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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. 18, 2023 Test Report No.: HCT-SR-2310-FC008 Test Site: HCT CO., LTD.
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FCC ID:

A3LSMS926B

Report Type: Part 0 SAR Characterization
Equipment Type: Mobile Phone
Model Name: SM-S926B/DS
Additional Model Name: SM-S926B

This device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in FCC KDB procedures and had been tested in accordance with the measurement procedures specified in FCC KDB procedures.

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. 18, 2023	Initial Release

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

Company Name	HCT Co., Ltd.
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Fax.	031-645-6401

1.2 Test Facilities

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

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

2. DEVICE UNDER TEST

2.1 General Information of the DUT

Device Wireless specification overview		
Band & Mode	Operating Mode	Tx Frequency
GSM850	Voice / Data	824.2 MHz ~ 848.8 MHz
GSM1900	Voice / Data	1 850.2 MHz ~ 1 909.8 MHz
UMTS Band 2	Voice / Data	1 852.4 MHz ~ 1 907.6 MHz
UMTS Band 4	Voice / Data	1 712.4 MHz ~ 1 752.6 MHz
UMTS Band 5	Voice / Data	826.4 MHz ~ 846.6 MHz
LTE FDD Band 2 (PCS)	Voice / Data	1 850.7 MHz ~ 1 909.3 MHz
LTE FDD Band 4 (AWS)	Voice / Data	1 710.7 MHz ~ 1 754.3 MHz
LTE FDD Band 5 (Cell)	Voice / Data	824.7 MHz ~ 848.3 MHz
LTE FDD Band 12	Voice / Data	699.7 MHz ~ 715.3 MHz
LTE FDD Band 13	Voice / Data	779.5 MHz ~ 784.5 MHz
LTE FDD Band 17	Voice / Data	706.5 MHz ~ 713.5 MHz
LTE FDD Band 25	Voice / Data	1 850.7 MHz ~ 1 914.3 MHz
LTE FDD Band 26	Voice / Data	814.7 MHz ~ 848.3 MHz
LTE TDD Band 41	Voice / Data	2 498.5 MHz ~ 2 687.5 MHz
LTE TDD Band 66 (AWS)	Voice / Data	1 710.7 MHz ~ 1 779.3 MHz
NR FDD Band n2 (PCSFDD)	Voice / Data	1 852.5 MHz ~ 1 907.5 MHz
NR FDD Band n5	Voice / Data	826.5 MHz ~ 846.5 MHz
NR FDD Band n25 (PCS)	Voice / Data	1 852.5 MHz ~ 1 912.5 MHz
NR TDD Band n41	Voice / Data	2 506.02 MHz ~ 2 679.99 MHz
NR FDD Band n66	Voice / Data	1 712.5 MHz ~ 1 777.5 MHz
NR TDD Band n77	Voice / Data	3 705 MHz ~ 3 975 MHz
NR TDD Band n77 DoD	Voice / Data	3 455.04 MHz ~ 3 544.98 MHz
U-NII-1	Voice / Data	5 180 MHz ~ 5 240 MHz
U-NII-2A	Voice / Data	5 260 MHz ~ 5 320 MHz
U-NII-2C	Voice / Data	5 500 MHz ~ 5 720 MHz
U-NII-3	Voice / Data	5 745 MHz ~ 5 825 MHz
U-NII-4	Voice / Data	5 845 MHz ~ 5 885 MHz
U-NII-5	Voice / Data	5 955 MHz ~ 6 425 MHz
U-NII-6	Voice / Data	6 425 MHz ~ 6 525 MHz
U-NII-7	Voice / Data	6 525 MHz ~ 6 875 MHz
U-NII-8	Voice / Data	6 875 MHz ~ 7 115 MHz
2.4 GHz WLAN	Voice / Data	2 412 MHz ~ 2 472 MHz
Bluetooth / LE 5.3	Data	2 402 MHz ~ 2 480 MHz
UWB	Data	6 489.6 MHz ~ 7 987.2 MHz
NFC	Data	13.56 MHz
WPC	Data	110 kHz ~ 148 kHz

2.2 Introduction of SAR compliance test with TAS algorithm

This WWAN Mode of DUT is equipped with an S.LSI chipset to which the Samsung S.LSI proprietary TAS (Time Average SAR) algorithm is applied. and also This equipment contains the Qualcomm modem supporting WLAN Smart Transmit operations.

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

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

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

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

The Samsung S.LSI TAS algorithm and Qualcomm Smart transmit algorithm allow the device to transmit at higher power instantaneously, as high as Pmax, when needed, but enforces power limiting to maintain time-averaged transmit power to Plimit. Below table shows Plimit NV settings and maximum tune up output power Pmax configured for this DUT for various transmit conditions (Radio SAR indicator RSI for Head /Body SAR of WWAN Mode, Device State Index DSI for WLAN mode).

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

SAR Characterization confirms that Plimit in the 4G/5G/WLAN communication mode declared by the manufacturer satisfies SAR_target.

The compliance test under the static transmission scenario and simultaneous transmission analysis are reported in SAR report for Sub 6GHz. The validation of The Samsung S.LSI proprietary TAS (Time Average SAR) algorithm and compliance under the time- varying transmission scenario for WWAN technologies are reported in TAS Validation report.

. The validation of The Qualcomm Smart transmits algorithm and compliance under the time- varying transmission scenario for WAN technologies are reported in A3LSMS926B_SAR Part 2 Report_WLAN report.

Term	Description
Plimit	The Time-averaged RF power that corresponds to SAR_target.
Pmax	Maximum Tx power that can be transmitted physically from RFIC for a given RAT.
SAR_target	Target SAR level used in TAS algorithm. This SAR value should be less than FCC limit and should be determined after accounting for all uncertainties and other design considerations.
SAR_FCC_Limit	SAR Limit specified by FCC 1.6 W/kg averaged over 1g , for head and body exposure, and 4W/kg averaged over 10g, for Phablet SAR.
SAR Characterization	Characterization of SAR value for Sub 6 technology..

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/m^3)
- E = Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relations to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.

3.2 SAR Measurement Procedure

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

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

Table 3-1

Frequency	Maximum Area Scan Resolution(mm) ($\Delta x_{area}, \Delta y_{area}$)	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 CHACTERIZATION.

It should be confirmed that P_{limit} and SAR_{target} applied by OEM to device in SAR characterization satisfy within the uncertainty of device through SAR measurement.

4.1 Design target for TAS

SAR_{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.

SAR _{target}			
$SAR_{target} < FCC_SAR_limit \times 10^{-Total\ Uncertainty/10}$			
1g SAR (W/kg)		10g SAR (W/kg)	
Total Uncertainty	1.0 dB	Total Uncertainty	1.0 dB
FCC_SAR_limit	1.6 W/kg	FCC_SAR_limit	4.0 W/kg
SAR_target	1.0 W/kg	SAR_target	2.5 W/kg

This device use differennt Radio SAR Index[RSI] to configure different P_{limit} based on certain exposure configurations for each 2G/3G/4G/5G wireless mode

Radio SAR Indicator (RSI)	Configuration for WWLAN
0	1. Body Worn[10mm] 2. Phablet SAR 3. Hotspot SAR 10mm
1	Head SAR conditions in wireless mode.

Device SAR Indicator (DSI)	Configuration for WLAN
0	1. Body Worn[10mm] 2. Phablet SAR 3. Hotspot SAR 10mm
1	Head SAR conditions in Receiver Active

SAR test results corresponding to P_{max} for each antenna/technology/band/RSI & DSI can be found in Appendix A. P_{limit} is calculated by linearly scaling with the measured SAR at the P_{max} to correspond to the SAR_{target}.

Plim values in green indicate Plimit < Pmax			Plim values in gray indicate Plimit > Pmax				
Plimit corresponding to 1 W/kg (1g) 2.5W/kg(10g) SAR_Design_target			Pmax		Pmax		
SAR Exposure Position			Head (RCV ON)	Hotspot (Hotspot on)	Phablet /Earjack	Maximum Tune-up Output Power (Burst Average Power) [dBm]	Maximum Tune-up Output Power (Frame Averaged Power) [dBm]
Averaging volume			1g	1g	10g		
seperation Distance			0 mm	10 mm	0 mm		
Mode	Band	Antenna	RSI=1	RSI=0	RSI=0		
GSM/GPRS/EDGE	850	Sub 1	20.8	26.2		28.5	24.2
GSM/GPRS/EDGE	850	MAIN 1	37.6	28.4		29.0	24.7
GSM/GPRS/EDGE	1900	MAIN 1	18.8	18.8		29.0	20.0
UMTS	2	MAIN 1	32.6	18.5		23.0	23.0
UMTS	4	MAIN 1	34.1	19.0		23.0	23.0
UMTS	5	Sub 1	19.0	25.3		24.0	24.0
UMTS	5	MAIN 1	36.8	26.7		24.0	24.0
LTE FDD	25(2)	MAIN 1	32.6	17.0		23.0	23.0
LTE FDD	2	Sub 2	17.0	19.0		23.0	23.0
LTE FDD	66(4)	MAIN 1	33.6	17.0		23.0	23.0
LTE FDD	66(4)	Sub 2	17.0	19.0		23.0	23.0
LTE FDD	12	MAIN 1	34.8	27.9		24.0	24.0
LTE FDD	13	MAIN 1	34.3	29.7		24.0	24.0
LTE FDD	5	Sub 1	19.5	27.0		24.0	24.0
LTE FDD	5	MAIN 1	34.2	27.1		24.0	24.0
LTE FDD	26	Sub 1	19.5	26.3		24.0	24.0
LTE FDD	26	MAIN 1	34.5	27.7		24.0	24.0
LTE TDD PC3	41	MAIN 2	31.3	19.5		23.0	21.0
LTE TDD PC2	41	MAIN 2	31.5	20.0		25.5	21.9
NR FDD	25(2)	MAIN 1	33.1	17.0		23.5	23.5
NR FDD	25(2)	Sub 2	17.0	19.0		23.0	23.0
NR FDD	26(5)	MAIN 1	36.3	27.0		24.0	24.0
NR FDD	26(5)	Sub 1	20.0	27.2		24.0	24.0
NR TDD SRS 0 PC2	41	MAIN 2	14.0	17.0		24.0	24.0
NR TDD SRS 1 PC2	41	Sub 2	10.0	13.0		24.0	24.0
NR TDD SRS 2	41	E	12.0	14.0		21.5	21.5
NR TDD SRS 3	41	D	7.5	9.5		17.0	17.0
NR FDD	66	MAIN 1	33.4	17.5		23.0	23.0
NR FDD	66	Sub 2	17.5	18.5		23.0	23.0
NR TDD SRS 0 PC2	77	Sub 2	13.5	14.5		24.5	24.5
NR TDD SRS 1	77	C	12.0	13.5		23.0	23.0
NR TDD SRS 2	77	I	12.3	13.8		23.3	23.3
NR TDD SRS 3	77	D	11.5	12.5		21.5	21.5
NR TDD SRS 0 PC2	77 DoD	Sub 2	13.5	14.5		24.5	24.5
NR TDD SRS 1	77 DoD	C	12.0	13.5		23.0	23.0
NR TDD SRS 2	77 DoD	I	12.3	13.8		23.3	23.3
NR TDD SRS 3	77 DoD	D	11.5	12.5		21.5	21.5

Plim values in green indicate Plimit < Pmax			Plim values in gray indicate Plimit > Pmax			Pmax	Pmax
Plimit corresponding to 1 W/kg (1g) 2.5W/kg(10g) SAR_Design_target							
SAR Exposure Position			Head (RCV ON)	Hotspot (Hotspot on)	Phablet /Earjack	Maximum Tune-up Output Power (Burst Average Power) [dBm]	Maximum Tune-up Output Power (Frame Averaged Power)
Averaging volume			1g	1g	10g		
seperation Distance			0 mm	10 mm	0 mm		
Mode	Band	Antenna	RSI=1	RSI=0	RSI=0		
WLAN	2.4	Sub 4	13.0	21.2		17.0	17.0
WLAN	2.4	Sub 6	13.0	23.2		17.0	17.0
WLAN	5	Sub 4	12.0	15.5		15.0	15.0
WLAN	5	Sub 1	12.0	21.4		15.0	15.0
WLAN	6	Sub 4	8.0	17.8		9.0	9.0
WLAN	6	Sub 1	8.0	19.4		9.0	9.0
BT	2.4	Sub 4	12.5	21.9		16.0	16.0
BT	2.4	Sub 6	12.5	21.6		16.0	16.0

Note :

1. Radio SAR indicator (RSI) in the table above means the SAR test configuration of each mobile communication technology.
2. Plimit and Tune up output power Pmax in above table correspond to average power level after accounting for duty cycle in the case of TDD Modulation schemes (LTE TDD)
3. Maximum tune up output Power Pmax is used to configure DUT during RF tune up procedure. The maximum allowed output power is equal to Tune up power +1 dB device design uncertainty.
4. Compared with the Plimit (Tune up Powers) declared in each RSI by the manufacturer and the Plimit (calculation) calculated by the SAR measurement of each RSI, the lower power is applied to the DUT as the Plimit at each RSI configurations.
5. WLAN/BT mode are not controlled by The Samsung S.LSI proprietary TAS (Time Average SAR) algorithm.
6. when Hotspot Mode (RSI=0), Grip sensor (RSI=0) and Ear-jack mode(RSI=0) are triggered at the same time, RSI =1(RCV) takes higher priority. The Priority for power reduction was given in the order of hotspot(RSI=0), ear-jack.(RSI=0), and grip (RSI=0).

5. SAR Test Equipment

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	SAM Phantom	-	N/A	N/A	N/A
SPEAG	ELI Phantom	-	N/A	N/A	N/A
HP	SAR System Control PC	-	N/A	N/A	N/A
Staubli	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	F13/5R4XF1/A/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F08/5AJ0A1/C/01	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F13/5SD0A1/C/01	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	N/A	N/A	N/A
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	F13/5R4XF1/A/01	N/A	N/A	N/A
Staubli	TX90 XLSpeag	F08/5AJ0A1/A/01	N/A	N/A	N/A
Staubli	TX90 XLSpeag	F13/5SD0A1/A/01	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)	S-1338 1332	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-0008	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	001729	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	175-H1/Thermometer	40332651310	12/29/2022	Annual	12/29/2023
TESTO	175-H1/Thermometer	40331949309	12/29/2022	Annual	12/29/2023
TESTO	608-H1/Thermometer	83348029	03/27/2023	Annual	03/27/2024
TESTO	608-H1/Thermometer	83348021	03/27/2023	Annual	03/27/2024
TESTO	608-H1/Thermometer	83406789	06/29/2023	Annual	06/29/2024
SPEAG	DAE4	869	03/23/2023	Annual	03/23/2024
SPEAG	DAE4	1686	05/23/2023	Annual	05/23/2024
SPEAG	DAE4	1464	06/16/2023	Annual	06/16/2024
SPEAG	DAE4	1687	07/18/2023	Annual	07/18/2024
SPEAG	DAE4	652	01/20/2023	Annual	01/20/2024
SPEAG	DAE4	504	01/10/2023	Annual	01/10/2024
SPEAG	DAE4	466	04/25/2023	Annual	04/25/2024
SPEAG	DAE4	1225	03/06/2023	Annual	03/06/2024
SPEAG	E-Field Probe EX3DV4	3076	07/18/2023	Annual	07/18/2024
SPEAG	E-Field Probe EX3DV4	7309	06/19/2023	Annual	06/19/2024
SPEAG	E-Field Probe EX3DV4	7732	06/20/2023	Annual	06/20/2024
SPEAG	E-Field Probe EX3DV4	7702	01/26/2023	Annual	01/26/2024
SPEAG	E-Field Probe EX3DV4	3797	01/24/2023	Annual	01/24/2024
SPEAG	E-Field Probe EX3DV4	7370	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	3903	07/19/2023	Annual	07/19/2024
SPEAG	CLA13	1016	11/16/2022	Annual	11/16/2023
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

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	Dipole D1800V2	2d015	05/17/2023	Annual	05/17/2024
SPEAG	Dipole D1900V2	5d061	01/23/2023	Annual	01/23/2024
SPEAG	Dipole D2450V2	1049	04/25/2023	Annual	04/25/2024
SPEAG	Dipole D2600V2	1106	05/24/2023	Annual	05/24/2024
SPEAG	Dipole 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 D3900V2	1019	05/19/2023	Annual	05/19/2024
SPEAG	Dipole D5GHzV2	1317	05/17/2023	Annual	05/17/2024
Agilent	Power Meter E4419B	MY41291386	09/27/2022	Annual	09/27/2023
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	09/27/2022	Annual	09/27/2023
Agilent	Power Sensor 8481A	SG1091286	09/21/2023	Annual	09/21/2024
H.P	Power Sensor 8481A	MY41090675	09/27/2022	Annual	09/27/2023
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	09/27/2022	Annual	09/27/2023
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	09/27/2022	Annual	09/27/2023
EMPOWER	RF Power Amplifier	1011	09/21/2023	Annual	09/21/2024
MICRO LAB	LP Filter / LA-15N	10453	09/27/2022	Annual	09/27/2023
MICRO LAB	LP Filter / LA-15N	10453	09/21/2023	Annual	09/21/2024
MICRO LAB	LP Filter / LA-30N	-	09/27/2022	Annual	09/27/2023
MICRO LAB	LP Filter / LA-30N	-	09/21/2023	Annual	09/21/2024
MICRO LAB	LP Filter / LA-60N	32011	09/27/2022	Annual	09/27/2023
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	09/27/2022	Annual	09/27/2023
HP	Dual Directional Coupler	16072	09/21/2023	Annual	09/21/2024
Anritsu	Radio Communication Test Station MT8000A	6261987928	01/25/2023	Annual	01/25/2024
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

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 RSI = 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	19.61	Left Cheek	1:8.3	0.614	21.7	21.7
836.6	190	GSM 850		E	19.61	Left Tilt	1:8.3	0.451	23.1	
836.6	190	GSM 850		E	19.61	Right Cheek	1:8.3	0.429	23.3	
836.6	190	GSM 850		E	19.61	Right Tilt	1:8.3	0.361	24.0	
836.6	190	GSM 850	GSM	A	23.64	Left Cheek	1:8.3	0.033	38.5	37.6
836.6	190	GSM 850		A	23.64	Left Tilt	1:8.3	0.025	39.7	
836.6	190	GSM 850		A	23.64	Right Cheek	1:8.3	0.040	37.6	
836.6	190	GSM 850		A	23.64	Right Tilt	1:8.3	0.019	40.9	
1 880	661	GSM 1900	GSM	A	18.85	Left Cheek	1:8.3	0.083	29.7	29.7
1 880	661	GSM 1900		A	18.85	Left Tilt	1:8.3	0.031	33.9	
1 880	661	GSM 1900		A	18.85	Right Cheek	1:8.3	0.032	33.8	
1 880	661	GSM 1900		A	18.85	Right Tilt	1:8.3	0.029	34.2	
836.6	4183	UMTS Band 5	RMC	E	18.81	Left Cheek	1:1	0.558	21.3	21.3
836.6	4183	UMTS Band 5	RMC	E	18.81	Left Tilt	1:1	0.449	22.3	
836.6	4183	UMTS Band 5	RMC	E	18.81	Right Cheek	1:1	0.367	23.2	
836.6	4183	UMTS Band 5	RMC	E	18.81	Right Tilt	1:1	0.33	23.6	
836.6	4183	UMTS Band 5	RMC	A	24.41	Left Cheek	1:1	0.05	37.4	36.8
836.6	4183	UMTS Band 5	RMC	A	24.41	Left Tilt	1:1	0.028	39.9	
836.6	4183	UMTS Band 5	RMC	A	24.41	Right Cheek	1:1	0.058	36.8	
836.6	4183	UMTS Band 5	RMC	A	24.41	Right Tilt	1:1	0.02	41.4	
1 732.4	1412	UMTS Band 4	RMC	A	22.62	Left Cheek	1:1	0.071	34.1	34.1
1 732.4	1412	UMTS Band 4	RMC	A	22.62	Left Tilt	1:1	0.047	35.9	
1 732.4	1412	UMTS Band 4	RMC	A	22.62	Right Cheek	1:1	0.065	34.5	
1 732.4	1412	UMTS Band 4	RMC	A	22.62	Right Tilt	1:1	0.066	34.4	
1 880	9400	UMTS Band 2	RMC	A	22.62	Left Cheek	1:1	0.1	32.6	32.6
1 880	9400	UMTS Band 2	RMC	A	22.62	Left Tilt	1:1	0.047	35.9	
1 880	9400	UMTS Band 2	RMC	A	22.62	Right Cheek	1:1	0.041	36.5	
1 880	9400	UMTS Band 2	RMC	A	22.62	Right Tilt	1:1	0.045	36.1	

Table A-2 RSI = 1 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.													
1882.5	26365	LTE Band 25	Mid	A	20	22.7	Left Cheek	0	1	0	1:1	0.102	32.6	32.6
1882.5	26365	LTE Band 25	Mid	A	20	22.7	Left Tilt	0	1	0	1:1	0.033	37.5	
1882.5	26365	LTE Band 25	Mid	A	20	22.7	Right Cheek	0	1	0	1:1	0.068	34.4	
1882.5	26365	LTE Band 25	Mid	A	20	22.7	Right Tilt	0	1	0	1:1	0.05	35.7	
1860	18700	LTE Band 2	Low	F	20	16.49	Left Cheek	0	50	0	1:1	0.373	20.8	19.1
1860	18700	LTE Band 2	Low	F	20	16.49	Left Tilt	0	50	0	1:1	0.45	20.0	
1860	18700	LTE Band 2	Low	F	20	16.49	Right Cheek	0	50	0	1:1	0.543	19.1	
1860	18700	LTE Band 2	Low	F	20	16.49	Right Tilt	0	50	0	1:1	0.532	19.2	
1720	132072	LTE Band 66	Mid	A	20	23.02	Left Cheek	0	1	49	1:1	0.087	33.6	33.6
1720	132072	LTE Band 66	Mid	A	20	21.99	Left Tilt	0	50	0	1:1	0.044	35.6	
1720	132072	LTE Band 66	Mid	A	20	23.02	Right Cheek	0	1	49	1:1	0.054	35.7	
1720	132072	LTE Band 66	Mid	A	20	23.02	Right Tilt	0	1	49	1:1	0.048	36.2	
1720	132072	LTE Band 66	Mid	F	20	17.65	Left Cheek	0	50	0	1:1	0.45	21.1	18.5
1720	132072	LTE Band 66	Mid	F	20	17.65	Left Tilt	0	50	0	1:1	0.527	20.4	
1720	132072	LTE Band 66	Mid	F	20	17.71	Right Cheek	0	1	49	1:1	0.776	18.8	
1720	132072	LTE Band 66	Mid	F	20	17.71	Right Tilt	0	1	49	1:1	0.776	18.8	
1770	132572	LTE Band 66	High	F	20	17.56	Right Tilt	0	50	0	1:1	0.799	18.5	
707.5	23095	LTE Band 12	Mid	A	10	23.96	Left Cheek	0	1	0	1:1	0.083	34.8	34.9
707.5	23095	LTE Band 12	Mid	A	10	22.96	Left Tilt	0	1	0	1:1	0.049	36.1	
707.5	23095	LTE Band 12	Mid	A	10	23.96	Right Cheek	0	1	0	1:1	0.08	34.9	
707.5	23095	LTE Band 12	Mid	A	10	23.96	Right Tilt	0	1	0	1:1	0.054	36.6	
782	23230	LTE Band 13	Mid	A	10	24.1	Left Cheek	0	1	0	1:1	0.082	35.0	34.3
782	23230	LTE Band 13	Mid	A	10	24.1	Left Tilt	0	1	0	1:1	0.048	37.3	
782	23230	LTE Band 13	Mid	A	10	24.1	Right Cheek	0	1	0	1:1	0.096	34.3	
782	23230	LTE Band 13	Mid	A	10	24.1	Right Tilt	0	1	0	1:1	0.049	37.2	
836.5	20525	LTE Band 5	Mid	E	10	19.48	Left Cheek	0	1	0	1:1	0.53	22.2	22.2
836.5	20525	LTE Band 5	Mid	E	10	19.43	Left Tilt	0	25	0	1:1	0.493	22.5	
836.5	20525	LTE Band 5	Mid	E	10	19.48	Right Cheek	0	1	0	1:1	0.39	23.6	
836.5	20525	LTE Band 5	Mid	E	10	19.43	Right Tilt	0	25	0	1:1	0.34	24.1	
836.5	20525	LTE Band 5	Mid	A	10	23.96	Left Cheek	0	1	0	1:1	0.081	34.9	34.2
836.5	20525	LTE Band 5	Mid	A	10	23.96	Left Tilt	0	1	0	1:1	0.058	36.3	
836.5	20525	LTE Band 5	Mid	A	10	23.96	Right Cheek	0	1	0	1:1	0.095	34.2	
836.5	20525	LTE Band 5	Mid	A	10	23.96	Right Tilt	0	1	0	1:1	0.058	36.3	

The Plimit of LTE TDD was written as Frame averaged power

MEASUREMENT RESULTS															
Frequency		Mode			Ant.	Band width	Frame Averaged Conducted Power	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
Mhz	Ch.			(dBm)		(dBm)	(dB)		(W/kg)	(dBm)	(dBm)				
831.5	26865	LTE Band 26	Mid	E	15	19.7	Left Cheek	0	1	0	1:1	0.553	22.3	22.3	
831.5	26865	LTE Band 26	Mid	E	15	19.71	Left Tilt	0	36	0	1:1	0.455	23.1		
831.5	26865	LTE Band 26	Mid	E	15	19.7	Right Cheek	0	1	0	1:1	0.31	24.8		
831.5	26865	LTE Band 26	Mid	E	15	19.7	Right Tilt	0	1	0	1:1	0.154	27.8		
831.5	26865	LTE Band 26	Mid	A	15	24.14	Left Cheek	0	1	0	1:1	0.074	35.4	34.5	
831.5	26865	LTE Band 26	Mid	A	15	24.14	Left Tilt	0	1	0	1:1	0.045	37.6		
831.5	26865	LTE Band 26	Mid	A	15	24.14	Right Cheek	0	1	0	1:1	0.091	34.5		
831.5	26865	LTE Band 26	Mid	A	15	24.14	Right Tilt	0	1	0	1:1	0.048	37.3		
2636.5	41055	LTE Band 41(PC3)	Mid	B	20	21.75	Left Cheek	0	1	49	1:1	0.11	31.3	31.3	
2636.5	41055	LTE Band 41(PC3)	Mid	B	20	21.75	Left Tilt	0	1	49	1:1	0.014	40.3		
2636.5	41055	LTE Band 41(PC3)	Mid	B	20	21.75	Right Cheek	0	1	49	1:1	0.048	34.9		
2636.5	41055	LTE Band 41(PC3)	Mid	B	20	21.75	Right Tilt	0	1	49	1:1	0.022	38.3		
2636.5	41055	LTE Band 41(PC2)	Mid	B	20	21.96	Left Cheek	0	1	49	1:1	0.107	31.7	31.7	

Table A-3 RSI=1 – NR Head SAR

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

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.														
1905	381000	NR Band n25	Mid	A	20	23.39	Left Cheek	DFT-s-OFDM QPSK	0	1	53	1:1	0.107	33.1	33.1
1905	381000	NR Band n25	Mid	A	20	23.39	Left Tilt	DFT-s-OFDM QPSK	0	1	53	1:1	0.034	38.1	
1905	381000	NR Band n25	Mid	A	20	23.38	Right Cheek	DFT-s-OFDM QPSK	0	50	28	1:1	0.066	35.2	
1905	381000	NR Band n25	Mid	A	20	23.39	Right Tilt	DFT-s-OFDM QPSK	0	1	53	1:1	0.067	35.1	
1905	381000	NR Band n25	Mid	F	20	17.25	Left Cheek	DFT-s-OFDM QPSK	0	1	53	1:1	0.458	20.6	17.9
1905	381000	NR Band n25	Mid	F	20	17.39	Left Tilt	DFT-s-OFDM QPSK	0	50	56	1:1	0.561	19.9	
1905	381000	NR Band n25	Mid	F	20	17.39	Right Cheek	DFT-s-OFDM QPSK	0	50	56	1:1	0.678	19.1	
1905	381000	NR Band n25	Mid	F	20	16.9	Right Tilt	CP-OFDM QPSK	0	135	69	1:1	0.787	17.9	
836.5	167300	NR Band n5	Mid	A	20	23.7	Left Cheek	DFT-s-OFDM QPSK	0	1	53	1:1	0.042	37.5	36.3
836.5	167300	NR Band n5	Mid	A	20	23.7	Left Tilt	DFT-s-OFDM QPSK	0	1	53	1:1	0.027	39.4	
836.5	167300	NR Band n5	Mid	A	20	23.7	Right Cheek	DFT-s-OFDM QPSK	0	1	53	1:1	0.055	36.3	
836.5	167300	NR Band n5	Mid	A	20	23.7	Right Tilt	DFT-s-OFDM QPSK	0	1	53	1:1	0.023	40.1	
836.5	167300	NR Band n5	Mid	E	20	20.37	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.649	22.2	22.2
836.5	167300	NR Band n5	Mid	E	20	20.37	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.568	22.8	
836.5	167300	NR Band n5	Mid	E	20	20.37	Right Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.469	23.7	
836.5	167300	NR Band n5	Mid	E	20	20.28	Right Tilt	DFT-s-OFDM QPSK	0	50	0	1:1	0.392	24.3	
2 592.99	518598	NR Band n41	Mid	F	100	13.77	Left Cheek	DFT-s-OFDM QPSK	0	135	138	1:1	0.277	19.3	15.8
2 592.99	518598	NR Band n41	Mid	F	100	13.77	Left Tilt	DFT-s-OFDM QPSK	0	135	138	1:1	0.303	19.0	
2 592.99	518598	NR Band n41	Mid	F	100	13.77	Right Cheek	DFT-s-OFDM QPSK	0	135	138	1:1	0.465	17.1	
2 592.99	518598	NR Band n41	Mid	F	100	13.77	Right Tilt	DFT-s-OFDM QPSK	0	135	138	1:1	0.628	15.8	
2 592.99	518598	NR n41 SRS	Mid	B	100	9.89	Left Cheek	DFT-s-OFDM QPSK	0	1	136	1:1	0		39.9
2 592.99	518598	NR n41 SRS	Mid	B	100	9.89	Left Tilt	DFT-s-OFDM QPSK	0	1	136	1:1	0		
2 592.99	518598	NR n41 SRS	Mid	B	100	9.89	Right Cheek	DFT-s-OFDM QPSK	0	1	136	1:1	0		
2 592.99	518598	NR n41 SRS	Mid	B	100	9.89	Right Tilt	DFT-s-OFDM QPSK	0	1	136	1:1	0.00095	39.9	
2 592.99	518598	NR n41 SRS	Mid	E	100	11.32	Left Cheek	DFT-s-OFDM QPSK	0	1	136	1:1	0.291	16.7	16.5
2 592.99	518598	NR n41 SRS	Mid	E	100	11.32	Left Tilt	DFT-s-OFDM QPSK	0	1	136	1:1	0.304	16.5	
2 592.99	518598	NR n41 SRS	Mid	E	100	11.32	Right Cheek	DFT-s-OFDM QPSK	0	1	136	1:1	0.219	17.9	
2 592.99	518598	NR n41 SRS	Mid	E	100	11.32	Right Tilt	DFT-s-OFDM QPSK	0	1	136	1:1	0.219	17.9	
2 592.99	518598	NR n41 SRS	Mid	D	100	6.87	Left Cheek	DFT-s-OFDM QPSK	0	1	136	1:1	0.001	36.9	36.9
2 592.99	518598	NR n41 SRS	Mid	D	100	6.87	Left Tilt	DFT-s-OFDM QPSK	0	1	136	1:1	0		
2 592.99	518598	NR n41 SRS	Mid	D	100	6.87	Right Cheek	DFT-s-OFDM QPSK	0	1	136	1:1	0		
2 592.99	518598	NR n41 SRS	Mid	D	100	6.87	Right Tilt	DFT-s-OFDM QPSK	0	1	136	1:1	0		
1745	349000	NR Band n66	Mid	A	20	23.79	Left Cheek	DFT-s-OFDM QPSK	0	50	28	1:1	0.11	33.4	33.4
1745	349000	NR Band n66	Mid	A	20	23.82	Left Tilt	DFT-s-OFDM QPSK	0	1	53	1:1	0.042	37.6	
1745	349000	NR Band n66	Mid	A	20	23.79	Right Cheek	DFT-s-OFDM QPSK	0	50	28	1:1	0.072	35.2	
1745	349000	NR Band n66	Mid	A	20	23.79	Right Tilt	DFT-s-OFDM QPSK	0	50	28	1:1	0.051	36.7	

MEASUREMENT RESULTS

Frequency		Mode	Ant.	Band width	Frame Averaged Conducted Power	Test Configurations		MPR	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit	
Mhz	Ch.														(dBm)
1745	349000	NR Band n66	Mid	F	20	17.46	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.365	21.8	18.2
1745	349000	NR Band n66	Mid	F	20	17.53	Left Tilt	DFT-s-OFDM QPSK	0	50	0	1:1	0.433	21.2	
1745	349000	NR Band n66	Mid	F	20	17.53	Right Cheek	DFT-s-OFDM QPSK	0	50	0	1:1	0.559	20.1	
1770	354000	NR Band n66	Mid	F	20	17.4	Right Tilt	DFT-s-OFDM QPSK	0	50	53	1:1	0.833	18.2	
3750	650000	NR Band n77	Mid	F	100	13.23	Left Cheek	DFT-s-OFDM QPSK	0	135	138	1:1	0.185	20.6	17.3
3750	650000	NR Band n77	Mid	F	100	13.23	Left Tilt	DFT-s-OFDM QPSK	0	135	138	1:1	0.21	20.0	
3750	650000	NR Band n77	Mid	F	100	13.23	Right Cheek	DFT-s-OFDM QPSK	0	135	138	1:1	0.332	18.0	
3750	650000	NR Band n77	Mid	F	100	12.68	Right Tilt	DFT-s-OFDM QPSK	0	270	0	1:1	0.349	17.3	
3500.01	633334	NR Band n77 DoD	Mid	F	100	13.23	Right Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.310	17.2	17.2
3930	662000	NR n77 SRS	Mid	C	100	11.78	Left Cheek	DFT-s-OFDM QPSK	0	1	136	1:1	0.082	22.6	19.0
3930	662000	NR n77 SRS	Mid	C	100	11.78	Left Tilt	DFT-s-OFDM QPSK	0	1	136	1:1	0.088	22.3	
3930	662000	NR n77 SRS	Mid	C	100	11.78	Right Cheek	DFT-s-OFDM QPSK	0	1	136	1:1	0.188	19.0	
3930	662000	NR n77 SRS	Mid	C	100	11.78	Right Tilt	DFT-s-OFDM QPSK	0	1	136	1:1	0.182	19.2	
3500.01	633334	NR Band n77 DoD	Mid	C	100	12.31	Right Cheek	DFT-s-OFDM QPSK	0	1	136	1:1	0.001	42.3	42.3
3930	662000	NR n77 SRS	Mid	I	100	11.49	Left Cheek	DFT-s-OFDM QPSK	0	1	136	1:1	0.178	19.0	16.3
3930	662000	NR n77 SRS	Mid	I	100	11.49	Left Tilt	DFT-s-OFDM QPSK	0	1	136	1:1	0.018	28.9	
3930	662000	NR n77 SRS	Mid	I	100	11.49	Right Cheek	DFT-s-OFDM QPSK	0	1	136	1:1	0.334	16.3	
3930	662000	NR n77 SRS	Mid	I	100	11.49	Right Tilt	DFT-s-OFDM QPSK	0	1	136	1:1	0.027	27.2	
3500.01	633334	NR Band n77 DoD	Mid	I	100	12.07	Right Cheek	DFT-s-OFDM QPSK	0	1	136	1:1	0.168	19.8	19.8
3930	662000	NR n77 SRS	Mid	D	100	10.91	Left Cheek	DFT-s-OFDM QPSK	0	1	136	1:1	0.001	40.9	40.9
3930	662000	NR n77 SRS	Mid	D	100	10.91	Left Tilt	DFT-s-OFDM QPSK	0	1	136	1:1	0		
3930	662000	NR n77 SRS	Mid	D	100	10.91	Right Cheek	DFT-s-OFDM QPSK	0	1	136	1:1	0		
3930	662000	NR n77 SRS	Mid	D	100	10.91	Right Tilt	DFT-s-OFDM QPSK	0	1	136	1:1	0		
3500.01	633334	NR Band n77 DoD	Mid	D	100	10.93	Left Cheek	DFT-s-OFDM QPSK	0	1	136	1:1	0		0

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.				(Mbps)	(dBm)				(W/kg)	(Duty)	(dBm)	(dBm)
2 462	11	802.11b	20	H	1	13.7	Left Cheek	WIFI1	99.0	0.101	1.012	23.7	18.1
2 462	11	802.11b	20	H	1	13.7	Left Tilt	WIFI1	99.0	0.121	1.012	22.9	
2 462	11	802.11b	20	H	1	13.7	Right Cheek	WIFI1	99.0	0.36	1.012	18.1	
2 462	11	802.11b	20	H	1	13.7	Right Tilt	WIFI1	99.0	0.317	1.012	18.7	
2 462	11	802.11b	20	J	1	13.86	Left Cheek	WIFI2	99.0	0.477	1.012	17.1	17.1
2 462	11	802.11b	20	J	1	13.86	Left Tilt	WIFI2	99.0	0.067	1.012	25.6	
2 462	11	802.11b	20	J	1	13.86	Right Cheek	WIFI2	99.0	0.313	1.012	18.9	
2 462	11	802.11b	20	J	1	13.86	Right Tilt	WIFI2	99.0	0.03	1.012	29.1	
5 775	155	802.11ac	80	H	MCS0	12.49	Left Cheek	WIFI1	92.1	0.037	1.086	27.0	17.7
5 855	171	802.11ac	80	H	MCS0	12.59	Left Tilt	WIFI1	92.1	0.038	1.086	26.8	
5 775	155	802.11ac	80	H	MCS0	12.58	Right Cheek	WIFI1	92.1	0.306	1.086	17.7	
5690	138	802.11ac	80	H	MCS0	12.99	Right Tilt	WIFI1	92.1	0.12	1.086	22.2	
5 775	155	802.11ac	80	E	MCS0	12.85	Left Cheek	WIFI2	92.1	0.036	1.086	27.3	25.0
5 775	155	802.11ac	80	E	MCS0	12.85	Left Tilt	WIFI2	92.1	0.028	1.086	28.4	
5 610	122	802.11ac	80	E	MCS0	12.69	Right Cheek	WIFI2	92.1	0.059	1.086	25.0	
5 610	122	802.11ac	80	E	MCS0	12.69	Right Tilt	WIFI2	92.1	0.051	1.086	25.6	
6 185	47	802.11ax	160	H	MCS0	8.76	Left Cheek	WIFI1	99.6	0.002	1.004	35.7	17.3
6 185	47	802.11ax	160	H	MCS0	8.76	Left Tilt	WIFI1	99.6	0.006	1.004	31.0	
6 185	47	802.11ax	160	H	MCS0	8.76	Right Cheek	WIFI1	99.6	0.14	1.004	17.3	
6 185	47	802.11ax	160	H	MCS0	8.76	Right Tilt	WIFI1	99.6	0.046	1.004	22.1	
6 825	175	802.11ax	160	E	MCS0	7.04	Left Cheek	WIFI2	99.6	0.061	1.004	19.2	19.2
6 505	111	802.11ax	160	E	MCS0	8.84	Left Tilt	WIFI2	99.6	0.006	1.004	31.1	
6 505	111	802.11ax	160	E	MCS0	8.84	Right Cheek	WIFI2	99.6	0.005	1.004	31.9	
6 505	111	802.11ax	160	E	MCS0	8.84	Right Tilt	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.			(dBm)			(W/kg)	(Duty)	(dBm)	(dBm)
2 480	78	DH-5	H	11.65	Left Cheek	Ant 1	0.024	1.010	27.8	20.1
2 480	78	DH-5	H	11.65	Left Tilt	Ant 1	0.032	1.010	26.6	
2 480	78	DH-5	H	11.65	Right Cheek	Ant 1	0.114	1.010	20.1	
2 480	78	DH-5	H	11.65	Right Tilt	Ant 1	0.103	1.010	21.5	
2 480	78	DH-5	J	13.25	Left Cheek	Ant 2	0.207	1.010	20.1	20.1
2 480	78	DH-5	J	13.25	Left Tilt	Ant 2	0.024	1.010	29.4	
2 480	78	DH-5	J	13.25	Right Cheek	Ant 2	0.105	1.010	23.0	
2 480	78	DH-5	J	13.25	Right Tilt	Ant 2	0.019	1.010	30.5	

Table A-5 RSI = 2 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	GPRS3Tx	E	24.68	Back	10	1:2.77	0.697	26.2	26.2
836.6	190	GSM 850	GPRS3Tx	E	24.69	Front	10	1:2.77	0.502	27.7	
836.6	190	GSM 850	GPRS3Tx	E	24.69	Right	10	1:2.77	0.476	27.9	
836.6	190	GSM 850	GPRS3Tx	E	24.69	Top	10	1:2.77	0.584	27.0	
836.6	190	GSM 850	GPRS3Tx	A	25.14	Rear	10	1:2.77	0.275	30.7	
3836.6	190	GSM 850	GPRS3Tx	A	25.14	Front	10	1:2.77	0.174	32.7	30.7
836.6	190	GSM 850	GPRS3Tx	A	25.14	Left	10	1:2.77	0.07	36.7	
836.6	190	GSM 850	GPRS3Tx	A	25.14	Right	10	1:2.77	0.115	34.5	
836.6	190	GSM 850	GPRS3Tx	A	25.14	Bottom	10	1:2.77	0.078	36.2	
1 880.0	661	GSM 1900	GPRS1Tx	A	19.22	Rear	10	1:8.3	0.378	23.4	20.2
1 880.0	661	GSM 1900	GPRS1Tx	A	19.22	Front	10	1:8.3	0.334	24.0	
1 880.0	661	GSM 1900	GPRS1Tx	A	19.22	Left	10	1:8.3	0.058	31.6	
1 880.0	661	GSM 1900	GPRS1Tx	A	19.22	Right	10	1:8.3	0.045	32.7	
1909.8	810	GSM 1900	GPRS1Tx	A	19.22	Bottom	10	1:8.3	0.847	20.2	
836.6	4183	UMTS 850	RMC	E	23.28	Back	10	1:1	0.483	26.4	26.4
836.6	4183	UMTS 850	RMC	E	23.28	Front	10	1:1	0.371	27.6	
836.6	4183	UMTS 850	RMC	E	23.28	Right	10	1:1	0.301	28.5	
836.6	4183	UMTS 850	RMC	E	23.28	Top	10	1:1	0.395	27.3	
836.6	4183	UMTS 850	RMC	A	24.41	Rear	10	1:1	0.31	29.5	29.5
836.6	4183	UMTS 850	RMC	A	24.41	Front	10	1:1	0.21	31.2	
836.6	4183	UMTS 850	RMC	A	24.41	Left	10	1:1	0.051	37.3	
836.6	4183	UMTS 850	RMC	A	24.41	Right	10	1:1	0.069	36.0	
836.6	4183	UMTS 850	RMC	A	24.41	Bottom	10	1:1	0.161	32.3	
1 732.4	1412	UMTS 1700	RMC	A	19.14	Rear	10	1:1	0.49	22.2	20.1
1 732.4	1412	UMTS 1700	RMC	A	19.14	Front	10	1:1	0.426	22.8	
1 732.4	1412	UMTS 1700	RMC	A	19.14	Left	10	1:1	0.088	29.7	
1 732.4	1412	UMTS 1700	RMC	A	19.14	Right	10	1:1	0.072	30.6	
1712.4	1312	UMTS 1700	RMC	A	19.49	Bottom	10	1:1	0.871	20.1	
1 880	9400	UMTS 1900	RMC	A	18.92	Rear	10	1:1	0.455	22.3	19.3
1 880	9400	UMTS 1900	RMC	A	18.92	Front	10	1:1	0.399	22.9	
1 880	9400	UMTS 1900	RMC	A	18.92	Left	10	1:1	0.075	30.2	
1 880	9400	UMTS 1900	RMC	A	18.92	Right	10	1:1	0.062	31.0	
1 880	9400	UMTS 1900	RMC	A	18.92	Bottom	10	1:1	0.906	19.3	

Table A-6 RSI = 2 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)												
1 905	26590	LTE Band 25	Mid	A	20	17.49	Rear	10	0	50	0	1:1	0.308	22.6	18.4
1 905	26590	LTE Band 25	Mid	A	20	17.49	Front	10	0	50	0	1:1	0.334	22.3	
1 905	26590	LTE Band 25	Mid	A	20	17.45	Left	10	0	1	0	1:1	0.043	31.1	
1 905	26590	LTE Band 25	Mid	A	20	17.49	Left	10	0	50	0	1:1	0.064	29.4	
1 905	26590	LTE Band 25	Mid	A	20	17.49	Bottom	10	0	50	0	1:1	0.803	18.4	
1900	19100	LTE Band 2	Mid	F	20	19.01	Rear	10	0	50	49	1:1	0.204	25.9	23.8
1900	19100	LTE Band 2	Mid	F	20	19.01	Front	10	0	50	49	1:1	0.141	27.5	
1900	19100	LTE Band 2	Mid	F	20	19.11	Left	10	0	1	49	1:1	0.082	30.0	
1900	19100	LTE Band 2	Mid	F	20	19.01	Top	10	0	50	49	1:1	0.334	23.8	
1720	132072	LTE Band 66	Mid	A	20	17.79	Back	10	0	50	0	1:1	0.36	22.2	20.2
1720	132072	LTE Band 66	Mid	A	20	17.79	Front	10	0	50	0	1:1	0.268	23.5	
1720	132072	LTE Band 66	Mid	A	20	17.79	Left	10	0	50	0	1:1	0.037	32.1	
1720	132072	LTE Band 66	Mid	A	20	17.79	Right	10	0	50	0	1:1	0.037	32.1	
1720	132072	LTE Band 66	Mid	A	20	17.79	Bottom	10	0	50	0	1:1	0.569	20.2	
1720	132072	LTE Band 66	Mid	F	20	19.45	Back	10	0	50	0	1:1	0.303	24.6	22.4
1720	132072	LTE Band 66	Mid	F	20	19.58	Front	10	0	1	49	1:1	0.273	25.2	
1720	132072	LTE Band 66	Mid	F	20	19.45	Left	10	0	50	0	1:1	0.096	29.6	
1720	132072	LTE Band 66	Mid	F	20	19.45	Top	10	0	50	0	1:1	0.504	22.4	
707.5	23095	LTE Band 12	Mid	A	10	23.96	Back	10	0	1	0	1:1	0.263	29.8	29.8
707.5	23095	LTE Band 12	Mid	A	10	23.96	Front	10	0	1	0	1:1	0.152	32.1	
707.5	23095	LTE Band 12	Mid	A	10	23.96	Left	10	0	1	0	1:1	0.117	33.3	
707.5	23095	LTE Band 12	Mid	A	10	23.96	Right	10	0	1	0	1:1	0.129	32.9	
707.5	23095	LTE Band 12	Mid	A	10	23.96	Bottom	10	0	1	0	1:1	0.137	32.6	
782	23230	LTE Band 13	Mid	A	10	24.1	Back	10	0	1	49	1:1	0.268	29.8	29.8
782	23230	LTE Band 13	Mid	A	10	24.1	Front	10	0	1	49	1:1	0.173	31.7	
782	23230	LTE Band 13	Mid	A	10	24.1	Left	10	0	1	49	1:1	0.096	34.3	
782	23230	LTE Band 13	Mid	A	10	24.1	Right	10	0	1	49	1:1	0.098	34.2	
782	23230	LTE Band 13	Mid	A	10	24.1	Top	10	0	1	49	1:1	0.163	32.0	
836.5	20525	LTE Band 5	Mid	E	10	24.36	Back	10	0	1	0	1:1	0.655	26.2	30.4
836.5	20525	LTE Band 5	Mid	E	10	24.36	Front	10	0	1	0	1:1	0.532	27.1	
836.5	20525	LTE Band 5	Mid	E	10	24.36	Right	10	0	1	0	1:1	0.568	26.8	
836.5	20525	LTE Band 5	Mid	E	10	24.36	Bottom	10	0	1	0	1:1	0.722	25.8	
836.5	20525	LTE Band 5	Mid	A	10	23.96	Back	10	0	1	0	1:1	0.489	27.1	27.1
836.5	20525	LTE Band 5	Mid	A	10	23.96	Front	10	0	1	0	1:1	0.28	29.5	
836.5	20525	LTE Band 5	Mid	A	10	23.96	Right	10	0	1	0	1:1	0.088	34.5	
836.5	20525	LTE Band 5	Mid	A	10	23.96	Right	10	0	1	0	1:1	0.125	33.0	
836.5	20525	LTE Band 5	Mid	A	10	23.96	Top	10	0	1	0	1:1	0.177	31.5	

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)		(dB)	(W/kg)			(dBm)				(dBm)		
831.5	26865	LTE Band 26	Mid	E	15	23.87	Back	10	0	1	0	1:1	0.434	27.5	27.2
831.5	26865	LTE Band 26	Mid	E	15	23.87	Front	10	0	1	0	1:1	0.466	27.2	
831.5	26865	LTE Band 26	Mid	E	15	23.87	Right	10	0	1	0	1:1	0.185	31.2	
831.5	26865	LTE Band 26	Mid	E	15	23.87	Top	10	0	1	0	1:1	0.156	31.9	
831.5	26865	LTE Band 26	Mid	A	15	24.14	Bottom	10	0	1	0	1:1	0.438	27.7	
831.5	26865	LTE Band 26	Mid	A	15	24.14	Rear	10	0	1	0	1:1	0.214	30.8	27.7
831.5	26865	LTE Band 26	Mid	A	15	24.14	Front	10	0	1	0	1:1	0.096	34.3	
831.5	26865	LTE Band 26	Mid	A	15	24.14	Left	10	0	1	0	1:1	0.141	32.6	
831.5	26865	LTE Band 26	Mid	A	15	24.14	Top	10	0	1	0	1:1	0.165	32.0	
2636.5	41055	LTE Band 41(PC3)	Mid	B	20	19.95	Back	10	0	1	49	1:1	0.455	23.4	22.5
2636.5	41055	LTE Band 41(PC3)	Mid	B	20	19.95	Front	10	0	1	49	1:1	0.266	25.7	
2636.5	41055	LTE Band 41(PC3)	Mid	B	20	19.95	Left	10	0	1	49	1:1	0.559	22.5	
2636.5	41055	LTE Band 41(PC3)	Mid	B	20	19.95	Bottom	10	0	1	49	1:1	0.4	23.9	
2636.5	41055	LTE Band 41(PC2)	Mid	B	20	20.39	Left	10	0	1	49	1:1	0.603	22.6	22.6

Table A-6 RSI = 2 – NR Hotspot SAR

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

MEASUREMENT RESULTS																
Frequency		Mode	Ant.	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
1905	381000	NR Band n25	Mid	A	20	17.10	Back	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.25	23.1	19.3
1905	381000	NR Band n25	Mid	A	20	17.17	Front	DFT-s-OFDM QPSK	0	10	50	56	1:1	0.216	23.8	
1905	381000	NR Band n25	Mid	A	20	17.10	Left	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.032	32.0	
1905	381000	NR Band n25	Mid	A	20	17.10	Right	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.035	31.7	
1905	381000	NR Band n25	Mid	A	20	17.17	Bottom	DFT-s-OFDM QPSK	0	10	50	56	1:1	0.609	19.3	
1905	381000	NR Band n25	Mid	F	20	19.05	Back	DFT-s-OFDM QPSK	0	10	50	56	1:1	0.224	25.5	22.6
1905	381000	NR Band n25	Mid	F	20	19.09	Front	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.201	26.1	
1905	381000	NR Band n25	Mid	F	20	19.09	Left	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.09	29.5	
1905	381000	NR Band n25	Mid	F	20	19.02	Top	CP-OFDM QPSK	0	10	1	1	1:1	0.436	22.6	
836.5	167300	NR Band n5	Mid	A	20	23.70	Back	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.467	27.0	27.0
836.5	167300	NR Band n5	Mid	A	20	23.70	Front	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.239	29.9	
836.5	167300	NR Band n5	Mid	A	20	23.70	Left	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.068	35.4	
836.5	167300	NR Band n5	Mid	A	20	23.70	Right	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.09	34.2	
836.5	167300	NR Band n5	Mid	A	20	23.7	Bottom	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.126	32.7	
836.5	167300	NR Band n5	Mid	E	20	23.96	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.279	29.5	27.2
836.5	167300	NR Band n5	Mid	E	20	23.81	Front	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.411	27.7	
836.5	167300	NR Band n5	Mid	E	20	23.81	Right	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.359	28.3	
836.5	167300	NR Band n5	Mid	E	20	23.81	Top	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.46	27.2	
2 592.99	518598	NR Band n41	Mid	F	100	17.25	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.205	24.1	22.0
2 592.99	518598	NR Band n41	Mid	F	100	17.25	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.141	25.8	
2 592.99	518598	NR Band n41	Mid	F	100	17.25	Left	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.037	31.6	
2 592.99	518598	NR Band n41	Mid	F	100	17.25	Top	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.334	22.0	
2 592.99	518598	NR n41 SRS	Mid	B	100	13.03	Rear	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.079	24.1	23.3
2 592.99	518598	NR n41 SRS	Mid	B	100	13.03	Front	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.038	27.2	
2 592.99	518598	NR n41 SRS	Mid	B	100	13.03	Left	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.036	27.5	
2 592.99	518598	NR n41 SRS	Mid	B	100	13.03	Bottom	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.093	23.3	
2 592.99	518598	NR n41 SRS	Mid	E	100	14.14	Rear	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.118	23.4	23.4
2 592.99	518598	NR n41 SRS	Mid	E	100	14.14	Front	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.109	23.8	
2 592.99	518598	NR n41 SRS	Mid	E	100	14.14	Left	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.064	26.1	
2 592.99	518598	NR n41 SRS	Mid	E	100	14.14	Bottom	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.112	23.6	
2 592.99	518598	NR n41 SRS	Mid	D	100	9.88	Rear	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.094	20.1	20.1
2 592.99	518598	NR n41 SRS	Mid	D	100	9.88	Front	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.00971	29.9	
2 592.99	518598	NR n41 SRS	Mid	D	100	9.88	Left	DFT-s-OFDM QPSK	0	10	1	136	1:1	0		
2 592.99	518598	NR n41 SRS	Mid	D	100	9.88	Bottom	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.033	24.7	

MEASUREMENT RESULTS																
Frequency		Mode	Ant.	Band	Averaged Conducted Power	Test Position	MPR	Spacing (mm)	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit		
Mhz	Ch.														Mhz	(dBm)
1745	349000	NR Band n66	Mid	A	20	17.63	Back	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.273	23.3	20.0
1745	349000	NR Band n66	Mid	A	20	17.63	Front	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.226	24.1	
1745	349000	NR Band n66	Mid	A	20	17.63	Left	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.049	30.7	
1745	349000	NR Band n66	Mid	A	20	17.63	Right	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.025	33.7	
1745	349000	NR Band n66	Mid	A	20	17.63	Bottom	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.580	20.0	
1720	344000	NR Band n66	Low	F	20	18.39	Back	DFT-s-OFDM QPSK	0	10	50	0	1:1	0.161	26.3	22.8
1720	344000	NR Band n66	Low	F	20	18.46	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.146	26.8	
1720	344000	NR Band n66	Low	F	20	18.39	Left	DFT-s-OFDM QPSK	0	10	50	0	1:1	0.063	30.4	
1720	344000	NR Band n66	Low	F	20	18.27	Top	CP-OFDM QPSK	0	10	1	1	1:1	0.349	22.8	
3750	650000	NR Band n77	Mid	F	100	14.35	Back	DFT-s-OFDM QPSK	0	10	135	138	1:1	0.276	19.9	19.9
3750	650000	NR Band n77	Mid	F	100	14.35	Front	DFT-s-OFDM QPSK	0	10	135	138	1:1	0.107	24.1	
3750	650000	NR Band n77	Mid	F	100	14.35	Left	DFT-s-OFDM QPSK	0	10	135	138	1:1	0.053	27.1	
3750	650000	NR Band n77	Mid	F	100	14.35	Top	DFT-s-OFDM QPSK	0	10	135	138	1:1	0.169	22.1	
3500.01	633334	NR Band n77 DoD	Mid	F	100	15.43	Back	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.136	24.1	24.1
3750	650000	NR n77 SRS	Mid	C	100	13.5	Rear	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.032	28.4	24.5
3750	650000	NR n77 SRS	Mid	C	100	13.5	Front	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.025	29.5	
3750	650000	NR n77 SRS	Mid	C	100	13.5	Left	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.079	24.5	
3750	650000	NR n77 SRS	Mid	C	100	13.5	Bottom	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.047	26.8	
3500.01	633334	NR Band n77 DoD	Mid	F	100	13.88	Left	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.324	18.8	18.8
3750	650000	NR n77 SRS	Mid	I	100	14.41	Rear	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.092	24.8	24.8
3750	650000	NR n77 SRS	Mid	I	100	14.41	Front	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.08	25.4	
3750	650000	NR n77 SRS	Mid	I	100	14.41	Left	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.034	29.1	
3500.01	633334	NR Band n77 DoD	Mid	I	100	13.73	Rear	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.16	21.7	
3750	650000	NR n77 SRS	Mid	D	100	13.15	Rear	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.21	19.9	19.9
3750	650000	NR n77 SRS	Mid	D	100	13.15	Front	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.014	31.7	
3750	650000	NR n77 SRS	Mid	D	100	13.15	Right	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.001	43.2	
3750	650000	NR n77 SRS	Mid	D	100	13.15	Bottom	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.022	29.7	
3500.01	633334	NR Band n77 DoD	Mid	D	100	12.01	Rear	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.251	18.0	

Table A-7 DSI = 2 PLimit Calculations – WLAN Hotspot/Body SAR

MEASUREMENT RESULTS													
Frequency		Mode/ Band	Band width (MHz)	Ant. No.	Data Rate	Frame Averaged	Test Position	Ant. Config.	Duty Cycle	Meas. SAR(1g)	Scaling Factor	Plimit	Minimum Plimit
Mhz	Ch.				(Mbps)	(dBm)				(W/kg)	(Duty)	(dBm)	(dBm)
2462	11	802.11b	20	H	1	17.85	Rear	WIFI1	99.0	0.373	1.012	22.1	21.8
2462	11	802.11b	20	H	1	17.85	Front	WIFI1	99.0	0.298	1.012	23.1	
2462	11	802.11b	20	H	1	17.85	Left	WIFI1	99.0	0.401	1.012	21.8	
2462	11	802.11b	20	H	1	17.85	Top	WIFI1	99.0	0.151	1.012	26.1	
2462	11	802.11b	20	J	1	17.85	Rear	WIFI2	99.0	0.307	1.010	23.0	23.0
2462	11	802.11b	20	J	1	17.85	Front	WIFI2	99.0	0.214	1.010	24.5	
2462	11	802.11b	20	J	1	17.85	Right	WIFI2	99.0	0.064	1.010	29.8	
2462	11	802.11b	20	J	1	17.85	Top	WIFI2	99.0	0.142	1.010	26.3	
5500	100	802.11a	20	H	6	15.25	Rear	WIFI1	93.1	0.263	1.074	21.1	19.4
5500	100	802.11a	20	H	6	15.45	Front	WIFI1	93.1	0.089	1.074	26.0	
5500	100	802.11a	20	H	6	14.6	Left	WIFI1	93.1	0.33	1.074	19.4	
5500	100	802.11a	20	H	6	14.6	Top	WIFI1	93.1	0.061	1.074	26.7	
5500	100	802.11a	20	E	6	15.38	Rear	WIFI2	93.1	0.225	1.074	21.9	21.9
5500	100	802.11a	20	E	6	15.38	Front	WIFI2	93.1	0.01	1.074	35.4	
5500	100	802.11a	20	E	6	15.12	Left	WIFI2	93.1	0.00624	1.074	37.3	
5500	100	802.11a	20	E	6	15.12	Top	WIFI2	93.1	0.055	1.074	27.7	
6185	47	802.11ax	160	H	MCS0	8.76	Rear	WIFI1	99.6	0.035	1.004	23.3	23.3
6185	47	802.11ax	160	H	MCS0	8.76	Front	WIFI1	99.6	0.018	1.004	26.2	
6505	111	802.11ax	160	E	MCS0	8.84	Rear	WIFI2	99.6	0.033	1.004	23.7	23.7
6505	111	802.11ax	160	E	MCS0	8.84	Front	WIFI2	99.6	0.002	1.004	35.8	

MEASUREMENT RESULTS										
Frequency		Mode/ Band	Ant. No.	Frame Averaged	Test Position	Ant. Config.	Meas. SAR(1g)	Scaling Factor	Plimit	Minimum Plimit
Mhz	Ch.			(dBm)			(W/kg)	(Duty)	(dBm)	(dBm)
2 480	78	DH5	H	15.81	Rear	Ant 1	0.183	1.010	23.2	22.8
2 480	78	DH5	H	15.81	Front	Ant 1	0.119	1.010	25.1	
2 480	78	DH5	H	15.81	Left	Ant 1	0.202	1.010	22.8	
2 480	78	DH5	H	15.81	Top	Ant 1	0.076	1.010	27.0	
2 480	78	DH5	J	16.3	Rear	Ant 2	0.298	1.010	21.6	21.6
2 480	78	DH5	J	16.3	Front	Ant 2	0.187	1.010	23.6	
2 480	78	DH5	J	16.3	Right	Ant 2	0.067	1.010	28.0	

Table A-8 RSI = 0 P_{Limit} Calculations – 2G/3G Phablet SAR

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

MEASUREMENT RESULTS											
Frequency		Mode/ Band		Ant. No.	Frame Averaged Conducted Power	Test Position	Spacing (mm)	Duty Cycle	Meas. SAR(10g)	Plimit	Minimum Plimit
Mhz	Ch.				(dBm)				(W/kg)	(dBm)	(dBm)
836.6	190	GSM 850	GPRS3Tx	E	24.68	Back	10	1:2.77	1.350	27.4	27.4
836.6	190	GSM 850	GPRS3Tx	E	24.69	Front	10	1:2.77	0.877	29.2	
836.6	190	GSM 850	GPRS3Tx	E	24.69	Right	10	1:2.77	0.900	29.1	
836.6	190	GSM 850	GPRS3Tx	E	24.69	Top	10	1:2.77	0.128	37.6	
836.6	190	GSM 850	GPRS3Tx	A	25.14	Rear	10	1:2.77	1.170	28.4	
836.6	190	GSM 850	GPRS3Tx	A	25.14	Front	10	1:2.77	1.050	28.9	28.4
836.6	190	GSM 850	GPRS3Tx	A	25.14	Left	10	1:2.77	0.470	32.4	
836.6	190	GSM 850	GPRS3Tx	A	25.14	Right	10	1:2.77	0.147	37.4	
836.6	190	GSM 850	GPRS3Tx	A	25.14	Bottom	10	1:2.77	0.785	30.2	
1 880.0	661	GSM 1900	GPRS1Tx	A	19.22	Rear	10	1:8.3	0.445	26.7	26.6
1 880.0	661	GSM 1900	GPRS1Tx	A	19.22	Front	10	1:8.3	0.459	26.6	
1 880.0	661	GSM 1900	GPRS1Tx	A	19.22	Left	10	1:8.3	0.059	35.5	
1 880.0	661	GSM 1900	GPRS1Tx	A	19.22	Right	10	1:8.3	0.088	33.8	
1909.8	810	GSM 1900	GPRS1Tx	A	19.45	Bottom	10	1:8.3	0.405	27.4	
836.6	4183	UMTS 850	RMC	E	23.28	Back	10	1:1	1.400	25.8	25.3
836.6	4183	UMTS 850	RMC	E	23.28	Front	10	1:1	1.080	26.9	
836.6	4183	UMTS 850	RMC	E	23.28	Right	10	1:1	0.951	27.5	
836.6	4183	UMTS 850	RMC	E	23.28	Top	10	1:1	1.570	25.3	
836.6	4183	UMTS 850	RMC	A	24.41	Rear	10	1:1	1.470	26.7	26.7
836.6	4183	UMTS 850	RMC	A	24.41	Front	10	1:1	1.000	28.4	
836.6	4183	UMTS 850	RMC	A	24.41	Left	10	1:1	0.836	29.2	
836.6	4183	UMTS 850	RMC	A	24.41	Right	10	1:1	0.519	31.2	
836.6	4183	UMTS 850	RMC	A	24.41	Bottom	10	1:1	0.810	29.3	
1 732.4	1412	UMTS 1700	RMC	A	19.14	Rear	10	1:1	1.190	22.4	20.8
1 732.4	1412	UMTS 1700	RMC	A	19.14	Front	10	1:1	1.100	22.7	
1 732.4	1412	UMTS 1700	RMC	A	19.14	Left	10	1:1	0.130	32.0	
1 732.4	1412	UMTS 1700	RMC	A	19.14	Right	10	1:1	0.304	28.3	
1712.4	1312	UMTS 1700	RMC	A	19.14	Bottom	10	1:1	1.700	20.8	
1 880	9400	UMTS 1900	RMC	A	18.92	Rear	10	1:1	0.924	23.2	23.2
1 880	9400	UMTS 1900	RMC	A	18.92	Front	10	1:1	0.933	23.2	
1 880	9400	UMTS 1900	RMC	A	18.92	Left	10	1:1	0.203	29.8	
1 880	9400	UMTS 1900	RMC	A	18.92	Right	10	1:1	0.122	32.0	
1 880	9400	UMTS 1900	RMC	A	18.92	Bottom	10	1:1	0.775	24.0	

Table A-9 RSI = 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)												
1 905	26590	LTE Band 25	Mid	A	20	17.49	Rear	10	0	50	0	1:1	0.500	24.5	24.5
1 905	26590	LTE Band 25	Mid	A	20	17.49	Front	10	0	50	0	1:1	0.443	25.0	
1 905	26590	LTE Band 25	Mid	A	20	17.49	Left	10	0	1	0	1:1	0.053	34.2	
1 905	26590	LTE Band 25	Mid	A	20	17.49	Left	10	0	50	0	1:1	0.096	31.6	
1 905	26590	LTE Band 25	Mid	A	20	17.49	Bottom	10	0	50	0	1:1	0.420	25.2	
1900	19100	LTE Band 2	Mid	F	20	19.01	Rear	10	0	50	49	1:1	0.762	24.2	22.9
1900	19100	LTE Band 2	Mid	F	20	19.01	Front	10	0	50	49	1:1	0.603	25.2	
1900	19100	LTE Band 2	Mid	F	20	19.01	Left	10	0	1	49	1:1	0.315	28.0	
1900	19100	LTE Band 2	Mid	F	20	19.01	Top	10	0	50	49	1:1	1.01	22.9	
1720	132072	LTE Band 66	Mid	A	20	17.79	Back	10	0	50	0	1:1	0.749	23.0	23.0
1720	132072	LTE Band 66	Mid	A	20	17.79	Front	10	0	50	0	1:1	0.667	23.5	
1720	132072	LTE Band 66	Mid	A	20	17.79	Left	10	0	50	0	1:1	0.161	29.7	
1720	132072	LTE Band 66	Mid	A	20	17.79	Right	10	0	50	0	1:1	0.069	33.4	
1720	132072	LTE Band 66	Mid	A	20	17.79	Bottom	10	0	50	0	1:1	0.710	23.3	
1720	132072	LTE Band 66	Mid	F	20	19.45	Back	10	0	50	0	1:1	0.756	24.6	22.6
1720	132072	LTE Band 66	Mid	F	20	19.45	Front	10	0	1	49	1:1	0.791	24.4	
1720	132072	LTE Band 66	Mid	F	20	19.45	Left	10	0	50	0	1:1	0.155	31.5	
1720	132072	LTE Band 66	Mid	F	20	19.45	Top	10	0	50	0	1:1	1.21	22.6	
707.5	23095	LTE Band 12	Mid	A	10	23.96	Back	10	0	1	0	1:1	0.999	27.9	27.9
707.5	23095	LTE Band 12	Mid	A	10	23.96	Front	10	0	1	0	1:1	0.832	28.7	
707.5	23095	LTE Band 12	Mid	A	10	23.96	Left	10	0	1	0	1:1	0.463	31.3	
707.5	23095	LTE Band 12	Mid	A	10	23.96	Right	10	0	1	0	1:1	0.150	36.2	
707.5	23095	LTE Band 12	Mid	A	10	23.96	Bottom	10	0	1	0	1:1	0.653	29.8	
782	23230	LTE Band 13	Mid	A	10	24.1	Back	10	0	1	49	1:1	0.696	29.7	29.7
782	23230	LTE Band 13	Mid	A	10	24.1	Front	10	0	1	49	1:1	0.564	30.6	
782	23230	LTE Band 13	Mid	A	10	24.1	Left	10	0	1	49	1:1	0.417	31.9	
782	23230	LTE Band 13	Mid	A	10	24.1	Right	10	0	1	49	1:1	0.090	38.5	
782	23230	LTE Band 13	Mid	A	10	24.1	Top	10	0	1	49	1:1	0.433	31.7	
836.5	20525	LTE Band 5	Mid	E	10	24.36	Back	10	0	1	0	1:1	0.713	29.8	28.9
836.5	20525	LTE Band 5	Mid	E	10	24.36	Front	10	0	1	0	1:1	0.524	31.1	
836.5	20525	LTE Band 5	Mid	E	10	24.36	Right	10	0	1	0	1:1	0.448	31.8	
836.5	20525	LTE Band 5	Mid	E	10	24.36	Bottom	10	0	1	0	1:1	0.879	28.9	
836.5	20525	LTE Band 5	Mid	A	10	23.96	Back	10	0	1	0	1:1	0.736	29.3	29.3
836.5	20525	LTE Band 5	Mid	A	10	23.96	Front	10	0	1	0	1:1	0.649	29.8	
836.5	20525	LTE Band 5	Mid	A	10	23.96	Right	10	0	1	0	1:1	0.347	32.5	
836.5	20525	LTE Band 5	Mid	A	10	23.96	Right	10	0	1	0	1:1	0.081	38.9	
836.5	20525	LTE Band 5	Mid	A	10	23.96	Top	10	0	1	0	1:1	0.593	30.2	

MEASUREMENT RESULTS															
Frequency		Mode		Ant. No.	Band width	Frame Averaged Conducted Power	Test Position	Spacing (mm)	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR (1g)	Plimit	Minimum Plimit
Mhz	Ch.	Mhz	(dBm)		(dB)	(W/kg)			(dBm)				(dBm)		
831.5	26865	LTE Band 26	Mid	E	15	23.87	Back	10	0	1	0	1:1	0.656	29.7	26.3
831.5	26865	LTE Band 26	Mid	E	15	23.87	Front	10	0	1	0	1:1	1.420	26.3	
831.5	26865	LTE Band 26	Mid	E	15	23.87	Right	10	0	1	0	1:1	0.697	29.4	
831.5	26865	LTE Band 26	Mid	E	15	23.87	Top	10	0	1	0	1:1	0.657	29.7	
831.5	26865	LTE Band 26	Mid	A	15	24.14	Bottom	10	0	1	0	1:1	0.996	28.1	
831.5	26865	LTE Band 26	Mid	A	15	24.14	Rear	10	0	1	0	1:1	0.850	28.8	28.1
831.5	26865	LTE Band 26	Mid	A	15	24.14	Front	10	0	1	0	1:1	0.419	31.9	
831.5	26865	LTE Band 26	Mid	A	15	24.14	Left	10	0	1	0	1:1	0.112	37.6	
831.5	26865	LTE Band 26	Mid	A	15	24.14	Top	10	0	1	0	1:1	0.706	29.6	
2636.5	41055	LTE Band 41(PC3)	Mid	B	20	19.95	Back	10	0	1	49	1:1	1.8	21.4	21.4
2636.5	41055	LTE Band 41(PC3)	Mid	B	20	19.95	Front	10	0	1	49	1:1	1.24	23.0	
2636.5	41055	LTE Band 41(PC3)	Mid	B	20	19.95	Left	10	0	1	49	1:1	0.122	33.1	
2636.5	41055	LTE Band 41(PC3)	Mid	B	20	19.95	Bottom	10	0	1	49	1:1	1.68	21.7	
2636.5	41055	LTE Band 41(PC2)	Mid	B	20	20.39	Left	10	0	1	49	1:1	0.144	22.1	22.1

Table A-10 RSI = 0 – NR Phablet SAR

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

MEASUREMENT RESULTS																
Frequency		Mode	Ant.	Band width	Frame Averaged Conducted Power	Test Position		MPR	Spacing (mm)	RB Size	RB offset	Duty Cycle	Meas. SAR(10g)	Plimit	Minimum Plimit	
Mhz	Ch.					Mhz	(dBm)									(dB)
1905	381000	NR Band n25	Mid	A	20	17.17	Back	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.502	24.1	24.1
1905	381000	NR Band n25	Mid	A	20	17.17	Front	DFT-s-OFDM QPSK	0	10	50	56	1:1	0.403	25.1	
1905	381000	NR Band n25	Mid	A	20	17.17	Left	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.084	31.9	
1905	381000	NR Band n25	Mid	A	20	17.17	Right	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.077	32.3	
1905	381000	NR Band n25	Mid	A	20	17.17	Bottom	DFT-s-OFDM QPSK	0	10	50	56	1:1	0.439	24.7	
1905	381000	NR Band n25	Mid	F	20	19.09	Back	DFT-s-OFDM QPSK	0	10	50	56	1:1	0.761	24.3	22.4
1905	381000	NR Band n25	Mid	F	20	19.09	Front	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.662	24.9	
1905	381000	NR Band n25	Mid	F	20	19.09	Left	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.283	28.6	
1905	381000	NR Band n25	Mid	F	20	19.09	Top	CP-OFDM QPSK	0	10	1	1	1:1	1.17	22.4	
836.5	167300	NR Band n5	Mid	A	20	23.65	Back	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.997	27.6	27.6
836.5	167300	NR Band n5	Mid	A	20	23.65	Front	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.666	29.4	
836.5	167300	NR Band n5	Mid	A	20	23.65	Left	DFT-s-OFDM QPSK	0	10	1	53	1:1	1.01	27.6	
836.5	167300	NR Band n5	Mid	A	20	23.65	Right	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.187	34.9	
836.5	167300	NR Band n5	Mid	A	20	23.65	Bottom	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.736	29.0	
836.5	167300	NR Band n5	Mid	E	20	23.96	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	1.01	27.9	27.5
836.5	167300	NR Band n5	Mid	E	20	23.96	Front	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.892	28.4	
836.5	167300	NR Band n5	Mid	E	20	23.96	Right	DFT-s-OFDM QPSK	0	10	50	28	1:1	0.734	29.3	
836.5	167300	NR Band n5	Mid	E	20	23.96	Top	DFT-s-OFDM QPSK	0	10	50	28	1:1	1.1	27.5	
2 592.99	518598	NR Band n41	Mid	F	100	17.25	Rear	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.837	22.0	19.6
2 592.99	518598	NR Band n41	Mid	F	100	17.25	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.763	22.4	
2 592.99	518598	NR Band n41	Mid	F	100	17.25	Left	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.122	30.4	
2 592.99	518598	NR Band n41	Mid	F	100	17.25	Top	DFT-s-OFDM QPSK	0	10	1	1	1:1	1.46	19.6	
2 592.99	518598	NR n41 SRS	Mid	B	100	13.03	Rear	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.495	20.1	20.1
2 592.99	518598	NR n41 SRS	Mid	B	100	13.03	Front	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.305	22.2	
2 592.99	518598	NR n41 SRS	Mid	B	100	13.03	Left	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.294	22.3	
2 592.99	518598	NR n41 SRS	Mid	B	100	13.03	Bottom	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.376	21.3	
2 592.99	518598	NR n41 SRS	Mid	E	100	14.14	Rear	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.748	19.4	16.5
2 592.99	518598	NR n41 SRS	Mid	E	100	14.14	Front	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.717	19.6	
2 592.99	518598	NR n41 SRS	Mid	E	100	14.14	Left	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.098	28.2	
2 592.99	518598	NR n41 SRS	Mid	E	100	14.14	Bottom	DFT-s-OFDM QPSK	0	10	1	136	1:1	1.440	16.5	
2 592.99	518598	NR n41 SRS	Mid	D	100	9.88	Rear	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.464	17.2	17.2
2 592.99	518598	NR n41 SRS	Mid	D	100	9.88	Front	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.146	22.2	
2 592.99	518598	NR n41 SRS	Mid	D	100	9.88	Left	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.031	28.9	
2 592.99	518598	NR n41 SRS	Mid	D	100	9.88	Bottom	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.142	22.3	

MEASUREMENT RESULTS																
Frequency		Mode	Ant.	Band width	Frame Averaged Conducted Power	Test Position			MPR	Spacing (mm)	RB Size	RB offset	Duty Cycle	Meas. SAR(10g)	Plimit	Minimum Plimit
Mhz	Ch.					Mhz	(dBm)	(dB)								
1745	349000	NR Band n66	Mid	A	20	17.63	Back	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.630	23.6	23.6
1745	349000	NR Band n66	Mid	A	20	17.63	Front	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.460	25.0	
1745	349000	NR Band n66	Mid	A	20	17.63	Left	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.175	29.2	
1745	349000	NR Band n66	Mid	A	20	17.63	Right	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.069	33.2	
1745	349000	NR Band n66	Mid	A	20	17.63	Bottom	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.357	26.1	
1720	344000	NR Band n66	Low	F	20	18.39	Back	DFT-s-OFDM QPSK	0	10	50	0	1:1	0.641	24.3	22.0
1720	344000	NR Band n66	Low	F	20	18.39	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.633	24.4	
1720	344000	NR Band n66	Low	F	20	18.39	Left	DFT-s-OFDM QPSK	0	10	50	0	1:1	0.181	29.8	
1720	344000	NR Band n66	Low	F	20	18.39	Top	CP-OFDM QPSK	0	10	1	1	1:1	1.08	22.0	
3750	650000	NR Band n77	Mid	F	100	14.35	Back	DFT-s-OFDM QPSK	0	10	135	138	1:1	0.657	20.2	20.2
3750	650000	NR Band n77	Mid	F	100	14.35	Front	DFT-s-OFDM QPSK	0	10	135	138	1:1	0.39	22.4	
3750	650000	NR Band n77	Mid	F	100	14.35	Left	DFT-s-OFDM QPSK	0	10	135	138	1:1	0.122	27.5	
3750	650000	NR Band n77	Mid	F	100	14.35	Top	DFT-s-OFDM QPSK	0	10	135	138	1:1	0.605	20.5	
3500.01	633334	NR Band n77 DoD	Mid	F	100	15.43	Back	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.737	20.7	20.7
3750	650000	NR n77 SRS	Mid	C	100	13.5	Rear	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.481	20.7	20.7
3750	650000	NR n77 SRS	Mid	C	100	13.5	Front	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.447	21.0	
3750	650000	NR n77 SRS	Mid	C	100	13.5	Left	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.462	20.8	
3750	650000	NR n77 SRS	Mid	C	100	13.5	Bottom	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.220	24.1	
3500.01	633334	NR Band n77 DoD	Mid	F	100	13.88	Left	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.754	19.1	18.8
3750	650000	NR n77 SRS	Mid	I	100	14.41	Rear	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.252	24.4	23.0
3750	650000	NR n77 SRS	Mid	I	100	14.41	Front	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.343	23.0	
3750	650000	NR n77 SRS	Mid	I	100	14.41	Left	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.079	29.4	
3500.01	633334	NR Band n77 DoD	Mid	I	100	13.73	Rear	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.587	20.0	
3750	650000	NR n77 SRS	Mid	D	100	13.15	Rear	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.373	21.4	21.4
3750	650000	NR n77 SRS	Mid	D	100	13.15	Front	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.041	31.0	
3750	650000	NR n77 SRS	Mid	D	100	13.15	Right	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.018	34.6	
3750	650000	NR n77 SRS	Mid	D	100	13.15	Bottom	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.050	30.1	
3500.01	633334	NR Band n77 DoD	Mid	D	100	12.01	Rear	DFT-s-OFDM QPSK	0	10	1	136	1:1	0.673	17.7	17.7

Table A-11 DSI = 0 PLimit Calculations – WLAN Hotspot/Body SAR

MEASUREMENT RESULTS													
Frequency		Mode/ Band	Band width (MHz)	Ant. No.	Data Rate	Frame Averaged	Test Position	Ant. Config.	Duty Cycle	Meas. SAR(10g)	Scaling Factor	Plimit	Minimum Plimit
Mhz	Ch.				(Mbps)	(dBm)				(W/kg)	(Duty)	(dBm)	(dBm)
2462	11	802.11b	20	H	1	17.85	Rear	WIFI1	99.0	1.02	1.012	21.7	21.2
2462	11	802.11b	20	H	1	17.85	Front	WIFI1	99.0	0.627	1.012	23.9	
2462	11	802.11b	20	H	1	17.85	Left	WIFI1	99.0	1.16	1.012	21.2	
2462	11	802.11b	20	H	1	17.85	Top	WIFI1	99.0	0.383	1.012	26.0	
2462	11	802.11b	20	J	1	17.9	Rear	WIFI2	99.0	0.537	1.010	24.6	24.4
2462	11	802.11b	20	J	1	17.9	Front	WIFI2	99.0	0.563	1.010	24.4	
2462	11	802.11b	20	J	1	17.9	Right	WIFI2	99.0	0.251	1.010	27.9	
2462	11	802.11b	20	J	1	17.9	Top	WIFI2	99.0	0.024	1.010	38.1	
5500	100	802.11a	20	H	6	15.25	Rear	WIFI1	93.1	0.938	1.074	19.5	15.5
5500	100	802.11a	20	H	6	15.25	Front	WIFI1	93.1	0.654	1.074	21.1	
5500	100	802.11a	20	H	6	14.84	Left	WIFI1	93.1	2.14	1.074	15.5	
5500	100	802.11a	20	H	6	17.85	Top	WIFI1	93.1	0.391	1.074	25.9	
5500	100	802.11a	20	E	6	15.38	Rear	WIFI2	93.1	0.625	1.074	21.4	21.4
5500	100	802.11a	20	E	6	15.38	Front	WIFI2	93.1	0.091	1.074	29.8	
5500	100	802.11a	20	E	6	15.12	Left	WIFI2	93.1	0.021	1.074	35.9	
5500	100	802.11a	20	E	6	15.38	Top	WIFI2	93.1	0.12	1.074	28.6	
6185	47	802.11ax	160	H	MCS0	8.76	Rear	WIFI1	99.6	0.059	1.004	25.0	23.8
6185	47	802.11ax	160	H	MCS0	8.76	Front	WIFI1	99.6	0.078	1.004	23.8	
6505	111	802.11ax	160	E	MCS0	8.84	Rear	WIFI2	99.6	0.146	1.004	19.4	19.4
6505	111	802.11ax	160	E	MCS0	8.84	Front	WIFI2	99.6	0.024	1.004	29.0	

MEASUREMENT RESULTS										
Frequency		Mode/ Band	Ant. No.	Frame Averaged	Test Position	Ant. Config.	Meas. SAR(10g)	Scaling Factor	Plimit	Minimum Plimit
Mhz	Ch.			(dBm)			(W/kg)	(Duty)	(dBm)	(dBm)
2 480	78	DH5	H	15.81	Rear	Ant 1	0.609	1.010	21.9	21.9
2 480	78	DH5	H	15.81	Front	Ant 1	0.378	1.010	24.0	
2 480	78	DH5	H	15.81	Left	Ant 1	0.621	1.010	21.9	
2 480	78	DH5	H	15.81	Top	Ant 1	0.243	1.010	25.9	
2 480	78	DH5	J	16.3	Rear	Ant 2	0.376	1.010	24.5	24.1
2 480	78	DH5	J	16.3	Front	Ant 2	0.413	1.010	24.1	
2 480	78	DH5	J	16.3	Right	Ant 2	0.178	1.010	27.8	