MOTOROLA

ACCREDITED
Certificate Number: 1449-01

FCC ID: AZ489FT5846
DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 1 of 3

Government & Enterprise Mobility Solutions
EME Test Laboratory
8000 West Sunrise Blvd
Fort Lauderdale, FL. 33322

Date of Report: August 5, 2005
Report Revision: Rev. O
Report ID: FCC rpt_i870_Rev O_050805 SR2563

Responsible Engineer:	Kim Uong (EME lead Eng.)
Date/s Tested:	7/22/05 – 8/1/05
Manufacturer/Location:	Motorola - Plantation
Sector/Group/Div.:	iDEN Subscriber
Date submitted for test:	7/14/05
DUT Description:	i870; TDMA: 236:310 (76.1%), 1:6, 2:6, 81:120, 1:12; 64QAM, 16 QAM & QPSK Modulation; 0.6W Pulse Avg. MOTOtalk (114:120 8FSK; 0.85 W nominal); GPS and Bluetooth capable
Test TX mode(s):	1:3, 1:6, 81:120, 114:120, 236:310
Max. Power output:	iDEN/WiDEN - 0.640W; MOTOtalk – 0.891W, Bluetooth – 2.5mW
Nominal Power:	iDEN/WiDEN - 0.600W; MOTOtalk – 0.850W, Bluetooth – 1mW
Tx Frequency Bands:	iDEN - 806-825, 896-902MHz; MOTOtalk - 902-928MHz; BT - 2.402-2.480GHz
Signaling type:	TDMA: iDEN; WiDEN; MOTOtalk; Bluetooth
Model(s) Tested:	H85XAH6RR5AN-NWF1089A
Model(s) Certified:	H85XAH6RR5AN-NWF1089A
Serial Number(s):	000AFJ00J2; 000AFJ00HZ
Classification:	General Population/Uncontrolled
Rule Part(s):	15 & 90

Approved Accessories:

Antenna(s):
8575108A01 retractable ¼ wave antenna (806-825MHz, -7.6 dBi to -4.7dBi; 896-902MHz, -9.2dBi to -5.2dBi; 902-928Mhz, -9.2dBi to -5.2dBi

Battery(ies):
SNN5705C (Hi performance Li Ion); NNTN2291XXXA (Battery cover)

Body worn accessory(ies):
NNTN4747A (Belt clip); NNTN6231A (Carry Holster)

Audio/Data cable accessory(ies):
NSN6066A (Light duty RSM), NNTN5004A (headset over ear), NNTN5005A (headset over head), SYN8390B (Privacy earpiece), SYN8146C (Lightweight headset w/ boom mic), NTN8496A (Lightweight headset w/ mic), NNTN4033A (Privacy Earpiece/mic w/ PTT), NNTN5006A (Black Earbud), SYN7875C (Hearing Aid Neckloop), NTN8513B (Lightweight headband), NNTN5330A (Ear bud accessory), NNTN4620A (Silver ear bud), NNTN5774A (Stereo Head set); NKN6559A (USB Cable), NKN6560A (RS232), NNTN5405A (USB cable w/ charging), NNTN5406A (RS-232 data cable w/ charging)

Max. Calc. 1-g/10-g Avg. SAR: 1.32/0.92 mW/g (Body)
Max. Calc. 1-g/10-g Avg. SAR: 0.52/0.37 mW/g (Face)
Max. Calc. 1-g/10-g Avg. SAR: 0.59/0.40 mW/g (Head)

This reporting format is consistent with the test report guidelines of the TIA TSB-150 December 2004
The results and statements contained in this report pertain only to the device(s) evaluated.

Ken Enger's signature on file
Ken Enger GEMS EME Lab Senior Resource Manager, Laboratory Director,

Approval Date: 8/5/05

Certification Date: 8/5/05

Certification No.: L1050813P

Part 1 of 3

APPENDICES

Part 2 of 3

Part 3 of 3

REVISION HISTORY

Date	Revision	Comments
8/05/05	O	Initial Prototype release

1.0 Introduction and Overview

This report details the utilization, test setup, test equipment, and test results of the Specific Absorption Rate (S.A.R.) measurements performed at the GEMS EME Test Lab for the model number H85XAH6RR5AN/NWF1089A of FCC ID: AZ489FT5846. The results herein reflect initial prototype results.

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

2.0 Reference Standards and Guidelines

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

- 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 Electronic Engineers (IEEE) C95. 1-1992
- Institute of Electrical and Electronic Engineers (IEEE) C95.1-1999 Edition
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998
- Ministry of Health (Canada) Safety Code 6. Limits of Human Exposure to Radio frequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz, 1999
- Australian Communications Authority Radiocommunications (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”

2.1 SAR Limits

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)	1.60	8.0
Spatial Peak – ICNIRP/ANSI - (hands/wrists/feet/ankles averaged over 10-g)	4.0	20.0
Localized SAR - ICNIRP - (Head and Trunk 10-g)	2.0	10.0

3.0 Description of Device Under Test (DUT)

FCC ID: AZ489FT5846 is a digital multi-service data capable device that employs time division multiplexing transmission technology with a duty cycle ranging from 16.67% to 33.33% using M16-QAM modulation for voice or circuit data transmission. There is a Split 1:3 mode that operates using a 16.67% transmission duty cycle. Two 7.5ms pulses occur during the six time slots within the 90-msec frame format. This mode is available in both the 806-825MHz and 896-902MHz bands in the telephone interconnect mode only. Packet data transmission is supported up to a maximum duty cycle of 67.5% using quad QPSK modulation. This device supports MOTOtalk transmission is also supported and employs a frequency hopping digital spread spectrum format operating in the 900 MHZ ISM band. MOTOtalk has a transmission duty cycle of 114:120 using 8 FSK modulation. MOTOtalk operates only in PTT mode in front of the face or at the abdomen with the applicable offered audio accessories. This device incorporates WiDEN technology with a maximum transmission duty cycle of 236:310 (76.1%). WiDEN uses the standard iDEN modulation modes in 1 to 4 standard 25KHz iDEN channels. WiDEN25, 50, 75, and 100 uses 1, 2, 3, and 4 25KHz channels respectfully. The highest duty cycle is in the WiDEN 25KHz mode. No simultaneous transmissions are possible. Packet Data and WiDEN operations are possible with and without connection to an external data device, via a data cable. This device is also GPS and Bluetooth capable.

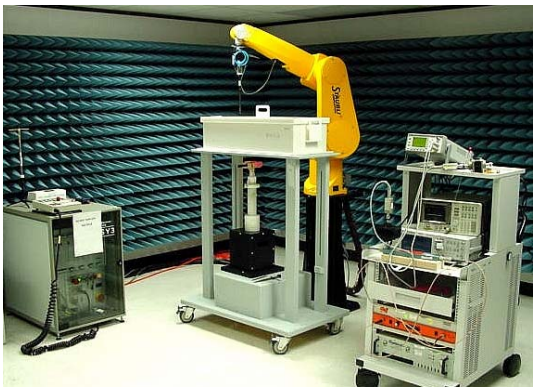
This device will be marketed to and used by the general population. This device may be used while held against the head in voice mode, in front of the face in PTT mode, and against the body in phone, dispatch, MOTOtalk, Data, and WiDEN modes.
FCC ID: AZ489FT5846 is capable of operating in the 806-825 MHz and 896-902MHz bands. MOTOtalk operates in the 902-928MHz band. WiDEN operates with the 806-825MHz and 896-902MHz bands. The rated conducted power is 0.60 watts pulsed averaged in 806-825MHz and 896-902MHz bands and 0.85 watts in the MOTOtalk band. The maximum conducted output power is 0.64 watts pulsed average and 0.891 watts respectively as defined by the upper limit of the production line final test station.

FCC ID: AZ489FT5846 is offered with the options and accessories listed on the coversheet of this report.

Test Output Power

A table of the characteristic power slump versus time is provided in Appendix F.

4.0 Description of Test System



4.1 Descriptions of Robotics/probes/Readout Electronics

The laboratory utilizes a Dosimetric Assessment System (DASY4™) S.A.R. measurement system Version 4.5 B19.2 manufactured by Schmid & Partner Engineering AG (SPEAG™), of Zurich Switzerland. The test system consists of a Stäubli RX90L robot, DAE3V1, and ET3DV6 E-Field probes. Please reference the SPEAG user manual and application notes for detailed probe, robot, and S.A.R. computational procedures. Section 5.0 presents relevant 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 S.A.R. 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.

4.2 Description of Phantom(s)

4.2.1 Flat Phantom

Phantom Type	Phantom Material	Phantom Dimensions (cm)	Support structure opening dimensions (cm)	Support structure material	Loss Tangent (wood)
Flat	High Density Polyethylene (HDPE)	80x30x20x0.2	68.58x20.32	Wood	< 0.05

4.2.2 SAM Phantom

Phantom Type	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

4.3 Description of Equivalent tissues

Type 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 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 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 Glycol based 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

% of listed ingredients	900MHz	
	Head	Body
Sugar	56.5	44.9
DGBE (Glycol)	NA	NA
Diacetin	NA	NA
De ionized -Water	40.95	53.06
Salt	1.45	0.94
HEC	1.0	1
Bact.	0.1	0.1

Reference section 6.1 for target parameters

5.0 Additional Test Equipment

Equipment Type	Model Number	Serial Number	Calibration Due Date
Power Meter (HP)	E4419B	MY40330364	1/28/2006
Power Sensor (HP)	8482B	3318A05259	3/28/2006
Power Sensor (HP)	8482B	3318A06773	3/22/2006
Power Meter (HP)	E4418B	US39251150	4/6/2006
Power Sensor (HP)	8482B	3318A07393	3/29/2006
Directional Coupler (NARDA)	3020A	40296	2/27/2006
Signal Generator (Agilent)	E4438C	MY42082269	1/11/2006
AMP (ComTech PST)	AR88258-10	N1R1A00-1015	CNR
Network Analyzer (HP)	8753D	3410A06417	7-Feb-06
Dielectric Probe Kit (HP)	85070C	US99360076	CNR
Speag Dipole	D900V2	85	19-Aug-06

6.0 SAR Measurement System Verification

The S.A.R. measurements were conducted with probe model/serial number ET3DV6/SN1384. The system performance check was conducted daily and within 24 hours prior to testing. DASY output files of the the probe/dipole calibration certificates and system performance test results are included in appendices B, C, D respectively. The table below summarizes the system performance check results normalized to 1W.
Dipole validation scans at the head from SPEAG are provided in APPENDIX D. The GEMS EME lab validated the dipole to the applicable IEEE 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 GEMS EME system performance validation are provided herein.

6.1 Equivalent Tissue Test Results

Simulated tissue prepared for S.A.R. measurements is measured daily and within 24 hours prior to actual S.A.R. 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 Agilent (HP) probe kit model 85070C and a HP8753D Network Analyzer.

Actual versus Target tissue parameters (7/22/05 -8/1/05)

FCC Body				
Frequency (MHz)	**Di-electric Constant Target**	**Di-electric Constant Meas. (Range)**	**Conductivity Target S/m**	**Conductivity Meas. (Range) S/m**
900/899	55.0	52.6-53.3	1.05	1.03-1.06
915	55.0	52.5-53.2	1.06	1.06-1.08
813	55.3	53.5-54.2	0.97	0.95-0.97

IEEE Head				
Frequency (MHz)	**Di-electric Constant Target**	**Di-electric Constant Meas. (Range)**	**Conductivity Target S/m**	**Conductivity Meas. (Range) S/m**
900/899	41.5	42.2-42.4	0.97	1.01-1.01
915	41.5	42.2-42.2	0.98	1.02-1.02
813	41.6	42.8-43.5	0.90	0.93-0.93

6.2 System Check Test Results

Probe Serial #	Tissue Type	Probe Cal Date	Dipole Kit / Serial #	System Perf. Result when normalized to 1W (mW/g)	Reference S.A.R @ 1W (mW/g)	Test Date(s)
1384	FCC Body	5/26/05	SPEAG D900V2 /085	11.82+/- 0.490	11.41 +/- 10%	7/25/05-8/1/05 8 test days
1384	IEEE Head	5/26/05	SPEAG D900V2 /085	11.475 +/- 0.045	11.26 +/-10%	7/22/05-7/24/05 3 test days

Note: See APPENDIX D for an explanation of the reference S.A.R. targets stated above.
(System performance results reflects the median performance +/- ½ of the test date(s) performance ranges)

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 S.A.R. compliance was calibrated according to 17025 A2LA guidelines.

7.0 DUT Test Strategy and Methodology

7.1 DUT Configuration(s)

The DUT is a portable device with iDEN, WiDEN, and MOTOtalk (FHSS 8FSK) transmission signaling at their respective body location using the offered accessories. The device is placed in the test positions presented in Appendix G.

Test Plan

All options and accessories listed on the cover page of this report were considered in order to develop the S.A.R. test plan for this product. S.A.R. measurements were performed using a flat phantom and a SAM phantom with the applicable simulated tissue to assess performance at the body, head, and face respectively using the relevant transmission modes.
Note that a coarse-to-cube approximation methodology was utilized to determine the worst-case S.A.R. performance configuration for each applicable body location. The test configurations that produced the highest S.A.R. results for each body position using the coarse-to-cube approximation methodology were assessed using the full DASY4™ coarse and 7x7x7 cube scans.

Assessments at the Head (Phone mode 1:3) **[Pages 12, 13 of 33; Tables 1 & 2]**

- Assessment in the 806-825MHz band of offered battery using applicable test configurations at the head.
- Assessment at the 806-825MHz band edges using the worst case configuration from above.
- Assessment in the 896-902MHz band of offered battery using applicable test configurations at the head.
- Assessment at the 896-902MHz band edges using the worst case configuration from

above.

Assessments at the Face (MOTOtalk mode 114:120) **[Page 13 & 14 of 33; Table 3]**

- Assessment in the 902-928MHz band with the flip opened and closed with the antenna retracted.
- Assessment in the 902-928MHz band with the worst case flip position from above and the antenna extended.
- Assessment at the 902-928MHz band edges using the worst case configuration from above.

Assessments at the Face (PTT mode 1:6) **[Page 13 & 14 of 33; Table 3]**

- Assessment in the 896-902MHz band with the flip closed and both antenna positions.
- Assessment at the 896-902MHz band edges using the worst case configuration from above.
- Assessment in the 806-825MHz band with the flip closed and both antenna positions.
- Assessment at the 806-825MHz band edges using the worst case configuration from above.

Assessments at the Body (WiDEN 236:310/Data 81:120 modes) **[Pages 15/16 of 33; Table 3]**

- Assessment in the 806-825MHz and 896-902MHz bands in WiDEN mode using the offered battery and carry case accessories with the antenna in both positions.
- Assessment in the 806-825MHz and 896-902MHz bands in iDEN data mode, with the antenna in both positions using the worst case test configuration from each respective band.
- Assessment of each offered data cables using the worst case test configuration from above with the antenna in both positions.
- Assessment at the band edges of each band using the worst case test configuration from above.

Assessments at the Body (iDEN MOTOtalk mode 114:120) **[Page 17/18 of 33; Table 5]**

- Assessment in the 902-928MHz band of each offered carry case accessory and initial audio accessory with the antenna in both positions.
- Assessment in the 902-928MHz band using the worst case test configuration from above with each of the offered audio accessories.
- Assessment at the band edges with the antenna in both positions using the worst case audio accessory from above.
- Assessment of worst case test position from above with the simultaneous Bluetooth transmitter on, with the antenna in both positions and without any attached audio accessory.

Assessments at the Body (iDEN phone mode 1:3) **[Page 18 of 33; Table 6]**

- Assessment in the 896-902MHz bands using the worst case configuration from the respective MOTOtalk assessments at the body above with the antenna in both

positions.
- Assessment of worst case test position from above with the simultaneous Bluetooth transmitter on, with the antenna in both positions and without any attached audio accessory.
- Assessment in the 806-825MHz band using the worst case test position from above.
- Assessment of worst case test position from the 806-825MHz band above with the simultaneous Bluetooth transmitter on, with the antenna in both positions and without any attached audio accessory.

Assessments at the Body 2.5cm (WiDEN mode 236:310 - 76%) **[Page 18 of 33; Table 7]**

- Assessment using the worst case test configuration at the body overall from above with the back and front housing of the DUT separated 2.5cm from the phantom.

Shortened scan assessment at the Body **[APPENDIX E Part 3 of 3]**

- A "shortened" scan was performed using the offered battery and test configuration that produced the highest S.A.R. results overall. Note that the shortened scan is obtained by first running a coarse scan to find the peak area and then, using a newly charged battery, a cube scan only was performed. The shortened scan represents the cube scan performance results.

7.2 Device Positioning Procedures

Reference Appendix G for photos of the DUT tested positions.

7.2.1 Body

The DUT was positioned in normal use configuration against the phantom with the offered body worn accessory.
The DUT was positioned with its' front and back sides separated 2.5cm from the phantom.

7.2.2 Head

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

7.2.3 Face

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

8.0 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 15cm +/- 0.5cm. 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 S.A.R. tests reported herein:

	Target	Measured
Ambient Temperature	20 - 25 ˚C	Range: 20.0-24.2˚C Avg. 21.32˚C
Relative Humidity	30 - 70 %	Range: 48.2-58.2% Avg. 52.07%
Tissue Temperature	NA	Range: 20.1-21.1˚C Avg. 20.67˚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 S.A.R scans are repeated.

9.0 Test Results Summary

All S.A.R. results obtained by the tests described in Section 7.1 are listed below. As noted in section 7.1, a coarse-to-cube approximation methodology, was utilized to ascertain the worst-case test configuration for each body location. The worst case test configurations observed for each body location were then assessed using the full DASY4™ coarse and 7x7x7 cube methodology, and they are presented as bolded results. The associated S.A.R. plots are provided in APPENDIX E. Appendix E also presents shortened S.A.R. cube scans to assess the validity of the calculated results presented herein. Note: The results of the shortened cube scans presented in Appendix E demonstrate that the scaling methodology used to determine the calculated S.A.R. results presented herein are valid.

Table1

Assessments at the Head (Phone mode 1:3) 802-825MHz band												
Run Number/ SN	**Antenna Pos.**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**S.A.R. Drift (dB)**	**Meas. 1g-S.A.R. (mW/g)**	**Meas. 10g-S.A.R. (mW/g)**	**Max Calc. 1g-S.A.R. (mW/g)**	**Max Calc. 10g-S.A.R. (mW/g)**
Assessment at the left ear - antenna positions, offered battery; band edges												
ErC-Lear-050722-05/000AFJ00J2	In	813.5125	SNN5705C	Cheek touch	None	None	0.623	0.00447	0.513	0.352	0.53	0.36
ErC-Lear-050723-02/000AFJ00J2	Out	813.5125	SNN5705C	Cheek touch	None	None	0.629	0.24	0.427	0.298	0.43	0.30
ErC-Lear-050723-03/000AFJ00J2	In	813.5125	SNN5705C	15◦ Tilt	None	None	0.625	0.041	0.133	0.095	0.14	0.10
ErC-Lear-050723-04/000AFJ00J2	Out	813.5125	SNN5705C	15◦ Tilt	None	None	0.627	-0.0502	0.127	0.091	0.13	0.09
ErC-Lear-050723-05/000AFJ00J2	In	806.0125	SNN5705C	Cheek touch	None	None	0.630	-0.0623	0.442	0.304	0.46	0.31
ErC-Lear-050723-06/000AFJ00J2	In	824.9875	SNN5705C	Cheek touch	None	None	0.630	-0.0062	0.489	0.331	0.50	0.34
Assessment at the right ear - antenna positions, offered battery; band edges												
***ErC-Rear-050723-07/000AFJ00J2**	In	813.5125	SNN5705C	Cheek touch	None	None	0.631	-0.0078	0.570	0.386	0.58	0.39
ErC-Rear-050723-08/000AFJ00J2	Out	813.5125	SNN5705C	Cheek touch	None	None	0.628	0.0113	0.518	0.354	0.53	0.36
ErC-Rear-050723-09/000AFJ00J2	In	813.5125	SNN5705C	15◦ Tilt	None	None	0.627	-0.0387	0.131	0.093	0.13	0.10
ErC-Rear-050723-10/000AFJ00J2	Out	813.5125	SNN5705C	15◦ Tilt	None	None	0.630	-0.1110	0.118	0.084	0.12	0.09
ErC-Rear-050723-11/000AFJ00J2	In	806.0125	SNN5705C	Cheek touch	None	None	0.632	-0.0139	0.517	0.351	0.53	0.36
ErC-Rear-050723-12/000AFJ00J2	In	824.9875	SNN5705C	Cheek touch	None	None	0.629	0.0124	0.542	0.368	0.55	0.37
*Assessment with the worst case test configuration above using the full DASY 4 coarse and 7x7x7 cube scan measurements.												
ErC-Rear-050725-02/000AFJ00J2	In	813.5125	SNN5705C	Cheek touch	None	None	0.631	-0.0347	0.576	0.392	**0.59**	0.40
With Bluetooth on												
ErC-Rear-050725-03/000AFJ00J2	In	813.5125	SNN5705C	Cheek touch	None	None	0.633	-0.0224	0.569	0.385	0.58	0.39

Table2

Assessments at the Head (Phone mode 1:3) 896-902MHz band												
Run Number/ SN	**Antenna Pos.**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**S.A.R. Drift (dB)**	**Meas. 1g-S.A.R. (mW/g)**	**Meas. 10g-S.A.R. (mW/g)**	**Max Calc. 1g-S.A.R. (mW/g)**	**Max Calc. 10g-S.A.R. (mW/g)**
Assessment at the left ear - antenna positions, offered battery; band edges												
ErC-Lear-050723-13/000AFJ00J2	In	898.49375	SNN5705C	Cheek touch	None	None	0.619	0.0702	0.260	0.172	0.27	0.18
ErC-Lear-050723-14/000AFJ00J2	Out	898.49375	SNN5705C	Cheek touch	None	None	0.626	0.2520	0.274	0.181	0.28	0.19
ErC-Lear-050723-15/000AFJ00J2	In	898.49375	SNN5705C	15◦ Tilt	None	None	0.621	0.0585	0.056	0.040	0.06	0.04
ErC-Lear-050723-16/000AFJ00J2	Out	898.49375	SNN5705C	15◦ Tilt	None	None	0.621	0.00331	0.069	0.049	0.07	0.05

Table 2 (continued)

Run Number/ SN	Antenna Pos.	Freq. (MHz)	Battery	Test position	Carry Case	Additional attachments	Initial Power (W)	S.A.R. Drift (dB)	Meas. 1g-S.A.R. (mW/g)	Meas. 10g-S.A.R. (mW/g)	Max Calc. 1g-S.A.R. (mW/g)	Max Calc. 10g-S.A.R. (mW/g)
ErC-Lear-050723-17/000AFJ00J2	Out	896.01875	SNN5705C	Cheek touch	None	None	0.628	0.0725	0.292	0.194	0.30	0.20
ErC-Lear-050723-18/000AFJ00J2	Out	901.98125	SNN5705C	Cheek touch	None	None	0.630	0.0541	0.271	0.177	0.28	0.18
Assessment at the right ear - antenna positions, offered battery; band edges												
ErC-Rear-050723-19/000AFJ00J2	In	898.49375	SNN5705C	Cheek touch	None	None	0.627	0.1530	0.268	0.180	0.27	0.18
ErC-Rear-050723-20/000AFJ00J2	Out	898.49375	SNN5705C	Cheek touch	None	None	0.623	0.0558	0.271	0.185	0.28	0.19
ErC-Rear-050723-21/000AFJ00J2	In	898.49375	SNN5705C	15◦ Tilt	None	None	0.626	0.0213	0.060	0.042	0.06	0.04
ErC-Rear-050723-22/000AFJ00J2	Out	898.49375	SNN5705C	15◦ Tilt	None	None	0.624	0.0872	0.071	0.050	0.07	0.05
ErC-Rear-050723-23/000AFJ00J2	Out	896.01875	SNN5705C	Cheek touch	None	None	0.627	0.0650	0.273	0.184	0.28	0.19
***ErC-Rear-050723-24/000AFJ00J2**	Out	901.98125	SNN5705C	Cheek touch	None	None	0.625	-0.0051	0.291	0.198	0.30	0.20
***Assessment with the worst case test configuration above using the full DASY 4 coarse and 7x7x7 cube scan measurements.**												
ErC-Rear-050725-04/000AFJ00J2	Out	901.98125	SNN5705C	Cheek touch	None	None	0.632	-0.0339	0.303	0.203	0.31	0.21
With Bluetooth on												
ErC-Rear-050725-05/000AFJ00J2	Out	901.98125	SNN5705C	Cheek touch	None	None	0.634	0.0167	0.300	0.201	0.30	0.20

Table 3

DUT assessment at the Face; (MOTOtalk 114:120 mode) 902-928MHz band												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**S.A.R. Drift (dB)**	**Meas. 1g-S.A.R. (mW/g)**	**Meas. 10g-S.A.R. (mW/g)**	**Max Calc. 1g-S.A.R. (mW/g)**	**Max Calc. 10g-S.A.R. (mW/g)**
Assessment at the face– antenna configurations, offered battery, flip opened and closed, band edges												
ErC-Face-050723-25/000AFJ00J2	In	915.525	SNN5705C	Front 2.5cm flip opened	None	None	0.848	0.0988	0.152	0.108	0.08	0.06
ErC-Face-050724-02/000AFJ00J2	In	915.525	SNN5705C	Front 2.5cm flip closed	None	None	0.847	0.269	0.575	0.410	0.30	0.22
ErC-Face-050724-03/000AFJ00J2	Out	915.525	SNN5705C	Front 2.5cm flip closed	None	None	0.848	0.275	0.709	0.507	0.37	0.27
***ErC-Face-050724-04/000AFJ00J2**	Out	902.525	SNN5705C	Front 2.5cm flip closed	None	None	0.856	0.463	0.791	0.566	0.41	0.29
***ErC-Face-050724-06/000AFJ00HZ**	Out	902.525	SNN5705C	Front 2.5cm flip closed	None	None	0.846	0.158	0.824	0.590	0.43	0.31
ErC-Face-050724-05/000AFJ00J2	Out	927.475	SNN5705C	Front 2.5cm flip closed	None	None	0.857	0.341	0.683	0.487	0.36	0.25

Table 3 (continued)

DUT assessment at the Face; (iDEN 1:6 PTT mode) 802-825MHz and 896-902MHz bands												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**S.A.R. Drift (dB)**	**Meas. 1g-S.A.R. (mW/g)**	**Meas. 10g-S.A.R. (mW/g)**	**Max Calc. 1g-S.A.R. (mW/g)**	**Max Calc. 10g-S.A.R. (mW/g)**
Assessment at the face in the 896-902MHz band - antenna configurations, worst case battery, band edges – flip closed												
ErC-Face-050724-09/000AFJ00J2	In	898.49375	SNN5705C	Front 2.5cm flip closed	None	None	0.624	0.0425	0.093	0.067	0.05	0.03
ErC-Face-050724-10/000AFJ00J2	Out	898.49375	SNN5705C	Front 2.5cm flip closed	None	None	0.626	-0.0268	0.102	0.072	0.05	0.04
ErC-Face-050724-15/000AFJ00J2	Out	896.01875	SNN5705C	Front 2.5cm flip closed	None	None	0.627	-0.00623	0.105	0.075	0.05	0.04
***ErC-Face-050724-18/000AFJ00HZ**	Out	896.01875	SNN5705C	Front 2.5cm flip closed	None	None	0.628	-0.090	0.113	0.081	0.06	0.04
ErC-Face-050724-16/000AFJ00J2	Out	901.98125	SNN5705C	Front 2.5cm flip closed	None	None	0.631	-0.0083	0.099	0.071	0.05	0.04
Assessment at the face in the 806-825MHz band - antenna configurations, worst case battery, band edges – flip closed												
ErC-Face-050724-11/000AFJ00J2	In	813.5125	SNN5705C	Front 2.5cm flip closed	None	None	0.634	0.0666	0.152	0.109	0.08	0.06
ErC-Face-050724-12/000AFJ00J2	Out	813.5125	SNN5705C	Front 2.5cm flip closed	None	None	0.634	0.0315	0.130	0.093	0.07	0.05
***ErC-Face-050724-13/000AFJ00J2**	In	806.0125	SNN5705C	Front 2.5cm flip closed	None	None	0.632	0.0490	0.154	0.111	0.08	0.06
ErC-Face-050724-14/000AFJ00J2	In	824.9875	SNN5705C	Front 2.5cm flip closed	None	None	0.631	-0.0363	0.146	0.105	0.07	0.05
***Assessment with the worst case test configuration above using the full DASY 4 coarse and 7x7x7 cube scan measurements.**												
ErC-Face-050725-07/000AFJ00J2 **(114:120 mode)**	Out	902.525	SNN5705C	Front 2.5cm flip closed	None	None	0.852	0.4320	0.856	0.616	0.45	0.32
ErC-Face-050724-07/000AFJ00HZ **(114:120 mode)**	Out	902.525	SNN5705C	Front 2.5cm flip closed	None	None	0.840	-0.292	0.862	0.618	0.49	0.35
ErC-Face-050724-19/000AFJ00J2 **(1:6 mode)**	In	806.0125	SNN5705C	Front 2.5cm flip closed	None	None	0.638	0.0544	0.156	0.113	0.08	0.06
ErC-Face-050724-21/000AFJ00HZ **(1:6 mode)**	Out	896.01875	SNN5705C	Front 2.5cm flip closed	None	None	0.627	-0.0426	0.108	0.078	0.06	0.04
With Bluetooth on												
ErC-Face-050725-08/000AFJ00J2 **(114:120 mode)**	Out	902.525	SNN5705C	Front 2.5cm flip closed	None	None	0.854	-0.5420	0.880	0.631	**0.52**	0.37
ErC-Face-050724-08/000AFJ00HZ **(114.120 mode)**	Out	902.525	SNN5705C	Front 2.5cm flip closed	None	None	0.843	0.269	0.872	0.624	0.46	0.33
ErC-Face-050724-20/000AFJ00J2 **(1:6 mode)**	In	806.0125	SNN5705C	Front 2.5cm flip closed	None	None	0.640	-0.1100	0.153	0.111	0.08	0.06
ErC-Face-050724-22/000AFJ00HZ **(1:6 mode)**	Out	896.01875	SNN5705C	Front 2.5cm flip closed	None	None	0.627	0.0306	0.113	0.082	0.06	0.04

Table 4

DUT assessment at the Body; (WiDEN 236:310/iDEN 81:120 modes) 802-825MHz and 896-902MHz bands												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**S.A.R. Drift (dB)**	**Meas. 1g-S.A.R. (mW/g)**	**Meas. 10g-S.A.R. (mW/g)**	**Max Calc. 1g-S.A.R. (mW/g)**	**Max Calc. 10g-S.A.R. (mW/g)**
Assessment at the body WiDEN 800Mhz – antenna configurations, offered battery, and body worn accessories												
ErC-Ab-050725-11/000AFJ00J2	In	813.5125	SNN5705C	Against phantom	NNTN4747A	None	0.610	-0.0798	1.150	0.784	1.23	0.84
ErC-Ab-050725-12/000AFJ00J2	Out	813.5125	SNN5705C	Against phantom	NNTN4747A	None	0.611	-0.334	1.020	0.707	1.15	0.80
***ErC-Ab-050725-13/000AFJ00J2**	In	813.5125	SNN5705C	Against phantom	NNTN6231A	None	0.609	-0.109	1.280	0.893	1.38	0.96
ErC-Ab-050725-14/000AFJ00J2	Out	813.5125	SNN5705C	Against phantom	NNTN6231A	None	0.611	-0.316	0.977	0.666	1.10	0.75
Assessment at the body WiDEN 900Mhz – antenna configurations, offered battery, and body worn accessories												
ErC-Ab-050726-02/000AFJ00J2	In	898.49375	SNN5705C	Against phantom	NNTN4747A	None	0.611	0.0171	0.750	0.504	0.79	0.53
ErC-Ab-050726-03/000AFJ00J2	Out	898.49375	SNN5705C	Against phantom	NNTN4747A	None	0.610	-0.0196	0.867	0.603	0.91	0.64
***ErC-Ab-050728-14/000AFJ00HZ**	Out	898.49375	SNN5705C	Against phantom	NNTN4747A	None	0.619	-0.4340	1.030	0.697	1.18	0.80
ErC-Ab-050726-04/000AFJ00J2	In	898.49375	SNN5705C	Against phantom	NNTN6231A	None	0.608	-0.1670	0.638	0.445	0.70	0.49
ErC-Ab-050726-05/000AFJ00J2	Out	898.49375	SNN5705C	Against phantom	NNTN6231A	None	0.609	0.0286	0.822	0.567	0.86	0.60
Assessment at the body iDEN 900Mhz – antenna configurations, offered battery, and respective worst case body worn accessory												
ErC-Ab-050726-06/000AFJ00J2	In	898.49375	SNN5705C	Against phantom	NNTN4747A	None	0.613	-0.00754	0.624	0.436	0.65	0.46
ErC-Ab-050726-07/000AFJ00J2	Out	898.49375	SNN5705C	Against phantom	NNTN4747A	None	0.614	0.1020	0.821	0.576	0.86	0.60
Assessment at the body iDEN 800Mhz – antenna configurations, offered battery, and respective worst case body worn accessory												
ErC-Ab-050726-08/000AFJ00J2	In	813.5125	SNN5705C	Against phantom	NNTN6231A	None	0.613	-0.0885	0.990	0.704	1.05	0.75
ErC-Ab-050726-09/000AFJ00J2	Out	813.5125	SNN5705C	Against phantom	NNTN6231A	None	0.620	-0.3270	0.842	0.596	0.94	0.66
Assessment at the body WiDEN 800Mhz – Worst case configuration from above, antenna configurations, offered data cables												
ErC-Ab-050726-10/000AFJ00J2	In	813.5125	SNN5705C	Against phantom	NNTN6231A	NKN6559A	0.610	0.0778	0.702	0.477	0.74	0.50
ErC-Ab-050726-11/000AFJ00J2	Out	813.5125	SNN5705C	Against phantom	NNTN6231A	NKN6559A	0.612	-0.4670	0.758	0.536	0.88	0.62
ErC-Ab-050726-12/000AFJ00J2	In	813.5125	SNN5705C	Against phantom	NNTN6231A	NKN6560A	0.613	0.0762	0.659	0.457	0.69	0.48
ErC-Ab-050726-13/000AFJ00J2	Out	813.5125	SNN5705C	Against phantom	NNTN6231A	NKN6560A	0.611	-0.0966	0.633	0.438	0.68	0.47
ErC-Ab-050726-14/000AFJ00J2	In	813.5125	SNN5705C	Against phantom	NNTN6231A	NNTN5405A	0.609	0.0796	0.736	0.509	0.77	0.53
ErC-Ab-050726-15/000AFJ00J2	Out	813.5125	SNN5705C	Against phantom	NNTN6231A	NNTN5405A	0.614	-0.3140	0.760	0.526	0.85	0.59
ErC-Ab-050726-16/000AFJ00J2	In	813.5125	SNN5705C	Against phantom	NNTN6231A	NNTN5406A	0.608	0.0684	0.690	0.476	0.73	0.50
ErC-Ab-050726-17/000AFJ00J2	Out	813.5125	SNN5705C	Against phantom	NNTN6231A	NNTN5406A	0.615	-0.4620	0.688	0.466	0.80	0.54
Assessment at the body WiDEN 900MHz – Band edges using the respective worst case test configuration from above												
ErC-Ab-050726-18/000AFJ00J2	In	896.01875	SNN5705C	Against phantom	NNTN4747A	None	0.618	0.0117	0.751	0.506	0.78	0.52
ErC-Ab-050726-19/000AFJ00J2	Out	896.01875	SNN5705C	Against phantom	NNTN4747A	None	0.625	0.0230	0.819	0.578	0.84	0.59
ErC-Ab-050726-20/000AFJ00J2	In	901.98125	SNN5705C	Against phantom	NNTN4747A	None	0.624	-0.0375	0.709	0.492	0.73	0.51

Table 4 (continue)

Run Number/ SN	Antenna	Freq. (MHz)	Battery	Test position	Carry Case	Additional attachments	Initial Power (W)	S.A.R. Drift (dB)	Meas. 1g-S.A.R. (mW/g)	Meas. 10g-S.A.R. (mW/g)	Max Calc. 1g-S.A.R. (mW/g)	Max Calc. 10g-S.A.R. (mW/g)
***ErC-Ab-050726-21/000AFJ00J2**	Out	901.98125	SNN5705C	Against phantom	NNTN4747A	None	0.631	-0.1480	1.030	0.706	1.08	0.74
*ErC-Ab-050801-08/000AFJ00HZ	Out	901.98125	SNN5705C	Against phantom	NNTN4747A	None	0.618	0.1680	0.960	0.647	0.99	0.67
Assessment at the body WiDEN 800MHz – Band edges using the respective worst case test configuration in the 800MHz band from above												
ErC-Ab-050727-02/000AFJ00J2	In	806.0125	SNN5705C	Against phantom	NNTN6231A	None	0.609	-0.1650	1.200	0.833	1.31	0.91
ErC-Ab-050727-03/000AFJ00J2	Out	806.0125	SNN5705C	Against phantom	NNTN6231A	None	0.614	-0.3230	1.040	0.723	1.17	0.81
ErC-Ab-050727-04/000AFJ00J2	In	824.9875	SNN5705C	Against phantom	NNTN6231A	None	0.612	-0.1620	0.982	0.704	1.07	0.76
ErC-Ab-050727-05/000AFJ00J2	Out	824.9875	SNN5705C	Against phantom	NNTN6231A	None	0.612	-0.4400	0.799	0.553	0.92	0.64
***Assessment with the worst case test configuration above using the full DASY 4 coarse and 7x7x7 cube scan measurements.**												
ErC-Ab-050728-16/000AFJ00J2 **(236:310 mode)**	In	813.5125	SNN5705C	Against phantom	NNTN6231A	None	0.608	-0.323	1.160	0.813	**1.32**	0.92
ErC-Ab-050729-09/000AFJ00HZ **(236:310 mode)**	Out	898.49375	SNN5705C	Against phantom	NNTN4747A	None	0.618	-0.2680	1.040	0.717	1.15	0.79
ErC-Ab-050801-09/000AFJ00J2 **(236:310 mode)**	Out	901.98125	SNN5705C	Against phantom	NNTN4747A	None	0.630	-0.1210	0.920	0.681	0.96	0.71
With Bluetooth on												
ErC-Ab-050728-19/000AFJ00J2 **(236:310 mode)**	In	813.5125	SNN5705C	Against phantom	NNTN6231A	None	0.610	-0.209	1.110	0.813	1.22	0.90
ErC-Ab-050729-10/000AFJ00HZ **(236:310 mode)**	Out	898.49375	SNN5705C	Against phantom	NNTN4747A	None	0.621	-0.323	1.000	0.679	1.11	0.75
ErC-Ab-050801-10/000AFJ00J2 **(236:310 mode)**	Out	901.98125	SNN5705C	Against phantom	NNTN4747A	None	0.633	-0.1340	0.976	0.681	1.02	0.71

Table 5

DUT assessment at the Body; (iDEN MOTOtalk 114:120 mode) 902-928MHz band												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**S.A.R. Drift (dB)**	**Meas. 1g-S.A.R. (mW/g)**	**Meas. 10g-S.A.R. (mW/g)**	**Max Calc. 1g-S.A.R. (mW/g)**	**Max Calc. 10g-S.A.R. (mW/g)**
Assessment at the body – antenna configurations, offered carry case accessories and audio accessory NNTN5004A												
ErC-Ab-050727-06/000AFJ00J2	In	915.525	SNN5705C	Against phantom	NNTN6231A	NNTN5004A	0.873	0.1850	0.798	0.559	0.41	0.29
ErC-Ab-050727-07/000AFJ00J2	Out	915.525	SNN5705C	Against phantom	NNTN6231A	NNTN5004A	0.876	0.2610	1.280	0.903	0.65	0.46
ErC-Ab-050727-08/000AFJ00J2	In	915.525	SNN5705C	Against phantom	NNTN4747A	NNTN5004A	0.861	0.1730	1.050	0.729	0.54	0.38
ErC-Ab-050727-09/000AFJ00J2	Out	915.525	SNN5705C	Against phantom	NNTN4747A	NNTN5004A	0.871	0.3130	1.620	1.130	0.83	0.58
Assessment at the body – worst case configurations from above with other offered audio accessories												
ErC-Ab-050727-10/000AFJ00J2	Out	915.525	SNN5705C	Against phantom	NNTN4747A	NNTN5005A	0.865	0.4760	0.963	0.659	0.50	0.34
ErC-Ab-050727-11/000AFJ00J2	Out	915.525	SNN5705C	Against phantom	NNTN4747A	NNTN5006A	0.873	0.2410	1.480	1.040	0.76	0.53
ErC-Ab-050727-12/000AFJ00J2	Out	915.525	SNN5705C	Against phantom	NNTN4747A	NNTN5330A	0.875	0.2770	1.610	1.120	0.82	0.57
ErC-Ab-050727-13/000AFJ00J2	Out	915.525	SNN5705C	Against phantom	NNTN4747A	NSN6066A	0.874	0.4280	1.400	0.969	0.71	0.49
ErC-Ab-050727-14/000AFJ00J2	Out	915.525	SNN5705C	Against phantom	NNTN4747A	NNTN5774A	0.870	0.2470	1.670	1.170	0.86	0.60
ErC-Ab-050727-15/000AFJ00J2	Out	915.525	SNN5705C	Against phantom	NNTN4747A	NNTN4033A	0.872	0.2930	1.610	1.120	0.82	0.57
ErC-Ab-050727-16/000AFJ00J2	Out	915.525	SNN5705C	Against phantom	NNTN4747A	SYN8390B	0.869	0.3040	1.650	1.150	0.85	0.59
ErC-Ab-050727-17/000AFJ00J2	Out	915.525	SNN5705C	Against phantom	NNTN4747A	NNTN4620A	0.871	0.3030	1.690	1.180	0.86	0.60
ErC-Ab-050727-18/000AFJ00J2	Out	915.525	SNN5705C	Against phantom	NNTN4747A	SYN8146C	0.865	0.3350	1.530	1.060	0.79	0.55
ErC-Ab-050727-19/000AFJ00J2	Out	915.525	SNN5705C	Against phantom	NNTN4747A	SYN7875C	0.876	0.3330	1.670	1.170	0.85	0.60
***ErC-Ab-050727-20/000AFJ00J2**	Out	915.525	SNN5705C	Against phantom	NNTN4747A	NTN8496A	0.862	0.4120	1.680	1.160	0.87	0.60
ErC-Ab-050727-21/000AFJ00J2	Out	915.525	SNN5705C	Against phantom	NNTN4747A	NTN8513B	0.871	0.3560	1.640	1.150	0.84	0.59
ErC-Ab-050727-22/000AFJ00J2	In	915.525	SNN5705C	Against phantom	NNTN4747A	NTN8496A	0.867	0.2200	1.100	0.761	0.57	0.39
Assessment at the body – Band edges, antenna configurations, worst case audio accessories from above												
ErC-Ab-050728-02/000AFJ00J2	In	902.5250	SNN5705C	Against phantom	NNTN4747A	NTN8496A	0.882	0.0517	1.160	0.809	0.59	0.41
ErC-Ab-050728-03/000AFJ00J2	Out	902.5250	SNN5705C	Against phantom	NNTN4747A	NTN8496A	0.887	0.2040	1.660	1.150	0.83	0.58
ErC-Ab-050728-04/000AFJ00J2	In	927.475	SNN5705C	Against phantom	NNTN4747A	NTN8496A	0.885	0.1170	0.999	0.698	0.50	0.35
ErC-Ab-050728-05/000AFJ00J2	Out	927.475	SNN5705C	Against phantom	NNTN4747A	NTN8496A	0.893	0.4100	1.570	1.100	0.79	0.55
Assessment at the body – worst case carry case accessory from above with Bluetooth on												
ErC-Ab-050729-02/000AFJ00J2	In	915.525	SNN5705C	Against phantom	NNTN4747A	None	0.878	-0.0761	1.180	0.823	0.61	0.42
***ErC-Ab-050729-03/000AFJ00J2**	Out	915.525	SNN5705C	Against phantom	NNTN4747A	None	0.891	0.3170	1.780	1.250	0.89	0.63

Table 5 (continued)

***Assessment with the worst case test configuration above using the full DASY 4 coarse and 7x7x7 cube scan measurements.**												
ErC-Ab-050729-11/000AFJ00J2 **(114:120 mode)**	Out	915.525	SNN5705C	Against phantom	NNTN4747A	NTN8496A	0.888	0.0135	1.780	1.270	0.89	0.64
With Bluetooth on												
ErC-Ab-050729-12/000AFJ00J2 **(114:120 mode)**	Out	915.525	SNN5705C	Against phantom	NNTN4747A	None	0.892	-0.4500	1.830	1.330	1.01	0.74

Table 6

DUT assessment at the Body; (iDEN phone mode 1:3) 802-825MHz and 896-902MHz bands												
Run Number/ SN	**Antenna**	**Freq. (MHz)**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (W)**	**S.A.R. Drift (dB)**	**Meas. 1g-S.A.R. (mW/g)**	**Meas. 10g-S.A.R. (mW/g)**	**Max Calc. 1g-S.A.R. (mW/g)**	**Max Calc. 10g-S.A.R. (mW/g)**
Assessment at the body iDEN 900MHz – worst case carry case from 900MHz band tests with worst case audio accessories from MOTOtalk tests above												
ErC-Ab-050728-06/000AFJ00J2	In	898.49375	SNN5705C	Against phantom	NNTN4747A	NTN8496A	0.642	-0.00456	0.265	0.183	0.27	0.18
ErC-Ab-050728-07/000AFJ00J2	Out	898.49375	SNN5705C	Against phantom	NNTN4747A	NTN8496A	0.644	-0.0146	0.383	0.266	0.38	0.27
Assessment at the body iDEN 900MHz – worst case from 900MHz band test without cable attachments, with Bluetooth on												
ErC-Ab-050729-04/000AFJ00J2	In	898.49375	SNN5705C	Against phantom	NNTN4747A	None	0.643	-0.0297	0.318	0.224	0.32	0.23
ErC-Ab-050729-05/000AFJ00J2	Out	898.49375	SNN5705C	Against phantom	NNTN4747A	None	0.644	0.0132	0.410	0.288	0.41	0.29
Assessment at the body iDEN 800MHz – worst case carry case from 800MHz band tests with worst case audio accessories from MOTOtalk tests above												
ErC-Ab-050728-08/000AFJ00J2	In	813.5125	SNN5705C	Against phantom	NNTN6231A	NTN8496A	0.645	-0.1500	0.340	0.243	0.35	0.25
ErC-Ab-050728-09/000AFJ00J2	Out	813.5125	SNN5705C	Against phantom	NNTN6231A	NTN8496A	0.641	-0.0306	0.339	0.241	0.34	0.24
Assessment at the body iDEN 800MHz – worst case from 800MHZ band tests without cable attachments, with Bluetooth on												
ErC-Ab-050729-06/000AFJ00J2	In	813.5125	SNN5705C	Against phantom	NNTN6231A	None	0.645	-0.0788	0.517	0.365	0.26	0.19
ErC-Ab-050729-07/000AFJ00J2	Out	813.5125	SNN5705C	Against phantom	NNTN6231A	None	0.642	-0.1880	0.431	0.307	0.23	0.16

Table 7

DUT assessment at the Body; 2.5cm (WiDEN 236:310-76% mode) 802-825MHz band												
Assessment at the body – worst case test configuration overall												
ErC-Ab-050728-11/000AFJ00J2	In	813.5125	SNN5705C	Back 2.5 cm	None	None	0.610	0.0176	1.140	0.786	1.20	0.82
ErC-Ab-050728-12/000AFJ00J2	In	813.5125	SNN5705C	Front 2.5cm	None	None	0.620	-0.0190	0.655	0.461	0.68	0.48

9.1 Highest S.A.R. results calculation methodology

The calculated maximum 1-gram and 10-gram averaged S.A.R. results reported herein for the full DASY ™ coarse and 7x7x7 cube measurements are determined by scaling the measured S.A.R. to account for power leveling variations and power slump. For this device the Maximum Calculated 1-gram and 10-gram averaged peak S.A.R. is calculated using the following formula:

Max. Calc. 1-g/10-g Avg. SAR = ((S.A.R. meas. / (10^(Pdrift/10)))*(Pmax/Pint))* DC%
P_{max} = Maximum Power (W)
P_{int} = Initial Power (W)
Pdrift = DASY drift results (dB) - (for conservative results positive drifts are not accounted for)
$SAR_{meas.}$ = Measured 1 gram averaged peak S.A.R. (mW/g)
DC % = Transmission mode duty cycle in % where applicable
50% duty cycle is applied for PTT operation.

10.0 Conclusion

The highest Operational Maximum Calculated 1-gram and 10-gram average S.A.R. values found for FCC ID: AZ489FT5846 models H85XAH6RR5AN/NWF1089A.

At the Body: 1-g Avg. = 1.32mW/g; 10-g Avg. = 0.92mW/g
At the Face: 1-g Avg. = 0.52mW/g; 10-g Avg. = 0.37mW/g
At the Head: 1-g Avg. = 0.59mW/g; 10-g Avg. = 0.40mW/g

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

APPENDIX A
Measurement Uncertainty

Uncertainty Budget for Device Under Test, for 30 MHz to 3 GHz

a	*b*	*c*	*d*	*e = f(d,k)*	*f*	*g*	*h = c x f / e*	*i = c x g / e*	*k*
Uncertainty Component	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	3.4	N	1.00	1	1	3.4	3.4	29
Device Holder Uncertainty	E.4.1	3.8	N	1.00	1	1	3.8	3.8	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	506
Expanded Uncertainty (95% CONFIDENCE LEVEL)			k=2				22	22	

Uncertainty Budget for System Performance Check (dipole & flat phantom) for 30 MHz to 3 GHz

a	*b*	*c*	*d*	*e = f(d,k)*	*f*	*g*	*h = c x f / e*	*i = c x g / e*	*k*
Uncertainty Component	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 and 2
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 Certification

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 Federal Office of Metrology and Accreditation
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 CGISS

Certificate No: ET3-1384_May05

CALIBRATION CERTIFICATE

Object	ET3DV6 - SN:1384
Calibration procedure(s)	QA CAL-01.v5 and QA CAL-12.v4 Calibration procedure for dosimetric E-field probes
Calibration date:	May 26, 2005
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 (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	3-May-05 (METAS, No. 251-00466)	May-06
Power sensor E4412A	MY41495277	3-May-05 (METAS, No. 251-00466)	May-06
Power sensor E4412A	MY41498087	3-May-05 (METAS, No. 251-00466)	May-06
Reference 3 dB Attenuator	SN: S5054 (3c)	10-Aug-04 (METAS, No. 251-00403)	Aug-05
Reference 20 dB Attenuator	SN: S5086 (20b)	3-May-05 (METAS, No. 251-00467)	May-06
Reference 30 dB Attenuator	SN: S5129 (30b)	10-Aug-04 (METAS, No. 251-00404)	Aug-05
Reference Probe ES3DV2	SN: 3013	7-Jan-05 (SPEAG, No. ES3-3013_Jan05)	Jan-06
DAE4	SN: 617	19-Jan-05 (SPEAG, No. DAE4-617_Jan05)	Jan-06
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (SPEAG, in house check Dec-03)	In house check: Dec-05
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Nov-04)	In house check: Nov 05

	Name	Function	Signature
Calibrated by:	Nico Vetterli	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: May 26, 2005

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 Federal Office of Metrology and Accreditation
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
ConF	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., $\vartheta = 0$ 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) CENELEC EN 50361, "Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz - 3 GHz), July 2001

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ 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 $f \leq 800$ 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.