



FCC SAR TEST REPORT

FCC ID : IHDT56XL1
Equipment : Mobile 5G MOD
Brand Name : Motorola
Applicant : Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA
Manufacturer : Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA
Standard : FCC 47 CFR Part 2 (2.1093)
ANSI/IEEE C95.1-1992
IEEE 1528-2013

The product was received on May 24, 2019 and testing was started from May 24, 2019 and completed on Jun. 06, 2019. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.



Approved by: Cona Huang / Deputy Manager

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History of this test report

Report No.	Version	Description	Issued Date
FA890514-05A	01	Initial issue of report	Jul. 09, 2019

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for Motorola Mobility LLC, Mobile 5G MOD, are as follows.

Equipment Class	Frequency Band	Highest SAR Summary			
		Head (Separation 0mm)	Body-worn (Separation 10mm)	Hotspot (Separation 10mm)	Product Specific (Separation 0mm)
		1g SAR (W/kg)			10g SAR (W/kg)
Licensed	LTE Band 2	0.20	0.59	0.59	0.13
	LTE Band 5	0.21	0.50	0.50	0.56
	LTE Band 13	0.18	0.54	0.54	0.70
	LTE Band 48	0.12	0.65	0.65	1.92
	LTE Band 4 / 66	0.15	0.44	0.44	0.24
Date of Testing:		2019/5/24 ~ 2019/6/6			

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC test. This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for Partial-Body 1g SAR, 4.0 W/kg for Product Specific 10g SAR) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications

Reviewed by: Jason Wang

Report Producer: Wan Liu

2. Guidance Applied

The Specific Absorption Rate (SAR) testing specification, method, and procedure for this device is in accordance with the following standards:

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 648474 D03 v01r04 Evaluation and Approval Considerations for Handsets with Specific Wireless Charging Battery Covers
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02
- FCC KDB 941225 D06 Hotspot Mode SAR v02r01



3. Equipment Under Test (EUT) Information

3.1 General Information

Product Feature & Specification	
Equipment Name	Mobile 5G MOD
Brand Name	Motorola
FCC ID	IHDT56XL1
Wireless Technology and Frequency Range	LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz LTE Band 48: 3552.5 MHz ~ 3697.5 MHz 5G NR n261: 27.5GHz~28.35GHz 5G NR n260: 37GHz~40GHz
Mode	LTE: QPSK, 16QAM, 64QAM 5GNR n261/n260: QPSK, 16QAM, and 64QAM for CP-OFDM
HW Version	DVT2
SW Version	PPZ29.67
EUT Stage	Identical Prototype
Remark: - Variant report to verification worst case found in Sporton SAR Test Report, report number FA890514A, FCC ID: IHDT56XL1 for Mobile 5G MOD. - The device operates only when it's attached on the specific phone IHDT56WB1. - This MOD has no capability to operate as a Wi-Fi wireless router. But Mobile Hotspot can be supported using Phone Wi-Fi wireless router when MOD is attached with the phone. - Simultaneous transmission analysis with 5GNR n261/n261 power density were assessed in separate report (Sporton report number: FA890514-05B)	

3.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05												
FCC ID	IHDT56XL1											
Equipment Name	Mobile 5G MOD											
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 48: 3552.5 MHz ~ 3697.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz											
Channel Bandwidth	LTE Band 02:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 04:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 05:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 48: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz											
uplink modulations used	QPSK / 16QAM / 64QAM											
LTE Voice / Data requirements	Data only											
LTE MPR permanently built-in by design	Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3											
	Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)				
		1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz					
	QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1				
	16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1				
	16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2				
	64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2				
	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3				
256 QAM	≥ 1						≤ 5					
LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)											
Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.											
Power reduction applied to satisfy SAR compliance	Yes, power reduction is active for LTE B2/B4/B5/B66/B48, the detail power reduction description is including in the operation description											
LTE Carrier Aggregation Combinations	DL Inter-Band and Intra-Band possible combinations and the detail power measurement please referred to Sporton SAR Test Report, report number FA890514A, FCC ID: IHDT56XL1 section 11. UL CA is NOT supported											
LTE Carrier Aggregation Additional Information	This device supports maximum of 5 carriers in the downlink Additional following LTE Release features are not supported: Relay, HetNet, Enhanced MIMO, eICI, WiFi Offloading, MDH, eMBMA, Cross-Carrier Scheduling, Enhanced SC-FDMA.											
Transmission (H, M, L) channel numbers and frequencies in each LTE band												
LTE Band 2												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900
LTE Band 4												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745

LTE Band 5												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	20407	824.7	20415	825.5	20425	826.5	20450	829				
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5				
H	20643	848.3	20635	847.5	20625	846.5	20600	844				
LTE Band 13												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)					
L	23205		779.5		23230		782					
M	23230		782									
H	23255		784.5									
LTE Band 48												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	55265	3552.5	55290	3555	55315	3557.5	55340	3560				
L M	55810	3607	55815	3607.5	55820	3608	55830	3609				
H M	56170	3643	56165	3642.5	56160	3642	56150	3641				
H	56715	3697.5	56690	3695	56665	3692.5	56640	3690				
LTE Band 66												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770

4. RF Exposure Limits

4.1 Uncontrolled Environment

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

4.2 Controlled Environment

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. The exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Limits for Occupational/Controlled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.4	8.0	20.0

Limits for General Population/Uncontrolled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.08	1.6	4.0

1. Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

5. Specific Absorption Rate (SAR)

5.1 Introduction

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

5.2 SAR Definition

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

$$SAR = \frac{d}{dt} \left(\frac{dW}{dm} \right) = \frac{d}{dt} \left(\frac{dW}{\rho dv} \right)$$

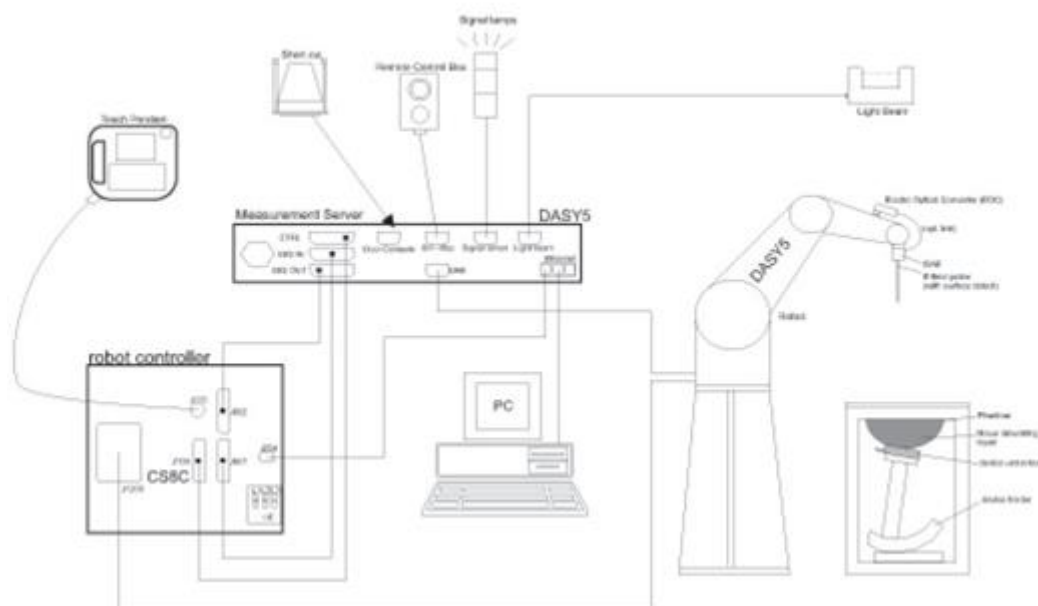
SAR is expressed in units of Watts per kilogram (W/kg)

$$SAR = \frac{\sigma |E|^2}{\rho}$$

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength.

6. System Description and Setup

The DASY system used for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

6.1 E-Field Probe

The SAR measurement is conducted with the dosimetric probe (manufactured by SPEAG). The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency. This probe has a built in optical surface detection system to prevent from collision with phantom.

<ES3DV3 Probe>

Construction	Symmetric design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz – 4 GHz; Linearity: ± 0.2 dB (30 MHz – 4 GHz)	
Directivity	± 0.2 dB in TSL (rotation around probe axis) ± 0.3 dB in TSL (rotation normal to probe axis)	
Dynamic Range	5 μ W/g – >100 mW/g; Linearity: ± 0.2 dB	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 3.9 mm (body: 12 mm) Distance from probe tip to dipole centers: 3.0 mm	

<EX3DV4 Probe>

Construction	Symmetric design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz – >6 GHz Linearity: ± 0.2 dB (30 MHz – 6 GHz)	
Directivity	± 0.3 dB in TSL (rotation around probe axis) ± 0.5 dB in TSL (rotation normal to probe axis)	
Dynamic Range	10 μ W/g – >100 mW/g Linearity: ± 0.2 dB (noise: typically <1 μ W/g)	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 2.5 mm (body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	

6.2 Data Acquisition Electronics (DAE)

The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock.

The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.



Fig 5.1 Photo of DAE

6.3 Phantom

<SAM Twin Phantom>

Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm	
Filling Volume	Approx. 25 liters	
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet	
Measurement Areas	Left Hand, Right Hand, Flat Phantom	

The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

<ELI Phantom>

Shell Thickness	2 ± 0.2 mm (sagging: <1%)	
Filling Volume	Approx. 30 liters	
Dimensions	Major ellipse axis: 600 mm Minor axis: 400 mm	

The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.

6.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

In combination with the Twin SAM V5.0/V5.0c or ELI phantoms, the Mounting Device for Hand-Held Transmitters enables rotation of the mounted transmitter device to specified spherical coordinates. At the heads, the rotation axis is at the ear opening. Transmitter devices can be easily and accurately positioned according to IEC 62209-1, IEEE 1528, FCC, or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat). And upgrade kit to Mounting Device to enable easy mounting of wider devices like big smart-phones, e-books, small tablets, etc. It holds devices with width up to 140 mm.



Mounting Device for Hand-Held Transmitters



Mounting Device Adaptor for Wide-Phones

<Mounting Device for Laptops and other Body-Worn Transmitters>

The extension is lightweight and made of POM, acrylic glass and foam. It fits easily on the upper part of the mounting device in place of the phone positioned. The extension is fully compatible with the SAM Twin and ELI phantoms.



Mounting Device for Laptops

7. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

- (a) For WWAN power measurement, use base station simulator to configure EUT WWAN transmission in conducted connection with RF cable, at maximum power in each supported wireless interface and frequency band.
- (b) Read the WWAN RF power level from the base station simulator.
- (c) For WLAN/BT power measurement, use engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power in each supported wireless interface and frequency band
- (d) Connect EUT RF port through RF cable to the power meter, and measure WLAN/BT output power

<SAR measurement>

- (a) Use base station simulator to configure EUT WWAN transmission in radiated connection, and engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power, in the highest power channel.
- (b) Place the EUT in the positions as Appendix D demonstrates.
- (c) Set scan area, grid size and other setting on the DASY software.
- (d) Measure SAR results for the highest power channel on each testing position.
- (e) Find out the largest SAR result on these testing positions of each band
- (f) Measure SAR results for other channels in worst SAR testing position if the reported SAR of highest power channel is larger than 0.8 W/kg

According to the test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

- (a) Power reference measurement
- (b) Area scan
- (c) Zoom scan
- (d) Power drift measurement

7.1 Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

- (a) Extraction of the measured data (grid and values) from the Zoom Scan
- (b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
- (c) Generation of a high-resolution mesh within the measured volume
- (d) Interpolation of all measured values from the measurement grid to the high-resolution grid
- (e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
- (f) Calculation of the averaged SAR within masses of 1g and 10g

7.2 Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

7.3 Area Scan

The area scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum found in the scanned area, within a range of the global maximum. The range (in dB0) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), if only one zoom scan follows the area scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of zoom scans has to be increased accordingly.

Area scan parameters extracted from FCC KDB 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz.

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: Δx_{Area} , Δy_{Area}	≤ 2 GHz: ≤ 15 mm $2 - 3$ GHz: ≤ 12 mm	$3 - 4$ GHz: ≤ 12 mm $4 - 6$ GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

7.4 Zoom Scan

Zoom scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 gram and 10 gram of simulated tissue. The zoom scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the zoom scan evaluates the averaged SAR for 1 gram and 10 gram and displays these values next to the job's label.

Zoom scan parameters extracted from FCC KDB 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz.

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{\text{Zoom}}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{\text{Zoom}}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{\text{Zoom}}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.				
* When zoom scan is required and the <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

7.5 Volume Scan Procedures

The volume scan is used to assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

7.6 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASy measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drifts more than 5%, the SAR will be retested.

8. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1012	Sep. 05, 2018	Sep. 04, 2019
SPEAG	835MHz System Validation Kit	D835V2	499	Sep. 06, 2018	Sep. 05, 2019
SPEAG	1750MHz System Validation Kit	D1750V2	1068	Nov. 19, 2018	Nov. 18, 2019
SPEAG	1900MHz System Validation Kit	D1900V2	5d041	Sep. 11, 2018	Sep. 10, 2019
SPEAG	2450MHz System Validation Kit	D2450V2	736	Aug. 31, 2018	Aug. 30, 2019
SPEAG	2600MHz System Validation Kit	D2600V2	1008	Aug. 31, 2018	Aug. 30, 2019
SPEAG	3500MHz System Validation Kit	D3500V2	1014	Jan. 29, 2019	Jan. 28, 2020
SPEAG	3700MHz System Validation Kit	D3700V2	1006	Mar. 05, 2019	Mar. 04, 2020
SPEAG	5GHz System Validation Kit	D5GHzV2	1006	Sep. 27, 2018	Sep. 26, 2019
SPEAG	Data Acquisition Electronics	DAE4	360	Oct. 29, 2018	Oct. 28, 2019
SPEAG	Data Acquisition Electronics	DAE4	699	Jan. 03, 2019	Jan. 02, 2020
SPEAG	Data Acquisition Electronics	DAE4	918	Jun. 20, 2018	Jun. 19, 2019
SPEAG	Data Acquisition Electronics	DAE4	1326	Sep. 18, 2018	Sep. 17, 2019
SPEAG	Dosimetric E-Field Probe	ES3DV3	3270	Sep. 24, 2018	Sep. 23, 2019
SPEAG	Dosimetric E-Field Probe	EX3DV4	3642	Apr. 29, 2019	Apr. 28, 2020
SPEAG	Dosimetric E-Field Probe	EX3DV4	3931	Sep. 27, 2018	Sep. 26, 2019
SPEAG	Dosimetric E-Field Probe	EX3DV4	7306	Jul. 26, 2018	Jul. 25, 2019
SPEAG	Dosimetric E-Field Probe	EX3DV4	7350	Dec. 14, 2018	Dec. 13, 2019
SPEAG	Dosimetric E-Field Probe	EX3DV4	7515	Oct. 03, 2018	Oct. 02, 2019
RCPTWN	Thermometer	HTC-1	TM685-1	Nov. 12, 2018	Nov. 11, 2019
RCPTWN	Thermometer	HTC-1	TM560-2	Nov. 12, 2018	Nov. 11, 2019
Anritsu	Radio Communication Analyzer	MT8821C	6201341950	Apr. 21, 2019	Apr. 20, 2020
Agilent	Wireless Communication Test Set	E5515C	MY50267236	Apr. 01, 2019	Mar. 31, 2020
R&S	BT Base Station	CBT32	100522	Mar. 18, 2019	Mar. 17, 2020
SPEAG	Device Holder	N/A	N/A	N/A	N/A
Anritsu	Signal Generator	MG3710A	6201502524	Dec. 11, 2018	Dec. 10, 2019
Agilent	ENA Network Analyzer	E5071C	MY46104758	Sep. 19, 2018	Sep. 18, 2019
SPEAG	Dielectric Probe Kit	DAK-3.5	1126	Sep. 19, 2018	Sep. 18, 2019
LINE SEIKI	Digital Thermometer	DTM3000-spezial	3169	Sep. 11, 2018	Sep. 10, 2019
Anritsu	Power Meter	ML2495A	1218006	Oct. 08, 2018	Oct. 07, 2019
Anritsu	Power Sensor	MA2411B	1207363	Oct. 08, 2018	Oct. 07, 2019
Anritsu	Power Meter	ML2495A	1419002	May. 29, 2019	May. 28, 2020
Anritsu	Power Sensor	MA2411B	1339124	May. 29, 2019	May. 28, 2020
Agilent	Spectrum Analyzer	E4408B	MY44211028	Aug. 28, 2018	Aug. 27, 2019
Anritsu	Spectrum Analyzer	MS2830A	6201396378	Jun. 23, 2018	Jun. 22, 2019
Mini-Circuits	Power Amplifier	ZVE-8G+	070501814	Oct. 08, 2018	Oct. 07, 2019
Mini-Circuits	Power Amplifier	ZVE-8G+	6382	Aug. 09, 2018	Aug. 08, 2019
ATM	Dual Directional Coupler	C122H-10	P610410z-02	Note 1	
Woken	Attenuator 1	WK0602-XX	N/A	Note 1	
PE	Attenuator 2	PE7005-10	N/A	Note 1	
PE	Attenuator 3	PE7005- 3	N/A	Note 1	

General Note:

1. Prior to system verification and validation, the path loss from the signal generator to the system check source and the power meter, which includes the amplifier, cable, attenuator and directional coupler, was measured by the network analyzer. The reading of the power meter was offset by the path loss difference between the path to the power meter and the path to the system check source to monitor the actual power level fed to the system check source.

9. System Verification

9.1 Tissue Simulating Liquids

For the measurement of the field distribution inside the SAM phantom with DASY, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 10.1. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 10.2.

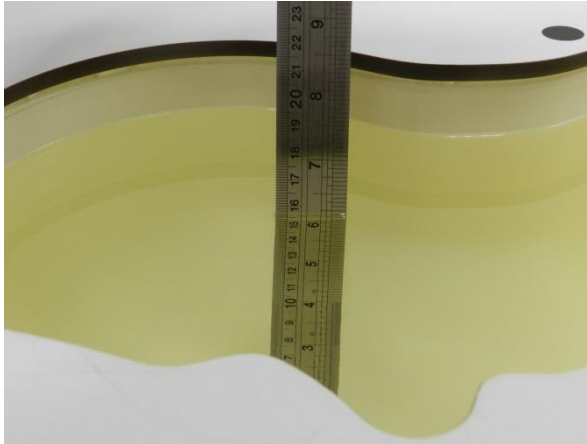


Fig 10.1 Photo of Liquid Height for Head SAR

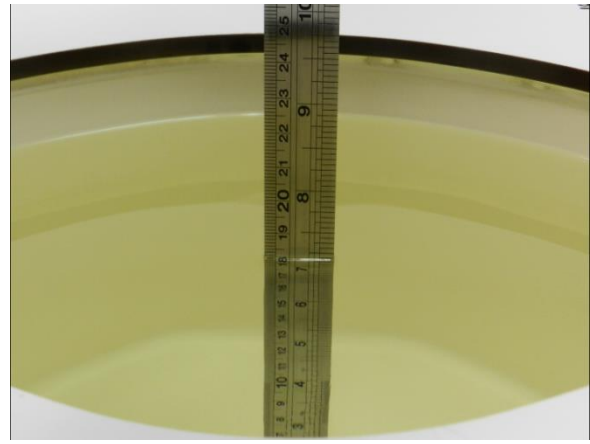


Fig 10.2 Photo of Liquid Height for Body SAR

9.2 Tissue Verification

The following tissue formulations are provided for reference only as some of the parameters have not been thoroughly verified. The composition of ingredients may be modified accordingly to achieve the desired target tissue parameters required for routine SAR evaluation.

Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity (σ)	Permittivity (ϵ_r)
For Head								
750	41.1	57.0	0.2	1.4	0.2	0	0.89	41.9
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
900	40.3	57.9	0.2	1.4	0.2	0	0.97	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.40	40.0
2450	55.0	0	0	0	0	45.0	1.80	39.2
2600	54.8	0	0	0.1	0	45.1	1.96	39.0
For Body								
750	51.7	47.2	0	0.9	0.1	0	0.96	55.5
835	50.8	48.2	0	0.9	0.1	0	0.97	55.2
900	50.8	48.2	0	0.9	0.1	0	1.05	55.0
1800, 1900, 2000	70.2	0	0	0.4	0	29.4	1.52	53.3
2450	68.6	0	0	0	0	31.4	1.95	52.7
2600	68.1	0	0	0.1	0	31.8	2.16	52.5

Simulating Liquid for 5GHz, Manufactured by SPEAG

Ingredients	(% by weight)
Water	64~78%
Mineral oil	11~18%
Emulsifiers	9~15%
Additives and Salt	2~3%

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Tissue Type	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ϵ_r)	Conductivity Target (σ)	Permittivity Target (ϵ_r)	Delta (σ) (%)	Delta (ϵ_r) (%)	Limit (%)	Date
750	HSL	22.5	0.885	43.063	0.89	41.90	-0.56	2.78	±5	2019/5/28
750	MSL	22.6	0.967	53.678	0.96	55.50	0.73	-3.28	±5	2019/5/24
750	MSL	22.6	0.967	53.678	0.96	55.50	0.73	-3.28	±5	2019/5/24
750	MSL	22.5	0.965	53.676	0.96	55.50	0.52	-3.29	±5	2019/6/3
835	HSL	22.5	0.887	42.179	0.90	41.50	-1.44	1.64	±5	2019/5/28
835	MSL	22.6	0.976	53.039	0.97	55.20	0.62	-3.91	±5	2019/5/25
835	MSL	22.6	0.976	53.039	0.97	55.20	0.62	-3.91	±5	2019/5/25
835	MSL	22.5	0.973	53.036	0.97	55.20	0.31	-3.92	±5	2019/6/3
1750	HSL	22.2	1.359	40.846	1.37	40.10	-0.80	1.86	±5	2019/6/4
1750	MSL	22.6	1.478	55.288	1.49	53.40	-0.81	3.54	±5	2019/5/24
1750	MSL	22.6	1.478	55.288	1.49	53.40	-0.81	3.54	±5	2019/5/24
1750	MSL	22.5	1.473	55.286	1.49	53.40	-1.14	3.53	±5	2019/6/3
1900	HSL	22.2	1.406	40.276	1.40	40.00	0.43	0.69	±5	2019/6/4
1900	MSL	22.6	1.572	52.555	1.52	53.30	3.42	-1.40	±5	2019/5/24
1900	MSL	22.6	1.572	52.555	1.52	53.30	3.42	-1.40	±5	2019/5/24
1900	MSL	22.5	1.565	53.538	1.52	53.30	2.96	0.45	±5	2019/6/3
2450	HSL	22.2	1.811	38.666	1.80	39.20	0.61	-1.36	±5	2019/6/4
2450	MSL	22.3	2.025	52.242	1.95	52.70	3.85	-0.87	±5	2019/5/25
2450	MSL	22.3	2.018	52.240	1.95	52.70	3.49	-0.87	±5	2019/6/4
2600	HSL	22.2	1.976	38.130	1.96	39.00	0.82	-2.23	±5	2019/6/4
2600	MSL	22.6	2.220	52.810	2.16	52.50	2.78	0.59	±5	2019/5/24
3500	MSL	22.6	3.372	51.147	3.31	51.30	1.87	-0.30	±5	2019/5/28
3500	MSL	22.5	3.362	51.144	3.31	51.30	1.57	-0.30	±5	2019/6/3
3700	HSL	22.2	3.093	37.440	3.12	37.70	-0.87	-0.69	±5	2019/6/4
3700	MSL	22.6	3.580	50.831	3.55	51.00	0.85	-0.33	±5	2019/5/28
3700	MSL	22.5	3.569	50.829	3.55	51.00	0.54	-0.34	±5	2019/6/3
5250	HSL	22.3	4.552	36.672	4.71	35.95	-3.35	2.01	±5	2019/6/4
5250	MSL	22.3	5.460	47.968	5.36	48.95	1.87	-2.01	±5	2019/5/25
5600	HSL	22.3	4.894	36.213	5.07	35.50	-3.47	2.01	±5	2019/6/4
5600	MSL	22.3	5.916	47.326	5.77	48.50	2.53	-2.42	±5	2019/5/25
5750	HSL	22.3	5.044	36.005	5.22	35.35	-3.37	1.85	±5	2019/6/4
5750	MSL	22.3	6.116	47.057	5.94	48.28	2.96	-2.53	±5	2019/5/25

9.3 System Performance Check Results

Comparing to the original SAR value provided by SPEAG, the verification data should be within its specification of 10 %. Below table shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criterion and the plots can be referred to Appendix A of this report.

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2019/5/28	750	HSL	250	D750V3-1012	ES3DV3 - SN3270	DAE4 Sn1326	2.00	8.47	8	-5.55
2019/5/24	750	MSL	250	D750V3-1012	ES3DV3 - SN3270	DAE4 Sn699	2.24	8.76	8.96	2.28
2019/5/24	750	MSL	250	D750V3-1012	EX3DV4 - SN7306	DAE4 Sn699	2.29	8.76	9.16	4.57
2019/6/3	750	MSL	250	D750V3-1012	EX3DV4 - SN7350	DAE3 Sn360	2.24	8.76	8.96	2.28
2019/5/28	835	HSL	250	D835V2-499	ES3DV3 - SN3270	DAE4 Sn1326	2.27	9.59	9.08	-5.32
2019/5/25	835	MSL	250	D835V2-499	EX3DV4 - SN7306	DAE4 Sn699	2.56	9.82	10.24	4.28
2019/5/25	835	MSL	250	D835V2-499	ES3DV3 - SN3270	DAE4 Sn699	2.59	9.82	10.36	5.50
2019/6/3	835	MSL	250	D835V2-499	EX3DV4 - SN7350	DAE3 Sn360	2.38	9.82	9.52	-3.05
2019/6/4	1750	HSL	250	D1750V2-1068	EX3DV4 - SN7350	DAE3 Sn360	8.84	37.10	35.36	-4.69
2019/5/24	1750	MSL	250	D1750V2-1068	ES3DV3 - SN3270	DAE4 Sn699	9.74	37.00	38.96	5.30
2019/5/24	1750	MSL	250	D1750V2-1068	EX3DV4 - SN7306	DAE4 Sn699	9.36	37.00	37.44	1.19
2019/6/3	1750	MSL	250	D1750V2-1068	EX3DV4 - SN7350	DAE3 Sn360	9.30	37.00	37.2	0.54
2019/6/4	1900	HSL	250	D1900V2-5d041	EX3DV4 - SN7350	DAE3 Sn360	10.20	40.20	40.8	1.49
2019/5/24	1900	MSL	250	D1900V2-5d041	ES3DV3 - SN3270	DAE4 Sn699	10.60	40.20	42.4	5.47
2019/5/24	1900	MSL	250	D1900V2-5d041	EX3DV4 - SN7306	DAE4 Sn699	10.80	40.20	43.2	7.46
2019/6/3	1900	MSL	250	D1900V2-5d041	EX3DV4 - SN7515	DAE4 Sn918	10.10	40.20	40.4	0.50
2019/6/4	2450	HSL	250	D2450V2-736	EX3DV4 - SN7350	DAE3 Sn360	13.10	52.70	52.4	-0.57
2019/5/25	2450	MSL	250	D2450V2-736	EX3DV4 - SN7306	DAE4 Sn699	13.00	51.50	52	0.97
2019/6/4	2450	MSL	250	D2450V2-736	EX3DV4 - SN7350	DAE3 Sn360	12.60	51.50	50.4	-2.14
2019/6/4	2600	HSL	250	D2600V2-1008	EX3DV4 - SN7350	DAE3 Sn360	13.90	56.40	55.6	-1.42
2019/5/24	2600	MSL	250	D2600V2-1008	ES3DV3 - SN3270	DAE4 Sn699	14.40	55.30	57.6	4.16
2019/5/28	3500	MSL	100	D3500V2-1014	EX3DV4 - SN3931	DAE4 Sn699	6.23	65.40	62.3	-4.74
2019/6/3	3500	MSL	100	D3500V2-1014	EX3DV4 - SN7350	DAE3 Sn360	6.35	65.40	63.5	-2.91
2019/6/4	3700	HSL	100	D3700V2-1006	EX3DV4 - SN7350	DAE3 Sn360	6.68	67.30	66.8	-0.74
2019/5/28	3700	MSL	100	D3700V2-1006	EX3DV4 - SN3931	DAE4 Sn699	5.94	63.70	59.4	-6.75
2019/6/3	3700	MSL	100	D3700V2-1006	EX3DV4 - SN7350	DAE3 Sn360	5.76	63.70	57.6	-9.58
2019/6/4	5250	HSL	100	D5GHZV2-1006	EX3DV4 - SN3642	DAE4 Sn1326	8.21	80.70	82.1	1.73
2019/5/25	5250	MSL	100	D5GHZV2-1006	EX3DV4 - SN7306	DAE4 Sn699	7.96	78.30	79.6	1.66
2019/6/4	5600	HSL	100	D5GHZV2-1006	EX3DV4 - SN3642	DAE4 Sn1326	8.06	83.30	80.6	-3.24
2019/5/25	5600	MSL	100	D5GHZV2-1006	EX3DV4 - SN7306	DAE4 Sn699	8.58	81.00	85.8	5.93
2019/6/4	5750	HSL	100	D5GHZV2-1006	EX3DV4 - SN3642	DAE4 Sn1326	8.16	80.40	81.6	1.49
2019/5/25	5750	MSL	100	D5GHZV2-1006	EX3DV4 - SN7306	DAE4 Sn699	7.81	77.40	78.1	0.90

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2019/5/24	750	MSL	250	D750V3-1012	EX3DV4 - SN7306	DAE4 Sn699	1.53	5.97	6.12	2.51
2019/5/25	835	MSL	250	D835V2-499	EX3DV4 - SN7306	DAE4 Sn699	1.69	6.58	6.76	2.74
2019/5/24	1750	MSL	250	D1750V2-1068	ES3DV3 - SN3270	DAE4 Sn699	5.29	19.60	21.16	7.96
2019/5/24	1750	MSL	250	D1750V2-1068	EX3DV4 - SN7306	DAE4 Sn699	5.01	19.60	20.04	2.24
2019/5/24	1900	MSL	250	D1900V2-5d041	ES3DV3 - SN3270	DAE4 Sn699	5.55	21.50	22.2	3.26
2019/5/24	1900	MSL	250	D1900V2-5d041	EX3DV4 - SN7306	DAE4 Sn699	5.62	21.50	22.48	4.56
2019/5/28	3500	MSL	100	D3500V2-1014	EX3DV4 - SN3931	DAE4 Sn699	2.37	24.30	23.7	-2.47
2019/5/25	5250	MSL	100	D5GHzV2-1006	EX3DV4 - SN7306	DAE4 Sn699	2.24	21.70	22.4	3.23
2019/5/25	5600	MSL	100	D5GHzV2-1006	EX3DV4 - SN7306	DAE4 Sn699	2.39	22.50	23.9	6.22

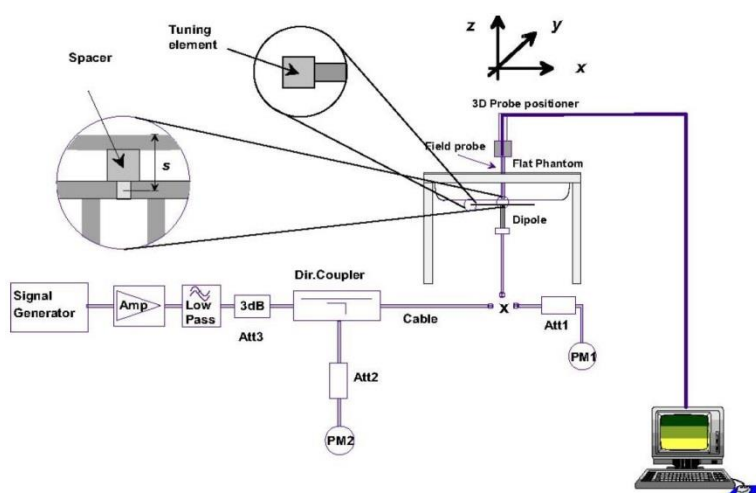


Fig 8.3.1 System Performance Check Setup



Fig 8.3.2 Setup Photo

10. IHDT56WB1 SAR Test results– with Mod attached

General Note:

1. Refer to the SAR report of IHDT56WB1 (Sporton Report No: FA733129-02), the highest SAR reported for each wireless technology (1xRTT, EVDO, WCDMA, GSM, Wi-Fi etc.), frequency band, operating mode (different modes/configurations within each wireless technology) and exposure condition (head, body-worn accessory, hotspot mode, etc.) was repeated with the Mod attached. For the device back position in body exposure condition, the SAR result is lower than phone-only due to the additional thickness introduced by the Mod. For the other positions in head and body exposure conditions, the SAR test results don't deviate from the phone-only results to exceed the measurement uncertainty, therefore the phone-only SAR results were also used in simultaneous transmission analysis in section 12
2. Additional phone with MOD for 5GHz WLAN MIMO SAR are used for simultaneous transmission analysis in head mode.
3. Each frequency bands in each exposure conditions, the output power and tune-up limit is according FCC ID: IHDT56WB1, Sporton Report No.: FA733129-02.

10.1 Head SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
01	GSM850	GPRS (4 Tx slots)	Right Cheek	0mm	128	824.2	26.10	27.50	1.380	0.01	0.084	0.116
02	GSM1900	GPRS (4 Tx slots)	Left Cheek	0mm	810	1909.8	22.90	24.50	1.445	0.05	0.087	0.126

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
03	WCDMA II	RMC 12.2Kbps	Left Cheek	0mm	9400	1880	22.25	24.00	1.496	0.01	0.150	0.224
04	WCDMA V	RMC 12.2Kbps	Right Cheek	0mm	4132	826.4	22.80	22.80	1.000	-0.05	0.196	0.196

<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
05	CDMA BC0	1xRTT RC3 SO55	Right Cheek	0mm	1013	824.7	23.91	25.00	1.285	0.05	0.201	0.258
06	CDMA BC1	1xRTT RC3 SO55	Left Cheek	0mm	25	1851.25	23.42	25.00	1.439	-0.07	0.247	0.355

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
07	LTE Band 2	20M	QPSK	1	0	Left Cheek	0mm	19100	1900	22.78	24.00	1.324	-0.07	0.251	0.332
08	LTE Band 4	20M	QPSK	1	0	Right Cheek	0mm	20175	1732.5	22.76	24.00	1.330	-0.04	0.198	0.263
09	LTE Band 5	10M	QPSK	1	0	Right Cheek	0mm	20525	836.5	22.57	24.00	1.390	-0.06	0.147	0.204
10	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	21350	2560	22.14	24.00	1.535	-0.01	0.211	0.324
11	LTE Band 12	10M	QPSK	1	0	Right Cheek	0mm	23095	707.5	22.36	24.00	1.459	0.05	0.241	0.352
12	LTE Band 13	10M	QPSK	1	0	Right Cheek	0mm	23230	782	22.37	24.00	1.455	-0.03	0.257	0.374
13	LTE Band 17	10M	QPSK	1	0	Right Cheek	0mm	23790	710	22.43	24.00	1.435	0.03	0.232	0.333
14	LTE Band 25	15M	QPSK	1	0	Left Cheek	0mm	26590	1905	22.61	24.00	1.377	0.04	0.191	0.263
15	LTE Band 26	15M	QPSK	1	0	Left Cheek	0mm	26865	831.5	22.63	24.00	1.371	0.01	0.248	0.340
16	LTE Band 66	20M	QPSK	1	0	Left Cheek	0mm	132572	1770	22.74	24.00	1.337	0.12	0.181	0.242

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
17	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant1	11	2462	15.85	16.50	1.161	100	1.000	0	0.656	0.762
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant2	1	2412	15.90	16.50	1.148	100	1.000	0	0.039	0.045
18	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant1	54	5270	14.79	15.00	1.050	89.62	1.116	0.05	0.532	0.623
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant2	54	5270	14.86	15.00	1.033	90.48	1.105	-0.07	0.332	0.379
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant1+2	62	5310	17.90	18.00	1.023	89.52	1.117	-0.01	0.361	0.413
	WLAN5GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant1+2	62	5310	17.90	18.00	1.023	89.52	1.117	0.07	0.271	0.310
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant1+2	62	5310	17.90	18.00	1.023	89.52	1.117	0.04	0.424	0.485
	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant1+2	62	5310	17.90	18.00	1.023	89.52	1.117	0.14	0.437	0.499
19	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant1	106	5530	14.91	15.00	1.021	86.51	1.156	0.06	0.735	0.867
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant2	106	5530	14.88	15.00	1.028	85.71	1.167	0.09	0.343	0.411
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant1+2	138	5690	17.92	18.00	1.019	85.71	1.167	0.01	0.310	0.368
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant1+2	138	5690	17.92	18.00	1.019	85.71	1.167	0.17	0.275	0.327
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant1+2	138	5690	17.92	18.00	1.019	85.71	1.167	-0.08	0.255	0.303
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant1+2	138	5690	17.92	18.00	1.019	85.71	1.167	-0.07	0.259	0.308
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant1	155	5775	14.63	15.00	1.089	86.51	1.156	0.07	0.193	0.243
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant2	155	5775	14.79	15.00	1.050	85.71	1.167	-0.09	0.558	0.683
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant1+2	155	5775	17.88	18.00	1.029	85.71	1.167	-0.07	0.595	0.714
20	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant1+2	155	5775	17.88	18.00	1.029	85.71	1.167	0.04	0.637	0.765
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant1+2	155	5775	17.88	18.00	1.029	85.71	1.167	0.08	0.407	0.489
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant1+2	155	5775	17.88	18.00	1.029	85.71	1.167	0.12	0.428	0.514

10.2 Hotspot SAR
<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
21	GSM850	GPRS (4 Tx slots)	Back	10mm	128	824.2	26.10	27.50	1.380	0.04	0.182	0.251
22	GSM1900	GPRS (4 Tx slots)	Back	10mm	810	1909.8	22.90	24.50	1.445	0.06	0.200	0.289

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
23	WCDMA II	RMC 12.2Kbps	Back	10mm	9262	1852.4	21.55	23.00	1.396	0.12	0.275	0.384
24	WCDMA V	RMC 12.2Kbps	Back	10mm	4233	846.6	21.82	23.50	1.472	-0.1	0.460	0.677

<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
25	CDMA BC0	RTAP 153.6Kbps	Back	10mm	777	848.31	22.74	24.00	1.337	-0.03	0.433	0.579
	CDMA BC1	RTAP 153.6Kbps	Back	10mm	1175	1908.75	21.41	23.00	1.442	0.02	0.257	0.371
26	CDMA BC1	RTAP 153.6Kbps	Bottom Side	10mm	1175	1908.75	21.41	23.00	1.442	0.08	0.712	1.027

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
27	LTE Band 2	20M	QPSK	1	0	Back	10mm	18700	1860	21.49	23.00	1.416	-0.03	0.281	0.398
28	LTE Band 4	20M	QPSK	1	0	Back	10mm	20175	1732.5	20.60	22.00	1.380	0.03	0.309	0.427
29	LTE Band 5	10M	QPSK	1	0	Front	10mm	20525	836.5	21.99	23.50	1.416	0	0.761	1.077
	LTE Band 5	10M	QPSK	1	0	Back	10mm	20525	836.5	21.99	23.50	1.416	0	0.441	0.624
30	LTE Band 7	20M	QPSK	1	0	Back	10mm	21100	2535	21.33	23.00	1.469	0.01	0.277	0.407
31	LTE Band 12	10M	QPSK	1	0	Front	10mm	23095	707.5	21.60	23.00	1.380	0.01	0.839	1.158
	LTE Band 12	10M	QPSK	1	0	Back	10mm	23095	707.5	21.60	23.00	1.380	0.01	0.389	0.537
32	LTE Band 13	10M	QPSK	1	0	Back	10mm	23230	782	21.14	22.50	1.368	0.03	0.306	0.419
33	LTE Band 17	10M	QPSK	1	0	Front	10mm	23790	710	21.58	23.00	1.387	0.02	0.848	1.176
	LTE Band 17	10M	QPSK	1	0	Back	10mm	23790	710	21.58	23.00	1.387	-0.02	0.399	0.553
	LTE Band 25	20M	QPSK	1	0	Back	10mm	26140	1860	21.63	23.00	1.371	-0.04	0.287	0.393
34	LTE Band 25	20M	QPSK	1	0	Bottom Side	10mm	26140	1860	21.63	23.00	1.371	-0.15	0.887	1.216
35	LTE Band 26	15M	QPSK	1	0	Front	10mm	26865	831.5	21.58	23.00	1.387	0.01	0.682	0.946
	LTE Band 26	15M	QPSK	1	0	Back	10mm	26865	831.5	21.58	23.00	1.387	-0.04	0.388	0.538
	LTE Band 66	20M	QPSK	50	0	Back	10mm	132322	1745	21.14	22.00	1.219	0.06	0.333	0.406
36	LTE Band 66	20M	QPSK	50	0	Bottom Side	10mm	132572	1770	20.94	22.00	1.276	0.06	0.733	0.936

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	-0.01	0.042	0.048
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 2	11	2462	15.60	16.50	1.230	100	1.000	0.03	0.114	0.140
37	WLAN2.4GHz	802.11b 1Mbps	Bottom Side	10mm	Ant 2	11	2462	15.60	16.50	1.230	100	1.000	0.01	0.207	0.255
38	WLAN5GHz	802.11a 6Mbps	Front	10mm	Ant 1	36	5180	18.16	19.00	1.213	94.16	1.062	0.12	0.121	0.156
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 1	36	5180	18.16	19.00	1.213	94.16	1.062	-0.12	0.106	0.137
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 2	36	5180	18.10	19.00	1.230	94.85	1.054	-0.13	0.081	0.105
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 1	155	5775	18.18	19.00	1.208	86.51	1.156	0.19	0.091	0.127
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	-0.1	0.094	0.129
39	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	0.15	0.139	0.191

10.3 Body Worn Accessory SAR
<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
40	GSM850	GPRS (4 Tx slots)	Back	10mm	128	824.2	26.10	27.50	1.380	0.04	0.182	0.251
41	GSM1900	GPRS (4 Tx slots)	Back	10mm	810	1909.8	22.90	24.50	1.445	0.06	0.200	0.289

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
42	WCDMA II	RMC 12.2Kbps	Back	10mm	9262	1852.4	21.55	23.00	1.396	0.12	0.275	0.384
43	WCDMA V	RMC 12.2Kbps	Back	10mm	4233	846.6	21.82	23.50	1.472	-0.1	0.460	0.677

<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
44	CDMA BC0	1xRTT RC3 SO32	Back	10mm	777	848.31	22.71	24.00	1.346	-0.07	0.408	0.549
45	CDMA BC1	1xRTT RC3 SO32	Back	10mm	1175	1908.75	21.34	23.00	1.466	0.1	0.241	0.353

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
46	LTE Band 2	20M	QPSK	1	0	Back	10mm	18700	1860	21.49	23.00	1.416	-0.03	0.281	0.398
47	LTE Band 4	20M	QPSK	100	0	Back	10mm	20175	1732.5	20.60	22.00	1.380	0.03	0.309	0.427
48	LTE Band 5	10M	QPSK	1	0	Front	10mm	20525	836.5	21.99	23.50	1.416	0	0.761	1.077
	LTE Band 5	10M	QPSK	1	0	Back	10mm	20525	836.5	21.99	23.50	1.416	0	0.441	0.624
49	LTE Band 7	20M	QPSK	1	0	Back	10mm	21100	2535	21.33	23.00	1.469	0.01	0.277	0.407
50	LTE Band 12	10M	QPSK	1	0	Front	10mm	23095	707.5	21.60	23.00	1.380	0.01	0.839	1.158
	LTE Band 12	10M	QPSK	1	0	Back	10mm	23095	707.5	21.60	23.00	1.380	0.01	0.389	0.537
51	LTE Band 13	10M	QPSK	1	0	Back	10mm	23230	782	21.14	22.50	1.368	0.03	0.306	0.419
52	LTE Band 17	10M	QPSK	1	0	Front	10mm	23790	710	21.58	23.00	1.387	0.02	0.848	1.176
	LTE Band 17	10M	QPSK	1	0	Back	10mm	23790	710	21.58	23.00	1.387	-0.02	0.399	0.553
53	LTE Band 25	20M	QPSK	1	0	Back	10mm	26140	1860	21.63	23.00	1.371	-0.04	0.287	0.393
54	LTE Band 26	15M	QPSK	1	0	Front	10mm	26865	831.5	21.58	23.00	1.387	0.01	0.682	0.946
	LTE Band 26	15M	QPSK	1	0	Back	10mm	26865	831.5	21.58	23.00	1.387	-0.04	0.388	0.538
55	LTE Band 66	20M	QPSK	50	0	Front	10mm	132322	1745	21.14	22.00	1.219	0.01	0.680	0.829
	LTE Band 66	20M	QPSK	50	0	Back	10mm	132322	1745	21.14	22.00	1.219	0.06	0.333	0.406

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	-0.01	0.042	0.048
56	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 2	11	2462	15.60	16.50	1.230	100	1.000	0.03	0.114	0.140
	WLAN5GHz	802.11a 6Mbps	Front	10mm	Ant 1	64	5320	18.26	19.00	1.186	94.16	1.062	-0.1	0.081	0.102
57	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 1	64	5320	18.26	19.00	1.185	94.16	1.062	-0.12	0.089	0.112
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 2	56	5280	18.00	19.00	1.259	94.85	1.054	-0.04	0.057	0.076
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 1	138	5690	18.25	19.00	1.190	85.61	1.168	0.15	0.132	0.183
58	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 2	138	5690	18.00	19.00	1.259	85.71	1.167	0.03	0.126	0.185
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 2	138	5690	18.00	19.00	1.259	85.71	1.167	0.1	0.070	0.103
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 1	155	5775	18.18	19.00	1.208	86.51	1.156	0.19	0.091	0.127
59	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	0.05	0.160	0.219
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	-0.1	0.094	0.129

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
60	Bluetooth	1Mbps	Back	10mm	Ant 1	78	2480	14.16	16.00	1.528	76.6	1.087	-0.16	0.002	0.003

10.4 Product Specific SAR

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
61	WCDMA II	RMC 12.2Kbps	Bottom Side	0mm	9262	1852.4	22.51	24.00	1.409	-0.03	2.640	3.721

<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
62	CDMA BC1	RTAP 153.6Kbps	Bottom Side	0mm	1175	1908.75	22.48	24.00	1.419	-0.13	2.660	3.775

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
63	LTE Band 2	20M	QPSK	1	0	Bottom Side	0mm	19100	1900	22.78	24.00	1.324	0.02	2.980	3.947
64	LTE Band 4	20M	QPSK	1	0	Bottom Side	0mm	20175	1732.5	22.76	24.00	1.330	-0.01	2.370	3.153
65	LTE Band 25	20M	QPSK	1	0	Bottom Side	0mm	26140	1860	22.63	24.00	1.371	-0.05	2.840	3.893

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
66	WLAN5GHz	802.11a 6Mbps	Front	0mm	Ant 1	64	5320	18.26	19.00	1.185	94.16	1.062	-0.19	0.358	0.451
	WLAN5GHz	802.11a 6Mbps	Back	0mm	Ant 1	64	5320	18.26	19.00	1.185	94.16	1.062	0.04	0.226	0.285
	WLAN5GHz	802.11a 6Mbps	Front	0mm	Ant 2	64	5320	18.13	19.00	1.222	94.85	1.054	0.16	0.338	0.435
	WLAN5GHz	802.11a 6Mbps	Back	0mm	Ant 2	64	5320	18.13	19.00	1.222	94.85	1.054	-0.09	0.130	0.167
67	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 1	138	5690	18.25	19.00	1.190	86.51	1.156	0	0.381	0.524
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 1	138	5690	18.25	19.00	1.190	86.51	1.156	-0.09	0.166	0.228
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 2	138	5690	18.00	19.00	1.259	85.71	1.167	-0.19	0.097	0.143
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 2	138	5690	18.00	19.00	1.259	85.71	1.167	0.01	0.144	0.212

11. Mod SAR Test Results : Mod attached on IHDT56WB1

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - b. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
 - c. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result.
The Reported TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.
3. Additional MOD attached on phone for LTE B2/B5/B13/B66 for back position at 10mm and LTE B48 for front/back/bottom side position at 10mm are used for simultaneous transmission analysis in hotspot/body-worn mode.
4. Full SAR evaluation has done in the FCC ID: IHDT56XL1, Sporton SAR Test Report No.: FA890514A, spot check worst case to show compliance

11.1 Head SAR

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
68	LTE Band 2_MOD	20M	QPSK	1	0	Right Cheek	0mm	18700	1860	23.99	24.00	1.002	0.01	0.202	0.202
69	LTE Band 5_MOD	10M	QPSK	1	0	Right Cheek	0mm	20525	836.5	23.56	24.00	1.107	-0.03	0.190	0.210
70	LTE Band13_MOD	10M	QPSK	1	0	Right Cheek	0mm	23230	782	23.49	24.00	1.125	0	0.163	0.183
71	LTE Band 66_MOD	20M	QPSK	1	0	Right Cheek	0mm	132322	1745	23.99	24.00	1.002	0	0.145	0.145

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
72	LTE Band 48_MOD	20M	QPSK	1	0	Right Tilted	0mm	56640	3690	22.16	23.50	1.361	62.9	1.006	0.05	0.088	0.120

11.2 Hotspot SAR

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
73	LTE Band 2_MOD	20M	QPSK	1	0	Back	5mm	18900	1880	14.87	15.00	1.030	-0.06	1.020	1.051
	LTE Band 2_MOD	20M	QPSK	1	0	Back	10mm	18900	1880	14.87	15.00	1.030	-0.08	0.576	0.594
74	LTE Band 5_MOD	10M	QPSK	1	0	Back	5mm	20525	836.5	23.56	24.00	1.107	-0.02	0.962	1.065
	LTE Band 5_MOD	10M	QPSK	1	0	Back	10mm	20525	836.5	23.56	24.00	1.107	-0.01	0.450	0.498
75	LTE Band 13_MOD	10M	QPSK	1	0	Back	5mm	23230	782	23.49	24.00	1.125	-0.05	0.972	1.093
	LTE Band 13_MOD	10M	QPSK	1	0	Back	10mm	23230	782	23.49	24.00	1.125	-0.06	0.478	0.538
76	LTE Band 66_MOD	20M	QPSK	1	0	Back	5mm	132322	1745	15.73	16.00	1.064	-0.04	1.080	1.149
	LTE Band 66_MOD	20M	QPSK	1	0	Back	10mm	132322	1745	15.73	16.00	1.064	-0.16	0.416	0.443

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
77	LTE Band 48_MOD	20M	QPSK	1	99	Back	5mm	55340	3560	20.80	22.00	1.318	62.9	1.006	-0.09	1.070	1.419
	LTE Band 48_MOD	20M	QPSK	1	0	Front	10mm	56640	3690	20.90	22.00	1.288	62.9	1.006	0.15	0.127	0.165
	LTE Band 48_MOD	20M	QPSK	1	99	Back	10mm	55340	3560	20.80	22.00	1.318	62.9	1.006	0.01	0.490	0.650
	LTE Band 48_MOD	20M	QPSK	1	99	Bottom Side	10mm	55340	3690	20.90	22.00	1.288	62.9	1.006	0.15	0.123	0.159

11.3 Body Worn Accessory SAR
<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
78	LTE Band 2_MOD	20M	QPSK	1	0	Back	5mm	18900	1880	14.87	15.00	1.030	-0.06	1.020	1.051
	LTE Band 2_MOD	20M	QPSK	1	0	Back	10mm	18900	1880	14.87	15.00	1.030	-0.08	0.576	0.594
79	LTE Band 5_MOD	10M	QPSK	1	0	Back	5mm	20525	836.5	23.56	24.00	1.107	-0.02	0.962	1.065
	LTE Band 5_MOD	10M	QPSK	1	0	Back	10mm	20525	836.5	23.56	24.00	1.107	-0.01	0.450	0.498
80	LTE Band 13_MOD	10M	QPSK	1	0	Back	5mm	23230	782	23.49	24.00	1.125	-0.05	0.972	1.093
	LTE Band 13_MOD	10M	QPSK	1	0	Back	10mm	23230	782	23.49	24.00	1.125	-0.06	0.478	0.538
81	LTE Band 66_MOD	20M	QPSK	1	0	Back	5mm	132322	1745	15.73	16.00	1.064	-0.04	1.080	1.149
	LTE Band 66_MOD	20M	QPSK	1	0	Back	10mm	132322	1745	15.73	16.00	1.064	-0.16	0.416	0.443

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
82	LTE Band 48_MOD	20M	QPSK	1	99	Back	5mm	55340	3560	20.80	22.00	1.318	62.9	1.006	-0.09	1.070	1.419
	LTE Band 48_MOD	20M	QPSK	1	0	Front	10mm	56640	3690	20.90	22.00	1.288	62.9	1.006	0.15	0.127	0.165
	LTE Band 48_MOD	20M	QPSK	1	99	Back	10mm	55340	3560	20.80	22.00	1.318	62.9	1.006	0.01	0.490	0.650
	LTE Band 48_MOD	20M	QPSK	1	99	Bottom Side	10mm	55340	3690	20.90	22.00	1.288	62.9	1.006	0.15	0.123	0.159

11.4 Product Specific SAR
<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
83	LTE Band 2_MOD	20M	QPSK	1	0	Back	0mm	18700	1860	14.97	15.00	1.007	0.02	0.129	0.130
84	LTE Band 5_MOD	10M	QPSK	1	0	Back	0mm	20525	836.5	23.56	24.00	1.107	0	0.508	0.562
85	LTE Band 13_MOD	10M	QPSK	1	0	Back	0mm	23230	782	23.49	24.00	1.125	-0.01	0.619	0.696
86	LTE Band 66_MOD	20M	QPSK	1	0	Back	0mm	132322	1745	15.73	16.00	1.064	-0.17	0.227	0.242

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
87	LTE Band 48_MOD	20M	QPSK	1	0	Back	0mm	56640	3690	20.90	22.00	1.288	62.9	1.006	0.01	1.480	1.918

11.5 Repeated SAR Measurement

No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	LTE Band 2	20M	QPSK	1	0	Bottom Side	0mm	19100	1900	22.78	24.00	1.324	0.02	2.980	-	3.947
2nd	LTE Band 2	20M	QPSK	1	0	Bottom Side	0mm	19100	1900	22.78	24.00	1.324	0.06	2.840	1.05	3.761
1st	LTE Band 4	20M	QPSK	1	0	Bottom Side	0mm	20175	1732.5	22.76	24.00	1.330	-0.01	2.370	-	3.153
2nd	LTE Band 4	20M	QPSK	1	0	Bottom Side	0mm	20175	1732.5	22.76	24.00	1.330	-0.13	2.310	1.03	3.073

No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	LTE Band 2_MOD	20M	QPSK	1	0	Back	5mm	18900	1880	14.87	15.00	1.030			-0.06	1.020	-	1.051
2nd	LTE Band 2_MOD	20M	QPSK	1	0	Back	5mm	18900	1880	14.87	15.00	1.030			0.05	0.991	1.03	1.021
1st	LTE Band 5_MOD	10M	QPSK	1	0	Back	5mm	20525	836.5	23.56	24.00	1.107			-0.02	0.962	-	1.065
2nd	LTE Band 5_MOD	10M	QPSK	1	0	Back	5mm	20525	836.5	23.56	24.00	1.107			-0.11	0.941	1.02	1.041
1st	LTE Band 13_MOD	10M	QPSK	1	0	Back	5mm	23230	782	23.49	24.00	1.125			-0.05	0.972	-	1.093
2nd	LTE Band 13_MOD	10M	QPSK	1	0	Back	5mm	23230	782	23.49	24.00	1.125			0.07	0.949	1.02	1.067
1st	LTE Band 66_MOD	20M	QPSK	1	0	Back	5mm	132322	1745	15.73	16.00	1.064			-0.04	1.080	-	1.149
2nd	LTE Band 66_MOD	20M	QPSK	1	0	Back	5mm	132322	1745	15.73	16.00	1.064			0.12	1.010	1.07	1.075
1st	LTE Band 48_MOD	20M	QPSK	1	99	Back	5mm	55340	3560	20.80	22.00	1.318	62.9	1.006	-0.09	1.070	-	1.419
2nd	LTE Band 48_MOD	20M	QPSK	1	99	Back	5mm	55340	3560	20.80	22.00	1.318	62.9	1.006	0.09	1.020	1.05	1.353

General Note:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.
2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ≤ 1.2 and the measured SAR < 1.45 W/kg, only one repeated measurement is required.
3. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. The ratio is the difference in percentage between original and repeated *measured* SAR.
5. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

12. Simultaneous Transmission Analysis

Simultaneous configuration	Supported
Mod WWAN LTE Bands+5GNR n261 / 5GNR n260	Yes
Phone WLAN 2.4GHz/5GHz+Mod LTE Bands + 5GNR n261 / 5GNR n260	Yes
Phone WWAN LTE bands + phone WLAN 2.4GHz/5GHz + Mod LTE Bands + 5GNR n261 / 5GNR n260	Yes
Phone WWAN CDMA bands + phone WLAN 2.4GHz/5GHz + Mod LTE Bands + 5GNR n261 / 5GNR n260	Yes

Note:

1. Simultaneous transmission with 5GNR n261/n260 power density was evaluated in the RF exposure report (Sporton report number: FA890514-05B). This section covers the simultaneous transmission in sub-6 GHz range
2. As explained in section 15, IHDT56WB1 SAR test results when Mod is attached were referenced from Sporton Report No: FA733129-02, except for the back / front / right / Top / bottom side position the test results in section 10 were used for analysis.
3. The Scaled SAR summation is calculated based on the same configuration and test position.
4. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - i) Scalar SAR summation $< 1.6\text{W/kg}$.
 - ii) $\text{SPLSR} = (\text{SAR1} + \text{SAR2})^{1.5} / (\text{min. separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where $(x1, y1, z1)$ and $(x2, y2, z2)$ are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - iii) If $\text{SPLSR} \leq 0.04$, simultaneously transmission SAR measurement is not necessary.
 - iv) Simultaneously transmission SAR measurement, and the reported multi-band SAR $< 1.6\text{W/kg}$.
 - v) The SPLSR calculated results please refer to section 12.5.

**12.1 Head Exposure Conditions**

<WWAN Tx On>

Head			Reported SAR			Report SAR (Mod)					Summation				
WWAN Band		Exposure Position	1	2	3	8	9	10	11	12	1+2+3+8 Summed 1g SAR (W/kg)	1+2+3+9 Summed 1g SAR (W/kg)	1+2+3+10 Summed 1g SAR (W/kg)	1+2+3+11 Summed 1g SAR (W/kg)	1+2+3+12 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 2	LTE B2 (MOD)	LTE B5 (MOD)	LTE B13(MOD)	LTE B48(MOD)	LTE B66(MOD)					
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
CDMA	CDMA2000 BC0	Right Cheek	0.230	0.341	0.051	0.306	0.190	0.160	0.107	0.168	0.928	0.812	0.782	0.729	0.790
		Right Tilted	0.145	0.299	0.022	0.189	0.108	0.101	0.114	0.087	0.655	0.574	0.567	0.580	0.553
		Left Cheek	0.190	0.636	0.052	0.104	0.122	0.112	0.106	0.072	0.982	1.000	0.990	0.984	0.950
		Left Tilted	0.123	0.504	0.023	0.057	0.087	0.070	0.029	0.057	0.707	0.737	0.720	0.679	0.707
	CDMA2000 BC1	Right Cheek	0.275	0.341	0.051	0.306	0.190	0.160	0.107	0.168	0.973	0.857	0.827	0.774	0.835
		Right Tilted	0.171	0.299	0.022	0.189	0.108	0.101	0.114	0.087	0.681	0.600	0.593	0.606	0.579
		Left Cheek	0.380	0.636	0.052	0.104	0.122	0.112	0.106	0.072	1.172	1.190	1.180	1.174	1.140
		Left Tilted	0.145	0.504	0.023	0.057	0.087	0.070	0.029	0.057	0.729	0.759	0.742	0.701	0.729
LTE	LTE Band 7	Right Cheek	0.353	0.341	0.051	0.306	0.190	0.160	0.107	0.168	1.051	0.935	0.905	0.852	0.913
		Right Tilted	0.114	0.299	0.022	0.189	0.108	0.101	0.114	0.087	0.624	0.543	0.536	0.549	0.522
		Left Cheek	0.153	0.636	0.052	0.104	0.122	0.112	0.106	0.072	0.945	0.963	0.953	0.947	0.913
		Left Tilted	0.112	0.504	0.023	0.057	0.087	0.070	0.029	0.057	0.696	0.726	0.709	0.668	0.696
	LTE Band 12	Right Cheek	0.309	0.341	0.051	0.306	0.190	0.160	0.107	0.168	1.007	0.891	0.861	0.808	0.869
		Right Tilted	0.055	0.299	0.022	0.189	0.108	0.101	0.114	0.087	0.565	0.484	0.477	0.490	0.463
		Left Cheek	0.223	0.636	0.052	0.104	0.122	0.112	0.106	0.072	1.015	1.033	1.023	1.017	0.983
		Left Tilted	0.069	0.504	0.023	0.057	0.087	0.070	0.029	0.057	0.653	0.683	0.666	0.625	0.653
	LTE Band 13	Right Cheek	0.333	0.341	0.051	0.306	0.190	0.160	0.107	0.168	1.031	0.915	0.885	0.832	0.893
		Right Tilted	0.082	0.299	0.022	0.189	0.108	0.101	0.114	0.087	0.592	0.511	0.504	0.517	0.490
		Left Cheek	0.181	0.636	0.052	0.104	0.122	0.112	0.106	0.072	0.973	0.991	0.981	0.975	0.941
		Left Tilted	0.102	0.504	0.023	0.057	0.087	0.070	0.029	0.057	0.686	0.716	0.699	0.658	0.686
	LTE Band 25	Right Cheek	0.384	0.341	0.051	0.306	0.190	0.160	0.107	0.168	1.082	0.966	0.936	0.883	0.944
		Right Tilted	0.070	0.299	0.022	0.189	0.108	0.101	0.114	0.087	0.580	0.499	0.492	0.505	0.478
		Left Cheek	0.526	0.636	0.052	0.104	0.122	0.112	0.106	0.072	1.318	1.336	1.326	1.320	1.286
		Left Tilted	0.123	0.504	0.023	0.057	0.087	0.070	0.029	0.057	0.707	0.737	0.720	0.679	0.707
	LTE Band 26	Right Cheek	0.295	0.341	0.051	0.306	0.190	0.160	0.107	0.168	0.993	0.877	0.847	0.794	0.855
		Right Tilted	0.068	0.299	0.022	0.189	0.108	0.101	0.114	0.087	0.578	0.497	0.490	0.503	0.476
		Left Cheek	0.315	0.636	0.052	0.104	0.122	0.112	0.106	0.072	1.107	1.125	1.115	1.109	1.075
		Left Tilted	0.104	0.504	0.023	0.057	0.087	0.070	0.029	0.057	0.688	0.718	0.701	0.660	0.688
	LTE Band 66	Right Cheek	0.457	0.341	0.051	0.306	0.190	0.160	0.107	0.168	1.155	1.039	1.009	0.956	1.017
		Right Tilted	0.089	0.299	0.022	0.189	0.108	0.101	0.114	0.087	0.599	0.518	0.511	0.524	0.497
		Left Cheek	0.525	0.636	0.052	0.104	0.122	0.112	0.106	0.072	1.317	1.335	1.325	1.319	1.285
		Left Tilted	0.152	0.504	0.023	0.057	0.087	0.070	0.029	0.057	0.736	0.766	0.749	0.708	0.736



<Step 1>

Head			Reported SAR			Report SAR (Mod)					Summation					
WWAN Band		Exposure Position	1	4	5	8	9	10	11	12						
			WWAN	5GHz WLAN Ant 1	5GHz WLAN Ant 2	LTE B2 (MOD)	LTE B5 (MOD)	LTE B13(MOD)	LTE B48(MOD)	LTE B66(MOD)	1+4+5+8 Summed 1g SAR (W/kg)	1+4+5+9 Summed 1g SAR (W/kg)	1+4+5+10 Summed 1g SAR (W/kg)	1+4+5+11 Summed 1g SAR (W/kg)	1+4+5+12 Summed 1g SAR (W/kg)	Note
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
CDMA	CDMA2000 BC0	Right Cheek	0.230	0.353	0.724	0.306	0.190	0.160	0.107	0.168	1.613	1.497	1.467	1.414	1.475	Go to Step 2
		Right Tilted	0.145	0.405	0.873	0.189	0.108	0.101	0.114	0.087	1.612	1.531	1.524	1.537	1.510	Go to Step 2
		Left Cheek	0.190	0.605	0.430	0.104	0.122	0.112	0.106	0.072	1.329	1.347	1.337	1.331	1.297	
		Left Tilted	0.123	0.661	0.511	0.057	0.087	0.070	0.029	0.057	1.352	1.382	1.365	1.324	1.352	
	CDMA2000 BC1	Right Cheek	0.275	0.353	0.724	0.306	0.190	0.160	0.107	0.168	1.658	1.542	1.512	1.459	1.520	Go to Step 2
		Right Tilted	0.171	0.405	0.873	0.189	0.108	0.101	0.114	0.087	1.638	1.557	1.550	1.563	1.536	Go to Step 2
		Left Cheek	0.380	0.605	0.430	0.104	0.122	0.112	0.106	0.072	1.519	1.537	1.527	1.521	1.487	
		Left Tilted	0.145	0.661	0.511	0.057	0.087	0.070	0.029	0.057	1.374	1.404	1.387	1.346	1.374	
LTE	LTE Band 7	Right Cheek	0.353	0.353	0.724	0.306	0.190	0.160	0.107	0.168	1.736	1.620	1.590	1.537	1.598	Go to Step 2
		Right Tilted	0.114	0.405	0.873	0.189	0.108	0.101	0.114	0.087	1.581	1.500	1.493	1.506	1.479	
		Left Cheek	0.153	0.605	0.430	0.104	0.122	0.112	0.106	0.072	1.292	1.310	1.300	1.294	1.260	
		Left Tilted	0.112	0.661	0.511	0.057	0.087	0.070	0.029	0.057	1.341	1.371	1.354	1.313	1.341	
	LTE Band 12	Right Cheek	0.309	0.353	0.724	0.306	0.190	0.160	0.107	0.168	1.692	1.576	1.546	1.493	1.554	Go to Step 2
		Right Tilted	0.055	0.405	0.873	0.189	0.108	0.101	0.114	0.087	1.522	1.441	1.434	1.447	1.420	
		Left Cheek	0.223	0.605	0.430	0.104	0.122	0.112	0.106	0.072	1.362	1.380	1.370	1.364	1.330	
		Left Tilted	0.069	0.661	0.511	0.057	0.087	0.070	0.029	0.057	1.298	1.328	1.311	1.270	1.298	
	LTE Band 13	Right Cheek	0.333	0.353	0.724	0.306	0.190	0.160	0.107	0.168	1.716	1.600	1.570	1.517	1.578	Go to Step 2
		Right Tilted	0.082	0.405	0.873	0.189	0.108	0.101	0.114	0.087	1.549	1.468	1.461	1.474	1.447	
		Left Cheek	0.181	0.605	0.430	0.104	0.122	0.112	0.106	0.072	1.320	1.338	1.328	1.322	1.288	
		Left Tilted	0.102	0.661	0.511	0.057	0.087	0.070	0.029	0.057	1.331	1.361	1.344	1.303	1.331	
	LTE Band 25	Right Cheek	0.384	0.353	0.724	0.306	0.190	0.160	0.107	0.168	1.767	1.651	1.621	1.568	1.629	Go to Step 2
		Right Tilted	0.070	0.405	0.873	0.189	0.108	0.101	0.114	0.087	1.537	1.456	1.449	1.462	1.435	
		Left Cheek	0.526	0.605	0.430	0.104	0.122	0.112	0.106	0.072	1.665	1.683	1.673	1.667	1.633	Go to Step 2
		Left Tilted	0.123	0.661	0.511	0.057	0.087	0.070	0.029	0.057	1.352	1.382	1.365	1.324	1.352	
	LTE Band 26	Right Cheek	0.295	0.353	0.724	0.306	0.190	0.160	0.107	0.168	1.678	1.562	1.532	1.479	1.540	Go to Step 2
		Right Tilted	0.068	0.405	0.873	0.189	0.108	0.101	0.114	0.087	1.535	1.454	1.447	1.460	1.433	
		Left Cheek	0.315	0.605	0.430	0.104	0.122	0.112	0.106	0.072	1.454	1.472	1.462	1.456	1.422	
		Left Tilted	0.104	0.661	0.511	0.057	0.087	0.070	0.029	0.057	1.333	1.363	1.346	1.305	1.333	
	LTE Band 66	Right Cheek	0.457	0.353	0.724	0.306	0.190	0.160	0.107	0.168	1.840	1.724	1.694	1.641	1.702	Go to Step 2
		Right Tilted	0.089	0.405	0.873	0.189	0.108	0.101	0.114	0.087	1.556	1.475	1.468	1.481	1.454	
		Left Cheek	0.525	0.605	0.430	0.104	0.122	0.112	0.106	0.072	1.664	1.682	1.672	1.666	1.632	Go to Step 2
		Left Tilted	0.152	0.661	0.511	0.057	0.087	0.070	0.029	0.057	1.381	1.411	1.394	1.353	1.381	

<Step 2>

Head			Reported SAR		Report SAR (Mod)					Summation				
WWAN Band		Exposure Position	1	6	8	9	10	11	12	1+6+8 Summed 1g SAR (W/kg)	1+6+9 Summed 1g SAR (W/kg)	1+6+10 Summed 1g SAR (W/kg)	1+6+11 Summed 1g SAR (W/kg)	1+6+12 Summed 1g SAR (W/kg)
			WWAN	5GHz WLAN Ant 1+2	LTE B2 (MOD)	LTE B5 (MOD)	LTE B13(MOD)	LTE B48(MOD)	LTE B66(MOD)					
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
CDMA	CDMA2000 BC0	Right Cheek	0.230	0.714	0.306	0.190	0.160	0.107	0.168	1.250	1.134	1.104	1.051	1.112
		Right Tilted	0.145	0.765	0.189	0.108	0.101	0.114	0.087	1.099	1.018	1.011	1.024	0.997
		Left Cheek	0.190	0.489	0.104	0.122	0.112	0.106	0.072	0.783	0.801	0.791	0.785	0.751
		Left Tilted	0.123	0.514	0.057	0.087	0.070	0.029	0.057	0.694	0.724	0.707	0.666	0.694
	CDMA2000 BC1	Right Cheek	0.275	0.714	0.306	0.190	0.160	0.107	0.168	1.295	1.179	1.149	1.096	1.157
		Right Tilted	0.171	0.765	0.189	0.108	0.101	0.114	0.087	1.125	1.044	1.037	1.050	1.023
		Left Cheek	0.380	0.489	0.104	0.122	0.112	0.106	0.072	0.973	0.991	0.981	0.975	0.941
		Left Tilted	0.145	0.514	0.057	0.087	0.070	0.029	0.057	0.716	0.746	0.729	0.688	0.716
LTE	LTE Band 7	Right Cheek	0.353	0.714	0.306	0.190	0.160	0.107	0.168	1.373	1.257	1.227	1.174	1.235
		Right Tilted	0.114	0.765	0.189	0.108	0.101	0.114	0.087	1.068	0.987	0.980	0.993	0.966
		Left Cheek	0.153	0.489	0.104	0.122	0.112	0.106	0.072	0.746	0.764	0.754	0.748	0.714
		Left Tilted	0.112	0.514	0.057	0.087	0.070	0.029	0.057	0.683	0.713	0.696	0.655	0.683
	LTE Band 12	Right Cheek	0.309	0.714	0.306	0.190	0.160	0.107	0.168	1.329	1.213	1.183	1.130	1.191
		Right Tilted	0.055	0.765	0.189	0.108	0.101	0.114	0.087	1.009	0.928	0.921	0.934	0.907
		Left Cheek	0.223	0.489	0.104	0.122	0.112	0.106	0.072	0.816	0.834	0.824	0.818	0.784
		Left Tilted	0.069	0.514	0.057	0.087	0.070	0.029	0.057	0.640	0.670	0.653	0.612	0.640
	LTE Band 13	Right Cheek	0.333	0.714	0.306	0.190	0.160	0.107	0.168	1.353	1.237	1.207	1.154	1.215
		Right Tilted	0.082	0.765	0.189	0.108	0.101	0.114	0.087	1.036	0.955	0.948	0.961	0.934
		Left Cheek	0.181	0.489	0.104	0.122	0.112	0.106	0.072	0.774	0.792	0.782	0.776	0.742
		Left Tilted	0.102	0.514	0.057	0.087	0.070	0.029	0.057	0.673	0.703	0.686	0.645	0.673
	LTE Band 25	Right Cheek	0.384	0.714	0.306	0.190	0.160	0.107	0.168	1.404	1.288	1.258	1.205	1.266
		Right Tilted	0.070	0.765	0.189	0.108	0.101	0.114	0.087	1.024	0.943	0.936	0.949	0.922
		Left Cheek	0.526	0.489	0.104	0.122	0.112	0.106	0.072	1.119	1.137	1.127	1.121	1.087
		Left Tilted	0.123	0.514	0.057	0.087	0.070	0.029	0.057	0.694	0.724	0.707	0.666	0.694
	LTE Band 26	Right Cheek	0.295	0.714	0.306	0.190	0.160	0.107	0.168	1.315	1.199	1.169	1.116	1.177
		Right Tilted	0.068	0.765	0.189	0.108	0.101	0.114	0.087	1.022	0.941	0.934	0.947	0.920
		Left Cheek	0.315	0.489	0.104	0.122	0.112	0.106	0.072	0.908	0.926	0.916	0.910	0.876
		Left Tilted	0.104	0.514	0.057	0.087	0.070	0.029	0.057	0.675	0.705	0.688	0.647	0.675
	LTE Band 66	Right Cheek	0.457	0.714	0.306	0.190	0.160	0.107	0.168	1.477	1.361	1.331	1.278	1.339
		Right Tilted	0.089	0.765	0.189	0.108	0.101	0.114	0.087	1.043	0.962	0.955	0.968	0.941
		Left Cheek	0.525	0.489	0.104	0.122	0.112	0.106	0.072	1.118	1.136	1.126	1.120	1.086
		Left Tilted	0.152	0.514	0.057	0.087	0.070	0.029	0.057	0.723	0.753	0.736	0.695	0.723



FCC SAR TEST REPORT

Report No. : FA890514-05A

Head			Reported SAR			Report SAR (Mod)					Summation					SPLSR	Case No
WWAN Band		Exposure Position	1	2	5	8	9	10	11	12	1+2+5+8 Summed 1g SAR (W/kg)	1+2+5+9 Summed 1g SAR (W/kg)	1+2+5+10 Summed 1g SAR (W/kg)	1+2+5+11 Summed 1g SAR (W/kg)	1+2+5+12 Summed 1g SAR (W/kg)		
			WWAN	2.4GHz WLAN Ant 1	5GHz WLAN Ant 2	LTE B2 (MOD)	LTE B5 (MOD)	LTE B13(MOD)	LTE B48(MOD)	LTE B66(MOD)							
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)							
CDMA	CDMA2000 BC0	Right Cheek	0.230	0.341	0.724	0.306	0.190	0.160	0.107	0.168	1.601	1.485	1.455	1.402	1.463	0.04	Case 1
		Right Tilted	0.145	0.299	0.873	0.189	0.108	0.101	0.114	0.087	1.506	1.425	1.418	1.431	1.404		
		Left Cheek	0.190	0.636	0.430	0.104	0.122	0.112	0.106	0.072	1.360	1.378	1.368	1.362	1.328		
		Left Tilted	0.123	0.504	0.511	0.057	0.087	0.070	0.029	0.057	1.195	1.225	1.208	1.167	1.195		
	CDMA2000 BC1	Right Cheek	0.275	0.341	0.724	0.306	0.190	0.160	0.107	0.168	1.646	1.530	1.500	1.447	1.508	0.04	Case 2
		Right Tilted	0.171	0.299	0.873	0.189	0.108	0.101	0.114	0.087	1.532	1.451	1.444	1.457	1.430		
		Left Cheek	0.380	0.636	0.430	0.104	0.122	0.112	0.106	0.072	1.550	1.568	1.558	1.552	1.518		
		Left Tilted	0.145	0.504	0.511	0.057	0.087	0.070	0.029	0.057	1.217	1.247	1.230	1.189	1.217		
LTE	LTE Band 7	Right Cheek	0.353	0.341	0.724	0.306	0.190	0.160	0.107	0.168	1.724	1.608	1.578	1.525	1.586	0.04	Case 3
		Right Tilted	0.114	0.299	0.873	0.189	0.108	0.101	0.114	0.087	1.475	1.394	1.387	1.400	1.373		
		Left Cheek	0.153	0.636	0.430	0.104	0.122	0.112	0.106	0.072	1.323	1.341	1.331	1.325	1.291		
		Left Tilted	0.112	0.504	0.511	0.057	0.087	0.070	0.029	0.057	1.184	1.214	1.197	1.156	1.184		
	LTE Band 12	Right Cheek	0.309	0.341	0.724	0.306	0.190	0.160	0.107	0.168	1.680	1.564	1.534	1.481	1.542	0.04	Case 4
		Right Tilted	0.055	0.299	0.873	0.189	0.108	0.101	0.114	0.087	1.416	1.335	1.328	1.341	1.314		
		Left Cheek	0.223	0.636	0.430	0.104	0.122	0.112	0.106	0.072	1.393	1.411	1.401	1.395	1.361		
		Left Tilted	0.069	0.504	0.511	0.057	0.087	0.070	0.029	0.057	1.141	1.171	1.154	1.113	1.141		
	LTE Band 13	Right Cheek	0.333	0.341	0.724	0.306	0.190	0.160	0.107	0.168	1.704	1.588	1.558	1.505	1.566	0.04	Case 5
		Right Tilted	0.082	0.299	0.873	0.189	0.108	0.101	0.114	0.087	1.443	1.362	1.355	1.368	1.341		
		Left Cheek	0.181	0.636	0.430	0.104	0.122	0.112	0.106	0.072	1.351	1.369	1.359	1.353	1.319		
		Left Tilted	0.102	0.504	0.511	0.057	0.087	0.070	0.029	0.057	1.174	1.204	1.187	1.146	1.174		
	LTE Band 25	Right Cheek	0.384	0.341	0.724	0.306	0.190	0.160	0.107	0.168	1.755	1.639	1.609	1.556	1.617	0.04	Case 6
		Right Tilted	0.070	0.299	0.873	0.189	0.108	0.101	0.114	0.087	1.431	1.350	1.343	1.356	1.329		
		Left Cheek	0.526	0.636	0.430	0.104	0.122	0.112	0.106	0.072	1.696	1.714	1.704	1.698	1.664	0.03	Case 7
		Left Tilted	0.123	0.504	0.511	0.057	0.087	0.070	0.029	0.057	1.195	1.225	1.208	1.167	1.195		
	LTE Band 26	Right Cheek	0.295	0.341	0.724	0.306	0.190	0.160	0.107	0.168	1.666	1.550	1.520	1.467	1.528	0.04	Case 8
		Right Tilted	0.068	0.299	0.873	0.189	0.108	0.101	0.114	0.087	1.429	1.348	1.341	1.354	1.327		
		Left Cheek	0.315	0.636	0.430	0.104	0.122	0.112	0.106	0.072	1.485	1.503	1.493	1.487	1.453		
		Left Tilted	0.104	0.504	0.511	0.057	0.087	0.070	0.029	0.057	1.176	1.206	1.189	1.148	1.176		
LTE Band 66	Right Cheek	0.457	0.341	0.724	0.306	0.190	0.160	0.107	0.168	1.828	1.712	1.682	1.629	1.690	0.04	Case 9	
	Right Tilted	0.089	0.299	0.873	0.189	0.108	0.101	0.114	0.087	1.450	1.369	1.362	1.375	1.348			
	Left Cheek	0.525	0.636	0.430	0.104	0.122	0.112	0.106	0.072	1.695	1.713	1.703	1.697	1.663	0.03	Case 10	
	Left Tilted	0.152	0.504	0.511	0.057	0.087	0.070	0.029	0.057	1.224	1.254	1.237	1.196	1.224			

**12.2 Hotspot Exposure Conditions****<WWAN Tx On>**

Hotspot		Reported SAR			Report SAR (Mod)						Summation					SPLSR	Case No
WWAN Band	Exposure Position	1	2	3	8	9	10	11	12								
		WWAN	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 2	LTE B2 (MOD)	LTE B5 (MOD)	LTE B13(MOD)	LTE B48(MOD)	LTE B66(MOD)	1+2+3+8 Summed 1g SAR (W/kg)	1+2+3+9 Summed 1g SAR (W/kg)	1+2+3+10 Summed 1g SAR (W/kg)	1+2+3+11 Summed 1g SAR (W/kg)	1+2+3+12 Summed 1g SAR (W/kg)			
CDMA	CDMA2000 BC0	Front	0.970	0.108	0.243	0.203	0.095	0.129	0.165	0.137	1.524	1.416	1.450	1.486	1.458		
		Back	0.579	0.048	0.140	0.594	0.498	0.538	0.650	0.443	1.361	1.265	1.305	1.417	1.210		
		Left side	0.290	0.018	0.084	0.501	0.282	0.595	0.993	0.472	0.893	0.674	0.987	1.385	0.864		
		Right side	0.550	0.059	0.039						0.648	0.648	0.648	0.648	0.648		
		Top side		0.082	0.006	0.026	0.060	0.045		0.150	0.114	0.148	0.133	0.088	0.238		
		Bottom side	0.383	0.003	0.255				0.159		0.641	0.641	0.641	0.800	0.641		
	CDMA2000 BC1	Front	0.869	0.108	0.243	0.203	0.095	0.129	0.165	0.137	1.423	1.315	1.349	1.385	1.357		
		Back	0.371	0.048	0.140	0.594	0.498	0.538	0.650	0.443	1.153	1.057	1.097	1.209	1.002		
		Left side	0.314	0.018	0.084	0.501	0.282	0.595	0.993	0.472	0.917	0.698	1.011	1.409	0.888		
		Right side	0.195	0.059	0.039						0.293	0.293	0.293	0.293	0.293		
		Top side		0.082	0.006	0.026	0.060	0.045		0.150	0.114	0.148	0.133	0.088	0.238		
		Bottom side	1.002	0.003	0.255				0.159		1.260	1.260	1.260	1.419	1.260		
LTE	LTE Band 7	Front	0.970	0.108	0.243	0.203	0.095	0.129	0.165	0.137	1.524	1.416	1.450	1.486	1.458		
		Back	0.407	0.048	0.140	0.594	0.498	0.538	0.650	0.443	1.189	1.093	1.133	1.245	1.038		
		Left side	0.063	0.018	0.084	0.501	0.282	0.595	0.993	0.472	0.666	0.447	0.760	1.158	0.637		
		Right side	0.311	0.059	0.039						0.409	0.409	0.409	0.409	0.409		
		Top side		0.082	0.006	0.026	0.060	0.045		0.150	0.114	0.148	0.133	0.088	0.238		
		Bottom side	0.893	0.003	0.255				0.159		1.151	1.151	1.151	1.310	1.151		
	LTE Band 12	Front	1.003	0.108	0.243	0.203	0.095	0.129	0.165	0.137	1.557	1.449	1.483	1.519	1.491		
		Back	0.553	0.048	0.140	0.594	0.498	0.538	0.650	0.443	1.335	1.239	1.279	1.391	1.184		
		Left side	0.165	0.018	0.084	0.501	0.282	0.595	0.993	0.472	0.768	0.549	0.862	1.260	0.739		
		Right side	0.638	0.059	0.039						0.736	0.736	0.736	0.736	0.736		
		Top side		0.082	0.006	0.026	0.060	0.045		0.150	0.114	0.148	0.133	0.088	0.238		
		Bottom side	0.334	0.003	0.255				0.159		0.592	0.592	0.592	0.751	0.592		
	LTE Band 13	Front	0.788	0.108	0.243	0.203	0.095	0.129	0.165	0.137	1.342	1.234	1.268	1.304	1.276		
		Back	0.419	0.048	0.140	0.594	0.498	0.538	0.650	0.443	1.201	1.105	1.145	1.257	1.050		
		Left side	0.412	0.018	0.084	0.501	0.282	0.595	0.993	0.472	1.015	0.796	1.109	1.507	0.986		
		Right side	0.739	0.059	0.039						0.837	0.837	0.837	0.837	0.837		
		Top side		0.082	0.006	0.026	0.060	0.045		0.150	0.114	0.148	0.133	0.088	0.238		
		Bottom side	0.460	0.003	0.255				0.159		0.718	0.718	0.718	0.877	0.718		
	LTE Band 25	Front	1.058	0.108	0.243	0.203	0.095	0.129	0.165	0.137	1.612	1.504	1.538	1.574	1.546	0.02	Case 11
		Back	0.398	0.048	0.140	0.594	0.498	0.538	0.650	0.443	1.180	1.084	1.124	1.236	1.029		
		Left side	0.427	0.018	0.084	0.501	0.282	0.595	0.993	0.472	1.030	0.811	1.124	1.522	1.001		
		Right side	0.238	0.059	0.039						0.336	0.336	0.336	0.336	0.336		
		Top side		0.082	0.006	0.026	0.060	0.045		0.150	0.114	0.148	0.133	0.088	0.238		
		Bottom side	1.175	0.003	0.255				0.159		1.433	1.433	1.433	1.592	1.433		
	LTE Band 26	Front	0.913	0.108	0.243	0.203	0.095	0.129	0.165	0.137	1.467	1.359	1.393	1.429	1.401		
		Back	0.624	0.048	0.140	0.594	0.498	0.538	0.650	0.443	1.406	1.310	1.350	1.462	1.255		
		Left side	0.258	0.018	0.084	0.501	0.282	0.595	0.993	0.472	0.861	0.642	0.955	1.353	0.832		
		Right side	0.636	0.059	0.039						0.734	0.734	0.734	0.734	0.734		
		Top side		0.082	0.006	0.026	0.060	0.045		0.150	0.114	0.148	0.133	0.088	0.238		
		Bottom side	0.274	0.003	0.255				0.159		0.532	0.532	0.532	0.691	0.532		
	LTE Band 66	Front	0.797	0.108	0.243	0.203	0.095	0.129	0.165	0.137	1.351	1.243	1.277	1.313	1.285		
		Back	0.427	0.048	0.140	0.594	0.498	0.538	0.650	0.443	1.209	1.113	1.153	1.265	1.058		
		Left side	0.354	0.018	0.084	0.501	0.282	0.595	0.993	0.472	0.957	0.738	1.051	1.449	0.928		
		Right side	0.201	0.059	0.039						0.299	0.299	0.299	0.299	0.299		
		Top side		0.082	0.006	0.026	0.060	0.045		0.150	0.114	0.148	0.133	0.088	0.238		
		Bottom side	1.020	0.003	0.255				0.159		1.278	1.278	1.278	1.437	1.278		



FCC SAR TEST REPORT

Report No. : FA890514-05A

Hotspot			Reported SAR			Report SAR (Mod)					Summation					SPLSR	Case No
WWAN Band	Exposure Position	1	4	5	8	9	10	11	12	1+4+5+8 Summed 1g SAR (W/kg)	1+4+5+9 Summed 1g SAR (W/kg)	1+4+5+10 Summed 1g SAR (W/kg)	1+4+5+11 Summed 1g SAR (W/kg)	1+4+5+12 Summed 1g SAR (W/kg)			
		WWAN	5GHz WLAN Ant 1	5GHz WLAN Ant 2	LTE B2 (MOD)	LTE B5 (MOD)	LTE B13(MOD)	LTE B48(MOD)	LTE B66(MOD)								
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)								
CDMA	CDMA2000 BC0	Front	0.970	0.140	0.221	0.203	0.095	0.129	0.165	0.137	1.534	1.426	1.460	1.496	1.468		
		Back	0.579	0.222	0.129	0.594	0.498	0.538	0.650	0.443	1.524	1.428	1.468	1.580	1.373		
		Left side	0.290	0.006	0.060	0.501	0.282	0.595	0.993	0.472	0.857	0.638	0.951	1.349	0.828		
		Right side	0.550	0.015	0.021						0.586	0.586	0.586	0.586	0.586		
		Top side		0.077	0.230	0.026	0.060	0.045		0.150	0.333	0.367	0.352	0.307	0.457		
		Bottom side	0.383						0.159		0.383	0.383	0.383	0.542	0.383		
	CDMA2000 BC1	Front	0.869	0.140	0.221	0.203	0.095	0.129	0.165	0.137	1.433	1.325	1.359	1.395	1.367		
		Back	0.371	0.222	0.129	0.594	0.498	0.538	0.650	0.443	1.316	1.220	1.260	1.372	1.165		
		Left side	0.314	0.006	0.060	0.501	0.282	0.595	0.993	0.472	0.881	0.662	0.975	1.373	0.852		
		Right side	0.195	0.015	0.021						0.231	0.231	0.231	0.231	0.231		
		Top side		0.077	0.230	0.026	0.060	0.045		0.150	0.333	0.367	0.352	0.307	0.457		
		Bottom side	1.002						0.159		1.002	1.002	1.002	1.161	1.002		
LTE	LTE Band 7	Front	0.970	0.140	0.221	0.203	0.095	0.129	0.165	0.137	1.534	1.426	1.460	1.496	1.468		
		Back	0.407	0.222	0.129	0.594	0.498	0.538	0.650	0.443	1.352	1.256	1.296	1.408	1.201		
		Left side	0.063	0.006	0.060	0.501	0.282	0.595	0.993	0.472	0.630	0.411	0.724	1.122	0.601		
		Right side	0.311	0.015	0.021						0.347	0.347	0.347	0.347	0.347		
		Top side		0.077	0.230	0.026	0.060	0.045		0.150	0.333	0.367	0.352	0.307	0.457		
		Bottom side	0.893						0.159		0.893	0.893	0.893	1.052	0.893		
	LTE Band 12	Front	1.003	0.140	0.221	0.203	0.095	0.129	0.165	0.137	1.567	1.459	1.493	1.529	1.501		
		Back	0.553	0.222	0.129	0.594	0.498	0.538	0.650	0.443	1.498	1.402	1.442	1.554	1.347		
		Left side	0.165	0.006	0.060	0.501	0.282	0.595	0.993	0.472	0.732	0.513	0.826	1.224	0.703		
		Right side	0.638	0.015	0.021						0.674	0.674	0.674	0.674	0.674		
		Top side		0.077	0.230	0.026	0.060	0.045		0.150	0.333	0.367	0.352	0.307	0.457		
		Bottom side	0.334						0.159		0.334	0.334	0.334	0.493	0.334		
	LTE Band 13	Front	0.788	0.140	0.221	0.203	0.095	0.129	0.165	0.137	1.352	1.244	1.278	1.314	1.286		
		Back	0.419	0.222	0.129	0.594	0.498	0.538	0.650	0.443	1.364	1.268	1.308	1.420	1.213		
		Left side	0.412	0.006	0.060	0.501	0.282	0.595	0.993	0.472	0.979	0.760	1.073	1.471	0.950		
		Right side	0.739	0.015	0.021						0.775	0.775	0.775	0.775	0.775		
		Top side		0.077	0.230	0.026	0.060	0.045		0.150	0.333	0.367	0.352	0.307	0.457		
		Bottom side	0.460						0.159		0.460	0.460	0.460	0.619	0.460		
	LTE Band 25	Front	1.058	0.140	0.221	0.203	0.095	0.129	0.165	0.137	1.622	1.514	1.548	1.584	1.556	0.02	Case 11
		Back	0.398	0.222	0.129	0.594	0.498	0.538	0.650	0.443	1.343	1.247	1.287	1.399	1.192		
		Left side	0.427	0.006	0.060	0.501	0.282	0.595	0.993	0.472	0.994	0.775	1.088	1.486	0.965		
		Right side	0.238	0.015	0.021						0.274	0.274	0.274	0.274	0.274		
		Top side		0.077	0.230	0.026	0.060	0.045		0.150	0.333	0.367	0.352	0.307	0.457		
		Bottom side	1.175						0.159		1.175	1.175	1.175	1.334	1.175		
	LTE Band 26	Front	0.913	0.140	0.221	0.203	0.095	0.129	0.165	0.137	1.477	1.369	1.403	1.439	1.411		
		Back	0.624	0.222	0.129	0.594	0.498	0.538	0.650	0.443	1.569	1.473	1.513	1.625	1.418	0.03	Case 12
		Left side	0.258	0.006	0.060	0.501	0.282	0.595	0.993	0.472	0.825	0.606	0.919	1.317	0.796		
		Right side	0.636	0.015	0.021						0.672	0.672	0.672	0.672	0.672		
		Top side		0.077	0.230	0.026	0.060	0.045		0.150	0.333	0.367	0.352	0.307	0.457		
		Bottom side	0.274						0.159		0.274	0.274	0.274	0.433	0.274		
	LTE Band 66	Front	0.797	0.140	0.221	0.203	0.095	0.129	0.165	0.137	1.361	1.253	1.287	1.323	1.295		
		Back	0.427	0.222	0.129	0.594	0.498	0.538	0.650	0.443	1.372	1.276	1.316	1.428	1.221		
		Left side	0.354	0.006	0.060	0.501	0.282	0.595	0.993	0.472	0.921	0.702	1.015	1.413	0.892		
		Right side	0.201	0.015	0.021						0.237	0.237	0.237	0.237	0.237		
		Top side		0.077	0.230	0.026	0.060	0.045		0.150	0.333	0.367	0.352	0.307	0.457		
		Bottom side	1.020						0.159		1.020	1.020	1.020	1.179	1.020		



FCC SAR TEST REPORT

Report No. : FA890514-05A

Hotspot		Reported SAR			Report SAR (Mod)					Summation					
WWAN Band		Exposure Position	1	2	5	8	9	10	11	12	1+2+5+8 Summed 1g SAR (W/kg)	1+2+5+9 Summed 1g SAR (W/kg)	1+2+5+10 Summed 1g SAR (W/kg)	1+2+5+11 Summed 1g SAR (W/kg)	1+2+5+12 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1	5GHz WLAN Ant 2	LTE B2 (MOD)	LTE B5 (MOD)	LTE B13(MOD)	LTE B48(MOD)	LTE B66(MOD)					
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
CDMA	CDMA2000 BC0	Front	0.970	0.108	0.221	0.203	0.095	0.129	0.165	0.137	1.502	1.394	1.428	1.464	1.436
		Back	0.579	0.048	0.129	0.594	0.498	0.538	0.650	0.443	1.350	1.254	1.294	1.406	1.199
		Left side	0.290	0.018	0.060	0.501	0.282	0.595	0.993	0.472	0.869	0.650	0.963	1.361	0.840
		Right side	0.550	0.059	0.021						0.630	0.630	0.630	0.630	0.630
		Top side		0.082	0.230	0.026	0.060	0.045		0.150	0.338	0.372	0.357	0.312	0.462
		Bottom side	0.383	0.003					0.159		0.386	0.386	0.386	0.545	0.386
	CDMA2000 BC1	Front	0.869	0.108	0.221	0.203	0.095	0.129	0.165	0.137	1.401	1.293	1.327	1.363	1.335
		Back	0.371	0.048	0.129	0.594	0.498	0.538	0.650	0.443	1.142	1.046	1.086	1.198	0.991
		Left side	0.314	0.018	0.060	0.501	0.282	0.595	0.993	0.472	0.893	0.674	0.987	1.385	0.864
		Right side	0.195	0.059	0.021						0.275	0.275	0.275	0.275	0.275
		Top side		0.082	0.230	0.026	0.060	0.045		0.150	0.338	0.372	0.357	0.312	0.462
		Bottom side	1.002	0.003					0.159		1.005	1.005	1.005	1.164	1.005
LTE	LTE Band 7	Front	0.970	0.108	0.221	0.203	0.095	0.129	0.165	0.137	1.502	1.394	1.428	1.464	1.436
		Back	0.407	0.048	0.129	0.594	0.498	0.538	0.650	0.443	1.178	1.082	1.122	1.234	1.027
		Left side	0.063	0.018	0.060	0.501	0.282	0.595	0.993	0.472	0.642	0.423	0.736	1.134	0.613
		Right side	0.311	0.059	0.021						0.391	0.391	0.391	0.391	0.391
		Top side		0.082	0.230	0.026	0.060	0.045		0.150	0.338	0.372	0.357	0.312	0.462
		Bottom side	0.893	0.003					0.159		0.896	0.896	0.896	1.055	0.896
	LTE Band 12	Front	1.003	0.108	0.221	0.203	0.095	0.129	0.165	0.137	1.535	1.427	1.461	1.497	1.469
		Back	0.553	0.048	0.129	0.594	0.498	0.538	0.650	0.443	1.324	1.228	1.268	1.380	1.173
		Left side	0.165	0.018	0.060	0.501	0.282	0.595	0.993	0.472	0.744	0.525	0.838	1.236	0.715
		Right side	0.638	0.059	0.021						0.718	0.718	0.718	0.718	0.718
		Top side		0.082	0.230	0.026	0.060	0.045		0.150	0.338	0.372	0.357	0.312	0.462
		Bottom side	0.334	0.003					0.159		0.337	0.337	0.337	0.496	0.337
	LTE Band 13	Front	0.788	0.108	0.221	0.203	0.095	0.129	0.165	0.137	1.320	1.212	1.246	1.282	1.254
		Back	0.419	0.048	0.129	0.594	0.498	0.538	0.650	0.443	1.190	1.094	1.134	1.246	1.039
		Left side	0.412	0.018	0.060	0.501	0.282	0.595	0.993	0.472	0.991	0.772	1.085	1.483	0.962
		Right side	0.739	0.059	0.021						0.819	0.819	0.819	0.819	0.819
		Top side		0.082	0.230	0.026	0.060	0.045		0.150	0.338	0.372	0.357	0.312	0.462
		Bottom side	0.460	0.003					0.159		0.463	0.463	0.463	0.622	0.463
	LTE Band 25	Front	1.058	0.108	0.221	0.203	0.095	0.129	0.165	0.137	1.590	1.482	1.516	1.552	1.524
		Back	0.398	0.048	0.129	0.594	0.498	0.538	0.650	0.443	1.169	1.073	1.113	1.225	1.018
		Left side	0.427	0.018	0.060	0.501	0.282	0.595	0.993	0.472	1.006	0.787	1.100	1.498	0.977
		Right side	0.238	0.059	0.021						0.318	0.318	0.318	0.318	0.318
		Top side		0.082	0.230	0.026	0.060	0.045		0.150	0.338	0.372	0.357	0.312	0.462
		Bottom side	1.175	0.003					0.159		1.178	1.178	1.178	1.337	1.178
	LTE Band 26	Front	0.913	0.108	0.221	0.203	0.095	0.129	0.165	0.137	1.445	1.337	1.371	1.407	1.379
		Back	0.624	0.048	0.129	0.594	0.498	0.538	0.650	0.443	1.395	1.299	1.339	1.451	1.244
		Left side	0.258	0.018	0.060	0.501	0.282	0.595	0.993	0.472	0.837	0.618	0.931	1.329	0.808
		Right side	0.636	0.059	0.021						0.716	0.716	0.716	0.716	0.716
		Top side		0.082	0.230	0.026	0.060	0.045		0.150	0.338	0.372	0.357	0.312	0.462
		Bottom side	0.274	0.003					0.159		0.277	0.277	0.277	0.436	0.277
	LTE Band 66	Front	0.797	0.108	0.221	0.203	0.095	0.129	0.165	0.137	1.329	1.221	1.255	1.291	1.263
		Back	0.427	0.048	0.129	0.594	0.498	0.538	0.650	0.443	1.198	1.102	1.142	1.254	1.047
		Left side	0.354	0.018	0.060	0.501	0.282	0.595	0.993	0.472	0.933	0.714	1.027	1.425	0.904
		Right side	0.201	0.059	0.021						0.281	0.281	0.281	0.281	0.281
		Top side		0.082	0.230	0.026	0.060	0.045		0.150	0.338	0.372	0.357	0.312	0.462
		Bottom side	1.020	0.003					0.159		1.023	1.023	1.023	1.182	1.023

<WWAN Tx Off>

WWAN Band		Exposure Position	1	2	3	4	5	1+2+3 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 2	5GHz WLAN Ant 1	5GHz WLAN Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	LTE Band 2(MOD)	Front	0.203	0.108	0.243	0.14	0.221	0.554	0.564
		Back	1.381	0.048	0.140	0.222	0.129	1.569	1.732
		Left side	0.501	0.018	0.084	0.006	0.06	0.603	0.567
		Right side		0.059	0.039	0.015	0.021	0.098	0.036
		Top side	0.026	0.082	0.006	0.077	0.23	0.114	0.333
		Bottom side		0.003	0.373			0.376	0.000
	LTE Band 5(MOD)	Front	0.135	0.108	0.243	0.14	0.221	0.486	0.496
		Back	1.328	0.048	0.140	0.222	0.129	1.516	1.679
		Left side	0.473	0.018	0.084	0.006	0.06	0.575	0.539
		Right side	0.152	0.059	0.039	0.015	0.021	0.250	0.188
		Top side	0.06	0.082	0.006	0.077	0.23	0.148	0.367
		Bottom side		0.003	0.373			0.376	0.000
	LTE Band 13(MOD)	Front	0.129	0.108	0.243	0.14	0.221	0.480	0.490
		Back	1.383	0.048	0.140	0.222	0.129	1.571	1.734
		Left side	0.595	0.018	0.084	0.006	0.06	0.697	0.661
		Right side		0.059	0.039	0.015	0.021	0.098	0.036
		Top side	0.045	0.082	0.006	0.077	0.23	0.133	0.352
		Bottom side		0.003	0.373			0.376	0.000
	LTE Band 48(MOD)	Front	0.308	0.108	0.243	0.14	0.221	0.659	0.669
		Back	1.235	0.048	0.140	0.222	0.129	1.423	1.586
		Left side	0.993	0.018	0.084	0.006	0.06	1.095	1.059
		Right side		0.059	0.039	0.015	0.021	0.098	0.036
		Top side		0.082	0.006	0.077	0.23	0.088	0.307
		Bottom side	0.41	0.003	0.373			0.786	0.410
	LTE Band 66(MOD)	Front	0.137	0.108	0.243	0.14	0.221	0.488	0.498
		Back	1.266	0.048	0.140	0.222	0.129	1.454	1.617
		Left side	0.472	0.018	0.084	0.006	0.06	0.574	0.538
		Right side		0.059	0.039	0.015	0.021	0.098	0.036
		Top side	0.15	0.082	0.006	0.077	0.23	0.238	0.457
		Bottom side		0.003	0.373			0.376	0.000

12.3 Body-Worn Accessory Exposure Conditions

<WWAN Tx On>

Body-Worn		Reported SAR			Report SAR (Mod)					Summation					SPLSR	Case No	
WWAN Band		Exposure Position	1	2	3	8	9	10	11	12	1+2+3+8 Summed 1g SAR (W/kg)	1+2+3+9 Summed 1g SAR (W/kg)	1+2+3+10 Summed 1g SAR (W/kg)	1+2+3+11 Summed 1g SAR (W/kg)			1+2+3+12 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 2	LTE B2 (MOD)	LTE B5 (MOD)	LTE B13(MOD)	LTE B48(MOD)	LTE B66(MOD)							
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)							
CDMA	CDMA2000 BC0	Front	0.943	0.108	0.243	0.203	0.095	0.129	0.165	0.137	1.497	1.389	1.423	1.459	1.431		
		Back	0.549	0.048	0.140	0.594	0.498	0.538	0.650	0.443	1.331	1.235	1.275	1.387	1.180		
	CDMA2000 BC1	Front	0.874	0.108	0.243	0.203	0.095	0.129	0.165	0.137	1.428	1.320	1.354	1.390	1.362		
		Back	0.353	0.048	0.140	0.594	0.498	0.538	0.650	0.443	1.135	1.039	1.079	1.191	0.984		
LTE	LTE Band 7	Front	0.970	0.108	0.243	0.203	0.095	0.129	0.165	0.137	1.524	1.416	1.450	1.486	1.458		
		Back	0.407	0.048	0.140	0.594	0.498	0.538	0.650	0.443	1.189	1.093	1.133	1.245	1.038		
	LTE Band 12	Front	1.003	0.108	0.243	0.203	0.095	0.129	0.165	0.137	1.557	1.449	1.483	1.519	1.491		
		Back	0.553	0.048	0.140	0.594	0.498	0.538	0.650	0.443	1.335	1.239	1.279	1.391	1.184		
	LTE Band 13	Front	0.788	0.108	0.243	0.203	0.095	0.129	0.165	0.137	1.342	1.234	1.268	1.304	1.276		
		Back	0.419	0.048	0.140	0.594	0.498	0.538	0.650	0.443	1.201	1.105	1.145	1.257	1.050		
	LTE Band 25	Front	1.058	0.108	0.243	0.203	0.095	0.129	0.165	0.137	1.612	1.504	1.538	1.574	1.546	0.01	Case 14
		Back	0.538	0.048	0.140	0.594	0.498	0.538	0.650	0.443	1.320	1.224	1.264	1.376	1.169		
	LTE Band 26	Front	0.913	0.108	0.243	0.203	0.095	0.129	0.165	0.137	1.467	1.359	1.393	1.429	1.401		
		Back	0.624	0.048	0.140	0.594	0.498	0.538	0.650	0.443	1.406	1.310	1.350	1.462	1.255		
	LTE Band 66	Front	0.797	0.108	0.243	0.203	0.095	0.129	0.165	0.137	1.351	1.243	1.277	1.313	1.285		
		Back	0.427	0.048	0.140	0.594	0.498	0.538	0.650	0.443	1.209	1.113	1.153	1.265	1.058		

Body-Worn			Reported SAR				Report SAR (Mod)					Summation					SPLSR	Case No
WWAN Band		Exposure Position	1	4	5	7	8	9	10	11	12	1+4+5+7+8 Summed 1g SAR (W/kg)	1+4+5+7+9 Summed 1g SAR (W/kg)	1+4+5+7+10 Summed 1g SAR (W/kg)	1+4+5+7+11 Summed 1g SAR (W/kg)	1+4+5+7+12 Summed 1g SAR (W/kg)		
			WWAN	5GHz WLAN Ant 1	5GHz WLAN Ant 2	Bluetooth Ant 1	LTE B2 (MOD)	LTE B5 (MOD)	LTE B13(MOD)	LTE B48(MOD)	LTE B66(MOD)							
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)							
CDMA	CDMA2000 BC0	Front	0.943	0.146	0.221	0.026	0.203	0.095	0.129	0.165	0.137	1.539	1.431	1.465	1.501	1.473		
		Back	0.549	0.226	0.129	0.003	0.594	0.498	0.538	0.650	0.443	1.501	1.405	1.445	1.557	1.350		
	CDMA2000 BC1	Front	0.874	0.146	0.221	0.026	0.203	0.095	0.129	0.165	0.137	1.470	1.362	1.396	1.432	1.404		
		Back	0.353	0.226	0.129	0.003	0.594	0.498	0.538	0.650	0.443	1.305	1.209	1.249	1.361	1.154		
LTE	LTE Band 7	Front	0.970	0.146	0.221	0.026	0.203	0.095	0.129	0.165	0.137	1.566	1.458	1.492	1.528	1.500		
		Back	0.407	0.226	0.129	0.003	0.594	0.498	0.538	0.650	0.443	1.359	1.263	1.303	1.415	1.208		
	LTE Band 12	Front	1.003	0.146	0.221	0.026	0.203	0.095	0.129	0.165	0.137	1.599	1.491	1.525	1.561	1.533	0.01	Case 13
		Back	0.553	0.226	0.129	0.003	0.594	0.498	0.538	0.650	0.443	1.505	1.409	1.449	1.561	1.354		
	LTE Band 13	Front	0.788	0.146	0.221	0.026	0.203	0.095	0.129	0.165	0.137	1.384	1.276	1.310	1.346	1.318		
		Back	0.419	0.226	0.129	0.003	0.594	0.498	0.538	0.650	0.443	1.371	1.275	1.315	1.427	1.220		
	LTE Band 25	Front	1.058	0.146	0.221	0.026	0.203	0.095	0.129	0.165	0.137	1.654	1.546	1.580	1.616	1.588	0.01	Case 14
		Back	0.538	0.226	0.129	0.003	0.594	0.498	0.538	0.650	0.443	1.490	1.394	1.434	1.546	1.339		
	LTE Band 26	Front	0.913	0.146	0.221	0.026	0.203	0.095	0.129	0.165	0.137	1.509	1.401	1.435	1.471	1.443		
		Back	0.624	0.226	0.129	0.003	0.594	0.498	0.538	0.650	0.443	1.576	1.480	1.520	1.632	1.425	0.03	Case 15
	LTE Band 66	Front	0.797	0.146	0.221	0.026	0.203	0.095	0.129	0.165	0.137	1.393	1.285	1.319	1.355	1.327		
		Back	0.427	0.226	0.129	0.003	0.594	0.498	0.538	0.650	0.443	1.379	1.283	1.323	1.435	1.228		

Body-Worn			Reported SAR				Report SAR (Mod)					Summation				
WWAN Band		Exposure Position	1	2	5	7	8	9	10	11	12	1+2+5+7+8 Summed 1g SAR (W/kg)	1+2+5+7+9 Summed 1g SAR (W/kg)	1+2+5+7+10 Summed 1g SAR (W/kg)	1+2+5+7+11 Summed 1g SAR (W/kg)	1+2+5+7+12 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1	5GHz WLAN Ant 2	Bluetooth Ant 1	LTE B2 (MOD)	LTE B5 (MOD)	LTE B13(MOD)	LTE B48(MOD)	LTE B66(MOD)					
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
CDMA	CDMA2000 BC0	Front	0.943	0.108	0.221	0.026	0.203	0.095	0.129	0.165	0.137	1.475	1.367	1.401	1.437	1.409
		Back	0.549	0.048	0.129	0.003	0.594	0.498	0.538	0.650	0.443	1.320	1.224	1.264	1.376	1.169
	CDMA2000 BC1	Front	0.874	0.108	0.221	0.026	0.203	0.095	0.129	0.165	0.137	1.406	1.298	1.332	1.368	1.340
		Back	0.353	0.048	0.129	0.003	0.594	0.498	0.538	0.650	0.443	1.124	1.028	1.068	1.180	0.973
LTE	LTE Band 7	Front	0.970	0.108	0.221	0.026	0.203	0.095	0.129	0.165	0.137	1.502	1.394	1.428	1.464	1.436
		Back	0.407	0.048	0.129	0.003	0.594	0.498	0.538	0.650	0.443	1.178	1.082	1.122	1.234	1.027
	LTE Band 12	Front	1.003	0.108	0.221	0.026	0.203	0.095	0.129	0.165	0.137	1.535	1.427	1.461	1.497	1.469
		Back	0.553	0.048	0.129	0.003	0.594	0.498	0.538	0.650	0.443	1.324	1.228	1.268	1.380	1.173
	LTE Band 13	Front	0.788	0.108	0.221	0.026	0.203	0.095	0.129	0.165	0.137	1.320	1.212	1.246	1.282	1.254
		Back	0.419	0.048	0.129	0.003	0.594	0.498	0.538	0.650	0.443	1.190	1.094	1.134	1.246	1.039
	LTE Band 25	Front	1.058	0.108	0.221	0.026	0.203	0.095	0.129	0.165	0.137	1.590	1.482	1.516	1.552	1.524
		Back	0.538	0.048	0.129	0.003	0.594	0.498	0.538	0.650	0.443	1.309	1.213	1.253	1.365	1.158
	LTE Band 26	Front	0.913	0.108	0.221	0.026	0.203	0.095	0.129	0.165	0.137	1.445	1.337	1.371	1.407	1.379
		Back	0.624	0.048	0.129	0.003	0.594	0.498	0.538	0.650	0.443	1.395	1.299	1.339	1.451	1.244
	LTE Band 66	Front	0.797	0.108	0.221	0.026	0.203	0.095	0.129	0.165	0.137	1.329	1.221	1.255	1.291	1.263
		Back	0.427	0.048	0.129	0.003	0.594	0.498	0.538	0.650	0.443	1.198	1.102	1.142	1.254	1.047

<WWAN Tx Off>

WWAN Band		Exposure Position	1	2	3	4	5	6	1+2+3 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)	1+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 2	5GHz WLAN Ant 1	5GHz WLAN Ant 2	Bluetooth Ant 1			
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
LTE	LTE Band 2(MOD)	Front	0.203	0.108	0.243	0.146	0.221	0.026	0.554	0.57	0.229
		Back	1.381	0.048	0.14	0.226	0.129	0.003	1.569	1.736	1.384
	LTE Band 5(MOD)	Front	0.135	0.108	0.243	0.146	0.221	0.026	0.486	0.502	0.161
		Back	1.328	0.048	0.14	0.226	0.129	0.003	1.516	1.683	1.331
	LTE Band 13(MOD)	Front	0.129	0.108	0.243	0.146	0.221	0.026	0.48	0.496	0.155
		Back	1.361	0.048	0.14	0.226	0.129	0.003	1.549	1.716	1.364
	LTE Band 48(MOD)	Front	0.308	0.108	0.243	0.146	0.221	0.026	0.659	0.675	0.334
		Back	1.235	0.048	0.14	0.226	0.129	0.003	1.423	1.59	1.238
	LTE Band 66(MOD)	Front	0.137	0.108	0.243	0.146	0.221	0.026	0.488	0.504	0.163
		Back	1.266	0.048	0.14	0.226	0.129	0.003	1.454	1.621	1.269

12.4 Product Specific Exposure Conditions

<WWAN Tx On>

WWAN Band		Exposure Position	1	2	3	4	5	6	7	1+2+3+4 Summed 10g SAR (W/kg)	1+2+3+5 Summed 10g SAR (W/kg)	1+2+3+6 Summed 10g SAR (W/kg)	1+2+3+7 Summed 10g SAR (W/kg)
			WWAN	5GHz WLAN Ant 1	5GHz WLAN Ant 2	LTE B2 (MOD)	LTE B13(MOD)	LTE B48(MOD)	LTE B66(MOD)				
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)				
CDMA	CDMA2000 BC1	Front		0.817	1.187					2.004	2.004	2.004	2.004
		Back		0.368	0.167	0.4	0.928	1.62	0.505	0.935	1.463	2.155	1.040
		Bottom side	3.761							3.761	3.761	3.761	3.761
LTE	LTE Band 2	Front		0.817	1.187					2.004	2.004	2.004	2.004
		Back		0.368	0.167	0.4	0.928	1.62	0.505	0.935	1.463	2.155	1.040
		Bottom side	3.364							3.364	3.364	3.364	3.364
	LTE Band 4	Front		0.817	1.187					2.004	2.004	2.004	2.004
		Back		0.368	0.167	0.4	0.928	1.62	0.505	0.935	1.463	2.155	1.040
		Bottom side	3.166							3.166	3.166	3.166	3.166
	LTE Band 25	Front		0.817	1.187					2.004	2.004	2.004	2.004
		Back		0.368	0.167	0.4	0.928	1.62	0.505	0.935	1.463	2.155	1.040
		Bottom side	3.359							3.359	3.359	3.359	3.359

<WWAN Tx Off>

WWAN Band		Exposure Position	1	2	3	1+2+3 Summed 10g SAR (W/kg)
			WWAN	5GHz WLAN Ant 1	5GHz WLAN Ant 2	
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	
LTE	LTE Band 2(Mod)	Front		0.817	1.187	2.004
		Back	0.400	0.368	0.167	0.935
		Right side		0.030	0.057	0.087
		Top side		0.726	0.826	1.552
	LTE Band 5 (MOD)	Front		0.817	1.187	2.004
		Back	0.778	0.368	0.167	1.313
		Right side		0.030	0.057	0.087
		Top side		0.726	0.826	1.552
	LTE Band 13(MOD)	Front		0.817	1.187	2.004
		Back	0.928	0.368	0.167	1.463
		Right side		0.030	0.057	0.087
		Top side		0.726	0.826	1.552
	LTE Band 66(MOD)	Front		0.817	1.187	2.004
		Back	0.505	0.368	0.167	1.040
		Right side		0.030	0.057	0.087
		Top side		0.726	0.826	1.552
	LTE Band 48(MOD)	Front		0.817	1.187	2.004
		Back	1.620	0.368	0.167	2.155
		Right side		0.030	0.057	0.087
		Top side		0.726	0.826	1.552

12.5 SPLSR Evaluation and Analysis

General Note:

1. Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneously transmitting antenna. When the sum of 1-g or 10-g SAR of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit, SAR test exclusion applies to that simultaneous transmission configuration. Therefore, the adjacent transmit antennas will be summed first, and then the SPLSR calculation will be evaluated with the farther transmitted antennas.
2. $SPLSR = (SAR_1 + SAR_2)^{1.5} / (min. \text{ separation distance, mm})$. If $SPLSR \leq 0.04$, simultaneously transmission SAR measurement is not necessary
3. The detail hotspot point for each transmitter in each exposure condition are showing as below figure and the minimum 3D distance for each sum combination is used for SPLSR analysis.

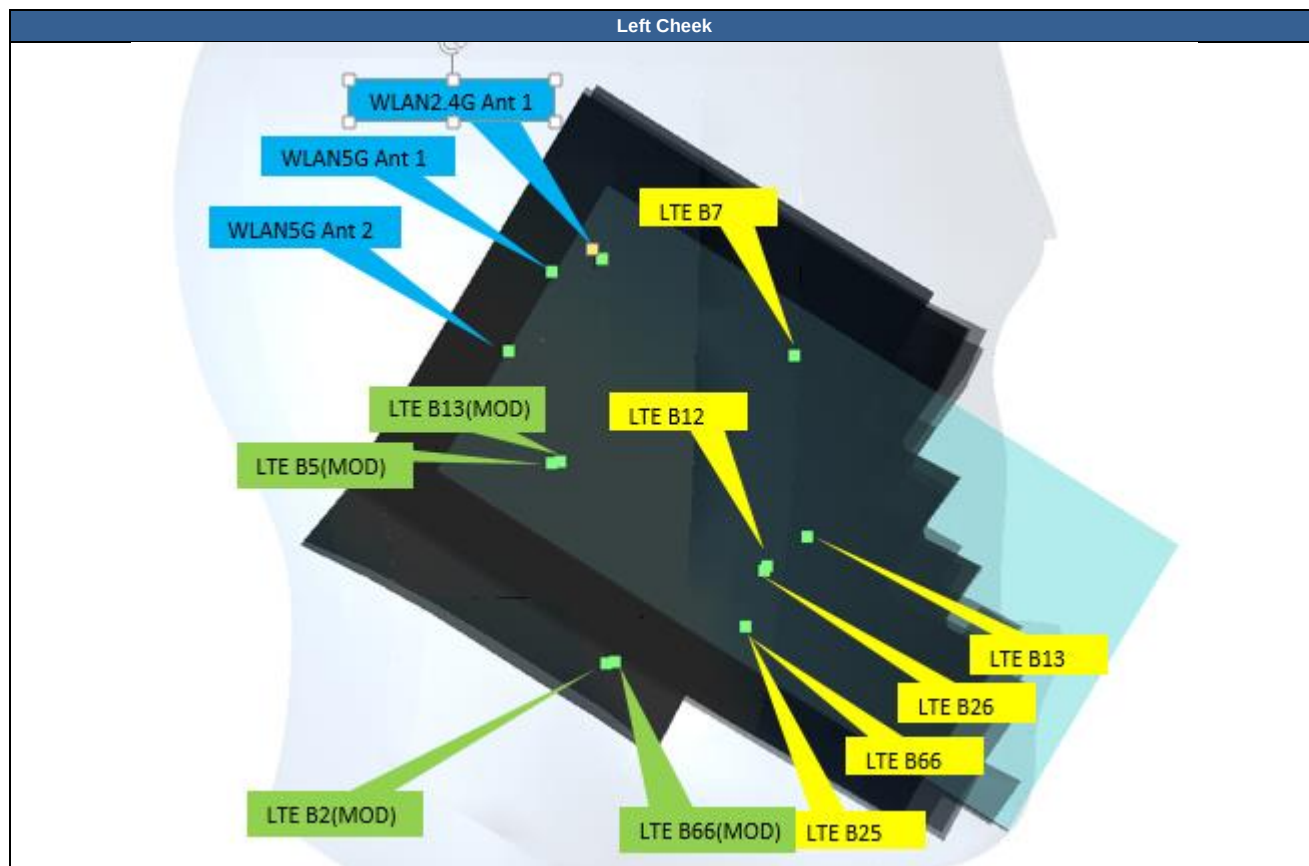
<Each transmitter hot point and SPLSR analysis for Right Cheek exposure position>



	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 1	CDMA BC0	Right Cheek	0.23	0	64.28	81.47	9.6	115.4	0.95	0.01	Not required
	WLAN5G_Ant 2		0.724	0	-4.39	-10.96	1.77				
	CDMA BC0	Right Cheek	0.23	0	64.28	81.47	9.6	117.1	0.54	0.00	Not required
	LTE Band 2(MDO)		0.306	0	46.69	-33.98	0.75				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	56.0	1.03	0.02	Not required
	LTE Band 2(MDO)		0.306	0	46.69	-33.98	0.75				
	CDMA BC0	Right Cheek	0.23	0	64.28	81.47	9.6	98.9	0.57	0.00	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	LTE Band 2(MDO)	Right Cheek	0.306	0	46.69	-33.98	0.75	74.1	0.65	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	26.6	1.07	0.04	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
Case 2	CDMA BC1	Right Cheek	0.275	0	52.35	69.95	0.48	98.8	1.00	0.01	Not required
	WLAN5G_Ant 2		0.724	0	-4.39	-10.96	1.77				
	CDMA BC1	Right Cheek	0.275	0	52.35	69.95	0.48	104.1	0.58	0.00	Not required
	LTE Band 2(MDO)		0.306	0	46.69	-33.98	0.75				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	56.0	1.03	0.02	Not required
	LTE Band 2(MDO)		0.306	0	46.69	-33.98	0.75				
	CDMA BC1	Right Cheek	0.275	0	52.35	69.95	0.48	82.0	0.62	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	LTE Band 2(MDO)	Right Cheek	0.306	0	46.69	-33.98	0.75	74.1	0.65	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	26.6	1.07	0.04	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
Case 3	LTE Band 7	Right Cheek	0.353	0	49.99	62.74	1.21	91.6	1.08	0.01	Not required
	WLAN5G_Ant 2		0.724	0	-4.39	-10.96	1.77				
	LTE Band 7	Right Cheek	0.353	0	49.99	62.74	1.21	96.8	0.66	0.01	Not required
	LTE Band 2(MDO)		0.306	0	46.69	-33.98	0.75				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	56.0	1.03	0.02	Not required
	LTE Band 2(MDO)		0.306	0	46.69	-33.98	0.75				
	LTE Band 7	Right Cheek	0.353	0	49.99	62.74	1.21	85.9	0.54	0.00	Not required
	LTE Band 5(MDO)		0.19	0	38.29	-22.17	-4.41				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	44.6	0.91	0.02	Not required
	LTE Band 5(MDO)		0.19	0	38.29	-22.17	-4.41				
	LTE Band 7	Right Cheek	0.353	0	49.99	62.74	1.21	75.5	0.69	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	LTE Band 2(MDO)	Right Cheek	0.306	0	46.69	-33.98	0.75	74.1	0.65	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	26.6	1.07	0.04	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	LTE Band 5(MDO)	Right Cheek	0.19	0	38.29	-22.17	-4.41	60.4	0.53	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
Case 4	LTE Band 12	Right Cheek	0.309	0	69.95	83.04	12.57	120.3	1.03	0.01	Not required
	WLAN5G_Ant 2		0.724	0	-4.39	-10.96	1.77				
	LTE Band 12	Right Cheek	0.309	0	69.95	83.04	12.57	119.9	0.62	0.00	Not required
	LTE Band 2(MDO)		0.306	0	46.69	-33.98	0.75				
	WLAN5G_Ant 2	Right	0.724	0	-4.39	-10.96	1.77	56.0	1.03	0.02	Not required

	LTE Band 2(MDO)	Cheek	0.306	0	46.69	-33.98	0.75				
	LTE Band 12	Right Cheek	0.309	0	69.95	83.04	12.57	104.4	0.65	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	LTE Band 2(MDO)	Right Cheek	0.306	0	46.69	-33.98	0.75	74.1	0.65	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	26.6	1.07	0.04	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
Case 5	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 13	Right Cheek	0.333	0	65.92	78.91	9.43	114.4	1.06	0.01	Not required
	WLAN5G_Ant 2		0.724	0	-4.39	-10.96	1.77				
	LTE Band 13	Right Cheek	0.333	0	65.92	78.91	9.43	114.8	0.64	0.00	Not required
	LTE Band 2(MDO)		0.306	0	46.69	-33.98	0.75				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	56.0	1.03	0.02	Not required
	LTE Band 2(MDO)		0.306	0	46.69	-33.98	0.75				
	LTE Band 13	Right Cheek	0.333	0	65.92	78.91	9.43	98.4	0.67	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	LTE Band 2(MDO)	Right Cheek	0.306	0	46.69	-33.98	0.75	74.1	0.65	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	26.6	1.07	0.04	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
Case 6	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25	Right Cheek	0.384	0	53.3	64.82	-0.41	95.3	1.11	0.01	Not required
	WLAN5G_Ant 2		0.724	0	-4.39	-10.96	1.77				
	LTE Band 25	Right Cheek	0.384	0	53.3	64.82	-0.41	99.0	0.69	0.01	Not required
	LTE Band 2(MDO)		0.306	0	46.69	-33.98	0.75				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	56.0	1.03	0.02	Not required
	LTE Band 2(MDO)		0.306	0	46.69	-33.98	0.75				
	LTE Band 25	Right Cheek	0.384	0	53.3	64.82	-0.41	88.4	0.57	0.00	Not required
	LTE Band 5(MDO)		0.19	0	38.29	-22.17	-4.41				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	44.6	0.91	0.02	Not required
	LTE Band 5(MDO)		0.19	0	38.29	-22.17	-4.41				
	LTE Band 25	Right Cheek	0.384	0	53.3	64.82	-0.41	91.3	0.54	0.00	Not required
	LTE Band 13(MDO)		0.16	0	34.22	-24.35	-4.51				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	41.3	0.88	0.02	Not required
	LTE Band 13(MDO)		0.16	0	34.22	-24.35	-4.51				
	LTE Band 25	Right Cheek	0.384	0	53.3	64.82	-0.41	96.5	0.55	0.00	Not required
	LTE Band 66(MDO)		0.168	0	54.21	-31.64	1.3				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	62.1	0.89	0.01	Not required
	LTE Band 66(MDO)		0.168	0	54.21	-31.64	1.3				
	LTE Band 25	Right Cheek	0.384	0	53.3	64.82	-0.41	79.4	0.73	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	LTE Band 2(MDO)	Right Cheek	0.306	0	46.69	-33.98	0.75	74.1	0.65	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	26.6	1.07	0.04	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	LTE Band 5(MDO)	Right Cheek	0.19	0	38.29	-22.17	-4.41	60.4	0.53	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	LTE Band 13(MDO)	Right Cheek	0.16	0	34.22	-24.35	-4.51	58.8	0.50	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	LTE Band 66(MDO)	Right Cheek	0.168	0	54.21	-31.64	1.3	78.5	0.51	0.00	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
Case 8	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 26	Right	0.295	0	65.92	78.9	9.44	114.4	1.02	0.01	Not required

	WLAN5G_Ant 2	Cheek	0.724	0	-4.39	-10.96	1.77				
	LTE Band 26	Right Cheek	0.295	0	65.92	78.9	9.44	114.8	0.60	0.00	Not required
	LTE Band 2(MDO)		0.306	0	46.69	-33.98	0.75				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	56.0	1.03	0.02	Not required
	LTE Band 2(MDO)		0.306	0	46.69	-33.98	0.75				
	LTE Band 26	Right Cheek	0.295	0	65.92	78.9	9.44	98.4	0.64	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	LTE Band 2(MDO)	Right Cheek	0.306	0	46.69	-33.98	0.75	74.1	0.65	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	26.6	1.07	0.04	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
Case 9	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 66	Right Cheek	0.457	0	46.98	61.33	-0.3	88.7	1.18	0.01	Not required
	WLAN5G_Ant 2		0.724	0	-4.39	-10.96	1.77				
	LTE Band 66	Right Cheek	0.457	0	46.98	61.33	-0.3	95.3	0.76	0.01	Not required
	LTE Band 2(MDO)		0.306	0	46.69	-33.98	0.75				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	56.0	1.03	0.02	Not required
	LTE Band 2(MDO)		0.306	0	46.69	-33.98	0.75				
	LTE Band 66	Right Cheek	0.457	0	46.98	61.33	-0.3	84.1	0.65	0.01	Not required
	LTE Band 5(MDO)		0.19	0	38.29	-22.17	-4.41				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	44.6	0.91	0.02	Not required
	LTE Band 5(MDO)		0.19	0	38.29	-22.17	-4.41				
	LTE Band 66	Right Cheek	0.457	0	46.98	61.33	-0.3	86.7	0.62	0.01	Not required
	LTE Band 13(MDO)		0.16	0	34.22	-24.35	-4.51				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	41.3	0.88	0.02	Not required
	LTE Band 13(MDO)		0.16	0	34.22	-24.35	-4.51				
	LTE Band 66	Right Cheek	0.457	0	46.98	61.33	-0.3	60.8	0.56	0.01	Not required
	LTE Band 48(MDO)		0.107	0	45.86	0.65	-4.27				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	51.9	0.83	0.01	Not required
	LTE Band 48(MDO)		0.107	0	45.86	0.65	-4.27				
	LTE Band 66	Right Cheek	0.457	0	46.98	61.33	-0.3	93.3	0.63	0.01	Not required
	LTE Band 66(MDO)		0.168	0	54.21	-31.64	1.3				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	62.1	0.89	0.01	Not required
	LTE Band 66(MDO)		0.168	0	54.21	-31.64	1.3				
	LTE Band 66	Right Cheek	0.457	0	46.98	61.33	-0.3	72.3	0.80	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	LTE Band 2(MDO)	Right Cheek	0.306	0	46.69	-33.98	0.75	74.1	0.65	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	WLAN5G_Ant 2	Right Cheek	0.724	0	-4.39	-10.96	1.77	26.6	1.07	0.04	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	LTE Band 5(MDO)	Right Cheek	0.19	0	38.29	-22.17	-4.41	60.4	0.53	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	LTE Band 13(MDO)	Right Cheek	0.16	0	34.22	-24.35	-4.51	58.8	0.50	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	LTE Band 48(MDO)	Right Cheek	0.107	0	45.86	0.65	-4.27	56.9	0.45	0.01	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				
	LTE Band 66(MDO)	Right Cheek	0.168	0	54.21	-31.64	1.3	78.5	0.51	0.00	Not required
	WLAN2.4G_Ant 1		0.341	0	-8.73	15.25	2.07				

<Each transmitter hot point and SPLSR analysis for Left Cheek exposure position>


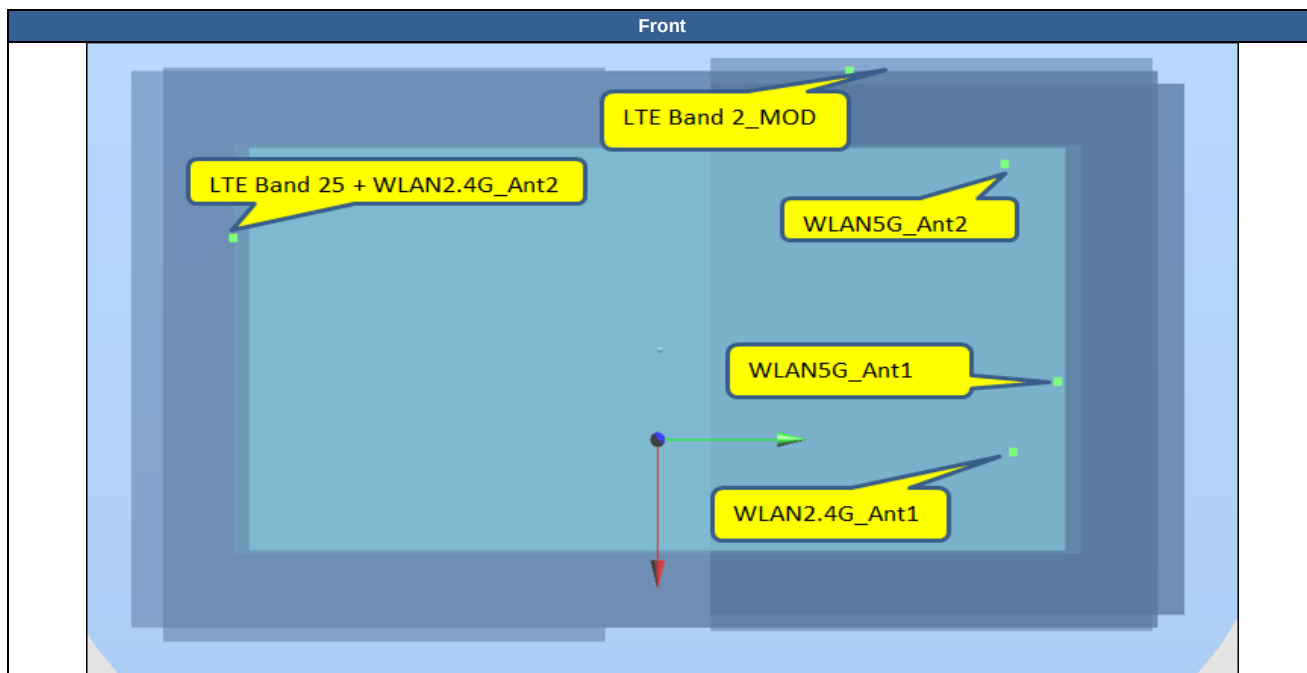
	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case 7	LTE Band 25	Left Cheek	0.526	0	49.94	-62.19	1	83.5	0.96	0.01	Not required
	WLAN5G_Ant 2		0.43	0	-8.7	-2.74	2.5				
	LTE Band 25	Left Cheek	0.526	0	49.94	-62.19	1	39.1	0.63	0.01	Not required
	LTE Band 2(MDO)		0.104	0	11.2	-65.47	4.85				
	WLAN5G_Ant 2	Left Cheek	0.43	0	-8.7	-2.74	2.5	65.9	0.53	0.01	Not required
	LTE Band 2(MDO)		0.104	0	11.2	-65.47	4.85				
	LTE Band 25	Left Cheek	0.526	0	49.94	-62.19	1	61.8	0.65	0.01	Not required
	LTE Band 5(MDO)		0.122	0	4.25	-20.65	-1.67				
	WLAN5G_Ant 2	Left Cheek	0.43	0	-8.7	-2.74	2.5	22.5	0.55	0.02	Not required
	LTE Band 5(MDO)		0.122	0	4.25	-20.65	-1.67				
	LTE Band 25	Left Cheek	0.526	0	49.94	-62.19	1	57.3	0.64	0.01	Not required
	LTE Band 13(MDO)		0.112	0	0.35	-33.48	0.18				
	WLAN5G_Ant 2	Left Cheek	0.43	0	-8.7	-2.74	2.5	32.1	0.54	0.01	Not required
	LTE Band 13(MDO)		0.112	0	0.35	-33.48	0.18				
	LTE Band 25	Left Cheek	0.526	0	49.94	-62.19	1	22.4	0.63	0.02	Not required
	LTE Band 48(MOD)		0.106	0	55.45	-83.81	3.34				
	WLAN5G_Ant 2	Left Cheek	0.43	0	-8.7	-2.74	2.5	103.4	0.54	0.00	Not required
	LTE Band 48(MOD)		0.106	0	55.45	-83.81	3.34				
	LTE Band 25	Left Cheek	0.526	0	49.94	-62.19	1	34.3	0.60	0.01	Not required
	LTE Band 66(MDO)		0.072	0	17.76	-73.15	5.34				
	WLAN5G_Ant 2	Left Cheek	0.43	0	-8.7	-2.74	2.5	75.3	0.50	0.00	Not required
	LTE Band 66(MDO)		0.072	0	17.76	-73.15	5.34				
	LTE Band 25	Left Cheek	0.526	0	49.94	-62.19	1	88.8	1.16	0.01	Not required
	WLAN2.4G_Ant 1		0.636	0	13.96	18.93	-0.45				



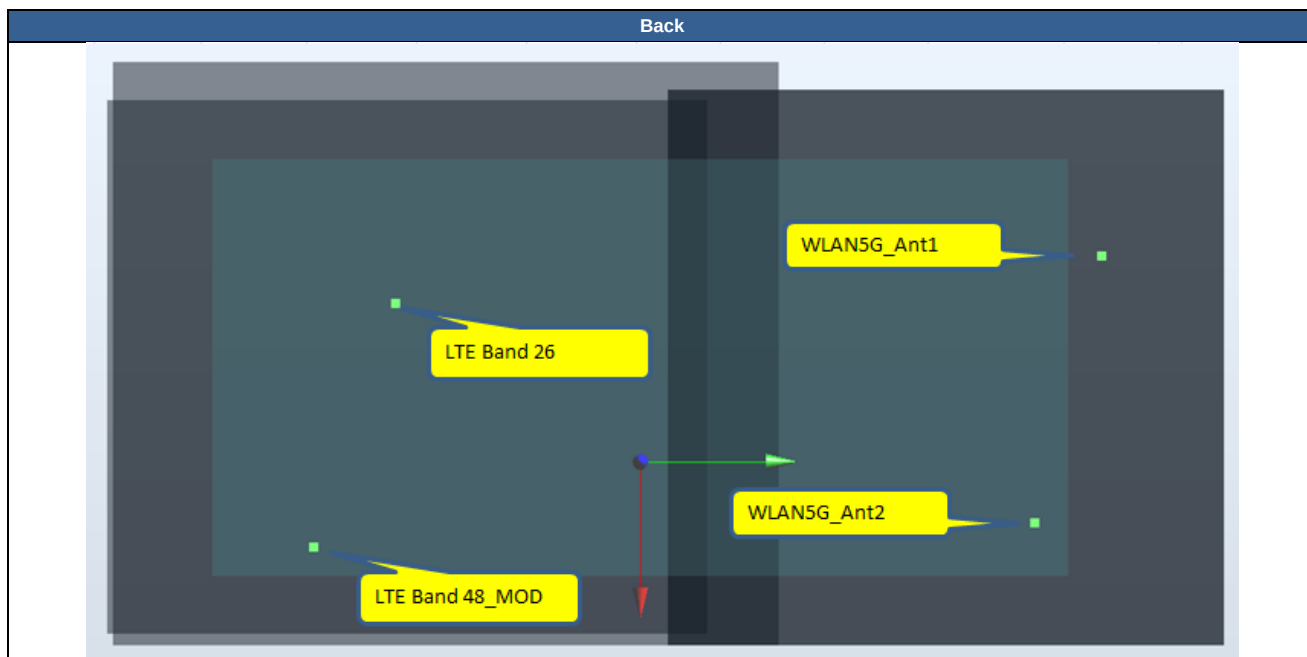
FCC SAR TEST REPORT

Report No. : FA890514-05A

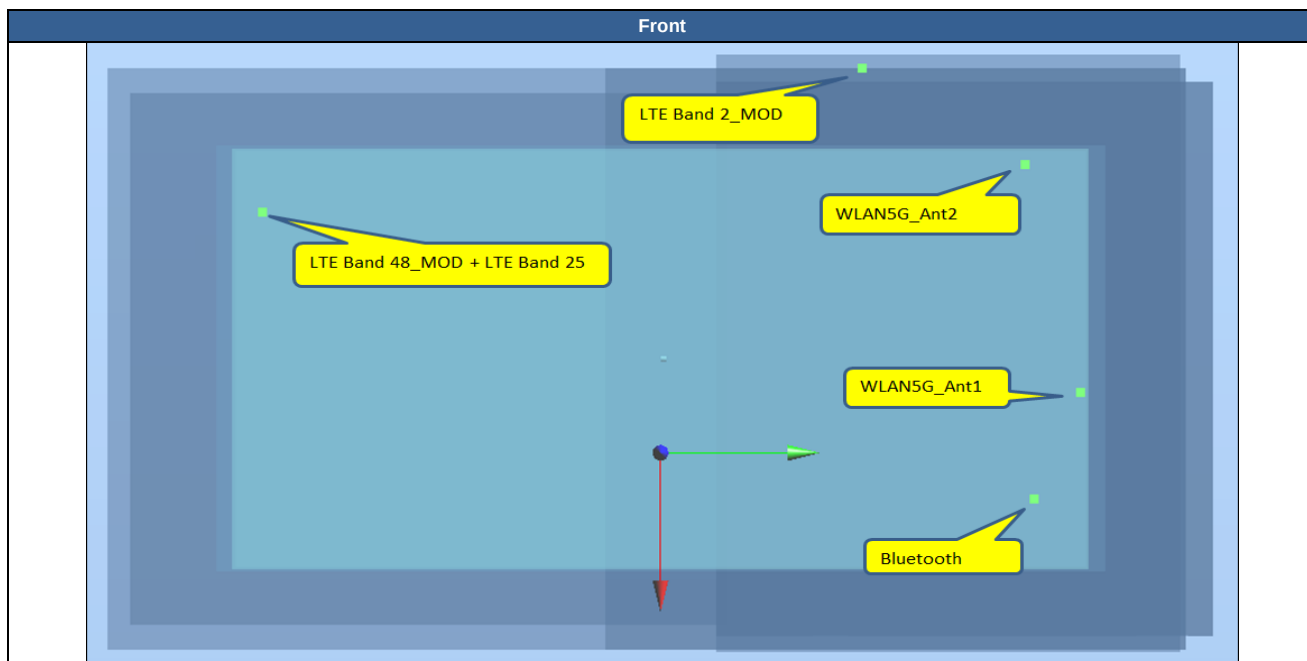
	WLAN5G_Ant 2	Left Cheek	0.43	0	-8.7	-2.74	2.5	31.5	1.07	0.03	Not required
	WLAN2.4G_Ant 1		0.636	0	13.96	18.93	-0.45				
	LTE Band 2(MDO)	Left Cheek	0.104	0	11.2	-65.47	4.85	84.6	0.74	0.01	Not required
	WLAN2.4G_Ant 1		0.636	0	13.96	18.93	-0.45				
	LTE Band 5(MDO)	Left Cheek	0.122	0	4.25	-20.65	-1.67	40.8	0.76	0.02	Not required
	WLAN2.4G_Ant 1		0.636	0	13.96	18.93	-0.45				
	LTE Band 13(MDO)	Left Cheek	0.112	0	0.35	-33.48	0.18	54.2	0.75	0.01	Not required
	WLAN2.4G_Ant 1		0.636	0	13.96	18.93	-0.45				
	LTE Band 48(MOD)	Left Cheek	0.106	0	55.45	-83.81	3.34	110.9	0.74	0.01	Not required
	WLAN2.4G_Ant 1		0.636	0	13.96	18.93	-0.45				
	LTE Band 66(MDO)	Left Cheek	0.072	0	17.76	-73.15	5.34	92.3	0.71	0.01	Not required
	WLAN2.4G_Ant 1		0.636	0	13.96	18.93	-0.45				
Case 10	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 66	Left Cheek	0.525	0	49.93	-62.19	1	83.5	0.96	0.01	Not required
	WLAN5G_Ant 2		0.43	0	-8.7	-2.74	2.5				
	LTE Band 66	Left Cheek	0.525	0	49.93	-62.19	1	39.1	0.63	0.01	Not required
	LTE Band 2(MDO)		0.104	0	11.2	-65.47	4.85				
	WLAN5G_Ant 2	Left Cheek	0.43	0	-8.7	-2.74	2.5	65.9	0.53	0.01	Not required
	LTE Band 2(MDO)		0.104	0	11.2	-65.47	4.85				
	LTE Band 66	Left Cheek	0.525	0	49.93	-62.19	1	61.8	0.65	0.01	Not required
	LTE Band 5(MDO)		0.122	0	4.25	-20.65	-1.67				
	WLAN5G_Ant 2	Left Cheek	0.43	0	-8.7	-2.74	2.5	22.5	0.55	0.02	Not required
	LTE Band 5(MDO)		0.122	0	4.25	-20.65	-1.67				
	LTE Band 66	Left Cheek	0.525	0	49.93	-62.19	1	57.3	0.64	0.01	Not required
	LTE Band 13(MDO)		0.112	0	0.35	-33.48	0.18				
	WLAN5G_Ant 2	Left Cheek	0.43	0	-8.7	-2.74	2.5	32.1	0.54	0.01	Not required
	LTE Band 13(MDO)		0.112	0	0.35	-33.48	0.18				
	LTE Band 66	Left Cheek	0.525	0	49.93	-62.19	1	22.4	0.63	0.02	Not required
	LTE Band 48(MOD)		0.106	0	55.45	-83.81	3.34				
	WLAN5G_Ant 2	Left Cheek	0.43	0	-8.7	-2.74	2.5	103.4	0.54	0.00	Not required
	LTE Band 48(MOD)		0.106	0	55.45	-83.81	3.34				
	LTE Band 66	Left Cheek	0.525	0	49.93	-62.19	1	34.3	0.60	0.01	Not required
	LTE Band 66(MDO)		0.072	0	17.76	-73.15	5.34				
	WLAN5G_Ant 2	Left Cheek	0.43	0	-8.7	-2.74	2.5	75.3	0.50	0.00	Not required
	LTE Band 66(MDO)		0.072	0	17.76	-73.15	5.34				
	LTE Band 66	Left Cheek	0.525	0	49.93	-62.19	1	88.7	1.16	0.01	Not required
	WLAN2.4G_Ant 1		0.636	0	13.96	18.93	-0.45				
	WLAN5G_Ant 2	Left Cheek	0.43	0	-8.7	-2.74	2.5	31.5	1.07	0.03	Not required
	WLAN2.4G_Ant 1		0.636	0	13.96	18.93	-0.45				
	LTE Band 2(MDO)	Left Cheek	0.104	0	11.2	-65.47	4.85	84.6	0.74	0.01	Not required
	WLAN2.4G_Ant 1		0.636	0	13.96	18.93	-0.45				
	LTE Band 5(MDO)	Left Cheek	0.122	0	4.25	-20.65	-1.67	40.8	0.76	0.02	Not required
	WLAN2.4G_Ant 1		0.636	0	13.96	18.93	-0.45				
	LTE Band 13(MDO)	Left Cheek	0.112	0	0.35	-33.48	0.18	54.2	0.75	0.01	Not required
	WLAN2.4G_Ant 1		0.636	0	13.96	18.93	-0.45				
	LTE Band 48(MOD)	Left Cheek	0.106	0	55.45	-83.81	3.34	110.9	0.74	0.01	Not required
	WLAN2.4G_Ant 1		0.636	0	13.96	18.93	-0.45				
	LTE Band 66(MDO)	Left Cheek	0.072	0	17.76	-73.15	5.34	92.3	0.71	0.01	Not required
	WLAN2.4G_Ant 1		0.636	0	13.96	18.93	-0.45				

<Each transmitter hot point and SPLSR analysis for Hotspot Front exposure position>


	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case 11	LTE Band 25 + WLAN2.4G Ant 2	Front	1.301	10mm	-18	-77.4	0.82	150.5	1.41	0.01	Not required
	WLAN2.4G Ant1		0.108	10mm	18.4	68.6	0.68				
	LTE Band 25 + WLAN2.4G Ant 2	Front	1.301	10mm	-18	-77.4	0.82	120.8	1.50	0.02	Not required
	LTE Band 2(MOD)		0.203	5mm	-53.7	38	-0.89				
	WLAN2.4G Ant1	Front	0.108	10mm	18.4	68.6	0.68	78.3	0.31	0.00	Not required
	LTE Band 2(MOD)		0.203	5mm	-53.7	38	-0.89				
	LTE Band 25 + WLAN2.4G Ant 2	Front	1.301	10mm	-18	-77.4	0.82	155.3	1.44	0.01	Not required
	WLAN5GHz Ant1		0.14	10mm	6.99	75.81	-1.48				
	LTE Band 25 + WLAN2.4G Ant 2	Front	1.301	10mm	-18	-77.4	0.82	145.7	1.52	0.01	Not required
	WLAN5GHz Ant2		0.221	10mm	-34	67.41	-1.58				
	WLAN5GHz Ant1	Front	0.14	10mm	6.99	75.81	-1.48	41.8	0.36	0.01	Not required
	WLAN5GHz Ant2		0.221	10mm	-34	67.41	-1.58				
	WLAN5GHz Ant1	Front	0.14	10mm	6.99	75.81	-1.48	71.5	0.34	0.00	Not required
	LTE Band 2(MOD)		0.203	5mm	-53.7	38	-0.89				
	WLAN5GHz Ant2	Front	0.221	10mm	-34	67.41	-1.58	35.4	0.42	0.01	Not required
	LTE Band 2(MOD)		0.203	5mm	-53.7	38	-0.89				

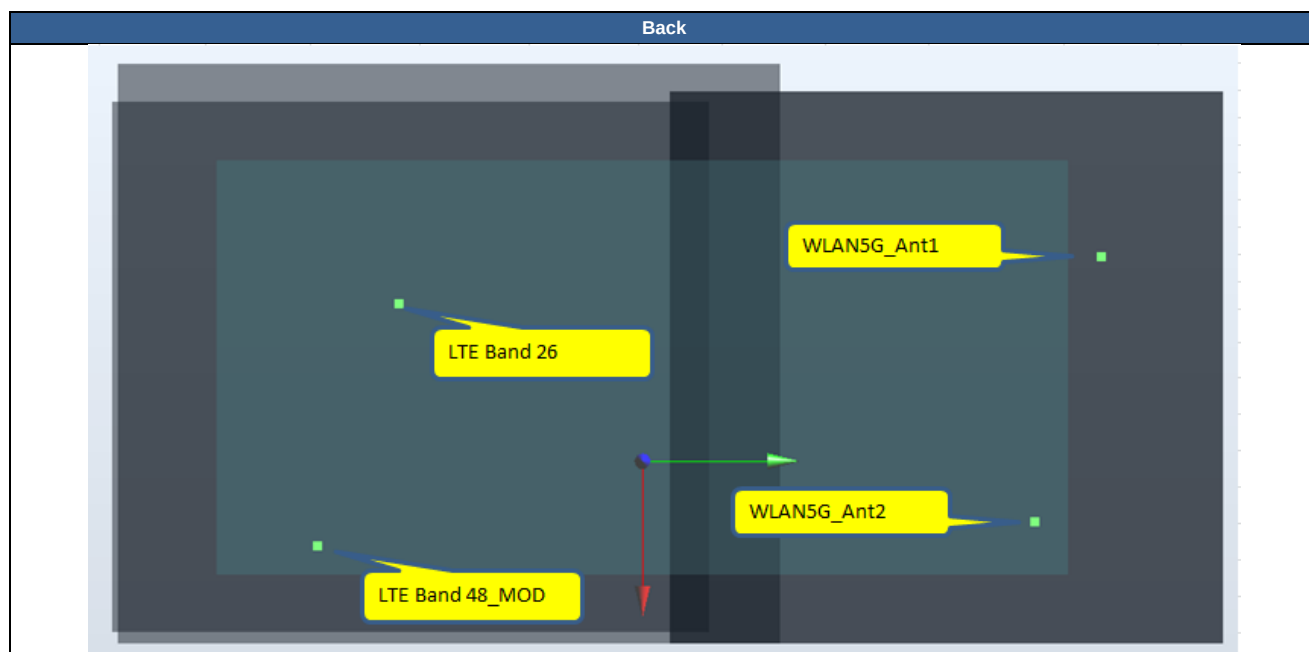
<Each transmitter hot point and SPLSR analysis for Hotspot Back exposure position>


	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 12	LTE Band 26	Back	0.624	10mm	-15	-42.6	-0.71	123.3	0.85	0.01	Not required
	WLAN5G ANT 1		0.222	10mm	-19.2	80.6	-0.76				
	LTE Band 26	Back	0.624	10mm	-15	-42.6	-0.71	119.2	0.75	0.01	Not required
	WLAN5G ANT 2		0.129	10mm	33.6	66.2	-0.59				
	LTE Band 26	Back	0.624	10mm	-15	-42.6	-0.71	49.1	1.27	0.03	Not required
	LTE B48(MOD)		0.65	10mm	31.4	-58.8	-0.69				
	WLAN5G ANT 1	Back	0.222	10mm	-19.2	80.6	-0.76	54.7	0.35	0.00	Not required
	WLAN5G ANT 2		0.129	10mm	33.6	66.2	-0.59				
	WLAN5G ANT 1	Back	0.222	10mm	-19.2	80.6	-0.76	148.3	0.87	0.01	Not required
	LTE B48(MOD)		0.65	10mm	31.4	-58.8	-0.69				
	WLAN5G ANT 2	Back	0.129	10mm	33.6	66.2	-0.59	125.0	0.78	0.01	Not required
	LTE B48(MOD)		0.65	10mm	31.4	-58.8	-0.69				

<Each transmitter hot point and SPLSR analysis for Body-worn Front exposure position>


	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case 13	LTE Band 12	Front	1.003	10mm	36	-68.9	0.75	147.6	1.15	0.01	Not required
	WLAN5G Ant1		0.146	10mm	6.99	75.81	-1.48				
	LTE Band 12	Front	1.003	10mm	36	-68.9	0.75	153.3	1.22	0.01	Not required
	WLAN5G Ant2		0.221	10mm	-34	67.41	-1.58				
	LTE Band 12	Front	1.003	10mm	36	-68.9	0.75	101.7	1.03	0.01	Not required
	Bluetooth		0.026	10mm	30.4	32.6	0.82				
	LTE Band 12	Front	1.003	10mm	36	-68.9	0.75	139.6	1.21	0.01	Not required
	LTE Band 2(MOD)		0.203	5mm	-53.7	38	-0.89				
	WLAN5G Ant1	Front	0.146	10mm	6.99	75.81	-1.48	41.8	0.37	0.01	Not required
	WLAN5G Ant2		0.221	10mm	-34	67.41	-1.58				
	WLAN5G Ant1	Front	0.146	10mm	6.99	75.81	-1.48	49.2	0.17	0.00	Not required
	Bluetooth		0.026	10mm	30.4	32.6	0.82				
	WLAN5G Ant1	Front	0.146	10mm	6.99	75.81	-1.48	71.5	0.35	0.00	Not required
	LTE Band 2(MOD)		0.203	5mm	-53.7	38	-0.89				
	WLAN5G Ant2	Front	0.221	10mm	-34	67.41	-1.58	73.2	0.25	0.00	Not required
	Bluetooth		0.026	10mm	30.4	32.6	0.82				
	WLAN5G Ant2	Front	0.221	10mm	-34	67.41	-1.58	35.4	0.42	0.01	Not required
	LTE Band 2(MOD)		0.203	5mm	-53.7	38	-0.89				
	Bluetooth	Front	0.026	10mm	30.4	32.6	0.82	84.3	0.23	0.00	Not required
	LTE Band 2(MOD)		0.203	5mm	-53.7	38	-0.89				
Case 14	LTE Band 25 + LTE Band 48(MOD)	Front	1.223	10mm	-25.4	-73	-0.75	152.3	1.37	0.01	Not required
	WLAN5G Ant1		0.146	10mm	6.99	75.81	-1.48				
	LTE Band 25 + LTE Band 48(MOD)	Front	1.223	10mm	-25.4	-73	-0.75	140.7	1.44	0.01	Not required
	WLAN5G Ant2		0.221	10mm	-34	67.41	-1.58				
	LTE Band 25 + LTE Band 48(MOD)	Front	1.223	10mm	-25.4	-73	-0.75	119.4	1.25	0.01	Not required
	Bluetooth		0.026	10mm	30.4	32.6	0.82				
	LTE Band 25 + LTE Band 48(MOD)	Front	1.223	10mm	-25.4	-73	-0.75	114.6	1.43	0.01	Not required
	LTE Band 2(MOD)		0.203	5mm	-53.7	38	-0.89				
	WLAN5G Ant1	Front	0.146	10mm	6.99	75.81	-1.48	41.8	0.37	0.01	Not required

	WLAN5G Ant2		0.221	10mm	-34	67.41	-1.58				
	WLAN5G Ant1	Front	0.146	10mm	6.99	75.81	-1.48	49.2	0.17	0.00	Not required
	Bluetooth		0.026	10mm	30.4	32.6	0.82				
	WLAN5G Ant1	Front	0.146	10mm	6.99	75.81	-1.48	71.5	0.35	0.00	Not required
	LTE Band 2(MOD)		0.203	5mm	-53.7	38	-0.89				
	WLAN5G Ant2	Front	0.221	10mm	-34	67.41	-1.58	73.2	0.25	0.00	Not required
	Bluetooth		0.026	10mm	30.4	32.6	0.82				
	WLAN5G Ant2	Front	0.221	10mm	-34	67.41	-1.58	35.4	0.42	0.01	Not required
	LTE Band 2(MOD)		0.203	5mm	-53.7	38	-0.89				
	Bluetooth	Front	0.026	10mm	30.4	32.6	0.82	84.3	0.23	0.00	Not required
	LTE Band 2(MOD)		0.203	5mm	-53.7	38	-0.89				
	WLAN5G Ant1	Front	0.146	10mm	6.99	75.81	-1.48	152.3	1.37	0.01	Not required
	LTE Band 25 + LTE Band 48(MOD)		1.223	10mm	-25.4	-73	-0.75				
	WLAN5G Ant2	Front	0.221	10mm	-34	67.41	-1.58	140.7	1.44	0.01	Not required
	LTE Band 25 + LTE Band 48(MOD)		1.223	10mm	-25.4	-73	-0.75				
	Bluetooth	Front	0.026	10mm	30.4	32.6	0.82	119.4	1.25	0.01	Not required
	LTE Band 25 + LTE Band 48(MOD)		1.223	10mm	-25.4	-73	-0.75				

<Each transmitter hot point and SPLSR analysis for Body-worn Back exposure position>


	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case 15	LTE Band 26	Back	0.624	10mm	-15	-42.6	-0.71	125.4	0.85	0.01	Not required
	WLAN5G ANT 1		0.226	10mm	-15.2	82.8	-0.61				
	LTE Band 26	Back	0.624	10mm	-15	-42.6	-0.71	119.2	0.75	0.01	Not required
	WLAN5G ANT 2		0.129	10mm	33.6	66.2	-0.59				
	LTE Band 26	Back	0.624	10mm	-15	-42.6	-0.71	49.1	1.27	0.03	Not required
	LTE B48(MOD)		0.65	10mm	31.4	-58.8	-0.69				
	WLAN5G ANT 1	Back	0.226	10mm	-15.2	82.8	-0.61	51.5	0.36	0.00	Not required
	WLAN5G ANT 2		0.129	10mm	33.6	66.2	-0.59				
	WLAN5G ANT 1	Back	0.226	10mm	-15.2	82.8	-0.61	149.1	0.88	0.01	Not required
	LTE B48(MOD)		0.65	10mm	31.4	-58.8	-0.69				
	WLAN5G ANT 2	Back	0.129	10mm	33.6	66.2	-0.59	125.0	0.78	0.01	Not required
	LTE B48(MOD)		0.65	10mm	31.4	-58.8	-0.69				

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13. Uncertainty Assessment

Per KDB 865664 D01 SAR measurement 100MHz to 6GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be $\leq 30\%$, for a confidence interval of $k = 2$. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg and highest measured 10-g SAR is less 3.75W/kg. Therefore, the measurement uncertainty table is not required in this report.

14. References

- [1] FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"
- [2] ANSI/IEEE Std. C95.1-1992, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz", September 1992
- [3] IEEE Std. 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", Sep 2013
- [4] SPEAG DASY System Handbook
- [5] FCC KDB 248227 D01 v02r02, "SAR Guidance for IEEE 802.11 (WiFi) Transmitters", Oct 2015.
- [6] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015
- [7] FCC KDB 648474 D03 v01r04, "Evaluation and Approval Considerations for Handsets with Specific Wireless Charging Battery Covers" Dec 2015.
- [8] FCC KDB 648474 D04 v01r03, "SAR Evaluation Considerations for Wireless Handsets", Oct 2015.
- [9] FCC KDB 941225 D01 v03r01, "3G SAR MEAUREMENT PROCEDURES", Oct 2015
- [10] FCC KDB 941225 D05 v02r05, "SAR Evaluation Considerations for LTE Devices", Dec 2015
- [11] FCC KDB 941225 D05A v01r02, "Rel. 10 LTE SAR Test Guidance and KDB Inquiries", Oct 2015
- [12] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.
- [13] FCC KDB 941225 D07 v01r02, " SAR Evaluation Procedures for UMPC Mini-Tablet Devices", Oct 2015.
- [14] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.
- [15] FCC KDB 865664 D02 v01r02, "RF Exposure Compliance Reporting and Documentation Considerations" Oct 2015.