SAR Test Report

Tests Requested By:	Motorola Mobility, LLC 222 W. Merchandise Mart Pl, Suite 1800 Chicago, IL 60654
Test Report #:	26017-1
Date of Report:	July 9, 2015
Date of Test:	June 30 – July 7, 2015
FCC ID #:	IHDT6UA1
IC ID #:	109O-TU6A1
Generic Name:	360L / 360S / 360SP
Test Laboratory:	Motorola Mobility, LLC - ADR Test Service Laboratory 222 W. Merchandise Mart Pl, Suite 1800 Chicago, IL 60654

Accreditation:

3465.01

This laboratory is accredited to ISO/IEC 17025-2005 to perform the following tests:

Tests:	Procedures:
Electromagnetic Specific Absorption Rate	IEC 62209-1 IEC 62209-2 RSS-102 IEEE 1528 - 2003 Australian Communications Authority Radio Communications (Electromagnetic Radiation – Human Exposure) Standard 2003 CENELEC EN 50360 CENELEC EN 50566:2013 ARIB Std. T-56 (2002)

On the following products or types of products:
Wireless Communications Devices (Examples): Two Way Radios; Portable Phones (including Cellular, Licensed Non-Broadcast and PCS); Low Frequency Readers; and Pagers

Statement of Compliance:

Motorola declares under its sole responsibility that the device model to which this declaration relates, is in conformity with the appropriate General Population/Uncontrolled RF exposure standards, recommendations and guidelines (FCC 47 CFR §2.1093) as well as with CENELEC en50360:2001 and ANSI / IEEE C95.1. It also declares that the product was tested in accordance with IEEE 1528 / CENELEC EN62209-1 (2006), along with other published guidance indicated in the references at the end of this report, as well as other appropriate measurement standards, guidelines and recommended practices. Any deviations from these standards, guidelines and recommended practices are noted below:

(none)

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Revision History

Revision Version	Date	Notes
Rev. 0	Jul-9-2015	Initial report release
Rev. 1	Jul-27-2015	Updated reference table BT tune-up limit Verbiage in “Introduction” paragraph in section 1.0

1 Introduction

The Motorola Mobility ADR Test Services Laboratory has performed measurements of the maximum potential exposure to the user of the portable Bluetooth / WiFi device covered by this test report. The Specific Absorption Rate (SAR) of this product was measured. The device was tested in accordance with [1], [5], [9], [10] and [11] for wrist-watch SAR evaluation. The SAR values measured for the device are below the maximum recommended levels of 4.0 W/kg in a 10 g average set in [1,2] for devices places on the wrist / extremities. The final SAR reading for this device is 0.99 W/kg for extremity (wrist) use. These measurements were performed using a DASY52™ system manufactured by Schmid & Partner Engineering AG (SPEAG), of Zurich Switzerland.

Transmit Band	Next-to-Mouth SAR ($^{W}/_{kg}$ 1g)	Extremity (wrist) SAR ($^{W}/_{kg}$ 10g)
Wi-Fi 2.45 GHz	0.18	0.99
Bluetooth	N/A	0.05

2 Details of the Equipment Under Test

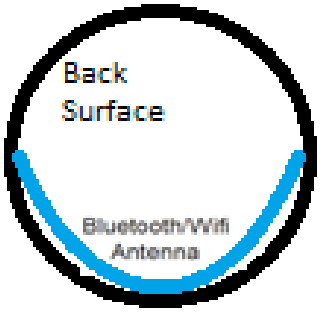
2.1 Equipment Under Test (EUT) Information

Serial Number(s)	M98UBG22GP
Production Unit or Identical Prototype (47 CFR §2.908)	Identical Prototype
Device Category	Portable (Mobile Station Class B)
RF Exposure Limits	General Population / Uncontrolled
Wireless Technology and Frequency Range	WLAN 2.4GHz Band: 2412 MHz – 2462 MHz
	Bluetooth: 2402 MHz – 2480 MHz
Mode	802.11 b/g/n HT20
	Bluetooth v3.0 with EDR, Bluetooth v4.0 with LE

2.2 Antenna Description

Bluetooth/Wi-Fi 2 GHz Antenna

Type	Internal	
Location	Rear of Transceiver	
Dimensions	Width	5 mm
	Length	63mm



2.3 Device Test Setup, Operating Configurations, and Conducted Power Measurements

2.3.1 Wi-Fi 802.11

Technical Description

The EUT contains a Wi-Fi 802.11b/g/n transmitter capable of data transmission in the 2.45 GHz ISM band.

Exposure Conditions and Test Exclusions

Mode	Type	Next-to-Mouth	Body-Worn Accessory
802.11b	Data	Tested (1)	Tested (1)
802.11g / 802.11n	Data	Excluded (1)	Excluded (1)

Notes:

(1) Per FCC KDB 248227 D01 v02r01 [10], the highest average output power channel for the lowest data rate for 802.11b was selected as the "initial test configuration" for SAR evaluation. The **bolded** data rates and channels in the following conducted power tables were used for SAR testing.

Device Test Setup

For Wi-Fi 802.11 modes, the test sample was operated using manufacturer test mode software per guidance provided in FCC KDB 248227. The test software was set up for the proper channel, transmitter power level and transmit modes of operation on the EUT's uplink.

Conducted Power Measurements

Mode	Channel	Frequency (MHz)	Data Rate	Average Power (dBm)	Tune-Up Limit	Duty Cycle %
802.11b	Ch 1	2412	1 Mbps	17.3	18.5	99.6
	Ch 6	2437		17.48	18.5	
	Ch 11	2462		**17.81**	18.5	
802.11g	Ch 1	2412	6 Mbps	17.46	18	97.5
	Ch 6	2437		17.74	18	
	Ch 11	2462		17.95	18	
802.11n-HT20	Ch 1	2412	MCS0	16.64	18	97.1
	Ch 6	2437		16.17	18	
	Ch 11	2462		17.19	18	

2.3.2 Bluetooth

Technical Description

The EUT under test contains a Bluetooth transmitter capable of data transmission in the 2.45 GHz ISM band.

Exposure Conditions and Test Exclusions

Mode	Type	Next-to-Mouth	Body-Worn Accessory
All Modes	Data	Excluded (1)	Tested (1)

Conducted Power Measurements

Normal BT

Frequency [MHz]	Data Rate [Mbps]	Channel Number	Average Conducted Power [dBm]	Tune-Up Limit
2402	1.0	0	9.738	12
2441	1.0	39	10.472	
2480	1.0	78	11.627	
2402	2.0	0	9.745	12
2441	2.0	39	10.482	
2480	2.0	78	11.654	
2402	3.0	0	9.754	12
2441	3.0	39	10.484	
2480	3.0	78	11.671	

V3.0 with EDR

Frequency [MHz]	Data Rate [Mbps]	Channel Number	Average Conducted Power [dBm]	Tune-Up Limit
2402	2.0	0	7.254	9
2441	2.0	39	7.555	
2480	2.0	78	8.534	
2402	3.0	0	7.885	9
2441	3.0	39	7.955	
2480	3.0	78	8.959	

V4.0 with LE

Frequency [MHz]	Mode	Channel Number	Average Conducted Power [dBm]	Tune-Up Limit
2402	LE	0	8.50	9
2440	LE	19	8.66	
2480	LE	39	8.55	

2.4 Accessories for the EUT

2.4.1 Extremity Wrist Bands

There are two categories of wrist band available for this device:
A leather or Rubber wrist band
A metal wrist band

These accessories were divided into two categories: the ones with metal components and the ones with non-metal components. The EUT will be tested without a wrist band to assess the use with a non-metallic wrist band (e.g., made of leather or rubber). In addition, the EUT will be tested with a metal wrist band to assess the use with a metallic wrist band.

2.4.2 Inductive Charger

The EUT tested in this report has a wireless inductor charger built in. The built-in circuit serves as the Wireless Power Receiver in an Inductive Charging System. The receiver is a Wireless Power Consortium (WPC) compliant receiver and requires a WPC compliant transmitter to create the appropriate magnetic field in order to function. The receiver is designed to apply power to the device when placed in the appropriate magnetic field. Please see a more detailed description in Exhibit 12: Operational Description.

3 Test Equipment Used

3.1 Dosimetric Measurement System

The Motorola Mobility ADR Test Services Laboratory utilizes a DASY52™ Dosimetric Assessment System manufactured by Schmid & Partner Engineering AG (SPEAG™), of Zurich Switzerland. All SAR measurements are taken within a shielded enclosure. The overall 10 g RSS uncertainty of the measurement system is ±11% (K=1) with an expanded uncertainty of ±22% (K=2). The overall 1 g RSS uncertainty of the measurement system is ±11% (K=1) with an expanded uncertainty of ±22% (K=2). The measurement uncertainty budget is given in Appendix 4. Per IEEE 1528, this uncertainty budget is applicable to the SAR range of 0.4 W/kg to 10 W/kg.

The list of calibrated equipment used for the measurements is shown in the following table. All equipment was brought into service and used only during its noted calibration period, except where indicated. Equipment without a calibration period was in service for the entirety of the test period.

Description	Serial Number	Cal Date	Cal Due Date	Service Notes
DASY™ DAE V1	1314	Mar-11-2015	Mar-11-2016	Measurement System 2
E-Field Probe ES3DV3	3184	Sep-10-2014	Sep-10-2015	Measurement System 2
Twin SAM Phantom V4.0	TP-1131			Measurement System 2
Twin SAM Phantom V4.0	TP-1318			Measurement System 2
MFP V5.1 C Triple Modular Flat Phantom	1101			Measurement System 2
Dipole Validation Kit, DV2450V2	863	Sep-10-2014	Sep-10-2015	

3.2 Additional Equipment

Description	Serial Number	Cal Date	Cal Due Date	Service Notes
Power Meter 437B	3121U11503	Jul-18-2013	Jul-18-2015	
Power Sensor 8481A	2702A59572	Oct-22-2014	Oct-22-2015	
10 dB Attenuator 8491A	3929M50704	Aug-05-2014	Aug-05-2015	
Signal Generator HP8648C	3847A04822	Jul-19-2013	Jul-19-2015	
Power Meter E4419B	GB39511086	Oct-21-2014	Oct-21-2015	
Power Sensor #1 - E9301A	MY53460011	Oct-23-2014	Oct-23-2015	
Power Sensor #2 - E9301A	MY53160016	Oct-25-2014	Oct-25-2015	
3 dB Attenuator 8491A	MY392622292	Jul-19-2013	Jul-19-2015	
Dual Directional Coupler 778D	MY48220442	Oct-24-2014	Oct-24-2015	
Amplifier ZHL-42-SMA	N120299-27			
Dielectric Assessment Kit DAKS-3.5	0006	Nov-11-2014	Nov-11-2015	
Vector Reflectometer DAKS_VNA R140	0200813	Nov-11-2014	Nov-11-2015	

3.3 Test System Verifications (System Performance Checks)

System accuracy verifications of the DASY52™ were performed using the measurement equipment listed in Section 3.1. The daily system performance check occurs within the flat section of the SAM phantom.

A SAR measurement was performed to verify the measured SAR was within ±10% from the target SAR indicated in Appendix 6. These frequencies are within ±10% of the compliance test mid-band frequency as required in [1] and [5]. The test was conducted within 24 hours prior to the measurement of the EUT. Recommended limits for permittivity and conductivity, specified in [5], are shown in the table below. The obtained results from the system accuracy verification are also displayed in the table below. SAR values are normalized to 1 W forward power delivered to the dipole. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values. The distributions of SAR compare well with those of the reference measurements (see Appendix 1). For frequencies below 3 GHz, the simulated tissue depth was verified to be 15.0 cm ± 0.5 cm. Z-axis scans showing the SAR penetration are also included in Appendix 1.

DASY52™ Measurement System 2
System Verification Measurements for Head SAR Measurements

f (MHz)	Description	Probe	Dipole	Measured SAR (W/kg), 1 gram	Normalized SAR (W/kg), 1 gram	Dielectric Parameters				Ambient Temp (°C)	Tissue Temp (°C)
						Measured σ (S/m)	Deviation σ (S/m)	Measured ε_r	Deviation ε_r		
2450	**Measured,** Jun-30-2015	3184	863	5.01	50.1	1.743	-3.2%	41.1	4.9%	21.8	21.5
	Measured, Jul-01-2015			4.97	49.7	1.751	-2.7%	41.1	4.9%	21.6	21.5
	Recommended Limits				52.7	1.80	±5%	39.2	±10%	18-25	18-25

DASY52™ Measurement System 2
System Verification Measurements for Extremity SAR Measurements

f (MHz)	Description	Probe	Dipole	Measured SAR (W/kg), 1 gram	Normalized SAR (W/kg), 1 gram	Dielectric Parameters				Ambient Temp (°C)	Tissue Temp (°C)
						Measured σ (S/m)	Deviation σ (S/m)	Measured ε_r	Deviation ε_r		
2450	**Measured,** Jun-30-2015	3184	863	4.92	49.2	1.886	-3.3%	52.904	0.4%	21.5	21.4
	Measured, Jun-01-2015			4.91	49.1	1.894	-2.9%	53.240	1.0%	21.4	21.3
	Measured, Jun-07-2015			4.90	4.90	1.902	-2.5%	53.053	0.7%	21.4	21.2
	Recommended Limits				50.5	1.95	±5%	52.7	±5%	18-25	18-25

3.4 Simulated Tissue Dielectric Properties

Validation, System Performance Check, and device SAR measurements are performed using the DASY52™ system along with liquids specified to simulate head and body tissues subjected to electromagnetic exposure. The list of ingredients and the percent composition of the tissue-simulating liquids used for testing are indicated in the following table.

Ingredient	782 / 835 / 900 MHz Head	782 / 835 / 900 MHz Body	1800 MHz / 1900 MHz Head	1800 MHz / 1900 MHz Body	2450 MHz Head	2450 MHz Body	5 GHz Head	5 GHz Body
Sugar	57.0	44.9	--	--	--	--	--	--
DGBE	--	--	47.0	30.8	6.89	8.0	--	--
Water	40.45	53.06	52.62	68.8	57.95	71.8	65.52	78.66
Salt	1.45	0.94	0.38	0.4	0.15	0.2	--	--
HEC	1.0	1.0	--	--	--	--	--	--
Bact.	0.1	0.1	--	--	--	--	--	--
Triton X-100	--	--	--	--	35.02	20.0	17.24	10.67
Di(ethylene glycol) Hexyl Ether	--	--	--	--	--	--	17.24	10.67

Prior to conducting SAR measurements, the relative permittivity, ε_r, and conductivity, σ, of the tissue-simulating liquids were measured with a SPEAG™ DAK-3.5 Dielectric Assessment Kit across the frequency ranges of interest. These values, along with recommended targets, percent deviation from the targets, and the temperature of the simulated tissue are shown in the tables below.

For SAR measurements, the dielectric measurements from the DAK-3.5 are imported into the DASY software which performs interpolation to determine the dielectric parameters at the specific frequencies used for device testing. The DASY software also implements SAR error compensation algorithms to automatically correct the measured SAR results for deviations between the measured and target dielectric parameters. This error compensation has been verified by the lab to meet the requirements in FCC KDB 865664 D01. Therefore, where frequencies of test fall within ±50 MHz of a calibration point of the probe used for test, the acceptable range of tissue variation is ±10% per FCC KDB 865664 D01 section 2.4. For test frequencies outside of ±50 MHz of a probe calibration point, the range of tissue variation is reduced per section 2.6 part 2 of the same KDB, to ensure that tissues used in testing are within the required specification regardless of device performance. A mass density of $\rho = 1\ ^{g}/_{cm^3}$ was entered into the system for all cases. It can be seen that the measured parameters are within tolerance of the recommended targets specified in [1] and [5].

Head Simulated-Tissue Dielectric Parameters									
Index	Date Measured	*f* (MHz)	Target σ (S/m)	Target ε_r	Measured σ (S/m)	Deviation σ (%)	Measured ε_r	Deviation ε_r (%)	Temp (°C)
2450	Jun-30-2015	2412.0	1.77 ±10%	39.27 ±10%	1.71	-3.2%	41.2	4.9%	21.5
		2450.0	1.80 ±10%	39.20 ±10%	1.74	-3.4%	41.1	4.8%	
		2462.0	1.81 ±10%	39.18 ±10%	1.76	-3.0%	41.1	4.9%	
	Jul-01-2015	2412.0	1.77 ±10%	39.27 ±10%	1.71	-3.2%	41.1	4.7%	21.5
		2450.0	1.80 ±10%	39.20 ±10%	1.75	-2.8%	41.1	4.8%	
		2462.0	1.81 ±10%	39.18 ±10%	1.76	-3.0%	41.0	4.6%	

Body Simulated-Tissue Dielectric Parameters									
Index	**Date Measured**	***f* (MHz)**	**Target σ (S/m)**	**Target ε_r**	**Measured σ (S/m)**	**Deviation σ (%)**	**Measured ε_r**	**Deviation ε_r (%)**	**Temp (°C)**
2450	Jun-30-2015	2412.0	1.91 ±10%	52.75 ±10%	1.84	-3.9%	53.0	0.5%	21.4
		2450.0	1.95 ±10%	52.70 ±10%	1.89	-3.1%	52.9	0.4%	
		2462.0	1.97 ±10%	52.68 ±10%	1.90	-3.4%	52.9	0.4%	
	Jul-01-2015	2412.0	1.91 ±10%	52.75 ±10%	1.85	-3.4%	53.4	1.2%	21.3
		2450.0	1.95 ±10%	52.70 ±10%	1.89	-3.1%	53.2	1.1%	
		2462.0	1.97 ±10%	52.68 ±10%	1.91	-2.9%	53.2	1.0%	
	Jul-7-2015	2412.0	1.91 ±10%	52.75 ±10%	1.86	-2.9%	53.2	0.9%	21.2
		2450.0	1.95 ±10%	52.70 ±10%	1.90	-2.6%	53.1	0.7%	
		2462.0	1.97 ±10%	52.68 ±10%	1.92	-2.4%	53.0	0.7%	

4 Test Setup Information, SAR Measurement Results, and Analysis

4.1 Overview of Test Setup and Results

The EUT was tested in the exposure configurations stipulated in [9] and [11]. The EUT was positioned into these configurations using the device holder supplied with the DASY52™ SAR measurement system. The default settings for the SAR scans are set in accordance with FCC KDB 865664 D01 for all area scan resolutions, zoom scan resolutions and volumes, and probe positioning. Please refer to the DASY52™ manual for additional information on SAR scanning procedures and algorithms used.

The SAR measurements were performed using the Flat phantoms listed in section 3.1. The same phantoms and simulated tissues were used for the system performance checks and the device SAR measurements.

The "reported" SAR results shown in following tables are maximum SAR values averaged over 1 gram of phantom tissue to demonstrate compliance for the "Next-to-Mouth" position, and also over 10 grams of phantom tissue to demonstrate compliance for the extremity worn position. Also shown are the maximum device power, measured device power, temperature of the simulated tissue after the test, the measured drift and the scaled SAR.

The exact method of scaling is:

$$caled\ SAR = (Measured\ SAR) * 10^{\left(\frac{(Maximum\ Power)-(Measured\ Power)}{10}\right)} * \left(\frac{100\%}{Duty\ Cycle}\right) * 10^{\left(\frac{-Drift}{10}\right)}$$

The test conditions that produced the highest SAR values for each combination of DUT mode and exposure condition are indicated as **bold** numbers in the following tables. Plots of these tests are included in Appendices 2 and 3.

4.2 Next-to-Mouth Exposure Results

Next-to-Mouth Position, Front of Device 10 mm from Phantom – Large Body										
Mode	Accessory	Channel	*f* (MHz)	DUT Power		Temp (°C)	Drift (dB)	1 g SAR value		Plot Page
				Maximum (dBm)	Measured (dBm)			Measured (W/kg)	Reported (W/kg)	
802.11b, 1 Mbps	No Band	**11**	**2462**	**18.5**	**17.81**	**21.8**	**-0.04**	**0.107**	**0.13**	**23**
	Metal Band	11	2462	18.5	17.81	21.6	0.11	0.0604	0.07	

Table 4-1: SAR measurement results in Next-to-Mouth position against the ICNIRP and ANSI SAR Limit.

Next-to-Mouth Position, Front of Device 10 mm from Phantom – Small Body										
Mode	Accessory	Channel	*f* (MHz)	DUT Power		Temp (°C)	Drift (dB)	1 g SAR value		Plot Page
				Maximum (dBm)	Measured (dBm)			Measured (W/kg)	Reported (W/kg)	
802.11b, 1 Mbps	No Band	**11**	**2462**	**18.5**	**17.81**	**21.5**	**0.15**	**0.116**	**0.14**	**24**
	Metal Band	11	2462	18.5	17.81	21.6	0.14	0.097	0.11	

Table 4-2 SAR measurement results in Next-to-Mouth position against the ICNIRP and ANSI SAR Limit.

4.3 Extremity Worn Position Exposure Results

Extremity Worn Position, Back of Device 0 mm from Phantom – Large Body										
Mode	Accessory	Channel	*f* (MHz)	DUT Power		Temp (°C)	Drift (dB)	10 g SAR value		Plot Page
				Maximum (dBm)	Measured (dBm)			Measured (W/kg)	Reported (W/kg)	
802.11b, 1 Mbps	No band	1	2412	18.5	17.81	21.5	0.16	0.249	0.29	
		6	2437	18.5	17.81	21.5	-0.07	0.328	0.39	
		11	**2462**	**18.5**	**17.81**	**21.6**	**-0.12**	**0.425**	**0.51**	**26**
	Metal Band	1	2412	18.5	17.81	21.4	0.16	0.211	0.25	
		6	2437	18.5	17.81	21.5	0.07	0.276	0.32	
		11	**2462**	**18.5**	**17.81**	**21.6**	**0.06**	**0.367**	**0.43**	**27**
Bluetooth	No band	**78**	**2480**	**12.0**	**11.67**	**21.4**	**-0.04**	**0.0343**	**0.04**	**28**
	Metal Band	78	2480	12.0	11.67	21.4	0.11	0.0306	0.04	

Table 4-3: SAR measurement results in Extremity position against the ICNIRP and ANSI SAR Limit.

Extremity Worn Position, Back of Device 0 mm from Phantom – Small Body										
Mode	Accessory	Channel	*f* (MHz)	DUT Power		Temp (°C)	Drift (dB)	10 g SAR value		Plot Page
				Maximum (dBm)	Measured (dBm)			Measured (W/kg)	Reported (W/kg)	
802.11b, 1 Mbps	No band	**1**	**2412**	**18.5**	**17.81**	**21.5**	**-0.09**	**0.822**	**0.99**	**29**
		6	2437	18.5	17.81	21.6	-0.08	0.814	0.98	
		11	2462	18.5	17.81	21.4	-0.1	0.747	0.88	
	Metal Band	**1**	**2412**	**18.5**	**17.81**	**21.4**	**-0.05**	**0.806**	**0.91**	**30**
		6	2437	18.5	17.81	21.5	-0.05	0.823	0.98	
		11	2462	18.5	17.81	21.6	-0.02	0.749	0.89	
Bluetooth	No band	**78**	**2480**	**12.0**	**11.67**	**21.5**	**0.09**	**0.0413**	**0.05**	**31**
	Metal Band	78	2480	12.0	11.67	21.4	0.13	0.0406	0.05	

Table 4-4: SAR measurement results in Extremity position against the ICNIRP and ANSI SAR Limit.

4.4 Measurement Variability Analysis

Per FCC KDB 865664 D01, SAR measurement variability was assessed for each frequency band as determined by the SAR probe calibration points and tissue-equivalent mediums used for the device measurements. These additional measurements are executed after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The EUT was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for these measurements, to minimize any unexpected variations in the repeated results.

SAR measurement variability was assessed using the following procedures for each frequency band:

1. If the original highest measured SAR is < 2.0 $^{W}/_{kg}$ (10g avg), the following steps do not apply and no repeat measurements were executed.
2. If the original highest measured SAR is ≥ 2.0 $^{W}/_{kg}$ (10g avg), that measurement was repeated once.
3. If the ratio of the largest to smallest SAR for the original and first repeated measurement was > 1.2, or if the original or first repeated measurement was ≥ 3.6 $^{W}/_{kg}$ (10g avg), the measurement was repeated a second time.
4. If the ratio of the largest to smallest SAR for the original, first repeated, or second repeated measurement was > 1.2, and one of those measurements was ≥ 3.75 $^{W}/_{kg}$ (10g avg),, the measurement was repeated a third time.

No measured SAR values were found to be ≥ 2.0 $^{W}/_{kg}$ (10g avg), therefore no repeat measurements were executed.

5 References to Test Standards and Guidance

[1] CENELEC, EN 62209-1:2006 “Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures - Part 1: Procedure to determine the specific absorption rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)”

[2] CENELEC, EN 50360:2001 “Product standard to demonstrate the compliance of mobile phones with the basic restrictions related to human exposure to electromagnetic fields (300 MHz – 3 GHz)”.

[3] ANSI / IEEE, C95.1 1992 Edition “IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz”

[4] Removed

[5] IEEE 1528 2003 Edition “IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques”

[6] ICNIRP Guidelines “Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz)”

[7] IC RSS-102 “Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)”

[8] IC Notice 2012-DRS1203 “RE: Applicability of Latest FCC RF Exposure KDB Procedures (Publication Date: October 24, 2012) and Other Procedures”

[9] CENELEC, EN 62209-2:2010 “Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures - Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)”

[10] FCC KDB Publication 248227 D01 v02r01 “SAR Guidance For IEEE 802.11 (Wi-Fi) Transmitters”

[11] FCC KDB Publication 447498 D01 v05r02 “Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies”

[12] FCC KDB Publication 648474 D04 v01r02 “SAR Evaluation Considerations for Wireless Handsets”

[13] FCC KDB Publication 865664 D01 v01r03 “SAR Measurement Requirements for 100 MHz to 6 GHz”

[14] FCC KDB Publication 865664 D02 v01r01 “RF Exposure Compliance Reporting and Documentation Considerations”

[15] FCC KDB Publication 941225 D01 v03 “SAR Measurement Procedures for 3G Devices”

Appendix 1

SAR Distribution Plots for Test System Verification

System Accuracy Verification Measurements for Head SAR Measurements

Test Laboratory: Motorola Mobility Date/Time: 6/30/2015 9:54:05

System Check 2450MHz Head

DUT: SN:863 - Dipole 2450 MHz; Type: D2450V2;

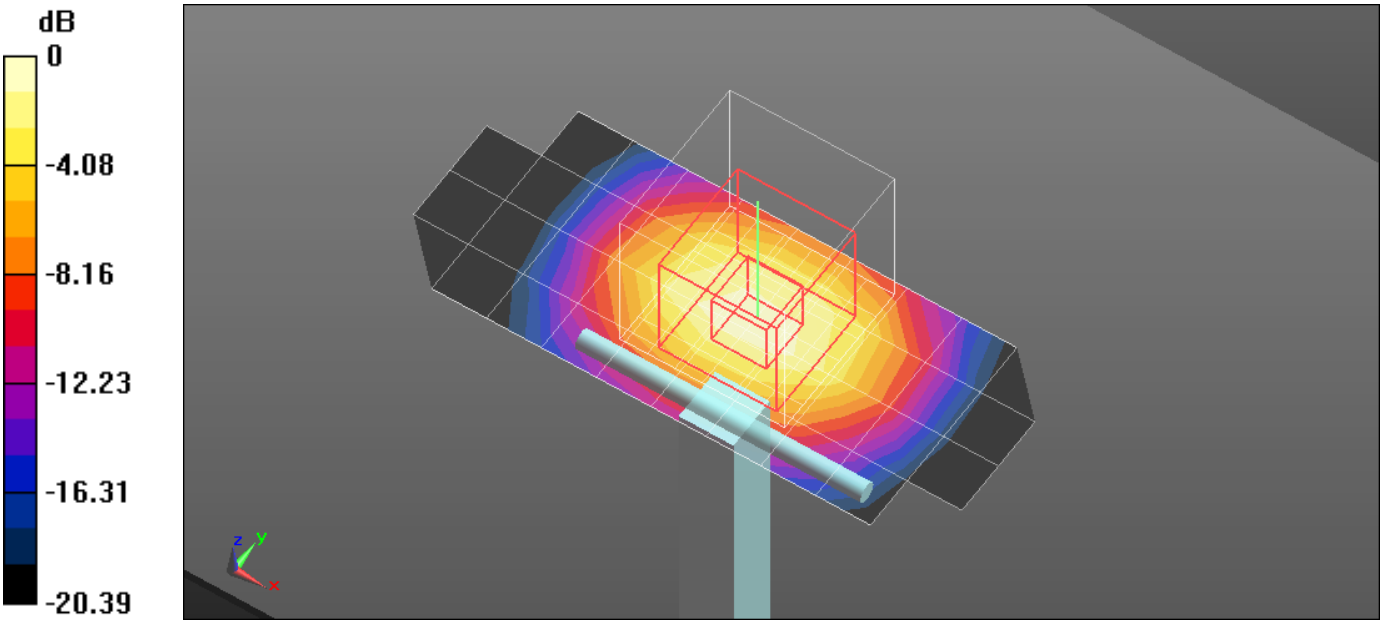
Communication System: UID 0, _CW - Dipole (0); Communication System Band: CW for SAR Dipoles; Frequency: 2450 MHz;Communication System PAR: 0 dB; PMF: 1
Medium parameters used: f = 2450 MHz; σ = 1.743 S/m; ε_r = 41.132; ρ = 1000 kg/m^3
Phantom section: Center Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3184; ConvF(4.57, 4.57, 4.57); Calibrated: 9/10/2014;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = -8.0, 32.0
- Electronics: DAE4 Sn1314; Calibrated: 3/11/2015
- Phantom: R#2 MART, Triple Flat Phantom 5.1C (Rev.4); Type: QD 000 P51 CA
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Triple Flat - DIPOLE SPC Template, Rev.2 (8-April-13)/2-3GHz, Daily SPC Check/fastSAR, Dipole Area Scan (5x23x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 5.07 W/kg

Triple Flat - DIPOLE SPC Template, Rev.2 (8-April-13)/2-3GHz, Daily SPC Check/CUBE SAR, 7x7x7 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.651 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 9.93 W/kg
SAR(1 g) = 5.01 W/kg; SAR(10 g) = 2.35 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 5.57 W/kg



0 dB = 5.57 W/kg = 7.46 dBW/kg

Test Laboratory: Motorola Mobility Date/Time: 7/1/2015 7:56:30

System Check 2450 MHz Head

DUT: SN:863 - Dipole 2450 MHz; Type: D2450V2;

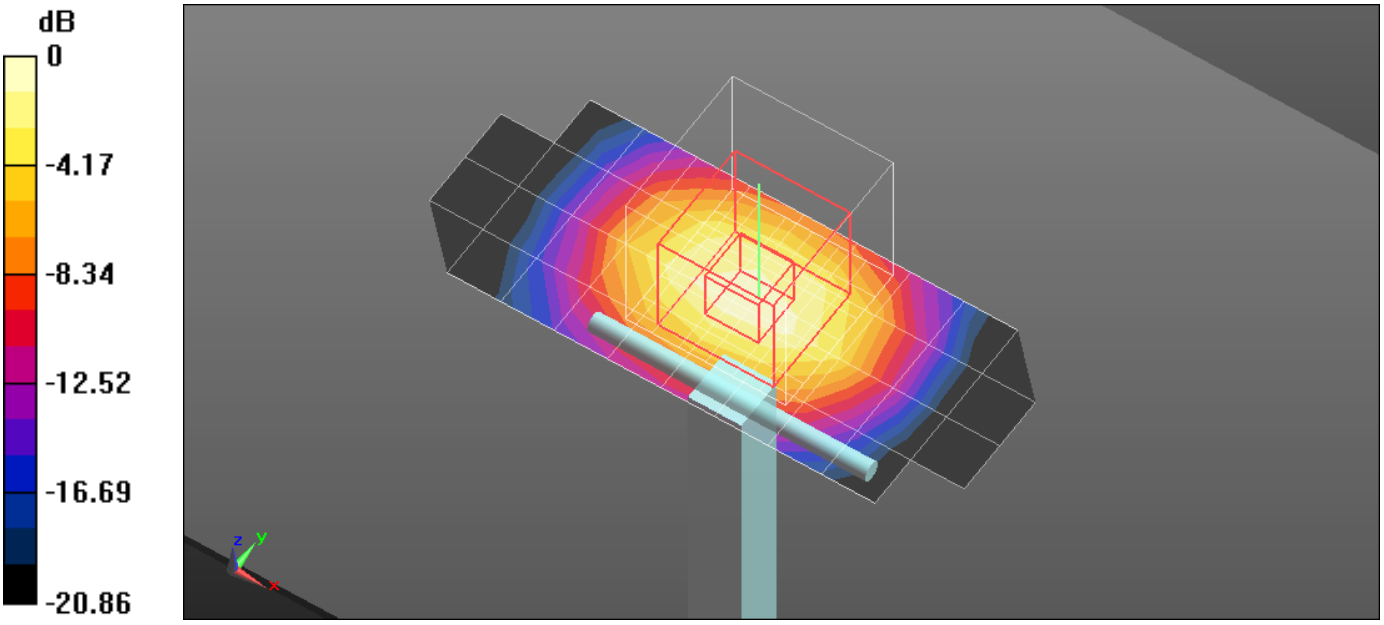
Communication System: UID 0, _CW - Dipole (0); Communication System Band: CW for SAR Dipoles; Frequency: 2450 MHz;Communication System PAR: 0 dB; PMF: 1
Medium parameters used: f = 2450 MHz; σ = 1.751 S/m; ε_r = 41.254; ρ = 1000 kg/m^3
Phantom section: Center Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3184; ConvF(4.57, 4.57, 4.57); Calibrated: 9/10/2014;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = -8.0, 32.0
- Electronics: DAE4 Sn1314; Calibrated: 3/11/2015
- Phantom: R#2 MART, Triple Flat Phantom 5.1C (Rev.4); Type: QD 000 P51 CA
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Triple Flat - DIPOLE SPC Template, Rev.2 (8-April-13)/2-3GHz, Daily SPC Check/fastSAR, Dipole Area Scan (5x23x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 5.23 W/kg

Triple Flat - DIPOLE SPC Template, Rev.2 (8-April-13)/2-3GHz, Daily SPC Check/CUBE SAR, 7x7x7 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56.201 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 9.87 W/kg
SAR(1 g) = 4.97 W/kg; SAR(10 g) = 2.33 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 5.50 W/kg



0 dB = 5.50 W/kg = 7.40 dBW/kg

System Accuracy Verification Measurements for Body SAR Measurements

Test Laboratory: Motorola Mobility Date/Time: 6/30/2015 8:38:50

System Check 2450 MHz Body

DUT: SN:863 - Dipole 2450 MHz; Type: D2450V2;

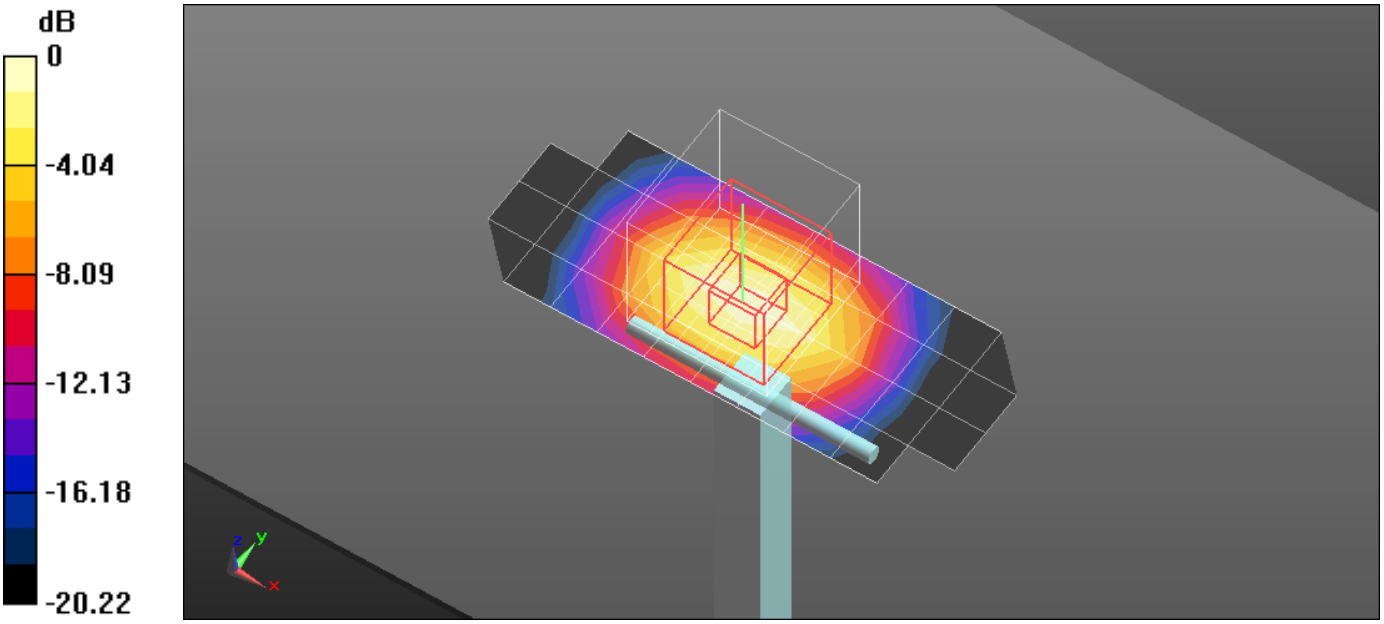
Communication System: UID 0, _CW - Dipole (0); Communication System Band: CW for SAR Dipoles; Frequency: 2450 MHz;Communication System PAR: 0 dB; PMF: 1
Medium parameters used: f = 2450 MHz; σ = 1.886 S/m; ε_r = 52.904; ρ = 1000 kg/m^3
Phantom section: Center Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3184; ConvF(4.34, 4.34, 4.34); Calibrated: 9/10/2014;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = -8.0, 32.0
- Electronics: DAE4 Sn1314; Calibrated: 3/11/2015
- Phantom: R#2 MART, Triple Flat Phantom 5.1C (Rev.4); Type: QD 000 P51 CA
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Triple Flat - DIPOLE SPC Template, Rev.2 (8-April-13)/2-3GHz, Daily SPC Check/fastSAR, Dipole Area Scan (5x23x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 5.59 W/kg

Triple Flat - DIPOLE SPC Template, Rev.2 (8-April-13)/2-3GHz, Daily SPC Check/CUBE SAR, 7x7x7 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 54.678 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 9.91 W/kg
SAR(1 g) = 4.92 W/kg; SAR(10 g) = 2.31 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 5.54 W/kg



0 dB = 5.54 W/kg = 7.44 dBW/kg

Test Laboratory: Motorola Mobility Date/Time: 7/1/2015 9:49:40

System Check 2450 MHz Body

DUT: SN:863 - Dipole 2450 MHz; Type: D2450V2;

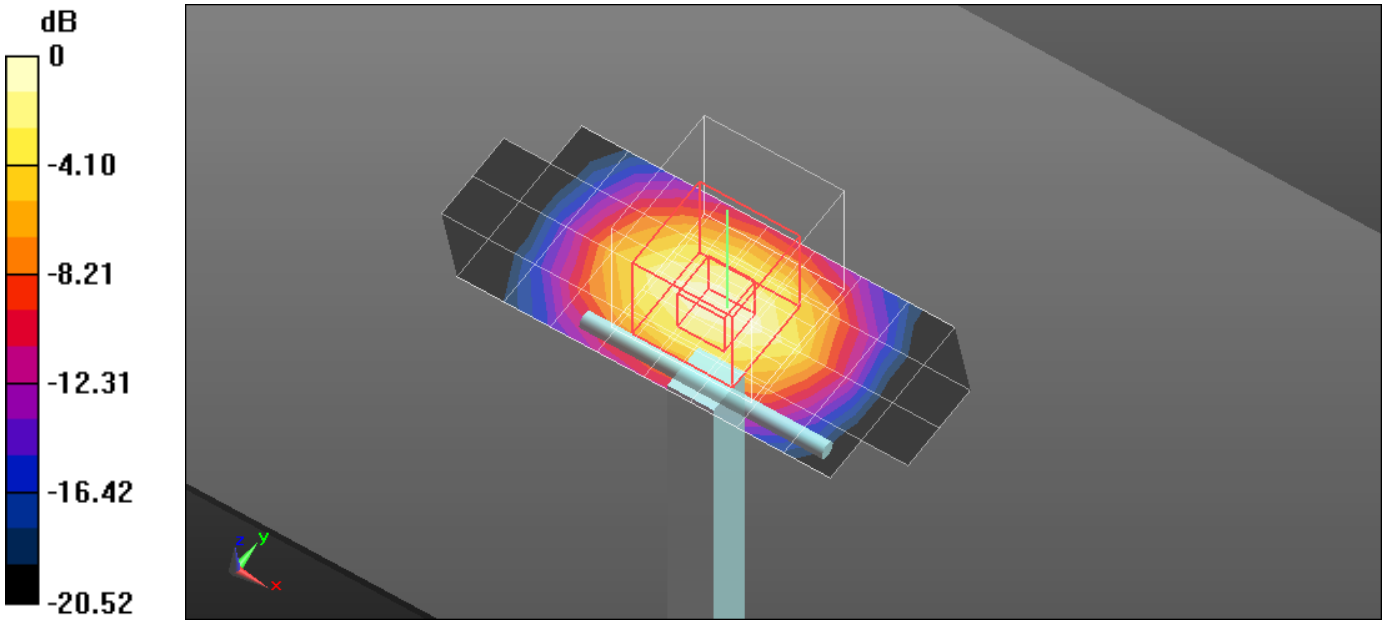
Communication System: UID 0, _CW - Dipole (0); Communication System Band: CW for SAR Dipoles; Frequency: 2450 MHz;Communication System PAR: 0 dB; PMF: 1
Medium parameters used: f = 2450 MHz; σ = 1.894 S/m; ε_r = 53.24; ρ = 1000 kg/m^3
Phantom section: Center Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3184; ConvF(4.34, 4.34, 4.34); Calibrated: 9/10/2014;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = -8.0, 32.0
- Electronics: DAE4 Sn1314; Calibrated: 3/11/2015
- Phantom: R#2 MART, Triple Flat Phantom 5.1C (Rev.4); Type: QD 000 P51 CA;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Triple Flat - DIPOLE SPC Template, Rev.2 (8-April-13)/2-3GHz, Daily SPC Check/fastSAR, Dipole Area Scan (5x23x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 5.48 W/kg

Triple Flat - DIPOLE SPC Template, Rev.2 (8-April-13)/2-3GHz, Daily SPC Check/CUBE SAR, 7x7x7 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 54.201 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 9.90 W/kg
SAR(1 g) = 4.91 W/kg; SAR(10 g) = 2.3 W/kg (SAR corrected for target medium)



0 dB = 5.48 W/kg = 7.39 dBW/kg

Test Laboratory: Motorola Mobility Date/Time: 7/7/2015 8:07:32

System Check 2450 MHz Body

DUT: SN:863 - Dipole 2450 MHz; Type: D2450V2;

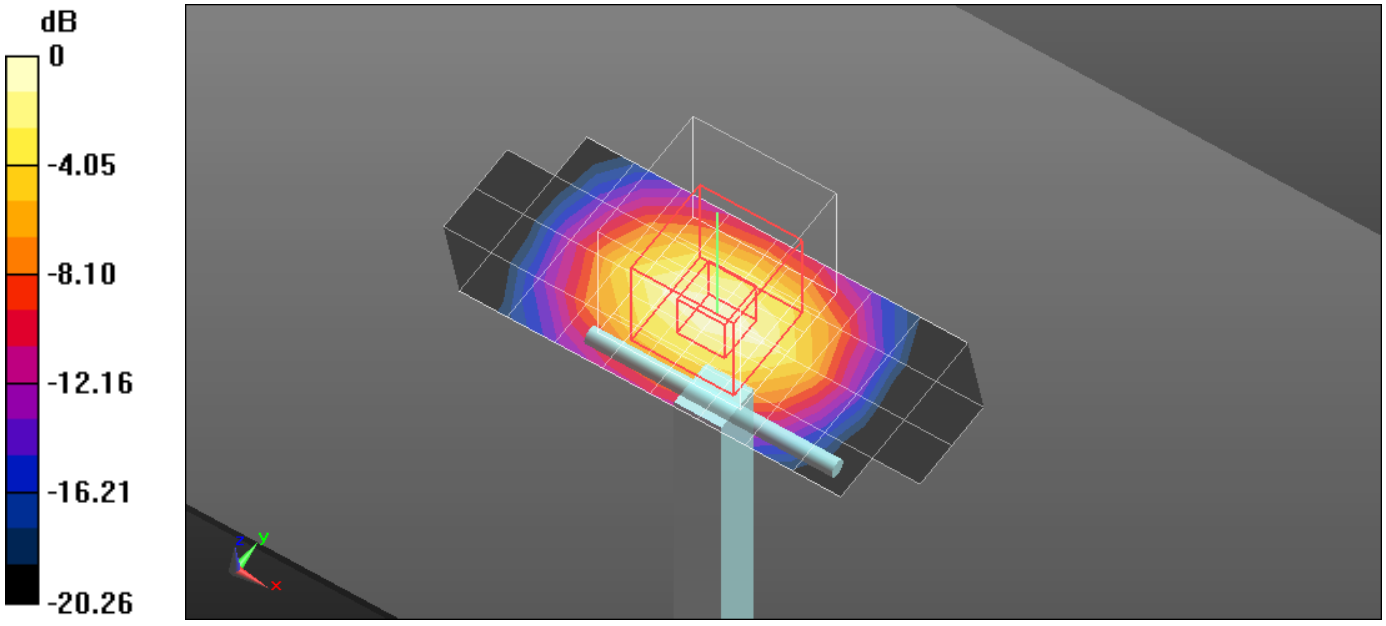
Communication System: UID 0, _CW - Dipole (0); Communication System Band: CW for SAR Dipoles; Frequency: 2450 MHz;Communication System PAR: 0 dB; PMF: 1
Medium parameters used: f = 2450 MHz; σ = 1.902 S/m; ε_r = 53.053; ρ = 1000 kg/m^3
Phantom section: Center Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3184; ConvF(4.34, 4.34, 4.34); Calibrated: 9/10/2014;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = -8.0, 32.0
- Electronics: DAE4 Sn1314; Calibrated: 3/11/2015
- Phantom: R#2 MART, Triple Flat Phantom 5.1C (Rev.4); Type: QD 000 P51 CA;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Triple Flat - DIPOLE SPC Template, Rev.2 (8-April-13)/2-3GHz, Daily SPC Check/fastSAR, Dipole Area Scan (5x23x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 5.54 W/kg

Triple Flat - DIPOLE SPC Template, Rev.2 (8-April-13)/2-3GHz, Daily SPC Check/CUBE SAR, 7x7x7 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 54.399 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 9.91 W/kg
SAR(1 g) = 4.9 W/kg; SAR(10 g) = 2.3 W/kg (SAR corrected for target medium)



0 dB = 5.54 W/kg = 7.44 dBW/kg

Appendix 2

SAR Distribution Plots for Next-to-Mouth Test Results

Test Laboratory: Motorola Mobility Date/Time: 6/30/2015 16:55:30

Large Body - No Band - Front of Device 10mm from Phantom DUT Serial: LD4X250072

Communication System: UID 0, _Wi-Fi 2450MHz (0); Communication System Band: 2450MHz WIFI; Frequency: 2462 MHz;Communication System PAR: 0 dB; PMF: 1
Medium parameters used (interpolated): f = 2462 MHz; σ = 1.757 S/m; ε_r = 41.103; ρ = 1000 kg/m^3
Phantom section: Center Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

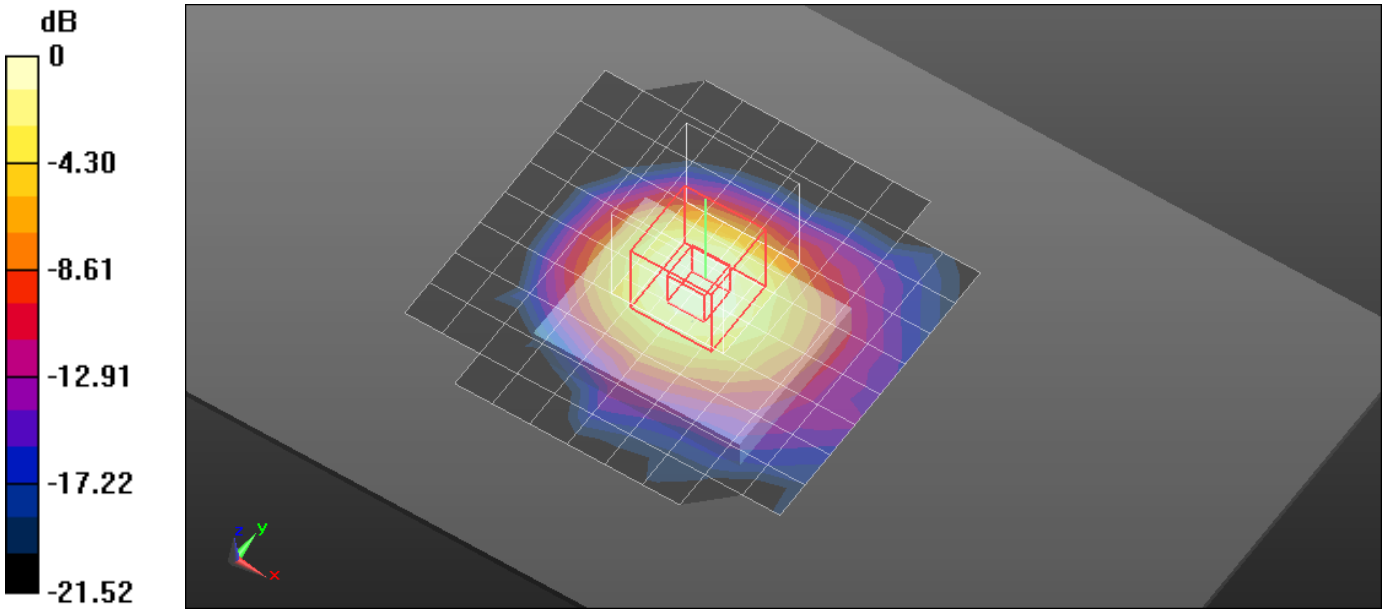
- Probe: ES3DV3 - SN3184; ConvF(4.57, 4.57, 4.57); Calibrated: 9/10/2014;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 7.0, 32.0
- Electronics: DAE4 Sn1314; Calibrated: 3/11/2015
- Phantom: R#2 MART, Triple Flat Phantom 5.1C (Rev.4); Type: QD 000 P51 CA;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

2-3GHz, Triple Flat Template - Rev.1 (28-March-13)/Area Scan (10mm) (27x15x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.115 W/kg

2-3GHz, Triple Flat Template - Rev.1 (28-March-13)/7x7x7 Zoom Scan (2-3GHz) (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.290 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.178 W/kg
SAR(1 g) = 0.107 W/kg; SAR(10 g) = 0.057 W/kg (SAR corrected for target medium)
Info: Interpolated medium parameters used for SAR evaluation.



0 dB = 0.115 W/kg = -9.39 dBW/kg

Test Laboratory: Motorola Mobility Date/Time: 7/1/2015 8:31:46

Small Body - No Band - Front of Device 10mm from Phantom DUT Serial: LD5N230297

Communication System: UID 0, _Wi-Fi 2450MHz (0); Communication System Band: 2450MHz WIFI; Frequency: 2462 MHz;Communication System PAR: 0 dB; PMF: 1
Medium parameters used (interpolated): f = 2462 MHz; σ = 1.765 S/m; ε_r = 41.122; ρ = 1000 kg/m^3
Phantom section: Center Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

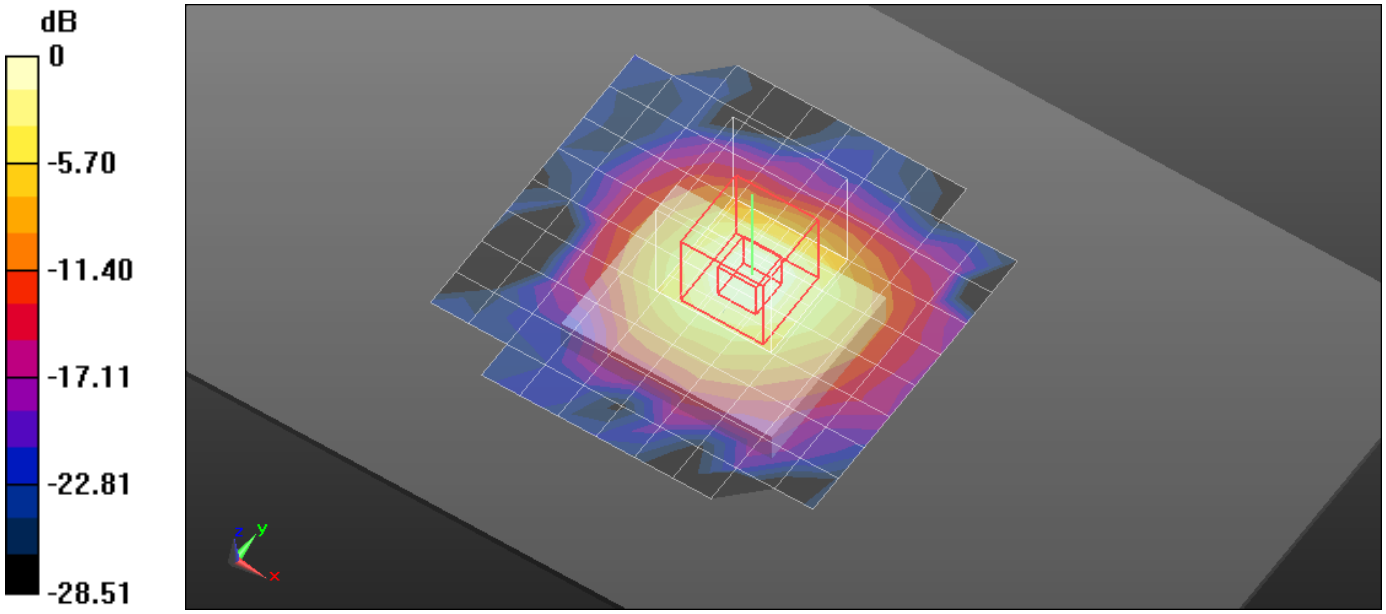
- Probe: ES3DV3 - SN3184; ConvF(4.57, 4.57, 4.57); Calibrated: 9/10/2014;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 7.0, 32.0
- Electronics: DAE4 Sn1314; Calibrated: 3/11/2015
- Phantom: R#2 MART, Triple Flat Phantom 5.1C (Rev.4); Type: QD 000 P51 CA;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

2-3GHz, Triple Flat Template - Rev.1 (28-March-13)/Area Scan (10mm) (27x15x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.110 W/kg

2-3GHz, Triple Flat Template - Rev.1 (28-March-13)/7x7x7 Zoom Scan (2-3GHz) (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.774 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.194 W/kg
SAR(1 g) = 0.116 W/kg; SAR(10 g) = 0.059 W/kg (SAR corrected for target medium)
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.128 W/kg



0 dB = 0.128 W/kg = -8.93 dBW/kg

Appendix 3

SAR Distribution Plots for Extremity (wrist) Test Results

Test Laboratory: Motorola Mobility Date/Time: 6/30/2015 15:00:00

Large Body - No Band - Back of Device 0mm from Phantom DUT Serial: LD4X250072

Communication System: UID 0, _Wi-Fi 2450MHz (0); Communication System Band: 2450MHz WIFI; Frequency: 2462 MHz;Communication System PAR: 0 dB; PMF: 1

Medium parameters used (interpolated): f = 2462 MHz; σ = 1.9 S/m; ε_r = 52.881; ρ = 1000 kg/m^3

Phantom section: Center Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3184; ConvF(4.34, 4.34, 4.34); Calibrated: 9/10/2014;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 7.0, 32.0
- Electronics: DAE4 Sn1314; Calibrated: 3/11/2015
- Phantom: R#2 MART, Triple Flat Phantom 5.1C (Rev.4); Type: QD 000 P51 CA;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

2-3GHz, Triple Flat Template - Rev.1 (28-March-13)/Area Scan (10mm) (27x15x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.20 W/kg

2-3GHz, Triple Flat Template - Rev.1 (28-March-13)/7x7x7 Zoom Scan (2-3GHz) (8x8x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

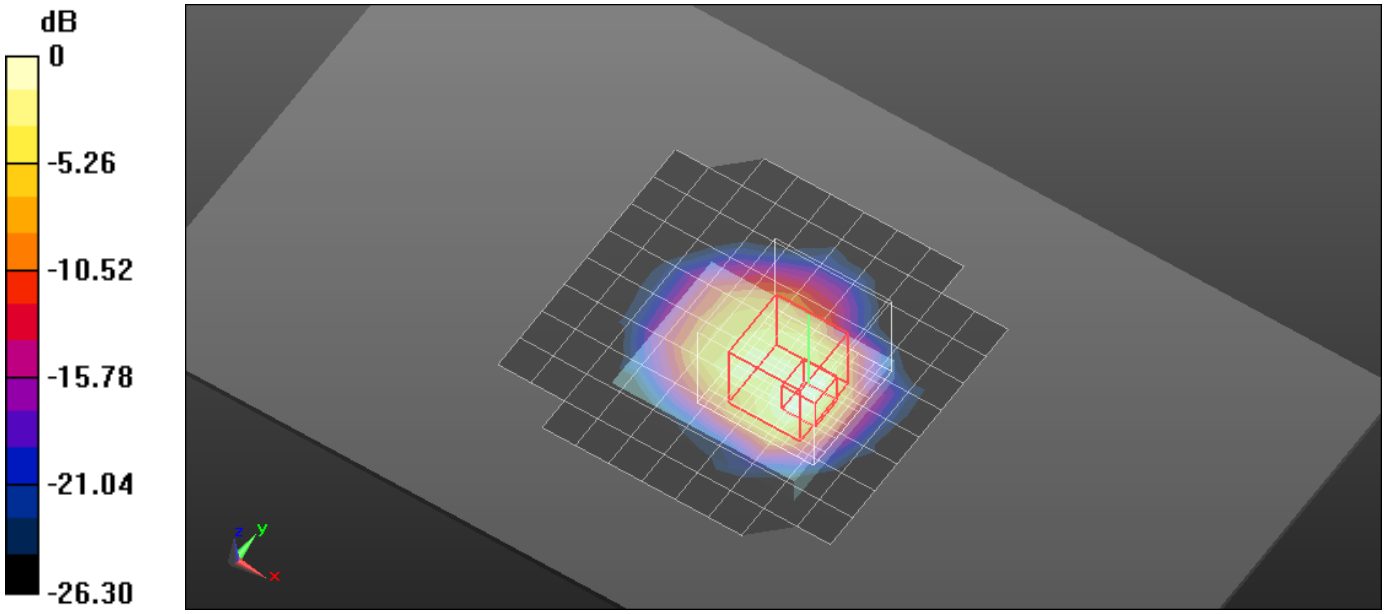
Reference Value = 21.769 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 3.92 W/kg

SAR(10 g) = 0.425 W/kg (SAR corrected for target medium)

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.24 W/kg



0 dB = 1.24 W/kg = 0.93 dBW/kg

Test Laboratory: Motorola Mobility Date/Time: 7/1/2015 15:02:21

Large Body - Metal Band - Back of Device 0mm from Phantom DUT Serial: LD4X250072

Communication System: UID 0, _Wi-Fi 2450MHz (0); Communication System Band: 2450MHz WIFI; Frequency: 2462 MHz;Communication System PAR: 0 dB; PMF: 1

Medium parameters used (interpolated): f = 2462 MHz; σ = 1.909 S/m; ε_r = 53.21; ρ = 1000 kg/m^3

Phantom section: Center Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3184; ConvF(4.34, 4.34, 4.34); Calibrated: 9/10/2014;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 7.0, 32.0
- Electronics: DAE4 Sn1314; Calibrated: 3/11/2015
- Phantom: R#2 MART, Triple Flat Phantom 5.1C (Rev.4); Type: QD 000 P51 CA;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

2-3GHz, Triple Flat Template - Rev.1 (28-March-13)/Area Scan (10mm) (27x15x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.725 W/kg

2-3GHz, Triple Flat Template - Rev.1 (28-March-13)/7x7x7 Zoom Scan (2-3GHz) (8x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

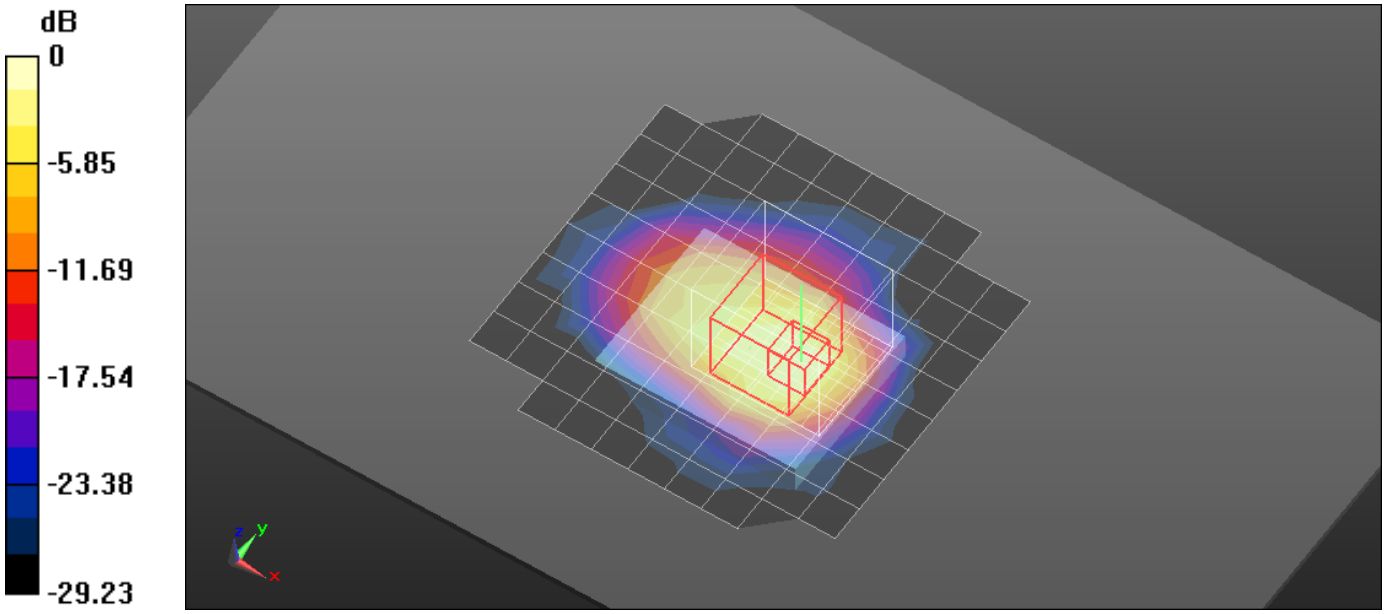
Reference Value = 23.752 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 3.56 W/kg

SAR(10 g) = 0.367 W/kg (SAR corrected for target medium)

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 1.20 W/kg



0 dB = 1.20 W/kg = 0.79 dBW/kg

Test Laboratory: Motorola Mobility Date/Time: 7/7/2015 12:42:54

Large Body - No Band - Back of Device 0mm DUT Serial: LD4X250072

Communication System: UID 0, _Bluetooth (0); Communication System Band: Bluetooth; Frequency: 2480 MHz;Communication System PAR: 0 dB; PMF: 1

Medium parameters used (interpolated): f = 2480 MHz; σ = 1.937 S/m; ε_r = 52.987; ρ = 1000 kg/m^3

Phantom section: Center Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3184; ConvF(4.34, 4.34, 4.34); Calibrated: 9/10/2014;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 7.0, 32.0
- Electronics: DAE4 Sn1314; Calibrated: 3/11/2015
- Phantom: R#2 MART, Triple Flat Phantom 5.1C (Rev.4); Type: QD 000 P51 CA;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

2-3GHz, Triple Flat Template - Rev.1 (28-March-13)/Area Scan (10mm) (27x15x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.0889 W/kg

2-3GHz, Triple Flat Template - Rev.1 (28-March-13)/7x7x7 Zoom Scan (2-3GHz) (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

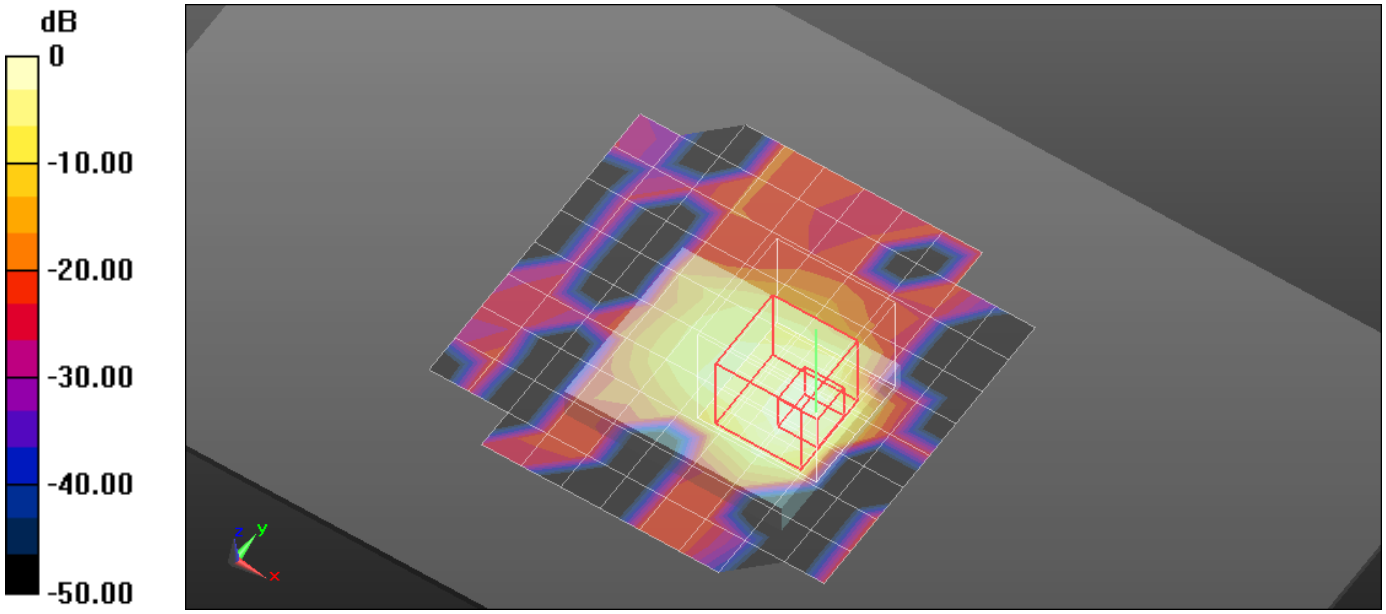
Reference Value = 5.370 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.342 W/kg

SAR(10 g) = 0.034 W/kg (SAR corrected for target medium)

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.121 W/kg



0 dB = 0.121 W/kg = -9.17 dBW/kg

Test Laboratory: Motorola Mobility Date/Time: 6/30/2015 14:20:12

Small Body - No Band - Back of Device 0mm from Phantom DUT Serial: LD5N230297

Communication System: UID 0, _Wi-Fi 2450MHz (0); Communication System Band: 2450MHz WIFI; Frequency: 2412 MHz;Communication System PAR: 0 dB; PMF: 1
Medium parameters used (interpolated): f = 2412 MHz; σ = 1.841 S/m; ε_r = 52.992; ρ = 1000 kg/m^3
Phantom section: Center Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

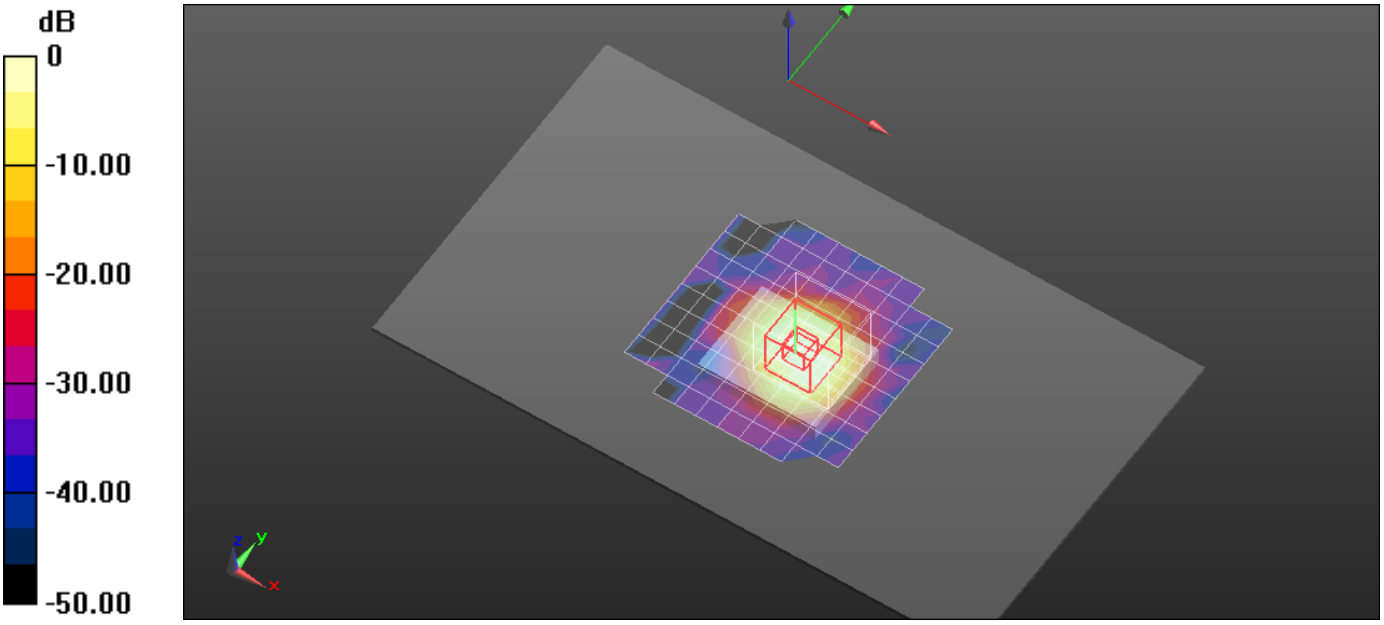
- Probe: ES3DV3 - SN3184; ConvF(4.34, 4.34, 4.34); Calibrated: 9/10/2014;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 7.0, 32.0
- Electronics: DAE4 Sn1314; Calibrated: 3/11/2015
- Phantom: R#2 MART, Triple Flat Phantom 5.1C (Rev.4); Type: QD 000 P51 CA;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

2-3GHz, Triple Flat Template - Rev.1 (28-March-13)/Area Scan (10mm) (27x15x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.52 W/kg

2-3GHz, Triple Flat Template - Rev.1 (28-March-13)/7x7x7 Zoom Scan (2-3GHz) (8x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 30.044 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 5.79 W/kg
SAR(10 g) = 0.822 W/kg (SAR corrected for target medium)
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.84 W/kg



0 dB = 2.11 W/kg = 3.24 dBW/kg

Test Laboratory: Motorola Mobility Date/Time: 7/1/2015 12:47:17

Small Body - Metal Band - Back of Device 0mm from Phantom DUT Serial: LD5N230297

Communication System: UID 0, _Wi-Fi 2450MHz (0); Communication System Band: 2450MHz WIFI; Frequency: 2412 MHz;Communication System PAR: 0 dB; PMF: 1
Medium parameters used (interpolated): f = 2412 MHz; σ = 1.848 S/m; ε_r = 53.364; ρ = 1000 kg/m^3
Phantom section: Center Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

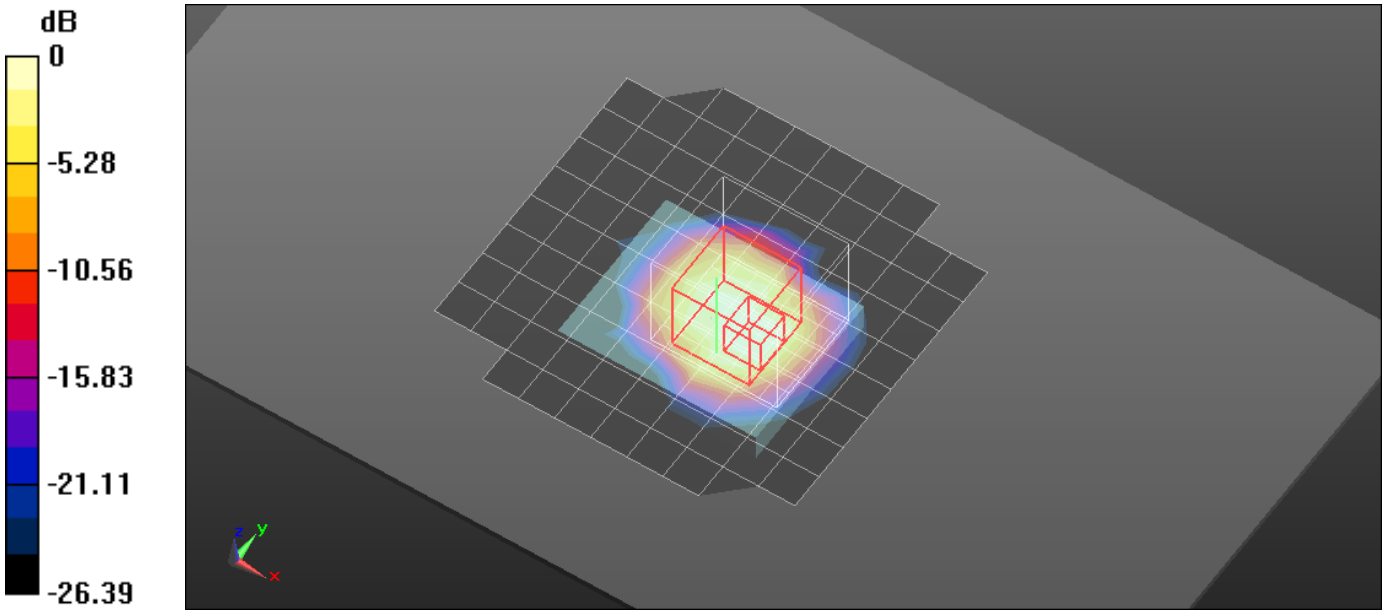
- Probe: ES3DV3 - SN3184; ConvF(4.34, 4.34, 4.34); Calibrated: 9/10/2014;
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 7.0, 32.0
- Electronics: DAE4 Sn1314; Calibrated: 3/11/2015
- Phantom: R#2 MART, Triple Flat Phantom 5.1C (Rev.4); Type: QD 000 P51 CA;
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

2-3GHz, Triple Flat Template - Rev.1 (28-March-13)/Area Scan (10mm) (27x15x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.55 W/kg

2-3GHz, Triple Flat Template - Rev.1 (28-March-13)/7x7x7 Zoom Scan (2-3GHz) (8x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 30.295 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 6.26 W/kg
SAR(10 g) = 0.806 W/kg (SAR corrected for target medium)
Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.82 W/kg



0 dB = 1.82 W/kg = 2.60 dBW/kg

Test Laboratory: Motorola Mobility Date/Time: 7/7/2015 13:35:37

Small Body - No Band - Back of Device 0mm from Phantom DUT Serial: LD5N230297

Communication System: UID 0, _Bluetooth (0); Communication System Band: Bluetooth; Frequency: 2480 MHz;Communication System PAR: 0 dB; PMF: 1

Medium parameters used (interpolated): f = 2480 MHz; σ = 1.937 S/m; ε_r = 52.987; ρ = 1000 kg/m^3

Phantom section: Center Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ES3DV3 - SN3184; ConvF(4.34, 4.34, 4.34); Calibrated: 9/10/2014; :
- Sensor-Surface: 4mm (Mechanical Surface Detection), z = 7.0, 32.0
- Electronics: DAE4 Sn1314; Calibrated: 3/11/2015
- Phantom: R#2 MART, Triple Flat Phantom 5.1C (Rev.4); Type: QD 000 P51 CA; Serial: n/a
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

2-3GHz, Triple Flat Template - Rev.1 (28-March-13)/Area Scan (10mm) (27x15x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.106 W/kg

2-3GHz, Triple Flat Template - Rev.1 (28-March-13)/7x7x7 Zoom Scan (2-3GHz) (8x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

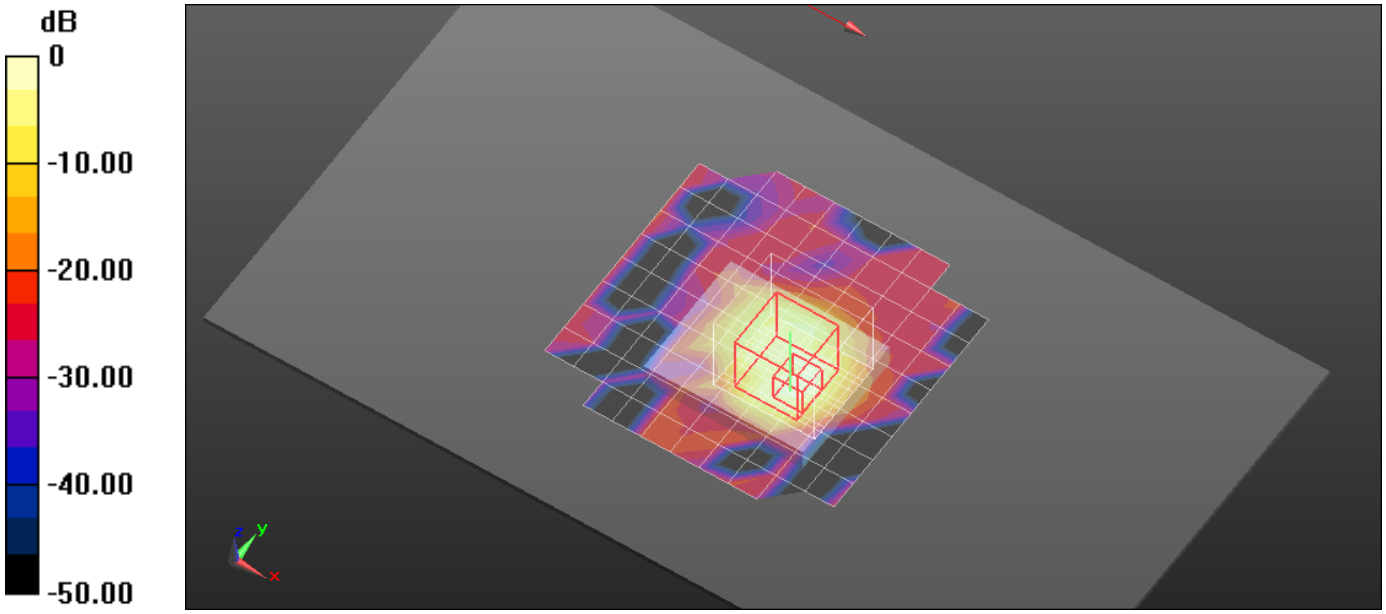
Reference Value = 6.101 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.433 W/kg

SAR(10 g) = 0.041 W/kg (SAR corrected for target medium)

Info: Interpolated medium parameters used for SAR evaluation.

Maximum value of SAR (measured) = 0.137 W/kg



0 dB = 0.137 W/kg = -8.63 dBW/kg

Appendix 4

Measurement Uncertainty Budget

Uncertainty Budget for Device Under Test, for 735 MHz to 3 GHz

a	*b*	*c*	*d*	*e = f(d,k)*	*f*	*g*	*h = c x f / e*	*i = c x g / e*	*k*
Uncertainty Component	Description IEEE 1528(2003) / IEC 62209-1(2005)	**Tol. (± %)**	**Prob Dist**	**Div.**	**c_i (1 g)**	**c_i (10 g)**	**1 g u_i (±%)**	**10 g u_i (±%)**	**v_i**
Measurement System									
Probe Calibration [ES3DV3]	E.2.1 / 7.2.1	6.0	N	1.00	1	1	6.0	6.0	∞
Axial Isotropy	E.2.2 / 7.2.1.2	4.7	R	1.73	0.707	0.707	1.9	1.9	∞
Hemispherical Isotropy	E.2.2 / 7.2.1.2	9.6	R	1.73	0.707	0.707	3.9	3.9	∞
Boundary Effect	E.2.3 / 7.2.1.5	1.0	R	1.73	1	1	0.6	0.6	∞
Linearity	E.2.4 / 7.2.1.3	4.7	R	1.73	1	1	2.7	2.7	∞
System Detection Limits	E.2.5 / 7.2.1.4	1.0	R	1.73	1	1	0.6	0.6	∞
Readout Electronics	E.2.6 / 7.2.1.6	0.3	N	1.00	1	1	0.3	0.3	∞
Response Time	E.2.7 / 7.2.1.7	1.1	R	1.73	1	1	0.6	0.6	∞
Integration Time	E.2.8 / 7.2.1.8	1.1	R	1.73	1	1	0.6	0.6	∞
RF Ambient Conditions - Noise	E.6.1 / 7.2.3.6	3.0	R	1.73	1	1	1.7	1.7	∞
RF Ambient Conditions - Reflections	E.6.1 / 7.2.3.6	3.0	R	1.73	1	1	1.7	1.7	∞
Probe Positioner Mech. Tolerance	E.6.2 / 7.2.2.1	0.4	R	1.73	1	1	0.2	0.2	∞
Probe Positioning w.r.t Phantom	E.6.3 / 7.2.2.3	2.9	R	1.73	1	1	1.7	1.7	∞
Max. SAR Evaluation (ext., int., avg.)	E.5 / 7.2.4	3.4	R	1.73	1	1	2.0	2.0	∞
Test sample Related									
Test Sample Positioning	E.4.2 / 7.2.2.4	3.4	N	1.00	1	1	3.4	3.4	79
Device Holder Uncertainty	E.4.1 / 7.2.2.4.2	4.5	N	1.00	1	1	4.5	4.5	11
SAR drift	6.6.2 / 7.2.3.5	0.0	R	1.73	1	1	0.0	0.0	
Phantom and Tissue Parameters									
Phantom Uncertainty	E.3.1 / 7.2.2.2	6.1	R	1.73	1	1	3.5	3.5	∞
SAR Correction		1.9	R	1.73	1	0.84	1.1	0.9	∞
Liquid Conductivity (measurement)	E.3.3 / 7.2.3.3	1.3	N	1.00	0.64	0.43	0.9	0.6	6
Liquid Permittivity (measurement)	E.3.2 / 7.2.3.4	0.7	N	1.00	0.6	0.49	0.4	0.3	6
Combined Standard Uncertainty			RSS				11	11	390
Expanded Uncertainty (95% CONFIDENCE LEVEL)			*k*=2				22	22	

Uncertainty Budget for Device Under Test for 3 to 6 GHz

a	*b*	*c*	*d*	*e = f(d,k)*	*f*	*g*	*h = c x f / e*	*i = c x g / e*	*k*
Uncertainty Component	Description IEC 62209-2 (2010)	**Tol. (± %)**	**Prob Dist**	**Div.**	**c_i (1 g)**	**c_i (10 g)**	**1 g u_i (±%)**	**10 g u_i (±%)**	**v_i**
Measurement System									
Probe Calibration [EX3DV4]	7.2.2.1	6.6	N	1.00	1	1	6.6	6.6	∞
Axial Isotropy	7.2.2.2	4.7	R	1.73	0.707	0.707	1.9	1.9	∞
Hemispherical Isotropy	7.2.2.2	9.6	R	1.73	0.707	0.707	3.9	3.9	∞
Boundary Effect	7.2.2.6	2.0	R	1.73	1	1	1.2	1.2	∞
Linearity	7.2.2.5	4.7	R	1.73	1	1	2.7	2.7	∞
System Detection Limits	7.2.2	1.0	R	1.73	1	1	0.6	0.6	∞
Readout Electronics	7.2.2.7	0.3	N	1.00	1	1	0.3	0.3	∞
Response Time	7.2.2.8	1.1	R	1.73	1	1	0.6	0.6	∞
Integration Time	7.2.2.9	1.1	R	1.73	1	1	0.6	0.6	∞
RF Ambient Conditions - Noise	7.2.4.5	3.0	R	1.73	1	1	1.7	1.7	∞
RF Ambient Conditions - Reflections	7.2.4.5	3.0	R	1.73	1	1	1.7	1.7	∞
Probe Positioner Mech. Tolerance	7.2.3.1	1.0	R	1.73	1	1	0.6	0.6	∞
Probe Positioning w.r.t Phantom	7.2.3.3	6.7	R	1.73	1	1	3.9	3.9	∞
Max. SAR Evaluation (ext., int., avg.)	7.2.5.3	4.0	R	1.73	1	1	2.3	2.3	∞
Test sample Related									
Test Sample Positioning	7.2.3.4	3.4	N	1.00	1	1	3.4	3.4	79
Device Holder Uncertainty	7.2.3.4	4.5	N	1.00	1	1	4.5	4.5	11
SAR drift	7.2.2.10	0.0	R	1.73	1	1	0.0	0.0	
Phantom and Tissue Parameters									
Phantom Uncertainty	7.2.3.2	6.6	R	1.73	1	1	3.8	3.8	∞
SAR Correction	7.2.4.3	1.9	R	1.73	1	0.84	1.1	0.9	∞
Liquid Conductivity (measurement)	7.2.4.3	1.4	N	1.00	0.64	0.43	0.9	0.6	6
Liquid Permittivity (measurement)	7.2.4.3	0.7	N	1.00	0.6	0.49	0.4	0.4	6
Combined Standard Uncertainty			RSS				12	12	557
Expanded Uncertainty (95% CONFIDENCE LEVEL)			*k*=2				24	24	