

TEST REPORT

FCC SAR Part 0 Test for SM-A266U
Certification

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-SR-2501-FC004-R2

DATE OF ISSUE
February 12, 2025

Tested by
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TEST REPORT

PART 0 RF Exposure
Test for
certification

REPORT NO.

HCT-SR-2501-FC004-R2

DATE OF ISSUE

Feb. 12, 2025

FCC ID

A3LSMA266U

Applicant

SAMSUNG Electronics Co., Ltd
129, Samsung-ro, Yeongtong-gu, Suwon-Si, Gyeonggi-do, 16677, Korea

Product Name

Mobile Phone

Model Name

SM-A266U

Additional Model Name

SM-A266U1, SM-S266V

Date of Test

Dec. 03, 2024 ~ Jan. 07, 2025

Location of Test

☒ Permanent Testing Lab ☐ On Site Testing Lab
(Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si,
Gyeonggi-do, 17383 KOREA)

FCC Rule Part(s)

CFR § 2.1093

Test Results

Pass (SAR limit : 1.6 W/kg)

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

This test results were applied only to the test methods required by the
standard.

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	Jan. 15, 2025	Initial Release
1	Feb. 04, 2025	Typo revised Page 13
2	Feb. 12, 2025	Typo revised Page 5, 7

Notice

Content

The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated.

The test results have only been applied with the test methods required by the standard(s).

The laboratory is not accredited for the test results marked *.

Information provided by the applicant is marked **.

Test results provided by external providers are marked ***.

When confirmation of authenticity of this test report is required, please contact www.hct.co.kr

The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

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1. Test Location

1.1 Test Laboratory

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

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

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

1.3 General Information of the EUT

Model Name	SM-A266U
Additional Model Name	SM-A266U1, SM-S266V
Equipment Type	Mobile Phone
FCC ID	A3LSMA266U
Application Type	Certification
Applicant	SAMSUNG Electronics Co., Ltd.

2. DEVICE UNDER TEST DESCRIPTION

2.1 General Information of the EUT

Device Wireless specification overview		
Band & Mode	Operating Mode	Tx Frequency
GSM850	Voice / Data	824.2 MHz ~ 848.8 MHz
GSM1900	Voice / Data	1 850.2 MHz ~ 1 909.8 MHz
UMTS Band 2	Voice / Data	1 852.4 MHz ~ 1 907.6 MHz
UMTS Band 4	Voice / Data	1 712.4 MHz ~ 1 752.6 MHz
UMTS Band 5	Voice / Data	826.4 MHz ~ 846.6 MHz
LTE FDD Band 2 (PCS)	Voice / Data	1 850.7 MHz ~ 1 909.3 MHz
LTE FDD Band 4 (AWS)	Voice / Data	1 710.7 MHz ~ 1 754.3 MHz
LTE FDD Band 5 (Cell)	Voice / Data	824.7 MHz ~ 848.3 MHz
LTE FDD Band 7	Voice / Data	2 502.5 MHz ~ 2 567.5 MHz
LTE FDD Band 12	Voice / Data	699.7 MHz ~ 715.3 MHz
LTE FDD Band 13	Voice / Data	779.5 MHz ~ 784.5 MHz
LTE FDD Band 14	Voice / Data	790.5 MHz ~ 795.5 MHz
LTE FDD Band 25	Voice / Data	1 850.7 MHz ~ 1 914.3 MHz
LTE FDD Band 26	Voice / Data	814.7 MHz ~ 848.3 MHz
LTE FDD Band 30	Voice / Data	2 307.5 MHz ~ 2 312.5 MHz
LTE TDD Band 38	Voice / Data	2 572.5 MHz ~ 2 617.5 MHz
LTE TDD Band 41	Voice / Data	2 498.5 MHz ~ 2 687.5 MHz
LTE TDD Band 48	Voice / Data	3 552.5 MHz ~ 3 697.5 MHz
LTE FDD Band 66 (AWS)	Voice / Data	1 710.7 MHz ~ 1 779.3 MHz
LTE FDD Band 71	Voice / Data	665.5 MHz ~ 695.5 MHz
NR FDD Band n2 (PCS)	Voice / Data	1 852.5 MHz ~ 1 907.5 MHz
NR FDD Band n5	Voice / Data	826.5 MHz ~ 846.5 MHz
NR FDD Band n25 (PCS)	Voice / Data	1 852.5 MHz ~ 1 912.5 MHz
NR FDD Band n30	Voice / Data	2 307.5 MHz ~ 2 312.5 MHz
NR TDD Band n41	Voice / Data	2 501.01 MHz ~ 2 685 MHz
NR TDD Band n48	Voice / Data	3 555 MHz ~ 3 695.01 MHz
NR FDD Band n66	Voice / Data	1 712.5 MHz ~ 1 777.5 MHz
NR FDD Band n71	Voice / Data	665.5 MHz ~ 695.5 MHz
NR TDD Band n77	Voice / Data	3 705 MHz ~ 3 975 MHz
NR TDD Band n77 DoD	Voice / Data	3 445.01 MHz ~ 3 544.98 MHz
NR TDD Band n78	Voice / Data	3 705 MHz ~ 3 795 MHz
NR TDD Band n78 DoD	Voice / Data	3 455.01 MHz ~ 3 544.98 MHz
U-NII-1	Voice / Data	5 180 MHz ~ 5 240 MHz
U-NII-2A	Voice / Data	5 260 MHz ~ 5 320 MHz
U-NII-2C	Voice / Data	5 500 MHz ~ 5 720 MHz
U-NII-3	Voice / Data	5 745 MHz ~ 5 825 MHz
2.4 GHz WLAN	Voice / Data	2 412 MHz ~ 2 462 MHz
Bluetooth / LE 5.3	Data	2 402 MHz ~ 2 480 MHz
NFC	Data	13.56 MHz

2.2 Time-Averaging for SAR

This WWAN/WLAN/BT Mode of DUT is equipped with an S.LSI chipset to which the Samsung S.LSI proprietary TAS (Time Average SAR) algorithm is applied.

This DUT is enabled with the Samsung S.LSI proprietary TAS (Time Average SAR) algorithm for WWAN/WLAN/BT Mode and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is in compliance with the FCC requirement

FCC RF exposure limit is based on time averaged RF exposure. The SAR regulatory specification is defined over certain measurement duration allowing for time-averaging. The Samsung S.LSI proprietary TAS (Time Average SAR) algorithm has been designed to meet the compliance limits over the required duration, while still allowing dynamic control of transmit power to satisfy the performance of the system.

This feature performs time averaging SAR algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time.

The WLAN mode are not controlled by The Samsung S.LSI proprietary TAS (Time Average SAR) algorithm. This feature performs time averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time. DUT contains BDF File configured for the WLAN TAS algorithm. Only the NFC mode of the device did not apply the time averaged SAR algorithm.

The Samsung S.LSI TAS algorithm allow the device to transmit at higher power instantaneously, as high as P_{max}, when needed, but enforces power limiting to maintain time-averaged transmit power to P_{limit}. Below table shows P_{limit} NV settings and maximum tune up output power P_{max} configured for this DUT for various transmit conditions(Radio SAR indicator RSI for Head/Non-Head SAR of WWAN/WLAN/BT Mode).

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

SAR Characterization confirms that P_{limit} in the 4G/5G/WLAN/WLAN/BT communication mode declared by the manufacturer satisfies SAR_Design_target.

The compliance test under the static transmission scenario and simultaneous transmission analysis are reported in SAR report for WWAN/WLAN/BT. The validation of The Samsung S.LSI proprietary TAS (Time Average SAR) algorithm and compliance under the time-varying transmission scenario for WWAN technologies are reported in A3LSMA266U_SAR Part 2 Report_Main report.

2.3 Nomenclature for Part 0 Report

Technology	Term	Description
2G/3G/4G/5G Sub 6 NR/WLAN	Plimit	Power level that corresponds to the exposure design target (SAR_design_target) after accounting for all device design related uncertainties
	Pmax	Maximum tune up output power
	SAR_design_target	Target SAR level < FCC SAR limit after accounting for all device design related uncertainties.
	SAR Char	Table containing Plimit for all technologies and bands

3. SAR MEASUREMENTS

3.1 SAR Definition

Specific Absorption Rate (SAR) is defined as the time derivative of the incremental electromagnetic 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

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

SAR Mathematical Equation

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

$$SAR = \sigma E^2 / \rho$$

Where:

σ = conductivity of the tissue-simulant material (S/m)

ρ = mass density of the tissue-simulant 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.

3.2 SAR Measurement Procedure

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

1. The SAR distribution at the exposed side of the head or body was measured at a distance no more than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the DUT's head and body area and the horizontal grid resolution was depending on the FCC KDB 865664 D01v01r04 (see table 3-1) & IEEE 1528-2013.
2. Based on step, the area of the maximum absorption was determined by sophisticated interpolations routines implemented in DASY software. When an Area Scan has measured all reachable point. DASY system computes the field maximal found in the scanned are, within a range of the maximum. SAR at this fixed point was measured and used as a reference value.
3. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB 865664 D01v01r04 table 4-1 and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (reference from the DASY manual.)
 - a. The data at the surface were extrapolated, since the center of the dipoles is no more than 2.7 mm away from the tip of the probe (it is different from the probe type) and the distance between the surface and the lowest measuring point is 1.2 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.
 - b. The maximum interpolated value was searched with a straight-forward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed using the 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the "Not a knot" condition (in x, y, and z directions. The volume was integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.
 - c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.
4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan. If the value changed by more than 5 %, the SAR evaluation and drift measurements were repeated.

Table 3-1

Frequency	Maximum Area Scan Resolution(mm) (Δxarea, Δyarea)	Maximum Zoom Scan Resolution (mm) (Δxzoom, Δyzoom)	Maximum Zoom Scan Spatial Resolution (mm)			Minimum Zoom Scan Volume (mm) (x,y,z)
			Uniform Grid	Graded Grid		
				Δzzoom(n)	Δz zoom(1)*	
≤2 GHz	≤15	≤8	≤5	≤4	≤1.5*Δzzoom(n-1)	≥30
2-3 GHz	≤12	≤5	≤5	≤4	≤1.5*Δzzoom(n-1)	≥30
3-4 GHz	≤12	≤5	≤4	≤3	≤1.5*Δzzoom(n-1)	≥28
4-5 GHz	≤10	≤4	≤3	≤2.5	≤1.5*Δzzoom(n-1)	≥25
5-6 GHz	≤10	≤4	≤2	≤2	≤1.5*Δzzoom(n-1)	≥22

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

4. SAR CHARACTERIZATION

4.1 Exposure Index and SAR Determination

This device uses different Radio SAR Index (RSI) to configure different time averaged power levels based on certain exposure scenarios. Depending on the detection scheme implemented in the smartphone, the worst-case SAR was determined by measurements for the relevant exposure conditions for that RSI. Detailed descriptions of the detection mechanisms are included in the operational description.

When 1g SAR and 10g SAR exposure comparison is needed, the worst-case was determined from SAR normalized to 1g or 10g SAR limit.

The Radio SAR Index (RSI) conditions used in Table 4-1 represent different exposure scenarios.

Table 4-1 RSI and Corresponding Exposure Scenarios

Scenario		Description	SAR Test Cases
Head	RSI = 1	Device positioned next to head When RCV is activated for voice call	Head SAR per KDB Publication 648474 D04
Non – Head	RSI = 0 (Body)	Device is held with hand Device transmits in hotspot mode near body Device being used with a body-worn accessory Device being used with a Earjack	Phablet SAR per KDB Publication 648474 D04 Hotspot SAR per KDB Publication 941225 D06 Body-worn SAR per KDB Publication 648474 D04

The output power for SAR test in WWAN mode of this device is characterized as Head [RSI=1] and Non-Head [RSI=0] is body SAR configuration.

4.2 SAR Design Target

SAR_design_target is determined by ensuring that it is less than FCC SAR limit after accounting for total device designed related uncertainties specified by the manufacturer (see Table 4-2).

<i>SAR_design_target</i>			
$SAR_design_target < SAR_regulatory_limit \times 10^{Total\ Uncertainty/10}$			
1g SAR (W/kg)		10g SAR (W/kg)	
<i>Total Uncertainty</i>	1.0 dB	<i>Total Uncertainty</i>	1.0 dB
<i>SAR_regulatory_limit</i>	1.6 W/kg	<i>SAR_regulatory_limit</i>	4.0 W/kg
<i>SAR_design_target</i>	1.0 W/kg	<i>SAR_design_target</i>	2.5 W/kg

Table 4-2 *SAR_design_target* Calculations for WWAN Bands

4.3 SAR Characterization

SAR test results corresponding to Pmax for each antenna/technology/band/RSI can be found in Appendix A. Plimit is calculated by linearly scaling with the measured SAR at the Pmax to correspond to the SAR_design_target. Plimit determination for each exposure scenario corresponding to SAR_design_target are shown in Table 4-3.

Radio SAR Index (RSI)	Plimit Determination Scenarios
0	The worst-case SAR exposure is determined as maximum SAR normalized to the limit among: 1. Extremity SAR measured at 0 mm 2. Body-Worn SAR at 5mm 3. Plimit is calculated based on 1g Hotspot SAR at 5mm 4. Earjack SAR at 0,5mm
1	Plimit is calculated based on 1g Head SAR

Table 4-3 *PLimit* Determination for WLAN/BT

<i>SAR_design_target</i>			
$SAR_design_target < SAR_regulatory_limit \times 10^{Total\ Uncertainty/10}$			
WLAN 1g SAR (W/kg)		10g SAR (W/kg)	
<i>Total Uncertainty</i>	1.0 dB	<i>Total Uncertainty</i>	1.0 dB
<i>SAR_regulatory_limit</i>	1.6 W/kg	<i>SAR_regulatory_limit</i>	4.0 W/kg
<i>SAR_design_target</i>	0.7 W/kg	<i>SAR_design_target</i>	2.5 W/kg

Table 4-3-1 *WLAN SAR_design_target* Calculations WLAN/BT

Table 4-4 SAR Characterization

Plim values in green indicate Plimit < Pmax			lim values in grey indicate Plim > Pma			
Plimit corresponding to 1 W/kg (1g) SAR_Design_target						Pmax
SAR Exposure Position			Body-worn	Head (RCV ON)	Hotspot (Hotspot on)	Maximum Tune-up Output Power (Frame Averaged Power) [dBm]
Averaging volume			1g	1g	1g	
seperation Distance			5 mm	0 mm	5 mm	
Mode	Band	Antenna	Non Head	Head	Non Head	
GSM/GPRS/EDGE	850	Ant.A	22.8	31.1	22.8	24.8
GSM/GPRS/EDGE	1900	Ant.B	16.8	29.6	16.8	21.8
UMTS	2	Ant.B	18.0	28.2	18.0	22.7
UMTS	4	Ant.B	19.0	34.0	19.0	23.0
UMTS	5	Ant.A	20.0	31.7	20.0	23.7
LTE FDD	25(2)	Ant.B	18.0	29.0	18.0	24.0
LTE FDD	2 Upper	Ant.D	20.0	20.0	20.0	24.0
LTE FDD	4,66	Ant.B	19.0	31.1	19.0	24.0
LTE FDD	66(4) Upper	Ant.D	19.0	19.0	19.0	24.0
LTE FDD	7	Ant.B	18.0	30.3	18.0	23.0
LTE FDD	12	Ant.A	20.0	31.4	20.0	24.0
LTE FDD	13	Ant.A	20.0	31.9	20.0	24.0
LTE FDD	14	Ant.A	20.0	31.6	20.0	24.0
LTE FDD	26(5)	Ant.A	19.0	33.8	19.0	24.0
LTE FDD	30	Ant.B	18.0	29.2	18.0	23.0
LTE TDD PC3	41(38)	Ant.B	16.0	32.3	16.0	22.0
LTE TDD PC3	48	Ant.E	17.0	17.0	17.0	19.0
LTE FDD	71	Ant.A	20.0	32.7	20.0	24.0
NR FDD	25(2)	Ant.B	18.5	28.8	18.5	24.0
NR FDD	2 Upper	Ant.D	19.0	19.0	19.0	24.0
NR FDD	5	Ant.A	19.0	32.4	19.0	24.0
NR FDD	30	Ant.B	18.0	30.3	18.0	23.0
NR FDD	66	Ant.B	19.0	31.0	19.0	24.0
NR FDD	66 Upper	Ant.D	19.0	19.0	19.0	23.0
NR FDD	71	Ant.A	19.0	33.0	19.0	24.0
NR TDD	41 PC2	Ant.B	16.0	35.8	16.0	26.0
NR TDD	41 PC3	Ant.B	16.0	35.8	16.0	23.5
NR TDD	48	Ant.E	17.0	17.0	17.0	21.0
NR TDD SRS 2	48 SRS2	Ant.H	13.5	13.5	13.5	19.5
NR TDD SRS 3	48 SRS3	Ant.B	14.0	14.0	14.0	20.0
NR TDD SRS 4	48 SRS4	Ant.I	13.0	13.0	13.0	19.0
NR TDD	77 PC2	Ant.E	16.0	16.0	16.0	25.5
NR TDD SRS 2	77 PC2 SRS2	Ant.H	13.0	13.0	13.0	23.0
NR TDD SRS 3	77 PC2 SRS3	Ant.B	14.5	14.5	14.5	23.0
NR TDD SRS 4	77 PC2 SRS4	Ant.I	12.5	12.5	12.5	22.0
NR TDD	77 DoD PC2	Ant.E	16.0	16.0	16.0	25.5
NR TDD SRS 2	77 DoD PC2 SRS2	Ant.H	13.0	13.0	13.0	23.0
NR TDD SRS 3	77 DoD PC2 SRS3	Ant.B	14.5	14.5	14.5	23.0
NR TDD SRS 4	77 DoD PC2 SRS4	Ant.I	12.5	12.5	12.5	22.0
NR TDD	77(78) PC3	Ant.E	16.0	16.0	16.0	23.0
NR TDD SRS 2	77(78) PC3 SRS2	Ant.H	13.0	13.0	13.0	21.5
NR TDD SRS 3	77(78) PC3 SRS3	Ant.B	14.5	14.5	14.5	21.5
NR TDD SRS 4	77(78) PC3 SRS4	Ant.I	12.5	12.5	12.5	21.0
NR TDD	77(78) DoD PC3	Ant.E	16.0	16.0	16.0	23.0
NR TDD SRS 2	77(78) DoD PC3 SRS2	Ant.H	13.0	13.0	13.0	21.5
NR TDD SRS 3	77(78) DoD PC3 SRS3	Ant.B	14.5	14.5	14.5	21.5
NR TDD SRS 4	77(78) DoD PC3 SRS4	Ant.I	12.5	12.5	12.5	21.0
WLAN	2.4	Ant.F	14.0	16.0	14.0	19.0
WLAN	5	Ant.E	13.0	13.0	13.0	17.0
BT	2.4	Ant.F	17.0	23.2	15.7	12.0

Note:

- Compared with the Plimit(Tune up Powers) declared in each RSI by manufacturer and the plimit(calculation) calculated by the SAR measurement of each RSI, the lower power were applied to the plimit at each RSI configurations.
- When $P_{max} < Plimit$, the DUT will operate at a power level up to P_{max} .
- Maximum Tune up Power, Pmax is configured in Nv settings in EUT to limit maximum transmitting power. This power is converted into peak power in NV setting for TDD schemes. (GPRS, LTE TDD and WLAN/BT

5. Equipment List

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	SAM Phantom	-	N/A	N/A	N/A
SPEAG	ELI Phantom	-	N/A	N/A	N/A
HP	SAR System Control PC	-	N/A	N/A	N/A
Staubli #1-R	CS8Cspeag-TX90	F12/ 5K9GA1/ C/ 01	N/A	N/A	N/A
Staubli #1-L	CS8Cspeag-TX90	F11/ 5K3RA1/ C/ 01	N/A	N/A	N/A
Staubli #3	CS9spe-TX2-90	F/24/0058554/C/001	N/A	N/A	N/A
TESTO 1-R	175-H1/Thermometer	40331936309	12/26/2023	Annual	12/26/2024
TESTO 3	175-H1/Thermometer	40331939309	12/26/2023	Annual	12/26/2024
N/A 1-R	Teach Pendant (Joystick)	D2114210603	N/A	N/A	N/A
N/A 1-L	Teach Pendant (Joystick)	D2114210603	N/A	N/A	N/A
N/A 3	Teach Pendant (Joystick)	D21144508	N/A	N/A	N/A
SPEAG	E-Field Probe EX3DV4	3797	01/23/2024	Annual	01/23/2025
SPEAG	E-Field Probe EX3DV4	3903	07/31/2024	Annual	07/31/2025
SPEAG	E-Field Probe EX3DV4	7370	08/22/2024	Annual	08/22/2025
SPEAG	E-Field Probe EX3DV4	7751	09/19/2024	Annual	09/19/2025
SPEAG	E-Field Probe EX3DV4	7655	05/28/2024	Annual	05/28/2025
SPEAG	E-Field Probe ES3DV3	3076	07/17/2024	Annual	07/17/2025
SPEAG	DAE4	648	04/19/2024	Annual	04/19/2025
SPEAG	DAE4	652	01/17/2024	Annual	01/17/2025
SPEAG	DAE4	1629	08/16/2024	Annual	08/16/2025
SPEAG	DAE4	1866	05/02/2024	Annual	05/02/2025
SPEAG	DAE4	869	03/12/2024	Annual	03/12/2025
SPEAG	CLA13	1016	11/19/2024	Annual	11/19/2025
SPEAG	Dipole D750V3	1014	05/20/2024	Annual	05/20/2025
SPEAG	Dipole D835V2	441	04/18/2024	Annual	04/18/2025
SPEAG	Dipole D1800V2	2d007	04/15/2024	Annual	04/15/2026
SPEAG	Dipole D1900V2	5d032	01/18/2024	Annual	01/18/2025
SPEAG	Dipole D2300V2	1010	07/19/2023	Annual	07/19/2025
SPEAG	Dipole D2450V2	743	03/14/2024	Annual	03/14/2025
SPEAG	Dipole D2600V2	1015	04/22/2024	Annual	04/22/2025
SPEAG	Dipole D3500V2	1132	01/23/2024	Annual	01/23/2025
SPEAG	Dipole D3700V2	1105	09/18/2024	Annual	09/18/2025
SPEAG	Dipole D3900V2	1086	05/21/2024	Annual	05/21/2025
SPEAG	Dipole D5 GHz V2	1107	04/19/2024	Annual	04/19/2025
Agilent	Power Meter E4419B	MY41291386	09/11/2024	Annual	09/11/2025
Agilent	Power Meter N1911A	MY45101406	05/21/2024	Annual	05/21/2025
Agilent	Power Sensor 8481A	SG1091286	09/12/2024	Annual	09/12/2025
H.P	Power Sensor 8481A	MY41090675	09/12/2024	Annual	09/12/2025
Agilent	Wideband Power Sensor N1921A	MY55220026	07/30/2024	Annual	07/30/2025
Agilent	11636B/Power Divider	58698	01/15/2024	Annual	01/15/2025
SPEAG	DAKS 3.5	1038	01/22/2024	Annual	01/22/2025
SPEAG	Vector Reflectometer	141013	01/11/2024	Annual	01/11/2025
SPEAG	DAKS 12	1048	03/20/2024	Annual	03/20/2025
KEYSIGHT	MXA Signal Analyzer	MY49100108	01/09/2024	Annual	01/09/2025
H.P	Network Analyzer /8753ES	JP39240221	12/26/2023	Annual	12/26/2024
H.P	Network Analyzer /8753ES	JP39240221	12/23/2024	Annual	12/23/2025
Agilent	WIRELESS COMMUNICATION E5515C	MY48360252	07/29/2024	Annual	07/29/2025
Agilent	WIRELESS COMMUNICATION E5515C	MY50260992	05/22/2024	Annual	05/22/2025
R&S	Wireless Communication Test Set CMW500	115733	03/19/2024	Annual	03/19/2025
Agilent	SIGNAL GENERATOR N5182A	MY47070230	03/19/2024	Annual	03/19/2025

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
EMPOWER	RF Power Amplifier	1084	05/21/2024	Annual	05/21/2025
EMPOWER	RF Power Amplifier	1041D/C0508	05/21/2024	Annual	05/21/2025
EMPOWER	RF Power Amplifier	1011	09/21/2023	Annual	09/21/2024
EMPOWER	RF Power Amplifier	1011	09/11/2024	Annual	09/11/2025
MICRO LAB	LP Filter / LA-15N	10453	09/11/2024	Annual	09/11/2025
MICRO LAB	LP Filter / LA-30N	-	09/11/2024	Annual	09/11/2025
MICRO LAB	LP Filter / LA-60N	32011	09/11/2024	Annual	09/11/2025
Agilent	Attenuator (3dB) 8693B	MY39260298	08/20/2024	Annual	08/20/2025
HP	Attenuator (20dB) 8493C	09271	08/20/2024	Annual	08/20/2025
Agilent	Directional Bridge 86205A	3140A04581	04/22/2024	Annual	04/22/2025
Agilent	MXA Signal Analyzer N9020A	MY50510407	06/04/2024	Annual	06/04/2025
KEYSIGHT	EXG Vector Signal Generator	MY50350097	03/05/2024	Annual	03/05/2025
HP	Dual Directional Coupler	16072	09/11/2024	Annual	09/11/2025
Anritsu	Radio Communication Test Station MT8000A	6262036812	11/27/2024	Annual	11/27/2025
Anritsu	Radio Communication Tester MT8820C	6201074225	01/17/2024	Annual	01/17/2025
Anritsu	Radio Communication Tester MT8820C	6200695605	03/19/2024	Annual	03/19/2025
Anritsu	Radio Communication Tester MT8821C	6201502997	05/21/2024	Annual	05/21/2025
Anritsu	Radio Communication Tester MT8821C	6262044720	11/27/2024	Annual	11/27/2025
ROHDE&SCHWARZ	BLUETOOTH TESTER CBT	100272	01/16/2024	Annual	01/16/2025

* The E-field probe was calibrated by SPEAG, by the waveguide technique procedure. Dipole Verification measurement is performed by HCT Lab. before each test. The brain/body simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity (dielectric constant) of the brain/body-equivalent material.

6. Measurement Uncertainty

The measured SAR was <1.5 W/Kg for 1g SAR and <3.75 W/Kg For 10g SAR for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE1528-2013 was not required.

Appendix A: SAR Test Results for Plimit CALCULATIONS

Table A-1 RSI = 1 *PLimit* Calculations – 2G/3G Head SAR

MEASUREMENT RESULTS									
Frequency		Mode/ Band	Ant.	Frame Averaged	Test Position	Duty Cycle	Meas.	Plimit	Minimum
MHz	Ch.			Conducted Power			SAR(1g)		Plimit
				(dBm)			(W/kg)	(dBm)	(dBm)
836.6	190	GSM 850	GPRS 4Tx	A	25.78	Left Cheek	1:2.07	0.217	32.4
836.6	190	GSM 850		A	25.78	Left Tilt	1:2.07	0.109	35.4
836.6	190	GSM 850		A	25.78	Right Cheek	1:2.07	0.296	31.1
836.6	190	GSM 850		A	25.78	Right Tilt	1:2.07	0.147	34.1
1 880	661	GSM 1900	GPRS 4Tx	B	22.21	Left Cheek	1:2.07	0.182	29.6
1 880	661	GSM 1900		B	22.21	Left Tilt	1:2.07	0.082	33.1
1 880	661	GSM 1900		B	22.21	Right Cheek	1:2.07	0.148	30.5
1 880	661	GSM 1900		B	22.21	Right Tilt	1:2.07	0.108	31.9
836.6	4183	UMTS Band 5	RMC	A	24.13	Left Cheek	1:1	0.176	31.7
836.6	4183	UMTS Band 5		A	24.13	Left Tilt	1:1	0.100	34.1
836.6	4183	UMTS Band 5		A	24.13	Right Cheek	1:1	0.175	31.7
836.6	4183	UMTS Band 5		A	24.13	Right Tilt	1:1	0.058	36.5
1 732.4	1412	UMTS Band 4	RMC	B	23.32	Left Cheek	1:1	0.086	34.0
1 732.4	1412	UMTS Band 4		B	23.32	Left Tilt	1:1	0.056	35.8
1 732.4	1412	UMTS Band 4		B	23.32	Right Cheek	1:1	0.068	35.0
1 732.4	1412	UMTS Band 4		B	23.32	Right Tilt	1:1	0.056	35.8
1 880	9400	UMTS Band 2	RMC	B	22.84	Left Cheek	1:1	0.293	28.2
1 880	9400	UMTS Band 2		B	22.84	Left Tilt	1:1	0.176	30.4
1 880	9400	UMTS Band 2		B	22.84	Right Cheek	1:1	0.282	28.3
1 880	9400	UMTS Band 2		B	22.84	Right Tilt	1:1	0.179	30.3

Table A-2 RSI = 1 PLimit Calculations – 4G Head SAR

MEASUREMENT RESULTS													
Frequency		Mode	Ant.	Band width	Frame Averaged Conducted Power	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	PLimit	Minimum PLimit
MHz	Ch.			(dBm)	(dBm)		(dB)				(W/kg)	(dBm)	(dBm)
707.5	23095	LTE Band 12	A	10	24.14	Left Cheek	0	1	0	1:1	0.160	32.1	31.4
707.5	23095	LTE Band 12	A	10	24.14	Left Tilt	0	1	0	1:1	0.092	34.5	
707.5	23095	LTE Band 12	A	10	24.14	Right Cheek	0	1	0	1:1	0.187	31.4	
707.5	23095	LTE Band 12	A	10	24.14	Right Tilt	0	1	0	1:1	0.101	34.1	
782	23230	LTE Band 13	A	10	24.20	Left Cheek	0	1	0	1:1	0.138	32.8	31.9
782	23230	LTE Band 13	A	10	24.20	Left Tilt	0	1	0	1:1	0.084	35.0	
782	23230	LTE Band 13	A	10	24.20	Right Cheek	0	1	0	1:1	0.168	31.9	
782	23230	LTE Band 13	A	10	24.20	Right Tilt	0	1	0	1:1	0.081	35.1	
793	23330	LTE Band 14	A	10	24.27	Left Cheek	0	1	0	1:1	0.111	33.8	31.6
793	23330	LTE Band 14	A	10	24.27	Left Tilt	0	1	0	1:1	0.083	35.1	
793	23330	LTE Band 14	A	10	24.27	Right Cheek	0	1	0	1:1	0.186	31.6	
793	23330	LTE Band 14	A	10	24.27	Right Tilt	0	1	0	1:1	0.094	34.5	
1 882.5	26365	LTE Band 25	B	20	24.03	Left Cheek	0	1	0	1:1	0.321	29.0	29.0
1 882.5	26365	LTE Band 25	B	20	24.03	Left Tilt	0	1	0	1:1	0.148	32.3	
1 882.5	26365	LTE Band 25	B	20	24.03	Right Cheek	0	1	0	1:1	0.215	30.7	
1 882.5	26365	LTE Band 25	B	20	24.03	Right Tilt	0	1	0	1:1	0.155	32.1	
1 880	18900	LTE Band 2	D	20	19.70	Left Cheek	0	1	0	1:1	0.249	25.7	24.1
1 880	18900	LTE Band 2	D	20	19.70	Left Tilt	0	1	0	1:1	0.286	25.1	
1 880	18900	LTE Band 2	D	20	19.70	Right Cheek	0	1	0	1:1	0.356	24.2	
1 880	18900	LTE Band 2	D	20	19.70	Right Tilt	0	1	0	1:1	0.361	24.1	
831.5	26865	LTE Band 26	A	15	24.09	Left Cheek	0	1	0	1:1	0.067	35.8	33.8
831.5	26865	LTE Band 26	A	15	24.09	Left Tilt	0	1	0	1:1	0.025	40.1	
831.5	26865	LTE Band 26	A	15	24.09	Right Cheek	0	1	0	1:1	0.106	33.8	
831.5	26865	LTE Band 26	A	15	24.09	Right Tilt	0	1	0	1:1	0.053	36.8	
2 310	27710	LTE Band 30	B	10	23.21	Left Cheek	0	1	24	1:1	0.251	29.2	29.2
2 310	27710	LTE Band 30	B	10	23.21	Left Tilt	0	1	24	1:1	0.070	34.8	
2 310	27710	LTE Band 30	B	10	23.21	Right Cheek	0	1	24	1:1	0.138	31.8	
2 310	27710	LTE Band 30	B	10	23.21	Right Tilt	0	1	24	1:1	0.148	31.5	
2 510	20850	LTE Band 7	B	20	23.00	Left Cheek	0	1	0	1:1	0.185	30.3	30.3
2 510	20850	LTE Band 7	B	20	23.00	Left Tilt	0	1	0	1:1	0.047	36.3	
2 510	20850	LTE Band 7	B	20	23.00	Right Cheek	0	1	0	1:1	0.104	32.8	
2 510	20850	LTE Band 7	B	20	23.00	Right Tilt	0	1	0	1:1	0.075	34.2	

MEASUREMENT RESULTS													
Frequency		Mode	Ant.	Band width	Frame Averaged Conducted Power	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
MHz	Ch.			(dBm)	(dBm)		(dB)				(W/kg)	(dBm)	(dBm)
2 593	40620	LTE Band41(PC3)	B	20	22.33	Left Cheek	0	1	0	1:1.58	0.101	32.3	32.3
2 593	40620	LTE Band41(PC3)	B	20	22.33	Left Tilt	0	1	0	1:1.58	0.030	37.6	
2 593	40620	LTE Band41(PC3)	B	20	22.33	Right Cheek	0	1	0	1:1.58	0.057	34.8	
2 593	40620	LTE Band41(PC3)	B	20	22.33	Right Tilt	0	1	0	1:1.58	0.044	35.9	
3 690	56640	LTE Band48(PC3)	E	20	17.03	Left Cheek	0	1	49	1:1.58	0.136	25.7	21.5
3 690	56640	LTE Band48(PC3)	E	20	17.03	Left Tilt	0	1	49	1:1.58	0.103	26.9	
3 690	56640	LTE Band48(PC3)	E	20	17.03	Right Cheek	0	1	49	1:1.58	0.354	21.5	
3 690	56640	LTE Band48(PC3)	E	20	17.03	Right Tilt	0	1	49	1:1.58	0.235	23.3	
1 720	132072	LTE Band 66	B	20	24.09	Left Cheek	0	1	49	1:1	0.198	31.1	31.1
1 720	132072	LTE Band 66	B	20	24.09	Left Tilt	0	1	49	1:1	0.12	33.3	
1 720	132072	LTE Band 66	B	20	24.09	Right Cheek	0	1	49	1:1	0.201	31.1	
1 720	132072	LTE Band 66	B	20	24.09	Right Tilt	0	1	49	1:1	0.115	33.5	
1 720	132072	LTE Band 66	D	20	19.70	Left Cheek	0	1	49	1:1	0.522	22.5	21.2
1 720	132072	LTE Band 66	D	20	19.70	Left Tilt	0	1	49	1:1	0.660	21.5	
1 720	132072	LTE Band 66	D	20	19.70	Right Cheek	0	1	49	1:1	0.700	21.2	
1 720	132072	LTE Band 66	D	20	19.70	Right Tilt	0	1	49	1:1	0.673	21.4	
680.5	133297	LTE Band 71	A	20	24.74	Left Cheek	0	1	0	1:1	0.139	33.3	32.7
680.5	133297	LTE Band 71	A	20	24.74	Left Tilt	0	1	0	1:1	0.072	36.2	
680.5	133297	LTE Band 71	A	20	24.74	Right Cheek	0	1	0	1:1	0.160	32.7	
680.5	133297	LTE Band 71	A	20	24.74	Right Tilt	0	1	0	1:1	0.070	36.3	

Table A-3 RSI = 1 *PLimit* Calculations – NR Head SAR

For some Bands/modes, a lower *PLimit* was selected as a more conservative evaluation.

NR TDD Bands: In the case of the NR TDD bands, the *PLimit* were calculated as the Frame average power to which the duty factor was applied to the burst power.

SAR measurements of TDD NR bands were measured in FTM Mode.

MEASUREMENT RESULTS														
Frequency		Mode	Ant.	Band width	Frame Averaged Conducted Power	Test Configurations		MPR	RB Size	RB offset	Duty Cycle	Meas. SAR (1g)	Plimit	Minimum Plimit
MHz	Ch.			(dBm)	(dBm)			(dB)				(W/kg)	(dBm)	(dBm)
1 882.5	376500	NR Band n25	B	40	24.32	Left Cheek	DFT-s OFDM QPSK	0	1	108	1:1	0.353	28.8	28.8
1 882.5	376500	NR Band n25	B	40	24.32	Left Tilt	DFT-s OFDM QPSK	0	1	108	1:1	0.184	31.7	
1 882.5	376500	NR Band n25	B	40	24.32	Right Cheek	DFT-s OFDM QPSK	0	1	108	1:1	0.330	29.1	
1 882.5	376500	NR Band n25	B	40	24.32	Right Tilt	DFT-s OFDM QPSK	0	1	108	1:1	0.195	31.4	
1 880	376000	NR Band n2	D	40	19.44	Left Cheek	DFT-s OFDM QPSK	0	1	108	1:1	0.315	24.5	22.6
1 880	376000	NR Band n2	D	40	19.44	Left Tilt	DFT-s OFDM QPSK	0	1	108	1:1	0.381	23.6	
1 880	376000	NR Band n2	D	40	19.44	Right Cheek	DFT-s OFDM QPSK	0	1	108	1:1	0.482	22.6	
1 880	376000	NR Band n2	D	40	19.44	Right Tilt	DFT-s OFDM QPSK	0	1	108	1:1	0.482	22.6	
836.5	167300	NR Band n5	A	20	24.86	Left Cheek	DFT-s OFDM QPSK	0	1	53	1:1	0.133	33.6	32.4
836.5	167300	NR Band n5	A	20	24.86	Left Tilt	DFT-s OFDM QPSK	0	1	53	1:1	0.087	35.5	
836.5	167300	NR Band n5	A	20	24.86	Right Cheek	DFT-s OFDM QPSK	0	1	53	1:1	0.178	32.4	
836.5	167300	NR Band n5	A	20	24.86	Right Tilt	DFT-s OFDM QPSK	0	1	53	1:1	0.085	35.6	
2 310	462000	NR Band n30	B	10	23.02	Left Cheek	DFT-s OFDM QPSK	0	1	26	1:1	0.185	30.3	30.3
2 310	462000	NR Band n30	B	10	23.02	Left Tilt	DFT-s OFDM QPSK	0	1	26	1:1	0.058	35.4	
2 310	462000	NR Band n30	B	10	23.02	Right Cheek	DFT-s OFDM QPSK	0	1	26	1:1	0.113	32.5	
2 310	462000	NR Band n30	B	10	23.02	Right Tilt	DFT-s OFDM QPSK	0	1	26	1:1	0.08	34.0	
1 745	349000	NR Band n66	B	40	24.28	Left Cheek	DFT-s OFDM QPSK	0	1	214	1:1	0.160	32.2	31.0
1 745	349000	NR Band n66	B	40	24.28	Left Tilt	DFT-s OFDM QPSK	0	1	214	1:1	0.145	32.7	
1 745	349000	NR Band n66	B	40	24.28	Right Cheek	DFT-s OFDM QPSK	0	1	214	1:1	0.215	31.0	
1 745	349000	NR Band n66	B	40	24.28	Right Tilt	DFT-s OFDM QPSK	0	1	214	1:1	0.114	33.7	
1 745	349000	NR Band n66	D	40	19.44	Left Cheek	DFT-s OFDM QPSK	0	1	108	1:1	0.334	24.2	21.5
1 745	349000	NR Band n66	D	40	19.44	Left Tilt	DFT-s OFDM QPSK	0	1	108	1:1	0.502	22.4	
1 745	349000	NR Band n66	D	40	19.44	Right Cheek	DFT-s OFDM QPSK	0	1	108	1:1	0.626	21.5	
1 745	349000	NR Band n66	D	40	19.44	Right Tilt	CP OFDM QPSK	0	1	108	1:1	0.547	22.1	
680.5	136100	NR Band n71	A	20	24.86	Left Cheek	DFT-s OFDM QPSK	0	1	53	1:1	0.106	34.6	33.0
680.5	136100	NR Band n71	A	20	24.86	Left Tilt	DFT-s OFDM QPSK	0	1	53	1:1	0.054	37.5	
680.5	136100	NR Band n71	A	20	24.86	Right Cheek	DFT-s OFDM QPSK	0	1	53	1:1	0.155	33.0	
680.5	136100	NR Band n71	A	20	24.86	Right Tilt	DFT-s OFDM QPSK	0	1	53	1:1	0.063	36.9	
2 592.99	518598	NR Band n41	B	100	25.80	Left Cheek	DFT-s OFDM QPSK	0	1	271	1:1	0.100	35.8	35.8
2 592.99	518598	NR Band n41	B	100	25.80	Left Tilt	DFT-s OFDM QPSK	0	1	271	1:1	0.029	41.2	
2 592.99	518598	NR Band n41	B	100	25.80	Right Cheek	DFT-s OFDM QPSK	0	1	271	1:1	0.067	37.5	
2 592.99	518598	NR Band n41	B	100	25.80	Right Tilt	DFT-s OFDM QPSK	0	1	271	1:1	0.054	38.5	

MEASUREMENT RESULTS															
Frequency		Mode	Ant.	Band width h	Frame Averaged Conducted Power	Test Configurations		MPR	RB Size	RB offset	Duty Cycle	Meas. SAR (1g)	Plimit	Minimum Plimit	
MHz	Ch.			(dBm)	(dBm)			(dB)				(W/kg)	(dBm)	(dBm)	
3 680.01	645334	NR Band n48 SRS1	E	40	17.19	Left Cheek	DFT-s OFDM QPSK	0	1	1	1:1	0.099	27.2	21.0	
3 680.01	645334	NR Band n48 SRS1	E	40	17.19	Left Tilt	DFT-s OFDM QPSK	0	1	1	1:1	0.079	28.2		
3 680.01	645334	NR Band n48 SRS1	E	40	17.19	Right Cheek	DFT-s OFDM QPSK	0	1	1	1:1	0.414	21.0		
3 680.01	645334	NR Band n48 SRS1	E	40	17.19	Right Tilt	DFT-s OFDM QPSK	0	1	1	1:1	0.248	23.2		
3 680.01	645334	NR Band n48 SRS2	H	40	14.19	Left Cheek	DFT-s OFDM QPSK	0	-	-	1:1	0.027	29.9	29.9	
3 680.01	645334	NR Band n48 SRS2	H	40	14.19	Left Tilt	DFT-s OFDM QPSK	0	-	-	1:1	0.022	30.8		
3 680.01	645334	NR Band n48 SRS2	H	40	14.19	Right Cheek	DFT-s OFDM QPSK	0	-	-	1:1	0.024	30.4		
3 680.01	645334	NR Band n48 SRS2	H	40	14.19	Right Tilt	DFT-s OFDM QPSK	0	-	-	1:1	0.022	30.8		
3 680.01	645334	NR Band n48 SRS3	B	40	14.91	Left Cheek	DFT-s OFDM QPSK	0	-	-	1:1	0.001	44.9	44.9	
3 680.01	645334	NR Band n48 SRS3	B	40	14.91	Left Tilt	DFT-s OFDM QPSK	0	-	-	1:1	0.000	-		
3 680.01	645334	NR Band n48 SRS3	B	40	14.91	Right Cheek	DFT-s OFDM QPSK	0	-	-	1:1	0.000	-		
3 680.01	645334	NR Band n48 SRS3	B	40	14.91	Right Tilt	DFT-s OFDM QPSK	0	-	-	1:1	0.000	-		
3 680.01	645334	NR Band n48 SRS4	I	40	13.92	Left Cheek	DFT-s OFDM QPSK	0	-	-	1:1	0.034	28.6	28.6	
3 680.01	645334	NR Band n48 SRS4	I	40	13.92	Left Tilt	DFT-s OFDM QPSK	0	-	-	1:1	0.034	28.6		
3 680.01	645334	NR Band n48 SRS4	I	40	13.92	Right Cheek	DFT-s OFDM QPSK	0	-	-	1:1	0.022	30.5		
3 680.01	645334	NR Band n48 SRS4	I	40	13.92	Right Tilt	DFT-s OFDM QPSK	0	-	-	1:1	0.025	29.9		
3 750	650000	NR Band n77 SRS1	E	100	15.77	Left Cheek	DFT-s OFDM QPSK	0	1	1	1:1	0.093	26.1	20.6	
3 750	650000	NR Band n77 SRS1	E	100	15.77	Left Tilt	DFT-s OFDM QPSK	0	1	1	1:1	0.069	27.4		
3 750	650000	NR Band n77 SRS1	E	100	15.77	Right Cheek	DFT-s OFDM QPSK	0	1	1	1:1	0.332	20.6		
3 750	650000	NR Band n77 SRS1	E	100	15.77	Right Tilt	DFT-s OFDM QPSK	0	1	1	1:1	0.294	21.1		
3 750	650000	NR Band n77 SRS2	H	100	13.82	Left Cheek	DFT-s OFDM QPSK	0	1	1	1:1	0.020	30.8	30.8	
3 750	650000	NR Band n77 SRS2	H	100	13.82	Left Tilt	DFT-s OFDM QPSK	0	1	1	1:1	0.016	31.8		
3 750	650000	NR Band n77 SRS2	H	100	13.82	Right Cheek	DFT-s OFDM QPSK	0	1	1	1:1	0.019	31.0		
3 750	650000	NR Band n77 SRS2	H	100	13.82	Right Tilt	DFT-s OFDM QPSK	0	1	1	1:1	0.019	31.0		
3 930	662000	NR Band n77 SRS3	B	100	15.43	Left Cheek	DFT-s OFDM QPSK	0	1	1	1:1	0.02	32.4	32.4	
3 930	662000	NR Band n77 SRS3	B	100	15.43	Left Tilt	DFT-s OFDM QPSK	0	1	1	1:1	0.015	33.7		
3 930	662000	NR Band n77 SRS3	B	100	15.43	Right Cheek	DFT-s OFDM QPSK	0	1	1	1:1	0.002	42.4		
3 930	662000	NR Band n77 SRS3	B	100	15.43	Right Tilt	DFT-s OFDM QPSK	0	1	1	1:1	0.000			
3 750	650000	NR Band n77 SRS4	I	100	13.48	Left Cheek	DFT-s OFDM QPSK	0	1	1	1:1	0.017	31.2	30.5	
3 750	650000	NR Band n77 SRS4	I	100	13.48	Left Tilt	DFT-s OFDM QPSK	0	1	1	1:1	0.02	30.5		
3 750	650000	NR Band n77 SRS4	I	100	13.48	Right Cheek	DFT-s OFDM QPSK	0	1	1	1:1	0.005	36.5		
3 750	650000	NR Band n77 SRS4	I	100	13.48	Right Tilt	DFT-s OFDM QPSK	0	1	1	1:1	0.006	35.7		
3 500.01	633334	NR Band n77 DoD SRS1	E	100	15.88	Right Cheek	DFT-s OFDM QPSK	0	1	137	1:1	0.285	21.3	19.8	
3 500.01	633334	NR Band n77 DoD SRS2	H	100	12.18	Left Cheek	DFT-s OFDM QPSK	0	1	1	1:1	0.009	32.6		
3 500.01	633334	NR Band n77 DoD SRS3	B	100	13.85	Left Cheek	DFT-s OFDM QPSK	0	1	1	1:1	0.002	40.8		
3 500.01	633334	NR Band n77 DoD SRS4	I	100	11.57	Left Tilt	DFT-s OFDM QPSK	0	1	1	1:1	0.151	19.8		

Table A-4 RSI = 1 *PLimit* Calculations – WLAN Head SAR

MEASUREMENT RESULTS													
Frequency		Mode/ Band	Band width	Ant.	Data Rate	Frame Averaged Conducted Power	Test Position	Ant. Config.	Duty Cycle	Meas. SAR(1g)	Scaling Factor	Plimit	Minimum Plimit
MHz	Ch.				(Mbps)					(W/kg)	(Duty)	(dBm)	(dBm)
2 437	6	802.11b	20	F	1	16.79	Left Cheek	WIFI1	99.1	0.123	1.009	24.3	19.1
2 437	6	802.11b	20	F	1	16.79	Left Tilt	WIFI1	99.1	0.033	1.009	30.1	
2 437	6	802.11b	20	F	1	16.79	Right Cheek	WIFI1	99.1	0.408	1.009	19.1	
2 437	6	802.11b	20	F	1	16.79	Right Tilt	WIFI1	99.1	0.080	1.009	26.2	
5 310	62	802.11n	40	E	MCS0	13.70	Left Cheek	WIFI1	87.0	0.057	1.149	24.6	21.0
5 310	62	802.11n	40	E	MCS0	13.70	Left Tilt	WIFI1	87.0	0.051	1.149	25.1	
5 310	62	802.11n	40	E	MCS0	13.70	Right Cheek	WIFI1	87.0	0.131	1.149	21.0	
5 310	62	802.11n	40	E	MCS0	13.70	Right Tilt	WIFI1	87.0	0.127	1.149	21.1	
5 510	102	802.11n	40	E	MCS0	13.96	Left Cheek	WIFI1	87.0	0.031	1.149	27.5	19.7
5 510	102	802.11n	40	E	MCS0	13.96	Left Tilt	WIFI1	87.0	0.038	1.149	26.6	
5 510	102	802.11n	40	E	MCS0	13.96	Right Cheek	WIFI1	87.0	0.188	1.149	19.7	
5 510	102	802.11n	40	E	MCS0	13.96	Right Tilt	WIFI1	87.0	0.153	1.149	20.6	
5 755	151	802.11n	40	E	MCS0	13.74	Left Cheek	WIFI1	87.0	0.036	1.149	26.6	23.2
5 755	151	802.11n	40	E	MCS0	13.74	Left Tilt	WIFI1	87.0	0.038	1.149	26.4	
5 755	151	802.11n	40	E	MCS0	13.74	Right Cheek	WIFI1	87.0	0.079	1.149	23.2	
5 755	151	802.11n	40	E	MCS0	13.74	Right Tilt	WIFI1	87.0	0.077	1.149	23.3	
5 875	175	802.11n	40	E	MCS0	13.84	Left Cheek	WIFI1	87.0	0.056	1.149	24.8	23.5
5 875	175	802.11n	40	E	MCS0	13.84	Left Tilt	WIFI1	87.0	0.054	1.149	25.0	
5 875	175	802.11n	40	E	MCS0	13.84	Right Cheek	WIFI1	87.0	0.075	1.149	23.5	
5 875	175	802.11n	40	E	MCS0	13.84	Right Tilt	WIFI1	87.0	0.071	1.149	23.8	

Table A-5 RSI = 1 *PLimit* Calculations – BT Head SAR

MEASUREMENT RESULTS										
Frequency		Mode/ Band	Ant.	Frame Averaged Conducted Power	Test Position	Ant. Config.	Meas. SAR(1g)	Scaling Factor	Plimit	Minimum Plimit
MHz	Ch.						(W/kg)	(Duty)	(dBm)	(dBm)
2 480	78	Bluetooth DH5	H	11.85	Left Cheek	Ant1	0.051	1.013	23.2	23.2
2 480	78	Bluetooth DH5	H	11.85	Left Tilt	Ant1	0.010	1.013	30.3	
2 480	78	Bluetooth DH5	H	11.85	Right Cheek	Ant1	0.016	1.013	28.3	
2 480	78	Bluetooth DH5	H	11.85	Right Tilt	Ant1	0.003	1.013	25.5	
2 480	39	Bluetooth LE 125K	H	11.96	Left Cheek	Ant1	0.047	1.004	23.7	18.3
2 480	39	Bluetooth LE 125K	H	11.96	Left Tilt	Ant1	0.018	1.004	27.9	
2 480	39	Bluetooth LE 125K	H	11.96	Right Cheek	Ant1	0.164	1.004	18.3	
2 480	39	Bluetooth LE 125K	H	11.96	Right Tilt	Ant1	0.040	1.004	24.4	

Table A-6 RSI = 0 P_{Limit} Calculations – 2G/3G Body SAR

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

MEASUREMENT RESULTS											
Frequency		Mode/ Band		Ant . No.	Frame Averaged Conducted Power	Test Position	Spacing (mm)	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
					(dBm)				(W/kg)		
836.6	190	GSM 850	GPRS 4Tx	A	22.76	Rear	5	1:2.07	0.811	23.7	23.7
836.6	190	GSM 850	GPRS 4Tx	A	22.76	Front	5	1:2.07	0.434	26.4	
836.6	190	GSM 850	GPRS 4Tx	A	22.76	Left	5	1:2.07	0.121	31.9	
836.6	190	GSM 850	GPRS 4Tx	A	22.76	Right	5	1:2.07	0.289	28.2	
836.6	190	GSM 850	GPRS 4Tx	A	22.76	Bottom	5	1:2.07	0.618	24.8	
1 880.0	661	GSM 1900	GPRS 4Tx	B	16.58	Rear	5	1:2.07	0.530	19.3	19.3
1 880.0	661	GSM 1900	GPRS 4Tx	B	16.58	Front	5	1:2.07	0.303	21.8	
1 880.0	661	GSM 1900	GPRS 4Tx	B	16.58	Left	5	1:2.07	0.254	22.5	
1 880.0	661	GSM 1900	GPRS 4Tx	B	16.58	Bottom	5	1:2.07	0.495	19.6	
836.6	4183	UMTS 850	RMC	A	19.56	Rear	5	1:1	0.471	22.8	22.8
836.6	4183	UMTS 850	RMC	A	19.56	Front	5	1:1	0.262	25.4	
836.6	4183	UMTS 850	RMC	A	19.56	Left	5	1:1	0.064	31.5	
836.6	4183	UMTS 850	RMC	A	19.56	Right	5	1:1	0.146	27.9	
836.6	4183	UMTS 850	RMC	A	19.56	Bottom	5	1:1	0.378	23.8	
1 732.4	1412	UMTS 1700	RMC	B	19.56	Rear	5	1:1	0.716	21.0	19.9
1 732.4	1412	UMTS 1700	RMC	B	19.56	Front	5	1:1	0.273	25.2	
1 732.4	1412	UMTS 1700	RMC	B	19.56	Left	5	1:1	0.273	25.2	
1 732.4	1412	UMTS 1700	RMC	B	19.56	Bottom	5	1:1	0.918	19.9	
1 880	9400	UMTS 1900	RMC	B	17.12	Rear	5	1:1	0.501	20.1	18.7
1 880	9400	UMTS 1900	RMC	B	17.12	Front	5	1:1	0.518	20.0	
1 880	9400	UMTS 1900	RMC	B	17.12	Left	5	1:1	0.290	22.5	
1 880	9400	UMTS 1900	RMC	B	17.12	Bottom	5	1:1	0.688	18.7	

Table A-7 RSI = 0 P_{Limit} Calculations – 4G Body SAR

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

MEASUREMENT RESULTS														
Frequency		Mode	Ant. No.	Band	Frame	Test Position	Spacing (mm)	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR (1g)	Plimit	Minimum Plimit
				width	Averaged							Conducted	Power	(W/kg)
Mhz	Ch.			Mhz	(dBm)			(dB)						
1 882.5	26365	LTE Band 25	A	20	18.30	Rear	5	0	1	0	1:1	0.703	19.8	19.8
1 882.5	26365	LTE Band 25	A	20	18.30	Front	5	0	1	0	1:1	0.652	20.2	
1 882.5	26365	LTE Band 25	A	20	18.30	Left	5	0	1	0	1:1	0.254	24.3	
1 882.5	26365	LTE Band 25	A	20	18.30	Right	5	0	1	0	1:1	0.106	28.0	
1 882.5	26365	LTE Band 25	A	20	18.30	Bottom	5	0	1	0	1:1	0.684	19.9	
1 880	18900	LTE Band 2	D	20	19.70	Rear	5	0	1	0	1:1	0.373	24.0	22.2
1 880	18900	LTE Band 2	D	20	19.70	Front	5	0	1	0	1:1	0.158	27.7	
1 880	18900	LTE Band 2	D	20	19.70	Left	5	0	1	0	1:1	0.059	32.0	
1 880	18900	LTE Band 2	D	20	19.70	Top	5	0	1	0	1:1	0.564	22.2	
1 720	132072	LTE Band 66	B	20	19.65	Rear	5	0	1	49	1:1	0.621	21.7	21.7
1 720	132072	LTE Band 66	B	20	19.65	Front	5	0	1	49	1:1	0.325	24.5	
1 720	132072	LTE Band 66	B	20	19.65	Left	5	0	1	49	1:1	0.239	25.9	
1 720	132072	LTE Band 66	B	20	19.65	Bottom	5	0	1	49	1:1	0.623	21.7	
1720	132072	LTE Band 66	D	20	19.70	Rear	5	0	1	49	1:1	0.665	21.5	20.1
1720	132072	LTE Band 66	D	20	19.70	Front	5	0	1	49	1:1	0.356	24.2	
1720	132072	LTE Band 66	D	20	19.70	Left	5	0	1	49	1:1	0.144	28.1	
1720	132072	LTE Band 66	D	20	19.70	Top	5	0	1	49	1:1	0.908	20.1	
2 510	20850	LTE Band 7	B	20	17.91	Rear	5	0	1	0	1:1	0.749	19.2	19.2
2 510	20850	LTE Band 7	B	20	17.91	Front	5	0	1	0	1:1	0.493	21.0	
2 510	20850	LTE Band 7	B	20	17.91	Left	5	0	1	0	1:1	0.210	24.7	
2 510	20850	LTE Band 7	B	20	17.91	Bottom	5	0	1	0	1:1	0.707	19.4	
707.5	23095	LTE Band 12	A	10	20.52	Rear	5	0	1	0	1:1	0.206	27.4	27.4
707.5	23095	LTE Band 12	A	10	20.52	Front	5	0	1	0	1:1	0.114	30.0	
707.5	23095	LTE Band 12	A	10	20.52	Left	5	0	1	0	1:1	0.044	34.1	
707.5	23095	LTE Band 12	A	10	20.52	Right	5	0	1	0	1:1	0.102	30.4	
707.5	23095	LTE Band 12	A	10	20.52	Bottom	5	0	1	0	1:1	0.183	27.9	
782	23230	LTE Band 13	A	10	19.60	Rear	5	0	1	0	1:1	0.277	25.2	25.2
782	23230	LTE Band 13	A	10	19.60	Front	5	0	1	0	1:1	0.143	28.0	
782	23230	LTE Band 13	A	10	19.60	Left	5	0	1	0	1:1	0.057	32.0	
782	23230	LTE Band 13	A	10	19.60	Right	5	0	1	0	1:1	0.138	28.2	
782	23230	LTE Band 13	A	10	19.60	Bottom	5	0	1	0	1:1	0.228	26.0	
793	23330	LTE Band 14	A	10	19.75	Rear	5	0	1	24	1:1	0.337	24.5	24.5
793	23330	LTE Band 14	A	10	19.75	Front	5	0	1	24	1:1	0.146	28.1	
793	23330	LTE Band 14	A	10	19.75	Left	5	0	1	24	1:1	0.044	33.3	
793	23330	LTE Band 14	A	10	19.75	Right	5	0	1	24	1:1	0.082	30.6	
793	23330	LTE Band 14	A	10	19.75	Bottom	5	0	1	24	1:1	0.231	26.1	

MEASUREMENT RESULTS														
Frequency		Mode	Ant. No.	Band width	Frame Averaged Conducted Power	Test Position	Spacing (mm)	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR (1g)	Plimit	Minimum Plimit
MHz	Ch.			MHz	(dBm)			(dB)				(W/kg)	(dBm)	(dBm)
831.5	26865	LTE Band 26	A	15	18.58	Rear	5	0	1	0	1:1	0.383	22.7	22.7
831.5	26865	LTE Band 26	A	15	18.58	Front	5	0	1	0	1:1	0.198	25.6	
831.5	26865	LTE Band 26	A	15	18.58	Left	5	0	1	0	1:1	0.052	31.4	
831.5	26865	LTE Band 26	A	15	18.58	Right	5	0	1	0	1:1	0.119	27.8	
831.5	26865	LTE Band 26	A	15	18.58	Bottom	5	0	1	0	1:1	0.282	24.1	
2 310	27710	LTE Band 30	B	10	17.76	Rear	5	0	1	24	1:1	0.667	19.5	19.5
2 310	27710	LTE Band 30	B	10	17.76	Front	5	0	1	24	1:1	0.393	21.8	
2 310	27710	LTE Band 30	B	10	17.76	Left	5	0	1	24	1:1	0.241	23.9	
2 310	27710	LTE Band 30	B	10	17.76	Bottom	5	0	1	24	1:1	0.544	20.4	
2 593	40620	LTE Band 41 (PC3)	B	20	16.61	Rear	5	0	1	49	1:1.58	0.293	21.9	21.6
2 593	40620	LTE Band 41 (PC3)	B	20	16.61	Front	5	0	1	49	1:1.58	0.099	26.7	
2 593	40620	LTE Band 41 (PC3)	B	20	16.61	Left	5	0	1	49	1:1.58	0.065	28.5	
2 593	40620	LTE Band 41 (PC3)	B	20	16.61	Bottom	5	0	1	49	1:1.58	0.319	21.6	
3 690	56640	LTE Band 48 (PC3)	E	20	17.03	Rear	5	0	1	49	1:1.58	0.303	22.2	22.2
3 690	56640	LTE Band 48 (PC3)	E	20	17.03	Front	5	0	1	49	1:1.58	0.169	24.8	
3 690	56640	LTE Band 48 (PC3)	E	20	17.03	Left	5	0	1	49	1:1.58	0.124	26.1	
3 690	56640	LTE Band 48 (PC3)	E	20	17.03	Top	5	0	1	49	1:1.58	0.165	24.9	
680.5	133297	LTE Band 71	A	20	20.55	Rear	5	0	1	0	1:1	0.276	26.1	26.1
680.5	133297	LTE Band 71	A	20	20.55	Front	5	0	1	0	1:1	0.112	30.1	
680.5	133297	LTE Band 71	A	20	20.55	Left	5	0	1	0	1:1	0.054	33.2	
680.5	133297	LTE Band 71	A	20	20.55	Right	5	0	1	0	1:1	0.145	28.9	
680.5	133297	LTE Band 71	A	20	20.55	Bottom	5	0	1	0	1:1	0.181	28.0	

Table A-8 RSI = 2 *PLimit* Calculations – NR Hotspot SAR

For some bands/modes, a lower *PLimit* was selected as a more conservative evaluation.

NR TDD Bands : In the case of the NR TDD bands, the *PLimit* were calculated as the Frame average power to which the duty factor was applied to the burst power.0

SAR measurements of TDD NR bands were measured in FTM Mode.

MEASUREMENT RESULTS																
Frequency		Mode	Ant. No.	Band width	Frame Averaged Conducted Power	Test Position		MPR	Spacing (mm)	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimur Plimit	
													MHz	Ch.	MHz	(dBm)
1 882.5	376500	NR Band n25	B	40	17.67	Rear	DFT-s OFDM QPSK	0	5	1	1	1:1	0.617	19.8	19.5	
1 882.5	376500	NR Band n25	B	40	17.67	Front	DFT-s OFDM QPSK	0	5	1	1	1:1	0.451	21.1		
1 882.5	376500	NR Band n25	B	40	17.67	Left	DFT-s OFDM QPSK	0	5	1	1	1:1	0.354	22.2		
1 882.5	376500	NR Band n25	B	40	17.67	Bottom	DFT-s OFDM QPSK	0	5	1	1	1:1	0.661	19.5		
1 880	376000	NR Band n2	D	40	19.44	Rear	DFT-s OFDM QPSK	0	5	1	108	1:1	0.660	21.2	20.5	
1 880	376000	NR Band n2	D	40	19.44	Front	DFT-s OFDM QPSK	0	5	1	108	1:1	0.431	23.1		
1 880	376000	NR Band n2	D	40	19.44	Right	DFT-s OFDM QPSK	0	5	1	108	1:1	0.107	29.1		
1 880	376000	NR Band n2	D	40	19.44	Top	DFT-s OFDM QPSK	0	5	1	108	1:1	0.784	20.5		
836.5	167300	NR Band n5	A	20	18.88	Rear	DFT-s-OFDM QPSK	0	5	1	53	1:1	0.309	24.0	23.9	
836.5	167300	NR Band n5	A	20	18.88	Front	DFT-s-OFDM QPSK	0	5	1	53	1:1	0.141	27.4		
836.5	167300	NR Band n5	A	20	18.88	Left	DFT-s-OFDM QPSK	0	5	1	53	1:1	0.052	31.7		
836.5	167300	NR Band n5	A	20	18.88	Right	DFT-s-OFDM QPSK	0	5	1	53	1:1	0.089	29.4		
836.5	167300	NR Band n5	A	20	18.88	Bottom	DFT-s-OFDM QPSK	0	5	1	53	1:1	0.317	23.9		
2 310	462000	NR Band n30	B	10	17.16	Rear	DFT-s-OFDM QPSK	0	5	1	1	1:1	0.585	19.5	19.5	
2 310	462000	NR Band n30	B	10	17.16	Front	DFT-s-OFDM QPSK	0	5	1	1	1:1	0.363	21.6		
2 310	462000	NR Band n30	B	10	17.16	Left	DFT-s-OFDM QPSK	0	5	1	1	1:1	0.217	23.8		
2 310	462000	NR Band n30	B	10	17.16	Bottom	DFT-s-OFDM QPSK	0	5	1	1	1:1	0.546	19.8		
1 745	349000	NR Band n66	B	40	19.64	Rear	DFT-s-OFDM QPSK	0	5	1	214	1:1	0.765	20.8	20.1	
1 745	349000	NR Band n66	B	40	19.64	Front	DFT-s-OFDM QPSK	0	5	1	214	1:1	0.524	22.4		
1 745	349000	NR Band n66	B	40	19.64	Left	DFT-s-OFDM QPSK	0	5	1	214	1:1	0.359	24.1		
1 745	349000	NR Band n66	B	40	19.64	Bottom	DFT-s-OFDM QPSK	0	5	1	214	1:1	0.895	20.1		
1 745	349000	NR Band n66	D	40	19.44	Rear	DFT-s-OFDM QPSK	0	5	1	108	1:1	0.516	22.3	20.4	
1 745	349000	NR Band n66	D	40	19.44	Front	DFT-s-OFDM QPSK	0	5	1	108	1:1	0.384	23.6		
1 745	349000	NR Band n66	D	40	19.44	Left	DFT-s-OFDM QPSK	0	5	1	108	1:1	0.109	29.1		
1 745	349000	NR Band n66	D	40	19.44	Top	DFT-s-OFDM QPSK	0	5	1	108	1:1	0.798	20.4		
680.5	136100	NR Band n71	A	20	18.96	Rear	DFT-s-OFDM QPSK	0	5	1	53	1:1	0.160	26.9	26.3	
680.5	136100	NR Band n71	A	20	18.96	Front	DFT-s-OFDM QPSK	0	5	1	53	1:1	0.103	28.8		
680.5	136100	NR Band n71	A	20	18.96	Left	DFT-s-OFDM QPSK	0	5	1	53	1:1	0.044	32.5		
680.5	136100	NR Band n71	A	20	18.96	Right	DFT-s-OFDM QPSK	0	5	1	53	1:1	0.131	27.8		
680.5	136100	NR Band n71	A	20	18.96	Bottom	DFT-s-OFDM QPSK	0	5	1	53	1:1	0.185	26.3		
2 592.99	518598	NR Band n41	B	100	16.07	Rear	DFT-s-OFDM QPSK	0	5	1	271	1:1	0.430	19.7	19.7	
2 592.99	518598	NR Band n41	B	100	16.07	Front	DFT-s-OFDM QPSK	0	5	1	271	1:1	0.293	21.4		
2 592.99	518598	NR Band n41	B	100	16.07	Left	DFT-s-OFDM QPSK	0	5	1	271	1:1	0.064	28.0		
2 592.99	518598	NR Band n41	B	100	16.07	Bottom	DFT-s-OFDM QPSK	0	5	1	271	1:1	0.422	19.8		

MEASUREMENT RESULTS																
Frequency		Mode	Ant. No.	Band width	Frame Averaged Conducted Power	Test Position		MPR	Spacing (mm)	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimur Plimit	
Mhz	Ch.			MHz	(dBm)			(dB)					(W/kg)	(dBm)	(dBm)	
3 680.01	645334	NR Band n48 SRS1	E	40	17.19	Rear	DFT-s OFDM QPSK	0	5	1	1	1:1	0.325	22.1	22.1	
3 680.01	645334	NR Band n48 SRS1	E	40	17.19	Front	DFT-s OFDM QPSK	0	5	1	1	1:1	0.118	26.5		
3 680.01	645334	NR Band n48 SRS1	E	40	17.19	Left	DFT-s OFDM QPSK	0	5	1	1	1:1	0.124	26.3		
3 680.01	645334	NR Band n48 SRS1	E	40	17.19	Top	DFT-s OFDM QPSK	0	5	1	1	1:1	0.173	24.8		
3 680.01	645334	NR Band n48 SRS2	H	40	14.19	Rear	DFT-s OFDM QPSK	0	5	1	1	1:1	0.231	20.6	20.6	
3 680.01	645334	NR Band n48 SRS2	H	40	14.19	Front	DFT-s OFDM QPSK	0	5	1	1	1:1	0.017	31.9		
3 680.01	645334	NR Band n48 SRS2	H	40	14.19	Right	DFT-s OFDM QPSK	0	5	1	1	1:1	0.002	41.2		
3 680.01	645334	NR Band n48 SRS2	H	40	14.19	Top	DFT-s OFDM QPSK	0	5	1	1	1:1	0.0339	28.9		
3 680.01	645334	NR Band n48 SRS3	B	40	14.91	Rear	DFT-s OFDM QPSK	0	5	1	1	1:1	0.103	24.8	23.0	
3 680.01	645334	NR Band n48 SRS3	B	40	14.91	Front	DFT-s OFDM QPSK	0	5	1	1	1:1	0.043	28.6		
3 680.01	645334	NR Band n48 SRS3	B	40	14.91	Left	DFT-s OFDM QPSK	0	5	1	1	1:1	0.003	40.1		
3 680.01	645334	NR Band n48 SRS3	B	40	14.91	Bottom	DFT-s OFDM QPSK	0	5	1	1	1:1	0.155	23.0		
3 680.01	645334	NR Band n48 SRS4	I	40	13.92	Rear	DFT-s OFDM QPSK	0	5	1	1	1:1	0.672	15.6	15.6	
3 680.01	645334	NR Band n48 SRS4	I	40	13.92	Front	DFT-s OFDM QPSK	0	5	1	1	1:1	0.016	31.9		
3 680.01	645334	NR Band n48 SRS4	I	40	13.92	Left	DFT-s OFDM QPSK	0	5	1	1	1:1	0.000	-		
3 680.01	645334	NR Band n48 SRS4	I	40	13.92	Top	DFT-s OFDM QPSK	0	5	1	1	1:1	0.071	25.4		
3 750	650000	NR Band n77 SRS1	E	100	15.77	Rear	DFT-s-OFDM QPSK	0	5	1	1	1:1	0.306	20.9	20.9	
3 750	650000	NR Band n77 SRS1	E	100	15.77	Front	DFT-s-OFDM QPSK	0	5	1	1	1:1	0.081	26.7		
3 750	650000	NR Band n77 SRS1	E	100	15.77	Left	DFT-s-OFDM QPSK	0	5	1	1	1:1	0.136	24.4		
3 750	650000	NR Band n77 SRS1	E	100	15.77	Top	DFT-s-OFDM QPSK	0	5	1	1	1:1	0.140	24.3		
3 750	650000	NR Band n77 SRS2	H	100	13.82	Rear	DFT-s OFDM QPSK	0	5	1	1	1:1	0.173	21.4	21.4	
3 750	650000	NR Band n77 SRS2	H	100	13.82	Front	DFT-s OFDM QPSK	0	5	1	1	1:1	0.017	31.5		
3 750	650000	NR Band n77 SRS2	H	100	13.82	Right	DFT-s OFDM QPSK	0	5	1	1	1:1	0.003	39.0		
3 750	650000	NR Band n77 SRS2	H	100	13.82	Top	DFT-s OFDM QPSK	0	5	1	1	1:1	0.020	30.8		
3 930	662000	NR Band n77 SRS3	B	100	15.43	Rear	DFT-s OFDM QPSK	0	5	1	1	1:1	0.096	25.6	24.1	
3 930	662000	NR Band n77 SRS3	B	100	15.43	Front	DFT-s OFDM QPSK	0	5	1	1	1:1	0.047	28.7		
3 930	662000	NR Band n77 SRS3	B	100	15.43	Left	DFT-s OFDM QPSK	0	5	1	1	1:1	0.004	39.4		
3 930	662000	NR Band n77 SRS3	B	100	15.43	Bottom	DFT-s OFDM QPSK	0	5	1	1	1:1	0.137	24.1		
3 750	650000	NR Band n77 SRS4	I	100	13.48	Rear	DFT-s OFDM QPSK	0	5	1	1	1:1	0.489	16.6	16.6	
3 750	650000	NR Band n77 SRS4	I	100	13.48	Front	DFT-s OFDM QPSK	0	5	1	1	1:1	0.003	38.7		
3 750	650000	NR Band n77 SRS4	I	100	13.48	Left	DFT-s OFDM QPSK	0	5	1	1	1:1	0.003	38.7		
3 750	650000	NR Band n77 SRS4	I	100	13.48	Top	DFT-s OFDM QPSK	0	5	1	1	1:1	0.063	25.5		
3 500.01	633334	NR Band n77 DoD SRS1	E	100	15.88	Rear	DFT-s-OFDM QPSK	0	5	1	137	1:1	0.347	20.5	20.5	
3 500.01	633334	NR Band n77 DoD SRS2	H	100	12.18	Rear	DFT-s OFDM QPSK	0	5	1	1	1:1	0.157	20.2	20.2	
3 500.01	633334	NR Band n77 DoD SRS3	B	100	13.85	Bottom	DFT-s OFDM QPSK	0	5	1	1	1:1	0.279	19.4	19.4	
3 500.01	633334	NR Band n77 DoD SRS4	I	100	11.57	Rear	DFT-s OFDM QPSK	0	5	1	1	1:1	0.102	21.5	21.5	

Table A-9 RSI = 0 PLimit Calculations – WLAN Body SAR

		MEASUREMENT RESULTS												
Frequency		Mode/ Band	Band width	Ant. No.	Data Rate	Frame Averaged	Test Position	Spacing (mm)	Ant. Config.	Duty Cycle	Meas.	Scaling	Plimit	Minimum
MHz	Ch.				(Mbps)	Conducted Power					(W/kg)	(Duty)	(dBm)	(dBm)
2 437	6	802.11b	20	F	1	14.93	Rear	5	WIFI1	99.1	0.424	1.009	17.1	17.1
2 437	6	802.11b	20	F	1	14.93	Front	5	WIFI1	99.1	0.212	1.009	20.1	
2 437	6	802.11b	20	F	1	14.93	Left	5	WIFI1	99.1	0.397	1.009	17.4	
2 437	6	802.11b	20	F	1	14.93	Top	5	WIFI1	99.1	0.067	1.009	25.1	
5 270	62	802.11n	40	E	MCS0	13.70	Rear	5	WIFI1	87.0	0.285	1.149	17.6	17.6
5 270	62	802.11n	40	E	MCS0	13.70	Front	5	WIFI1	87.0	0.062	1.149	24.2	
5 270	62	802.11n	40	E	MCS0	13.70	Left	5	WIFI1	87.0	0.174	1.149	19.7	
5 270	62	802.11n	40	E	MCS0	13.70	Top	5	WIFI1	87.0	0.087	1.149	22.8	
5 510	102	802.11n	40	E	MCS0	13.96	Rear	5	WIFI1	87.0	0.252	1.149	18.4	18.4
5 510	102	802.11n	40	E	MCS0	13.96	Front	5	WIFI1	87.0	0.036	1.149	26.8	
5 510	102	802.11n	40	E	MCS0	13.96	Left	5	WIFI1	87.0	0.180	1.149	19.9	
5 510	102	802.11n	40	E	MCS0	13.96	Top	5	WIFI1	87.0	0.131	1.149	21.2	
5 755	151	802.11n	40	E	MCS0	13.74	Rear	5	WIFI1	87.0	0.205	1.149	19.1	19.1
5 755	151	802.11n	40	E	MCS0	13.74	Front	5	WIFI1	87.0	0.033	1.149	27.0	
5 755	151	802.11n	40	E	MCS0	13.74	Left	5	WIFI1	87.0	0.097	1.149	22.3	
5 755	151	802.11n	40	E	MCS0	13.74	Top	5	WIFI1	87.0	0.000	1.149	-	
5 875	175	802.11n	40	E	MCS0	13.84	Rear	5	WIFI1	87.0	0.133	1.149	21.1	21.1
5 875	175	802.11n	40	E	MCS0	13.84	Front	5	WIFI1	87.0	0.025	1.149	28.3	
5 875	175	802.11n	40	E	MCS0	13.84	Left	5	WIFI1	87.0	0.078	1.149	23.4	
5 875	175	802.11n	40	E	MCS0	13.84	Top	5	WIFI1	87.0	0.061	1.149	24.4	

Table A-10 RSI = 0 PLimit Calculations – BT Body SAR

MEASUREMENT RESULTS											
Frequency		Mode/ Band	Ant.	Frame Averaged Conducted Power (dBm)	Test Position	Spacing (mm)	Ant. Config.	Meas. SAR(1g)	Scaling Factor	Plimit	Minimum Plimit
Mhz	Ch.							(W/kg)	(Duty)	(dBm)	(dBm)
2 480	78	Bluetooth BDR	H	11.85	Rear	5	WIFI1	0.216	1.013	17.0	15.7
2 480	78	Bluetooth BDR	H	11.85	Front	5	WIFI1	0.070	1.013	21.9	
2 480	78	Bluetooth BDR	H	11.85	Left	5	WIFI1	0.290	1.013	15.7	
2 480	78	Bluetooth BDR	H	11.85	Top	5	WIFI1	0.015	1.013	28.5	
2 480	39	Bluetooth LE	H	11.96	Rear	5	WIFI1	0.257	1.004	16.3	14.5
2 480	39	Bluetooth LE	H	11.96	Front	5	WIFI1	0.088	1.004	21.0	
2 480	39	Bluetooth LE	H	11.96	Left	5	WIFI1	0.391	1.004	14.5	
2 480	39	Bluetooth LE	H	11.96	Top	5	WIFI1	0.020	1.004	27.4	