

TEST REPORT

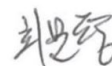
SAR Part 0 Test for SM-S931B/DS
Certification

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-SR-2410-FC012-R1

DATE OF ISSUE
November 12, 2024

Tested by
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TEST REPORT

PART 0 SAR Test for
certification

REPORT NO.
HCT-SR-2410-FC012-R1

DATE OF ISSUE
Nov. 12, 2024

FCC ID
A3LSMS931B

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

Product Name Mobile Phone
Model Name SM-S931B/DS
Additional Model Name SM-S931B

Date of Test Sep. 05, 2024~ Oct. 24, 2024

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

FCC Rule Part(s) CFR §2.1093

Test Results PASS (SAR Limit : 1.6 W/kg)
Refer to the clause 3.2 Attestation of test result

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	Oct. 29, 2024	Initial Release
1	Nov. 12, 2024	Revised Bluetooth Version

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, Republic of Korea
Telephone	031-645-6300
Fax.	031-645-6401

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-S931B/DS
Additional Model Name	SM-S931B
Equipment Type	Mobile Phone
FCC ID	A3LSMS931B
Application Type	Certification
Applicant	SAMSUNG Electronics Co., Ltd.

2. Device Under Test Description

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 12	Voice / Data	699.7 MHz ~ 715.3 MHz
LTE FDD Band 13	Voice / Data	779.5 MHz ~ 784.5 MHz
LTE FDD Band 17	Voice / Data	706.5 MHz ~ 713.5 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 TDD Band 41	Voice / Data	2 498.5 MHz ~ 2 687.5 MHz
LTE FDD Band 66 (AWS)	Voice / Data	1 710.7 MHz ~ 1 779.3 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 TDD Band n41	Voice / Data	2 501.01 MHz ~ 2 685 MHz
NR FDD Band n66	Voice / Data	1 712.5 MHz ~ 1 777.5 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
U-NII-1	Voice / Data	5 180 MHz ~ 5 240 MHz
U-NII-2A	Voice / Data	5 260 MHz ~ 5 320 MHz
U-NII-2C	Voice / Data	5 500 MHz ~ 5 720 MHz
U-NII-3	Voice / Data	5 745 MHz ~ 5 825 MHz
U-NII-4	Voice / Data	5 845 MHz ~ 5 885 MHz
U-NII-5	Voice / Data	5 925 MHz ~ 6 425 MHz
U-NII-6	Voice / Data	6 425 MHz ~ 6 525 MHz
U-NII-7	Voice / Data	6 525 MHz ~ 6 865 MHz
U-NII-8	Voice / Data	6 865 MHz ~ 7 115 MHz
2.4 GHz WLAN	Voice / Data	2 412 MHz ~ 2 462 MHz
Bluetooth / LE 5.4	Data	2 402 MHz ~ 2 480 MHz
NFC	Data	13.56 MHz
WPC	Data	110 kHz ~ 148 kHz
Device Description		
Battery	EB-BS931ABE (ATL)	
Device Serial Numbers	Mode	Serial Number
	GSM850, GSM1900, UMTS BAND 2,4,5 LTE Band 5,12,13,25,26,66 NR Band n5,25,66, NFC	XHS0003M, XHS0004M XHS0006M, XHS0017M XHS0021M, XHS0024M
	LTE Band 41, NR Band n41,77	XHS0021M, XHS0024M XIO0176M, XJ90912M
	WLAN 2.4G, 5G, BT, WLAN 6E	XHS0012M, XHS0027M
	The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics are within operational tolerances expected for production units.	

2.1 Time-Averaging for SAR

This device is enabled with Qualcomm® GEN 2 Smart Transmit algorithm to control and manage transmitting power in real time and to ensure that the time-averaged RF exposure from 2G/3G/4G/5G NR WWAN and WLAN/BT is in compliance with FCC requirements.

This Part 0 report shows SAR characterization of WWAN radios for 2G/3G/4G and 5G Sub-6 NR and WLAN/BT respectively. Characterization is achieved by determining Plimit for 2G/3G/4G and 5G Sub-6 NR and WLAN/BT correspond to the exposure design targets after accounting for all device design related uncertainties, i.e. SAR_design_target (< FCC SAR limit) for sub-6 radio. The SAR characterization is denoted as SAR Char in this report. Section 2.3 includes a nomenclature of the specific terms used in this report.

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

2.2 Nomenclature for Part 0 Report

Technology	Term	Description
2G/3G/4G/5G Sub 6 NR /WLAN/BT	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		
				Δazzoom(n)	Δazzoom(1)*	
≤2 GHz	≤15	≤8	≤5	≤4	≤1.5*Δazzoom(n-1)	≥30
2-3 GHz	≤12	≤5	≤5	≤4	≤1.5*Δazzoom(n-1)	≥30
3-4 GHz	≤12	≤5	≤4	≤3	≤1.5*Δazzoom(n-1)	≥28
4-5 GHz	≤10	≤4	≤3	≤2.5	≤1.5*Δazzoom(n-1)	≥25
5-6 GHz	≤10	≤4	≤2	≤2	≤1.5*Δazzoom(n-1)	≥22

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

4. SAR CHARACTERIZATION

4.1 DSI and SAR Determination

This device uses different Device State Index (DSI) 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 DSI. 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 device state index (DSI) conditions used in Table 4-1 represent different exposure scenarios.

Table 4-1 DSI and Corresponding Exposure Scenarios

Scenario	Description	SAR Test Cases
Head (DSI = 1)	Device positioned next to head	Head SAR per KDB Publication 648474 D04
BodyWorn Phablet Hotspot (DSI = 0)	Device is held with hand Device being used with a body-worn accessory Device transmits in hotspot mode near body	Phablet SAR per KDB Publication 648474 D04 Body-worn SAR per KDB Publication 648474 D04 Hotspot SAR per KDB Publication 941225 D06

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

4.3 SAR Characterization

SAR test results corresponding to Pmax for each antenna/technology/band/DSI 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.

Device State Index (DSI)	Plimit Determination Scenarios
0	The worst-case SAR exposure is determined as maximum SAR normalized to the limit among: 1. Phablet SAR measured at 0 mm 2. Body-Worn SAR at 10mm 3. Plimit is calculated based on 1g Hotspot SAR at 10 mm
1	Plimit is calculated based on 1g Head SAR

Table 4-3 *PLimit* Determination

Table 4-4 SAR Characterization

Plim values in green indicate Plimit < Pmax			Plim values in green indicate Plimit > Pmax				
Plimit corresponding to 1 W/kg (1g) 2.5W/kg(10g) SAR Design_target							Pmax
SAR Exposure Position			BodyWorn	Head	Hotspot	Phablet	Maximum Tune-up Output Power (Frame Averaged Power) [dBm]
Averaging volume			1g	1g	1g	10g	
seperation Distance			10 mm	0 mm	10 mm	0 mm	
Mode	Band	Antenna	DSI=0	DSI=1	DSI=0	DSI=0	
GSM/GPRS/EDGE	850	MAIN 1	31.2	34.6	30.4	28.0	24.5
GSM/GPRS/EDGE	850	Sub 1	20.2	20.2	20.2	20.2	23.5
GSM/GPRS/EDGE	1900	MAIN 1	20.2	32.3	20.2	20.2	21.7
UMTS	2	MAIN 1	19.5	32.0	19.5	19.5	23.5
UMTS	4	MAIN 1	21.0	31.4	21.0	21.0	23.0
UMTS	5	MAIN 1	29.7	33.7	29.1	27.9	24.5
UMTS	5	Sub 1	20.0	20.0	20.0	20.0	24.5
LTE FDD	25(2)	MAIN 1	19.5	32.4	19.5	19.5	23.0
LTE FDD	25(2)	Sub 2	16.5	16.5	16.5	16.5	23.0
LTE FDD	66(4)	MAIN 1	18.0	31.7	18.0	18.0	23.0
LTE FDD	66(4)	Sub 2	16.5	16.5	16.5	16.5	23.0
LTE FDD	12(17)	MAIN 1	28.5	33.7	28.5	29.6	24.0
LTE FDD	12(17)	Sub 1	20.0	20.0	20.0	20.0	24.0
LTE FDD	13	MAIN 1	27.6	23.7	27.6	25.9	24.0
LTE FDD	13	Sub 1	20.0	20.0	20.0	20.0	24.0
LTE FDD	5	MAIN 1	29.6	33.9	29.6	27.5	24.0
LTE FDD	5	Sub 1	19.0	19.0	19.0	19.0	24.0
LTE FDD	26	MAIN 1	27.6	33.0	27.6	27.7	24.0
LTE FDD	26	Sub 1	19.0	19.0	19.0	19.0	24.0
LTE TDD PC3	41	MAIN 2	20.0	35.5	20.0	20.0	21.0
LTE TDD PC3	41	Sub 2	20.0	16.0	20.0	20.0	21.0
LTE TDD PC2	41	MAIN 2	20.4	37.0	20.4	20.4	21.4
LTE TDD PC2	41	Sub 2	19.4	16.4	19.4	19.4	21.4
NR FDD	25(2)	MAIN 1	19.5	32.8	19.5	19.5	23.5
NR FDD	25(2)	Sub 2	19.0	15.5	19.0	19.0	23.0
NR FDD	5	MAIN 1	32.1	34.4	32.1	28.9	23.0
NR FDD	5	Sub 1	20.0	20.0	27.1	27.2	23.0
NR TDD SRS 0 PC2	41	Sub 2	16.0	16.0	16.0	16.0	24.0
NR TDD SRS 1 PC2	41	MAIN 2	16.0	17.0	16.0	16.0	24.0
NR TDD SRS 2	41	Sub 1	16.5	15.5	16.5	16.5	23.5
NR TDD SRS 3	41	MAIN 4	15.0	16.0	15.0	15.0	23.0
NR FDD	66	MAIN 1	19.5	31.4	19.5	19.5	23.5
NR FDD	66	Sub 2	19.0	20.0	19.0	19.0	23.0
NR TDD SRS 0 PC2	77	Sub 2	17.0	15.0	17.0	17.0	25.5
NR TDD SRS 1	77	MAIN 3	12.0	10.5	12.0	12.0	21.0
NR TDD SRS 2	77	Sub 5	15.0	13.0	15.0	15.0	23.5
NR TDD SRS 3	77	MAIN 4	12.0	10.5	12.0	12.0	21.0
NR TDD SRS 0 PC2	77 DoD	Sub 2	17.0	15.0	17.0	17.0	25.5
NR TDD SRS 1	77 DoD	MAIN 3	12.0	10.5	12.0	12.0	21.0
NR TDD SRS 2	77 DoD	Sub 5	15.0	13.0	15.0	15.0	23.5
NR TDD SRS 3	77 DoD	MAIN 4	12.0	10.5	12.0	12.0	21.0
WLAN	2.4	Sub 4	24.5	14.0	22.9	23.5	17.0
WLAN	2.4	Sub 6	20.0	14.0	20.0	22.3	17.0
WLAN	2.4	Sub 4+6	21.1	14.0	21.1	23.2	17.0
WLAN	5	Sub 4	20.2	12.0	19.9	17.8	16.0
WLAN	5	Sub 1	20.9	12.0	21.5	20.8	16.0
WLAN	5	Sub 4+1	18.9	12.0	18.9	17.4	16.0
WLAN	6	Sub 4	23.3	9.5	20.3	18.6	15.0
WLAN	6	Sub 1	21.4	9.5	21.4	25.8	15.0
WLAN	6	Sub 4+1	20.8	9.5	20.8	18.1	15.0
BT	2.4	Sub 4	23.9	11.0	22.1	22.9	17.0
BT	2.4	Sub 6	21.4	11.0	21.4	22.4	16.0

Note:

1. Compared with the Plimt (Tune up Powers) declared in each DSI by the manufacturer and the plimt (calculation) calculated by the SAR measurement of each DSI, the lower power were applied to the EFS as the plimit at each DSI configurations.
2. When $P_{max} < Plimit$, the DUT will operate at a power level up to P_{max} .
3. Maximum Tune up Power, P_{max} : 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	cDASY6 5G Module Phantom		N/A	N/A	N/A
HP	SAR System Control PC	-	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F11/ 5K3RA1/ C/ 01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F11/ 5K3RA1/ A/ 01	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1203 0309	N/A	N/A	N/A
TESTO	608-H1 / Thermometer	40331936309	12/26/2023	Annual	12/26/2024
Staubli	CS8Cspeag-TX90	F13/ 5R4XF1/ C/ 01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F13/ 5R4XF1/ A/ 01	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1338 1332	N/A	N/A	N/A
TESTO	175-H1 / Thermometer	40331953309	01/18/2024	Annual	01/18/2025
Staubli	CS8Cspeag-TX90	F/24/0058554/C/002	N/A	N/A	N/A
Staubli	TX90 XLspeag	F/24/0058554/A/002	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	D21144508	N/A	N/A	N/A
TESTO	175-H1 / Thermometer	40332651310	12/26/2023	Annual	12/26/2025
Staubli	CS8Cspeag-TX60	F/20/0018446/C/001	N/A	N/A	N/A
Staubli	TX60 Lspeag	F/20/0018446/A/001	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	020885	N/A	N/A	N/A
TESTO	175-H1 / Thermometer	44606611906	03/20/2024	Annual	03/20/2025
Staubli	CS8Cspeag-TX90	F13/ 5SD0A1/ C/ 01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F13/ 5SD0A1/ A/ 01	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	001729	N/A	N/A	N/A
TESTO	608-H1 / Thermometer	83348029	03/20/2024	Annual	03/20/2025
Staubli	CS8Cspeag-TX90	F07/55B8A1/C/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F07/55B8A1/A/01	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0306	N/A	N/A	N/A
TESTO	608-H1 / Thermometer	83348021	03/20/2024	Annual	03/20/2025
Staubli	CS8Cspeag-TX90	F07/56W9A1/C/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F07/56W9A1/A/01	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0602	N/A	N/A	N/A
TESTO	608-H1 / Thermometer	83406789	06/26/2024	Annual	06/26/2025
SPEAG	DAE4	1720	04/19/2024	Annual	04/19/2025
SPEAG	DAE4	1629	08/16/2024	Annual	08/16/2025
SPEAG	DAE4	869	03/15/2024	Annual	03/15/2025
SPEAG	DAE4	780	06/19/2024	Annual	06/19/2025
SPEAG	DAE4	648	04/19/2024	Annual	04/19/2025
SPEAG	DAE4	446	11/16/2023	Annual	11/16/2024
SPEAG	E-Field Probe EX3DV4	3768	08/19/2024	Annual	08/19/2025
SPEAG	E-Field Probe EX3DV4	7370	08/22/2024	Annual	08/22/2025
SPEAG	E-Field Probe ES3DV3	3076	07/17/2024	Annual	07/17/2025
SPEAG	E-Field Probe EX3DV4	7681	11/27/2024	Annual	11/27/2025
SPEAG	E-Field Probe EX3DV4	3882	11/21/2023	Annual	11/21/2024
SPEAG	E-Field Probe EX3DV4	3903	07/31/2024	Annual	07/31/2025
SPEAG	E-Field Probe EUmWV4	9528	05/17/2024	Annual	05/17/2025

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	CLA13	1016	09/21/2023	Biennial	09/21/2025
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	04/15/2025
SPEAG	Dipole D1900V2	5d032	01/18/2024	Annual	01/18/2025
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	11/20/2023	Annual	11/20/2024
SPEAG	Dipole D3900V2	1086	05/21/2024	Annual	05/21/2025
SPEAG	Dipole D5 GHz V2	1107	04/19/2024	Annual	04/19/2025
SPEAG	Dipole D6.5GHzV2	1012	09/17/2024	Annual	09/17/2025
SPEAG	5G Verification source 10GHz	1018	04/17/2024	Annual	04/17/2025
Agilent	Power Meter E4419B	MY41291386	09/21/2023	Annual	09/21/2024
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	09/21/2023	Annual	09/21/2024
Agilent	Power Sensor 8481A	SG1091286	09/12/2024	Annual	09/12/2025
H.P	Power Sensor 8481A	MY41090675	09/21/2023	Annual	09/21/2024
H.P	Power Sensor 8481A	MY41090675	09/12/2024	Annual	09/12/2025
Agilent	Power Sensor 8481A	MY41090873	01/17/2024	Annual	01/17/2025
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	DAKS_VNA R140	0141013	01/11/2024	Annual	01/11/2025
SPEAG	MXA Signal Analyzer	MY49100108	01/09/2024	Annual	01/09/2025
Agilent	MXA Signal Analyzer N9020A	MY50510407	06/04/2024	Annual	06/04/2025
Agilent	Signal Generator N5182A	MY47070230	03/19/2024	Annual	03/19/2025
Agilent	Signal Generator E4433B	US40052109	01/16/2024	Annual	01/16/2025
EMPOWER	RF Power Amplifier	1084	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	09/21/2023	Annual	09/21/2024
MICRO LAB	LP Filter / LA-15N	10453	09/11/2024	Annual	09/11/2025
MICRO LAB	LP Filter / LA-30N	-	09/21/2023	Annual	09/21/2024
MICRO LAB	LP Filter / LA-30N	-	09/11/2024	Annual	09/11/2025
MICRO LAB	LP Filter / LA-60N	32011	09/21/2023	Annual	09/21/2024
MICRO LAB	LP Filter / LA-60N	32011	09/11/2024	Annual	09/11/2025
HP	Attenuator (3dB) 33340A	MY39260298	08/20/2024	Annual	08/20/2025
HP	Attenuator (20dB) 8493C	09271	08/21/2024	Annual	08/21/2025
HP	Attenuator (30dB) 8491A	52151	05/21/2024	Annual	05/21/2025
Agilent	Directional Bridge 86205A	3140A04581	04/22/2024	Annual	04/22/2025
HP	Directional Coupler	2090710	06/25/2024	Annual	06/25/2025
Agilent	WIRELESS Communication E5515C	MY48361100	09/11/2024	Annual	09/11/2025
Anritsu	Radio Communication Tester MT8000A	6261987928	01/18/2024	Annual	01/18/2025
Anritsu	Radio Communication Tester MT8000A	6261967108	04/22/2024	Annual	04/22/2025
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	6262044720	11/28/2023	Annual	11/28/2024
ROHDE&SCHWARZ	Radio Communication Tester CMW 500	127521	04/23/2024	Annual	04/23/2025
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 P limit CALCULATIONS

Table A-1 DSI = 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)		
					(dBm)					
836.6	190	GSM 850	GPRS 2Tx	M1	24.55	Left Cheek	1:4.15	0.079	35.6	34.6
836.6	190	GSM 850		M1	24.55	Left Tilt	1:4.15	0.061	36.7	
836.6	190	GSM 850		M1	24.55	Right Cheek	1:4.15	0.098	34.6	
836.6	190	GSM 850		M1	24.55	Right Tilt	1:4.15	0.058	36.9	
836.6	190	GSM 850	GPRS 4Tx	S1	20.21	Left Cheek	1:2.07	0.254	26.2	25.7
836.6	190	GSM 850		S1	20.21	Left Tilt	1:2.07	0.247	26.3	
836.6	190	GSM 850		S1	20.21	Right Cheek	1:2.07	0.283	25.7	
836.6	190	GSM 850		S1	20.21	Right Tilt	1:2.07	0.260	26.1	
1 880	661	GSM 1900	GPRS 3Tx	M1	21.98	Left Cheek	1:2.77	0.092	32.3	32.3
1 880	661	GSM 1900		M1	21.98	Left Tilt	1:2.77	0.044	35.5	
1 880	661	GSM 1900		M1	21.98	Right Cheek	1:2.77	0.053	34.7	
1 880	661	GSM 1900		M1	21.98	Right Tilt	1:2.77	0.042	35.7	
836.6	4183	UMTS Band 5	RMC	M1	24.09	Left Cheek	1:1	0.086	34.7	33.7
836.6	4183	UMTS Band 5	RMC	M1	24.09	Left Tilt	1:1	0.060	36.3	
836.6	4183	UMTS Band 5	RMC	M1	24.09	Right Cheek	1:1	0.110	33.7	
836.6	4183	UMTS Band 5	RMC	M1	24.09	Right Tilt	1:1	0.063	36.1	
836.6	4183	UMTS Band 5	RMC	S1	19.89	Left Cheek	1:1	0.453	23.3	23.3
836.6	4183	UMTS Band 5	RMC	S1	19.89	Left Tilt	1:1	0.384	24.0	
836.6	4183	UMTS Band 5	RMC	S1	19.89	Right Cheek	1:1	0.391	24.0	
836.6	4183	UMTS Band 5	RMC	S1	19.89	Right Tilt	1:1	0.342	24.5	
1 732.4	1412	UMTS Band 4	RMC	M1	23.20	Left Cheek	1:1	0.152	31.4	31.4
1 732.4	1412	UMTS Band 4	RMC	M1	23.20	Left Tilt	1:1	0.078	34.3	
1 732.4	1412	UMTS Band 4	RMC	M1	23.20	Right Cheek	1:1	0.105	33.0	
1 732.4	1412	UMTS Band 4	RMC	M1	23.20	Right Tilt	1:1	0.075	34.4	
1 880	9400	UMTS Band 2	RMC	M1	23.43	Left Cheek	1:1	0.140	32.0	32.0
1 880	9400	UMTS Band 2	RMC	M1	23.43	Left Tilt	1:1	0.078	34.5	
1 880	9400	UMTS Band 2	RMC	M1	23.43	Right Cheek	1:1	0.088	34.0	
1 880	9400	UMTS Band 2	RMC	M1	23.43	Right Tilt	1:1	0.063	35.4	

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

MEASUREMENT RESULTS													
Frequency		Mode	Ant.	Band	Frame	Test	MPR	RB	RB	Duty	Meas.	Plimit	Minimum
MHz	Ch.			width	Averaged			Size	offset	Cycle	SAR(1g)		Plimit
				(dBm)	Power		(dB)				(W/kg)	(dBm)	(dBm)
1860	26140	LTE Band 25	M1	20	23.33	Left Cheek	0	1	99	1:1	0.123	32.4	32.4
1860	26140	LTE Band 25	M1	20	23.33	Left Tilt	0	1	99	1:1	0.058	35.7	
1860	26140	LTE Band 25	M1	20	23.33	Right Cheek	0	1	99	1:1	0.083	34.1	
1860	26140	LTE Band 25	M1	20	23.33	Right Tilt	0	1	99	1:1	0.044	36.9	
1905	26590	LTE Band 25	S2	20	17.17	Left Cheek	0	1	99	1:1	0.672	18.9	17.5
1905	26590	LTE Band 25	S2	20	17.17	Left Tilt	0	1	99	1:1	0.782	18.2	
1905	26590	LTE Band 25	S2	20	17.17	Right Cheek	0	1	99	1:1	0.935	17.5	
1905	26590	LTE Band 25	S2	20	17.17	Right Tilt	0	1	99	1:1	0.873	17.8	
1745	132322	LTE Band 66	M1	20	23.39	Left Cheek	0	1	99	1:1	0.147	31.7	31.7
1745	132322	LTE Band 66	M1	20	23.39	Left Tilt	0	1	99	1:1	0.062	35.5	
1745	132322	LTE Band 66	M1	20	23.39	Right Cheek	0	1	99	1:1	0.089	33.9	
1745	132322	LTE Band 66	M1	20	23.39	Right Tilt	0	1	99	1:1	0.050	36.4	
1720	132072	LTE Band 66	S2	20	16.45	Left Cheek	0	1	0	1:1	0.266	22.2	19.9
1720	132072	LTE Band 66	S2	20	16.45	Left Tilt	0	1	0	1:1	0.374	20.7	
1720	132072	LTE Band 66	S2	20	16.45	Right Cheek	0	1	0	1:1	0.400	20.4	
1720	132072	LTE Band 66	S2	20	16.45	Right Tilt	0	1	0	1:1	0.450	19.9	
707.5	23095	LTE Band 12	M1	10	23.49	Left Cheek	0	1	49	1:1	0.085	34.2	33.7
707.5	23095	LTE Band 12	M1	10	23.49	Left Tilt	0	1	49	1:1	0.051	36.4	
707.5	23095	LTE Band 12	M1	10	23.49	Right Cheek	0	1	49	1:1	0.096	33.7	
707.5	23095	LTE Band 12	M1	10	23.49	Right Tilt	0	1	49	1:1	0.046	36.9	
707.5	23095	LTE Band 12	S1	10	19.65	Left Cheek	0	1	0	1:1	0.467	23.0	22.2
707.5	23095	LTE Band 12	S1	10	19.65	Left Tilt	0	1	0	1:1	0.558	22.2	
707.5	23095	LTE Band 12	S1	10	19.65	Right Cheek	0	1	0	1:1	0.502	22.6	
707.5	23095	LTE Band 12	S1	10	19.65	Right Tilt	0	1	0	1:1	0.408	23.5	
782	23230	LTE Band 13	M1	10	23.83	Left Cheek	0	1	24	1:1	0.075	35.1	35.0
782	23230	LTE Band 13	M1	10	23.83	Left Tilt	0	1	24	1:1	0.053	36.6	
782	23230	LTE Band 13	M1	10	23.83	Right Cheek	0	1	24	1:1	0.076	35.0	
782	23230	LTE Band 13	M1	10	23.83	Right Tilt	0	1	24	1:1	0.047	37.1	
782	23230	LTE Band 13	S1	10	19.95	Left Cheek	0	1	24	1:1	0.390	24.0	23.7
782	23230	LTE Band 13	S1	10	19.95	Left Tilt	0	1	24	1:1	0.319	24.9	
782	23230	LTE Band 13	S1	10	19.95	Right Cheek	0	1	24	1:1	0.426	23.7	
782	23230	LTE Band 13	S1	10	19.95	Right Tilt	0	1	24	1:1	0.358	24.4	

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)
831.5	26865	LTE Band 26	M1	15	23.98	Left Cheek	0	1	74	1:1	0.113	33.4	33.0
831.5	26865	LTE Band 26	M1	15	23.98	Left Tilt	0	1	74	1:1	0.047	37.3	
831.5	26865	LTE Band 26	M1	15	23.98	Right Cheek	0	1	74	1:1	0.125	33.0	
831.5	26865	LTE Band 26	M1	15	23.98	Right Tilt	0	1	74	1:1	0.069	35.6	
831.5	26865	LTE Band 26	S1	15	18.51	Left Cheek	0	1	0	1:1	0.429	22.2	22.2
831.5	26865	LTE Band 26	S1	15	18.51	Left Tilt	0	1	0	1:1	0.344	23.1	
831.5	26865	LTE Band 26	S1	15	18.51	Right Cheek	0	1	0	1:1	0.286	23.9	
831.5	26865	LTE Band 26	S1	15	18.51	Right Tilt	0	1	0	1:1	0.234	24.8	
2 593	40620	LTE Band 41 PC3	M2	20	21.18	Left Cheek	0	1	49	1:1.58	0.037	35.5	35.5
2 593	40620	LTE Band 41 PC3	M2	20	21.18	Left Tilt	0	1	49	1:1.58	0.028	36.7	
2 593	40620	LTE Band 41 PC3	M2	20	21.18	Right Cheek	0	1	49	1:1.58	0.028	36.7	
2 593	40620	LTE Band 41 PC3	M2	20	21.18	Right Tilt	0	1	49	1:1.58	0.020	38.2	
2 593	40620	LTE Band 41 PC2	M2	20	21.14	Left Cheek	0	1	49	1:2.31	0.026	37.0	37.0
2 506	39750	LTE Band 41 PC3	S2	20	16.36	Left Cheek	0	1	0	1:1.58	0.239	22.6	17.5
2 506	39750	LTE Band 41 PC3	S2	20	16.36	Left Tilt	0	1	0	1:1.58	0.376	20.6	
2 506	39750	LTE Band 41 PC3	S2	20	16.36	Right Cheek	0	1	0	1:1.58	0.762	17.5	
2 506	39750	LTE Band 41 PC3	S2	20	16.36	Right Tilt	0	1	0	1:1.58	0.746	17.6	
2 506	39750	LTE Band 41 PC2	S2	20	16.63	Right Tilt	0	100	0	1:2.31	0.847	17.4	17.4

Table A-3 DSI = 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 NR TDD 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	Minimun Plimit
1 905	381000	NR n25	M1	20	22.99	Left Cheek	DFT-s-OFDM QPSK	0	1	104	1:1	0.105	32.8	32.8
1 905	381000	NR n25	M1	20	22.99	Left Tilt	DFT-s-OFDM QPSK	0	1	104	1:1	0.052	35.8	
1 905	381000	NR n25	M1	20	22.99	Right Cheek	DFT-s-OFDM QPSK	0	1	104	1:1	0.067	34.7	
1 905	381000	NR n25	M1	20	22.99	Right Tilt	DFT-s-OFDM QPSK	0	1	104	1:1	0.040	37.0	
1 860	372000	NR n25	S2	20	17.07	Left Cheek	DFT-s-OFDM QPSK	0	1	104	1:1	0.332	21.9	19.4
1 860	372000	NR n25	S2	20	17.07	Left Tilt	DFT-s-OFDM QPSK	0	1	104	1:1	0.443	20.6	
1 860	372000	NR n25	S2	20	17.07	Right Cheek	DFT-s-OFDM QPSK	0	1	104	1:1	0.551	19.7	
1 860	372000	NR n25	S2	20	17.07	Right Tilt	DFT-s-OFDM QPSK	0	1	104	1:1	0.579	19.4	
836.5	167300	NR n5	M1	20	23.95	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.081	34.9	34.4
836.5	167300	NR n5	M1	20	23.95	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.032	38.9	
836.5	167300	NR n5	M1	20	23.95	Right Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.090	34.4	
836.5	167300	NR n5	M1	20	23.95	Right Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.050	37.0	
836.5	167300	NR n5	S1	20	19.77	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.503	22.8	22.8
836.5	167300	NR n5	S1	20	19.77	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.434	23.4	
836.5	167300	NR n5	S1	20	19.77	Right Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.364	24.2	
836.5	167300	NR n5	S1	20	19.77	Right Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.313	24.8	
2 592.99	518598	NR n41	S2	100	16.47	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.449	19.9	16.6
2 592.99	518598	NR n41	S2	100	16.47	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.529	19.2	
2 592.99	518598	NR n41	S2	100	16.47	Right Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.752	17.7	
2 592.99	518598	NR n41	S2	100	16.47	Right Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.967	16.6	
2 592.99	518598	NR n41	M2	100	17.32	Left Cheek	DFT-s-OFDM QPSK	0	1	271	1:1	0.015	35.6	35.6
2 592.99	518598	NR n41	M2	100	17.32	Left Tilt	DFT-s-OFDM QPSK	0	1	271	1:1	0.004	41.3	
2 592.99	518598	NR n41	M2	100	17.32	Right Cheek	DFT-s-OFDM QPSK	0	1	271	1:1	0.014	35.9	
2 592.99	518598	NR n41	M2	100	17.32	Right Tilt	DFT-s-OFDM QPSK	0	1	271	1:1	0.008	38.3	
2 592.99	518598	NR n41 SRS	S1	100	17.21	Left Cheek	CW	0	-	-	1:1	0.924	17.6	17.6
2 592.99	518598	NR n41 SRS	S1	100	17.21	Left Tilt	CW	0	-	-	1:1	0.747	18.5	
2 592.99	518598	NR n41 SRS	S1	100	17.21	Right Cheek	CW	0	-	-	1:1	0.401	21.2	
2 592.99	518598	NR n41 SRS	S1	100	17.21	Right Tilt	CW	0	-	-	1:1	0.380	21.4	
2 592.99	518598	NR n41 SRS	M4	100	16.19	Left Cheek	CW	0	-	-	1:1	0	N/A	N/A
2 592.99	518598	NR n41 SRS	M4	100	16.19	Left Tilt	CW	0	-	-	1:1	0	N/A	
2 592.99	518598	NR n41 SRS	M4	100	16.19	Right Cheek	CW	0	-	-	1:1	0	N/A	
2 592.99	518598	NR n41 SRS	M4	100	16.19	Right Tilt	CW	0	-	-	1:1	0	N/A	

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)
1 745	349000	NR n66	M1	40	23.56	Left Cheek	DFT-s-OFDM QPSK	0	1	214	1:1	0.165	31.4	31.4
1 745	349000	NR n66	M1	40	23.56	Left Tilt	DFT-s-OFDM QPSK	0	1	214	1:1	0.059	35.9	
1 745	349000	NR n66	M1	40	23.56	Right Cheek	DFT-s-OFDM QPSK	0	1	214	1:1	0.090	34.0	
1 745	349000	NR n66	M1	40	23.56	Right Tilt	DFT-s-OFDM QPSK	0	1	214	1:1	0.062	35.6	
1 745	349000	NR n66	S2	40	18.85	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.375	23.1	20.4
1 745	349000	NR n66	S2	40	18.85	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.553	21.4	
1 745	349000	NR n66	S2	40	18.85	Right Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.621	20.9	
1 745	349000	NR n66	S2	40	18.85	Right Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.696	20.4	
3 930	662000	NR n77	S2	100	15.47	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.223	22.0	17.8
3 930	662000	NR n77	S2	100	15.47	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.286	20.9	
3 930	662000	NR n77	S2	100	15.47	Right Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.521	18.3	
3 930	662000	NR n77	S2	100	15.47	Right Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.583	17.8	
3 750	650000	NR n77 SRS	M3	100	10.52	Left Cheek	CW	0	-	-	1:1	0	N/A	N/A
3 750	650000	NR n77 SRS	M3	100	10.52	Left Tilt	CW	0	-	-	1:1	0	N/A	
3 750	650000	NR n77 SRS	M3	100	10.52	Right Cheek	CW	0	-	-	1:1	0	N/A	
3 750	650000	NR n77 SRS	M3	100	10.52	Right Tilt	CW	0	-	-	1:1	0	N/A	
3 930	662000	NR n77 SRS	S5	100	13.85	Left Cheek	CW	0	-	-	1:1	0.200	20.8	17.1
3 930	662000	NR n77 SRS	S5	100	13.85	Left Tilt	CW	0	-	-	1:1	0.015	32.1	
3 930	662000	NR n77 SRS	S5	100	13.85	Right Cheek	CW	0	-	-	1:1	0.471	17.1	
3 930	662000	NR n77 SRS	S5	100	13.85	Right Tilt	CW	0	-	-	1:1	0.022	30.4	
3 930	662000	NR n77 SRS	M4	100	10.71	Left Cheek	CW	0	-	-	1:1	0	N/A	N/A
3 930	662000	NR n77 SRS	M4	100	10.71	Left Tilt	CW	0	-	-	1:1	0	N/A	
3 930	662000	NR n77 SRS	M4	100	10.71	Right Cheek	CW	0	-	-	1:1	0	N/A	
3 930	662000	NR n77 SRS	M4	100	10.71	Right Tilt	CW	0	-	-	1:1	0	N/A	

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

MEASUREMENT RESULTS													
Frequency		Mode/ Band	Band width	Ant. No.	Data Rate	Frame Averaged	Test Position	Ant. Config.	Duty Cycle	Meas. SAR(1g)	Scaling Factor	Plimit	Minimum Plimit
MHz	Ch.				(Mbps)	(dBm)				(W/kg)	(Duty)	(dBm)	(dBm)
2 412	1	802.11b	20	S4	1	14.51	Left Cheek	WIFI1	98.7	0.134	1.013	23.2	15.4
2 412	1	802.11b	20	S4	1	14.51	Left Tilt	WIFI1	98.7	0.123	1.013	23.6	
2 412	1	802.11b	20	S4	1	14.51	Right Cheek	WIFI1	98.7	0.811	1.013	15.4	
2 412	1	802.11b	20	S4	1	14.51	Right Tilt	WIFI1	98.7	0.328	1.013	19.4	
2 437	6	802.11b	20	S6	1	13.86	Left Cheek	WIFI2	98.7	0.604	1.013	16.0	16.0
2 437	6	802.11b	20	S6	1	13.86	Left Tilt	WIFI2	98.7	0.073	1.013	25.2	
2 437	6	802.11b	20	S6	1	13.86	Right Cheek	WIFI2	98.7	0.320	1.013	18.8	
2 437	6	802.11b	20	S6	1	13.86	Right Tilt	WIFI2	98.7	0.046	1.013	27.2	
2 412	1	802.11b	20	S4+6	1	13.69	Left Cheek	WIFI1,2	98.7	0.741	1.013	15.0	15.0
2 412	1	802.11b	20	S4+6	1	13.69	Left Tilt	WIFI1,2	98.7	0.088	1.013	24.2	
2 412	1	802.11b	20	S4+6	1	13.69	Right Cheek	WIFI1,2	98.7	0.608	1.013	15.9	
2 412	1	802.11b	20	S4+6	1	13.69	Right Tilt	WIFI1,2	98.7	0.292	1.013	19.0	
5 290	58	802.11ac	80	S4	MCS0	12.34	Left Cheek	WIFI1	86.2	0.098	1.160	22.4	17.5
5 290	58	802.11ac	80	S4	MCS0	12.34	Left Tilt	WIFI1	86.2	0.097	1.160	22.5	
5 290	58	802.11ac	80	S4	MCS0	12.34	Right Cheek	WIFI1	86.2	0.306	1.160	17.5	
5 290	58	802.11ac	80	S4	MCS0	12.34	Right Tilt	WIFI1	86.2	0.212	1.160	19.1	
5 290	58	802.11ac	80	S1	MCS0	11.73	Left Cheek	WIFI2	86.2	0.057	1.160	24.2	24.2
5 290	58	802.11ac	80	S1	MCS0	11.73	Left Tilt	WIFI2	86.2	0.049	1.160	24.8	
5 290	58	802.11ac	80	S1	MCS0	11.73	Right Cheek	WIFI2	86.2	0.020	1.160	28.7	
5 290	58	802.11ac	80	S1	MCS0	11.73	Right Tilt	WIFI2	86.2	0.025	1.160	27.8	
5 290	58	802.11ac	80	S4+1	MCS0	11.73	Left Cheek	WIFI1,2	86.2	0.104	1.160	21.6	17.3
5 290	58	802.11ac	80	S4+1	MCS0	11.73	Left Tilt	WIFI1,2	86.2	0.105	1.160	21.5	
5 290	58	802.11ac	80	S4+1	MCS0	11.73	Right Cheek	WIFI1,2	86.2	0.279	1.160	17.3	
5 290	58	802.11ac	80	S4+1	MCS0	11.73	Right Tilt	WIFI1,2	86.2	0.223	1.160	18.2	
5 610	122	802.11ac	80	S4	MCS0	11.84	Left Cheek	WIFI1	86.2	0.094	1.160	22.1	18.2
5 610	122	802.11ac	80	S4	MCS0	11.84	Left Tilt	WIFI1	86.2	0.091	1.160	22.2	
5 610	122	802.11ac	80	S4	MCS0	11.84	Right Cheek	WIFI1	86.2	0.232	1.160	18.2	
5 610	122	802.11ac	80	S4	MCS0	11.84	Right Tilt	WIFI1	86.2	0.202	1.160	18.8	
5 690	138	802.11ac	80	S1	MCS0	12.34	Left Cheek	WIFI2	86.2	0.145	1.160	20.7	20.7
5 690	138	802.11ac	80	S1	MCS0	12.34	Left Tilt	WIFI2	86.2	0.099	1.160	22.4	
5 690	138	802.11ac	80	S1	MCS0	12.34	Right Cheek	WIFI2	86.2	0.029	1.160	27.7	
5 690	138	802.11ac	80	S1	MCS0	12.34	Right Tilt	WIFI2	86.2	0.023	1.160	28.7	
5 690	138	802.11ac	80	S4+1	MCS0	11.61	Left Cheek	WIFI1,2	86.2	0.109	1.160	21.2	17.7
5 690	138	802.11ac	80	S4+1	MCS0	11.61	Left Tilt	WIFI1,2	86.2	0.094	1.160	21.9	
5 690	138	802.11ac	80	S4+1	MCS0	11.61	Right Cheek	WIFI1,2	86.2	0.244	1.160	17.7	
5 690	138	802.11ac	80	S4+1	MCS0	11.61	Right Tilt	WIFI1,2	86.2	0.121	1.160	20.8	

MEASUREMENT RESULTS													
Frequency		Mode/ Band	Band width	Ant. No.	Data Rate	Frame Averaged	Test Position	Ant. Config.	Duty Cycle	Meas. SAR(1g)	Scaling Factor	Plimit	Minimum Plimit
MHz	Ch.				(Mbps)	Conducted Power				(W/kg)	(Duty)	(dBm)	(dBm)
5 775	155	802.11ac	80	S4	MCS0	11.94	Left Cheek	WIFI1	86.2	0.043	1.160	25.6	18.2
5 775	155	802.11ac	80	S4	MCS0	11.94	Left Tilt	WIFI1	86.2	0.043	1.160	25.6	
5 775	155	802.11ac	80	S4	MCS0	11.94	Right Cheek	WIFI1	86.2	0.239	1.160	18.2	
5 775	155	802.11ac	80	S4	MCS0	11.94	Right Tilt	WIFI1	86.2	0.081	1.160	22.9	
5 775	155	802.11ac	80	S1	MCS0	12.41	Left Cheek	WIFI2	86.2	0.103	1.160	22.3	22.3
5 775	155	802.11ac	80	S1	MCS0	12.41	Left Tilt	WIFI2	86.2	0.091	1.160	22.8	
5 775	155	802.11ac	80	S1	MCS0	12.41	Right Cheek	WIFI2	86.2	0.026	1.160	28.3	
5 775	155	802.11ac	80	S1	MCS0	12.41	Right Tilt	WIFI2	86.2	0.020	1.160	29.4	
5 775	155	802.11ac	80	S4+1	MCS0	11.94	Left Cheek	WIFI1,2	86.2	0.061	1.160	24.1	19.0
5 775	155	802.11ac	80	S4+1	MCS0	11.94	Left Tilt	WIFI1,2	86.2	0.072	1.160	23.4	
5 775	155	802.11ac	80	S4+1	MCS0	11.94	Right Cheek	WIFI1,2	86.2	0.195	1.160	19.0	
5 775	155	802.11ac	80	S4+1	MCS0	11.94	Right Tilt	WIFI1,2	86.2	0.077	1.160	23.1	
5 855	171	802.11ac	80	S4	MCS0	12.09	Left Cheek	WIFI1	86.2	0.016	1.160	30.0	18.6
5 855	171	802.11ac	80	S4	MCS0	12.09	Left Tilt	WIFI1	86.2	0.021	1.160	28.9	
5 855	171	802.11ac	80	S4	MCS0	12.09	Right Cheek	WIFI1	86.2	0.223	1.160	18.6	
5 855	171	802.11ac	80	S4	MCS0	12.09	Right Tilt	WIFI1	86.2	0.068	1.160	23.8	
5 855	171	802.11ac	80	S1	MCS0	12.37	Left Cheek	WIFI2	86.2	0.122	1.160	21.5	21.5
5 855	171	802.11ac	80	S1	MCS0	12.37	Left Tilt	WIFI2	86.2	0.092	1.160	22.7	
5 855	171	802.11ac	80	S1	MCS0	12.37	Right Cheek	WIFI2	86.2	0.019	1.160	29.6	
5 855	171	802.11ac	80	S1	MCS0	12.37	Right Tilt	WIFI2	86.2	0.035	1.160	26.9	
5 855	171	802.11ac	80	S4+1	MCS0	12.09	Left Cheek	WIFI1,2	86.2	0.046	1.160	25.5	18.9
5 855	171	802.11ac	80	S4+1	MCS0	12.09	Left Tilt	WIFI1,2	86.2	0.049	1.160	25.2	
5 855	171	802.11ac	80	S4+1	MCS0	12.09	Right Cheek	WIFI1,2	86.2	0.207	1.160	18.9	
5 855	171	802.11ac	80	S4+1	MCS0	12.09	Right Tilt	WIFI1,2	86.2	0.058	1.160	24.5	
6 185	47	802.11ax	160	S4	MCS0	10.31	Left Cheek	WIFI1	100	0.025	1.000	26.3	17.8
6 185	47	802.11ax	160	S4	MCS0	10.31	Left Tilt	WIFI1	100	0.013	1.000	29.2	
6 185	47	802.11ax	160	S4	MCS0	10.31	Right Cheek	WIFI1	100	0.180	1.000	17.8	
6 185	47	802.11ax	160	S4	MCS0	10.31	Right Tilt	WIFI1	100	0.070	1.000	21.9	
6 025	15	802.11ax	160	S1	MCS0	10.30	Left Cheek	WIFI2	100	0.042	1.000	24.1	23.6
6 025	15	802.11ax	160	S1	MCS0	10.30	Left Tilt	WIFI2	100	0.047	1.000	23.6	
6 025	15	802.11ax	160	S1	MCS0	10.30	Right Cheek	WIFI2	100	0.017	1.000	28.0	
6 025	15	802.11ax	160	S1	MCS0	10.30	Right Tilt	WIFI2	100	0.024	1.000	26.5	
6 185	47	802.11ax	160	S4+1	MCS0	10.13	Left Cheek	WIFI1,2	100	0.035	1.000	24.7	17.5
6 185	47	802.11ax	160	S4+1	MCS0	10.13	Left Tilt	WIFI1,2	100	0.031	1.000	25.2	
6 185	47	802.11ax	160	S4+1	MCS0	10.13	Right Cheek	WIFI1,2	100	0.184	1.000	17.5	
6 185	47	802.11ax	160	S4+1	MCS0	10.13	Right Tilt	WIFI1,2	100	0.067	1.000	21.9	

MEASUREMENT RESULTS										
Frequency		Mode/ Band	Ant. No.	Frame Averaged Conducted Power	Test Position	Ant. Config.	Meas. SAR(1g)	Scaling Factor	Plimit	Minimum Plimit
MHz	Ch.			(dBm)			(W/kg)	(Duty)	(dBm)	(dBm)
2 441	39	DH-5	S4	11.03	Left Cheek	Ant 1	0.057	1.027	23.5	16.9
2 441	39	DH-5	S4	11.03	Left Tilt	Ant 1	0.041	1.027	24.9	
2 441	39	DH-5	S4	11.03	Right Cheek	Ant 1	0.26	1.027	16.9	
2 441	39	DH-5	S4	11.03	Right Tilt	Ant 1	0.161	1.027	19.0	
2 402	0	DH-5	S6	11.25	Left Cheek	Ant 2	0.302	1.027	16.4	16.4
2 402	0	DH-5	S6	11.25	Left Tilt	Ant 2	0.030	1.027	26.5	
2 402	0	DH-5	S6	11.25	Right Cheek	Ant 2	0.119	1.027	20.5	
2 402	0	DH-5	S6	11.25	Right Tilt	Ant 2	0.014	1.027	29.8	

Table A-5 DSI = 0 P_{Limit} Calculations – 2G/3G Body-Worn 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
MHz	Ch.				(dBm)				(W/kg)	(dBm)	(dBm)
836.6	190	GSM 850	GPRS2Tx	M1	24.55	Rear	10	1:4.15	0.217	31.2	31.2
836.6	190	GSM 850	GPRS2Tx	M1	24.55	Front	10	1:4.15	0.215	31.2	
836.6	190	GSM 850	GPRS4Tx	S1	20.11	Rear	10	1:2.07	0.180	27.6	27.6
836.6	190	GSM 850	GPRS4Tx	S1	20.11	Front	10	1:2.07	0.111	29.7	
1 880	661	GSM 1900	GPRS4Tx	M1	20.12	Rear	10	1:2.07	0.457	23.5	23.5
1 880	661	GSM 1900	GPRS4Tx	M1	20.12	Front	10	1:2.07	0.372	24.4	
836.6	4183	UMTS Band 5	RMC	M1	24.09	Rear	10	1:1	0.275	29.7	29.7
836.6	4183	UMTS Band 5	RMC	M1	24.09	Front	10	1:1	0.239	30.3	
836.6	4183	UMTS Band 5	RMC	S1	19.89	Rear	10	1:1	0.207	26.7	26.7
836.6	4183	UMTS Band 5	RMC	S1	19.89	Front	10	1:1	0.170	27.6	
1 732.4	1412	UMTS Band 4	RMC	M1	20.34	Rear	10	1:1	0.456	23.8	23.8
1 732.4	1412	UMTS Band 4	RMC	M1	20.34	Front	10	1:1	0.374	24.6	
1 880	9400	UMTS Band 2	RMC	M1	19.11	Rear	10	1:1	0.253	25.1	25.1
1 880	9400	UMTS Band 2	RMC	M1	19.11	Front	10	1:1	0.193	26.3	

Table A-6 DSI = 0 P_{Limit} Calculations – 4G Body-Worn SAR

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

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)		
1860	26140	LTE Band 25	M2	20	20.15	Rear	10	0	1	99	1:1	0.499	23.2	23.2
1860	26140	LTE Band 25	M2	20	20.15	Front	10	0	1	99	1:1	0.384	24.3	
1905	26590	LTE Band 25	S2	20	17.17	Rear	10	0	1	99	1:1	0.217	23.8	23.8
1905	26590	LTE Band 25	S2	20	17.17	Front	10	0	1	99	1:1	0.185	24.5	
1720	132072	LTE Band 66	M1	20	17.76	Rear	10	0	1	49	1:1	0.304	22.9	22.9
1720	132072	LTE Band 66	M1	20	17.76	Front	10	0	1	49	1:1	0.224	24.3	
1720	132072	LTE Band 66	S1	20	16.45	Rear	10	0	1	0	1:1	0.120	25.7	25.7
1720	132072	LTE Band 66	S1	20	16.45	Front	10	0	1	0	1:1	0.097	26.6	
707.5	23095	LTE Band 12	M1	10	23.49	Rear	10	0	1	49	1:1	0.317	28.5	28.5
707.5	23095	LTE Band 12	M1	10	23.49	Front	10	0	1	49	1:1	0.190	30.7	
707.5	23095	LTE Band 12	S1	10	19.65	Rear	10	0	1	0	1:1	0.213	26.4	26.4
707.5	23095	LTE Band 12	S1	10	19.65	Front	10	0	1	0	1:1	0.165	27.5	
782	23230	LTE Band 13	M1	10	23.83	Rear	10	0	1	24	1:1	0.193	31.0	31.0
782	23230	LTE Band 13	M1	10	23.83	Front	10	0	1	24	1:1	0.128	32.8	
782	23230	LTE Band 13	S1	10	19.95	Rear	10	0	1	24	1:1	0.173	27.6	27.6
782	23230	LTE Band 13	S1	10	19.95	Front	10	0	1	24	1:1	0.121	29.1	
831.5	26865	LTE Band 26	M1	15	23.98	Rear	10	0	1	74	1:1	0.431	27.6	27.6
831.5	26865	LTE Band 26	M1	15	23.98	Front	10	0	1	74	1:1	0.308	29.1	
831.5	26865	LTE Band 26	S1	15	18.51	Rear	10	0	1	0	1:1	0.149	26.8	26.8
831.5	26865	LTE Band 26	S1	15	18.51	Front	10	0	1	0	1:1	0.096	28.7	
2 593	40620	LTE Band 41 PC3	M2	20	20.36	Rear	10	0	1	49	1:1.58	0.345	25.0	25.0
2 593	40620	LTE Band 41 PC3	M2	20	20.36	Front	10	0	1	49	1:1.58	0.223	26.9	
2 680	41490	LTE Band 41 PC3	S2	20	19.74	Rear	10	0	1	49	1:1.58	0.253	25.7	25.7
2 680	41490	LTE Band 41 PC3	S2	20	19.74	Front	10	0	1	49	1:1.58	0.21	26.5	

Table A-7 DSI = 0 *PLimit* Calculations – NR Body-Worn 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 NR TDD 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	Minimum Plimit
				MHz	Ch.			MHz					(dBm)	(dB)	(W/kg)
1 860	372000	NR n25	M1	20	19.46	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.441	23.0	23.0
1 860	372000	NR n25	M1	20	19.46	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.408	23.4	
1 860	372000	NR n25	S2	20	20.18	Rear	DFT-s-OFDM QPSK	0	10	1	104	1:1	0.229	26.6	26.6
1 860	372000	NR n25	S2	20	20.18	Front	DFT-s-OFDM QPSK	0	10	1	104	1:1	0.120	29.4	
836.5	167300	NR n5	M1	20	23.95	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.153	32.1	32.1
836.5	167300	NR n5	M1	20	23.95	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.149	32.2	
836.5	167300	NR n5	S1	20	19.77	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.182	27.2	27.2
836.5	167300	NR n5	S1	20	19.77	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.137	28.4	
1 745	349000	NR n66	M1	40	19.54	Rear	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.457	22.9	22.9
1 745	349000	NR n66	M1	40	19.54	Front	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.419	23.3	
1 745	349000	NR n66	S2	40	19.80	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.221	26.4	26.4
1 745	349000	NR n66	S2	40	19.80	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.141	28.3	
2 592.99	518598	NR n41	S2	100	16.47	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.191	23.7	23.7
2 592.99	518598	NR n41	S2	100	16.47	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.148	24.8	
2 592.99	518598	NR n41	M2	100	16.50	Rear	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.073	27.9	27.9
2 592.99	518598	NR n41	M2	100	16.50	Front	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.049	29.6	
2 592.99	518598	NR n41 SRS	S1	100	16.10	Rear	CW	0	10	-	-	1:1	0.065	28.0	27.6
2 592.99	518598	NR n41 SRS	S1	100	16.10	Front	CW	0	10	-	-	1:1	0.071	27.6	
2 592.99	518598	NR n41 SRS	M4	100	14.80	Rear	CW	0	10	-	-	1:1	0.144	23.2	23.2
2 592.99	518598	NR n41 SRS	M4	100	14.80	Front	CW	0	10	-	-	1:1	0.019	32.0	
3 930	662000	NR n77	S2	100	17.60	Rear	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.527	20.4	20.4
3 930	662000	NR n77	S2	100	17.60	Front	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.076	28.8	
3 930	662000	NR n77 SRS	M3	100	12.76	Rear	CW	0	10	-	-	1:1	0.009	33.2	32.3
3 930	662000	NR n77 SRS	M3	100	12.76	Front	CW	0	10	-	-	1:1	0.011	32.3	
3 930	662000	NR n77 SRS	S5	100	15.77	Rear	CW	0	10	-	-	1:1	0.031	30.9	28.6
3 930	662000	NR n77 SRS	S5	100	15.77	Front	CW	0	10	-	-	1:1	0.052	28.6	
3 930	662000	NR n77 SRS	M4	100	12.36	Rear	CW	0	10	-	-	1:1	0.076	23.6	23.6
3 930	662000	NR n77 SRS	M4	100	12.36	Front	CW	0	10	-	-	1:1	0	N/A	

Table A-8 DSI = 0 *PLimit* Calculations – WLAN Body-Worn SAR

MEASUREMENT RESULTS													
Frequency		Mode/ Band	Band width (MHz)	Ant. No.	Data Rate (Mbps)	Frame Averaged Conducted Power (dBm)	Test Position	Ant. Config.	Duty Cycle	Meas. SAR(1g)	Scaling Factor	Plimit	Minimum Plimit
MHz	Ch.									(W/kg)	(Duty)	(dBm)	(dBm)
2 462	11	802.11b	20	S4	1	17.61	Rear	WIFI1	98.7	0.204	1.013	24.5	24.5
2 462	11	802.11b	20	S4	1	17.61	Front	WIFI1	98.7	0.169	1.013	25.3	
2 437	6	802.11b	20	S6	1	17.43	Rear	WIFI2	98.7	0.551	1.013	20.0	20.0
2 437	6	802.11b	20	S6	1	17.43	Front	WIFI2	98.7	0.174	1.013	25.0	
2 462	11	802.11b	20	S4+6	1	17.00	Rear	WIFI1,2	98.7	0.387	1.013	21.1	21.1
2 462	11	802.11b	20	S4+6	1	17.00	Front	WIFI1,2	98.7	0.239	1.013	23.2	
5 280	56	802.11a	20	S4	MCS0	16.30	Rear	WIFI1	93.7	0.394	1.067	20.3	20.3
5 280	56	802.11a	20	S4	MCS0	16.30	Front	WIFI1	93.7	0.157	1.067	24.3	
5 260	52	802.11a	20	S1	MCS0	15.26	Rear	WIFI2	93.7	0.272	1.067	20.9	20.9
5 260	52	802.11a	20	S1	MCS0	15.26	Front	WIFI2	93.7	0.036	1.067	29.7	
5 280	56	802.11a	20	S4+1	MCS0	15.24	Rear	WIFI1,2	93.7	0.358	1.067	19.7	19.7
5 280	56	802.11a	20	S4+1	MCS0	15.24	Front	WIFI1,2	93.7	0.166	1.067	23.0	
5 500	100	802.11a	20	S4	MCS0	15.37	Rear	WIFI1	93.7	0.261	1.067	21.2	21.2
5 500	100	802.11a	20	S4	MCS0	15.37	Front	WIFI1	93.7	0.107	1.067	25.1	
5 720	144	802.11a	20	S1	MCS0	15.09	Rear	WIFI2	93.7	0.222	1.067	21.6	21.6
5 720	144	802.11a	20	S1	MCS0	15.09	Front	WIFI2	93.7	0.043	1.067	28.8	
5 500	100	802.11a	20	S4+1	MCS0	15.03	Rear	WIFI1,2	93.7	0.390	1.067	19.1	19.1
5 500	100	802.11a	20	S4+1	MCS0	15.03	Front	WIFI1,2	93.7	0.112	1.067	24.5	
5 745	149	802.11a	20	S4	MCS0	15.37	Rear	WIFI1	93.7	0.314	1.067	20.4	20.4
5 745	149	802.11a	20	S4	MCS0	15.37	Front	WIFI1	93.7	0.109	1.067	25.0	
5 825	165	802.11a	20	S1	MCS0	15.08	Rear	WIFI2	93.7	0.229	1.067	21.5	21.5
5 825	165	802.11a	20	S1	MCS0	15.08	Front	WIFI2	93.7	0.038	1.067	29.3	
5 745	149	802.11a	20	S4+1	MCS0	15.06	Rear	WIFI1,2	93.7	0.414	1.067	18.9	18.9
5 745	149	802.11a	20	S4+1	MCS0	15.06	Front	WIFI1,2	93.7	0.119	1.067	24.3	
5 885	177	802.11a	20	S4	MCS0	15.71	Rear	WIFI1	93.7	0.355	1.067	20.2	20.2
5 885	177	802.11a	20	S4	MCS0	15.71	Front	WIFI1	93.7	0.085	1.067	26.4	
5 845	169	802.11a	20	S1	MCS0	15.08	Rear	WIFI2	93.7	0.244	1.067	21.2	21.2
5 845	169	802.11a	20	S1	MCS0	15.08	Front	WIFI2	93.7	0.040	1.067	29.1	
5 885	177	802.11a	20	S4+1	MCS0	15.01	Rear	WIFI1,2	93.7	0.410	1.067	18.9	18.9
5 885	177	802.11a	20	S4+1	MCS0	15.01	Front	WIFI1,2	93.7	0.093	1.067	25.3	
6 185	47	802.11ax	160	S4	MCS0	10.31	Rear	WIFI1	100	0.050	1.000	23.3	23.3
6 185	47	802.11ax	160	S4	MCS0	10.31	Front	WIFI1	100	0.024	1.000	26.5	
6 025	15	802.11ax	160	S1	MCS0	10.30	Rear	WIFI2	100	0.077	1.000	21.4	21.4
6 025	15	802.11ax	160	S1	MCS0	10.30	Front	WIFI2	100	0	1.000	N/A	
6 185	47	802.11ax	160	S4+1	MCS0	10.13	Rear	WIFI1,2	100	0.086	1.000	20.8	20.8
6 185	47	802.11ax	160	S4+1	MCS0	10.13	Front	WIFI1,2	100	0.031	1.000	25.2	

MEASUREMENT RESULTS										
Frequency		Mode/ Band	Ant. No.	Frame Averaged	Test Position	Ant. Config.	Meas. SAR(1g)	Scaling Factor	Plimit	Minimum Plimit
Mhz	Ch.			Conducted Power (dBm)			(W/kg)	(Duty)	(dBm)	(dBm)
2 441	39	DH5	S4	17.98	Rear	Ant 1	0.198	1.300	25.0	25.0
2 441	39	DH5	S4	17.98	Front	Ant 1	0.188	1.300	25.2	
2 441	39	DH5	S6	16.16	Rear	Ant 2	0.288	1.300	21.6	21.6
2 441	39	DH5	S6	16.16	Front	Ant 2	0.141	1.300	24.7	
2 440	17	LE 1M	S4	17.07	Rear	Ant 1	0.208	1.169	23.9	23.9
2 440	17	LE 1M	S4	17.07	Front	Ant 1	0.197	1.169	24.1	
2 402	37	LE 1M	S6	15.42	Rear	Ant 2	0.254	1.169	21.4	21.4
2 402	37	LE 1M	S6	15.42	Front	Ant 2	0.088	1.169	26.0	

Table A-9 DSI = 0 P_{Limit} Calculations – 2G/3G Hotspot 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
MHz	Ch.				(dBm)				(W/kg)	(dBm)	(dBm)
836.6	190	GSM 850	GPRS2Tx	M1	24.55	Rear	10	1:4.15	0.217	31.2	30.4
836.6	190	GSM 850	GPRS2Tx	M1	24.55	Front	10	1:4.15	0.215	31.2	
836.6	190	GSM 850	GPRS2Tx	M1	24.55	Left	10	1:4.15	0.237	30.8	
836.6	190	GSM 850	GPRS2Tx	M1	24.55	Right	10	1:4.15	0.259	30.4	
836.6	190	GSM 850	GPRS2Tx	M1	24.55	Bottom	10	1:4.15	0.052	37.4	
836.6	190	GSM 850	GPRS4Tx	S1	20.21	Rear	10	1:2.07	0.180	27.7	27.7
836.6	190	GSM 850	GPRS4Tx	S1	20.21	Front	10	1:2.07	0.111	29.8	
836.6	190	GSM 850	GPRS4Tx	S1	20.21	Right	10	1:2.07	0.169	27.9	
836.6	190	GSM 850	GPRS4Tx	S1	20.21	Top	10	1:2.07	0.145	28.6	
1 860	661	GSM 1900	GPRS4Tx	M1	20.12	Rear	10	1:2.07	0.457	23.5	21.0
1 860	661	GSM 1900	GPRS4Tx	M1	20.12	Front	10	1:2.07	0.372	24.4	
1 860	661	GSM 1900	GPRS4Tx	M1	20.12	Left	10	1:2.07	0.092	30.5	
1 860	661	GSM 1900	GPRS4Tx	M1	20.12	Right	10	1:2.07	0.062	32.2	
1 860	661	GSM 1900	GPRS4Tx	M1	20.12	Bottom	10	1:2.07	0.821	21.0	

MEASUREMENT RESULTS											
Frequency		Mode/ Band		Ant. No.	Frame Averaged Conducted Power	Test Position	Spacing (mm)	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
MHz	Ch.				(dBm)				(W/kg)	(dBm)	(dBm)
836.6	4183	UMTS Band 5	RMC	M1	24.09	Rear	10	1:1	0.275	29.7	29.1
836.6	4183	UMTS Band 5	RMC	M1	24.09	Front	10	1:1	0.239	30.3	
836.6	4183	UMTS Band 5	RMC	M1	24.09	Left	10	1:1	0.266	29.8	
836.6	4183	UMTS Band 5	RMC	M1	24.09	Right	10	1:1	0.313	29.1	
836.6	4183	UMTS Band 5	RMC	M1	24.09	Bottom	10	1:1	0.049	37.2	
836.6	4183	UMTS Band 5	RMC	S1	19.89	Rear	10	1:1	0.207	26.7	26.7
836.6	4183	UMTS Band 5	RMC	S1	19.89	Front	10	1:1	0.170	27.6	
836.6	4183	UMTS Band 5	RMC	S1	19.89	Right	10	1:1	0.057	32.3	
836.6	4183	UMTS Band 5	RMC	S1	19.89	Top	10	1:1	0.161	27.8	
1 732.4	14.12	UMTS Band 4	RMC	M1	20.34	Rear	10	1:1	0.456	23.8	22.5
1 732.4	14.12	UMTS Band 4	RMC	M1	20.34	Front	10	1:1	0.374	24.6	
1 732.4	14.12	UMTS Band 4	RMC	M1	20.34	Left	10	1:1	0.116	29.7	
1 732.4	14.12	UMTS Band 4	RMC	M1	20.34	Right	10	1:1	0.035	34.9	
1 732.4	14.12	UMTS Band 4	RMC	M1	20.34	Bottom	10	1:1	0.606	22.5	
1 880	9400	UMTS Band 2	RMC	M1	19.11	Rear	10	1:1	0.253	25.1	20.0
1 880	9400	UMTS Band 2	RMC	M1	19.11	Front	10	1:1	0.193	26.3	
1 880	9400	UMTS Band 2	RMC	M1	19.11	Left	10	1:1	0.066	30.9	
1 880	9400	UMTS Band 2	RMC	M1	19.11	Right	10	1:1	0.019	36.3	
1 880	9400	UMTS Band 2	RMC	M1	19.11	Bottom	10	1:1	0.806	20.0	

Table A-10 DSI = 0 P_{Limit} Calculations – 4G Hotspot SAR

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

MEASUREMENT RESULTS														
Frequency		Mode	Ant. No.	Band width MHz	Frame Averaged Conducted Power (dBm)	Test Position	Spacing (mm)	MPR (dB)	RB Size	RB offset	Duty Cycle	Meas. SAR (1g) (W/kg)	Plimit (dBm)	Minimum Plimit (dBm)
MHz	Ch.													
1860	26140	LTE Band 25	M1	20	20.15	Rear	10	0	1	99	1:1	0.499	23.2	20.3
1860	26140	LTE Band 25	M1	20	20.15	Front	10	0	1	99	1:1	0.384	24.3	
1860	26140	LTE Band 25	M1	20	20.15	Left	10	0	1	99	1:1	0.102	30.1	
1860	26140	LTE Band 25	M1	20	20.15	Right	10	0	1	99	1:1	0.064	32.1	
1860	26140	LTE Band 25	M1	20	20.15	Bottom	10	0	1	99	1:1	0.977	20.3	
1905	26590	LTE Band 25	S2	20	17.17	Rear	10	0	1	99	1:1	0.217	23.8	21.2
1905	26590	LTE Band 25	S2	20	17.17	Front	10	0	1	99	1:1	0.185	24.5	
1905	26590	LTE Band 25	S2	20	17.17	Left	10	0	1	99	1:1	0.087	27.8	
1905	26590	LTE Band 25	S2	20	17.17	Top	10	0	1	99	1:1	0.398	21.2	
1720	132072	LTE Band 66	M1	20	17.76	Rear	10	0	1	49	1:1	0.304	22.9	20.5
1720	132072	LTE Band 66	M1	20	17.76	Front	10	0	1	49	1:1	0.224	24.3	
1720	132072	LTE Band 66	M1	20	17.76	Left	10	0	1	49	1:1	0.086	28.4	
1720	132072	LTE Band 66	M1	20	17.76	Right	10	0	1	49	1:1	0.036	32.2	
1720	132072	LTE Band 66	M1	20	17.76	Bottom	10	0	1	49	1:1	0.528	20.5	
1720	132072	LTE Band 66	S2	20	16.45	Rear	10	0	1	0	1:1	0.120	25.7	23.4
1720	132072	LTE Band 66	S2	20	16.45	Front	10	0	1	0	1:1	0.097	26.6	
1720	132072	LTE Band 66	S2	20	16.45	Left	10	0	1	0	1:1	0.046	29.8	
1720	132072	LTE Band 66	S2	20	16.45	Top	10	0	1	0	1:1	0.204	23.4	
707.5	23095	LTE Band 12	M1	10	23.49	Rear	10	0	1	49	1:1	0.317	28.5	28.5
707.5	23095	LTE Band 12	M1	10	23.49	Front	10	0	1	49	1:1	0.190	30.7	
707.5	23095	LTE Band 12	M1	10	23.49	Left	10	0	1	49	1:1	0.163	31.4	
707.5	23095	LTE Band 12	M1	10	23.49	Right	10	0	1	49	1:1	0.081	34.4	
707.5	23095	LTE Band 12	M1	10	23.49	Bottom	10	0	1	49	1:1	0.092	33.9	
707.5	23095	LTE Band 12	M1	10	19.65	Rear	10	0	1	0	1:1	0.213	26.4	26.4
707.5	23095	LTE Band 12	S1	10	19.65	Front	10	0	1	0	1:1	0.165	27.5	
707.5	23095	LTE Band 12	S1	10	19.65	Right	10	0	1	0	1:1	0.112	29.2	
707.5	23095	LTE Band 12	S1	10	19.65	Top	10	0	1	0	1:1	0.163	27.5	
782	23230	LTE Band 13	M1	10	23.83	Rear	10	0	1	24	1:1	0.193	31.0	29.9
782	23230	LTE Band 13	M1	10	23.83	Front	10	0	1	24	1:1	0.128	32.8	
782	23230	LTE Band 13	M1	10	23.83	Left	10	0	1	24	1:1	0.250	29.9	
782	23230	LTE Band 13	M1	10	23.83	Right	10	0	1	24	1:1	0.130	32.7	
782	23230	LTE Band 13	M1	10	23.83	Bottom	10	0	1	24	1:1	0.056	36.3	
782	23230	LTE Band 13	M1	10	19.95	Rear	10	0	1	24	1:1	0.173	27.6	27.6
782	23230	LTE Band 13	M1	10	19.95	Front	10	0	1	24	1:1	0.121	29.1	
782	23230	LTE Band 13	M1	10	19.95	Right	10	0	1	24	1:1	0.129	28.8	
782	23230	LTE Band 13	M1	10	19.95	Top	10	0	1	24	1:1	0.140	28.5	

MEASUREMENT RESULTS														
Frequency		Mode	Ant. No.	Band width	Frame Averaged Conducted Power	Test Position	Spacing (mm)	MPR	RB	RB	Duty Cycle	Meas. SAR (1g)	Plimit	Minimum Plimit
Mhz	Ch.			Mhz	(dBm)			(dB)	Size	offset		(W/kg)	(dBm)	(dBm)
831.5	26865	LTE Band 26	M1	15	23.98	Rear	10	0	1	74	1:1	0.431	27.6	27.6
831.5	26865	LTE Band 26	M1	15	23.98	Front	10	0	1	74	1:1	0.308	29.1	
831.5	26865	LTE Band 26	M1	15	23.98	Left	10	0	1	74	1:1	0.236	30.3	
831.5	26865	LTE Band 26	M1	15	23.98	Right	10	0	1	74	1:1	0.173	31.6	
831.5	26865	LTE Band 26	M1	15	23.98	Bottom	10	0	1	74	1:1	0.053	36.7	
831.5	26865	LTE Band 26	S1	15	18.51	Rear	10	0	1	0	1:1	0.149	26.8	26.8
831.5	26865	LTE Band 26	S1	15	18.51	Front	10	0	1	0	1:1	0.096	28.7	
831.5	26865	LTE Band 26	S1	15	18.51	Right	10	0	1	0	1:1	0.129	27.4	
831.5	26865	LTE Band 26	S1	15	18.51	Top	10	0	1	0	1:1	0.117	27.8	
2 593	40620	LTE Band 41(PC3)	M2	20	20.36	Rear	10	0	1	49	1:1.58	0.345	25.0	25.0
2 593	40620	LTE Band 41(PC3)	M2	20	20.36	Front	10	0	1	49	1:1.58	0.223	26.9	
2 593	40620	LTE Band 41(PC3)	M2	20	20.36	Left	10	0	1	49	1:1.58	0.180	27.8	
2 593	40620	LTE Band 41(PC3)	M2	20	20.36	Bottom	10	0	1	49	1:1.58	0.214	27.1	
2 680	41490	LTE Band 41(PC3)	S2	20	19.74	Rear	10	0	1	49	1:1.58	0.253	25.7	24.1
2 680	41490	LTE Band 41(PC3)	S2	20	19.74	Front	10	0	1	49	1:1.58	0.210	26.5	
2 680	41490	LTE Band 41(PC3)	S2	20	19.74	Left	10	0	1	49	1:1.58	0.035	34.3	
2 680	41490	LTE Band 41(PC3)	S2	20	19.74	Top	10	0	1	49	1:1.58	0.365	24.1	

Table A-11 DSI = 0 *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.

SAR measurements of NR TDD 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	Minimum Plimit
				MHz	(dBm)			(dB)					(W/kg)	(dBm)	(dBm)
1860	372000	NR n25	M1	20	19.46	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.441	23.0	20.3
1860	372000	NR n25	M1	20	19.46	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.408	23.4	
1860	372000	NR n25	M1	20	19.46	Left	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.094	29.7	
1860	372000	NR n25	M1	20	19.46	Right	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.060	31.7	
1860	372000	NR n25	M1	20	19.46	Bottom	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.827	20.3	
1860	372000	NR n25	S2	20	20.18	Rear	DFT-s-OFDM QPSK	0	10	1	104	1:1	0.229	26.6	24.5
1860	372000	NR n25	S2	20	20.18	Front	DFT-s-OFDM QPSK	0	10	1	104	1:1	0.120	29.4	
1860	372000	NR n25	S2	20	20.18	Left	DFT-s-OFDM QPSK	0	10	1	104	1:1	0.054	32.9	
1860	372000	NR n25	S2	20	20.18	Top	DFT-s-OFDM QPSK	0	10	1	104	1:1	0.368	24.5	
836.5	167300	NR n5	M1	20	23.95	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.153	32.1	32.1
836.5	167300	NR n5	M1	20	23.95	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.149	32.2	
836.5	167300	NR n5	M1	20	23.95	Left	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.146	32.3	
836.5	167300	NR n5	M1	20	23.95	Right	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.152	32.1	
836.5	167300	NR n5	M1	20	23.95	Bottom	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.031	39.0	
836.5	167300	NR n5	S1	20	19.77	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.182	27.2	27.1
836.5	167300	NR n5	S1	20	19.77	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.137	28.4	
836.5	167300	NR n5	S1	20	19.77	Right	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.185	27.1	
836.5	167300	NR n5	S1	20	19.77	Top	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.155	27.9	
1745	349000	NR n66	M1	40	19.54	Rear	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.457	22.9	21.1
1745	349000	NR n66	M1	40	19.54	Front	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.419	23.3	
1745	349000	NR n66	M1	40	19.54	Left	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.121	28.7	
1745	349000	NR n66	M1	40	19.54	Right	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.052	32.4	
1745	349000	NR n66	M1	40	19.54	Bottom	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.702	21.1	
1745	349000	NR n66	S2	40	19.80	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.221	26.4	24.5
1745	349000	NR n66	S2	40	19.80	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.141	28.3	
1745	349000	NR n66	S2	40	19.80	Left	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.099	29.8	
1745	349000	NR n66	S2	40	19.80	Top	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.338	24.5	

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	Minimum Plimit
Mhz	Ch.			Mhz	(dBm)			(dB)					(W/kg)	(dBm)	(dBm)
2 592.99	518598	NR n41	S2	100	16.47	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.191	23.7	22.7
2 592.99	518598	NR n41	S2	100	16.47	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.148	24.8	
2 592.99	518598	NR n41	S2	100	16.47	Left	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.032	31.4	
2 592.99	518598	NR n41	S2	100	16.47	Top	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.237	22.7	
2 592.99	518598	NR n41	M2	100	16.50	Rear	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.073	27.9	26.0
2 592.99	518598	NR n41	M2	100	16.50	Front	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.049	29.6	
2 592.99	518598	NR n41	M2	100	16.50	Left	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.085	27.2	
2 592.99	518598	NR n41	M2	100	16.50	Bottom	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.112	26.0	
2 592.99	518598	NR n41 SRS	S1	100	16.10	Rear	CW	0	10	-	-	1:1	0.065	28.0	26.7
2 592.99	518598	NR n41 SRS	S1	100	16.10	Front	CW	0	10	-	-	1:1	0.071	27.6	
2 592.99	518598	NR n41 SRS	S1	100	16.10	Right	CW	0	10	-	-	1:1	0.047	29.4	
2 592.99	518598	NR n41 SRS	S1	100	16.10	Top	CW	0	10	-	-	1:1	0.087	26.7	
2 592.99	518598	NR n41 SRS	M4	100	14.80	Rear	CW	0	10	-	-	1:1	0.144	23.2	23.2
2 592.99	518598	NR n41 SRS	M4	100	14.80	Front	CW	0	10	-	-	1:1	0.019	32.0	
2 592.99	518598	NR n41 SRS	M4	100	14.80	Right	CW	0	10	-	-	1:1	0.003	40.0	
2 592.99	518598	NR n41 SRS	M4	100	14.80	Bottom	CW	0	10	-	-	1:1	0.068	26.5	
3 930	662000	NR n77	S2	100	17.60	Rear	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.527	20.4	20.4
3 930	662000	NR n77	S2	100	17.60	Front	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.076	28.8	
3 930	662000	NR n77	S2	100	17.60	Left	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.061	29.7	
3 930	662000	NR n77	S2	100	17.60	Top	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.101	27.6	
3 930	662000	NR n77 SRS	M3	100	12.76	Rear	CW	0	10	-	-	1:1	0.009	33.2	29.3
3 930	662000	NR n77 SRS	M3	100	12.76	Front	CW	0	10	-	-	1:1	0.011	32.3	
3 930	662000	NR n77 SRS	M3	100	12.76	Left	CW	0	10	-	-	1:1	0.022	29.3	
3 930	662000	NR n77 SRS	M3	100	12.76	Bottom	CW	0	10	-	-	1:1	0.004	36.7	
3 930	662000	NR n77 SRS	S5	100	15.77	Rear	CW	0	10	-	-	1:1	0.031	30.9	28.6
3 930	662000	NR n77 SRS	S5	100	15.77	Front	CW	0	10	-	-	1:1	0.052	28.6	
3 930	662000	NR n77 SRS	S5	100	15.77	Left	CW	0	10	-	-	1:1	0.024	32.0	
3 930	662000	NR n77 SRS	M4	100	12.36	Rear	CW	0	10	-	-	1:1	0.076	23.6	23.6
3 930	662000	NR n77 SRS	M4	100	12.36	Front	CW	0	10	-	-	1:1	0	N/A	
3 930	662000	NR n77 SRS	M4	100	12.36	Right	CW	0	10	-	-	1:1	0.003	37.6	
3 930	662000	NR n77 SRS	M4	100	12.36	Bottom	CW	0	10	-	-	1:1	0.004	36.3	

Table A-12 DSI = 0 *PLimit* Calculations – WLAN Hotspot SAR

MEASUREMENT RESULTS													
Frequency		Mode/ Band	Band width	Ant. No.	Data Rate	Frame Averaged Conducted Power	Test Position	Ant. Config.	Duty Cycle	Meas. SAR(1g)	Scaling Factor	Plimit	Minimum Plimit
MHz	Ch.												
(MHz)			(MHz)		(Mbps)	(dBm)				(W/kg)	(Duty)	(dBm)	(dBm)
2 462	11	802.11b	20	S4	1	17.61	Rear	WIFI1	98.7	0.204	1.013	24.5	22.9
2 462	11	802.11b	20	S4	1	17.61	Front	WIFI1	98.7	0.169	1.013	25.3	
2 462	11	802.11b	20	S4	1	17.61	Left	WIFI1	98.7	0.296	1.013	22.9	
2 462	11	802.11b	20	S4	1	17.61	Top	WIFI1	98.7	0.145	1.013	26.0	
2 437	6	802.11b	20	S6	1	17.43	Rear	WIFI2	98.7	0.551	1.013	20.0	20.0
2 437	6	802.11b	20	S6	1	17.43	Front	WIFI2	98.7	0.174	1.013	25.0	
2 437	6	802.11b	20	S6	1	17.43	Right	WIFI2	98.7	0.060	1.013	29.6	
2 437	6	802.11b	20	S6	1	17.43	Top	WIFI2	98.7	0.007	1.013	39.0	
2 462	11	802.11b	20	S4+6	1	17.00	Rear	WIFI1,2	98.7	0.387	1.013	21.1	21.1
2 462	11	802.11b	20	S4+6	1	17.00	Front	WIFI1,2	98.7	0.239	1.013	23.2	
2 462	11	802.11b	20	S4+6	1	17.00	Left	WIFI1,2	98.7	0.331	1.013	21.8	
2 462	11	802.11b	20	S4+6	1	17.00	Right	WIFI1,2	98.7	0.083	1.013	27.8	
2 462	11	802.11b	20	S4+6	1	17.00	Top	WIFI1,2	98.7	0.122	1.013	26.1	
5 745	149	802.11a	20	S4	MCS0	15.37	Rear	WIFI1	93.7	0.314	1.067	20.4	19.9
5 745	149	802.11a	20	S4	MCS0	15.37	Front	WIFI1	93.7	0.109	1.067	25.0	
5 745	149	802.11a	20	S4	MCS0	15.37	Left	WIFI1	93.7	0.351	1.067	19.9	
5 745	149	802.11a	20	S4	MCS0	15.37	Top	WIFI1	93.7	0.091	1.067	25.8	
5 825	165	802.11a	20	S1	MCS0	15.08	Rear	WIFI2	93.7	0.229	1.067	21.5	21.5
5 825	165	802.11a	20	S1	MCS0	15.08	Front	WIFI2	93.7	0.038	1.067	29.3	
5 825	165	802.11a	20	S1	MCS0	15.08	Right	WIFI2	93.7	0.031	1.067	30.2	
5 825	165	802.11a	20	S1	MCS0	15.08	Top	WIFI2	93.7	0.092	1.067	25.4	
5 745	149	802.11a	20	S4+1	MCS0	15.06	Rear	WIFI1,2	93.7	0.414	1.067	18.9	18.9
5 745	149	802.11a	20	S4+1	MCS0	15.06	Front	WIFI1,2	93.7	0.119	1.067	24.3	
5 745	149	802.11a	20	S4+1	MCS0	15.06	Left	WIFI1,2	93.7	0.339	1.067	19.8	
5 745	149	802.11a	20	S4+1	MCS0	15.06	Right	WIFI1,2	93.7	0.037	1.067	29.4	
5 745	149	802.11a	20	S4+1	MCS0	15.06	Top	WIFI1,2	93.7	0.147	1.067	23.4	

MEASUREMENT RESULTS													
Frequency		Mode/ Band	Band width	Ant. No.	Data Rate	Frame Averaged Conducted Power	Test Position	Ant. Config.	Duty Cycle	Meas. SAR(1g)	Scaling Factor	Plimit	Minimum Plimit
MHz	Ch.									(W/kg)	(Duty)	(dBm)	(dBm)
6 185	47	802.11ax	160	S4	MCS0	10.31	Rear	WIFI1	100	0.050	1.000	23.3	20.3
6 185	47	802.11ax	160	S4	MCS0	10.31	Front	WIFI1	100	0.024	1.000	26.5	
6 185	47	802.11ax	160	S4	MCS0	10.31	Left	WIFI1	100	0.101	1.000	20.3	
6 185	47	802.11ax	160	S4	MCS0	10.31	Top	WIFI1	100	0.013	1.000	29.2	
6 025	15	802.11ax	160	S1	MCS0	10.30	Rear	WIFI2	100	0.078	1.000	21.4	21.4
6 025	15	802.11ax	160	S1	MCS0	10.30	Front	WIFI2	100	0	1.000	N/A	
6 025	15	802.11ax	160	S1	MCS0	10.30	Right	WIFI2	100	0	1.000	N/A	
6 025	15	802.11ax	160	S1	MCS0	10.30	Top	WIFI2	100	0.028	1.000	25.8	
6 185	47	802.11ax	160	S4+1	MCS0	10.13	Rear	WIFI1,2	100	0.086	1.000	20.8	20.8
6 185	47	802.11ax	160	S4+1	MCS0	10.13	Front	WIFI1,2	100	0.031	1.000	25.2	
6 185	47	802.11ax	160	S4+1	MCS0	10.13	Left	WIFI1,2	100	0.073	1.000	21.5	
6 185	47	802.11ax	160	S4+1	MCS0	10.13	Right	WIFI1,2	100	0.002	1.000	37.1	
6 185	47	802.11ax	160	S4+1	MCS0	10.13	Top	WIFI1,2	100	0.032	1.000	25.1	

MEASUREMENT RESULTS										
Frequency		Mode/ Band	Ant. No.	Frame Averaged	Test Position	Ant. Config.	Meas. SAR(1g)	Scaling Factor	Plimit	Minimum Plimit
MHz	Ch.			Conducted Power (dBm)			(W/kg)	(Duty)	(dBm)	(dBm)
2 441	39	DH5	S4	17.98	Rear	Ant 1	0.198	1.027	25.0	22.8
2 441	39	DH5	S4	17.98	Front	Ant 1	0.188	1.027	25.2	
2 441	39	DH5	S4	17.98	Left	Ant 1	0.326	1.027	22.8	
2 441	39	DH5	S4	17.98	Top	Ant 1	0.140	1.027	26.5	
2 441	39	DH5	S6	16.16	Rear	Ant 2	0.288	1.027	21.6	21.6
2 441	39	DH5	S6	16.16	Front	Ant 2	0.141	1.027	24.7	
2 441	39	DH5	S6	16.16	Right	Ant 2	0.040	1.027	30.1	
2 441	39	DH5	S6	16.16	Top	Ant 2	0.003	1.027	41.4	
2 440	17	LE 1M	S4	17.07	Rear	Ant 1	0.208	1.016	23.9	22.1
2 440	17	LE 1M	S4	17.07	Front	Ant 1	0.197	1.016	24.1	
2 440	17	LE 1M	S4	17.07	Left	Ant 1	0.311	1.016	22.1	
2 440	17	LE 1M	S4	17.07	Top	Ant 1	0.118	1.016	26.4	
2 402	37	LE 1M	S6	15.42	Rear	Ant 2	0.254	1.016	21.4	21.4
2 402	37	LE 1M	S6	15.42	Front	Ant 2	0.088	1.016	26.0	
2 402	37	LE 1M	S6	15.42	Right	Ant 2	0.029	1.016	30.8	
2 402	37	LE 1M	S6	15.42	Top	Ant 2	0.002	1.016	42.4	

Table A-13 DSI = 0 P_{Limit} Calculations – 2G/3G Phablet 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(10g)	Plimit	Minimum Plimit
MHz	Ch.				(dBm)				(W/kg)	(dBm)	(dBm)
836.6	190	GSM 850	GPRS2Tx	M1	24.55	Rear	0	1:4.15	1.120	28.0	28.0
836.6	190	GSM 850	GPRS2Tx	M1	24.55	Front	0	1:4.15	0.723	29.9	
836.6	190	GSM 850	GPRS2Tx	M1	24.55	Left	0	1:4.15	1.050	28.3	
836.6	190	GSM 850	GPRS2Tx	M1	24.55	Right	0	1:4.15	0.124	37.6	
836.6	190	GSM 850	GPRS2Tx	M1	24.55	Bottom	0	1:4.15	0.612	30.7	
836.6	190	GSM 850	GPRS4Tx	S1	20.21	Rear	0	1:2.07	0.273	29.8	28.2
836.6	190	GSM 850	GPRS4Tx	S1	20.21	Front	0	1:2.07	0.215	30.9	
836.6	190	GSM 850	GPRS4Tx	S1	20.21	Right	0	1:2.07	0.160	32.1	
836.6	190	GSM 850	GPRS4Tx	S1	20.21	Top	0	1:2.07	0.395	28.2	
1 860	661	GSM 1900	GPRS4Tx	M1	20.12	Rear	0	1:2.07	0.934	24.4	24.4
1 860	661	GSM 1900	GPRS4Tx	M1	20.12	Front	0	1:2.07	0.680	25.8	
1 860	661	GSM 1900	GPRS4Tx	M1	20.12	Left	0	1:2.07	0.174	31.7	
1 860	661	GSM 1900	GPRS4Tx	M1	20.12	Right	0	1:2.07	0.114	33.5	
1 860	661	GSM 1900	GPRS4Tx	M1	20.12	Bottom	0	1:2.07	0.611	26.2	

MEASUREMENT RESULTS											
Frequency		Mode/ Band		Ant. No.	Frame Averaged Conducted Power	Test Position	Spacing (mm)	Duty Cycle	Meas. SAR(10g)	Plimit	Minimum Plimit
MHz	Ch.				(dBm)				(W/kg)	(dBm)	(dBm)
836.6	4183	UMTS Band 5	RMC	M1	24.09	Rear	0	1:1	1.050	27.9	27.9
836.6	4183	UMTS Band 5	RMC	M1	24.09	Front	0	1:1	0.706	29.6	
836.6	4183	UMTS Band 5	RMC	M1	24.09	Left	0	1:1	0.973	28.2	
836.6	4183	UMTS Band 5	RMC	M1	24.09	Right	0	1:1	0.135	36.8	
836.6	4183	UMTS Band 5	RMC	M1	24.09	Bottom	0	1:1	0.588	30.4	
836.6	4183	UMTS Band 5	RMC	S1	19.89	Rear	0	1:1	0.375	28.1	26.9
836.6	4183	UMTS Band 5	RMC	S1	19.89	Front	0	1:1	0.353	28.4	
836.6	4183	UMTS Band 5	RMC	S1	19.89	Right	0	1:1	0.259	29.7	
836.6	4183	UMTS Band 5	RMC	S1	19.89	Top	0	1:1	0.493	26.9	
1 732.4	14.12	UMTS Band 4	RMC	M1	20.34	Rear	0	1:1	1.370	23.0	23.0
1 732.4	14.12	UMTS Band 4	RMC	M1	20.34	Front	0	1:1	1.060	24.1	
1 732.4	14.12	UMTS Band 4	RMC	M1	20.34	Left	0	1:1	0.170	32.0	
1 732.4	14.12	UMTS Band 4	RMC	M1	20.34	Right	0	1:1	0.112	33.8	
1 732.4	14.12	UMTS Band 4	RMC	M1	20.34	Bottom	0	1:1	0.876	24.9	
1 880	9400	UMTS Band 2	RMC	M1	19.11	Rear	0	1:1	0.894	23.6	23.6
1 880	9400	UMTS Band 2	RMC	M1	19.11	Front	0	1:1	0.559	25.6	
1 880	9400	UMTS Band 2	RMC	M1	19.11	Left	0	1:1	0.146	31.4	
1 880	9400	UMTS Band 2	RMC	M1	19.11	Right	0	1:1	0.097	33.2	
1 880	9400	UMTS Band 2	RMC	M1	19.11	Bottom	0	1:1	0.569	25.5	

Table A-14 DSI = 0 P_{Limit} Calculations – 4G Phablet SAR

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

MEASUREMENT RESULTS														
Frequency		Mode	Ant. No.	Band width	Frame Averaged Conducted Power	Test Position	Spacing (mm)	MPR	RB	RB	Duty Cycle	Meas. SAR (10g)	Plimit	Minimum Plim
1 860	26140	LTE Band 25	M1	20	20.15	Rear	0	0	1	99	1:1	1.110	23.7	23.7
1 860	26140	LTE Band 25	M1	20	20.15	Front	0	0	1	99	1:1	0.828	24.9	
1 860	26140	LTE Band 25	M1	20	20.15	Left	0	0	1	99	1:1	0.250	30.1	
1 860	26140	LTE Band 25	M1	20	20.15	Right	0	0	1	99	1:1	0.143	32.6	
1 860	26140	LTE Band 25	M1	20	20.15	Bottom	0	0	1	99	1:1	0.724	25.5	
1 905	26590	LTE Band 25	S2	20	17.17	Rear	0	0	1	99	1:1	0.596	23.4	20.9
1 905	26590	LTE Band 25	S2	20	17.17	Front	0	0	1	99	1:1	0.597	23.4	
1 905	26590	LTE Band 25	S2	20	17.17	Left	0	0	1	99	1:1	0.140	29.7	
1 905	26590	LTE Band 25	S2	20	17.17	Top	0	0	1	99	1:1	1.050	20.9	
1720	132072	LTE Band 66	M1	20	17.76	Rear	0	0	1	49	1:1	0.753	23.0	23.0
1720	132072	LTE Band 66	M1	20	17.76	Front	0	0	1	49	1:1	0.627	23.8	
1720	132072	LTE Band 66	M1	20	17.76	Left	0	0	1	49	1:1	0.209	28.5	
1720	132072	LTE Band 66	M1	20	17.76	Right	0	0	1	49	1:1	0.081	32.7	
1720	132072	LTE Band 66	M1	20	17.76	Bottom	0	0	1	49	1:1	0.468	25.0	
1720	132072	LTE Band 66	S2	20	16.45	Rear	0	0	1	0	1:1	0.314	25.5	23.7
1720	132072	LTE Band 66	S2	20	16.45	Front	0	0	1	0	1:1	0.286	25.9	
1720	132072	LTE Band 66	S2	20	16.45	Left	0	0	1	0	1:1	0.213	27.1	
1720	132072	LTE Band 66	S2	20	16.45	Top	0	0	1	0	1:1	0.473	23.7	
707.5	23095	LTE Band 12	M1	10	23.49	Rear	0	0	1	49	1:1	0.606	29.6	29.6
707.5	23095	LTE Band 12	M1	10	23.49	Front	0	0	1	49	1:1	0.382	31.6	
707.5	23095	LTE Band 12	M1	10	23.49	Left	0	0	1	49	1:1	0.517	30.3	
707.5	23095	LTE Band 12	M1	10	23.49	Right	0	0	1	49	1:1	0.075	38.7	
707.5	23095	LTE Band 12	M1	10	23.49	Bottom	0	0	1	49	1:1	0.358	31.9	
707.5	23095	LTE Band 12	M1	10	19.65	Rear	0	0	1	0	1:1	0.413	27.5	25.7
707.5	23095	LTE Band 12	S1	10	19.65	Front	0	0	1	0	1:1	0.534	26.4	
707.5	23095	LTE Band 12	S1	10	19.65	Right	0	0	1	0	1:1	0.324	28.5	
707.5	23095	LTE Band 12	S1	10	19.65	Top	0	0	1	0	1:1	0.626	25.7	
782	23230	LTE Band 13	M1	10	23.83	Rear	0	0	1	24	1:1	0.963	28.0	28.0
782	23230	LTE Band 13	M1	10	23.83	Front	0	0	1	24	1:1	0.579	30.2	
782	23230	LTE Band 13	M1	10	23.83	Left	0	0	1	24	1:1	0.785	28.9	
782	23230	LTE Band 13	M1	10	23.83	Right	0	0	1	24	1:1	0.060	40.0	
782	23230	LTE Band 13	M1	10	23.83	Bottom	0	0	1	24	1:1	0.373	32.1	
782	23230	LTE Band 13	M1	10	19.95	Rear	0	0	1	24	1:1	0.403	27.9	25.9
782	23230	LTE Band 13	M1	10	19.95	Front	0	0	1	24	1:1	0.637	25.9	
782	23230	LTE Band 13	M1	10	19.95	Right	0	0	1	24	1:1	0.400	27.9	
782	23230	LTE Band 13	M1	10	19.95	Top	0	0	1	24	1:1	0.609	26.1	

MEASUREMENT RESULTS														
Frequency		Mode	Ant. No.	Band width	Frame Averaged Conducted Power	Test Position	Spacing (mm)	MPR	RB	RB	Duty Cycle	Meas. SAR (10g)	Plimit	Minimum Plimit
Mhz	Ch.			Mhz	(dBm)			(dB)	Size	offset		(W/kg)	(dBm)	(dBm)
831.5	26865	LTE Band 26	M1	15	23.98	Rear	0	0	1	74	1:1	1.070	27.7	27.7
831.5	26865	LTE Band 26	M1	15	23.98	Front	0	0	1	74	1:1	0.736	29.3	
831.5	26865	LTE Band 26	M1	15	23.98	Left	0	0	1	74	1:1	1.000	28.0	
831.5	26865	LTE Band 26	M1	15	23.98	Right	0	0	1	74	1:1	0.136	36.6	
831.5	26865	LTE Band 26	M1	15	23.98	Bottom	0	0	1	74	1:1	0.588	30.3	
831.5	26865	LTE Band 26	S1	15	18.51	Rear	0	0	1	0	1:1	0.310	27.6	26.1
831.5	26865	LTE Band 26	S1	15	18.51	Front	0	0	1	0	1:1	0.367	26.8	
831.5	26865	LTE Band 26	S1	15	18.51	Right	0	0	1	0	1:1	0.209	29.3	
831.5	26865	LTE Band 26	S1	15	18.51	Top	0	0	1	0	1:1	0.436	26.1	
2 593	40620	LTE Band 41(PC3)	M2	20	20.36	Rear	0	0	1	49	1:1.58	1.010	24.3	24.3
2 593	40620	LTE Band 41(PC3)	M2	20	20.36	Front	0	0	1	49	1:1.58	0.709	25.8	
2 593	40620	LTE Band 41(PC3)	M2	20	20.36	Left	0	0	1	49	1:1.58	0.538	27.0	
2 593	40620	LTE Band 41(PC3)	M2	20	20.36	Bottom	0	0	1	49	1:1.58	0.982	24.4	
2 680	41490	LTE Band 41(PC3)	S2	20	19.74	Rear	0	0	1	49	1:1.58	0.656	25.6	22.1
2 680	41490	LTE Band 41(PC3)	S2	20	19.74	Front	0	0	1	49	1:1.58	0.697	25.3	
2 680	41490	LTE Band 41(PC3)	S2	20	19.74	Left	0	0	1	49	1:1.58	0.099	33.8	
2 680	41490	LTE Band 41(PC3)	S2	20	19.74	Top	0	0	1	49	1:1.58	1.46	22.1	

Table A-15 DSI = 0 *PLimit* Calculations – NR Phablet 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 NR TDD 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(10g)	Plimit	Minimum Plimit
Mhz	Ch.			MHz	(dBm)			(dB)					(W/kg)	(dBm)	(dBm)
1 860	372000	NR n25	M1	20	19.46	Rear	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.090	23.1	23.1
1 860	372000	NR n25	M1	20	19.46	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.761	24.6	
1 860	372000	NR n25	M1	20	19.46	Left	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.232	29.8	
1 860	372000	NR n25	M1	20	19.46	Right	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.147	31.8	
1 860	372000	NR n25	M1	20	19.46	Bottom	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.679	25.1	
1 860	372000	NR n25	S2	20	20.18	Rear	DFT-s-OFDM QPSK	0	0	1	104	1:1	1.32	23.0	20.7
1 860	372000	NR n25	S2	20	20.18	Front	DFT-s-OFDM QPSK	0	0	1	104	1:1	1.23	23.3	
1 860	372000	NR n25	S2	20	20.18	Left	DFT-s-OFDM QPSK	0	0	1	104	1:1	0.29	29.5	
1 860	372000	NR n25	S2	20	20.18	Top	DFT-s-OFDM QPSK	0	0	1	104	1:1	2.20	20.7	
836.5	167300	NR n5	M1	20	23.95	Rear	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.797	28.9	28.9
836.5	167300	NR n5	M1	20	23.95	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.610	30.1	
836.5	167300	NR n5	M1	20	23.95	Left	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.717	29.4	
836.5	167300	NR n5	M1	20	23.95	Right	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.093	38.2	
836.5	167300	NR n5	M1	20	23.95	Bottom	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.429	31.6	
836.5	167300	NR n5	S1	20	19.77	Rear	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.356	28.2	27.2
836.5	167300	NR n5	S1	20	19.77	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.386	27.9	
836.5	167300	NR n5	S1	20	19.77	Right	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.263	29.5	
836.5	167300	NR n5	S1	20	19.77	Top	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.452	27.2	
1 745	349000	NR n66	M1	40	19.54	Rear	DFT-s-OFDM QPSK	0	0	1	108	1:1	1.16	22.9	22.9
1 745	349000	NR n66	M1	40	19.54	Front	DFT-s-OFDM QPSK	0	0	1	108	1:1	0.865	24.1	
1 745	349000	NR n66	M1	40	19.54	Left	DFT-s-OFDM QPSK	0	0	1	108	1:1	0.320	28.5	
1 745	349000	NR n66	M1	40	19.54	Right	DFT-s-OFDM QPSK	0	0	1	108	1:1	0.109	33.1	
1 745	349000	NR n66	M1	40	19.54	Bottom	DFT-s-OFDM QPSK	0	0	1	108	1:1	0.708	25.0	
1 745	349000	NR n66	S2	40	19.80	Rear	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.557	26.3	24.5
1 745	349000	NR n66	S2	40	19.80	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.515	26.7	
1 745	349000	NR n66	S2	40	19.80	Left	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.353	28.3	
1 745	349000	NR n66	S2	40	19.80	Top	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.849	24.5	

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(10g)	Plimit	Minimum Plimit
Mhz	Ch.														
				Mhz	(dBm)			(dB)					(W/kg)	(dBm)	(dBm)
2 592.99	518598	NR n41	S2	100	16.47	Rear	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.669	22.2	20.2
2 592.99	518598	NR n41	S2	100	16.47	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.573	22.9	
2 592.99	518598	NR n41	S2	100	16.47	Left	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.130	29.3	
2 592.99	518598	NR n41	S2	100	16.47	Top	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.070	20.2	
2 592.99	518598	NR n41	M2	100	16.50	Rear	DFT-s-OFDM QPSK	0	0	1	271	1:1	0.366	24.8	24.8
2 592.99	518598	NR n41	M2	100	16.50	Front	DFT-s-OFDM QPSK	0	0	1	271	1:1	0.224	27.0	
2 592.99	518598	NR n41	M2	100	16.50	Left	DFT-s-OFDM QPSK	0	0	1	271	1:1	0.203	27.4	
2 592.99	518598	NR n41	M2	100	16.50	Bottom	DFT-s-OFDM QPSK	0	0	1	271	1:1	0.330	25.3	
2 592.99	518598	NR n41 SRS	S1	100	16.10	Rear	CW	0	0	-	-	1:1	0.498	23.1	21.7
2 592.99	518598	NR n41 SRS	S1	100	16.10	Front	CW	0	0	-	-	1:1	0.685	21.7	
2 592.99	518598	NR n41 SRS	S1	100	16.10	Right	CW	0	0	-	-	1:1	0.686	21.7	
2 592.99	518598	NR n41 SRS	S1	100	16.10	Top	CW	0	0	-	-	1:1	0.455	23.5	
2 592.99	518598	NR n41 SRS	M4	100	14.80	Rear	CW	0	0	-	-	1:1	0.137	27.4	27.4
2 592.99	518598	NR n41 SRS	M4	100	14.80	Front	CW	0	0	-	-	1:1	0.017	36.5	
2 592.99	518598	NR n41 SRS	M4	100	14.80	Right	CW	0	0	-	-	1:1	0	N/A	
2 592.99	518598	NR n41 SRS	M4	100	14.80	Bottom	CW	0	0	-	-	1:1	0	N/A	
3 930	662000	NR n77	S2	100	17.60	Rear	DFT-s-OFDM QPSK	0	0	1	271	1:1	0.827	22.4	22.4
3 930	662000	NR n77	S2	100	17.60	Front	DFT-s-OFDM QPSK	0	0	1	271	1:1	0.273	27.2	
3 930	662000	NR n77	S2	100	17.60	Left	DFT-s-OFDM QPSK	0	0	1	271	1:1	0.142	30.1	
3 930	662000	NR n77	S2	100	17.60	Top	DFT-s-OFDM QPSK	0	0	1	271	1:1	0.543	24.2	
3 930	662000	NR n77 SRS #2	M3	100	12.76	Rear	CW	0	0	-	-	1:1	0.123	25.8	24.6
3 930	662000	NR n77 SRS #2	M3	100	12.76	Front	CW	0	0	-	-	1:1	0.096	26.9	
3 930	662000	NR n77 SRS #2	M3	100	12.76	Left	CW	0	0	-	-	1:1	0.162	24.6	
3 930	662000	NR n77 SRS #2	M3	100	12.76	Bottom	CW	0	0	-	-	1:1	0.054	29.4	
3 930	662000	NR n77 SRS #3	S5	100	15.77	Rear	CW	0	0	-	-	1:1	1.030	19.6	19.6
3 930	662000	NR n77 SRS #3	S5	100	15.77	Front	CW	0	0	-	-	1:1	0.996	19.8	
3 930	662000	NR n77 SRS #3	S5	100	15.77	Left	CW	0	0	-	-	1:1	0.253	25.7	
3 930	662000	NR n77 SRS #4	M4	100	12.36	Rear	CW	0	0	-	-	1:1	0.272	22.0	22.0
3 930	662000	NR n77 SRS #4	M4	100	12.36	Front	CW	0	0	-	-	1:1	0.044	29.9	
3 930	662000	NR n77 SRS #4	M4	100	12.36	Right	CW	0	0	-	-	1:1	0.028	31.9	
3 930	662000	NR n77 SRS #4	M4	100	12.36	Bottom	CW	0	0	-	-	1:1	0.052	29.2	

Table A-16 DSI = 0 P_{Limit} Calculations – WLAN Phablet SAR

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

MEASUREMENT RESULTS													
Frequency		Mode/ Band	Band width	Ant. No.	Data Rate	Frame Averaged Conducted Power	Test Position	Ant. Config.	Duty Cycle	Meas.	Scaling	Plimit	Minimum Plimit
Mhz	Ch.									SAR(10g) (W/kg)	Factor (Duty)	(dBm)	(dBm)
2 462	11	802.11b	20	S4	1	17.61	Rear	WIFI1	98.7	0.345	1.013	26.2	23.5
2 462	11	802.11b	20	S4	1	17.61	Front	WIFI1	98.7	0.582	1.013	23.9	
2 462	11	802.11b	20	S4	1	17.61	Left	WIFI1	98.7	0.640	1.013	23.5	
2 462	11	802.11b	20	S4	1	17.61	Top	WIFI1	98.7	0.157	1.013	29.6	
2 437	6	802.11b	20	S6	1	17.43	Rear	WIFI2	98.7	0.467	1.013	24.7	22.3
2 437	6	802.11b	20	S6	1	17.43	Front	WIFI2	98.7	0.807	1.013	22.3	
2 437	6	802.11b	20	S6	1	17.43	Right	WIFI2	98.7	0.281	1.013	26.9	
2 437	6	802.11b	20	S6	1	17.43	Top	WIFI2	98.7	0.006	1.013	43.6	
2 462	11	802.11b	20	S4+6	1	17.00	Rear	WIFI1,2	98.7	0.506	1.013	23.9	23.2
2 462	11	802.11b	20	S4+6	1	17.00	Front	WIFI1,2	98.7	0.597	1.013	23.2	
2 462	11	802.11b	20	S4+6	1	17.00	Left	WIFI1,2	98.7	0.503	1.013	24.0	
2 462	11	802.11b	20	S4+6	1	17.00	Right	WIFI1,2	98.7	0.165	1.013	28.8	
2 462	11	802.11b	20	S4+6	1	17.00	Top	WIFI1,2	98.7	0.245	1.013	27.1	
5 280	56	802.11a	20	S4	MCS0	16.30	Rear	WIFI1	93.7	0.589	1.067	22.6	19.2
5 280	56	802.11a	20	S4	MCS0	16.30	Front	WIFI1	93.7	0.648	1.067	22.2	
5 280	56	802.11a	20	S4	MCS0	16.30	Left	WIFI1	93.7	1.28	1.067	19.2	
5 280	56	802.11a	20	S4	MCS0	16.30	Top	WIFI1	93.7	0.387	1.067	24.4	
5 260	52	802.11a	20	S1	MCS0	15.26	Rear	WIFI2	93.7	0.521	1.067	22.1	22.1
5 260	52	802.11a	20	S1	MCS0	15.26	Front	WIFI2	93.7	0.133	1.067	28.0	
5 260	52	802.11a	20	S1	MCS0	15.26	Right	WIFI2	93.7	0.046	1.067	32.6	
5 260	52	802.11a	20	S1	MCS0	15.26	Top	WIFI2	93.7	0.113	1.067	28.7	
5 280	56	802.11a	20	S4+1	MCS0	15.26	Rear	WIFI1,2	93.7	0.622	1.067	21.3	18.3
5 280	56	802.11a	20	S4+1	MCS0	15.26	Front	WIFI1,2	93.7	0.695	1.067	20.8	
5 280	56	802.11a	20	S4+1	MCS0	15.26	Left	WIFI1,2	93.7	1.23	1.067	18.3	
5 280	56	802.11a	20	S4+1	MCS0	15.26	Right	WIFI1,2	93.7	0.059	1.067	31.5	
5 280	56	802.11a	20	S4+1	MCS0	15.26	Top	WIFI1,2	93.7	0.429	1.067	22.9	

MEASUREMENT RESULTS													
Frequency		Mode/ Band	Band width	Ant. No.	Data Rate	Frame Averaged Conducted Power	Test Position	Ant. Config.	Duty Cycle	Meas.	Scaling	Plimit	Minimum Plimit
Mhz	Ch.									SAR(10g)	Factor	(dBm)	(dBm)
			(MHz)		(Mbps)	(dBm)				(W/kg)	(Duty)		
5 500	100	802.11a	20	S4	MCS0	15.37	Rear	WIFI1	93.7	0.569	1.067	21.8	17.8
5 500	100	802.11a	20	S4	MCS0	15.37	Front	WIFI1	93.7	0.362	1.067	23.8	
5 500	100	802.11a	20	S4	MCS0	15.37	Left	WIFI1	93.7	1.44	1.067	17.8	
5 500	100	802.11a	20	S4	MCS0	15.37	Top	WIFI1	93.7	0.181	1.067	26.8	
5 720	144	802.11a	20	S1	MCS0	15.09	Rear	WIFI2	93.7	0.512	1.067	22.0	22.0
5 720	144	802.11a	20	S1	MCS0	15.09	Front	WIFI2	93.7	0.172	1.067	26.7	
5 720	144	802.11a	20	S1	MCS0	15.09	Right	WIFI2	93.7	0.113	1.067	28.5	
5 720	144	802.11a	20	S1	MCS0	15.09	Top	WIFI2	93.7	0.187	1.067	26.4	
5 500	100	802.11a	20	S4+1	MCS0	15.09	Rear	WIFI1,2	93.7	0.468	1.067	22.3	17.4
5 500	100	802.11a	20	S4+1	MCS0	15.09	Front	WIFI1,2	93.7	0.338	1.067	23.7	
5 500	100	802.11a	20	S4+1	MCS0	15.09	Left	WIFI1,2	93.7	1.44	1.067	17.4	
5 500	100	802.11a	20	S4+1	MCS0	15.09	Right	WIFI1,2	93.7	0.102	1.067	28.9	
5 500	100	802.11a	20	S4+1	MCS0	15.09	Top	WIFI1,2	93.7	0.174	1.067	26.6	
5 745	149	802.11a	20	S4	MCS0	15.37	Rear	WIFI1	93.7	0.248	1.067	25.4	20.7
5 745	149	802.11a	20	S4	MCS0	15.37	Front	WIFI1	93.7	0.243	1.067	25.5	
5 745	149	802.11a	20	S4	MCS0	15.37	Left	WIFI1	93.7	0.728	1.067	20.7	
5 745	149	802.11a	20	S4	MCS0	15.37	Top	WIFI1	93.7	0.114	1.067	28.8	
5 825	165	802.11a	20	S1	MCS0	15.08	Rear	WIFI2	93.7	0.197	1.067	26.1	26.1
5 825	165	802.11a	20	S1	MCS0	15.08	Front	WIFI2	93.7	0.083	1.067	29.9	
5 825	165	802.11a	20	S1	MCS0	15.08	Right	WIFI2	93.7	0.048	1.067	32.2	
5 825	165	802.11a	20	S1	MCS0	15.08	Top	WIFI2	93.7	0.090	1.067	29.5	
5 745	149	802.11a	20	S4+1	MCS0	15.06	Rear	WIFI1,2	93.7	0.317	1.067	24.0	20.4
5 745	149	802.11a	20	S4+1	MCS0	15.06	Front	WIFI1,2	93.7	0.250	1.067	25.1	
5 745	149	802.11a	20	S4+1	MCS0	15.06	Left	WIFI1,2	93.7	0.726	1.067	20.4	
5 745	149	802.11a	20	S4+1	MCS0	15.06	Right	WIFI1,2	93.7	0.055	1.067	31.6	
5 745	149	802.11a	20	S4+1	MCS0	15.06	Top	WIFI1,2	93.7	0.110	1.067	28.6	

MEASUREMENT RESULTS													
Frequency		Mode/ Band	Band width	Ant. No.	Data Rate	Frame Averaged Conducted Power	Test Position	Ant. Config.	Duty Cycle	Meas. SAR(10g)	Scaling Factor	Plimit	Minimum Plimi
Mhz	Ch.									(W/kg)	(Duty)	(dBm)	(dBm)
5 885	177	802.11a	20	S4	MCS0	15.71	Rear	WIFI1	93.7	0.654	1.067	21.5	18.9
5 885	177	802.11a	20	S4	MCS0	15.71	Front	WIFI1	93.7	0.439	1.067	23.3	
5 885	177	802.11a	20	S4	MCS0	15.71	Left	WIFI1	93.7	1.21	1.067	18.9	
5 885	177	802.11a	20	S4	MCS0	15.71	Top	WIFI1	93.7	0.192	1.067	26.9	
5 845	169	802.11a	20	S1	MCS0	15.08	Rear	WIFI2	93.7	0.675	1.067	20.8	20.8
5 845	169	802.11a	20	S1	MCS0	15.08	Front	WIFI2	93.7	0.144	1.067	27.5	
5 845	169	802.11a	20	S1	MCS0	15.08	Right	WIFI2	93.7	0.082	1.067	29.9	
5 845	169	802.11a	20	S1	MCS0	15.08	Top	WIFI2	93.7	0.174	1.067	26.7	
5 885	177	802.11a	20	S4+1	MCS0	15.01	Rear	WIFI1,2	93.7	0.581	1.067	21.3	18.3
5 885	177	802.11a	20	S4+1	MCS0	15.01	Front	WIFI1,2	93.7	0.385	1.067	23.1	
5 885	177	802.11a	20	S4+1	MCS0	15.01	Left	WIFI1,2	93.7	1.16	1.067	18.3	
5 885	177	802.11a	20	S4+1	MCS0	15.01	Right	WIFI1,2	93.7	0.078	1.067	30.1	
5 885	177	802.11a	20	S4+1	MCS0	15.01	Top	WIFI1,2	93.7	0.205	1.067	25.9	
6 505	111	802.11ax	160	S4	MCS0	9.27	Rear	WIFI1	100	0.145	1.000	21.6	17.5
6 505	111	802.11ax	160	S4	MCS0	9.27	Front	WIFI1	100	0.173	1.000	20.9	
6 505	111	802.11ax	160	S4	MCS0	9.27	Left	WIFI1	100	0.372	1.000	17.5	
6 505	111	802.11ax	160	S4	MCS0	9.27	Top	WIFI1	100	0.049	1.000	26.3	
6 985	207	802.11ax	160	S1	MCS0	9.67	Rear	WIFI2	100	0.071	1.000	25.1	25.8
6 985	207	802.11ax	160	S1	MCS0	9.67	Front	WIFI2	100	0.038	1.000	27.9	
6 985	207	802.11ax	160	S1	MCS0	9.67	Right	WIFI2	100	0	1.000	N/A	
6 985	207	802.11ax	160	S1	MCS0	9.67	Top	WIFI2	100	0.003	1.000	38.9	
6 505	111	802.11ax	160	S4+1	MCS0	9.27	Rear	WIFI1,2	100	0.142	1.000	21.7	17.3
6 505	111	802.11ax	160	S4+1	MCS0	9.27	Front	WIFI1,2	100	0.075	1.000	24.5	
6 505	111	802.11ax	160	S4+1	MCS0	9.27	Left	WIFI1,2	100	0.396	1.000	17.3	
6 505	111	802.11ax	160	S4+1	MCS0	9.27	Right	WIFI1,2	100	0.006	1.000	35.5	
6 505	111	802.11ax	160	S4+1	MCS0	9.27	Top	WIFI1,2	100	0.064	1.067	25.2	

MEASUREMENT RESULTS										
Frequency		Mode/ Band	Ant. No.	Frame Averaged	Test Position	Ant. Config.	Meas. SAR(1g)	Scaling Factor	Plimit	Minimum Plimit
MHz	Ch.			Conducted Power (dBm)			(W/kg)	(Duty)	(dBm)	(dBm)
2 441	39	DH5	S4	17.98	Rear	Ant 1	0.612	1.027	24.1	23.4
2 441	39	DH5	S4	17.98	Front	Ant 1	0.710	1.027	23.4	
2 441	39	DH5	S4	17.98	Left	Ant 1	0.660	1.027	23.8	
2 441	39	DH5	S4	17.98	Top	Ant 1	0.426	1.027	25.7	
2 441	39	DH5	S6	16.16	Rear	Ant 2	0.293	1.027	25.5	22.5
2 441	39	DH5	S6	16.16	Front	Ant 2	0.578	1.027	22.5	
2 441	39	DH5	S6	16.16	Right	Ant 2	0.188	1.027	27.4	
2 441	39	DH5	S6	16.16	Top	Ant 2	0.008	1.027	41.1	
2 440	17	LE 1M	S4	17.07	Rear	Ant 1	0.529	1.016	23.8	22.9
2 440	17	LE 1M	S4	17.07	Front	Ant 1	0.651	1.016	22.9	
2 440	17	LE 1M	S4	17.07	Left	Ant 1	0.574	1.016	23.5	
2 440	17	LE 1M	S4	17.07	Top	Ant 1	0.405	1.016	25.0	
2 402	37	LE 1M	S6	15.42	Rear	Ant 2	0.244	1.016	25.5	22.4
2 402	37	LE 1M	S6	15.42	Front	Ant 2	0.502	1.016	22.4	
2 402	37	LE 1M	S6	15.42	Right	Ant 2	0.148	1.016	27.7	
2 402	37	LE 1M	S6	15.42	Top	Ant 2	0.000	1.016	N/A	