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PART 0 SAR CHAR REPORT

Applicant Name:

SAMSUNG Electronics Co., Ltd.

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Date of Issue: May 27, 2023

Test Report No.: HCT-SR-2305-FC012-R1

Test Site: HCT CO., LTD.

FCC ID:

A3LSMF946B

Report Type: Part 0 SAR Characterization

Equipment Type: Mobile Phone

Model Name: SM-F946B/DS

Additional Model Name: SM-F946B

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

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REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	May 19, 2023	Initial Release
1	May 27, 2023	Revised Sec. 4, Appendix A

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

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1. Test Location

1.1 Test Laboratory

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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)

2. DEVICE UNDER TEST

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 5	Voice / Data	826.4 MHz ~ 846.6 MHz
UMTS Band 4	Voice / Data	1 712.4 MHz ~ 1 752.6 MHz
UMTS Band 2	Voice / Data	1 852.4 MHz ~ 1 907.6 MHz
LTE Band 2 (PCS)	Voice / Data	1 850.7 MHz ~ 1 909.3 MHz
LTE Band 4 (AWS)	Voice / Data	1 710.7 MHz ~ 1 754.3 MHz
LTE Band 5 (Cell)	Voice / Data	824.7 MHz ~ 848.3 MHz
LTE Band 12	Voice / Data	699.7 MHz ~ 715.3 MHz
LTE Band 13	Voice / Data	779.5 MHz ~ 784.5 MHz
LTE Band 17	Voice / Data	706.5 MHz ~ 713.5 MHz
LTE Band 25	Voice / Data	1 850.7 MHz ~ 1 914.3 MHz
LTE Band 26	Voice / Data	814.7 MHz ~ 848.3 MHz
LTE Band 41	Voice / Data	2 498.5 MHz ~ 2 687.5 MHz
LTE Band 66 (AWS)	Voice / Data	1 710.7 MHz ~ 1 779.3 MHz
NR Band n2 (PCS)	Voice / Data	1 852.5 MHz ~ 1 907.5 MHz
NR Band n5	Voice / Data	826.5 MHz ~ 846.5 MHz
NR Band n25 (PCS)	Voice / Data	1 852.5 MHz ~ 1 912.5 MHz
NR Band n41	Voice / Data	2 506.02 MHz ~ 2 679.99 MHz
NR Band n66	Voice / Data	1 712.5 MHz ~ 1 777.5 MHz
NR Band n77	Voice / Data	3 705 MHz ~ 3 975 MHz
NR Band n77 DoD	Voice / Data	3 455.04 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	5 955 MHz ~ 6 425 MHz
U-NII-6	Voice / Data	6 425 MHz ~ 6 525 MHz
U-NII-7	Voice / Data	6 525 MHz ~ 6 875 MHz
U-NII-8	Voice / Data	6 875 MHz ~ 7 115 MHz
2.4 GHz WLAN	Voice / Data	2 412 MHz ~ 2 472 MHz
Bluetooth / LE 5.3	Data	2 402 MHz ~ 2 480 MHz
UWB	Data	6 489.6 MHz ~ 7 987.2 MHz
NFC	Data	13.56 MHz
WPC	Data	110 kHz ~ 148 kHz

This device uses the Qualcomm® Smart Transmit feature to control and manage transmitting power in real time and to ensure the time-averaged RF exposure is in compliance with the FCC requirement at all times for 2G/3G/4G/5G WWAN/WLAN/BT operations. Additionally, this device supports NFC technology, but the output power of this technology is not controlled by the Smart Transmit algorithm.

2.2 Time-Averaging for SAR

This device is enabled with Qualcomm® 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 and Power Density 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.

2.3 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 (dW) 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) (Δx_{area} , Δy_{area})	Maximum Zoom Scan Resolution (mm) (Δx_{zoom} , Δy_{zoom})	Maximum Zoom Scan Spatial Resolution (mm)			Minimum Zoom Scan Volume (mm) (x,y,z)
			Uniform Grid	Graded Grid		
			$\Delta z_{zoom}(n)$	$\Delta z_{zoom}(1)^*$	$\Delta z_{zoom}(n>1)^*$	
≤ 2 GHz	≤ 15	≤ 8	≤ 5	≤ 4	$\leq 1.5^* \Delta z_{zoom}(n-1)$	≥ 30
2-3 GHz	≤ 12	≤ 5	≤ 5	≤ 4	$\leq 1.5^* \Delta z_{zoom}(n-1)$	≥ 30
3-4 GHz	≤ 12	≤ 5	≤ 4	≤ 3	$\leq 1.5^* \Delta z_{zoom}(n-1)$	≥ 28
4-5 GHz	≤ 10	≤ 4	≤ 3	≤ 2.5	$\leq 1.5^* \Delta z_{zoom}(n-1)$	≥ 25
5-6 GHz	≤ 10	≤ 4	≤ 2	≤ 2	$\leq 1.5^* \Delta z_{zoom}(n-1)$	≥ 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 = 2)	☐ Device positioned next to head	Head SAR per KDB Publication 648474 D04
Head (DSI = 3)	☐ Device positioned next to head	Head SAR per KDB Publication 648474 D04
Body Phablet (DSI = 1)	☐ Device transmits in hotspot mode near body ☐ Device is held with hand	Hotspot SAR per KDB Publication 941225 D06 Phablet SAR per KDB Publication 648474 D04
UMPC Body UMPC Extremity (DSI = 0)	☐ Device transmits in near body ☐ Device is held with hand	Hotspot SAR per KDB Publication 941225 D06 Phablet SAR per KDB Publication 648474 D04

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).

SAR_design_target			
$SAR_design_target < SAR_regulatory_limit \times 10^{-Total\ Uncertainty/10}$			
1g SAR (W/kg)		10g SAR (W/kg)	
Total Uncertainty	1.0 dB	Total Uncertainty	1.0 dB
SAR_regulatory_limit	1.6 W/kg	SAR_regulatory_limit	4.0 W/kg
SAR_design_target	1.0 W/kg	SAR_design_target	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, 1	The worst-case SAR exposure is determined as maximum SAR normalized to the limit among: 1. Extremity SAR measured at 0 mm 2. Hotspot / Body SAR at 10mm
2, 3	Plimit is calculated based on 1g Head SAR

Table 4-3 PLimit Determination

Table 4-4 SAR Characterization

Plim values in green indicate Plimt < Pmax				Plim values in grey indicate Plim > Pmax				
Plimt corresponding to 1 W/kg (1g) 2.5W/kg(10g) SAR_Design_target						Pmax		
SAR Exposure Position			Head	UMPC Body	UMPC Extremity	Body	Phablet	*Maximum Tune-up Output Power [dBm]
Configuration			Open/Closed	Open	Open	Closed	Closed	
Averaging volume			1g	1g	10g	1g	10g	
seperation Distance			0 mm	10 mm	0 mm	10 mm	0 mm	
Mode	Band	Antenna	DSI	DSI	DSI			
			2,3	0	1			
GSM/GPRS/EDGE	850	A, A+B	40.5	29.3	28.2			25.5
GSM/GPRS/EDGE	1900	B	34.1	18.5	18.5			22.2
UMTS	5	A, A+B	33.3	27.4	26.3			24.5
UMTS	4	B	34.8	19.0	19.0			23.8
UMTS	2	B	34.6	19.0	19.0			23.8
LTE FDD	2	B	34.8	19.0	19.0			24.0
LTE FDD	2	F	22.5	20.0	20.0			24.0
LTE FDD	4	B	33.7	19.0	19.0			24.0
LTE FDD	4	F	22.5	20.0	20.0			24.0
LTE FDD	5	A, A+B	33.8	26.8	26.9			24.5
LTE FDD	12	A, A+B	32.5	28.5	25.3			24.5
LTE FDD	13	A, A+B	31.5	28.0	26.0			23.0
LTE FDD	17	A, A+B	32.5	28.5	25.3			24.5
LTE FDD	25	B	34.8	19.0	19.0			24.0
LTE FDD	25	F	22.5	20.0	20.0			24.0
LTE FDD	26	A, A+B	33.8	26.8	26.9			24.5
LTE TDD PC3	41 P3	B	34.5	17.0	17.0			22.0
LTE TDD PC3	41 P3	F	26.1	19.0	19.0			22.0
LTE TDD PC2	41 P2	B	35.1	17.0	17.0			21.9
LTE TDD PC2	41 P2	F	26.4	19.0	19.0			21.9
LTE FDD	66	B	33.7	19.0	19.0			24.0
LTE FDD	66	F	22.5	20.0	20.0			24.0
NR FDD	2	B	35.0	19.0	19.0			23.0
NR FDD	2	F	22.5	20.0	20.0			23.0
NR FDD	5	A, A+B	34.7	26.8	27.6			24.0
NR FDD	25	B	35.0	19.0	19.0			23.0
NR FDD	25	F	22.5	20.0	20.0			23.0
NR TDD PC3	41	B	22.0	17.0	17.0			24.0
NR TDD PC3	41	F	20.0	19.0	19.0			24.0
NR TDD SRS2(PC3)	41	C	12.0	12.0	12.0			19.5
NR TDD SRS3(PC3)	41	H	12.0	12.0	12.0			18.0
NR FDD	66	B	35.8	19.0	19.0			23.5
NR FDD	66	F	22.5	20.0	20.0			23.0
NR TDD PC3	77	F	17.0	17.5	17.5			24.0
NR TDD SRS1(PC3)	77	D	15.0	15.0	15.0			17.0
NR TDD SRS2(PC3)	77	G	15.0	15.0	15.0			22.0
NR TDD SRS3(PC3)	77	A	15.0	15.0	15.0			17.0
NR TDD PC3	77 DOD	F	17.0	17.5	17.5			24.0
NR TDD SRS1(PC3)	77 DOD	D	15.0	15.0	15.0			17.0
NR TDD SRS2(PC3)	77 DOD	G	15.0	15.0	15.0			22.0
NR TDD SRS3(PC3)	77 DOD	A	15.0	15.0	15.0			17.0
WLAN	2.4GHz	G	16.0	19.3	19.6			18.0
WLAN	2.4GHz	H+G	19.0	22.8	22.9			21.0
WLAN	5GHz	H+J	31.1	19.0	19.0			20.0
WLAN	6GHz	H+J	29.0	16.4	16.9			12.0
Bluetooth	DH5	H	24.6	26.4	27.2			17.0
Bluetooth	DH5	G	22.9	21.6	21.3			15.0

Note:

- 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.
- When $P_{max} < P_{limit}$, the DUT will operate at a power level up to P_{max} .
- 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)

5. Equipment List

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	SAM Phantom	-	N/A	N/A	N/A
HP	SAR System Control PC	-	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F13/ 5R4XF1/ C/ 01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F17/ 59RAA1/ C/ 01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F08/5AJ0A1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F07/55B8A1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F11/ 5K3RA1/ C/ 01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX60L	F10/5D1CA1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F07/55W9A1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F13/ 5SD0A1/ C/ 01	N/A	N/A	N/A
Staubli	TX90 Xlspeag	F13/ 5R4XF1/ A/ 01	N/A	N/A	N/A
Staubli	TX90 Xlspeag	F17/ 59RAA1/ A/ 01	N/A	N/A	N/A
Staubli	TX90 Xlspeag	F07/56W9A1/A/01	N/A	N/A	N/A
Staubli	TX90 Xlspeag	F07/55B8A1/A/01	N/A	N/A	N/A
Staubli	TX90 Lspeag	F11/ 5K3RA1/ A/ 01	N/A	N/A	N/A
Staubli	TX60 Xlspeag	F10/5D1CA1/A/01	N/A	N/A	N/A
Staubli	TX90 Xlspeag	F07/55B8A1/A/01	N/A	N/A	N/A
Staubli	TX90 Xlspeag	F13/ 5SD0A1/ A/ 01	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1338 1332	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	011578	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0008	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0306	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1203 0309	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0123	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0602	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	001729	N/A	N/A	N/A
TESTO	175-H1/Thermometer	40332651310	12/29/2022	Annual	12/09/2023
TESTO	175-H1/Thermometer	40331922309	12/29/2022	Annual	12/09/2023
TESTO	175-H1/Thermometer	40331949309	12/29/2022	Annual	12/09/2023
TESTO	608-H1/Thermometer	83348021	04/29/2022	Annual	04/29/2023
TESTO	175-H1/Thermometer	40331936309	12/29/2022	Annual	12/29/2023
TESTO	175-H1/Thermometer	44606559906	04/15/2022	Annual	04/15/2023
TESTO	608-H1/Thermometer	83406789	07/07/2022	Annual	07/07/2023
TESTO	608-H1/Thermometer	83348029	04/29/2022	Annual	04/29/2023
SPEAG	DAE4	1422	08/18/2022	Annual	08/18/2023
SPEAG	DAE4	1225	03/06/2023	Annual	03/06/2024
SPEAG	DAE4	652	01/20/2023	Annual	01/20/2024
SPEAG	DAE4	446	11/16/2022	Annual	11/16/2023
SPEAG	DAE4	1687	07/18/2022	Annual	07/18/2023
SPEAG	DAE4	1464	06/15/2022	Annual	06/15/2023
SPEAG	DAE4	1720	05/09/2022	Annual	05/09/2023
SPEAG	DAE4	1750	10/10/2022	Annual	10/10/2023
SPEAG	E-Field Probe ES3DV3	3076	07/20/2022	Annual	07/20/2023
SPEAG	E-Field Probe EX3DV4	7751	10/07/2022	Annual	10/07/2023
SPEAG	E-Field Probe EX3DV4	7370	08/19/2022	Annual	08/19/2023
SPEAG	E-Field Probe EX3DV4	7732	06/30/2022	Annual	06/30/2023
SPEAG	E-Field Probe EX3DV4	7679	08/19/2022	Annual	08/19/2023
SPEAG	E-Field Probe EX3DV4	7702	01/26/2023	Annual	01/26/2024
SPEAG	E-Field Probe EX3DV4	7655	06/20/2022	Annual	06/20/2023
SPEAG	E-Field Probe EX3DV4	7681	11/21/2022	Annual	11/21/2023

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	Dipole D750V3	1014	05/25/2022	Annual	05/25/2023
SPEAG	Dipole D835V2	441	07/15/2022	Annual	07/15/2023
SPEAG	Dipole D1800V2	2d007	07/18/2022	Annual	07/18/2023
SPEAG	Dipole D1900V2	5d061	01/23/2023	Annual	01/23/2024
SPEAG	Dipole D2450V2	743	05/31/2022	Annual	05/31/2023
SPEAG	Dipole D2600V2	1015	07/15/2022	Annual	07/15/2023
SPEAG	Dipole D3500V2	1140	01/22/2023	Annual	01/22/2024
SPEAG	Dipole D3700V2	1066	11/14/2022	Annual	11/14/2023
SPEAG	Dipole D3900V2	1086	05/25/2022	Annual	05/25/2023
SPEAG	Dipole D5GHzV2	1253	05/31/2022	Annual	05/31/2023
SPEAG	Dipole D5GHzV2	1107	07/19/2022	Annual	07/19/2023
SPEAG	Dipole D6.5GHzV2	1012	09/20/2022	Annual	09/20/2023
Agilent	Power Meter E4419B	MY41291386	09/27/2022	Annual	09/27/2023
Agilent	Power Meter N1911A	MY45101406	06/27/2022	Annual	06/27/2023
Agilent	Power Sensor 8481A	SG1091286	09/27/2022	Annual	09/27/2023
H.P	Power Sensor 8481A	MY41090873	01/27/2023	Annual	01/27/2024
Agilent	Power Sensor 8481A	MY41090675	09/27/2022	Annual	09/27/2023
Agilent	Wideband Power Sensor N1921A	MY55220026	08/02/2022	Annual	08/02/2023
Agilent	11636B/Power Divider	58698	01/26/2023	Annual	01/26/2024
SPEAG	DAKS 3.5	1038	01/25/2023	Annual	01/25/2024
SPEAG	DAKS-VNA R140(일반)	0141013	02/13/2023	Annual	02/13/2024
Agilent	WIRELESS COMMUNICATION E5515C	MY48361100	09/27/2022	Annual	09/27/2023
Agilent	WIRELESS COMMUNICATION E5515C	MY48360252	08/08/2022	Annual	08/08/2023
R&S	Wireless Communication Test Set CMW500	115733	04/14/2022	Annual	04/14/2023
R&S	Wireless Communication Test Set CMW500	115733	03/23/2023	Annual	03/23/2024
Agilent	SIGNAL GENERATOR N5182A	MY47070230	04/28/2022	Annual	04/28/2023
Agilent	SIGNAL GENERATOR N5182A	MY47070230	03/23/2023	Annual	03/23/2024
EMPOWER	RF Power Amplifier	1084	06/20/2022	Annual	06/20/2023
EMPOWER	RF Power Amplifier	1041D/C0508	06/20/2022	Annual	06/20/2023
EMPOWER	RF Power Amplifier	1011	09/27/2022	Annual	09/27/2023
MICRO LAB	LP Filter / LA-15N	10453	09/27/2022	Annual	09/27/2023
MICRO LAB	LP Filter / LA-30N	-	09/27/2022	Annual	09/27/2023
MICRO LAB	LP Filter / LA-60N	32011	09/27/2022	Annual	09/27/2023
Agilent	Attenuator (3dB) 8693B	MY39260298	08/25/2022	Annual	08/25/2023
HP	Attenuator (3dB) 33340A	02427	08/25/2022	Annual	08/25/2023
HP	Attenuator (20dB) 8493C	09271	08/25/2022	Annual	08/25/2023
Agilent	Directional Bridge 86205A	3140A04581	05/26/2022	Annual	05/26/2023
OSI	Power Divider	#3	06/17/2022	Annual	06/17/2023
Agilent	MXA Signal Analyzer N9020A	MY50510407	06/07/2022	Annual	06/07/2023
Narda	DIRECTIONAL COUPLER	07066	01/05/2023	Annual	01/05/2024
Anritsu	Radio Communication Test Station MT8000A	6262036812	12/08/2022	Annual	12/08/2023
Anritsu	Radio Communication Tester MT8820C	6201074225	01/25/2023	Annual	01/25/2024
Anritsu	Radio Communication Tester MT8820C	6200695605	03/23/2023	Annual	03/23/2024
Anritsu	Radio Communication Tester MT8821C	6201502997	06/27/2022	Annual	06/27/2023
Anritsu	Radio Communication Tester MT8821C	6262044720	12/07/2022	Annual	12/07/2023
Anritsu	Radio Communication Tester MT8821C	6201664725	01/25/2023	Annual	01/25/2024
Agilent	WIRELESS COMMUNICATION E5515C	MY50260992	06/27/2022	Annual	06/27/2023
ROHDE&SCHWARZ	BLUETOOTH TESTER CBT	100272	01/25/2023	Annual	01/25/2024

* 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 = 2,3 PLimit Calculations – 2G/3G Head SAR

MEASUREMENT RESULTS										
Frequency		Mode/ Band		Ant.	Frame Averaged Conducted Power	Test Position	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
Mhz	Ch.				(dBm)			(W/kg)	(dBm)	(dBm)
836.6	190	GSM 850	GPRS 2Tx	A	25.56	Right Cheek	1:4.15	0.017	43.3	40.5
836.6	190	GSM 850		A	25.56	Right Tilt	1:4.15	0.021	42.3	
836.6	190	GSM 850		A	25.56	Left Cheek	1:4.15	0.032	40.5	
836.6	190	GSM 850		A	25.56	Left Tilt	1:4.15	0.017	43.3	
1 880	661	GSM 1900	GPRS 3Tx	B	21.48	Right Cheek	1:2.76	0.040	35.5	34.1
1 880	661	GSM 1900		B	21.48	Right Tilt	1:2.76	0.055	34.1	
1 880	661	GSM 1900		B	21.48	Left Cheek	1:2.76	0.044	35.0	
1 880	661	GSM 1900		B	21.48	Left Tilt	1:2.76	0.026	36.0	
836.6	4183	UMTS Band 5	RMC	A	24.40	Right Cheek	1:1	0.128	33.3	33.3
836.6	4183	UMTS Band 5	RMC	A	24.40	Right Tilt	1:1	0.081	35.3	
836.6	4183	UMTS Band 5	RMC	A	24.40	Left Cheek	1:1	0.119	33.6	
836.6	4183	UMTS Band 5	RMC	A	24.40	Left Tilt	1:1	0.087	35.0	
1 712.4	1312	UMTS Band 4	RMC	B	24.39	Right Cheek	1:1	0.053	37.1	34.8
1 712.4	1312	UMTS Band 4	RMC	B	24.39	Right Tilt	1:1	0.076	35.6	
1 712.4	1312	UMTS Band 4	RMC	B	24.39	Left Cheek	1:1	0.091	34.8	
1 712.4	1312	UMTS Band 4	RMC	B	24.39	Left Tilt	1:1	0.072	35.8	
1 880	9400	UMTS Band 2	RMC	B	23.58	Right Cheek	1:1	0.079	34.6	34.6
1 880	9400	UMTS Band 2	RMC	B	23.58	Right Tilt	1:1	0.065	35.5	
1 880	9400	UMTS Band 2	RMC	B	23.58	Left Cheek	1:1	0.069	35.2	
1 880	9400	UMTS Band 2	RMC	B	23.58	Left Tilt	1:1	0.072	35.0	

Table A-2 DSI = 2,3 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)
836.5	20525	LTE Band 5	Mid	A	10	24.51	Right Cheek	0	1	49	1:1	0.107	34.2	34.1
836.5	20525	LTE Band 5	Mid	A	10	24.51	Right Tilt	0	1	49	1:1	0.039	38.6	
836.5	20525	LTE Band 5	Mid	A	10	24.51	Left Cheek	0	1	49	1:1	0.109	34.1	
836.5	20525	LTE Band 5	Mid	A	10	24.51	Left Tilt	0	1	49	1:1	0.055	37.1	
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Right Cheek	0	1	49	1:1	0.142	32.5	32.5
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Right Tilt	0	1	49	1:1	0.034	38.7	
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Left Cheek	0	1	49	1:1	0.075	35.3	
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Left Tilt	0	1	49	1:1	0.042	37.8	
707.5	23095	LTE Band 12	Mid	A	10	24.01	Right Cheek	0	1	49	1:1	0.107	33.7	33.7
707.5	23095	LTE Band 12	Mid	A	10	24.01	Right Tilt	0	1	49	1:1	0.034	38.7	
707.5	23095	LTE Band 12	Mid	A	10	24.01	Left Cheek	0	1	49	1:1	0.076	35.2	
707.5	23095	LTE Band 12	Mid	A	10	24.01	Left Tilt	0	1	49	1:1	0.031	39.1	
782	23230	LTE Band 13	Mid	A+B	10	23.03	Right Cheek	0	1	49	1:1	0.141	31.5	31.5
782	23230	LTE Band 13	Mid	A+B	10	23.03	Right Tilt	0	1	49	1:1	0.066	34.8	
782	23230	LTE Band 13	Mid	A+B	10	23.03	Left Cheek	0	1	49	1:1	0.089	33.5	
782	23230	LTE Band 13	Mid	A+B	10	23.03	Left Tilt	0	1	49	1:1	0.050	36.0	
782	23230	LTE Band 13	Mid	A	10	23.03	Right Cheek	0	1	49	1:1	0.093	33.3	33.3
782	23230	LTE Band 13	Mid	A	10	23.03	Right Tilt	0	1	49	1:1	0.045	36.5	
782	23230	LTE Band 13	Mid	A	10	23.03	Left Cheek	0	1	49	1:1	0.056	35.5	
782	23230	LTE Band 13	Mid	A	10	23.03	Left Tilt	0	1	49	1:1	0.031	38.1	
1 905	26590	LTE Band 25	High	B	20	23.94	Right Cheek	0	1	49	1:1	0.072	35.4	34.8
1 905	26590	LTE Band 25	High	B	20	23.94	Right Tilt	0	1	49	1:1	0.082	34.8	
1 905	26590	LTE Band 25	High	B	20	23.94	Left Cheek	0	1	49	1:1	0.052	36.8	
1 905	26590	LTE Band 25	High	B	20	23.94	Left Tilt	0	1	49	1:1	0.075	35.2	
1 905	26590	LTE Band 25	High	F	20	22.70	Right Cheek	0	1	99	1:1	0.609	24.9	23.8
1 905	26590	LTE Band 25	High	F	20	22.70	Right Tilt	0	1	99	1:1	0.782	23.8	
1 905	26590	LTE Band 25	High	F	20	22.70	Left Cheek	0	1	99	1:1	0.589	25.0	
1 905	26590	LTE Band 25	High	F	20	22.70	Left Tilt	0	1	99	1:1	0.753	23.9	
831.5	26865	LTE Band 26	Mid	A	15	24.37	Right Cheek	0	1	74	1:1	0.114	33.8	33.8
831.5	26865	LTE Band 26	Mid	A	15	24.37	Right Tilt	0	1	74	1:1	0.043	38.0	
831.5	26865	LTE Band 26	Mid	A	15	24.37	Left Cheek	0	1	74	1:1	0.108	34.0	
831.5	26865	LTE Band 26	Mid	A	15	24.37	Left Tilt	0	1	74	1:1	0.057	36.8	

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)
2 636.5	41055	LTE Band41(PC3)	Mid-High	B	20	21.58	Right Cheek	0	1	0	1:1.58	0.051	34.5	34.5
2 636.5	41055	LTE Band41(PC3)	Mid-High	B	20	21.58	Right Tilt	0	1	0	1:1.58	0.0205	38.4	
2 636.5	41055	LTE Band41(PC3)	Mid-High	B	20	21.58	Left Cheek	0	1	0	1:1.58	0.020	38.6	
2 636.5	41055	LTE Band41(PC3)	Mid-High	B	20	21.58	Left Tilt	0	1	0	1:1.58	0.018	39.0	
2 636.5	41055	LTE Band41(PC2)	Mid-High	B	20	21.93	Right Tilt	0	1	0	1:2.31	0.048	35.1	35.1
2 593.0	40620	LTE Band41(PC3)	Mid	F	20	21.89	Right Cheek	0	1	0	1:1.58	0.246	28.0	26.1
2 593.0	40620	LTE Band41(PC3)	Mid	F	20	21.89	Right Tilt	0	1	0	1:1.58	0.304	27.1	
2 593.0	40620	LTE Band41(PC3)	Mid	F	20	21.89	Left Cheek	0	1	0	1:1.58	0.253	27.9	
2 593.0	40620	LTE Band41(PC3)	Mid	F	20	21.89	Left Tilt	0	1	0	1:1.58	0.380	26.1	
2 593.0	40620	LTE Band41(PC2)	Mid	F	20	21.66	Left Tilt	0	1	0	1:2.31	0.335	26.4	26.4
1 720	132072	LTE Band 66	Low	B	20	24.08	Right Cheek	0	1	99	1:1	0.072	35.5	33.7
1 720	132072	LTE Band 66	Low	B	20	24.08	Right Tilt	0	1	99	1:1	0.108	33.7	
1 720	132072	LTE Band 66	Low	B	20	24.08	Left Cheek	0	1	99	1:1	0.095	34.3	
1 720	132072	LTE Band 66	Low	B	20	24.08	Left Tilt	0	1	99	1:1	0.081	35.0	
1 745	132322	LTE Band 66	Mid	F	20	23.05	Right Cheek	0	1	0	1:1	0.589	25.3	24.2
1 745	132322	LTE Band 66	Mid	F	20	23.05	Right Tilt	0	1	0	1:1	0.729	24.4	
1 745	132322	LTE Band 66	Mid	F	20	23.05	Left Cheek	0	1	0	1:1	0.520	25.9	
1 745	132322	LTE Band 66	Mid	F	20	23.05	Left Tilt	0	1	0	1:1	0.769	24.2	

Table A-3 DSI = 2,3 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 all 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)
836.5	167300	NR Band n5	Mid	A	20	24.33	Right Cheek	DFT-s-OFDM QPSK	0	1	53	1:1	0.092	34.7	34.7
836.5	167300	NR Band n5	Mid	A	20	24.33	Right Tilt	DFT-s-OFDM QPSK	0	1	53	1:1	0.056	36.8	
836.5	167300	NR Band n5	Mid	A	20	24.33	Left Cheek	DFT-s-OFDM QPSK	0	1	53	1:1	0.087	34.9	
836.5	167300	NR Band n5	Mid	A	20	24.33	Left Tilt	DFT-s-OFDM QPSK	0	1	53	1:1	0.045	37.8	
1 882.5	376500	NR Band n25	Mid	B	40	23.80	Right Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.052	36.6	35.0
1 882.5	376500	NR Band n25	Mid	B	40	23.80	Right Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.063	35.8	
1 882.5	376500	NR Band n25	Mid	B	40	23.80	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.075	35.0	
1 882.5	376500	NR Band n25	Mid	B	40	23.80	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.058	36.2	
1 882.5	376500	NR Band n25	Mid	F	40	23.30	Right Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.665	25.1	24.4
1 882.5	376500	NR Band n25	Mid	F	40	23.30	Right Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.775	24.4	
1 882.5	376500	NR Band n25	Mid	F	40	23.30	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.614	25.4	
1 882.5	376500	NR Band n25	Mid	F	40	23.30	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.756	24.5	
2 592.99	518598	NR Band n41(PC3)	Mid	B	100	24.11	Right Cheek	DFT-s-OFDM QPSK	0	1	271	1:1	0.071	35.6	35.6
2 592.99	518598	NR Band n41(PC3)	Mid	B	100	24.11	Right Tilt	DFT-s-OFDM QPSK	0	1	271	1:1	0.017	41.8	
2 592.99	518598	NR Band n41(PC3)	Mid	B	100	24.11	Left Cheek	DFT-s-OFDM QPSK	0	1	271	1:1	0.058	36.5	
2 592.99	518598	NR Band n41(PC3)	Mid	B	100	24.11	Left Tilt	DFT-s-OFDM QPSK	0	1	271	1:1	0.045	37.6	
2 592.99	518598	NR Band n41(PC3)	Mid	F	100	20.25	Right Cheek	DFT-s-OFDM QPSK	0	135	69	1:1	0.232	26.6	24.9
2 592.99	518598	NR Band n41(PC3)	Mid	F	100	20.25	Right Tilt	DFT-s-OFDM QPSK	0	135	69	1:1	0.287	25.7	
2 592.99	518598	NR Band n41(PC3)	Mid	F	100	20.25	Left Cheek	DFT-s-OFDM QPSK	0	135	69	1:1	0.274	25.9	
2 592.99	518598	NR Band n41(PC3)	Mid	F	100	20.25	Left Tilt	DFT-s-OFDM QPSK	0	135	69	1:1	0.343	24.9	
2 592.99	518598	NR Band n41 SRS3	Mid	C	100	11.83	Right Cheek	CW	0	-	-	1:1	0	N/A	N/A
2 592.99	518598	NR Band n41 SRS3	Mid	C	100	11.83	Right Tilt	CW	0	-	-	1:1	0	N/A	
2 592.99	518598	NR Band n41 SRS3	Mid	C	100	11.83	Left Cheek	CW	0	-	-	1:1	0	N/A	
2 592.99	518598	NR Band n41 SRS3	Mid	C	100	11.83	Left Tilt	CW	0	-	-	1:1	0	N/A	
2 592.99	518598	NR Band n41 SRS4	Mid	H	100	12.13	Right Cheek	CW	0	-	-	1:1	0.020	29.1	27.7
2 592.99	518598	NR Band n41 SRS4	Mid	H	100	12.13	Right Tilt	CW	0	-	-	1:1	0.014	30.7	
2 592.99	518598	NR Band n41 SRS4	Mid	H	100	12.13	Left Cheek	CW	0	-	-	1:1	0.043	25.8	
2 592.99	518598	NR Band n41 SRS4	Mid	H	100	12.13	Left Tilt	CW	0	-	-	1:1	0.028	27.7	
1 745	349000	NR Band n66	Mid	B	40	23.96	Right Cheek	DFT-s-OFDM QPSK	0	108	54	1:1	0.048	37.1	35.8
1 745	349000	NR Band n66	Mid	B	40	23.96	Right Tilt	DFT-s-OFDM QPSK	0	108	54	1:1	0.052	36.8	
1 745	349000	NR Band n66	Mid	B	40	23.96	Left Cheek	DFT-s-OFDM QPSK	0	108	54	1:1	0.066	35.8	
1 745	349000	NR Band n66	Mid	B	40	23.96	Left Tilt	DFT-s-OFDM QPSK	0	108	54	1:1	0.037	38.3	
1 745	349000	NR Band n66	Mid	F	40	23.01	Right Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.704	24.5	23.4
1 745	349000	NR Band n66	Mid	F	40	23.01	Right Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.919	23.4	
1 745	349000	NR Band n66	Mid	F	40	23.01	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.649	24.9	
1 745	349000	NR Band n66	Mid	F	40	23.01	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.884	23.5	

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)
3 750	650000	NR Band 77(PC3)	Low	F	100	17.44	Right Cheek	DFT-s-OFDM QPSK	0	135	0	1:1	0.254	23.4	22.7
3 750	650000	NR Band 77(PC3)	Low	F	100	17.44	Right Tilt	DFT-s-OFDM QPSK	0	135	0	1:1	0.299	22.7	
3 750	650000	NR Band 77(PC3)	Low	F	100	17.44	Left Cheek	DFT-s-OFDM QPSK	0	135	0	1:1	0.150	25.7	
3 750	650000	NR Band 77(PC3)	Low	F	100	17.44	Left Tilt	DFT-s-OFDM QPSK	0	135	0	1:1	0.241	23.6	
3 500.01	633334	NR Band 77 DoD(PC3)	Mid	F	100	17.06	Right Tilt	DFT-s-OFDM QPSK	0	1	271	1:1	0.183	24.4	24.4
3 750	650000	NR Band 77 SRS	Low	D	100	15.62	Right Cheek	CW	0	-	-	1:1	0.000	N/A	N/A
3 750	650000	NR Band 77 SRS	Low	D	100	15.62	Right Tilt	CW	0	-	-	1:1	0.000	N/A	
3 750	650000	NR Band 77 SRS	Low	D	100	15.62	Left Cheek	CW	0	-	-	1:1	0.000	N/A	
3 750	650000	NR Band 77 SRS	Low	D	100	15.62	Left Tilt	CW	0	-	-	1:1	0.000	N/A	
3 500.01	633334	NR Band 77DoD SRS	Mid	D	100	14.49	Right Tilt	CW	0	-	-	1:1	0.000353	44.7	44.7
3 750	650000	NR Band 77 SRS	Low	G	100	15.92	Right Cheek	CW	0	-	-	1:1	0.116	25.3	23.4
3 750	650000	NR Band 77 SRS	Low	G	100	15.92	Right Tilt	CW	0	-	-	1:1	0.156	24.0	
3 750	650000	NR Band 77 SRS	Low	G	100	15.92	Left Cheek	CW	0	-	-	1:1	0.139	24.5	
3 750	650000	NR Band 77 SRS	Low	G	100	15.92	Left Tilt	CW	0	-	-	1:1	0.179	23.4	
3 500.01	633334	NR Band 77DoD SRS	Mid	G	100	14.69	Left Tilt	CW	0	-	-	1:1	0.127	23.7	23.7
3 750	650000	NR Band 77 SRS	Low	A	100	15.78	Right Cheek	CW	0	-	-	1:1	0.00937	36.2	36.2
3 750	650000	NR Band 77 SRS	Low	A	100	15.78	Right Tilt	CW	0	-	-	1:1	0.000	N/A	
3 750	650000	NR Band 77 SRS	Low	A	100	15.78	Left Cheek	CW	0	-	-	1:1	0.000	N/A	
3 750	650000	NR Band 77 SRS	Low	A	100	15.78	Left Tilt	CW	0	-	-	1:1	0.000	N/A	
3 500.01	633334	NR Band 77DoD SRS	Mid	A	100	15.01	Right Cheek	CW	0	-	-	1:1	0.038	29.2	29.2

Table A-4 DSI = 2,3 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)	Conducted Power				(W/kg)	(Duty)	(dBm)	(dBm)
2 437	6	802.11b	20	G	1	16.48	Right Cheek	WIFI2	98.9	0.258	1.011	22.4	21.6
2 437	6	802.11b	20	G	1	16.48	Right Tilt	WIFI2	98.9	0.300	1.011	21.7	
2 437	6	802.11b	20	G	1	16.48	Left Cheek	WIFI2	98.9	0.308	1.011	21.6	
2 437	6	802.11b	20	G	1	16.48	Left Tilt	WIFI2	98.9	0.305	1.011	21.6	
2 437	6	802.11b	20	H+G	1	19.74	Right Cheek	MIMO	98.9	0.433	1.011	23.4	21.6
2 437	6	802.11b	20	H+G	1	19.74	Right Tilt	MIMO	98.9	0.572	1.011	22.2	
2 437	6	802.11b	20	H+G	1	19.74	Left Cheek	MIMO	98.9	0.569	1.011	22.2	
2 437	6	802.11b	20	H+G	1	19.74	Left Tilt	MIMO	98.9	0.659	1.011	21.6	
5 270	54	802.11n	40	H+J	MCS8	19.87	Right Cheek	MIMO	86.8	0.055	1.152	32.5	32.5
5 270	54	802.11n	40	H+J	MCS8	19.87	Right Tilt	MIMO	86.8	0.019	1.152	37.1	
5 270	54	802.11n	40	H+J	MCS8	19.87	Left Cheek	MIMO	86.8	0.053	1.152	32.6	
5 270	54	802.11n	40	H+J	MCS8	19.87	Left Tilt	MIMO	86.8	0.033	1.152	34.7	
5 690	138	802.11ac	80	H+J	MCS0	20.48	Right Cheek	MIMO	86.2	0.086	1.160	31.1	31.1
5 690	138	802.11ac	80	H+J	MCS0	20.48	Right Tilt	MIMO	86.2	0	1.160	N/A	
5 690	138	802.11ac	80	H+J	MCS0	20.48	Left Cheek	MIMO	86.2	0.055	1.160	33.1	
5 690	138	802.11ac	80	H+J	MCS0	20.48	Left Tilt	MIMO	86.2	0	1.160	N/A	
5 775	155	802.11ac	80	H+J	MCS0	20.55	Right Cheek	MIMO	86.2	0.074	1.160	31.9	31.9
5 775	155	802.11ac	80	H+J	MCS0	20.55	Right Tilt	MIMO	86.2	0.015	1.160	38.8	
5 775	155	802.11ac	80	H+J	MCS0	20.55	Left Cheek	MIMO	86.2	0.050	1.160	33.6	
5 775	155	802.11ac	80	H+J	MCS0	20.55	Left Tilt	MIMO	86.2	0.014	1.160	39.1	
5 855	171	802.11ac	80	H+J	MCS0	20.30	Right Cheek	MIMO	86.2	0.080	1.160	31.3	31.3
5 855	171	802.11ac	80	H+J	MCS0	20.30	Right Tilt	MIMO	86.2	0.001	1.160	50.3	
5 855	171	802.11ac	80	H+J	MCS0	20.30	Left Cheek	MIMO	86.2	0.067	1.160	31.8	
5 855	171	802.11ac	80	H+J	MCS0	20.30	Left Tilt	MIMO	86.2	0	1.160	N/A	
6 785	167	802.11ax	80	H+J	MCS0	12.28	Right Cheek	MIMO	99.2	0.000	1.008	N/A	29.0
6 785	167	802.11ax	80	H+J	MCS0	12.28	Right Tilt	MIMO	99.2	0.006	1.008	34.5	
6 785	167	802.11ax	80	H+J	MCS0	12.28	Left Cheek	MIMO	99.2	0.006	1.008	34.5	
7 025	215	802.11ax	80	H+J	MCS0	12.01	Left Tilt	MIMO	99.2	0.020	1.008	29.0	

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			(W/kg)	(Duty)	(dBm)	(dBm)
2 441	39	DH5	H	17.44	Right Cheek	Ant 1	0.152	1.016	25.6	24.6
2 441	39	DH5	H	17.44	Right Tilt	Ant 1	0.055	1.016	30.0	
2 441	39	DH5	H	17.44	Left Cheek	Ant 1	0.194	1.016	24.6	
2 441	39	DH5	H	17.44	Left Tilt	Ant 1	0.056	1.016	30.0	
2 441	39	DH5	G	15.29	Right Cheek	Ant 2	0.146	1.016	23.6	22.9
2 441	39	DH5	G	15.29	Right Tilt	Ant 2	0.134	1.016	24.0	
2 441	39	DH5	G	15.29	Left Cheek	Ant 2	0.129	1.016	24.2	
2 441	39	DH5	G	15.29	Left Tilt	Ant 2	0.173	1.016	22.9	

Table A-5 DSI = 1 P_{Limit} Calculations – 2G/3G Hotspot/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
Mhz	Ch.				(dBm)				(W/kg)	(dBm)	(dBm)
836.6	190	GSM 850	GPRS2Tx	A	25.56	Back	10	1:4.15	0.196	32.6	32.6
836.6	190	GSM 850	GPRS2Tx	A	25.56	Front	10	1:4.15	0.051	38.5	
836.6	190	GSM 850	GPRS2Tx	A	25.56	Bottom	10	1:4.15	0.064	37.5	
836.6	190	GSM 850	GPRS2Tx	A	25.56	Right	10	1:4.15	0.075	36.8	
1 880.0	661	GSM 1900	GPRS4Tx	B	21.50	Back	10	1:2.07	0.318	26.5	24.5
1 880.0	661	GSM 1900	GPRS4Tx	B	21.50	Front	10	1:2.07	0.157	29.5	
1 880.0	661	GSM 1900	GPRS4Tx	B	21.50	Bottom	10	1:2.07	0.499	24.5	
1 880.0	661	GSM 1900	GPRS4Tx	B	21.50	Right	10	1:2.07	0.330	26.3	
1 880.0	661	GSM 1900	GPRS4Tx	B	21.50	Left	10	1:2.07	0.028	37.0	
836.6	4183	UMTS 850	RMC	A	24.40	Back	10	1:1	0.441	28.0	28.0
836.6	4183	UMTS 850	RMC	A	24.40	Front	10	1:1	0.201	31.4	
836.6	4183	UMTS 850	RMC	A	24.40	Bottom	10	1:1	0.166	32.2	
836.6	4183	UMTS 850	RMC	A	24.40	Right	10	1:1	0.298	29.7	
1 712.4	1312	UMTS 1700	RMC	B	19.50	Back	10	1:1	0.404	23.4	21.3
1 712.4	1312	UMTS 1700	RMC	B	19.50	Front	10	1:1	0.161	27.4	
1 712.4	1312	UMTS 1700	RMC	B	19.50	Bottom	10	1:1	0.659	21.3	
1 712.4	1312	UMTS 1700	RMC	B	19.50	Right	10	1:1	0.188	26.8	
1 712.4	1312	UMTS 1700	RMC	B	19.50	Left	10	1:1	0.048	32.7	
1 880	9400	UMTS 1900	RMC	B	18.71	Back	10	1:1	0.296	24.0	21.9
1 880	9400	UMTS 1900	RMC	B	18.71	Front	10	1:1	0.237	25.0	
1 880	9400	UMTS 1900	RMC	B	18.71	Bottom	10	1:1	0.478	21.9	
1 880	9400	UMTS 1900	RMC	B	18.71	Right	10	1:1	0.161	26.6	
1 880	9400	UMTS 1900	RMC	B	18.71	Left	10	1:1	0.042	32.5	

Table A-6 DSI = 1 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	Frame Averaged Conducted Power	Test Position	Spacing (mm)	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR (1g)	P _{limit}	Minimum P _{limit}
MHz	Ch.				MHz	(dBm)							(W/kg)	(dBm)	(dBm)
836.5	20525	LTE Band 5	Mid	A	10	24.51	Back	10	0	1	49	1:1	0.374	28.8	28.8
836.5	20525	LTE Band 5	Mid	A	10	24.51	Front	10	0	1	49	1:1	0.156	32.6	
836.5	20525	LTE Band 5	Mid	A	10	24.51	Bottom	10	0	1	49	1:1	0.131	33.3	
836.5	20525	LTE Band 5	Mid	A	10	24.51	Right	10	0	1	49	1:1	0.139	33.1	
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Back	10	0	1	49	1:1	0.216	30.7	30.1
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Front	10	0	1	49	1:1	0.120	33.2	
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Bottom	10	0	1	49	1:1	0.051	36.9	
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Right	10	0	1	49	1:1	0.244	30.1	
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Left	10	0	1	49	1:1	0.096	34.2	31.0
707.5	23095	LTE Band 12	Mid	A	10	24.01	Back	10	0	1	49	1:1	0.198	31.0	
707.5	23095	LTE Band 12	Mid	A	10	24.01	Front	10	0	1	49	1:1	0.119	33.3	
707.5	23095	LTE Band 12	Mid	A	10	24.01	Bottom	10	0	1	49	1:1	0.037	38.3	
707.5	23095	LTE Band 12	Mid	A	10	24.01	Right	10	0	1	49	1:1	0.098	34.1	28.8
782	23230	LTE Band 13	Mid	A+B	10	23.03	Back	10	0	1	49	1:1	0.266	28.8	
782	23230	LTE Band 13	Mid	A+B	10	23.03	Front	10	0	1	49	1:1	0.120	32.2	
782	23230	LTE Band 13	Mid	A+B	10	23.03	Bottom	10	0	1	49	1:1	0.072	34.5	
782	23230	LTE Band 13	Mid	A+B	10	23.03	Right	10	0	1	49	1:1	0.198	30.1	
782	23230	LTE Band 13	Mid	A+B	10	23.03	Left	10	0	1	49	1:1	0.169	30.8	29.0
782	23230	LTE Band 13	Mid	A	10	23.03	Back	10	0	1	49	1:1	0.252	29.0	
782	23230	LTE Band 13	Mid	A	10	23.03	Front	10	0	1	49	1:1	0.141	31.5	
782	23230	LTE Band 13	Mid	A	10	23.03	Bottom	10	0	1	49	1:1	0.058	35.4	
782	23230	LTE Band 13	Mid	A	10	23.03	Right	10	0	1	49	1:1	0.168	30.8	21.8
1 860	26140	LTE Band 25	Low	B	20	19.01	Back	10	0	1	0	1:1	0.187	26.3	
1 860	26140	LTE Band 25	Low	B	20	19.01	Front	10	0	1	0	1:1	0.216	25.7	
1 860	26140	LTE Band 25	Low	B	20	19.01	Bottom	10	0	1	0	1:1	0.521	21.8	
1 860	26140	LTE Band 25	Low	B	20	19.01	Right	10	0	1	0	1:1	0.076	30.2	
1 860	26140	LTE Band 25	Low	B	20	19.01	Left	10	0	1	0	1:1	0.026	34.9	22.2
1 882.5	26365	LTE Band 25	Mid	F	20	19.85	Back	10	0	1	49	1:1	0.338	24.6	
1 882.5	26365	LTE Band 25	Mid	F	20	19.85	Front	10	0	1	49	1:1	0.125	28.9	
1 882.5	26365	LTE Band 25	Mid	F	20	19.85	Top	10	0	1	49	1:1	0.580	22.2	
1 882.5	26365	LTE Band 25	Mid	F	20	19.85	Left	10	0	1	49	1:1	0.093	30.2	

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	Mid	A	15	24.37	Back	10	0	1	74	1:1	0.351	28.9	28.9
831.5	26865	LTE Band 26	Mid	A	15	24.37	Front	10	0	1	74	1:1	0.153	32.5	
831.5	26865	LTE Band 26	Mid	A	15	24.37	Bottom	10	0	1	74	1:1	0.137	33.0	
831.5	26865	LTE Band 26	Mid	A	15	24.37	Right	10	0	1	74	1:1	0.143	32.8	
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Back	10	0	1	0	1:1.58	0.286	22.7	20.6
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Front	10	0	1	0	1:1.58	0.048	30.5	
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Bottom	10	0	1	0	1:1.58	0.470	20.6	
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Right	10	0	1	0	1:1.58	0.065	29.2	
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Left	10	0	1	0	1:1.58	0.013	36.5	
2 593	40620	LTE Band 41(PC2)	Mid	B	20	16.90	Bottom	10	0	1	99	1:2.31	0.574	19.3	19.3
2 680.0	41490	LTE Band 41(PC3)	High	F	20	19.16	Back	10	0	1	0	1:1.58	0.157	27.2	24.9
2 680.0	41490	LTE Band 41(PC3)	High	F	20	19.16	Front	10	0	1	0	1:1.58	0.040	33.1	
2 680.0	41490	LTE Band 41(PC3)	High	F	20	19.16	Top	10	0	1	0	1:1.58	0.270	24.9	
2 680.0	41490	LTE Band 41(PC3)	High	F	20	19.16	Left	10	0	1	0	1:1.58	0.062	31.2	
2 680.0	41490	LTE Band 41(PC2)	High	F	20	19.25	Top	10	0	1	0	1:2.31	0.230	25.6	25.6
1 770	132572	LTE Band 66	High	B	20	19.33	Back	10	0	1	99	1:1	0.311	24.4	21.1
1 770	132572	LTE Band 66	High	B	20	19.33	Front	10	0	1	99	1:1	0.223	25.8	
1 770	132572	LTE Band 66	High	B	20	19.33	Bottom	10	0	1	99	1:1	0.669	21.1	
1 770	132572	LTE Band 66	High	B	20	19.33	Right	10	0	1	99	1:1	0.120	28.5	
1 770	132572	LTE Band 66	High	B	20	19.33	Left	10	0	1	99	1:1	0.037	33.6	
1 745	132322	LTE Band 66	Mid	F	20	20.22	Back	10	0	1	99	1:1	0.263	26.0	22.3
1 745	132322	LTE Band 66	Mid	F	20	20.22	Front	10	0	1	99	1:1	0.133	29.0	
1 745	132322	LTE Band 66	Mid	F	20	20.22	Top	10	0	1	99	1:1	0.621	22.3	
1 745	132322	LTE Band 66	Mid	F	20	20.22	Left	10	0	1	99	1:1	0.078	31.3	

Table A-7 DSI = 1 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 all 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	Minim PLimit
MHz	Ch.															
					MHz	(dBm)			(dB)					(W/kg)	(dBm)	(dBm)
836.5	167300	NR Band n5	Mid	A	20	24.33	Back	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.292	29.7	29.7
836.5	167300	NR Band n5	Mid	A	20	24.33	Front	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.122	33.5	
836.5	167300	NR Band n5	Mid	A	20	24.33	Bottom	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.115	33.7	
836.5	167300	NR Band n5	Mid	A	20	24.33	Right	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.180	31.8	
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Back	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.372	23.0	21.1
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.133	27.4	
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Bottom	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.571	21.1	
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Right	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.133	27.4	
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Left	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.044	32.2	23.5
1 882.5	376500	NR Band n25	Mid	F	40	20.97	Back	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.459	24.4	
1 882.5	376500	NR Band n25	Mid	F	40	20.97	Front	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.108	30.6	
1 882.5	376500	NR Band n25	Mid	F	40	20.97	Top	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.562	23.5	
1 882.5	376500	NR Band n25	Mid	F	40	20.97	Left	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.075	32.2	19.8
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Back	DFT-s-OFDM QPSK	0	10	135	69	1:1	0.301	22.5	
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Front	DFT-s-OFDM QPSK	0	10	135	69	1:1	0.046	30.7	
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Bottom	DFT-s-OFDM QPSK	0	10	135	69	1:1	0.564	19.8	
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Right	DFT-s-OFDM QPSK	0	10	135	69	1:1	0.124	26.3	
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Left	DFT-s-OFDM QPSK	0	10	135	69	1:1	0.033	32.1	
2 592.99	518598	NR Bandn41(PC3)	Mid	F	100	19.23	Back	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.205	26.1	24.8
2 592.99	518598	NR Bandn41(PC3)	Mid	F	100	19.23	Front	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.053	32.0	
2 592.99	518598	NR Bandn41(PC3)	Mid	F	100	19.23	Top	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.278	24.8	
2 592.99	518598	NR Bandn41(PC3)	Mid	F	100	19.23	Left	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.069	30.8	
2 592.99	518598	NR Bandn41 SRS	Mid	C	100	11.83	Back	CW	0	10	-	-	1:1	0.0105	31.4	31.0
2 592.99	518598	NR Bandn41 SRS	Mid	C	100	11.83	Front	CW	0	10	-	-	1:1	0.000	0	
2 592.99	518598	NR Bandn41 SRS	Mid	C	100	11.83	Bottom	CW	0	10	-	-	1:1	0.012	31.0	
2 592.99	518598	NR Bandn41 SRS	Mid	C	100	11.83	Left	CW	0	10	-	-	1:1	0.000	0	
2 592.99	518598	NR Bandn41 SRS	Mid	H	100	12.13	Back	CW	0	10	-	-	1:1	0.028	27.7	27.7
2 592.99	518598	NR Bandn41 SRS	Mid	H	100	12.13	Front	CW	0	10	-	-	1:1	0.012	31.3	
2 592.99	518598	NR Bandn41 SRS	Mid	H	100	12.13	Right	CW	0	10	-	-	1:1	0.034	26.8	

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	Minim m Plir
Mhz	Ch.															
				Mhz	(dBm)			(dB)						(W/kg)	(dBm)	(dBm)
1 745	349000	NR Band n66	Mid	B	40	19.38	Back	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.400	23.4	22.2
1 745	349000	NR Band n66	Mid	B	40	19.38	Front	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.098	29.5	
1 745	349000	NR Band n66	Mid	B	40	19.38	Bottom	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.526	22.2	
1 745	349000	NR Band n66	Mid	B	40	19.38	Right	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.163	27.3	
1 745	349000	NR Band n66	Mid	B	40	19.38	Left	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.045	32.8	
1 745	349000	NR Band n66	Mid	F	40	20.16	Back	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.318	25.1	22.7
1 745	349000	NR Band n66	Mid	F	40	20.16	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.114	29.6	
1 745	349000	NR Band n66	Mid	F	40	20.16	Top	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.559	22.7	
1 745	349000	NR Band n66	Mid	F	40	20.16	Left	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.074	31.5	
3 750	650000	NR Band n77(PC3)	Low	F	100	17.87	Back	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.267	23.6	22.9
3 750	650000	NR Band n77(PC3)	Low	F	100	17.87	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.055	30.5	
3 750	650000	NR Band n77(PC3)	Low	F	100	17.87	Top	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.313	22.9	
3 750	650000	NR Band n77(PC3)	Low	F	100	17.87	Left	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.060	30.1	
3 500.01	633334	NR Band n77DoD	Mid	F	100	17.47	Top	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.218	24.1	24.1
3 750	650000	NR Band n77SRS	Low	D	100	15.62	Back	CW	0	10	-	-	1:1	0.109	25.3	24.2
3 750	650000	NR Band n77SRS	Low	D	100	15.62	Front	CW	0	10	-	-	1:1	0.00743	37.2	
3 750	650000	NR Band n77SRS	Low	D	100	15.62	Bottom	CW	0	10	-	-	1:1	0.140	24.2	
3 750	650000	NR Band n77SRS	Low	D	100	15.62	Left	CW	0	10	-	-	1:1	0	N/A	
3 500.01	633334	NR Band n77DoD	Mid	D	100	14.49	Bottom	CW	0	10	-	-	1:1	0.220	21.1	21.1
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Back	CW	0	10	-	-	1:1	0.126	24.6	24.5
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Front	CW	0	10	-	-	1:1	0.041	29.5	
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Top	CW	0	10	-	-	1:1	0.128	24.5	
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Left	CW	0	10	-	-	1:1	0.00532	38.6	
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Right	CW	0	10	-	-	1:1	0.019	32.8	
3 500.01	633334	NR Band n77DoD	Mid	G	100	14.69	Top	CW	0	10	-	-	1:1	0.085	25.4	25.4
3 750	650000	NR Band n77SRS	Low	A	100	15.78	Back	CW	0	10	-	-	1:1	0.130	24.6	24.6
3 750	650000	NR Band n77SRS	Low	A	100	15.78	Front	CW	0	10	-	-	1:1	0.035	30.3	
3 750	650000	NR Band n77SRS	Low	A	100	15.78	Bottom	CW	0	10	-	-	1:1	0.078	26.9	
3 750	650000	NR Band n77SRS	Low	A	100	15.78	Right	CW	0	10	-	-	1:1	0.024	32.0	
3 500.01	633334	NR Band n77DoD	Mid	A	100	15.01	Rear	CW	0	10	-	-	1:1	0.115	24.4	24.4

Table A-8 DSI = 1 PLimit Calculations – WLAN Hotspot/Body SAR

MEASUREMENT RESULTS													
Frequency		Mode/ Band	Band width	Ant. No.	Data Rate	Frame Averaged	Test Position	Ant. Config.	Duty Cycle	Meas.	Scaling	Plimit	Minimum
Mhz	Ch.				(Mbps)	Conducted Power				SAR(1g)	Factor	(dBm)	Plimit
			(Mhz)			(dBm)				(W/kg)	(Duty)		(dBm)
2 437	6	802.11b	20	G	1	17.95	Rear	WIFI2	98.9	0.195	1.011	25.1	21.5
2 437	6	802.11b	20	G	1	17.95	Front	WIFI2	98.9	0.106	1.011	27.7	
2 437	6	802.11b	20	G	1	17.95	Top	WIFI2	98.9	0.438	1.011	21.5	
2 437	6	802.11b	20	G	1	17.95	Right	WIFI2	98.9	0.159	1.011	25.9	
2 437	6	802.11b	20	G	1	17.95	Left	WIFI2	98.9	0.014	1.011	36.5	
2 437	11	802.11b	20	H+G	1	21.14	Rear	MIMO	98.9	0.220	1.011	27.7	23.4
2 437	11	802.11b	20	H+G	1	21.14	Front	MIMO	98.9	0.194	1.011	28.3	
2 437	11	802.11b	20	H+G	1	21.14	Top	MIMO	98.9	0.592	1.011	23.4	
2 437	11	802.11b	20	H+G	1	21.14	Right	MIMO	98.9	0.344	1.011	25.8	
2 437	11	802.11b	20	H+G	1	21.14	Left	MIMO	98.9	0.020	1.011	38.1	
5 270	54	802.11n	40	H+J	MCS8	18.96	Rear	MIMO	86.8	0.693	1.152	20.6	20.6
5 270	54	802.11n	40	H+J	MCS8	18.96	Front	MIMO	86.8	0.019	1.152	36.2	
5 690	138	802.11ac	80	H+J	MCS0	19.48	Rear	MIMO	86.2	0.463	1.160	22.8	22.8
5 690	138	802.11ac	80	H+J	MCS0	19.48	Front	MIMO	86.2	0.011	1.160	39.1	
5 775	155	802.11ac	80	H+J	MCS0	19.57	Rear	MIMO	86.2	0.604	1.160	21.8	21.8
5 775	155	802.11ac	80	H+J	MCS0	19.57	Front	MIMO	86.2	0.00813	1.160	40.5	
5 775	155	802.11ac	80	H+J	MCS0	19.57	Top	MIMO	86.2	0.187	1.160	26.9	
5 775	155	802.11ac	80	H+J	MCS0	19.57	Right	MIMO	86.2	0.131	1.160	28.4	
5 775	155	802.11ac	80	H+J	MCS0	19.57	Left	MIMO	86.2	0.026	1.160	35.4	
5 855	171	802.11ac	80	H+J	MCS0	19.43	Rear	MIMO	86.2	0.281	1.011	24.9	24.9
5 855	171	802.11ac	80	H+J	MCS0	19.43	Front	MIMO	86.2	0	1.011	N/A	
6 785	167	802.11ax	80	H+J	MCS0	12.28	Rear	MIMO	99.2	0.345	1.008	16.9	16.9
6 785	167	802.11ax	80	H+J	MCS0	12.28	Front	MIMO	99.2	0	1.008	N/A	

MEASUREMENT RESULTS										
Frequency		Mode/ Band	Ant. No.	Frame Averaged	Test Position	Ant. Config.	Meas.	Scaling	Plimit	Minimum
Mhz	Ch.			Conducted Power			SAR(1g)	Factor	(dBm)	Plimit
				(dBm)			(W/kg)	(Duty)		(dBm)
2 441	39	DH5	H	17.44	Rear	Ant 1	0.032	1.016	32.4	28.0
2 441	39	DH5	H	17.44	Front	Ant 1	0.036	1.016	31.9	
2 441	39	DH5	H	17.44	Right	Ant 1	0.089	1.016	28.0	
2 441	39	DH5	G	15.29	Rear	Ant 2	0.066	1.016	27.1	23.5
2 441	39	DH5	G	15.29	Front	Ant 2	0.032	1.016	30.2	
2 441	39	DH5	G	15.29	Top	Ant 2	0.151	1.016	23.5	
2 441	39	DH5	G	15.29	Right	Ant 2	0.057	1.016	27.7	
2 441	39	DH5	G	15.29	Left	Ant 2	0.004	1.016	39.3	

Table A-9 DSI = 1 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	A	25.56	Back	0	1:4.15	1.370	28.2	28.2
836.6	190	GSM 850	GPRS2Tx	A	25.56	Front	0	1:4.15	0.143	38.0	
836.6	190	GSM 850	GPRS2Tx	A	25.56	Bottom	0	1:4.15	0.802	30.5	
836.6	190	GSM 850	GPRS2Tx	A	25.56	Right	0	1:4.15	0.689	31.2	
1 880.0	661	GSM 1900	GPRS4Tx	B	21.50	Back	0	1:2.07	0.745	23.7	22.7
1 880.0	661	GSM 1900	GPRS4Tx	B	21.50	Front	0	1:2.07	0.471	25.7	
1 880.0	661	GSM 1900	GPRS4Tx	B	21.50	Bottom	0	1:2.07	0.952	22.7	
1 880.0	661	GSM 1900	GPRS4Tx	B	21.50	Right	0	1:2.07	0.178	30.0	
1 880.0	661	GSM 1900	GPRS4Tx	B	21.50	Left	0	1:2.07	0.060	34.7	
836.6	4183	UMTS 850	RMC	A	24.40	Back	0	1:1	1.500	26.6	26.3
836.6	4183	UMTS 850	RMC	A	24.40	Front	0	1:1	0.227	34.8	
836.6	4183	UMTS 850	RMC	A	24.40	Bottom	0	1:1	1.630	26.3	
836.6	4183	UMTS 850	RMC	A	24.40	Right	0	1:1	1.170	27.7	
1 712.4	1312	UMTS 1700	RMC	B	19.50	Back	0	1:1	1.420	22.0	21.7
1 712.4	1312	UMTS 1700	RMC	B	19.50	Front	0	1:1	0.511	26.4	
1 712.4	1312	UMTS 1700	RMC	B	19.50	Bottom	0	1:1	1.500	21.7	
1 712.4	1312	UMTS 1700	RMC	B	19.50	Right	0	1:1	0.357	28.0	
1 712.4	1312	UMTS 1700	RMC	B	19.50	Left	0	1:1	0.085	34.2	
1 880	9400	UMTS 1900	RMC	B	18.71	Back	0	1:1	1.080	22.4	22.0
1 880	9400	UMTS 1900	RMC	B	18.71	Front	0	1:1	0.604	24.9	
1 880	9400	UMTS 1900	RMC	B	18.71	Bottom	0	1:1	1.180	22.0	
1 880	9400	UMTS 1900	RMC	B	18.71	Right	0	1:1	0.231	29.1	
1 880	9400	UMTS 1900	RMC	B	18.71	Left	0	1:1	0.089	33.2	

Table A-10 DSI = 1 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 Size	RB offset	Duty Cycle	Meas. SAR (10g)	Plimit	Minimum Plimit
					Mhz	(dBm)			(dB)				(W/kg)	(dBm)	(dBm)
836.5	20525	LTE Band 5	Mid	A	10	24.51	Back	0	0	1	49	1:1	1.330	27.3	27.3
836.5	20525	LTE Band 5	Mid	A	10	24.51	Front	0	0	1	49	1:1	0.206	35.4	
836.5	20525	LTE Band 5	Mid	A	10	24.51	Bottom	0	0	1	49	1:1	1.520	26.7	
836.5	20525	LTE Band 5	Mid	A	10	24.51	Right	0	0	1	49	1:1	0.871	29.1	
707.5	23095	LTE Band 12	Mid	A	10	24.01	Back	0	0	1	49	1:1	1.460	26.3	26.3
707.5	23095	LTE Band 12	Mid	A	10	24.01	Front	0	0	1	49	1:1	0.424	31.7	
707.5	23095	LTE Band 12	Mid	A	10	24.01	Bottom	0	0	1	49	1:1	1.410	26.5	
707.5	23095	LTE Band 12	Mid	A	10	24.01	Right	0	0	1	49	1:1	1.480	26.3	
782	23230	LTE Band 13	Mid	A	10	23.03	Back	0	0	1	49	1:1	1.260	26.0	26.0
782	23230	LTE Band 13	Mid	A	10	23.03	Front	0	0	1	49	1:1	0.128	35.9	
782	23230	LTE Band 13	Mid	A	10	23.03	Bottom	0	0	1	49	1:1	1.010	27.0	
782	23230	LTE Band 13	Mid	A	10	23.03	Right	0	0	1	49	1:1	0.876	27.6	
1 860	26140	LTE Band 25	Low	B	20	19.01	Back	0	0	1	0	1:1	0.981	23.1	22.1
1 860	26140	LTE Band 25	Low	B	20	19.01	Front	0	0	1	0	1:1	0.539	25.7	
1 860	26140	LTE Band 25	Low	B	20	19.01	Bottom	0	0	1	0	1:1	1.240	22.1	
1 860	26140	LTE Band 25	Low	B	20	19.01	Right	0	0	1	0	1:1	0.185	30.3	
1 860	26140	LTE Band 25	Low	B	20	19.01	Left	0	0	1	0	1:1	0.078	34.1	
1 882.5	26365	LTE Band 25	Mid	F	20	19.85	Back	0	0	1	49	1:1	1.400	22.4	20.1
1 882.5	26365	LTE Band 25	Mid	F	20	19.85	Front	0	0	1	49	1:1	0.237	20.1	
1 882.5	26365	LTE Band 25	Mid	F	20	19.85	Top	0	0	1	49	1:1	1.680	21.6	
1 882.5	26365	LTE Band 25	Mid	F	20	19.85	Left	0	0	1	49	1:1	0.206	30.7	

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 (10g)	Plimit	Minimum Plimit
Mhz	Ch.				Mhz	(dBm)			(dB)				(W/kg)	(dBm)	(dBm)
831.5	26865	LTE Band 26	Mid	A	15	24.37	Back	0	0	1	74	1:1	1.390	26.9	26.9
831.5	26865	LTE Band 26	Mid	A	15	24.37	Front	0	0	1	74	1:1	0.225	34.8	
831.5	26865	LTE Band 26	Mid	A	15	24.37	Bottom	0	0	1	74	1:1	1.300	27.2	
831.5	26865	LTE Band 26	Mid	A	15	24.37	Right	0	0	1	74	1:1	1.380	27.0	
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Back	0	0	1	0	1:1.58	1.400	19.8	19.8
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Front	0	0	1	0	1:1.58	0.100	31.3	
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Bottom	0	0	1	0	1:1.58	1.330	20.0	
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Right	0	0	1	0	1:1.58	0.198	28.3	
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Left	0	0	1	0	1:1.58	0.045	34.7	
2 593	40620	LTE Band 41(PC2)	Mid	B	20	16.90	Bottom	0	0	1	99	1:2.31	1.390	19.8	19.8
2 680.0	41490	LTE Band 41(PC3)	High	F	20	19.16	Back	0	0	1	0	1:1.58	0.545	25.8	21.3
2 680.0	41490	LTE Band 41(PC3)	High	F	20	19.16	Front	0	0	1	0	1:1.58	0.099	33.2	
2 680.0	41490	LTE Band 41(PC3)	High	F	20	19.16	Top	0	0	1	0	1:1.58	1.540	21.3	
2 680.0	41490	LTE Band 41(PC3)	High	F	20	19.16	Left	0	0	1	0	1:1.58	0.129	32.0	
2 680.0	41490	LTE Band 41(PC2)	High	F	20	19.25	Top	0	0	1	0	1:2.31	1.490	21.4	21.4
1 770	132572	LTE Band 66	High	B	20	19.33	Back	0	0	1	99	1:1	0.924	23.7	21.7
1 770	132572	LTE Band 66	High	B	20	19.33	Front	0	0	1	99	1:1	0.109	32.9	
1 770	132572	LTE Band 66	High	B	20	19.33	Bottom	0	0	1	99	1:1	1.450	21.7	
1 770	132572	LTE Band 66	High	B	20	19.33	Right	0	0	1	99	1:1	0.262	29.1	
1 770	132572	LTE Band 66	High	B	20	19.33	Left	0	0	1	99	1:1	0.031	38.4	
1 745	132322	LTE Band 66	Mid	F	20	20.22	Back	0	0	1	99	1:1	1.360	22.9	22.9
1 745	132322	LTE Band 66	Mid	F	20	20.22	Front	0	0	1	99	1:1	0.242	30.4	
1 745	132322	LTE Band 66	Mid	F	20	20.22	Top	0	0	1	99	1:1	1.190	23.4	
1 745	132322	LTE Band 66	Mid	F	20	20.22	Left	0	0	1	99	1:1	0.197	31.3	

Table A-11 DSI = 1 *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 all 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	Minimu PLimit
Mhz	Ch.				Mhz	(dBm)								(W/kg)	(dBm)	(dBm)
836.5	167300	NR Band n5	Mid	A	20	24.33	Back	DFT-s-OFDM QPSK	0	0	1	53	1:1	1.180	27.6	27.6
836.5	167300	NR Band n5	Mid	A	20	24.33	Front	DFT-s-OFDM QPSK	0	0	1	53	1:1	0.106	38.1	
836.5	167300	NR Band n5	Mid	A	20	24.33	Bottom	DFT-s-OFDM QPSK	0	0	1	53	1:1	1.140	27.7	
836.5	167300	NR Band n5	Mid	A	20	24.33	Right	DFT-s-OFDM QPSK	0	0	1	53	1:1	0.917	28.7	
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Back	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.450	21.0	20.3
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.415	26.5	
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Bottom	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.700	20.3	
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Right	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.212	29.4	
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Left	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.099	32.7	22.0
1 882.5	376500	NR Band n25	Mid	F	40	20.97	Back	DFT-s-OFDM QPSK	0	0	1	108	1:1	1.650	22.8	
1 882.5	376500	NR Band n25	Mid	F	40	20.97	Front	DFT-s-OFDM QPSK	0	0	1	108	1:1	0.270	30.6	
1 882.5	376500	NR Band n25	Mid	F	40	20.97	Top	DFT-s-OFDM QPSK	0	0	1	108	1:1	1.990	31.0	
1 882.5	376500	NR Band n25	Mid	F	40	20.97	Left	DFT-s-OFDM QPSK	0	0	1	108	1:1	0.250	22.0	19.1
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Back	DFT-s-OFDM QPSK	0	0	135	69	1:1	1.550	19.2	
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Front	DFT-s-OFDM QPSK	0	0	135	69	1:1	0.099	31.1	
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Bottom	DFT-s-OFDM QPSK	0	0	135	69	1:1	1.580	19.1	
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Right	DFT-s-OFDM QPSK	0	0	135	69	1:1	0.192	38.3	
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Left	DFT-s-OFDM QPSK	0	0	135	69	1:1	0.067	32.8	20.0
2 592.99	518598	NR Bandn41(PC3)	Mid	F	100	19.23	Back	DFT-s-OFDM QPSK	0	0	1	271	1:1	0.835	24.0	
2 592.99	518598	NR Bandn41(PC3)	Mid	F	100	19.23	Front	DFT-s-OFDM QPSK	0	0	1	271	1:1	0.140	31.7	
2 592.99	518598	NR Bandn41(PC3)	Mid	F	100	19.23	Top	DFT-s-OFDM QPSK	0	0	1	271	1:1	2.110	20.0	
2 592.99	518598	NR Bandn41(PC3)	Mid	F	100	19.23	Left	DFT-s-OFDM QPSK	0	0	1	271	1:1	0.150	31.4	25.5
2 592.99	518598	NR Bandn41 SRS	Mid	C	100	11.83	Back	CW	0	0	-	-	1:1	0.108	25.5	
2 592.99	518598	NR Bandn41 SRS	Mid	C	100	11.83	Front	CW	0	0	-	-	1:1	0	N/A	
2 592.99	518598	NR Bandn41 SRS	Mid	C	100	11.83	Bottom	CW	0	0	-	-	1:1	0.036	30.2	
2 592.99	518598	NR Bandn41 SRS	Mid	C	100	11.83	Left	CW	0	0	-	-	1:1	0	N/A	22.3
2 592.99	518598	NR Bandn41 SRS	Mid	H	100	12.13	Back	CW	0	0	-	-	1:1	0.090	26.6	
2 592.99	518598	NR Bandn41 SRS	Mid	H	100	12.13	Front	CW	0	0	-	-	1:1	0.035	30.7	
2 592.99	518598	NR Bandn41 SRS	Mid	H	100	12.13	Right	CW	0	0	-	-	1:1	0.238	22.3	

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	Minim m Plir
Mhz	Ch.												(W/kg)	(dBm)	(dBm)
1 745	349000	NR Band n66	Mid	B	40	19.38	Back	DFT-s-OFDM QPSK	0	0	1	108	1:1	1.420	21.8
1 745	349000	NR Band n66	Mid	B	40	19.38	Front	DFT-s-OFDM QPSK	0	0	1	108	1:1	0.298	28.6
1 745	349000	NR Band n66	Mid	B	40	19.38	Bottom	DFT-s-OFDM QPSK	0	0	1	108	1:1	1.560	21.4
1 745	349000	NR Band n66	Mid	B	40	19.38	Right	DFT-s-OFDM QPSK	0	0	1	108	1:1	0.262	29.2
1 745	349000	NR Band n66	Mid	B	40	19.38	Left	DFT-s-OFDM QPSK	0	0	1	108	1:1	0.070	34.9
1 745	349000	NR Band n66	Mid	F	40	20.16	Back	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.560	22.2
1 745	349000	NR Band n66	Mid	F	40	20.16	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.271	29.8
1 745	349000	NR Band n66	Mid	F	40	20.16	Top	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.510	22.3
1 745	349000	NR Band n66	Mid	F	40	20.16	Left	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.208	31.0
3 750	650000	NR Band n77(PC3)	Low	F	100	17.87	Back	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.010	21.8
3 750	650000	NR Band n77(PC3)	Low	F	100	17.87	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.147	30.2
3 750	650000	NR Band n77(PC3)	Low	F	100	17.87	Top	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.780	19.3
3 750	650000	NR Band n77(PC3)	Low	F	100	17.87	Left	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.199	28.9
3 500.01	633334	NR Band n77DoD	Mid	F	100	17.47	Top	DFT-s-OFDM QPSK	0	0	1	271	1:1	1.810	18.9
3 750	650000	NR Band n77SRS	Low	D	100	15.62	Back	CW	0	0	-	-	1:1	0.413	23.4
3 750	650000	NR Band n77SRS	Low	D	100	15.62	Front	CW	0	0	-	-	1:1	0.033	34.4
3 750	650000	NR Band n77SRS	Low	D	100	15.62	Bottom	CW	0	0	-	-	1:1	0.438	23.2
3 750	650000	NR Band n77SRS	Low	D	100	15.62	Left	CW	0	0	-	-	1:1	0.018	37.0
3 500.01	633334	NR Band n77DoD	Mid	D	100	14.49	Bottom	CW	0	0	-	-	1:1	0.402	22.4
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Back	CW	0	0	-	-	1:1	0.253	25.6
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Front	CW	0	0	-	-	1:1	0.053	32.4
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Top	CW	0	0	-	-	1:1	0.523	22.4
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Left	CW	0	0	-	-	1:1	0.009	40.1
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Right	CW	0	0	-	-	1:1	0.036	34.0
3 500.01	633334	NR Band n77DoD	Mid	G	100	14.69	Top	CW	0	0	-	-	1:1	0.318	23.6
3 750	650000	NR Band n77SRS	Low	A	100	15.78	Back	CW	0	0	-	-	1:1	0.155	27.9
3 750	650000	NR Band n77SRS	Low	A	100	15.78	Front	CW	0	0	-	-	1:1	0.098	29.8
3 750	650000	NR Band n77SRS	Low	A	100	15.78	Bottom	CW	0	0	-	-	1:1	0.238	26.0
3 750	650000	NR Band n77SRS	Low	A	100	15.78	Right	CW	0	0	-	-	1:1	0.480	22.9
3 500.01	633334	NR Band n77DoD	Mid	A	100	15.01	Rear	CW	0	0	-	-	1:1	0.358	23.5

Table A-12 DSI = 1 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 (MHz)	Ant. No.	Data Rate	Frame Averaged	Test Position	Ant. Config.	Duty Cycle	Meas. SAR(10g)	Scaling Factor	Plimit	Minimum Plimit
Mhz	Ch.				(Mbps)	(dBm)				(W/kg)	(Duty)	(dBm)	(dBm)
2 437	6	802.11b	20	G	1	17.95	Rear	WIFI2	98.9	0.481	1.011	25.1	19.6
2 437	6	802.11b	20	G	1	17.95	Front	WIFI2	98.9	0.251	1.011	27.9	
2 437	6	802.11b	20	G	1	17.95	Top	WIFI2	98.9	1.710	1.011	19.6	
2 437	6	802.11b	20	G	1	17.95	Right	WIFI2	98.9	0.159	1.011	29.3	
2 437	6	802.11b	20	G	1	17.95	Left	WIFI2	98.9	0.045	1.011	35.4	
2 437	11	802.11b	20	H+G	1	17.58	Rear	MIMO	98.9	0.497	1.011	25.0	20.7
2 437	11	802.11b	20	H+G	1	17.58	Front	MIMO	98.9	0.268	1.011	27.7	
2 437	11	802.11b	20	H+G	1	17.58	Top	MIMO	98.9	1.680	1.011	19.7	
2 437	11	802.11b	20	H+G	1	17.58	Right	MIMO	98.9	0.180	1.011	29.4	
2 437	11	802.11b	20	H+G	1	17.58	Left	MIMO	98.9	0.045	1.011	35.4	
5 270	54	802.11n	40	H+J	MCS8	15.93	Rear	MIMO	86.8	1.040	1.152	19.7	19.7
5 270	54	802.11n	40	H+J	MCS8	15.93	Front	MIMO	86.8	0.041	1.152	33.8	
5 270	54	802.11n	40	H+J	MCS8	15.93	Top	MIMO	86.8	0.123	1.152	29.0	
5 270	54	802.11n	40	H+J	MCS8	15.93	Right	MIMO	86.8	0.585	1.152	22.2	
5 270	54	802.11n	40	H+J	MCS8	15.93	Left	MIMO	86.8	0.021	1.152	36.7	
5 690	138	802.11ac	80	H+J	MCS0	15.86	Rear	MIMO	86.2	0.945	1.160	20.1	20.1
5 690	138	802.11ac	80	H+J	MCS0	15.86	Front	MIMO	86.2	0.055	1.160	32.4	
5 690	138	802.11ac	80	H+J	MCS0	15.86	Top	MIMO	86.2	0.097	1.160	30.0	
5 690	138	802.11ac	80	H+J	MCS0	15.86	Right	MIMO	86.2	0.553	1.160	22.4	
5 690	138	802.11ac	80	H+J	MCS0	15.86	Left	MIMO	86.2	0.0079	1.160	40.8	
5 775	155	802.11ac	80	H+J	MCS0	16.35	Rear	MIMO	86.2	0.804	1.160	21.3	21.3
5 775	155	802.11ac	80	H+J	MCS0	16.35	Front	MIMO	86.2	0.073	1.160	31.7	
5 775	155	802.11ac	80	H+J	MCS0	16.35	Top	MIMO	86.2	0.034	1.160	35.0	
5 775	155	802.11ac	80	H+J	MCS0	16.35	Right	MIMO	86.2	0.236	1.160	26.6	
5 775	155	802.11ac	80	H+J	MCS0	16.35	Left	MIMO	86.2	0.173	1.160	27.9	
5 855	171	802.11ac	80	H+J	MCS0	15.97	Rear	MIMO	86.2	1.100	1.160	19.5	19.5
5 855	171	802.11ac	80	H+J	MCS0	15.97	Front	MIMO	86.2	0.033	1.160	34.8	
5 855	171	802.11ac	80	H+J	MCS0	15.97	Top	MIMO	86.2	0.129	1.160	28.8	
5 855	171	802.11ac	80	H+J	MCS0	15.97	Right	MIMO	86.2	0.206	1.160	26.8	
5 855	171	802.11ac	80	H+J	MCS0	15.97	Left	MIMO	86.2	0	1.160	N/A	
6 785	167	802.11ax	80	H+J	MCS0	8.46	Rear	MIMO	99.2	0.359	1.008	16.9	16.9
6 785	167	802.11ax	80	H+J	MCS0	8.46	Front	MIMO	99.2	0.001	1.008	42.4	
6 785	167	802.11ax	80	H+J	MCS0	8.46	Top	MIMO	99.2	0.006	1.008	34.6	
6 785	167	802.11ax	80	H+J	MCS0	8.46	Right	MIMO	99.2	0.021	1.008	29.2	
6 785	167	802.11ax	80	H+J	MCS0	8.46	Left	MIMO	99.2	0.068	1.008	24.1	

MEASUREMENT RESULTS										
Frequency		Mode/ Band	Ant. No.	Frame Averaged	Test Position	Ant. Config.	Meas. SAR(10g)	Scaling Factor	Plimit	Minimum Plimit
Mhz	Ch.			Conducted Power (dBm)			(W/kg)	(Duty)	(dBm)	(dBm)
2 441	39	DH5	H	17.44	Rear	Ant 1	0.096	1.016	31.6	27.2
2 441	39	DH5	H	17.44	Front	Ant 1	0.026	1.016	37.3	
2 441	39	DH5	H	17.44	Right	Ant 1	0.263	1.016	27.2	
2 441	39	DH5	G	15.29	Rear	Ant 2	0.171	1.016	26.9	21.3
2 441	39	DH5	G	15.29	Front	Ant 2	0.090	1.016	29.7	
2 441	39	DH5	G	15.29	Top	Ant 2	0.621	1.016	21.3	
2 441	39	DH5	G	15.29	Right	Ant 2	0.060	1.016	31.5	
2 441	39	DH5	G	15.29	Left	Ant 2	0.012	1.016	38.5	

Table A-10 DSI = 0 P_{Limit} Calculations – 2G/3G UMPC 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 Plimi
MHz	Ch.				(dBm)				(W/kg)	(dBm)	(dBm)
836.6	190	GSM 850	GPRS2Tx	A+B	25.56	Back	10	1:4.15	0.421	29.1	29.1
836.6	190	GSM 850	GPRS2Tx	A+B	25.56	Front	10	1:4.15	0.326	30.4	
836.6	190	GSM 850	GPRS2Tx	A+B	25.56	Bottom	10	1:4.15	0.424	29.3	
836.6	190	GSM 850	GPRS2Tx	A+B	25.56	Right	10	1:4.15	0.193	32.7	
1 880.0	661	GSM 1900	GPRS4Tx	B	18.49	Back	10	1:2.07	0.361	22.9	22.2
1 880.0	661	GSM 1900	GPRS4Tx	B	18.49	Front	10	1:2.07	0.284	24.0	
1 880.0	661	GSM 1900	GPRS4Tx	B	18.49	Bottom	10	1:2.07	0.424	22.2	
1 880.0	661	GSM 1900	GPRS4Tx	B	18.49	Right	10	1:2.07	0.163	26.4	
836.6	4183	UMTS 850	RMC	A+B	24.40	Back	10	1:1	0.497	27.4	27.4
836.6	4183	UMTS 850	RMC	A+B	24.40	Front	10	1:1	0.385	28.5	
836.6	4183	UMTS 850	RMC	A+B	24.40	Bottom	10	1:1	0.465	27.7	
836.6	4183	UMTS 850	RMC	A+B	24.40	Right	10	1:1	0.227	30.8	
1 712.4	1312	UMTS 1700	RMC	B	19.50	Back	10	1:1	0.393	23.6	23.3
1 712.4	1312	UMTS 1700	RMC	B	19.50	Front	10	1:1	0.222	26.0	
1 712.4	1312	UMTS 1700	RMC	B	19.50	Bottom	10	1:1	0.413	23.3	
1 712.4	1312	UMTS 1700	RMC	B	19.50	Right	10	1:1	0.122	28.6	
1 880	9400	UMTS 1900	RMC	B	18.71	Back	10	1:1	0.400	22.7	21.7
1 880	9400	UMTS 1900	RMC	B	18.71	Front	10	1:1	0.247	24.8	
1 880	9400	UMTS 1900	RMC	B	18.71	Bottom	10	1:1	0.508	21.7	
1 880	9400	UMTS 1900	RMC	B	18.71	Right	10	1:1	0.084	29.5	

Table A-11 DSI = 0 P_{Limit} Calculations – 4G UMPC Body 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(1 g)	Plimit	Minimum Plimit
Mhz	Ch.				Mhz	(dBm)			(dB)				(W/kg)	(dBm)	(dBm)
836.5	20525	LTE Band 5	Mid	A+B	10	24.51	Back	10	0	1	49	1:1	0.386	28.6	28.6
836.5	20525	LTE Band 5	Mid	A+B	10	24.51	Front	10	0	1	49	1:1	0.352	29.0	
836.5	20525	LTE Band 5	Mid	A+B	10	24.51	Bottom	10	0	1	49	1:1	0.321	29.4	
836.5	20525	LTE Band 5	Mid	A+B	10	24.51	Right	10	0	1	49	1:1	0.136	33.2	
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Back	10	0	1	49	1:1	0.289	29.4	29.4
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Front	10	0	1	49	1:1	0.287	29.4	
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Bottom	10	0	1	49	1:1	0.137	32.6	
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Right	10	0	1	49	1:1	0.191	31.2	
782	23230	LTE Band 13	Mid	A+B	10	23.03	Back	10	0	1	49	1:1	0.283	28.5	28.5
782	23230	LTE Band 13	Mid	A+B	10	23.03	Front	10	0	1	49	1:1	0.209	29.8	
782	23230	LTE Band 13	Mid	A+B	10	23.03	Bottom	10	0	1	49	1:1	0.195	30.1	
782	23230	LTE Band 13	Mid	A+B	10	23.03	Right	10	0	1	49	1:1	0.158	31.0	
1 860	26140	LTE Band 25	Low	B	20	19.01	Back	10	0	1	0	1:1	0.295	24.3	22.6
1 860	26140	LTE Band 25	Low	B	20	19.01	Front	10	0	1	0	1:1	0.228	25.4	
1 860	26140	LTE Band 25	Low	B	20	19.01	Bottom	10	0	1	0	1:1	0.442	22.6	
1 860	26140	LTE Band 25	Low	B	20	19.01	Right	10	0	1	0	1:1	0.083	29.8	
1 882.5	26365	LTE Band 25	Mid	F	20	19.85	Back	10	0	1	49	1:1	0.386	24.0	22.3
1 882.5	26365	LTE Band 25	Mid	F	20	19.85	Front	10	0	1	49	1:1	0.312	24.9	
1 882.5	26365	LTE Band 25	Mid	F	20	19.85	Top	10	0	1	49	1:1	0.567	22.3	
831.5	26865	LTE Band 26	Mid	A+B	15	24.37	Back	10	0	1	74	1:1	0.571	26.8	26.8
831.5	26865	LTE Band 26	Mid	A+B	15	24.37	Front	10	0	1	74	1:1	0.381	28.6	
831.5	26865	LTE Band 26	Mid	A+B	15	24.37	Bottom	10	0	1	74	1:1	0.335	29.1	
831.5	26865	LTE Band 26	Mid	A+B	15	24.37	Right	10	0	1	74	1:1	0.144	32.8	
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Back	10	0	1	0	1:1.58	0.323	21.5	19.6
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Front	10	0	1	0	1:1.58	0.251	22.6	
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Bottom	10	0	1	0	1:1.58	0.592	19.6	
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Right	10	0	1	0	1:1.58	0.067	29.0	
2 593	40620	LTE Band 41(PC2)	Mid	B	20	16.90	Bottom	10	0	1	99	1:2.31	0.774	18.0	18.0
2 680.0	41490	LTE Band 41(PC3)	High	F	20	19.16	Back	10	0	1	0	1:1.58	0.177	26.7	23.2
2 680.0	41490	LTE Band 41(PC3)	High	F	20	19.16	Front	10	0	1	0	1:1.58	0.143	27.6	
2 680.0	41490	LTE Band 41(PC3)	High	F	20	19.16	Top	10	0	1	0	1:1.58	0.394	23.2	
2 680.0	41490	LTE Band 41(PC2)	High	F	20	19.25	Top	10	0	1	0	1:2.31	0.330	24.1	24.1
1 770	132572	LTE Band 66	High	B	20	19.33	Back	10	0	1	99	1:1	0.406	23.2	21.6
1 770	132572	LTE Band 66	High	B	20	19.33	Front	10	0	1	99	1:1	0.288	24.7	
1 770	132572	LTE Band 66	High	B	20	19.33	Bottom	10	0	1	99	1:1	0.595	21.6	
1 770	132572	LTE Band 66	High	B	20	19.33	Right	10	0	1	99	1:1	0.130	28.2	
1 745	132322	LTE Band 66	Mid	F	20	20.22	Back	10	0	1	99	1:1	0.459	23.6	22.9
1 745	132322	LTE Band 66	Mid	F	20	20.22	Front	10	0	1	99	1:1	0.301	25.4	
1 745	132322	LTE Band 66	Mid	F	20	20.22	Top	10	0	1	99	1:1	0.540	22.9	

Table A-12 DSI = 0 *PLimit* Calculations – NR UMPC Body 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 all 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	Minim PLimit
Mhz	Ch.				Mhz	(dBm)										
836.5	167300	NR Band n5	Mid	A	20	24.33	Back	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.445	27.8	27.8
836.5	167300	NR Band n5	Mid	A	20	24.33	Front	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.241	30.5	
836.5	167300	NR Band n5	Mid	A	20	24.33	Bottom	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.260	30.2	
836.5	167300	NR Band n5	Mid	A	20	24.33	Right	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.213	31.0	
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Back	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.351	23.2	20.7
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.296	23.9	
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Bottom	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.629	20.7	
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Right	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.086	29.3	
1 882.5	376500	NR Band n25	Mid	F	40	20.97	Back	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.406	24.9	23.1
1 882.5	376500	NR Band n25	Mid	F	40	20.97	Front	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.333	25.7	
1 882.5	376500	NR Band n25	Mid	F	40	20.97	Top	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.608	23.1	
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Back	DFT-s-OFDM QPSK	0	10	135	69	1:1	0.327	22.1	17.4
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Front	DFT-s-OFDM QPSK	0	10	135	69	1:1	0.261	23.1	
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Bottom	DFT-s-OFDM QPSK	0	10	135	69	1:1	0.977	17.4	
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Right	DFT-s-OFDM QPSK	0	10	135	69	1:1	0.085	28.0	
2 592.99	518598	NR Bandn41(PC3)	Mid	F	100	19.23	Back	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.255	25.2	21.0
2 592.99	518598	NR Bandn41(PC3)	Mid	F	100	19.23	Front	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.236	25.5	
2 592.99	518598	NR Bandn41(PC3)	Mid	F	100	19.23	Top	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.659	21.0	
2 592.99	518598	NR Bandn41 SRS3	Mid		100	11.83	Back	CW	0	10	-	-	1:1	0.011	31.4	29.0
2 592.99	518598	NR Bandn41 SRS3	Mid		100	11.83	Front	CW	0	10	-	-	1:1	0.00428	35.8	
2 592.99	518598	NR Bandn41 SRS3	Mid		100	11.83	Bottom	CW	0	10	-	-	1:1	0.019	29.0	
2 592.99	518598	NR Bandn41 SRS4	Mid		100	12.13	Back	CW	0	10	-	-	1:1	0.024	28.3	23.4
2 592.99	518598	NR Bandn41 SRS4	Mid		100	12.13	Front	CW	0	10	-	-	1:1	0.067	23.9	
2 592.99	518598	NR Bandn41 SRS4	Mid		100	12.13	Right	CW	0	10	-	-	1:1	0.074	23.4	
1 745	349000	NR Band n66	Mid	B	40	19.38	Back	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.384	23.5	22.1
1 745	349000	NR Band n66	Mid	B	40	19.38	Front	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.281	24.9	
1 745	349000	NR Band n66	Mid	B	40	19.38	Bottom	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.535	22.1	
1 745	349000	NR Band n66	Mid	B	40	19.38	Right	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.174	27.0	
1 745	349000	NR Band n66	Mid	F	40	20.16	Back	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.381	24.4	22.1
1 745	349000	NR Band n66	Mid	F	40	20.16	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.281	25.7	
1 745	349000	NR Band n66	Mid	F	40	20.16	Top	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.634	22.1	
1 745	349000	NR Band n66	Mid	F	40	20.16	Bottom	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.634	22.1	

MEASUREMENT RESULTS																
Frequency		Mode		Ant. No.	Band width	Frame Averaged Conducted Power	Test Position		MPR	Spacing (mm)	RB Size	offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minim m Plimit
														(W/kg)	(dBm)	(dBm)
MHz	Ch.				MHz	(dBm)			(dB)							
3 750	650000	NR Band n77(PC3)	Low	F	100	17.87	Back	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.230	24.3	23.7
3 750	650000	NR Band n77(PC3)	Low	F	100	17.87	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.131	26.7	
3 750	650000	NR Band n77(PC3)	Low	F	100	17.87	Top	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.261	23.7	
3 500.01	633334	NR Band n77DoD	Mid	F	100	17.47	Top	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.204	24.4	24.4
3 750	650000	NR Band n77SRS	Low	D	100	15.62	Back	CW	0	10	-	-	1:1	0.154	23.7	20.3
3 750	650000	NR Band n77SRS	Low	D	100	15.62	Front	CW	0	10	-	-	1:1	0.133	24.4	
3 750	650000	NR Band n77SRS	Low	D	100	15.62	Bottom	CW	0	10	-	-	1:1	0.338	20.3	
3 500.01	633334	NR Band n77DoD	Mid	D	100	14.49	Bottom	CW	0	10	-	-	1:1	0.494	17.6	17.6
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Back	CW	0	10	-	-	1:1	0.117	25.2	23.3
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Front	CW	0	10	-	-	1:1	0.068	27.6	
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Top	CW	0	10	-	-	1:1	0.183	23.3	
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Right	CW	0	10	-	-	1:1	0.030	31.1	21.1
3 500.01	633334	NR Band n77DoD	Mid	G	100	14.69	Top	CW	0	10	-	-	1:1	0.230	21.1	
3 750	650000	NR Band n77SRS	Low	A	100	15.78	Back	CW	0	10	-	-	1:1	0.075	27.0	
3 750	650000	NR Band n77SRS	Low	A	100	15.78	Front	CW	0	10	-	-	1:1	0.068	27.5	24.6
3 750	650000	NR Band n77SRS	Low	A	100	15.78	Right	CW	0	10	-	-	1:1	0.066	27.6	
3 750	650000	NR Band n77SRS	Low	A	100	15.78	Bottom	CW	0	10	-	-	1:1	0.131	24.6	
3 500.01	633334	NR Band n77DoD	Mid	A	100	15.01	Right	CW	0	10	-	-	1:1	0.158	23.0	23.0

Table A-13 DSI = 0 PLimit Calculations – WLAN UMPC Body 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)	Conducted Power				(W/kg)	(Duty)	(dBm)	(dBm)
2 437	6	802.11b	20	G	1	17.95	Rear	WIFI2	98.9	0.231	1.011	24.3	20.5
2 437	6	802.11b	20	G	1	17.95	Front	WIFI2	98.9	0.177	1.011	25.5	
2 437	6	802.11b	20	G	1	17.95	Top	WIFI2	98.9	0.562	1.011	20.5	
2 437	6	802.11b	20	G	1	17.95	Right	WIFI2	98.9	0.279	1.011	23.5	
2 437	11	802.11b	20	H+G	1	21.14	Rear	MIMO	98.9	0.422	1.011	24.9	22.9
2 437	11	802.11b	20	H+G	1	21.14	Front	MIMO	98.9	0.358	1.011	25.6	
2 437	11	802.11b	20	H+G	1	21.14	Top	MIMO	98.9	0.452	1.011	24.6	
2 437	11	802.11b	20	H+G	1	21.14	Right	MIMO	98.9	0.668	1.011	22.9	
5 270	54	802.11n	40	H+J	MCS8	18.96	Rear	MIMO	86.8	0.600	1.152	21.2	21.2
5 270	54	802.11n	40	H+J	MCS8	18.96	Front	MIMO	86.8	0.084	1.152	29.7	
5 270	54	802.11n	40	H+J	MCS8	18.96	Top	MIMO	86.8	0.122	1.152	28.1	
5 270	54	802.11n	40	H+J	MCS8	18.96	Right	MIMO	86.8	0.153	1.152	27.1	
5 690	138	802.11ac	80	H+J	MCS0	19.48	Rear	MIMO	86.2	0.553	1.160	22.1	22.1
5 690	138	802.11ac	80	H+J	MCS0	19.48	Front	MIMO	86.2	0.090	1.160	29.9	
5 690	138	802.11ac	80	H+J	MCS0	19.48	Top	MIMO	86.2	0.101	1.160	29.4	
5 690	138	802.11ac	80	H+J	MCS0	19.48	Right	MIMO	86.2	0.174	1.160	27.1	
5 775	155	802.11ac	80	H+J	MCS0	19.57	Rear	MIMO	86.2	0.626	1.160	21.6	21.6
5 775	155	802.11ac	80	H+J	MCS0	19.57	Front	MIMO	86.2	0.099	1.160	29.6	
5 775	155	802.11ac	80	H+J	MCS0	19.57	Top	MIMO	86.2	0.201	1.160	26.5	
5 775	155	802.11ac	80	H+J	MCS0	19.57	Right	MIMO	86.2	0.160	1.160	27.5	
5 855	171	802.11ac	80	H+J	MCS0	19.43	Rear	MIMO	86.2	0.358	1.160	23.9	23.9
5 855	171	802.11ac	80	H+J	MCS0	19.43	Front	MIMO	86.2	0.036	1.160	33.9	
5 855	171	802.11ac	80	H+J	MCS0	19.43	Top	MIMO	86.2	0.140	1.160	28.0	
5 855	171	802.11ac	80	H+J	MCS0	19.43	Right	MIMO	86.2	0.070	1.160	31.0	
6 785	167	802.11ax	80	H+J	MCS0	12.28	Rear	MIMO	99.2	0.384	1.008	16.4	16.4
6 785	167	802.11ax	80	H+J	MCS0	12.28	Front	MIMO	99.2	0.000	1.008	N/A	
6 785	167	802.11ax	80	H+J	MCS0	12.28	Top	MIMO	99.2	0.99	1.008	22.3	
6 785	167	802.11ax	80	H+J	MCS0	12.28	Right	MIMO	99.2	0.000	1.008	N/A	

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			(W/kg)	(Duty)	(dBm)	(dBm)
2 441	39	DH5	H	17.44	Rear	Ant 1	0.060	1.016	29.7	26.9
2 441	39	DH5	H	17.44	Front	Ant 1	0.077	1.016	28.6	
2 441	39	DH5	H	17.44	Right	Ant 1	0.113	1.016	26.9	
2 441	39	DH5	G	15.29	Rear	Ant 2	0.079	1.016	26.3	23.7
2 441	39	DH5	G	15.29	Front	Ant 2	0.053	1.016	28.0	
2 441	39	DH5	G	15.29	Top	Ant 2	0.143	1.016	23.7	
2 441	39	DH5	G	15.29	Right	Ant 2	0.099	1.016	25.3	

Table A-14 DSI = 0 P_{Limit} Calculations – 2G/3G UMPC Extremity 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	A+B	25.56	Back	0	1:4.15	0.940	29.8	29.8
836.6	190	GSM 850	GPRS2Tx	A+B	25.56	Front	0	1:4.15	0.945	29.8	
836.6	190	GSM 850	GPRS2Tx	A+B	25.56	Bottom	0	1:4.15	0.897	30.0	
836.6	190	GSM 850	GPRS2Tx	A+B	25.56	Right	0	1:4.15	0.716	31.0	
1 880.0	661	GSM 1900	GPRS4Tx	B	18.49	Back	0	1:2.07	1.130	21.9	20.1
1 880.0	661	GSM 1900	GPRS4Tx	B	18.49	Front	0	1:2.07	0.680	24.6	
1 880.0	661	GSM 1900	GPRS4Tx	B	18.49	Bottom	0	1:2.07	1.730	20.1	
1 880.0	661	GSM 1900	GPRS4Tx	B	18.49	Right	0	1:2.07	0.397	26.5	
836.6	4183	UMTS 850	RMC	A+B	24.40	Back	0	1:1	1.200	27.6	27.5
836.6	4183	UMTS 850	RMC	A+B	24.40	Front	0	1:1	1.100	28.0	
836.6	4183	UMTS 850	RMC	A+B	24.40	Bottom	0	1:1	1.220	27.5	
836.6	4183	UMTS 850	RMC	A+B	24.40	Right	0	1:1	1.200	27.6	
1 712.4	1312	UMTS 1700	RMC	B	19.50	Back	0	1:1	1.230	22.6	20.5
1 712.4	1312	UMTS 1700	RMC	B	19.50	Front	0	1:1	0.913	23.9	
1 712.4	1312	UMTS 1700	RMC	B	19.50	Bottom	0	1:1	1.970	20.5	
1 712.4	1312	UMTS 1700	RMC	B	19.50	Right	0	1:1	0.322	28.4	
1 880	9400	UMTS 1900	RMC	B	18.71	Back	0	1:1	1.180	22.0	19.3
1 880	9400	UMTS 1900	RMC	B	18.71	Front	0	1:1	0.921	23.0	
1 880	9400	UMTS 1900	RMC	B	18.71	Bottom	0	1:1	2.160	19.3	
1 880	9400	UMTS 1900	RMC	B	18.71	Right	0	1:1	0.201	29.7	

Table A-15 DSI = 0 P_{Limit} Calculations – 4G Extremity 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 (10g)	Plimit	Minimum Plimit
Mhz	Ch.				Mhz	(dBm)			(dB)				(W/kg)		
836.5	20525	LTE Band 5	Mid	A+B	10	24.51	Back	0	0	1	49	1:1	0.967	28.6	28.0
836.5	20525	LTE Band 5	Mid	A+B	10	24.51	Front	0	0	1	49	1:1	1.000	28.5	
836.5	20525	LTE Band 5	Mid	A+B	10	24.51	Bottom	0	0	1	49	1:1	1.030	28.4	
836.5	20525	LTE Band 5	Mid	A+B	10	24.51	Right	0	0	1	49	1:1	1.130	28.0	
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Back	0	0	1	49	1:1	0.791	29.0	28.5
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Front	0	0	1	49	1:1	0.670	29.7	
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Bottom	0	0	1	49	1:1	0.687	29.6	
707.5	23095	LTE Band 12	Mid	A+B	10	24.01	Right	0	0	1	49	1:1	0.890	28.5	
782	23230	LTE Band 13	Mid	A+B	10	23.03	Back	0	0	1	49	1:1	0.683	28.7	28.0
782	23230	LTE Band 13	Mid	A+B	10	23.03	Front	0	0	1	49	1:1	0.675	28.7	
782	23230	LTE Band 13	Mid	A+B	10	23.03	Bottom	0	0	1	49	1:1	0.790	28.0	
782	23230	LTE Band 13	Mid	A+B	10	23.03	Right	0	0	1	49	1:1	0.725	28.4	
1 860	26140	LTE Band 25	Low	B	20	19.01	Back	0	0	1	0	1:1	0.889	23.5	20.7
1 860	26140	LTE Band 25	Low	B	20	19.01	Front	0	0	1	0	1:1	0.780	24.1	
1 860	26140	LTE Band 25	Low	B	20	19.01	Bottom	0	0	1	0	1:1	1.710	20.7	
1 860	26140	LTE Band 25	Low	B	20	19.01	Right	0	0	1	0	1:1	0.175	30.6	
1 882.5	26365	LTE Band 25	Mid	F	20	19.85	Back	0	0	1	49	1:1	0.996	23.8	21.0
1 882.5	26365	LTE Band 25	Mid	F	20	19.85	Front	0	0	1	49	1:1	0.907	24.3	
1 882.5	26365	LTE Band 25	Mid	F	20	19.85	Top	0	0	1	49	1:1	1.920	21.0	
831.5	26865	LTE Band 26	Mid	A+B	15	24.37	Back	0	0	1	74	1:1	0.928	28.7	28.4
831.5	26865	LTE Band 26	Mid	A+B	15	24.37	Front	0	0	1	74	1:1	0.896	28.8	
831.5	26865	LTE Band 26	Mid	A+B	15	24.37	Bottom	0	0	1	74	1:1	0.981	28.4	
831.5	26865	LTE Band 26	Mid	A+B	15	24.37	Right	0	0	1	74	1:1	0.912	28.7	
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Back	0	0	1	0	1:1.58	1.020	21.2	18.6
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Front	0	0	1	0	1:1.58	0.693	22.9	
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Bottom	0	0	1	0	1:1.58	1.830	18.6	
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.29	Right	0	0	1	0	1:1.58	0.144	29.7	
2 636.5	41055	LTE Band 41(PC3)	Mid-High	B	20	17.25	Bottom	0	0	1	99	1:2.31	1.960	18.3	18.3
2 680.0	41490	LTE Band 41(PC3)	High	F	20	19.16	Back	0	0	1	0	1:1.58	0.398	27.1	23.6
2 680.0	41490	LTE Band 41(PC3)	High	F	20	19.16	Front	0	0	1	0	1:1.58	0.579	25.5	
2 680.0	41490	LTE Band 41(PC3)	High	F	20	19.16	Top	0	0	1	0	1:1.58	0.906	23.6	
2 680.0	41490	LTE Band 41(PC2)	High	F	20	22.89	Top	0	0	1	0	1:2.31	0.911	27.3	27.3
1 770	132572	LTE Band 66	High	B	20	19.33	Back	0	0	1	99	1:1	1.310	22.1	19.8
1 770	132572	LTE Band 66	High	B	20	19.33	Front	0	0	1	99	1:1	1.010	23.3	
1 770	132572	LTE Band 66	High	B	20	19.33	Bottom	0	0	1	99	1:1	2.230	19.8	
1 770	132572	LTE Band 66	High	B	20	19.33	Right	0	0	1	99	1:1	0.409	27.2	
1 745	132322	LTE Band 66	Mid	F	20	20.22	Back	0	0	1	99	1:1	1.040	24.0	22.4
1 745	132322	LTE Band 66	Mid	F	20	20.22	Front	0	0	1	99	1:1	0.919	24.6	
1 745	132322	LTE Band 66	Mid	F	20	20.22	Top	0	0	1	99	1:1	1.530	22.4	

Table A-16 DSI = 0 *PLimit* Calculations – NR Extremity 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 all 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(10g) (W/kg)	PLimit (dBm)	Minim PLimit (dBm)
MHz	Ch.				MHz	(dBm)										
836.5	167300	NR Band n5	Mid	A	20	24.33	Back	DFT-s-OFDM QPSK	0	0	1	53	1:1	1.400	26.8	26.8
836.5	167300	NR Band n5	Mid	A	20	24.33	Front	DFT-s-OFDM QPSK	0	0	1	53	1:1	1.000	28.3	
836.5	167300	NR Band n5	Mid	A	20	24.33	Bottom	DFT-s-OFDM QPSK	0	0	1	53	1:1	0.972	28.4	
836.5	167300	NR Band n5	Mid	A	20	24.33	Right	DFT-s-OFDM QPSK	0	0	1	53	1:1	1.190	27.6	
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Back	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.370	21.3	19.8
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.794	23.6	
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Bottom	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.920	19.8	
1 882.5	376500	NR Band n25	Mid	B	40	18.66	Right	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.238	28.8	
1 882.5	376500	NR Band n25	Mid	F	40	20.97	Back	DFT-s-OFDM QPSK	0	0	1	108	1:1	1.020	24.9	21.7
1 882.5	376500	NR Band n25	Mid	F	40	20.97	Front	DFT-s-OFDM QPSK	0	0	1	108	1:1	1.080	24.6	
1 882.5	376500	NR Band n25	Mid	F	40	20.97	Top	DFT-s-OFDM QPSK	0	0	1	108	1:1	2.120	21.7	
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Back	DFT-s-OFDM QPSK	0	0	135	69	1:1	1.530	19.4	17.5
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Front	DFT-s-OFDM QPSK	0	0	135	69	1:1	0.912	21.7	
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Bottom	DFT-s-OFDM QPSK	0	0	135	69	1:1	2.400	17.5	
2 592.99	518598	NR Bandn41(PC3)	Mid	B	100	17.28	Right	DFT-s-OFDM QPSK	0	0	135	69	1:1	0.179	28.7	
2 592.99	518598	NR Bandn41(PC3)	Mid	F	100	19.23	Back	DFT-s-OFDM QPSK	0	0	1	271	1:1	0.511	26.1	21.9
2 592.99	518598	NR Bandn41(PC3)	Mid	F	100	19.23	Front	DFT-s-OFDM QPSK	0	0	1	271	1:1	0.727	24.6	
2 592.99	518598	NR Bandn41(PC3)	Mid	F	100	19.23	Top	DFT-s-OFDM QPSK	0	0	1	271	1:1	1.350	21.9	
2 592.99	518598	NR Bandn41 SRS3	Mid	C	100	11.83	Back	CW	0	0	-	-	1:1	0.080	26.8	25.1
2 592.99	518598	NR Bandn41 SRS3	Mid	C	100	11.83	Front	CW	0	0	-	-	1:1	0.044	29.4	
2 592.99	518598	NR Bandn41 SRS3	Mid	C	100	11.83	Bottom	CW	0	0	-	-	1:1	0.117	25.1	
2 592.99	518598	NR Bandn41 SRS4	Mid	H	100	12.13	Rear	CW	0	0	-	-	1:1	0.114	25.5	
2 592.99	518598	NR Bandn41 SRS4	Mid	H	100	12.13	Front	CW	0	0	-	-	1:1	0.329	20.9	20.9
2 592.99	518598	NR Bandn41 SRS4	Mid	H	100	12.13	Right	CW	0	0	-	-	1:1	0.268	21.8	
1 745	349000	NR Band n66	Mid	B	40	19.38	Back	DFT-s-OFDM QPSK	0	0	1	108	1:1	0.886	23.9	21.4
1 745	349000	NR Band n66	Mid	B	40	19.38	Front	DFT-s-OFDM QPSK	0	0	1	108	1:1	0.867	24.0	
1 745	349000	NR Band n66	Mid	B	40	19.38	Bottom	DFT-s-OFDM QPSK	0	0	1	108	1:1	1.570	21.4	
1 745	349000	NR Band n66	Mid	B	40	19.38	Right	DFT-s-OFDM QPSK	0	0	1	108	1:1	0.352	27.9	
1 745	349000	NR Band n66	Mid	F	40	20.16	Back	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.857	24.8	22.3
1 745	349000	NR Band n66	Mid	F	40	20.16	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.020	24.1	
1 745	349000	NR Band n66	Mid	F	40	20.16	Top	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.540	22.3	
1 745	349000	NR Band n66	Mid	F	40	20.16	Bottom	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.540	22.3	

MEASUREMENT RESULTS																
Frequency		Mode		Ant. No.	Band	Frame	Test Position		MPR	Spacing (mm)	RB Size	RB offset	Duty Cycle	Meas.	Plimit	Minim
Mhz	Ch.				Mhz	Conducted Power (dBm)								SAR(10g) (W/kg)	(dBm)	(dBm)
3 750	650000	NR Band n77(PC3)	Low	F	100	17.87	Back	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.499	24.9	19.6
3 750	650000	NR Band n77(PC3)	Low	F	100	17.87	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.688	23.5	
3 750	650000	NR Band n77(PC3)	Low	F	100	17.87	Top	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.670	19.6	
3 500.01	633334	NR Band n77DoD	Mid	F	100	17.47	Top	DFT-s-OFDM QPSK	0	0	1	271	1:1	1.420	19.9	19.9
3 750	650000	NR Band n77SRS	Low	D	100	15.62	Back	CW	0	0	-	-	1:1	0.588	21.9	21.5
3 750	650000	NR Band n77SRS	Low	D	100	15.62	Front	CW	0	0	-	-	1:1	0.424	23.3	
3 750	650000	NR Band n77SRS	Low	D	100	15.62	Bottom	CW	0	0	-	-	1:1	0.644	21.5	
3 500.01	633334	NR Band n77DoD	Mid	D	100	14.49	Bottom	CW	0	0	-	-	1:1	0.833	19.3	19.3
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Back	CW	0	0	-	-	1:1	0.367	24.3	21.0
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Front	CW	0	0	-	-	1:1	0.319	24.9	
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Top	CW	0	0	-	-	1:1	0.784	21.0	
3 750	650000	NR Band n77SRS	Low	G	100	15.92	Right	CW	0	0	-	-	1:1	0.040	33.9	
3 500.01	633334	NR Band n77DoD	Mid	G	100	14.69	Top	CW	0	0	-	-	1:1	1.040	18.5	18.5
3 750	650000	NR Band n77SRS	Low	A	100	15.78	Back	CW	0	0	-	-	1:1	0.341	24.4	23.9
3 750	650000	NR Band n77SRS	Low	A	100	15.78	Front	CW	0	0	-	-	1:1	0.385	23.9	
3 750	650000	NR Band n77SRS	Low	A	100	15.78	Bottom	CW	0	0	-	-	1:1	0.254	25.7	
3 750	650000	NR Band n77SRS	Low	A	100	15.78	Right	CW	0	0	-	-	1:1	0.325	24.6	
3 500.01	633334	NR Band n77DoD	Mid	A	100	15.01	Front	CW	0	0	-	-	1:1	0.853	19.7	19.7

Table A-17 DSI = 0 PLimit Calculations – WLAN Extremity SAR

MEASUREMENT RESULTS													
Frequency		Mode/ Band	Band width	Ant. No.	Data Rate	Frame Averaged	Test Position	Ant. Config.	Duty Cycle	Meas. SAR(10g)	Scaling Factor	Plimit	Minimum Plimit
Mhz	Ch.				(Mbps)	Conducted Power				(W/kg)	(Duty)	(dBm)	(dBm)
2 437	6	802.11b	20	G	1	17.95	Rear	WIFI2	98.9	0.762	1.011	23.1	19.3
2 437	6	802.11b	20	G	1	17.95	Front	WIFI2	98.9	0.767	1.011	23.1	
2 437	6	802.11b	20	G	1	17.95	Top	WIFI2	98.9	1.830	1.011	19.3	
2 437	6	802.11b	20	G	1	17.95	Right	WIFI2	98.9	0.574	1.011	24.3	
2 437	11	802.11b	20	H+G	1	21.14	Rear	MIMO	98.9	1.110	1.011	24.7	22.8
2 437	11	802.11b	20	H+G	1	21.14	Front	MIMO	98.9	1.040	1.011	24.9	
2 437	11	802.11b	20	H+G	1	21.14	Top	MIMO	98.9	1.460	1.011	23.5	
2 437	11	802.11b	20	H+G	1	21.14	Right	MIMO	98.9	1.710	1.011	22.8	
5 270	54	802.11n	40	H+J	MCS8	18.96	Rear	MIMO	86.8	1.230	1.152	22.0	22.0
5 270	54	802.11n	40	H+J	MCS8	18.96	Front	MIMO	86.8	0.899	1.152	23.4	
5 270	54	802.11n	40	H+J	MCS8	18.96	Top	MIMO	86.8	0.176	1.152	30.5	
5 270	54	802.11n	40	H+J	MCS8	18.96	Right	MIMO	86.8	0.497	1.152	26.0	
5 690	138	802.11ac	80	H+J	MCS0	19.48	Rear	MIMO	86.2	0.768	1.160	24.6	24.6
5 690	138	802.11ac	80	H+J	MCS0	19.48	Front	MIMO	86.2	0.661	1.160	25.3	
5 690	138	802.11ac	80	H+J	MCS0	19.48	Top	MIMO	86.2	0.108	1.160	33.1	
5 690	138	802.11ac	80	H+J	MCS0	19.48	Right	MIMO	86.2	0.452	1.160	26.9	
5 775	155	802.11ac	80	H+J	MCS0	19.57	Rear	MIMO	86.2	0.872	1.160	24.1	24.1
5 775	155	802.11ac	80	H+J	MCS0	19.57	Front	MIMO	86.2	0.575	1.160	26.0	
5 775	155	802.11ac	80	H+J	MCS0	19.57	Top	MIMO	86.2	0.149	1.160	31.8	
5 775	155	802.11ac	80	H+J	MCS0	19.57	Right	MIMO	86.2	0.322	1.160	28.5	
5 855	171	802.11ac	80	H+J	MCS0	19.43	Rear	MIMO	86.2	0.656	1.160	25.2	25.2
5 855	171	802.11ac	80	H+J	MCS0	19.43	Front	MIMO	86.2	0.397	1.160	27.4	
5 855	171	802.11ac	80	H+J	MCS0	19.43	Top	MIMO	86.2	0.127	1.160	32.4	
5 855	171	802.11ac	80	H+J	MCS0	19.43	Right	MIMO	86.2	0.256	1.160	29.3	
6 785	167	802.11ax	80	H+J	MCS0	12.28	Rear	MIMO	99.2	0.371	1.008	20.6	20.6
6 785	167	802.11ax	80	H+J	MCS0	12.28	Front	MIMO	99.2	0.040	1.008	30.2	
6 785	167	802.11ax	80	H+J	MCS0	12.28	Top	MIMO	99.2	0.021	1.008	33.0	
6 785	167	802.11ax	80	H+J	MCS0	12.28	Right	MIMO	99.2	0.093	1.008	26.6	

MEASUREMENT RESULTS										
Frequency		Mode/ Band	Ant. No.	Frame Averaged	Test Position	Ant. Config.	Meas. SAR(10g)	Scaling Factor	Plimit	Minimum Plimit
Mhz	Ch.			Conducted Power			(W/kg)	(Duty)	(dBm)	(dBm)
2 441	39	DH5	H	17.44	Rear	Ant 1	0.159	1.016	29.4	26.4
2 441	39	DH5	H	17.44	Front	Ant 1	0.319	1.016	26.4	
2 441	39	DH5	H	17.44	Right	Ant 1	0.298	1.016	26.7	
2 441	39	DH5	G	15.29	Rear	Ant 2	0.240	1.016	25.5	21.6
2 441	39	DH5	G	15.29	Front	Ant 2	0.230	1.016	25.7	
2 441	39	DH5	G	15.29	Top	Ant 2	0.585	1.016	21.6	
2 441	39	DH5	G	15.29	Right	Ant 2	0.174	1.016	26.9	