A[2x2] (2)	LTE B4	20	20175	1 732.5	QPSK	1	50	2175	2 132.5	LTE B12	10	5095	737.5	22.42	22.62
CA 4A[2x2]-12A[2x2] (3)	LTE B4	10	20175	1 732.5	QPSK	1	25	2175	2 132.5	LTE B12	10	5095	737.5	21.40	21.50
CA 4A[2x2]-12A[2x2] (4)	LTE B4	20	20175	1 732.5	QPSK	1	50	2175	2 132.5	LTE B12	10	5095	737.5	22.44	22.62
CA 4A[2x2]-12A[2x2] (5)	LTE B4	15	20325	1 747.5	QPSK	1	36	2325	2 147.5	LTE B12	5	5095	737.5	22.50	22.55

Table 8.2.4.7 LTE DL 2x2 MIMO and DL CA Powers, Band 5 as PCC

PCC										SCC				Power	
Combination	PCC Band	PCC BW (MHz)	PCC (UL) CH.	PCC (UL) Freq. (MHz)	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) CH.	PCC (DL) Freq. (MHz)	SCC Band	SCC BW (MHz)	SCC (DL) CH.	SCC (DL) Freq. (MHz)	LTE Tx. Power with DL CA Enabled (dBm)	LTE Single Carrier Tx. Power (dBm)
CA 2A[2x2]-5A[2x2] (0)	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B2	20	900	1 960.0	23.04	23.15
CA 2A[2x2]-5A[2x2] (1)	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B2	10	900	1 960.0	23.03	23.15
CA 4A[2x2]-5A[2x2] (0)	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B4	10	2175	2 132.5	23.00	23.15
CA 4A[2x2]-5A[2x2] (1)	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B4	20	2175	2 132.5	23.01	23.15
CA 5A[2x2]-5A[2x2] (0)	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B5	10	2600	889.0	23.03	23.15
CA 5A[2x2]-5A[2x2] (1)	LTE B5	3	20525	836.5	QPSK	1	7	2525	881.5	LTE B5	5	2625	891.5	23.04	23.12
CA 5A[2x2]-12A[2x2] (0)	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B12	10	5095	737.5	23.03	23.15
CA 5A[2x2]-66A[2x2] (0)	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B66	20	66786	2 145.0	23.04	23.15
CA 5B[2x2] (0)	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B5	10	2624	891.4	23.02	23.15
CA 5B[2x2] (1)	LTE B5	5	20525	836.5	QPSK	1	12	2525	881.5	LTE B5	3	2564	885.4	23.01	23.09

Table 8.2.4.8 LTE DL 2x2 MIMO and DL CA Powers, Band 12 as PCC

PCC										SCC				Power	
Combination	PCC Band	PCC BW (MHz)	PCC (UL) CH.	PCC (UL) Freq. (MHz)	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) CH.	PCC (DL) Freq. (MHz)	SCC Band	SCC BW (MHz)	SCC (DL) CH.	SCC (DL) Freq. (MHz)	LTE Tx. Power with DL CA Enabled (dBm)	LTE Single Carrier Tx. Power (dBm)
CA 2A[2x2]-12A[2x2] (0)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B2	20	900	1 960.0	23.40	23.45
CA 2A[2x2]-12A[2x2] (1)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B2	20	900	1 960.0	23.36	23.45
CA 2A[2x2]-12A[2x2] (2)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B2	10	900	1 960.0	23.37	23.45
CA 4A[2x2]-12A[2x2] (0)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B4	10	2175	2 132.5	23.34	23.45
CA 4A[2x2]-12A[2x2] (1)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B4	20	2175	2 132.5	23.33	23.45
CA 4A[2x2]-12A[2x2] (2)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B4	20	2175	2 132.5	23.35	23.45
CA 4A[2x2]-12A[2x2] (3)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B4	10	2175	2 132.5	23.38	23.45
CA 4A[2x2]-12A[2x2] (4)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B4	20	2175	2 132.5	23.36	23.45
CA 4A[2x2]-12A[2x2] (5)	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B4	15	2175	2 132.5	23.31	23.35
CA 5A[2x2]-12A[2x2] (0)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B5	10	2525	881.5	23.35	23.45
CA 12A[2x2]-12A[2x2] (0)	LTE B12	5	23035	701.5	QPSK	1	12	5035	731.5	LTE B12	5	5155	743.5	23.30	23.35
CA 12A[2x2]-66A[2x2] (0)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B66	10	66786	2 145.0	23.32	23.45
CA 12A[2x2]-66A[2x2] (1)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B66	20	66786	2 145.0	23.33	23.45
CA 12A[2x2]-66A[2x2] (2)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B66	20	66786	2 145.0	23.38	23.45
CA 12A[2x2]-66A[2x2] (3)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B66	10	66786	2 145.0	23.34	23.45
CA 12A[2x2]-66A[2x2] (4)	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B66	20	66786	2 145.0	23.36	23.45
CA 12A[2x2]-66A[2x2] (5)	LTE B12	5	23095	707.5	QPSK	1	12	5095	737.5	LTE B66	15	66786	2 145.0	23.31	23.35
CA 12B[2x2] (0)	LTE B12	5	23095	707.5	QPSK	1	12	5095	737.5	LTE B12	10	5167	744.7	23.27	23.35

Table 8.2.4.9 LTE DL 2x2 MIMO and DL CA Powers, Band 14 as PCC

PCC										SCC				Power	
Combination	PCC Band	PCC BW (MHz)	PCC (UL) CH.	PCC (UL) Freq. (MHz)	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) CH.	PCC (DL) Freq. (MHz)	SCC Band	SCC BW (MHz)	SCC (DL) CH.	SCC (DL) Freq. (MHz)	LTE Tx. Power with DL CA Enabled (dBm)	LTE Single Carrier Tx. Power (dBm)
CA 14A[2x2]-66A[2x2] (0)	LTE B14	10	23330	793.0	QPSK	1	25	5330	763.0	LTE B66	20	66786	2 145.0	23.39	23.44

Table 8.2.4.10 LTE DL 2x2 MIMO and DL CA Powers, Band 66 as PCC

PCC										SCC				Power	
Combination	PCC Band	PCC BW (MHz)	PCC (UL) CH.	PCC (UL) Freq. (MHz)	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) CH.	PCC (DL) Freq. (MHz)	SCC Band	SCC BW (MHz)	SCC (DL) CH.	SCC (DL) Freq. (MHz)	LTE Tx. Power with DL CA Enabled (dBm)	LTE Single Carrier Tx. Power (dBm)
CA 2A[2x2]-66A[2x2] (0)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B2	20	900	1 960.0	23.03	23.07
CA 2A[2x2]-66A[2x2] (1)	LTE B66	10	132322	1 745.0	QPSK	1	25	66786	2 145.0	LTE B2	10	900	1 960.0	22.90	22.93
CA 2A[2x2]-66A[2x2] (2)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B2	20	900	1 960.0	23.01	23.07
CA 5A[2x2]-66A[2x2] (0)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B5	10	2525	881.5	23.00	23.07
CA 12A[2x2]-66A[2x2] (0)	LTE B66	10	132322	1 745.0	QPSK	1	25	66786	2 145.0	LTE B12	10	5095	737.5	22.88	22.93
CA 12A[2x2]-66A[2x2] (1)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B12	10	5095	737.5	23.03	23.07
CA 12A[2x2]-66A[2x2] (2)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B12	10	5095	737.5	23.00	23.07
CA 12A[2x2]-66A[2x2] (3)	LTE B66	10	132322	1 745.0	QPSK	1	25	66786	2 145.0	LTE B12	10	5095	737.5	22.86	22.93
CA 12A[2x2]-66A[2x2] (4)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B12	10	5095	737.5	23.01	23.07
CA 12A[2x2]-66A[2x2] (5)	LTE B66	15	132322	1 745.0	QPSK	1	36	66786	2 145.0	LTE B12	5	5095	737.5	22.90	23.00
CA 14A[2x2]-66A[2x2] (0)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B14	10	5330	763.0	22.99	23.07
CA 66A[2x2]-66A[2x2] (0)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B66	20	67036	2 170.0	23.01	23.07
CA 66B[2x2] (0)	LTE B66	15	132322	1 745.0	QPSK	1	36	66786	2 145.0	LTE B66	5	66879	2 154.3	22.87	23.00
CA 66C[2x2] (0)	LTE B66	20	132322	1 745.0	QPSK	1	50	66786	2 145.0	LTE B66	20	66984	2 164.8	23.02	23.07

8.3 NR Nominal and Maximum Output Power Spec and Conducted Powers

Band & Mode		Modulated Average[dBm]
NR Band n12	Maximum	24.0
	Nominal	23.0

Table 8.3.1.1 Nominal and Maximum Output Power Spec

1. NR Band n12

NR Band n12 Conducted Power– 15 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			141500 (707.5 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	23.38	0	0.0
	1	39	23.64		
	1	77	23.29		
	36	0	22.59	≤ 0.5	0.5
	36	18	23.32	0	0.0
	36	39	22.61	≤ 0.5	0.5
	75	0	22.61		
DFT-s OFDM QPSK	1	1	23.63	0	0.0
	1	39	23.71		
	1	77	23.40		
	36	0	22.82	≤ 1	1.0
	36	18	23.50	0	0.0
	36	39	22.80	≤ 1	1.0
	75	0	22.87		
DFT-s OFDM 16QAM	1	1	22.66	≤ 1	1.0
	1	39	22.85		
	1	77	22.46		
DFT-s OFDM 64QAM	1	1	21.21	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	19.44	≤ 4.5	4.5
CP OFDM QPSK	1	1	22.22	≤ 1.5	1.5

Table 8.3.1.2 NR Conducted Power

Note: NR Band n12 can not contain three non-overlapping channels of 15 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

NR Band n12 Conducted Power– 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			141500 (707.5 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	23.24	0	0.0
	1	25	23.35		
	1	50	23.15		
	25	0	22.54	≤ 0.5	0.5
	25	12	23.28	0	0.0
	25	25	22.69	≤ 0.5	0.5
	50	0	22.63		
DFT-s OFDM QPSK	1	1	23.40	0	0.0
	1	25	23.63		
	1	50	23.19		
	25	0	22.73	≤ 1	1.0
	25	12	23.39	0	0.0
	25	25	22.88	≤ 1	1.0
	50	0	22.77		
DFT-s OFDM 16QAM	1	1	22.63	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.99	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	19.03	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.95	≤ 1.5	1.5

Table 8.3.1.3 NR Conducted Power

Note: NR Band n12 can not contain three non-overlapping channels of 10 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

NR Band n12 Conducted Power-- 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			140300 (701.5 MHz)	141500 (707.5 MHz)	142700 (713.5 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	23.31	23.09	23.18	0	0.0
	1	12	23.32	23.54	23.39		
	1	23	23.13	23.06	23.13		
	12	0	22.67	22.59	22.53	≤ 0.5	0.5
	12	6	23.28	23.24	23.29	0	0.0
	12	12	22.53	22.61	22.66	≤ 0.5	0.5
	25	0	22.67	22.57	22.59		
DFT-s OFDM QPSK	1	1	23.36	23.29	23.46	0	0.0
	1	12	23.41	23.64	23.50		
	1	23	23.37	23.10	23.29		
	12	0	22.83	22.74	22.76	≤ 1	1.0
	12	6	23.33	23.37	23.37	0	0.0
	12	12	22.67	22.90	22.83	≤ 1	1.0
	25	0	22.70	22.73	22.86		
DFT-s OFDM 16QAM	1	1	22.42	22.29	22.50	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	21.02	20.95	21.12	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.99	19.35	18.98	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.99	22.14	22.31	≤ 1.5	1.5

Table 8.3.1.4 NR Conducted Power

Band & Mode		Modulated Average[dBm]
NR Band n5	Maximum	24.0
	Nominal	23.0

Table 8.3.2.1 Nominal and Maximum Output Power Spec

2. NR Band n5

NR Band n5 Conducted Power– 20 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			167300 (836.5 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	23.30	0	0.0
	1	52	23.45		
	1	104	23.36		
	50	0	22.59	≤ 0.5	0.5
	50	25	23.26	0	0.0
	50	50	22.63	≤ 0.5	0.5
	100	0	22.72		
DFT-s OFDM QPSK	1	1	23.40	0	0.0
	1	52	23.61		
	1	104	23.59		
	50	0	22.64	≤ 1	1.0
	50	25	23.39	0	0.0
	50	50	22.72	≤ 1	1.0
	100	0	22.93		
DFT-s OFDM 16QAM	1	1	22.53	≤ 1	1.0
	1	52	22.65		
	1	104	22.64		
DFT-s OFDM 64QAM	1	1	21.15	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	19.14	≤ 4.5	4.5
CP OFDM QPSK	1	1	22.15	≤ 1.5	1.5

Table 8.3.2.2 NR Conducted Power

Note: NR Band n5 can not contain three non-overlapping channels of 20 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

NR Band n5 Conducted Power– 15 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			167300 (836.5 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	23.12	0	0.0
	1	39	23.22		
	1	77	22.88		
	36	0	22.59	≤ 0.5	0.5
	36	18	23.22	0	0.0
	36	39	22.62	≤ 0.5	0.5
	75	0	22.55		
DFT-s OFDM QPSK	1	1	23.18	0	0.0
	1	39	23.29		
	1	77	23.15		
	36	0	22.72	≤ 1	1.0
	36	18	23.27	0	0.0
	36	39	22.65	≤ 1	1.0
	75	0	22.69		
DFT-s OFDM 16QAM	1	1	22.31	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	21.28	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.85	≤ 4.5	4.5
CP OFDM QPSK	1	1	22.09	≤ 1.5	1.5

Table 8.3.2.3 NR Conducted Power

Note: NR Band n5 can not contain three non-overlapping channels of 15 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

NR Band n5 Conducted Power– 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			167300 (836.5 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	23.11	0	0.0
	1	25	23.28		
	1	50	23.07		
	25	0	22.57	≤ 0.5	0.5
	25	12	23.18	0	0.0
	25	25	22.66	≤ 0.5	0.5
	50	0	22.58		
DFT-s OFDM QPSK	1	1	23.25	0	0.0
	1	25	23.36		
	1	50	23.19		
	25	0	22.72	≤ 1	1.0
	25	12	23.33	0	0.0
	25	25	22.80	≤ 1	1.0
	50	0	22.64		
DFT-s OFDM 16QAM	1	1	22.34	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.84	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.95	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.93	≤ 1.5	1.5

Table 8.3.2.4 NR Conducted Power

Note: NR Band n5 can not contain three non-overlapping channels of 10 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

NR Band 5 Conducted Power– 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			165300 (826.5 MHz)	167300 (836.5 MHz)	169300 (846.5 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	22.97	23.04	22.92	0	0.0
	1	12	23.19	23.34	23.26		
	1	23	22.88	23.30	22.80		
	12	0	22.57	22.58	22.51	≤ 0.5	0.5
	12	6	23.22	23.25	23.22	0	0.0
	12	12	22.61	22.60	22.57	≤ 0.5	0.5
	25	0	22.58	22.57	22.63		
DFT-s OFDM QPSK	1	1	23.01	23.07	23.08	0	0.0
	1	12	23.34	23.51	23.35		
	1	23	23.11	23.45	22.89		
	12	0	22.64	22.74	22.79	≤ 1	1.0
	12	6	23.26	23.38	23.27	0	0.0
	12	12	22.69	22.77	22.59	≤ 1	1.0
	25	0	22.64	22.77	22.71		
DFT-s OFDM 16QAM	1	1	22.32	22.26	22.16	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	21.19	20.89	21.08	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	19.12	18.91	18.92	≤ 4.5	4.5
CP OFDM QPSK	1	1	22.02	21.86	21.68	≤ 1.5	1.5

Table 8.3.2.5 NR Conducted Power

Band & Mode		Modulated Average[dBm]
NR Band n5	Maximum	21.0
	Nominal	20.0

Table 8.3.2-1.1 Nominal and Maximum Output Power Spec

2-1. NR Band n5 (ENDC)

NR Band n5 Conducted Power– 20 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			167300 (836.5 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	20.26	0	0.0
	1	52	20.27		
	1	104	20.23		
	50	0	19.45	≤ 0.5	0.5
	50	25	20.12	0	0.0
	50	50	19.58	≤ 0.5	0.5
	100	0	19.61		
DFT-s OFDM QPSK	1	1	20.30	0	0.0
	1	52	20.52		
	1	104	20.51		
	50	0	19.63	≤ 1	1.0
	50	25	20.32	0	0.0
	50	50	19.69	≤ 1	1.0
	100	0	19.84		
DFT-s OFDM 16QAM	1	1	19.34	≤ 1	1.0
	1	52	18.08		
	1	104	16.01		
DFT-s OFDM 64QAM	1	1	19.14	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.26	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.27	≤ 1.5	1.5

Table 8.3.2-1.2 NR Conducted Power

Note: NR Band n5 can not contain three non-overlapping channels of 20 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

NR Band n5 Conducted Power– 15 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			167300 (836.5 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	20.03	0	0.0
	1	39	20.10		
	1	77	19.72		
	36	0	19.42	≤ 0.5	0.5
	36	18	20.06	0	0.0
	36	39	19.47	≤ 0.5	0.5
	75	0	19.45		
DFT-s OFDM QPSK	1	1	20.04	0	0.0
	1	39	20.24		
	1	77	19.95		
	36	0	19.67	≤ 1	1.0
	36	18	20.07	0	0.0
	36	39	19.47	≤ 1	1.0
	75	0	19.57		
DFT-s OFDM 16QAM	1	1	19.22	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	18.10	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.77	≤ 4.5	4.5
CP OFDM QPSK	1	1	19.03	≤ 1.5	1.5

Table 8.3.2-1.3 NR Conducted Power

Note: NR Band n5 can not contain three non-overlapping channels of 15 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

NR Band n5 Conducted Power– 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			167300 (836.5 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	20.05	0	0.0
	1	25	20.25		
	1	50	19.94		
	25	0	19.43	≤ 0.5	0.5
	25	12	20.11	0	0.0
	25	25	19.51	≤ 0.5	0.5
	50	0	19.51		
DFT-s OFDM QPSK	1	1	20.14	0	0.0
	1	25	20.27		
	1	50	20.15		
	25	0	19.55	≤ 1	1.0
	25	12	20.24	0	0.0
	25	25	19.74	≤ 1	1.0
	50	0	19.57		
DFT-s OFDM 16QAM	1	1	19.29	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.72	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.78	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.73	≤ 1.5	1.5

Table 8.3.2-1.4 NR Conducted Power

Note: NR Band n5 can not contain three non-overlapping channels of 10 MHz bandwidth.

Per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

NR Band 5 Conducted Power– 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			165300 (826.5 MHz)	167300 (836.5 MHz)	169300 (846.5 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	19.80	19.90	19.72	0	0.0
	1	12	20.21	20.27	20.08		
	1	23	19.77	20.10	19.73		
	12	0	19.38	19.41	19.55	≤ 0.5	0.5
	12	6	20.06	20.16	20.17	0	0.0
	12	12	19.52	19.54	19.50	≤ 0.5	0.5
	25	0	19.39	19.41	19.51		
DFT-s OFDM QPSK	1	1	19.96	20.02	20.01	0	0.0
	1	12	20.32	20.49	20.32		
	1	23	19.92	20.35	19.77		
	12	0	19.58	19.69	19.78	≤ 1	1.0
	12	6	20.18	20.27	20.24	0	0.0
	12	12	19.57	19.57	19.56	≤ 1	1.0
	25	0	19.57	19.67	19.58		
DFT-s OFDM 16QAM	1	1	19.15	19.14	19.06	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	18.07	17.83	17.99	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	16.04	15.81	15.77	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.83	18.72	18.54	≤ 1.5	1.5

Table 8.3.2-1.5 NR Conducted Power

Band & Mode		Modulated Average[dBm]
NR Band n66	Maximum	24.0
	Nominal	23.0

Table 8.3.3.1 Nominal and Maximum Output Power Spec

3. NR Band n66

NR Band n66 Conducted Power– 40 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			346000 (1 730.0 MHz)	349000 (1 745.0 MHz)	352000 (1 760.0 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	23.27	23.07	23.16	0	0.0
	1	107	23.34	23.24	23.35		
	1	214	23.01	23.00	23.23		
	108	0	22.56	22.75	22.68	≤ 0.5	0.5
	108	54	23.18	23.17	23.18	0	0.0
	108	108	22.64	22.36	22.46	≤ 0.5	0.5
	216	0	22.68	22.61	22.38		
DFT-s OFDM QPSK	1	1	23.31	23.15	23.21	0	0.0
	1	107	23.41	23.41	23.40		
	1	214	23.15	23.09	23.30		
	108	0	22.77	22.81	22.86	≤ 1	1.0
	108	54	23.29	23.33	23.23	0	0.0
	108	108	22.77	22.55	22.65	≤ 1	1.0
	216	0	22.74	22.83	22.61		
DFT-s OFDM 16QAM	1	1	22.32	22.18	22.35	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.82	20.77	20.83	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	19.02	18.90	18.76	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.93	21.65	21.72	≤ 1.5	1.5

Table 8.3.3.2 NR Conducted Power

NR Band n66 Conducted Power– 30 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			345000 (1 725.0 MHz)	349000 (1 745.0 MHz)	353000 (1 765.0 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	23.03	23.10	22.96	0	0.0
	1	79	23.05	23.23	23.16		
	1	158	23.01	23.20	22.92		
	80	0	22.20	22.58	22.58	≤ 0.5	0.5
	80	40	23.05	23.01	23.04	0	0.0
	80	80	22.59	22.11	22.22	≤ 0.5	0.5
	160	0	22.57	22.39	22.33		
DFT-s OFDM QPSK	1	1	23.10	23.21	22.97	0	0.0
	1	79	23.18	23.37	23.36		
	1	158	23.05	23.34	22.92		
	80	0	22.47	22.62	22.67	≤ 1	1.0
	80	40	23.18	23.05	23.08	0	0.0
	80	80	22.65	22.40	22.47	≤ 1	1.0
	160	0	22.63	22.58	22.58		
DFT-s OFDM 16QAM	1	1	22.16	22.34	22.17	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.66	20.98	20.57	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.79	18.95	18.71	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.86	21.26	21.52	≤ 1.5	1.5

Table 8.3.3.3 NR Conducted Power

NR Band n66 Conducted Power~ 25 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			344500 (1 725.0 MHz)	349000 (1 745.0 MHz)	353500 (1 767.5 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	22.99	23.01	22.90	0	0.0
	1	66	23.13	23.19	23.17		
	1	131	23.00	23.02	22.85		
	64	0	22.51	22.38	22.38	≤ 0.5	0.5
	64	32	23.09	23.03	23.03	0	0.0
	64	64	22.46	22.67	22.64	≤ 0.5	0.5
	128	0	22.52	22.55	22.42		
DFT-s OFDM QPSK	1	1	23.07	23.13	23.01	0	0.0
	1	66	23.17	23.25	23.26		
	1	131	23.02	23.11	23.15		
	64	0	22.63	22.65	22.53	≤ 1	1.0
	64	32	23.14	23.12	23.15	0	0.0
	64	64	22.68	22.83	22.75	≤ 1	1.0
	128	0	22.60	22.75	22.61		
DFT-s OFDM 16QAM	1	1	22.09	22.39	22.04	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.62	20.68	20.56	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.64	18.67	18.59	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.61	21.30	21.90	≤ 1.5	1.5

Table 8.3.3.4 NR Conducted Power

NR Band n66 Conducted Power– 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			344000 (1 720.0 MHz)	349000 (1 745.0 MHz)	354000 (1 770.0 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	22.87	23.00	23.06	0	0.0
	1	52	23.13	23.27	23.27		
	1	104	22.85	23.13	23.01		
	50	0	22.00	22.34	22.54	≤ 0.5	0.5
	50	25	22.97	23.02	23.01	0	0.0
	50	50	22.05	22.58	22.40	≤ 0.5	0.5
	100	0	21.97	22.53	22.48		
DFT-s OFDM QPSK	1	1	22.99	23.17	23.10	0	0.0
	1	52	23.26	23.30	23.39		
	1	104	22.87	23.23	23.06		
	50	0	22.01	22.56	22.76	≤ 1	1.0
	50	25	23.14	23.13	23.29	0	0.0
	50	50	22.15	22.74	22.64	≤ 1	1.0
	100	0	22.05	22.61	22.65		
DFT-s OFDM 16QAM	1	1	22.10	22.26	22.12	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.55	20.88	20.89	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.64	18.84	18.69	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.70	22.07	21.71	≤ 1.5	1.5

Table 8.3.3.5 NR Conducted Power

NR Band n66 Conducted Power– 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			343500 (1 717.5 MHz)	349000 (1 745.0 MHz)	354500 (1 772.5 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	23.21	23.12	23.00	0	0.0
	1	39	23.31	23.28	23.22		
	1	77	23.09	23.23	22.95		
	36	0	22.30	22.58	22.62	≤ 0.5	0.5
	36	18	23.22	23.04	23.16	0	0.0
	36	39	22.42	22.56	22.52	≤ 0.5	0.5
	75	0	22.49	22.44	22.47		
DFT-s OFDM QPSK	1	1	23.30	23.23	23.04	0	0.0
	1	39	23.37	23.36	23.29		
	1	77	23.25	23.26	23.07		
	36	0	22.59	22.61	22.70	≤ 1	1.0
	36	18	23.27	23.25	23.19	0	0.0
	36	39	22.51	22.58	22.75	≤ 1	1.0
	75	0	22.65	22.70	22.71		
DFT-s OFDM 16QAM	1	1	22.51	22.41	22.04	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	21.12	20.86	20.62	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.98	18.85	18.69	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.83	22.06	21.62	≤ 1.5	1.5

Table 8.3.3.6 NR Conducted Power

NR Band n66 Conducted Power– 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			343000 (1 715.0 MHz)	349000 (1 745.0 MHz)	355000 (1 775.0 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	c	1	23.19	23.20	23.10	0	0.0
	1	25	23.33	23.37	23.22		
	1	50	23.13	23.29	22.98		
	25	0	22.56	22.64	22.49	≤ 0.5	0.5
	25	12	23.04	23.05	23.06	0	0.0
	25	25	22.51	22.83	22.42	≤ 0.5	0.5
	50	0	22.45	22.51	22.56		
DFT-s OFDM QPSK	1	1	23.32	23.34	23.14	0	0.0
	1	25	23.46	23.46	23.24		
	1	50	23.32	23.33	23.12		
	25	0	22.63	22.74	22.63	≤ 1	1.0
	25	12	23.12	23.16	23.22	0	0.0
	25	25	22.68	22.86	22.64	≤ 1	1.0
	50	0	22.69	22.66	22.67		
DFT-s OFDM 16QAM	1	1	22.41	22.43	22.14	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.83	21.05	20.68	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.91	18.96	19.03	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.96	21.95	21.68	≤ 1.5	1.5

Table 8.3.3.7 NR Conducted Power

NR Band n66 Conducted Power-- 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			342500 (1 712.5 MHz)	349000 (1 745.0 MHz)	355500 (1 777.5 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	23.17	23.11	23.05	0	0.0
	1	12	23.19	23.25	23.14		
	1	23	23.13	22.96	23.07		
	12	0	22.52	22.59	22.39	≤ 0.5	0.5
	12	6	23.04	23.18	23.10	0	0.0
	12	12	22.49	22.55	22.45	≤ 0.5	0.5
	25	0	22.34	22.38	22.41		
DFT-s OFDM QPSK	1	1	23.26	23.35	23.27	0	0.0
	1	12	23.38	23.36	23.38		
	1	23	23.24	23.12	23.19		
	12	0	22.64	22.76	22.53	≤ 1	1.0
	12	6	23.10	23.24	23.31	0	0.0
	12	12	22.54	22.58	22.53	≤ 1	1.0
	25	0	22.47	22.53	22.64		
DFT-s OFDM 16QAM	1	1	22.31	22.43	22.32	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.77	20.91	20.89	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.80	18.86	18.79	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.79	21.89	21.90	≤ 1.5	1.5

Table 8.3.3.8 NR Conducted Power

Band & Mode		Modulated Average[dBm]
NR Band n66	Maximum	21.0
	Nominal	20.0

Table 8.3.3-1.1 Nominal and Maximum Output Power Spec

3-1. NR Band n66 (ENDC)

NR Band n66 Conducted Power– 40 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			346000 (1 730.0 MHz)	349000 (1 745.0 MHz)	352000 (1 760.0 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	20.14	19.90	19.97	0	0.0
	1	107	20.16	20.13	20.25		
	1	214	19.90	19.93	20.12		
	108	0	19.38	19.69	19.58	≤ 0.5	0.5
	108	54	20.02	20.11	20.10	0	0.0
	108	108	19.55	19.22	19.45	≤ 0.5	0.5
	216	0	19.63	19.49	19.33		
DFT-s OFDM QPSK	1	1	20.29	20.00	20.10	0	0.0
	1	107	20.31	20.39	20.29		
	1	214	19.95	20.04	20.25		
	108	0	19.65	19.79	19.82	≤ 1	1.0
	108	54	20.19	20.26	20.12	0	0.0
	108	108	19.60	19.38	19.45	≤ 1	1.0
	216	0	19.71	19.66	19.54		
DFT-s OFDM 16QAM	1	1	19.33	19.17	19.26	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.89	17.71	17.71	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.95	15.86	15.75	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.86	18.63	18.67	≤ 1.5	1.5

Table 8.3.3-1.2 NR Conducted Power

NR Band n66 Conducted Power-- 30 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			345000 (1 725.0 MHz)	349000 (1 745.0 MHz)	353000 (1 765.0 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	19.92	20.01	19.67	0	0.0
	1	79	19.97	20.11	20.08		
	1	158	19.76	20.02	19.73		
	80	0	19.15	19.40	19.52	≤ 0.5	0.5
	80	40	19.95	19.88	19.90	0	0.0
	80	80	19.45	19.07	19.13	≤ 0.5	0.5
	160	0	19.48	19.19	19.30		
DFT-s OFDM QPSK	1	1	19.93	20.11	19.78	0	0.0
	1	79	20.06	20.25	20.20		
	1	158	19.88	20.20	19.74		
	80	0	19.30	19.49	19.62	≤ 1	1.0
	80	40	20.04	19.98	19.92	0	0.0
	80	80	19.46	19.21	19.34	≤ 1	1.0
	160	0	19.61	19.57	19.47		
DFT-s OFDM 16QAM	1	1	19.00	19.23	19.05	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.64	17.91	17.53	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.63	15.77	15.59	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.66	18.09	18.40	≤ 1.5	1.5

Table 8.3.3-1.3 NR Conducted Power

NR Band n66 Conducted Power~ 25 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			344500 (1 725.0 MHz)	349000 (1 745.0 MHz)	353500 (1 767.5 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	19.84	19.86	19.86	0	0.0
	1	66	20.11	20.06	20.13		
	1	131	19.81	19.91	19.95		
	64	0	19.43	19.32	19.25	≤ 0.5	0.5
	64	32	19.90	19.93	20.01	0	0.0
	64	64	19.39	19.50	19.60	≤ 0.5	0.5
	128	0	19.47	19.41	19.25		
DFT-s OFDM QPSK	1	1	19.88	20.02	19.87	0	0.0
	1	66	20.13	20.10	20.15		
	1	131	19.90	20.06	20.00		
	64	0	19.49	19.54	19.34	≤ 1	1.0
	64	32	20.00	20.00	20.09	0	0.0
	64	64	19.63	19.63	19.62	≤ 1	1.0
	128	0	19.56	19.60	19.52		
DFT-s OFDM 16QAM	1	1	19.00	19.32	18.87	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.48	17.62	17.53	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.53	15.53	15.46	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.59	18.28	18.77	≤ 1.5	1.5

Table 8.3.3-1.4 NR Conducted Power

NR Band n66 Conducted Power– 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			344000 (1 720.0 MHz)	349000 (1 745.0 MHz)	354000 (1 770.0 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	19.84	19.98	19.91	0	0.0
	1	52	20.07	20.17	20.07		
	1	104	19.71	20.06	19.80		
	50	0	18.87	19.24	19.53	≤ 0.5	0.5
	50	25	19.87	20.00	19.93	0	0.0
	50	50	18.94	19.52	19.43	≤ 0.5	0.5
	100	0	19.11	19.23	19.37		
DFT-s OFDM QPSK	1	1	19.96	20.13	20.01	0	0.0
	1	52	20.19	20.22	20.28		
	1	104	19.79	20.16	19.88		
	50	0	18.93	19.52	19.68	≤ 1	1.0
	50	25	19.97	20.01	20.16	0	0.0
	50	50	19.03	19.66	19.61	≤ 1	1.0
	100	0	19.17	19.45	19.51		
DFT-s OFDM 16QAM	1	1	19.10	19.25	19.09	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.53	17.81	17.79	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.56	15.69	15.65	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.69	18.94	18.63	≤ 1.5	1.5

Table 8.3.3-1.5 NR Conducted Power

NR Band n66 Conducted Power– 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			343500 (1 717.5 MHz)	349000 (1 745.0 MHz)	354500 (1 772.5 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	20.18	19.96	19.84	0	0.0
	1	39	20.27	20.08	20.07		
	1	77	19.93	20.04	19.86		
	36	0	19.32	19.38	19.51	≤ 0.5	0.5
	36	18	20.11	20.03	19.91	0	0.0
	36	39	19.34	19.40	19.49	≤ 0.5	0.5
	75	0	19.46	19.45	19.47		
DFT-s OFDM QPSK	1	1	20.26	20.19	19.90	0	0.0
	1	39	20.32	20.27	20.10		
	1	77	20.15	20.21	19.92		
	36	0	19.51	19.56	19.62	≤ 1	1.0
	36	18	20.12	20.21	20.02	0	0.0
	36	39	19.38	19.55	19.64	≤ 1	1.0
	75	0	19.48	19.62	19.58		
DFT-s OFDM 16QAM	1	1	19.50	19.25	18.97	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	18.09	17.72	17.48	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.97	15.78	15.56	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.82	18.88	18.58	≤ 1.5	1.5

Table 8.3.3-1.6 NR Conducted Power

NR Band n66 Conducted Power– 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			343000 (1 715.0 MHz)	349000 (1 745.0 MHz)	355000 (1 775.0 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	20.03	20.17	19.91	0	0.0
	1	25	20.27	20.25	20.05		
	1	50	20.10	20.12	19.81		
	25	0	19.45	19.44	19.33	≤ 0.5	0.5
	25	12	19.92	19.92	19.89	0	0.0
	25	25	19.33	19.56	19.38	≤ 0.5	0.5
	50	0	19.32	19.44	19.45		
DFT-s OFDM QPSK	1	1	20.14	20.23	19.99	0	0.0
	1	25	20.35	20.36	20.14		
	1	50	20.26	20.24	19.96		
	25	0	19.53	19.73	19.46	≤ 1	1.0
	25	12	20.07	20.04	20.12	0	0.0
	25	25	19.50	19.69	19.55	≤ 1	1.0
	50	0	19.58	19.56	19.47		
DFT-s OFDM 16QAM	1	1	19.29	19.29	19.03	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.81	17.88	17.56	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.75	15.82	15.85	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.81	18.88	18.58	≤ 1.5	1.5

Table 8.3.3-1.7 NR Conducted Power

NR Band n66 Conducted Power-- 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			342500 (1 712.5 MHz)	349000 (1 745.0 MHz)	355500 (1 777.5 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	19.98	20.19	19.85	0	0.0
	1	12	20.05	20.22	20.02		
	1	23	20.00	20.01	19.92		
	12	0	19.41	19.28	19.20	≤ 0.5	0.5
	12	6	19.92	19.99	19.98	0	0.0
	12	12	19.41	19.26	19.40	≤ 0.5	0.5
	25	0	19.17	19.34	19.21		
DFT-s OFDM QPSK	1	1	20.08	20.23	20.14	0	0.0
	1	12	20.35	20.26	20.15		
	1	23	20.11	20.14	20.01		
	12	0	19.46	19.42	19.37	≤ 1	1.0
	12	6	19.93	20.19	20.06	0	0.0
	12	12	19.43	19.44	19.50	≤ 1	1.0
	25	0	19.43	19.57	19.51		
DFT-s OFDM 16QAM	1	1	19.27	19.24	19.16	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.74	17.81	17.72	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.72	15.83	15.77	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.59	18.75	18.78	≤ 1.5	1.5

Table 8.3.3-1.8 NR Conducted Power

Band & Mode		Modulated Average[dBm]
NR Band n2	Maximum	24.5
	Nominal	23.5

Table 8.3.4.1 Nominal and Maximum Output Power Spec

4. NR Band n2

NR Band n2 Conducted Power– 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			372000 (1 860.0 MHz)	376000 (1 880.0 MHz)	380000 (1 900.0 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	23.35	23.59	23.19	0	0.0
	1	52	23.52	23.74	23.20		
	1	104	23.48	23.58	23.11		
	50	0	22.68	22.42	22.11	≤ 0.5	0.5
	50	25	23.37	23.51	23.09	0	0.0
	50	50	22.93	22.19	22.05	≤ 0.5	0.5
	100	0	22.81	22.79	22.17		
DFT-s OFDM QPSK	1	1	23.49	23.70	23.22	0	0.0
	1	52	23.76	23.93	23.28		
	1	104	23.50	23.61	23.12		
	50	0	22.82	22.55	22.23	≤ 1	1.0
	50	25	23.51	23.54	23.18	0	0.0
	50	50	22.96	22.35	22.07	≤ 1	1.0
	100	0	22.91	22.93	22.30		
DFT-s OFDM 16QAM	1	1	22.56	22.91	22.35	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	21.15	21.47	21.11	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	19.11	19.23	19.00	≤ 4.5	4.5
CP OFDM QPSK	1	1	22.05	22.35	21.88	≤ 1.5	1.5

Table 8.3.4.2 NR Conducted Power

NR Band n2 Conducted Power-- 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			371500 (1 857.5 MHz)	376000 (1 880.0 MHz)	380500 (1 902.5 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	23.36	23.27	23.12	0	0.0
	1	39	23.40	23.49	23.57		
	1	77	23.36	23.37	23.50		
	36	0	22.42	22.42	22.26	≤ 0.5	0.5
	36	18	23.38	23.40	23.21	0	0.0
	36	39	22.41	22.51	22.05	≤ 0.5	0.5
	75	0	22.18	22.46	22.06		
DFT-s OFDM QPSK	1	1	23.37	23.45	23.39	0	0.0
	1	39	23.45	23.56	23.62		
	1	77	23.43	23.50	23.55		
	36	0	22.50	22.52	22.42	≤ 1	1.0
	36	18	23.44	23.46	23.35	0	0.0
	36	39	22.50	22.53	22.18	≤ 1	1.0
	75	0	22.38	22.54	22.15		
DFT-s OFDM 16QAM	1	1	22.41	22.45	22.45	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	21.00	20.98	21.11	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	19.25	19.03	19.24	≤ 4.5	4.5
CP OFDM QPSK	1	1	22.04	22.05	22.18	≤ 1.5	1.5

Table 8.3.4.3 NR Conducted Power

NR Band n2 Conducted Power– 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			371000 (1 855.0 MHz)	376000 (1 880.0 MHz)	381000 (1 905.0 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	23.29	23.33	22.99	0	0.0
	1	25	23.33	23.61	23.18		
	1	50	23.05	23.26	22.56		
	25	0	22.14	22.16	22.05	≤ 0.5	0.5
	25	12	23.29	23.11	23.08	0	0.0
	25	25	22.23	22.28	22.03	≤ 0.5	0.5
	50	0	22.40	22.35	22.12		
DFT-s OFDM QPSK	1	1	23.47	23.43	23.04	0	0.0
	1	25	23.49	23.67	23.24		
	1	50	23.10	23.36	22.73		
	25	0	22.34	22.37	22.15	≤ 1	1.0
	25	12	23.34	23.32	23.18	0	0.0
	25	25	22.39	22.41	22.13	≤ 1	1.0
	50	0	22.45	22.43	22.28		
DFT-s OFDM 16QAM	1	1	22.48	22.48	22.37	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	21.13	21.18	20.63	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	19.03	18.98	18.64	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.99	21.93	22.11	≤ 1.5	1.5

Table 8.3.4.4 NR Conducted Power

NR Band n2 Conducted Power– 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			370500 (1 852.5 MHz)	376000 (1 880.0 MHz)	381500 (1 907.5 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	23.03	23.55	22.99	0	0.0
	1	12	23.57	23.62	23.46		
	1	23	23.51	23.54	23.19		
	12	0	22.08	22.42	22.35	≤ 0.5	0.5
	12	6	23.30	23.38	23.05	0	0.0
	12	12	22.17	22.20	22.42	≤ 0.5	0.5
	25	0	22.42	22.43	22.06		
DFT-s OFDM QPSK	1	1	23.15	23.71	23.14	0	0.0
	1	12	23.64	23.88	23.51		
	1	23	23.53	23.68	23.28		
	12	0	22.27	22.51	22.46	≤ 1	1.0
	12	6	23.35	23.40	23.13	0	0.0
	12	12	22.27	22.33	22.51	≤ 1	1.0
	25	0	22.47	22.52	22.17		
DFT-s OFDM 16QAM	1	1	22.18	22.79	22.33	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.94	21.34	21.00	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.94	19.27	18.81	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.94	22.36	22.15	≤ 1.5	1.5

Table 8.3.4.5 NR Conducted Power

Band & Mode		Modulated Average[dBm]
NR Band n2	Maximum	21.0
	Nominal	20.0

Table 8.3.4-1.1 Nominal and Maximum Output Power Spec

4-1. NR Band n2 (ENDC)

NR Band n2 Conducted Power– 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			372000 (1 860.0 MHz)	376000 (1 880.0 MHz)	380000 (1 900.0 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	20.23	20.47	20.02	0	0.0
	1	52	20.49	20.75	20.05		
	1	104	20.32	20.43	19.92		
	50	0	19.49	19.29	18.99	≤ 0.5	0.5
	50	25	20.22	20.35	19.89	0	0.0
	50	50	19.80	19.08	18.96	≤ 0.5	0.5
	100	0	19.66	19.62	18.98		
DFT-s OFDM QPSK	1	1	20.30	20.52	20.02	0	0.0
	1	52	20.59	20.88	20.10		
	1	104	20.43	20.51	20.06		
	50	0	19.66	19.46	19.12	≤ 1	1.0
	50	25	20.35	20.42	20.07	0	0.0
	50	50	19.80	19.24	19.00	≤ 1	1.0
	100	0	19.83	19.85	19.11		
DFT-s OFDM 16QAM	1	1	19.55	19.84	19.19	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	18.03	18.27	17.91	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.94	16.12	15.97	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.88	19.21	18.70	≤ 1.5	1.5

Table 8.3.4-1.2 NR Conducted Power

NR Band n2 Conducted Power– 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			371500 (1 857.5 MHz)	376000 (1 880.0 MHz)	380500 (1 902.5 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	20.21	20.17	20.07	0	0.0
	1	39	20.30	20.39	20.44		
	1	77	20.23	20.22	20.32		
	36	0	19.37	19.30	19.10	≤ 0.5	0.5
	36	18	20.35	20.32	20.12	0	0.0
	36	39	19.37	19.35	19.03	≤ 0.5	0.5
	75	0	19.34	19.34	18.92		
DFT-s OFDM QPSK	1	1	20.32	20.25	20.26	0	0.0
	1	39	20.40	20.54	20.53		
	1	77	20.36	20.47	20.46		
	36	0	19.38	19.46	19.25	≤ 1	1.0
	36	18	20.40	20.39	20.24	0	0.0
	36	39	19.52	19.38	19.08	≤ 1	1.0
	75	0	19.52	19.36	18.98		
DFT-s OFDM 16QAM	1	1	19.40	19.33	19.40	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.90	17.80	18.05	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.95	15.98	16.19	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.95	18.89	19.15	≤ 1.5	1.5

Table 8.3.4-1.3 NR Conducted Power

NR Band n2 Conducted Power– 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			371000 (1 855.0 MHz)	376000 (1 880.0 MHz)	381000 (1 905.0 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	20.23	20.25	19.82	0	0.0
	1	25	20.35	20.44	20.03		
	1	50	19.90	20.25	19.44		
	25	0	19.05	19.21	18.95	≤ 0.5	0.5
	25	12	20.04	20.23	19.89	0	0.0
	25	25	19.20	19.18	18.97	≤ 0.5	0.5
	50	0	19.26	19.20	19.07		
DFT-s OFDM QPSK	1	1	20.41	20.32	20.02	0	0.0
	1	25	20.45	20.48	20.08		
	1	50	19.92	20.28	19.67		
	25	0	19.17	19.30	19.01	≤ 1	1.0
	25	12	20.15	20.29	20.05	0	0.0
	25	25	19.27	19.21	19.06	≤ 1	1.0
	50	0	19.27	19.41	19.21		
DFT-s OFDM 16QAM	1	1	19.41	19.39	19.31	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	18.02	18.01	17.52	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.94	15.91	15.58	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.92	18.85	18.97	≤ 1.5	1.5

Table 8.3.4-1.4 NR Conducted Power

NR Band n2 Conducted Power– 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			370500 (1 852.5 MHz)	376000 (1 880.0 MHz)	381500 (1 907.5 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	19.92	20.38	19.95	0	0.0
	1	12	20.44	20.49	20.31		
	1	23	20.31	20.44	20.07		
	12	0	19.19	19.30	19.18	≤ 0.5	0.5
	12	6	20.25	20.12	19.93	0	0.0
	12	12	18.98	19.11	19.30	≤ 0.5	0.5
	25	0	19.35	19.38	18.93		
DFT-s OFDM QPSK	1	1	20.09	20.62	19.96	0	0.0
	1	12	20.49	20.78	20.42		
	1	23	20.38	20.64	20.21		
	12	0	19.24	19.49	19.39	≤ 1	1.0
	12	6	20.29	20.21	20.02	0	0.0
	12	12	19.07	19.21	19.41	≤ 1	1.0
	25	0	19.41	19.51	18.97		
DFT-s OFDM 16QAM	1	1	19.15	19.76	19.32	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.88	18.22	17.98	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.80	16.25	15.80	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.78	19.20	18.95	≤ 1.5	1.5

Table 8.3.4-1.5 NR Conducted Power

Band & Mode		Modulated Average[dBm]
NR Band n77	Maximum	24.0
	Nominal	23.0

Table 8.3.5.1 Nominal and Maximum Output Power Spec

5. NR Band n77 DoD

NR Band n77 DoD Conducted Power– 100 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	22.90	0	0.0
	1	136	23.18		
	1	271	23.08		
	135	0	22.45	≤ 0.5	0.5
	135	67	23.13	0	0.0
	135	135	22.53	≤ 0.5	0.5
DFT-s OFDM QPSK	270	0	22.62	0	0.0
	1	1	22.96		
	1	136	23.22		
	1	271	23.11	≤ 1	1.0
	135	0	22.57	0	0.0
	135	67	23.19	≤ 1	1.0
DFT-s OFDM 16QAM	135	135	22.74	≤ 1	1.0
	270	0	22.71		
	1	1	22.11		
DFT-s OFDM 64QAM	1	136	22.33	≤ 1	1.0
	1	271	22.24		
	1	1	20.58		
DFT-s OFDM 256QAM	1	1	18.64	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.53	≤ 1.5	1.5

Table 8.3.5.2 NR Conducted Power

NR Band n77 DoD Conducted Power– 90 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	22.36	0	0.0
	1	122	22.99		
	1	243	22.72		
	120	0	22.17	≤ 0.5	0.5
	120	60	22.94	0	0.0
	120	120	22.16	≤ 0.5	0.5
DFT-s OFDM QPSK	216	0	22.24	0	0.0
	1	1	22.61		
	1	122	23.05		
	1	243	22.74	≤ 1	1.0
	120	0	22.39	0	0.0
	120	60	23.02	≤ 1	1.0
DFT-s OFDM 16QAM	120	120	22.44	≤ 1	1.0
	216	0	22.36		
	1	1	21.77		
DFT-s OFDM 64QAM	1	1	20.18	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.26	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.19	≤ 1.5	1.5

Table 8.3.5.3 NR Conducted Power

NR Band n77 DoD Conducted Power-- 80 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	22.50	0	0.0
	1	108	22.90		
	1	215	22.81		
	108	0	22.09	≤ 0.5	0.5
	108	54	22.84	0	0.0
	108	108	22.12	≤ 0.5	0.5
	216	0	22.19		
DFT-s OFDM QPSK	1	1	22.61	0	0.0
	1	108	23.06		
	1	215	22.86		
	108	0	22.29	≤ 1	1.0
	108	54	22.98	0	0.0
	108	108	22.32	≤ 1	1.0
	216	0	22.30		
DFT-s OFDM 16QAM	1	1	21.90	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.13	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.20	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.26	≤ 1.5	1.5

Table 8.3.5.4 NR Conducted Power

NR Band n77 DoD Conducted Power-- 70 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	22.60	0	0.0
	1	94	23.01		
	1	187	22.81		
	90	0	22.19	≤ 0.5	0.5
	90	45	22.99	0	0.0
	90	90	22.14	≤ 0.5	0.5
	180	0	22.27		
DFT-s OFDM QPSK	1	1	22.71	0	0.0
	1	94	23.11		
	1	187	22.88		
	90	0	22.35	≤ 1	1.0
	90	45	23.06	0	0.0
	90	90	22.30	≤ 1	1.0
	180	0	22.47		
DFT-s OFDM 16QAM	1	1	21.79	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.44	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.34	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.33	≤ 1.5	1.5

Table 8.3.5.5 NR Conducted Power

NR Band n77 DoD Conducted Power-- 60 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	22.64	0	0.0
	1	80	22.85		
	1	160	22.69		
	81	0	22.08	≤ 0.5	0.5
	81	40	22.78	0	0.0
	81	81	22.16	≤ 0.5	0.5
	162	0	22.29		
DFT-s OFDM QPSK	1	1	22.70	0	0.0
	1	80	23.09		
	1	160	22.78		
	81	0	22.15	≤ 1	1.0
	81	40	22.85	0	0.0
	81	81	22.34	≤ 1	1.0
	162	0	22.50		
DFT-s OFDM 16QAM	1	1	21.73	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.34	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.21	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.39	≤ 1.5	1.5

Table 8.3.5.6 NR Conducted Power

NR Band n77 DoD Conducted Power-- 50 MHz Bandwidth						
Modulation	RB Size	RB Offset	Low-Mid Channel	Mid-High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			631668 (3 475.02 MHz)	635000 (3 525.00 MHz)		
			Conducted Power (dBm)			
DFT-s OFDM π/2 BPSK	1	1	22.59	22.68	0	0.0
	1	66	22.81	22.97		
	1	131	22.49	22.63		
	64	0	22.04	22.21	≤ 0.5	0.5
	64	32	22.62	22.76	0	0.0
	64	64	22.29	22.32	≤ 0.5	0.5
	128	0	22.08	22.14		
DFT-s OFDM QPSK	1	1	22.63	22.73	0	0.0
	1	66	22.86	23.05		
	1	131	22.68	22.76		
	64	0	22.31	22.32	≤ 1	1.0
	64	32	22.68	22.84	0	0.0
	64	64	22.49	22.55	≤ 1	1.0
	128	0	22.37	22.40		
DFT-s OFDM 16QAM	1	1	21.75	21.78	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.15	20.35	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.38	18.39	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.17	21.28	≤ 1.5	1.5

Table 8.3.5.7 NR Conducted Power

NR Band n77 DoD Conducted Power-- 40 MHz Bandwidth						
Modulation	RB Size	RB Offset	Low-Mid Channel	Mid-High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			631334 (3 470.01 MHz)	635332 (3 529.98 MHz)		
			Conducted Power (dBm)			
DFT-s OFDM $\pi/2$ BPSK	1	1	22.58	22.94	0	0.0
	1	52	22.82	22.99		
	1	104	22.59	22.58		
	50	0	22.00	22.33	≤ 0.5	0.5
	50	25	22.74	22.94	0	0.0
	50	50	22.23	22.29	≤ 0.5	0.5
	100	0	22.11	22.16		
DFT-s OFDM QPSK	1	1	22.64	22.99	0	0.0
	1	52	23.01	23.14		
	1	104	22.75	22.62		
	50	0	22.12	22.51	≤ 1	1.0
	50	25	22.77	23.08	0	0.0
	50	50	22.41	22.40	≤ 1	1.0
	100	0	22.23	22.46		
DFT-s OFDM 16QAM	1	1	21.69	22.09	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.32	20.54	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.31	18.50	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.21	21.59	≤ 1.5	1.5

Table 8.3.5.8 NR Conducted Power

NR Band n77 DoD Conducted Power– 30 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			631000 (3 465.00MHz)	633334 (3 500.01 MHz)	635666 (3 534.99 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	22.53	22.95	22.81	0	0.0
	1	39	22.86	23.18	22.90		
	1	76	22.45	22.97	22.68		
	36	0	21.97	22.35	22.15	≤ 0.5	0.5
	36	18	22.56	22.95	22.88	0	0.0
	36	36	22.10	22.39	22.18	≤ 0.5	0.5
	75	0	21.91	22.32	22.10		
DFT-s OFDM QPSK	1	1	22.65	23.03	22.96	0	0.0
	1	39	22.89	23.20	23.04		
	1	76	22.58	23.06	22.68		
	36	0	22.04	22.46	22.43	≤ 1	1.0
	36	18	22.81	23.13	23.01	0	0.0
	36	36	22.34	22.41	22.23	≤ 1	1.0
	75	0	22.05	22.46	22.28		
DFT-s OFDM 16QAM	1	1	21.71	22.09	21.97	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.25	20.59	20.49	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.21	18.59	18.59	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.25	21.69	21.68	≤ 1.5	1.5

Table 8.3.5.9 NR Conducted Power

NR Band n77 DoD Conducted Power-- 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			630668 (3 460.02MHz)	633334 (3 500.01 MHz)	636000 (3 540.00 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	22.25	22.64	22.53	0	0.0
	1	25	22.79	22.84	22.79		
	1	49	22.39	22.59	22.56		
	25	0	21.98	22.22	21.93	≤ 0.5	0.5
	25	12	22.46	22.76	22.48	0	0.0
	25	25	21.94	22.19	21.89	≤ 0.5	0.5
	50	0	21.77	22.16	21.86		
DFT-s OFDM QPSK	1	1	22.52	22.76	22.56	0	0.0
	1	25	22.87	22.95	23.06		
	1	49	22.68	22.66	22.67		
	25	0	22.01	22.43	22.00	≤ 1	1.0
	25	12	22.67	22.90	22.64	0	0.0
	25	25	22.00	22.34	22.11	≤ 1	1.0
	50	0	21.92	22.38	22.05		
DFT-s OFDM 16QAM	1	1	21.61	21.84	21.66	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.19	20.27	20.18	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.17	18.38	18.28	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.04	21.35	21.34	≤ 1.5	1.5

Table 8.3.5.10 NR Conducted Power

Band & Mode		Modulated Average[dBm]
NR Band n77	Maximum	21.0
	Nominal	20.0

Table 8.3.5-1.1 Nominal and Maximum Output Power Spec

5-1. NR Band n77 DoD (ENDC)

NR Band n77 DoD Conducted Power- 100 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	19.87	0	0.0
	1	136	20.14		
	1	271	20.00		
	135	0	19.37	≤ 0.5	0.5
	135	67	20.02	0	0.0
	135	135	19.34	≤ 0.5	0.5
	270	0	19.58		
DFT-s OFDM QPSK	1	1	19.94	0	0.0
	1	136	20.18		
	1	271	20.07		
	135	0	19.52	≤ 1	1.0
	135	67	20.15	0	0.0
	135	135	19.62	≤ 1	1.0
	270	0	19.61		
DFT-s OFDM 16QAM	1	1	18.96	≤ 1	1.0
	1	136	19.20		
	1	271	19.19		
DFT-s OFDM 64QAM	1	1	17.51	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.58	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.49	≤ 1.5	1.5

Table 8.3.5-1.2 NR Conducted Power

NR Band n77 DoD Conducted Power- 90 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	19.17	0	0.0
	1	122	19.86		
	1	243	19.60		
	120	0	19.10	≤ 0.5	0.5
	120	60	19.74	0	0.0
	120	120	19.17	≤ 0.5	0.5
	216	0	19.15		
DFT-s OFDM QPSK	1	1	19.46	0	0.0
	1	122	20.03		
	1	243	19.70		
	120	0	19.20	≤ 1	1.0
	120	60	19.98	0	0.0
	120	120	19.32	≤ 1	1.0
	216	0	19.17		
DFT-s OFDM 16QAM	1	1	18.71	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.04	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.12	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.17	≤ 1.5	1.5

Table 8.3.5-1.3 NR Conducted Power

NR Band n77 DoD Conducted Power– 80 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	19.37	0	0.0
	1	108	19.79		
	1	215	19.72		
	108	0	19.05	≤ 0.5	0.5
	108	54	19.67	0	0.0
	108	108	18.99	≤ 0.5	0.5
	216	0	19.08		
DFT-s OFDM QPSK	1	1	19.56	0	0.0
	1	108	19.98		
	1	215	19.75		
	108	0	19.16	≤ 1	1.0
	108	54	19.82	0	0.0
	108	108	19.23	≤ 1	1.0
	216	0	19.24		
DFT-s OFDM 16QAM	1	1	18.86	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.09	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.38	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.20	≤ 1.5	1.5

Table 8.3.5-1.4 NR Conducted Power

NR Band n77 DoD Conducted Power– 70 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	19.44	0	0.0
	1	94	19.85		
	1	187	19.70		
	90	0	19.16	≤ 0.5	0.5
	90	45	19.85	0	0.0
	90	90	19.05	≤ 0.5	0.5
	180	0	19.17		
DFT-s OFDM QPSK	1	1	19.70	0	0.0
	1	94	20.00		
	1	187	19.72		
	90	0	19.25	≤ 1	1.0
	90	45	19.87	0	0.0
	90	90	19.15	≤ 1	1.0
	180	0	19.40		
DFT-s OFDM 16QAM	1	1	18.76	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.37	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.35	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.32	≤ 1.5	1.5

Table 8.3.5-1.5 NR Conducted Power

NR Band n77 DoD Conducted Power-- 60 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	19.48	0	0.0
	1	80	19.67		
	1	160	19.49		
	81	0	18.89	≤ 0.5	0.5
	81	40	19.62	0	0.0
	81	81	19.11	≤ 0.5	0.5
	162	0	19.09		
DFT-s OFDM QPSK	1	1	19.53	0	0.0
	1	80	19.90		
	1	160	19.70		
	81	0	19.01	≤ 1	1.0
	81	40	19.74	0	0.0
	81	81	19.23	≤ 1	1.0
	162	0	19.35		
DFT-s OFDM 16QAM	1	1	18.63	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.29	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.08	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.36	≤ 1.5	1.5

Table 8.3.5-1.6 NR Conducted Power

NR Band n77 DoD Conducted Power-- 50 MHz Bandwidth						
Modulation	RB Size	RB Offset	Low-Mid Channel	Mid-High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			631668 (3 475.02 MHz)	635000 (3 525.00 MHz)		
			Conducted Power (dBm)			
DFT-s OFDM π/2 BPSK	1	1	19.44	19.49	0	0.0
	1	66	19.74	19.92		
	1	131	19.53	19.61		
	64	0	19.10	19.14	≤ 0.5	0.5
	64	32	19.43	19.56	0	0.0
	64	64	19.20	19.24	≤ 0.5	0.5
	128	0	19.15	19.33		
DFT-s OFDM QPSK	1	1	19.61	19.72	0	0.0
	1	66	19.77	19.92		
	1	131	19.68	19.74		
	64	0	19.24	19.28	≤ 1	1.0
	64	32	19.60	19.80	0	0.0
	64	64	19.24	19.44	≤ 1	1.0
	128	0	19.19	19.38		
DFT-s OFDM 16QAM	1	1	18.73	18.78	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.23	17.29	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.21	15.29	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.22	18.27	≤ 1.5	1.5

Table 8.3.5-1.7 NR Conducted Power

NR Band n77 DoD Conducted Power-- 40 MHz Bandwidth						
Modulation	RB Size	RB Offset	Low-Mid Channel	Mid-High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			631334 (3 470.01 MHz)	635332 (3 529.98 MHz)		
			Conducted Power (dBm)			
DFT-s OFDM $\pi/2$ BPSK	1	1	19.43	19.80	0	0.0
	1	52	19.81	19.86		
	1	104	19.49	19.51		
	50	0	18.95	19.15	≤ 0.5	0.5
	50	25	19.60	19.79	0	0.0
	50	50	19.22	19.22	≤ 0.5	0.5
	100	0	18.95	19.09		
DFT-s OFDM QPSK	1	1	19.53	19.84	0	0.0
	1	52	19.90	20.08		
	1	104	19.67	19.52		
	50	0	19.07	19.40	≤ 1	1.0
	50	25	19.65	19.95	0	0.0
	50	50	19.33	19.27	≤ 1	1.0
	100	0	19.13	19.31		
DFT-s OFDM 16QAM	1	1	18.53	19.02	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.18	17.38	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.19	15.40	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.16	18.54	≤ 1.5	1.5

Table 8.3.5-1.8 NR Conducted Power

NR Band n77 DoD Conducted Power– 30 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			631000 (3 465.00MHz)	633334 (3 500.01 MHz)	635666 (3 534.99 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	19.45	19.86	19.68	0	0.0
	1	39	19.62	20.10	19.85		
	1	76	19.41	19.87	19.57		
	36	0	18.87	19.26	19.30	≤ 0.5	0.5
	36	18	19.44	19.90	19.84	0	0.0
	36	36	19.28	19.32	19.02	≤ 0.5	0.5
	75	0	18.89	19.23	19.11		
DFT-s OFDM QPSK	1	1	19.51	19.90	19.85	0	0.0
	1	39	19.74	20.14	19.88		
	1	76	19.57	20.03	19.67		
	36	0	18.91	19.43	19.42	≤ 1	1.0
	36	18	19.72	20.11	19.84	0	0.0
	36	36	19.32	19.32	19.15	≤ 1	1.0
	75	0	18.92	19.41	19.26		
DFT-s OFDM 16QAM	1	1	18.53	18.95	18.89	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.15	17.46	17.36	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.02	15.52	15.55	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.18	18.52	18.52	≤ 1.5	1.5

Table 8.3.5-1.9 NR Conducted Power

NR Band n77 DoD Conducted Power-- 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			630668 (3 460.02MHz)	633334 (3 500.01 MHz)	636000 (3 540.00 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	19.29	19.62	19.48	0	0.0
	1	25	19.66	19.75	19.63		
	1	49	19.55	19.45	19.37		
	25	0	18.91	19.10	18.82	≤ 0.5	0.5
	25	12	19.38	19.68	19.40	0	0.0
	25	25	18.86	18.99	18.87	≤ 0.5	0.5
	50	0	18.68	19.02	18.75		
DFT-s OFDM QPSK	1	1	19.45	19.65	19.55	0	0.0
	1	25	19.83	19.83	19.89		
	1	49	19.67	19.48	19.54		
	25	0	18.94	19.37	18.94	≤ 1	1.0
	25	12	19.58	19.71	19.51	0	0.0
	25	25	18.87	19.20	18.97	≤ 1	1.0
	50	0	18.72	19.18	18.94		
DFT-s OFDM 16QAM	1	1	18.58	18.71	18.56	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.06	17.16	17.10	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	14.97	15.20	15.19	≤ 4.5	4.5
CP OFDM QPSK	1	1	17.96	18.23	18.14	≤ 1.5	1.5

Table 8.3.5-1.10 NR Conducted Power

Band & Mode		Modulated Average[dBm]
NR Band n77	Maximum	24.0
	Nominal	23.0

Table 8.3.6.1 Nominal and Maximum Output Power Spec

6. NR Band n77

NR Band n77 Conducted Power– 100 MHz Bandwidth						
Modulation	RB Size	RB Offset	Low-Mid Channel	Mid-High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			650000 (3 750.00 MHz)	662000 (3 930.00 MHz)		
			Conducted Power (dBm)			
DFT-s OFDM π/2 BPSK	1	1	22.95	22.69	0	0.0
	1	136	23.21	23.11		
	1	271	23.00	22.89		
	135	0	22.40	22.38	≤ 0.5	0.5
	135	67	23.08	22.83	0	0.0
	135	135	22.39	22.19	≤ 0.5	0.5
	270	0	22.52	22.43		
DFT-s OFDM QPSK	1	1	23.03	22.83	0	0.0
	1	136	23.23	23.18		
	1	271	23.14	23.06		
	135	0	22.57	22.45	≤ 1	1.0
	135	67	23.15	22.93	0	0.0
	135	135	22.66	22.31	≤ 1	1.0
	270	0	22.67	22.47		
DFT-s OFDM 16QAM	1	1	22.21	21.96	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.62	20.60	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.65	18.57	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.70	21.41	≤ 1.5	1.5

Table 8.3.6.2 NR Conducted Power

NR Band n77 Conducted Power– 90 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			649668 (3 745.02 MHz)	656000 (3 840.00 MHz)	662332 (3 934.98 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	22.69	22.76	22.63	0	0.0
	1	122	23.08	23.05	22.95		
	1	243	22.68	22.90	22.66		
	120	0	22.10	22.11	22.35	≤ 0.5	0.5
	120	60	22.67	23.01	22.80	0	0.0
	120	120	22.12	22.41	22.18	≤ 0.5	0.5
	216	0	22.20	22.22	22.25		
DFT-s OFDM QPSK	1	1	22.80	22.80	22.79	0	0.0
	1	122	23.16	23.10	23.06		
	1	243	22.75	22.96	22.73		
	120	0	22.18	22.33	22.59	≤ 1	1.0
	120	60	22.92	23.07	22.95	0	0.0
	120	120	22.39	22.59	22.28	≤ 1	1.0
	216	0	22.25	22.35	22.50		
DFT-s OFDM 16QAM	1	1	21.89	21.90	21.83	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.53	20.36	20.30	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.30	18.32	18.40	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.44	21.49	21.31	≤ 1.5	1.5

Table 8.3.6.3 NR Conducted Power

NR Band n77 Conducted Power– 80 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			649334 (3 740.01 MHz)	656000 (3 840.00 MHz)	662666 (3 939.99 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	22.59	22.80	22.87	0	0.0
	1	108	22.89	23.04	22.94		
	1	215	22.76	22.82	22.72		
	108	0	22.07	22.37	22.56	≤ 0.5	0.5
	108	54	22.81	23.02	22.93	0	0.0
	108	108	22.19	22.53	22.43	≤ 0.5	0.5
	216	0	22.13	22.24	22.28		
DFT-s OFDM QPSK	1	1	22.64	22.80	22.93	0	0.0
	1	108	23.10	23.15	23.06		
	1	215	22.84	22.93	22.88		
	108	0	22.23	22.40	22.62	≤ 1	1.0
	108	54	23.02	23.08	22.96	0	0.0
	108	108	22.47	22.70	22.58	≤ 1	1.0
	216	0	22.36	22.45	22.56		
DFT-s OFDM 16QAM	1	1	21.69	21.83	21.95	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.43	20.51	20.64	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.21	18.46	18.60	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.32	21.47	21.43	≤ 1.5	1.5

Table 8.3.6.4 NR Conducted Power

NR Band n77 Conducted Power~ 70 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			649000 (3 735.00 MHz)	653666 (3 804.99 MHz)	658334 (3 875.01 MHz)	663000 (3 945.00 MHz)		
			Conducted Power (dBm)					
DFT-s OFDM π/2 BPSK	1	1	22.49	22.58	22.66	22.53	0	0.0
	1	94	22.94	22.89	23.05	22.99		
	1	187	22.79	22.75	22.92	22.76		
	90	0	22.09	22.11	22.22	22.42	≤ 0.5	0.5
	90	45	22.88	22.83	23.00	22.90	0	0.0
	90	90	22.13	22.36	22.55	22.38	≤ 0.5	0.5
	180	0	22.12	22.35	22.15	22.33		
DFT-s OFDM QPSK	1	1	22.69	22.71	22.75	22.80	0	0.0
	1	94	23.08	23.03	23.15	23.07		
	1	187	22.81	22.80	23.00	22.97		
	90	0	22.22	22.29	22.48	22.68	≤ 1	1.0
	90	45	22.98	22.92	23.04	23.05	0	0.0
	90	90	22.39	22.57	22.60	22.53	≤ 1	1.0
	180	0	22.37	22.50	22.35	22.53		
DFT-s OFDM 16QAM	1	1	21.83	21.77	21.86	21.83	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.20	20.38	20.54	20.44	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.22	18.46	18.27	18.38	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.42	21.42	21.37	21.34	≤ 1.5	1.5

Table 8.3.6.5 NR Conducted Power

NR Band n77 Conducted Power– 60 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			648668 (3 730.02 MHz)	653556 (3 803.34 MHz)	658444 (3 976.66 MHz)	663332 (3 949.98 MHz)		
			Conducted Power (dBm)					
DFT-s OFDM $\pi/2$ BPSK	1	1	22.55	22.69	22.71	22.61	0	0.0
	1	80	22.78	22.89	22.89	22.82		
	1	160	22.68	22.68	22.78	22.65		
	81	0	22.09	22.13	22.21	22.05	≤ 0.5	0.5
	81	40	22.51	22.77	22.82	22.59	0	0.0
	81	81	22.17	22.20	22.17	22.09	≤ 0.5	0.5
162	0	21.94	22.19	22.20	22.27			
DFT-s OFDM QPSK	1	1	22.56	22.73	22.71	22.68	0	0.0
	1	80	22.84	23.00	22.92	22.90		
	1	160	22.71	22.79	22.82	22.73		
	81	0	22.23	22.29	22.41	22.29	≤ 1	1.0
	81	40	22.60	22.80	22.84	22.85	0	0.0
	81	81	22.21	22.42	22.47	22.23	≤ 1	1.0
162	0	22.05	22.29	22.23	22.33			
DFT-s OFDM 16QAM	1	1	21.80	21.90	21.94	21.95	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.08	20.46	20.38	20.37	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.32	18.33	18.35	18.38	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.42	21.41	21.31	21.31	≤ 1.5	1.5

Table 8.3.6.6 NR Conducted Power

NR Band n77 Conducted Power– 50 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			648334 (3 725.01 MHz)	652166 (3 782.49 MHz)	656000 (3 840.00 MHz)	659834 (3 897.51 MHz)	663666 (3 954.99 MHz)		
			Conducted Power (dBm)						
DFT-s OFDM π/2 BPSK	1	1	22.62	22.54	23.05	22.66	22.73	0	0.0
	1	66	22.97	22.93	23.16	22.98	23.08		
	1	131	22.67	22.72	22.97	22.82	22.76		
	64	0	22.08	22.11	22.43	22.19	22.43	≤ 0.5	0.5
	64	32	22.83	22.82	23.04	22.70	22.94	0	0.0
	64	64	22.13	22.29	22.46	22.23	22.28	≤ 0.5	0.5
128	0	22.25	22.35	22.52	22.31	22.30			
DFT-s OFDM QPSK	1	1	22.77	22.54	23.14	22.67	22.76	0	0.0
	1	66	23.02	22.97	23.18	23.18	23.10		
	1	131	22.73	22.78	23.04	22.85	22.85		
	64	0	22.26	22.31	22.66	22.24	22.63	≤ 1	1.0
	64	32	23.00	22.91	23.09	22.92	23.03	0	0.0
	64	64	22.40	22.49	22.55	22.45	22.55	≤ 1	1.0
128	0	22.44	22.40	22.65	22.46	22.39			
DFT-s OFDM 16QAM	1	1	21.98	21.57	22.16	21.72	21.89	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.39	20.04	20.66	20.40	20.58	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.34	18.12	18.70	18.23	18.40	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.38	21.40	21.66	21.29	21.50	≤ 1.5	1.5

Table 8.3.6.7 NR Conducted Power

NR Band n77 Conducted Power– 40 MHz Bandwidth										
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid-A Channel	Mid-B Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			648000 (3 720.00 MHz)	651200 (3 768.00 MHz)	654400 (3 816.00 MHz)	657600 (3 864.00 MHz)	660800 (3 912.00 MHz)	664000 (3 960.00 MHz)		
			Conducted Power (dBm)							
DFT-s OFDM $\pi/2$ BPSK	1	1	22.63	22.70	22.66	22.69	22.76	22.65	0	0.0
	1	52	22.78	22.75	22.83	22.90	22.94	22.86		
	1	104	22.74	22.70	22.75	22.71	22.79	22.67		
	50	0	22.01	22.05	22.04	22.24	22.23	22.28	≤ 0.5	0.5
	50	25	22.57	22.59	22.62	22.83	22.92	22.73	0	0.0
	50	50	22.12	22.16	22.19	22.21	22.39	22.13	≤ 0.5	0.5
	100	0	22.11	22.13	22.09	22.26	22.26	22.09		
DFT-s OFDM QPSK	1	1	22.70	22.74	22.74	22.70	22.80	22.68	0	0.0
	1	52	22.86	22.89	22.90	23.04	23.06	23.03		
	1	104	22.80	22.87	22.79	22.81	22.88	22.70		
	50	0	22.16	22.19	22.16	22.47	22.29	22.33	≤ 1	1.0
	50	25	22.82	22.79	22.74	23.02	22.96	22.89	0	0.0
	50	50	22.23	22.23	22.29	22.44	22.51	22.18	≤ 1	1.0
	100	0	22.15	22.20	22.23	22.37	22.36	22.34		
DFT-s OFDM 16QAM	1	1	21.77	21.86	21.78	21.92	21.85	21.72	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.25	20.24	20.26	20.30	20.37	20.22	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.29	18.47	18.39	18.40	18.33	18.33	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.28	21.29	21.35	21.36	21.31	21.23	≤ 1.5	1.5

Table 8.3.6.8 NR Conducted Power

NR Band n77 Conducted Power– 30 MHz Bandwidth										
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid-A Channel	Mid-B Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			647668 (3 715.02 MHz)	651000 (3 765.00 MHz)	654334 (3 815.01 MHz)	657666 (3 864.99 MHz)	661000 (3 915.00 MHz)	664332 (3 964.98 MHz)		
			Conducted Power (dBm)							
DFT-s OFDM $\pi/2$ BPSK	1	1	22.62	22.64	22.81	22.67	22.49	22.43	0	0.0
	1	39	22.65	22.78	22.90	22.73	22.79	22.86		
	1	76	22.52	22.69	22.69	22.52	22.68	22.55		
	36	0	21.92	21.96	22.08	22.00	21.97	22.15	≤ 0.5	0.5
	36	18	22.58	22.66	22.82	22.69	22.67	22.59	0	0.0
	36	36	22.11	22.04	22.14	22.16	21.99	22.11	≤ 0.5	0.5
	75	0	22.00	22.01	22.07	22.10	21.98	22.06		
DFT-s OFDM QPSK	1	1	22.71	22.73	22.89	22.79	22.73	22.58	0	0.0
	1	39	22.86	22.96	22.95	23.01	22.94	22.95		
	1	76	22.68	22.73	22.86	22.70	22.77	22.63		
	36	0	22.01	22.01	22.22	22.09	22.04	22.35	≤ 1	1.0
	36	18	22.80	22.90	22.92	22.91	22.92	22.76	0	0.0
	36	36	22.25	22.29	22.38	22.35	22.17	22.26	≤ 1	1.0
	75	0	22.20	22.09	22.20	22.22	22.14	22.23		
DFT-s OFDM 16QAM	1	1	21.83	21.94	22.05	21.80	21.79	21.86	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.46	20.24	20.47	20.34	20.38	20.17	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.25	18.23	18.44	18.35	18.32	18.11	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.38	21.33	21.40	21.38	21.35	21.23	≤ 1.5	1.5

Table 8.3.6.9 NR Conducted Power

NR Band n77 Conducted Power~ 20 MHz Bandwidth										
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid-A Channel	Mid-B Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			647334 (3 710.01 MHz)	650800 (3 762.00 MHz)	654266 (3 813.99 MHz)	657734 (3 866.01 MHz)	661200 (3 918.00 MHz)	664666 (3 969.99 MHz)		
			Conducted Power (dBm)							
DFT-s OFDM $\pi/2$ BPSK	1	1	22.47	22.40	22.74	22.69	22.74	22.72	0	0.0
	1	25	22.72	22.57	22.84	22.88	22.91	22.80		
	1	49	22.55	22.50	22.61	22.58	22.74	22.62		
	25	0	21.97	21.77	21.99	22.15	22.09	22.17	≤ 0.5	0.5
	25	12	22.52	22.38	22.75	22.75	22.83	22.65	0	0.0
	25	25	21.99	21.86	22.16	22.12	22.13	22.20	≤ 0.5	0.5
	50	0	22.01	21.94	22.15	22.14	22.17	22.14		
DFT-s OFDM QPSK	1	1	22.47	22.45	22.81	22.80	22.80	22.79	0	0.0
	1	25	22.84	22.60	22.89	22.95	22.96	22.90		
	1	49	22.55	22.53	22.69	22.62	22.78	22.73		
	25	0	22.04	21.97	22.21	22.20	22.18	22.27	≤ 1	1.0
	25	12	22.66	22.52	22.84	22.90	22.89	22.84	0	0.0
	25	25	22.17	22.00	22.38	22.39	22.39	22.27	≤ 1	1.0
	50	0	22.13	22.07	22.24	22.19	22.18	22.28		
DFT-s OFDM 16QAM	1	1	21.54	21.59	21.83	21.83	21.86	21.88	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	20.12	20.03	20.32	20.35	20.39	20.35	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	18.14	18.29	18.39	18.48	18.45	18.44	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.00	20.97	21.34	21.33	21.41	21.33	≤ 1.5	1.5

Table 8.3.6.10 NR Conducted Power

Band & Mode		Modulated Average[dBm]
NR Band n77	Maximum	21.0
	Nominal	20.0

Table 8.3.6-1.1 Nominal and Maximum Output Power Spec

6-1. NR Band n77 (ENDC)

NR Band n77 Conducted Power– 100 MHz Bandwidth						
Modulation	RB Size	RB Offset	Low-Mid Channel	Mid-High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			650000 (3 750.00 MHz)	662000 (3 930.00 MHz)		
			Conducted Power (dBm)			
DFT-s OFDM π/2 BPSK	1	1	20.11	19.91	0	0.0
	1	136	20.33	20.23		
	1	271	20.23	20.11		
	135	0	19.57	19.57	≤ 0.5	0.5
	135	67	20.27	20.08	0	0.0
	135	135	19.71	19.38	≤ 0.5	0.5
	270	0	19.75	19.72		
DFT-s OFDM QPSK	1	1	20.15	20.06	0	0.0
	1	136	20.47	20.37		
	1	271	20.29	20.22		
	135	0	19.78	19.66	≤ 1	1.0
	135	67	20.35	20.13	0	0.0
	135	135	19.84	19.56	≤ 1	1.0
	270	0	19.94	19.75		
DFT-s OFDM 16QAM	1	1	19.39	19.16	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.77	17.87	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.75	15.82	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.99	18.67	≤ 1.5	1.5

Table 8.3.6-1.2 NR Conducted Power

NR Band n77 Conducted Power– 90 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			649668 (3 745.02 MHz)	656000 (3 840.00 MHz)	662332 (3 934.98 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	19.93	20.00	19.84	0	0.0
	1	122	20.20	20.31	20.23		
	1	243	19.90	20.08	19.92		
	120	0	19.20	19.25	19.73	≤ 0.5	0.5
	120	60	20.04	20.12	20.06	0	0.0
	120	120	19.35	19.67	19.41	≤ 0.5	0.5
	216	0	19.38	19.43	19.54		
DFT-s OFDM QPSK	1	1	20.03	20.03	20.02	0	0.0
	1	122	20.34	20.32	20.26		
	1	243	19.90	20.11	19.95		
	120	0	19.30	19.53	19.83	≤ 1	1.0
	120	60	20.17	20.19	20.20	0	0.0
	120	120	19.57	19.78	19.47	≤ 1	1.0
	216	0	19.40	19.45	19.79		
DFT-s OFDM 16QAM	1	1	19.14	19.13	19.19	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.73	17.55	17.53	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.58	15.54	15.65	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.73	18.66	18.56	≤ 1.5	1.5

Table 8.3.6-1.3 NR Conducted Power

NR Band n77 Conducted Power– 80 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			649334 (3 740.01 MHz)	656000 (3 840.00 MHz)	662666 (3 939.99 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	19.75	20.08	19.97	0	0.0
	1	108	20.16	20.29	20.14		
	1	215	19.97	20.06	19.94		
	108	0	19.33	19.57	19.80	≤ 0.5	0.5
	108	54	19.97	20.19	20.11	0	0.0
	108	108	19.56	19.70	19.71	≤ 0.5	0.5
	216	0	19.37	19.56	19.50		
DFT-s OFDM QPSK	1	1	19.81	20.09	20.05	0	0.0
	1	108	20.33	20.43	20.34		
	1	215	20.01	20.13	20.03		
	108	0	19.48	19.69	19.81	≤ 1	1.0
	108	54	20.19	20.32	20.23	0	0.0
	108	108	19.74	19.96	19.74	≤ 1	1.0
	216	0	19.49	19.70	19.68		
DFT-s OFDM 16QAM	1	1	18.94	19.17	19.22	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.54	17.65	17.82	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.34	15.64	15.71	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.57	18.73	18.71	≤ 1.5	1.5

Table 8.3.6-1.4 NR Conducted Power

NR Band n77 Conducted Power~ 70 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			649000 (3 735.00 MHz)	653666 (3 804.99 MHz)	658334 (3 875.01 MHz)	663000 (3 945.00 MHz)		
			Conducted Power (dBm)					
DFT-s OFDM π/2 BPSK	1	1	19.73	19.74	19.81	19.77	0	0.0
	1	94	20.16	20.17	20.27	20.28		
	1	187	20.06	20.03	20.15	19.99		
	90	0	19.37	19.30	19.55	19.62	≤ 0.5	0.5
	90	45	20.04	20.11	20.15	20.11	0	0.0
	90	90	19.31	19.60	19.69	19.66	≤ 0.5	0.5
	180	0	19.25	19.49	19.58	19.64		
DFT-s OFDM QPSK	1	1	19.83	19.91	19.91	19.94	0	0.0
	1	94	20.34	20.26	20.30	20.35		
	1	187	20.06	20.03	20.28	20.23		
	90	0	19.50	19.46	19.73	19.92	≤ 1	1.0
	90	45	20.18	20.13	20.17	20.27	0	0.0
	90	90	19.53	19.75	19.74	19.72	≤ 1	1.0
	180	0	19.53	19.68	19.62	19.74		
DFT-s OFDM 16QAM	1	1	19.02	18.98	19.04	19.02	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.40	17.62	17.83	17.68	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.33	15.58	15.41	15.50	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.68	18.59	18.62	18.63	≤ 1.5	1.5

Table 8.3.6-1.5 NR Conducted Power

NR Band n77 Conducted Power– 60 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			648668 (3 730.02 MHz)	653556 (3 803.34 MHz)	658444 (3 976.66 MHz)	663332 (3 949.98 MHz)		
			Conducted Power (dBm)					
DFT-s OFDM π/2 BPSK	1	1	19.66	19.94	19.90	19.78	0	0.0
	1	80	20.01	20.06	20.14	20.04		
	1	160	19.86	19.87	19.95	19.76		
	81	0	19.21	19.34	19.50	19.33	≤ 0.5	0.5
	81	40	19.66	20.00	19.98	19.88	0	0.0
	81	81	19.29	19.31	19.30	19.30	≤ 0.5	0.5
	162	0	19.20	19.38	19.47	19.43		
DFT-s OFDM QPSK	1	1	19.73	19.96	19.96	19.97	0	0.0
	1	80	20.03	20.16	20.17	20.19		
	1	160	19.96	19.94	19.99	19.88		
	81	0	19.50	19.44	19.54	19.50	≤ 1	1.0
	81	40	19.87	20.03	20.00	20.09	0	0.0
	81	81	19.45	19.56	19.60	19.49	≤ 1	1.0
	162	0	19.32	19.54	19.47	19.55		
DFT-s OFDM 16QAM	1	1	18.95	19.14	19.15	19.24	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.33	17.67	17.62	17.60	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.45	15.55	15.58	15.52	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.52	18.68	18.57	18.52	≤ 1.5	1.5

Table 8.3.6-1.6 NR Conducted Power

NR Band n77 Conducted Power– 50 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			648334 (3 725.01 MHz)	652166 (3 782.49 MHz)	656000 (3 840.00 MHz)	659834 (3 897.51 MHz)	663666 (3 954.99 MHz)		
			Conducted Power (dBm)						
DFT-s OFDM π/2 BPSK	1	1	19.83	19.68	20.15	19.74	19.82	0	0.0
	1	66	20.18	20.17	20.29	20.20	20.18		
	1	131	19.89	19.91	20.21	20.08	19.93		
	64	0	19.34	19.38	19.70	19.41	19.72	≤ 0.5	0.5
	64	32	19.98	20.02	20.16	20.10	20.03	0	0.0
	64	64	19.55	19.68	19.70	19.41	19.60	≤ 0.5	0.5
128	0	19.45	19.45	19.77	19.66	19.55			
DFT-s OFDM QPSK	1	1	20.04	19.83	20.27	19.80	19.96	0	0.0
	1	66	20.29	20.21	20.34	20.31	20.25		
	1	131	19.99	20.03	20.27	20.13	20.00		
	64	0	19.48	19.49	19.93	19.42	19.84	≤ 1	1.0
	64	32	20.28	20.15	20.21	20.21	20.13	0	0.0
	64	64	19.68	19.78	19.77	19.67	19.84	≤ 1	1.0
128	0	19.64	19.53	19.88	19.74	19.61			
DFT-s OFDM 16QAM	1	1	19.10	18.90	19.27	18.97	19.02	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.58	17.42	17.87	17.67	17.84	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.56	15.37	15.87	15.52	15.69	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.63	18.51	18.78	18.51	18.61	≤ 1.5	1.5

Table 8.3.6-1.7 NR Conducted Power

NR Band n77 Conducted Power– 40 MHz Bandwidth										
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid-A Channel	Mid-B Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			648000 (3 720.00 MHz)	651200 (3 768.00 MHz)	654400 (3 816.00 MHz)	657600 (3 864.00 MHz)	660800 (3 912.00 MHz)	664000 (3 960.00 MHz)		
			Conducted Power (dBm)							
DFT-s OFDM $\pi/2$ BPSK	1	1	19.78	19.83	19.81	19.93	19.95	19.75	0	0.0
	1	52	19.99	20.02	20.06	20.19	20.19	20.12		
	1	104	19.76	19.80	19.88	19.93	19.95	19.91		
	50	0	19.25	19.30	19.22	19.52	19.48	19.47	≤ 0.5	0.5
	50	25	19.81	19.94	19.89	20.07	20.06	19.85	0	0.0
	50	50	19.23	19.38	19.44	19.37	19.58	19.31	≤ 0.5	0.5
	100	0	19.28	19.24	19.35	19.55	19.40	19.36		
DFT-s OFDM QPSK	1	1	19.89	20.00	19.89	19.94	19.98	19.85	0	0.0
	1	52	20.07	20.15	20.18	20.29	20.28	20.17		
	1	104	19.93	20.07	20.03	20.04	20.03	19.99		
	50	0	19.34	19.48	19.26	19.59	19.55	19.55	≤ 1	1.0
	50	25	19.97	20.06	19.99	20.16	20.07	20.03	0	0.0
	50	50	19.46	19.50	19.45	19.65	19.62	19.40	≤ 1	1.0
	100	0	19.31	19.34	19.38	19.58	19.60	19.54		
DFT-s OFDM 16QAM	1	1	18.99	19.14	18.98	19.08	19.12	18.93	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.46	17.55	17.43	17.58	17.57	17.35	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.44	15.70	15.55	15.59	15.49	15.55	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.56	18.58	18.53	18.65	18.64	18.35	≤ 1.5	1.5

Table 8.3.6-1.8 NR Conducted Power

NR Band n77 Conducted Power-- 30 MHz Bandwidth										
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid-A Channel	Mid-B Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			647668 (3 715.02 MHz)	651000 (3 765.00 MHz)	654334 (3 815.01 MHz)	657666 (3 864.99 MHz)	661000 (3 915.00 MHz)	664332 (3 964.98 MHz)		
			Conducted Power (dBm)							
DFT-s OFDM π/2 BPSK	1	1	19.74	19.85	19.97	19.82	19.77	19.72	0	0.0
	1	39	19.82	19.99	20.11	20.01	20.06	20.03		
	1	76	19.81	19.74	19.81	19.63	19.81	19.75		
	36	0	19.02	19.19	19.21	19.21	19.09	19.44	≤ 0.5	0.5
	36	18	19.82	19.89	20.00	19.88	19.78	19.80	0	0.0
	36	36	19.23	19.33	19.51	19.33	19.22	19.27	≤ 0.5	0.5
	75	0	19.27	19.20	19.21	19.33	19.17	19.19		
DFT-s OFDM QPSK	1	1	19.98	19.95	20.10	20.07	20.01	19.82	0	0.0
	1	39	20.06	20.11	20.18	20.24	20.10	20.22		
	1	76	19.94	19.89	20.06	19.87	19.87	19.79		
	36	0	19.12	19.20	19.34	19.28	19.23	19.59	≤ 1	1.0
	36	18	19.99	20.02	20.13	20.12	20.05	19.98	0	0.0
	36	36	19.41	19.55	19.66	19.53	19.34	19.36	≤ 1	1.0
	75	0	19.49	19.21	19.43	19.37	19.41	19.34		
DFT-s OFDM 16QAM	1	1	19.04	19.19	19.18	19.09	19.05	19.06	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.62	17.56	17.66	17.61	17.66	17.42	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.48	15.52	15.64	15.71	15.68	15.60	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.66	18.45	18.60	18.64	18.57	18.43	≤ 1.5	1.5

Table 8.3.6-1.9 NR Conducted Power

NR Band n77 Conducted Power-- 20 MHz Bandwidth										
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid-A Channel	Mid-B Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			647334 (3 710.01 MHz)	650800 (3 762.00 MHz)	654266 (3 813.99 MHz)	657734 (3 866.01 MHz)	661200 (3 918.00 MHz)	664666 (3 969.99 MHz)		
			Conducted Power (dBm)							
DFT-s OFDM $\pi/2$ BPSK	1	1	19.66	19.54	19.80	19.89	19.98	20.00	0	0.0
	1	25	19.92	19.84	19.98	20.03	20.09	20.09		
	1	49	19.66	19.60	19.78	19.72	19.97	19.78		
	25	0	19.09	19.00	19.15	19.28	19.23	19.41	≤ 0.5	0.5
	25	12	19.74	19.59	19.90	19.92	20.04	19.92	0	0.0
	25	25	19.19	19.08	19.41	19.39	19.43	19.46	≤ 0.5	0.5
	50	0	19.30	19.10	19.35	19.24	19.39	19.34		
DFT-s OFDM QPSK	1	1	19.70	19.61	19.99	20.02	20.02	20.05	0	0.0
	1	25	20.12	19.88	20.18	20.07	20.12	20.15		
	1	49	19.70	19.73	19.80	19.77	20.00	19.89		
	25	0	19.14	19.17	19.39	19.42	19.34	19.53	≤ 1	1.0
	25	12	19.90	19.70	19.96	20.05	20.06	19.95	0	0.0
	25	25	19.31	19.29	19.63	19.55	19.68	19.54	≤ 1	1.0
	50	0	19.42	19.19	19.44	19.46	19.47	19.44		
DFT-s OFDM 16QAM	1	1	18.77	18.82	19.05	19.08	19.07	19.09	≤ 1	1.0
DFT-s OFDM 64QAM	1	1	17.34	17.31	17.54	17.55	17.64	17.62	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	15.33	15.56	15.64	15.59	15.73	15.61	≤ 4.5	4.5
CP OFDM QPSK	1	1	18.25	18.15	18.61	18.53	18.65	18.55	≤ 1.5	1.5

Table 8.3.6-1.10 NR Conducted Power

8.4 WLAN Nominal and Maximum Output Power Spec and Conducted Powers

Band (GHz)	Mode	Data Rate (Mbps)	Modulated Average[dBm]	
			Maximum	Nominal
2.4	802.11b	1-11	14.0	12.0
	802.11g	6-24	12.0	10.0
		36-54	11.0	9.0
	802.11n (HT-20)	6.5	12.0	10.0
		13-19.5	11.0	9.0
		26-58.5	10.0	8.0
		65	9.0	7.0
	802.11ac (VHT20)	6.5	12.0	10.0
		13-19.5	11.0	9.0
		26-58.5	10.0	8.0
		65-78	9.0	7.0
	802.11n (HT-40)	13.5	12.0	10.0
		27-135	10.0	8.0
	802.11ac (VHT40)	13.5	12.0	10.0
		27-135	10.0	8.0
		162-180	5.5	3.5

Table 8.4.1 Nominal and Maximum Output Power Spec

Mode	Freq. (MHz)	Channel	IEEE 802.11 (2.4 GHz) Conducted Power[dBm]
802.11b	2 412	1	12.37
	2 437	6	12.02
	2 462	11	12.11
802.11g	2 412	1	10.87
	2 437	6	10.35
	2 462	11	10.49
802.11n (HT-20)	2 412	1	10.76
	2 437	6	10.47
	2 462	11	10.60
802.11ac (VHT20)	2 412	1	10.72
	2 437	6	10.41
	2 462	11	10.56
802.11n (HT-40)	2 422	3	10.44
	2 437	6	10.24
	2 452	9	10.02
802.11ac (VHT40)	2 422	3	10.38
	2 437	6	10.13
	2 452	9	10.03

Table 8.4.2 IEEE 802.11 Average RF Power

Band (GHz)	Mode	Data Rate (Mbps)	Modulated Average[dBm]	
			Maximum	Nominal
5 (UNII)	802.11a	6-48	10.5	8.5
		54	9.5	7.5
	802.11n (20MHz)	6.5-52	11.0	9.0
		58.5	10.0	8.0
		65	9.0	7.0
	802.11ac (20MHz)	6.5-52	11.0	9.0
		58.5	10.0	8.0
		65	9.0	7.0
		78	8.0	6.0
	802.11n (40MHz)	13.5	11.0	9.0
		27-121.5	10.0	8.0
		135	9.0	7.0
	802.11ac (40MHz)	13.5	11.0	9.0
		27-121.5	10.0	8.0
		135	9.0	7.0
		162	8.0	6.0
	802.11ac (80MHz)	180	6.0	4.0
		29.3	11.0	9.0
		58.5-175.5	10.0	8.0
		234	9.0	7.0
		263.3-292.5	8.0	6.0
		351-390	6.0	4.0

Table 8.4.3 Nominal and Maximum Output Power Spec

Mode	Freq. (MHz)	Channel	IEEE 802.11a (5 GHz) Conducted Power[dBm]
802.11a	5 180	36	9.08
	5 200	40	9.11
	5 220	44	9.06
	5 240	48	9.04
	5 745	149	8.74
	5 785	157	8.69
	5 825	165	8.89

Table 8.4.4 IEEE 802.11a Average RF Power

Mode	Freq. (MHz)	Channel	IEEE 802.11n HT20 (5 GHz) Conducted Power[dBm]
802.11n (HT-20)	5 180	36	9.83
	5 200	40	9.86
	5 220	44	9.81
	5 240	48	9.73
	5 745	149	9.42
	5 785	157	9.45
	5 825	165	9.56

Table 8.4.5 IEEE 802.11n HT20 Average RF Power

Mode	Freq. (MHz)	Channel	IEEE 802.11ac VHT20 (5 GHz) Conducted Power[dBm]
802.11ac (VHT-20)	5 180	36	9.79
	5 200	40	9.82
	5 220	44	9.77
	5 240	48	9.75
	5 745	149	9.46
	5 785	157	9.45
	5 825	165	9.55

Table 8.4.6 IEEE 802.11ac VHT20 Average RF Power

Mode	Freq. (MHz)	Channel	IEEE 802.11n HT40 (5 GHz) Conducted Power[dBm]
802.11n (HT-40)	5 190	38	9.50
	5 230	46	9.46
	5 755	151	9.10
	5 795	159	9.06

Table 8.4.7 IEEE 802.11n HT40 Average RF Power

Mode	Freq. (MHz)	Channel	IEEE 802.11ac VHT40 (5 GHz) Conducted Power[dBm]
802.11ac (VHT-40)	5 190	38	9.41
	5 230	46	9.43
	5 755	151	9.04
	5 795	159	9.02

Table 8.4.8 IEEE 802.11ac VHT40 Average RF Power

Mode	Freq. (MHz)	Channel	IEEE 802.11ac VHT80 (5 GHz) Conducted Power[dBm]
802.11ac (VHT-80)	5 210	42	9.27
	5 775	155	9.15

Table 8.4.9 IEEE 802.11ac VHT80 Average RF Power

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Justification for reduced test configurations for WIFI channels 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 modes 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.
- Output Power and SAR is not required for 802.11 g/n HT20/ac VHT20 channels when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjust SAR is ≤ 1.2 W/kg.
- The underlined data rate and channel above were tested for SAR.

The average output powers of this device were tested by below configuration.

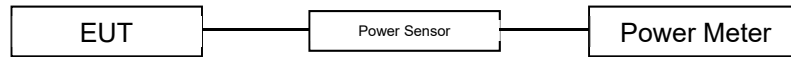


Figure 8.4 Power Measurement Setup

9. SYSTEM VERIFICATION

9.1 Tissue Verification

MEASURED TISSUE PARAMETERS										
Date(s)	Tissue Type	Ambient Temp.[°C]	Liquid Temp.[°C]	Measured Frequency [MHz]	Target Dielectric Constant, ϵ_r	Target Conductivity, σ (S/m)	Measured Dielectric Constant, ϵ_r	Measured Conductivity, σ (S/m)	Er Deviation [%]	σ Deviation [%]
Oct. 01. 2025 (B12/B14)	750 Head	21.4	21.3	704.00	42.145	0.887	43.363	0.863	2.89	-2.71
				707.50	42.129	0.887	43.352	0.864	2.90	-2.59
				711.00	42.108	0.887	43.342	0.865	2.93	-2.48
				750.00	41.900	0.890	43.219	0.877	3.15	-1.46
				793.00	41.698	0.895	43.096	0.891	3.35	-0.45
Oct. 15. 2025 (n12)	750 Head	21.1	21.0	706.50	42.135	0.887	43.316	0.884	2.80	-0.34
				707.50	42.129	0.887	43.312	0.885	2.81	-0.23
				708.50	42.124	0.887	43.310	0.886	2.82	-0.11
				750.00	41.900	0.890	43.185	0.899	3.07	1.01
Sep. 30. 2025 (B5)	835 Head	21.3	21.2	829.00	41.528	0.899	42.090	0.877	1.35	-2.45
				835.00	41.500	0.900	42.077	0.879	1.39	-2.33
				836.50	41.500	0.901	42.067	0.880	1.37	-2.33
				844.00	41.500	0.910	42.045	0.882	1.31	-3.08
Oct. 14. 2025 (n5)	835 Head	21.5	21.4	834.00	41.505	0.900	41.822	0.934	0.76	3.78
				835.00	41.500	0.900	41.816	0.935	0.76	3.89
				836.50	41.500	0.901	41.807	0.936	0.74	3.88
				839.00	41.500	0.904	41.794	0.937	0.71	3.65
Oct. 02. 2025 (B66)	1 800 Head	21.3	21.2	1 720.00	40.114	1.354	40.011	1.326	-0.26	-2.07
				1 745.00	40.079	1.369	39.995	1.340	-0.21	-2.12
				1 770.00	40.043	1.383	39.965	1.355	-0.19	-2.02
				1 800.00	40.000	1.400	39.911	1.372	-0.22	-2.00
Sep. 29. 2025 (B4)	1 800 Head	21.4	21.3	1 720.00	40.114	1.354	40.461	1.363	0.87	0.66
				1 732.50	40.097	1.361	40.439	1.368	0.85	0.51
				1 745.00	40.079	1.369	40.414	1.373	0.84	0.29
				1 800.00	40.000	1.400	40.325	1.407	0.81	0.50
Oct. 16. 2025 (n66)	1800 Head	21.3	21.2	1 730.00	40.114	1.354	41.311	1.346	2.98	-0.59
				1 745.00	40.079	1.369	41.310	1.355	3.07	-1.02
				1 760.00	40.043	1.383	41.302	1.365	3.14	-1.30
				1 800.00	40.000	1.400	41.247	1.388	3.12	-0.86
Sep. 26. 2025 (B2)	1 900 Head	21.7	21.6	1 860.00	40.000	1.400	39.680	1.390	-0.80	-0.71
				1 880.00	40.000	1.400	39.649	1.402	-0.88	0.14
				1 900.00	40.000	1.400	39.626	1.417	-0.94	1.21
Oct. 13. 2025 (n2)	1 900 Head	21.7	21.5	1 860.00	40.000	1.400	39.899	1.385	-0.25	-1.07
				1 880.00	40.000	1.400	39.874	1.397	-0.31	-0.21
				1 900.00	40.000	1.400	39.854	1.412	-0.37	0.86
Oct. 20. 2025 (n77)	3 500 3 700 3 900 Head	21.4	21.2	3 500.00	37.900	2.910	38.454	2.882	1.46	-0.96
				3 700.00	37.700	3.118	38.174	3.093	1.26	-0.80
				3 750.00	37.650	3.170	38.080	3.147	1.14	-0.73
				3 900.00	37.500	3.326	37.840	3.315	0.91	-0.33
				3 930.00	37.470	3.357	37.803	3.348	0.89	-0.27
Sep. 22. 2025 (Wi-Fi 2.4GHz)	2 450 Head	20.5	20.4	2 412.0	39.265	1.766	38.759	1.731	-1.29	-1.98
				2 437.0	39.222	1.788	38.722	1.749	-1.27	-2.18
				2 450.0	39.200	1.800	38.703	1.758	-1.27	-2.33
				2 462.0	39.184	1.813	38.692	1.767	-1.26	-2.54
Sep. 24. 2025 (Wi-Fi 5.2GHz)	5 200 Head	20.6	20.5	5 190.0	36.010	4.650	34.962	4.620	-2.91	-0.65
				5 200.0	36.000	4.660	34.938	4.628	-2.95	-0.69
				5 230.0	35.970	4.690	34.875	4.655	-3.04	-0.75
Sep. 26. 2025 (Wi-Fi 5.8GHz)	5 800 Head	20.4	20.3	5 755.0	35.345	5.225	34.612	5.380	-2.07	2.97
				5 795.0	35.305	5.265	34.512	5.419	-2.25	2.92
				5 800.0	35.300	5.270	34.502	5.426	-2.26	2.96

The above measured tissue parameters were used in the DASY software. The DASY software was used to perform interpolation to determine the dielectric parameters at the SAR test device frequencies (per KDB 865664 and IEEE 1528-2013 6.6.1.2). The tissue parameters listed in the SAR test plots may slightly differ from the table above due to significant digit rounding in the software

Measurement Procedure for Tissue verification:

- 1) The network analyzer and probe system was configured and calibrated.
- 2) The probe was immersed in the sample which was placed in a nonmetallic container. Trapped air bubbles beneath the flange were minimized by placing the probe at a slight angle.
- 3) The complex admittance with respect to the probe aperture was measured
- 4) The complex relative permittivity, for example from the below equation (Pournaropoulos and Misra):

$$Y = \frac{j2\omega\epsilon_r\epsilon_0}{[\ln(b/a)]^2} \int_a^b \int_a^b \int_0^\pi \cos\phi' \frac{\exp[-j\omega r(\mu_0\epsilon_r'\epsilon_0)^{1/2}]}{r} d\phi' d\rho' d\rho$$

where Y is the admittance of the probe in contact with the sample, the primed and unprimed coordinates refer to source and observation points, respectively, $r^2 = \rho^2 + \rho'^2 - 2\rho\rho'\cos\phi'$, ω is the angular frequency, and $j = \sqrt{-1}$.

9.2 Test System Verification

Prior to assessment, the system is verified to the $\pm 10\%$ of the specifications at using the SAR Dipole kit(s). (Graphic Plots Attached)

Table 9.2.1 System Verification Results (1g)

SYSTEM DIPOLE VERIFICATION TARGET & MEASURED												
SAR System #	Freq. [MHz]	SAR Dipole kits	Date(s)	Tissue Type	Ambient Temp. [°C]	Liquid Temp. [°C]	Probe S/N	Input Power (mW)	1 W Target SAR _{1g} (W/kg)	Measured SAR _{1g} (W/kg)	1 W Normalized SAR _{1g} (W/kg)	Deviation [%]
B	750 (B12/14)	D750V3, SN:1049	Oct. 01. 2025	Head	21.4	21.3	7898	250	8.68	2.27	9.08	4.61
F	750 (n12)	D750V3, SN:1049	Oct. 15. 2025	Head	21.1	21.0	3916	250	8.68	2.16	8.64	-0.46
B	835 (B5)	D835V2, SN:464	Sep. 30. 2025	Head	21.3	21.2	7898	250	9.47	2.39	9.56	0.95
F	835 (n5)	D835V2, SN:464	Oct. 14. 2025	Head	21.5	21.4	3916	250	9.47	2.28	9.12	-3.70
B	1 800 (B66)	D1800V2, SN:2d047	Oct. 02. 2025	Head	21.3	21.2	7898	100	38.60	3.85	38.50	-0.26
B	1 800 (B4)	D1800V2, SN:2d047	Sep. 29. 2025	Head	21.4	21.3	7898	100	38.60	3.71	37.10	-3.89
F	1 800 (n66)	D1800V2, SN:2d047	Oct. 16. 2025	Head	21.3	21.2	3916	100	38.60	3.88	38.80	0.52
B	1 900 (B2)	D1900V2, SN:5d029	Sep. 26. 2025	Head	21.7	21.6	7898	100	39.10	3.86	38.60	-1.28
F	1 900 (n2)	D1900V2, SN:5d029	Oct. 13. 2025	Head	21.7	21.5	3916	100	39.10	4.10	41.00	4.86
F	3 500 (n77)	D3500V2, SN: 1018	Oct. 20. 2025	Head	21.4	21.2	3916	100	63.50	6.59	65.90	3.78
F	3 700 (n77)	D3700V2, SN: 1023	Oct. 20. 2025	Head	21.4	21.2	3916	100	67.60	6.78	67.80	0.30
F	3 900 (n77)	D3900V2, SN: 1037	Oct. 20. 2025	Head	21.4	21.2	3916	100	69.50	7.09	70.90	2.01
C	2 450 (Wi-Fi)	D2450V2, SN: 726	Sep. 22. 2025	Head	20.5	20.4	3930	100	52.20	5.42	54.20	3.83
C	5 200 (Wi-Fi)	D5GHZV2, SN:1212	Sep. 24. 2025	Head	20.6	20.5	3933	100	77.60	7.32	73.20	-5.67
C	5 800 (Wi-Fi)	D5GHZV2, SN:1212	Sep. 26. 2025	Head	20.4	20.3	3933	100	80.70	7.72	77.20	-4.34

Note(s):

1. System Verification was measured with input 250 mW, 100 mW and normalized to 1W.
2. Full system validation status and results can be found in Appendix D.

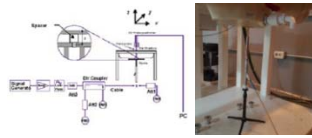


Figure 9.1 Dipole Verification Test Setup Diagram & Photo

10. SAR TEST RESULTS

10.1 Standalone Head/Body SAR Results

Table 10.1.1 LTE Head/Body SAR

MEASUREMENT RESULTS																	
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
707.5	23095	LTE B12	10	24.00	23.45	-0.050	0	15 mm [Bottom]	FCC #1	QPSK	1	25	1:1	0.304	1.135	0.345	A1
707.5	23095	LTE B12	10	23.00	22.36	0.010	1	15 mm [Bottom]	FCC #1	QPSK	25	12	1:1	0.235	1.159	0.272	
707.5	23095	LTE B12	10	24.00	23.45	0.010	0	15 mm [Right]	FCC #1	QPSK	1	25	1:1	0.118	1.135	0.134	
707.5	23095	LTE B12	10	23.00	22.36	0.030	1	15 mm [Right]	FCC #1	QPSK	25	12	1:1	0.095	1.159	0.110	
793.0	23330	LTE B14	10	24.00	23.44	-0.010	0	15 mm [Bottom]	FCC #1	QPSK	1	25	1:1	0.397	1.138	0.452	A2
793.0	23330	LTE B14	10	23.00	22.34	0.030	1	15 mm [Bottom]	FCC #1	QPSK	25	12	1:1	0.332	1.164	0.386	
793.0	23330	LTE B14	10	24.00	23.44	-0.090	0	15 mm [Right]	FCC #1	QPSK	1	25	1:1	0.173	1.138	0.197	
793.0	23330	LTE B14	10	23.00	22.34	-0.130	1	15 mm [Right]	FCC #1	QPSK	25	12	1:1	0.140	1.164	0.163	
836.5	20525	LTE B5	10	24.00	23.15	0.010	0	15 mm [Bottom]	FCC #1	QPSK	1	25	1:1	0.280	1.216	0.340	A3
836.5	20525	LTE B5	10	23.00	22.20	-0.040	1	15 mm [Bottom]	FCC #1	QPSK	25	12	1:1	0.239	1.202	0.287	
836.5	20525	LTE B5	10	24.00	23.15	0.080	0	15 mm [Right]	FCC #1	QPSK	1	25	1:1	0.143	1.216	0.174	
836.5	20525	LTE B5	10	23.00	22.20	-0.030	1	15 mm [Right]	FCC #1	QPSK	25	12	1:1	0.099	1.202	0.119	
1745.0	132322	LTE B66	20	24.00	23.07	0.080	0	15 mm [Bottom]	FCC #1	QPSK	1	50	1:1	0.123	1.239	0.152	
1745.0	132322	LTE B66	20	23.00	21.99	-0.060	1	15 mm [Bottom]	FCC #1	QPSK	50	25	1:1	0.105	1.262	0.133	
1720.0	132072	LTE B66	20	24.00	22.83	0.070	0	15 mm [Right]	FCC #1	QPSK	1	50	1:1	0.193	1.309	0.253	
1745.0	132322	LTE B66	20	24.00	23.07	-0.020	0	15 mm [Right]	FCC #1	QPSK	1	50	1:1	0.231	1.239	0.286	A4
1745.0	132322	LTE B66	20	23.00	21.99	0.040	1	15 mm [Right]	FCC #1	QPSK	50	25	1:1	0.143	1.262	0.180	
1770.0	132572	LTE B66	20	24.00	22.94	0.020	0	15 mm [Right]	FCC #1	QPSK	1	50	1:1	0.208	1.276	0.265	
1732.5	20175	LTE B4	20	24.00	22.62	-0.030	0	15 mm [Bottom]	FCC #1	QPSK	1	50	1:1	0.129	1.374	0.177	
1732.5	20175	LTE B4	20	23.00	21.50	-0.010	1	15 mm [Bottom]	FCC #1	QPSK	50	25	1:1	0.119	1.413	0.168	
1732.5	20175	LTE B4	20	24.00	22.62	-0.050	0	15 mm [Right]	FCC #1	QPSK	1	50	1:1	0.235	1.374	0.323	A5
1732.5	20175	LTE B4	20	23.00	21.50	0.050	1	15 mm [Right]	FCC #1	QPSK	50	25	1:1	0.165	1.413	0.233	
1860.0	18700	LTE B2	20	24.00	22.63	0.050	0	15 mm [Bottom]	FCC #1	QPSK	1	50	1:1	0.119	1.309	0.156	
1880.0	18900	LTE B2	20	24.00	22.90	-0.040	0	15 mm [Bottom]	FCC #1	QPSK	1	50	1:1	0.125	1.288	0.161	A6
1880.0	18900	LTE B2	20	23.00	21.76	0.090	1	15 mm [Bottom]	FCC #1	QPSK	50	25	1:1	0.099	1.330	0.132	
1900.0	19100	LTE B2	20	24.00	22.54	-0.040	0	15 mm [Bottom]	FCC #1	QPSK	1	50	1:1	0.114	1.400	0.160	
1880.0	18900	LTE B2	20	24.00	22.90	-0.050	0	15 mm [Right]	FCC #1	QPSK	1	50	1:1	0.070	1.288	0.090	
1880.0	18900	LTE B2	20	23.00	21.76	0.170	1	15 mm [Right]	FCC #1	QPSK	50	25	1:1	0.059	1.330	0.078	
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure										Head/Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):

1. The right side is the D-side.

Table 10.1.2 NR Head/Body SAR

MEASUREMENT RESULTS																	
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Waveform/ Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
707.5	141500	NR B12	15	24.00	23.71	0.030	0	15 mm [Bottom]	FCC #1	DTF+OFDM QPSK	1	39	1:1	0.269	1.069	0.288	A7
707.5	141500	NR B12	15	24.00	23.50	0.020	0	15 mm [Bottom]	FCC #1	DTF+OFDM QPSK	36	18	1:1	0.210	1.122	0.236	
707.5	141500	NR B12	15	24.00	23.71	-0.010	0	15 mm [Right]	FCC #1	DTF+OFDM QPSK	1	39	1:1	0.101	1.069	0.108	
707.5	141500	NR B12	15	24.00	23.50	-0.190	0	15 mm [Right]	FCC #1	DTF+OFDM QPSK	36	18	1:1	0.085	1.122	0.095	
707.5	141500	NR B12	15	22.50	22.22	-0.040	1.5	15 mm [Bottom]	FCC #1	CR-OFDM QPSK	1	1	1:1	0.177	1.067	0.189	
836.5	167300	NR B5	20	24.00	23.61	0.010	0	15 mm [Bottom]	FCC #1	DTF+OFDM QPSK	1	52	1:1	0.357	1.094	0.391	A8
836.5	167300	NR B5	20	24.00	23.39	0.030	0	15 mm [Bottom]	FCC #1	DTF+OFDM QPSK	50	25	1:1	0.256	1.151	0.295	
836.5	167300	NR B5	20	24.00	23.61	-0.040	0	15 mm [Right]	FCC #1	DTF+OFDM QPSK	1	52	1:1	0.183	1.094	0.200	
836.5	167300	NR B5	20	24.00	23.39	0.020	0	15 mm [Right]	FCC #1	DTF+OFDM QPSK	50	25	1:1	0.174	1.151	0.200	
836.5	167300	NR B5	20	22.50	22.15	0.030	1.5	15 mm [Bottom]	FCC #1	CR-OFDM QPSK	1	1	1:1	0.211	1.084	0.229	
1745.0	349000	NR B66	40	24.00	23.41	-0.080	0	15 mm [Bottom]	FCC #1	DTF+OFDM QPSK	1	107	1:1	0.130	1.146	0.149	
1745.0	349000	NR B66	40	24.00	23.33	-0.010	0	15 mm [Bottom]	FCC #1	DTF+OFDM QPSK	108	54	1:1	0.101	1.167	0.118	
1720.0	344000	NR B66	40	24.00	23.41	0.030	0	15 mm [Right]	FCC #1	DTF+OFDM QPSK	1	107	1:1	0.202	1.146	0.231	
1745.0	349000	NR B66	40	24.00	23.41	-0.000	0	15 mm [Right]	FCC #1	DTF+OFDM QPSK	1	107	1:1	0.225	1.146	0.258	A9
1770.0	354000	NR B66	40	24.00	23.40	0.040	0	15 mm [Right]	FCC #1	DTF+OFDM QPSK	1	107	1:1	0.210	1.148	0.241	
1745.0	349000	NR B66	40	24.00	23.33	0.030	0	15 mm [Right]	FCC #1	DTF+OFDM QPSK	108	54	1:1	0.201	1.167	0.235	
1745.0	349000	NR B66	40	22.50	21.65	0.000	1.5	15 mm [Right]	FCC #1	CR-OFDM QPSK	1	1	1:1	0.152	1.216	0.185	
1860.0	372000	NR B2	20	24.50	23.76	0.050	0	15 mm [Bottom]	FCC #1	DTF+OFDM QPSK	1	52	1:1	0.106	1.186	0.126	
1880.0	376000	NR B2	20	24.50	23.93	0.020	0	15 mm [Bottom]	FCC #1	DTF+OFDM QPSK	1	52	1:1	0.109	1.140	0.124	
1900.0	380000	NR B2	20	24.50	23.28	-0.090	0	15 mm [Bottom]	FCC #1	DTF+OFDM QPSK	1	52	1:1	0.106	1.324	0.140	A10
1880.0	376000	NR B2	20	24.50	23.54	-0.000	0	15 mm [Bottom]	FCC #1	DTF+OFDM QPSK	50	25	1:1	0.091	1.247	0.113	
1880.0	376000	NR B2	20	24.50	23.93	0.140	0	15 mm [Right]	FCC #1	DTF+OFDM QPSK	1	52	1:1	0.062	1.140	0.071	
1880.0	376000	NR B2	20	24.50	23.54	0.110	0	15 mm [Right]	FCC #1	DTF+OFDM QPSK	50	25	1:1	0.057	1.247	0.071	
1880.0	376000	NR B2	20	23.00	22.35	-0.130	1.5	15 mm [Bottom]	FCC #1	CR-OFDM QPSK	1	1	1:1	0.071	1.161	0.082	
3750.00	650000	NR B77	100	24.00	23.23	0.110	0	15 mm [Bottom]	FCC #1	DTF+OFDM QPSK	1	136	1:1	0.523	1.194	0.624	A11
3930.00	662000	NR B77	100	24.00	23.18	0.020	0	15 mm [Bottom]	FCC #1	DTF+OFDM QPSK	1	136	1:1	0.467	1.208	0.564	
3750.00	650000	NR B77	100	24.00	23.15	-0.010	0	15 mm [Bottom]	FCC #1	DTF+OFDM QPSK	135	67	1:1	0.431	1.216	0.524	
3930.00	662000	NR B77	100	24.00	22.93	-0.000	0	15 mm [Bottom]	FCC #1	DTF+OFDM QPSK	135	67	1:1	0.430	1.279	0.550	
3750.00	650000	NR B77	100	23.00	22.67	0.060	1	15 mm [Bottom]	FCC #1	DTF+OFDM QPSK	270	0	1:1	0.395	1.079	0.426	
3750.00	650000	NR B77	100	24.00	23.23	0.020	0	15 mm [Right]	FCC #1	DTF+OFDM QPSK	1	136	1:1	0.152	1.194	0.181	
3750.00	650000	NR B77	100	24.00	23.15	-0.070	0	15 mm [Right]	FCC #1	DTF+OFDM QPSK	135	67	1:1	0.097	1.216	0.118	
3500.01	633334	NR B77 DoD	100	24.00	23.22	0.070	0	15 mm [Bottom]	FCC #1	DTF+OFDM QPSK	1	136	1:1	0.383	1.197	0.458	
3750.00	650000	NR B77	100	22.50	21.70	-0.020	1.5	15 mm [Bottom]	FCC #1	CR-OFDM QPSK	1	1	1:1	0.304	1.698	0.516	
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure										Head/Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):

1. The right side is the D-side.

Table 10.1.3 DTS Head/Body SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	SAR (W/kg)	Plots #
MHz	Ch														
2 437.0	6	802.11b	14.00	12.02	-0.150	15 mm [Bottom]	FCC #2	0.024	1	97.7	0.024	1.578	1.024	0.039	A12
2 412.0	1	802.11b	14.00	12.37	0.080	15 mm [Right]	FCC #2	0.069	1	97.7	0.065	1.455	1.024	0.097	
2 437.0	6	802.11b	14.00	12.02	0.160	15 mm [Right]	FCC #2	0.073	1	97.7	0.070	1.578	1.024	0.113	
2 462.0	11	802.11b	14.00	12.11	-0.040	15 mm [Right]	FCC #2	0.073	1	97.7	0.068	1.545	1.024	0.108	
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Head/Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):

1. The right side is the D-side.

Adjusted SAR results for OFDM SAR													
FREQUENCY		Mode/ Antenna	Service	Maximum Allowed Power [dBm]	1g Scaled SAR (W/kg)	FREQUENCY [MHz]	Mode	Service	Maximum Allowed Power [dBm]	Ratio of OFDM to DSSS	1g Adjusted SAR (W/kg)	Determine OFDM SAR	
MHz	Ch												
2 437.0	6	802.11b	DSSS	14.00	0.113	2 437.0	802.11g	OFDM	12.00	0.631	0.071		X
2 437.0	6	802.11b	DSSS	14.00	0.113	2 437.0	802.11n (HT20)	OFDM	12.00	0.631	0.071		X
2 437.0	6	802.11b	DSSS	14.00	0.113	2 437.0	802.11ac (VHT20)	OFDM	12.00	0.631	0.071		X
2 437.0	6	802.11b	DSSS	14.00	0.113	2 437.0	802.11n (VHT40)	OFDM	12.00	0.631	0.071		X
2 437.0	6	802.11b	DSSS	14.00	0.113	2 437.0	802.11ac (VHT40)	OFDM	12.00	0.631	0.071		X
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure						Head/Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note: SAR is not required for the following 2.4 GHz OFDM conditions. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

Table 10.1.4 UNII Head/Body SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5 190.0	38	802.11n	11.00	9.50	0.050	15 mm [Bottom]	FCC #2	0.049	MCS0	94.5	0.048	1.413	1.058	0.072	A13
5 190.0	38	802.11n	11.00	9.50	-0.010	15 mm [Right]	FCC #2	0.082	MCS0	94.5	0.078	1.413	1.058	0.117	
5 230.0	46	802.11n	11.00	9.46	-0.110	15 mm [Right]	FCC #2	0.096	MCS0	94.5	0.086	1.426	1.058	0.130	
5 755.0	151	802.11n	11.00	9.10	0.030	15 mm [Bottom]	FCC #2	0.024	MCS0	94.5	0.014	1.549	1.058	0.023	A14
5 755.0	151	802.11n	11.00	9.10	-0.090	15 mm [Right]	FCC #2	0.114	MCS0	94.5	0.097	1.549	1.058	0.159	
5 795.0	159	802.11n	11.00	9.06	-0.070	15 mm [Right]	FCC #2	0.087	MCS0	94.5	0.074	1.563	1.058	0.122	
ANSI / IEEE C95.1-2005- SAFETY LIMIT											Head/Body				
Spatial Peak											1.6 W/kg (mW/g)				
Uncontrolled Exposure/General Population Exposure											averaged over 1 gram				

Note(s):

1. The right side is the D-side.

10.2 SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in FCC KDB Publication 447498 D01v06.
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 Publication 447498 D01v06.
6. Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 15 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 Publication 648474 D04v01r03, body-worn SAR was evaluated without a headset connected to the device. Since the standalone reported boy-worn SAR was not > 1.2 W/kg, no additional body-worn SAR evaluations using a headset cable were performed.
8. During SAR Testing for the Wireless Router conditions per FCC KDB Publication 941225 D06v02r01, the actual Portable Hotspot operation (with actual simultaneous transmission of a transmitter with WIFI) was not activated.
9. SAR measurements were performed using the DASY5 automated system. The procedure for spatial peak SAR evaluation has been implemented according to the IEEE 1528 standard. During a maximum search, global and local maxima searches are automatically performed in 2-D after each area scan measurement. The algorithm will find the global maximum and all local maxima within 2 dB of the global maxima for all SAR distributions. All local maxima within 2 dB of the global maximum were searched and passed for the Zoom Scan measurement.

LTE Notes:

1. LTE Considerations: LTE test configurations are determined according to SAR Evaluation Considerations for LTE Devices in FCC KDB Publication 941225 D05v02r05. The general test procedures used for testing can be found in Section 8.4.4.
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 1 RB, 50% RB and 100% RB allocation with highest output power for that channel.
Only one channel, and as reported SAR values for 1 RB allocation and 50% RB allocation were less than 1.45 W/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 3GPP TS36. 101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.
4. A-MPR was disabled for all SAR tests by setting NS=1 on the base station simulator. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).
5. SAR test reduction is applied using the following criteria:
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 1 RB, 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 16QAM 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 implementation supports SA and NSA mode. In EN-DC mode, NR operates with the LTE Bands shown in the NR RF1 checklist acting as anchor bands. Per FCC guidance, SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.
2. Due to test setup limitations, SAR testing for NR TDD was performed using test mode software to establish the connection.
3. Simultaneous transmission analysis for EN-DC operations is addressed in the Test Report.
4. This device additionally supports some EN-DC conditions where additional LTE carriers are added on the downlink only.
5. Per FCC Guidance, NR modulations and RB Sizes/Offsets were selected for testing such that configurations with the highest output power were evaluated for SAR tests.
6. For final implementation, NR Band n77 slot configuration is synchronized using maximum duty cycle of 100%. SAR testing was performed using FTM mode with a 100% duty cycle applied to match final duty cycle.

WLAN Notes:

1. The initial test position procedures were applied. The test position with the highest extrapolated peak SAR will be used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg, 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 result is ≤ 0.8 W/kg or all test positions are measured.
2. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 2.4 GHz WIFI single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz 802.11g/n) was not required due to the maximum allowed powers and the highest reported DSSS SAR when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output and the adjusted SAR is ≤ 1.2 W/kg.
3. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 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 modes were not investigated since the highest reported SAR for initial test configuration adjusted by the ratio of maximum output powers is less than 1.2 W/kg.
4. When the maximum reported 1g averaged SAR ≤ 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 rate, channel bandwidth and signal modulation, using the highest transmission duty factor to determine compliance.

11. FCC MULTI-TX AND ANTENNA SAR CONSIDERATIONS

11.1 Introduction

The following procedures adopted from FCC KDB Publication 447498 D01v06 are applicable to handsets with built-in unlicensed transmitters such as 802.11b/g/n and Bluetooth devices which may simultaneously transmit with the licensed transmitter.

11.2 Simultaneous Transmission Procedures

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

11.3 Simultaneous Transmission Capabilities

According to FCC KDB Publication 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.

This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB Publication 447498 D01v06.

Table 11.3.1 Simultaneous SAR Cases

No.	Capable Transmit Configuration	Head/Body	Note
1	LTE + Wi-Fi 2.4 GHz	Yes	
2	LTE + Wi-Fi 5 GHz		
3	NR + Wi-Fi 2.4 GHz		
4	NR + Wi-Fi 5 GHz		
5	LTE ULCA + Wi-Fi 2.4 GHz		
6	LTE ULCA + Wi-Fi 5 GHz		
7	NR SA ULCA+ Wi-Fi 2.4 GHz		
8	NR SA ULCA + Wi-Fi 5 GHz		
9	ENDC + Wi-Fi 2.4 GHz		
10	ENDC + Wi-Fi 5 GHz		
Notes(s):			
1. WiFi 2.4GHz is supported.			
2. WiFi 5GHz is supported in UNII B1, B3.			

11.4 Head/Body SAR Simultaneous Transmission Analysis

Table 11.4.1 Max 4G/5G (Head/Body SAR)

Head/Body	LTE B12	LTE B14	LTE B5	LTE B66	LTE B4	LTE B2	n12	n5	n66	n2	n77	Max
Bottom Side	0.345	0.452	0.340	0.152	0.177	0.161	0.288	0.391	0.149	0.140	0.624	0.624
Right Side	0.134	0.197	0.174	0.286	0.323	0.090	0.108	0.200	0.258	0.071	0.181	0.323

Table 11.4.2 Max LTE ULCA (Head/Body SAR)

Head/Body	UL CA 2A-12A		UL CA 4A-12A		UL CA 12A-66A		UL CA 2A-5A		UL CA 5A-66A		UL CA 2A-14A		Max
	2A	12A	4A	12A	12A	66A	2A	5A	5A	66A	2A	14A	
Bottom Side	0.161	0.345	0.177	0.345	0.345	0.152	0.161	0.340	0.340	0.152	0.161	0.452	N/A
	0.506		0.522		0.497		0.501		0.493		0.613		0.613
Right Side	0.090	0.134	0.323	0.134	0.134	0.286	0.090	0.174	0.174	0.286	0.090	0.197	N/A
	0.224		0.457		0.420		0.264		0.460		0.287		0.460

Table 11.4.3 Max NR SA ULCA (Head/Body SAR)

Head/Body	SA UL CA_n5A-n77A		SA UL CA_n2A-n77A		SA UL CA_n66A-n77A		SA UL CA_n2A-n5A		SA UL CA_n5A-n66A		Max
	n5A	n77A	n2A	n77A	n66A	n77A	n2A	n5A	n5A	n66A	
Bottom Side	0.391	0.624	0.140	0.624	0.149	0.624	0.140	0.391	0.391	0.149	N/A
	1.015		0.765		0.773		0.531		0.540		1.015
Right Side	0.200	0.181	0.071	0.181	0.258	0.181	0.071	0.200	0.200	0.258	N/A
	0.381		0.252		0.439		0.271		0.458		0.458

Table 11.4.4 Max ENDC (Head/Body SAR)

Head/Body	DC_2A_n5A		DC_66A_n5A		DC_12A_n66A		DC_5A_n2A		DC_12A_n2A		Max
	2A	n5A	66A	n5A	12A	n66A	5A	n2A	12A	n2A	
Bottom Side	0.161	0.391	0.152	0.391	0.345	0.149	0.340	0.140	0.345	0.140	N/A
	0.552		0.543		0.494		0.481		0.485		0.552
Right Side	0.090	0.200	0.286	0.200	0.134	0.258	0.174	0.071	0.134	0.071	N/A
	0.290		0.486		0.392		0.245		0.205		0.486

Head/Body	DC_2A-(n)5AA		DC_66A-(n)5AA		DC_2A_n77A		DC_5A_n77A		DC_66A_n77A		Max
	2A	n5AA	66A	n5AA	2A	n77A	5A	n77A	66A	n77A	
Bottom Side	0.161	0.391	0.152	0.391	0.161	0.624	0.340	0.624	0.152	0.624	N/A
	0.552		0.543		0.785		0.965		0.777		0.965
Right Side	0.090	0.200	0.286	0.200	0.090	0.202	0.174	0.202	0.286	0.202	N/A
	0.290		0.486		0.293		0.376		0.489		0.489

Head/Body	DC_12A_n77A		DC_14A_n77A		DC_14A_n66A		DC_14A_n2A		DC_12A_n77(2A)		Max
	12A	n77A	14A	n77A	14A	n66A	14A	n2A	12A	n77(2A)	
Bottom Side	0.345	0.624	0.452	0.624	0.452	0.149	0.452	0.140	0.345	0.624	N/A
	0.970		1.076		0.601		0.592		0.970		1.076
Right Side	0.134	0.202	0.197	0.202	0.197	0.258	0.197	0.071	0.134	0.202	N/A
	0.336		0.399		0.455		0.268		0.336		0.455

Head/Body	DC_2A_n77(2A)		DC_5A_n77(2A)		DC_66A_n77(2A)		DC_14A_n77(2A)		Max
	2A	n77(2A)	5A	n77(2A)	66A	n77(2A)	14A	n77(2A)	
Bottom Side	0.161	0.624	0.340	0.624	0.152	0.624	0.452	0.624	N/A
	0.785		0.965		0.777		1.076		1.076
Right Side	0.090	0.202	0.174	0.202	0.286	0.202	0.197	0.202	N/A
	0.293		0.376		0.489		0.399		0.489

Head/Body	DC_2A-2A_n5A			Σ SAR (W/kg)		DC_2A-66A_n5A			Σ SAR (W/kg)	
	2A	2A	n5A			2A	66A	n5A		
	1	2	3	1+3	2+3	1	2	3	1+3	2+3
Bottom Side	0.161	0.161	0.391	0.552	0.552	0.161	0.152	0.391	0.552	0.543
Right Side	0.090	0.090	0.200	0.290	0.290	0.090	0.286	0.200	0.290	0.486

Head/Body	DC_66A-66A_n5A			Σ SAR (W/kg)		DC_2A-12A_n66A			Σ SAR (W/kg)	
	66A	66A	n5A			2A	12A	n66A		
	1	2	3	1+3	2+3	1	2	3	1+3	2+3
Bottom Side	0.152	0.152	0.391	0.543	0.543	0.161	0.345	0.149	0.310	0.494
Right Side	0.286	0.286	0.200	0.486	0.486	0.090	0.134	0.258	0.348	0.392

Head/Body	DC_5A-66A_n2A			Σ SAR (W/kg)		DC_12A-66A_n2A			Σ SAR (W/kg)	
	5A	66A	n2A			12A	66A	n2A		
	1	2	3	1+3	2+3	1	2	3	1+3	2+3
Bottom Side	0.340	0.152	0.140	0.481	0.293	0.345	0.152	0.140	0.485	0.293
Right Side	0.174	0.286	0.071	0.245	0.357	0.134	0.286	0.071	0.205	0.357

Head/Body	DC_12A-66A_n66A			Σ SAR (W/kg)		DC_2A-5A_n2A			Σ SAR (W/kg)	
	12A	66A	n66A			2A	5A	n2A		
	1	2	3	1+3	2+3	1	2	3	1+3	2+3
Bottom Side	0.345	0.152	0.149	0.494	0.301	0.161	0.340	0.140	0.301	0.481
Right Side	0.134	0.286	0.258	0.392	0.544	0.090	0.174	0.071	0.161	0.245

Head/Body	DC_2A-12A_n2A			Σ SAR (W/kg)		DC_2A-12A_n77A			Σ SAR (W/kg)	
	2A	12A	n2A			2A	12A	n77A		
	1	2	3	1+3	2+3	1	2	3	1+3	2+3
Bottom Side	0.161	0.345	0.140	0.301	0.485	0.161	0.345	0.624	0.785	0.970
Right Side	0.090	0.134	0.071	0.161	0.205	0.090	0.134	0.202	0.293	0.336

Head/Body	DC_12A-66A_n77A			Σ SAR (W/kg)		DC_2A-14A_n77A			Σ SAR (W/kg)	
	12A	66A	n77A			2A	14A	n77A		
	1	2	3	1+3	2+3	1	2	3	1+3	2+3
Bottom Side	0.345	0.152	0.624	0.970	0.777	0.161	0.452	0.624	0.785	1.076
Right Side	0.134	0.286	0.202	0.336	0.489	0.090	0.197	0.202	0.293	0.399

Head/Body	DC_14A-66A_n77A			Σ SAR (W/kg)		DC_2A-2A_n77A			Σ SAR (W/kg)	
	14A	66A	n77A			2A	2A	n77A		
	1	2	3	1+3	2+3	1	2	3	1+3	2+3
Bottom Side	0.452	0.152	0.624	1.076	0.777	0.161	0.161	0.624	0.785	0.785
Right Side	0.197	0.286	0.202	0.399	0.489	0.090	0.090	0.202	0.293	0.293

Head/Body	DC_2A-5A_n77A			Σ SAR (W/kg)		DC_2A-66A_n77A			Σ SAR (W/kg)	
	2A	5A	n77A			2A	66A	n77A		
	1	2	3	1+3	2+3	1	2	3	1+3	2+3
Bottom Side	0.161	0.391	0.624	0.785	1.015	0.161	0.152	0.624	0.785	0.777
Right Side	0.090	0.200	0.202	0.293	0.403	0.090	0.286	0.202	0.293	0.489

Head/Body	DC_2A-14A_n66A			Σ SAR (W/kg)		DC_5A-66A_n77A			Σ SAR (W/kg)	
	2A	14A	n66A			5A	66A	n77A		
	1	2	3	1+3	2+3	1	2	3	1+3	2+3
Bottom Side	0.161	0.452	0.152	0.313	0.604	0.391	0.152	0.624	1.015	0.777
Right Side	0.090	0.197	0.286	0.376	0.483	0.200	0.286	0.202	0.403	0.489

Head/Body	DC_66A-66A_n77A			Σ SAR (W/kg)		DC_14A-66A_n66A			Σ SAR (W/kg)	
	66A	66A	n77A			14A	66A	n66A		
	1	2	3	1+3	2+3	1	2	3	1+3	2+3
Bottom Side	0.152	0.152	0.624	0.777	0.777	0.452	0.152	0.152	0.604	0.305
Right Side	0.286	0.286	0.202	0.489	0.489	0.197	0.286	0.286	0.483	0.572

Head/Body	DC_14A-66A_n2A			Σ SAR (W/kg)		DC_2A-14A_n2A			Σ SAR (W/kg)	
	14A	66A	n2A			2A	14A	n2A		
	1	2	3	1+3	2+3	1	2	3	1+3	2+3
Bottom Side	0.452	0.152	0.140	0.592	0.293	0.161	0.452	0.140	0.301	0.592
Right Side	0.197	0.286	0.071	0.268	0.357	0.090	0.197	0.071	0.161	0.268

Head/Body	DC_2A-12A_n77(2A)			Σ SAR (W/kg)		DC_12A-66A_n77(2A)			Σ SAR (W/kg)	
	2A	12A	n77(2A)			12A	66A	n77(2A)		
	1	2	3	1+3	2+3	1	2	3	1+3	2+3
Bottom Side	0.161	0.345	0.624	0.785	0.970	0.345	0.152	0.624	0.970	0.777
Right Side	0.090	0.134	0.202	0.293	0.336	0.134	0.286	0.202	0.336	0.489

Head/Body	DC_2A-14A_n77(2A)			Σ SAR (W/kg)		DC_14A-66A_n77(2A)			Σ SAR (W/kg)	
	2A	14A	n77(2A)			14A	66A	n77(2A)		
	1	2	3	1+3	2+3	1	2	3	1+3	2+3
Bottom Side	0.161	0.452	0.624	0.785	1.076	0.452	0.152	0.624	1.076	0.777
Right Side	0.090	0.197	0.202	0.293	0.399	0.197	0.286	0.202	0.399	0.489

Head/Body	DC_2A-2A_n77(2A)			Σ SAR (W/kg)		DC_2A-5A_n77(2A)			Σ SAR (W/kg)	
	2A	2A	n77(2A)			2A	5A	n77(2A)		
	1	2	3	1+3	2+3	1	2	3	1+3	2+3
Bottom Side	0.161	0.161	0.624	0.785	0.785	0.161	0.391	0.624	0.785	1.015
Right Side	0.090	0.090	0.202	0.293	0.293	0.090	0.200	0.202	0.293	0.403

Head/Body	DC_2A-66A_n77(2A)			Σ SAR (W/kg)		DC_5A-66A_n77(2A)			Σ SAR (W/kg)	
	2A	66A	n77(2A)			5A	66A	n77(2A)		
	1	2	3	1+3	2+3	1	2	3	1+3	2+3
Bottom Side	0.161	0.152	0.624	0.785	0.777	0.391	0.152	0.624	1.015	0.777
Right Side	0.090	0.286	0.202	0.293	0.489	0.200	0.286	0.202	0.403	0.489

Head/Body	DC_66A-66A_n77(2A)			Σ SAR (W/kg)						
	66A	66A	n77(2A)							
	1	2	3	1+3	2+3					
Bottom Side	0.152	0.152	0.624	0.777	0.777					
Right Side	0.286	0.286	0.202	0.489	0.489					

Table 11.4.5 Simultaneous Transmission Scenario (Head/Body SAR)

Head/ Body	4G/5G	LTE ULCA	NR SA ULCA	ENDC	Wi-Fi 2.4G	Wi-Fi 5G	Σ Head SAR (W/kg)							
	1	2	3	4	5	6	1+5	1+6	2+5	2+6	3+5	3+6	4+5	4+6
Bottom Side	0.624	0.613	1.015	1.076	0.039	0.072	0.663	0.696	0.652	0.685	1.054	1.087	1.115	1.148
Right Side	0.323	0.460	0.458	0.489	0.113	0.159	0.436	0.482	0.573	0.619	0.571	0.617	0.602	0.648

Note(s):

1. The right side is the D-side.

11.5 Simultaneous Transmission Conclusion

The above numerical summed SAR results for all the worst-case simultaneous transmission conditions were below the SAR limit. Therefore, the above analysis is sufficient to determine that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06.

12. SAR MEASUREMENT VARIABILITY

12.1 Measurement Variability

Per FCC KDB Publication 865664 D01v01r04, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was 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. When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
2. A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~10% from the 1-g SAR limit).
3. A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .
4. Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg
5. The same procedures should be adapted for measurements according to extremity exposure limits by applying a factor of 2.5 for extremity exposure to the corresponding SAR thresholds.

12.2 Measurement Uncertainty

The measured SAR was < 1.5 W/kg for 1g and < 3.75 W/kg for 10g for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04 was not required.

13. EQUIPMENT LIST

Table 13.1 Test Equipment Calibration

	Type	Manufacturer	Model	Cal.Date	Next.Cal.Date	S/N
☒	SEMITEC Engineering	SEMITEC	N/A	N/A	N/A	Shield Room
☒	SEMITEC Engineering	SEMITEC	N/A	N/A	N/A	Shield Room
☒	SEMITEC Engineering	SEMITEC	N/A	N/A	N/A	Shield Room
☒	Robot	SPEAG	TX60L	N/A	N/A	F14/5VR2A1/A/01
☒	Robot	SPEAG	TX90XL	N/A	N/A	F13/5P9GA1/A/01
☒	Robot	SPEAG	TX60L	N/A	N/A	F14/5WV5D1/A/01
☒	Robot Controller	SPEAG	CS8C	N/A	N/A	F14/5VR2A1/C/01
☒	Robot Controller	SPEAG	CS8C	N/A	N/A	F13/5P9GA1/C/01
☒	Robot Controller	SPEAG	CS8C	N/A	N/A	F14/5WV5D1/C/01
☒	Joystick	SPEAG	N/A	N/A	N/A	D21142605A
☒	Joystick	SPEAG	N/A	N/A	N/A	S-12450905
☒	Joystick	SPEAG	P21142605A	N/A	N/A	005695
☒	Intel Xeon W-2 253 3.70 GHz Windows 11 Professional	N/A	N/A	N/A	N/A	N/A
☒	Intel Core i7-3770 3.40 GHz Window 7 Professional	N/A	N/A	N/A	N/A	N/A
☒	Intel Xeon W-2 253 3.70 GHz Windows 11 Professional	N/A	N/A	N/A	N/A	N/A
☒	Probe Alignment Unit LB	N/A	N/A	N/A	N/A	SE UKS 030 AA
☒	Probe Alignment Unit LB	N/A	N/A	N/A	N/A	SE UKS 030 AA
☒	Probe Alignment Unit LB	N/A	N/A	N/A	N/A	SE UKS 030 AA
☒	Device Holder	SPEAG	SD000H01KA	N/A	N/A	N/A
☒	Device Holder	SPEAG	SD000H01KA	N/A	N/A	N/A
☒	Device Holder	SPEAG	SD000H01KA	N/A	N/A	N/A
☒	Twin SAM Phantom	SPEAG	QD000P40CD	N/A	N/A	1783
☒	Twin SAM Phantom	SPEAG	QD000P40CD	N/A	N/A	1782
☒	Twin SAM Phantom	SPEAG	QD000P40CD	N/A	N/A	1837
☒	Data Acquisition Electronics	SPEAG	DAE4V1	2025-04-23	2026-04-23	1485
☒	Data Acquisition Electronics	SPEAG	DAE4V1	2025-02-18	2026-02-18	1391
☒	Data Acquisition Electronics	SPEAG	DAE4V1	2025-09-15	2026-09-15	1453
☒	Dosimetric E-Field Probe	SPEAG	EX3DV4	2024-10-30	2025-10-30	7898
☒	Dosimetric E-Field Probe	SPEAG	EX3DV4	2025-07-10	2026-07-10	3930
☒	Dosimetric E-Field Probe	SPEAG	EX3DV4	2025-03-19	2026-03-19	3916
☒	750MHz SAR Dipole	SPEAG	D750V3	2025-03-12	2026-03-12	1049
☒	835MHz SAR Dipole	SPEAG	D835V2	2025-02-17	2026-02-17	464
☒	1 800MHz SAR Dipole	SPEAG	D1800V2	2024-11-18	2025-11-18	2d047
☒	1 900MHz SAR Dipole	SPEAG	D1900V2	2025-02-17	2026-02-17	5d029
☒	2 450MHz SAR Dipole	SPEAG	D2450V2	2025-04-15	2026-04-15	726
☒	3 500MHz SAR Dipole	SPEAG	D3500V2	2025-09-15	2026-09-15	1018
☒	3 700MHz SAR Dipole	SPEAG	D3700V2	2025-09-15	2026-09-15	1023
☒	3 900MHz SAR Dipole	SPEAG	D3900V2	2025-01-16	2026-01-16	1037
☒	5 GHz SAR Dipole	SPEAG	D5GHZV2	2025-08-20	2026-08-20	1212
☒	Signal Generator	Agilent	E4438C	2025-05-28	2026-05-28	US41461520
☒	Broadband Amplifier	SUNGSAN	SA1077	2024-11-29	2025-11-29	SA1077-001
☒	Amplifier	EMPOWER	BBS3Q7ELU	2025-05-30	2026-05-30	1020
☒	High Power RF Amplifier	EMPOWER	BBS3Q8CCJ	2025-05-30	2026-05-30	1005
☒	Power Meter	HP	EPM-442A	2024-11-26	2025-11-26	GB37170267
☒	Power Meter	Anritsu	ML2488B	2024-11-27	2025-11-27	0846003
☒	Power Sensor	Anritsu	MA2472D	2024-11-27	2025-11-27	0845419
☒	Power Sensor	HP	8481A	2024-11-29	2025-11-29	2702A65976
☒	Power Sensor	HP	8481A	2024-11-29	2025-11-29	2702A61707
☒	Dual Directional Coupler	Agilent	778D-012	2024-11-25	2025-11-25	50228
☒	Directional Coupler	HP	772D	2025-05-30	2026-05-30	2889A01064
☒	Low Pass Filter 1 GHz	Wainwright Instruments	WLK6-1000-1400-9000-60SS	2025-06-24	2026-06-24	165
☒	Low Pass Filter 1.5 GHz	MICROLAB	LA-15N	2025-05-28	2026-05-28	2
☒	Low Pass Filter 3.0 GHz	MICROLAB	LA-30N	2025-05-28	2026-05-28	2
☒	Low Pass Filter 6.0 GHz	MICROLAB	LA-60N	2024-11-18	2025-11-18	03942
☒	Attenuators (10 dB)	WEINSCHEL	23-10-34	2024-11-25	2025-11-25	BP4387
☒	Attenuators	H/P	8494A	2025-05-28	2026-05-28	3308A33341
☒	Attenuators	Saluki	3.5TS2-3dB-26.5G	2025-05-29	2026-05-29	21090703
☒	Dielectric Probe kit	SPEAG	DAKS-12	2024-09-24	2025-09-24	1040
☒	Dielectric Probe kit	SPEAG	R60	2024-09-24	2025-09-24	22323001
☒	Dielectric Probe kit	SPEAG	DAK-3.5	2025-07-07	2026-07-07	1046
☒	Dielectric Probe kit	SPEAG	R140	2025-07-17	2026-07-17	0101213
☒	8960 Series 10 Wireless Comms. Test Set	Agilent	E5515C	2025-05-28	2026-05-28	GB41321164
☒	Wideband Radio Communication Tester	Rohde Schwarz	CMW500	2024-11-26	2025-11-26	101414
☒	Wideband Radio Communication Tester	Rohde Schwarz	CMW500	2024-11-28	2025-11-28	171059
☒	Radio Communication Analyzer	Anritsu	MT8820C	2025-05-28	2026-05-28	6201168888
☒	Radio Communication Analyzer	Anritsu	MT8000A	2024-11-27	2025-11-27	6262070944
☒	Radio Communication Analyzer	Anritsu	MT8821C	2024-11-26	2025-11-26	6262044748

NOTE(S):

1. The E-field probe was calibrated by SPEAG, by temperature measurement procedure. Dipole Verification measurement is performed by Dt&C before each test. The brain and muscle simulating material are calibrated by Dt&C using the dielectric probe system and network analyzer to determine the conductivity and permittivity (dielectric constant) of the brain and muscle-equivalent material. Each equipment item was used solely within its respective calibration period.

2. CBT(Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, amplifier, attenuator, coupler or filter were connected to a calibrated source (i.e. signal generator) to determine the losses of the measurement path. The power meter offset was then adjusted to compensate for the measurement system losses. This level offset is stored within the power meter before measurements are made. This calibration verification procedure applies to the system verification and output power measurements. The calibrated reading is then taken directly from the power meter after compensation of the losses for all final power measurements.

14. MEASUREMENT UNCERTAINTIES

13 ~ 600 MHz

Error Description	Uncertainty value %	Probability Distribution	Divisor	(Ci) 1 g	(Ci) 10 g	Standard 1 g (%)	Standard 10 g (%)	Ci x U _i 1 g	Ci x U _i 10 g	vi 2 or Veff
Measurement System										
Probe calibration	13.3	Normal	2	1	1	6.65	6.65	6.65	6.65	∞
Probe Calibration Drift	1.7	Rectangular	√3	1	1	1.0	1.0	1.0	1.0	∞
Probe Linearity	4.7	Rectangular	√3	1	1	2.7	2.7	2.7	2.7	∞
Broadband Signal	0.6	Rectangular	√3	1	1	0.3	0.3	0.3	0.3	∞
Probe Isotropy	7.6	Rectangular	√3	1	1	4.4	4.4	4.4	4.4	∞
Data acquisition	0.8	Normal	1	1	1	0.8	0.8	0.8	0.8	∞
RF Ambient Conditions	1.8	Normal	1	1	1	1.8	1.8	1.8	1.8	∞
Probe Positioning	0.006 mm	Normal	1	0.04	0.04	2.50	2.50	0.10	0.10	∞
Data Processing	1.2	Normal	1	1	1	1.2	1.2	1.2	1.2	∞
Phantom and Device										
Liquid conductivity (Target)	5.0	Rectangular	√3	0.64	0.43	2.89	2.89	1.85	1.24	∞
Liquid conductivity (Meas.)	3.1	Normal	1	0.78	0.71	3.10	3.10	2.42	2.20	10
Liquid permittivity (Target)	5.0	Rectangular	√3	0.60	0.49	2.89	2.89	1.73	1.41	∞
Liquid permittivity (Meas.)	3.2	Normal	1	0.23	0.26	3.20	3.20	0.74	0.83	10
Temp. unc. - Conductivity	2.0	Rectangular	√3	0.78	0.71	0.90	0.82	0.70	0.58	∞
Temp. unc. - Permittivity	2.0	Rectangular	√3	0.23	0.26	0.27	0.30	0.06	0.08	∞
Phantom Shell Permittivity	14.0	Rectangular	√3	0	0	8.1	8.1	0.0	0.0	∞
Distance DUT-TSL	2.0	Normal	1	2	2	2.0	2.0	4.0	4.0	∞
Device Positioning	2.7	Normal	1	1	1	2.7	2.7	2.7	2.7	10
Device Holder	2.2	Normal	1	1	1	2.2	2.2	2.2	2.2	10
DUT Modulation	2.4	Rectangular	√3	1	1	1.4	1.4	1.4	1.4	∞
Time-average SAR	1.7	Rectangular	√3	1	1	1.0	1.0	1.0	1.0	∞
DUT drift	2.5	Normal	1	1	1	2.5	2.5	2.5	2.5	∞
Validation Antenna	0.0	Normal	1	1	1	0.0	0.0	0.0	0.0	∞
Uncertainty in Accepted Power	0.0	Normal	1	1	1	0.0	0.0	0.0	0.0	∞
Correction to the SAR results										
Deviation to target	1.9	Normal	1	1	0.84	1.9	1.9	1.9	1.6	∞
SAR Scaling	0.0	Rectangular	√3	1	1	0.0	0.0	0.0	0.0	∞
Combined Standard Uncertainty						11	11			∞
Expanded Uncertainty (k=2)						22	22			

$$U(1\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 11\%$$

$$= 22\% \text{ (The confidence level is about 95 \% } k = 2 \text{)}$$

$$U(10\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 11\%$$

$$= 22\% \text{ (The confidence level is about 95 \% } k = 2 \text{)}$$

750 ~ 2 600 MHz

Error Description	Uncertainty value %	Probability Distribution	Divisor	(Ci) 1 g	(Ci) 10 g	Standard 1 g (%)	Standard 10 g (%)	Ci x U _i 1 g	Ci x U _i 10 g	vi 2 or Veff
Measurement System										
Probe calibration	11.0	Normal	2	1	1	5.50	5.50	5.50	5.50	∞
Probe Calibration Drift	1.7	Rectangular	√3	1	1	1.0	1.0	1.0	1.0	∞
Probe Linearity	4.7	Rectangular	√3	1	1	2.7	2.7	2.7	2.7	∞
Broadband Signal	2.8	Rectangular	√3	1	1	1.6	1.6	1.6	1.6	∞
Probe Isotropy	7.6	Rectangular	√3	1	1	4.4	4.4	4.4	4.4	∞
Data acquisition	0.8	Normal	1	1	1	0.8	0.8	0.8	0.8	∞
RF Ambient Conditions	1.8	Normal	1	1	1	1.8	1.8	1.8	1.8	∞
Probe Positioning	0.006 mm	Normal	1	0.14	0.14	0.71	0.71	0.10	0.10	∞
Data Processing	1.2	Normal	1	1	1	1.2	1.2	1.2	1.2	∞
Phantom and Device										
Liquid conductivity (Target)	5.0	Rectangular	√3	0.64	0.43	2.89	2.89	1.85	1.24	∞
Liquid conductivity (Meas.)	3.2	Normal	1	0.78	0.71	3.20	3.20	2.50	2.27	10
Liquid permittivity (Target)	5.0	Rectangular	√3	0.60	0.49	2.89	2.89	1.73	1.41	∞
Liquid permittivity (Meas.)	3.3	Normal	1	0.23	0.26	3.30	3.30	0.76	0.86	10
Temp. unc. - Conductivity	2.0	Rectangular	√3	0.78	0.71	1.15	1.15	0.90	0.82	∞
Temp. unc. - Permittivity	2.0	Rectangular	√3	0.23	0.26	1.15	1.15	0.27	0.30	∞
Phantom Shell Permittivity	14.0	Rectangular	√3	0	0	8.1	8.1	0.0	0.0	∞
Distance DUT-TSL	2.0	Normal	1	2	2	2.0	2.0	4.0	4.0	∞
Device Positioning	2.7	Normal	1	1	1	2.7	2.7	2.7	2.7	10
Device Holder	2.4	Normal	1	1	1	2.4	2.4	2.4	2.4	10
DUT Modulation	2.4	Rectangular	√3	1	1	1.4	1.4	1.4	1.4	∞
Time-average SAR	1.7	Rectangular	√3	1	1	1.0	1.0	1.0	1.0	∞
DUT drift	2.5	Normal	1	1	1	2.5	2.5	2.5	2.5	∞
Validation Antenna	0.0	Normal	1	1	1	0.0	0.0	0.0	0.0	∞
Uncertainty in Accepted Power	0.0	Normal	1	1	1	0.0	0.0	0.0	0.0	∞
Correction to the SAR results										
Deviation to target	1.9	Normal	1	1	0.84	1.9	1.9	1.9	1.6	∞
SAR Scaling	0.0	Rectangular	√3	1	1	0.0	0.0	0.0	0.0	∞
Combined Standard Uncertainty						11	11			∞
Expanded Uncertainty (k=2)						22	22			

$$U(1\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 11\%$$

= 22 % (The confidence level is about 95 % k = 2)

$$U(10\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 11\%$$

= 22 % (The confidence level is about 95 % k = 2)

3 000 ~ 6 000 MHz

Error Description	Uncertainty value %	Probability Distribution	Divisor	(Ci) 1 g	(Ci) 10 g	Standard 1 g (%)	Standard 10 g (%)	Ci x U _i 1 g	Ci x U _i 10 g	vi 2 or Veff
Measurement System										
Probe calibration	13.1	Normal	2	1	1	6.55	6.55	6.55	6.55	∞
Probe Calibration Drift	1.7	Rectangular	√3	1	1	1.0	1.0	1.0	1.0	∞
Probe Linearity	4.7	Rectangular	√3	1	1	2.7	2.7	2.7	2.7	∞
Broadband Signal	2.6	Rectangular	√3	1	1	1.5	1.5	1.5	1.5	∞
Probe Isotropy	7.6	Rectangular	√3	1	1	4.4	4.4	4.4	4.4	∞
Data acquisition	1.2	Normal	1	1	1	1.2	1.2	1.2	1.2	∞
RF Ambient Conditions	1.8	Normal	1	1	1	1.8	1.8	1.8	1.8	∞
Probe Positioning	0.005 mm	Normal	1	0.29	0.29	0.7	0.7	0.2	0.2	∞
Data Processing	2.3	Normal	1	1	1	2.3	2.3	2.3	2.3	∞
Phantom and Device										
Liquid conductivity (Target)	5.0	Rectangular	√3	0.64	0.43	2.89	2.89	1.85	1.24	∞
Liquid conductivity (Meas.)	3.3	Normal	1	0.78	0.71	3.30	3.30	2.57	2.34	10
Liquid permittivity (Target)	5.0	Rectangular	√3	0.60	0.49	2.89	2.89	1.73	1.41	∞
Liquid permittivity (Meas.)	3.3	Normal	1	0.23	0.26	3.30	3.30	0.76	0.86	10
Temp. unc. - Conductivity	2.0	Rectangular	√3	0.78	0.71	1.15	1.15	0.90	0.82	∞
Temp. unc. - Permittivity	2.0	Rectangular	√3	0.23	0.26	1.15	1.15	0.27	0.30	∞
Phantom Shell Permittivity	14.0	Rectangular	√3	0.25	0.25	8.1	8.1	2.0	2.0	∞
Distance DUT-TSL	2.0	Normal	1	2	2	2.0	2.0	4.0	4.0	∞
Device Positioning	2.7	Normal	1	1	1	2.7	2.7	2.7	2.7	10
Device Holder	2.6	Normal	1	1	1	2.6	2.6	2.6	2.6	10
DUT Modulation	2.4	Rectangular	√3	1	1	1.4	1.4	1.4	1.4	∞
Time-average SAR	1.7	Rectangular	√3	1	1	1.0	1.0	1.0	1.0	∞
DUT drift	2.5	Normal	1	1	1	2.5	2.5	2.5	2.5	∞
Validation Antenna	0.0	Normal	1	1	1	0.0	0.0	0.0	0.0	∞
Uncertainty in Accepted Power	0.0	Normal	1	1	1	0.0	0.0	0.0	0.0	∞
Correction to the SAR results										
Deviation to target	1.9	Normal	1	1	0.84	1.9	1.9	1.9	1.6	∞
SAR Scaling	0.0	Rectangular	√3	1	1	0.0	0.0	0.0	0.0	∞
Combined Standard Uncertainty						12	12			∞
Expanded Uncertainty (k=2)						24	24			

$$U(1\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 12\%$$

= 24 % (The confidence level is about 95 % k = 2)

$$U(10\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 12\%$$

= 24 % (The confidence level is about 95 % k = 2)

15. CONCLUSION

Measurement Conclusion

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the FCC. These measurements are taken to simulate the RF effects exposure under the worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The tested device complies with the requirements in respect to all parameters subject to the test. The test results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body are every complex phenomena that 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 impossible biological effect 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 innumerable factors may interact to determine the specific biological outcome of an exposure to electromagnetic fields, any protection guide shall consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.

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APPENDIX A. – Probe Calibration Data

**Calibration Laboratory of
Schmid & Partner
Engineering AG**

Zeughausstrasse 43, 8004 Zurich, Switzerland

**S** Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)

**The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates**

Accreditation No.: SCS 0108

Client

Dt&C

Gyeonggi-do, Republic of Korea

Certificate No.

EX-7898_Oct24**CALIBRATION CERTIFICATE**

Object

EX3DV4 - SN:7898

Calibration procedure(s)

**QA CAL-01.v10, QA CAL-12.v10, QA CAL-14.v7, QA CAL-23.v6,
QA CAL-25.v8
Calibration procedure for dosimetric E-field probes**

Calibration date

October 30, 2024

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3) °C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP2	SN: 104778	26-Mar-24 (No. 217-04036/04037)	Mar-25
Power sensor NRP-Z91	SN: 103244	26-Mar-24 (No. 217-04036)	Mar-25
OCP DAK-3.5 (weighted)	SN: 1249	23-Sep-24 (OCP-DAK3.5-1249_Sep24)	Sep-25
OCP DAK-12	SN: 1016	24-Sep-24 (OCP-DAK12-1016_Sep24)	Sep-25
Reference 20 dB Attenuator	SN: CC2552 (20x)	26-Mar-24 (No. 217-04046)	Mar-25
DAE4	SN: 660	23-Feb-24 (No. DAE4-660_Feb24)	Feb-25
Reference Probe EX3DV4	SN: 7349	03-Jun-24 (No. EX3-7349_Jun24)	Jun-25

Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-24)	In house check: Jun-26
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-24)	In house check: Jun-26
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-24)	In house check: Jun-26
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-24)	In house check: Jun-26
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Sep-24)	In house check: Sep-26

Calibrated by

Name

Jeffrey Katzman

Function

Laboratory Technician

Signature

Approved by

Name

Sven Kühn

Function

Technical Manager

Issued: October 30, 2024

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Calibration Laboratory ofSchmid & Partner
Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)

The Swiss Accreditation Service is one of the signatories to the EA
 Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Glossary

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConvF	sensitivity in TSL / NORM _{x,y,z}
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices – Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}**: Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not affect the E²-field uncertainty inside TSL (see below ConvF).
- NORM(f)_{x,y,z}** = NORM_{x,y,z} * frequency_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP_{x,y,z}**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal. DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; D_{x,y,z}; VR_{x,y,z}**: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM_{x,y,z} * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM_x (no uncertainty required).

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Parameters of Probe: EX3DV4 - SN:7898**Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k = 2)
Norm ($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.65	0.61	0.62	±10.1%
DCP (mV) ^B	102.5	106.6	106.7	±4.7%

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Max dev.	Max Unc ^E k = 2
0	CW	X	0.00	0.00	1.00	0.00	142.7	±1.0%	±4.7%
		Y	0.00	0.00	1.00		120.8		
		Z	0.00	0.00	1.00		142.9		
10352	Pulse Waveform (200Hz, 10%)	X	1.55	60.79	6.63	10.00	60.0	±3.0%	±9.6%
		Y	1.67	61.27	6.71		60.0		
		Z	1.52	60.62	6.53		60.0		
10353	Pulse Waveform (200Hz, 20%)	X	46.00	80.00	11.00	6.99	80.0	±2.6%	±9.6%
		Y	10.00	72.00	9.00		80.0		
		Z	0.80	60.00	5.10		80.0		
10354	Pulse Waveform (200Hz, 40%)	X	0.07	128.63	0.72	3.98	95.0	±2.9%	±9.6%
		Y	0.02	121.22	0.37		95.0		
		Z	0.16	134.11	0.55		95.0		
10355	Pulse Waveform (200Hz, 60%)	X	9.19	158.36	26.66	2.22	120.0	±1.7%	±9.6%
		Y	12.47	150.94	7.08		120.0		
		Z	10.57	156.46	18.99		120.0		
10387	QPSK Waveform, 1 MHz	X	0.68	63.77	12.42	1.00	150.0	±3.8%	±9.6%
		Y	0.66	63.71	11.88		150.0		
		Z	0.61	62.95	11.95		150.0		
10388	QPSK Waveform, 10 MHz	X	1.42	65.23	13.88	0.00	150.0	±1.4%	±9.6%
		Y	1.39	65.13	13.51		150.0		
		Z	1.35	64.89	13.59		150.0		
10396	64-QAM Waveform, 100 kHz	X	1.56	62.91	15.24	3.01	150.0	±1.2%	±9.6%
		Y	1.74	64.71	15.80		150.0		
		Z	1.62	63.58	15.34		150.0		
10399	64-QAM Waveform, 40 MHz	X	2.89	65.86	14.94	0.00	150.0	±1.7%	±9.6%
		Y	2.73	65.20	14.43		150.0		
		Z	2.83	65.77	14.80		150.0		
10414	WLAN CCDF, 64-QAM, 40 MHz	X	3.93	65.48	15.14	0.00	150.0	±3.2%	±9.6%
		Y	3.95	65.79	15.12		150.0		
		Z	3.85	65.43	15.01		150.0		

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 5 and 6).^B Linearization parameter uncertainty for maximum specified field strength.^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

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Parameters of Probe: EX3DV4 - SN:7898**Sensor Model Parameters**

	C1 fF	C2 fF	α V ⁻¹	T1 ms V ⁻²	T2 ms V ⁻¹	T3 ms	T4 V ⁻²	T5 V ⁻¹	T6
x	12.2	89.13	34.04	1.19	0.00	4.90	0.00	0.02	1.00
y	11.7	83.95	32.73	3.92	0.00	4.91	0.51	0.00	1.00
z	11.5	82.04	32.75	2.43	0.00	4.90	0.37	0.00	1.00

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle	-23.3°
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Note: Measurement distance from surface can be increased to 3–4 mm for an *Area Scan* job.

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Parameters of Probe: EX3DV4 - SN:7898**Calibration Parameter Determined in Head Tissue Simulating Media**

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc ^H (k = 2)
750	41.9	0.89	9.51	9.18	8.97	0.35	1.27	±11.0%
835	41.5	0.90	9.10	8.78	8.58	0.35	1.27	±11.0%
900	41.5	0.97	8.96	8.64	8.45	0.35	1.27	±11.0%
1640	40.2	1.31	7.74	7.47	7.30	0.35	1.27	±11.0%
1750	40.1	1.37	7.88	7.60	7.43	0.35	1.27	±11.0%
1900	40.0	1.40	7.62	7.35	7.18	0.34	1.27	±11.0%
2450	39.2	1.80	7.19	6.94	6.78	0.34	1.27	±11.0%
2600	39.0	1.96	7.26	7.01	6.85	0.34	1.27	±11.0%
3300	38.2	2.71	6.43	6.21	6.07	0.34	1.27	±13.1%
3500	37.9	2.91	6.51	6.28	6.14	0.34	1.27	±13.1%
3700	37.7	3.12	6.40	6.17	6.03	0.34	1.27	±13.1%
5200	36.0	4.66	5.45	5.26	5.14	0.30	1.27	±13.1%
5300	35.9	4.76	5.43	5.24	5.12	0.30	1.27	±13.1%
5500	35.6	4.96	5.09	4.91	4.80	0.28	1.27	±13.1%
5600	35.5	5.07	5.01	4.83	4.72	0.27	1.27	±13.1%
5800	35.3	5.27	4.99	4.81	4.70	0.26	1.27	±13.1%

^C Frequency validity above 300 MHz of ±100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to +50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ±10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4–9 MHz, and ConvF assessed at 13 MHz is 9–19 MHz. Above 5 GHz frequency validity can be extended to ±110 MHz.

^F The probes are calibrated using tissue simulating liquids (TSL) that deviate for ϵ and σ by less than ±5% from the target values (typically better than ±3%) and are valid for TSL with deviations of up to ±10% if SAR correction is applied.

^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz and below ±2% for frequencies between 3–6 GHz at any distance larger than half the probe tip diameter from the boundary.

^H The stated uncertainty is the total calibration uncertainty (k = 2) of Norm-ConvF. This is equivalent to the uncertainty component with the symbol CF in Table 9 of IEC/IEEE 62209-1528:2020.

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Parameters of Probe: EX3DV4 - SN:7898**Calibration Parameter Determined in Head Tissue Simulating Media**

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc ^H (k = 2)
6500	34.5	6.07	5.44	5.24	5.12	0.20	1.27	±18.6%
7000	33.9	6.65	5.56	5.35	5.24	0.20	1.27	±18.6%

^C Frequency validity at 6.5 GHz is -600/+700 MHz, and ±700 MHz at or above 7 GHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

^F The probes are calibrated using tissue simulating liquids (TSL) that deviate for ϵ and σ by less than ±10% from the target values (typically better than ±6%) and are valid for TSL with deviations of up to ±10%.

^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz; below ±2% for frequencies between 3–6 GHz; and below ±4% for frequencies between 6–10 GHz at any distance larger than half the probe tip diameter from the boundary.

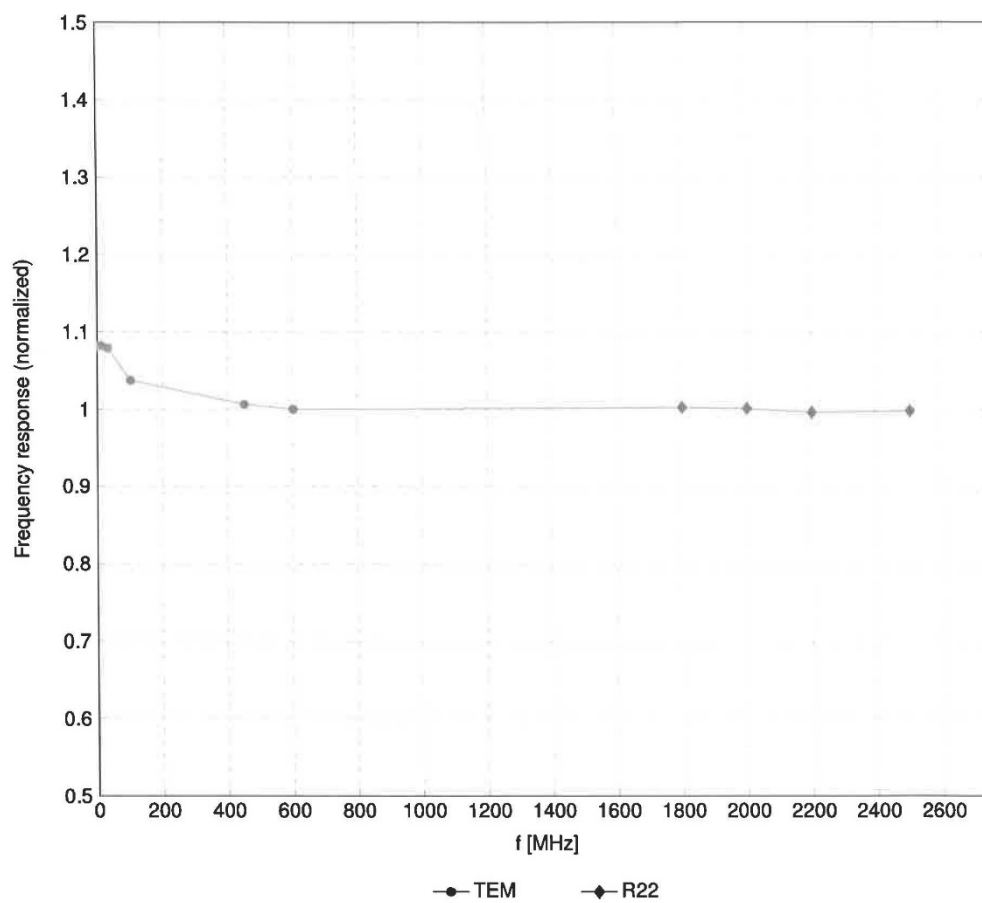
^H The stated uncertainty is the total calibration uncertainty (k = 2) of Norm-ConvF. This is equivalent to the uncertainty component with the symbol CF in Table 9 of IEC/IEEE 62209-1528:2020.

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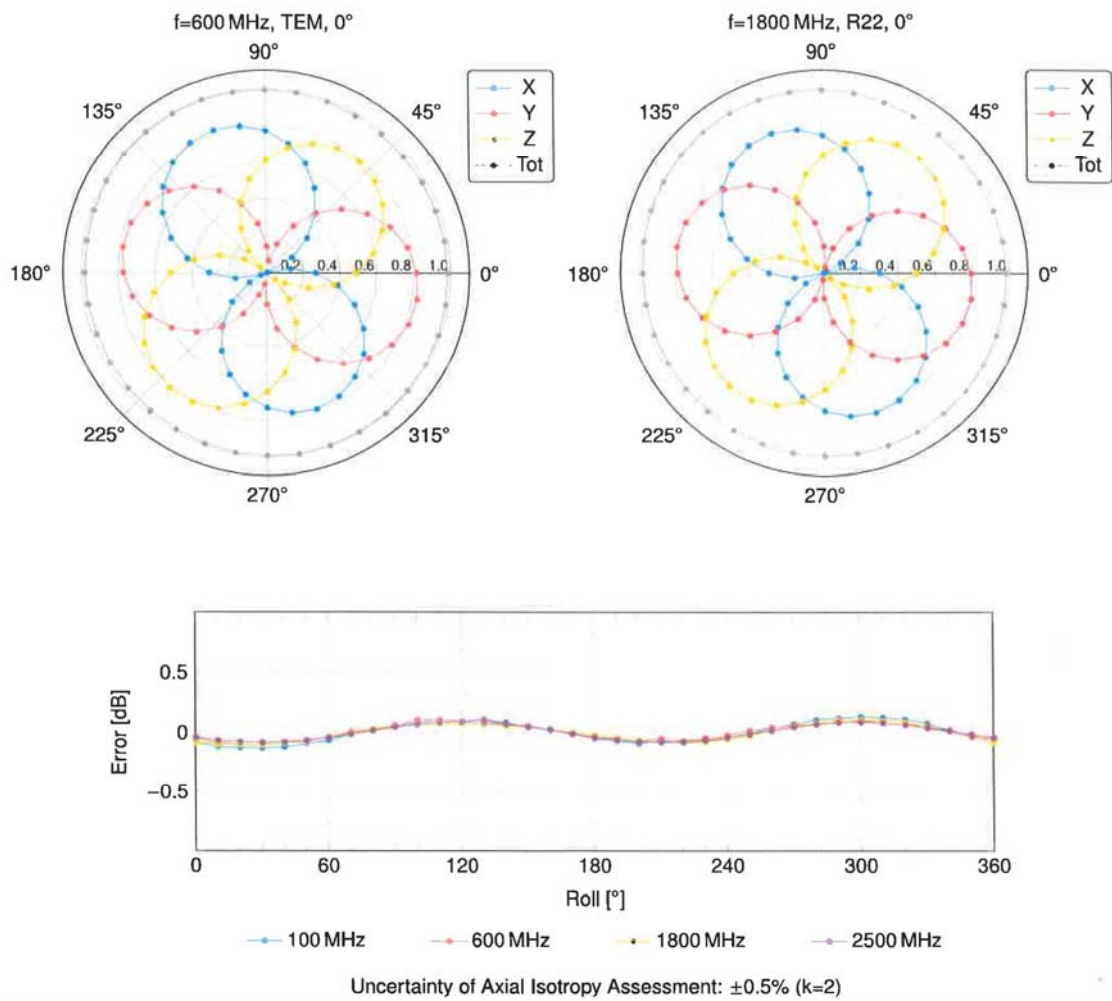
Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide:R22)

Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

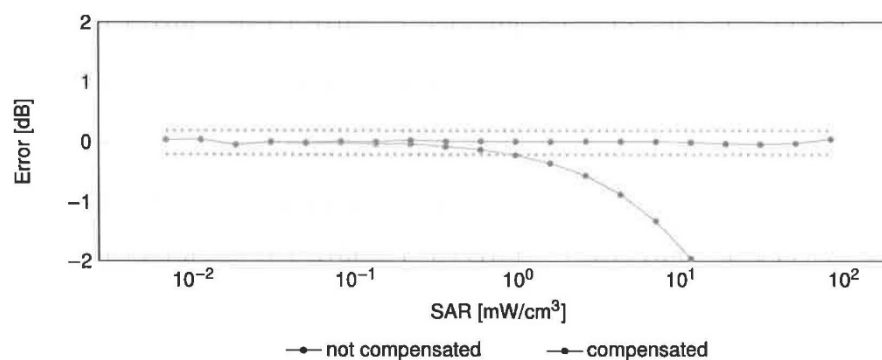
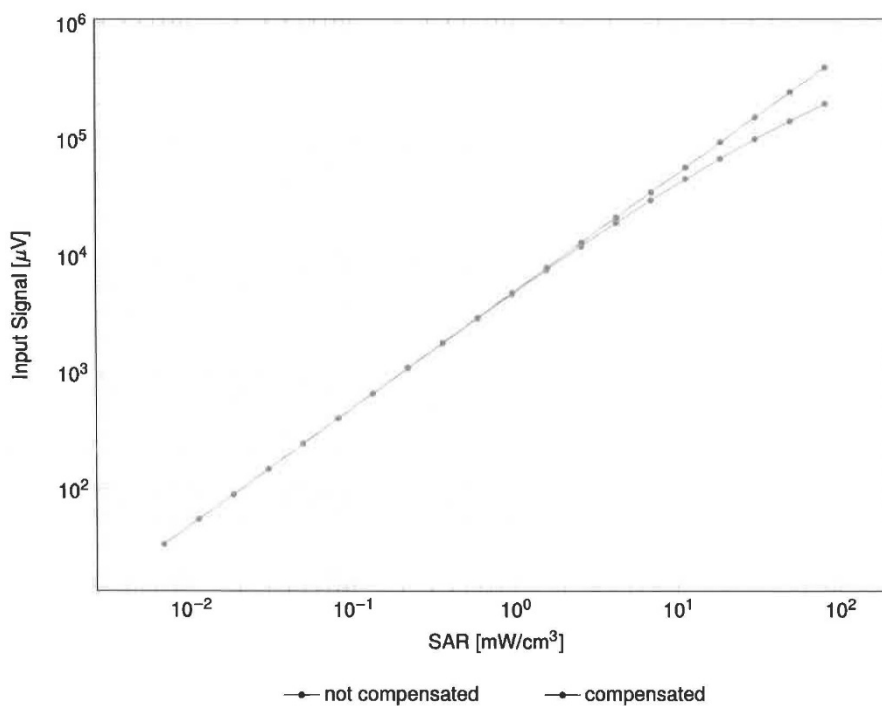
EX3DV4 - SN:7898

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Receiving Pattern (ϕ), $\vartheta = 0^\circ$ 

EX3DV4 - SN:7898

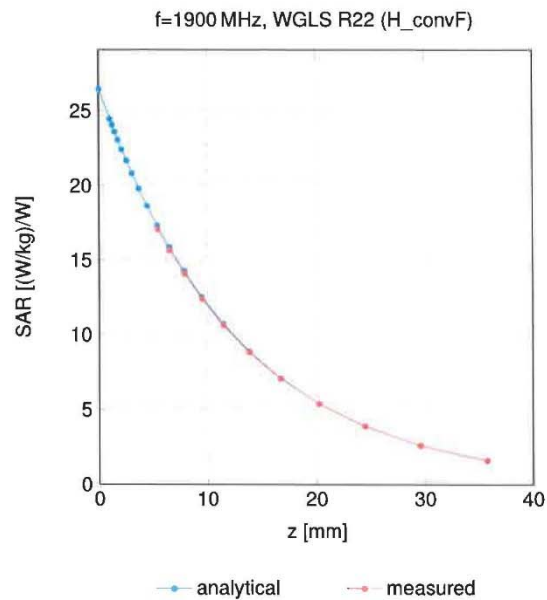
October 30, 2024

Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell, $f_{\text{eval}} = 1900\text{ MHz}$)Uncertainty of Linearity Assessment: $\pm 0.6\%$ ($k=2$)

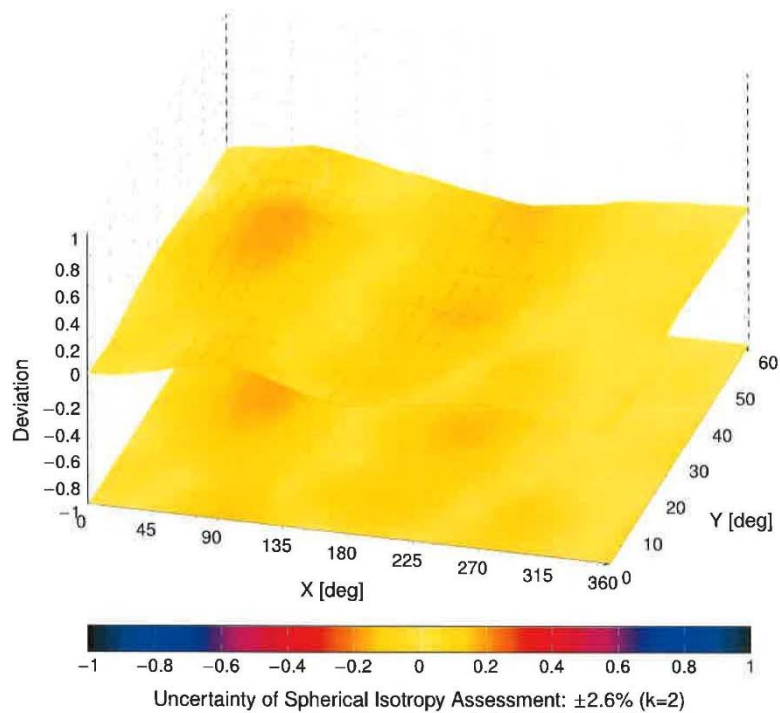
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Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ, θ), f = 900 MHz

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Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^E k = 2
0		CW	CW	0.00	±4.7
10010	CAB	SAR Validation (Square, 100 ms, 10 ms)	Test	10.00	±9.6
10011	CAC	UMTS-FDD (WCDMA)	WCDMA	2.91	±9.6
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	±9.6
10013	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	±9.6
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	±9.6
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	±9.6
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	±9.6
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	±9.6
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	±9.6
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	±9.6
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	±9.6
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	±9.6
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	±9.6
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	±9.6
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	±9.6
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	±9.6
10034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	±9.6
10035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	±9.6
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	±9.6
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	±9.6
10038	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	±9.6
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	±9.6
10042	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	7.78	±9.6
10044	CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	±9.6
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	±9.6
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	±9.6
10056	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	TD-SCDMA	11.01	±9.6
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	±9.6
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	±9.6
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	±9.6
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	±9.6
10062	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	±9.6
10063	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	±9.6
10064	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	±9.6
10065	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	±9.6
10066	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	±9.6
10067	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	±9.6
10068	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	±9.6
10069	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	±9.6
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	±9.6
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	±9.6
10073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	±9.6
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	±9.6
10075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.77	±9.6
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.94	±9.6
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11.00	±9.6
10081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	±9.6
10082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	±9.6
10090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	±9.6
10097	CAC	UMTS-FDD (HSDPA)	WCDMA	3.98	±9.6
10098	CAC	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	±9.6
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	±9.6
10100	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	±9.6
10101	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6
10102	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6
10103	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	±9.6
10104	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	±9.6
10105	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	±9.6
10108	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	±9.6
10109	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6
10110	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	±9.6
10111	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	±9.6

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