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PART 0 SAR CHAR REPORT

Applicant Name: SAMSUNG Electronics Co., Ltd. 129, Samsung-ro, Yeongtong-gu, Suwon-Si, Gyeonggi-do, 16677 Rep. of Korea	Date of Issue: Oct. 30, 2023 Test Report No : HCT-SR-2309-FC008-R1 Test Site: HCT CO., LTD.
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FCC ID:

A3LSMS926U

Report Type: Part 0 SAR Characterization
Equipment Type: Mobile Phone
Model Name: SM-S926U
Additional Model Name: SM-S926U1

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.

Tested By

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REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	Oct. 16, 2023	Initial Release
1	Oct. 30, 2023	Revised LTE 38,41

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 2	Voice / Data	1 852.4 MHz ~ 1 907.6 MHz
UMTS Band 4	Voice / Data	1 712.4 MHz ~ 1 752.6 MHz
UMTS Band 5	Voice / Data	826.4 MHz ~ 846.6 MHz
LTE FDD Band 2 (PCS)	Voice / Data	1 850.7 MHz ~ 1 909.3 MHz
LTE FDD Band 4 (AWS)	Voice / Data	1 710.7 MHz ~ 1 754.3 MHz
LTE FDD Band 5 (Cell)	Voice / Data	824.7 MHz ~ 848.3 MHz
LTE FDD Band 7	Voice / Data	2 502.5 MHz ~ 2 567.5 MHz
LTE FDD Band 12	Voice / Data	699.7 MHz ~ 715.3 MHz
LTE FDD Band 13	Voice / Data	779.5 MHz ~ 784.5 MHz
LTE FDD Band 14	Voice / Data	790.5 MHz ~ 795.5 MHz
LTE FDD Band 25	Voice / Data	1 850.7 MHz ~ 1 914.3 MHz
LTE FDD Band 26	Voice / Data	814.7 MHz ~ 848.3 MHz
LTE FDD Band 30	Voice / Data	2 307.5 MHz ~ 2 312.5 MHz
LTE TDD Band 38	Voice / Data	2 572.5 MHz ~ 2 617.5 MHz
LTE TDD Band 41	Voice / Data	2 498.5 MHz ~ 2 687.5 MHz
LTE TDD Band 48	Voice / Data	3 552.5 MHz ~ 3 697.5 MHz
LTE FDD Band 66 (AWS)	Voice / Data	1 710.7 MHz ~ 1 779.3 MHz
LTE FDD Band 71	Voice / Data	665.5 MHz ~ 695.5 MHz
NR FDD Band n2 (PCS)	Voice / Data	1 852.5 MHz ~ 1 907.5 MHz
NR FDD Band n5	Voice / Data	826.5 MHz ~ 846.5 MHz
NR FDD Band n7	Voice / Data	2 502.5 MHz ~ 2 567.5 MHz
NR FDD Band n12	Voice / Data	701.5 MHz ~ 713.5 MHz
NR FDD Band n25 (PCS)	Voice / Data	1 852.5 MHz ~ 1 912.5 MHz
NR FDD Band n26	Voice / Data	816.5 MHz ~ 846.5 MHz
NR FDD Band n30	Voice / Data	2 307.5 MHz ~ 2 312.5 MHz
NR TDD Band n38	Voice / Data	2 575 MHz ~ 2 615 MHz
NR TDD Band n41	Voice / Data	2 501.01 MHz ~ 2 685 MHz
NR TDD Band n48	Voice / Data	3 555 MHz ~ 3 695.01 MHz
NR FDD Band n66	Voice / Data	1 712.5 MHz ~ 1 777.5 MHz
NR FDD Band n70	Voice / Data	1 697.5 MHz ~ 1 707.5 MHz
NR FDD Band n71	Voice / Data	665.5 MHz ~ 695.5 MHz
NR TDD Band n77	Voice / Data	3 705 MHz ~ 3 975 MHz
NR TDD Band n77 DoD	Voice / Data	3 445.01 MHz ~ 3 544.98 MHz
NR TDD Band n78	Voice / Data	3 705 MHz ~ 3 795 MHz
NR TDD Band n78 DoD	Voice / Data	3 455.01 MHz ~ 3 544.98 MHz
NR Band n258	Data	24 250 MHz ~ 24 450 MHz; 24 750 MHz ~ 25 250 MHz
NR Band n260	Data	37 000 MHz ~ 40 000 MHz
NR Band n261	Data	27 500 MHz ~ 28 350 MHz
U-NII-1	Voice / Data	5 180 MHz ~ 5 240 MHz
U-NII-2A	Voice / Data	5 260 MHz ~ 5 320 MHz
U-NII-2C	Voice / Data	5 500 MHz ~ 5 720 MHz
U-NII-3	Voice / Data	5 745 MHz ~ 5 825 MHz
U-NII-4	Voice / Data	5 845 MHz ~ 5 885 MHz
U-NII-5	Voice / Data	5 925 MHz ~ 6 425 MHz
U-NII-6	Voice / Data	6 425 MHz ~ 6 525 MHz
U-NII-7	Voice / Data	6 525 MHz ~ 6 865 MHz
U-NII-8	Voice / Data	6 865 MHz ~ 7 115 MHz
2.4 GHz WLAN	Voice / Data	2 412 MHz ~ 2 462 MHz
Bluetooth / LE 5.3	Data	2 402 MHz ~ 2 480 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 characterization of WWAN radios for 2G/3G/4G and 5G Sub-6 NR and WLAN/BT respectively. Characterization is achieved by determining P_{limit} 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	P _{limit}	Power level that corresponds to the exposure design target (SAR _{design_target}) after accounting for all device design related uncertainties
	P _{max}	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 P _{limit} 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 DASYS software. When an Area Scan has measured all reachable point. DASYS system computes the field maximal found in the scanned area, 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 DASYS 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) ($\Delta x_{area}, \Delta y_{area}$)	Maximum Zoom Scan Resolution (mm) ($\Delta x_{zoom}, \Delta y_{zoom}$)	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 = 1)	<input type="checkbox"/> Device positioned next to head	Head SAR per KDB Publication 648474 D04
Body Phablet (DSI = 0)	<input type="checkbox"/> Device transmits in hotspot mode near body <input type="checkbox"/> 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).

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

Table 4-2 SAR_design_target Calculations

4.3 SAR Characterization

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

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

Table 4-3 PLimit Determination

Table 4-4 SAR Characterization

Plimit values in green indicate Plimit < Pmax			Plim values in grey indicate Plim > Pmax			Pmax	UL:DL Ratio
Plimit corresponding to 1 W/kg (1g) 2.5W/kg(10g) SAR_Design_target			SAR_Design_target				
SAR Exposure Position			Head (RCV ON)	Hotspot (Hotspot on)	Phablet (Grip On) /Earjack	Maximum Tune-up Output Power (Burst Average Power) [dBm]	
Averaging volume			1g	1g	10g		
seperation Distance			0 mm	10 mm	0 mm		
Mode	Band	Antenna	DSI=1	DSI=0	DSI=0		
GSM/GPRS/EDGE	850	Sub 1	21.2		27.5	27.5	50.0%
GSM/GPRS/EDGE	850	MAIN 1	40.3		31.2	33.5	50.0%
GSM/GPRS/EDGE	1900	MAIN 1	34.1		19.0	24.0	50.0%
UMTS	2	MAIN 1	34.5		18.5	23.8	100%
UMTS	4	MAIN 1	31.4		18.0	22.8	100%
UMTS	5	Sub 1	21.0		27.7	24.5	100%
UMTS	5	MAIN 1	38.0		29.3	24.5	100%
LTE FDD	25(2)	MAIN 1	34.2		18.0	23.5	100%
LTE FDD	25(2)	Sub 2	18.0		20.0	23.5	100%
LTE FDD	66(4)	MAIN 1	32.0		18.5	23.5	100%
LTE FDD	66(4)	Sub 2	18.0		20.0	23.5	100%
LTE FDD	7	MAIN 2	29.9		20.0	23.0	100%
LTE FDD	7	Sub 2	15.5		19.5	23.0	100%
LTE FDD	12	MAIN 1	34.4		29.3	24.0	100%
LTE FDD	12	Sub 1	21.0		26.9	24.0	100%
LTE FDD	13	MAIN 1	35.7		28.3	24.0	100%
LTE FDD	13	Sub 1	21.0		27.0	24.0	100%
LTE FDD	14	MAIN 1	37.2		28.3	24.0	100%
LTE FDD	14	Sub 1	21.0		27.0	24.0	100%
LTE FDD	26(5)	Sub 1	21.0		27.1	24.0	100%
LTE FDD	26(5)	MAIN 1	37.0		29.0	24.0	100%
LTE FDD	30	Sub 2	16.5		20.0	22.0	100%
LTE FDD	30	MAIN 1	40.6		19.0	22.5	100%
LTE TDD PC3	38	MAIN 2	33.9		20.0	24.0	63.3%
LTE TDD PC3	41	MAIN 2	18.4		20.0	24.0	63.3%
LTE TDD PC3	38	Sub 2	17.0		19.0	24.0	63.3%
LTE TDD PC3	41	Sub 2	15.5		17.0	24.0	63.3%
LTE TDD PC2	41	MAIN 2	18.4		20.0	25.7	43.3%
LTE TDD PC2	41	Sub 2	15.5		17.0	25.7	43.3%
LTE TDD PC3	48	Sub 2	16.0		19.0	22.5	63.3%
LTE FDD	71	MAIN 1	34.4		29.6	24.0	100%
LTE FDD	71	Sub 1	21.0		28.4	24.0	100%
NR FDD	25(2)	MAIN 1	32.2		19.0	23.5	100%
NR FDD	25(2)	Sub 2	18.0		20.0	23.5	100%
NR FDD	7	MAIN 2	29.3		20.0	23.0	100%
NR FDD	7	Sub 2	16.0		20.0	23.0	100%
NR FDD	12	MAIN 1	37.0		27.8	24.0	100%
NR FDD	12	Sub 1	21.0		28.2	24.0	100%
NR FDD	26(5)	Sub 1	21.0		26.3	24.0	100%
NR FDD	26(5)	MAIN 1	35.9		27.7	24.0	100%
NR FDD	30	Sub 2	17.0		20.0	22.0	100%
NR FDD	30	MAIN 1	37.3		19.0	22.5	100%
NR TDD SRS 0 PC2	41(38)	Sub 2 F	17.0		19.0	26.0	100%
NR TDD SRS 1	41	MAIN 2 B	22.0		20.0	22.5	100%
NR TDD SRS 2	41	E	16.5		16.0	20.0	100%
NR TDD SRS 3	41	D	16.5		19.0	19.0	100%
NR TDD SRS 0 PC2	41(38)	MAIN 2 B	24.0		20.0	26.0	100%
NR TDD SRS 1	41	Sub 2 F	16.0		19.0	21.0	100%
NR TDD SRS 2	41	D	19.0		18.5	20.5	100%
NR TDD SRS 3	41	E	13.0		13.0	17.0	100%
NR TDD SRS 0 PC3	48	Sub 2	16.0		19.0	22.5	100%
NR TDD SRS 1	48	C	13.5		16.0	19.5	100%
NR TDD SRS 2	48	I	13.5		16.0	20.0	100%
NR TDD SRS 3	48	D	13.5		15.0	18.5	100%
NR FDD	66	MAIN 1	31.4		18.0	23.5	100%
NR FDD	66	Sub 2	17.0		20.0	23.5	100%
NR FDD	70	MAIN 1	33.4		19.0	23.0	100%
NR FDD	70	Sub 2	17.5		20.0	23.0	100%
NR FDD	71	MAIN 1	36.6		27.2	24.0	100%
NR FDD	71	Sub 1	21.0		26.0	24.0	100%
NR TDD SRS 0 PC2	77	Sub 2	16.0		17.0	26.0	100%
NR TDD SRS 0 PC2	78	Sub 2	16.0		19.0	26.0	100%
NR TDD SRS 1	77/78 DoD	C	14.5		16.5	20.5	100%
NR TDD SRS 2	77/78 DoD	I	12.5		16.5	23.0	100%
NR TDD SRS 3	77/78 DoD	D	14.5		16.5	19.5	100%
NR TDD SRS 0 PC2	77 DoD	Sub 2	16.0		17.0	26.0	100%
NR TDD SRS 0 PC2	78 DoD	Sub 2	16.0		19.0	26.0	100%
NR TDD SRS 1	77/78 DoD	C	14.5		16.5	20.5	100%
NR TDD SRS 2	77/78 DoD	I	12.5		16.5	23.0	100%
NR TDD SRS 3	77/78 DoD	D	14.5		16.5	21.0	100%
WLAN	2.4	Sub 4	13.0		20.6	19.0	100%
WLAN	2.4	Sub 6	13.0		21.9	19.0	100%
WLAN	5	Sub 4	12.0		15.0	17.0	100%
WLAN	5	Sub 1	12.0		15.0	17.0	100%
WLAN	6	Sub 4	8.0		8.0	15.0	100%
WLAN	6	Sub 1	8.0		8.0	15.0	100%
BT	2.4	Sub 4	21.2		22.3	17.0	100%
BT	2.4	Sub 6	23.7		24.6	18.0	100%

Note:

1. Compared with the Plimit (Tune up Powers) declared in each DSI by the manufacturer and the plimit (calculation) calculated by the SAR measurement of each DSI, the lower power were applied to the EFS as the plimit at each DSI configurations.
2. When Pmax < Plimit, the DUT will operate at a power level up to Pmax.
3. Maximum Tune up Power,Pmax. Is configured in NV settings in EUT to limit maximum transmitting power. This power is converted into peak power in NV setting for TDD schemes.(GPRS, LTE TDD)

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	F11/ 5K3RA1/ C/ 01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F12/ 5K9GA1/ C/ 01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F17/ 59CHA1/ C/ 01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F17/ 59RAA1/ C/ 01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F13/ 5R4XF1/ C/ 01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F13/ 5SD0A1/ C/ 01	N/A	N/A	N/A
Staubli	CS9spe-TX2-60	F/21/0029002/C/001	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F07/55B8A1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F07/56W9A1/C/01			
Staubli	TX90 XLspeag	F11/ 5K3RA1/ A/ 01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F12/ 5K9GA1/ A/ 01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F17/ 59CHA1/ A/ 01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F17/ 59RAA1/ A/ 01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F13/ 5R4XF1/ A/ 01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F13/ 5SD0A1/ A/ 01	N/A	N/A	N/A
Staubli	TX2-60 Lspeag	F/21/0029002/A/001	N/A	N/A	N/A
Staubli	TX90 XLspeag	F07/55B8A1/A/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F07/56W9A1/A/01	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1203 0309	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1206 0513	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	010963	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	011578	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1338 1332	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	001729	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	D21144507C	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0306	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0602	N/A	N/A	N/A
TESTO	175-H1/Thermometer	40331936309	12/29/2022	Annual	12/29/2023
TESTO	175-H1/Thermometer	40331939309	12/29/2022	Annual	12/29/2023
TESTO	175-H1/Thermometer	40331915309	12/29/2022	Annual	12/29/2023
TESTO	608-H1/Thermometer	40331922309	12/29/2022	Annual	12/29/2023
TESTO	608-H1/Thermometer	40332651310	12/29/2022	Annual	12/29/2023
TESTO	608-H1/Thermometer	83348029	03/27/2023	Annual	03/27/2024
TESTO	608-H1/Thermometer	83239085	10/26/2022	Annual	10/26/2023
TESTO	608-H1/Thermometer	83348021	03/27/2023	Annual	03/27/2024
TESTO	608-H1/Thermometer	83406789	03/27/2023	Annual	03/27/2024
SPEAG	DAE4	504	01/10/2023	Annual	01/10/2024
SPEAG	DAE4	466	04/25/2023	Annual	04/25/2024
SPEAG	DAE4	1686	05/23/2023	Annual	05/23/2024
SPEAG	DAE4	1464	06/16/2023	Annual	06/16/2024
SPEAG	DAE4	1417	03/01/2023	Annual	03/01/2024
SPEAG	DAE4	780	07/04/2023	Annual	07/04/2024
SPEAG	DAE4	869	03/23/2023	Annual	03/23/2024
SPEAG	DAE4	1225	03/06/2023	Annual	03/06/2024
SPEAG	DAE4	1687	07/18/2023	Annual	07/18/2024



Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	E-Field Probe EX3DV4	3797	01/24/2023	Annual	01/24/2024
SPEAG	E-Field Probe EX3DV4	7679	08/24/2023	Annual	08/24/2024
SPEAG	E-Field Probe EX3DV4	7654	05/24/2023	Annual	05/24/2024
SPEAG	E-Field Probe EX3DV4	7309	06/19/2023	Annual	06/19/2024
SPEAG	E-Field Probe EX3DV4	7622	11/22/2023	Annual	11/22/2024
SPEAG	E-Field Probe EX3DV4	7655	05/25/2023	Annual	05/25/2024
SPEAG	E-Field Probe ES3DV3	3076	07/18/2023	Annual	07/18/2024
SPEAG	E-Field Probe EX3DV4	7370	08/24/2023	Annual	08/24/2024
SPEAG	E-Field Probe EX3DV4	7732	06/20/2023	Annual	06/20/2024
SPEAG	E-Field Probe EX3DV4	3903	07/19/2023	Annual	07/19/2024
SPEAG	E-Field Probe EX3DV4	3768	09/27/2023	Annual	09/27/2024
SPEAG	CLA13	1016	09/21/2023	Annual	09/21/2024
SPEAG	Dipole D750V3	1014	05/23/2023	Annual	05/23/2024
SPEAG	Dipole D835V2	4d165	05/23/2023	Annual	05/23/2024
SPEAG	Dipole D1640V2	345	07/12/2023		07/12/2024
SPEAG	Dipole D1800V2	2d015	05/17/2023	Annual	05/17/2024
SPEAG	Dipole D1900V2	5d061	01/23/2023	Annual	01/23/2024
SPEAG	Dipole D2300V2	1010	07/19/2023		07/19/2024
SPEAG	Dipole D2450V2	1049	04/25/2023	Annual	04/25/2024
SPEAG	Dipole D2600V2	1106	05/24/2023	Annual	05/24/2024
SPEAG	Dipole D3300V2	1016	11/22/2022	Annual	11/22/2023
SPEAG	Dipole D3500V2	1040	01/22/2023	Annual	01/22/2024
SPEAG	Dipole D3700V2	1066	11/14/2022	Annual	11/14/2023
SPEAG	Dipole D3900V2	1019	05/19/2023	Annual	05/19/2024
SPEAG	Dipole D5 GHz V2	1317	05/17/2023	Annual	05/17/2024
Agilent	Power Meter E4419B	MY41291386	09/21/2023	Annual	09/21/2024
Agilent	Power Meter N1911A	MY45101406	05/26/2023	Annual	05/26/2024
Agilent	Power Sensor 8481A	SG1091286	09/21/2023	Annual	09/21/2024
H.P	Power Sensor 8481A	MY41090675	09/21/2023	Annual	09/21/2024
Agilent	Wideband Power Sensor N1921A	MY55220026	07/28/2023	Annual	07/28/2024
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	Vector Reflectometer	00141013	02/13/2023	Annual	02/13/2024
SPEAG	MXA Signal Analyzer	MY49100108	01/13/2023	Annual	01/13/2024
H.P	Network Analyzer /8753ES	JP39240221	01/02/2023	Annual	01/02/2024
Agilent	WIRELESS COMMUNICATION E5515C	MY48361100	09/21/2023	Annual	09/21/2024
Agilent	WIRELESS COMMUNICATION E5515C	MY48360252	07/27/2023	Annual	07/27/2024
R&S	Wireless Communication Test Set CMW500	115733	03/23/2023	Annual	03/23/2024
Agilent	SIGNAL GENERATOR N5182A	MY47070230	03/23/2023	Annual	03/23/2024
EMPOWER	RF Power Amplifier	1084	05/26/2023	Annual	05/26/2024
EMPOWER	RF Power Amplifier	1041D/C0508	05/26/2023	Annual	05/26/2024
EMPOWER	RF Power Amplifier	1011	09/21/2023	Annual	09/21/2024
MICRO LAB	LP Filter / LA-15N	10453	09/21/2023	Annual	09/21/2024
MICRO LAB	LP Filter / LA-30N	-	09/21/2023	Annual	09/21/2024
MICRO LAB	LP Filter / LA-60N	32011	09/21/2023	Annual	09/21/2024
Agilent	Attenuator (3dB) 8693B	MY39260298	08/22/2023	Annual	08/22/2024
HP	Attenuator (3dB) 33340A	02427	08/22/2023	Annual	08/22/2024
HP	Attenuator (20dB) 8493C	09271	08/22/2023	Annual	08/22/2024
Agilent	Directional Bridge 86205A	3140A04581	04/25/2023	Annual	04/25/2024
OSI	Power Divider	#3	05/26/2023	Annual	05/26/2024
Agilent	MXA Signal Analyzer N9020A	MY50510407	06/07/2023	Annual	06/07/2024
HP	Dual Directional Coupler	16072	09/21/2023	Annual	09/21/2024

Manufacturer	Type / Model	S/N	Calib. Date	Calib. Interval	Calib. Due
Anritsu	Radio Communication Test Station MT8000A	6262036812	12/07/2022	Annual	12/07/2023
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	05/26/2023	Annual	05/26/2024
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	05/26/2023	Annual	05/26/2024
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 = 1 PLimit Calculations – 2G/3G Head SAR

MEASUREMENT RESULTS										
Frequency		Mode/ Band		Ant.	Frame Averaged	Test Position	Duty Cycle	Meas.	Plimit	Minimum Plimit
Mhz	Ch.				Conducted Power			SAR(1g)		
836.6	190	GSM 850	GSM	E	20.94	Left Cheek	1:8.3	0.444	24.5	24.5
836.6	190	GSM 850		E	20.94	Left Tilt	1:8.3	0.403	24.9	
836.6	190	GSM 850		E	20.94	Right Cheek	1:8.3	0.340	25.6	
836.6	190	GSM 850		E	20.94	Right Tilt	1:8.3	0.282	26.4	
836.6	190	GSM 850	GPRS 2Tx	A	26.07	Left Cheek	1:4.15	0.025	42.1	40.3
836.6	190	GSM 850		A	26.07	Left Tilt	1:4.15	0.013	44.9	
836.6	190	GSM 850		A	26.07	Right Cheek	1:4.15	0.038	40.3	
836.6	190	GSM 850		A	26.07	Right Tilt	1:4.15	0.014	44.6	
1 880	661	GSM 1900	GPRS 2Tx	A	21.42	Left Cheek	1:4.15	0.054	34.1	34.1
1 880	661	GSM 1900		A	21.42	Left Tilt	1:4.15	0.012	40.6	
1 880	661	GSM 1900		A	21.42	Right Cheek	1:4.15	0.026	37.3	
1 880	661	GSM 1900		A	21.42	Right Tilt	1:4.15	0.023	37.8	
846.6	4233	UMTS Band 5	RMC	E	21.54	Left Cheek	1:1	0.858	22.2	22.2
836.6	4183	UMTS Band 5	RMC	E	21.61	Left Tilt	1:1	0.547	24.2	
836.6	4183	UMTS Band 5	RMC	E	21.61	Right Cheek	1:1	0.459	25.0	
836.6	4183	UMTS Band 5	RMC	E	21.61	Right Tilt	1:1	0.348	26.2	
836.6	4183	UMTS Band 5	RMC	A	24.31	Left Cheek	1:1	0.032	39.3	38.0
836.6	4183	UMTS Band 5	RMC	A	24.31	Left Tilt	1:1	0.019	41.5	
836.6	4183	UMTS Band 5	RMC	A	24.31	Right Cheek	1:1	0.043	38.0	
836.6	4183	UMTS Band 5	RMC	A	24.31	Right Tilt	1:1	0.018	41.8	
1 712.4	1312	UMTS Band 4	RMC	A	22.79	Left Cheek	1:1	0.139	31.4	31.4
1 712.4	1312	UMTS Band 4	RMC	A	22.79	Left Tilt	1:1	0.049	35.9	
1 712.4	1312	UMTS Band 4	RMC	A	22.79	Right Cheek	1:1	0.075	34.0	
1 712.4	1312	UMTS Band 4	RMC	A	22.79	Right Tilt	1:1	0.060	35.0	
1 880	9400	UMTS Band 2	RMC	A	23.78	Left Cheek	1:1	0.084	34.5	34.5
1 880	9400	UMTS Band 2	RMC	A	23.78	Left Tilt	1:1	0.025	39.8	
1 880	9400	UMTS Band 2	RMC	A	23.78	Right Cheek	1:1	0.050	36.8	
1 880	9400	UMTS Band 2	RMC	A	23.78	Right Tilt	1:1	0.041	37.7	

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

MEASUREMENT RESULTS														
Frequency		Mode		Ant.	Band width	Frame Averaged Conducted Power	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	PLimit	Minimum PLimit
Mhz	Ch.	Mhz	(dBm)											
2 560	21350	LTE Band 7	High	B	20	23.76	Left Cheek	0	1	49	1:1	0.243	29.9	29.9
2 560	21350	LTE Band 7	High	B	20	23.76	Left Tilt	0	1	49	1:1	0.056	36.3	
2 560	21350	LTE Band 7	High	B	20	23.76	Right Cheek	0	1	49	1:1	0.071	35.2	
2 560	21350	LTE Band 7	High	B	20	23.76	Right Tilt	0	1	49	1:1	0.035	38.3	
2 510	20850	LTE Band 7	Low	F	20	15.55	Left Cheek	0	50	0	1:1	0.282	21.0	17.3
2 510	20850	LTE Band 7	Low	F	20	15.55	Left Tilt	0	50	0	1:1	0.285	21.0	
2 510	20850	LTE Band 7	Low	F	20	15.55	Right Cheek	0	50	0	1:1	0.660	17.4	
2 510	20850	LTE Band 7	Low	F	20	15.51	Right Tilt	0	100	0	1:1	0.660	17.3	
707.5	23095	LTE Band 12	Mid	A	10	24.37	Left Cheek	0	1	24	1:1	0.079	35.4	34.4
707.5	23095	LTE Band 12	Mid	A	10	24.37	Left Tilt	0	1	24	1:1	0.053	37.1	
707.5	23095	LTE Band 12	Mid	A	10	24.37	Right Cheek	0	1	24	1:1	0.099	34.4	
707.5	23095	LTE Band 12	Mid	A	10	24.37	Right Tilt	0	1	24	1:1	0.052	37.2	
707.5	23095	LTE Band 12	Mid	E	10	21.25	Left Cheek	0	1	49	1:1	0.378	25.5	24.9
707.5	23095	LTE Band 12	Mid	E	10	21.25	Left Tilt	0	1	49	1:1	0.432	24.9	
707.5	23095	LTE Band 12	Mid	E	10	21.28	Right Cheek	0	1	49	1:1	0.262	27.1	
707.5	23095	LTE Band 12	Mid	E	10	21.25	Right Tilt	0	1	49	1:1	0.243	27.4	
782	23230	LTE Band 13	Mid	A	10	23.98	Left Cheek	0	1	0	1:1	0.045	37.4	35.7
782	23230	LTE Band 13	Mid	A	10	23.98	Left Tilt	0	1	0	1:1	0.030	39.2	
782	23230	LTE Band 13	Mid	A	10	23.98	Right Cheek	0	1	0	1:1	0.068	35.7	
782	23230	LTE Band 13	Mid	A	10	23.98	Right Tilt	0	1	0	1:1	0.034	38.7	
782	23230	LTE Band 13	Mid	E	10	21.59	Left Cheek	0	25	24	1:1	0.676	23.3	22.9
782	23230	LTE Band 13	Mid	E	10	21.59	Left Tilt	0	25	24	1:1	0.737	22.9	
782	23230	LTE Band 13	Mid	E	10	21.59	Right Cheek	0	25	24	1:1	0.443	25.1	
782	23230	LTE Band 13	Mid	E	10	21.59	Right Tilt	0	25	24	1:1	0.404	25.5	
793	23330	LTE Band 14	Mid	A	10	24.08	Left Cheek	0	1	0	1:1	0.023	39.3	37.2
793	23330	LTE Band 14	Mid	A	10	24.08	Left Tilt	0	1	0	1:1	0.022	40.5	
793	23330	LTE Band 14	Mid	A	10	24.08	Right Cheek	0	1	0	1:1	0.049	37.2	
793	23330	LTE Band 14	Mid	A	10	24.08	Right Tilt	0	1	0	1:1	0.024	40.3	
793	23330	LTE Band 14	Mid	E	10	21.62	Left Cheek	0	25	0	1:1	0.784	22.7	22.5
793	23330	LTE Band 14	Mid	E	10	21.56	Left Tilt	0	25	0	1:1	0.800	22.5	
793	23330	LTE Band 14	Mid	E	10	21.43	Right Cheek	0	1	0	1:1	0.555	24.0	
793	23330	LTE Band 14	Mid	E	10	21.43	Right Tilt	0	1	0	1:1	0.508	24.4	
1 905	26590	LTE Band 25	High	B	20	23.49	Left Cheek	0	1	0	1:1	0.085	34.2	34.2
1 905	26590	LTE Band 25	High	B	20	23.49	Left Tilt	0	1	0	1:1	0.032	38.4	
1 905	26590	LTE Band 25	High	B	20	23.49	Right Cheek	0	1	0	1:1	0.052	36.3	
1 905	26590	LTE Band 25	High	B	20	23.49	Right Tilt	0	1	0	1:1	0.041	37.4	
1 905	26590	LTE Band 25	High	F	20	18.33	Left Cheek	0	1	0	1:1	0.562	20.8	19.9
1 905	26590	LTE Band 25	High	F	20	18.33	Left Tilt	0	1	0	1:1	0.570	20.8	
1 905	26590	LTE Band 25	High	F	20	18.33	Right Cheek	0	1	0	1:1	0.677	20.0	
1 905	26590	LTE Band 25	High	F	20	18.33	Right Tilt	0	1	0	1:1	0.703	19.9	

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.	Mhz	(dBm)											
831.5	26865	LTE Band 26	Mid	A	15	24.24	Left Cheek	0	1	0	1:1	0.027	39.6	37.0
831.5	26865	LTE Band 26	Mid	A	15	24.24	Left Tilt	0	1	0	1:1	0.029	39.6	
831.5	26865	LTE Band 26	Mid	A	15	24.24	Right Cheek	0	1	0	1:1	0.053	37.0	
831.5	26865	LTE Band 26	Mid	A	15	24.24	Right Tilt	0	1	0	1:1	0.028	39.8	
831.5	26865	LTE Band 26	Mid	E	15	21.41	Left Cheek	0	1	36	1:1	0.777	22.5	22.2
831.5	26865	LTE Band 26	Mid	E	15	21.49	Left Tilt	0	36	18	1:1	0.856	22.2	
831.5	26865	LTE Band 26	Mid	E	15	21.49	Right Cheek	0	36	18	1:1	0.464	24.8	
831.5	26865	LTE Band 26	Mid	E	15	21.49	Right Tilt	0	36	18	1:1	0.470	24.8	
2 310	27710	LTE Band 30	Mid	A	10	22.32	Left Cheek	0	1	24	1:1	0.013	41.2	40.6
2 310	27710	LTE Band 30	Mid	A	10	22.32	Left Tilt	0	1	24	1:1	0.000576	52.3	
2 310	27710	LTE Band 30	Mid	A	10	22.32	Right Cheek	0	1	24	1:1	0.015	40.6	
2 310	27710	LTE Band 30	Mid	A	10	22.32	Right Tilt	0	1	24	1:1	0.00817	43.3	
2 310	27710	LTE Band 30	Mid	F	10	16.44	Left Cheek	0	25	12	1:1	0.349	21.0	18.2
2 310	27710	LTE Band 30	Mid	F	10	16.44	Left Tilt	0	25	12	1:1	0.494	19.5	
2 310	27710	LTE Band 30	Mid	F	10	16.44	Right Cheek	0	25	12	1:1	0.651	18.3	
2 310	27710	LTE Band 30	Mid	F	10	16.44	Right Tilt	0	25	12	1:1	0.661	18.2	
2 595	38000	LTE Band 38	Mid	B	20	22.24	Left Cheek	0	1	49	1:1.58	0.153	30.4	30.4
2 595	38000	LTE Band 38	Mid	B	20	22.24	Left Tilt	0	1	49	1:1.58	0.041	52.3	
2 595	38000	LTE Band 38	Mid	B	20	22.24	Right Cheek	0	1	49	1:1.58	0.055	40.6	
2 595	38000	LTE Band 38	Mid	B	20	22.24	Right Tilt	0	1	49	1:1.58	0.045	43.3	
2 595	38000	LTE Band 38	Mid	F	20	17.44	Left Cheek	0	50	0	1:1.58	0.502	20.4	17.4
2 595	38000	LTE Band 38	Mid	F	20	17.44	Left Tilt	0	50	0	1:1.58	0.496	20.4	
2 580	37850	LTE Band 38	Low	F	20	17.38	Right Cheek	0	50	25	1:1.58	0.887	17.9	
2 580	37850	LTE Band 38	Low	F	20	17.38	Right Tilt	0	50	25	1:1.58	0.999	17.4	
2 593	40620	LTE Band41(PC3)	Mid	B	20	19.03	Left Cheek	0	1	0	1:1.58	0.063	31.0	31.0
2 593	40620	LTE Band41(PC3)	Mid	B	20	19.03	Left Tilt	0	1	0	1:1.58	0.017	36.7	
2 593	40620	LTE Band41(PC3)	Mid	B	20	19.03	Right Cheek	0	1	0	1:1.58	0.024	35.2	
2 593	40620	LTE Band41(PC3)	Mid	B	20	19.03	Right Tilt	0	1	0	1:1.58	0.021	35.8	
2 593	40620	LTE Band41(PC2)	Mid	B	20	18.86	Left Cheek	0	1	0	1:2.31	0.070	30.4	30.4
2 593.0	40620	LTE Band41(PC3)	Mid	F	20	15.87	Left Cheek	0	50	0	1:1.58	0.246	22.0	17.3
2 593.0	40620	LTE Band41(PC3)	Mid	F	20	15.87	Left Tilt	0	50	0	1:1.58	0.238	22.1	
2 593.0	40620	LTE Band41(PC3)	Mid	F	20	15.87	Right Cheek	0	100	0	1:1.58	0.635	17.8	
2 593.0	40620	LTE Band41(PC3)	Mid	F	20	15.87	Right Tilt	0	50	49	1:1.58	0.719	17.3	
2 593.0	40620	LTE Band41(PC2)	Mid	F	20	15.94	Right Tilt	0	50	49	1:2.31	0.674	17.7	17.7
3 603.3	55773	LTE Band 48	Mid-High	F	20	16.17	Left Cheek	0	50	0	1:1.58	0.298	21.4	17.5
3 603.3	55773	LTE Band 48	Mid-High	F	20	16.17	Left Tilt	0	50	0	1:1.58	0.330	20.9	
3 603.3	55773	LTE Band 48	Mid-High	F	20	16.17	Right Cheek	0	50	0	1:1.58	0.459	19.5	
3 560	55340	LTE Band 48	Low	F	20	16.12	Right Tilt	0	50	25	1:1.58	0.722	17.5	

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.	Mhz	(dBm)											
1 745	132322	LTE Band 66	Mid	B	20	23.63	Left Cheek	0	1	49	1:1	0.146	32.0	32.0
1 745	132322	LTE Band 66	Mid	B	20	23.63	Left Tilt	0	1	49	1:1	0.069	35.2	
1 745	132322	LTE Band 66	Mid	B	20	23.63	Right Cheek	0	1	49	1:1	0.083	34.4	
1 745	132322	LTE Band 66	Mid	B	20	23.63	Right Tilt	0	1	49	1:1	0.055	36.2	
1 720	132072	LTE Band 66	Low	F	20	17.97	Left Cheek	0	100	0	1:1	0.639	19.9	19.0
1 720	132072	LTE Band 66	Low	F	20	17.99	Left Tilt	0	50	49	1:1	0.617	20.1	
1 720	132072	LTE Band 66	Low	F	20	17.97	Right Cheek	0	100	0	1:1	0.773	19.1	
1 720	132072	LTE Band 66	Low	F	20	17.97	Right Tilt	0	100	0	1:1	0.791	19.0	
680.5	133297	LTE Band 71	Mid	A	20	23.67	Left Cheek	0	1	0	1:1	0.070	35.2	34.4
680.5	133297	LTE Band 71	Mid	A	20	23.67	Left Tilt	0	1	0	1:1	0.047	36.9	
680.5	133297	LTE Band 71	Mid	A	20	23.67	Right Cheek	0	1	0	1:1	0.084	34.4	
680.5	133297	LTE Band 71	Mid	A	20	23.67	Right Tilt	0	1	0	1:1	0.028	38.5	
680.5	133297	LTE Band 71	Mid	E	20	21.68	Left Cheek	0	50	25	1:1	0.509	24.6	24.1
680.5	133297	LTE Band 71	Mid	E	20	21.68	Left Tilt	0	50	25	1:1	0.575	24.1	
680.5	133297	LTE Band 71	Mid	E	20	21.68	Right Cheek	0	50	25	1:1	0.376	25.9	
680.5	133297	LTE Band 71	Mid	E	20	21.68	Right Tilt	0	50	25	1:1	0.339	26.4	

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

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

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

SAR measurements of 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.														
2 535	507000	NR Band n7	Mid	B	40	23.30	Left Cheek	DFT-s-OFDM QPSK	0	1	214	1:1	0.250	29.3	29.3
2 535	507000	NR Band n7	Mid	B	40	23.30	Left Tilt	DFT-s-OFDM QPSK	0	1	214	1:1	0.100	33.3	
2 535	507000	NR Band n7	Mid	B	40	23.30	Right Cheek	DFT-s-OFDM QPSK	0	1	214	1:1	0.122	32.4	
2 535	507000	NR Band n7	Mid	B	40	23.30	Right Tilt	DFT-s-OFDM QPSK	0	1	214	1:1	0.067	35.0	
2 535	507000	NR Band n7	Mid	F	40	15.82	Left Cheek	DFT-s-OFDM QPSK	0	1	214	1:1	0.361	20.2	
2 535	507000	NR Band n7	Mid	F	40	15.82	Left Tilt	DFT-s-OFDM QPSK	0	1	214	1:1	0.396	19.8	16.6
2 535	507000	NR Band n7	Mid	F	40	15.82	Right Cheek	DFT-s-OFDM QPSK	0	108	0	1:1	0.710	17.3	
2 535	507000	NR Band n7	Mid	F	40	15.93	Right Tilt	CP OFDM QPSK	0	1	1	1:1	0.849	16.6	
707.5	141500	NR Band n12	Mid	A	15	23.68	Left Cheek	DFT-s-OFDM QPSK	0	36	22	1:1	0.043	37.3	37.0
707.5	141500	NR Band n12	Mid	A	15	23.68	Left Tilt	DFT-s-OFDM QPSK	0	36	22	1:1	0.025	39.7	
707.5	141500	NR Band n12	Mid	A	15	23.68	Right Cheek	DFT-s-OFDM QPSK	0	36	22	1:1	0.047	37.0	
707.5	141500	NR Band n12	Mid	A	15	23.68	Right Tilt	DFT-s-OFDM QPSK	0	36	22	1:1	0.023	40.1	
707.5	141500	NR Band n12	Mid	E	15	21.06	Left Cheek	DFT-s-OFDM QPSK	0	36	43	1:1	0.367	25.4	24.5
707.5	141500	NR Band n12	Mid	E	15	21.06	Left Tilt	DFT-s-OFDM QPSK	0	36	43	1:1	0.458	24.5	
707.5	141500	NR Band n12	Mid	E	15	21.06	Right Cheek	DFT-s-OFDM QPSK	0	36	43	1:1	0.273	26.7	
707.5	141500	NR Band n12	Mid	E	15	21.06	Right Tilt	DFT-s-OFDM QPSK	0	36	43	1:1	0.223	27.6	
1 882.5	376500	NR Band n25	Mid	B	40	23.27	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.129	32.2	32.2
1 882.5	376500	NR Band n25	Mid	B	40	23.45	Left Tilt	DFT-s-OFDM QPSK	0	108	54	1:1	0.045	36.9	
1 882.5	376500	NR Band n25	Mid	B	40	23.27	Right Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.058	35.6	
1 882.5	376500	NR Band n25	Mid	B	40	23.27	Right Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.065	35.1	
1 882.5	376500	NR Band n25	Mid	F	40	18.32	Left Cheek	DFT-s-OFDM QPSK	0	1	108	1:1	0.417	22.1	
1 882.5	376500	NR Band n25	Mid	F	40	18.32	Left Tilt	DFT-s-OFDM QPSK	0	1	108	1:1	0.606	20.5	19.3
1 882.5	376500	NR Band n25	Mid	F	40	18.24	Right Cheek	DFT-s-OFDM QPSK	0	216	0	1:1	0.707	19.7	
1 882.5	376500	NR Band n25	Mid	F	40	18.24	Right Tilt	DFT-s-OFDM QPSK	0	216	0	1:1	0.789	19.3	
831.5	166300	NR Band n26	Mid	A	20	23.73	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.037	37.6	35.9
831.5	166300	NR Band n26	Mid	A	20	23.73	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.026	39.6	
831.5	166300	NR Band n26	Mid	A	20	23.73	Right Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.061	35.9	
831.5	166300	NR Band n26	Mid	A	20	23.73	Right Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.028	39.3	
831.5	166300	NR Band n26	Mid	E	20	21.12	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.705	22.6	22.6
831.5	166300	NR Band n26	Mid	E	20	21.12	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.691	22.7	
831.5	166300	NR Band n26	Mid	E	20	21.12	Right Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.501	24.1	
831.5	166300	NR Band n26	Mid	E	20	21.12	Right Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.445	24.6	



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.														Mhz
2 310	462000	NR Band n30	Mid	A	10	22.21	Left Cheek	DFT-s-OFDM QPSK	0	1	50	1:1	0.012	41.4	37.3
2 310	462000	NR Band n30	Mid	A	10	22.21	Left Tilt	DFT-s-OFDM QPSK	0	1	50	1:1	0.030	37.4	
2 310	462000	NR Band n30	Mid	A	10	22.21	Right Cheek	DFT-s-OFDM QPSK	0	1	50	1:1	0.0059	42.2	
2 310	462000	NR Band n30	Mid	A	10	22.21	Right Tilt	DFT-s-OFDM QPSK	0	1	50	1:1	0.021	37.3	
2 310	462000	NR Band n30	Mid	F	10	17.03	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.403	21.0	
2 310	462000	NR Band n30	Mid	F	10	17.03	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.551	19.6	18.1
2 310	462000	NR Band n30	Mid	F	10	16.92	Right Cheek	DFT-s-OFDM QPSK	0	50	0	1:1	0.754	18.1	
2 310	462000	NR Band n30	Mid	F	10	16.92	Right Tilt	CP OFDM QPSK	0	50	0	1:1	0.733	18.3	
2 592.99	518598	NR Band n41(PC3)	Mid	F	100	17.97	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.697	19.5	18.1
2 592.99	518598	NR Band n41(PC3)	Mid	F	100	17.97	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.731	19.3	
2 592.99	518598	NR Band n41(PC3)	Mid	F	100	17.97	Right Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.919	18.3	
2 592.99	518598	NR Band n41(PC3)	Mid	F	100	17.97	Right Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.980	18.1	
2 592.99	518598	NR Band n41 SRS1	Mid	B	100	22.51	Left Cheek	CW	0	-	-	1:1	0.077	33.6	33.6
2 592.99	518598	NR Band n41 SRS1	Mid	B	100	22.51	Left Tilt	CW	0	-	-	1:1	0.00948	43.0	
2 592.99	518598	NR Band n41 SRS1	Mid	B	100	22.51	Right Cheek	CW	0	-	-	1:1	0.022	39.1	
2 592.99	518598	NR Band n41 SRS1	Mid	B	100	22.51	Right Tilt	CW	0	-	-	1:1	0.00844	43.5	
2 592.99	518598	NR Band n41 SRS2	Mid	E	100	17.20	Left Cheek	CW	0	-	-	1:1	0.566	19.7	19.7
2 592.99	518598	NR Band n41 SRS2	Mid	E	100	17.20	Left Tilt	CW	0	-	-	1:1	0.514	20.1	
2 592.99	518598	NR Band n41 SRS2	Mid	E	100	17.20	Right Cheek	CW	0	-	-	1:1	0.146	25.6	
2 592.99	518598	NR Band n41 SRS2	Mid	E	100	17.20	Right Tilt	CW	0	-	-	1:1	0.153	25.4	
2 592.99	518598	NR Band n41 SRS2	Mid	D	100	17.10	Left Cheek	CW	0	-	-	1:1	0	N/A	N/A
2 592.99	518598	NR Band n41 SRS2	Mid	D	100	17.10	Left Tilt	CW	0	-	-	1:1	0	N/A	
2 592.99	518598	NR Band n41 SRS2	Mid	D	100	17.10	Right Cheek	CW	0	-	-	1:1	0	N/A	
2 592.99	518598	NR Band n41 SRS2	Mid	D	100	17.10	Right Tilt	CW	0	-	-	1:1	0	N/A	
2 592.99	518598	NR Band n41(PC3)	Mid	B	100	24.69	Left Cheek	DFT-s-OFDM QPSK	0	135	0	1:1	0.172	32.3	32.3
2 592.99	518598	NR Band n41(PC3)	Mid	B	100	24.93	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.072	36.4	
2 592.99	518598	NR Band n41(PC3)	Mid	B	100	24.69	Right Cheek	DFT-s-OFDM QPSK	0	135	0	1:1	0.054	37.4	
2 592.99	518598	NR Band n41(PC3)	Mid	B	100	24.69	Right Tilt	DFT-s-OFDM QPSK	0	135	0	1:1	0.047	38.0	
2 592.99	518598	NR Band n41 SRS1	Mid	F	100	16.85	Left Cheek	CW	0	-	-	1:1	0.404	20.8	16.9
2 592.99	518598	NR Band n41 SRS1	Mid	F	100	16.85	Left Tilt	CW	0	-	-	1:1	0.573	19.3	
2 592.99	518598	NR Band n41 SRS1	Mid	F	100	16.85	Right Cheek	CW	0	-	-	1:1	0.952	17.1	
2 592.99	518598	NR Band n41 SRS1	Mid	F	100	16.85	Right Tilt	CW	0	-	-	1:1	0.983	16.9	
2 592.99	518598	NR Band n41 SRS2	Mid	D	100	19.47	Left Cheek	CW	0	-	-	1:1	0	N/A	N/A
2 592.99	518598	NR Band n41 SRS2	Mid	D	100	19.47	Left Tilt	CW	0	-	-	1:1	0	N/A	
2 592.99	518598	NR Band n41 SRS2	Mid	D	100	19.47	Right Cheek	CW	0	-	-	1:1	0	N/A	
2 592.99	518598	NR Band n41 SRS2	Mid	D	100	19.47	Right Tilt	CW	0	-	-	1:1	0	N/A	
2 592.99	518598	NR Band n41 SRS2	Mid	E	100	13.10	Left Cheek	CW	0	-	-	1:1	0.566	15.6	15.6
2 592.99	518598	NR Band n41 SRS2	Mid	E	100	13.10	Left Tilt	CW	0	-	-	1:1	0.514	16.0	
2 592.99	518598	NR Band n41 SRS2	Mid	E	100	13.10	Right Cheek	CW	0	-	-	1:1	0.146	21.5	
2 592.99	518598	NR Band n41 SRS2	Mid	E	100	13.10	Right Tilt	CW	0	-	-	1:1	0.153	21.3	



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.														
3 680.01	645334	NR Band 48	High	F	40	16.85	Left Cheek	DFT-s-OFDM QPSK	0	50	56	1:1	0.233	23.2	18.5
3 680.01	645334	NR Band 48	High	F	40	16.85	Left Tilt	DFT-s-OFDM QPSK	0	50	56	1:1	0.263	22.7	
3 680.01	645334	NR Band 48	High	F	40	16.85	Right Cheek	DFT-s-OFDM QPSK	0	50	56	1:1	0.402	20.8	
3 680.01	645334	NR Band 48	High	F	40	16.33	Right Tilt	CP OFDM QPSK	0	1	1	1:1	0.605	18.5	
3 680.01	645334	NR Band 48 SRS1	High	C	40	14.48	Left Cheek	CW	0	-	-	1:1	0	N/A	35.4
3 680.01	645334	NR Band 48 SRS1	High	C	40	14.48	Left Tilt	CW	0	-	-	1:1	0.00632	36.7	
3 680.01	645334	NR Band 48 SRS1	High	C	40	14.48	Right Cheek	CW	0	-	-	1:1	0	N/A	
3 680.01	645334	NR Band 48 SRS1	High	C	40	14.48	Right Tilt	CW	0	-	-	1:1	0.00756	35.4	
3 680.01	645334	NR Band 48 SRS2	High	I	40	14.49	Left Cheek	CW	0	-	-	1:1	0.630	16.5	14.8
3 680.01	645334	NR Band 48 SRS2	High	I	40	14.49	Left Tilt	CW	0	-	-	1:1	0.101	24.4	
3 680.01	645334	NR Band 48 SRS2	High	I	40	14.49	Right Cheek	CW	0	-	-	1:1	0.935	14.8	
3 680.01	645334	NR Band 48 SRS2	High	I	40	14.49	Right Tilt	CW	0	-	-	1:1	0.101	24.4	
3 680.01	645334	NR Band 48 SRS3	High	D	40	13.72	Left Cheek	CW	0	-	-	1:1	0	N/A	N/A
3 680.01	645334	NR Band 48 SRS3	High	D	40	13.72	Left Tilt	CW	0	-	-	1:1	0	N/A	
3 680.01	645334	NR Band 48 SRS3	High	D	40	13.72	Right Cheek	CW	0	-	-	1:1	0	N/A	
3 680.01	645334	NR Band 48 SRS3	High	D	40	13.72	Right Tilt	CW	0	-	-	1:1	0	N/A	
1 745	349000	NR Band 66	Mid	A	40	23.65	Left Cheek	DFT-s-OFDM QPSK	0	108	54	1:1	0.169	31.4	31.4
1 745	349000	NR Band 66	Mid	A	40	23.65	Left Tilt	DFT-s-OFDM QPSK	0	108	54	1:1	0.057	35.8	
1 745	349000	NR Band 66	Mid	A	40	23.65	Right Cheek	DFT-s-OFDM QPSK	0	108	54	1:1	0.101	33.6	
1 745	349000	NR Band 66	Mid	A	40	23.65	Right Tilt	DFT-s-OFDM QPSK	0	108	54	1:1	0.066	35.4	
1 745	349000	NR Band 66	Mid	F	40	17.07	Left Cheek	DFT-s-OFDM QPSK	0	1	108	1:1	0.436	20.7	17.6
1 745	349000	NR Band 66	Mid	F	40	17.07	Left Tilt	DFT-s-OFDM QPSK	0	1	108	1:1	0.604	19.3	
1 745	349000	NR Band 66	Mid	F	40	17.13	Right Cheek	DFT-s-OFDM QPSK	0	108	0	1:1	0.838	17.9	
1 745	349000	NR Band 66	Mid	F	40	17.13	Right Tilt	DFT-s-OFDM QPSK	0	108	0	1:1	0.898	17.6	
1 702.5	340500	NR Band 70	Mid	A	15	23.44	Left Cheek	DFT-s-OFDM QPSK	0	36	22	1:1	0.100	33.4	33.4
1 702.5	340500	NR Band 70	Mid	A	15	23.44	Left Tilt	DFT-s-OFDM QPSK	0	36	22	1:1	0.038	37.5	
1 702.5	340500	NR Band 70	Mid	A	15	23.44	Right Cheek	DFT-s-OFDM QPSK	0	36	22	1:1	0.069	35.1	
1 702.5	340500	NR Band 70	Mid	A	15	23.44	Right Tilt	DFT-s-OFDM QPSK	0	36	22	1:1	0.046	36.8	
1 702.5	340500	NR Band 70	Mid	F	15	17.89	Left Cheek	DFT-s-OFDM QPSK	0	36	0	1:1	0.500	20.9	18.1
1 702.5	340500	NR Band 70	Mid	F	15	17.84	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.718	19.3	
1 702.5	340500	NR Band 70	Mid	F	15	17.89	Right Cheek	DFT-s-OFDM QPSK	0	36	0	1:1	0.841	18.6	
1 702.5	340500	NR Band 70	Mid	F	15	17.94	Right Tilt	CP OFDM QPSK	0	1	1	1:1	0.953	18.1	
680.5	136100	NR Band 71	Mid	A	20	23.97	Left Cheek	DFT-s-OFDM QPSK	0	50	28	1:1	0.054	36.6	36.6
680.5	136100	NR Band 71	Mid	A	20	23.97	Left Tilt	DFT-s-OFDM QPSK	0	50	28	1:1	0.018	41.2	
680.5	136100	NR Band 71	Mid	A	20	23.97	Right Cheek	DFT-s-OFDM QPSK	0	50	28	1:1	0.055	36.6	
680.5	136100	NR Band 71	Mid	A	20	23.97	Right Tilt	DFT-s-OFDM QPSK	0	50	28	1:1	0.016	41.9	
680.5	136100	NR Band 71	Mid	E	20	21.50	Left Cheek	DFT-s-OFDM QPSK	0	50	28	1:1	0.305	26.7	26.4
680.5	136100	NR Band 71	Mid	E	20	21.50	Left Tilt	DFT-s-OFDM QPSK	0	50	28	1:1	0.321	26.4	
680.5	136100	NR Band 71	Mid	E	20	21.50	Right Cheek	DFT-s-OFDM QPSK	0	50	28	1:1	0.243	27.6	
680.5	136100	NR Band 71	Mid	E	20	21.50	Right Tilt	DFT-s-OFDM QPSK	0	50	28	1:1	0.208	28.3	

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.	Mhz	(dBm)												
3 750	650000	NR Band 77(PC3)	Low	F	100	16.63	Left Cheek	DFT-s-OFDM QPSK	0	1	137	1:1	0.301	21.8	18.0
3 750	650000	NR Band 77(PC3)	Low	F	100	16.63	Left Tilt	DFT-s-OFDM QPSK	0	1	137	1:1	0.332	21.4	
3 930	662000	NR Band 77(PC3)	Low	F	100	16.31	Right Cheek	DFT-s-OFDM QPSK	0	135	69	1:1	0.661	18.1	
3 930	662000	NR Bandn77(PC3)	Low	F	100	16.31	Right Tilt	DFT-s-OFDM QPSK	0	135	69	1:1	0.679	18.0	
3 500.01	633334	NR Band 77 DoD(PC3)	Mid	F	100	16.91	Right Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.746	18.2	18.2
3 750	650000	NR Band 77 SRS	Low	C	100	14.84	Left Cheek	CW	0	-	-	1:1	0.052	27.7	27.7
3 750	650000	NR Band 77 SRS	Low	C	100	14.84	Left Tilt	CW	0	-	-	1:1	0.019	32.1	
3 750	650000	NR Band 77 SRS	Low	C	100	14.84	Right Cheek	CW	0	-	-	1:1	0.017	32.5	
3 750	650000	NR Band 77 SRS	Low	C	100	14.84	Right Tilt	CW	0	-	-	1:1	0.035	29.4	
3 500.01	633334	NR Band 77DoD SRS	Mid	C	100	15.44	Left Cheek	CW	0	-	-	1:1	0.094	25.7	25.7
3 750	650000	NR Band 77 SRS	Low	I	100	13.48	Left Cheek	CW	0	-	-	1:1	0.354	18.0	15.3
3 750	650000	NR Band 77 SRS	Low	I	100	13.48	Left Tilt	CW	0	-	-	1:1	0.043	27.1	
3 750	650000	NR Band 77 SRS	Low	I	100	13.48	Right Cheek	CW	0	-	-	1:1	0.662	15.3	
3 750	650000	NR Band 77 SRS	Low	I	100	13.48	Right Tilt	CW	0	-	-	1:1	0.056	26.0	
3 500.01	633334	NR Band 77DoD SRS	Mid	I	100	13.47	Right Cheek	CW	0	-	-	1:1	1.040	13.3	13.3
3 750	650000	NR Band 77 SRS	Low	D	100	15.10	Left Cheek	CW	0	-	-	1:1	0	N/A	39.1
3 750	650000	NR Band 77 SRS	Low	D	100	15.10	Left Tilt	CW	0	-	-	1:1	0.00202	42.1	
3 750	650000	NR Band 77 SRS	Low	D	100	15.10	Right Cheek	CW	0	-	-	1:1	0	N/A	
3 750	650000	NR Band 77 SRS	Low	D	100	15.10	Right Tilt	CW	0	-	-	1:1	0.00421	39.1	
3 500.01	633334	NR Band 77DoD SRS	Mid	D	100	15.48	Right Tilt	CW	0	-	-	1:1	0.00107	45.5	45.5

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

MEASUREMENT RESULTS													
Frequency		Mode/ Band	Band width (MHz)	Ant. No.	Data Rate (Mbps)	Frame Averaged Conducted Power (dBm)	Test Position	Ant. Config.	Duty Cycle	Meas. SAR(1g) (W/kg)	Scaling Factor (Duty)	Plimit (dBm)	Minimum Plimit (dBm)
Mhz	Ch.												
2 462	11	802.11b	20	H	1	13.76	Left Cheek	WIFI1	99.0	0.051	1.010	26.7	20.2
2 462	11	802.11b	20	H	1	13.76	Left Tilt	WIFI1	99.0	0.057	1.010	26.2	
2 462	11	802.11b	20	H	1	13.76	Right Cheek	WIFI1	99.0	0.228	1.010	20.2	
2 462	11	802.11b	20	H	1	13.76	Right Tilt	WIFI1	99.0	0.151	1.010	22.0	
2 462	11	802.11b	20	J	1	13.54	Left Cheek	WIFI2	99.0	0.295	1.010	18.8	18.8
2 462	11	802.11b	20	J	1	13.54	Left Tilt	WIFI2	99.0	0.032	1.010	28.5	
2 462	11	802.11b	20	J	1	13.54	Right Cheek	WIFI2	99.0	0.183	1.010	20.9	
2 462	11	802.11b	20	J	1	13.54	Right Tilt	WIFI2	99.0	0.000738	1.010	43.5	
5 290	58	802.11ac	80	H	MCS0	12.97	Left Cheek	WIFI1	85.7	0.074	1.167	24.3	16.0
5 290	58	802.11ac	80	H	MCS0	12.97	Left Tilt	WIFI1	85.7	0.075	1.167	24.2	
5 775	155	802.11ac	80	H	MCS0	12.95	Right Cheek	WIFI1	85.7	0.501	1.167	16.0	
5 290	58	802.11ac	80	H	MCS0	12.97	Right Tilt	WIFI1	85.7	0.197	1.167	20.0	
5 290	58	802.11ac	80	E	MCS0	11.03	Left Cheek	WIFI2	85.7	0.134	1.167	19.8	19.8
5 290	58	802.11ac	80	E	MCS0	11.03	Left Tilt	WIFI2	85.7	0.131	1.167	19.9	
5 290	58	802.11ac	80	E	MCS0	11.03	Right Cheek	WIFI2	85.7	0.048	1.167	24.2	
5 290	58	802.11ac	80	E	MCS0	11.03	Right Tilt	WIFI2	85.7	0.038	1.167	25.2	
6 825	175	802.11ax	160	H	MCS0	8.93	Left Cheek	WIFI1	99.6	0.015	1.004	27.2	16.5
6 825	175	802.11ax	160	H	MCS0	8.93	Left Tilt	WIFI1	99.6	0.018	1.004	26.4	
6 025	15	802.11ax	160	H	MCS0	8.58	Right Cheek	WIFI1	99.6	0.072	1.004	16.5	
6 825	175	802.11ax	160	H	MCS0	8.93	Right Tilt	WIFI1	99.6	0.023	1.004	25.3	
6 825	175	802.11ax	160	E	MCS0	8.56	Left Cheek	WIFI2	99.6	0.089	1.004	19.1	19.1
6 985	207	802.11ax	160	E	MCS0	8.77	Left Tilt	WIFI2	99.6	0.038	1.004	23.0	
6 985	207	802.11ax	160	E	MCS0	8.77	Right Cheek	WIFI2	99.6	0	1.004	N/A	
6 985	207	802.11ax	160	E	MCS0	8.77	Right Tilt	WIFI2	99.6	0	1.004	N/A	

MEASUREMENT RESULTS										
Frequency		Mode/ Band	Ant. No.	Frame Averaged Conducted Power (dBm)	Test Position	Ant. Config.	Meas. SAR(1g) (W/kg)	Scaling Factor (Duty)	Plimit (dBm)	Minimum Plimit (dBm)
Mhz	Ch.									
2 441	39	DH-5	H	18.46	Left Cheek	Ant 1	0.148	1.010	26.8	21.2
2 441	39	DH-5	H	18.46	Left Tilt	Ant 1	0.117	1.010	27.8	
2 441	39	DH-5	H	18.46	Right Cheek	Ant 1	0.536	1.010	21.2	
2 441	39	DH-5	H	18.46	Right Tilt	Ant 1	0.311	1.010	23.5	
2 441	39	DH-5	J	19.44	Left Cheek	Ant 2	0.378	1.010	23.7	23.7
2 441	39	DH-5	J	19.44	Left Tilt	Ant 2	0.036	1.010	33.9	
2 441	39	DH-5	J	19.44	Right Cheek	Ant 2	0.193	1.010	26.6	
2 441	39	DH-5	J	19.44	Right Tilt	Ant 2	0.059	1.010	31.7	

Table A-5 DSI = 0 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 (dBm)	Test Position	Spacing (mm)	Duty Cycle	Meas. SAR(1g) (W/kg)	P _{limit} (dBm)	Minimum P _{limit} (dBm)
Mhz	Ch.										
836.6	190	GSM 850	GPRS2Tx	E	25.62	Back	10	1:4.15	0.583	28.0	28.0
836.6	190	GSM 850	GPRS2Tx	E	25.62	Front	10	1:4.15	0.447	29.1	
836.6	190	GSM 850	GPRS2Tx	E	25.62	Right	10	1:4.15	0.355	30.1	
836.6	190	GSM 850	GPRS2Tx	E	25.62	Top	10	1:4.15	0.486	28.8	
836.6	190	GSM 850	GPRS2Tx	A	26.07	Rear	10	1:4.15	0.304	31.2	31.2
836.6	190	GSM 850	GPRS2Tx	A	26.07	Front	10	1:4.15	0.103	35.9	
836.6	190	GSM 850	GPRS2Tx	A	26.07	Left	10	1:4.15	0.018	43.5	
836.6	190	GSM 850	GPRS2Tx	A	26.07	Right	10	1:4.15	0.069	37.7	
836.6	190	GSM 850	GPRS2Tx	A	26.07	Bottom	10	1:4.15	0.106	35.8	
1 880.0	661	GSM 1900	GPRS4Tx	A	18.91	Rear	10	1:2.07	0.454	22.3	19.6
1 880.0	661	GSM 1900	GPRS4Tx	A	18.91	Front	10	1:2.07	0.373	23.2	
1 880.0	661	GSM 1900	GPRS4Tx	A	18.91	Left	10	1:2.07	0.043	32.6	
1 880.0	661	GSM 1900	GPRS4Tx	A	18.91	Right	10	1:2.07	0.052	31.7	
1 880.0	661	GSM 1900	GPRS4Tx	A	18.91	Bottom	10	1:2.07	0.860	19.6	
836.6	4183	UMTS 850	RMC	E	24.92	Back	10	1:1	0.315	29.9	29.9
836.6	4183	UMTS 850	RMC	E	24.92	Front	10	1:1	0.228	31.3	
836.6	4183	UMTS 850	RMC	E	24.92	Right	10	1:1	0.233	31.2	
836.6	4183	UMTS 850	RMC	E	24.92	Top	10	1:1	0.283	30.4	
836.6	4183	UMTS 850	RMC	A	24.31	Rear	10	1:1	0.252	30.3	30.3
836.6	4183	UMTS 850	RMC	A	24.31	Front	10	1:1	0.144	32.7	
836.6	4183	UMTS 850	RMC	A	24.31	Left	10	1:1	0.021	41.1	
836.6	4183	UMTS 850	RMC	A	24.31	Right	10	1:1	0.075	35.6	
836.6	4183	UMTS 850	RMC	A	24.31	Bottom	10	1:1	0.127	33.3	
1 732.4	1412	UMTS 1700	RMC	A	19.38	Rear	10	1:1	0.575	21.9	19.5
1 732.4	1412	UMTS 1700	RMC	A	19.38	Front	10	1:1	0.433	23.1	
1 732.4	1412	UMTS 1700	RMC	A	19.38	Left	10	1:1	0.058	31.8	
1 732.4	1412	UMTS 1700	RMC	A	19.38	Right	10	1:1	0.083	30.3	
1 752.6	1513	UMTS 1700	RMC	A	19.47	Bottom	10	1:1	0.992	19.5	
1 880	9400	UMTS 1900	RMC	A	18.70	Rear	10	1:1	0.351	23.2	19.8
1 880	9400	UMTS 1900	RMC	A	18.70	Front	10	1:1	0.257	24.6	
1 880	9400	UMTS 1900	RMC	A	18.70	Left	10	1:1	0.040	32.7	
1 880	9400	UMTS 1900	RMC	A	18.70	Right	10	1:1	0.045	32.2	
1 880	9400	UMTS 1900	RMC	A	18.70	Bottom	10	1:1	0.777	19.8	

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

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

MEASUREMENT RESULTS															
Frequency		Mode		Ant. No.	Band width	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)												
2 560	21350	LTE Band 7	High	B	20	20.34	Rear	10	0	50	49	1:1	0.439	23.9	23.9
2 560	21350	LTE Band 7	High	B	20	20.34	Front	10	0	50	49	1:1	0.225	26.8	
2 560	21350	LTE Band 7	High	B	20	20.34	Left	10	0	50	49	1:1	0.417	24.1	
2 560	21350	LTE Band 7	High	B	20	20.34	Bottom	10	0	50	49	1:1	0.384	24.5	
2 510	20850	LTE Band 7	Low	F	20	19.66	Rear	10	0	50	0	1:1	0.385	23.8	
2 510	20850	LTE Band 7	Low	F	20	19.53	Front	10	0	1	0	1:1	0.358	24.1	22.4
2 510	20850	LTE Band 7	Low	F	20	19.66	Left	10	0	50	0	1:1	0.048	32.8	
2 510	20850	LTE Band 7	Low	F	20	19.66	Top	10	0	50	0	1:1	0.529	22.4	
707.5	23095	LTE Band 12	Mid	A	10	24.37	Back	10	0	1	24	1:1	0.259	30.2	30.2
707.5	23095	LTE Band 12	Mid	A	10	24.37	Front	10	0	1	24	1:1	0.168	32.1	
707.5	23095	LTE Band 12	Mid	A	10	24.37	Left	10	0	1	24	1:1	0.087	35.0	
707.5	23095	LTE Band 12	Mid	A	10	24.37	Right	10	0	1	24	1:1	0.143	32.8	
707.5	23095	LTE Band 12	Mid	A	10	24.37	Bottom	10	0	1	24	1:1	0.114	33.8	
707.5	23095	LTE Band 12	Mid	E	10	24.52	Back	10	0	1	49	1:1	0.260	30.4	30.4
707.5	23095	LTE Band 12	Mid	E	10	24.52	Front	10	0	1	49	1:1	0.221	31.1	
707.5	23095	LTE Band 12	Mid	E	10	24.52	Right	10	0	1	49	1:1	0.171	32.2	
707.5	23095	LTE Band 12	Mid	E	10	24.52	Top	10	0	1	49	1:1	0.220	31.1	
782	23230	LTE Band 13	Mid	A	10	23.98	Back	10	0	1	0	1:1	0.264	29.8	29.8
782	23230	LTE Band 13	Mid	A	10	23.98	Front	10	0	1	0	1:1	0.128	32.9	
782	23230	LTE Band 13	Mid	A	10	23.98	Left	10	0	1	0	1:1	0.066	35.8	
782	23230	LTE Band 13	Mid	A	10	23.98	Right	10	0	1	0	1:1	0.134	32.7	
782	23230	LTE Band 13	Mid	A	10	23.98	Bottom	10	0	1	0	1:1	0.082	34.8	
782	23230	LTE Band 13	Mid	E	10	24.40	Back	10	0	1	49	1:1	0.291	29.8	29.8
782	23230	LTE Band 13	Mid	E	10	24.40	Front	10	0	1	49	1:1	0.215	31.1	
782	23230	LTE Band 13	Mid	E	10	24.40	Right	10	0	1	49	1:1	0.219	31.0	
782	23230	LTE Band 13	Mid	E	10	24.40	Top	10	0	1	49	1:1	0.196	31.5	
793	23330	LTE Band 14	Mid	A	10	24.08	Back	10	0	1	0	1:1	0.232	30.4	30.4
793	23330	LTE Band 14	Mid	A	10	24.08	Front	10	0	1	0	1:1	0.108	33.7	
793	23330	LTE Band 14	Mid	A	10	24.08	Left	10	0	1	0	1:1	0.031	39.2	
793	23330	LTE Band 14	Mid	A	10	24.08	Right	10	0	1	0	1:1	0.060	36.3	
793	23330	LTE Band 14	Mid	A	10	24.08	Bottom	10	0	1	0	1:1	0.085	34.8	
793	23330	LTE Band 14	Mid	E	10	24.81	Back	10	0	1	24	1:1	0.595	27.1	27.0
793	23330	LTE Band 14	Mid	E	10	24.81	Front	10	0	1	24	1:1	0.580	27.2	
793	23330	LTE Band 14	Mid	E	10	24.81	Right	10	0	1	24	1:1	0.550	27.4	
793	23330	LTE Band 14	Mid	E	10	24.81	Top	10	0	1	24	1:1	0.609	27.0	

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 (dBm)	Minimum Plimit (dBm)			
Mhz	Ch.	Mhz	(dBm)		(dB)	(W/kg)			(dBm)				(dBm)					
1 882.5	26365	LTE Band 25	Mid	A	20	18.17	Back	10	0	1	0	1:1	0.319	23.1	20.0			
1 882.5	26365	LTE Band 25	Mid	A	20	18.17	Front	10	0	1	0	1:1	0.259	24.0		20.0		
1 882.5	26365	LTE Band 25	Mid	A	20	18.17	Left	10	0	1	0	1:1	0.027	33.9			20.0	
1 882.5	26365	LTE Band 25	Mid	A	20	18.17	Right	10	0	1	0	1:1	0.047	31.4				20.0
1 882.5	26365	LTE Band 25	Mid	A	20	17.96	Bottom	10	0	50	49	1:1	0.630	20.0				
1 882.5	26365	LTE Band 25	Mid	F	20	20.03	Rear	10	0	1	49	1:1	0.309	25.1	22.7			
1 882.5	26365	LTE Band 25	Mid	F	20	20.03	Front	10	0	1	49	1:1	0.200	27.0		22.7		
1 882.5	26365	LTE Band 25	Mid	F	20	20.03	Left	10	0	1	49	1:1	0.097	30.2			22.7	
1 882.5	26365	LTE Band 25	Mid	F	20	20.09	Top	10	0	50	0	1:1	0.547	22.7				22.7
831.5	26865	LTE Band 26	Mid	A	15	24.24	Back	10	0	1	0	1:1	0.333	29.0	29.0			
831.5	26865	LTE Band 26	Mid	A	15	24.24	Front	10	0	1	0	1:1	0.249	30.3		29.0		
831.5	26865	LTE Band 26	Mid	A	15	24.24	Left	10	0	1	0	1:1	0.050	37.3			29.0	
831.5	26865	LTE Band 26	Mid	A	15	24.24	Right	10	0	1	0	1:1	0.119	33.5				29.0
831.5	26865	LTE Band 26	Mid	A	15	24.24	Bottom	10	0	1	0	1:1	0.157	32.3				
831.5	26865	LTE Band 26	Mid	E	15	24.36	Back	10	0	1	0	1:1	0.091	34.8	32.8			
831.5	26865	LTE Band 26	Mid	E	15	24.36	Front	10	0	1	0	1:1	0.121	33.5		32.8		
831.5	26865	LTE Band 26	Mid	E	15	24.36	Right	10	0	1	0	1:1	0.130	33.2			32.8	
831.5	26865	LTE Band 26	Mid	E	15	24.36	Top	10	0	1	0	1:1	0.144	32.8				32.8
2 310	27710	LTE Band 30	Mid	A	10	19.14	Back	10	0	1	0	1:1	0.203	26.1	23.6			
2 310	27710	LTE Band 30	Mid	A	10	19.14	Front	10	0	1	0	1:1	0.215	25.8		23.6		
2 310	27710	LTE Band 30	Mid	A	10	19.14	Left	10	0	1	0	1:1	0.00516	42.2			23.6	
2 310	27710	LTE Band 30	Mid	A	10	19.14	Right	10	0	1	0	1:1	0.011	38.7				23.6
2 310	27710	LTE Band 30	Mid	A	10	19.14	Bottom	10	0	1	0	1:1	0.360	23.6				
2 310	27710	LTE Band 30	Mid	F	10	20.05	Back	10	0	1	24	1:1	0.503	23.0	22.2			
2 310	27710	LTE Band 30	Mid	F	10	20.05	Front	10	0	1	24	1:1	0.314	25.1		22.2		
2 310	27710	LTE Band 30	Mid	F	10	20.05	Left	10	0	1	24	1:1	0.044	33.6			22.2	
2 310	27710	LTE Band 30	Mid	F	10	20.05	Top	10	0	1	24	1:1	0.615	22.2				22.2
2 610	38150	LTE Band 38	High	F	20	19.41	Back	10	0	50	0	1:1.58	0.299	24.7	23.5			
2 610	38150	LTE Band 38	High	F	20	19.33	Front	10	0	1	49	1:1.58	0.220	26.0		23.5		
2 610	38150	LTE Band 38	High	F	20	19.41	Left	10	0	50	0	1:1.58	0.045	32.9			23.5	
2 610	38150	LTE Band 38	High	F	20	19.41	Top	10	0	50	0	1:1.58	0.392	23.5				23.5

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)												
2 593	40620	LTE Band 41(PC3)	Mid	B	20	20.30	Rear	10	0	1	0	1:1.58	0.389	24.4	24.4
2 593	40620	LTE Band 41(PC3)	Mid	B	20	20.30	Front	10	0	1	0	1:1.58	0.266	26.1	
2 593	40620	LTE Band 41(PC3)	Mid	B	20	20.30	Left	10	0	1	0	1:1.58	0.256	26.2	
2 593	40620	LTE Band 41(PC3)	Mid	B	20	20.30	Bottom	10	0	1	0	1:1.58	0.258	26.2	
2 593	40620	LTE Band 41(PC2)	Mid	B	20	20.36	Rear	10	0	1	0	1:2.31	0.322	25.3	25.3
2 680.0	41490	LTE Band 41(PC3)	High	F	20	17.28	Rear	10	0	1	0	1:1.58	0.199	24.3	22.0
2 680.0	41490	LTE Band 41(PC3)	High	F	20	17.28	Front	10	0	1	0	1:1.58	0.184	24.6	
2 680.0	41490	LTE Band 41(PC3)	High	F	20	17.28	Left	10	0	1	0	1:1.58	0.024	33.5	
2 680.0	41490	LTE Band 41(PC3)	High	F	20	17.28	Top	10	0	1	0	1:1.58	0.312	22.0	
2 680.0	41490	LTE Band 41(PC2)	High	F	20	17.32	Top	10	0	1	0	1:2.31	0.338	22.0	22.0
3 560	55340	LTE Band 48	Low	F	20	19.00	Rear	10	0	1	0	1:1.58	0.332	23.8	22.7
3 560	55340	LTE Band 48	Low	F	20	19.00	Front	10	0	1	0	1:1.58	0.155	27.1	
3 560	55340	LTE Band 48	Low	F	20	19.00	Left	10	0	1	0	1:1.58	0.057	31.4	
3 560	55340	LTE Band 48	Low	F	20	19.00	Top	10	0	1	0	1:1.58	0.424	22.7	
1 745	132322	LTE Band 66	Mid	A	20	18.71	Rear	10	0	50	49	1:1	0.489	21.8	19.4
1 745	132322	LTE Band 66	Mid	A	20	18.71	Front	10	0	50	49	1:1	0.397	22.7	
1 745	132322	LTE Band 66	Mid	A	20	18.71	Left	10	0	50	49	1:1	0.042	32.5	
1 745	132322	LTE Band 66	Mid	A	20	18.71	Right	10	0	50	49	1:1	0.069	30.3	
1 770	132572	LTE Band 66	High	A	20	18.51	Bottom	10	0	1	0	1:1	0.808	19.4	23.1
1 745	132322	LTE Band 66	Mid	F	20	20.18	Rear	10	0	1	49	1:1	0.333	25.0	
1 745	132322	LTE Band 66	Mid	F	20	20.27	Front	10	0	50	49	1:1	0.233	26.6	
1 745	132322	LTE Band 66	Mid	F	20	20.27	Left	10	0	50	49	1:1	0.100	30.3	
1 745	132322	LTE Band 66	Mid	F	20	20.27	Top	10	0	50	49	1:1	0.523	23.1	30.1
680.5	133297	LTE Band 71	Mid	A	20	23.67	Rear	10	0	1	0	1:1	0.225	30.1	
680.5	133297	LTE Band 71	Mid	A	20	23.67	Front	10	0	1	0	1:1	0.166	31.5	
680.5	133297	LTE Band 71	Mid	A	20	23.67	Left	10	0	1	0	1:1	0.079	34.7	
680.5	133297	LTE Band 71	Mid	A	20	23.67	Right	10	0	1	0	1:1	0.178	31.2	31.7
680.5	133297	LTE Band 71	Mid	A	20	23.67	Bottom	10	0	1	0	1:1	0.114	33.1	
680.5	133297	LTE Band 71	Mid	E	20	24.84	Rear	10	0	1	0	1:1	0.206	31.7	
680.5	133297	LTE Band 71	Mid	E	20	24.84	Front	10	0	1	0	1:1	0.168	32.6	
680.5	133297	LTE Band 71	Mid	E	20	24.84	Right	10	0	1	0	1:1	0.105	34.6	31.7
680.5	133297	LTE Band 71	Mid	E	20	24.84	Top	10	0	1	0	1:1	0.161	32.8	

Table A-7 DSI = 0 PLimit Calculations – NR Hotspot SAR

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

NR TDD Bands : In the case of the NR TDD bands, the Plimit were calculated as the Frame average power to which the duty factor was applied to the burst power.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	Minimur Plimit	
Mhz	Ch.															Mhz
2 535	507000	NR Band n7	Mid	B	40	20.13	Rear	DFT-s-OFDM QPSK	0	10	1	214	1:1	0.400	24.1	22.5
2 535	507000	NR Band n7	Mid	B	40	20.13	Front	DFT-s-OFDM QPSK	0	10	1	214	1:1	0.267	25.9	
2 535	507000	NR Band n7	Mid	B	40	20.13	Left	DFT-s-OFDM QPSK	0	10	1	214	1:1	0.576	22.5	
2 535	507000	NR Band n7	Mid	B	40	20.13	Bottom	DFT-s-OFDM QPSK	0	10	1	214	1:1	0.329	25.0	
2 535	507000	NR Band n7	Mid	F	40	20.04	Rear	DFT-s-OFDM QPSK	0	10	108	0	1:1	0.568	22.5	21.3
2 535	507000	NR Band n7	Mid	F	40	20.04	Front	DFT-s-OFDM QPSK	0	10	108	0	1:1	0.436	23.6	
2 535	507000	NR Band n7	Mid	F	40	20.04	Left	DFT-s-OFDM QPSK	0	10	108	0	1:1	0.073	31.4	
2 535	507000	NR Band n7	Mid	F	40	20.04	Top	DFT-s-OFDM QPSK	0	10	108	0	1:1	0.759	21.3	
707.5	141500	NR Band n12	Mid	A	15	23.54	Rear	DFT-s-OFDM QPSK	0	10	1	77	1:1	0.138	32.1	32.1
707.5	141500	NR Band n12	Mid	A	15	23.54	Front	DFT-s-OFDM QPSK	0	10	1	77	1:1	0.074	34.8	
707.5	141500	NR Band n12	Mid	A	15	23.54	Left	DFT-s-OFDM QPSK	0	10	1	77	1:1	0.055	35.8	
707.5	141500	NR Band n12	Mid	A	15	23.54	Right	DFT-s-OFDM QPSK	0	10	1	77	1:1	0.072	35.0	
707.5	141500	NR Band n12	Mid	A	15	23.54	Bottom	DFT-s-OFDM QPSK	0	10	1	77	1:1	0.050	36.6	
707.5	141500	NR Band n12	Mid	E	15	24.22	Rear	DFT-s-OFDM QPSK	0	10	36	22	1:1	0.206	31.1	31.1
707.5	141500	NR Band n12	Mid	E	15	24.22	Front	DFT-s-OFDM QPSK	0	10	36	22	1:1	0.139	32.8	
707.5	141500	NR Band n12	Mid	E	15	24.22	Right	DFT-s-OFDM QPSK	0	10	36	22	1:1	0.149	32.5	
707.5	141500	NR Band n12	Mid	E	15	24.22	Top	DFT-s-OFDM QPSK	0	10	36	22	1:1	0.183	31.5	
1 882.5	376500	NR Band n25	Mid	A	40	18.85	Rear	DFT-s-OFDM QPSK	0	10	108	0	1:1	0.341	23.5	20.1
1 882.5	376500	NR Band n25	Mid	A	40	18.85	Front	DFT-s-OFDM QPSK	0	10	108	0	1:1	0.277	24.4	
1 882.5	376500	NR Band n25	Mid	A	40	18.85	Left	DFT-s-OFDM QPSK	0	10	108	0	1:1	0.035	33.4	
1 882.5	376500	NR Band n25	Mid	A	40	18.79	Right	DFT-s-OFDM QPSK	0	10	1	214	1:1	0.055	31.4	
1 882.5	376500	NR Band n25	Mid	A	40	18.85	Bottom	DFT-s-OFDM QPSK	0	10	108	0	1:1	0.745	20.1	
1 882.5	376500	NR Band n25	Mid	F	40	20.25	Rear	DFT-s-OFDM QPSK	0	10	1	214	1:1	0.246	26.3	23.6
1 882.5	376500	NR Band n25	Mid	F	40	20.25	Front	DFT-s-OFDM QPSK	0	10	1	214	1:1	0.256	26.2	
1 882.5	376500	NR Band n25	Mid	F	40	20.22	Left	DFT-s-OFDM QPSK	0	10	108	0	1:1	0.092	30.6	
1 882.5	376500	NR Band n25	Mid	F	40	20.22	Top	DFT-s-OFDM QPSK	0	10	108	0	1:1	0.463	23.6	
831.5	166300	NR Band n26	Mid	A	20	23.73	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.273	29.4	29.4
831.5	166300	NR Band n26	Mid	A	20	23.73	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.115	33.1	
831.5	166300	NR Band n26	Mid	A	20	23.73	Left	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.056	36.2	
831.5	166300	NR Band n26	Mid	A	20	23.57	Right	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.087	34.2	
831.5	166300	NR Band n26	Mid	A	20	23.57	Bottom	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.102	33.5	
831.5	166300	NR Band n26	Mid	E	20	24.12	Rear	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.192	31.3	31.3
831.5	166300	NR Band n26	Mid	E	20	24.12	Front	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.119	33.4	
831.5	166300	NR Band n26	Mid	E	20	24.12	Right	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.127	33.1	
831.5	166300	NR Band n26	Mid	E	20	24.12	Top	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.122	33.3	

MEASUREMENT RESULTS																
Frequency		Mode	Ant. No.	Band width	Frame	Test Position	MPR	Spacing (mm)	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit		
Mhz	Ch.				Averaged Conducted Power										(dBm)	(dB)
2 592.99	518598	NR Bandn41(PC2)	Mid	F	100	19.52	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.359	24.0	21.8
2 592.99	518598	NR Bandn41(PC2)	Mid	F	100	19.52	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.291	24.9	
2 592.99	518598	NR Bandn41(PC2)	Mid	F	100	19.52	Left	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.045	33.0	
2 592.99	518598	NR Bandn41(PC2)	Mid	F	100	19.83	Top	CP OFDM QPSK	0	10	1	1	1:1	0.630	21.8	
2 592.99	518598	NR Bandn41(SRS)	Mid	B	100	20.98	Back	CW	0	10	-	-	1:1	0.668	22.7	22.7
2 592.99	518598	NR Bandn41(SRS)	Mid	B	100	20.98	Front	CW	0	10	-	-	1:1	0.303	26.2	
2 592.99	518598	NR Bandn41(SRS)	Mid	B	100	20.98	Left	CW	0	10	-	-	1:1	0.533	23.7	
2 592.99	518598	NR Bandn41(SRS)	Mid	B	100	20.98	Bottom	CW	0	10	-	-	1:1	0.378	25.2	
2 592.99	518598	NR Bandn41(SRS)	Mid	E	100	16.75	Back	CW	0	10	-	-	1:1	0.02	33.7	31.6
2 592.99	518598	NR Bandn41(SRS)	Mid	E	100	16.75	Front	CW	0	10	-	-	1:1	0.00912	37.2	
2 592.99	518598	NR Bandn41(SRS)	Mid	E	100	16.75	Right	CW	0	10	-	-	1:1	0.025	32.8	
2 592.99	518598	NR Bandn41(SRS)	Mid	E	100	16.75	Top	CW	0	10	-	-	1:1	0.033	31.6	
2 592.99	518598	NR Bandn41(SRS)	Mid	D	100	20.24	Back	CW	0	10	-	-	1:1	0.111	29.8	29.8
2 592.99	518598	NR Bandn41(SRS)	Mid	D	100	20.24	Front	CW	0	10	-	-	1:1	0	N/A	
2 592.99	518598	NR Bandn41(SRS)	Mid	D	100	20.24	Right	CW	0	10	-	-	1:1	0	N/A	
2 592.99	518598	NR Bandn41(SRS)	Mid	D	100	20.24	Bottom	CW	0	10	-	-	1:1	0.023	36.6	
2 592.99	518598	NR Bandn41(PC2)	Mid	B	100	20.88	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.443	24.4	22.4
2 592.99	518598	NR Bandn41(PC2)	Mid	B	100	20.88	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.299	26.1	
2 592.99	518598	NR Bandn41(PC2)	Mid	B	100	20.65	Left	DFT-s-OFDM QPSK	0	10	270	0	1:1	0.662	22.4	
2 592.99	518598	NR Bandn41(PC2)	Mid	B	100	20.88	Bottom	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.469	24.2	
2 592.99	518598	NR Bandn41(SRS)	Mid	F	100	19.70	Back	CW	0	10	-	-	1:1	0.486	22.8	20.9
2 592.99	518598	NR Bandn41(SRS)	Mid	F	100	19.70	Front	CW	0	10	-	-	1:1	0.449	23.2	
2 592.99	518598	NR Bandn41(SRS)	Mid	F	100	19.70	Left	CW	0	10	-	-	1:1	0.030	34.9	
2 592.99	518598	NR Bandn41(SRS)	Mid	F	100	19.70	Top	CW	0	10	-	-	1:1	0.757	20.9	
2 592.99	518598	NR Bandn41(SRS)	Mid	D	100	19.25	Back	CW	0	10	-	-	1:1	0.111	28.8	28.8
2 592.99	518598	NR Bandn41(SRS)	Mid	D	100	19.25	Front	CW	0	10	-	-	1:1	0	N/A	
2 592.99	518598	NR Bandn41(SRS)	Mid	D	100	19.25	Right	CW	0	10	-	-	1:1	0	N/A	
2 592.99	518598	NR Bandn41(SRS)	Mid	D	100	19.25	Bottom	CW	0	10	-	-	1:1	0.023	35.6	
2 592.99	518598	NR Bandn41(SRS)	Mid	E	100	12.64	Back	CW	0	10	-	-	1:1	0.02	29.6	27.5
2 592.99	518598	NR Bandn41(SRS)	Mid	E	100	12.64	Front	CW	0	10	-	-	1:1	0.00912	33.1	
2 592.99	518598	NR Bandn41(SRS)	Mid	E	100	12.64	Right	CW	0	10	-	-	1:1	0.025	28.7	
2 592.99	518598	NR Bandn41(SRS)	Mid	E	100	12.64	Top	CW	0	10	-	-	1:1	0.033	27.5	

MEASUREMENT RESULTS

Frequency		Mode	Ant. No.	Band width	Frame Averaged Conducted Power	Test Position	MPR	Spacing (mm)	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit		
Mhz	Ch.														Mhz	(dBm)
3680.01	645334	NR Band n48	High	F	40	19.70	Rear	DFT-s-OFDM QPSK	0	10	50	56	1:1	0.345	24.3	24.3
3680.01	645334	NR Band n48	High	F	40	19.62	Front	DFT-s-OFDM QPSK	0	10	1	104	1:1	0.118	29.0	
3680.01	645334	NR Band n48	High	F	40	19.62	Left	DFT-s-OFDM QPSK	0	10	1	104	1:1	0.049	32.7	
3680.01	645334	NR Band n48	High	F	40	19.70	Top	DFT-s-OFDM QPSK	0	10	50	56	1:1	0.298	25.0	
3570	638000	NR Band n48(SRS1)	Low	C	40	16.69	Rear	CW	0	10	-	-	1:1	0.250	22.7	20.4
3570	638000	NR Band n48(SRS1)	Low	C	40	16.69	Front	CW	0	10	-	-	1:1	0.297	22.0	
3570	638000	NR Band n48(SRS1)	Low	C	40	16.69	Left	CW	0	10	-	-	1:1	0.421	20.4	
3570	638000	NR Band n48(SRS1)	Low	C	40	16.69	Bottom	CW	0	10	-	-	1:1	0.146	25.0	
3570	638000	NR Band n48(SRS2)	Low	I	40	17.45	Rear	CW	0	10	-	-	1:1	0.518	20.3	19.0
3570	638000	NR Band n48(SRS2)	Low	I	40	17.45	Front	CW	0	10	-	-	1:1	0.571	19.9	
3570	638000	NR Band n48(SRS2)	Low	I	40	17.45	Left	CW	0	10	-	-	1:1	0.227	23.9	
3570	638000	NR Band n48(SRS3)	Low	D	40	15.81	Rear	CW	0	10	-	-	1:1	0.757	17.0	17.0
3570	638000	NR Band n48(SRS3)	Low	D	40	15.81	Front	CW	0	10	-	-	1:1	0.028	31.3	
3570	638000	NR Band n48(SRS3)	Low	D	40	15.81	Right	CW	0	10	-	-	1:1	0.015	34.0	
3570	638000	NR Band n48(SRS3)	Low	D	40	15.81	Bottom	CW	0	10	-	-	1:1	0.121	25.0	
1745	349000	NR Band n66	Mid	A	40	18.97	Rear	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.718	20.4	18.7
1745	349000	NR Band n66	Mid	A	40	18.97	Front	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.526	21.8	
1745	349000	NR Band n66	Mid	A	40	18.88	Left	DFT-s-OFDM QPSK	0	10	108	54	1:1	0.049	32.0	
1745	349000	NR Band n66	Mid	A	40	18.88	Right	DFT-s-OFDM QPSK	0	10	108	54	1:1	0.074	30.2	
1745	349000	NR Band n66	Mid	A	40	18.83	Bottom	CP OFDM QPSK	0	10	1	1	1:1	1.030	18.7	
1745	349000	NR Band n66	Mid	F	40	20.59	Rear	DFT-s-OFDM QPSK	0	10	108	54	1:1	0.463	23.9	22.3
1745	349000	NR Band n66	Mid	F	40	20.59	Front	DFT-s-OFDM QPSK	0	10	108	54	1:1	0.351	25.1	
1745	349000	NR Band n66	Mid	F	40	20.55	Left	DFT-s-OFDM QPSK	0	10	1	214	1:1	0.110	30.1	
1745	349000	NR Band n66	Mid	F	40	20.64	Top	CP OFDM QPSK	0	10	1	1	1:1	0.680	22.3	
1702.5	340500	NR Band n70	Mid	A	15	19.27	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.518	22.1	20.2
1702.5	340500	NR Band n70	Mid	A	15	19.27	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.434	22.9	
1702.5	340500	NR Band n70	Mid	A	15	19.27	Left	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.069	30.9	
1702.5	340500	NR Band n70	Mid	A	15	19.27	Right	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.075	30.5	
1702.5	340500	NR Band n70	Mid	A	15	19.34	Bottom	DFT-s-OFDM QPSK	0	10	75	0	1:1	0.826	20.2	
1702.5	340500	NR Band n70	Mid	F	15	20.13	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.419	23.9	21.8
1702.5	340500	NR Band n70	Mid	F	15	20.15	Front	DFT-s-OFDM QPSK	0	10	36	22	1:1	0.340	24.8	
1702.5	340500	NR Band n70	Mid	F	15	20.13	Left	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.098	30.2	
1702.5	340500	NR Band n70	Mid	F	15	20.13	Top	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.685	21.8	

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 Plimit
Mhz	Ch.	Mhz	(dBm)													
680.5	136100	NR Band n71	Mid	A	20	23.97	Rear	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.138	32.6	32.6
680.5	136100	NR Band n71	Mid	A	20	23.97	Front	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.091	34.4	
680.5	136100	NR Band n71	Mid	A	20	23.97	Left	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.094	34.2	
680.5	136100	NR Band n71	Mid	A	20	23.97	Right	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.099	34.0	
680.5	136100	NR Band n71	Mid	A	20	23.97	Bottom	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.048	37.2	
680.5	136100	NR Band n71	Mid	E	20	24.59	Rear	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.209	31.4	31.4
680.5	136100	NR Band n71	Mid	E	20	24.59	Front	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.138	33.2	
680.5	136100	NR Band n71	Mid	E	20	24.59	Right	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.169	32.3	
680.5	136100	NR Band n71	Mid	E	20	24.59	Top	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.146	32.9	
3 750	650000	NR Band n77	Low	F	100	17.75	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.247	23.8	23.8
3 750	650000	NR Band n77	Low	F	100	17.45	Front	DFT-s-OFDM QPSK	0	10	135	0	1:1	0.066	29.3	
3 750	650000	NR Band n77	Low	F	100	17.75	Left	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.033	32.6	
3 750	650000	NR Band n77	Low	F	100	17.45	Top	DFT-s-OFDM QPSK	0	10	135	0	1:1	0.217	24.1	
3 500.01	633334	NR Band n77DoD	Mid	F	100	17.88	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.143	26.3	26.3
3 750	650000	NR Band n77SRS	Low	C	100	16.88	Rear	CW	0	10	-	-	1:1	0.337	21.6	19.8
3 750	650000	NR Band n77SRS	Low	C	100	16.88	Front	CW	0	10	-	-	1:1	0.173	24.5	
3 750	650000	NR Band n77SRS	Low	C	100	16.88	Left	CW	0	10	-	-	1:1	0.515	19.8	
3 750	650000	NR Band n77SRS	Low	C	100	16.88	Bottom	CW	0	10	-	-	1:1	0.129	25.8	
3 500.01	633334	NR Band n77DoD	Mid	C	100	17.48	Left	CW	0	10	-	-	1:1	0.613	19.6	19.6
3 750	650000	NR Band n77SRS	Low	I	100	17.06	Rear	CW	0	10	-	-	1:1	0.124	26.1	24.1
3 750	650000	NR Band n77SRS	Low	I	100	17.06	Front	CW	0	10	-	-	1:1	0.196	24.1	
3 750	650000	NR Band n77SRS	Low	I	100	17.06	Left	CW	0	10	-	-	1:1	0.081	27.9	
3 500.01	633334	NR Band n77DoD	Mid	I	100	16.51	Front	CW	0	10	-	-	1:1	0.494	19.6	19.6
3 750	650000	NR Band n77SRS	Low	D	100	17.23	Rear	CW	0	10	-	-	1:1	0.788	18.3	18.3
3 750	650000	NR Band n77SRS	Low	D	100	17.23	Front	CW	0	10	-	-	1:1	0.057	29.7	
3 750	650000	NR Band n77SRS	Low	D	100	17.23	Right	CW	0	10	-	-	1:1	0.062	29.3	
3 750	650000	NR Band n77SRS	Low	D	100	17.23	Bottom	CW	0	10	-	-	1:1	0.187	24.5	
3 500.01	633334	NR Band n77DoD	Mid	D	100	16.52	Rear	CW	0	10	-	-	1:1	0.494	19.6	19.6
3 930	662000	NR Band n78	Mid	F	100	19.35	Rear	DFT-s-OFDM QPSK	0	10	270	0	1:1	0.453	22.8	22.8
3 750	650000	NR Band n78	Mid	F	100	19.67	Front	DFT-s-OFDM QPSK	0	10	135	0	1:1	0.162	27.6	
3 750	650000	NR Band n78	Mid	F	100	19.67	Left	DFT-s-OFDM QPSK	0	10	135	0	1:1	0.052	32.5	
3 750	650000	NR Band n78	Mid	F	100	19.67	Top	DFT-s-OFDM QPSK	0	10	135	0	1:1	0.340	24.4	
3 500.01	633334	NR Band n78DoD	Mid	F	100	19.98	Rear	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.463	23.3	23.3

Table A-8 DSI = 0 PLimit Calculations – WLAN Hotspot/Body SAR

MEASUREMENT RESULTS													
Frequency		Mode/ Band	Band width (MHz)	Ant. No.	Data Rate (Mbps)	Frame Averaged Conducted Power (dBm)	Test Position	Ant. Config.	Duty Cycle	Meas. SAR(1g) (W/kg)	Scaling Factor (Duty)	Plimit (dBm)	Minimum Plimit (dBm)
Mhz	Ch.												
2 412	1	802.11b	20	H	1	19.01	Rear	WIFI1	99.0	0.297	1.010	24.3	21.4
2 412	1	802.11b	20	H	1	19.01	Front	WIFI1	99.0	0.068	1.010	30.7	
2 412	1	802.11b	20	H	1	19.01	Left	WIFI1	99.0	0.572	1.010	21.4	
2 412	1	802.11b	20	H	1	19.01	Top	WIFI1	99.0	0.122	1.010	28.1	
2 437	6	802.11b	20	J	1	18.59	Rear	WIFI2	99.0	0.414	1.010	22.4	22.4
2 437	6	802.11b	20	J	1	18.59	Front	WIFI2	99.0	0.242	1.010	24.8	
2 437	6	802.11b	20	J	1	18.59	Right	WIFI2	99.0	0.052	1.010	31.4	
2 437	6	802.11b	20	J	1	18.59	Top	WIFI2	99.0	0	1.010	N/A	
5 270	54	802.11n	40	H	MCS0	15.97	Rear	WIFI1	86.0	0.259	1.162	21.8	19.8
5 795	159	802.11n	40	H	MCS0	15.96	Front	WIFI1	86.0	0.147	1.162	24.3	
5 795	159	802.11n	40	H	MCS0	15.96	Left	WIFI1	86.0	0.416	1.162	19.8	
5 795	159	802.11n	40	H	MCS0	15.96	Top	WIFI1	86.0	0.094	1.162	26.2	
5 590	118	802.11n	40	E	MCS0	15.26	Rear	WIFI2	86.0	0.328	1.162	20.1	20.1
5 835	167	802.11n	40	E	MCS0	15.30	Front	WIFI2	86.0	0.020	1.162	32.3	
5 795	159	802.11n	40	E	MCS0	15.48	Right	WIFI2	86.0	0.035	1.162	30.0	
5 795	159	802.11n	40	E	MCS0	15.48	Top	WIFI2	86.0	0.061	1.162	27.6	
5 855	171	802.11ac	80	H	MCS0	8.93	Rear	WIFI1	99.6	0.026	1.004	24.8	24.8
5 855	171	802.11ac	80	H	MCS0	8.93	Front	WIFI1	99.6	0.015	1.004	27.2	
6 785	167	802.11ax	80	E	MCS0	8.77	Rear	WIFI2	99.6	0.045	1.004	22.2	22.2
6 785	167	802.11ax	80	E	MCS0	8.77	Front	WIFI2	99.6	0.002	1.004	35.8	

MEASUREMENT RESULTS										
Frequency		Mode/ Band	Ant. No.	Frame Averaged Conducted Power (dBm)	Test Position	Ant. Config.	Meas. SAR(1g) (W/kg)	Scaling Factor (Duty)	Plimit (dBm)	Minimum Plimit (dBm)
Mhz	Ch.									
2 441	39	DH5	H	18.46	Rear	Ant 1	0.180	1.010	25.9	23.7
2 441	39	DH5	H	18.46	Front	Ant 1	0.240	1.010	24.7	
2 441	39	DH5	H	18.46	Left	Ant 1	0.287	1.010	23.7	
2 441	39	DH5	H	18.46	Top	Ant 1	0.075	1.010	29.7	
2 441	39	DH5	J	19.44	Rear	Ant 2	0.283	1.010	24.8	24.8
2 441	39	DH5	J	19.44	Front	Ant 2	0.220	1.010	26.0	
2 441	39	DH5	J	19.44	Right	Ant 2	0.042	1.010	33.2	
2 441	39	DH5	J	19.44	Top	Ant 2	0.00165	1.010	46.4	

Table A-9 DSI = 0 P_{Limit} Calculations – 2G/3G Phablet SAR

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

MEASUREMENT RESULTS											
Frequency		Mode/ Band		Ant. No.	Frame Averaged Conducted Power (dBm)	Test Position	Spacing (mm)	Duty Cycle	Meas. SAR(10g) (W/kg)	P _{limit} (dBm)	Minimum P _{limit} (dBm)
Mhz	Ch.										
836.6	190	GSM 850	GPRS2Tx	E	25.62	Back	0	1:4.15	0.939	29.9	27.5
836.6	190	GSM 850	GPRS2Tx	E	25.62	Front	0	1:4.15	0.980	29.7	
836.6	190	GSM 850	GPRS2Tx	E	25.62	Right	0	1:4.15	0.668	31.4	
836.6	190	GSM 850	GPRS2Tx	E	25.62	Top	0	1:4.15	1.610	27.5	
836.6	190	GSM 850	GPRS2Tx	A	26.07	Rear	0	1:4.15	0.712	31.5	31.5
836.6	190	GSM 850	GPRS2Tx	A	26.07	Front	0	1:4.15	0.398	34.0	
836.6	190	GSM 850	GPRS2Tx	A	26.07	Left	0	1:4.15	0.107	39.8	
836.6	190	GSM 850	GPRS2Tx	A	26.07	Right	0	1:4.15	0.097	40.2	
836.6	190	GSM 850	GPRS2Tx	A	26.07	Bottom	0	1:4.15	0.246	36.1	
1 880.0	661	GSM 1900	GPRS4Tx	A	18.91	Rear	0	1:2.07	0.825	23.7	20.8
1 880.0	661	GSM 1900	GPRS4Tx	A	18.91	Front	0	1:2.07	0.603	25.1	
1 880.0	661	GSM 1900	GPRS4Tx	A	18.91	Left	0	1:2.07	0.079	33.9	
1 880.0	661	GSM 1900	GPRS4Tx	A	18.91	Right	0	1:2.07	0.166	30.7	
1 880.0	661	GSM 1900	GPRS4Tx	A	18.91	Bottom	0	1:2.07	1.610	20.8	
836.6	4183	UMTS 850	RMC	E	24.92	Back	0	1:1	1.030	28.8	27.7
836.6	4183	UMTS 850	RMC	E	24.92	Front	0	1:1	1.020	28.8	
836.6	4183	UMTS 850	RMC	E	24.92	Right	0	1:1	0.731	30.3	
836.6	4183	UMTS 850	RMC	E	24.92	Top	0	1:1	1.310	27.7	
836.6	4183	UMTS 850	RMC	A	24.31	Rear	0	1:1	0.793	29.3	29.3
836.6	4183	UMTS 850	RMC	A	24.31	Front	0	1:1	0.484	31.4	
836.6	4183	UMTS 850	RMC	A	24.31	Left	0	1:1	0.145	36.7	
836.6	4183	UMTS 850	RMC	A	24.31	Right	0	1:1	0.133	37.1	
836.6	4183	UMTS 850	RMC	A	24.31	Bottom	0	1:1	0.306	33.4	
1 732.4	1412	UMTS 1700	RMC	A	19.38	Rear	0	1:1	1.260	22.4	22.4
1 732.4	1412	UMTS 1700	RMC	A	19.38	Front	0	1:1	1.070	23.2	
1 732.4	1412	UMTS 1700	RMC	A	19.38	Left	0	1:1	0.298	28.7	
1 732.4	1412	UMTS 1700	RMC	A	19.38	Right	0	1:1	0.162	31.4	
1 732.4	1412	UMTS 1700	RMC	A	19.38	Bottom	0	1:1	0.770	24.6	
1 880	9400	UMTS 1900	RMC	A	18.70	Rear	0	1:1	1.220	21.8	21.8
1 880	9400	UMTS 1900	RMC	A	18.70	Front	0	1:1	0.699	24.2	
1 880	9400	UMTS 1900	RMC	A	18.70	Left	0	1:1	0.083	33.5	
1 880	9400	UMTS 1900	RMC	A	18.70	Right	0	1:1	0.168	30.4	
1 880	9400	UMTS 1900	RMC	A	18.70	Bottom	0	1:1	0.771	23.8	

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

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

MEASUREMENT RESULTS															
Frequency		Mode		Ant. No.	Band width	Frame Averaged Conducted Power	Test Position	Spacing (mm)	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR (10g)	P _{limit}	Minimum P _{limit}
Mhz	Ch.	Mhz	(dBm)												
2 560	21350	LTE Band 7	High	B	20	20.34	Rear	0	0	50	49	1:1	2.140	21.0	21.0
2 560	21350	LTE Band 7	High	B	20	20.34	Front	0	0	50	49	1:1	1.500	22.6	
2 560	21350	LTE Band 7	High	B	20	20.34	Left	0	0	50	49	1:1	1.480	22.6	
2 560	21350	LTE Band 7	High	B	20	20.34	Bottom	0	0	50	49	1:1	0.923	24.7	
2 510	20850	LTE Band 7	Low	F	20	19.66	Rear	0	0	50	0	1:1	1.130	23.1	19.9
2 510	20850	LTE Band 7	Low	F	20	19.66	Front	0	0	50	0	1:1	1.240	22.7	
2 510	20850	LTE Band 7	Low	F	20	19.66	Left	0	0	50	0	1:1	0.166	31.4	
2 510	20850	LTE Band 7	Low	F	20	19.66	Top	0	0	50	0	1:1	2.390	19.9	
707.5	23095	LTE Band 12	Mid	A	10	24.37	Back	0	0	1	24	1:1	0.812	29.3	29.3
707.5	23095	LTE Band 12	Mid	A	10	24.37	Front	0	0	1	24	1:1	0.600	30.6	
707.5	23095	LTE Band 12	Mid	A	10	24.37	Left	0	0	1	24	1:1	0.317	33.3	
707.5	23095	LTE Band 12	Mid	A	10	24.37	Right	0	0	1	24	1:1	0.141	36.9	
707.5	23095	LTE Band 12	Mid	A	10	24.37	Bottom	0	0	1	24	1:1	0.629	30.4	
707.5	23095	LTE Band 12	Mid	E	10	24.52	Back	0	0	1	49	1:1	0.814	29.4	26.9
707.5	23095	LTE Band 12	Mid	E	10	24.52	Front	0	0	1	49	1:1	0.883	29.0	
707.5	23095	LTE Band 12	Mid	E	10	24.52	Right	0	0	1	49	1:1	0.573	30.9	
707.5	23095	LTE Band 12	Mid	E	10	24.52	Top	0	0	1	49	1:1	1.460	26.9	
782	23230	LTE Band 13	Mid	A	10	23.98	Back	0	0	1	0	1:1	0.928	28.3	28.3
782	23230	LTE Band 13	Mid	A	10	23.98	Front	0	0	1	0	1:1	0.616	30.1	
782	23230	LTE Band 13	Mid	A	10	23.98	Left	0	0	1	0	1:1	0.644	29.9	
782	23230	LTE Band 13	Mid	A	10	23.98	Right	0	0	1	0	1:1	0.211	34.7	
782	23230	LTE Band 13	Mid	A	10	23.98	Bottom	0	0	1	0	1:1	0.658	29.8	
782	23230	LTE Band 13	Mid	E	10	24.40	Back	0	0	1	49	1:1	0.957	28.6	27.0
782	23230	LTE Band 13	Mid	E	10	24.40	Front	0	0	1	49	1:1	0.806	29.3	
782	23230	LTE Band 13	Mid	E	10	24.40	Right	0	0	1	49	1:1	0.563	30.9	
782	23230	LTE Band 13	Mid	E	10	24.40	Top	0	0	1	49	1:1	1.370	27.0	
793	23330	LTE Band 14	Mid	A	10	24.08	Back	0	0	1	0	1:1	0.936	28.3	28.3
793	23330	LTE Band 14	Mid	A	10	24.08	Front	0	0	1	0	1:1	0.804	29.0	
793	23330	LTE Band 14	Mid	A	10	24.08	Left	0	0	1	0	1:1	0.524	30.9	
793	23330	LTE Band 14	Mid	A	10	24.08	Right	0	0	1	0	1:1	0.167	35.8	
793	23330	LTE Band 14	Mid	A	10	24.08	Bottom	0	0	1	0	1:1	0.709	29.6	
793	23330	LTE Band 14	Mid	E	10	24.81	Back	0	0	1	24	1:1	0.884	29.3	27.3
793	23330	LTE Band 14	Mid	E	10	24.81	Front	0	0	1	24	1:1	0.974	28.9	
793	23330	LTE Band 14	Mid	E	10	24.81	Right	0	0	1	24	1:1	0.680	30.5	
793	23330	LTE Band 14	Mid	E	10	24.81	Top	0	0	1	24	1:1	1.410	27.3	

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)												
1 882.5	26365	LTE Band 25	Mid	A	20	18.17	Back	0	0	1	0	1:1	0.824	23.0	23.0
1 882.5	26365	LTE Band 25	Mid	A	20	18.17	Front	0	0	1	0	1:1	0.657	24.0	
1 882.5	26365	LTE Band 25	Mid	A	20	18.17	Left	0	0	1	0	1:1	0.064	34.1	
1 882.5	26365	LTE Band 25	Mid	A	20	18.17	Right	0	0	1	0	1:1	0.142	30.6	
1 882.5	26365	LTE Band 25	Mid	A	20	18.17	Bottom	0	0	1	0	1:1	0.663	23.9	
1 882.5	26365	LTE Band 25	Mid	F	20	20.09	Rear	0	0	50	0	1:1	0.903	24.5	21.9
1 882.5	26365	LTE Band 25	Mid	F	20	20.09	Front	0	0	50	0	1:1	0.954	24.3	
1 882.5	26365	LTE Band 25	Mid	F	20	20.09	Left	0	0	50	0	1:1	0.271	29.7	
1 882.5	26365	LTE Band 25	Mid	F	20	20.09	Top	0	0	50	0	1:1	1.640	21.9	
831.5	26865	LTE Band 26	Mid	A	15	24.24	Back	0	0	1	0	1:1	0.654	30.1	30.1
831.5	26865	LTE Band 26	Mid	A	15	24.24	Front	0	0	1	0	1:1	0.451	31.7	
831.5	26865	LTE Band 26	Mid	A	15	24.24	Left	0	0	1	0	1:1	0.161	36.2	
831.5	26865	LTE Band 26	Mid	A	15	24.24	Right	0	0	1	0	1:1	0.119	37.5	
831.5	26865	LTE Band 26	Mid	A	15	24.24	Bottom	0	0	1	0	1:1	0.327	33.1	
831.5	26865	LTE Band 26	Mid	E	15	24.36	Back	0	0	1	0	1:1	1.080	28.0	27.1
831.5	26865	LTE Band 26	Mid	E	15	24.36	Front	0	0	1	0	1:1	0.866	29.0	
831.5	26865	LTE Band 26	Mid	E	15	24.36	Right	0	0	1	0	1:1	0.765	29.5	
831.5	26865	LTE Band 26	Mid	E	15	24.36	Top	0	0	1	0	1:1	1.340	27.1	
2 310	27710	LTE Band 30	Mid	A	10	19.14	Back	0	0	1	0	1:1	0.692	24.7	24.3
2 310	27710	LTE Band 30	Mid	A	10	19.14	Front	0	0	1	0	1:1	0.540	25.8	
2 310	27710	LTE Band 30	Mid	A	10	19.14	Left	0	0	1	0	1:1	0.292	28.5	
2 310	27710	LTE Band 30	Mid	A	10	19.14	Right	0	0	1	0	1:1	0.185	30.4	
2 310	27710	LTE Band 30	Mid	A	10	19.14	Bottom	0	0	1	0	1:1	0.763	24.3	
2 310	27710	LTE Band 30	Mid	F	10	20.05	Back	0	0	1	24	1:1	1.300	22.9	20.6
2 310	27710	LTE Band 30	Mid	F	10	20.05	Front	0	0	1	24	1:1	1.440	22.4	
2 310	27710	LTE Band 30	Mid	F	10	20.05	Left	0	0	1	24	1:1	0.197	31.1	
2 310	27710	LTE Band 30	Mid	F	10	20.05	Top	0	0	1	24	1:1	2.220	20.6	
2 610	38150	LTE Band 38	High	F	20	19.41	Back	0	0	50	0	1:1.58	1.310	22.2	19.7
2 610	38150	LTE Band 38	High	F	20	19.41	Front	0	0	50	0	1:1.58	1.260	22.4	
2 610	38150	LTE Band 38	High	F	20	19.41	Left	0	0	50	0	1:1.58	0.189	30.6	
2 610	38150	LTE Band 38	High	F	20	19.41	Top	0	0	50	0	1:1.58	2.320	19.7	

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)												
2 593	40620	LTE Band 41(PC3)	Mid	B	20	20.30	Rear	0	0	1	0	1:1.58	1.720	21.9	21.9
2 593	40620	LTE Band 41(PC3)	Mid	B	20	20.30	Front	0	0	1	0	1:1.58	1.520	22.5	
2 593	40620	LTE Band 41(PC3)	Mid	B	20	20.30	Left	0	0	1	0	1:1.58	1.250	23.3	
2 593	40620	LTE Band 41(PC3)	Mid	B	20	20.30	Bottom	0	0	1	0	1:1.58	1.450	22.7	
2 593	40620	LTE Band 41(PC2)	Mid	B	20	20.36	Rear	0	0	1	0	1:2.31	1.700	22.0	22.0
2 680.0	41490	LTE Band 41(PC3)	High	F	20	17.28	Rear	0	0	1	0	1:1.58	0.728	22.6	20.0
2 680.0	41490	LTE Band 41(PC3)	High	F	20	17.28	Front	0	0	1	0	1:1.58	0.714	22.7	
2 680.0	41490	LTE Band 41(PC3)	High	F	20	17.28	Left	0	0	1	0	1:1.58	0.113	30.7	
2 680.0	41490	LTE Band 41(PC3)	High	F	20	17.28	Top	0	0	1	0	1:1.58	1.350	20.0	
2 680.0	41490	LTE Band 41(PC2)	High	F	20	17.32	Top	0	0	1	0	1:2.31	1.300	20.2	20.2
3 560	55340	LTE Band 48	Low	F	20	19.00	Rear	0	0	1	0	1:1.58	0.644	24.9	23.0
3 560	55340	LTE Band 48	Low	F	20	19.00	Front	0	0	1	0	1:1.58	0.647	24.9	
3 560	55340	LTE Band 48	Low	F	20	19.00	Left	0	0	1	0	1:1.58	0.103	32.9	
3 560	55340	LTE Band 48	Low	F	20	19.00	Top	0	0	1	0	1:1.58	1.000	23.0	
1 745	132322	LTE Band 66	Mid	A	20	18.71	Rear	0	0	50	49	1:1	1.090	22.1	21.8
1 745	132322	LTE Band 66	Mid	A	20	18.71	Front	0	0	50	49	1:1	0.957	22.7	
1 745	132322	LTE Band 66	Mid	A	20	18.71	Left	0	0	50	49	1:1	0.170	30.2	
1 745	132322	LTE Band 66	Mid	A	20	18.71	Right	0	0	50	49	1:1	0.090	32.9	
1 745	132322	LTE Band 66	Mid	A	20	18.71	Bottom	0	0	50	49	1:1	1.170	21.8	21.5
1 745	132322	LTE Band 66	Mid	F	20	20.27	Rear	0	0	50	49	1:1	0.907	24.7	
1 745	132322	LTE Band 66	Mid	F	20	20.27	Front	0	0	50	49	1:1	1.230	23.4	
1 745	132322	LTE Band 66	Mid	F	20	20.27	Left	0	0	50	49	1:1	0.368	28.6	
1 745	132322	LTE Band 66	Mid	F	20	20.27	Top	0	0	50	49	1:1	1.880	21.5	21.5
680.5	133297	LTE Band 71	Mid	A	20	23.67	Rear	0	0	1	0	1:1	0.644	29.6	29.6
680.5	133297	LTE Band 71	Mid	A	20	23.67	Front	0	0	1	0	1:1	0.538	30.3	
680.5	133297	LTE Band 71	Mid	A	20	23.67	Left	0	0	1	0	1:1	0.310	32.7	
680.5	133297	LTE Band 71	Mid	A	20	23.67	Right	0	0	1	0	1:1	0.110	37.2	
680.5	133297	LTE Band 71	Mid	A	20	23.67	Bottom	0	0	1	0	1:1	0.436	31.3	28.4
680.5	133297	LTE Band 71	Mid	E	20	24.84	Rear	0	0	1	0	1:1	0.917	29.2	
680.5	133297	LTE Band 71	Mid	E	20	24.84	Front	0	0	1	0	1:1	1.090	28.4	
680.5	133297	LTE Band 71	Mid	E	20	24.84	Right	0	0	1	0	1:1	0.711	30.3	
680.5	133297	LTE Band 71	Mid	E	20	24.84	Top	0	0	1	0	1:1	1.050	28.6	28.6

Table A-11 DSI = 0 PLimit Calculations – NR Phablet SAR

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

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

SAR measurements of 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)	Plimit	Minimur Plimit
Mhz	Ch.	Mhz	(dBm)													
2 535	507000	NR Band n7	Mid	B	40	20.13	Rear	DFT-s-OFDM QPSK	0	0	1	214	1:1	2.050	21.0	21.0
2 535	507000	NR Band n7	Mid	B	40	20.13	Front	DFT-s-OFDM QPSK	0	0	1	214	1:1	0.693	25.7	
2 535	507000	NR Band n7	Mid	B	40	20.13	Left	DFT-s-OFDM QPSK	0	0	1	214	1:1	1.600	22.1	
2 535	507000	NR Band n7	Mid	B	40	20.13	Bottom	DFT-s-OFDM QPSK	0	0	1	214	1:1	1.520	22.3	
2 535	507000	NR Band n7	Mid	F	40	20.04	Rear	DFT-s-OFDM QPSK	0	0	108	0	1:1	0.960	24.2	21.7
2 535	507000	NR Band n7	Mid	F	40	20.04	Front	DFT-s-OFDM QPSK	0	0	108	0	1:1	1.070	23.7	
2 535	507000	NR Band n7	Mid	F	40	20.04	Left	DFT-s-OFDM QPSK	0	0	108	0	1:1	0.121	33.2	
2 535	507000	NR Band n7	Mid	F	40	20.04	Top	DFT-s-OFDM QPSK	0	0	108	0	1:1	1.700	21.7	
707.5	141500	NR Band n12	Mid	A	15	23.54	Rear	DFT-s-OFDM QPSK	0	0	1	77	1:1	0.849	28.2	27.8
707.5	141500	NR Band n12	Mid	A	15	23.54	Front	DFT-s-OFDM QPSK	0	0	1	77	1:1	0.925	27.9	
707.5	141500	NR Band n12	Mid	A	15	23.54	Left	DFT-s-OFDM QPSK	0	0	1	77	1:1	0.566	30.0	
707.5	141500	NR Band n12	Mid	A	15	23.54	Right	DFT-s-OFDM QPSK	0	0	1	77	1:1	0.065	39.4	
707.5	141500	NR Band n12	Mid	A	15	23.54	Bottom	DFT-s-OFDM QPSK	0	0	1	77	1:1	0.935	27.8	
707.5	141500	NR Band n12	Mid	E	15	24.22	Rear	DFT-s-OFDM QPSK	0	0	36	22	1:1	0.831	29.0	28.2
707.5	141500	NR Band n12	Mid	E	15	24.22	Front	DFT-s-OFDM QPSK	0	0	36	22	1:1	0.990	28.2	
707.5	141500	NR Band n12	Mid	E	15	24.22	Right	DFT-s-OFDM QPSK	0	0	36	22	1:1	0.543	30.9	
707.5	141500	NR Band n12	Mid	E	15	24.22	Top	DFT-s-OFDM QPSK	0	0	36	22	1:1	0.903	28.6	
1 882.5	376500	NR Band n25	Mid	A	40	18.85	Rear	DFT-s-OFDM QPSK	0	0	108	0	1:1	1.160	22.1	22.1
1 882.5	376500	NR Band n25	Mid	A	40	18.85	Front	DFT-s-OFDM QPSK	0	0	108	0	1:1	0.925	23.1	
1 882.5	376500	NR Band n25	Mid	A	40	18.85	Left	DFT-s-OFDM QPSK	0	0	108	0	1:1	0.097	32.9	
1 882.5	376500	NR Band n25	Mid	A	40	18.85	Right	DFT-s-OFDM QPSK	0	0	108	0	1:1	0.170	30.5	
1 882.5	376500	NR Band n25	Mid	A	40	18.85	Bottom	DFT-s-OFDM QPSK	0	0	108	0	1:1	0.759	24.0	
1 882.5	376500	NR Band n25	Mid	F	40	20.25	Rear	DFT-s-OFDM QPSK	0	0	1	214	1:1	0.869	24.8	22.7
1 882.5	376500	NR Band n25	Mid	F	40	20.25	Front	DFT-s-OFDM QPSK	0	0	1	214	1:1	0.860	24.9	
1 882.5	376500	NR Band n25	Mid	F	40	20.25	Left	DFT-s-OFDM QPSK	0	0	1	214	1:1	0.348	28.8	
1 882.5	376500	NR Band n25	Mid	F	40	20.22	Top	DFT-s-OFDM QPSK	0	0	1	214	1:1	1.420	22.7	
831.5	166300	NR Band n26	Mid	A	20	23.73	Rear	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.000	27.7	27.7
831.5	166300	NR Band n26	Mid	A	20	23.73	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.631	29.7	
831.5	166300	NR Band n26	Mid	A	20	23.73	Left	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.134	36.4	
831.5	166300	NR Band n26	Mid	A	20	23.73	Right	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.156	35.8	
831.5	166300	NR Band n26	Mid	A	20	23.73	Bottom	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.716	29.2	
831.5	166300	NR Band n26	Mid	E	20	24.12	Rear	DFT-s-OFDM QPSK	0	0	50	28	1:1	1.060	27.8	26.3
831.5	166300	NR Band n26	Mid	E	20	24.12	Front	DFT-s-OFDM QPSK	0	0	50	28	1:1	0.960	28.3	
831.5	166300	NR Band n26	Mid	E	20	24.12	Right	DFT-s-OFDM QPSK	0	0	50	28	1:1	0.893	28.6	
831.5	166300	NR Band n26	Mid	E	20	24.12	Top	DFT-s-OFDM QPSK	0	0	50	28	1:1	1.500	26.3	



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(10g)	Plimit	Minimum Plimit		
Mhz	Ch.														Mhz	(dBm)
2 592.99	518598	NR Bandn41(PC2)	Mid	F	100	19.83	Rear	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.300	22.7	19.8
2 592.99	518598	NR Bandn41(PC2)	Mid	F	100	19.83	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.240	22.9	
2 592.99	518598	NR Bandn41(PC2)	Mid	F	100	19.83	Left	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.122	32.9	
2 592.99	518598	NR Bandn41(PC2)	Mid	F	100	19.83	Top	CP OFDM QPSK	0	0	1	1	1:1	2.530	19.8	
2 592.99	518598	NR Bandn41(SRS)	Mid	B	100	20.98	Back	CW	0	0	-	-	1:1	2.210	21.5	21.5
2 592.99	518598	NR Bandn41(SRS)	Mid	B	100	20.98	Front	CW	0	0	-	-	1:1	1.740	22.6	
2 592.99	518598	NR Bandn41(SRS)	Mid	B	100	20.98	Left	CW	0	0	-	-	1:1	1.370	23.6	
2 592.99	518598	NR Bandn41(SRS)	Mid	B	100	20.98	Bottom	CW	0	0	-	-	1:1	1.190	24.2	
2 592.99	518598	NR Bandn41(SRS)	Mid	E	100	16.75	Back	CW	0	0	-	-	1:1	0.480	23.9	23.9
2 592.99	518598	NR Bandn41(SRS)	Mid	E	100	16.75	Front	CW	0	0	-	-	1:1	0.362	25.1	
2 592.99	518598	NR Bandn41(SRS)	Mid	E	100	16.75	Right	CW	0	0	-	-	1:1	0.376	25.0	
2 592.99	518598	NR Bandn41(SRS)	Mid	E	100	16.75	Top	CW	0	0	-	-	1:1	0.354	25.2	
2 592.99	518598	NR Bandn41(SRS)	Mid	D	100	20.24	Back	CW	0	0	-	-	1:1	0.557	26.8	26.8
2 592.99	518598	NR Bandn41(SRS)	Mid	D	100	20.24	Front	CW	0	0	-	-	1:1	0.192	31.4	
2 592.99	518598	NR Bandn41(SRS)	Mid	D	100	20.24	Right	CW	0	0	-	-	1:1	0.017	41.9	
2 592.99	518598	NR Bandn41(SRS)	Mid	D	100	20.24	Bottom	CW	0	0	-	-	1:1	0.054	36.9	
2 592.99	518598	NR Bandn41(PC2)	Mid	B	100	20.88	Rear	DFT-s-OFDM QPSK	0	0	1	1	1:1	2.080	21.7	21.7
2 592.99	518598	NR Bandn41(PC2)	Mid	B	100	20.88	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.700	22.6	
2 592.99	518598	NR Bandn41(PC2)	Mid	B	100	20.88	Left	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.630	22.7	
2 592.99	518598	NR Bandn41(PC2)	Mid	B	100	20.88	Bottom	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.330	23.6	
2 592.99	518598	NR Bandn41(SRS)	Mid	F	100	19.70	Back	CW	0	0	-	-	1:1	1.230	22.8	21.0
2 592.99	518598	NR Bandn41(SRS)	Mid	F	100	19.70	Front	CW	0	0	-	-	1:1	0.959	23.9	
2 592.99	518598	NR Bandn41(SRS)	Mid	F	100	19.70	Left	CW	0	0	-	-	1:1	0.121	32.9	
2 592.99	518598	NR Bandn41(SRS)	Mid	F	100	19.70	Top	CW	0	0	-	-	1:1	1.840	21.0	
2 592.99	518598	NR Bandn41(SRS)	Mid	D	100	19.25	Back	CW	0	0	-	-	1:1	1.110	22.8	22.8
2 592.99	518598	NR Bandn41(SRS)	Mid	D	100	19.25	Front	CW	0	0	-	-	1:1	0.399	27.2	
2 592.99	518598	NR Bandn41(SRS)	Mid	D	100	19.25	Right	CW	0	0	-	-	1:1	0.020	40.2	
2 592.99	518598	NR Bandn41(SRS)	Mid	D	100	19.25	Bottom	CW	0	0	-	-	1:1	0.125	32.3	
2 592.99	518598	NR Bandn41(SRS)	Mid	E	100	12.64	Back	CW	0	0	-	-	1:1	0.236	22.9	22.9
2 592.99	518598	NR Bandn41(SRS)	Mid	E	100	12.64	Front	CW	0	0	-	-	1:1	0.166	24.4	
2 592.99	518598	NR Bandn41(SRS)	Mid	E	100	12.64	Right	CW	0	0	-	-	1:1	0.163	24.5	
2 592.99	518598	NR Bandn41(SRS)	Mid	E	100	12.64	Top	CW	0	0	-	-	1:1	0.152	24.8	

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(10g)	Plimit	Minim Plimit
Mhz	Ch.															
3680.01	645334	NR Band n48	High	F	40	19.70	Rear	DFT-s-OFDM QPSK	0	0	50	56	1:1	1.050	23.5	22.1
3680.01	645334	NR Band n48	High	F	40	19.70	Front	DFT-s-OFDM QPSK	0	0	50	56	1:1	0.846	24.4	
3680.01	645334	NR Band n48	High	F	40	19.70	Left	DFT-s-OFDM QPSK	0	0	50	56	1:1	0.217	30.3	
3680.01	645334	NR Band n48	High	F	40	19.70	Top	DFT-s-OFDM QPSK	0	0	50	56	1:1	1.450	22.1	
3570	638000	NR Band n48(SRS1)	Low	C	40	16.69	Rear	CW	0	0	-	-	1:1	1.710	18.3	18.3
3570	638000	NR Band n48(SRS1)	Low	C	40	16.69	Front	CW	0	0	-	-	1:1	1.450	19.1	
3570	638000	NR Band n48(SRS1)	Low	C	40	16.69	Left	CW	0	0	-	-	1:1	1.450	19.1	
3570	638000	NR Band n48(SRS1)	Low	C	40	16.69	Bottom	CW	0	0	-	-	1:1	0.357	25.1	
3570	638000	NR Band n48(SRS2)	Low	I	40	17.55	Rear	CW	0	0	-	-	1:1	1.320	20.2	20.0
3570	638000	NR Band n48(SRS2)	Low	I	40	17.55	Front	CW	0	0	-	-	1:1	1.400	20.0	
3570	638000	NR Band n48(SRS2)	Low	I	40	17.55	Left	CW	0	0	-	-	1:1	0.374	25.7	
3570	638000	NR Band n48(SRS3)	Low	D	40	15.81	Rear	CW	0	0	-	-	1:1	1.250	18.8	18.8
3570	638000	NR Band n48(SRS3)	Low	D	40	15.81	Front	CW	0	0	-	-	1:1	0.174	27.4	
3570	638000	NR Band n48(SRS3)	Low	D	40	15.81	Right	CW	0	0	-	-	1:1	0.053	32.5	
3570	638000	NR Band n48(SRS3)	Low	D	40	15.81	Bottom	CW	0	0	-	-	1:1	0.182	27.2	
1 745	349000	NR Band n66	Mid	A	40	18.97	Rear	DFT-s-OFDM QPSK	0	0	1	108	1:1	1.260	21.9	21.9
1 745	349000	NR Band n66	Mid	A	40	18.97	Front	DFT-s-OFDM QPSK	0	0	1	108	1:1	1.080	22.6	
1 745	349000	NR Band n66	Mid	A	40	18.88	Left	DFT-s-OFDM QPSK	0	0	108	54	1:1	0.222	29.5	
1 745	349000	NR Band n66	Mid	A	40	18.88	Right	DFT-s-OFDM QPSK	0	0	108	54	1:1	0.166	30.7	
1 745	349000	NR Band n66	Mid	A	40	18.83	Bottom	CP OFDM QPSK	0	0	1	1	1:1	0.853	23.6	
1 745	349000	NR Band n66	Mid	F	40	20.59	Rear	DFT-s-OFDM QPSK	0	0	108	54	1:1	0.961	24.7	21.7
1 745	349000	NR Band n66	Mid	F	40	20.59	Front	DFT-s-OFDM QPSK	0	0	108	54	1:1	1.270	23.5	
1 745	349000	NR Band n66	Mid	F	40	20.55	Left	DFT-s-OFDM QPSK	0	0	1	214	1:1	0.320	29.5	
1 745	349000	NR Band n66	Mid	F	40	20.64	Top	CP OFDM QPSK	0	0	1	1	1:1	1.930	21.7	
1 702.5	340500	NR Band n70	Mid	A	15	19.27	Rear	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.698	24.8	23.5
1 702.5	340500	NR Band n70	Mid	A	15	19.27	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.941	23.5	
1 702.5	340500	NR Band n70	Mid	A	15	19.27	Left	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.418	27.0	
1 702.5	340500	NR Band n70	Mid	A	15	19.27	Right	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.083	34.1	
1 702.5	340500	NR Band n70	Mid	A	15	19.34	Bottom	DFT-s-OFDM QPSK	0	0	75	0	1:1	0.908	23.7	
1 702.5	340500	NR Band n70	Mid	F	15	20.13	Rear	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.010	24.1	21.7
1 702.5	340500	NR Band n70	Mid	F	15	20.15	Front	DFT-s-OFDM QPSK	0	0	36	22	1:1	1.340	22.8	
1 702.5	340500	NR Band n70	Mid	F	15	20.13	Left	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.262	29.9	
1 702.5	340500	NR Band n70	Mid	F	15	20.13	Top	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.750	21.7	

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)
1 702.5	340500	NR Band n70	Mid	A	15	19.27	Rear	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.698	24.8	23.5
1 702.5	340500	NR Band n70	Mid	A	15	19.27	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.941	23.5	
1 702.5	340500	NR Band n70	Mid	A	15	19.27	Left	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.418	27.0	
1 702.5	340500	NR Band n70	Mid	A	15	19.27	Right	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.083	34.1	
1 702.5	340500	NR Band n70	Mid	A	15	19.34	Bottom	DFT-s-OFDM QPSK	0	0	75	0	1:1	0.908	23.7	
1 702.5	340500	NR Band n70	Mid	F	15	20.13	Rear	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.010	24.1	21.7
1 702.5	340500	NR Band n70	Mid	F	15	20.15	Front	DFT-s-OFDM QPSK	0	0	36	22	1:1	1.340	22.8	
1 702.5	340500	NR Band n70	Mid	F	15	20.13	Left	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.262	29.9	
1 702.5	340500	NR Band n70	Mid	F	15	20.13	Top	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.750	21.7	
680.5	136100	NR Band n71	Mid	A	20	23.97	Rear	DFT-s-OFDM QPSK	0	0	50	28	1:1	1.040	27.8	27.2
680.5	136100	NR Band n71	Mid	A	20	23.97	Front	DFT-s-OFDM QPSK	0	0	50	28	1:1	1.140	27.4	
680.5	136100	NR Band n71	Mid	A	20	23.97	Left	DFT-s-OFDM QPSK	0	0	50	28	1:1	0.239	34.2	
680.5	136100	NR Band n71	Mid	A	20	23.97	Right	DFT-s-OFDM QPSK	0	0	50	28	1:1	0.046	41.3	
680.5	136100	NR Band n71	Mid	A	20	23.97	Bottom	DFT-s-OFDM QPSK	0	0	50	28	1:1	1.180	27.2	
680.5	136100	NR Band n71	Mid	E	20	24.59	Rear	DFT-s-OFDM QPSK	0	0	50	28	1:1	1.090	28.2	26.0
680.5	136100	NR Band n71	Mid	E	20	24.59	Front	DFT-s-OFDM QPSK	0	0	50	28	1:1	1.310	27.4	
680.5	136100	NR Band n71	Mid	E	20	24.59	Right	DFT-s-OFDM QPSK	0	0	50	28	1:1	0.732	29.9	
680.5	136100	NR Band n71	Mid	E	20	24.59	Top	DFT-s-OFDM QPSK	0	0	50	28	1:1	1.810	26.0	
3 750	650000	NR Band n77	High	F	100	19.98	Rear	DFT-s-OFDM QPSK	0	0	135	0	1:1	1.740	21.6	21.6
3 750	650000	NR Band n77	Low	F	100	19.98	Front	DFT-s-OFDM QPSK	0	0	135	0	1:1	1.480	22.3	
3 750	650000	NR Band n77	Low	F	100	19.98	Left	DFT-s-OFDM QPSK	0	0	135	0	1:1	0.345	28.6	
3 750	650000	NR Band n77	Low	F	100	19.98	Top	DFT-s-OFDM QPSK	0	0	135	0	1:1	1.040	23.8	
3 500.01	633334	NR Band n77DoD	Mid	F	100	19.93	Rear	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.690	21.7	21.7
3 750	650000	NR Band n77SRS	Low	C	100	16.88	Rear	CW	0	0	-	-	1:1	1.050	20.6	19.9
3 750	650000	NR Band n77SRS	Low	C	100		Front	CW	0	0	-	-	1:1	0.782	21.9	
3 750	650000	NR Band n77SRS	Low	C	100		Left	CW	0	0	-	-	1:1	1.250	19.9	
3 750	650000	NR Band n77SRS	Low	C	100		Bottom	CW	0	0	-	-	1:1	0.272	26.5	
3 500.01	633334	NR Band n77DoD	Mid	C	100	17.48	Left	CW	0	0	-	-	1:1	1.600	19.4	19.4
3 750	650000	NR Band n77SRS	Low	I	100	17.06	Rear	CW	0	0	-	-	1:1	0.603	23.2	21.1
3 750	650000	NR Band n77SRS	Low	I	100		Front	CW	0	0	-	-	1:1	0.977	21.1	
3 750	650000	NR Band n77SRS	Low	I	100		Left	CW	0	0	-	-	1:1	0.221	27.6	
3 750	650000	NR Band n77SRS	Low	I	100	16.51	Front	CW	0	0	-	-	1:1	1.010	20.4	20.4
3 750	650000	NR Band n77SRS	Low	D	100	17.23	Rear	CW	0	0	-	-	1:1	1.590	19.2	19.2
3 750	650000	NR Band n77SRS	Low	D	100		Front	CW	0	0	-	-	1:1	0.249	27.2	
3 750	650000	NR Band n77SRS	Low	D	100		Right	CW	0	0	-	-	1:1	0.146	29.6	
3 750	650000	NR Band n77SRS	Low	D	100		Bottom	CW	0	0	-	-	1:1	0.291	26.6	
3 500.01	633334	NR Band n77DoD	Mid	D	100	16.52	Rear	CW	0	0	-	-	1:1	1.310	19.3	19.3

Table A-12 DSI = 0 P_{Limit} Calculations – WLAN Phablet SAR

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

MEASUREMENT RESULTS															
Frequency		Mode/ Band	Band width (MHz)	Ant. No.	Data Rate (Mbps)	Frame Averaged Conducted Power (dBm)	Test Position	Ant. Config.	Spacing (mm)	Duty Cycle	Meas. SAR(10g) (W/kg)	Scaling Factor (Duty)	P _{limit} (dBm)	Minimum P _{limit} (dBm)	
Mhz	Ch.														
2 412	1	802.11b	20	H	1	19.01	Rear	WIFI1	0	99.0	1.010	1.010	22.9	20.6	
2 412	1	802.11b	20	H	1	19.01	Front	WIFI1	0	99.0	1.340	1.010	21.7		
2 412	1	802.11b	20	H	1	19.01	Left	WIFI1	0	99.0	0.262	1.010	28.8		
2 412	1	802.11b	20	H	1	19.01	Top	WIFI1	0	99.0	1.750	1.010	20.6		
2 437	6	802.11b	20	J	1	18.59	Rear	WIFI2	0	99.0	1.040	1.010	22.4	21.9	
2 437	6	802.11b	20	J	1	18.59	Front	WIFI2	0	99.0	1.140	1.010	22.0		
2 437	6	802.11b	20	J	1	18.59	Right	WIFI2	0	99.0	0.046	1.010	35.9		
2 437	6	802.11b	20	J	1	18.59	Top	WIFI2	0	99.0	1.180	1.010	21.9		
5 270	54	802.11n	40	H	MCS0	15.97	Rear	WIFI1	0	86.0	0.847	1.162	21.4	17.5	
5 270	54	802.11n	40	H	MCS0	15.97	Front	WIFI1	0	86.0	0.626	1.162	22.7		
5 835	167	802.11n	40	H	MCS0	15.78	Left	WIFI1	0	86.0	1.670	1.162	17.5		
5 835	167	802.11n	40	H	MCS0	15.78	Top	WIFI1	0	86.0	0.174	1.162	27.4		
5 590	118	802.11n	40	E	MCS0	15.26	Rear	WIFI2	0	86.0	0.951	1.162	19.5	19.5	
5 270	54	802.11n	40	E	MCS0	14.84	Front	WIFI2	0	86.0	0.178	1.162	26.3		
5 590	118	802.11n	40	E	MCS0	15.26	Right	WIFI2	0	86.0	0.046	1.162	32.6		
5 590	118	802.11n	40	E	MCS0	15.26	Top	WIFI2	0	86.0	0.167	1.162	27.0		
6 825	175	802.11ax	160	H	MCS0	8.93	Rear	WIFI1	0	86.2	0.087	1.004	23.5	17.1	
6 825	175	802.11ax	160	H	MCS0	8.93	Front	WIFI1	0	86.2	0.055	1.004	25.5		
6 025	15	802.11ax	160	H	MCS0	8.58	Left	WIFI1	0	86.2	0.348	1.004	17.1		
6 825	175	802.11ax	160	H	MCS0	8.93	Top	WIFI1	0	86.2	0.010	1.004	32.9		
6 025	15	802.11ax	160	E	MCS0	8.38	Rear	WIFI2	0	99.2	0.070	1.004	20.5	20.5	
6 825	175	802.11ax	160	E	MCS0	8.77	Front	WIFI2	0	99.2	0.022	1.004	29.3		
6 825	175	802.11ax	160	E	MCS0	8.77	Right	WIFI2	0	99.2	0.014	1.004	31.3		
6 825	175	802.11ax	160	E	MCS0	8.77	Top	WIFI2	0	99.2	0.026	1.004	28.6		

MEASUREMENT RESULTS												
Frequency		Mode/ Band	Ant. No.	Frame Averaged Conducted Power (dBm)	Test Position	Ant. Config.	Spacing (mm)	Meas. SAR(10g) (W/kg)	Scaling Factor (Duty)	P _{limit} (dBm)	Minimum P _{limit} (dBm)	
Mhz	Ch.											
2 441	39	DH-5	H	18.46	Rear	Ant 1	0	0.674	1.010	24.2	22.3	
2 441	39	DH-5	H	18.46	Front	Ant 1	0	0.625	1.010	24.5		
2 441	39	DH-5	H	18.46	Left	Ant 1	0	1.040	1.010	22.3		
2 441	39	DH-5	H	18.46	Top	Ant 1	0	0.258	1.010	28.3		
2 441	39	DH-5	J	19.44	Rear	Ant 2	0	0.756	1.010	24.6	24.6	
2 441	39	DH-5	J	19.44	Front	Ant 2	0	0.652	1.010	25.3		
2 441	39	DH-5	J	19.44	Right	Ant 2	0	0.130	1.010	32.3		
2 441	39	DH-5	J	19.44	Top	Ant 2	0	0.250	1.010	29.4		