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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: Mar. 03, 2021** **Test Report No.:** HCT-SR-2102-FC012-R1 **Test Site: HCT CO., LTD.**

FCC ID: **A3LSMA526U**

Report Type:	**Part 0 SAR Characterization**
Equipment Type:	**Mobile Phone**
Model Name:	**SM-A526U**
Additional Model Name:	**SM-A526U1**

I attest to the accuracy of data. All measurements reported herein were performed by me or were made unde r 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

DaSol Lee
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REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	Feb. 25, 2021	Initial Release
1	Mar. 03, 2021	Revised table 4-4

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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Telephone	031-645-6300
Fax.	031-645-6401

1.2 Test Facilities

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

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

2. DEVICE UNDER TEST

2.1 General Information of the EUT

Device Wireless specification overview		
Band & Mode	**Operating Mode**	**Tx Frequency**
CDMA/EVDO BC10	Voice / Data	817.90 MHz~ 823.10 MHz
CDMA/EVDO BC0	Voice / Data	824.70 MHz~ 848.31 MHz
PCS CDMA/EVDO	Voice / Data	1 851.25 MHz~ 1 908.75 MHz
GSM850	Voice / Data	824.2 MHz~ 848.8 MHz
GSM1900	Voice / Data	1 850.2 MHz~ 1 909.8 MHz
UMTS 850	Voice / Data	826.4 MHz~ 846.6 MHz
UMTS 1700	Voice / Data	1 712.4 MHz~ 1 752.6 MHz
UMTS 1900	Voice / Data	1 852.4 MHz~ 1 907.6 MHz
LTE Band 2 (PCS)	Voice / Data	1 850.7 MHz~ 1 909.3 MHz
LTE Band 4 (AWS)	Voice / Data	1 710.7 MHz~ 1 754.3 MHz
LTE Band 5 (Cell)	Voice / Data	824.7 MHz~ 848.3 MHz
LTE Band 7	Voice / Data	2 502.5 MHz~ 2 567.5 MHz
LTE Band 12	Voice / Data	699.7 MHz~ 715.3 MHz
LTE Band 13	Voice / Data	779.5 MHz~ 784.5 MHz
LTE Band 14	Voice / Data	790.5 MHz~ 795.5 MHz
LTE Band 25	Voice / Data	1 850.7 MHz~ 1 914.3 MHz
LTE Band 26	Voice / Data	814.7 MHz~ 848.3 MHz
LTE Band 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 40	Voice / Data	2 302.5 MHz ~ 2 397.5 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~ 3697.5 MHz
LTE Band 66 (AWS)	Voice / Data	1 710.7 MHz ~ 1 779.3 MHz
LTE Band 71	Voice / Data	665.5 MHz~ 695.5 MHz
NR Band n2	Data	1 852.5 MHz~ 1 907.5 MHz
NR Band n5	Data	826.5 MHz~ 846.5 MHz
NR Band n12	Data	701.5 MHz~713.5 MHz
NR Band n25	Data	1852.5 MHz ~ 1912.5 MHz
NR Band n41	Data	2 506.02 MHz~ 2 679.99 MHz
NR Band n66	Data	1 712.5 MHz~ 1 777.5 MHz
NR Band n71	Data	665.5 MHz - 695.5 MHz
NR Band n77	Data	3710 MHz~3969.99 MHz
U-NII-1	Voice / Data	5 180 MHz ~ 5 240 MHz
U-NII-2A	Voice / Data	5 260 MHz ~ 5 320 MHz
U-NII-2C	Voice / Data	5 500 MHz ~ 5 720 MHz
U-NII-3	Voice / Data	5 745 MHz ~ 5 825 MHz
2.4 GHz WLAN	Voice / Data	2 412 MHz ~ 2 462 MHz
Bluetooth / LE 5.0	Data	2 402 MHz ~ 2 480 MHz
NFC	Data	13.56 MHz

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 operations. Additionally, this device supports WLAN/BT/NFC technologies, but the output power of these technologies is not controlled by the Smart Transmit algorithm.

2.2Time-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 is incompliance with FCC requirements.

This Part 0 report shows SAR and Power Density characterization of WWAN radios for 2G/3G/4G and 5G Sub-6 NR respectively. Characterization is achieved by determining Plimit for 2G/3G/4G and 5G Sub-6 NR 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 reporte

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

d in Part 1 report. The validation of the time-averaging algorithm and compliance under the dynamic (time-varying) transmission scenario for WWAN technologies are reported in Part 2 RF Exposure report

3. SAR MEASUREMENTS

3.1 SAR Definition

Specific Absorption Rate (SAR) is defined as the time derivative of the incremental electromagnetic energy (d*W*) absorbed by (dissipated in) an incremental mass (d*m*) contained in a volume element (d*V*) of a given density (*r*). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body

$$SAR = \frac{d}{d\ t}\left(\frac{d\ U}{d\ m}\right)$$

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/㎥)
E = Total RMS electric field strength (V/m)

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

3.2 SAR Measurement Procedure

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

1. The SAR distribution at the exposed side of the head or body was measured at a distance no more than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the DUT's head and body area and the horizontal grid resolution was depending on the FCC KDB 865664 D01v01r04 (see table 3-1) & IEEE 1528-2013.

2. Based on step, the area of the maximum absorption was determined by sophisticated interpolations routines implemented in DASY software. When an Area Scan has measured all reachable point. DASY system computes the field maximal found in the scanned are, within a range of the maximum. SAR at this fixed point was measured and used as a reference value.

3. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB 865664 D01v01r04 table 4-1 and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (reference from the DASY manual.)

   a. The data at the surface were extrapolated, since the center of the dipoles is no more than 2.7 mm away from the tip of the probe (it is different from the probe type) and the distance between the surface and the lowest measuring point is 1.2 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.

   b. The maximum interpolated value was searched with a straight-forward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed using the 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the "Not a knot" condition (in x, y, and z directions. The volume was integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.

   c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan. If the value changed by more than 5 %, the SAR evaluation and drift measurements were repeated.

Table 3-1

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

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

4. SAR CHARAC TERIZATION

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.

Scenario	Description	SAR Test Cases
Head (DSI = 1)	Device positioned next to head Receiver Active	*Head SAR per KDB Publication 648474 D04*
Hotspot mode (DSI = 2)	Device transmits in hotspot mode near body Hotspot Mode Active	*Hotspot SAR per KDB Publication 941225 D06*
Phablet Grip (DSI= 4)	Device is held with hand and grip sensor is triggered Grip sensor triggered	*Phablet SAR per KDB Publication 648474 D04 & KDB Publication 616217 D04*
Phablet (DSI = 0)	Device is held with hand and grip sensor is not triggered Distance grip sensor not triggered	*Phablet SAR per KDB Publication 648474 D04 & KDB Publication 616217 D04*
Body-worn (DSI = 0) Earjack (DSI = 3)	Device being used with a body-worn Accessory earjack is actived	*Body-worn SAR per KDB Publication 648474 D04*

Table 4-1 DSI and Corresponding Exposure Scenarios

4.2 SAR Design Target

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

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

Table 4-2 *SAR_design_target* Calculations

4.3 SAR Characterization

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

Table 4-3 *PLimit* Determination

Device State Index (DSI)	*PLimit* Determination Scenarios
0 &3	The worst-case SAR exposure is determined as maximum SAR normalized to the limit among: 1. Body Worn SAR 2. Extremity SAR measured at 9, 5 and 11 mm spacing for back, front, bottom respectively 3. Extremity SAR measured at 0 mm for left and right surfaces 4. Ear jack inseted mode.
1	P_{limit} is calculated based on 1g Head SAR
2	P_{limit} is calculated based on 1g Hotspot SAR at 10 mm
4	P_{limit} is calculated based on 10g Extremity SAR at 0 mm for back, front, and bottom surfaces.

Note:
For DSI=0,P_{limit} is calculated by :
P_{limit} = min{ *Plimit* cooresponding to 1g Body Worn SAR evaluation at 15mm spacing,
Plimit cooresponding to 10g Extremity SAR evaluation at 9(rear), 5(Front) and 11mm(bottom) spacing,
Plimit cooresponding to 10g Extremity SAR evaluation at 0mm for Left and right surface }

SAR Exposure Configurations			Body-Worn	Phablet	Head	Hotspot	Ear jack	Phablet	Burst Average Power [dBm]	Frame Averaged Power [dBm]	UL:DL Ratio	Max reduction [dBm]
Averaging volume			1g	10g	1g	1g	10g	10g				
Spacing (mm)			15 mm	9,11,5mm	0 mm	10 mm	0 mm	0 mm				
DSI			0		1	2	3	4				
Mode	Band	Antenna	Plimt						Pmax			
CDMA	BC10	Main#1	25.0		25.0	25.0	25.0	25.0	25.0	FDD	100%	N/A
CDMA	BC0	Main#1	24.5		24.5	24.5	24.5	24.5	24.5	FDD	100%	N/A
CDMA	PCS	Main#2	24.0		24.0	22.5	24.0	22.5	24.0	FDD	100%	1.5
GSM 1-slot	850	Main#1	26.0		26.0	26.0	26.0	26.0	33.0	24.0	12.5%	N/A
GSM 2-slot	850	Main#1							32.0	26.0	25.0%	N/A
GSM 3-slot	850	Main#1							29.0	24.7	37.5%	N/A
GSM 4-slot	850	Main#1							27.5	24.5	50.0%	N/A
GSM 1-slot	1900	Main#2	23.0		23.0	20.5	23.0	20.5	30.0	21.0	12.5%	0.5
GSM 2-slot	1900	Main#2							29.0	23.0	25.0%	2.5
GSM 3-slot	1900	Main#2							26.5	22.2	37.5%	1.7
GSM 4-slot	1900	Main#2							25.0	22.0	50.0%	1.5
UMTS	5	Main#1	24.0		24.0	24.0	24.0	24.0	24.0	FDD	100%	N/A
UMTS	4	Main#2	24.5		24.5	22.5	24.5	22.5	24.5	FDD	100%	2.0
UMTS	2	Main#2	24.0		24.0	22.5	24.0	22.5	24.0	FDD	100%	1.5
LTE FDD	12	Main#1	23.5		23.5	23.5	23.5	23.5	23.5	FDD	100%	N/A
LTE FDD	13	Main#1	24.8		24.8	24.8	24.8	24.8	24.8	FDD	100%	N/A
LTE FDD	14	Main#1	24.3		24.3	24.3	24.3	24.3	24.3	FDD	100%	N/A
LTE FDD	26	Main#1	24.5		24.5	24.5	24.5	24.5	24.5	FDD	100%	N/A
LTE FDD	5	Main#1	24.5		24.5	24.5	24.5	24.5	24.5	FDD	100%	N/A
LTE FDD	66	Main#2	24.5		24.5	22.0	24.5	22.0	24.5	FDD	100%	2.5
LTE FDD	4	Main#2	24.5		24.5	22.0	24.5	22.0	24.5	FDD	100%	2.5
LTE FDD	2	Main#2	24.5		24.5	22.0	24.5	22.0	24.5	FDD	100%	2.5
LTE FDD	25	Main#2	24.5		24.5	22.0	24.5	22.0	24.5	FDD	100%	2.5
LTE FDD	71	Main#1	24.5		24.5	24.5	24.5	24.5	24.5	FDD	100%	N/A
LTE FDD	7	Main#2	23.5		23.5	22.0	23.5	22.0	23.5	FDD	100%	1.5
LTE FDD	30	Main#2	23.5		23.5	22.0	23.5	22.0	23.5	FDD	100%	1.5
LTE TDD	40	Main#2	9.5		9.5	9.5	9.5	9.5	11.5	9.5	63.3%	N/A
LTE TDD	48	Sub#3	19.5		17.0	19.5	19.5	19.5	21.5	19.5	63.3%	2.5
LTE TDD PC3	41	Main#2	22.0		22.0	22.0	22.0	22.0	24.0	22.0	63.3%	N/A
LTE TDD PC2	41	Main#2	22.9		22.9	22.9	22.9	22.9	26.5	22.9	43.3%	N/A
LTE TDD	38	Main#2	21.5		21.5	21.5	21.5	21.5	23.5	21.5	63.3%	N/A
NR FDD	5	Main#1	23.5		23.5	23.5	23.5	23.5	23.5	FDD	100%	N/A
NR FDD	12	Main#1	24.8		24.8	24.8	24.8	24.8	24.8	FDD	100%	N/A
NR FDD	71	Main#1	23.5		23.5	23.5	23.5	23.5	23.5	FDD	100%	N/A
NR FDD	66	Main#2	24.5		24.5	23.0	24.5	23.0	24.5	FDD	100%	1.5
NR FDD	2	Main#2	23.5		23.5	22.5	23.5	22.5	23.5	FDD	100%	1.0
NR FDD	25	Main#2	23.5		23.5	22.5	23.5	22.5	23.5	FDD	100%	1.0
NR TDD	77	Sub#3	18.2		14.2	18.2	18.2	18.2	24.2	18.2	25%	4.0
NR TDD (PC3)	41	Sub#2	18.0		16.0	18.0	18.0	18.0	24.0	18.0	25%	2.0
NR TDD (PC2)	41	Sub#2	19.0		16.0	19.0	19.0	19.0	25.0	19.0	25%	3.0
NR TDD (PC3)	41	Main#2	17.0		17.0	17.0	17.0	17.0	23.0	17.0	25%	N/A
NR TDD (PC2)	41	Main#2	20.5		20.5	20.5	20.5	20.5	26.5	20.5	25%	N/A

Table 4-4 SAR Characterization

Note:

1. Compared with the Plimt (Tune up Powers) declared in each DSI by the manufacturer and the plimt (calculation) calculated by the SAR measurement of each DSI, the lower power were applied to the EFS as the plimit at each DSI configurations.
2. When *Pmax* < *Plimit*, the DUT will operate at a power level up to *Pmax*.
3. when Hotspot Mode (DSI=2) Grip sensor (DSI=4) and Ear-jack mode(DSI=3) are triggered at the same time,DSI=2(Hotspot) takes more higher priority.the Priority for power reduction was given in the order of hotspot(DSI=2), Grip.(DSI=4), and Earjack (DSI=3),.
4. Maximum Tune up Power,P*max*. Is configured in NV settings in EUT to limit maximum transmitting power. This power is converted into peak power in NV setting for TDD schemes.(GPRS, LTE TDD ,NR TDD)

5. Equipment List

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	Triple Modular Phantom	-	N/A	N/A	N/A
SPEAG	SAM Phantom	-	N/A	N/A	N/A
HP	SAR System Control PC	-	N/A	N/A	N/A
Staubli	CS8Cspeag-TX60	F10/ 5D1CA1/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	F/20/0018446/C/001	N/A	N/A	N/A
Staubli	TX60 Lspeag	F10/5D1CA1/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	F/20/0018446/A/001	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1206 0513	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	01010963	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)	010963	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	D21142608A	N/A	N/A	N/A
SPEAG	DAE4	869	09/28/2020	Annual	09/28/2021
SPEAG	DAE4	652	01/21/2021	Annual	01/21/2022
SPEAG	DAE4	1629	08/11/2020	Annual	08/11/2021
SPEAG	DAE4	648	05/25/2020	Annual	05/25/2021
SPEAG	DAE4	1417	02/26/2020	Annual	02/26/2021
SPEAG	DAE4	1225	08/07/2020	Annual	08/07/2021
SPEAG	E-Field Probe EX3DV4	7622	11/06/2020	Annual	11/06/2021
SPEAG	E-Field Probe EX3DV4	3797	11/25/2020	Annual	11/25/2021
SPEAG	E-Field Probe EX3DV4	3903	03/25/2020	Annual	03/25/2021
SPEAG	E-Field Probe ES3DV3	3076	07/31/2020	Annual	07/31/2021
SPEAG	E-Field Probe EX3DV4	3863	05/27/2020	Annual	05/27/2021
SPEAG	E-Field Probe EX3DV4	7370	08/31/2020	Annual	08/31/2021
SPEAG	Dipole D750V3	1014	05/19/2020	Annual	05/19/2021
SPEAG	Dipole D835V2	4d165	07/28/2020	Annual	07/28/2021
SPEAG	Dipole D1800V2	2d007	08/26/2020	Annual	08/26/2021
SPEAG	Dipole D1900V2	5d032	01/28/2021	Annual	01/28/2022
SPEAG	Dipole D2300V2	1010	08/26/2020	Annual	08/26/2021
SPEAG	Dipole D2450V2	1049	08/26/2020	Annual	08/26/2021
SPEAG	Dipole D2600V2	1015	08/26/2020	Annual	08/26/2021
SPEAG	Dipole D3500V2	1075	04/30/2019	Biannual	04/30/2021
SPEAG	Dipole D3700V2	1066	11/19/2020	Annual	11/19/2021
SPEAG	Dipole D3900V2	1019	05/22/2020	Annual	05/22/2021
SPEAG	Dipole D5GHzV2	1253	08/31/2020	Annual	08/31/2021
Agilent	Power Meter E4419B	MY41291386	10/23/2020	Annual	10/23/2021
Agilent	Power Meter N1911A	MY45101406	08/31/2020	Annual	08/31/2021
Agilent	Power Sensor 8481A	SG1091286	10/05/2020	Annual	10/05/2021
Agilent	Power Sensor 8481A	MY41090873	10/05/2020	Annual	10/05/2021
Agilent	Power Sensor N1921A	MY55220026	08/31/2020	Annual	08/31/2021
SPEAG	DAKS 3.5	1038	03/24/2020	Annual	03/24/2021
H.P	Network Analyzer /8753ES	JP39240221	01/11/2021	Annual	01/11/2022

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
Agilent	WIRELESS COMMUNICATION E5515C	MY48360252	08/06/2020	Annual	08/06/2021
Agilent	WIRELESS COMMUNICATION E5515C	GB44051865	06/01/2020	Annual	06/01/2021
Agilent	Signal Generator N5182A	MY47070230	05/06/2020	Annual	05/06/2021
Agilent	11636B/Power Divider	58698	02/28/2020	Annual	02/28/2021
TESTO	175-H1/Thermometer	40331936309	01/26/2021	Annual	01/26/2022
TESTO	175-H1/Thermometer	40331939309	01/26/2021	Annual	01/26/2022
TESTO	175-H1/Thermometer	40331915309	01/26/2021	Annual	01/26/2022
TESTO	175-H1/Thermometer	40331922309	01/26/2021	Annual	01/26/2022
TESTO	175-H1/Thermometer	40332651310	01/26/2021	Annual	01/26/2022
TESTO	175-H1/Thermometer	44606559906	01/26/2021	Annual	01/26/2022
EMPOWER	RF Power Amplifier	1084	07/01/2020	Annual	07/01/2021
EMPOWER	RF Power Amplifier	1011	07/30/2020	Annual	07/30/2021
MICRO LAB	LP Filter / LA-15N	10453	10/05/2020	Annual	10/05/2021
MICRO LAB	LP Filter / LA-30N	-	10/05/2020	Annual	10/05/2021
MICRO LAB	LP Filter / LA-60N	32011	10/05/2020	Annual	10/05/2021
Agilent	Attenuator (3dB) 8693B	MY39260298	09/18/2020	Annual	09/18/2021
HP	Attenuator (20dB) 8493C	09271	09/18/2020	Annual	09/18/2021
Agilent	Directional Bridge	3140A03878	06/08/2020	Annual	06/08/2021
Agilent	MXA Signal Analyzer N9020A	MY50510407	10/23/2020	Annual	10/23/2021
HP	Dual Directional Coupler	16072	10/05/2020	Annual	10/05/2021
Anritsu	Radio Communication Tester MT8820C	6200695605	05/06/2020	Annual	05/06/2021
Anritsu	Radio Communication Tester MT8820C	6200628628	09/18/2020	Annual	09/18/2021
Anritsu	Radio Communication Tester MT8821C	6201502997	08/06/2020	Annual	08/06/2021
Anritsu	Radio Communication Tester MT8821C	6262044720	12/22/2020	Annual	12/22/2021
Anritsu	Radio Communication Test Station MT8000A	6262036812	12/22/2020	Annual	12/22/2021
R&S	Bluetooth CBT	100272	03/02/2020	Annual	03/02/2021

* 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		Conducted Power	Test Position	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
MHz	Ch.			(dBm)			(W/kg)	(dBm)	(dBm)
820	560	RC3 / SO55	CDMA BC10	24.91	Right Cheek	1:1	0.219	31.5	31.5
820	560	RC3 / SO55	CDMA BC10	24.91	Right Tilt	1:1	0.108	34.6	
820	560	RC3 / SO55	CDMA BC10	24.91	Left Cheek	1:1	0.184	32.3	
820	560	RC3 / SO55	CDMA BC10	24.91	Left Tilt	1:1	0.101	34.9	
820	560	EVDO Rev. A	CDMA BC10	24.91	Right Cheek	1:1	0.214	31.4	31.4
820	560	EVDO Rev. A	CDMA BC10	24.91	Right Tilt	1:1	0.107	34.4	
820	560	EVDO Rev. A	CDMA BC10	24.91	Left Cheek	1:1	0.171	32.4	
820	560	EVDO Rev. A	CDMA BC10	24.91	Left Tilt	1:1	0.099	34.7	
836.52	384	RC3 / SO55	CDMA BC0	24.68	Right Cheek	1:1	0.357	28.5	30.5
836.52	384	RC3 / SO55	CDMA BC0	24.68	Right Tilt	1:1	0.103	33.9	
836.52	384	RC3 / SO55	CDMA BC0	24.68	Left Cheek	1:1	0.227	30.5	
836.52	384	RC3 / SO55	CDMA BC0	24.68	Left Tilt	1:1	0.070	35.6	
836.52	384	EVDO Rev. A	CDMA BC0	24.70	Right Cheek	1:1	0.286	30.1	30.1
836.52	384	EVDO Rev. A	CDMA BC0	24.70	Right Tilt	1:1	0.135	33.3	
836.52	384	EVDO Rev. A	CDMA BC0	24.70	Left Cheek	1:1	0.208	31.5	
836.52	384	EVDO Rev. A	CDMA BC0	24.70	Left Tilt	1:1	0.124	33.7	
1880.0	600	RC3 / SO55	PCS CDMA	23.92	Right Cheek	1:1	0.155	32.0	30.5
1880.0	600	RC3 / SO55	PCS CDMA	23.92	Right Tilt	1:1	0.131	32.7	
1880.0	600	RC3 / SO55	PCS CDMA	23.92	Left Cheek	1:1	0.222	30.5	
1880.0	600	RC3 / SO55	PCS CDMA	23.92	Left Tilt	1:1	0.172	31.6	
1880.0	600	EVDO Rev. A	PCS CDMA	23.43	Right Cheek	1:1	0.128	32.4	30.6
1880.0	600	EVDO Rev. A	PCS CDMA	23.43	Right Tilt	1:1	0.123	32.5	
1880.0	600	EVDO Rev. A	PCS CDMA	23.43	Left Cheek	1:1	0.194	30.6	
1880.0	600	EVDO Rev. A	PCS CDMA	23.43	Left Tilt	1:1	0.153	31.6	

MEASUREMENT RESULTS									
Frequency		Mode/ Band		Conducted Power	Test Position	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
MHz	Ch.			(dBm)			(W/kg)	(dBm)	(dBm)
836.6	190	GSM 850	GSM	32.10	Right Cheek	1:8.3	0.164	30.9	30.9
836.6	190	GSM 850	GSM	32.10	Right Tilt	1:8.3	0.085	33.8	
836.6	190	GSM 850	GSM	32.10	Left Cheek	1:8.3	0.144	31.5	
836.6	190	GSM 850	GSM	32.10	Left Tilt	1:8.3	0.083	33.9	
1 880	661	GSM 1900	GSM	29.60	Right Cheek	1:8.3	0.057	36.0	34.3
1 880	661	GSM 1900	GSM	29.60	Right Tilt	1:8.3	0.059	35.9	
1 880	661	GSM 1900	GSM	29.60	Left Cheek	1:8.3	0.084	34.3	
1 880	661	GSM 1900	GSM	29.60	Left Tilt	1:8.3	0.070	35.1	
836.6	4183	UMTS 850	RMC	23.71	Right Cheek	1:1	0.072	35.1	31.9
836.6	4183	UMTS 850	RMC	23.71	Right Tilt	1:1	0.071	35.2	
836.6	4183	UMTS 850	RMC	23.71	Left Cheek	1:1	0.152	31.9	
836.6	4183	UMTS 850	RMC	23.71	Left Tilt	1:1	0.091	34.1	
1 732.4	1412	UMTS 1700	RMC	24.00	Right Cheek	1:1	0.153	32.4	31.3
1 732.4	1412	UMTS 1700	RMC	24.00	Right Tilt	1:1	0.134	33.0	
1 732.4	1412	UMTS 1700	RMC	24.00	Left Cheek	1:1	0.199	31.3	
1 732.4	1412	UMTS 1700	RMC	24.00	Left Tilt	1:1	0.163	32.1	
1 880	9400	UMTS 1900	RMC	23.98	Right Cheek	1:1	0.145	32.4	30.4
1 880	9400	UMTS 1900	RMC	23.98	Right Tilt	1:1	0.159	32.0	
1 880	9400	UMTS 1900	RMC	23.98	Left Cheek	1:1	0.227	30.4	
1 880	9400	UMTS 1900	RMC	23.98	Left Tilt	1:1	0.172	31.6	

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

MEASUREMENT RESULTS													
Frequency		Mode		Band width	Conducted Power	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
MHz	Ch.			MHz	(dBm)		(dB)				(W/kg)	(dBm)	(dBm)
680.5	133297	LTE Band 71	Mid	20	24.09	Right Cheek	0	1	49	1:1	0.186	31.4	31.4
680.5	133297	LTE Band 71	Mid	20	24.09	Right Tilt	0	1	49	1:1	0.081	31.4	
680.5	133297	LTE Band 71	Mid	20	24.09	Left Cheek	0	1	49	1:1	0.156	32.2	
680.5	133297	LTE Band 71	Mid	20	24.09	Left Tilt	0	1	49	1:1	0.071	35.6	
707.5	23095	LTE Band 12	Mid	10	24.26	Right Cheek	0	1	49	1:1	0.158	32.3	32.3
707.5	23095	LTE Band 12	Mid	10	24.26	Right Tilt	0	1	49	1:1	0.076	35.5	
707.5	23095	LTE Band 12	Mid	10	24.26	Left Cheek	0	1	49	1:1	0.145	32.6	
707.5	23095	LTE Band 12	Mid	10	24.26	Left Tilt	0	1	49	1:1	0.061	36.4	
782	23230	LTE Band 13	Mid	10	24.26	Right Cheek	0	1	0	1:1	0.194	31.4	31.4
782	23230	LTE Band 13	Mid	10	24.26	Right Tilt	0	1	0	1:1	0.111	33.8	
782	23230	LTE Band 13	Mid	10	24.26	Left Cheek	0	1	0	1:1	0.164	32.1	
782	23230	LTE Band 13	Mid	10	24.26	Left Tilt	0	1	0	1:1	0.067	36.0	
793	23330	LTE Band 14	Mid	10	24.07	Right Cheek	0	1	0	1:1	0.161	32.0	32.0
793	23330	LTE Band 14	Mid	10	24.07	Right Tilt	0	1	0	1:1	0.082	34.9	
793	23330	LTE Band 14	Mid	10	24.07	Left Cheek	0	1	0	1:1	0.125	33.1	
793	23330	LTE Band 14	Mid	10	24.07	Left Tilt	0	1	0	1:1	0.073	35.4	
831.5	26865	LTE Band 26	Mid	15	24.06	Right Cheek	0	1	0	1:1	0.176	31.6	31.6
831.5	26865	LTE Band 26	Mid	15	24.06	Right Tilt	0	1	0	1:1	0.082	34.9	
831.5	26865	LTE Band 26	Mid	15	24.06	Left Cheek	0	1	0	1:1	0.148	32.4	
831.5	26865	LTE Band 26	Mid	15	24.06	Left Tilt	0	1	0	1:1	0.075	35.3	
1 770	132572	LTE Band 66	High	20	24.37	Right Cheek	0	1	0	1:1	0.175	31.9	31.2
1 770	132572	LTE Band 66	High	20	24.37	Right Tilt	0	1	0	1:1	0.119	33.6	
1 770	132572	LTE Band 66	High	20	24.37	Left Cheek	0	1	0	1:1	0.207	31.2	
1 770	132572	LTE Band 66	High	20	24.37	Left Tilt	0	1	0	1:1	0.177	31.9	
1 905	26590	LTE Band 25	High	20	24.26	Right Cheek	0	1	0	1:1	0.165	32.1	30.9
1 905	26590	LTE Band 25	High	20	24.26	Right Tilt	0	1	0	1:1	0.144	32.7	
1 905	26590	LTE Band 25	High	20	24.26	Left Cheek	0	1	0	1:1	0.215	30.9	
1 905	26590	LTE Band 25	High	20	24.26	Left Tilt	0	1	0	1:1	0.182	31.7	

MEASUREMENT RESULTS													
Frequency		Mode		Band width	Conducted Power	Test Position	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
MHz	Ch.			MHz	(dBm)		(dB)				(W/kg)	(dBm)	(dBm)
2 310	27710	LTE Band 30	Mid	10	24.02	Right Cheek	0	1	0	1:1	0.106	33.8	30.5
2 310	27710	LTE Band 30	Mid	10	24.02	Right Tilt	0	1	0	1:1	0.125	33.1	
2 310	27710	LTE Band 30	Mid	10	24.02	Left Cheek	0	1	0	1:1	0.225	30.5	
2 310	27710	LTE Band 30	Mid	10	24.02	Left Tilt	0	1	0	1:1	0.104	33.8	
2 593.0	40620	LTE Band 41(PC3)	Mid	20	23.89	Right Cheek	0	1	49	1:1.58	0.124	31.0	29.1
2 593.0	40620	LTE Band 41(PC3)	Mid	20	23.89	Right Tilt	0	1	49	1:1.58	0.112	31.4	
2 593.0	40620	LTE Band 41(PC3)	Mid	20	23.89	Left Cheek	0	1	49	1:1.58	0.192	29.1	
2 593.0	40620	LTE Band 41(PC3)	Mid	20	23.89	Left Tilt	0	1	49	1:1.58	0.070	33.5	
2 593.0	40620	LTE Band 41(PC2)	Mid	20	26.28	Right Cheek	0	1	0	1:2.31	0.201	29.6	29.1
2 593.0	40620	LTE Band 41(PC2)	Mid	20	26.28	Right Tilt	0	1	0	1:2.31	0.116	32.0	
2 593.0	40620	LTE Band 41(PC2)	Mid	20	26.28	Left Cheek	0	1	0	1:2.31	0.227	29.1	
2 593.0	40620	LTE Band 41(PC2)	Mid	20	26.28	Left Tilt	0	1	0	1:2.31	0.101	32.6	
2 560	21350	LTE Band 7	High	20	23.97	Right Cheek	0	1	49	1:1	0.224	30.5	29.2
2 560	21350	LTE Band 7	High	20	23.97	Right Tilt	0	1	49	1:1	0.171	31.6	
2 560	21350	LTE Band 7	High	20	23.97	Left Cheek	0	1	49	1:1	0.299	29.2	
2 560	21350	LTE Band 7	High	20	23.97	Left Tilt	0	1	49	1:1	0.105	33.8	
3 690	56640	LTE Band 48	High	20	19.20	Right Cheek	0	1	0	1:1.58	0.422	21.0	21.0
3 690	56640	LTE Band 48	High	20	19.20	Right Tilt	0	1	0	1:1.58	0.125	26.2	
3 690	56640	LTE Band 48	High	20	19.20	Left Cheek	0	1	0	1:1.58	0.098	27.3	
3 690	56640	LTE Band 48	High	20	19.20	Left Tilt	0	1	0	1:1.58	0.059	30.0	

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		Band width	Conducted Power	Test Configurations		MPR	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
MHz	Ch.			MHz	(dBm)			(dB)				(W/kg)	(dBm)	(dBm)
680.5	136100	NR Band n71	Mid	20	22.77	Right Cheek	DFT-s-OFDM QPSK	0	1	53	1:1	0.160	30.7	30.7
680.5	136100	NR Band n71	Mid	20	22.77	Right Tilt	DFT-s-OFDM QPSK	0	1	53	1:1	0.073	34.1	
680.5	136100	NR Band n71	Mid	20	22.77	Left Cheek	DFT-s-OFDM QPSK	0	1	53	1:1	0.133	31.5	
680.5	136100	NR Band n71	Mid	20	22.77	Left Tilt	DFT-s-OFDM QPSK	0	1	53	1:1	0.061	34.9	
836.5	167300	NR Band n5	Mid	20	22.97	Right Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.161	30.9	30.9
836.5	167300	NR Band n5	Mid	20	22.97	Right Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.083	33.8	
836.5	167300	NR Band n5	Mid	20	22.97	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.150	31.2	
836.5	167300	NR Band n5	Mid	20	22.97	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.079	34.0	
1 745	349000	NR Band n66	Mid	40	24.94	Right Cheek	DFT-s-OFDM QPSK	0	1	108	1:1	0.147	33.3	33.3
1 745	349000	NR Band n66	Mid	40	24.94	Right Tilt	DFT-s-OFDM QPSK	0	1	108	1:1	0.112	34.4	
1 745	349000	NR Band n66	Mid	40	24.94	Left Cheek	DFT-s-OFDM QPSK	0	1	108	1:1	0.099	35.0	
1 745	349000	NR Band n66	Mid	40	24.94	Left Tilt	DFT-s-OFDM QPSK	0	1	108	1:1	0.111	34.5	
1 882.5	376500	NR Band n25	Mid	40	23.01	Right Cheek	DFT-s-OFDM QPSK	0	1	108	1:1	0.143	31.5	29.6
1 882.5	376500	NR Band n25	Mid	40	23.01	Right Tilt	DFT-s-OFDM QPSK	0	1	108	1:1	0.110	32.6	
1 882.5	376500	NR Band n25	Mid	40	23.01	Left Cheek	DFT-s-OFDM QPSK	0	1	108	1:1	0.221	29.6	
1 882.5	376500	NR Band n25	Mid	40	23.01	Left Tilt	DFT-s-OFDM QPSK	0	1	108	1:1	0.134	31.7	
707.5	141500	NR Band n12	Mid	15	24.54	Right Cheek	DFT-s-OFDM QPSK	0	1	40	1:1	0.197	31.6	31.6
707.5	141500	NR Band n12	Mid	15	24.54	Right Tilt	DFT-s-OFDM QPSK	0	1	40	1:1	0.097	34.7	
707.5	141500	NR Band n12	Mid	15	24.54	Left Cheek	DFT-s-OFDM QPSK	0	1	40	1:1	0.171	32.2	
707.5	141500	NR Band n12	Mid	15	24.54	Left Tilt	DFT-s-OFDM QPSK	0	1	40	1:1	0.095	34.8	
2 592.99	518598	NR Band n41 (PC3) SUB2	Mid	100	16.31	Right Cheek	DFT-s-OFDM QPSK	0	135	69	1:1	0.542	19.0	18.3
2 592.99	518598	NR Band n41 (PC3) SUB2	Mid	100	16.31	Right Tilt	DFT-s-OFDM QPSK	0	135	69	1:1	0.634	18.3	
2 592.99	518598	NR Band n41 (PC3) SUB2	Mid	100	16.31	Left Cheek	DFT-s-OFDM QPSK	0	135	69	1:1	0.297	21.6	
2 592.99	518598	NR Band n41 (PC3) SUB2	Mid	100	16.23	Left Tilt	DFT-s-OFDM QPSK	0	1	137	1:1	0.374	20.5	
2 592.99	518598	NR Band n41(PC2) SUB2	Mid	100	16.30	Right Cheek	DFT-s-OFDM QPSK	0	135	69	1:1	0.561	18.8	18.3
2 592.99	518598	NR Band n41(PC2) SUB2	Mid	100	16.30	Right Tilt	DFT-s-OFDM QPSK	0	135	69	1:1	0.626	18.3	
2 592.99	518598	NR Band n41(PC2) SUB2	Mid	100	16.30	Left Cheek	DFT-s-OFDM QPSK	0	135	69	1:1	0.356	20.8	
2 592.99	518598	NR Band n41(PC2) SUB2	Mid	100	16.30	Left Tilt	DFT-s-OFDM QPSK	0	135	69	1:1	0.442	19.8	
2 592.99	518598	NR Band n41 (PC3) Main2	Mid	100	17.69	Right Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.059	30.0	27.2
2 592.99	518598	NR Band n41 (PC3) Main2	Mid	100	17.69	Right Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.058	30.1	
2 592.99	518598	NR Band n41 (PC3) Main2	Mid	100	17.69	Left Cheek	DFT-s-OFDM QPSK	0	1	1	1:1	0.112	27.2	
2 592.99	518598	NR Band n41 (PC3) Main2	Mid	100	17.69	Left Tilt	DFT-s-OFDM QPSK	0	1	1	1:1	0.039	31.8	
2 592.99	518598	NR Band n41 (PC2) Main2	Mid	100	20.52	Right Cheek	DFT-s-OFDM QPSK	0	135	69	1:1	0.117	29.8	27.2
2 592.99	518598	NR Band n41 (PC2) Main2	Mid	100	20.52	Right Tilt	DFT-s-OFDM QPSK	0	135	69	1:1	0.101	30.5	
2 592.99	518598	NR Band n41 (PC2) Main2	Mid	100	20.52	Left Cheek	DFT-s-OFDM QPSK	0	135	69	1:1	0.216	27.2	
2 592.99	518598	NR Band n41 (PC2) Main2	Mid	100	20.52	Left Tilt	DFT-s-OFDM QPSK	0	135	69	1:1	0.067	32.3	
3750	650000	NR Band 77(PC3)	Low	100	15.15	Right Cheek	DFT-s-OFDM QPSK	0	1	271	1:1	0.280	20.7	20.7
3750	650000	NR Band 77(PC3)	Low	100	15.15	Right Tilt	DFT-s-OFDM QPSK	0	1	271	1:1	0.104	25.0	
3750	650000	NR Bandn77(PC3)	Low	100	15.15	Left Cheek	DFT-s-OFDM QPSK	0	1	271	1:1	0.042	28.9	
3750	650000	NR Bandn77(PC3)	Low	100	15.15	Left Tilt	DFT-s-OFDM QPSK	0	1	271	1:1	0.028	30.7	

Table A-4 DSI = 0,3 *PLimit* Calculations - 2G/3G Body-Worn SAR

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

MEASUREMENT RESULTS										
Frequency		Mode/ Band		Conducted Power	Test Position	Spacing (mm)	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plim
MHz	Ch.			(dBm)				(W/kg)	(dBm)	(dBm)
820	560	TDSO RC32/SO55	CDMA BC10	24.88	Back	15	1:1	0.333	29.7	29.7
820	560	TDSO RC32/SO55	CDMA BC10	24.88	Front	15	1:1	0.326	29.7	
820	560	EVDO Rev. A	CDMA BC10	24.91	Back	15	1:1	0.323	29.8	29.8
820	560	EVDO Rev. A	CDMA BC10	24.91	Front	15	1:1	0.323	29.8	
836.52	384	TDSO RC32/SO55	CDMA BC 0	24.66	Back	15	1:1	0.325	29.5	29.5
836.52	384	TDSO RC32/SO55	CDMA BC 0	24.66	Front	15	1:1	0.324	29.6	
836.52	384	EVDO Rev. A	CDMA BC 0	24.70	Back	15	1:1	0.348	29.2	29.2
836.52	384	EVDO Rev. A	CDMA BC 0	24.70	Front	15	1:1	0.338	29.4	
1880.0	600	TDSO RC32/SO55	PCS CDMA	23.94	Back	15	1:1	0.294	28.7	28.7
1880.0	600	TDSO RC32/SO55	PCS CDMA	23.94	Front	15	1:1	0.297	28.7	
1880.0	600	EVDO Rev. A	PCS CDMA	23.94	Back	15	1:1	0.269	29.6	29.5
1880.0	600	EVDO Rev. A	PCS CDMA	23.94	Front	15	1:1	0.278	29.5	
836.6	190	GSM 850	GSM	32.10	Back	15	1:8.3	0.196	30.1	30.1
836.6	190	GSM 850	GSM	32.10	Front	15	1:8.3	0.199	30.1	
1 880	661	GSM 1900	GSM	29.60	Back	15	1:8.3	0.140	32.5	32.5
1 880	661	GSM 1900	GSM	29.60	Front	15	1:8.3	0.128	32.5	
836.6	4183	UMTS 850	RMC	23.71	Back	15	1:1	0.226	30.2	29.6
836.6	4183	UMTS 850	RMC	23.71	Front	15	1:1	0.258	29.6	
1 732.4	1412	UMTS 1700	RMC	24.00	Back	15	1:1	0.174	31.6	31.6
1 732.4	1412	UMTS 1700	RMC	24.00	Front	15	1:1	0.046	37.4	
1 880	9400	UMTS 1900	RMC	23.98	Back	15	1:1	0.156	32.0	32.0
1 880	9400	UMTS 1900	RMC	23.98	Front	15	1:1	0.035	38.5	

Table A-5 DSI = 0,3 *PLimit* Calculations - 4G Body-Worn SAR

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

MEASUREMENT RESULTS														
Frequency		Mode		Band width	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)
680.5	133297	LTE Band 71	Mid	20	24.09	Back	15	0	1	0	1:1	0.296	29.4	29.4
680.5	133297	LTE Band 71	Mid	20	24.09	Front	15	0	1	0	1:1	0.258	29.4	
707.5	23095	LTE Band 12	Mid	10	24.26	Back	15	0	1	49	1:1	0.217	30.9	30.9
707.5	23095	LTE Band 12	Mid	10	24.26	Front	15	0	1	49	1:1	0.215	30.9	
782	23230	LTE Band 13	Mid	10	24.26	Back	15	0	1	0	1:1	0.287	29.7	29.7
782	23230	LTE Band 13	Mid	10	24.26	Front	15	0	1	0	1:1	0.271	29.9	
793	23330	LTE Band 14	Mid	10	24.07	Back	15	0	1	0	1:1	0.258	30.0	30.0
793	23330	LTE Band 14	Mid	10	24.07	Front	15	0	1	0	1:1	0.243	30.2	
831.5	26865	LTE Band 26	Mid	15	24.06	Back	15	0	1	0	1:1	0.260	29.9	29.9
831.5	26865	LTE Band 26	Mid	15	24.06	Front	15	0	1	0	1:1	0.227	30.5	
1 770	132572	LTE Band 66	High	20	24.37	Back	15	0	1	0	1:1	0.217	31.0	30.8
1 770	132572	LTE Band 66	High	20	24.37	Front	15	0	1	0	1:1	0.221	30.8	
1 905	26590	LTE Band 25	High	20	24.26	Back	15	0	1	0	1:1	0.255	30.2	29.4
1 905	26590	LTE Band 25	High	20	24.26	Front	15	0	1	0	1:1	0.306	29.4	
2 310	27710	LTE Band 30	Mid	10	24.02	Back	15	0	1	0	1:1	0.152	32.2	30.4
2 310	27710	LTE Band 30	Mid	10	24.02	Front	15	0	1	0	1:1	0.231	30.4	
2 310	38750	LTE Band 40(Lower)	Mid	10	11.90	Back	15	0	1	24	1:1.58	0.00275	35.1	33.9
2 310	38750	LTE Band 40(Lower)	Mid	10	11.90	Front	15	0	1	24	1:1.58	0.00391	33.9	
2355	39200	LTE Band 40(Upper)	Mid	10	11.71	Back	15	0	1	24	1:1.58	0.0000469	39.7	35.0
2355	39200	LTE Band 40(Upper)	Mid	10	11.71	Front	15	0	1	24	1:1.58	0.00251	35.0	
2 560	21350	LTE Band 7	High	20	23.97	Back	15	0	1	49	1:1	0.146	32.3	30.2
2 560	21350	LTE Band 7	High	20	23.97	Front	15	0	1	49	1:1	0.239	30.2	
3 690	56640	LTE Band 48	High	20	21.81	Back	15	0	1	49	1:1.58	0.061	32.0	32.0
3 690	56640	LTE Band 48	High	20	21.81	Front	15	0	1	49	1:1.58	0.041	33.7	
2 593.0	40620	LTE Band 41(PC3)	Mid	20	23.89	Back	15	0	1	49	1:1.58	0.096	32.1	29.6
2 593.0	40620	LTE Band 41(PC3)	Mid	20	23.89	Front	15	0	1	49	1:1.58	0.169	29.6	
2 593.0	40620	LTE Band 41(PC2)	Mid	20	26.28	Back	15	0	1	49	1:2.31	0.113	32.1	29.4
2 593.0	40620	LTE Band 41(PC2)	Mid	20	26.28	Front	15	0	1	49	1:2.31	0.213	29.4	

Table A-6 DSI = 0,3 *PLimit* Calculations - NR Body-Worn SAR

For some bands/modes, a lower P_{Limit} 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		Band width	Conducted Power	Test Configurations		MPR	Spacing (mm)	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
MHz	Ch.			MHz	(dBm)			(dB)					(W/kg)	(dBm)	(dBm)
680.5	136100	NR Band n71	Mid	20	22.77	Back	DFT-s-OFDM QPSK	0	15	1	53	1:1	0.233	29.0	29.0
680.5	136100	NR Band n71	Mid	20	22.77	Front	DFT-s-OFDM QPSK	0	15	1	53	1:1	0.200	29.8	
707.5	141500	NR Band n12	Mid	15	24.54	Back	DFT-s-OFDM QPSK	0	15	1	40	1:1	0.238	30.1	30.1
707.5	141500	NR Band n12	Mid	15	24.54	Front	DFT-s-OFDM QPSK	0	15	1	40	1:1	0.213	30.4	
836.5	167300	NR Band n5	Mid	20	22.97	Back	DFT-s-OFDM QPSK	0	15	1	1	1:1	0.250	29.0	28.9
836.5	167300	NR Band n5	Mid	20	22.97	Front	DFT-s-OFDM QPSK	0	15	1	1	1:1	0.256	28.9	
1 745	349000	NR Band n66	Mid	40	24.94	Back	DFT-s-OFDM QPSK	0	15	1	108	1:1	0.218	31.6	31.6
1 745	349000	NR Band n66	Mid	40	24.94	Front	DFT-s-OFDM QPSK	0	15	1	108	1:1	0.190	32.2	
1 882.5	376500	NR Band n25	Mid	40	23.01	Back	DFT-s-OFDM QPSK	0	15	1	108	1:1	0.301	28.2	28.2
1 882.5	376500	NR Band n25	Mid	40	23.01	Front	DFT-s-OFDM QPSK	0	15	1	108	1:1	0.291	28.4	
2 592.99	518598	NR Band n41 (PC3) SUB2	Mid	100	18.27	Back	DFT-s-OFDM QPSK	0	15	1	137	1:1	0.188	25.5	25.5
2 592.99	518598	NR Band n41 (PC3) SUB2	Mid	100	18.27	Front	DFT-s-OFDM QPSK	0	15	1	137	1:1	0.070	29.8	
2 592.99	518598	NR Band n41 (PC2) SUB2	Mid	100	19.02	Back	DFT-s-OFDM QPSK	0	15	135	69	1:1	0.233	25.3	25.3
2 592.99	518598	NR Band n41 (PC2) SUB2	Mid	100	19.02	Front	DFT-s-OFDM QPSK	0	15	135	69	1:1	0.103	28.9	
2 592.99	518598	NR Band n41 (PC3) MIN 2	Mid	100	17.54	Back	DFT-s-OFDM QPSK	0	15	135	69	1:1	0.042	31.3	28.3
2 592.99	518598	NR Band n41 (PC3) MIN 2	Mid	100	17.54	Front	DFT-s-OFDM QPSK	0	15	135	69	1:1	0.084	28.3	
2 592.99	518598	NR Band n41 (PC2) MIN 2	Mid	100	20.52	Back	DFT-s-OFDM QPSK	0	15	135	69	1:1	0.128	29.4	29.5
2 592.99	518598	NR Band n41 (PC2) MIN 2	Mid	100	20.52	Front	DFT-s-OFDM QPSK	0	15	135	69	1:1	0.201	27.5	
3 750	650000	NR Band n77	Low	100	18.35	Back	DFT-s-OFDM QPSK	0	15	1	1	1:1	0.065	30.2	30.2
3 750	650000	NR Band n77	Low	100	18.35	Front	DFT-s-OFDM QPSK	0	15	1	137	1:1	0.057	30.8	

Table A-7 DSI = 2 *PLimit* Calculations - – 2G/3G Hotspot SAR

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

MEASUREMENT RESULTS										
Frequency		Mode/ Band		Conducted Power	Test Position	Spacing (mm)	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
MHz	Ch.			(dBm)				(W/kg)	(dBm)	(dBm)
820	560	EVDO Rev.0	CDMA BC10	24.93	Rear	10	1:1	0.359	29.4	29.4
820	560	EVDO Rev.0	CDMA BC10	24.93	Front	10	1:1	0.335	29.7	
820	560	EVDO Rev.0	CDMA BC10	24.93	Bottom	10	1:1	0.064	36.9	
820	560	EVDO Rev.0	CDMA BC10	24.93	Right	10	1:1	0.298	30.2	
836.52	384	EVDO Rev.0	CDMA BC 0	24.77	Rear	10	1:1	0.350	29.3	29.3
836.52	384	EVDO Rev.0	CDMA BC 0	24.77	Front	10	1:1	0.329	29.6	
836.52	384	EVDO Rev.0	CDMA BC 0	24.77	Bottom	10	1:1	0.095	35.0	
836.52	384	EVDO Rev.0	CDMA BC 0	24.77	Right	10	1:1	0.326	29.6	
1880.0	600	EVDO Rev.0	PCS CDMA	22.43	Rear	10	1:1	0.420	26.2	25.9
1880.0	600	EVDO Rev.0	PCS CDMA	22.43	Front	10	1:1	0.445	25.9	
1880.0	600	EVDO Rev.0	PCS CDMA	22.43	Bottom	10	1:1	0.319	27.4	
1880.0	600	EVDO Rev.0	PCS CDMA	22.43	Left	10	1:1	0.308	27.5	

MEASUREMENT RESULTS										
Frequency		Mode/ Band		Conducted Power	Test Position	Spacing (mm)	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
MHz	Ch.			(dBm)				(W/kg)	(dBm)	(dBm)
836.6	190	GSM 850	GPRS2Tx	31.13	Rear	10	1:4.15	0.300	30.3	30.3
836.6	190	GSM 850	GPRS2Tx	31.13	Front	10	1:4.15	0.305	30.3	
836.6	190	GSM 850	GPRS2Tx	31.13	Bottom	10	1:4.15	0.066	36.9	
836.6	190	GSM 850	GPRS2Tx	31.13	Right	10	1:4.15	0.211	31.9	
1 880.0	661	GSM 1900	GPRS2Tx	26.45	Rear	10	1:4.15	0.249	29.5	29.5
1 880.0	661	GSM 1900	GPRS2Tx	26.45	Front	10	1:4.15	0.220	30.0	
1 880.0	661	GSM 1900	GPRS2Tx	26.45	Bottom	10	1:4.15	0.237	29.7	
1 880.0	661	GSM 1900	GPRS2Tx	26.45	Left	10	1:4.15	0.164	31.3	
836.6	4183	UMTS 850	RMC	23.71	Rear	10	1:1	0.263	29.5	29.5
836.6	4183	UMTS 850	RMC	23.71	Front	10	1:1	0.261	29.5	
836.6	4183	UMTS 850	RMC	23.71	Bottom	10	1:1	0.074	35.0	
836.6	4183	UMTS 850	RMC	23.71	Right	10	1:1	0.193	30.9	
1 732.4	1412	UMTS 1700	RMC	22.53	Rear	10	1:1	0.248	28.6	28.2
1 732.4	1412	UMTS 1700	RMC	22.53	Front	10	1:1	0.200	29.5	
1 732.4	1412	UMTS 1700	RMC	22.53	Bottom	10	1:1	0.272	28.2	
1 732.4	1412	UMTS 1700	RMC	22.53	Left	10	1:1	0.200	29.5	
1 880	9400	UMTS 1900	RMC	22.52	Rear	10	1:1	0.291	27.9	27.7
1 880	9400	UMTS 1900	RMC	22.52	Front	10	1:1	0.189	29.8	
1 880	9400	UMTS 1900	RMC	22.52	Bottom	10	1:1	0.302	27.7	
1 880	9400	UMTS 1900	RMC	22.52	Left	10	1:1	0.180	30.0	

Table A-8 DSI = 2 *PLimit* Calculations - – 4G Hotspot SAR

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

MEASUREMENT RESULTS														
Frequency		Mode		Band width	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)
680.5	133297	LTE Band 71	Mid	20	24.09	Back	10	0	1	49	1:1	0.347	28.7	28.7
680.5	133297	LTE Band 71	Mid	20	24.09	Front	10	0	1	49	1:1	0.281	29.6	
680.5	133297	LTE Band 71	Mid	20	24.09	Bottom	10	0	1	49	1:1	0.046	37.5	
680.5	133297	LTE Band 71	Mid	20	24.09	Right	10	0	1	49	1:1	0.287	29.5	
707.5	23095	LTE Band 12	Mid	10	24.26	Back	10	0	1	49	1:1	0.250	30.3	30.3
707.5	23095	LTE Band 12	Mid	10	24.26	Front	10	0	1	49	1:1	0.221	30.8	
707.5	23095	LTE Band 12	Mid	10	24.26	Bottom	10	0	1	49	1:1	0.043	37.7	
707.5	23095	LTE Band 12	Mid	10	24.26	Right	10	0	1	49	1:1	0.199	31.3	
782	23230	LTE Band 13	Mid	10	24.26	Back	10	0	1	0	1:1	0.277	29.8	29.4
782	23230	LTE Band 13	Mid	10	24.26	Front	10	0	1	0	1:1	0.237	30.5	
782	23230	LTE Band 13	Mid	10	24.26	Bottom	10	0	1	0	1:1	0.092	34.6	
782	23230	LTE Band 13	Mid	10	24.26	Right	10	0	1	0	1:1	0.309	29.4	
793	23330	LTE Band 14	Mid	10	24.07	Back	10	0	1	0	1:1	0.250	30.1	29.5
793	23330	LTE Band 14	Mid	10	24.07	Front	10	0	1	0	1:1	0.216	30.7	
793	23330	LTE Band 14	Mid	10	24.07	Bottom	10	0	1	0	1:1	0.093	34.4	
793	23330	LTE Band 14	Mid	10	24.07	Right	10	0	1	0	1:1	0.285	29.5	
831.5	26865	LTE Band 26	Mid	15	24.06	Back	10	0	1	0	1:1	0.270	29.7	29.7
831.5	26865	LTE Band 26	Mid	15	24.06	Front	10	0	1	0	1:1	0.239	30.3	
831.5	26865	LTE Band 26	Mid	15	24.06	Bottom	10	0	1	0	1:1	0.060	36.3	
831.5	26865	LTE Band 26	Mid	15	24.06	Right	10	0	1	0	1:1	0.245	30.2	
1 770	132572	LTE Band 66	High	20	22.10	Back	10	0	1	0	1:1	0.383	26.3	26.3
1 770	132572	LTE Band 66	High	20	22.10	Front	10	0	1	0	1:1	0.365	26.5	
1 770	132572	LTE Band 66	High	20	22.10	Bottom	10	0	1	0	1:1	0.356	26.6	
1 770	132572	LTE Band 66	High	20	22.10	Left	10	0	1	0	1:1	0.195	29.2	
2 560	21350	LTE Band 7	High	20	22.31	Back	10	0	1	49	1:1	0.251	28.3	27.7
2 560	21350	LTE Band 7	High	20	22.31	Front	10	0	1	49	1:1	0.266	28.1	
2 560	21350	LTE Band 7	High	20	22.31	Bottom	10	0	1	49	1:1	0.291	27.7	
2 560	21350	LTE Band 7	High	20	22.31	Left	10	0	1	49	1:1	0.280	27.8	

MEASUREMENT RESULTS														
Frequency		Mode		Band width	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)
1 860	26140	LTE Band 25	Low	20	21.97	Back	10	0	1	99	1:1	0.356	26.5	26.2
1 860	26140	LTE Band 25	Low	20	21.97	Front	10	0	1	99	1:1	0.380	26.2	
1 860	26140	LTE Band 25	Low	20	21.97	Bottom	10	0	1	99	1:1	0.326	26.8	
1 860	26140	LTE Band 25	Low	20	21.97	Left	10	0	1	99	1:1	0.210	28.7	
2 310	27710	LTE Band 30	Mid	10	22.10	Back	10	0	1	0	1:1	0.239	28.3	27.6
2 310	27710	LTE Band 30	Mid	10	22.10	Front	10	0	1	0	1:1	0.261	27.9	
2 310	27710	LTE Band 30	Mid	10	22.10	Bottom	10	0	1	0	1:1	0.284	27.6	
2 310	27710	LTE Band 30	Mid	10	22.10	Left	10	0	1	0	1:1	0.225	28.6	
2 310	38750	LTE Band 40(Lower)	Mid	10	11.90	Back	10	0	1	0	1:1.58	0.012	29.1	28.2
2 310	38750	LTE Band 40(Lower)	Mid	10	11.90	Front	10	0	1	0	1:1.58	0.015	28.2	
2 310	38750	LTE Band 40(Lower)	Mid	10	11.90	Top	10	0	1	0	1:1.58	0.00648	32.1	
2 310	38750	LTE Band 40(Lower)	Mid	10	11.90	Left	10	0	1	0	1:1.58	0.0055	32.1	
2355	39200	LTE Band 40(Upper)	Mid	10	11.71	Back	10	0	1	0	1:1.58	0.012	28.9	28.9
2355	39200	LTE Band 40(Upper)	Mid	10	11.71	Front	10	0	1	0	1:1.58	0.00301	35.0	
2355	39200	LTE Band 40(Upper)	Mid	10	11.71	Bottom	10	0	1	0	1:1.58	0.00833	30.7	
2355	39200	LTE Band 40(Upper)	Mid	10	11.71	Left	10	0	1	0	1:1.58	0.00486	32.7	
2 593.0	40620	LTE Band 41(PC3)	Mid	20	23.89	Back	10	0	1	49	1:1.58	0.214	28.6	27.8
2 593.0	40620	LTE Band 41(PC3)	Mid	20	23.89	Front	10	0	1	49	1:1.58	0.230	28.3	
2 593.0	40620	LTE Band 41(PC3)	Mid	20	23.89	Bottom	10	0	1	49	1:1.58	0.258	27.8	
2 593.0	40620	LTE Band 41(PC3)	Mid	20	23.89	Left	10	0	1	49	1:1.58	0.216	28.6	
2 593.0	40620	LTE Band 41(PC2)	Mid	20	26.28	Back	10	0	1	49	1:2.31	0.223	29.2	28.0
2 593.0	40620	LTE Band 41(PC2)	Mid	20	26.28	Front	10	0	1	49	1:2.31	0.203	29.6	
2 593.0	40620	LTE Band 41(PC2)	Mid	20	26.28	Bottom	10	0	1	49	1:2.31	0.291	28.0	
2 593.0	40620	LTE Band 41(PC2)	Mid	20	26.28	Left	10	0	1	49	1:2.31	0.200	29.6	
3 690	56640	LTE Band 48	High	20	21.81	Back	10	0	1	49	1:1.58	0.167	27.6	25.6
3 690	56640	LTE Band 48	High	20	21.81	Front	10	0	1	49	1:1.58	0.097	30.0	
3 690	56640	LTE Band 48	High	20	21.81	Top	10	0	1	49	1:1.58	0.085	30.5	
3 690	56640	LTE Band 48	High	20	21.81	Left	10	0	1	49	1:1.58	0.267	25.6	

Table A-9 DSI = 2 *PLimit* Calculations - – NR Hotspot SAR

For some bands/modes, a lower P_{Limit} 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		Band width	Conducted Power	Test Position		MPR	Spacing (mm)	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
MHz	Ch.			MHz	(dBm)			(dB)					(W/kg)	(dBm)	(dBm)
680.5	136100	NR Band n71	Mid	20	22.77	Back	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.258	28.7	28.7
680.5	136100	NR Band n71	Mid	20	22.77	Front	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.212	29.5	
680.5	136100	NR Band n71	Mid	20	22.77	Bottom	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.047	36.0	
680.5	136100	NR Band n71	Mid	20	22.77	Right	DFT-s-OFDM QPSK	0	10	1	53	1:1	0.209	29.6	
836.5	167300	NR Band n5	Mid	20	22.97	Back	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.272	28.6	28.6
836.5	167300	NR Band n5	Mid	20	22.97	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.242	29.1	
836.5	167300	NR Band n5	Mid	20	22.97	Bottom	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.055	35.6	
836.5	167300	NR Band n5	Mid	20	22.97	Right	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.256	28.9	
1 745	349000	NR Band n66	Mid	20	23.41	Back	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.474	26.7	26.7
1 745	349000	NR Band n66	Mid	20	23.41	Front	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.447	26.9	
1 745	349000	NR Band n66	Mid	20	23.41	Bottom	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.419	27.2	
1 745	349000	NR Band n66	Mid	20	23.41	Left	DFT-s-OFDM QPSK	0	10	1	108	1:1	0.379	27.6	
1 882.5	376500	NR Band n25	Mid	40	23.05	Back	DFT-s-OFDM QPSK	0	10	1	214	1:1	0.466	26.4	25.9
1 882.5	376500	NR Band n25	Mid	40	23.05	Front	DFT-s-OFDM QPSK	0	10	1	214	1:1	0.459	26.4	
1 882.5	376500	NR Band n25	Mid	40	23.05	Bottom	DFT-s-OFDM QPSK	0	10	1	214	1:1	0.518	25.9	
1 882.5	376500	NR Band n25	Mid	40	23.05	Left	DFT-s-OFDM QPSK	0	10	1	214	1:1	0.335	27.8	
2 592.99	518598	NR Band n41 (PC3) SUB2	Mid	100	18.27	Back	DFT-s-OFDM QPSK	0	10	1	137	1:1	0.453	21.7	21.7
2 592.99	518598	NR Band n41 (PC3) SUB2	Mid	100	18.27	Front	DFT-s-OFDM QPSK	0	10	1	137	1:1	0.186	25.6	
2 592.99	518598	NR Band n41 (PC3) SUB2	Mid	100	18.27	Bottom	DFT-s-OFDM QPSK	0	10	1	137	1:1	0.318	23.2	
2 592.99	518598	NR Band n41 (PC3) SUB2	Mid	100	18.27	Left	DFT-s-OFDM QPSK	0	10	1	137	1:1	0.057	30.7	
2 592.99	518598	NR Band n41 (PC2) SUB2	Mid	100	19.08	Back	DFT-s-OFDM QPSK	0	10	1	137	1:1	0.585	21.4	21.4
2 592.99	518598	NR Band n41 (PC2) SUB2	Mid	100	19.08	Front	DFT-s-OFDM QPSK	0	10	1	137	1:1	0.175	26.6	
2 592.99	518598	NR Band n41 (PC2) SUB2	Mid	100	19.08	Bottom	DFT-s-OFDM QPSK	0	10	1	137	1:1	0.088	29.6	
2 592.99	518598	NR Band n41 (PC2) SUB2	Mid	100	19.08	Left	DFT-s-OFDM QPSK	0	10	1	137	1:1	0.399	23.1	
2 592.99	518598	NR Band n41 (PC3) MIN 2	Mid	100	17.69	Back	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.093	28.0	25.6
2 592.99	518598	NR Band n41 (PC3) MIN 2	Mid	100	17.69	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.161	25.6	
2 592.99	518598	NR Band n41 (PC3) MIN 2	Mid	100	17.69	Bottom	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.105	27.5	
2 592.99	518598	NR Band n41 (PC3) MIN 2	Mid	100	17.69	Left	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.120	26.9	
2 592.99	518598	NR Band n41 (PC2) MIN 2	Mid	100	20.81	Back	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.266	26.6	25.2
2 592.99	518598	NR Band n41 (PC2) MIN 2	Mid	100	20.81	Front	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.363	25.2	
2 592.99	518598	NR Band n41 (PC2) MIN 2	Mid	100	20.81	Bottom	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.263	26.6	
2 592.99	518598	NR Band n41 (PC2) MIN 2	Mid	100	20.81	Left	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.367	25.2	
707.5	141500	NR Band n12	Mid	15	24.54	Back	DFT-s-OFDM QPSK	0	10	1	40	1:1	0.256	29.8	29.8
707.5	141500	NR Band n12	Mid	15	24.54	Front	DFT-s-OFDM QPSK	0	10	1	40	1:1	0.206	30.6	
707.5	141500	NR Band n12	Mid	15	24.54	Bottom	DFT-s-OFDM QPSK	0	10	1	40	1:1	0.057	37.0	
707.5	141500	NR Band n12	Mid	15	24.54	Right	DFT-s-OFDM QPSK	0	10	1	40	1:1	0.228	30.5	

MEASUREMENT RESULTS															
Frequency		Mode		Band width	Conducted Power	Test Position		MPR	Spacing (mm)	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
MHz	Ch.			MHz	(dBm)			(dB)					(W/kg)	(dBm)	(dBm)
3 750	650000	NR Band n77	Low	100	18.35	Back	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.158	26.4	24.1
3 750	650000	NR Band n77	Low	100	18.35	Front	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.163	26.2	
3 750	650000	NR Band n77	Low	100	18.35	Top	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.140	26.9	
3 750	650000	NR Band n77	Low	100	18.35	Left	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.267	24.1	

Table A-10 DSI = 0 *PLimit* Calculations - – 2G/3G Phablet SAR (Grip Sensor is off)
For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

MEASUREMENT RESULTS										
Frequency		Mode/ Band		Conducted Power	Test Position	Spacing (mm)	Duty Cycle	Meas. SAR(10g)	Plimit	Minimum Plimit
MHz	Ch.			(dBm)				(W/kg)	(dBm)	(dBm)
1880.0	661	GSM 1900	GPRS 2Tx	28.39	Back	9	1:4.15	0.223	32.9	27.2
1880.0	661	GSM 1900	GPRS 2Tx	28.39	Front	5	1:4.15	0.272	32.0	
1880.0	661	GSM 1900	GPRS 2Tx	28.39	Bottom	11	1:4.15	0.765	27.5	
1880.0	661	GSM 1900	GPRS 2Tx	28.39	Left	0	1:4.15	0.822	27.2	
1 732.4	1412	UMTS 1700	RMC	24.00	Back	9	1:1	0.318	33.0	25.7
1 732.4	1412	UMTS 1700	RMC	24.00	Front	5	1:1	0.400	32.0	
1 732.4	1412	UMTS 1700	RMC	24.00	Bottom	11	1:1	1.440	26.4	
1 732.4	1412	UMTS 1700	RMC	24.00	Left	0	1:1	1.210	25.7	
1 880.0	9400	UMTS 1900	RMC	23.98	Back	9	1:1	0.356	32.4	25.0
1 880.0	9400	UMTS 1900	RMC	23.98	Front	5	1:1	0.450	31.4	
1 880.0	9400	UMTS 1900	RMC	23.98	Bottom	11	1:1	1.290	26.9	
1 880.0	9400	UMTS 1900	RMC	23.98	Left	0	1:1	1.340	25.0	
1880.0	600	EVDO Rev.0	PCS CDMA	23.42	Back	9	1:1	0.240	33.6	29.2
1880.0	600	EVDO Rev.0	PCS CDMA	23.42	Front	5	1:1	0.172	35.0	
1880.0	600	EVDO Rev.0	PCS CDMA	23.42	Bottom	11	1:1	0.417	31.2	
1880.0	600	EVDO Rev.0	PCS CDMA	23.42	Left	0	1:1	0.189	33.5	

Table A-11 DSI = 0 *PLimit* Calculations - – 4G Phablet SAR(Grip Sensor is off)
For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

MEASUREMENT RESULTS														
Frequency		Mode		Band width	Conducted Power	Test Position	Spacing (mm)	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR(10g)	Plimit	Minimum Plimit
MHz	Ch.			MHz	(dBm)			(dB)				(W/kg)	(dBm)	(dBm)
1 770	132572	LTE Band 66	High	20	24.37	Back	9	0	1	0	1:1	0.357	32.8	24.8
1 770	132572	LTE Band 66	High	20	24.37	Front	5	0	1	0	1:1	0.438	31.9	
1 770	132572	LTE Band 66	High	20	24.37	Bottom	11	0	1	0	1:1	1.610	26.3	
1 770	132572	LTE Band 66	High	20	24.37	Left	0	0	1	0	1:1	1.320	24.8	
2 310	27710	LTE Band 30	Mid	10	24.02	Back	9	0	1	0	1:1	0.218	34.6	28.0
2 310	27710	LTE Band 30	Mid	10	24.02	Front	5	0	1	0	1:1	0.323	32.9	
2 310	27710	LTE Band 30	Mid	10	24.02	Bottom	11	0	1	0	1:1	0.098	38.1	
2 310	27710	LTE Band 30	Mid	10	24.02	Right	0	0	1	0	1:1	0.999	28.0	
2 560	21350	LTE Band 7	High	20	23.97	Back	9	0	1	49	1:1	0.187	35.2	26.2
2 560	21350	LTE Band 7	High	20	23.97	Front	5	0	1	49	1:1	0.334	32.7	
2 560	21350	LTE Band 7	High	20	23.97	Bottom	11	0	1	49	1:1	1.500	26.2	
2 560	21350	LTE Band 7	High	20	23.97	Right	0	0	1	49	1:1	1.380	26.6	
1 905	26590	LTE Band 25	High	20	24.26	Back	9	0	1	0	1:1	0.297	33.5	27.0
1 905	26590	LTE Band 25	High	20	24.26	Front	5	0	1	0	1:1	0.373	32.5	
1 905	26590	LTE Band 25	High	20	24.26	Bottom	11	0	1	0	1:1	1.290	27.1	
1 905	26590	LTE Band 25	High	20	24.26	Left	0	0	1	0	1:1	1.330	27.0	

Table A-11 DSI = 0 *PLimit* Calculations - – NR Phablet SAR (Grip Sensor is off)

For some bands/modes, a lower P_{Limit} 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		Band width	Conducted Power	Test Position		MPR	Spacing (mm)	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
MHz	Ch.			MHz	(dBm)			(dB)					(W/kg)	(dBm)	(dBm)
1 745	349000	NR Band n66	Mid	40	24.94	Back	DFT-s-OFDM QPSK	0	9	1	108	1:1	0.318	33.9	27.6
1 745	349000	NR Band n66	Mid	40	24.94	Front	DFT-s-OFDM QPSK	0	5	1	108	1:1	0.578	31.3	
1 745	349000	NR Band n66	Mid	40	24.94	Bottom	DFT-s-OFDM QPSK	0	11	1	108	1:1	0.297	34.2	
1 745	349000	NR Band n66	Mid	40	24.94	Left	DFT-s-OFDM QPSK	0	0	1	108	1:1	1.350	27.6	
1 882.5	26365	NR Band n25	Mid	40	24.04	Back	DFT-s-OFDM QPSK	0	9	1	1	1:1	0.490	31.1	26.3
1 882.5	26365	NR Band n25	Mid	40	24.04	Front	DFT-s-OFDM QPSK	0	5	1	1	1:1	0.636	30.0	
1 882.5	26365	NR Band n25	Mid	40	24.04	Bottom	DFT-s-OFDM QPSK	0	11	1	1	1:1	0.331	32.8	
1 882.5	26365	NR Band n25	Mid	40	24.04	Left	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.480	26.3	

Table A-11 DSI = *4 (except GSM Mode)*P_{Limit} Calculations - 2G/3G Phablet SAR
(Grip Sensor is on)
For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.
Please see the table below for the earjack inserted mode of GSM Bands

MEASUREMENT RESULTS										
Frequency		Mode		Conducted Power	Test Position	Distance	Duty Cycle	Meas. SAR(10g)	Plimit	Minimum Plimit
MHz	Ch.			(dBm)		(mm)		(W/kg)	(dBm)	(dBm)
820	560	EVDO Rev.0	CDMA BC10	24.93	Rear	0	1:1	1.470	27.2	27.2
820	560	EVDO Rev.0	CDMA BC10	24.93	Front	0	1:1	0.860	29.6	
820	560	EVDO Rev.0	CDMA BC10	24.93	Bottom	0	1:1	0.396	32.9	
820	560	EVDO Rev.0	CDMA BC10	24.93	Right	0	1:1	0.524	31.7	
384	836.52	EVDO Rev.0	CDMA BC0	24.68	Rear	0	1:1	1.800	26.1	26.1
384	836.52	EVDO Rev.0	CDMA BC0	24.68	Front	0	1:1	0.877	29.2	
384	836.52	EVDO Rev.0	CDMA BC0	24.68	Bottom	0	1:1	0.481	31.8	
384	836.52	EVDO Rev.0	CDMA BC0	24.68	Right	0	1:1	0.704	30.2	
1880.0	600	EVDO Rev.0	PCS CDMA	22.44	Rear	0	1:1	1.510	24.6	24.6
1880.0	600	EVDO Rev.0	PCS CDMA	22.44	Front	0	1:1	0.875	27.0	
1880.0	600	EVDO Rev.0	PCS CDMA	22.44	Bottom	0	1:1	0.405	30.3	
1880.0	600	EVDO Rev.0	PCS CDMA	22.44	Left	0	1:1	0.532	29.2	
836.6	190	GPRS 2TX	GSM	31.13	Back	0	1:4.15	1.450	27.5	27.5
836.6	190	GPRS 2TX	GSM	31.13	Front	0	1:4.15	0.945	29.3	
836.6	190	GPRS 2TX	GSM	31.13	Bottom	0	1:4.15	0.443	32.6	
836.6	190	GPRS 2TX	GSM	31.13	Right	0	1:4.15	0.672	30.8	
1880.0	661	GPRS 2TX	GSM	26.47	Back	0	1:4.15	1.080	24.1	24.1
1880.0	661	GPRS 2TX	GSM	26.47	Front	0	1:4.15	0.913	24.8	
1880.0	661	GPRS 2TX	GSM	26.47	Bottom	0	1:4.15	0.765	25.6	
1880.0	661	GPRS 2TX	GSM	26.47	Left	0	1:4.15	0.788	25.5	
836.6	4183	UMTS 850	RMC	23.71	Back	0	1:1	0.682	29.4	29.3
836.6	4183	UMTS 850	RMC	23.71	Front	0	1:1	0.690	29.3	
836.6	4183	UMTS 850	RMC	23.71	Bottom	0	1:1	0.332	32.5	
836.6	4183	UMTS 850	RMC	23.71	Right	0	1:1	0.500	30.7	
1 732.4	1412	UMTS 1700	RMC	22.56	Back	0	1:1	1.370	25.2	25.2
1 732.4	1412	UMTS 1700	RMC	22.56	Front	0	1:1	1.190	25.8	
1 732.4	1412	UMTS 1700	RMC	22.56	Bottom	0	1:1	1.140	26.0	
1 732.4	1412	UMTS 1700	RMC	22.56	Left	0	1:1	1.200	25.7	
1880.0	9400	UMTS 1900	RMC	22.55	Back	0	1:1	1.270	25.5	25.0
1880.0	9400	UMTS 1900	RMC	22.55	Front	0	1:1	1.180	25.8	
1880.0	9400	UMTS 1900	RMC	22.55	Bottom	0	1:1	0.902	27.0	
1880.0	9400	UMTS 1900	RMC	22.55	Left	0	1:1	1.420	25.0	

Table A-13 DSI = 4 *PLimit* Calculations - – 4G Phablet SAR(Grip Sensor is on,)
For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

MEASUREMENT RESULTS														
Frequency		Mode		Band width	Conducted Power	Test Position	Spacing (mm)	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR(10g)	Plimit	Minimum Plimit
MHz	Ch.			MHz	(dBm)			(dB)				(W/kg)	(dBm)	(dBm)
680.5	133297	LTE Band 71	Mid	20	24.09	Back	0	0	1	49	1:1	0.849	28.8	28.8
680.5	133297	LTE Band 71	Mid	20	24.09	Front	0	0	1	49	1:1	0.460	31.4	
680.5	133297	LTE Band 71	Mid	20	24.09	Bottom	0	0	1	49	1:1	0.207	24.9	
680.5	133297	LTE Band 71	Mid	20	24.09	Right	0	0	1	49	1:1	0.423	31.8	
707.5	23095	LTE Band 12	Mid	10	24.26	Back	0	0	1	49	1:1	0.813	29.1	29.1
707.5	23095	LTE Band 12	Mid	10	24.26	Front	0	0	1	49	1:1	0.461	31.6	
707.5	23095	LTE Band 12	Mid	10	24.26	Bottom	0	0	1	49	1:1	0.195	35.3	
707.5	23095	LTE Band 12	Mid	10	24.26	Right	0	0	1	49	1:1	0.364	32.6	
782	23230	LTE Band 13	Mid	10	24.26	Back	0	0	1	0	1:1	0.711	29.7	29.7
782	23230	LTE Band 13	Mid	10	24.26	Front	0	0	1	0	1:1	0.372	32.5	
782	23230	LTE Band 13	Mid	10	24.26	Bottom	0	0	1	0	1:1	0.346	32.8	
782	23230	LTE Band 13	Mid	10	24.26	Right	0	0	1	0	1:1	0.349	32.8	
793	23330	LTE Band 14	Mid	10	24.07	Back	0	0	1	0	1:1	0.631	30.0	30
793	23330	LTE Band 14	Mid	10	24.07	Front	0	0	1	0	1:1	0.367	32.4	
793	23330	LTE Band 14	Mid	10	24.07	Bottom	0	0	1	0	1:1	0.359	32.5	
793	23330	LTE Band 14	Mid	10	24.07	Right	0	0	1	0	1:1	0.311	33.1	
831.5	26865	LTE Band 26	Mid	15	24.06	Back	0	0	1	0	1:1	1.060	27.8	27.8
831.5	26865	LTE Band 26	Mid	15	24.06	Front	0	0	1	0	1:1	0.607	30.2	
831.5	26865	LTE Band 26	Mid	15	24.06	Bottom	0	0	1	0	1:1	0.294	33.4	
831.5	26865	LTE Band 26	Mid	15	24.06	Right	0	0	1	0	1:1	0.464	31.4	
1 770.0	132572	LTE Band 66	High	20	22.01	Back	0	0	1	0	1:1	1.290	24.9	23.7
1 770.0	132572	LTE Band 66	High	20	22.01	Front	0	0	1	0	1:1	1.150	25.4	
1 770.0	132572	LTE Band 66	High	20	22.01	Bottom	0	0	1	0	1:1	1.690	23.7	
1 770.0	132572	LTE Band 66	High	20	22.01	Left	0	0	1	0	1:1	1.300	24.8	
1 860.0	26140	LTE Band 25	Low	20	21.99	Back	0	0	1	0	1:1	1.080	25.6	24.6
1 860.0	26140	LTE Band 25	Low	20	21.99	Front	0	0	1	0	1:1	0.949	26.2	
1 860.0	26140	LTE Band 25	Low	20	21.99	Bottom	0	0	1	0	1:1	1.350	24.7	
1 860.0	26140	LTE Band 25	Low	20	21.99	Left	0	0	1	0	1:1	1.370	24.6	
2 310	27710	LTE Band 30	Mid	10	22.08	Back	0	0	1	0	1:1	1.200	25.3	24.2
2 310	27710	LTE Band 30	Mid	10	22.08	Front	0	0	1	0	1:1	1.520	24.2	
2 310	27710	LTE Band 30	Mid	10	22.08	Bottom	0	0	1	0	1:1	0.971	26.2	
2 310	27710	LTE Band 30	Mid	10	22.08	Left	0	0	1	0	1:1	1.010	26.0	
2 593.0	40620	LTE Band 41(PC3)	Mid	20	23.89	Back	0	0	1	49	1:1.58	1.040	25.7	25.6
2 593.0	40620	LTE Band 41(PC3)	Mid	20	23.89	Front	0	0	1	49	1:1.58	1.060	25.6	
2 593.0	40620	LTE Band 41(PC3)	Mid	20	23.89	Bottom	0	0	1	49	1:1.58	1.030	25.8	
2 593.0	40620	LTE Band 41(PC3)	Mid	20	23.89	Left	0	0	1	49	1:1.58	0.965	26.0	
2 593.0	40620	LTE Band 41(PC2)	Mid	20	26.28	Back	0	0	1	49	1:2.31	1.250	25.7	25.7
2 593.0	40620	LTE Band 41(PC2)	Mid	20	26.28	Front	0	0	1	49	1:2.31	1.220	25.8	
2 593.0	40620	LTE Band 41(PC2)	Mid	20	26.28	Bottom	0	0	1	49	1:2.31	1.220	25.8	
2 593.0	40620	LTE Band 41(PC2)	Mid	20	26.28	Left	0	0	1	49	1:2.31	1.100	26.2	
2 560.0	21350	LTE Band 7	High	20	22.08	Back	0	0	1	99	1:1	1.200	25.3	24.7
2 560.0	21350	LTE Band 7	High	20	22.08	Front	0	0	1	99	1:1	1.280	25.0	
2 560.0	21350	LTE Band 7	High	20	22.08	Bottom	0	0	1	99	1:1	1.380	24.7	
2 560.0	21350	LTE Band 7	High	20	22.08	Left	0	0	1	99	1:1	1.320	24.9	

MEASUREMENT RESULTS														
Frequency		Mode		Band width	Conducted Power	Test Position	Spacing (mm)	MPR	RB Size	RB offset	Duty Cycle	Meas. SAR(10g)	Plimit	Minimum Plimit
MHz	Ch.			MHz	(dBm)			(dB)				(W/kg)	(dBm)	(dBm)
3690	56640	LTE Band 48	Mid	20	21.81	Back	0	0	1	49	1:1.58	0.784	24.9	22.1
3690	56640	LTE Band 48	Mid	20	21.81	Front	0	0	1	49	1:1.58	0.743	25.1	
3690	56640	LTE Band 48	Mid	20	21.81	Bottom	0	0	1	49	1:1.58	1.480	22.1	
3690	56640	LTE Band 48	Mid	20	21.81	Left	0	0	1	49	1:1.58	0.195	30.9	
2310	38750	LTE Band40(Lower)	Mid	10	11.90	Back	0	0	1	49	1:1.58	0.051	26.8	25.6
2310	38750	LTE Band40(Lower)	Mid	10	11.90	Front	0	0	1	49	1:1.58	0.068	25.6	
2310	38750	LTE Band40(Lower)	Mid	10	11.90	Bottom	0	0	1	49	1:1.58	0.031	29.0	
2310	38750	LTE Band40(Lower)	Mid	10	11.90	Left	0	0	1	49	1:1.58	0.039	28.0	
2355	39200	LTE Band40(Upper)	Mid	10	11.71	Back	0	0	1	49	1:1.58	0.046	27.1	26.2
2355	39200	LTE Band40(Upper)	Mid	10	11.71	Front	0	0	1	49	1:1.58	0.056	26.2	
2355	39200	LTE Band40(Upper)	Mid	10	11.71	Bottom	0	0	1	49	1:1.58	0.03	28.9	
2355	39200	LTE Band40(Upper)	Mid	10	11.71	Left	0	0	1	49	1:1.58	0.034	28.4	

Table A-15 DSI = 4 *PLimit* Calculations - – NR Phablet SAR(grip on)

For some bands/modes, a lower P_{Limit} 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		Band width	Conducted Power	Test Position		MPR	Spacing (mm)	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
MHz	Ch.			MHz	(dBm)			(dB)					(W/kg)	(dBm)	(dBm)
680.5	136100	NR Band n71	Mid	20	22.77	Back	DFT-s-OFDM QPSK	0	0	1	53	1:1	1.220	25.9	25.9
680.5	136100	NR Band n71	Mid	20	22.77	Front	DFT-s-OFDM QPSK	0	0	1	53	1:1	0.523	29.6	
680.5	136100	NR Band n71	Mid	20	22.77	Bottom	DFT-s-OFDM QPSK	0	0	1	53	1:1	0.492	29.8	
680.5	136100	NR Band n71	Mid	20	22.77	Right	DFT-s-OFDM QPSK	0	0	1	53	1:1	0.381	30.9	
836.5	167300	NR Band n5	Mid	20	22.97	Back	DFT-s-OFDM QPSK	0	0	1	1	1:1	1.270	25.9	25.9
836.5	167300	NR Band n5	Mid	20	22.97	Front	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.693	28.5	
836.5	167300	NR Band n5	Mid	20	22.97	Bottom	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.277	32.5	
836.5	167300	NR Band n5	Mid	20	22.97	Right	DFT-s-OFDM QPSK	0	0	1	1	1:1	0.489	30.1	
1 745	349000	NR Band n66	Mid	40	23.47	Back	DFT-s-OFDM QPSK	0	0	1	108	1:1	1.580	25.5	25.4
1 745	349000	NR Band n66	Mid	40	23.47	Front	DFT-s-OFDM QPSK	0	0	1	108	1:1	1.620	25.4	
1 745	349000	NR Band n66	Mid	40	23.47	Bottom	DFT-s-OFDM QPSK	0	0	1	108	1:1	1.210	26.6	
1 882.5	376500	NR Band n25	Mid	40	23.01	Back	DFT-s-OFDM QPSK	0	0	1	214	1:1	1.460	25.3	25.1
1 882.5	376500	NR Band n25	Mid	40	23.01	Front	DFT-s-OFDM QPSK	0	0	1	214	1:1	1.550	25.1	
1 882.5	376500	NR Band n25	Mid	40	23.01	Bottom	DFT-s-OFDM QPSK	0	0	1	214	1:1	1.240	26.1	
2 592.99	518598	NR Band n41 (PC3) SUB2	Mid	100	18.27	Back	DFT-s-OFDM QPSK	0	0	1	137	1:1	0.816	23.1	23.1
2 592.99	518598	NR Band n41 (PC3) SUB2	Mid	100	18.27	Front	DFT-s-OFDM QPSK	0	0	1	137	1:1	0.385	26.4	
2 592.99	518598	NR Band n41 (PC3) SUB2	Mid	100	18.27	Top	DFT-s-OFDM QPSK	0	0	1	137	1:1	0.794	23.3	
2 592.99	518598	NR Band n41 (PC3) SUB2	Mid	100	18.27	Left	DFT-s-OFDM QPSK	0	0	1	137	1:1	0.065	34.1	
2 592.99	518598	NR Band n41 (PC2) SUB2	Mid	100	19.08	Back	DFT-s-OFDM QPSK	0	10	1	137	1:1	0.585	22.2	22.2
2 592.99	518598	NR Band n41 (PC2) SUB2	Mid	100	19.08	Front	DFT-s-OFDM QPSK	0	10	1	137	1:1	0.175	25.1	
2 592.99	518598	NR Band n41 (PC2) SUB2	Mid	100	19.08	Bottom	DFT-s-OFDM QPSK	0	10	1	137	1:1	0.088	22.7	
2 592.99	518598	NR Band n41 (PC2) SUB2	Mid	100	19.08	Left	DFT-s-OFDM QPSK	0	10	1	137	1:1	0.399	32.5	
2 592.99	518598	NR Band n41 (PC3) MIN 2	Mid	100	17.69	Back	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.093	25.5	24.3
2 592.99	518598	NR Band n41 (PC3) MIN 2	Mid	100	17.69	Front	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.161	24.3	
2 592.99	518598	NR Band n41 (PC3) MIN 2	Mid	100	17.69	Bottom	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.105	26.1	
2 592.99	518598	NR Band n41 (PC3) MIN 2	Mid	100	17.69	Left	DFT-s-OFDM QPSK	0	10	1	1	1:1	0.120	25.8	
2 592.99	518598	NR Band n41 (PC2) MIN 2	Mid	100	20.81	Back	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.266	24.7	23.6
2 592.99	518598	NR Band n41 (PC2) MIN 2	Mid	100	20.81	Front	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.363	23.6	
2 592.99	518598	NR Band n41 (PC2) MIN 2	Mid	100	20.81	Bottom	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.263	25.2	
2 592.99	518598	NR Band n41 (PC2) MIN 2	Mid	100	20.81	Left	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.367	25.2	

MEASUREMENT RESULTS															
Frequency		Mode		Band width	Conducted Power	Test Position		MPR	Spacing (mm)	RB Size	RB offset	Duty Cycle	Meas. SAR(1g)	Plimit	Minimum Plimit
MHz	Ch.			MHz	(dBm)			(dB)					(W/kg)	(dBm)	(dBm)
707.5	141500	NR Band n12	Mid	15	24.54	Back	DFT-s-OFDM QPSK	0	10	1	40	1:1	0.297	29.8	29.8
707.5	141500	NR Band n12	Mid	15	24.54	Front	DFT-s-OFDM QPSK	0	10	1	40	1:1	0.249	30.6	
707.5	141500	NR Band n12	Mid	15	24.54	Bottom	DFT-s-OFDM QPSK	0	10	1	40	1:1	0.057	37.0	
707.5	141500	NR Band n12	Mid	15	24.54	Right	DFT-s-OFDM QPSK	0	10	1	40	1:1	0.251	30.5	
3 750	650000	NR Band n77	Low	100	18.35	Back	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.466	25.6	21.8
3 750	650000	NR Band n77	Low	100	18.35	Front	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.714	23.8	
3 750	650000	NR Band n77	Low	100	18.35	Top	DFT-s-OFDM QPSK	0	10	1	271	1:1	0.149	30.6	
3 750	650000	NR Band n77	Low	100	18.35	Left	DFT-s-OFDM QPSK	0	10	1	271	1:1	1.12	21.8	