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TESTING CERT # 2518.01

DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 1 of 3

Enterprise Mobility Solutions
EME Test Laboratory
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Fort Lauderdale, FL. 33322.

Date of Report: 09/27/10
Report Revision: O
Report ID: SAR rpt_H86XAH6JR7AN_Rev O_100927_SR8668

Responsible Engineer:	Stephen C. Whalen (Principal Staff Eng.)
Report Author:	Stephen C. Whalen (Principal Staff Eng.)
Date/s Tested:	09/3/2010, 09/05/2010, 09/07/2010 – 09/10/2010 & 09/15/2010
Manufacturer/Location:	China
Sector/Group/Div.:	iDEN Mobile Devices
Date submitted for test:	07/27/2010
DUT Description:	TDMA: 81:120, 2:6, 1:12, and 1:6; M64-QAM, M16-QAM, and QPSK Modulations; 0.600 W Pulse Avg; MOTOtalk: 114:120 8FSK; 0.760 W nominal; (GPS and Bluetooth Capable)
Test TX mode(s):	Phone 1:3, Dispatch 1:6, Data 81:120 and MOTOtalk:114:120
Max. Power output:	0.640 W pulsed average conducted power (iDEN); 0.800 W (MOTOtalk); 0.010 W (Bluetooth)
Nominal Power:	0.60 W pulsed average conducted power (iDEN); 0.760 W (MOTOtalk); 0.0063 W (Bluetooth)
Tx Frequency Bands:	806-825, 896-902 MHz (iDEN); 902-928 MHz (MOTOtalk); 2.402-2.480 GHz (Bluetooth)
Signaling type:	TDMA: QPSK, M16-QAM, M64-QAM; FHSS: 8FSK (PTT); BT
Model(s) Tested:	H86XAH6JR7AN
Model(s) Certified:	H86XAH6JR7AN
Serial Number(s):	364VLQ9QDT, 364VLQ9Q8M
Classification:	General Population/Uncontrolled

Regulatory Identifications
FCC ID: IHDP56LL1 – Rule Part(s) 15, 90
SAR results outside of Part 90 are not applicable for FCC compliance demonstration.

IC: 109O-P56LL1 – Rule Part(s) RSS 102

Max. Calc. : 1-g Avg. SAR: 1.08 W/kg (Body); 10-g Avg. SAR: 0.78 W/kg (Body)
Max. Calc. : 1-g Avg. SAR: 0.69 W/kg (Face); 10-g Avg. SAR: 0.49 W/kg (Face)
Max. Calc. : 1-g Avg. SAR: 0.87 W/kg (Head); 10-g Avg. SAR: 0.60 W/kg (Head)

The test results clearly demonstrate compliance with FCC General Population/Uncontrolled RF Exposure limits of 1.6 W/kg averaged over 1 gram per the requirements of 47 CFR 2.1093(d).
The test results clearly demonstrate compliance with ICNIRP (1998) Guidelines for limiting exposure in time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz), Health Physics 74, 494-522 RF Exposure limits of 2.0 W/kg averaged over 10grams of contiguous tissue.

Based on the information and the testing results provided herein, the undersigned certifies that when used as stated in the operating instructions supplied, said product complies with the national and international reference standards and guidelines listed in section 3.0 of this report. This report shall not be reproduced without written approval from an officially designated representative of the Motorola EME Laboratory.
I attest to the accuracy of the data and assume full responsibility for the completeness of these measurements. This reporting format is consistent with the suggested guidelines of the TIA TSB-150 December 2004. The results and statements contained in this report pertain only to the device(s) evaluated.

Signature on file – Deanna Zakharia
Deanna Zakharia
EMS EME Lab Senior Resource Manager, Laboratory Director

Approval Date: 9/27/2010

Certification Date: 9/27/2010

Certification No.: L1100914

Part 1 of 3

Part 1 of 3 Continued

APPENDICES

Part 2 of 3

Part 3 of 3

Report Revision History

Date	Revision	Comments
09/27/2010	O	PCII Report

1.0 Introduction

This report details the utilization, test setup, test equipment, and test results of the Specific Absorption Rate (SAR) measurements performed at the EMS EME Test Laboratory for model number H86XAH6JR7AN. The results herein reflect pilot type test results.

2.0 Abbreviations / Definitions

BT: Bluetooth
CNR: Calibration Not Required
DUT: Device Under Test
FHSS: Frequency Hopping Spread Spectrum
FSK: Frequency Shift Keying
iDEN: Integrated Dispatch Enhanced Network
ISM: Industrial, Scientific and Medical
NA: Not Applicable
PTT: Push to Talk
QPSK: Quadrature Phase-Shift Keying
QAM: Quadrature Amplitude Modulation
SMR: Specialized Mobile Radio
SAR: Specific Absorption Rate
TDMA: Time Division Multiple Access

Audio accessories: These accessories allow communication while the DUT is worn on the body.
Body worn accessories: These accessories allow the DUT to be worn on the body of the user.
Maximum Power: Defined as the upper limit of the production line final test station.

3.0 Referenced Standards and Guidelines

This product is designed to comply with the following applicable national and international standards and guidelines.

- IEC62209-1*(2005) 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)
- United States Federal Communications Commission, Code of Federal Regulations; Rule Part 47CFR § 2.1093 sub-part J:1999
- Federal Communications Commission, “Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields”, OET Bulletin 65, Supplement C (Edition 01-01), FCC, Washington, D.C.: June 2001.
- IEEE 1528*(2003), Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
- American National Standards Institute (ANSI) / Institute of Electrical and Electronics Engineers (IEEE) C95. 1-1992
- Institute of Electrical and Electronics Engineers (IEEE) C95.1-2005
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998
- Ministry of Health (Canada) Safety Code 6 (1999), Limits of Human Exposure to Radio frequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz

- Australian Communications Authority Radio communications (Electromagnetic Radiation - Human Exposure) Standard (2003)
- ANATEL, Brazil Regulatory Authority, Resolution No. 303 of July 2, 2002 "Regulation of the limitation of exposure to electrical, magnetic, and electromagnetic fields in the radio frequency range between 9kHz and 300 GHz." and "Attachment to resolution # 303 from July 2, 2002"
- IEC62209-2 Edition 1.0 2010-03, Human Exposure to Radio Frequency Fields from Handheld and Body-Mounted Wireless Communication Devices – Human models, Instrumentation, and Procedures Part 2: Procedure to determine the specific absorption rate (SAR) for mobile wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz), revised on Oct 3, 2008.

* The IEC62209-1 and IEEE1528 are applicable for hand-held devices used in close proximity to the ear only.

4.0 SAR Limits

TABLE 1

EXPOSURE LIMITS	SAR (W/kg)	
	(General Population / Uncontrolled Exposure Environment)	(Occupational / Controlled Exposure Environment)
Spatial Average - ANSI - (averaged over the whole body)	**0.08**	**0.4**
Spatial Peak - ANSI - (averaged over any 1-g of tissue)	**1.6**	**8.0**
Spatial Peak – ICNIRP/ANSI - (hands/wrists/feet/ankles averaged over 10-g)	**4.0**	**20.0**
Spatial Peak - ICNIRP - (Head and Trunk 10-g)	**2.0**	**10.0**

5.0 SAR Result Scaling Methodology

The calculated 1-gram and 10-gram averaged SAR results indicated as "Max Calc. 1g-SAR" and "Max Calc.10g-SAR" in the data tables is determined by scaling the measured SAR to account for power leveling variations and power slump. A table and graph of output power versus time is provided in APPENDIX G. For this device the "Max Calc. 1g-SAR" and "Max Calc.10g-SAR" are scaled using the following formula:

$$Max\_Calc = SAR\_meas \cdot 10^{\frac{-Drift}{10}} \cdot \frac{P\_\max}{P\_\text{int}} \cdot DC$$

P_max = Maximum Power (W)
P_int = Initial Power (W)
Drift = DASY drift results (dB)
SAR_meas = Measured 1-g or 10-g Avg. SAR (W/kg)
DC = Transmission mode duty cycle in % where applicable
50% duty cycle is applied for PTT operation

Note: for conservative results, the following are applied:
If P_int > P_max, then P_max/P_int = 1.
Drift = 1 for positive drift

Additional SAR scaling was applied using the methodologies outlined in FCC KDB450824 using tissue sensitivity values. SAR was scaled for conditions where the tissue permittivity was measured above the nominal target and for tissue conductivity that was measured below the nominal target.

6.0 Description of Device Under Test (DUT)

Model H86XAH6JR7AN is a digital multi-service data capable devices that employs time division multiplexing with duty cycles of 16.67% for Voice (Dispatch), 16.67% or 33.00% (for Interconnect or Circuit Data), and up to 67.50% for Packet Data operation. Possible modulation formats are QPSK, M16-QAM, or M64-QAM. All voice modes employ M16-QAM modulation, and are interleaved as 1:6 (for Dispatch PTT or Interconnect) or 1:3 (maximum for Interconnect). Split 1:3 Interconnect is operated at a 16.67% duty cycle, but because there will be two pulses in each 90-msec frame, the overall interleave is 2:6. Data transmissions employ QPSK, M16-QAM, and M64-QAM modulations, and have a maximum duty cycle of 67.50% (Packet Data). Packet Data operation is possible with-and-without connection to an external data device (via a data cable or Bluetooth link). All iDEN modes (Interconnect, Dispatch, and Data) are available in both the 800 and 900 MHz SMR bands, and are also supported in the Narrowband PCS band. This device also possesses MOTOtalk, which is a Part 15 service, employing Frequency Hopping Spread Spectrum technology in the 900 MHz ISM band. MOTOtalk emissions have a duty cycle of 114:120, and uses 8FSK modulation. Only dispatch (i.e. PTT) operation is possible when operating in this mode. The unit may be used at the abdomen in this mode (with applicable audio accessories) or held in front of the face. The low-audio earpiece mode has been locked out in software. This device also incorporates a Class 2 Bluetooth (BT) device with a 76.5% maximum duty cycle. Bluetooth is a short range wireless protocol used for communication between users. Users link to each other through an Ad-Hock network of pico-nets. The pico-net is the basic communication cell, which is formed by a "master" and up to 7 "slaves."

This device will be marketed to and used by the general population. This device may be used while held against the head in voice mode, in front of the face in PTT mode, and against the body in phone, dispatch, MOTOtalk, Data and BT modes.

Model H86XAH6JR7AN is capable of operating in the 806-825 MHz and 896-902MHz bands for iDEN modes, 902-928MHz band for MOTOtalk mode and 2.402-2.480GHz band for BT. The nominal conducted power is 0.600 watts pulsed averaged in 806-825MHz and 896-902MHz bands, 0.760 watts in the MOTOtalk band and 0.0063 watts in the BT band. The maximum conducted output power is 0.640 watts pulsed average, 0.800 watts and 0.010 watts respectively as defined by the upper limit of the production line final test station.

7.0 Optional Accessories and Test Criteria

Model H86XAH6JR7AN is offered with optional accessories. All accessories were individually evaluated during the test plan creation to determine if testing was required. The following sections identify the test criteria and details for each accessory category.

7.1 Antennas

The table below summarizes the antennas, antenna descriptions, test status and separation distances.

TABLE 2

Antenna Models	Description	Tested	* Separation distances between DUT and phantom surface for given test configurations		
			Body Test Configuration		Face Test Configuration DUT @ 2.5cm
			Tested Carry Accessories	2.5cm Assessment DUT @ 2.5cm	
Internal (85009280001)	Multi-element, 1/2 wave, 806-825MHz (-1.79dBi), 896-902MHz (-1.01dBi), 902-928MHz (-1.01dBi)	Yes	28-15mm	25-25mm	26-26mm
Internal (85009279001)	IFA Stamped, ¼ wave 2.402-2.480GHz (0.5dBi)	**No	**NA	**NA	**NA

* The 1st number indicates the minimum separation distance that was measured at the bottom of the carry holder or DUT while the second number reflects the separation distance measured at the top of the carry holder or DUT. Refer to appendix H for illustration of distances.

** BT testing is not required per FCC KDB648474.

7.2 Batteries

All batteries were tested. The table below lists the batteries, descriptions and test status.

TABLE 3

Battery Models	Description	Tested	Comments
SNN5851A	Li Ion BN80	Yes	Requires battery cover NTN2597XXXA
SNN5837A	Li Ion BN70	Yes	Requires battery cover NTN3000XXXA

7.3 Body worn Accessories

The body worn accessory was tested. The table below lists the body worn, description, test status and separation distances.

TABLE 4

Body worn Models	Description	Tested	* Separation distances between DUT and phantom surface. (mm)	Comments
NNTN7900A	Plastic holster with belt clip	Yes	28-15	Tested with both batteries

* The 1st number indicates the minimum separation distance that was measured at the bottom of the carry holder or DUT while the second number reflects the separation distance measured at the top of the carry holder or DUT. Refer to appendix H for illustration of distances.

7.4 Audio/Data Cable Accessories

The audio accessories were tested. The table below lists the audio accessories, descriptions and test status.

TABLE 5

Audio Acc. Models	Description	Tested	Comments
Headsets w/ Microphone (Applicable for Body testing only)			
SYN1458A	Wired Stereo Headset (mUSB)	Yes	
SYN1472A	Wired Mono Headset (mUSB)	Yes	
SYN2356A	3.5mm Stereo Headset (iDEN) with PTT	Yes	
Data Cable (Applicable for Body testing only)			
SKN6238A	Long Well USB Data cable	Yes	

8.0 Description of Test System

8.1 Descriptions of Robotics/Probes/Readout Electronics

The laboratory utilizes a Dosimetric Assessment System (DASY4™) SAR measurement system Version 4.7 build 80 manufactured by Schmid & Partner Engineering AG (SPEAG™), of Zurich Switzerland. The test system consists of a Stäubli RX90L robot, DAE4, and ES3DV3 E-field probe. The DASY4™ system is operated per the instructions in the DASY4™ Users Manual. The complete manual is available directly from SPEAG™. All measurement equipment used to assess EME SAR compliance was calibrated according to ISO/IEC 17025 A2LA guidelines. Section 9.0 presents additional test equipment information. Appendices B and C present the applicable calibration certificates. The E-field probe first scans a coarse grid over a large area inside the phantom in order to locate the interpolated maximum SAR distribution. After the coarse scan measurement, the probe is automatically moved to a position at the interpolated maximum. The subsequent scan can directly use this position as reference for the cube evaluations.

8.2 Description of Phantom(s)

8.2.1 Dual Flat Phantom

Not applicable

8.2.2 SAM Phantom

TABLE 6

Phantom ID (s)	Material Parameters	Material Thickness (mm)	Support Structure Material	Loss Tangent (wood)
SAMTP1022	200MHz -3GHz; Er = 5, Loss Tangent = ≤0.05	2mm +/- 0.2mm	Wood	< 0.05

8.2.3 Elliptical Flat Phantom

TABLE 7

Phantom ID (s)	Material Parameters	Phantom Dimensions LxWxD (mm)	Material Thickness (mm)	Support Structure Material	Loss Tangent (wood)
OVAL1021	300MHz -6GHz; Er = 4+/- 1, Loss Tangent = ≤0.05	600x400x190	2mm +/- 0.2mm	Wood	< 0.05

8.3 Description of Simulated Tissue

The simulated tissue used is compliant to that specified in FCC Supplement C (Edition 01-01) to OET Bulletin 65 (Edition 97-01) and IEEE Std 1528 - 2003 "Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques". The simulated tissue used is also compliant to that specified in IEC62209-1 (2005) and adopted by CENELEC as EN62209-1 (2006).

The sugar based simulate tissue is produced by placing the correct measured amount of De-ionized water into a large container. Each of the dried ingredients are weighed and added to the water carefully to avoid clumping. If the solution has a high sugar concentration the water is pre-heated to aid in dissolving the ingredients. For Diacetin and similar type simulates, sugar and HEC ingredients are not needed. The solution is mixed thoroughly, covered, and allowed to sit overnight prior to use.

Simulated Tissue Composition (by mass)
TABLE 8

% of listed ingredients	835MHz		900MHz	
	Head	Body	Head	Body
Sugar	57.0	44.9	56.5	44.9
Diacetin	0	0	0	0
De ionized -Water	40.45	53.06	40.95	53.06
Salt	1.45	0.94	1.45	0.94
HEC	1.0	1.0	1.0	1.0
Bact.	0.1	0.1	0.1	0.1

Reference section 10.1 for target parameters

9.0 Additional Test Equipment

The table below lists additional test equipment used during the SAR assessment.

TABLE 9

Equipment Type	Model Number	Serial Number	Calibration Due Date
Power Meter (Agilent)	E4419B	MY45103725	4/19/2011
Power Meter (Agilent)	E4418B	GB40206480	12/7/2010
E-Series Avg. Power Sensor (Agilent)	E9301B	MY41495730	4/13/2011
E-Series Avg. Power Sensor (Agilent)	E9301B	MY41495733	4/13/2011
E-Series Avg. Power Sensor (Agilent)	E9301B	MY50280001	8/3/2011
Power Sensor (Agilent)	8481B	3318A10894	3/5/2011
Signal Generator (Agilent)	E4428C	MY47381119	1/14/2012
Bi-Directional Coupler (NARDA)	3020A	40295	6/3/2012
AMP (Amplifier Research)	10WD1000	28782	CNR
AMP (ComTech PST)	AR88258-10	N1R1A00-1015	CNR
Bi-Directional Coupler (NARDA)	3022	77115	3/12/2012
Dickson Temperature Recorder	TM125	1195889	2/16/2011
Omega Digital Thermometer with J Type TC Probe	HH202A	18800	11/10/2010
Omega Digital Thermometer with J Type TC Probe	HH202A	18801	4/19/2011

TABLE 9 Continued

Equipment Type	Model Number	Serial Number	Calibration Due Date
Omega Digital Thermometer with J Type TC Probe	HH202A	18812	3/24/2011
Agilent PNA-L Network Analyzer	N5230A	MY45001092	6/10/2011
Dielectric Probe Kit (HP)	85070C	US99360076	CNR
Speag Dipole	D900V2	84	3/22/2012

10.0 SAR Measurement System Verification

The SAR measurements were conducted with probe model/serial number ES3DV3/SN3147. The system performance check was conducted daily and within 24 hours prior to testing. DASY output files of the probe/dipole calibration certificates and system performance test results are included in appendices B, C, D respectively.

Dipole validation scans using head tissue equivalent medium are provided in APPENDIX D. The EMS EME lab validated the dipole to the applicable IEEE 1528-2003 system performance targets. Within the same day system validation was performed using FCC body tissue parameters to generate the system performance target values for body at the applicable frequency. The results of the EMS EME system performance validation are provided herein.

10.1 Equivalent Tissue Test Results

Simulated tissue prepared for SAR measurements is measured daily and within 24 hours prior to actual SAR testing to verify that the tissue is within +/- 5% of target parameters at the center of the transmit band. This measurement is done using the applicable equipment indicated in section 9.0. The table below summarizes the measured tissue parameters used for the SAR assessment.

TABLE 10

Frequency (MHz)	Tissue Type	Conductivity Target & Range (S/m)	Dielectric Constant Target & Range	Conductivity Meas. (S/m)	Dielectric Constant Meas.	Tested Date
815.5	FCC Body	0.97 (0.92-1.01)	55.3 (52.5-58.0)	0.96	53.5	9/8/10
				0.97	53.3	9/9/10
815.5	IEEE/ IEC Head	0.90 (0.85-0.94)	41.6 (39.5-43.6)	0.87	41.0	9/3/10
				0.89	41.6	9/5/10
				0.92	42.5	9/8/10
899	FCC Body	1.05 (0.99-1.10)	55.0 (52.3-57.7)	1.07	52.5	9/7/10
				1.06	52.8	9/8/10
				1.07	52.6	9/9/10
				1.07	52.3	9/15/10
899	IEEE/ IEC Head	0.97 (0.92-1.01)	41.5 (39.4-43.5)	0.97	40.2	9/3/10
				0.95	39.7	9/9/10

TABLE 10 Continued

Frequency (MHz)	Tissue Type	Conductivity Target & Range (S/m)	Dielectric Constant Target & Range	Conductivity Meas. (S/m)	Dielectric Constant Meas.	Tested Date
				1.07	52.5	9/7/10
				1.06	52.8	9/8/10
		1.05	55.0	1.08	52.8	9/10/10
900	FCC Body	(0.99-1.10)	(52.3-57.7)	1.06	52.4	9/15/10
				0.97	40.2	9/3/10
	IEEE/ IEC	0.97	41.5	0.98	40.8	9/5/10
900	Head	(0.92-1.01)	(39.4-43.5)	0.95	39.7	9/9/10
		1.06	55.0			
915	FCC Body	(1.00-1.11)	(52.3-57.7)	1.07	52.6	9/8/10
	IEEE/ IEC	0.98	41.5	0.95	39.5	9/9/10
915	Head	(0.93-1.02)	(39.4-43.5)	1.01	41.4	9/10/10

10.2 System Check Test Results

System performance checks were conducted each day during the SAR assessment. The results are normalized to 1W. APPENDIX D explains how the targets were set and includes DASY plots for each day during the SAR assessment. The table below summarizes the daily system check results used for the SAR assessment.

TABLE 11

Probe Serial #	Tissue Type	Probe Cal Date	Dipole Kit / Serial #	Reference SAR @ 1W (W/kg)	System Check Test Results when normalized to 1W (W/kg)	Tested Date
			SPEAG		11.76	9/3/10
	IEEE/ IEC		D900V2		12.72	9/5/10
3147	Head	2/18/2010	/84	11.63+/- 10%	11.36	9/9/10
					11.60	9/7/10
			SPEAG		11.52	9/8/10
			D900V2		11.76	9/10/10
3147	FCC Body	2/18/2010	/84	11.60 +/- 10%	11.56	9/15/10

Note: See APPENDIX D for an explanation of the reference SAR targets stated above.

11.0 Environmental Test Conditions

The EME Laboratory ambient environment is well controlled resulting in very stable simulated tissue temperature and therefore stable dielectric properties. Simulated tissue temperature is measured prior to each scan to insure it is within +/ - 2^{o}C of the temperature at which the dielectric properties were determined. The liquid depth within the phantom used for measurements was at least 15cm. Additional precautions are routinely taken to ensure the stability of the simulated tissue such as covering the phantoms when scans are not actively in process in order to minimize evaporation. The lab environment is continuously monitored. The table below presents the range and average environmental conditions during the SAR tests reported herein:

TABLE 12

	Target	Measured
Ambient Temperature	18 - 25 ˚C	Range: 21.3-25.0˚C Avg. 21.8˚C
Relative Humidity	30 - 70 %	Range: 48.4-71.8% Avg. 54.3%
Tissue Temperature	NA	Range: 19.3-21.0˚C Avg. 20.1˚C

The EME Lab RF environment uses a Spectrum Analyzer to monitor for extraneous large signal RF contaminants that could possibly affect the test results. If such unwanted signals are discovered the SAR scans are repeated.

12.0 DUT Test Methodology

Per FCC KDB648474 BT testing is not required.

a) BT max power (10mW) < 12mW (Pref @ 2.45GHz)
b) Antenna separation distance (3.2cm) is greater than 2.5cm.

12.1 Measurements

SAR measurements were performed using the DASY system described in section 8.0 using coarse and 5x5x7 zoom scan. Elliptical flat and SAM phantoms filled with applicable simulated tissue were used for body, head and face testing.

12.2 DUT Configuration(s)

The DUT is a portable device with iDEN (QPSK, M16-QAM, M64-QAM), MOTOtalk and BT signaling operational at the relevant body, head and face as described in section 6.0 while using the applicable accessories listed in section 7.0.

12.3 Device Positioning Procedures

The positioning of the device for each body location is described below and illustrated in APPENDIX H.

This device includes a full QWERTY keypad that slides out from the backside of the device. Slide opened implies access to the keypad which is not applicable to phone mode next to the left or right ear. Slide closed implies no access to the keypad.

12.3.1 Body

The DUT was positioned in normal use configuration against the phantom with the offered body worn and audio/data cable accessories.

The DUT was positioned with its' front and back sides separated 2.5cm from the phantom with the slide opened and closed. Testing at 2.5cm is done to satisfy the conditions noted in the safety section of the manual.

12.3.2 Head

The DUT was placed against the right and left ears of the SAM phantom in the check touch and tilt positions.

12.3.3 Face

The DUT was positioned with its' front side (slide opened/closed) separated 2.5cm from the phantom.

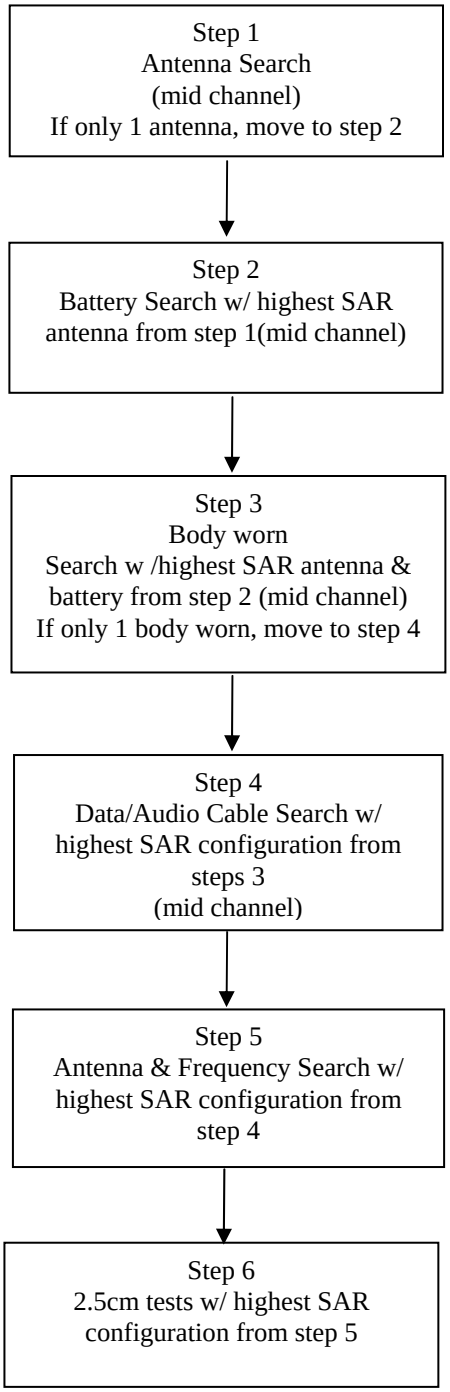
12.4 DUT Test Plan

The modes of operation identified in section 6.0 were used to develop the test plan using the highest duty cycle where applicable. All accessories listed in section 7.0 of this report were evaluated and only those identified for testing were used to develop the SAR test plan for this product.

An Expanded One Factor at A Time (OFAT) method was applied to develop the SAR test plan for this product. The following flowcharts identify the general approach to the test sequences for body, head and face positions.

12.4.1 General Test Flowchart

DUT Body Test Methodology
(General flowchart)



Flowchart Objectives
Body

Step 1 - Determine the highest SAR antenna. If only 1 antenna then move to step 2.

Step 2 – Determine if optional batteries cause the SAR value to increase. All tests in step 2 use the same body worn.

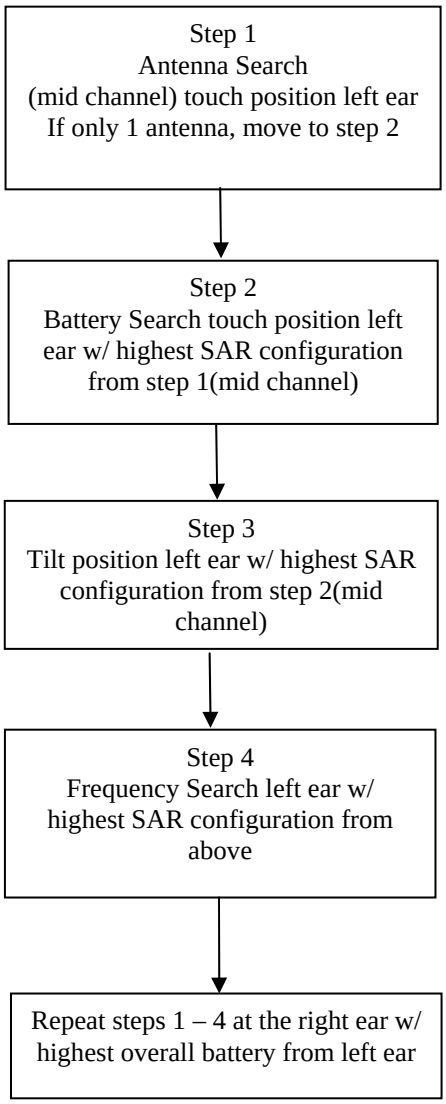
Step 3 - Determine if optional body worn carry case causes the SAR value to increase. All tests in step 3 use the same holster from steps 1 & 2 along with the highest SAR antenna (mid channel) and battery. If only one body worn then move to step 4.

Step 4 – Determine if the optional audio accessory causes the SAR value to increase. All tests in step 4 use the overall highest SAR combination of antenna (mid channel), battery and body worn carry case from the steps above.

Step 5 – Determine if the low & mid channels for the antenna cause the SAR value to increase. All tests in step 5 use the overall highest SAR combination of battery, body worn carry case and audio from the steps above.

Step 6 – Determine if the DUT positioned at 2.5cm from the body, front/back and slide opened/closed, causes the SAR value to increase. All tests in step 6 use the overall highest SAR frequency per antenna, battery and audio from the steps above.

DUT Head Test Methodology
(General flowchart)



Flowchart Objectives
Head

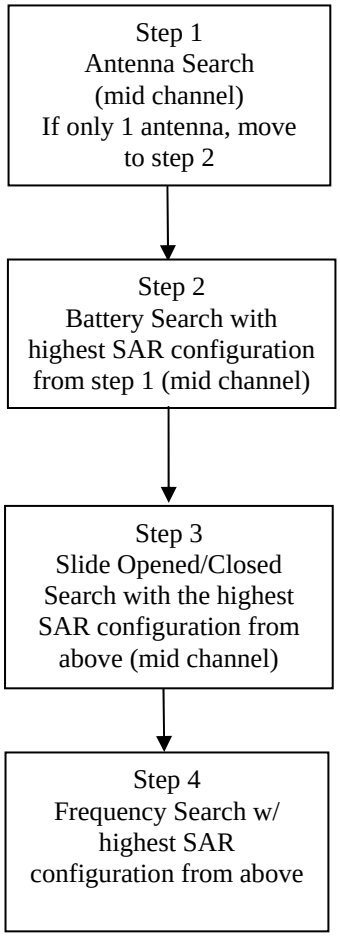
Step 1 – Determine the highest SAR antenna. If only 1 antenna then move to step 2.

Step 2 – Determine if the optional battery causes the SAR value to change.

Step 3 – Determine if the tilt position causes the SAR value to change. All tests in step 3 use the overall highest SAR combination (mid channel) from the steps above.

Step 4 – Determine if the low & high channels cause the SAR value to change. All tests in step 4 use the overall highest SAR combination from the steps above.

DUT Face Test Methodology
(General flowchart)



Flowchart Objectives
Face

Step 1 – Determine the highest SAR antenna. If only 1 antenna then move to step 2.

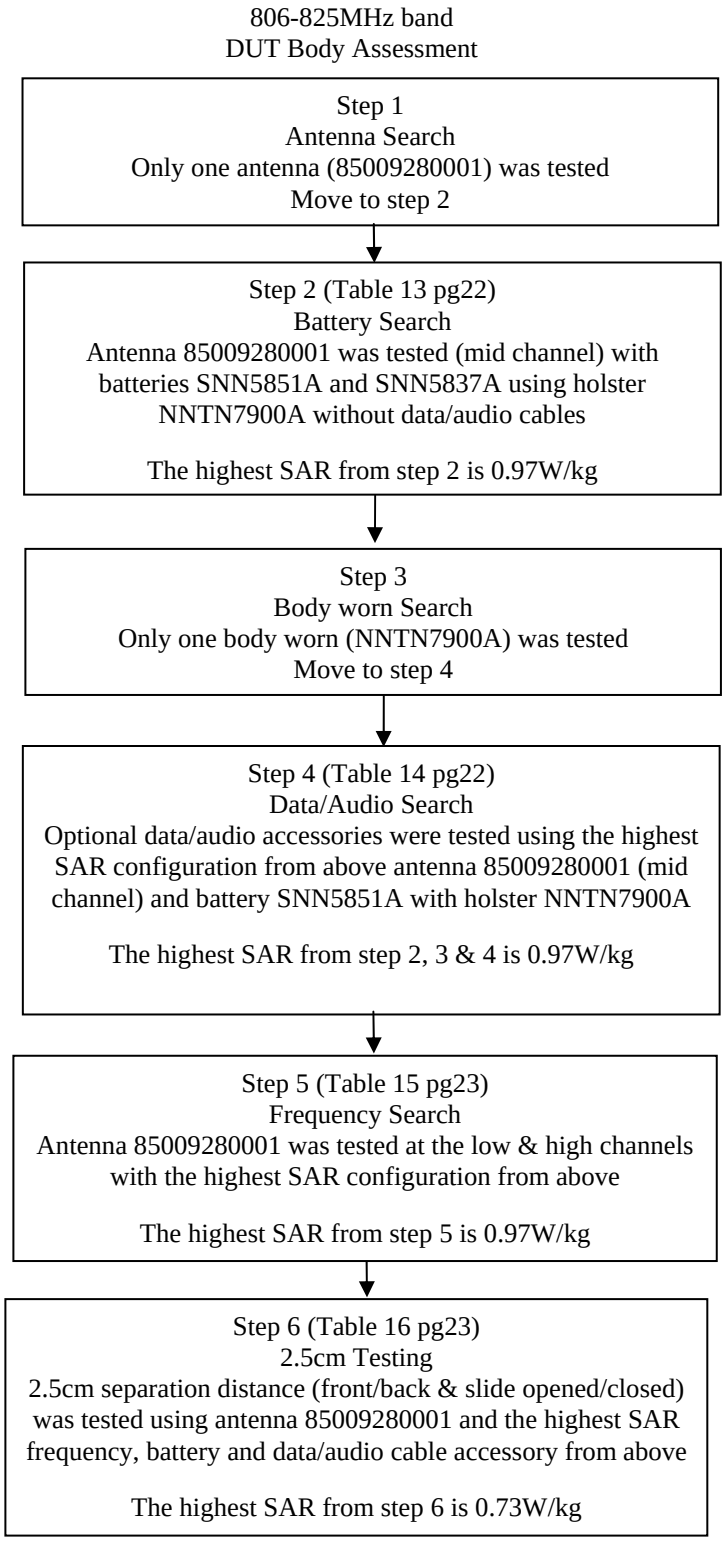
Step 2 – Determine if the optional battery accessory causes the SAR value to change. All tests in step 2 use the overall highest SAR combination (mid channel) from the steps above.

Step 3 – Determine if slide opened or closed causes the SAR value to change. All tests in step 3 use the highest SAR (mid channel) from steps above.

Step 4 – Determine if the low & high channels cause the SAR value to change. All tests in step 4 use the overall highest SAR combination from the steps above.

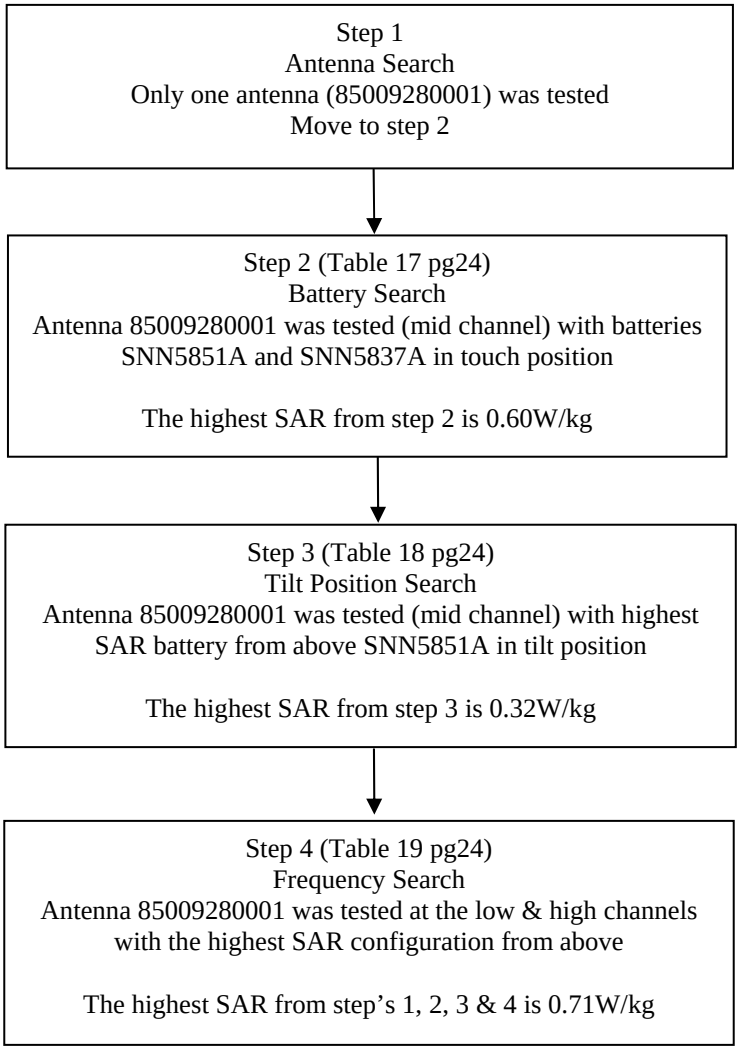
13.0 DUT Test Data

13.1 Test Flowchart Data Summary 806-825MHz



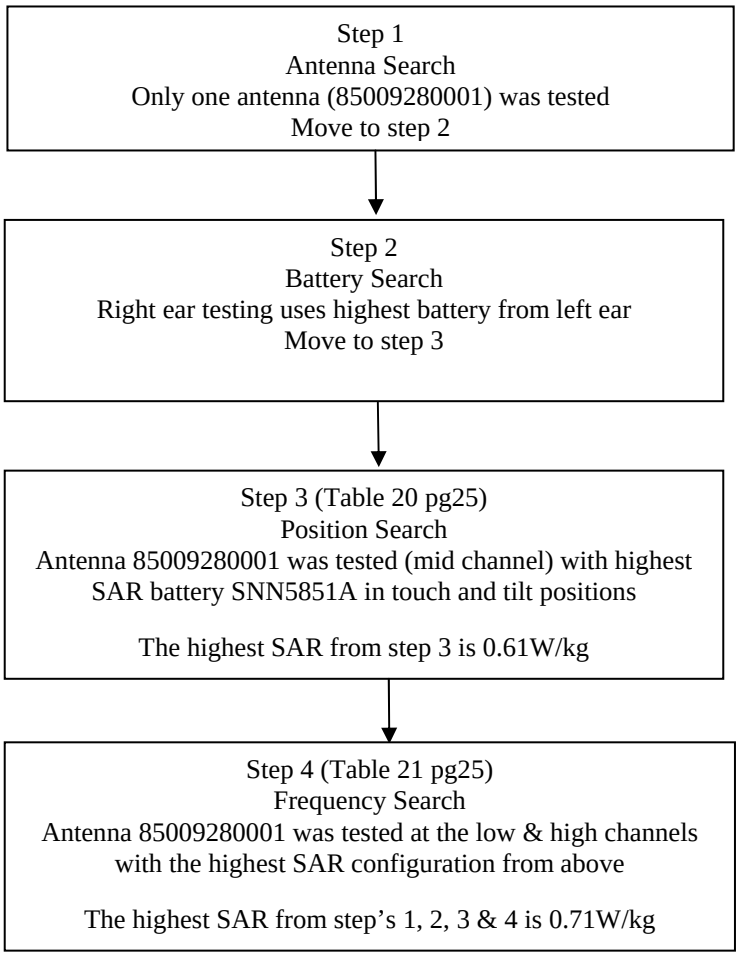
The highest body SAR from above is 0.97W/kg

806-825MHz band
DUT Head Assessment – Left Ear



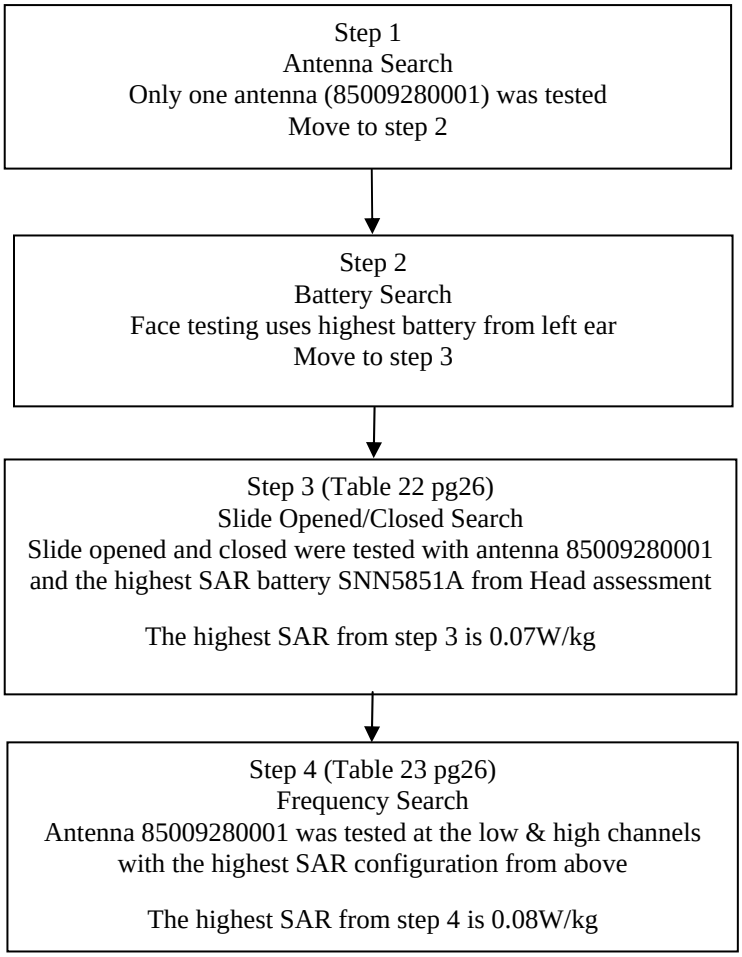
The highest Head SAR – Left Ear from above is 0.71W/kg

806-825MHz band
DUT Head Assessment – Right Ear



The highest Head SAR – Right Ear from above is 0.71W/kg

806-825MHz band
DUT Face Assessment



The highest Face SAR from above is 0.08W/kg

13.2 806-825MHz Band Test Data

Assessments at the Body (81:120 Data mode, 1:3 Phone mode)

Assessment of the offered antenna (Test Flowchart pg 18 step 1); Antenna search is not required because only one antenna is offered for 806-825MHz bands. Move to step 2.

Assessment of the offered batteries (Test Flowchart pg 18 step 2); The optional batteries were tested. These tests were conducted at mid channel using antenna (85009280001) with body worn holster (NNTN7900A) and without a data cable. The highest SAR result from the table below is provided in APPENDIX F Section 1.0 – 806-825MHz Band Assessment of the offered batteries.

TABLE 13

806-825MHz Band Assessments at Body (81:120 data mode) – Assessment of offered batteries												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
CM-Ab-100908-16 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5851A w/ NTN2597XXXA	Against phantom	NNTN7900A holster	None	0.632	-0.337	0.877	0.643	0.97	0.71
CM-Ab-100908-17 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5837A w/ NTN3000XXXA	Against phantom	NNTN7900A holster	None	0.634	-0.278	0.847	0.613	0.92	0.67

Assessment of the offered body worn accessory (Test Flowchart pg 18 step 3); Body worn accessory search is not required because only one body worn is offered. Move to step 4.

Assessment of the offered data/audio cable accessories(Test Flowchart pg 18 step 4); The optional data/audio cables were tested in their applicable modes (81:120, 1:3) at mid channel using highest configuration antenna (85009280001), battery (SNN5851A) and body worn holster (NNTN7900A). The highest SAR result from the table below is provided in APPENDIX F Section 2.0 - 806-825MHz Band Assessment of the offered data/audio cables.

TABLE 14

806-825MHz Band Assessments at Body (81:120 data mode) – Assessment of offered data cable												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
CM-Ab-100908-18 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5851A w/ NTN2597XXXA	Against phantom	NNTN7900A holster	SKN6238A (USB Cable)	0.628	-0.151	0.837	0.608	0.89	0.65
806-825MHz Band Assessments at Body (1:3 phone mode) – Assessment of offered audio accessories												
CM-Ab-100908-19 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5851A w/ NTN2597XXXA	Against phantom	NNTN7900A holster	SYN1458A (Headset)	0.625	0.060	0.376	0.277	0.39	0.28
CM-Ab-100908-20 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5851A w/ NTN2597XXXA	Against phantom	NNTN7900A holster	SYN1472A (Headset)	0.630	0.024	0.321	0.236	0.33	0.24
CM-Ab-100908-21 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5851A w/ NTN2597XXXA	Against phantom	NNTN7900A holster	SYN2356A (Headset)	0.627	-0.114	0.198	0.145	0.21	0.15

Assessments at the Body (81:120 Data mode)

Assessment of frequency band edges of the offered antenna (Test Flowchart pg 18 step 5); The frequency band edges (low and high) were tested using the highest configuration antenna (85009280001), battery (SNN5851A), body worn holster (NNTN7900A) without a data cable. The highest SAR result from the table below is provided in APPENDIX F Section 3.0 - 806-825MHz Band Assessment of frequency band edges of the offered antenna.

TABLE 15

806-825MHz Band Assessments at Body (81:120 data mode) -Assessment of frequency band edges of the offered antenna												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
CM-Ab-100908-22 / 364VLQ9QDT	85009280001 (internal)	806.0125	SNN5851A w/ NTN2597XX XA	Against phantom	NNTN7900A holster	None	0.652	-0.221	0.798	0.599	0.85	0.64
CM-Ab-100908-23 / 364VLQ9QDT	85009280001 (internal)	824.9875	SNN5851A w/ NTN2597XX XA	Against phantom	NNTN7900A holster	None	0.637	-0.160	0.920	0.677	0.97	0.71

Assessment without body worn accessory at 2.5cm (Test Flowchart pg 18 step 6); The highest SAR test configuration (antenna 85009280001, frequency 824.9875MHz, battery SNN5851A and without data cable) was selected to assess this device at 2.5cm with the front/back and slide opened/closed of the device facing the phantom. The highest SAR result from the table below is provided in APPENDIX F Section 4.0 - 806-825MHz Band Assessment without body worn accessory at 2.5cm.

Note: The 2.5cm assessments included the following configurations:

- Back of the device facing the phantom, positioned at 2.5cm from the phantom surface.
- Front of the device facing the phantom, positioned at 2.5cm from the phantom surface.

TABLE 16

806-825MHz Band Assessments at Body (81:120 data mode) - Assessment at 2.5cm												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
CM-Ab-100908-24 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5851A w/ NTN2597XX XA	Back of DUT @ 2.5cm (slide closed)	None	None	0.630	-0.252	0.495	0.359	0.54	0.39
CM-Ab-100908-25 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5851A w/ NTN2597XX XA	Back of DUT @ 2.5cm (slide open)	None	None	0.632	-0.313	0.531	0.388	0.58	0.43
CM-Ab-100908-26 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5851A w/ NTN2597XX XA	Front of DUT @ 2.5cm (slide closed)	None	None	0.637	-0.246	0.680	0.479	0.73	0.52
JsT-Ab-100909-13 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5851A w/ NTN2597XX XA	Front of DUT @ 2.5cm (slide open)	None	None	0.622	-0.290	0.336	0.250	0.37	0.28

Assessments at the Head Left Ear (1:3 Phone mode)

Assessment of the offered antenna (Test Flowchart pg 19 step 1); Antenna search is not required because only one antenna is offered for 806-825MHz bands. Move to step 2.

Assessment of the offered batteries (Test Flowchart pg 19 step 2); The optional batteries were tested. These tests were conducted at mid channel using antenna (85009280001) at the left ear touch position. The highest SAR result from the table below is provided in APPENDIX F Section 5.0 – 806-825MHz Band Assessment of the offered batteries.

TABLE 17

806-825MHz Band Assessments at LEAR (1:3 phone mode) – Assessment of offered batteries												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
CM-Lear-100903-12 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5851A w/ NTN2597XXXA	Cheek Touch	None	None	0.620	-0.146	0.558	0.397	0.60	0.42
CM-Lear-100903-11 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5837A w/ NTN3000XXXA	Cheek Touch	None	None	0.619	-0.198	0.519	0.360	0.56	0.39

Assessment of the Position (Test Flowchart pg 19 step 3); The tilt position was tested at mid channel using highest configuration antenna (85009280001) and battery (SNN5851A). The highest SAR result from the table below is provided in APPENDIX F Section 6.0 – 806-825MHz Band Assessment of the tilt position.

TABLE 18

806-825MHz Band Assessments at LEAR (1:3 phone mode) – Assessment of tilt position												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
CM-Lear-100903-13 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5851A w/ NTN2597XXXA	15° Tilt	None	None	0.618	-0.192	0.294	0.218	0.32	0.24

Assessment of frequency band edges of the offered antenna (Test Flowchart pg 19 step 4); The frequency band edges (low and high) were tested using the highest configuration antenna (85009280001) and battery (SNN5851A). The highest SAR result from the table below is provided in APPENDIX F Section 7.0 - 806-825MHz Band Assessment of frequency band edges of the offered antenna.

TABLE 19

806-825MHz Band Assessments at LEAR (1:3 phone mode) -Assessment of frequency band edges of the offered antenna												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
CM-Lear-100903-14 / 364VLQ9QDT	85009280001 (internal)	806.0125	SNN5851A w/ NTN2597XXXA	Cheek Touch	None	None	0.636	-0.136	0.492	0.352	0.51	0.37
CM-Lear-100903-15 / 364VLQ9QDT	85009280001 (internal)	824.9875	SNN5851A w/ NTN2597XXXA	Cheek Touch	None	None	0.617	-0.074	0.675	0.473	0.71	0.50

Assessments at the Head Right Ear (1:3 Phone mode)

Assessment of the offered antenna (Test Flowchart pg 20 step 1); Antenna search is not required because only one antenna is offered for 806-825MHz bands. Move to step 2.

Assessment of the offered batteries (Test Flowchart pg 20 step 2); The highest battery from the left ear was used for right ear testing and therefore a battery search is not required. Move to step 3.

Assessment of the positions (Test Flowchart pg 20 step 3); The touch and tilt positions were tested using the highest battery (SNN5851A) from the left ear. These tests were conducted at mid channel using antenna (85009280001). The highest SAR result from the table below is provided in APPENDIX F Section 8.0 – 806-825MHz Band Assessment of the touch and tilt positions.

TABLE 20

806-825MHz Band Assessments at REAR (1:3 phone mode) – Assessment of touch and tilt position												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
CM-Rear-100903-20 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5851A w/ NTN2597XXXA	Cheek Touch	None	None	0.617	-0.159	0.567	0.402	0.61	0.43
MeC-Rear-100905-02 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5851A w/ NTN2597XXXA	15˚ Tilt	None	None	0.620	-0.226	0.443	0.325	0.48	0.35

Assessment of frequency band edges of the offered antenna (Test Flowchart pg 20 step 4); The frequency band edges (low and high) were tested using the highest configuration antenna (85009280001) and battery (SNN5851A). The highest SAR result from the table below is provided in APPENDIX F Section 9.0 - 806-825MHz Band Assessment of frequency band edges of the offered antenna.

TABLE 21

806-825MHz Band Assessments at REAR (1:3 phone mode) -Assessment of frequency band edges of the offered antenna												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
MeC-Rear-100905-03 / 364VLQ9QDT	85009280001 (internal)	806.0125	SNN5851A w/ NTN2597XXXA	Cheek Touch	None	None	0.639	-0.114	0.494	0.348	0.51	0.36
MeC-Rear-100905-04 / 364VLQ9QDT	85009280001 (internal)	824.9875	SNN5851A w/ NTN2597XXXA	Cheek Touch	None	None	0.619	0.129	0.691	0.487	0.71	0.50

Assessments at the Face (1:6 Dispatch mode)

Assessment of the offered antenna (Test Flowchart pg 21 step 1); Antenna search is not required because only one antenna is offered for 806-825MHz bands. Move to step 2.

Assessment of the offered batteries (Test Flowchart pg 21 step 2); The highest battery from the left ear was used for face testing and therefore a battery search is not required. Move to step 3.

Assessment of the slide opened and closed (Test Flowchart pg 21 step 3); The DUT was positioned with its slide opened and closed. These tests were conducted at mid channel using antenna (85009280001) and with the highest battery (SNN5851A) from the left ear. The front of the radio was positioned at 2.5cm from the phantom. The highest SAR result from the table below is provided in APPENDIX F Section 10.0 - 806-825MHz Band Assessment of the slide opened and closed.

TABLE 22

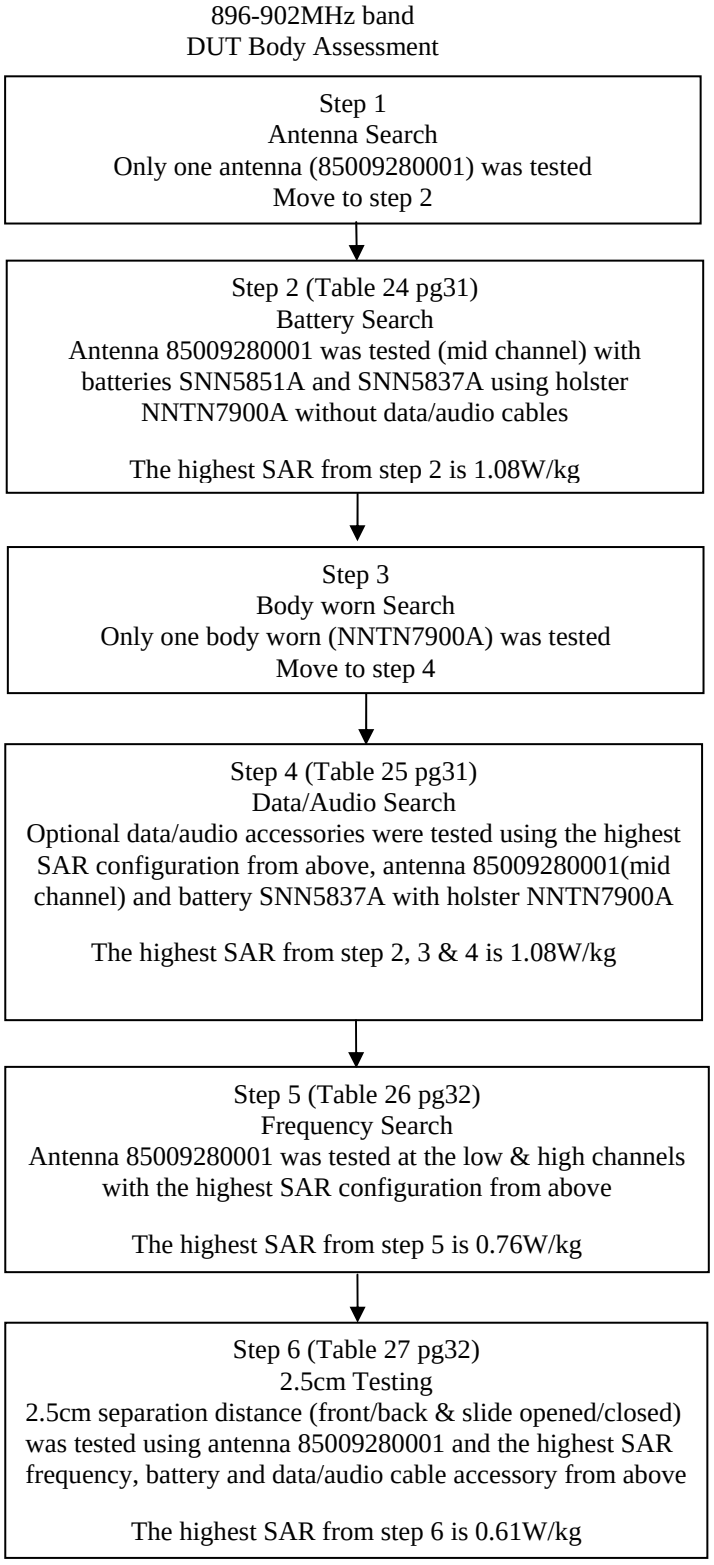
806-825MHz Band Assessments at Face (1:6 dispatch mode) – Assessment of offered antenna with slide opened and closed												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
CM-Face-100908-27 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5851A w/ NTN2597XXXA	Front 2.5cm	None, slide opened	None	0.618	0.146	0.115	0.086	0.06	0.04
MeC-Face-100905-08 / 364VLQ9QDT	85009280001 (internal)	815.5125	SNN5851A w/ NTN2597XXXA	Front 2.5cm	None, slide closed	None	0.620	-0.067	0.139	0.101	0.07	0.05

Assessment of frequency band edges of the offered antenna (Test Flowchart pg 21 step 4); The frequency band edges (low and high) were tested using the highest configuration antenna (85009280001) and battery (SNN5851A) and with slide closed. The highest SAR result from the table below is provided in APPENDIX F Section 11.0 - 806-825MHz Band Assessment of frequency band edges of the offered antenna.

TABLE 23

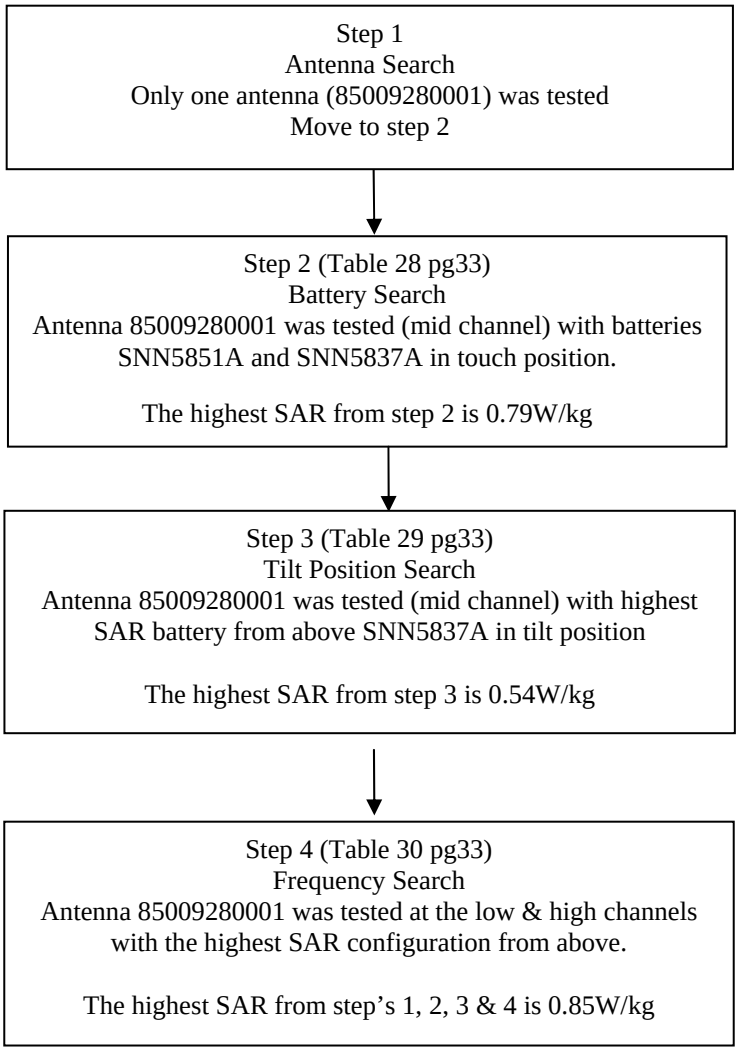
806-825MHz Band Assessments at Face (1:6 dispatch mode) – Assessment of frequency band edges of the offered antenna												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
MeC-Face-100905-09 / 364VLQ9QDT	85009280001 (internal)	806.0125	SNN5851A w/ NTN2597XXXA	Front 2.5cm	None, slide closed	None	0.632	-0.038	0.128	0.093	0.07	0.05
MeC-Face-100905-10 / 364VLQ9QDT	85009280001 (internal)	824.9875	SNN5851A w/ NTN2597XXXA	Front 2.5cm	None, slide closed	None	0.615	0.120	0.152	0.111	0.08	0.06

13.3 Test Flowchart Data Summary 896-902MHz



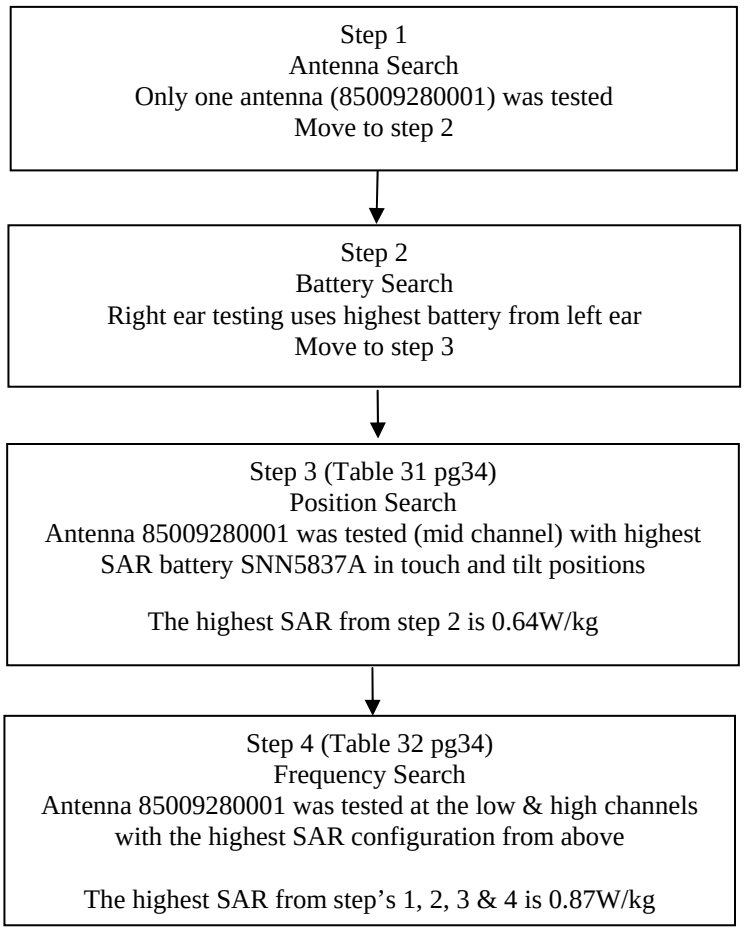
The highest body SAR from above is 1.08W/kg

896-902MHz band
DUT Head Left Ear Assessment



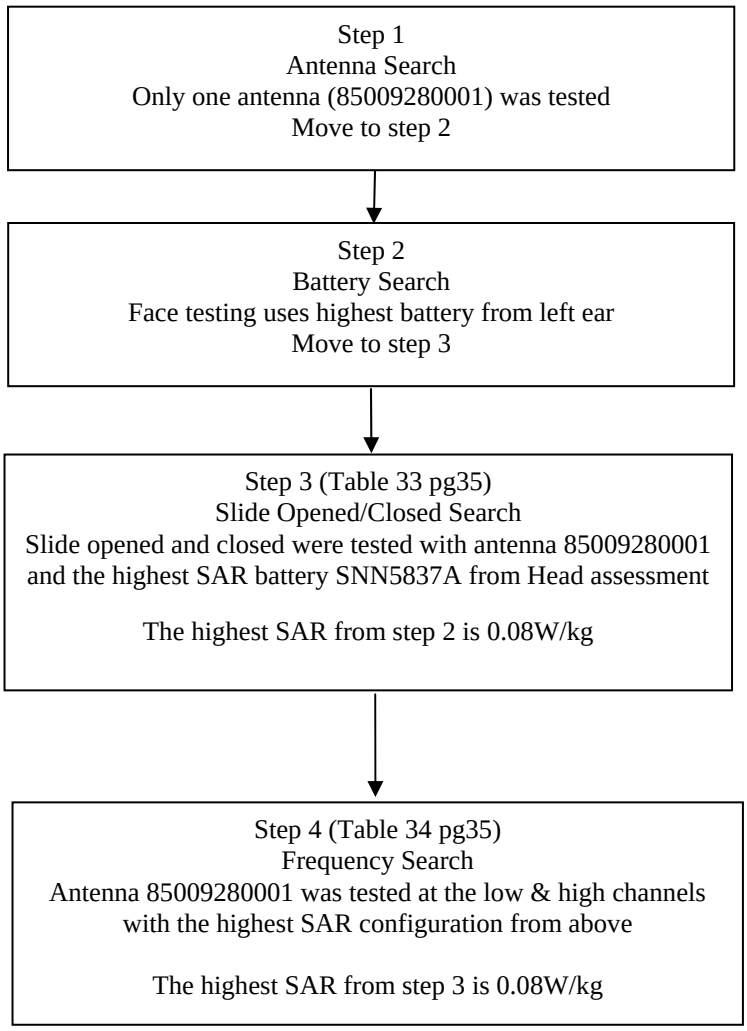
The highest Head Left Ear SAR from above is 0.85W/kg

896-902MHz band
DUT Head Right Ear Assessment



The highest Head SAR – Right Ear from above is 0.87W/kg

896-902MHz band
DUT Face Assessment



The highest Face SAR from above is 0.08W/kg

13.4 896-902MHz Band Test Data

Assessments at the Body (81:120 data mode)

Assessment of the offered antenna (Test Flowchart pg 27 step 1); Antenna search is not required because only one antenna is offered for 896-902MHz bands. Move to step 2.

Assessment of the offered batteries (Test Flowchart pg 27 step 2); The optional batteries were tested. These tests were conducted at mid channel using antenna (85009280001) with body worn holster (NNTN7900A) and without a data cable. The highest SAR result from the table below is provided in APPENDIX F Section 12.0 – 896-902MHz Band Assessment of the offered batteries.

TABLE 24

896-902MHz Band Assessments at Body (81:120 data mode) – Assessment of offered batteries												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
CM-Ab-100907-16 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5851A w/ NTN2597XXXA	Against phantom	NNTN7900A holster	None	0.640	-0.360	0.902	0.646	0.99	0.71
CM-Ab-100907-17 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	Against phantom	NNTN7900A holster	None	0.651	-0.436	0.966	0.695	1.08	0.78

Assessment of the offered body worn accessory (Test Flowchart pg 27 step 3); Body worn accessory search is not required because only one body worn is offered. Move to step 4.

Assessment of the offered data/audio cable accessories(Test Flowchart pg 27 step 4); The optional data/audio cable were tested in their applicable modes (81:120, 1:3) at mid channel using highest configuration antenna (85009280001), battery (SNN5837A) and body worn holster (NNTN7900A). The highest SAR result from the table below is provided in APPENDIX F Section 13.0 - 896-902MHz Band Assessment of the offered data/audio cables.

TABLE 25

896-902MHz Band Assessments at Body (81:120 data mode) – Assessment of offered data cable												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
JsT-Ab-100915-03 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	Against phantom	NNTN7900A holster	SKN6238A (USB Cable)	0.645	-0.243	0.580	0.424	0.62	0.45
896-902MHz Band Assessments at Body (1:3 phone mode) – Assessment of offered audio accessories												
CM-Ab-100907-19 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	Against phantom	NNTN7900A holster	SYN1458A (Headset)	0.659	-0.080	0.256	0.183	0.26	0.19
CM-Ab-100907-20 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	Against phantom	NNTN7900A holster	SYN1472A (Headset)	0.660	-0.174	0.353	0.256	0.37	0.27
CM-Ab-100907-21 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	Against phantom	NNTN7900A holster	SYN2356A (Headset)	0.659	0.034	0.211	0.151	0.21	0.15

Assessments at the Body (81:120 data mode)

Assessment of frequency band edges of the offered antenna (Test Flowchart pg 27 step 5); The frequency band edges (low and high) were tested using the highest configuration antenna (85009280001), battery (SNN5837A), body worn holster (NNTN7900A) without a data cable. The highest SAR result from the table below is provided in APPENDIX F Section 14.0 - 896-902MHz Band Assessment of frequency band edges of the offered antenna.

TABLE 26

896-902MHz Band Assessments at Body (81:120 data mode) -Assessment of frequency band edges of the offered antenna												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
CM-Ab-100907-22 / 364VLQ9QDT	85009280001 (internal)	896.01875	SNN5837A w/ NTN3000XXXA	Against phantom	NNTN7900A holster	None	0.658	-0.093	0.680	0.495	0.70	0.51
CM-Ab-100907-23 / 364VLQ9QDT	85009280001 (internal)	901.98125	SNN5837A w/ NTN3000XXXA	Against phantom	NNTN7900A holster	None	0.669	-0.244	0.706	0.511	0.76	0.55

Assessment without body worn accessory at 2.5cm (Test Flowchart pg 27 step 6); The highest SAR test configuration (antenna 85009280001, frequency 898.99375MHz, battery SNN5837A and without data cable) was selected to assess this device at 2.5cm with the front/back and slide opened/closed of the device facing the phantom. The highest SAR result from the table below is provided in APPENDIX F Section 15.0 - 896-902MHz Band Assessment without body worn accessory at 2.5cm.

Note: The 2.5cm assessments included the following configurations:

- Back of the device facing the phantom, positioned at 2.5cm from the phantom surface.
- Front of the device facing the phantom, positioned at 2.5cm from the phantom surface.

TABLE 27

896-902MHz Band Assessments at Body (81:120 data mode) - Assessment at 2.5cm												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
CM-Ab-100907-24 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	Back of DUT @ 2.5cm (slide closed)	None	None	0.650	-0.341	0.561	0.411	0.61	0.45
CM-Ab-100907-25 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	Back of DUT @ 2.5cm (slide open)	None	None	0.647	-0.457	0.368	0.276	0.41	0.31
JsT-Ab-100908-02 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	Front of DUT @ 2.5cm (slide closed)	None	None	0.657	-0.253	0.462	0.326	0.50	0.35
JsT-Ab-100908-03 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	Front of DUT @ 2.5cm (slide open)	None	None	0.652	-0.307	0.337	0.249	0.37	0.27

Assessments at the Head Left Ear (1:3 Phone mode)

Assessment of the offered antenna (Test Flowchart pg 28 step 1); Antenna search is not required because only one antenna is offered for 896-902MHz bands. Move to step 2.

Assessment of the offered batteries (Test Flowchart pg 28 step 2); The optional batteries were tested. These tests were conducted at mid channel using antenna (85009280001) at the left ear touch position. The highest SAR result from the table below is provided in APPENDIX F Section 16.0 – 896-902MHz Band Assessment of the offered batteries.

TABLE 28

896-902MHz Band Assessments at LEAR (1:3 phone mode) – Assessment of offered batteries												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
JsT-Lear-100903-06 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5851A w/ NTN2597XXXA	Cheek Touch	None	None	0.635	-0.191	0.740	0.511	0.78	0.54
JsT-Lear-100903-07 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	Cheek Touch	None	None	0.630	-0.424	0.702	0.481	0.79	0.54

Assessment of the Position (Test Flowchart pg 28 step 3); The tilt position was tested at mid channel using highest configuration antenna (85009280001) and battery (SNN5837A). The highest SAR result from the table below is provided in APPENDIX F Section 17.0 – 896-902MHz Band Assessment of the tilt position.

TABLE 29

896-902MHz Band Assessments at LEAR (1:3 phone mode) – Assessment of tilt position												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
JsT-Lear-100903-08 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	15˚ Tilt	None	None	0.635	-0.290	0.503	0.364	0.54	0.39

Assessment of frequency band edges of the offered antenna (Test Flowchart pg 28 step 4); The frequency band edges (low and high) were tested using the highest configuration antenna (85009280001) and battery (SNN5837A). The highest SAR result from the table below is provided in APPENDIX F Section 18.0 - 896-902MHz Band Assessment of frequency band edges of the offered antenna.

TABLE 30

896-902MHz Band Assessments at LEAR (1:3 phone mode) -Assessment of frequency band edges of the offered antenna												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
JsT-Lear-100903-09 / 364VLQ9QDT	85009280001 (internal)	896.01875	SNN5837A w/ NTN3000XXXA	Cheek Touch	None	None	0.632	-0.321	0.776	0.532	0.85	0.58
JsT-Lear-100903-10 / 364VLQ9QDT	85009280001 (internal)	901.98125	SNN5837A w/ NTN3000XXXA	Cheek Touch	None	None	0.640	-0.294	0.708	0.481	0.76	0.51

Assessments at the Head Right Ear (1:3 Phone mode)

Assessment of the offered antenna (Test Flowchart pg 29 step 1); Antenna search is not required because only one antenna is offered for 896-902MHz bands. Move to step 2.

Assessment of the offered batteries (Test Flowchart pg 29 step 2); The highest battery from the left ear was used for right ear testing and therefore a battery search is not required. Move to step 3.

Assessment of the positions (Test Flowchart pg 29 step 3); The touch and tilt positions were tested using the highest battery (SNN5837A) from the left ear. These tests were conducted at mid channel using antenna (85009280001). The highest SAR result from the table below is provided in APPENDIX F Section 19.0 – 896-902MHz Band Assessment of the touch and tilt positions.

TABLE 31

896-902MHz Band Assessments at REAR (1:3 phone mode) – Assessment of touch and tilt position												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
CM-Rear-100903-16 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	Cheek Touch	None	None	0.638	-0.120	0.616	0.424	0.64	0.44
CM-Rear-100903-17 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	15˚ Tilt	None	None	0.639	-0.285	0.522	0.374	0.56	0.40

Assessment of frequency band edges of the offered antenna (Test Flowchart pg 29 step 4); The frequency band edges (low and high) were tested using the highest configuration antenna (85009280001) and battery (SNN5837A). The highest SAR result from the table below is provided in APPENDIX F Section 20.0 - 896-902MHz Band Assessment of frequency band edges of the offered antenna.

TABLE 32

896-902MHz Band Assessments at REAR (1:3 phone mode) -Assessment of frequency band edges of the offered antenna												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
CM-Rear-100903-18 / 364VLQ9QDT	85009280001 (internal)	896.01875	SNN5837A w/ NTN3000XXXA	Cheek Touch	None	None	0.640	-0.289	0.811	0.557	0.87	0.60
CM-Rear-100903-19 / 364VLQ9QDT	85009280001 (internal)	901.98125	SNN5837A w/ NTN3000XXXA	Cheek Touch	None	None	0.643	-0.269	0.722	0.499	0.77	0.53

Assessments at the Face (1:6 Dispatch mode)

Assessment of the offered antenna (Test Flowchart pg 30 step 1); Antenna search is not required because only one antenna is offered for 896-902MHz bands. Move to step 2.

Assessment of the offered batteries (Test Flowchart pg 30 step 2); The highest battery from the left ear was used for face testing and therefore a battery search is not required. Move to step3.

Assessment of the slide opened and closed (Test Flowchart pg 30 step 3); The DUT was positioned with its slide opened and closed. These tests were conducted at mid channel using antenna (85009280001) and with the highest battery (SNN5837A) from the left ear. The front of the radio was positioned at 2.5cm from the phantom. The highest SAR result from the table below is provided in APPENDIX F Section 21.0 - 896-902MHz Band Assessment of the slide opened and closed.

TABLE 33

896-902MHz Band Assessments at Face (1:6 dispatch mode) – Assessment of offered antenna with slide opened and closed												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
JsT-Face-100909-03 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	Front 2.5cm	None, slide opened	None	0.630	-0.130	0.106	0.076	0.06	0.04
JsT-Face-100909-04 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	Front 2.5cm	None, slide closed	None	0.632	-0.063	0.148	0.105	0.08	0.05

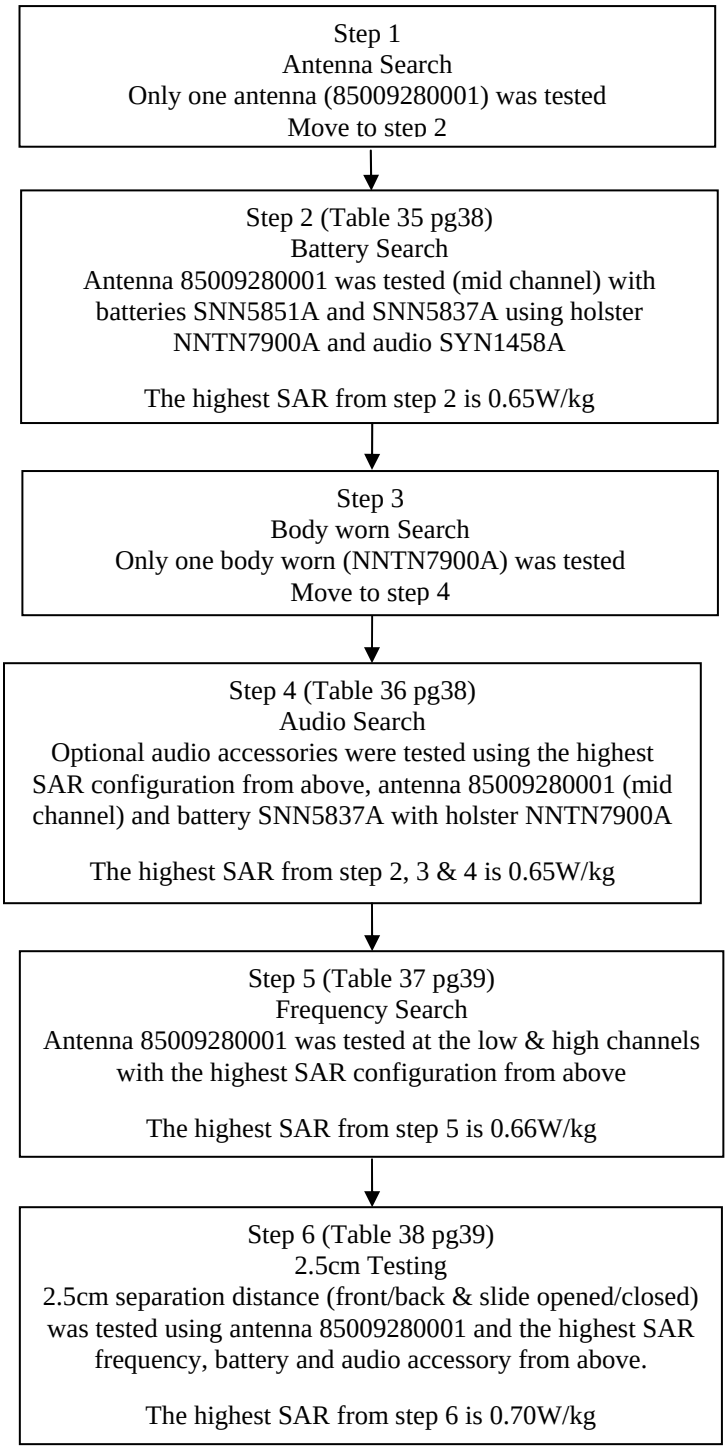
Assessment of frequency band edges of the offered antenna (Test Flowchart pg 30 step 4); The frequency band edges (low and high) were tested using the highest configuration antenna (85009280001) and battery (SNN5837A) and with slide closed. The highest SAR result from the table below is provided in APPENDIX F Section 22.0 - 896-902MHz Band Assessment of frequency band edges of the offered antenna.

TABLE 34

896-902MHz Band Assessments at Face (1:6 dispatch mode) – Assessment of frequency band edges of the offered antenna												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
JsT-Face-100909-05 / 364VLQ9QDT	85009280001 (internal)	896.01875	SNN5837A w/ NTN3000XXXA	Front 2.5cm	None, slide closed	None	0.627	-0.216	0.151	0.109	0.08	0.06
JsT-Face-100909-06 / 364VLQ9QDT	85009280001 (internal)	901.98125	SNN5837A w/ NTN3000XXXA	Front 2.5cm	None, slide closed	None	0.634	-0.118	0.137	0.097	0.07	0.05

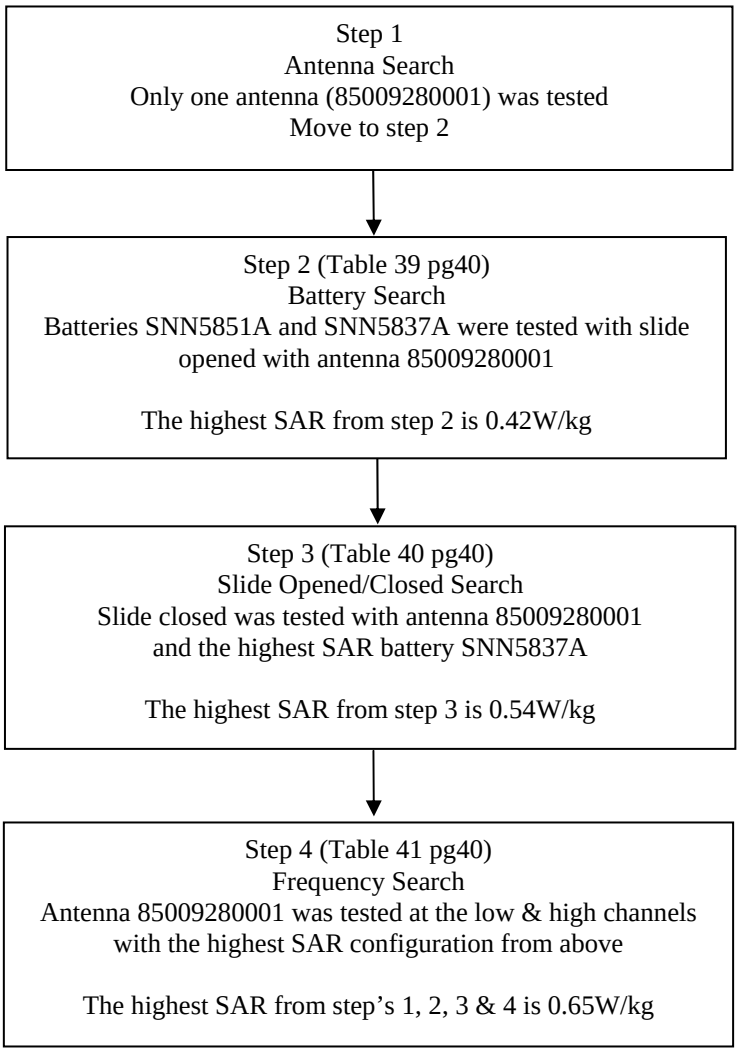
13.5 MOTOtalk Test Flowchart Data Summary 902-928MHz

MOTOtalk Band (902-928MHz)
DUT Body Test Methodology



The highest MOTOtalk body SAR from above is 0.70W/kg

MOTOtalk Band (902-928MHz)
DUT Face Test Methodology



The highest MOTOtalk Face SAR from above is 0.69W/kg

13.6 MOTOtalk Test Data

Assessments at the Body (114:120 mode)

Assessment of the offered antenna (MOTOtalk Test Flowchart pg 36 step 1); Antenna search is not required because only one antenna is offered for 902-928MHz bands. Move to step 2.

Assessment of the offered batteries (MOTOtalk Test Flowchart pg 36 step 2); The optional batteries were tested. These tests were conducted at mid channel using antenna (85009280001), body worn holster (NNTN7900A) and audio cable (SYN1458A). The highest SAR result from the table below is provided in APPENDIX F Section 23.0 - MOTOtalk Assessment of the offered batteries.

TABLE 35

902-928MHz Band Assessments at Body (114:120 mode) – Assessment of offered batteries												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
JsT-Ab-100908-04 / 364VLQ9QDT	85009280001 (internal)	915.525	SNN5851A w/ NTN2597XX XA	Against phantom	NNTN7900A holster	SYN1458A (Headset)	0.781	0.034	1.130	0.811	0.58	0.42
JsT-Ab-100908-05 / 364VLQ9QDT	85009280001 (internal)	915.525	SNN5837A w/ NTN3000XX XA	Against phantom	NNTN7900A holster	SYN1458A (Headset)	0.775	0.114	1.250	0.896	0.65	0.46

Assessment of the offered body worn accessory (MOTOtalk Test Flowchart pg 36 step 3); Body worn accessory search is not required because only one body worn is offered. Move to step 4.

Assessment of the offered audio accessory (MOTOtalk Test Flowchart pg 36 step 4); The optional audio cable accessories were tested at mid channel using the highest configuration antenna (85009280001), battery (SNN5837A) and body worn holster (NNTN7900A). The highest SAR result from the table below is provided in APPENDIX F Section 24.0 - MOTOtalk Assessment of the offered audio accessory.

TABLE 36

902-928MHz Band Assessments at Body (114:120 mode) – Assessment of offered audio accessories												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
JsT-Ab-100908-06 / 364VLQ9QDT	85009280001 (internal)	915.525	SNN5837A w/ NTN3000XX XA	Against phantom	NNTN7900A holster	SYN1472A (Headset)	0.772	0.154	1.100	0.792	0.57	0.41
JsT-Ab-100908-07 / 364VLQ9QDT	85009280001 (internal)	915.525	SNN5837A w/ NTN3000XX XA	Against phantom	NNTN7900A holster	SYN2356A (Headset)	0.778	0.273	0.926	0.665	0.48	0.34

Assessments at the Body (114:120 mode)

Assessment of frequency band edges of the offered antenna (MOTOtalk Test Flowchart pg 36 step 5); The frequency band edges (low and high) were tested using the highest configuration antenna (85009280001), battery (SNN5837A), body worn holster (NNTN7900A) and audio (SYN1458A). The highest SAR result from the table below is provided in APPENDIX F Section 25.0 - MOTOtalk Assessment of frequency band edges of the offered antenna.

TABLE 37

902-928MHz Band Assessments at Body (114:120 mode) -Assessment of frequency band edges of the offered antenna												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
JsT-Ab-100908-08 / 364VLQ9QDT	85009280001 (internal)	902.525	SNN5837A w/ NTN3000XX XA	Against phantom	NNTN7900A holster	SYN1458A (Headset)	0.770	0.110	1.270	0.915	0.66	0.48
JsT-Ab-100908-09 / 364VLQ9QDT	85009280001 (internal)	927.475	SNN5837A w/ NTN3000XX XA	Against phantom	NNTN7900A holster	SYN1458A (Headset)	0.785	0.130	1.030	0.742	0.52	0.38

Assessment without body worn accessory at 2.5cm (MOTOtalk Test Flowchart pg 36 step 6); The highest SAR test configuration (antenna 85009280001, frequency 902.525MHz, battery SNN5837A and audio SYN1458A) was selected to assess this device at 2.5cm with the front/back and slide opened/closed of the device facing the phantom. The highest SAR result from the table below is provided in APPENDIX F Section 26.0 - MOTOtalk Assessment without body worn accessory at 2.5cm.

Note: The 2.5cm assessments included the following configurations:

- Back of the device facing the phantom, positioned at 2.5cm from the phantom surface.
- Front of the device facing the phantom, positioned at 2.5cm from the phantom surface.

TABLE 38

902-928MHz Band Assessments at Body (114:120 mode) - Assessment at 2.5cm												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
JsT-Ab-100908-10 / 364VLQ9QDT	85009280001 (internal)	902.525	SNN5837A w/ NTN3000XX XA	Back of DUT @ 2.5cm (slide closed)	None	SYN1458A (Headset)	0.778	0.027	1.370	0.990	0.70	0.51
JsT-Ab-100908-12 / 364VLQ9QDT	85009280001 (internal)	902.525	SNN5837A w/ NTN3000XX XA	Back of DUT @ 2.5cm (slide open)	None	SYN1458A (Headset)	0.774	-0.020	1.180	0.855	0.61	0.44
JsT-Ab-100908-11 / 364VLQ9QDT	85009280001 (internal)	902.525	SNN5837A w/ NTN3000XX XA	Front of DUT @ 2.5cm (slide closed)	None	SYN1458A (Headset)	0.770	0.096	0.911	0.660	0.47	0.34
JsT-Ab-100908-13 / 364VLQ9QDT	85009280001 (internal)	902.525	SNN5837A w/ NTN3000XX XA	Front of DUT @ 2.5cm (slide open)	None	SYN1458A (Headset)	0.768	0.077	0.732	0.537	0.38	0.28

Assessments at the Face (114:120 mode)

Assessment of the offered antenna (MOTOtalk Test Flowchart pg 37 step 1); Antenna search is not required because only one antenna is offered for 902-928MHz bands. Move to step 2.

Assessment of the offered battery (MOTOtalk Test Flowchart pg 37 step 2); The optional batteries were tested. These tests were conducted at mid channel using antenna (85009280001) with the slide opened along with the front of the radio positioned at 2.5cm from the phantom. The highest SAR result from the table below is provided in APPENDIX F Section 27.0 - MOTOtalk Assessment of the offered batteries.

TABLE 39

902-928MHz Band Assessments at Face (114:120 mode) – Assessment of offered battery with slide opened												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
JsT-Face-100909-07 / 364VLQ9QDT	85009280001 (internal)	915.525	SNN5851A w/ NTN2597XX XA	Front 2.5cm	None, slide opened	None	0.772	0.055	0.751	0.540	0.39	0.28
JsT-Face-100909-08 / 364VLQ9QDT	85009280001 (internal)	915.525	SNN5837A w/ NTN3000XX XA	Front 2.5cm	None, slide opened	None	0.765	0.025	0.807	0.579	0.42	0.30

Assessment of the slide closed (MOTOtalk Test Flowchart pg 37 step 3); The DUT was positioned with its slide closed and tested at the mid channel using antenna (85009280001) and battery (SNN5837A) along with the front of the radio positioned at 2.5cm from the phantom. The highest SAR result from the table below is provided in APPENDIX F Section 28.0 - MOTOtalk Assessment of the slide opened and closed.

TABLE 40

902-928MHz Band Assessments at Face (114:120 mode) – Assessment with slide closed												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
JsT-Face-100909-09 / 364VLQ9QDT	85009280001 (internal)	915.525	SNN5837A w/ NTN3000XX XA	Front 2.5cm	None, slide closed	None	0.764	0.026	1.040	0.738	0.54	0.39

Assessment of frequency band edges of the offered antenna (MOTOtalk Test Flowchart pg 37 step 4); The frequency band edges (low and high)were tested using the highest configuration, antenna (85009280001), battery (SNN5837A) with slide closed. The highest SAR result from the table below is provided in APPENDIX F Section 29.0 - MOTOtalk Assessment of frequency band edges of the offered antenna.

TABLE 41

902-928MHz Band Assessments at Face (114:120 mode) – Assessment of frequency band edges of the offered antenna												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
JsT-Face-100909-10 / 364VLQ9QDT	85009280001 (internal)	902.525	SNN5837A w/ NTN3000XX XA	Front 2.5cm	None, slide closed	None	0.762	0.063	1.240	0.876	0.65	0.46
CM-Face-100910-10 / 364VLQ9Q8M	85009280001 (internal)	902.525	SNN5837A w/ NTN3000XX XA	Front 2.5cm	None, slide closed	None	0.777	0.181	1.340	0.956	0.69	0.49
JsT-Face-100909-11 / 364VLQ9QDT	85009280001 (internal)	927.475	SNN5837A w/ NTN3000XX XA	Front 2.5cm	None, slide closed	None	0.771	0.085	0.903	0.635	0.47	0.33

13.7 Shorten Scan Assessment

Short scan assessment of the overall SAR highest configuration (896-902MHz Band Assessment TABLE 24 pg31); A "shortened" scan was performed, using the test configuration and unit that produced the highest SAR results overall (in bold with *) below, to validate the SAR drift of the full DASY4™ coarse and 5x5x7 zoom scans. Note that the shortened scan represents the zoom scan performance result; this is obtained by first running a coarse scan to find the peak area and then, using a newly charged battery, a 5x5x7 zoom scan only was performed. The results of the shortened cube scan presented in APPENDIX E demonstrate that the scaling methodology used to determine the calculated SAR results presented herein are valid. The highest SAR result from the table below is provided in APPENDIX E – Shortened Scan Results.

TABLE 42

Shorten Scan Assessment at the Body – 81:120 data mode												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
***CM-Ab-100907-17 / 364VLQ9QDT**	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	Against phantom	NNTN7900A holster	None	0.651	-0.436	0.966	0.695	1.08	0.78
Shorten Scan CM-Ab-100909-16 / 364VLQ9QDT	85009280001 (internal)	898.99375	SNN5837A w/ NTN3000XXXA	Against phantom	NNTN7900A holster	None	0.650	-0.205	0.813	0.588	0.86	0.62

14.0 Conclusion

The highest Operational Maximum Calculated 1-gram and 10-gram average SAR values found for model H86XAH6JR7AN.

Max. Calc. : 1-g Avg. SAR: 1.08 W/kg (Body); 10-g Avg. SAR: 0.78 W/kg (Body)
Max. Calc. : 1-g Avg. SAR: 0.69 W/kg (Face); 10-g Avg. SAR: 0.49 W/kg (Face)
Max. Calc. : 1-g Avg. SAR: 0.87 W/kg (Head); 10-g Avg. SAR: 0.60 W/kg (Head)

The test results clearly demonstrate compliance with FCC General Population/Uncontrolled RF Exposure limits of **1.6 W/kg** per the requirements of 47 CFR 2.1093(d).

APPENDIX A
Measurement Uncertainty

The Measurement Uncertainty tables indicated in this APPENDIX are applicable to the DUT ranging from 800MHz to 3GHz, and for Dipole test frequency ranging from 800MHz to 3GHz. Therefore, the highest tolerance for the probe calibration uncertainty is indicated.

Table 1A: Uncertainty Budget for Device Under Test, for 800MHz to 3GHz

a	*b*	*c*	*d*	*e = f(d,k)*	*f*	*g*	*h = c x f / e*	*i = c x g / e*	*k*
Uncertainty Component	IEEE 1528 section	**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	E.2.1	5.9	N	1.00	1	1	5.9	5.9	∞
Axial Isotropy	E.2.2	4.7	R	1.73	0.707	0.707	1.9	1.9	∞
Hemispherical Isotropy	E.2.2	9.6	R	1.73	0.707	0.707	3.9	3.9	∞
Boundary Effect	E.2.3	1.0	R	1.73	1	1	0.6	0.6	∞
Linearity	E.2.4	4.7	R	1.73	1	1	2.7	2.7	∞
System Detection Limits	E.2.5	1.0	R	1.73	1	1	0.6	0.6	∞
Readout Electronics	E.2.6	0.3	N	1.00	1	1	0.3	0.3	∞
Response Time	E.2.7	1.1	R	1.73	1	1	0.6	0.6	∞
Integration Time	E.2.8	1.1	R	1.73	1	1	0.6	0.6	∞
RF Ambient Conditions - Noise	E.6.1	3.0	R	1.73	1	1	1.7	1.7	∞
RF Ambient Conditions - Reflections	E.6.1	0.0	R	1.73	1	1	0.0	0.0	∞
Probe Positioner Mech. Tolerance	E.6.2	0.4	R	1.73	1	1	0.2	0.2	∞
Probe Positioning w.r.t Phantom	E.6.3	1.4	R	1.73	1	1	0.8	0.8	∞
Max. SAR Evaluation (ext., int., avg.)	E.5	3.4	R	1.73	1	1	2.0	2.0	∞
Test sample Related									
Test Sample Positioning	E.4.2	3.2	N	1.00	1	1	3.2	3.2	29
Device Holder Uncertainty	E.4.1	4.0	N	1.00	1	1	4.0	4.0	8
SAR drift	6.6.2	5.0	R	1.73	1	1	2.9	2.9	∞
Phantom and Tissue Parameters									
Phantom Uncertainty	E.3.1	4.0	R	1.73	1	1	2.3	2.3	∞
Liquid Conductivity (target)	E.3.2	5.0	R	1.73	0.64	0.43	1.8	1.2	∞
Liquid Conductivity (measurement)	E.3.3	3.3	N	1.00	0.64	0.43	2.1	1.4	∞
Liquid Permittivity (target)	E.3.2	5.0	R	1.73	0.6	0.49	1.7	1.4	∞
Liquid Permittivity (measurement)	E.3.3	1.9	N	1.00	0.6	0.49	1.1	0.9	∞
Combined Standard Uncertainty			RSS				11	11	411
Expanded Uncertainty (95% CONFIDENCE LEVEL)			k=2				22	22	

FCD-0558 Uncertainty Budget Rev.8

Table 2A: Uncertainty Budget for System Validation (dipole & flat phantom) for 800MHz to 3GHz

a	*b*	*c*	*d*	*e = f(d,k)*	*f*	*g*	*h = c x f / e*	*i = c x g / e*	*k*
Uncertainty Component	IEEE 1528 section	**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	E.2.1	5.9	N	1.00	1	1	5.9	5.9	∞
Axial Isotropy	E.2.2	4.7	R	1.73	1	1	2.7	2.7	∞
Spherical Isotropy	E.2.2	9.6	R	1.73	0	0	0.0	0.0	∞
Boundary Effect	E.2.3	1.0	R	1.73	1	1	0.6	0.6	∞
Linearity	E.2.4	4.7	R	1.73	1	1	2.7	2.7	∞
System Detection Limits	E.2.5	1.0	R	1.73	1	1	0.6	0.6	∞
Readout Electronics	E.2.6	0.3	N	1.00	1	1	0.3	0.3	∞
Response Time	E.2.7	1.1	R	1.73	1	1	0.6	0.6	∞
Integration Time	E.2.8	0.0	R	1.73	1	1	0.0	0.0	∞
RF Ambient Conditions - Noise	E.6.1	3.0	R	1.73	1	1	1.7	1.7	∞
RF Ambient Conditions - Reflections	E.6.1	0.0	R	1.73	1	1	0.0	0.0	∞
Probe Positioner Mechanical Tolerance	E.6.2	0.4	R	1.73	1	1	0.2	0.2	∞
Probe Positioning w.r.t. Phantom	E.6.3	1.4	R	1.73	1	1	0.8	0.8	∞
Max. SAR Evaluation (ext., int., avg.)	E.5	3.4	R	1.73	1	1	2.0	2.0	∞
Dipole									
Dipole Axis to Liquid Distance	8, E.4.2	2.0	R	1.73	1	1	1.2	1.2	∞
Input Power and SAR Drift Measurement	8, 6.6.2	5.0	R	1.73	1	1	2.9	2.9	∞
Phantom and Tissue Parameters									
Phantom Uncertainty	E.3.1	4.0	R	1.73	1	1	2.3	2.3	∞
Liquid Conductivity (target)	E.3.2	5.0	R	1.73	0.64	0.43	1.8	1.2	∞
Liquid Conductivity (measurement)	E.3.3	3.3	R	1.73	0.64	0.43	1.2	0.8	∞
Liquid Permittivity (target)	E.3.2	5.0	R	1.73	0.6	0.49	1.7	1.4	∞
Liquid Permittivity (measurement)	E.3.3	1.9	R	1.73	0.6	0.49	0.6	0.5	∞
Combined Standard Uncertainty			RSS				9	9	99999
Expanded Uncertainty (95% CONFIDENCE LEVEL)			k=2				18	17	

FCD-0558 Uncertainty Budget Rev.8

Notes for Tables 1, 2, 3 and 4
a) Column headings *a-k* are given for reference.
b) Tol. - tolerance in influence quantity.
c) Prob. Dist. – Probability distribution
d) N, R - normal, rectangular probability distributions
e) Div. - divisor used to translate tolerance into normally distributed standard uncertainty
f) *ci* - sensitivity coefficient that should be applied to convert the variability of the uncertainty component into a variability of SAR.
g) *ui* – SAR uncertainty
h) *vi* - degrees of freedom for standard uncertainty and effective degrees of freedom for the expanded uncertainty

APPENDIX B
Probe Calibration Certificates

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

Client Motorola EME

Certificate No: ES3-3147_Feb10

CALIBRATION CERTIFICATE

Object	ES3DV3 - SN:3147
Calibration procedure(s)	QA CAL-01.v6, QA CAL-12.v6, QA CAL-14.v3, QA CAL-23.v3 and QA CAL-25.v2 Calibration procedure for dosimetric E-field probes
Calibration date:	February 18, 2010

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	1-Apr-09 (No. 217-01030)	Apr-10
Power sensor E4412A	MY41495277	1-Apr-09 (No. 217-01030)	Apr-10
Power sensor E4412A	MY41498087	1-Apr-09 (No. 217-01030)	Apr-10
Reference 3 dB Attenuator	SN: S5054 (3c)	31-Mar-09 (No. 217-01026)	Mar-10
Reference 20 dB Attenuator	SN: S5086 (20b)	31-Mar-09 (No. 217-01028)	Mar-10
Reference 30 dB Attenuator	SN: S5129 (30b)	31-Mar-09 (No. 217-01027)	Mar-10
Reference Probe ES3DV2	SN: 3013	30-Dec-09 (No. ES3-3013_Dec09)	Dec-10
DAE4	SN. 660	29-Sep-09 (No. DAE4-660_Sep09)	Sep-10

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-09)	In house check: Oct10

	Name	Function	Signature
Calibrated by:	Katja Pokovic	Technical Manager	
Approved by:	Niels Kuster	Quality Manager	

Issued: February 19, 2010

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., ϑ = 0 is normal to probe axis

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not effect the E^2-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,y,z * frequency_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *Ax,y,z; Bx,y,z; Cx,y,z, VRx,y,z*: *A, B, C* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- *ConvF and Boundary Effect Parameters:* Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *NORMx,y,z * ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- *Spherical isotropy (3D deviation from isotropy)*: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- *Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.

Probe ES3DV3

SN:3147

Manufactured:	July 12, 2007
Last calibrated:	February 13, 2009
Recalibrated:	February 18, 2010

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

ES3DV3 SN:3147 February 18, 2010

DASY - Parameters of Probe: ES3DV3 SN:3147

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$)[A]	1.25	1.22	1.20	± 10.1%
DCP (mV)[B]	90.7	94.9	92.9	

Modulation Calibration Parameters

UID	Communication System Name	PAR		A dB	B dBuV	C	VR mV	Unc[E] (k=2)
10000	CW	0.00	X	0.00	0.00	1.00	300.0	± 1.5%
			Y	0.00	0.00	1.00	300.0	
			Z	0.00	0.00	1.00	300.0	

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

[A] The uncertainties of NormX,Y,Z do not affect the E^2-field uncertainty inside TSL (see Pages 5 and 6).

[B] Numerical linearization parameter: uncertainty not required.

[E] Uncertainty is determined using the maximum deviation from linear response applying recatangular distribution and is expressed for the square of the field value.

DASY - Parameters of Probe: ES3DV3 SN:3147

Calibration Parameter Determined in Head Tissue Simulating Media

f [MHz]	Validity [MHz][C]	Permittivity	Conductivity	ConvF X	ConvF Y	ConvF Z	Alpha	Depth	Unc (k=2)
300	± 50 / ± 100	45.3 ± 5%	0.87 ± 5%	6.79	6.79	6.79	0.23	0.86	± 13.3%
450	± 50 / ± 100	43.5 ± 5%	0.87 ± 5%	6.43	6.43	6.43	0.23	1.45	± 13.3%
750	± 50 / ± 100	41.5 ± 5%	0.90 ± 5%	6.24	6.24	6.24	0.64	1.19	± 11.0%
900	± 50 / ± 100	41.5 ± 5%	0.97 ± 5%	5.85	5.85	5.85	0.70	1.14	± 11.0%
1810	± 50 / ± 100	40.0 ± 5%	1.40 ± 5%	5.06	5.06	5.06	0.42	1.80	± 11.0%
1950	± 50 / ± 100	40.0 ± 5%	1.40 ± 5%	4.81	4.81	4.81	0.44	1.69	± 11.0%
2300	± 50 / ± 100	39.5 ± 5%	1.67 ± 5%	4.68	4.68	4.68	0.40	1.85	± 11.0%
2450	± 50 / ± 100	39.2 ± 5%	1.80 ± 5%	4.42	4.42	4.42	0.40	2.06	± 11.0%
2600	± 50 / ± 100	39.0 ± 5%	1.96 ± 5%	4.29	4.29	4.29	0.48	1.71	± 11.0%
3500	± 50 / ± 100	37.9 ± 5%	2.91 ± 5%	4.09	4.09	4.09	1.00	1.23	± 13.1%
3700	± 50 / ± 100	37.7 ± 5%	3.12 ± 5%	3.68	3.68	3.68	1.00	1.30	± 13.1%

[C] The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

DASY - Parameters of Probe: ES3DV3 SN:3147

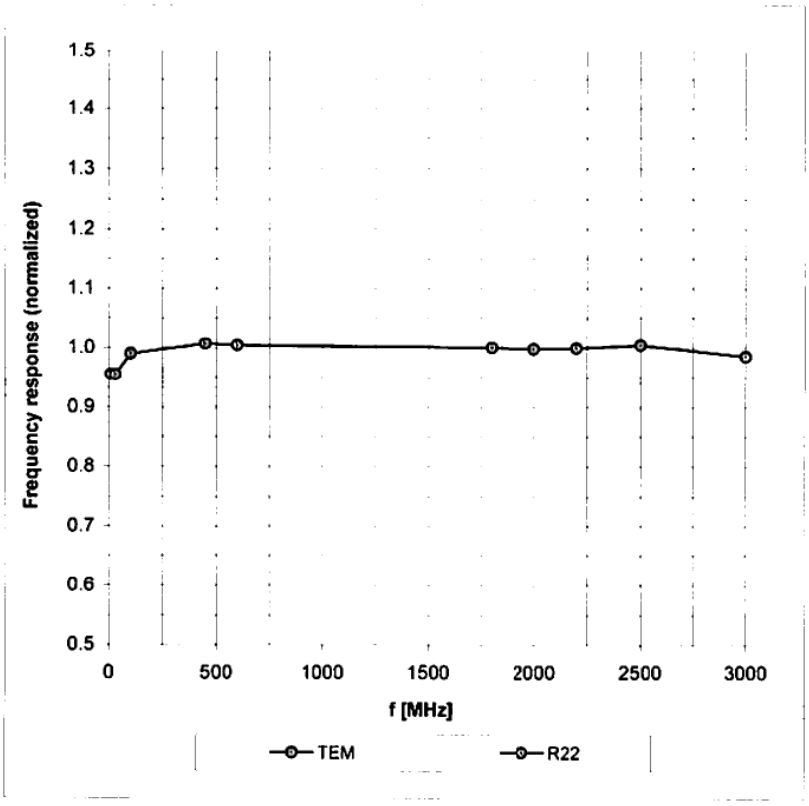
Calibration Parameter Determined in Body Tissue Simulating Media

f [MHz]	Validity [MHz][C]	Permittivity	Conductivity	ConvF X	ConvF Y	ConvF Z	Alpha	Depth Unc (k=2)
450	± 50 / ± 100	56.7 ± 5%	0.94 ± 5%	6.82	6.82	6.82	0.10	2.74 ± 13.3%
750	± 50 / ± 100	55.5 ± 5%	0.96 ± 5%	5.95	5.95	5.95	0.78	1.14 ± 11.0%
900	± 50 / ± 100	55.0 ± 5%	1.05 ± 5%	5.81	5.81	5.81	0.88	1.13 ± 11.0%
1810	± 50 / ± 100	53.3 ± 5%	1.52 ± 5%	4.90	4.90	4.90	0.28	2.75 ± 11.0%
1950	± 50 / ± 100	53.3 ± 5%	1.52 ± 5%	4.75	4.75	4.75	0.42	1.98 ± 11.0%
2300	± 50 / ± 100	52.8 ± 5%	1.85 ± 5%	4.33	4.33	4.33	0.45	1.82 ± 11.0%
2450	± 50 / ± 100	52.7 ± 5%	1.95 ± 5%	4.18	4.18	4.18	0.70	1.29 ± 11.0%
2600	± 50 / ± 100	52.5 ± 5%	2.16 ± 5%	4.07	4.07	4.07	0.87	1.15 ± 11.0%
3500	± 50 / ± 100	51.3 ± 5%	3.31 ± 5%	3.50	3.50	3.50	1.00	1.38 ± 13.1%
3700	± 50 / ± 100	51.0 ± 5%	3.55 ± 5%	3.38	3.38	3.38	0.64	1.93 ± 13.1%

[C] The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

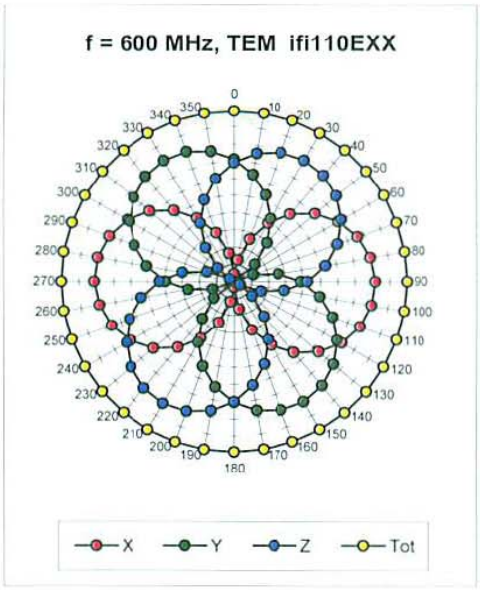
Frequency Response of E-Field

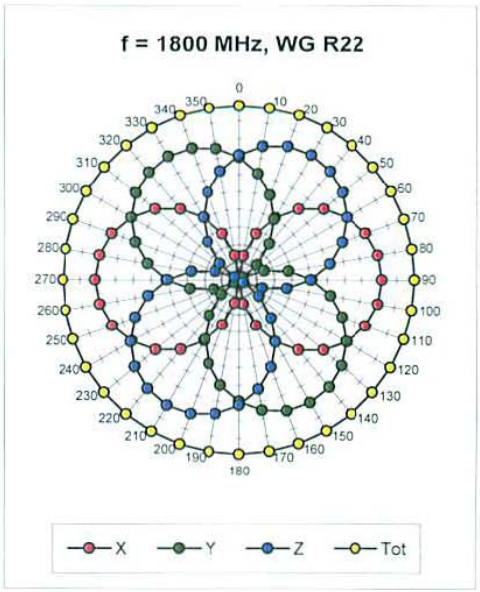
(TEM-Cell:ifi110 EXX, Waveguide: R22)

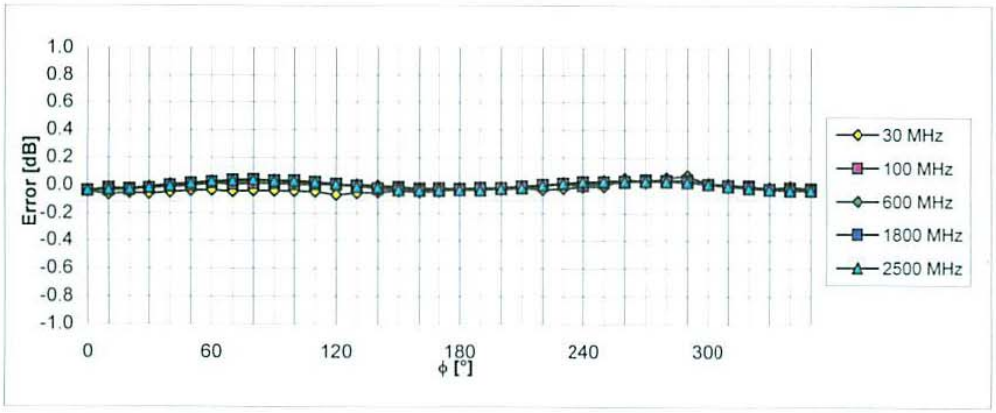


Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

Receiving Pattern (ϕ), ϑ = 0°



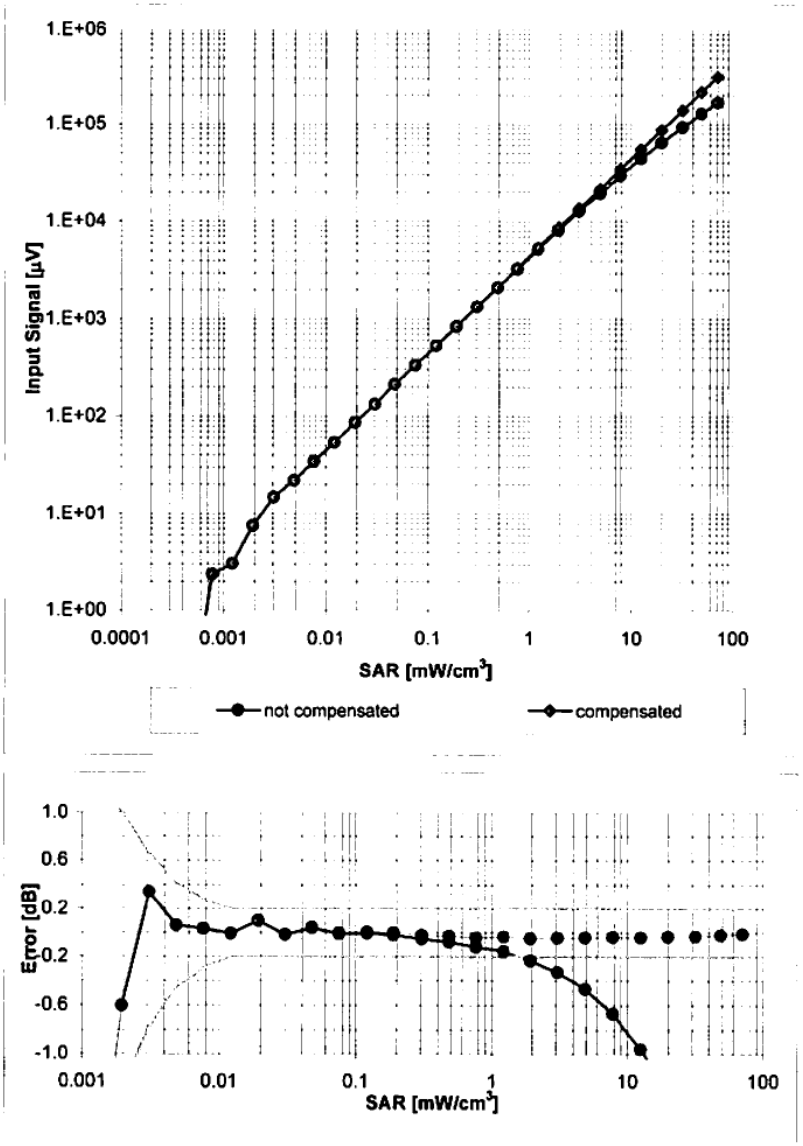




Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

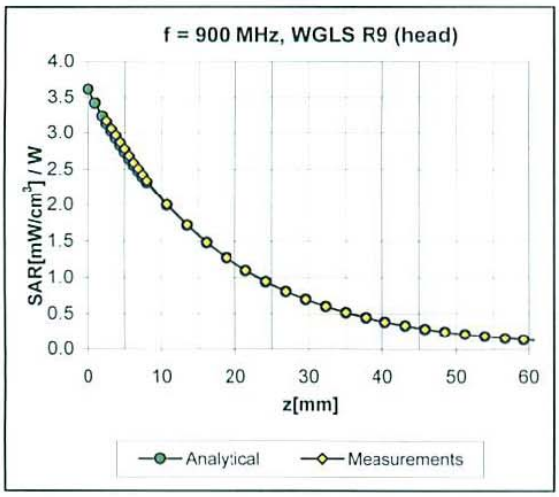
Dynamic Range f(SAR_{head})

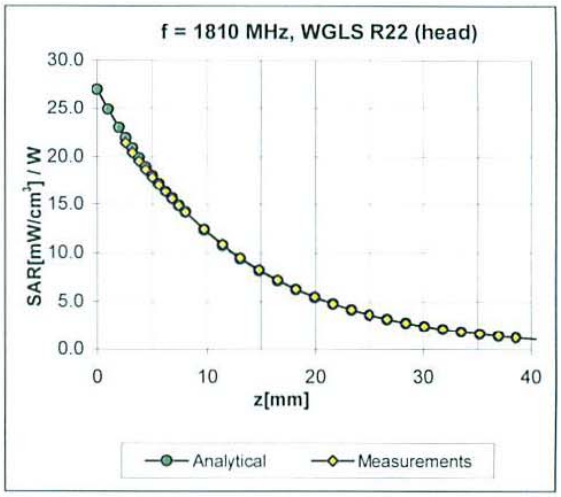
(Waveguide R22, f = 1800 MHz)



Uncertainty of Linearity Assessment: ± 0.6% (k=2)

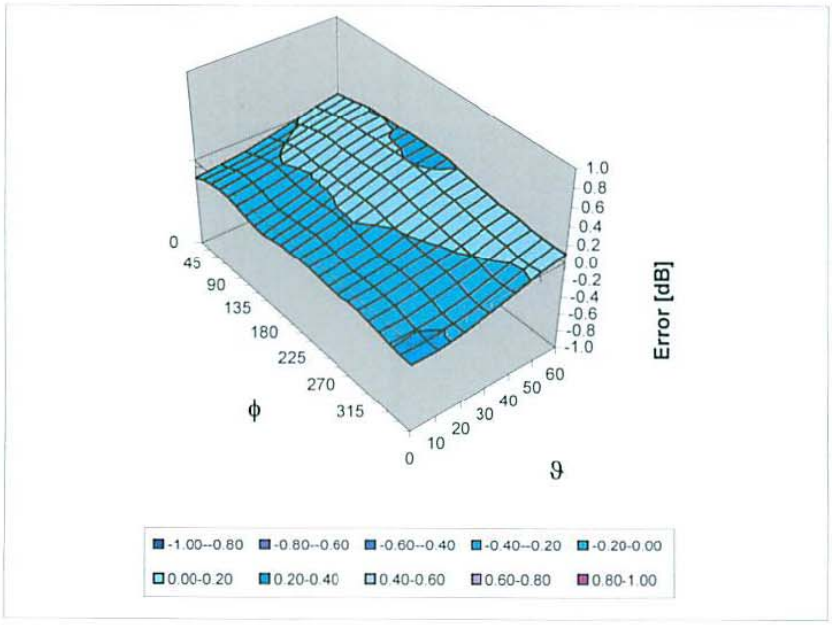
Conversion Factor Assessment





Deviation from Isotropy in HSL

Error (ϕ, ϑ), f = 900 MHz



Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	Not applicable
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	4.0 mm
Probe Tip to Sensor X Calibration Point	2 mm
Probe Tip to Sensor Y Calibration Point	2 mm
Probe Tip to Sensor Z Calibration Point	2 mm
Recommended Measurement Distance from Surface	3 mm

Schmid & Partner Engineering AG

s p e a g

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info@speag.com, http://www.speag.com

Additional Conversion Factors

for Dosimetric E-Field Probe

Type:	**ES3DV3**
Serial Number:	**3147**
Place of Assessment:	**Zurich**
Date of Assessment:	**February 22, 2010**
Probe Calibration Date:	**February 18, 2010**

Schmid & Partner Engineering AG hereby certifies that conversion factor(s) of this probe have been evaluated on the date indicated above. The assessment was performed using the FDTD numerical code SEMCAD of Schmid & Partner Engineering AG. Since the evaluation is coupled with measured conversion factors, it has to be recalculated yearly, i.e., following the re-calibration schedule of the probe. The uncertainty of the numerical assessment is based on the extrapolation from measured value at 900 MHz or at 1810 MHz.

Assessed by:

Schmid & Partner Engineering AG

s p e a g

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info@speag.com, http://www.speag.com

Dosimetric E-Field Probe ES3DV3 SN:3147

Conversion factor (± standard deviation)

150 MHz	*ConvF*	8.0 ± 10%	ε_r = 52.3 σ = 0.76 mho/m (head tissue)
250 MHz	*ConvF*	7.2 ± 10%	ε_r = 47.6 σ = 0.83 mho/m (head tissue)
150 MHz	*ConvF*	7.7± 10%	ε_r = 61.9 σ = 0.80 mho/m (body tissue)
250 MHz	*ConvF*	7.3 ± 10%	ε_r = 59.4 σ = 0.88 mho/m (body tissue)
300 MHz	*ConvF*	7.1 ± 9%	ε_r = 58.2 σ = 0.92 mho/m (body tissue)

Important Note:

For numerically assessed probe conversion factors, parameters Alpha and Delta in the DASY software must have the following entries: Alpha = 0 and Delta = 1.

Please see also Section 4.7 of the DASY4 Manual.

Note: The standard deviation for each Conversion factor stated in above numerical assessments were taken at k = 1.

APPENDIX C
Dipole Calibration Certificates

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

Client **Motorola EME**

Certificate No: D900V2-084_Mar10

CALIBRATION CERTIFICATE

Object: D900V2 - SN: 084

Calibration procedure(s): QA CAL-05.v7
Calibration procedure for dipole validation kits

Calibration date: March 22, 2010

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	06-Oct-09 (No. 217-01086)	Oct-10
Power sensor HP 8481A	US37292783	06-Oct-09 (No. 217-01086)	Oct-10
Reference 20 dB Attenuator	SN: 5086 (20g)	31-Mar-09 (No. 217-01025)	Mar-10
Type-N mismatch combination	SN: 5047.2 / 06327	31-Mar-09 (No. 217-01029)	Mar-10
Reference Probe ES3DV3	SN: 3205	26-Jun-09 (No. ES3-3205_Jun09)	Jun-10
DAE4	SN: 601	02-Mar-10 (No. DAE4-601_Mar10)	Mar-11

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-09)	In house check: Oct-11
RF generator R&S SMT-06	100005	4-Aug-99 (in house check Oct-09)	In house check: Oct-11
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-09)	In house check: Oct-10

	Name	Function	Signature
Calibrated by:	Dimce Iliev	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: March 22, 2010

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

d) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V5.2
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V4.9	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	900 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.2 °C	41.5	0.97 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	42.2 ± 6 %	0.97 mho/m ± 6 %
Head TSL temperature during test	(21.5 ± 0.2) °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.74 mW / g
SAR normalized	normalized to 1W	11.0 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**11.0 mW /g ± 17.0 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.75 mW / g
SAR normalized	normalized to 1W	7.00 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	**7.01 mW /g ± 16.5 % (k=2)**

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	49.7 Ω - 7.8 jΩ
Return Loss	- 22.1 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.391 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	September 20, 2000

DASY5 Validation Report for Head TSL

Date/Time: 22.03.2010 12:28:12

Test Laboratory: SPEAG, Zurich, Switzerland

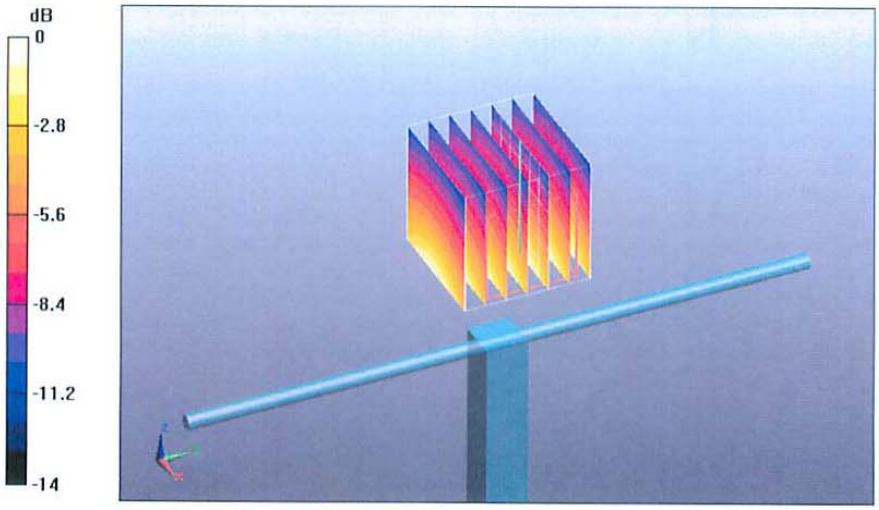
DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:084

Communication System: CW; Frequency: 900 MHz; Duty Cycle: 1:1
Medium: HSL900
Medium parameters used: f = 900 MHz; σ = 0.97 mho/m; ε_r = 42; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

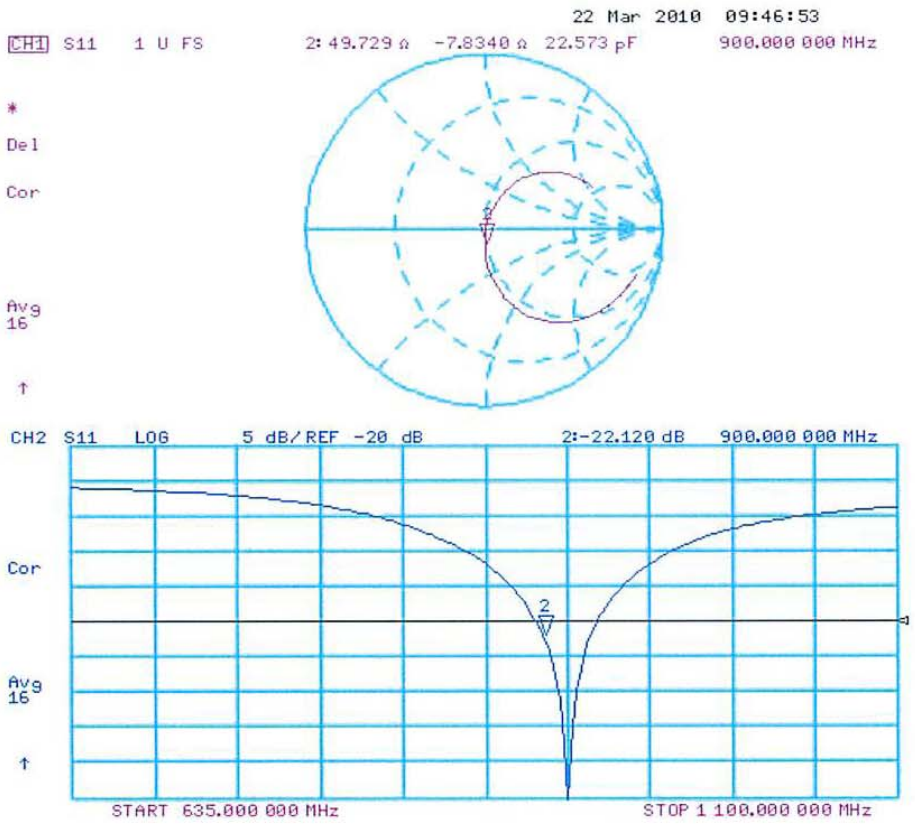
- Probe: ES3DV3 - SN3205; ConvF(5.88, 5.88, 5.88); Calibrated: 26.06.2009
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 02.03.2010
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- Measurement SW: DASY5, V5.2 Build 157; SEMCAD X Version 14.0 Build 57

Pin=250 mW /d=15mm, dist=3.0mm (ES-Probe) /Zoom Scan (7x7x7) /Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 58.8 V/m; Power Drift = 0.036 dB
Peak SAR (extrapolated) = 4.14 W/kg
SAR(1 g) = 2.74 mW/g; SAR(10 g) = 1.75 mW/g
Maximum value of SAR (measured) = 3.19 mW/g



0 dB = 3.19mW/g

Impedance Measurement Plot for Head TSL



Appendix D
Test System Verification Scans

The SAR result indicated on the Manufacture's Calibrated certificate for dipole D900V2 S/N 84 was not used due to the following:

-- The IEEE1528-2003 and the FCC OET-65 Supplement C, System Verification section recommends that the measured 1-g SAR should be within 10% of the expected target values specified for the specific phantom and RF source used in the system verification measurement.

-- SPEAG calibration certificate indicates that the allowed tolerance for this dipole is higher than +/- 10% (e.g. 11.0 +/-17.0% at k=2 for the D900V2 S/N 84)

-- The allowed tolerance for the probes is also higher than +/- 10% (e.g. 11.0% at k=2 at 900MHz for the probe being used to assess this product).

Due to probe, dipole and system tolerances noted above, the lab averages dipole results across multiple probes to establish a set of averaged targets for each dipole using the following procedure:
• The System Validation was conducted per IEEE1528-2003 and IEC62209-2 (10/3/08) standards using the simulated head tissue and multiple probes that are available and applicable for the dipole under test to verify the System Validation. Results for this dipole are within the measurement system uncertainty of the reference SAR values indicated within IEC62209-2 (10/3/08) when using flat phantom with 2mm thickness is used. These results then are averaged and used as the target for the daily system performance check when the simulated head tissue is used.
• The dipole targets for the body are set immediately following the same process noted above. Since there is no standard referencing the SAR values for the System Validation using the simulated body tissue, the compliant System Validation results using the simulated head tissue are used to justify the use of the System Validation results using the simulated body tissue due to the same setup except for the simulated tissue type.

The targets set in this report were conducted following the above process.

Note that the targets set for the tested dipole, when using the simulated head tissue, meets the requirement for the system validation per IEEE1528-2003 and IEC62209-2 standards, and the difference between this result and the result from the manufacture's dipole calibration certificate is 5.7% for 900, which is well within the measurement uncertainty of the measurement system at k=2.

To assess the isotropic characteristics of the measurement probe, a probe rotation was performed using the "Rotation (1D)" function in the DASY software with a measured isotropy tolerance of +/- 0.5dB.

Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 9/3/2010 12:53:36 PM

Robot# / Run#: DASY4-FL-2 / JsT-SYSP-900H-100903-05
Phantom# / Tissue Temp.: SAMTP1022 / 20.4 (C)
Dipole Model# / Serial#: D900V2 / 084
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target SAR (1W):	11.63 mW/g	(1g)
Adjusted SAR (1W):	11.76 mW/g	(1g)
Percent from Target (+/-):	1.1 %	(1g)
Rotation (1D):	0.033 dB	

Note:
Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 2.94 mW/g (1g); 1.87 mW/g (10g)

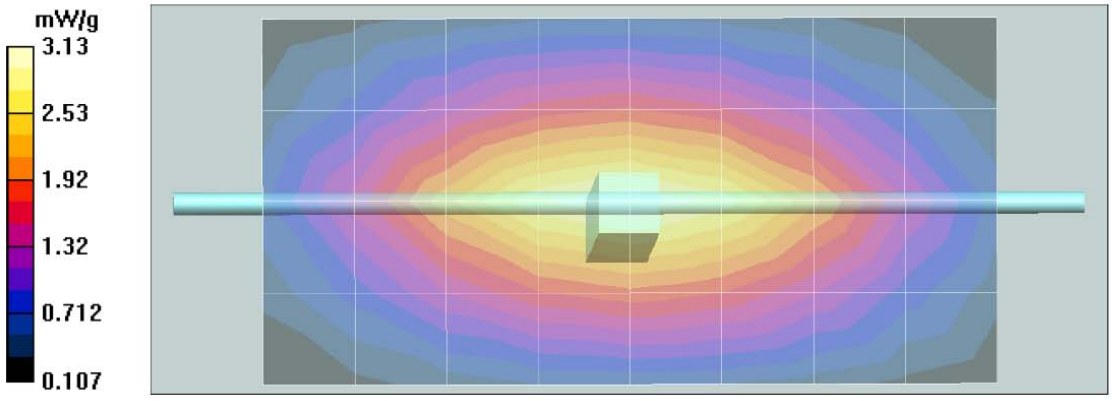
Comments:

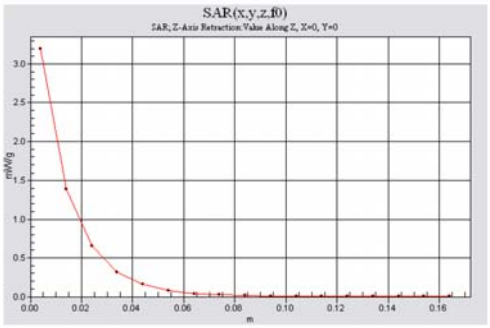
Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(5.85, 5.85, 5.85)
Electronics: DAE4 Sn729, Calibrated: 3/10/2010
Duty Cycle: 1:1, Medium parameters used: f = 900 MHz; σ = 0.97 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3

System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 57.3 V/m; Power Drift = 0.0813 dB
Peak SAR (extrapolated) = 4.50 W/kg
SAR(1 g) = 2.94 mW/g; SAR(10 g) = 1.87 mW/g
Maximum value of SAR (measured) = 3.18 mW/g

System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.13 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 3.20 mW/g





Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 9/5/2010 12:56:30 PM

Robot# / Run#: DASY4-FL-2 / MeC-SYSP-900H-100905-01
Phantom# / Tissue Temp.: SAMTP1022 / 20.8 (C)
Dipole Model# / Serial#: D900V2 / 084
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target SAR (1W): 11.63 mW/g (1g)
Adjusted SAR (1W): 12.72 mW/g (1g)
Percent from Target (+/-): 9.4 % (1g)
Rotation (1D): 0.13 dB

Note: Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 3.18 mW/g (1g); 2.03 mW/g (10g)

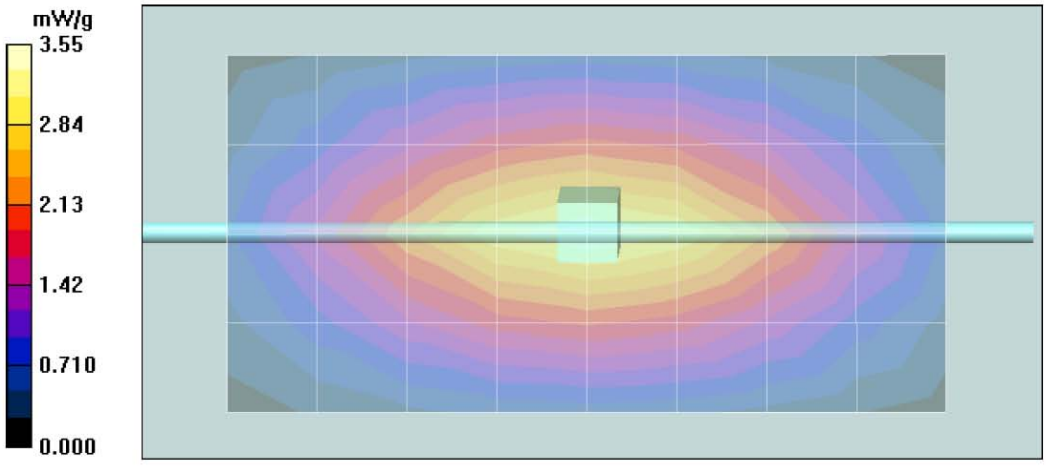
Comments:

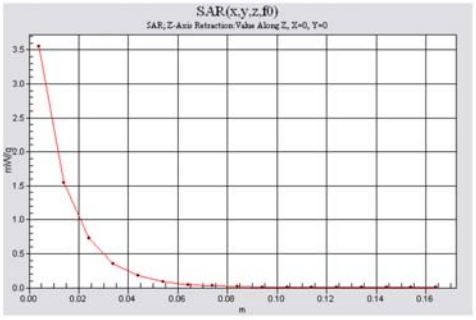
Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(5.85, 5.85, 5.85)
Electronics: DAE4 Sn729, Calibrated: 3/10/2010
Duty Cycle: 1:1, Medium parameters used: f = 900 MHz; σ = 0.98 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3

System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 59.8 V/m; Power Drift = 0.119 dB
Peak SAR (extrapolated) = 4.90 W/kg
SAR(1 g) = 3.18 mW/g; SAR(10 g) = 2.03 mW/g
Maximum value of SAR (measured) = 3.45 mW/g

System Performance Check/Dipole Area Scan 2 (41x81x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 59.8 V/m; Power Drift = 0.119 dB
Motorola Fast SAR: SAR(1 g) = 3.11 mW/g; SAR(10 g) = 2.09 mW/g
Maximum value of SAR (interpolated) = 3.34 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 3.55 mW/g





Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 9/7/2010 7:03:34 AM

Robot# / Run#: DASY4-FL-2 / ErC-SYSP-900B-100907-01
Phantom# / Tissue Temp.: OVAL1021 / 20.2 (C)
Dipole Model# / Serial#: D900V2 / 084
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target SAR (1W): 11.60 mW/g (1g)
Adjusted SAR (1W): 11.60 mW/g (1g)
Percent from Target (+/-): 0.00 % (1g)
Rotation (1D): 0.04 dB

Note:
Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 2.90 mW/g (1g); 1.87 mW/g (10g)

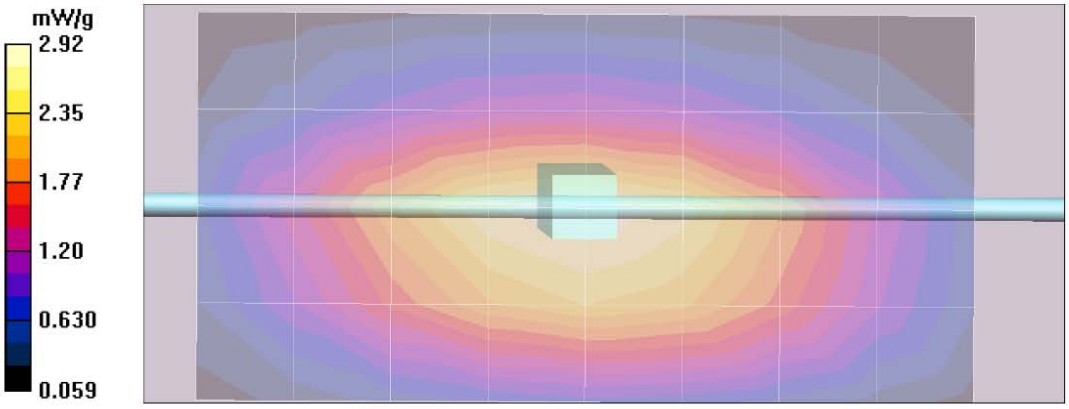
Comments:

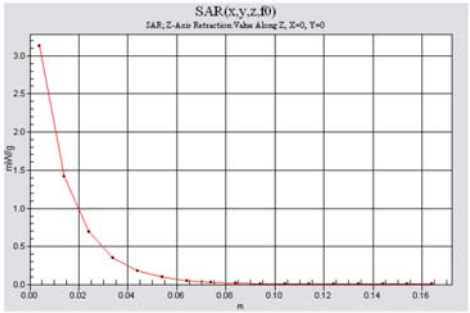
Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(5.81, 5.81, 5.81)
Electronics: DAE3 Sn374, Calibrated: 4/15/2010
Duty Cycle: 1:1, Medium parameters used: f = 900 MHz; σ = 1.07 mho/m; ε_r = 52.5; ρ = 1000 kg/m^3

System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 54.7 V/m; Power Drift = -0.0102 dB
Peak SAR (extrapolated) = 4.34 W/kg
SAR(1 g) = 2.9 mW/g; SAR(10 g) = 1.87 mW/g
Maximum value of SAR (measured) = 3.13 mW/g

System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.92 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm





Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 9/8/2010 7:02:32 AM

Robot# / Run#: DASY4-FL-2 / JsT-SYSP-900B-100908-01
Phantom# / Tissue Temp.: OVAL1021 / 20.5 (C)
Dipole Model# / Serial#: D900V2 / 084
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target SAR (1W): 11.60 mW/g (1g)
Adjusted SAR (1W): 11.52 mW/g (1g)
Percent from Target (+/-): 0.7 % (1g)
Rotation (1D): 0.036 dB

Note:
Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 2.88 mW/g (1g); 1.86 mW/g (10g)

Comments:

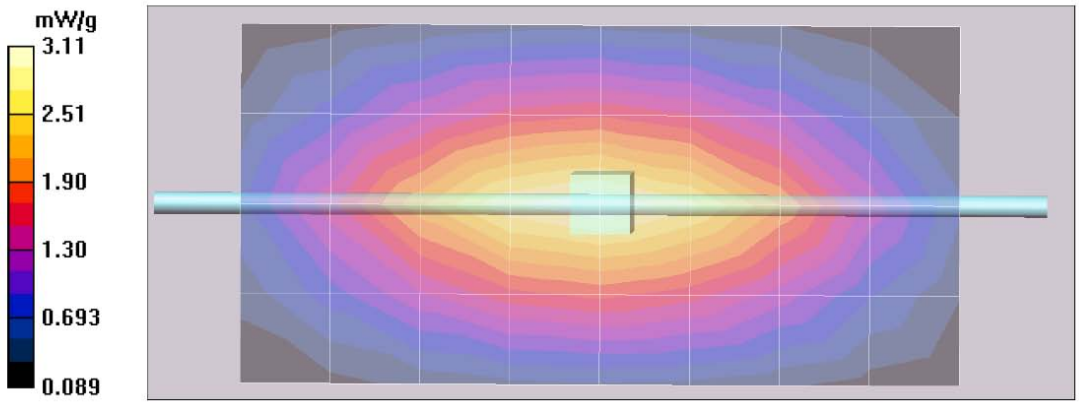
Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(5.81, 5.81, 5.81)
Electronics: DAE3 Sn374, Calibrated: 4/15/2010

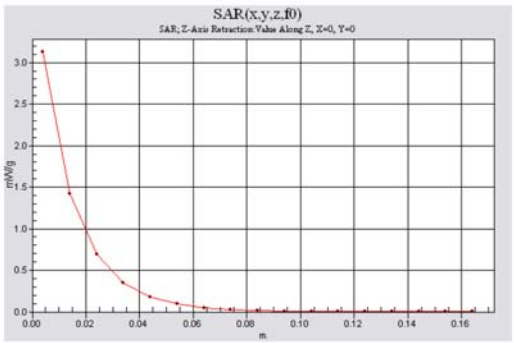
Duty Cycle: 1:1, Medium parameters used: f = 900 MHz; σ = 1.06 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3

System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 54.8 V/m; Power Drift = 0.0255 dB
Peak SAR (extrapolated) = 4.31 W/kg
SAR(1 g) = 2.88 mW/g; SAR(10 g) = 1.86 mW/g
Maximum value of SAR (measured) = 3.12 mW/g

System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.11 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 3.13 mW/g





Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 9/9/2010 6:51:36 AM

Robot# / Run#: DASY4-FL-2 / JsT-SYSP-900H-100909-01
Phantom# / Tissue Temp.: SAMTP1022 / 21.5 (C)
Dipole Model# / Serial#: D900V2 / 084
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target SAR (1W):	11.63 mW/g	(1g)
Adjusted SAR (1W):	11.36 mW/g	(1g)
Percent from Target (+/-):	2.3 %	(1g)
Rotation (1D):	0.06 dB	

Note:
Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 2.84 mW/g (1g); 1.80 mW/g (10g)

Comments:

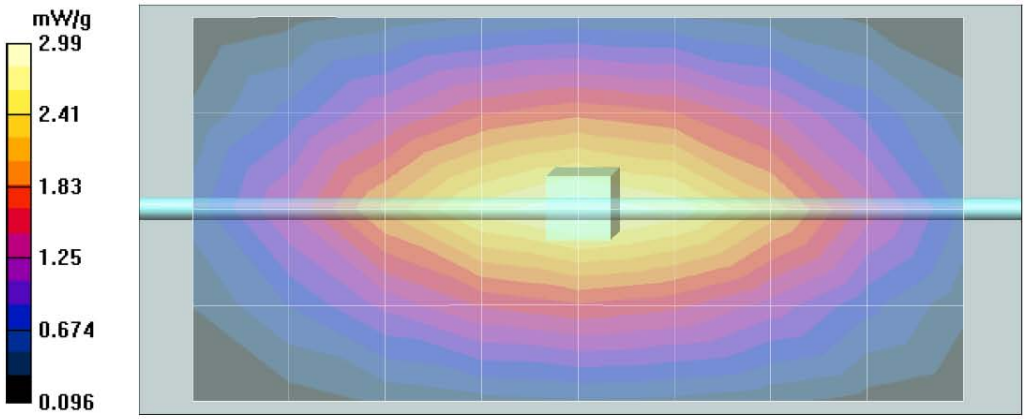
Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(5.85, 5.85, 5.85)
Electronics: DAE3 Sn374, Calibrated: 4/15/2010

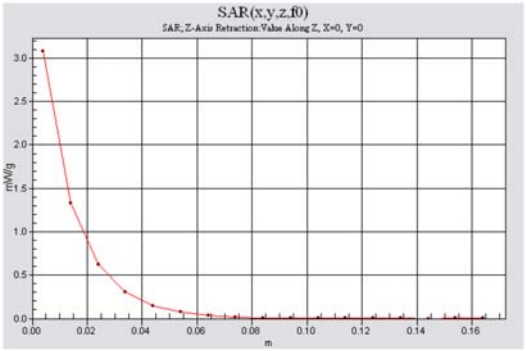
Duty Cycle: 1:1, Medium parameters used: f = 900 MHz; σ = 0.95 mho/m; ε_r = 39.7; ρ = 1000 kg/m^3

System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 56.4 V/m; Power Drift = 0.159 dB
Peak SAR (extrapolated) = 4.33 W/kg
SAR(1 g) = 2.81 mW/g; SAR(10 g) = 1.79 mW/g
Maximum value of SAR (measured) = 3.04 mW/g

System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.99 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 3.08 mW/g





Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 9/10/2010 12:29:51 PM

Robot# / Run#: DASY4-FL-2 / JsT-SYSP-900B-100910-06
Phantom# / Tissue Temp.: OVAL1021 / 20.7 (C)
Dipole Model# / Serial#: D900V2 / 084
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target SAR (1W):	11.60 mW/g	(1g)
Adjusted SAR (1W):	11.76 mW/g	(1g)
Percent from Target (+/-):	1.4 %	(1g)
Rotation (1D):	0.038 dB	

Note:
Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 2.94 mW/g (1g); 1.89 mW/g (10g)

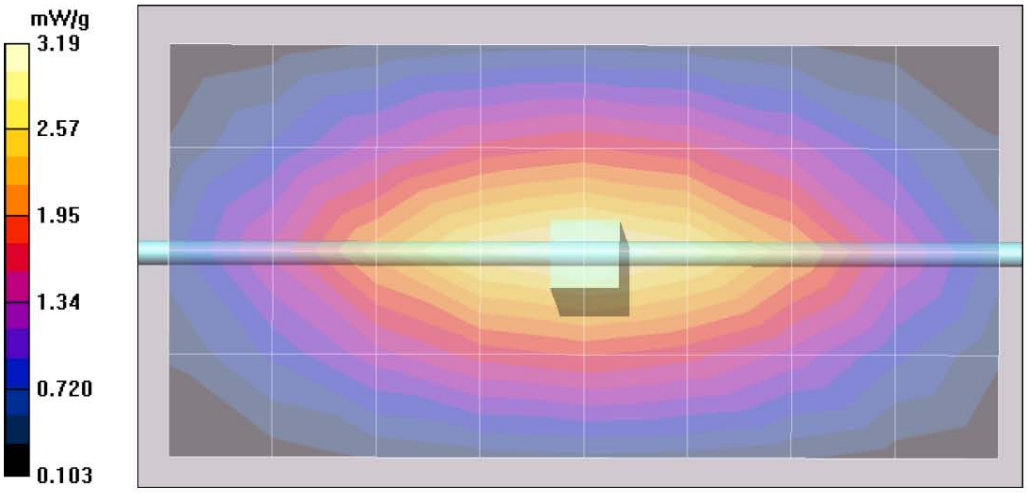
Comments:

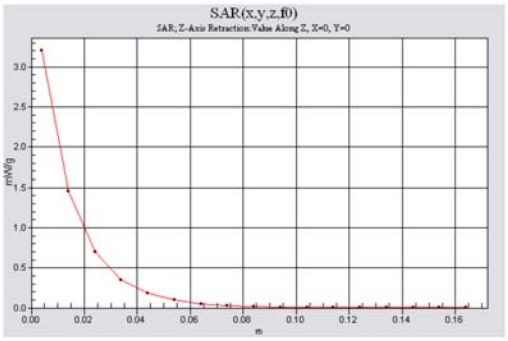
Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(5.81, 5.81, 5.81)
Electronics: DAE3 Sn374, Calibrated: 4/15/2010
Duty Cycle: 1:1, Medium parameters used: f = 900 MHz; σ = 1.08 mho/m; ε_r = 52.8; ρ = 1000 kg/m^3

System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 55.2 V/m; Power Drift = 0.00378 dB
Peak SAR (extrapolated) = 4.40 W/kg
SAR(1 g) = 2.94 mW/g; SAR(10 g) = 1.89 mW/g
Maximum value of SAR (measured) = 3.18 mW/g

System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.19 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 3.20 mW/g





Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 9/15/2010 8:41:40 AM

Robot# / Run#: DASY4-FL-2 / JsT-SYSP-900B-100915-02
Phantom# / Tissue Temp.: OVAL1021 / 20.6 (C)
Dipole Model# / Serial#: D900V2 / 084
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target SAR (1W):	11.60 mW/g	(1g)
Adjusted SAR (1W):	11.56 mW/g	(1g)
Percent from Target (+/-):	0.3 %	(1g)
Rotation (1D):	0.042 dB	

Note:
Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 2.89 mW/g (1g); 1.86 mW/g (10g)

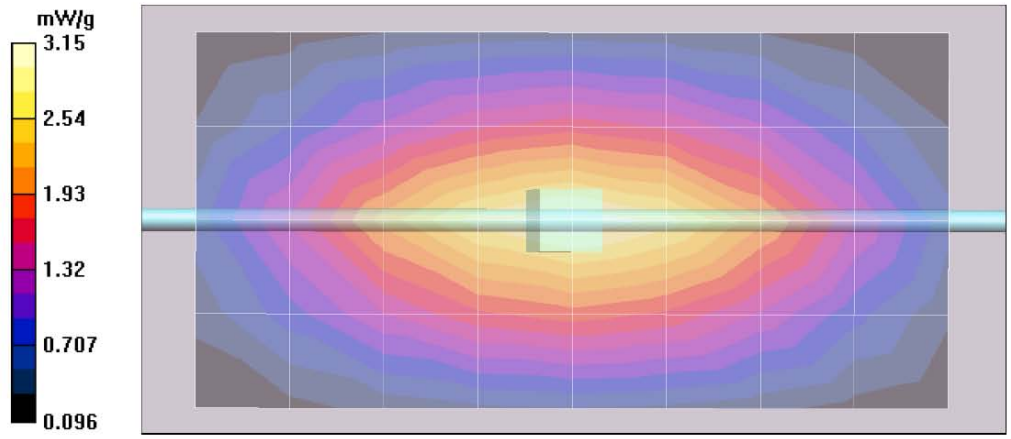
Comments:

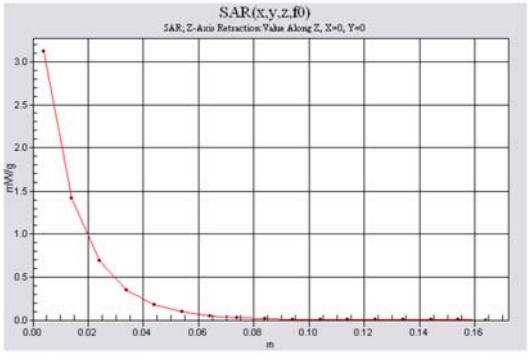
Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(5.81, 5.81, 5.81)
Electronics: DAE3 Sn374, Calibrated: 4/15/2010
Duty Cycle: 1:1, Medium parameters used: f = 900 MHz; σ = 1.06 mho/m; ε_r = 52.4; ρ = 1000 kg/m^3

System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 55.0 V/m; Power Drift = -0.000134 dB
Peak SAR (extrapolated) = 4.33 W/kg
SAR(1 g) = 2.89 mW/g; SAR(10 g) = 1.86 mW/g
Maximum value of SAR (measured) = 3.12 mW/g

System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.15 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm





DIPOLE SAR TARGET - HEAD

Date:	04/16/10	Frequency (MHz):	900
Lab Location:	FL08-G&PS	Mixture Type:	IEEE Head
DAE Serial #:	850	Ambient Temp.(°C):	22

Tissue Characteristics

Permitivity:	40.3	Phantom Type/SN:	SAMTP1022
Conductivity:	0.97	Distance (mm):	15
Tissue Temp.(°C):	21.7		

Reference Source:	Dipole	Power to Dipole:	250 mW
Reference SN:	84		

Target 1g-SAR Value (mW/g, normalized to 1.0 W):

10.9

Difference from Target

6.67% (1g-SAR)

New Target:

Average 1g-SAR Value (mW/g):	11.63

Passes K=2

Percent Difference From Target (MUST be within k=2 Uncertainty):

Probe SN #s	1g-SAR (Cube)	Diff from Ave	Robot
3147	11.64	*0.1%*	R3
1547	11.40	*-1.9%*	R3
3006	11.84	*1.8%*	R3
Average	**11.6267**	New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: **Ed Church** Initial: EC

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DIPOLE SAR TARGET - BODY

Date:	04/16/10	Frequency (MHz):	900
Lab Location:	FL08-G&PS	Mixture Type:	Body
DAE Serial #:	850	Ambient Temp.(°C):	22

Tissue Characteristics

Permitivity:	53.1	Phantom Type/SN:	OVAL1019
Conductivity:	1.05	Distance (mm):	15
Tissue Temp.(°C):	20.9		

Reference Source:	Dipole	Power to Dipole:	250 mW
Reference SN:	84		

New Target:

Average Measured SAR Value: **11.60** mW/g(1g avg.),

Probe SN #s	1-G Cube	Diff from Ave	Robot
3006	11.64	*0.3%*	R3
1547	11.48	*-1.0%*	R3
3147	11.68	*0.7%*	R3
Average		New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: **Ed Church** Initial: E. C