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ACCREDITED
TESTING CERT # 2518.01

FCC ID: IHDT56KQ1
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: 8/31/09
Report Revision: O
Report ID: SAR rpt_ H75XAH6JS5AN _Rev O_090831_SR7463

Responsible Engineer:	Michael Sailsman (Senior Staff Eng.)
Report Author:	Michael Sailsman (Senior Staff Eng.)
Date/s Tested:	6/30/09-8/18/09
Manufacturer/Location:	China
Sector/Group/Div.:	iDEN Mobile Devices
Date submitted for test:	6/19/09
DUT Description:	TDMA: 81:120, 2:6, 1:12, and 1:6; M64-QAM, M16-QAM, and QPSK Modulations; 0.6 W Pulse Avg; MOTOtalk: 114:120 8FSK; 0.85 W nominal (GPS and Bluetooth Capable).
Test TX mode(s):	Phone: 1:3 ; Dispatch: 1:6; MOTOtalk: 114:120; Data: 81:120
Max. Power output:	0.64 W pulsed average conducted power (iDEN); 0.891 W (MOTOtalk); 0.010 W (Bluetooth)
Nominal Power:	0.60 W pulsed average conducted power (iDEN); 0.85 W (MOTOtalk); 0.006 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:	H75XAH6JS5AN
Model(s) Certified:	H75XAH6JS5AN
Serial Number(s):	364VKKDY36, 364VKKJQGD
Classification:	General Population/Uncontrolled
Rule Part(s):	15, 90

DUT Photo
(Refer to Exhibit 7B)

Max. Calc. : 1-g Avg. SAR: 0.63 W/kg (Body); 10-g Avg. SAR: 0.45 W/kg (Body)
Max. Calc. : 1-g Avg. SAR: 0.45 W/kg (Face); 10-g Avg. SAR: 0.32 W/kg (Face)
Max. Calc. : 1-g Avg. SAR: 0.31 W/kg (Head); 10-g Avg. SAR: 0.21 W/kg (Head)

The test results clearly demonstrate compliance with FCC Occupational/Controlled RF Exposure limits of 8 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 10 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
EMS EME Lab Senior Resource Manager, Laboratory Director

Approval Date: 8/31/09

Certification Date: 8/31/09

Certification No.: L1090807P

Part 1 of 3

APPENDICES

Part 2 of 3

Part 3 of 3

Report Revision History

Date	Revision	Comments
08/31/09	O	Initial release

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 H75XAH6JS5AN and FCC ID: IHDT56KQ1. The results herein reflect prototype test results.

2.0 Abbreviations / Definitions

BT: Bluetooth
CNR: Calibration Not Required
DUT: Device Under Test
FSK: Frequency Shift Keying
FHSS: Frequency Hopping Spread Spectrum
iDEN: Integrated Dispatch Enhanced Network
ISM: Industrial, Scientific and Medical
M-QAM: Multi-Channel Quadrature Amplitude Modulation
NA: Not Applicable
PCS: Personal Communication System
PIFA: Planar Inverted F Antenna
PTT: Push to Talk
QPSK**:** Quadrature Phase-Shift Keying
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.
Receive only audio accessory: Audio accessories that do not enable transmission and are for listening only.

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"
- Draft of IEC62209-2 Ed.1, 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)

FCC ID: IHDT56KQ1 model H75XAH6JS5AN 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 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 1 Bluetooth device. The maximum actual transmission duty cycle is imposed by the Bluetooth standard (max duty cycle = 76.5%). 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 and Data modes.

FCC ID: IHDT56KQ1 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 0.60 watts pulsed averaged in 806-825MHz and 896-902MHz bands, 0.850 watts in the MOTOtalk band and 0.006 watts in the BT band. The maximum conducted output power is 0.640 watts pulsed average, 0.891 watts and 0.010 watts respectively as defined by the upper limit of the production line final test station

FCC ID: IHDT56KQ1 is being offered with the accessories listed in section 7.0.

7.0 Optional Accessories and Test Criteria

FCC ID: IHDT56KQ1 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

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 (85009263001)	PIFA ¼ wave, 806-825MHz (1.79dBi), 896-902MHz (2.01dBi), 902-928MHz (2.10dBi)	Yes	14-14mm	25-25mm	25-25mm
Internal (85009261001)	PIFA ¼ wave 2.4-2.48GHz (-0.40dBi)	Yes	**14-14mm	**25-29mm	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.

** BT testing is not required per FCC KDB648474.

Note: Refer to exhibit 7B section 7.0 for photos of antenna separation distances.

7.2 Batteries

All batteries were evaluated during the test plan generation.

TABLE 3

Battery Models	Description	Tested	Comments
SNN5823A	BK70 Li Ion battery	Yes	Tested with battery door NTN2555xxxA
SNN5793A	BK10 Li Ion battery	Yes	Tested with battery door NTN2556xxxA

7.3 Body worn Accessories

All body worn accessories were evaluated during the test plan generation.

TABLE 4

Body worn Models	Description	Tested	* Separation distances between DUT/holder and phantom surface. (mm)	Comments
NNTN7841A	Holster	Yes	14-14	Fits over front of DUT. Reference Exhibit 7B for photos of holster.

*The 1st number indicated the minimum separation distance that measured at the bottom flat surface of the holster while the second number reflects the separation distance measured at the top flat surface of the holster.

7.4 Audio/Data cable Accessories

All audio/data cable accessories were evaluated during the test plan generation.

TABLE 5

Audio/Data Acc. Models	Description	Tested	Comments
SYN1458A	Stereo headset	Yes	
SYN1472A	Stereo headset	Yes	
SKN6238A	Micro 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 ES3DV2 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

TABLE 6

Phantom ID	Material Parameters	Material Thickness (mm)	Support structure material	Loss Tangent (wood)
Dual 1003	200MHz -6GHz; Er = <5, Loss Tangent = 0.05	2mm +/- 0.2mm	Wood	< 0.05

8.2.2 SAM Phantom

TABLE 7

Phantom ID	Material Parameters	Material Thickness (mm)	Support structure material	Loss Tangent (wood)
SAMTP1234	200MHz -3GHz; Er = <5, Loss Tangent = 0.05	2mm +/- 0.2mm	Wood	< 0.05

8.2.3 Elliptical Flat Phantom

TABLE 8

Phantom ID (s)	Material Parameters	Phantom Dimensions LxWxD (mm)	Material Thickness (mm)	Support Structure Material	Loss Tangent (wood)
OVAL1019	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 9

% 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 10

Equipment Type	Model Number	Serial Number	Calibration Due Date
Power Meter (Agilent)	E4419B	MY45103725	9/8/2009
Power Meter (Agilent)	E4418B	US39251150	4/16/2010
E-Series Avg. Power	E9301B	MY41495730	4/15/2010
E-Series Avg. Power Sensor (Agilent)	E9301B	MY41495733	4/15/2010
Power Sensor (Agilent)	8482B	3318A07392	3/18/2010
Bi-Directional Coupler	3020A	40296	2/7/2010
Bi-Directional Coupler (NARDA)	3022	70181	11/15/2009
Signal Generator (Agilent)	E4428C	MY47381119	7/14/2010
AMP (Amplifier Research)	1W1000	16625	CNR
Dickson Temperature Recorder	TM125	1195889	2/14/2010
Omega Digital Thermometer with J Type TC Probe	HH202A	18800	10/27/2009
Omega Digital Thermometer with J Type TC Probe	HH202A	18801	4/1/2010
Omega Digital Thermometer with J Type TC Probe	HH202A	18812	5/22/2010
Agilent PNA-L Network	N5230A	MY45001092	5/22/2010
Dielectric Probe Kit (HP)	85070C	US99360076	CNR
Speag Dipole	D900V2	85	8/25/2010

10.0 SAR Measurement System Verification

The SAR measurements were conducted with probe model/serial number ES3DV2/SN3007. 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 11

Frequency (MHz)	Tissue Type	Di-electric Constant Target (Range)	Conductivity Target (S/m) (Range)	Di-electric Constant Meas.	Conductivity Meas. (S/m)	Tested Date
815.5	FCC Body	55.3 (52.54-58.07)	0.97 (0.92-1.02)	53.4	0.96	7/22/09
				53.7	0.96	8/18/09
815.5	IEEE/ IEC Head	41.6 (39.52-43.68)	0.90 (0.856-0.95)	42.9	0.88	6/30/09
				41.1	0.86	7/1/09
				41.3	0.86	7/2/09
				41.1	0.86	7/6/09
				41.0	0.87	7/21/09
900	FCC Body	55.0 (52.25-57.75)	1.05 (1.0-1.10)	53.3	1.04	6/30/09
				52.9	1.05	7/23/09
				52.9	1.05	7/23/09
				52.4	1.04	8/4/09
				52.9	1.04	8/5/09
				52.8	1.04	8/18/09
900	IEEE/ IEC Head	41.5 (39.43-43.58)	0.97 (0.92-1.02)	39.9	0.94	7/1/09
				40.1	0.95	7/2/09
				40.0	0.95	7/6/09
				40.0	0.95	7/21/09
				40.9	0.96	7/22/09
				41.4	0.97	8/17/09
899	FCC Body	55.0 (52.5-57.75)	1.05 (1.0-1.10)	52.9	1.04	7/23/09
				52.8	1.04	8/18/09
				52.7	1.06	7/23/09
899	IEEE/ IEC Head	41.5 (39.43-43.58)	0.97 (0.92-1.02)	41.8	0.97	6/30/09
				39.9	0.94	7/1/09
				40.1	0.95	7/2/09
				40.0	0.95	7/6/09
915	FCC Body	55.0 (52.25-57.75)	1.06 (1.01-1.11)	52.3	1.06	8/4/09
				52.8	1.06	8/5/09
				53.2	1.07	8/17/09
				52.7	1.06	8/18/09
915	IEEE/ IEC Head	41.5 (39.43-43.58)	0.98 (0.93-1.03)	39.8	0.96	7/21/09
				40.7	0.97	7/22/09
				39.9	0.97	8/5/09

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 12

Probe Serial #	Tissue Type	Probe Cal Date	Dipole Kit / Serial #	Reference SAR @ 1W (mW/g)	System Check Test Results when normalized to 1W (mW/g)	Tested Date
3007	FCC Body	3/12/09	SPEAG D900V2 /085	11.30 +/- 10%	11.44	6/30/09
					11.36	7/23/09
					11.28	8/4/09
					11.20	8/5/09
					11.12	8/18/09
3007	IEEE/ IEC Head	3/12/09	SPEAG D900V2 /085	11.50 +/- 10%	11.20	7/1/09
					11.40	7/2/09
					11.44	7/6/09
					11.40	7/21/09
					11.36	7/22/09
					11.32	8/17/09

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 13

	Target	Measured
Ambient Temperature	18 - 25 ˚C	Range: 20.1-24.1˚C Avg. 21.1˚C
Relative Humidity	30 - 70 %	Range: 51.2-64.5% Avg. 56.1%
Tissue Temperature	NA	Range: 18.8-20.3˚C Avg. 19.47˚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

12.1 Measurements

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

12.2 DUT Configuration(s)

The DUT is a portable device with iDEN (QPSK, M16-QAM, M64-QAM), MOTOtalk (FHSS 8FSK) and BT transmission signaling operational at the relevant body, head, and face locations using the applicable offered accessories. The device is placed in the test positions presented in Appendix H.

12.3 Device Positioning Procedures

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

12.3.1 Body

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

The DUT was positioned with its' front side separated 2.5cm and the back side separated 2.5cm from the phantom, as per the intended use conditions noted in the manual.

12.3.2 Head

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

12.3.3 Face

The DUT was positioned with its' front side separated 2.5cm from the phantom with the flip opened and closed.

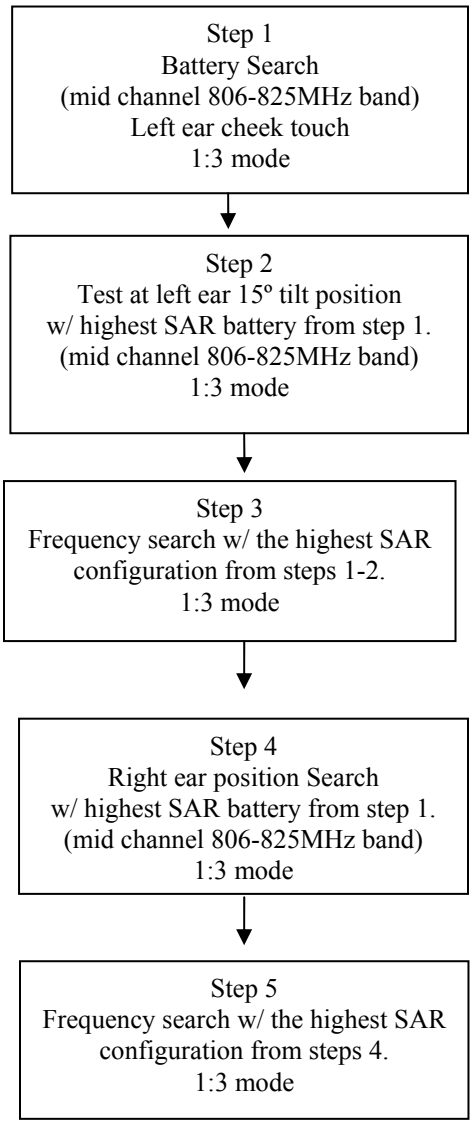
12.4 Test Plan

All modes of operation identified in section 6.0 were considered during the development of the test plan. The mode which presented the highest duty cycle, when applicable, was chosen for SAR assessment. All accessories listed in section 7.0 of this report were evaluated.

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 and face positions.

12.4.1 General Test Flowchart

DUT Head Test Methodology
(General flowchart)



Flowchart Objectives
Head

Step 1 - Determine the highest SAR battery for this band with DUT in cheek touch position.

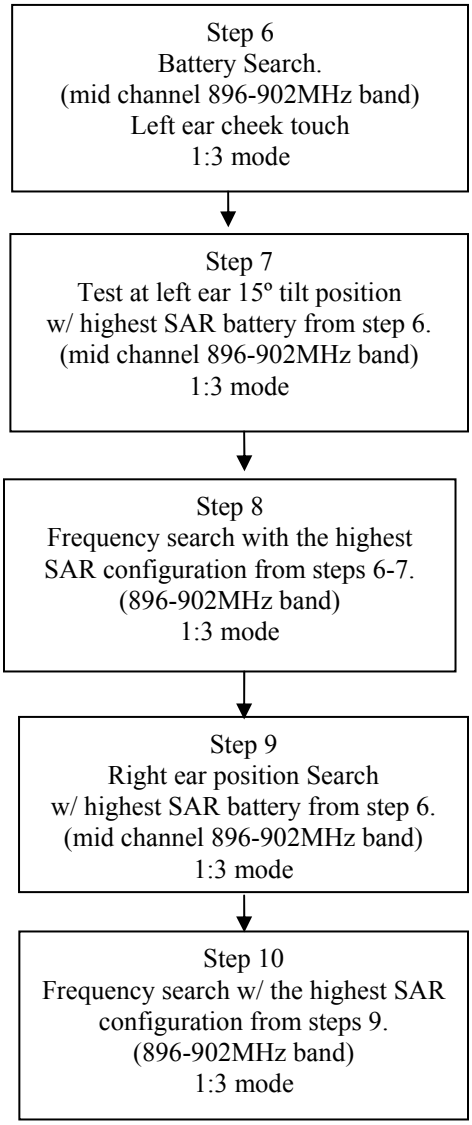
Step 2 – Determine the highest SAR test position at the left ear for this band.

Step 3 - Determine the highest SAR frequency at the left ear for this band.

Step 4 – Determine the highest SAR test position (cheek touch and 15º tilt) at the right ear for this band.

Step 5 – Determine the highest SAR frequency at the right ear for this band.

DUT Head Test Methodology (Continued)
(General flowchart)



Flowchart Objectives
Head (continued)

Step 6 - Determine the highest SAR battery for this band with DUT in cheek touch position.

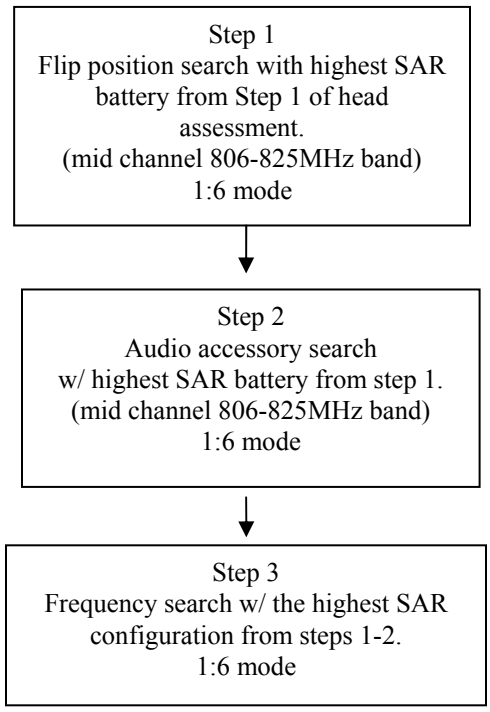
Step 7 – Determine the highest SAR test position at the left ear for this band.

Step 8 - Determine the highest SAR frequency at the left ear for this band.

Step 9 – Determine the highest SAR test position (cheek touch and 15º tilt) at the right ear for this band.

Step 10 – Determine the highest SAR frequency at the right ear for this band.

DUT Face Test Methodology
(General flowchart)



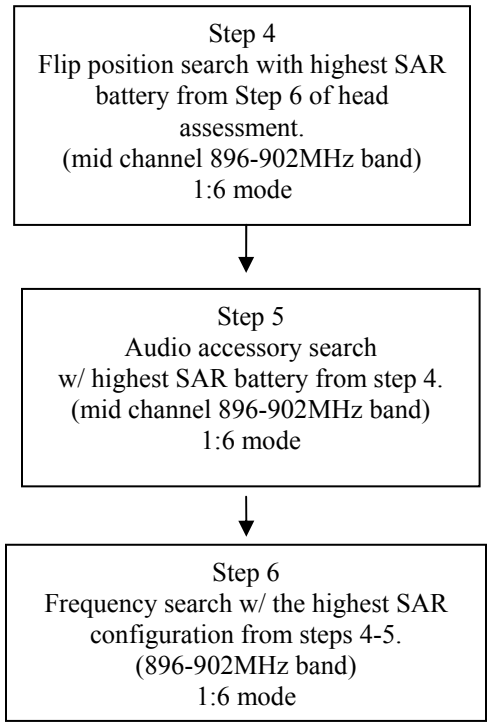
Flowchart Objectives
Face

Step 1 - Determine the highest SAR flip position (opened and closed) for this band.

Step 2 – Determine the highest SAR audio accessory at the face for this band.

Step 3 - Determine the highest SAR frequency at the face for this band.

DUT Face Test Methodology (Continued)
(General flowchart)



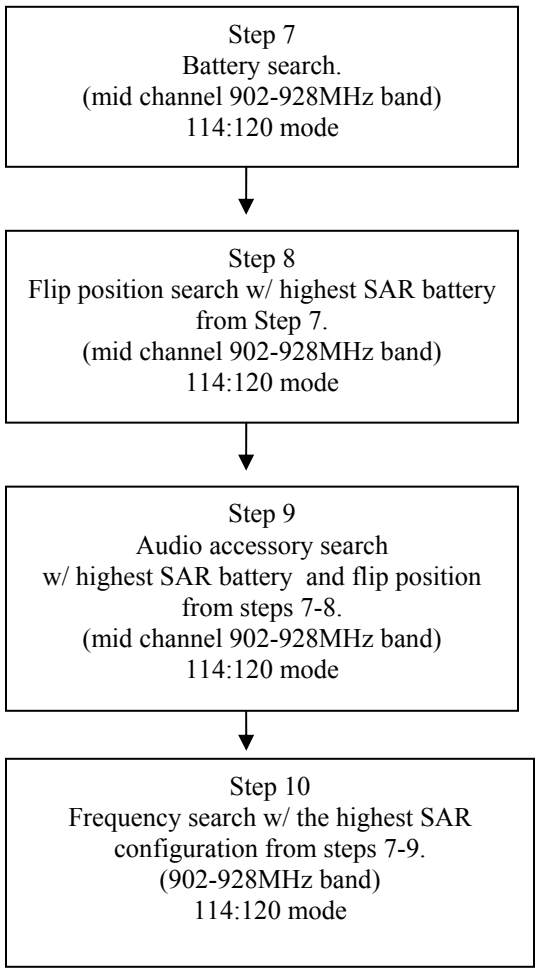
Flowchart Objectives
Face

Step 4 - Determine the highest SAR flip position (opened and closed) for this band.

Step 5 – Determine the highest SAR audio accessory at the face for this band.

Step 6 - Determine the highest SAR frequency at the face for this band.

DUT Face Test Methodology (Continued)
(General flowchart)



Flowchart Objectives
Face

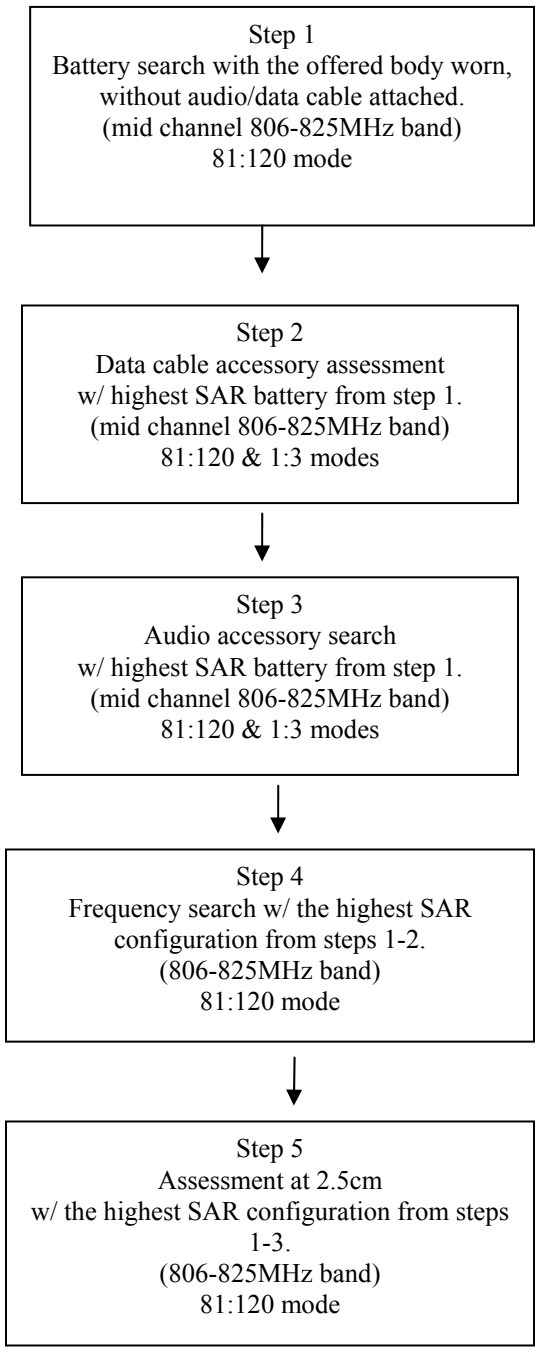
Step 7 - Determine the highest SAR battery at the face for this band with flip opened.

Step 8 - Determine the highest SAR flip position for this band.

Step 9 – Determine the highest SAR audio accessory at the face for this band.

Step 10 - Determine the highest SAR frequency at the face for this band.

DUT Body Test Methodology
(General flowchart)



Flowchart Objectives
Body

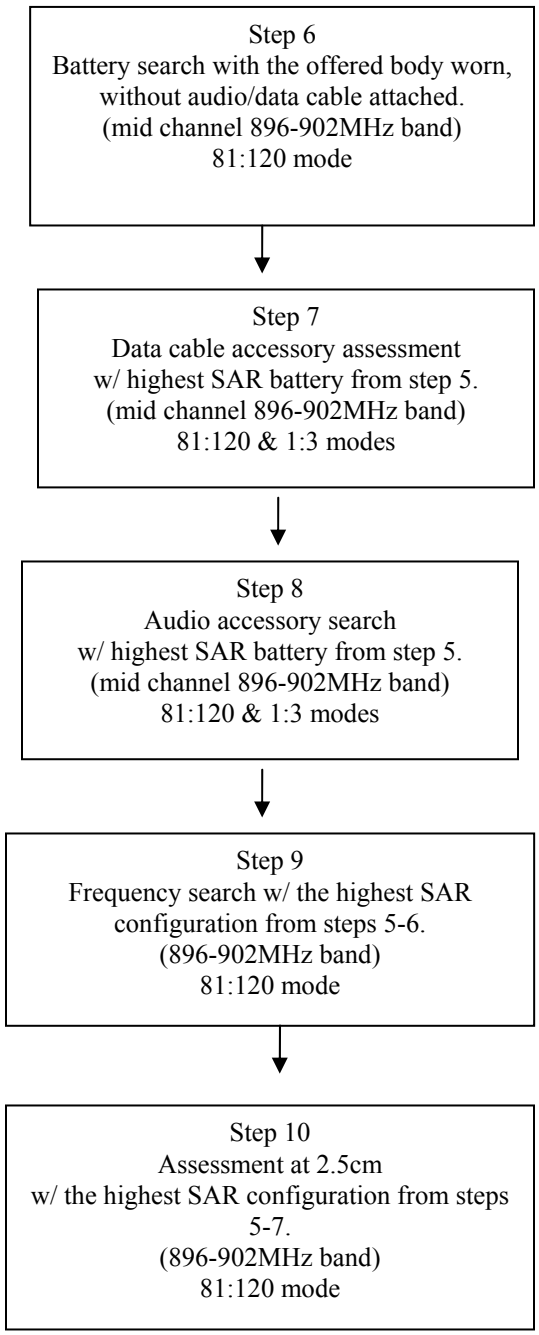
Step 1 - Determine the highest SAR battery at the body for this band.

Step 2 – Determine the highest SAR audio/data cable accessory at the body for this band.

Step 3 - Determine the highest SAR frequency at the body for this band.

Step 4 - Determine the highest SAR at 2.5cm separation distance for this band. This is done to satisfy the conditions noted in the safety section of the user manual.

DUT Body Test Methodology (Continued)
(General flowchart)



Flowchart Objectives
Body

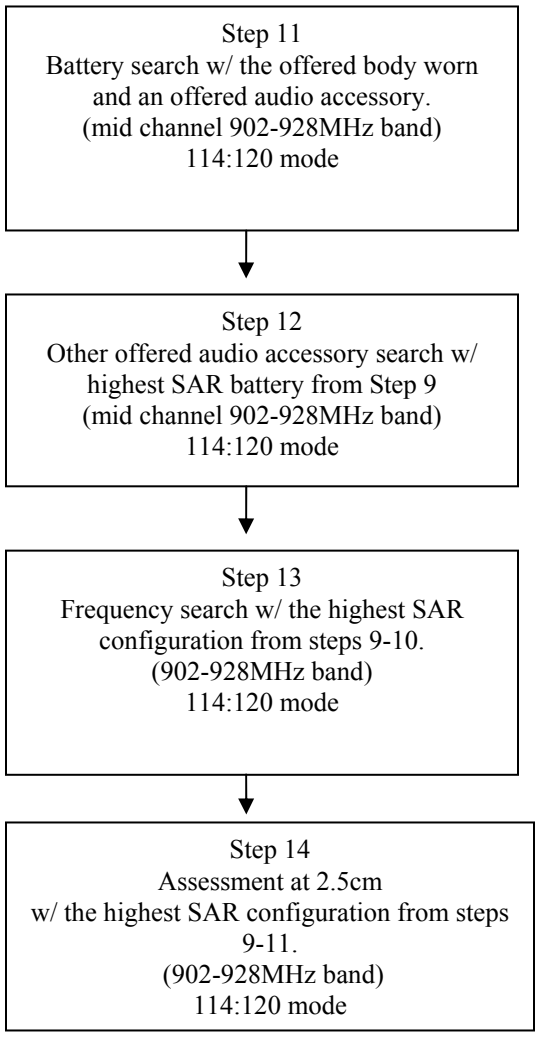
Step 5 - Determine the highest SAR battery at the body for this band.

Step 6 – Determine the highest SAR audio/data cable accessory at the body for this band.

Step 7 - Determine the highest SAR frequency at the body for this band.

Step 8 - Determine the highest SAR at 2.5cm separation distance for this band. This is done to satisfy the conditions noted in the safety section of the user manual.

DUT Body Test Methodology (Continued)
(General flowchart)



Flowchart Objectives
Body

Step 9 - Determine the highest SAR battery at the body for this band.

Step 10 - Determine the highest SAR audio accessory at the body for this band.

Step 11 – Determine the highest SAR frequency at the body for this band.

Step 12 - Determine the highest SAR at 2.5cm separation distance for this band. This is done to satisfy the conditions noted in the safety section of the user manual.

13.0 DUT Test Data

13.1 Head Test Flowchart Data Summary

806-825MHz band (1:3 mode) Assessment

Step 1 (Table 14 pg24)
Left Ear assessment (1:3 mode)
The DUT was tested with each of the offered batteries SNN5793A and SNN5823A at center frequency in the cheek touch position.
The highest SAR from this step is **0.24W/kg**

↓

Step 2 (Table 14 pg24)
Left Ear assessment (1:3 mode)
The DUT was tested at center frequency in the 15º tilt position using the high SAR battery SNN5793A from step 1.
The highest SAR from this step is **0.15W/kg**

↓

Step 3 (Tables 15 pg24)
Left Ear assessment (1:3 mode)
The low and high frequencies for this band were tested using the highest SAR configuration from steps 1 & 2.
The highest SAR from this section is **0.22W/kg**

↓

Step 4 (Table 16 pg25)
Right Ear assessment (1:3 mode)
The DUT was tested at center frequency using the highest SAR battery SNN5793A from step 1 in cheek touch and 15º tilt positions.
The highest SAR from this section is **0.26W/kg**

↓

Step 5 (Table 17 pg25)
Right Ear assessment (1:3 mode)
The low and high frequencies for this band were tested using the highest SAR configuration from step 4.

The highest SAR from this section is **0.31W/kg**

Highest Results at the Head (806-825MHz): 0.31W/kg

896-902MHz band (1:3 mode) Assessment

Step 6 (Table 18 pg25)
Left Ear assessment (1:3 mode)
The DUT was tested with each of the offered batteries SNN5793A and SNN5823A at center frequency in the cheek touch position.
The highest SAR from this step is **0.27W/kg**

↓

Step 7 (Table 18 pg25)
Left Ear assessment (1:3 mode)
The DUT was tested at center frequency in the 15º tilt position using the high SAR battery SNN5793A from step 6.
The highest SAR from this step is **0.23W/kg**

↓

Step 8 (Table 19 pg26)
Left Ear assessment (1:3 mode)
The low and high frequencies for this band were tested using the highest SAR configuration from steps 6&7.
The highest SAR from this section is **0.26W/kg**

↓

Step 9 (Table 20 pg26)
Right Ear assessment (1:3 mode)
The DUT was tested at center frequency using the highest SAR battery SNN5793A from step 6 in cheek touch and 15º tilt positions.
The highest SAR from this section is **0.31W/kg**

↓

Step 10 (Table 21 pg26)
Right Ear assessment (1:3 mode)
The low and high frequencies for this band were tested using the highest SAR configuration from step 9.

The highest SAR from this section is **0.29W/kg**

Highest Results at the Head (896-902MHz): 0.31W/kg

13.2 Head Test Data

Assessments at the Head (1:3 mode) 806-825MHz (Head Test Flowchart pg 22 Steps 1-3); Table 14 shows tests performed at the left ear with the offered batteries SNN5823A and SNN5793A in the cheek touch and 15º tilt positions. Table 15 shows tests at the band edge frequencies. The peak SAR location did not change during the tests performed in the tables below. The highest SAR result (bolded) from tables 14-15 below is provided in APPENDIX F Section 1.0 - Head Assessment section.

TABLE 14

806-825MHz Band Assessments at head left ear (1:3 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)**
Battery search												
HvH-Lear-090630-03/364VKKDY36	85009263001 Internal	815.5125	SNN5823A w NTN2555XXXA	Cheek Touch	None	None	0.656	-0.063	0.223	0.162	0.23	0.16
MeC-Lear-090630-06/364VKKDY36	85009263001 Internal	815.5125	SNN5793A w/ NTN2556XXXA	Cheek Touch	None	None	0.655	-0.058	0.233	0.171	0.24	0.17
Test position search												
MeC-Lear-090630-08/364VKKDY36	85009263001 Internal	815.5125	SNN5793A w/ NTN2556XXXA	15º Tilt	None; Tilt	None	0.656	0.011	0.149	0.112	0.15	0.11

TABLE 15

806-825MHz Band Assessments at head left ear (1:3 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)**
Assessment of other frequencies												
MeC-Lear-090630-09/364VKKDY36	85009263001 Internal	806.0125	SNN5793A w/ NTN2556XXXA	Check touch	None	None	0.644	-0.006	0.209	0.152	0.21	0.15
MeC-Lear-090630-10/364VKKDY36	85009263001 Internal	824.9875	SNN5793A w/ NTN2556XXXA	Check touch	None	None	0.650	-0.060	0.216	0.158	0.22	0.16

Assessments at the Head (1:3 mode) 806-825MHz (Head Test Flowchart pg 22 Steps 4 and 5); Table 16 show tests performed at the right ear with the highest SAR battery SNN5793A from steps 1-3 in the cheek touch and 15º tilt positions. Table 17 show tests at the band edge frequencies. The peak SAR location did not change during the tests performed in the tables below. The highest SAR result (bolded) from tables 16-17 below is provided in APPENDIX F Section 1.0 - Head Assessment section.

TABLE 16

806-825MHz Band Assessments at head right ear (1:3 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)**
Position search with battery that produced highest SAR from left ear												
HvH-Rear-090701-03/364VKKDY36	85009263001 Internal	815.5125	SNN5793A w/ NTN2556XXXA	Cheek Touch	None	None	0.660	-0.108	0.250	0.166	0.26	0.17
MeC-Rear-090701-06/364VKKDY36	85009263001 Internal	815.5125	SNN5793A w/ NTN2556XXXA	15º Tilt	None	None	0.656	0.042	0.159	0.119	0.16	0.12

TABLE 17

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)**
Assessment of other frequencies												
MeC-Rear-090701-07/364VKKDY36	85009263001 Internal	806.0125	SNN5793A w/ NTN2556XXXA	Cheek Touch	None	None	0.648	0.032	0.235	0.154	0.24	0.15
MeC-Rear-090721-12/364VKKDY36	85009263001 Internal	824.9875	SNN5793A w/ NTN2556XXXA	Cheek Touch	None	None	0.644	0.007	0.310	0.206	0.31	0.21

Assessments at the Head (1:3 mode) 896-902MHz (Head Test Flowchart pg 23 Steps 6 - 8); Table 18 show tests performed at the left ear with the offered batteries SNN5823A and SNN5793A in the cheek touch and 15º tilt positions. Table 19 show tests at the band edge frequencies. The peak SAR location did not change during the tests performed in the tables below. The highest SAR result (bolded) from tables 18-19 below is provided in APPENDIX F Section 1.0 - Head Assessment section.

TABLE 18

896-902MHz Band Assessments at head left ear (1:3 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)**
Battery search												
MeC-Lear-090630-12/364VKKDY36	85009263001 Internal	898.99375	SNN5823A w NTN2555XXXA	Cheek Touch	None	None	0.644	-0.088	0.222	0.163	0.23	0.17
MeC-Lear-090630-11/364VKKDY36	85009263001 Internal	898.99375	SNN5793A w/ NTN2556XXXA	Cheek Touch	None	None	0.642	-0.161	0.259	0.192	0.27	0.20
Test position search												
MeC-Lear-090630-13/364VKKDY36	85009263001 Internal	898.99375	SNN5793A w/ NTN2556XXXA	15º Tilt	None	None	0.643	-0.078	0.223	0.161	0.23	0.16

TABLE 19

896-902MHz Band Assessments at head left ear (1:3 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)**
Assessment of other frequencies												
MeC-Lear-090630-14/364VKKDY36	85009263001 Internal	896.01875	SNN5793A w/ NTN2556XXXA	Check touch	None	None	0.649	-0.076	0.259	0.191	0.26	0.19
MeC-Lear-090630-16/364VKKDY36	85009263001 Internal	901.98125	SNN5793A w/ NTN2556XXXA	Check touch	None	None	0.642	-0.088	0.227	0.169	0.23	0.17

Assessments at the Head (1:3 mode) 896-902MHz (Head Test Flowchart pg 23 Steps 9 and 10); Table 20 show tests performed at the right ear with the highest SAR battery SNN5793A from steps 6-8 in the cheek touch and 15º tilt positions. Table 21 show tests at the band edge frequencies. The peak SAR location did not change during the tests performed in the tables below. The highest SAR result (bolded) from tables 20-21 below is provided in APPENDIX E – Highest Head SAR section.

TABLE 20

896-902MHz Band Assessments at head right ear (1:3 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)**
Position search with battery that produced highest SAR from left ear												
MeC-Rear-090701-09/364VKKDY36	85009263001 Internal	898.99375	SNN5793A w/ NTN2556XXXA	Cheek Touch	None	None	0.644	-0.137	0.304	0.199	0.31	0.21
MeC-Rear-090701-10/364VKKDY36	85009263001 Internal	898.99375	SNN5793A w/ NTN2556XXXA	15º Tilt	None	None	0.642	-0.079	0.221	0.160	0.23	0.16

TABLE 21

896-902MHz Band Assessments at head right ear (1:3 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)**
Assessment of other frequencies												
MeC-Rear-090701-12/364VKKDY36	85009263001 Internal	896.01875	SNN5793A w/ NTN2556XXXA	Cheek Touch	None	None	0.643	-0.145	0.283	0.186	0.29	0.19
MeC-Rear-090701-13/364VKKDY36	85009263001 Internal	901.98125	SNN5793A w/ NTN2556XXXA	Cheek Touch	None	None	0.641	-0.032	0.288	0.189	0.29	0.19

13.3 Face Test Flowchart Data Summary

806-825MHz band (1:6 mode) Assessment

Step 1 (Table 22 pg29)
Face assessment (1:6 mode)
Tests performed with the highest SAR battery SNN5793A from head assessments for this band at center frequency with the flip opened and closed.
The highest SAR from this step is **0.04W/kg**

↓

Step 2 (Table 23 pg29)
Face assessment (1:6 mode)
Tests performed at the center frequency with each of the applicable offered audio accessories SYN1472A and SYN1458A using the highest SAR flip position from step 1.
The highest SAR from this step is **0.03W/kg**

↓

Step 3 (Table 24 pg29)
Face assessment (1:6 mode)
Tests performed at low and high frequencies for this band using the highest SAR configuration from steps 1 & 2.
The highest SAR from this section is **0.05W/kg**

Highest Results at the Face (806-825MHz): 0.05W/kg

896-902MHz band (1:6 mode) Assessment

Step 4 (Table 25 pg30)
Face assessment (1:6 mode)
Tests performed with the highest SAR battery SNN5793A from head assessments for this band at center frequency with the flip opened and closed.
The highest SAR from this step is **0.06W/kg**

↓

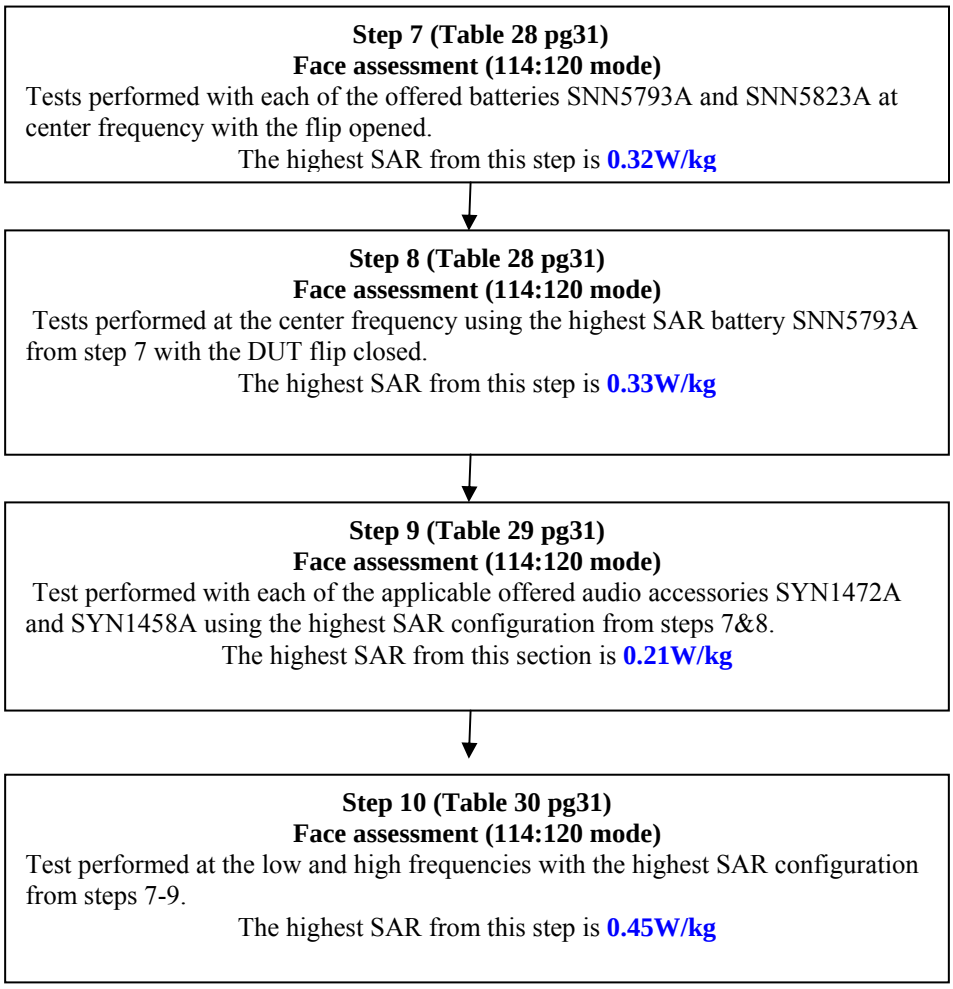
Step 5 (Table 26 pg30)
Face assessment (1:6 mode)
Tests performed at the center frequency with each of the applicable offered audio accessories SYN1472A and SYN1458A using the highest SAR flip position from step 4.
The highest SAR from this step is **0.03W/kg**

↓

Step 6 (Table 27 pg30)
Face assessment (1:6 mode)
The low and high frequencies for this band were tested using the highest SAR configuration from steps 4 & 5.
The highest SAR from this section is **0.05W/kg**

Highest Results at the Face (896-902MHz): 0.06W/kg

902-928MHz MOTOtalk (114:120 mode) Assessment



Highest Results at the Face (902-928MHz): 0.45W/kg

13.4 Face Test Data

Assessments at the Face (1:6 mode) 806-825MHz (Face Test Flowchart pg 27 Steps 1-3); Table 22 shows tests that were performed with DUT at 2.5cm separation with the flip opened and closed using the highest SAR battery SNN5793A from the head assessments at this band. Table 23 shows tests with each of the applicable offered audio accessories SYN1472A and SYN1458A using the highest SAR configuration from table 22. Table 24 shows tests at the low and high frequencies using the highest SAR configuration from tables 22-23. The peak SAR location did not change during the tests performed in the tables below. The highest SAR result (bolded) from tables 22-24 below is provided in APPENDIX F Section 2.0 - Face Assessment section.

TABLE 22

806-825MHz Band Assessments at face (1:6 dispatch 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)**
Flip position search												
HvH-Face-090702-02/364VKKDY36	85009263001 Internal	815.5125	SNN5793A w/ NTN2556XX XA	Front 2.5cm	None; Flip opened	None	0.660	-0.014	0.082	0.060	0.04	0.03
MeC-Face-090702-04/364VKKDY36	85009263001 Internal	815.5125	SNN5793A w/ NTN2556XX XA	Front 2.5cm	None; flip closed	None	0.661	-0.019	0.082	0.060	0.04	0.03

TABLE 23

806-825MHz Band Assessments at face (1:6 dispatch 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)**
Assessment of offered audio accessories												
MeC-Face-090702-05/364VKKDY36	85009263001 Internal	815.5125	SNN5793A w/ NTN2556XX XA	Front 2.5cm	None; flip closed	SYN1472A	0.660	-0.119	0.041	0.029	0.02	0.01
MeC-Face-090706-02/364VKKDY36	85009263001 Internal	815.5125	SNN5793A w/ NTN2556XX XA	Front 2.5cm	None; flip closed	SYN1458A	0.662	0.007	0.059	0.043	0.03	0.02

TABLE 24

806-825MHz Band Assessments at face (1:6 dispatch 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)**
Assessment of other frequencies												
MeC-Face-090706-03/364VKKDY36	85009263001 Internal	806.01250	SNN5793A w/ NTN2556XX XA	Front 2.5cm	None; flip closed	None	0.651	0.039	0.076	0.056	0.04	0.03
***MeC-Face-090721-14/364VKKDY36**	85009263001 Internal	824.9875	SNN5793A w/ NTN2556XX XA	Front 2.5cm	None; flip closed	None	0.657	-0.110	0.092	0.066	0.05	0.03

Assessments at the Face (1:6 mode) 896-902MHz (Face Test Flowchart pg 27 steps 4-6); Table 25 shows tests that were performed with DUT at 2.5cm separation with the flip opened and closed using the highest SAR battery SNN5793A from the head assessment at this band. Table 26 shows tests with each of the applicable offered audio accessories SYN1472A and SYN1458A using the highest SAR configuration from tables 25. Table 27 shows tests at the low and high frequencies using the highest SAR configuration from tables 25-26. The peak SAR location did not change during the tests performed in the tables below. The highest SAR result (bolded) from tables 25-27 below is provided in APPENDIX F Section 2.0 - Face Assessment section.

TABLE 25

896-902MHz Band Assessments at face (1:6 dispatch 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)**
Flip position search												
***MeC-Face-090702-06/364VKKDY36**	85009263001 Internal	898.99375	SNN5793A w/ NTN2556XXXA	Front 2.5cm	None; Flip opened	None	0.648	0.020	0.116	0.085	0.06	0.043
MeC-Face-090702-08/364VKKDY36	85009263001 Internal	898.99375	SNN5793A w/ NTN2556XXXA	Front 2.5cm	None; flip closed	None	0.649	-0.014	0.081	0.059	0.04	0.03

TABLE 26

896-902MHz Band Assessments at face (1:6 dispatch 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)**
Assessment of offered audio accessories												
MeC-Face-090702-09/364VKKDY36	85009263001 Internal	898.99375	SNN5793A w/ NTN2556XXXA	Front 2.5cm	None; Flip opened	SYN1472A	0.647	-0.176	0.067	0.049	0.03	0.03
MeC-Face-090706-05/364VKKDY36	85009263001 Internal	898.99375	SNN5793A w/ NTN2556XXXA	Front 2.5cm	None; Flip opened	SYN1458A	0.650	0.022	0.056	0.041	0.03	0.02

TABLE 27

896-902MHz Band Assessments at face (1:6 dispatch 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)**
Assessment of other frequencies												
MeC-Face-090706-06/364VKKDY36	85009263001 Internal	896.01875	SNN5793A w/ NTN2556XXXA	Front 2.5cm	None; Flip opened	None	0.655	-0.005	0.109	0.079	0.05	0.04
MeC-Face-090706-07/364VKKDY36	85009263001 Internal	901.98125	SNN5793A w/ NTN2556XXXA	Front 2.5cm	None; Flip opened	None	0.649	-0.001	0.098	0.070	0.05	0.04

Assessments at the Face (114:120 mode) 902-928MHz (Face Test Flowchart pg 28 steps 7-10); Table 28 shows tests that were performed with DUT at 2.5cm separation with the flip opened and closed using the offered batteries SNN5793A and SNN5823A from the head assessment at this band. Table 29 shows tests with each of the applicable offered audio accessories SYN1472A and SYN1458A. Table 30 shows tests at the low and high frequencies using the highest SAR configuration from tables 28-29. The peak SAR location did not change during the tests performed in the tables below. The highest SAR result (bolded) from tables 28-30 below is provided in APPENDIX E Section 2.0 – Highest Face SAR section.

TABLE 28

902-928MHz Band Assessments at Face (114:120 MOTOtalk 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)**
Assessment of offered Batteries												
HvH-Face-090721-04/364VKKDY36	85009263001 Internal	915.5250	SNN5793A w/ NTN2556XXXA	Front 2.5cm	None, Flip opened	None	0.924	0.002	0.647	0.465	0.32	0.23
HvH-Face-090721-03/364VKKDY36	85009263001 Internal	915.5250	SNN5823A w NTN2555XXXA	Front 2.5cm	None, Flip opened	None	0.922	0.034	0.640	0.462	0.32	0.23
Assessment of flip closed position												
HvH-Face-090721-07/364VKKDY36	85009263001 Internal	915.5250	SNN5793A w/ NTN2556XXXA	Front 2.5cm	None, Flip closed	None	0.923	0.035	0.653	0.466	0.33	0.23

TABLE 29

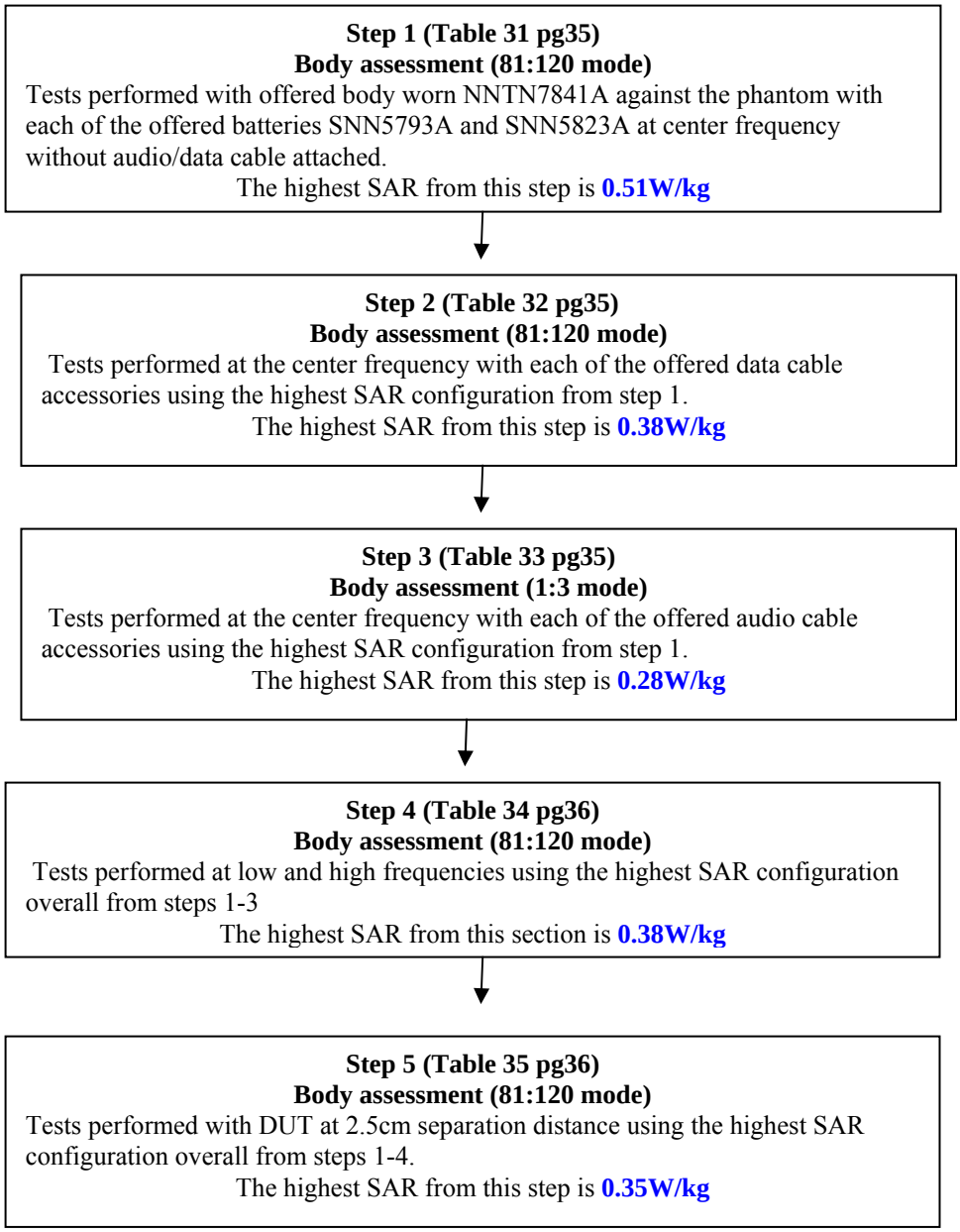
902-928MHz Band Assessments at Face (114:120 MOTOtalk mode)												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**SAR Drift (dB)**	**Meas. 1g-SAR (W/kg)**	**Meas. 10g-SAR (W/kg)**	**Max Calc. 1g-SAR (W/kg)**	**Max Calc. 10g-SAR (W/kg)**
Assessment of offered audio accessories												
HvH-Face-090722-02/364VKKDY36	85009263001 Internal	915.5250	SNN5793A w/ NTN2556XXXA	Front 2.5cm	None, Flip closed	SYN1472A	0.923	-0.014	0.409	0.294	0.21	0.15
HvH-Face-090722-03/364VKKDY36	85009263001 Internal	915.5250	SNN5793A w/ NTN2556XXXA	Front 2.5cm	None, Flip closed	SYN1458A	0.925	0.015	0.416	0.298	0.21	0.15

TABLE 30

902-928MHz Band Assessments at Face (114:120 MOTOtalk 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)**
Assessment of other frequencies												
HvH-Face-090722-05/364VKKDY36	85009263001 Internal	902.5250	SNN5793A w/ NTN2556XXXA	Front 2.5cm	None, Flip closed	None	0.927	-0.014	0.855	0.615	0.43	0.31
***CM-Face-090805-14/ 364VKKJQGD**	85009263001 Internal	902.5250	SNN5793A w/ NTN2556XXXA	Front 2.5cm	None, Flip closed	None	0.925	0.020	0.896	0.646	0.45	0.32
HvH-Face-090722-06/364VKKDY36	85009263001 Internal	927.4750	SNN5793A w/ NTN2556XXXA	Front 2.5cm	None, Flip closed	None	0.918	-0.065	0.493	0.352	0.25	0.18

13.5 Body Test Flowchart Data Summary

806-825MHz (81:120 and 1:3 modes) Assessment



Highest Results at the Body (806-825MHz): 0.51W/kg

896-902MHz (81:120 and 1:3 modes) Assessment

Step 6 (Table 36 pg36)
Body assessment (81:120 mode)
Tests performed with offered body worn NNTN7841A against the phantom with each of the offered batteries SNN5793A and SNN5823A at center frequency without audio/data cable attached.
The highest SAR from this step is **0.37W/kg**

↓

Step 7 (Table 37 pg37)
Body assessment (81:120 mode)
Tests performed at the center frequency with each of the offered data cable accessories using the highest SAR configuration from step 6.
The highest SAR from this step is **0.28W/kg**

↓

Step 8 (Table 38 pg37)
Body assessment (1:3 mode)
Tests performed at the center frequency with each of the offered audio cable accessories using the highest SAR configuration from step 6.
The highest SAR from this step is **0.14W/kg**

↓

Step 9 (Table 39 pg37)
Body assessment (81:120 mode)
Tests performed at low and high frequencies using the highest SAR configuration overall from steps 6-8.
The highest SAR from this section is **0.41W/kg**

↓

Step 10 (Table 40 pg37)
Body assessment (81:120 mode)
Tests performed with DUT at 2.5cm separation distance using the highest SAR configuration overall from steps 6-9.
The highest SAR from this step is **0.59W/kg**

Highest Results at the Body (896-902MHz): 0.59W/kg

902-928MHz (114:120) Assessment

Step 11 (Table 41 pg38)
Body assessment (114:120 mode)
Tests performed with offered body worn NNTN7841A against the phantom with each of the offered batteries SNN5793A and SNN5823A at center frequency without audio/data cable attached.
The highest SAR from this step is **0.31W/kg**

↓

Step 12 (Table 42 pg38)
Body assessment (114:120 modes)
Tests performed with offered body worn NNTN7841A against the phantom at the center frequency with each of the offered audio cable accessories SYN1472A and SYN1548A using the highest SAR configuration from step 11.
The highest SAR from this step is **0.34W/kg**

↓

Step 13 (Table 43 pg38)
Body assessment (114:120 mode)
Tests performed with offered body worn NNTN7841A against the phantom at the low and high frequencies using the highest SAR configuration overall from steps 11-12.
The highest SAR from this section is **0.35W/kg**

↓

Step 14 (Table 44 pg39)
Body assessment (114:120 mode)
Tests performed with DUT at 2.5cm separation distance with out body worn accessory using the highest SAR configuration overall from steps 11-13.
The highest SAR from this step is **0.63W/kg**

Highest Results at the Body (902-928MHz): 0.63W/kg

2402-2480MHz (BT 76.5% max DC) Assessment

1. BT SAR performance data not required per KDB 648474 DO1 and therefore not presented herein. Refer to Exhibit 7B section 7.2 for details

13.6 Body Test Data

Assessments at the Body (81:120 mode) 806-825MHz (Body Test Flowchart pg 32 steps 1-5); Table 31 shows tests that were performed with the offered body worn NNTN7841A against the phantom with each of the offered batteries SNN5793A and SNN5823A and no cable attachments. Tables 32 and 33 show tests with each of the offered data/audio accessories SKN6238A, SYN1472A and SYN1458A using the highest SAR configuration from table 31. Table 34 shows tests at the low and high frequencies using the highest SAR configuration from tables 31-33. Table 35 shows tests at 2.5 cm separation using the overall highest SAR configuration from tables 31-34. The peak SAR location did not change during the tests performed in the tables below. The highest SAR result (bolded) from tables 31-35 below is provided in APPENDIX F Section 3.0 Body Assessment Section.

Note: The 2.5cm assessments (table 35) included the following configurations per the intended use conditions noted in the manual:
- Back of the device facing the phantom, positioned at 2.5cm from the phantom surface.
- Front of the device facing the phantom, at 2.5cm from the phantom surface.

TABLE 31

806-825MHz Band Assessments at 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)**
Assessment of offered Batteries (81:120 data mode)												
HvH-Ab-090722-08/364VKKDY36	85009263001 Internal	815.51250	SNN5823A w NTN2555XXXA	Against phantom	NNTN7841A	None	0.648	-0.295	0.478	0.345	0.51	0.37
HvH-Ab-090722-09/364VKKDY36	85009263001 Internal	815.51250	SNN5793A w/ NTN2556XXXA	Against phantom	NNTN7841A	None	0.649	0.981	0.401	0.288	0.40	0.29

TABLE 32

806-825MHz Band Assessments at 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)**
Assessment of offered data accessory (81:120 data mode)												
MeC-Ab-090722-10/364VKKDY36	85009263001 Internal	815.51250	SNN5823A w NTN2555XXXA	Against phantom	NNTN7841A	SKN6238A	0.648	-0.454	0.343	0.251	0.38	0.28

TABLE 33

806-825MHz Band Assessments at Body (1:3 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)**
Assessment of offered audio accessories (1:3 mode)												
JsT-Ab-090818-07/364VKKDY36	85009263001 Internal	815.51250	SNN5823A w NTN2555XXXA	Against phantom	NNTN7841A	SYN1472A	0.670	-0.066	0.230	0.168	0.23	0.17
JsT-Ab-090818-08/364VKKDY36	85009263001 Internal	815.51250	SNN5823A w NTN2555XXXA	Against phantom	NNTN7841A	SYN1458A	0.672	-0.124	0.269	0.198	0.28	0.20

TABLE 34

806-825MHz Band Assessments at 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)**
Assessment of other frequencies (81:120 data mode)												
MeC-Ab-090722-13/364VKKDY36	85009263001 Internal	806.0125	SNN5823A w NTN2555XX XA	Against phantom	NNTN7841A	None	0.657	-0.167	0.366	0.271	0.38	0.28
MeC-Ab-090722-14/364VKKDY36	85009263001 Internal	824.9875	SNN5823A w NTN2555XX XA	Against phantom	NNTN7841A	None	0.655	-0.008	0.358	0.261	0.36	0.26

TABLE 35

806-825MHz Band Assessments at 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)**
Assessment at 2.5cm (81:120 data mode)												
MeC-Ab-090722-15/364VKKDY36	85009263001 Internal	824.9875	SNN5823A w NTN2555XX XA	DUT back 2.5cm	None	None	0.650	-0.139	0.343	0.253	0.35	0.26
MeC-Ab-090722-16/364VKKDY36	85009263001 Internal	824.9875	SNN5823A w NTN2555XX XA	DUT front 2.5cm	None	None	0.653	-0.102	0.178	0.129	0.18	0.13

Assessments at the Body (81:120 mode) 896-902MHz (Body Test Flowchart pg 33 steps 6-10);
Table 36 shows tests that were performed with the offered body worn NNTN7841A against the phantom with each of the offered batteries SNN5793A and SNN5823A and no cable attachments. Tables 37 and 38 show tests with each of the offered data/audio accessories SKN6238A, SYN1472A and SYN1458A using the highest SAR configuration from table 36. Table 39 shows tests at the low and high frequencies using the highest SAR configuration from tables 36-38. Table 40 shows tests at 2.5 cm separation using the overall highest SAR configuration from tables 36-39. The peak SAR location did not change during the tests performed in the tables below. The highest SAR result (bolded) from tables 36-40 below is provided in APPENDIX F Section 3.0 - Body Assessment Section.

Note: The 2.5cm assessments (table 40) included the following configurations per the intended use conditions noted in the manual:
- Back of the device facing the phantom, positioned at 2.5cm from the phantom surface.
- Front of the device facing the phantom, at 2.5cm from the phantom surface.

TABLE 36

896-902MHz Band Assessments at 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)**
Assessment of offered Batteries (81:120 data mode)												
HvH-Ab-090723-02/364VKKDY36	85009263001 Internal	898.99375	SNN5823A w NTN2555XX XA	Against phantom	NNTN7841A	None	0.667	-0.219	0.349	0.252	0.37	0.27
HvH-Ab-090723-04/364VKKDY36	85009263001 Internal	898.99375	SNN5793A w/ NTN2556XX XA	Against phantom	NNTN7841A	None	0.665	-0.027	0.343	0.254	0.35	0.26

TABLE 37

896-902MHz Band Assessments at Body (81:120 data mode)												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test positio)n**	**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)**
Assessment of offered data accessory (81:120 data mode)												
HvH-Ab-090723-05/364VKKDY36	85009263001 Internal	898.99375	SNN5823A w NTN2555XX XA	Against phantom	NNTN7841A	SKN6238A	0.670	-0.226	0.270	0.195	0.28	0.21

TABLE 38

896-902MHz Band Assessments at Body (1:3 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)**
Assessment of offered audio accessories (1:3 voice mode)												
JsT-Ab-090818-09/364VKKDY36	85009263001 Internal	898.99375	SNN5823A w NTN2555XX XA	Against phantom	NNTN7841A	SYN1472A	0.671	-0.135	0.107	0.076	0.11	0.08
JsT-Ab-090818-10/364VKKDY36	85009263001 Internal	898.99375	SNN5823A w NTN2555XX XA	Against phantom	NNTN7841A	SYN1458A	0.672	-0.181	0.136	0.099	0.14	0.10

TABLE 39

896-902MHz Band Assessments at 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)**
Assessment of other frequencies (81:120 data mode)												
HvH-Ab-090723-08/364VKKDY36	85009263001 Internal	896.01875	SNN5823A w NTN2555XX XA	Against phantom	NNTN7841A	None	0.669	-0.860	0.334	0.241	0.41	0.29
HvH-Ab-090723-09/364VKKDY36	85009263001 Internal	901.98125	SNN5823A w NTN2555XX XA	Against phantom	NNTN7841A	None	0.666	-0.086	0.327	0.241	0.33	0.25

TABLE 40

896-902MHz Band Assessments at 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)**
Assessment at 2.5cm (81:120 data mode)												
***HvH-Ab-090723-10/364VKKDY36**	85009263001 Internal	896.01875	SNN5823A w NTN2555XX XA	DUT back 2.5cm	None	None	0.671	-1.240	0.447	0.310	0.59	0.41
HvH-Ab-090723-11/364VKKDY36	85009263001 Internal	896.01875	SNN5823A w NTN2555XX XA	DUT front 2.5cm	None	None	0.670	-1.030	0.196	0.142	0.25	0.18

Assessments at the Body (114:120 mode) 902-928MHz (Body Test Flowchart pg 34 steps 11-14); Table 41 shows tests that were performed with the offered body worn NNTN7841A against the phantom with each of the offered batteries SNN5793A and SNN5823A and audio accessory SYN1472A attached. Tables 42 show tests with each of the other offered audio accessories SYN1458A using the highest SAR configuration from table 41. Table 43 shows tests at the low and high frequencies using the highest SAR configuration from tables 41-42. Table 44 shows tests at 2.5 cm separation using the overall highest SAR configuration from tables 41-43. A second unit was tested using the highest configuration from within this section. The peak SAR location did not change during the tests performed in the tables below. The highest SAR result (bolded) from the tables 41-44 below is provided in APPENDIX E Section 3.0 – Highest SAR Body section.

Note: The 2.5cm assessments (table 44) included the following configurations per the intended use conditions noted in the manual:
- Back of the device facing the phantom, positioned at 2.5cm from the phantom surface.
- Front of the device facing the phantom, at 2.5cm from the phantom surface.

TABLE 41

902-928MHz Band Assessments at Body (114:120 MOTOtalk 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)**
Assessment of offered Batteries												
CM-Ab-090804-08/364VKKDY36	85009263001 Internal	915.5250	SNN5823A w NTN2555XXXA	Against phantom	NNTN7841A	SYN1472A	0.921	0.099	0.616	0.442	0.31	0.22
CM-Ab-090804-11/364VKKDY36	85009263001 Internal	915.5250	SNN5793A w/ NTN2556XXXA	Against phantom	NNTN7841A	SYN1472A	0.924	-0.017	0.585	0.417	0.29	0.21

TABLE 42

902-928MHz Band Assessments at Body (114:120 MOTOtalk 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)**
Assessment of other offered audio accessory												
JsT-Ab-090805-03/364VKKDY36	85009263001 Internal	915.5250	SNN5823A w NTN2555XXXA	Against phantom	NNTN7841A	SYN1458A	0.935	0.000	0.688	0.494	0.34	0.25

TABLE 43

902-928MHz Band Assessments at Body (114:120 MOTOtalk 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)**
Assessment of other frequencies												
CM-Ab-090817-02/364VKKDY36	85009263001 Internal	902.5250	SNN5823A w NTN2555XXXA	Against phantom	NNTN7841A	SYN1458A	0.925	0.108	0.702	0.510	0.35	0.26
CM-Ab-090817-04/364VKKDY36	85009263001 Internal	927.4750	SNN5823A w NTN2555XXXA	Against phantom	NNTN7841A	SYN1458A	0.907	0.0622	0.462	0.333	0.23	0.17

TABLE 44

902-928MHz Band Assessments at Body (114:120 MOTOtalk 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)**
Assessment at 2.5cm												
JsT-Ab-090818-02/ 364VKKDY36	85009263001 Internal	902.525 0	SNN5823A w NTN2555XX XA	DUT back 2.5cm	None	SYN1458A	0.936	0.198	0.908	0.646	0.45	0.32
JsT-Ab-090818-05/ 364VKKJQGD	85009263001 Internal	902.525 0	SNN5823A w NTN2555XX XA	DUT back 2.5cm	None	SYN1458A	0.930	0.274	1.250	0.892	0.63	0.45
JsT-Ab-090818-03/364VKKDY36	85009263001 Internal	902.525 0	SNN5823A w NTN2555XX XA	DUT front 2.5cm	None	SYN1458A	0.935	-0.129	0.456	0.331	0.24	0.17

13.7 Shorten Scan Assessment

Short scan assessment of the overall SAR highest configuration (TABLE 44 pg39) A second unit (SN 364VKKJQGD) was used to confirm the overall SAR highest configuration. A "shortened" scan (bolded) was performed, using the test configuration that produced the highest SAR results overall table 45 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 Short scan assessment.

TABLE 45

Shorten Scan Assessment (114:120 MOTOtalk 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)**
JsT-Ab-090818-05/ 364VKKJQGD	85009263001 Internal	902.525 0	SNN5823A w NTN2555XX XA	DUT back 2.5cm	None	SYN1458A	0.930	0.274	1.25	0.892	0.63	0.45
Shorten scan JsT-Ab-090818-06/ 364VKKJQGD	85009263001 Internal	902.525 0	SNN5823A w NTN2555XX XA	DUT back 2.5cm	None	SYN1458A	0.932	-0.122	1.16	0.819	0.60	0.42

14.0 Conclusion

The highest Operational Maximum Calculated 1-gram and 10-gram average SAR values found for FCC ID: IHDT56KQ1 model H75XAH6JS5AN.

Max. Calc. : 1-g Avg. SAR: 0.63 W/kg (Body); 10-g Avg. SAR: 0.45 W/kg (Body)
Max. Calc. : 1-g Avg. SAR: 0.45 W/kg (Face); 10-g Avg. SAR: 0.32 W/kg (Face)
Max. Calc. : 1-g Avg. SAR: 0.31 W/kg (Head); 10-g Avg. SAR: 0.21 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	

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	

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 Plantation EME Lab**

Certificate No: ES3-3007_Mar09

CALIBRATION CERTIFICATE

Object ES3DV2 - SN:3007

Calibration procedure(s) QA CAL-01.v6, QA CAL-12.v5, QA CAL-14.v3 and QA CAL-23.v3
Calibration procedure for dosimetric E-field probes

Calibration date: March 12, 2009

Condition of the calibrated item In Tolerance

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-08 (No. 217-00788)	Apr-09
Power sensor E4412A	MY41495277	1-Apr-08 (No. 217-00788)	Apr-09
Power sensor E4412A	MY41498087	1-Apr-08 (No. 217-00788)	Apr-09
Reference 3 dB Attenuator	SN: S5054 (3c)	1-Jul-08 (No. 217-00865)	Jul-09
Reference 20 dB Attenuator	SN: S5086 (20b)	31-Mar-08 (No. 217-00787)	Apr-09
Reference 30 dB Attenuator	SN: S5129 (30b)	1-Jul-08 (No. 217-00866)	Jul-09
Reference Probe ES3DV2	SN: 3013	2-Jan-09 (No. ES3-3013_Jan09)	Jan-10
DAE4	SN: 660	9-Sep-08 (No. DAE4-660_Sep08)	Sep-09

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-08)	In house check: Oct-09

	Name	Function	Signature
Calibrated by:	Katja Pokovic	Technical Manager	
Approved by:	Fin Bomholt	R&D Director	

Issued: March 16, 2009

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
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 (no uncertainty required). DCP does not depend on frequency nor media.
- *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 ES3DV2

SN:3007

Manufactured:	October 22, 1999
Last calibrated:	April 23, 2008
Recalibrated:	March 12, 2009

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

ES3DV2 SN:3007 March 12, 2009

DASY - Parameters of Probe: ES3DV2 SN:3007

Sensitivity in Free Space[A] Diode Compression[B]

NormX	1.74 ± 10.1%	$\mu V/(V/m)^2$	DCP X	91 mV
NormY	1.81 ± 10.1%	$\mu V/(V/m)^2$	DCP Y	92 mV
NormZ	1.25 ± 10.1%	$\mu V/(V/m)^2$	DCP Z	94 mV

Sensitivity in Tissue Simulating Liquid (Conversion Factors)

Please see Page 8.

Boundary Effect

TSL 900 MHz Typical SAR gradient: 5 % per mm

Sensor Center to Phantom Surface Distance		3.0 mm	4.0 mm
SAR_{be} [%]	Without Correction Algorithm	7.5	4.6
SAR_{be} [%]	With Correction Algorithm	0.8	0.3

TSL 1810 MHz Typical SAR gradient: 10 % per mm

Sensor Center to Phantom Surface Distance		3.0 mm	4.0 mm
SAR_{be} [%]	Without Correction Algorithm	9.7	7.1
SAR_{be} [%]	With Correction Algorithm	0.9	0.5

Sensor Offset

Probe Tip to Sensor Center	2.7 mm

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%.

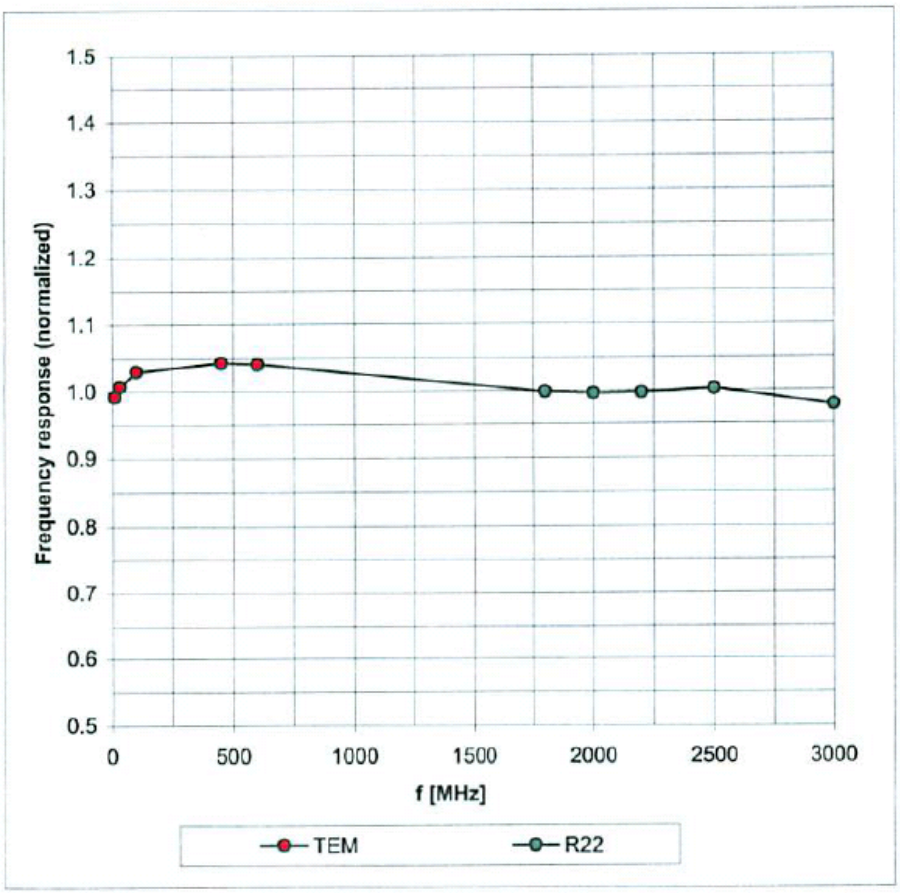
[A] The uncertainties of NormX,Y,Z do not affect the E^2-field uncertainty inside TSL (see Page 8).

[B] Numerical linearization parameter: uncertainty not required.

ES3DV2 SN:3007 March 12, 2009

Frequency Response of E-Field

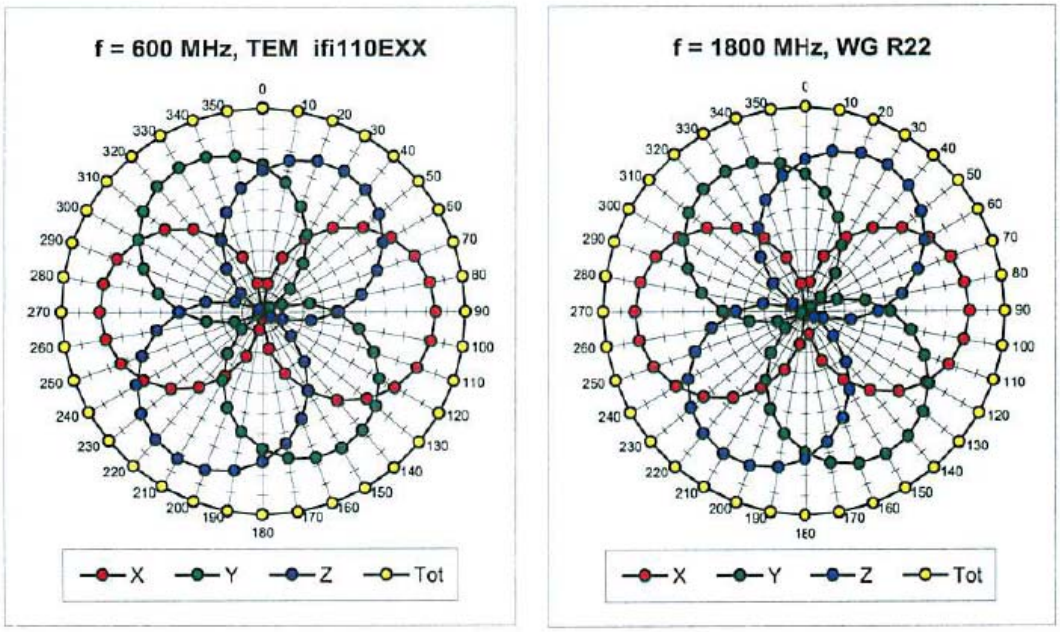
(TEM-Cell:ifi110 EXX, Waveguide: R22)

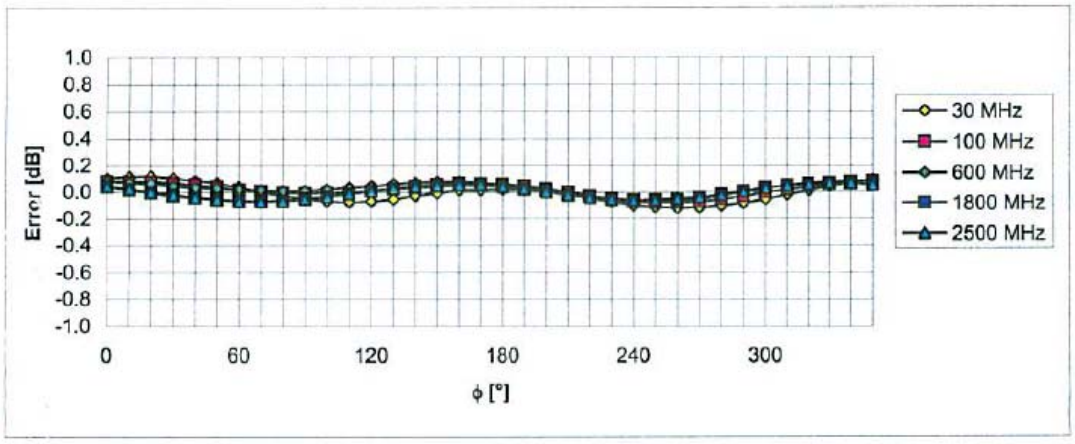


Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

ES3DV2 SN:3007 **March 12, 2009**

Receiving Pattern (ϕ), ϑ = 0°



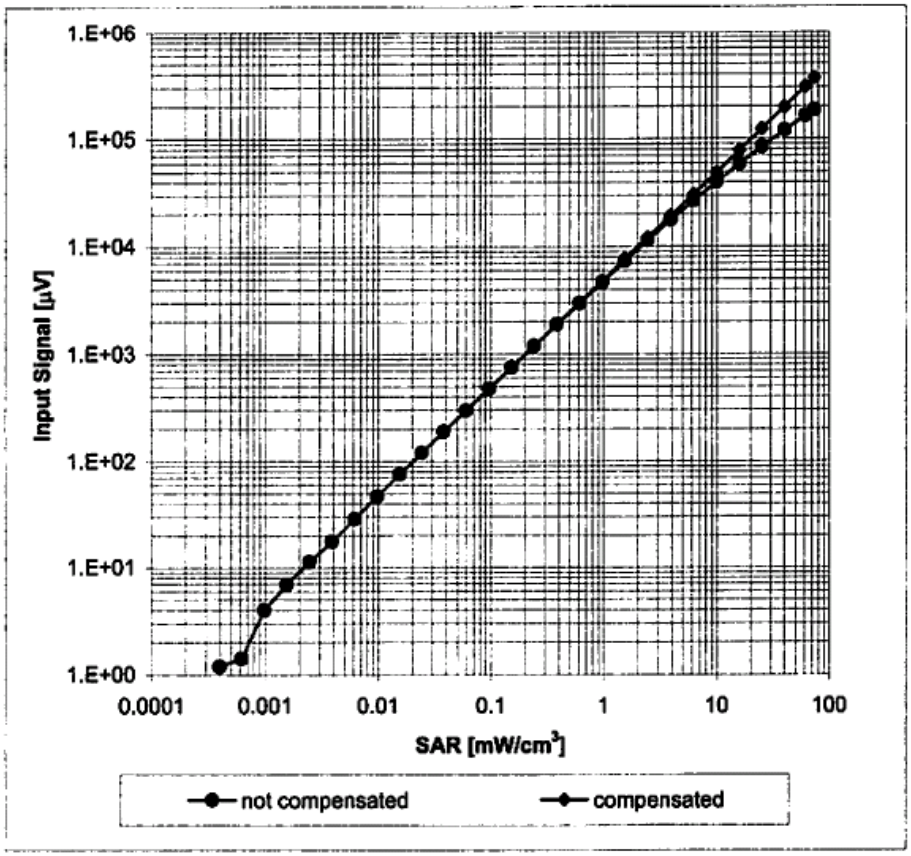


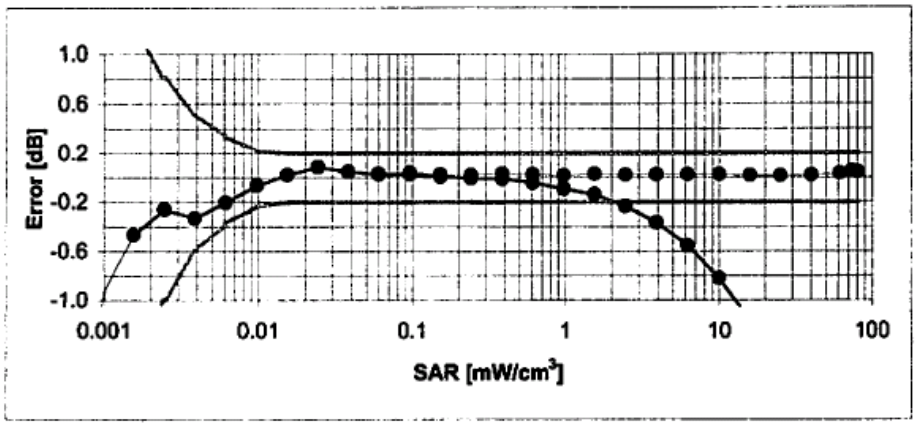
Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

ES3DV2 SN:3007 March 12, 2009

Dynamic Range f(SAR_{head})

(Waveguide R22, f = 1800 MHz)





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

ES3DV2 SN:3007 March 12, 2009

Conversion Factor Assessment

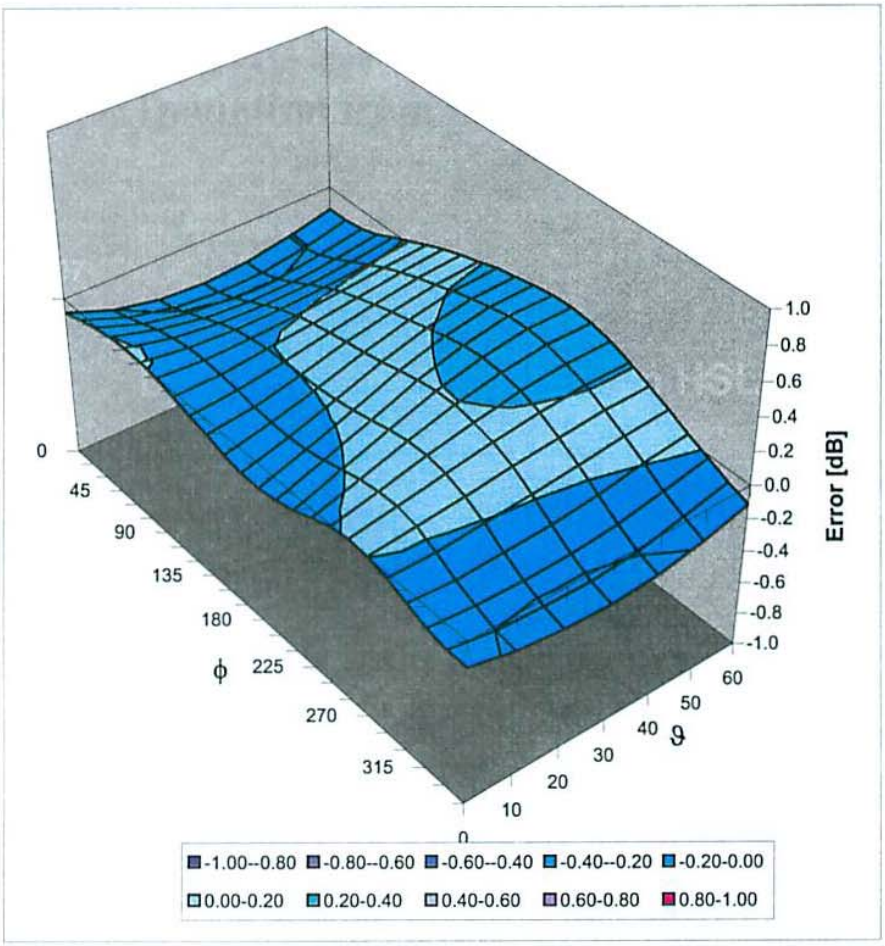
f [MHz]	Validity [MHz][C]	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
450	± 50 / ± 100	Head	43.5 ± 5%	0.87 ± 5%	0.31	1.61	6.76 ± 13.3% (k=2)
750	± 50 / ± 100	Head	41.9 ± 5%	0.89 ± 5%	0.97	1.23	6.29 ± 11.0% (k=2)
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.57	1.49	6.04 ± 11.0% (k=2)
1810	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.26	2.57	5.13 ± 11.0% (k=2)
1950	± 50 / ± 102	Head	40.0 ± 5%	1.40 ± 5%	0.40	1.95	4.93 ± 11.0% (k=2)
2300	± 50 / ± 105	Head	39.4 ± 5%	1.71 ± 5%	0.36	2.14	4.80 ± 11.0% (k=2)
2450	± 50 / ± 106	Head	39.2 ± 5%	1.80 ± 5%	0.36	2.15	4.52 ± 11.0% (k=2)
2600	± 50 / ± 107	Head	39.0 ± 5%	1.96 ± 5%	0.50	1.88	4.43 ± 11.0% (k=2)
3500	± 50 / ± 108	Head	37.9 ± 5%	2.91 ± 5%	0.80	1.40	3.88 ± 13.1% (k=2)
3700	± 50 / ± 109	Head	37.7 ± 5%	3.12 ± 5%	0.80	1.40	3.53 ± 13.1% (k=2)
450	± 50 / ± 100	Body	56.7 ± 5%	0.94 ± 5%	0.22	1.53	7.19 ± 13.3% (k=2)
750	± 50 / ± 100	Body	55.5 ± 5%	0.96 ± 5%	0.87	1.26	6.10 ± 11.0% (k=2)
900	± 50 / ± 100	Body	55.0 ± 5%	1.05 ± 5%	0.95	1.27	6.02 ± 11.0% (k=2)
1810	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.92	1.28	4.82 ± 11.0% (k=2)
1950	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.70	1.48	4.73 ± 11.0% (k=2)
2300	± 50 / ± 100	Body	52.8 ± 5%	1.85 ± 5%	0.99	1.35	4.22 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.99	1.22	4.02 ± 11.0% (k=2)
2600	± 50 / ± 100	Body	52.5 ± 5%	2.16 ± 5%	0.99	1.27	3.90 ± 11.0% (k=2)
3500	± 50 / ± 100	Body	51.3 ± 5%	3.31 ± 5%	0.80	1.50	3.37 ± 13.1% (k=2)
3700	± 50 / ± 100	Body	51.0 ± 5%	3.55 ± 5%	0.80	1.60	3.10 ± 13.1% (k=2)

[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.

ES3DV2 SN:3007 March 12, 2009

Deviation from Isotropy in HSL

Error (ϕ, ϑ), f = 900 MHz



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

Schmid & Partner Engineering AG

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

s p e a g

Additional Conversion Factors

for Dosimetric E-Field Probe

Type:	**ES3DV2**
Serial Number:	**3007**
Place of Assessment:	**Zurich**
Date of Assessment:	**March 16, 2009**
Probe Calibration Date:	**March 12, 2009**

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:

Dosimetric E-Field Probe ES3DV2 SN:3007

Conversion factor (± standard deviation)

150 MHz	*ConvF*	**8.2 ± 10%**	**ε_r = 52.3** **σ = 0.76 mho/m** (head tissue)
250 MHz	*ConvF*	**7.5 ± 10%**	**ε_r = 47.6** **σ = 0.83 mho/m** (head tissue)
300 MHz	*ConvF*	**7.4 ± 9%**	**ε_r = 45.3** **σ = 0.87 mho/m** (head tissue)
150 MHz	*ConvF*	**7.9± 10%**	**ε_r = 61.9** **σ = 0.80 mho/m** (body tissue)
250 MHz	*ConvF*	**7.5 ± 10%**	**ε_r = 59.4** **σ = 0.88 mho/m** (body tissue)
300 MHz	*ConvF*	**7.4 ± 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.

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