Supplemental SAR Report

Applicant	:	**Motorola Mobility, LLC** **222 W Merchandise Mart Plaza, Suite 1800, Chicago, IL 60654, United States**
Manufacturer	:	**Motorola Mobility, LLC** **222 W Merchandise Mart Plaza, Suite 1800, Chicago, IL 60654, United States**
Standard	:	**FCC 47 CFR Part 2 (2.1093)** **ANSI/IEEE C95.1-1992** **IEEE 1528-2013**

The product was received on Mar. 08, 2018 and testing was started from Mar. 14, 2018 and completed on Apr. 12, 2018. 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 INTERTIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Jones Tsai / Manager

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA851526	Rev. 01	Initial issue of report	Jun. 04, 2018

1. Passive Mods List

Passive MOD :	Model Number
Passive Battery MODs _Low Cost Battery by Sunwoda	MD100B
Speaker MOD _JBL SoundBoost 2	SoundBoost 2
Camera MOD _Hasselblad Camera	HB4116
Projector MOD _Insta-Share Projector Mod	MD100P
Gamepad MOD _Motorola Gamepad	MD100G
Printer MOD _Polaroid Instaprint	MD100I
Motorola 360 Camera _360 degree camera	MD100S

Moto Z generation

Generation 1	Generation 2	Generation 3
Addison VZW, FCC ID: IHDT56VC1 Sheridan VZW, FCC ID:IHDT56VB1 Griffin VZW, FCC ID: IHDT56VB2	Nash ATT/TMO, FCC ID:IHDT56WB4 Nash ROW, FCC ID: IHDT56WB3 Nash Sprint, FCC ID: IHDT56WB2 Nash VZW, FCC ID: IHDT56WB1 Albus EMEA, FCC ID: IHDT56WA3 Albus NA, FCC ID: IHDT56WA1	Shelby NA, FCC ID: IHDT56XE1 Shelby Plus, FCC ID: IHDT56XJ1

SAR Test Plan

RF Exposure conditions	Gen 1	Gen 2	Gen 3
Head	Right Cheek	Right Cheek	Right Cheek
Hotspot	Bottom side at 10 mm	Bottom side at 10 mm	Bottom side at 5 mm
Body Worn	Front Face at 10 mm	Front Face at 10 mm	Front Face at 5 mm

General Note:

General baseline Mod accessory SAR evaluation considerations for a Moto Z generation

a) Baseline comparison criteria should be established according to

i) Equivalency of device form factors, design characteristics, operating configurations, exposure conditions and measured SAR distributions, where

(1) Different test distances are treated as separate exposure conditions (test positions)

(2) All head test positions (left, right, touch and tilt) may be grouped as one exposure condition for test reduction provided the SAR distributions of individual head test positions remain consistent across the Moto Z generation or a sub-group within the generation

ii) The antenna types, locations and transmission characteristics of the Moto Z devices, including

(1) Transmit diversity and simultaneous transmission conditions

(2) wireless technologies, frequency bands and wireless operating modes applicable to each antenna

b) Baseline results and justifications are required for the first equipment certification of each Moto Z generation or, as appropriate, a Moto Z sub-group

i) as a separate test report in the RF exposure exhibit

ii) the same baseline report should be included in subsequent Moto Z equipment certifications for the same generation or sub-group (if appropriate, we may consider accepting reference to the FCC ID that contains the baseline report), along with any additional results and justifications required for Mod accessories used by the individual Moto Z device iii) certain results based on previous generation Mod accessories and Moto Z devices may be considered to establish baseline results provided the same baseline criteria are applicable to both generations of Mod accessories and Moto Z devices.

iii) For the generation 1/2/3 Moto Z devices were selected one device as a representative host device as above yellow part as a baseline Mod accessory SAR evaluation considerations.

c) We listed these 7 passive MODs have been tested and used as baseline report based on FCC guidance. The other MODs SKU which was provided can certify that “These applicable MODs shares the similarities as the 7 MODs listed, details provided in the Moto Z and Moto MODs system testing justification”.

2. Summary Test Result

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

2.1 FCC ID: IHDT56VC1 with passive mods

<Equipment: Low Cost Battery by Sunwoda, Model Name: MD100B>

Frequency Band	Head (Separation 0mm)	Body (Separation 10mm)
	1g SAR (W/kg)	
GSM850	0.37	1.04
LTE Band 2	0.34	1.18
LTE Band 7	0.43	1.05
2.4GHz WLAN	0.84	0.27
5GHz WLAN	1.45	0.17

<Equipment: JBL SoundBoost 2, Model Name: SoundBoost 2>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 10mm)
	1g SAR (W/kg)	
GSM850	0.36	1.04
LTE Band 2	0.32	1.17
LTE Band 7	0.37	1.05
2.4GHz WLAN	0.74	0.26
5GHz WLAN	1.42	0.20

<Equipment: Hasselblad Camera, Model Name: HB4116>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 10mm)
	1g SAR (W/kg)	
GSM850	0.34	1.02
LTE Band 2	0.27	1.08
LTE Band 7	0.37	1.11
2.4GHz WLAN	0.67	0.35
5GHz WLAN	1.43	0.20

<Equipment: Insta-Share Projector Mod, Model Name: MD100P>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 10mm)
	1g SAR (W/kg)	
GSM850	0.38	1.04
LTE Band 2	0.34	1.14
LTE Band 7	0.40	1.16
2.4GHz WLAN	0.66	0.33
5GHz WLAN	1.42	0.24

<Equipment: Motorola Gamepad, Model Name: MD100G>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 10mm)
	1g SAR (W/kg)	
GSM850	0.36	0.51
LTE Band 2	0.23	0.97
LTE Band 7	0.43	1.10
2.4GHz WLAN	0.77	0.37
5GHz WLAN	1.42	0.16

<Equipment: Polaroid Instaprint, Model Name: MD100I>

	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 10mm)
	1g SAR (W/kg)	
GSM850	0.38	0.93
LTE Band 2	0.34	1.09
LTE Band 7	0.37	1.15
2.4GHz WLAN	0.77	0.30
5GHz WLAN	1.42	0.22

<Equipment: 360 degree camera, Model Name: MD100S>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 10mm)
	1g SAR (W/kg)	
GSM850	0.33	1.03
LTE Band 2	0.29	1.08
LTE Band 7	0.41	1.14
2.4GHz WLAN	0.60	0.35
5GHz WLAN	1.42	0.21

2.2 FCC ID: IHDT56WB4 with passive mods

<Equipment: Low Cost Battery by Sunwoda, Model Name: MD100B>

Frequency Band	Head (Separation 0mm)	Body (Separation 10mm)
	1g SAR (W/kg)	
GSM850	0.12	0.52
LTE Band 2	0.34	1.15
LTE Band 7	0.44	0.62
2.4GHz WLAN	0.28	0.42
5GHz WLAN	0.75	0.25

<Equipment: JBL SoundBoost 2, Model Name: SoundBoost 2>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 10mm)
	1g SAR (W/kg)	
GSM850	0.11	0.63
LTE Band 2	0.36	1.19
LTE Band 7	0.43	0.78
2.4GHz WLAN	0.34	0.43
5GHz WLAN	0.78	0.23

<Equipment: Hasselblad Camera, Model Name: HB4116>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 10mm)
	1g SAR (W/kg)	
GSM850	0.12	0.51
LTE Band 2	0.30	1.19
LTE Band 7	0.43	0.76
2.4GHz WLAN	0.29	0.43
5GHz WLAN	0.79	0.26

<Equipment: Insta-Share Projector Mod, Model Name: MD100P>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 10mm)
	1g SAR (W/kg)	
GSM850	0.13	0.67
LTE Band 2	0.36	1.19
LTE Band 7	0.39	0.63
2.4GHz WLAN	0.28	0.40
5GHz WLAN	0.79	0.25

<Equipment: Motorola Gamepad, Model Name: MD100G>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 10mm)
	1g SAR (W/kg)	
GSM850	0.14	0.47
LTE Band 2	0.26	1.18
LTE Band 7	0.45	0.72
2.4GHz WLAN	0.26	0.29
5GHz WLAN	0.75	0.27

<Equipment: Polaroid Instaprint, Model Name: MD100I>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 10mm)
	1g SAR (W/kg)	
GSM850	0.13	0.65
LTE Band 2	0.34	1.18
LTE Band 7	0.43	0.60
2.4GHz WLAN	0.30	0.36
5GHz WLAN	0.79	0.25

<Equipment: 360 degree camera, Model Name: MD100S>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 10mm)
	1g SAR (W/kg)	
GSM850	0.13	0.53
LTE Band 2	0.34	1.17
LTE Band 7	0.47	0.79
2.4GHz WLAN	0.29	0.43
5GHz WLAN	0.80	0.25

2.3 FCC ID: IHDT56XE1 with passive mods

<Equipment: Low Cost Battery by Sunwoda, Model Name: MD100B>

Frequency Band	Head (Separation 0mm)	Body (Separation 5mm)
	1g SAR (W/kg)	
GSM850	0.08	0.33
LTE Band 7	0.81	0.70
LTE Band 2 / 25	0.30	1.17
2.4GHz WLAN	1.02	0.89
5GHz WLAN	0.95	0.62

<Equipment: JBL SoundBoost 2, Model Name: SoundBoost 2>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 5mm)
	1g SAR (W/kg)	
GSM850	0.08	0.38
LTE Band 7	0.78	0.70
LTE Band 2 / 25	0.29	1.18
2.4GHz WLAN	1.02	0.94
5GHz WLAN	0.92	0.63

<Equipment: Hasselblad Camera, Model Name: HB4116>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 5mm)
	1g SAR (W/kg)	
GSM850	0.03	0.33
LTE Band 7	0.78	0.73
LTE Band 2 / 25	0.29	1.17
2.4GHz WLAN	0.90	0.97
5GHz WLAN	1.09	0.79

<Equipment: Insta-Share Projector Mod, Model Name: MD100P>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 5mm)
	1g SAR (W/kg)	
GSM850	0.08	0.29
LTE Band 7	0.69	0.71
LTE Band 2 / 25	0.29	1.12
2.4GHz WLAN	1.03	0.81
5GHz WLAN	0.95	0.79

<Equipment: Motorola Gamepad, Model Name: MD100G>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 5mm)
	1g SAR (W/kg)	
GSM850	0.08	0.43
LTE Band 7	0.43	0.64
LTE Band 2 / 25	0.20	0.78
2.4GHz WLAN	0.81	0.88
5GHz WLAN	0.88	0.60

<Equipment: Polaroid Instaprint, Model Name: MD100I>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 5mm)
	1g SAR (W/kg)	
GSM850	0.08	0.30
LTE Band 7	0.78	0.66
LTE Band 2 / 25	0.30	1.17
2.4GHz WLAN	0.99	0.82
5GHz WLAN	1.05	0.64

<Equipment: 360 degree camera, Model Name: MD100S>

Frequency Band	Highest SAR Summary	
	Head (Separation 0mm)	Body (Separation 5mm)
	1g SAR (W/kg)	
GSM850	0.05	0.30
LTE Band 7	0.88	0.74
LTE Band 2 / 25	0.27	1.11
2.4GHz WLAN	0.89	0.93
5GHz WLAN	0.98	0.79

3. Equipment Under Test (EUT) Information

3.1 General Information

Product Feature & Specification	
Brand Name	Motorola
FCC ID	IHDT56VC1
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz CDMA2000 BC0: 824.7 MHz ~ 848.31 MHz CDMA 2000 BC1: 1851.25 MHz ~ 1908.75 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 13: 777 MHz ~ 787 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5700 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA CDMA2000 : 1xRTT/1xEv-Do(Rev.0)/1xEv-Do(Rev.A) LTE: QPSK, 16QAM 802.11a/b/g/n HT20/HT40 Bluetooth with EDR / LE NFC: ASK

Product Feature & Specification	
Brand Name	Motorola
FCC ID:	IHDT56WB4
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz WCDMA Band IV: 1712.4 MHz ~ 1752.6 MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz 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 7: 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 17: 706.5 MHz ~ 713.5 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz LTE Band 26: 814.7 MHz ~ 848.3 MHz LTE Band 30: 2307.5 MHz ~ 2312.5 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2547.5 MHz ~ 2652.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC : 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA LTE: QPSK, 16QAM, 64QAM WLAN 2.4GHz : 802.11b/g/n/ac HT20/VHT20 WLAN 5GHz : 802.11a/n/ac HT20/HT40/VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE NFC:ASK

Product Feature & Specification	
Brand Name	Motorola
FCC ID	IHDT56XE1
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz WCDMA Band IV: 1712.4 MHz ~ 1752.6 MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz CDMA2000 BC0: 824.7 MHz ~ 848.31 MHz CDMA 2000 BC1: 1851.25 MHz ~ 1908.75 MHz CDMA 2000 BC10: 817.9 MHz ~ 823.1 MHz 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 7: 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 14: 790.5 MHz ~ 795.5 MHz LTE Band 17: 706.5 MHz ~ 713.5 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz LTE Band 26: 814.7 MHz ~ 848.3 MHz LTE Band 30: 2307.5 MHz ~ 2312.5 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz LTE Band 71: 665.5 MHz ~ 695.5 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC : 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA CDMA2000 : 1xRTT/1xEv-Do(Rev.0)/1xEv-Do(Rev.A) LTE: QPSK, 16QAM, 64QAM WLAN 2.4GHz : 802.11b/g/n HT20 WLAN 5GHz : 802.11a/n/ac HT20/HT40/VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE NFC:ASK

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

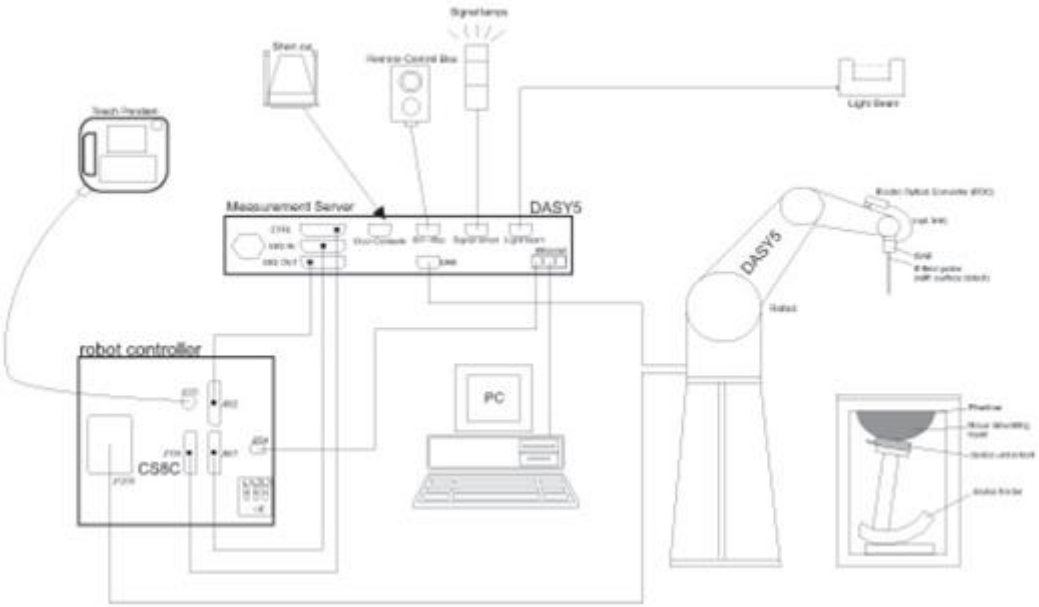
Limits for General Population/Uncontrolled Exposure (W/kg)

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. 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.

5.1 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 µW/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 µW/g – >100 mW/g Linearity: ±0.2 dB (noise: typically <1 µW/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	

5.2 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.

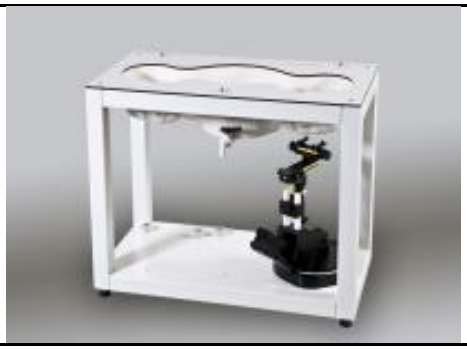
The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Fig 5.1 Photo of DAE

5.3 Phantom

<SAM Twin Phantom>

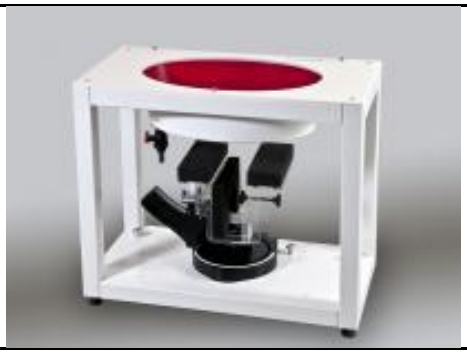
Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet
Measurement Areas	Left Hand, Right Hand, Flat Phantom



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.

5.4 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

6. 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

6.1 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 form 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

6.2 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.

6.3 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	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
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 ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

6.4 Zoom Scan

Zoom scans are used 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 shoes 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: Δx_{Zoom}, Δy_{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: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
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 *reported* SAR from the *area scan based 1-g SAR estimation* 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.

6.5 Volume Scan Procedures

The volume scan is used for 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.

6.6 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.

7. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	835MHz System Validation Kit	D835V2	499	Mar. 21, 2017	Mar. 20, 2018
SPEAG	835MHz System Validation Kit	D835V2	4d092	Jun. 28, 2017	Jun. 27, 2018
SPEAG	1900MHz System Validation Kit	D1900V2	5d041	Sep. 28, 2017	Sep. 27, 2018
SPEAG	2450MHz System Validation Kit	D2450V2	736	Sep. 18, 2017	Sep. 17, 2018
SPEAG	2600MHz System Validation Kit	D2600V2	1008	Sep. 18, 2017	Sep. 17, 2018
SPEAG	5GHz System Validation Kit	D5GHzV2	1006	Sep. 26, 2017	Sep. 25, 2018
SPEAG	5GHz System Validation Kit	D5GHzV2	1171	Jul. 18, 2017	Jul. 17, 2018
SPEAG	Data Acquisition Electronics	DAE3	495	May. 22, 2017	May. 21, 2018
SPEAG	Data Acquisition Electronics	DAE4	853	Jul. 19, 2017	Jul. 18, 2018
SPEAG	Data Acquisition Electronics	DAE4	1424	Jan. 18, 2018	Jan. 17, 2019
SPEAG	Dosimetric E-Field Probe	EX3DV4	3976	Jan. 23, 2018	Jan. 22, 2019
SPEAG	Dosimetric E-Field Probe	ES3DV3	3169	May. 11, 2017	May. 10, 2018
SPEAG	Dosimetric E-Field Probe	EX3DV4	3925	May. 24, 2017	May. 23, 2018
Gencom	Thermometer	TE1	TM685-1	Mar. 21, 2017	Mar. 20, 2018
Gencom	Thermometer	TE1	TM685-2	Mar. 21, 2017	Mar. 20, 2018
WonDer	Thermometer	WD-5016	TM560-1	Mar. 16, 2018	Mar. 15, 2019
Anritsu	Radio Communication Analyzer	MT8821C	6201341950	Apr. 20, 2017	Apr. 19, 2018
Agilent	Wireless Communication Test Set	E5515C	MY50266977	May. 30, 2017	May. 29, 2018
SPEAG	Device Holder	N/A	N/A	N/A	N/A
Anritsu	Signal Generator	MG3710A	6201502524	Dec. 07, 2017	Dec. 06, 2018
Agilent	ENA Network Analyzer	E5071C	MY46316648	Jan. 17, 2018	Jan. 16, 2019
SPEAG	Dielectric Probe Kit	DAK-3.5	1126	Sep. 26, 2017	Sep. 25, 2018
LINE SEIKI	Digital Thermometer	LKMelectronic	DTM3000SPEZIAL	Sep. 06, 2017	Sep. 05, 2018
Anritsu	Power Meter	ML2495A	1419002	May. 15, 2017	May. 14, 2018
Anritsu	Power Sensor	MA2411B	1339124	May. 15, 2017	May. 14, 2018
Anritsu	Power Meter	ML2495A	1218006	Oct. 06, 2017	Oct. 05, 2018
Anritsu	Power Sensor	MA2411B	1207363	Oct. 06, 2017	Oct. 05, 2018
Agilent	Spectrum Analyzer	E4408B	MY44211028	Aug. 23, 2017	Aug. 22, 2018
Anritsu	Spectrum Analyzer	MS2830A	6201396378	Jun. 26, 2017	Jun. 25, 2018
Mini-Circuits	Power Amplifier	ZVE-8G+	D120604	Mar. 12, 2018	Mar. 11, 2019
Mini-Circuits	Power Amplifier	ZHL-42W+	QA1344002	Mar. 12, 2018	Mar. 11, 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.

8. System Verification

8.1 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.

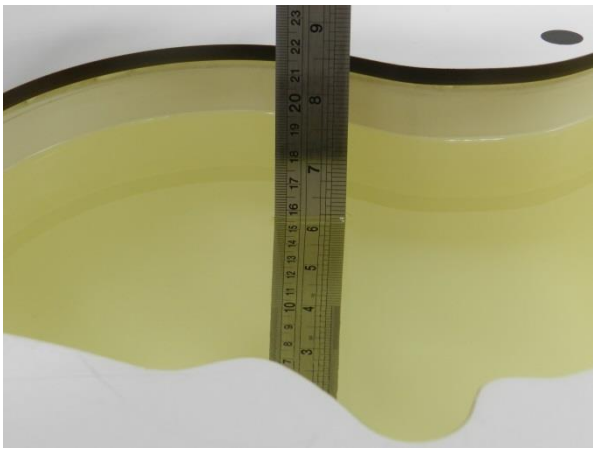


Fig 10.1Photo of Liquid Height for Head SAR

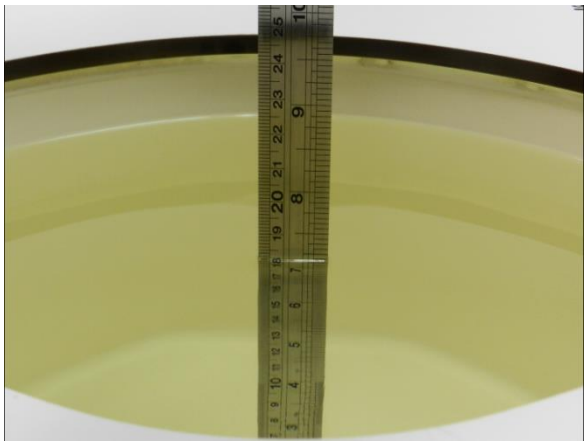


Fig 10.2 Photo of Liquid Height for Body SAR

8.2 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 (εr)
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. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
835	HSL	22.4	0.896	43.317	0.90	41.50	-0.44	4.38	±5	2018/3/17
835	HSL	22.4	0.924	43.214	0.90	41.50	2.67	4.13	±5	2018/3/20
835	HSL	22.7	0.880	42.149	0.90	41.50	-2.22	1.56	±5	2018/3/27
835	MSL	22.6	0.976	56.330	0.97	55.20	0.62	2.05	±5	2018/3/15
835	MSL	22.4	0.943	56.671	0.97	55.20	-2.78	2.66	±5	2018/3/17
835	MSL	22.6	0.975	56.301	0.97	55.20	0.52	1.99	±5	2018/3/20
835	MSL	22.2	1.001	56.907	0.97	55.20	3.20	3.09	±5	2018/3/24
1900	HSL	22.4	1.432	41.123	1.40	40.00	2.29	2.81	±5	2018/3/17
1900	HSL	22.4	1.416	40.241	1.40	40.00	1.14	0.60	±5	2018/3/20
1900	HSL	22.7	1.449	39.311	1.40	40.00	3.50	-1.72	±5	2018/3/27
1900	MSL	22.6	1.555	54.164	1.52	53.30	2.30	1.62	±5	2018/3/15
1900	MSL	22.4	1.578	54.868	1.52	53.30	3.82	2.94	±5	2018/3/17
1900	MSL	22.3	1.574	51.994	1.52	53.30	3.55	-2.45	±5	2018/3/19
1900	MSL	22.2	1.556	53.879	1.52	53.30	2.37	1.09	±5	2018/3/24
2450	HSL	22.5	1.859	39.778	1.80	39.20	3.28	1.47	±5	2018/3/15
2450	HSL	22.4	1.840	40.001	1.80	39.20	2.22	2.04	±5	2018/3/17
2450	HSL	22.1	1.826	39.878	1.80	39.20	1.44	1.73	±5	2018/3/21
2450	HSL	22.6	1.824	39.938	1.80	39.20	1.33	1.88	±5	2018/3/25
2450	MSL	22.6	1.998	53.747	1.95	52.70	2.46	1.99	±5	2018/3/16
2450	MSL	22.3	1.954	53.240	1.95	52.70	0.21	1.02	±5	2018/3/18
2450	MSL	22.3	1.978	51.246	1.95	52.70	1.44	-2.76	±5	2018/3/26
2600	HSL	22.5	2.035	39.202	1.96	39.00	3.83	0.52	±5	2018/3/15
2600	HSL	22.4	2.015	39.425	1.96	39.00	2.81	1.09	±5	2018/3/17
2600	HSL	22.4	1.957	39.235	1.96	39.00	-0.15	0.60	±5	2018/3/20
2600	HSL	22.1	2.000	39.302	1.96	39.00	2.04	0.77	±5	2018/3/21
2600	HSL	22.6	1.997	39.362	1.96	39.00	1.89	0.93	±5	2018/3/25
2600	MSL	22.6	2.206	51.857	2.16	52.50	2.13	-1.22	±5	2018/3/14
2600	MSL	22.4	2.188	54.282	2.16	52.50	1.30	3.39	±5	2018/3/17
2600	MSL	22.3	2.154	52.740	2.16	52.50	-0.28	0.46	±5	2018/3/18
2600	MSL	22.2	2.141	51.344	2.16	52.50	-0.88	-2.20	±5	2018/3/24
2600	MSL	22.3	2.195	50.737	2.16	52.50	1.62	-3.36	±5	2018/3/26

Frequency (MHz)	Tissue Type	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
5250	HSL	22.5	4.552	35.889	4.71	35.95	-3.35	-0.17	±5	2018/3/14
5250	HSL	22.3	4.662	36.623	4.71	35.95	-1.02	1.87	±5	2018/3/18
5250	HSL	22.4	4.688	36.110	4.71	35.95	-0.47	0.45	±5	2018/3/27
5250	MSL	22.3	5.379	48.426	5.36	48.95	0.35	-1.07	±5	2018/3/18
5250	MSL	22.3	5.349	47.692	5.36	48.95	-0.21	-2.57	±5	2018/3/21
5250	MSL	22.4	5.488	48.137	5.36	48.95	2.39	-1.66	±5	2018/3/27
5600	HSL	22.5	4.884	35.439	5.07	35.50	-3.67	-0.17	±5	2018/3/14
5600	HSL	22.3	5.013	36.130	5.07	35.50	-1.12	1.77	±5	2018/3/18
5600	HSL	22.4	5.032	35.608	5.07	35.50	-0.75	0.30	±5	2018/3/27
5600	HSL	22.3	4.939	36.719	5.07	35.50	-2.58	3.43	±5	2018/4/11
5600	HSL	22.3	4.913	36.596	5.07	35.50	-3.10	3.09	±5	2018/4/12
5600	MSL	22.3	5.832	47.837	5.77	48.50	1.07	-1.37	±5	2018/3/18
5600	MSL	22.3	5.793	47.101	5.77	48.50	0.40	-2.88	±5	2018/3/21
5600	MSL	22.4	5.959	47.543	5.77	48.50	3.28	-1.97	±5	2018/3/27
5750	HSL	22.5	5.034	35.223	5.22	35.35	-3.56	-0.36	±5	2018/3/14
5750	HSL	22.3	5.168	35.946	5.22	35.35	-1.00	1.69	±5	2018/3/18
5750	HSL	22.4	5.182	35.402	5.22	35.35	-0.73	0.15	±5	2018/3/27
5750	MSL	22.3	6.039	47.600	5.94	48.28	1.67	-1.41	±5	2018/3/18
5750	MSL	22.3	5.995	46.834	5.94	48.28	0.93	-3.00	±5	2018/3/21
5750	MSL	22.4	6.170	47.299	5.94	48.28	3.87	-2.03	±5	2018/3/27

8.3 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 (%)
2018/3/17	835	HSL	250	D835V2-499	ES3DV3 - SN3169	DAE4 Sn853	2.51	9.45	10.04	6.24
2018/3/20	835	HSL	250	D835V2-499	ES3DV3 - SN3169	DAE4 Sn853	2.50	9.45	10.00	5.82
2018/3/27	835	HSL	250	D835V2-4d092	ES3DV3 - SN3169	DAE4 Sn853	2.46	9.38	9.84	4.90
2018/3/15	835	MSL	250	D835V2-499	ES3DV3 - SN3169	DAE4 Sn853	2.49	9.67	9.96	3.00
2018/3/17	835	MSL	250	D835V2-499	ES3DV3 - SN3169	DAE4 Sn853	2.41	9.67	9.64	-0.31
2018/3/20	835	MSL	250	D835V2-499	ES3DV3 - SN3169	DAE4 Sn853	2.49	9.67	9.96	3.00
2018/3/24	835	MSL	250	D835V2-4d092	ES3DV3 - SN3169	DAE4 Sn853	2.56	9.60	10.24	6.67
2018/3/17	1900	HSL	250	D1900V2-5d041	ES3DV3 - SN3169	DAE4 Sn853	10.20	40.50	40.80	0.74
2018/3/20	1900	HSL	250	D1900V2-5d041	ES3DV3 - SN3169	DAE4 Sn853	10.00	40.50	40.00	-1.23
2018/3/27	1900	HSL	250	D1900V2-5d041	ES3DV3 - SN3169	DAE4 Sn853	10.30	40.50	41.20	1.73
2018/3/15	1900	MSL	250	D1900V2-5d041	ES3DV3 - SN3169	DAE4 Sn853	9.89	40.70	39.56	-2.80
2018/3/17	1900	MSL	250	D1900V2-5d041	ES3DV3 - SN3169	DAE4 Sn853	10.00	40.70	40.00	-1.72
2018/3/19	1900	MSL	250	D1900V2-5d041	ES3DV3 - SN3169	DAE4 Sn853	10.60	40.70	42.40	4.18
2018/3/24	1900	MSL	250	D1900V2-5d041	ES3DV3 - SN3169	DAE4 Sn853	9.89	40.70	39.56	-2.80
2018/3/15	2450	HSL	250	D2450V2-736	EX3DV4 - SN3976	DAE3 Sn495	13.60	52.40	54.40	3.82
2018/3/17	2450	HSL	250	D2450V2-736	EX3DV4 - SN3976	DAE3 Sn495	13.50	52.40	54.00	3.05
2018/3/21	2450	HSL	250	D2450V2-736	EX3DV4 - SN3976	DAE3 Sn495	12.30	52.40	49.20	-6.11
2018/3/25	2450	HSL	250	D2450V2-736	EX3DV4 - SN3976	DAE3 Sn495	13.50	52.40	54.00	3.05
2018/3/16	2450	MSL	250	D2450V2-736	ES3DV3 - SN3169	DAE4 Sn853	12.30	50.80	49.20	-3.15
2018/3/18	2450	MSL	250	D2450V2-736	ES3DV3 - SN3169	DAE4 Sn853	12.20	50.80	48.80	-3.94
2018/3/26	2450	MSL	250	D2450V2-736	ES3DV3 - SN3169	DAE4 Sn853	12.20	50.80	48.80	-3.94
2018/3/15	2600	HSL	250	D2600V2-1008	EX3DV4 - SN3976	DAE3 Sn495	15.30	56.80	61.20	7.75
2018/3/17	2600	HSL	250	D2600V2-1008	EX3DV4 - SN3976	DAE3 Sn495	15.20	56.80	60.80	7.04
2018/3/20	2600	HSL	250	D2600V2-1008	ES3DV3 - SN3169	DAE4 Sn853	13.20	56.80	52.80	-7.04
2018/3/21	2600	HSL	250	D2600V2-1008	EX3DV4 - SN3976	DAE3 Sn495	13.50	56.80	54.00	-4.93
2018/3/25	2600	HSL	250	D2600V2-1008	EX3DV4 - SN3976	DAE3 Sn495	15.10	56.80	60.40	6.34
2018/3/14	2600	MSL	250	D2600V2-1008	ES3DV3 - SN3169	DAE4 Sn853	14.10	55.00	56.40	2.55
2018/3/17	2600	MSL	250	D2600V2-1008	ES3DV3 - SN3169	DAE4 Sn853	13.80	55.00	55.20	0.36
2018/3/18	2600	MSL	250	D2600V2-1008	ES3DV3 - SN3169	DAE4 Sn853	13.10	55.00	52.40	-4.73
2018/3/24	2600	MSL	250	D2600V2-1008	ES3DV3 - SN3169	DAE4 Sn853	13.50	55.00	54.00	-1.82
2018/3/26	2600	MSL	250	D2600V2-1008	ES3DV3 - SN3169	DAE4 Sn853	13.80	55.00	55.20	0.36

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 (%)
2018/3/14	5250	HSL	100	D5GHzV2-1006-5250	EX3DV4 - SN3976	DAE3 Sn495	8.56	78.30	85.60	9.32
2018/3/18	5250	HSL	100	D5GHzV2-1006-5250	EX3DV4 - SN3976	DAE3 Sn495	8.32	78.30	83.20	6.26
2018/3/27	5250	HSL	100	D5GHzV2-1006-5250	EX3DV4 - SN3976	DAE3 Sn495	8.36	78.30	83.60	6.77
2018/3/18	5250	MSL	100	D5GHzV2-1006-5250	EX3DV4 - SN3976	DAE3 Sn495	7.44	77.00	74.40	-3.38
2018/3/21	5250	MSL	100	D5GHzV2-1006-5250	EX3DV4 - SN3976	DAE3 Sn495	7.40	77.00	74.00	-3.90
2018/3/27	5250	MSL	100	D5GHzV2-1006-5250	EX3DV4 - SN3976	DAE3 Sn495	7.59	77.00	75.90	-1.43
2018/3/14	5600	HSL	100	D5GHzV2-1006-5600	EX3DV4 - SN3976	DAE3 Sn495	8.63	85.00	86.30	1.53
2018/3/18	5600	HSL	100	D5GHzV2-1006-5600	EX3DV4 - SN3976	DAE3 Sn495	8.86	85.00	88.60	4.24
2018/3/27	5600	HSL	100	D5GHzV2-1006-5600	EX3DV4 - SN3976	DAE3 Sn495	8.95	85.00	89.50	5.29
2018/4/11	5600	HSL	100	D5GHzV2-1171-5600	EX3DV4 - SN3925	DAE4 Sn1424	8.52	84.90	85.2	0.35
2018/4/12	5600	HSL	100	D5GHzV2-1171-5600	EX3DV4 - SN3925	DAE4 Sn1424	8.48	84.90	84.8	-0.12
2018/3/18	5600	MSL	100	D5GHzV2-1006-5600	EX3DV4 - SN3976	DAE3 Sn495	7.82	80.10	78.20	-2.37
2018/3/21	5600	MSL	100	D5GHzV2-1006-5600	EX3DV4 - SN3976	DAE3 Sn495	7.77	80.10	77.70	-3.00
2018/3/27	5600	MSL	100	D5GHzV2-1006-5600	EX3DV4 - SN3976	DAE3 Sn495	7.99	80.10	79.90	-0.25
2018/3/14	5750	HSL	100	D5GHzV2-1006-5750	EX3DV4 - SN3976	DAE3 Sn495	7.82	78.50	78.20	-0.38
2018/3/18	5750	HSL	100	D5GHzV2-1006-5750	EX3DV4 - SN3976	DAE3 Sn495	8.03	78.50	80.30	2.29
2018/3/27	5750	HSL	100	D5GHzV2-1006-5750	EX3DV4 - SN3976	DAE3 Sn495	8.15	78.50	81.50	3.82
2018/3/18	5750	MSL	100	D5GHzV2-1006-5750	EX3DV4 - SN3976	DAE3 Sn495	7.37	75.10	73.70	-1.86
2018/3/21	5750	MSL	100	D5GHzV2-1006-5750	EX3DV4 - SN3976	DAE3 Sn495	7.32	75.10	73.20	-2.53
2018/3/27	5750	MSL	100	D5GHzV2-1006-5750	EX3DV4 - SN3976	DAE3 Sn495	7.53	75.10	75.30	0.27

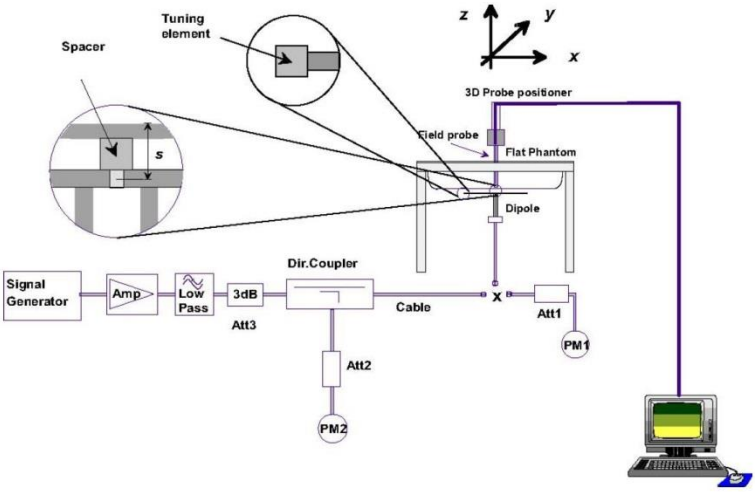


Fig 8.3.1 System Performance Check Setup

Fig 8.3.2 Setup Photo

9. SAR Test Results

General Note:

1. The following test result was according manufacturer requirement to be tested when the device attach passive MOD accessories, for head only perform right check position, due to normally has the higher head SAR result, for hotspot and body-worn condition was perform Front / bottom / top side according to antenna location of each device.
2. SAR is required for each passive Mod accessory in the highest reported SAR configuration tested for each transmitting antenna, without any Mod accessory, among the exposure test positions for each applicable frequency band, and for all configurations with reported SAR > 1.4 W/kg for comparison according to original report and frequency bands can be grouped according to Cell (700 – 800 MHz), PCS (1700 – 1950 MHz), AWS (2500 – 2700 MHz), 2.4 GHz Wi-Fi/Bluetooth and 5 GHz U-NII bands for each transmitting antenna.
3. For the tune-up and average power at each devices is according to original report and used to doing calculation reported SAR.
4. According to manufacturer test guidance the test frequency only required for GSM850, LTE B2(25) / B7, 2.4GHz WLAN and 5GHz WLAN.
5. According FCC guidance, additional SAR is required only when the MOD+PHONE SAR result is 25% higher or lower than PHONE-ONLY report or SAR is > 1.2W/kg.

9.1 FCC ID: IHDT56VC1 with passive mods

<Equipment: Low Cost Battery by Sunwoda, Model Name: MD100B, Head SAR verification>

<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	26.24	27.50	1.337	0.05	0.277	0.370

<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)
02	LTE Band 2	20M	QPSK	1	49	Right Cheek	0mm	19100	1900	23.68	24.00	1.076	0.03	0.320	0.344
03	LTE Band 7	20M	QPSK	1	49	Right Cheek	0mm	21350	2560	23.39	24.00	1.151	0.11	0.372	0.428

<WLAN SAR>

Plot No.	Band	Mode	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)
04	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	6	2437	17.22	18.50	1.341	97.63	1.024	-0.02	0.608	0.835
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	1	2412	16.81	18.50	1.476	97.63	1.024	0.05	0.517	0.781
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	11	2462	16.77	18.50	1.489	97.63	1.024	-0.03	0.541	0.825
	WLAN5GHz	802.11a 6Mbps	Right Cheek	0mm	48	5240	16.15	17.00	1.216	86.98	1.150	0.04	0.384	0.537
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	40	5200	15.49	17.00	1.416	86.98	1.150	0.13	0.881	1.434
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	36	5180	15.77	17.00	1.327	86.98	1.150	0.16	0.932	1.423
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	44	5220	15.54	17.00	1.400	86.98	1.150	0.12	0.887	1.428
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	48	5240	16.15	17.00	1.216	86.98	1.150	0	1.020	1.427
05	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	64	5320	15.65	17.00	1.365	86.98	1.150	0.05	0.922	1.447
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	52	5260	16.07	17.00	1.239	86.98	1.150	0.11	0.960	1.368
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	56	5280	15.90	17.00	1.288	86.98	1.150	0.05	0.934	1.384
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	60	5300	15.69	17.00	1.352	86.98	1.150	0.11	0.914	1.421
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	100	5500	15.72	17.00	1.343	86.98	1.150	0.11	0.893	1.379
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	116	5580	15.88	17.00	1.294	86.98	1.150	0.08	0.928	1.381
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	132	5660	15.59	17.00	1.384	86.98	1.150	0.14	0.901	1.434
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	140	5700	15.61	17.00	1.377	86.98	1.150	0.02	0.703	1.113

<Equipment: Low Cost Battery by Sunwoda, Model Name: MD100B, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
06	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	251	848.8	23.06	24.50	1.393	-0.09	0.746	1.039
	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	128	824.2	23.52	24.50	1.253	-0.03	0.790	0.990
	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	189	836.4	23.23	24.50	1.340	-0.13	0.735	0.985
	GSM850	GPRS (4 Tx slots)	Bottom Side	10mm	ON	128	824.2	23.52	24.50	1.253	0.12	0.234	0.293

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	18900	1880	23.41	24.00	1.146	-0.01	0.823	0.943
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	18700	1860	23.43	24.00	1.140	0.11	0.807	0.920
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	19100	1900	23.68	24.00	1.076	0.03	0.926	0.997
07	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	18900	1880	23.41	24.00	1.146	0.05	1.030	1.180
	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	18700	1860	23.43	24.00	1.140	0.06	0.960	1.095
	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	19100	1900	23.68	24.00	1.076	0.14	1.020	1.098
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	21350	2560	23.39	24.00	1.151	-0.01	0.769	0.885
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	20850	2510	23.82	24.00	1.042	-0.06	0.837	0.872
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	21100	2535	23.47	24.00	1.130	-0.19	0.769	0.869
08	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	21350	2560	23.39	24.00	1.151	0.11	0.914	1.052
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	20850	2510	23.82	24.00	1.042	0.15	0.951	0.991
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	21100	2535	23.47	24.00	1.130	-0.01	0.875	0.989

<WLAN SAR>

Plot No.	Band	Mode	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)
09	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	11	2462	16.77	18.50	1.489	97.63	1.024	-0.05	0.174	0.265
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	6	2437	17.22	18.50	1.341	97.63	1.024	0.11	0.050	0.069
10	WLAN5GHz	802.11a 6Mbps	Front	10mm	60	5300	16.07	17.00	1.239	86.98	1.150	-0.19	0.116	0.165
	WLAN5GHz	802.11a 6Mbps	Top Side	10mm	48	5240	16.15	17.00	1.216	86.98	1.150	0.14	0.028	0.039

<Equipment: JBL SoundBoost 2, Model Name: SoundBoost 2, Head SAR verification>

<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)
11	GSM850	GPRS (4 Tx slots)	Right Cheek	0mm	128	824.2	26.24	27.50	1.337	-0.02	0.267	0.357

<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)
12	LTE Band 2	20M	QPSK	1	49	Right Cheek	0mm	19100	1900	23.68	24.00	1.076	-0.08	0.301	0.324
13	LTE Band 7	20M	QPSK	1	49	Right Cheek	0mm	21350	2560	23.39	24.00	1.151	-0.18	0.323	0.372

<WLAN SAR>

Plot No.	Band	Mode	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)
14	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	6	2437	17.22	18.50	1.341	97.63	1.024	-0.17	0.538	0.739
	WLAN5GHz	802.11a 6Mbps	Right Cheek	0mm	48	5240	16.15	17.00	1.216	86.98	1.150	0.18	0.476	0.666
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	40	5200	15.49	17.00	1.416	86.98	1.150	-0.04	0.871	1.418
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	36	5180	15.77	17.00	1.327	86.98	1.150	0.02	0.912	1.392
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	44	5220	15.54	17.00	1.400	86.98	1.150	0.11	0.872	1.404
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	48	5240	16.15	17.00	1.216	86.98	1.150	0.07	0.995	1.392
15	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	64	5320	15.65	17.00	1.365	86.98	1.150	0.02	0.906	1.422
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	52	5260	16.07	17.00	1.239	86.98	1.150	0.04	0.951	1.355
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	56	5280	15.90	17.00	1.288	86.98	1.150	-0.09	0.939	1.391
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	60	5300	15.69	17.00	1.352	86.98	1.150	0.14	0.901	1.401
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	100	5500	15.72	17.00	1.343	86.98	1.150	0.17	0.917	1.416
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	116	5580	15.88	17.00	1.294	86.98	1.150	-0.1	0.809	1.204
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	132	5660	15.59	17.00	1.384	86.98	1.150	-0.01	0.748	1.190
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	140	5700	15.61	17.00	1.377	86.98	1.150	-0.01	0.749	1.186

<Equipment: JBL SoundBoost 2, Model Name: SoundBoost 2, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	251	848.8	23.06	24.50	1.393	-0.06	0.740	1.031
16	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	128	824.2	23.52	24.50	1.253	-0.05	0.829	1.039
	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	189	836.4	23.23	24.50	1.340	-0.03	0.696	0.932
	GSM850	GPRS (4 Tx slots)	Bottom Side	10mm	ON	128	824.2	23.52	24.50	1.253	-0.08	0.265	0.332

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	18900	1880	23.41	24.00	1.146	-0.19	0.805	0.922
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	18700	1860	23.43	24.00	1.140	-0.04	0.832	0.949
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	19100	1900	23.68	24.00	1.076	-0.08	0.814	0.876
17	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	18900	1880	23.41	24.00	1.146	-0.18	1.020	1.168
	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	18700	1860	23.43	24.00	1.140	-0.11	0.964	1.099
	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	19100	1900	23.68	24.00	1.076	-0.04	0.919	0.989
18	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	21350	2560	23.39	24.00	1.151	0.17	0.913	1.051
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	20850	2510	23.82	24.00	1.042	-0.01	0.909	0.947
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	21100	2535	23.47	24.00	1.130	0.06	0.843	0.952
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	21350	2560	23.39	24.00	1.151	0.04	0.898	1.033
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	20850	2510	23.82	24.00	1.042	0.03	0.992	1.034
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	21100	2535	23.47	24.00	1.130	0.03	0.925	1.045

<WLAN SAR>

Plot No.	Band	Mode	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)
19	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	11	2462	16.77	18.50	1.489	97.63	1.024	-0.1	0.170	0.259
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	6	2437	17.22	18.50	1.341	97.63	1.024	0.01	0.057	0.078
20	WLAN5GHz	802.11a 6Mbps	Front	10mm	60	5300	16.07	17.00	1.239	86.98	1.150	-0.14	0.139	0.198
	WLAN5GHz	802.11a 6Mbps	Top Side	10mm	48	5240	16.15	17.00	1.216	86.98	1.150	0.11	0.031	0.043

<Equipment: Hasselblad Camera, Model Name: HB4116, Head SAR verification>

<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)	Right Cheek	0mm	128	824.2	26.24	27.50	1.337	-0.15	0.254	0.339

<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)
22	LTE Band 2	20M	QPSK	1	49	Right Cheek	0mm	19100	1900	23.68	24.00	1.076	0.11	0.248	0.267
23	LTE Band 7	20M	QPSK	1	49	Right Cheek	0mm	21350	2560	23.39	24.00	1.151	-0.03	0.320	0.368

<WLAN SAR>

Plot No.	Band	Mode	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)
24	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	6	2437	17.22	18.50	1.341	97.63	1.024	0.03	0.491	0.674
	WLAN5GHz	802.11a 6Mbps	Right Cheek	0mm	48	5240	16.15	17.00	1.216	86.98	1.150	0.05	0.526	0.736
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	40	5200	15.49	17.00	1.416	86.98	1.150	0.11	0.867	1.412
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	36	5180	15.77	17.00	1.327	86.98	1.150	0.01	0.826	1.261
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	44	5220	15.54	17.00	1.400	86.98	1.150	0.08	0.740	1.191
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	48	5240	16.15	17.00	1.216	86.98	1.150	-0.16	0.847	1.185
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	64	5320	15.65	17.00	1.365	86.98	1.150	0.01	0.908	1.425
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	52	5260	16.07	17.00	1.239	86.98	1.150	0.04	0.776	1.106
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	56	5280	15.90	17.00	1.288	86.98	1.150	-0.07	0.744	1.102
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	60	5300	15.69	17.00	1.352	86.98	1.150	0.14	0.789	1.227
25	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	100	5500	15.72	17.00	1.343	86.98	1.150	0	0.926	1.430
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	116	5580	15.88	17.00	1.294	86.98	1.150	-0.04	0.835	1.243
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	132	5660	15.59	17.00	1.384	86.98	1.150	0.04	0.518	0.824
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	140	5700	15.61	17.00	1.377	86.98	1.150	0.06	0.495	0.784

<Equipment: Hasselblad Camera, Model Name: HB4116, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
26	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	251	848.8	23.06	24.50	1.393	0.07	0.731	1.018
	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	128	824.2	23.52	24.50	1.253	-0.1	0.793	0.994
	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	189	836.4	23.23	24.50	1.340	-0.08	0.752	1.007
	GSM850	GPRS (4 Tx slots)	Bottom Side	10mm	ON	128	824.2	23.52	24.50	1.253	-0.1	0.269	0.337

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	18900	1880	23.41	24.00	1.146	0.13	0.839	0.961
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	18700	1860	23.43	24.00	1.140	-0.01	0.811	0.925
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	19100	1900	23.68	24.00	1.076	0.03	0.824	0.887
27	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	18900	1880	23.41	24.00	1.146	-0.04	0.945	1.083
	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	18700	1860	23.43	24.00	1.140	0.03	0.912	1.040
	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	19100	1900	23.68	24.00	1.076	-0.12	0.903	0.972
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	21350	2560	23.39	24.00	1.151	-0.01	0.958	1.102
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	20850	2510	23.82	24.00	1.042	-0.18	0.960	1.001
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	21100	2535	23.47	24.00	1.130	-0.07	0.910	1.028
28	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	21350	2560	23.39	24.00	1.151	0.11	0.961	1.106
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	20850	2510	23.82	24.00	1.042	0.19	1.020	1.063
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	21100	2535	23.47	24.00	1.130	0.02	0.956	1.080

<WLAN SAR>

Plot No.	Band	Mode	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)
29	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	11	2462	16.77	18.50	1.489	97.63	1.024	0.08	0.231	0.352
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	6	2437	17.22	18.50	1.341	97.63	1.024	0.11	0.055	0.076
30	WLAN5GHz	802.11a 6Mbps	Front	10mm	60	5300	16.07	17.00	1.239	86.98	1.150	-0.17	0.158	0.225
	WLAN5GHz	802.11a 6Mbps	Top Side	10mm	48	5240	16.15	17.00	1.216	86.98	1.150	-0.12	0.051	0.071

<Equipment: Insta-Share Projector Mod, Model Name: MD100P, Head SAR verification>

<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)
31	GSM850	GPRS (4 Tx slots)	Right Cheek	0mm	128	824.2	26.24	27.50	1.337	0.11	0.281	0.376

<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)
32	LTE Band 2	20M	QPSK	1	49	Right Cheek	0mm	19100	1900	23.68	24.00	1.076	0.16	0.311	0.335
33	LTE Band 7	20M	QPSK	1	49	Right Cheek	0mm	21350	2560	23.39	24.00	1.151	-0.01	0.348	0.400

<WLAN SAR>

Plot No.	Band	Mode	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)
34	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	6	2437	17.22	18.50	1.341	97.63	1.024	-0.09	0.478	0.657
	WLAN5GHz	802.11a 6Mbps	Right Cheek	0mm	48	5240	16.15	17.00	1.216	86.98	1.150	0.08	0.396	0.554
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	40	5200	15.49	17.00	1.416	86.98	1.150	-0.13	0.856	1.394
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	36	5180	15.77	17.00	1.327	86.98	1.150	0.06	0.869	1.327
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	44	5220	15.54	17.00	1.400	86.98	1.150	-0.04	0.822	1.323
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	48	5240	16.15	17.00	1.216	86.98	1.150	0.01	0.906	1.267
35	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	64	5320	15.65	17.00	1.365	86.98	1.150	0.08	0.904	1.419
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	52	5260	16.07	17.00	1.239	86.98	1.150	0.03	0.826	1.177
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	56	5280	15.90	17.00	1.288	86.98	1.150	0.02	0.820	1.215
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	60	5300	15.69	17.00	1.352	86.98	1.150	0.07	0.837	1.301
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	100	5500	15.72	17.00	1.343	86.98	1.150	0.1	0.894	1.380
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	116	5580	15.88	17.00	1.294	86.98	1.150	0.03	0.789	1.174
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	132	5660	15.59	17.00	1.384	86.98	1.150	0.08	0.817	1.300
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	140	5700	15.61	17.00	1.377	86.98	1.150	0.08	0.600	0.950

<Equipment: Insta-Share Projector Mod, Model Name: MD100P, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
36	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	251	848.8	23.06	24.50	1.393	0.13	0.743	1.035
	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	128	824.2	23.52	24.50	1.253	0.01	0.754	0.945
	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	189	836.4	23.23	24.50	1.340	-0.01	0.625	0.837
	GSM850	GPRS (4 Tx slots)	Bottom Side	10mm	ON	128	824.2	23.52	24.50	1.253	0.08	0.272	0.341

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	18900	1880	23.41	24.00	1.146	-0.16	0.919	1.053
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	18700	1860	23.43	24.00	1.140	-0.1	0.904	1.031
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	19100	1900	23.68	24.00	1.076	0.03	0.948	1.020
37	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	18900	1880	23.41	24.00	1.146	0.05	0.995	1.140
	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	18700	1860	23.43	24.00	1.140	0.12	0.983	1.121
	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	19100	1900	23.68	24.00	1.076	0.09	1.010	1.087
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	21350	2560	23.39	24.00	1.151	0.11	0.906	1.043
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	20850	2510	23.82	24.00	1.042	-0.03	0.808	0.842
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	21100	2535	23.47	24.00	1.130	-0.06	0.818	0.924
38	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	21350	2560	23.39	24.00	1.151	0.07	1.010	1.162
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	20850	2510	23.82	24.00	1.042	0.01	1.090	1.136
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	21100	2535	23.47	24.00	1.130	0.01	0.958	1.082

<WLAN SAR>

Plot No.	Band	Mode	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)
39	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	11	2462	16.77	18.50	1.489	97.63	1.024	-0.06	0.217	0.331
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	6	2437	17.22	18.50	1.341	97.63	1.024	-0.01	0.056	0.077
40	WLAN5GHz	802.11a 6Mbps	Front	10mm	60	5300	16.07	17.00	1.239	86.98	1.150	-0.17	0.166	0.236
	WLAN5GHz	802.11a 6Mbps	Top Side	10mm	48	5240	16.15	17.00	1.216	86.98	1.150	-0.12	0.050	0.070

<Equipment: Motorola Gamepad, Model Name: MD100G, Head SAR verification>

<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)
41	GSM850	GPRS (4 Tx slots)	Right Cheek	0mm	128	824.2	26.24	27.50	1.337	0.11	0.266	0.356

<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)
42	LTE Band 2	20M	QPSK	1	49	Right Cheek	0mm	19100	1900	23.68	24.00	1.076	0.1	0.211	0.227
43	LTE Band 7	20M	QPSK	1	49	Right Cheek	0mm	21350	2560	23.39	24.00	1.151	-0.01	0.369	0.425

<WLAN SAR>

Plot No.	Band	Mode	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)
44	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	6	2437	17.22	18.50	1.341	97.63	1.024	-0.12	0.563	0.773
	WLAN5GHz	802.11a 6Mbps	Right Cheek	0mm	48	5240	16.15	17.00	1.216	86.98	1.150	0.15	0.396	0.554
45	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	40	5200	15.49	17.00	1.416	86.98	1.150	0.07	0.871	1.418
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	36	5180	15.77	17.00	1.327	86.98	1.150	0.06	0.799	1.220
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	44	5220	15.54	17.00	1.400	86.98	1.150	0.05	0.775	1.247
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	48	5240	16.15	17.00	1.216	86.98	1.150	0.11	0.784	1.097
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	64	5320	15.65	17.00	1.365	86.98	1.150	-0.05	0.858	1.346
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	52	5260	16.07	17.00	1.239	86.98	1.150	0.13	0.862	1.228
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	56	5280	15.90	17.00	1.288	86.98	1.150	-0.03	0.840	1.244
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	60	5300	15.69	17.00	1.352	86.98	1.150	0.01	0.814	1.266
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	100	5500	15.72	17.00	1.343	86.98	1.150	-0.01	0.872	1.347
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	116	5580	15.88	17.00	1.294	86.98	1.150	0.06	0.699	1.040
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	132	5660	15.59	17.00	1.384	86.98	1.150	0.07	0.724	1.152
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	140	5700	15.61	17.00	1.377	86.98	1.150	0.07	0.458	0.725

<Equipment: Motorola Gamepad, Model Name: MD100G, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	251	848.8	23.06	24.50	1.393	0.06	0.367	0.511
	GSM850	GPRS (4 Tx slots)	Bottom Side	10mm	ON	128	824.2	23.52	24.50	1.253	0.16	0.108	0.135

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
47	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	18900	1880	23.41	24.00	1.146	-0.09	0.849	0.973
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	18700	1860	23.43	24.00	1.140	-0.02	0.740	0.844
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	19100	1900	23.68	24.00	1.076	-0.02	0.794	0.855
	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	18900	1880	23.41	24.00	1.146	0.13	0.499	0.572
48	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	21350	2560	23.39	24.00	1.151	-0.04	0.957	1.101
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	20850	2510	23.82	24.00	1.042	-0.1	0.974	1.015
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	21100	2535	23.47	24.00	1.130	-0.07	0.928	1.048
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	21350	2560	23.39	24.00	1.151	0.09	0.075	0.086

<WLAN SAR>

Plot No.	Band	Mode	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)
49	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	11	2462	16.77	18.50	1.489	97.63	1.024	-0.09	0.241	0.368
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	6	2437	17.22	18.50	1.341	97.63	1.024	0.16	0.055	0.076
50	WLAN5GHz	802.11a 6Mbps	Front	10mm	60	5300	16.07	17.00	1.239	86.98	1.150	-0.15	0.112	0.160
	WLAN5GHz	802.11a 6Mbps	Top Side	10mm	48	5240	16.15	17.00	1.216	86.98	1.150	-0.04	0.001	0.001

<Equipment: Polaroid Instaprint, Model Name: MD100I, Head SAR verification>

<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)
51	GSM850	GPRS (4 Tx slots)	Right Cheek	0mm	128	824.2	26.24	27.50	1.337	0.01	0.286	0.382

<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)
52	LTE Band 2	20M	QPSK	1	49	Right Cheek	0mm	19100	1900	23.68	24.00	1.076	0.09	0.316	0.340
53	LTE Band 7	20M	QPSK	1	49	Right Cheek	0mm	21350	2560	23.39	24.00	1.151	-0.06	0.321	0.369

<WLAN SAR>

Plot No.	Band	Mode	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)
54	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	6	2437	17.22	18.50	1.341	97.63	1.024	0.11	0.563	0.773
	WLAN5GHz	802.11a 6Mbps	Right Cheek	0mm	48	5240	16.15	17.00	1.216	86.98	1.150	-0.05	0.486	0.680
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	40	5200	15.49	17.00	1.416	86.98	1.150	0.01	0.867	1.412
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	36	5180	15.77	17.00	1.327	86.98	1.150	-0.05	0.896	1.368
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	44	5220	15.54	17.00	1.400	86.98	1.150	-0.05	0.790	1.272
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	48	5240	16.15	17.00	1.216	86.98	1.150	0.1	0.926	1.295
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	64	5320	15.65	17.00	1.365	86.98	1.150	-0.03	0.852	1.337
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	52	5260	16.07	17.00	1.239	86.98	1.150	-0.03	0.841	1.198
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	56	5280	15.90	17.00	1.288	86.98	1.150	-0.08	0.834	1.236
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	60	5300	15.69	17.00	1.352	86.98	1.150	-0.05	0.849	1.320
55	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	100	5500	15.72	17.00	1.343	86.98	1.150	-0.05	0.919	1.419
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	116	5580	15.88	17.00	1.294	86.98	1.150	0	0.825	1.228
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	132	5660	15.59	17.00	1.384	86.98	1.150	-0.08	0.863	1.373
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	140	5700	15.61	17.00	1.377	86.98	1.150	0.02	0.721	1.142

<Equipment: Polaroid Instaprint, Model Name: MD100I, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
56	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	251	848.8	23.06	24.50	1.393	0	0.666	0.928
	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	128	824.2	23.52	24.50	1.253	0.01	0.653	0.818
	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	189	836.4	23.23	24.50	1.340	-0.01	0.573	0.768
	GSM850	GPRS (4 Tx slots)	Bottom Side	10mm	ON	128	824.2	23.52	24.50	1.253	0.18	0.252	0.316

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	18900	1880	23.41	24.00	1.146	-0.1	0.868	0.994
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	18700	1860	23.43	24.00	1.140	-0.05	0.852	0.971
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	19100	1900	23.68	24.00	1.076	-0.09	0.861	0.927
57	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	18900	1880	23.41	24.00	1.146	0.14	0.953	1.092
	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	18700	1860	23.43	24.00	1.140	0.05	0.921	1.050
	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	19100	1900	23.68	24.00	1.076	0.11	0.945	1.017
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	21350	2560	23.39	24.00	1.151	0.02	0.938	1.079
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	20850	2510	23.82	24.00	1.042	-0.03	0.933	0.972
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	21100	2535	23.47	24.00	1.130	-0.04	0.915	1.034
58	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	21350	2560	23.39	24.00	1.151	0.16	0.998	1.148
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	20850	2510	23.82	24.00	1.042	0.11	0.981	1.023
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	21100	2535	23.47	24.00	1.130	0.14	0.979	1.106

<WLAN SAR>

Plot No.	Band	Mode	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)
59	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	11	2462	16.77	18.50	1.489	97.63	1.024	-0.15	0.195	0.297
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	6	2437	17.22	18.50	1.341	97.63	1.024	0.11	0.062	0.085
60	WLAN5GHz	802.11a 6Mbps	Front	10mm	60	5300	16.07	17.00	1.239	86.98	1.150	-0.11	0.153	0.218
	WLAN5GHz	802.11a 6Mbps	Top Side	10mm	48	5240	16.15	17.00	1.216	86.98	1.150	0.14	0.028	0.039

<Equipment: 360 degree camera, Model Name: MD100S, Head SAR verification>

<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)
61	GSM850	GPRS (4 Tx slots)	Right Cheek	0mm	128	824.2	26.24	27.50	1.337	-0.16	0.244	0.326

<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)
62	LTE Band 2	20M	QPSK	1	49	Right Cheek	0mm	19100	1900	23.68	24.00	1.076	0.15	0.269	0.290
63	LTE Band 7	20M	QPSK	1	49	Right Cheek	0mm	21350	2560	23.39	24.00	1.151	-0.05	0.352	0.405

<WLAN SAR>

Plot No.	Band	Mode	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)
64	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	6	2437	17.22	18.50	1.341	97.63	1.024	-0.01	0.435	0.598
	WLAN5GHz	802.11a 6Mbps	Right Cheek	0mm	48	5240	16.15	17.00	1.216	86.98	1.150	0.04	0.420	0.587
65	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	40	5200	15.49	17.00	1.416	86.98	1.150	-0.16	0.874	1.423
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	36	5180	15.77	17.00	1.327	86.98	1.150	0.03	0.853	1.302
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	44	5220	15.54	17.00	1.400	86.98	1.150	0.14	0.875	1.408
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	48	5240	16.15	17.00	1.216	86.98	1.150	-0.04	0.883	1.235
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	64	5320	15.65	17.00	1.365	86.98	1.150	-0.06	0.880	1.381
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	52	5260	16.07	17.00	1.239	86.98	1.150	0.08	0.797	1.135
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	56	5280	15.90	17.00	1.288	86.98	1.150	-0.06	0.825	1.222
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	60	5300	15.69	17.00	1.352	86.98	1.150	0.01	0.811	1.261
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	100	5500	15.72	17.00	1.343	86.98	1.150	0.09	0.845	1.305
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	116	5580	15.88	17.00	1.294	86.98	1.150	-0.04	0.660	0.982
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	132	5660	15.59	17.00	1.384	86.98	1.150	0.08	0.683	1.087
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	140	5700	15.61	17.00	1.377	86.98	1.150	0.01	0.646	1.023

<Equipment: 360 degree camera, Model Name: MD100S, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
66	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	251	848.8	23.06	24.50	1.393	0.02	0.739	1.030
	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	128	824.2	23.52	24.50	1.253	-0.05	0.807	1.011
	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	189	836.4	23.23	24.50	1.340	-0.02	0.768	1.029
	GSM850	GPRS (4 Tx slots)	Bottom Side	10mm	ON	128	824.2	23.52	24.50	1.253	-0.18	0.278	0.348

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	18900	1880	23.41	24.00	1.146	-0.1	0.842	0.965
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	18700	1860	23.43	24.00	1.140	-0.05	0.803	0.916
	LTE Band 2	20M	QPSK	1	49	Front	10mm	OFF	19100	1900	23.68	24.00	1.076	-0.12	0.814	0.876
67	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	18900	1880	23.41	24.00	1.146	-0.03	0.942	1.079
	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	18700	1860	23.43	24.00	1.140	-0.17	0.934	1.065
	LTE Band 2	20M	QPSK	1	49	Bottom Side	10mm	OFF	19100	1900	23.68	24.00	1.076	-0.01	0.971	1.045
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	21350	2560	23.39	24.00	1.151	-0.1	0.873	1.005
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	20850	2510	23.82	24.00	1.042	0.01	0.942	0.982
	LTE Band 7	20M	QPSK	1	49	Front	10mm	OFF	21100	2535	23.47	24.00	1.130	-0.19	0.886	1.001
68	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	21350	2560	23.39	24.00	1.151	-0.03	0.994	1.144
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	20850	2510	23.82	24.00	1.042	-0.12	0.967	1.008
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	OFF	21100	2535	23.47	24.00	1.130	-0.16	0.988	1.116

<WLAN SAR>

Plot No.	Band	Mode	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)
69	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	11	2462	16.77	18.50	1.489	97.63	1.024	-0.13	0.232	0.354
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	6	2437	17.22	18.50	1.341	97.63	1.024	0.02	0.005	0.007
70	WLAN5GHz	802.11a 6Mbps	Front	10mm	60	5300	16.07	17.00	1.239	86.98	1.150	-0.15	0.145	0.207
	WLAN5GHz	802.11a 6Mbps	Top Side	10mm	48	5240	16.15	17.00	1.216	86.98	1.150	-0.14	0.003	0.004

9.2 FCC ID: IHDT56WB4 with passive mods

<Equipment: Low Cost Battery by Sunwoda, Model Name: MD100B, Head SAR verification>

<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)
71	GSM850	GPRS (4 Tx slots)	Right Cheek	0mm	128	824.2	26.57	27.50	1.239	-0.13	0.096	0.119

<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)
72	LTE Band 2	20M	QPSK	1	0	Right Cheek	0mm	19100	1900	22.78	24.00	1.324	-0.06	0.258	0.342
73	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	21350	2560	22.73	24.00	1.340	0.12	0.327	0.438

<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)
74	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	-0.12	0.245	0.281
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 2	1	2412	15.90	16.50	1.148	100	1.000	-0.05	0.026	0.030
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 1	106	5530	14.91	15.00	1.021	86.51	1.156	0.16	0.335	0.395
75	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 2	155	5775	14.79	15.00	1.050	85.71	1.167	0.14	0.612	0.750

<Equipment: Low Cost Battery by Sunwoda, Model Name: MD100B, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
76	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	128	824.2	26.57	27.50	1.239	0.08	0.417	0.517
	GSM850	GPRS (4 Tx slots)	Bottom Side	10mm	ON	128	824.2	26.57	27.50	1.239	0.08	0.221	0.274

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
77	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	18700	1860	21.49	23.00	1.416	0.12	0.812	1.150
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	18900	1880	21.53	23.00	1.403	0.08	0.803	1.126
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	19100	1900	21.83	23.00	1.309	0.09	0.829	1.085
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	19100	1900	21.83	23.00	1.309	0	0.878	1.149
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	18700	1860	21.49	23.00	1.416	0.02	0.735	1.041
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	18900	1880	21.53	23.00	1.403	-0.03	0.810	1.136
78	LTE Band 7	20M	QPSK	50	0	Front	10mm	ON	21350	2560	20.81	22.00	1.315	-0.07	0.468	0.616
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	ON	21350	2560	20.81	22.00	1.315	0.04	0.464	0.610

<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	Front	10mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	-0.06	0.114	0.131
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	0.08	0.054	0.062
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 2	1	2412	15.90	16.50	1.148	100	1.000	-0.14	0.251	0.288
79	WLAN2.4GHz	802.11b 1Mbps	Bottom Side	10mm	Ant 2	11	2462	15.60	16.50	1.230	100	1.000	0.05	0.343	0.422
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 1	138	5690	18.25	19.00	1.190	86.51	1.156	-0.1	0.127	0.175
	WLAN5GHz	802.11a 6Mbps	Top Side	10mm	Ant 1	36	5180	18.16	19.00	1.213	94.16	1.062	-0.05	0.053	0.068
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	-0.15	0.138	0.189
80	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	-0.11	0.181	0.248

<Equipment: JBL SoundBoost 2, Model Name: SoundBoost 2, Head SAR verification>

<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)
81	GSM850	GPRS (4 Tx slots)	Right Cheek	0mm	128	824.2	26.57	27.50	1.239	-0.13	0.086	0.107

<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)
82	LTE Band 2	20M	QPSK	1	0	Right Cheek	0mm	19100	1900	22.78	24.00	1.324	-0.11	0.269	0.356
83	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	21350	2560	22.73	24.00	1.340	0.05	0.324	0.434

<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)
84	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	0.18	0.293	0.336
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 2	1	2412	15.90	16.50	1.148	100	1.000	-0.18	0.024	0.028
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 1	106	5530	14.91	15.00	1.021	86.51	1.156	-0.04	0.312	0.368
85	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 2	155	5775	14.79	15.00	1.050	85.71	1.167	0.12	0.638	0.781

<Equipment: JBL SoundBoost 2, Model Name: SoundBoost 2, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
86	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	128	824.2	26.57	27.50	1.239	0.02	0.508	0.629
	GSM850	GPRS (4 Tx slots)	Bottom Side	10mm	ON	128	824.2	26.57	27.50	1.239	0.08	0.289	0.358

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	18700	1860	21.49	23.00	1.416	0.01	0.745	1.055
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	18900	1880	21.53	23.00	1.403	0.02	0.757	1.062
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	19100	1900	21.83	23.00	1.309	0.13	0.803	1.051
87	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	19100	1900	21.83	23.00	1.309	-0.05	0.910	1.191
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	18700	1860	21.49	23.00	1.416	-0.07	0.792	1.121
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	18900	1880	21.53	23.00	1.403	-0.07	0.846	1.187
88	LTE Band 7	20M	QPSK	50	0	Front	10mm	ON	21350	2560	20.81	22.00	1.315	0.01	0.595	0.783
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	ON	21350	2560	20.81	22.00	1.315	-0.17	0.527	0.693

<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	Front	10mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	-0.05	0.112	0.129
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	-0.04	0.039	0.045
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 2	1	2412	15.90	16.50	1.148	100	1.000	0.05	0.248	0.285
89	WLAN2.4GHz	802.11b 1Mbps	Bottom Side	10mm	Ant 2	11	2462	15.60	16.50	1.230	100	1.000	-0.04	0.349	0.429
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 1	138	5690	18.25	19.00	1.190	86.51	1.156	-0.12	0.110	0.151
	WLAN5GHz	802.11a 6Mbps	Top Side	10mm	Ant 1	36	5180	18.16	19.00	1.213	94.16	1.062	-0.11	0.054	0.070
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	-0.01	0.132	0.181
90	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	-0.18	0.171	0.234

<Equipment: Hasselblad Camera, Model Name: HB4116, Head SAR verification>

<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)
91	GSM850	GPRS (4 Tx slots)	Right Cheek	0mm	128	824.2	26.57	27.50	1.239	0.08	0.100	0.124

<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)
92	LTE Band 2	20M	QPSK	1	0	Right Cheek	0mm	19100	1900	22.78	24.00	1.324	0.06	0.229	0.303
93	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	21350	2560	22.73	24.00	1.340	0.11	0.321	0.430

<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)
94	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	-0.13	0.248	0.285
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 2	1	2412	15.90	16.50	1.148	100	1.000	-0.09	0.015	0.017
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 1	106	5530	14.91	15.00	1.021	86.51	1.156	0.07	0.326	0.385
95	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 2	155	5775	14.79	15.00	1.050	85.71	1.167	-0.13	0.644	0.789

<Equipment: Hasselblad Camera, Model Name: HB4116, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
96	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	128	824.2	26.57	27.50	1.239	-0.12	0.410	0.508
	GSM850	GPRS (4 Tx slots)	Bottom Side	10mm	ON	128	824.2	26.57	27.50	1.239	-0.03	0.277	0.343

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	18700	1860	21.49	23.00	1.416	-0.16	0.807	1.143
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	18900	1880	21.53	23.00	1.403	-0.14	0.813	1.140
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	19100	1900	21.83	23.00	1.309	-0.11	0.866	1.134
97	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	19100	1900	21.83	23.00	1.309	0.18	0.906	1.186
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	18700	1860	21.49	23.00	1.416	0.12	0.812	1.150
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	18900	1880	21.53	23.00	1.403	0.14	0.834	1.170
98	LTE Band 7	20M	QPSK	50	0	Front	10mm	ON	21350	2560	20.81	22.00	1.315	-0.16	0.578	0.760
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	ON	21350	2560	20.81	22.00	1.315	0.12	0.534	0.702

<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	Front	10mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	-0.06	0.109	0.125
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	0.14	0.095	0.109
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 2	1	2412	15.90	16.50	1.148	100	1.000	-0.08	0.247	0.284
99	WLAN2.4GHz	802.11b 1Mbps	Bottom Side	10mm	Ant 2	11	2462	15.60	16.50	1.230	100	1.000	0.09	0.351	0.432
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 1	138	5690	18.25	19.00	1.190	86.51	1.156	-0.14	0.142	0.195
	WLAN5GHz	802.11a 6Mbps	Top Side	10mm	Ant 1	36	5180	18.16	19.00	1.213	94.16	1.062	-0.08	0.092	0.119
100	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	-0.08	0.189	0.259
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	0.17	0.140	0.192

<Equipment: Insta-Share Projector Mod, Model Name: MD100P, Head SAR verification>

<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)
101	GSM850	GPRS (4 Tx slots)	Right Cheek	0mm	128	824.2	26.57	27.50	1.239	-0.07	0.107	0.133

<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)
102	LTE Band 2	20M	QPSK	1	0	Right Cheek	0mm	19100	1900	22.78	24.00	1.324	-0.16	0.269	0.356
103	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	21350	2560	22.73	24.00	1.340	0.03	0.294	0.394

<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)
104	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	-0.05	0.243	0.279
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 2	1	2412	15.90	16.50	1.148	100	1.000	-0.08	0.028	0.032
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 1	106	5530	14.91	15.00	1.021	86.51	1.156	0.16	0.344	0.406
105	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 2	155	5775	14.79	15.00	1.050	85.71	1.167	0.06	0.642	0.786

<Equipment: Insta-Share Projector Mod, Model Name: MD100P, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
106	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	128	824.2	26.57	27.50	1.239	-0.12	0.538	0.666
	GSM850	GPRS (4 Tx slots)	Bottom Side	10mm	ON	128	824.2	26.57	27.50	1.239	0.14	0.240	0.297

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
107	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	18700	1860	21.49	23.00	1.416	-0.06	0.837	1.185
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	18900	1880	21.53	23.00	1.403	-0.05	0.835	1.171
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	19100	1900	21.83	23.00	1.309	-0.05	0.892	1.168
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	19100	1900	21.83	23.00	1.309	0.05	0.901	1.180
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	18700	1860	21.49	23.00	1.416	0.02	0.784	1.110
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	18900	1880	21.53	23.00	1.403	0.12	0.833	1.169
108	LTE Band 7	20M	QPSK	50	0	Front	10mm	ON	21350	2560	20.81	22.00	1.315	0.02	0.481	0.633
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	ON	21350	2560	20.81	22.00	1.315	0.17	0.455	0.598

<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	Front	10mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	0.01	0.117	0.134
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	0.04	0.088	0.101
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 2	1	2412	15.90	16.50	1.148	100	1.000	0.01	0.248	0.285
109	WLAN2.4GHz	802.11b 1Mbps	Bottom Side	10mm	Ant 2	11	2462	15.60	16.50	1.230	100	1.000	-0.07	0.322	0.396
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 1	138	5690	18.25	19.00	1.190	86.51	1.156	-0.14	0.131	0.180
	WLAN5GHz	802.11a 6Mbps	Top Side	10mm	Ant 1	36	5180	18.16	19.00	1.213	94.16	1.062	-0.08	0.089	0.115
110	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	-0.08	0.182	0.250
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	0.17	0.137	0.188

<Equipment: Motorola Gamepad, Model Name: MD100G, Head SAR verification>

<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)
111	GSM850	GPRS (4 Tx slots)	Right Cheek	0mm	128	824.2	26.57	27.50	1.239	-0.06	0.116	0.144

<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)
112	LTE Band 2	20M	QPSK	1	0	Right Cheek	0mm	19100	1900	22.78	24.00	1.324	-0.11	0.194	0.257
113	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	21350	2560	22.73	24.00	1.340	0.13	0.337	0.451

<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)
114	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	-0.01	0.228	0.262
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 2	1	2412	15.90	16.50	1.148	100	1.000	0.02	0.036	0.041
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 1	106	5530	14.91	15.00	1.021	86.51	1.156	0.15	0.350	0.413
115	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 2	155	5775	14.79	15.00	1.050	85.71	1.167	0.07	0.614	0.752

<Equipment: Motorola Gamepad, Model Name: MD100G, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
116	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	128	824.2	26.57	27.50	1.239	-0.13	0.375	0.465
	GSM850	GPRS (4 Tx slots)	Bottom Side	10mm	ON	128	824.2	26.57	27.50	1.239	-0.12	0.053	0.066

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
117	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	18700	1860	21.49	23.00	1.416	0.08	0.833	1.179
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	18900	1880	21.53	23.00	1.403	0.02	0.802	1.125
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	19100	1900	21.83	23.00	1.309	0.07	0.805	1.054
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	19100	1900	21.83	23.00	1.309	0.06	0.617	0.808
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	18700	1860	21.49	23.00	1.416	0.07	0.441	0.624
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	18900	1880	21.53	23.00	1.403	0.07	0.531	0.745
118	LTE Band 7	20M	QPSK	50	0	Front	10mm	ON	21350	2560	20.81	22.00	1.315	0.15	0.550	0.723
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	ON	21350	2560	20.81	22.00	1.315	0.05	0.045	0.059

<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	Front	10mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	-0.17	0.117	0.134
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	0.14	0.046	0.053
119	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 2	1	2412	15.90	16.50	1.148	100	1.000	-0.05	0.249	0.286
	WLAN2.4GHz	802.11b 1Mbps	Bottom Side	10mm	Ant 2	11	2462	15.60	16.50	1.230	100	1.000	0.1	0.073	0.090
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 1	138	5690	18.25	19.00	1.190	86.51	1.156	-0.17	0.122	0.168
	WLAN5GHz	802.11a 6Mbps	Top Side	10mm	Ant 1	36	5180	18.16	19.00	1.213	94.16	1.062	-0.14	0.001	0.001
120	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	-0.13	0.194	0.266
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	-0.04	0.020	0.027

<Equipment: Polaroid Instaprint, Model Name: MD100I, Head SAR verification>

<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)
121	GSM850	GPRS (4 Tx slots)	Right Cheek	0mm	128	824.2	26.57	27.50	1.239	-0.19	0.108	0.134

<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)
122	LTE Band 2	20M	QPSK	1	0	Right Cheek	0mm	19100	1900	22.78	24.00	1.324	-0.04	0.255	0.338
123	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	21350	2560	22.73	24.00	1.340	0.12	0.321	0.430

<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)
124	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	-0.09	0.260	0.299
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 2	1	2412	15.90	16.50	1.148	100	1.000	-0.02	0.023	0.026
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 1	106	5530	14.91	15.00	1.021	86.51	1.156	0.13	0.348	0.411
125	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 2	155	5775	14.79	15.00	1.050	85.71	1.167	0.18	0.644	0.789

<Equipment: Polaroid Instaprint, Model Name: MD100I, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
126	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	128	824.2	26.57	27.50	1.239	-0.15	0.527	0.653
	GSM850	GPRS (4 Tx slots)	Bottom Side	10mm	ON	128	824.2	26.57	27.50	1.239	-0.14	0.221	0.274

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	18700	1860	21.49	23.00	1.416	-0.12	0.828	1.172
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	18900	1880	21.53	23.00	1.403	-0.06	0.821	1.152
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	19100	1900	21.83	23.00	1.309	-0.06	0.799	1.046
127	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	19100	1900	21.83	23.00	1.309	0.03	0.904	1.184
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	18700	1860	21.49	23.00	1.416	0.04	0.782	1.107
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	18900	1880	21.53	23.00	1.403	0.14	0.835	1.171
128	LTE Band 7	20M	QPSK	50	0	Front	10mm	ON	21350	2560	20.81	22.00	1.315	0.02	0.458	0.602
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	ON	21350	2560	20.81	22.00	1.315	0.05	0.450	0.592

<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	Front	10mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	-0.06	0.111	0.127
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	0.18	0.097	0.111
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 2	1	2412	15.90	16.50	1.148	100	1.000	0.01	0.252	0.289
129	WLAN2.4GHz	802.11b 1Mbps	Bottom Side	10mm	Ant 2	11	2462	15.60	16.50	1.230	100	1.000	0.01	0.295	0.363
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 1	138	5690	18.25	19.00	1.190	86.51	1.156	-0.17	0.124	0.171
	WLAN5GHz	802.11a 6Mbps	Top Side	10mm	Ant 1	36	5180	18.16	19.00	1.213	94.16	1.062	-0.13	0.053	0.068
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	-0.13	0.134	0.184
130	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	-0.11	0.180	0.247

<Equipment: 360 degree camera, Model Name: MD100S, Head SAR verification>

<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)
131	GSM850	GPRS (4 Tx slots)	Right Cheek	0mm	128	824.2	26.57	27.50	1.239	-0.13	0.105	0.130

<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)
132	LTE Band 2	20M	QPSK	1	0	Right Cheek	0mm	19100	1900	22.78	24.00	1.324	0.01	0.256	0.339
133	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	21350	2560	22.73	24.00	1.340	-0.01	0.351	0.470

<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)
134	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	-0.03	0.253	0.290
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 2	1	2412	15.90	16.50	1.148	100	1.000	0.08	0.031	0.036
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 1	106	5530	14.91	15.00	1.021	86.51	1.156	-0.05	0.319	0.376
135	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 2	155	5775	14.79	15.00	1.050	85.71	1.167	0.09	0.651	0.797

<Equipment: 360 degree camera, Model Name: MD100S, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
136	GSM850	GPRS (4 Tx slots)	Front	10mm	ON	128	824.2	26.57	27.50	1.239	-0.05	0.427	0.529
	GSM850	GPRS (4 Tx slots)	Bottom Side	10mm	ON	128	824.2	26.57	27.50	1.239	-0.05	0.281	0.348

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	18700	1860	21.49	23.00	1.416	-0.14	0.822	1.164
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	18900	1880	21.53	23.00	1.403	-0.1	0.817	1.146
	LTE Band 2	20M	QPSK	1	0	Front	10mm	ON	19100	1900	21.83	23.00	1.309	-0.11	0.872	1.142
137	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	19100	1900	21.83	23.00	1.309	0.16	0.896	1.173
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	18700	1860	21.49	23.00	1.416	-0.01	0.801	1.134
	LTE Band 2	20M	QPSK	1	0	Bottom Side	10mm	ON	18900	1880	21.53	23.00	1.403	-0.07	0.784	1.100
138	LTE Band 7	20M	QPSK	50	0	Front	10mm	ON	21350	2560	20.81	22.00	1.315	-0.15	0.598	0.787
	LTE Band 7	20M	QPSK	1	49	Bottom Side	10mm	ON	21350	2560	20.81	22.00	1.315	0.11	0.543	0.714

<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	Front	10mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	0.03	0.115	0.132
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 1	1	2412	15.90	16.50	1.148	100	1.000	-0.06	0.039	0.045
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 2	1	2412	15.90	16.50	1.148	100	1.000	0.01	0.243	0.279
139	WLAN2.4GHz	802.11b 1Mbps	Bottom Side	10mm	Ant 2	11	2462	15.60	16.50	1.230	100	1.000	0.15	0.350	0.431
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 1	138	5690	18.25	19.00	1.190	86.51	1.156	-0.17	0.124	0.171
	WLAN5GHz	802.11a 6Mbps	Top Side	10mm	Ant 1	36	5180	18.16	19.00	1.213	94.16	1.062	-0.14	0.003	0.004
140	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	-0.13	0.185	0.254
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 2	155	5775	18.30	19.00	1.175	85.71	1.167	-0.04	0.021	0.029

9.3 FCC ID: IHDT56XE1 with passive mods

<Equipment: Low Cost Battery by Sunwoda, Model Name: MD100B, Head SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
141	GSM850	GPRS (2 Tx slots)	Right Cheek	0mm	OFF	251	848.8	31.55	32.00	1.109	0.08	0.074	0.082

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
142	LTE Band 7_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	0.11	0.618	0.809
	LTE Band 7_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	20850	2510	22.66	24.00	1.361	0.19	0.572	0.779
	LTE Band 7_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	21100	2535	22.70	24.00	1.349	-0.13	0.554	0.747
	LTE Band 7_Aux	20M	QPSK	1	99	Right Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	0.01	0.248	0.325
143	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	OFF	26140	1860	23.26	23.50	1.057	-0.06	0.287	0.303

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
144	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	6	2437	16.49	18.00	1.416	99.42	1.006	-0.11	0.719	1.024
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	1	2412	16.48	18.00	1.419	99.42	1.006	0	0.703	1.004
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	11	2462	16.49	18.00	1.416	99.42	1.006	0.02	0.689	0.981
145	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	138	5690	15.81	16.00	1.044	87.06	1.149	0.16	0.792	0.950
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	106	5530	15.60	16.00	1.096	87.06	1.149	0.09	0.685	0.863

<Equipment: Low Cost Battery by Sunwoda, Model Name: MD100B, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
146	GSM850	GPRS (2 Tx slots)	Front	5mm	OFF	251	848.8	31.55	32.00	1.109	0	0.293	0.325
	GSM850	GPRS (2 Tx slots)	Bottom Side	5mm	OFF	251	848.8	31.55	32.00	1.109	0.08	0.158	0.175

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
147	LTE Band 7_Main	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	-0.13	0.532	0.698
	LTE Band 7_Main	20M	QPSK	50	50	Bottom Side	5mm	ON	21350	2560	16.82	18.00	1.312	0.11	0.172	0.226
	LTE Band 7_Aux	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	0.04	0.321	0.421
	LTE Band 7_Aux	20M	QPSK	50	50	Bottom Side	5mm	ON	21350	2560	16.82	18.00	1.312	0.1	0.064	0.084
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26590	1905	15.60	16.50	1.230	-0.17	0.739	0.909
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26140	1860	15.75	16.50	1.189	0.14	0.669	0.795
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26340	1880	15.58	16.50	1.236	0.03	0.558	0.690
148	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26590	1905	15.60	16.50	1.230	0.05	0.951	1.170
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26140	1860	15.75	16.50	1.189	0.03	0.961	1.142
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26340	1880	15.58	16.50	1.236	0.05	0.938	1.159

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
149	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	6	2437	18.87	20.50	1.455	99.42	1.006	0.08	0.608	0.890
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	1	2437	18.96	20.50	1.426	99.42	1.006	0.01	0.592	0.849
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	11	2437	18.85	20.50	1.462	99.42	1.006	-0.12	0.569	0.837
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5mm	ON	11	2462	18.96	20.50	1.426	99.42	1.006	0.03	0.221	0.317
150	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	ON	138	5690	17.44	17.50	1.013	87.06	1.149	-0.19	0.536	0.624
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	5mm	ON	42	5210	14.99	15.00	1.002	87.06	1.149	0.14	0.075	0.086

<Equipment: JBL SoundBoost 2, Model Name: SoundBoost 2, Head SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
151	GSM850	GPRS (2 Tx slots)	Right Cheek	0mm	OFF	251	848.8	31.55	32.00	1.109	-0.13	0.074	0.082

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
152	LTE Band 7_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	0.02	0.597	0.782
	LTE Band 7_Aux	20M	QPSK	1	99	Right Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	0.08	0.231	0.302
153	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	OFF	26140	1860	23.26	23.50	1.057	-0.11	0.277	0.293

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
154	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	6	2437	16.49	18.00	1.416	99.42	1.006	0.04	0.717	1.021
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	1	2412	16.48	18.00	1.419	99.42	1.006	-0.01	0.712	1.016
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	11	2462	16.49	18.00	1.416	99.42	1.006	-0.01	0.672	0.957
155	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	138	5690	15.81	16.00	1.044	87.06	1.149	0.07	0.767	0.920
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	106	5530	15.60	16.00	1.096	87.06	1.149	0	0.640	0.806

<Equipment: JBL SoundBoost 2, Model Name: SoundBoost 2, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
156	GSM850	GPRS (2 Tx slots)	Front	5mm	OFF	251	848.8	31.55	32.00	1.109	-0.01	0.343	0.380
	GSM850	GPRS (2 Tx slots)	Bottom Side	5mm	OFF	251	848.8	31.55	32.00	1.109	0.05	0.169	0.187

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
157	LTE Band 7_Main	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	-0.13	0.530	0.695
	LTE Band 7_Main	20M	QPSK	50	50	Bottom Side	5mm	ON	21350	2560	16.82	18.00	1.312	0.11	0.207	0.272
	LTE Band 7_Aux	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	-0.16	0.433	0.568
	LTE Band 7_Aux	20M	QPSK	50	50	Bottom Side	5mm	ON	21350	2560	16.82	18.00	1.312	-0.13	0.092	0.121
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26590	1905	15.60	16.50	1.230	-0.02	0.737	0.907
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26140	1860	15.75	16.50	1.189	0.01	0.761	0.904
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26340	1880	15.58	16.50	1.236	0.04	0.853	1.054
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26590	1905	15.60	16.50	1.230	-0.01	0.904	1.112
158	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26140	1860	15.75	16.50	1.189	0.11	0.991	1.178
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26340	1880	15.58	16.50	1.236	0.16	0.951	1.175

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
159	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	6	2437	18.87	20.50	1.455	99.42	1.006	-0.14	0.641	0.939
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	1	2437	18.96	20.50	1.426	99.42	1.006	0.02	0.591	0.848
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	11	2437	18.85	20.50	1.462	99.42	1.006	0.1	0.554	0.815
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5mm	ON	11	2462	18.96	20.50	1.426	99.42	1.006	0.1	0.219	0.314
160	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	ON	138	5690	17.44	17.50	1.013	87.06	1.149	-0.15	0.541	0.630
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	5mm	ON	42	5210	14.99	15.00	1.002	87.06	1.149	0.02	0.082	0.094

<Equipment: Hasselblad Camera, Model Name: HB4116, Head SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
161	GSM850	GPRS (2 Tx slots)	Right Cheek	0mm	OFF	251	848.8	31.55	32.00	1.109	0.11	0.027	0.030

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
162	LTE Band 7_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	0.02	0.592	0.775
	LTE Band 7_Aux	20M	QPSK	1	99	Right Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	0.08	0.233	0.305
163	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	OFF	26140	1860	23.26	23.50	1.057	-0.17	0.277	0.293

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
164	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	6	2437	16.49	18.00	1.416	99.42	1.006	-0.11	0.633	0.902
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	1	2412	16.48	18.00	1.419	99.42	1.006	-0.02	0.613	0.875
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	11	2462	16.49	18.00	1.416	99.42	1.006	0.07	0.623	0.887
165	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	138	5690	15.81	16.00	1.044	87.06	1.149	0.19	0.906	1.087
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	106	5530	15.60	16.00	1.096	87.06	1.149	0.18	0.846	1.065

<Equipment: Hasselblad Camera, Model Name: HB4116, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
166	GSM850	GPRS (2 Tx slots)	Front	5mm	OFF	251	848.8	31.55	32.00	1.109	-0.07	0.296	0.328
	GSM850	GPRS (2 Tx slots)	Bottom Side	5mm	OFF	251	848.8	31.55	32.00	1.109	0.17	0.210	0.233

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
167	LTE Band 7_Main	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	-0.06	0.557	0.731
	LTE Band 7_Main	20M	QPSK	50	50	Bottom Side	5mm	ON	21350	2560	16.82	18.00	1.312	0.14	0.216	0.283
	LTE Band 7_Aux	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	0.02	0.315	0.413
	LTE Band 7_Aux	20M	QPSK	50	50	Bottom Side	5mm	ON	21350	2560	16.82	18.00	1.312	0.09	0.091	0.119
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26590	1905	15.60	16.50	1.230	-0.02	0.920	1.132
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26140	1860	15.75	16.50	1.189	-0.04	0.858	1.020
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26340	1880	15.58	16.50	1.236	-0.12	0.865	1.069
168	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26590	1905	15.60	16.50	1.230	0.17	0.954	1.174
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26140	1860	15.75	16.50	1.189	0.19	0.977	1.161
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26340	1880	15.58	16.50	1.236	0.19	0.940	1.162

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
169	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	6	2437	18.87	20.50	1.455	99.42	1.006	-0.11	0.660	0.966
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	1	2437	18.96	20.50	1.426	99.42	1.006	-0.04	0.611	0.876
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	11	2437	18.85	20.50	1.462	99.42	1.006	-0.16	0.593	0.872
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5mm	ON	11	2462	18.96	20.50	1.426	99.42	1.006	0.19	0.233	0.334
170	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	ON	138	5690	17.44	17.50	1.013	87.06	1.149	-0.13	0.674	0.785
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	5mm	ON	42	5210	14.99	15.00	1.002	87.06	1.149	0.02	0.136	0.157

<Equipment: Insta-Share Projector Mod, Model Name: MD100P, Head SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
171	GSM850	GPRS (2 Tx slots)	Right Cheek	0mm	OFF	251	848.8	31.55	32.00	1.109	0.01	0.074	0.082

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
172	LTE Band 7_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	-0.12	0.530	0.694
	LTE Band 7_Aux	20M	QPSK	1	99	Right Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	0.08	0.245	0.321
173	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	OFF	26140	1860	23.26	23.50	1.057	-0.17	0.278	0.294

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
174	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	6	2437	16.49	18.00	1.416	99.42	1.006	-0.05	0.726	1.034
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	1	2412	16.48	18.00	1.419	99.42	1.006	0.03	0.678	0.968
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	11	2462	16.49	18.00	1.416	99.42	1.006	0.04	0.644	0.917
175	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	138	5690	15.81	16.00	1.044	87.06	1.149	0.15	0.794	0.953
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	106	5530	15.60	16.00	1.096	87.06	1.149	-0.06	0.661	0.832

<Equipment: Insta-Share Projector Mod, Model Name: MD100P, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
176	GSM850	GPRS (2 Tx slots)	Front	5mm	OFF	251	848.8	31.55	32.00	1.109	-0.11	0.263	0.292
	GSM850	GPRS (2 Tx slots)	Bottom Side	5mm	OFF	251	848.8	31.55	32.00	1.109	0.14	0.159	0.176

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
177	LTE Band 7_Main	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	0.13	0.537	0.705
	LTE Band 7_Main	20M	QPSK	50	50	Bottom Side	5mm	ON	21350	2560	16.82	18.00	1.312	0.05	0.169	0.222
	LTE Band 7_Aux	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	0.07	0.411	0.539
	LTE Band 7_Aux	20M	QPSK	50	50	Bottom Side	5mm	ON	21350	2560	16.82	18.00	1.312	0.02	0.068	0.089
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26590	1905	15.60	16.50	1.230	-0.03	0.898	1.105
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26140	1860	15.75	16.50	1.189	-0.09	0.791	0.940
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26340	1880	15.58	16.50	1.236	-0.07	0.809	1.000
178	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26590	1905	15.60	16.50	1.230	-0.06	0.906	1.115
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26140	1860	15.75	16.50	1.189	0.13	0.895	1.064
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26340	1880	15.58	16.50	1.236	0.15	0.884	1.093

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
179	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	6	2437	18.87	20.50	1.455	99.42	1.006	-0.09	0.554	0.811
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	1	2437	18.96	20.50	1.426	99.42	1.006	-0.11	0.529	0.759
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	11	2437	18.85	20.50	1.462	99.42	1.006	-0.05	0.536	0.788
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5mm	ON	11	2462	18.96	20.50	1.426	99.42	1.006	-0.04	0.234	0.336
180	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	ON	138	5690	17.44	17.50	1.013	87.06	1.149	-0.1	0.678	0.790
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	5mm	ON	42	5210	14.99	15.00	1.002	87.06	1.149	0.02	0.133	0.153

<Equipment: Motorola Gamepad, Model Name: MD100G, Head SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
181	GSM850	GPRS (2 Tx slots)	Right Cheek	0mm	OFF	251	848.8	31.55	32.00	1.109	-0.03	0.068	0.075

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
182	LTE Band 7_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	-0.17	0.330	0.432
	LTE Band 7_Aux	20M	QPSK	1	99	Right Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	0.08	0.190	0.249
183	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	OFF	26140	1860	23.26	23.50	1.057	0.02	0.186	0.197

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
184	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	6	2437	16.49	18.00	1.416	99.42	1.006	-0.08	0.567	0.808
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	1	2412	16.48	18.00	1.419	99.42	1.006	0.06	0.539	0.769
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	11	2462	16.49	18.00	1.416	99.42	1.006	0.02	0.514	0.732
185	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	138	5690	15.81	16.00	1.044	87.06	1.149	0.1	0.732	0.878
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	106	5530	15.60	16.00	1.096	87.06	1.149	-0.03	0.644	0.811

<Equipment: Motorola Gamepad, Model Name: MD100G, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
186	GSM850	GPRS (2 Tx slots)	Front	5mm	OFF	251	848.8	31.55	32.00	1.109	0.08	0.388	0.430
	GSM850	GPRS (2 Tx slots)	Bottom Side	5mm	OFF	251	848.8	31.55	32.00	1.109	-0.15	0.019	0.021

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
187	LTE Band 7_Main	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	-0.14	0.486	0.638
	LTE Band 7_Main	20M	QPSK	50	50	Bottom Side	5mm	ON	21350	2560	16.82	18.00	1.312	-0.06	0.010	0.013
	LTE Band 7_Aux	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	0.11	0.435	0.571
	LTE Band 7_Aux	20M	QPSK	50	50	Bottom Side	5mm	ON	21350	2560	16.82	18.00	1.312	0.17	0.012	0.016
188	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26590	1905	15.60	16.50	1.230	-0.12	0.636	0.782
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26590	1905	15.60	16.50	1.230	0.06	0.268	0.330

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
189	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	6	2437	18.87	20.50	1.455	99.42	1.006	-0.17	0.598	0.876
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	1	2437	18.96	20.50	1.426	99.42	1.006	-0.06	0.419	0.601
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	11	2437	18.85	20.50	1.462	99.42	1.006	-0.15	0.471	0.693
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5mm	ON	11	2462	18.96	20.50	1.426	99.42	1.006	0.18	0.016	0.023
190	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	ON	138	5690	17.44	17.50	1.013	87.06	1.149	-0.1	0.512	0.596
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	5mm	ON	42	5210	14.99	15.00	1.002	87.06	1.149	-0.02	0.001	0.001

<Equipment: Polaroid Instaprint, Model Name: MD100I, Head SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
191	GSM850	GPRS (2 Tx slots)	Right Cheek	0mm	OFF	251	848.8	31.55	32.00	1.109	0.05	0.076	0.084

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
192	LTE Band 7_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	0.05	0.593	0.776
	LTE Band 7_Aux	20M	QPSK	1	99	Right Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	0.03	0.238	0.312
193	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	OFF	26140	1860	23.26	23.50	1.057	-0.01	0.284	0.300

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
194	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	6	2437	16.49	18.00	1.416	99.42	1.006	0.05	0.693	0.987
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	1	2412	16.48	18.00	1.419	99.42	1.006	-0.06	0.651	0.929
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	11	2462	16.49	18.00	1.416	99.42	1.006	-0.02	0.664	0.946
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	138	5690	15.81	16.00	1.044	87.06	1.149	0.17	0.857	1.028
195	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	106	5530	15.60	16.00	1.096	87.06	1.149	0.15	0.836	1.053

<Equipment: Polaroid Instaprint, Model Name: MD100I, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
196	GSM850	GPRS (2 Tx slots)	Front	5mm	OFF	251	848.8	31.55	32.00	1.109	0.08	0.273	0.303
	GSM850	GPRS (2 Tx slots)	Bottom Side	5mm	OFF	251	848.8	31.55	32.00	1.109	0.02	0.147	0.163

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
197	LTE Band 7_Main	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	-0.19	0.499	0.655
	LTE Band 7_Main	20M	QPSK	50	50	Bottom Side	5mm	ON	21350	2560	16.82	18.00	1.312	0.12	0.177	0.232
	LTE Band 7_Aux	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	0.06	0.447	0.587
	LTE Band 7_Aux	20M	QPSK	50	50	Bottom Side	5mm	ON	21350	2560	16.82	18.00	1.312	0.08	0.091	0.119
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26590	1905	15.60	16.50	1.230	-0.05	0.950	1.169
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26140	1860	15.75	16.50	1.189	-0.02	0.849	1.009
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26340	1880	15.58	16.50	1.236	-0.03	0.872	1.078
198	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26590	1905	15.60	16.50	1.230	0.14	0.954	1.174
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26140	1860	15.75	16.50	1.189	-0.01	0.833	0.990
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26340	1880	15.58	16.50	1.236	-0.09	0.947	1.170

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
199	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	6	2437	18.87	20.50	1.455	99.42	1.006	-0.18	0.559	0.818
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	1	2437	18.96	20.50	1.426	99.42	1.006	-0.05	0.517	0.741
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	11	2437	18.85	20.50	1.462	99.42	1.006	-0.19	0.486	0.715
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5mm	ON	11	2462	18.96	20.50	1.426	99.42	1.006	0.17	0.197	0.283
200	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	ON	138	5690	17.44	17.50	1.013	87.06	1.149	-0.13	0.545	0.635
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	5mm	ON	42	5210	14.99	15.00	1.002	87.06	1.149	0.14	0.092	0.106

<Equipment: 360 degree camera, Model Name: MD100S, Head SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
201	GSM850	GPRS (2 Tx slots)	Right Cheek	0mm	OFF	251	848.8	31.55	32.00	1.109	-0.15	0.044	0.049

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
202	LTE Band 7_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	-0.1	0.675	0.884
	LTE Band 7_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	20850	2510	22.66	24.00	1.361	0.19	0.572	0.779
	LTE Band 7_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	21100	2535	22.70	24.00	1.349	-0.13	0.554	0.747
	LTE Band 7_Aux	20M	QPSK	1	99	Right Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	-0.08	0.232	0.304
203	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	OFF	26140	1860	23.26	23.50	1.057	-0.18	0.257	0.272

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
204	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	6	2437	16.49	18.00	1.416	99.42	1.006	-0.05	0.627	0.893
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	1	2412	16.48	18.00	1.419	99.42	1.006	0.02	0.606	0.865
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	11	2462	16.49	18.00	1.416	99.42	1.006	-0.14	0.590	0.840
205	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	138	5690	15.81	16.00	1.044	87.06	1.149	0.04	0.816	0.979
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	106	5530	15.60	16.00	1.096	87.06	1.149	0.03	0.755	0.951

<Equipment: 360 degree camera, Model Name: MD100S, Body-worn/ Hotspot SAR verification>

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
206	GSM850	GPRS (2 Tx slots)	Front	5mm	OFF	251	848.8	31.55	32.00	1.109	-0.02	0.272	0.302
	GSM850	GPRS (2 Tx slots)	Bottom Side	5mm	OFF	251	848.8	31.55	32.00	1.109	0.16	0.152	0.169

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
207	LTE Band 7_Main	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	0.05	0.564	0.740
	LTE Band 7_Main	20M	QPSK	50	50	Bottom Side	5mm	ON	21350	2560	16.82	18.00	1.312	-0.11	0.220	0.289
	LTE Band 7_Aux	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	0.11	0.445	0.584
	LTE Band 7_Aux	20M	QPSK	50	50	Bottom Side	5mm	ON	21350	2560	16.82	18.00	1.312	0.03	0.086	0.113
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26590	1905	15.60	16.50	1.230	-0.15	0.821	1.010
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26140	1860	15.75	16.50	1.189	-0.1	0.716	0.851
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26340	1880	15.58	16.50	1.236	-0.14	0.835	1.032
208	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26590	1905	15.60	16.50	1.230	0.14	0.905	1.113
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26140	1860	15.75	16.50	1.189	0.15	0.927	1.102
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26340	1880	15.58	16.50	1.236	0.02	0.892	1.102

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
209	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	6	2437	18.87	20.50	1.455	99.42	1.006	-0.19	0.638	0.934
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	1	2437	18.96	20.50	1.426	99.42	1.006	-0.17	0.562	0.806
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	11	2437	18.85	20.50	1.462	99.42	1.006	-0.19	0.566	0.833
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5mm	ON	11	2462	18.96	20.50	1.426	99.42	1.006	-0.07	0.019	0.027
210	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	ON	138	5690	17.44	17.50	1.013	87.06	1.149	-0.17	0.679	0.791
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	5mm	ON	42	5210	14.99	15.00	1.002	87.06	1.149	-0.02	0.003	0.003

Test Engineer： Thomas Wang Galen Chang San Lin Steven Chang and Mood Huang

10. Uncertainty Assessment

The component of uncertainly may generally be categorized according to the methods used to evaluate them. The evaluation of uncertainly by the statistical analysis of a series of observations is termed a Type An evaluation of uncertainty. The evaluation of uncertainty by means other than the statistical analysis of a series of observation is termed a Type B evaluation of uncertainty. Each component of uncertainty, however evaluated, is represented by an estimated standard deviation, termed standard uncertainty, which is determined by the positive square root of the estimated variance.

A Type A evaluation of standard uncertainty may be based on any valid statistical method for treating data. This includes calculating the standard deviation of the mean of a series of independent observations; using the method of least squares to fit a curve to the data in order to estimate the parameter of the curve and their standard deviations; or carrying out an analysis of variance in order to identify and quantify random effects in certain kinds of measurement.

A type B evaluation of standard uncertainty is typically based on scientific judgment using all of the relevant information available. These may include previous measurement data, experience, and knowledge of the behavior and properties of relevant materials and instruments, manufacture's specification, data provided in calibration reports and uncertainties assigned to reference data taken from handbooks. Broadly speaking, the uncertainty is either obtained from an outdoor source or obtained from an assumed distribution, such as the normal distribution, rectangular or triangular distributions indicated in table below.

Uncertainty Distributions	Normal	Rectangular	Triangular	U-Shape
Multi-plying Factor[(a)]	1/k[(b)]	$1/\sqrt{3}$	$1/\sqrt{6}$	$1/\sqrt{2}$

(a) standard uncertainty is determined as the product of the multiplying factor and the estimated range of variations in the measured quantity

(b) κ is the coverage factor

Table 16.1. Standard Uncertainty for Assumed Distribution

The combined standard uncertainty of the measurement result represents the estimated standard deviation of the result. It is obtained by combining the individual standard uncertainties of both Type A and Type B evaluation using the usual "root-sum-squares" (RSS) methods of combining standard deviations by taking the positive square root of the estimated variances.

Expanded uncertainty is a measure of uncertainty that defines an interval about the measurement result within which the measured value is confidently believed to lie. It is obtained by multiplying the combined standard uncertainty by a coverage factor. Typically, the coverage factor ranges from 2 to 3. Using a coverage factor allows the true value of a measured quantity to be specified with a defined probability within the specified uncertainty range. For purpose of this document, a coverage factor two is used, which corresponds to confidence interval of about 95 %. The DASY uncertainty Budget is shown in the following tables.

Error Description	Uncertainty Value (±%)	Probability	Divisor	(Ci) 1g	(Ci) 10g	Standard Uncertainty (1g) (±%)	Standard Uncertainty (10g) (±%)
Measurement System							
Probe Calibration	6.00	N	1	1	1	6.0	6.0
Axial Isotropy	4.70	R	1.732	0.7	0.7	1.9	1.9
Hemispherical Isotropy	9.60	R	1.732	0.7	0.7	3.9	3.9
Boundary Effects	1.00	R	1.732	1	1	0.6	0.6
Linearity	4.70	R	1.732	1	1	2.7	2.7
System Detection Limits	1.00	R	1.732	1	1	0.6	0.6
Modulation Response	4.68	R	1.732	1	1	2.7	2.7
Readout Electronics	0.30	N	1	1	1	0.3	0.3
Response Time	0.00	R	1.732	1	1	0.0	0.0
Integration Time	2.60	R	1.732	1	1	1.5	1.5
RF Ambient Noise	3.00	R	1.732	1	1	1.7	1.7
RF Ambient Reflections	3.00	R	1.732	1	1	1.7	1.7
Probe Positioner	0.40	R	1.732	1	1	0.2	0.2
Probe Positioning	2.90	R	1.732	1	1	1.7	1.7
Max. SAR Eval.	2.00	R	1.732	1	1	1.2	1.2
Test Sample Related							
Device Positioning	3.03	N	1	1	1	3.0	3.0
Device Holder	3.60	N	1	1	1	3.6	3.6
Power Drift	5.00	R	1.732	1	1	2.9	2.9
Power Scaling	0.00	R	1.732	1	1	0.0	0.0
Phantom and Setup							
Phantom Uncertainty	6.10	R	1.732	1	1	3.5	3.5
SAR correction	0.00	R	1.732	1	0.84	0.0	0.0
Liquid Conductivity Repeatability	0.03	N	1	0.78	0.71	0.0	0.0
Liquid Conductivity (target)	5.00	R	1.732	0.78	0.71	2.3	2.0
Liquid Conductivity (mea.)	2.50	R	1.732	0.78	0.71	1.1	1.0
Temp. unc. - Conductivity	3.68	R	1.732	0.78	0.71	1.7	1.5
Liquid Permittivity Repeatability	0.02	N	1	0.23	0.26	0.0	0.0
Liquid Permittivity (target)	5.00	R	1.732	0.23	0.26	0.7	0.8
Liquid Permittivity (mea.)	2.50	R	1.732	0.23	0.26	0.3	0.4
Temp. unc. - Permittivity	0.84	R	1.732	0.23	0.26	0.1	0.1
Combined Std. Uncertainty						11.6%	11.6%
Coverage Factor for 95 %						K=2	K=2
Expanded STD Uncertainty						23.2%	23.1%

Table 16.2. Uncertainty Budget for frequency range 300 MHz to 3 GHz

Error Description	Uncertainty Value (±%)	Probability	Divisor	(Ci) 1g	(Ci) 10g	Standard Uncertainty (1g) (±%)	Standard Uncertainty (10g) (±%)
Measurement System							
Probe Calibration	6.55	N	1	1	1	6.6	6.6
Axial Isotropy	4.70	R	1.732	0.7	0.7	1.9	1.9
Hemispherical Isotropy	9.60	R	1.732	0.7	0.7	3.9	3.9
Boundary Effects	2.00	R	1.732	1	1	1.2	1.2
Linearity	4.70	R	1.732	1	1	2.7	2.7
System Detection Limits	1.00	R	1.732	1	1	0.6	0.6
Modulation Response	4.68	R	1.732	1	1	2.7	2.7
Readout Electronics	0.30	N	1	1	1	0.3	0.3
Response Time	0.00	R	1.732	1	1	0.0	0.0
Integration Time	2.60	R	1.732	1	1	1.5	1.5
RF Ambient Noise	3.00	R	1.732	1	1	1.7	1.7
RF Ambient Reflections	3.00	R	1.732	1	1	1.7	1.7
Probe Positioner	0.40	R	1.732	1	1	0.2	0.2
Probe Positioning	6.70	R	1.732	1	1	3.9	3.9
Max. SAR Eval.	4.00	R	1.732	1	1	2.3	2.3
Test Sample Related							
Device Positioning	3.03	N	1	1	1	3.0	3.0
Device Holder	3.60	N	1	1	1	3.6	3.6
Power Drift	5.00	R	1.732	1	1	2.9	2.9
Power Scaling	0.00	R	1.732	1	1	0.0	0.0
Phantom and Setup							
Phantom Uncertainty	6.60	R	1.732	1	1	3.8	3.8
SAR correction	0.00	R	1.732	1	0.84	0.0	0.0
Liquid Conductivity Repeatability	0.03	N	1	0.78	0.71	0.0	0.0
Liquid Conductivity (target)	5.00	R	1.732	0.78	0.71	2.3	2.0
Liquid Conductivity (mea.)	2.50	R	1.732	0.78	0.71	1.1	1.0
Temp. unc. - Conductivity	3.68	R	1.732	0.78	0.71	1.7	1.5
Liquid Permittivity Repeatability	0.02	N	1	0.23	0.26	0.0	0.0
Liquid Permittivity (target)	5.00	R	1.732	0.23	0.26	0.7	0.8
Liquid Permittivity (mea.)	2.50	R	1.732	0.23	0.26	0.3	0.4
Temp. unc. - Permittivity	0.84	R	1.732	0.23	0.26	0.1	0.1
Combined Std. Uncertainty						12.7%	12.6%
Coverage Factor for 95 %						K=2	K=2
Expanded STD Uncertainty						25.4%	25.3%

Table 16.3. Uncertainty Budget for frequency range 3 GHz to 6 GHz

11. 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 D04 v01r03, “SAR Evaluation Considerations for Wireless Handsets”, Oct 2015.

[8] FCC KDB 941225 D01 v03r01, “3G SAR MEAUREMENT PROCEDURES”, Oct 2015

[9] FCC KDB 941225 D05 v02r05, “SAR Evaluation Considerations for LTE Devices”, Dec 2015

[10] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.

[11] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.

[12] FCC KDB 865664 D02 v01r02, “RF Exposure Compliance Reporting and Documentation Considerations” Oct 2015.