MOTOROLA

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CGISS EME Test Laboratory
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S.A.R. EME Compliance Test Report
Part 1 of 2

Attention:	FCC
Date of Report:	July 11, 2003
Report Revision:	Rev. A
Manufacturer:	Motorola South - ARAD
Product Description:	Data Terminal w/ 0.6W iDEN TDMA, 16 QAM; 1mW Bluetooth: Frequency Hopping Spread Spectrum (FHSS)
FCC ID:	**AZ489FT7007**
Device Model:	F4415A (VA00010AB)

Test Period:	2/21/03 – 3/9/03 & 7/9/03
EME Tech:	Ed Church
EME Eng.:	Deanna Zakharia (Sr. Principle Staff Eng.)
Author:	Michael Sailsman Global EME Regulatory Affairs Liaison

Note: 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 2.0 of this report.

Signature on File — 7/14/03

Ken Enger
Senior Resource Manager, Laboratory Director, CGISS EME Lab

Date Approved

TABLE OF CONTENTS

REVISION HISTORY

Date	Revision	Comments
3/17/03	O	Pilot results
7/11/03	A	Re-stated product exposure classification. Removed data results and scans for non-intended user configurations. Included updated uncertainty budget, environmental conditions, system performance, tissue, and calibration information.

1.0 Introduction

This report details the utilization, test setup, test equipment, and test results of the Specific Absorption Rate (S.A.R.) measurements performed at the CGISS EME Test Lab for model number F4415A (VA00010AB), FCC ID: AZ489FT7007.

The applicable exposure environment is General Population/Uncontrolled.

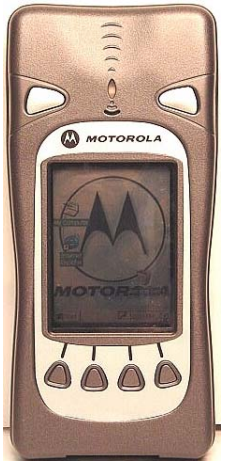
The test results included herein represent the highest S.A.R. levels applicable to this product and clearly demonstrate compliance with FCC General Population/Uncontrolled RF Exposure limits of 1.6 mW/g per the requirements of 47 CFR 2.1093(d).

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; 47CFR part 2 sub-part J
- 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 Terminal frequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz, 1999
- Australian Communications Authority Terminal Communications (Electromagnetic Radiation - Human Exposure) Standard 2003
- ANATEL, Brazil Regulatory Authority, Resolution 256 (April 11, 2001) "additional requirements for SMR, cellular and PCS product certification."

3.0 Description of Test Sample



FCC ID: AZ489FT7007 is a hand held data terminal equipped with Bluetooth and iDEN radio modems. The Bluetooth radio modem uses Frequency hopping Spread Spectrum (FHSS) modulation. The Bluetooth modem is used for applications where data is exchanged between an external Bluetooth device. The Bluetooth modem's maximum duty cycle is set by the Bluetooth standard. For single-slot operation the Bluetooth device transmits 366 out of 625 micro-seconds. The iDEN radio modem is a wireless subcriber device providing packet data and circuit data connectivity over the iDEN 800MHz band. Circuit data access technology is 1:6 TDMA using 16-QAM. In Packet data mode the maximum transmission duty cycle is 67.5 %. The Bluetooth and iDEN transmitters do not transmit simultaneously. This device is used for data acquisition and is used while held in the hand or while attached to body via the offered body worn accessories. While this product will be marketed to and used by employees solely for work related operations such as data acquisition and transmission for package/parcel/mail shipments by commercial freight carriers, public agencies and utilities, it also meets the General Population/Uncontrolled limits. User training is the responsibility of these agencies, who can be expected to employ the usage instructions, safety information and operational cautions set forth in the user's manual, instructional sessions or other means. Motorola also makes available to its customers training classes on the proper use of two-way radios and wireless data devices.

FCC ID: AZ489FT7007 is capable of operating in the 2.40-2.48 GHz for Bluetooth mode, 806.0 – 820.9875 MHz band for iDEN radio modem. The rated power is 1mW for the Bluetooth transmitter and 0.6 watts for the iDEN transmitter. The maximum output is 1.15mW for the Bluetooth transmitter and 0.7 watts for the iDEN transmitter as defined by the upper limit of the production line final test station.

FCC ID: AZ489FT7007 is offered with the following options and accessories:

Antenna

FAF5214A	Internal ¼ wave Helical antenna; 806-820.9875MHz; 0dBi
FCG6003A	Bluetooth Internal ¼ wave Inverted F antenna; 2.4-2.48GHz; 3dBi

Batteries

FNN5105A	7.2V/1400mAh Lithium Ion Rechargeable Battery

Body-worn Accessories

FHN6394A	Leather Pocket style carry case w/ D-ring belt loop
FHN6395A	Leather shoulder strap carry case w/ D-Ring belt loop
FHN6396A	Leather shoulder strap carry case w/ fixed belt loop

3.1 Test Signal

Test Signal mode:

Test Mode	X	Base Station		Simulator	

Transmission Mode:

CW	
Native Transmission	**X**
TDMA:	
Other:	

3.2 Test Output Power

A table of the characteristic power slump versus time is provided in Appendix A for all tested batteries.

4.0 Description of Test Equipment

4.1 Descriptions of S.A.R. Measurement System

The laboratory utilizes a Dosimetric Assessment System (DASY3™) S.A.R. measurement system manufactured by Schmid & Partner Engineering AG (SPEAG™), of Zurich Switzerland. The test system consists of a Stäubli RX90L robot with an ET3DV6 E-Field probe. Please reference the

following websites for detailed specifications of the robot and E-Field probe: http://www.speag.com/robot_acc.html, http://www.speag.com/probes.html.
The S.A.R. measurements were conducted with probe model/serial number ET3DV6/SN1393&1383. The system performance check was conducted daily and within 24 hours prior to testing. DASY output files of the system performance test results and the probe/dipole calibration certificates are included in appendices C and D respectively. The table below summarizes the system performance check results normalized to 1W.

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)
1393	FCC Body	3/22/02	D835V2/426	10.58 +/- 0.34	10.65 +/- 10%	2/21/03-3/12/03 5 test days
1393	FCC Body	4/16/03	D835V2/427	10.22 +/- 0.00	11.09 +/- 10 %	7/9/03

The DASY3™ system is operated per the instructions in the DASY3™ 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.

4.2 Description of Phantom

4.2.1 Flat Phantom

A rectangular shaped box made of high-density polyethylene (HDPE) with a dielectric constant of 2.26 and a loss tangent of less than 0.00031. The phantom is mounted on a wooden supporting structure that has a loss tangent of < 0.05. The structure has a 68.58 cm x 20.32 cm opening at its center to allow positioning the DUT to the phantom's surface. The flat phantom dimensions used for S.A.R. performance assessment are:
Length = 80cm, Width = 30cm, Height = 20cm, Surface thickness = 0.2cm.

4.2.2 SAM Phantom

SAM Phantom assessment was not applicable for this filing.

4.3 Simulated Tissue Properties

4.3.1 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).

Simulated Tissue	Body Position
FCC Body	Abdomen

4.3.2 Simulated Tissue Composition

	Tissue Ingredients (%)					
	835MHz		NA		NA	
	Head	Body	Head	Body	Head	Body
Sugar	NA	44.9	NA	NA	NA	NA
DGBE (Glycol)	NA	NA	NA	NA	NA	NA
De ionized -Water	NA	53.06	NA	NA	NA	NA
Salt	NA	0.94	NA	NA	NA	NA
HEC	NA	1	NA	NA	NA	NA
Bact.	NA	0.1	NA	NA	NA	NA

Characterization of Simulated tissue materials and ambient conditions:

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.

Target tissue parameters

FCC Body				
Frequency (MHz)	Di-electric Constant Target	Di-electric Constant Meas. (Range)	Conductivity Target S/m	Conductivity Meas. (Range) S/m
835	55.2	52.7-54.3	0.97	1.00-1.01
813.5	55.3	52.9-54.5	0.97	0.98-0.99

4.4 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. 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: 21.5-23.2˚C Avg. 22.4˚C
Relative Humidity	30 - 70 %	Range: 42.5-45.9% Avg. 44.1%
Tissue Temperature	NA	Range: 21.1-22.3˚C Avg. 21.15˚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. However, the lab environment is sufficiently protected such that no S.A.R. impacting interference has been experienced to date.

5.0 Description of Test Procedure

All options and accessories listed in section 3.0 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 to assess performance to the applicable exposure limits at the abdomen. All assessments with the DUT's left and right sides against the phantom are to assess performance to the applicable exposure limits at the hand. All assessments with the DUT's top against the phantom are to assess by-stander exposure. All assessments were done using the flat phantom with the DUT in native transmission 81:120 duty cycle and 1:6 duty cycle modes.
The DUT was assessed in the 1:6 transmission mode at the center of the transmission band with the backside, topside, bottom side, left and right sides against the phantom using the offered battery.
The DUT was assessed in the 1:6 transmission mode with the offered carry case accessories against the phantom and with the backside of the DUT towards the phantom.
The DUT was assessed in the 81:120 transmission mode at the center of the transmission band with the backside, topside, bottom side, left and right sides against the phantom using the offered battery.
The DUT was assessed in the 81:120 transmission mode using the offered carry case accessories against the phantom with the backside of the DUT towards the phantom.
The DUT was assessed in the 81:120 transmission mode without a carry case at 2.5cm separation distance from the phantom with the backside towards the phantom using the offered battery.
A shortened scan was performed using the configuration from above that produced the highest S.A.R. results.
The band edges of the transmission bands were assessed using the configuration from above that produced the highest S.A.R. results.

5.1 Device Test Positions

Reference figure 1 for the device orientation and position which exhibited the highest S.A.R. performance.

5.1.1 Abdomen

The DUT was positioned such that the backside of the DUT was centered against the flat phantom with and without the applicable carry case accessories. The DUT was positioned such that the top, bottom, left, and right sides were centered against the flat phantom without the carry case

accessories. The DUT was positioned 2.5cm separation distance from the phantom.

5.1.2 Head

Assessment at the head was not applicable for this filing

5.1.3 Face

Assessment at the head was not applicable for this filing

5.2 Test Position Photographs

Figure 1: Highest S.A.R. Test Position
(DUT with back against the phantom with battery model FNN5105A)

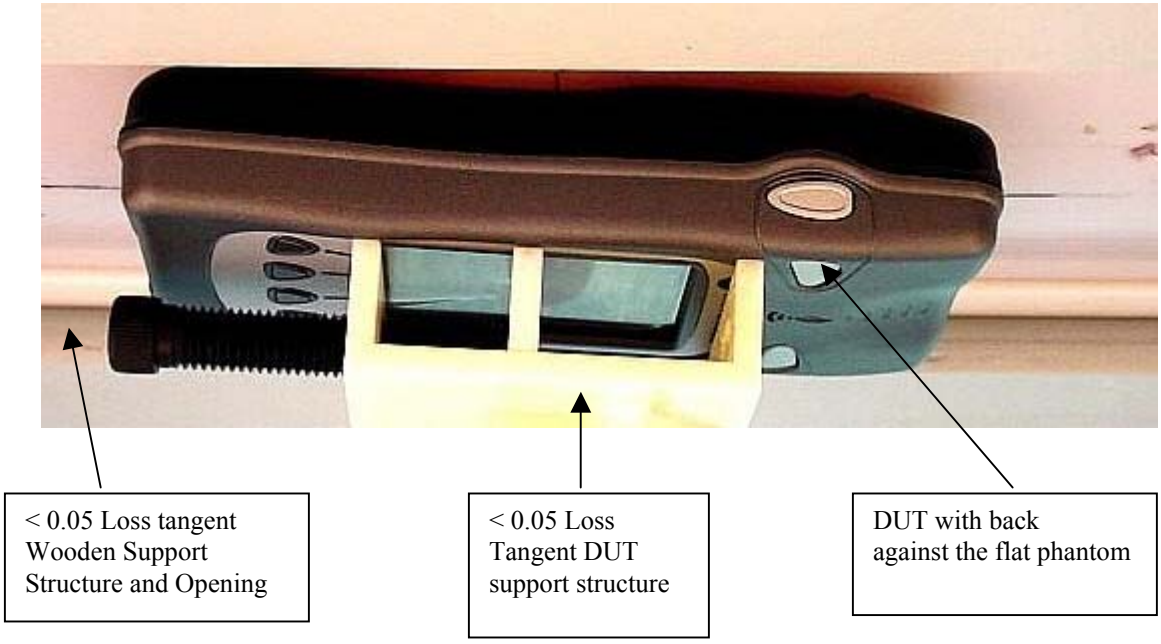


Figure 2. Assessment @ the Abdomen; Top side of DUT against the phantom w/ battery model FNN5105A

Figure 3. Assessment @ the Abdomen; bottom side of DUT against the phantom w/ battery model FNN5105A

Figure 4. Assessment @ the Abdomen; Right side of DUT against the phantom w/ battery model FNN5105A

Figure 5. Assessment @ the Abdomen; Left side of DUT against the phantom w/ battery model FNN5105A

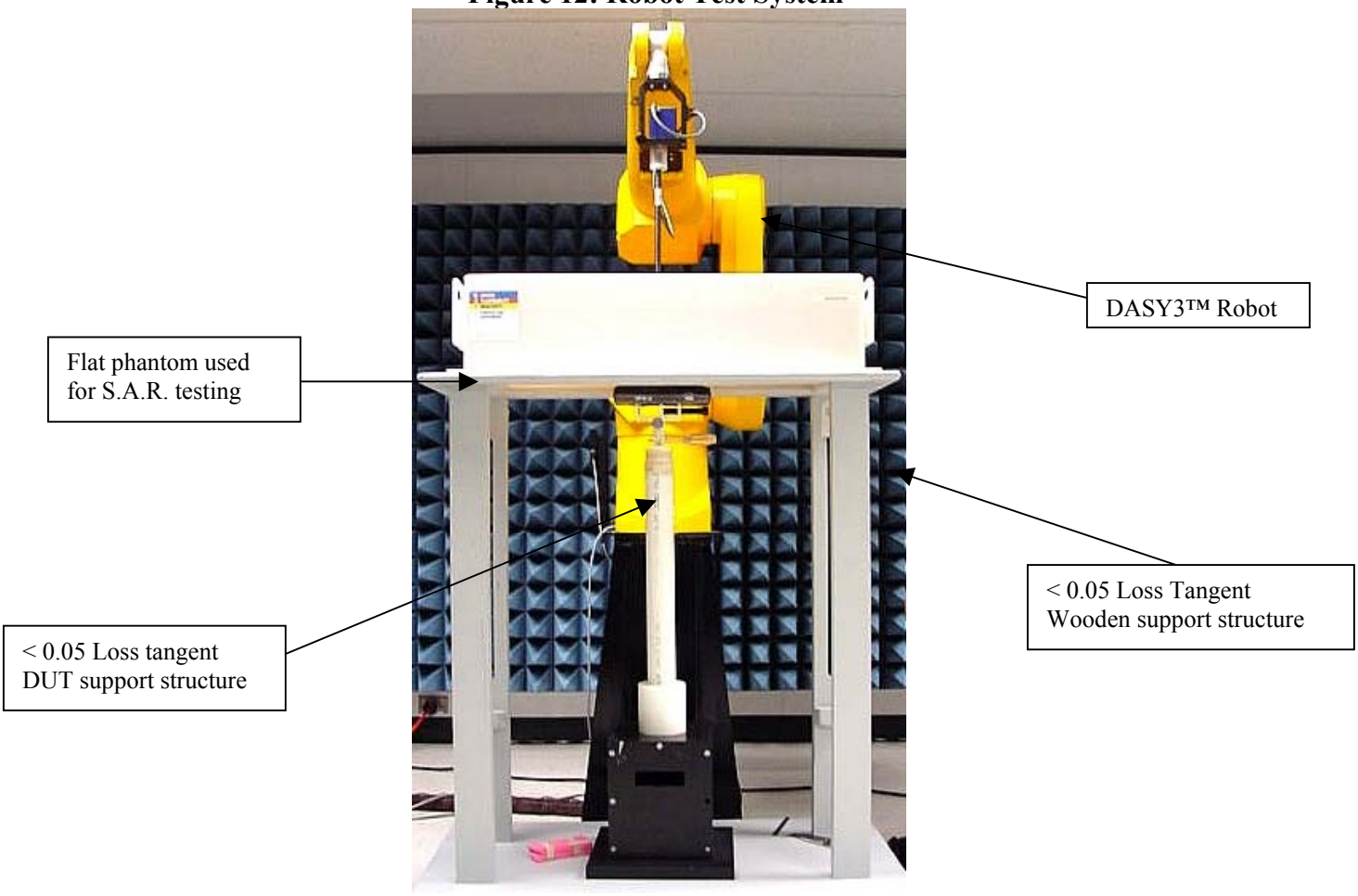
Figure 6. Assessment @ the Abdomen; Backside of DUT towards the phantom w/ battery model FNN5105A and carry case model FHN6395A

Figure 7. Assessment @ the Abdomen; Backside of DUT towards the phantom w/ battery model FNN5105A and carry case model FHN6396A

Figure 19. Assessment @ abdomen; Back of DUT 2.5cm separation distance w/ battery model FNN5105A

Figure 11. Assessment @ the Abdomen; Display of DUT 2.5cm separation distance w/ battery model FNN5105A

Figure 12: Robot Test System



5.3 Probe Scan Procedures

The E-field probe is first scanned in 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.

6.0 Measurement Uncertainty

Table 1: Uncertainty Budget for Device Under Test

a	*b*	*c*	*d*	*e = f(d,k)*	*f*	*g*	*h = c x f / e*	*i = c x g / e*	*k*
Uncertainty Component	**Section of IEEE P1528**	**Tol. (± %)**	**Prob. Dist.**	**Divisor**	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	4.8	N	1.00	1	1	4.8	4.8	∞
Axial Isotropy	E.2.2	4.7	R	1.73	0.707	0.707	1.9	1.9	∞
Spherical Isotropy	E.2.2	9.6	R	1.73	0.707	0.707	3.9	3.9	∞
Boundary Effect	E.2.3	5.8	R	1.73	1	1	3.3	3.3	∞
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	1.0	N	1.00	1	1	1.0	1.0	∞
Response Time	E.2.7	0.8	R	1.73	1	1	0.5	0.5	∞
Integration Time	E.2.8	1.3	R	1.73	1	1	0.8	0.8	∞
RF Ambient Conditions	E.6.1	3.0	R	1.73	1	1	1.7	1.7	∞
Probe Positioner Mechanical Tolerance	E.6.2	0.3	R	1.73	1	1	0.2	0.2	∞
Probe Positioning with respect to Phantom Shell	E.6.3	1.1	R	1.73	1	1	0.6	0.6	∞
Extrapolation, interpolation and Integration Algorithms for Max. SAR Evaluation	E.5	3.9	R	1.73	1	1	2.3	2.3	∞
Test sample Related									
Test Sample Positioning	E.4.2	3.6	N	1.00	1	1	3.6	3.6	29
Device Holder Uncertainty	E.4.1	2.8	N	1.00	1	1	2.8	2.8	8
Output Power Variation - SAR drift measurement	6.6.2	5.0	R	1.73	1	1	2.9	2.9	∞
Phantom and Tissue Parameters									
Phantom Uncertainty (shape and thickness tolerances)	E.3.1	4.0	R	1.73	1	1	2.3	2.3	∞
Liquid Conductivity - deviation from target values	E.3.2	5.0	R	1.73	0.64	0.43	1.8	1.2	∞
Liquid Conductivity - measurement uncertainty	E.3.3	10.0	R	1.73	0.64	0.43	3.7	2.5	∞
Liquid Permittivity - deviation from target values	E.3.2	10.0	R	1.73	0.6	0.49	3.5	2.8	∞
Liquid Permittivity - measurement uncertainty	E.3.3	5.0	R	1.73	0.6	0.49	1.7	1.4	∞
Combined Standard Uncertainty			RSS				12	11	1363
Expanded Uncertainty (95% CONFIDENCE LEVEL)			*k*=2				23	22	

Table 2: Uncertainty Budget for System Performance Check

a	*b*	*c*	*d*	*e* = *f(d,k)*	*f*	*g*	*h* = *c x f / e*	*i* = *c x g / e*	*k*
Uncertainty Component	**Section of IEEE P1528**	**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	4.8	N	1.00	1	1	4.8	4.8	∞
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	5.8	R	1.73	1	1	3.3	3.3	∞
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	1.0	N	1.00	1	1	1.0	1.0	∞
Response Time	E.2.7	0.0	R	1.73	1	1	0.0	0.0	∞
Integration Time	E.2.8	0.0	R	1.73	1	1	0.0	0.0	∞
RF Ambient Conditions	E.6.1	3.0	R	1.73	1	1	1.7	1.7	∞
Probe Positioner Mechanical Tolerance	E.6.2	0.3	R	1.73	1	1	0.2	0.2	∞
Probe Positioning with respect to Phantom Shell	E.6.3	1.1	R	1.73	1	1	0.6	0.6	∞
Extrapolation, interpolation and Integration Algorithms for Max. SAR Evaluation	E.5	3.9	R	1.73	1	1	2.3	2.3	∞
Dipole									
Dipole Axis to Liquid Distance	8, E.4.2	1.0	R	1.73	1	1	0.6	0.6	∞
Input Power and SAR Drift Measurement	8, 6.6.2	4.7	R	1.73	1	1	2.7	2.7	∞
Phantom and Tissue Parameters									
Phantom Uncertainty (shape and thickness tolerances)	E.3.1	4.0	R	1.73	1	1	2.3	2.3	∞
Liquid Conductivity - deviation from target values	E.3.2	5.0	R	1.73	0.64	0.43	1.8	1.2	∞
Liquid Conductivity - measurement uncertainty	E.3.3	10.0	R	1.73	0.64	0.43	3.7	2.5	∞
Liquid Permittivity - deviation from target values	E.3.2	10.0	R	1.73	0.6	0.49	3.5	2.8	∞
Liquid Permittivity - measurement uncertainty	E.3.3	5.0	R	1.73	0.6	0.49	1.7	1.4	∞
Combined Standard Uncertainty			RSS				10	9.4	∞
Expanded Uncertainty (95% CONFIDENCE LEVEL)			*k*=2				20	18	

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.

7.0 S.A.R. Test Results

All S.A.R. results obtained by the tests described in Section 5.0 are listed in section 7.1 below. The bolded result indicates the highest observed S.A.R. performance. DASY3™ S.A.R. measurement scans are provided in APPENDIX B for the highest observed S.A.R.
Appendix A presents a shortened S.A.R. cube scan to assess the validity of the calculated results presented herein.
Note: The results of the shortened cube scans presented in Appendix A demonstrate that the scaling methodology used to determine the calculated S.A.R. results presented herein are valid.
Note: Assessment with the Bluetooth transmitter on was not performed because the S.A.R. results cannot exceed the specification limits due to the very low power levels of the Bluetooth transmitter, and the fact that simultaneous transmission with the iDEN transmitter is not a functional characteristic of the device.

7.1 S.A.R. results

Note: Measurements at the left and right sides were performed to the applicable exposure limits for the hand (4.0 mw/g). Measurements at the top, back, and bottom sides were performed to the applicable exposure limit for the abdomen . Measurements at the top side are to assess by-stander exposure performance.

Compliance assessment at the abdomen										
Run Number/ SN	**Freq. (MHz)**	**Antenna**	**Battery**	**Test position**	**Carry Case**	**Additional attachments**	**Initial Power (mW)**	**S.A.R. drift (dB)**	**Measured 1g-S.A.R. (mW/g)**	**Max Calc. 1g-S.A.R. (mW/g)**
Assessment w/ DUT back, top, bottom, right and left sides against the phantom at the center of the iDEN transmission band; 1:6 mode.										
EC-Ab-R3-030221-04/296SDA0292	813.5	FAF5214A	FNN5105A	Back against phantom	None	None	0.699	0.15	0.361	**0.36**
EC-Ab-R3-030221-05/296SDA0292	813.5	FAF5214A	FNN5105A	Top side against phantom	None	None	0.699	0.24	0.154	0.15
EC-Ab-R3-030221-06/296SDA0292	813.5	FAF5214A	FNN5105A	Bottom side against phantom	None	None	0.699	0.10	0.035	0.04
EC-Ab-R3-030221-07/296SDA0292	813.5	FAF5214A	FNN5105A	Right side against phantom	None	None	0.699	0.12	0.057	0.06
EC-Ab-R3-030221-08/296SDA0292	813.5	FAF5214A	FNN5105A	Left side against phantom	None	None	0.699	-0.14	0.341	0.35
Assessment w/ carry case; 1:6 mode										
EC-Ab-R3-030224-03/296SDA0292	813.5	FAF5214A	FNN5105A	Back Against phantom	FHN6395A	None	0.699	0.03	0.053	0.05
EC-Ab-R3-030224-05/296SDA0292	813.5	FAF5214A	FNN5105A	Back Against phantom	FHN6396A	None	0.699	0.04	0.148	**0.15**

Run Number/ SN	Freq. (MHz)	Antenna	Battery	Test position	Carry Case	Additional attachments	Initial Power (mW)	S.A.R. drift (dB)	Measured 1g-S.A.R. (mW/g)	Max Calc. 1g-S.A.R. (mW/g)
Assessment w/ DUT back, top, bottom, right and left sides against the phantom at the center of the iDEN transmission band. 81:120 mode										
EC-Ab-R3-030303-11/296SDA0292	813.5	FAF5214A	FNN5105A	Back against phantom	None	None	0.699	0.29	1.460	**1.46**
EC-Ab-R3-030303-13/296SDA0292	813.5	FAF5214A	FNN5105A	Top side against phantom	None	None	0.699	0.04	0.607	0.61
EC-Ab-R3-030303-14/296SDA0292	813.5	FAF5214A	FNN5105A	Bottom side against phantom	None	None	0.699	-0.06	0.147	0.15
EC-Ab-R3-030303-15/296SDA0292	813.5	FAF5214A	FNN5105A	Right side against phantom	None	None	0.699	-0.07	0.237	0.24
EC-Ab-R3-030304-04/296SDA0292	813.5	FAF5214A	FNN5105A	Left side against phantom	None	None	0.699	0.24	1.380	1.40
Assesment w/ carry case; 81:120 mode										
EC-Ab-R3-030309-03/296SDA0292	813.5	FAF5214A	FNN5105A	Back Against phantom	FHN6395A	None	0.699	-0.350	0.307	0.33
EC-Ab-R3-030309-05/296SDA0292	813.5	FAF5214A	FNN5105A	Back Against phantom	FHN6396A	None	0.699	-0.28	0.720	**0.77**
Assessment at 2.5 cm separation from phantom (81:120 mode)										
EC-Ab-R3-030304-10/296SDA0292	813.5	FAF5214A	FNN5105A	Display 2.5 cm separation	None	None	0.699	-0.15	0.584	**0.61**
EC-Ab-R3-030304-11/296SDA0292	813.5	FAF5214A	FNN5105A	Back 2.5 cm separation	None	None	0.699	-0.78	0.327	0.39
Assessment at transmission band edges using worst-case configuration and mode										
EC-Ab-R3-030709-06/296SDA0292 (Shortened scan)	806.0	FAF5214A	FNN5105A	Back Against phantom	None	None	0.699	0.08	1.50	**1.50**
EC-Ab-R3-030709-04/296SDA0292	806.0	FAF5214A	FNN5105A	Back Against phantom	None	None	0.699	0.00	1.49	1.49
EC-Ab-R3-030709-05/296SDA0292	821.0	FAF5214A	FNN5105A	Back Against phantom	None	None	0.699	-0.13	1.29	1.33

7.2 Peak S.A.R. location

Refer to APPENDIX B for detailed S.A.R. scan distributions.

7.3 Highest S.A.R. results calculation methodology

The calculated maximum 1-gram averaged S.A.R. value is determined by scaling the measured S.A.R. to account for power leveling variations and power output slump below the reported maximum power during the S.A.R. measurements. For this device the Maximum Calculated 1-gram averaged peak S.A.R. is calculated using the following formula:

Max. Calc. 1-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)
$SAR_{meas.}$ = Measured 1 gram averaged peak S.A.R. (mW/g)
DC % = Transmission mode duty cycle in % where applicable

Note: If Pdrift is positive then the maximum calculated 1-g S.A.R. results is the same as the measured results.

8.0 Conclusion

The highest Operational Maximum Calculated 1-gram average S.A.R. values found for FCC ID: AZ489FT7007

At the abdomen: 1.50 mW/g
At the Face: N/A
At the Head: N/A

These test results 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)