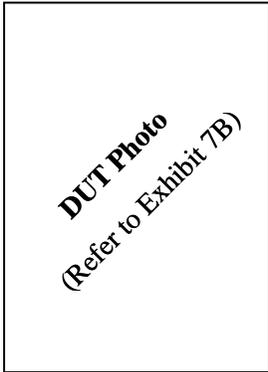


 <b style="font-size: 24pt; margin-left: 10px;">MOTOROLA</b>	 <b>ACCREDITED</b> TESTING CERT # 2518.01
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**FCC ID: AZ492FT7037**  
**DECLARATION OF COMPLIANCE MPE ASSESSMENT Part 1 of 2**

<b>Enterprise Mobility Solution (EMS)</b> EME Test Laboratory 8000 West Sunrise Blvd Fort Lauderdale, FL. 33322	<b>Date of Report:</b> October 29, 2009 <b>Report Revision:</b> Rev. O <b>Report ID:</b> SR7486_MPE rpt_APX7500_7/800 and VHF_Motorcycle_Rev O_091029
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**Responsible Engineer:** Kim Uong (Principle Staff EME Eng.)  
**Date/s Tested:** 9/25/09-10/14/09; 10/15/09  
**Manufacturer/Location:** Motorola, Penang  
**Date submitted for test:** 8/13/09  
**DUT Description:** Mackinaw Mobile 700/800 MHz (15 Watts) - VHF mid-power (15 Watts) - Motorcycle Mount option  
**Test TX mode(s):** CW  
**Max. Power output:** 18W  
**TX Frequency Bands:** 700MHz bands: 764-776MHz (talk around); 794-806MHz (Trunked); 800MHz bands: 806-824MHz (Trunked); 851-870MHz (talk around); VHF Band: 136 - 174MHz (Trunked/ Talk Around);  
**Signaling type:** Analog, APCO 25, and F2 (TDMA)  
**Model(s) Tested:** M30URS9PW1AN with G67 motorcycle option and M30KSS9PW1AN with G67 motorcycle option  
**Model(s) Certified:** M30TSS9PW1AN with G67 Motorcycle option  
**Serial Number(s):** 173 (M30URS9PW1AN with G67 motorcycle option), CAI09018Z9 (M30KSS9PW1AN with G67 motorcycle option)  
**Classification:** Occupational/Controlled Environment  
**Rule Part(s):** 22 and \*90 (150.8-173.4MHz; 763-775MHz; 793-805MHz; 806-824MHz; 851-869MHz)  
 \* MPE results outside of Part 90 are not applicable for FCC compliance demonstration.



**Approved Accessories:**

**Antenna(s):**

Antennas for 700/800MHz bands	Antennas for VHF band
HAF4015A (764-870 MHz, 1/4 wave, 5.15dBi) HAF4018A (764-870 MHz, 1/4 wave, 5.15dBi)	RAD4002ARB (Motorcycle Mount, 136 - 144 MHz, 1/4 Wave, 2.15 dBi) RAD4003ARB (Motorcycle Mount, 144 - 150.8 MHz, 1/4 Wave, 2.15 dBi) RAD4004ARB (Motorcycle Mount, 150.8-162 MHz, 1/4 Wave, 2.15 dBi) RAD4005ARB (Motorcycle Mount, 162-174 MHz, 1/4 Wave, 2.15 dBi)

**Final RF Exposure Results:**

	700/800MHz Bands	VHF Band
<b>Operator - Max Calculated Power Density</b>	0.46 mW/cm <sup>2</sup>	0.82 mW/cm <sup>2</sup>
<b>Bystander - Max Calculated Power Density</b>	0.10 mW/cm <sup>2</sup>	0.09 mW/cm <sup>2</sup>

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-159 April 2006  
 The results and statements contained in this report pertain only to the device(s) evaluated herein.

<p><i>Signature on file - Deanna Zakharia</i>  <b>Deanna Zakharia</b>                  EMS EME Lab Senior Resource Manager,                  Laboratory Director,</p> <p style="text-align: center;">Approval Date: 10/29/09</p>	<p><b>Certification Date:</b></p> <p><b>Certification No.:</b></p>
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**TABLE OF CONTENTS**

**Part 1 of 2: MPE Assessment for 764-870MHz band**  
**Part 2 of 2: MPE Assessment for the 136-174MHz band**

**Part 1 of 2**

- 1.0 Product and System Description
- 2.0 Abbreviations / Definitions
- 3.0 Additional Options and Accessories
- 4.0 Measurement and Limit Standards
- 5.0 Measurement System Uncertainty Levels
- 6.0 Method of Measurement
  - 6.1 MPE assessment for motorcycle mounted antennas
    - 6.1.1 Bystander MPE assessment
    - 6.1.2 Operator MPE assessment
- 7.0 Test Site
- 8.0 Measurement System/Equipment
- 9.0 DUT Output Power
- 10.0 Test Set-Up Description
- 11.0 Test Results Summary
- 12.0 Conclusion

- APPENDIX A: Illustration of Antenna Location and Test Distances
- APPENDIX B: Meter/Probe Calibration Certificates
- APPENDIX C: DUT Photos

**REVISION HISTORY**

Date	Revision	Comments
10/29/09	O	Initial release

## 1.0 Product and System Description

FCC ID: AZ492FT7037, model M30TSS9PW1AN with G67 motorcycle option is a mobile transceiver that utilizes analog, APCO 25 & F2 digital two-way radio communications. The analog modulation scheme uses Frequency Modulation (FM). APCO 25 & F2 digital modes use C4FM of CQPSK family of modulation (Compatible 4-Level Frequency Modulation of Compatible Quadrature Phase Shift Keying). F2 is a TDMA protocol that allocates portions of the RF signal by dividing time into two slots (2 slots TDMA). Transmission from a unit or base station is accommodated in time-slot lengths of 30 milliseconds and frame lengths of 60 milliseconds. This product supports voice in analog mode, and both voice and data modes in digital mode.

The maximum duty cycle for TDMA is 1:2 (50%) and is controlled by software. The FM signal is continuous. However, because of hand shaking or Push-To-Talk (PTT) between users and/or base stations a conservative 50% duty cycle is applied. The TDMA mode was not tested because its duty cycle is inherently 50% and would include an additional 50% duty cycle for PTT.

The intended use of the radio is Push-To-Talk (PTT) while the device is properly installed on a motorcycle.

This device will be marketed to and used by employees solely for work-related operations, such as public safety agencies, e.g. police, fire and emergency medical. User training is the responsibility of these agencies which 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.

Accordingly this product is classified as Occupational/Controlled Exposure. However, in accordance with FCC requirements, the bystanders are evaluated to the General Population/Uncontrolled Exposure Limits, and the operator is evaluated to the Occupational/Controlled Exposure Limits.

(Note that "Bystanders" as used herein mean people other than operator)

## 2.0 Abbreviations / Definitions

APCO: Association of Public-Safety Communications Officials

C4FM: Compatible 4-Level Frequency Modulation

CNR: Calibration Not Required

CQPSK: Compatible Quadrature Phase Shift Keying

CW: Continues Wave

DUT: Device Under Test

F2: 2 slot Time Division Multiple Access

FM: Frequency Modulation

NA: Not Applicable

PTT: Push to Talk

TDMA: Time Division Multiple Access

MPE: Maximum Permissible Exposure

EME: Electromagnetic Energy

**3.0 Additional Options and Accessories**

NA

**4.0 Measurement and Limit Standards**

Measurements were performed according to the recommended guidelines in IEEE/ANSI C95.3-2002 and compared to FCC Limits Per 47 CFR 2.1091 (d) for General Population/Uncontrolled and Occupational/Controlled RF Exposure limits.

For test frequencies ranging from 764-870MHz MHz the MPE (Maximum Permissible Exposure) limit to electromagnetic energy in equivalent plane wave free-space power density is 0.51 – 0.58 mW/cm<sup>2</sup> for General Population, and 2.55-2.90 mW/cm<sup>2</sup> for Occupational.

**5.0 Measurement System Uncertainty Levels**

**Uncertainty Budget for Near Field Probe Measurements**

	Tol. (± %)	Prob . Dist.	Divisor	$u_i$ (±%)	$v_i$
<b>Measurement System</b>					
Probe Calibration	6.0	N	1.00	6.0	∞
Survey Meter Calibration	3.0	N	1.00	3.0	∞
Hemispherical Isotropy	8.0	R	1.73	4.6	∞
Linearity	5.0	R	1.73	2.9	∞
Pulse Response	1.0	R	1.73	0.6	∞
RF Ambient Noise	3.0	R	1.73	1.7	∞
RF Reflections	8.0	R	1.73	4.6	∞
Probe Positioning	10.0	R	1.73	5.8	∞
<b>Test sample Related</b>					
Antenna Positioning	3.0	N	1.00	3.0	∞
Power drift	5.0	R	1.73	2.9	∞
<b>Combined Standard Uncertainty</b>		RSS		12.2	∞
<b>Expanded Uncertainty (95% CONFIDENCE LEVEL)</b>		$k=2$		24	

**6.0 Method of Measurement**

**6.1 MPE assessment for motorcycle-mounted antennas**

(Refer to APPENDIX A for antenna location and test positions)

**6.1.1 Bystander MPE assessment**

MPE measurements for bystander conditions are determined by taking the average of (10) measurements in a 2m vertical line directly behind the vehicle with 20cm increments at the standard test distance of 60cm from the antenna. The measurement probe is positioned orthogonal to antenna (typically parallel to ground with a vertically mounted antenna), and aimed directly at the antenna’s axis while maintaining a twenty (20) centimeter separation distance between the probe sensor and reradiating structures. These measurements are representative of persons other than the operator standing next to the vehicle.

**6.1.2 Operator MPE assessment**

MPE measurements for operator conditions are performed by taking the following (3) measurements at the standard test distance of 30cm from the operators’ seat area: scan the lower third of the antenna for a peak reading, scan the middle third of the antenna for a peak reading, and scan the top third (up to 2 meters from ground). The measurement probe is positioned orthogonal to antenna (typically parallel to ground with a vertically mounted antenna), and aimed directly at the antenna’s axis while maintaining a twenty (20) centimeter separation distance between the probe sensor and reradiating structures. The (3) results are then averaged.

**7.0 Test Site**

The test site is the Motorola open area test site located at 8000 W. Sunrise Blvd., Plantation, FL. 33322.

**8.0 Measurement System/Equipment**

<b>Equipment Type</b>	<b>Model #</b>	<b>SN</b>	<b>Calibration Date</b>
Motorcycle	2005 Kawasaki KZ1000		
Survey Meter / Probe – E-Field (Electric Field)	ETS Model HI-2200 / ETS Model E100	86887 / 83370	12/04/08

ETS equipments are measured in mW/cm2 for E-field and A/m for H-field.

## 9.0 DUT Output Power

Power density measurements were performed with the test frequencies and associated power levels presented in the table below.

Test Frequencies (MHz)	Measured Initial Power (W)
764.0875	17.4
770.0125	17.4
775.9125	17.4
794.0875	17.4
806.0125	17.4
823.9875	17.4
851.0125	17.5
860.0125	17.5
868.8875	17.5

## 10.0 Test Set-Up Description

All antennas listed on the cover page of this report were considered in order to develop the test plan for this product.

Assessments were performed with DUT (Device Under Test) installed on a test vehicle, while engine was at idle, at the specified distances and test locations indicated in sections 6.0, 11.0, and the APPENDIX A.

## 11.0 Test Results Summary

The tables below summarized the MPE measurement results for each test configuration: antenna (model and description), antenna gain, TX frequency, maximum output power, initial power, E/H field measurements, probe frequency cal factor, test positions (BS-Bystander, OP-Operator), average over body results, calculated power density results, max calculated power density results, % of the applicable FCC specification limits.

MPE results for this motorcycle radio are based on 50% duty cycle which is in accordance with the User Manual instructions.

Below is an explanation of how the MPE results are calculated.

Bystander - 10 measurements are averaged over the body (*body\_avg*).

Operator - 3 measurements are averaged over the body (*body\_avg*).

The Average over Body test methodology is consistent with IEEE/ANSI C95.3-2002 guidelines.

Therefore;

$$Pwr\_density\_calc = body\_avg * (probe\_frequency\_cal\_factor)^2 * duty\_cycle$$

$$Pwr\_density\_max\_calc = pwr\_density\_calc * \frac{max\_output\_power}{initial\_output\_power}$$

*Note1; For initial output power > max\_output\_power; max\_output\_power / initial output power = 1*

*Note2: The probe frequency cal factors used for MPE evaluation of this product are based on the worse case.*

*Note 3: The calibration certificate's frequency cal factors were determined by measuring V/m for E-field probe and A/m for H-field probe. The results presented herein are power density (mW/cm<sup>2</sup>) and therefore the cal factors were squared as indicated in the formula above.*

Table 1: E-Field MPE data summary for antenna HAF4015A

Ant. Model/ Desc.	Ant. Gain (dBi)	Tx Freq (MHz)	Max Pwr (W)	Initial Pwr (W)	E/H Field	Probe Cal. Factor	Test Pos.	Avg. over Body (mW/ cm2)	Calc. P.D. (mW/ cm2)	Max Calc. P.D. (mW/ cm2)	% of FCC Spec Limit	FCC Spec limit
HAF4015A (764-870 MHz)	5.15	764.0875	18	17.4	E	1.2	OP	0.45	0.27	0.28	11	2.55
HAF4015A (764-870 MHz)	5.15	764.0875	18	17.4	E	1.2	BS	0.08	0.05	0.05	10	0.51
HAF4015A (764-870 MHz)	5.15	770.0125	18	17.4	E	1.21	OP	0.43	0.26	0.27	10	2.57
HAF4015A (764-870 MHz)	5.15	770.0125	18	17.4	E	1.21	BS	0.08	0.05	0.05	10	0.51
HAF4015A (764-870 MHz)	5.15	775.9125	18	17.4	E	1.21	OP	0.43	0.26	0.27	10	2.59
HAF4015A (764-870 MHz)	5.15	775.9125	18	17.4	E	1.21	BS	0.09	0.06	0.06	11	0.52
HAF4015A (764-870 MHz)	5.15	794.0875	18	17.4	E	1.23	OP	0.56	0.35	0.36	14	2.65
HAF4015A (764-870 MHz)	5.15	794.0875	18	17.4	E	1.23	BS	0.11	0.07	0.07	13	0.53
HAF4015A (764-870 MHz)	5.15	806.0125	18	17.4	E	1.22	OP	0.60	0.37	0.38	14	2.69
HAF4015A (764-870 MHz)	5.15	806.0125	18	17.4	E	1.22	BS	0.12	0.07	0.07	14	0.54
HAF4015A (764-870 MHz)	5.15	823.9875	18	17.4	E	1.2	OP	0.68	0.41	0.42	15	2.75
HAF4015A (764-870 MHz)	5.15	823.9875	18	17.4	E	1.2	BS	0.13	0.08	0.08	14	0.55
HAF4015A (764-870 MHz)	5.15	851.0125	18	17.5	E	1.17	OP	0.79	0.46	0.48	17	2.84
HAF4015A (764-870 MHz)	5.15	851.0125	18	17.5	E	1.17	BS	0.12	0.07	0.07	13	0.57
HAF4015A (764-870 MHz)	5.15	860.0125	18	17.5	E	1.15	OP	0.78	0.45	0.46	16	2.87
HAF4015A (764-870 MHz)	5.15	860.0125	18	17.5	E	1.15	BS	0.12	0.07	0.07	12	0.57
HAF4015A (764-870 MHz)	5.15	868.8875	18	17.5	E	1.14	OP	0.73	0.42	0.43	15	2.90
HAF4015A (764-870 MHz)	5.15	868.8875	18	17.5	E	1.14	BS	0.10	0.06	0.06	10	0.58

Table 2: E-Field MPE data summary for antenna HAF4018A

Ant. Model/ Desc.	Ant. Gain (dBi)	Tx Freq (MHz)	Max Pwr (W)	Initial Pwr (W)	E/H Field	Probe Cal. Factor	Test Pos.	Avg. over Body (mW/ cm2)	Calc. P.D. (mW/ cm2)	Max Calc. P.D. (mW/ cm2)	% of FCC Spec Limit	FCC Spec limit
HAF4018A (764-870 MHz)	5.15	764.0875	18	17.4	E	1.2	OP	0.49	0.29	0.30	12	2.55
HAF4018A (764-870 MHz)	5.15	764.0875	18	17.4	E	1.2	BS	0.12	0.07	0.07	14	0.51
HAF4018A (764-870 MHz)	5.15	770.0125	18	17.4	E	1.21	OP	0.48	0.29	0.30	12	2.57
HAF4018A (764-870 MHz)	5.15	770.0125	18	17.4	E	1.21	BS	0.12	0.07	0.08	15	0.51
HAF4018A (764-870 MHz)	5.15	775.9125	18	17.4	E	1.21	OP	0.51	0.31	0.32	12	2.59
HAF4018A (764-870 MHz)	5.15	775.9125	18	17.4	E	1.21	BS	0.13	0.08	0.08	16	0.52
HAF4018A (764-870 MHz)	5.15	794.0875	18	17.4	E	1.23	OP	0.73	0.45	0.46	17	2.65
HAF4018A (764-870 MHz)	5.15	794.0875	18	17.4	E	1.23	BS	0.16	0.10	0.10	19	0.53
HAF4018A (764-870 MHz)	5.15	806.0125	18	17.4	E	1.22	OP	0.50	0.31	0.32	12	2.69
HAF4018A (764-870 MHz)	5.15	806.0125	18	17.4	E	1.22	BS	0.12	0.07	0.08	14	0.54
HAF4018A (764-870 MHz)	5.15	823.9875	18	17.4	E	1.2	OP	0.50	0.30	0.31	11	2.75
HAF4018A (764-870 MHz)	5.15	823.9875	18	17.4	E	1.2	BS	0.12	0.07	0.08	14	0.55
HAF4018A (764-870 MHz)	5.15	851.0125	18	17.5	E	1.17	OP	0.57	0.34	0.34	12	2.84
HAF4018A (764-870 MHz)	5.15	851.0125	18	17.5	E	1.17	BS	0.14	0.08	0.09	15	0.57
HAF4018A (764-870 MHz)	5.15	860.0125	18	17.5	E	1.15	OP	0.57	0.33	0.34	12	2.87
HAF4018A (764-870 MHz)	5.15	860.0125	18	17.5	E	1.15	BS	0.15	0.08	0.09	15	0.57
HAF4018A (764-870 MHz)	5.15	868.8875	18	17.5	E	1.14	OP	0.51	0.29	0.30	10	2.90
HAF4018A (764-870 MHz)	5.15	868.8875	18	17.5	E	1.14	BS	0.14	0.08	0.08	14	0.58

## 12.0 Conclusion

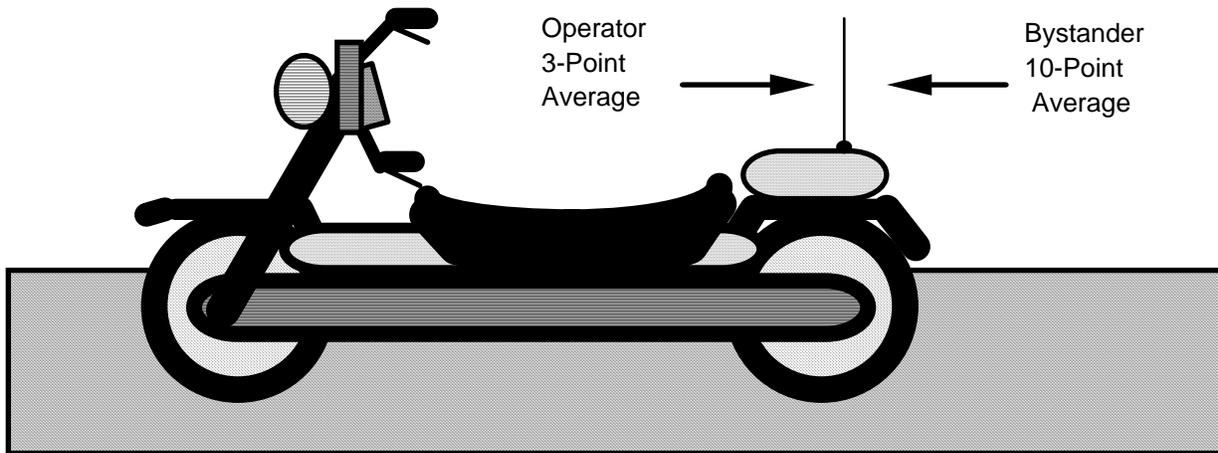
Depending on the test frequency for the 764-870MHz band, the assessments for this device at 764-870MHz band were performed with an output power range as indicated in section 9. The maximum allowable output power is equal to the upper limit of the final test factory transmit power specification of 18W. The highest power density results scale to the maximum allowable power output is 0.10mW/cm<sup>2</sup> for bystander test position and 0.46mW/cm<sup>2</sup> for operator test position.

The MPE results for bystander presented herein demonstrate compliance to the applicable FCC General Population/ Uncontrolled RF Exposure limit.

The MPE results for operator presented herein demonstrate compliance to the applicable FCC Occupational Population/Controlled Exposure limit.

**APPENDIX A**  
**Illustration of Antenna Locations and Test Positions**

**ANTENNA LOCATION DRAWING**



**APPENDIX B**  
**Meter/Probe Calibration Certificates**



Cert I.D.: 70578  
 Lab Code 115844/1207.01



*Certificate of Calibration Conformance*

Page 1 of 4

The instrument identified below has been individually calibrated in compliance with the following standard(s):

IEEE 1309 - 2005, Institute of Electrical and Electronics Engineers, Standard for Calibration of Electromagnetic Field Sensors and Probes, Excluding Antennas from 9 kHz to 40 GHz

Environment: Laboratory MTE is maintained in a temperature controlled environment with ambient conditions from 18 to 28 C, relative humidity less than 90%. The instrument under test has been calibrated in a suitable environment using an EMCO TEM Cell 5101C, GTEM! 5305 and an RF Shielded EMC Chamber which is conducive to maintaining accurate and reliable measurement quality.

<b>Manufacturer:</b>	ETS-Lindgren	<b>Operating Range:</b>	100kHz - 5GHz
<b>Model Number:</b>	E100	<b>Instrument Type:</b>	Isotropic Probe > 1 GHz
<b>Serial Number/ ID:</b>	00083370	<b>Date Code:</b>	
<b>Tracking Number:</b>	S000015131	<b>Alternate ID:</b>	
<b>Date Completed:</b>	04-Dec-08	<b>Customer:</b>	MOTOROLA INC. (FL)
<b>Test Type:</b>	Standard Field, Field Strength		
<b>Calibration Uncertainty:</b>	Std Field Method	10kHz - 18000 MHz, +/-0.7 dB, 26.5GHz - 40GHz, +/- 0.95 dB	
	k=2, (95% Confidence Level)		

**Test Remarks:** Provided special data points per customer request.

Calibration Traceability: All Measuring and Test Equipment (M/TE) identified below are traceable to the National Institute for Standards and Technology (NIST). Calibration Laboratory and Quality System controls are compliant with ISO/IEC 17025-2005.

**Standards and Equipment Used:**

Make / Model / Name / S/N / Recall Date	Condition of Instrument Upon Receipt:
Boonton 9200B RF Voltmeter 280601AE 29-Sep-09	In Tolerance to Internal Quality Standards
Hewlett Packard 437B HP Power Meter 3125U12370 21-May-09	
Fluke 6060B RF Signal Generator 5690204 20-May-09	<b>On Release:</b>
Marconi 2022 Signal Generator 119019/077 02-Oct-09	In Tolerance to Internal Quality Standards
Rohde & Schwarz 857.8008.0 Power Meter NRVD 828110/019 27-Dec-08	
Hewlett Packard 83620B Signal Generator 3722A00541 19-Sep-09	

Calibration Completed By  
 Alan Schifferdecker, Calibration Technician

Attested and Issued on 04-Dec-08  
 Justin Tan, Calibration Supervisor

This document provides traceability of measurements to recognized national standards using controlled processes at the ETS-Lindgren Calibration Laboratory. Uncertainties listed are derived from the methods described by NIST Tech Note 1297. This certificate and report may not be reproduced, except in full, without the written approval of ETS-Lindgren Calibration Laboratory in accordance with ISO/IEC 17025-2005. QAF 1127 (06/07)



**Frequency Response Calibration Factors**  
**Model E100 Serial Number 00083370**  
**Date of Calibration 4 Dec 2008**

Frequency (MHz)	Applied V/m	Probe Reading			Correction Factor			Avg
		X	Y	Z	X	Y	Z	
1.00	7.97	6.74	6.71	6.60	1.18	1.19	1.21	1.19
1.00	20.01	17.05	16.99	16.75	1.17	1.18	1.19	1.18
1.00	69.93	59.37	59.09	58.36	1.18	1.18	1.20	1.19
1.00	124.30	105.11	104.67	103.34	1.18	1.19	1.20	1.19
15.00	8.02	7.86	7.79	7.76	1.02	1.03	1.03	1.03
15.00	19.96	19.62	19.45	19.42	1.02	1.03	1.03	1.02
15.00	70.28	68.97	68.30	68.14	1.02	1.03	1.03	1.03
15.00	125.20	122.31	121.06	120.78	1.02	1.03	1.04	1.03
30.00	8.02	8.00	7.92	7.89	1.00	1.01	1.02	1.01
30.00	20.11	20.09	19.88	19.85	1.00	1.01	1.01	1.01
30.00	69.83	69.30	68.56	68.31	1.01	1.02	1.02	1.02
30.00	124.31	122.47	121.21	120.74	1.01	1.03	1.03	1.02
75.00	8.03	8.24	8.23	8.12	0.97	0.98	0.99	0.98
75.00	20.11	20.71	20.64	20.46	0.97	0.97	0.98	0.98
75.00	70.04	72.11	71.83	71.03	0.97	0.98	0.99	0.98
75.00	124.66	128.20	127.66	126.29	0.97	0.98	0.99	0.98
100.00	8.02	8.17	8.13	8.04	0.98	0.99	1.00	0.99
100.00	20.04	20.45	20.33	20.21	0.98	0.99	0.99	0.99
100.00	70.33	71.31	70.79	70.25	0.99	0.99	1.00	0.99
100.00	124.43	125.68	124.79	123.57	0.99	1.00	1.01	1.00
150.00	8.03	8.14	8.14	8.02	0.99	0.99	1.00	0.99
150.00	19.96	20.33	20.31	20.09	0.98	0.98	0.99	0.99
150.00	70.14	71.64	71.55	70.58	0.98	0.98	0.99	0.98
150.00	125.58	128.56	128.42	126.52	0.98	0.98	0.99	0.98
200.00	8.00	8.43	8.53	8.28	0.95	0.94	0.97	0.95
200.00	19.97	21.08	21.37	20.85	0.95	0.93	0.96	0.95
200.00	69.86	74.08	74.82	72.92	0.94	0.93	0.96	0.94
200.00	124.95	132.17	134.06	130.32	0.95	0.93	0.96	0.95
250.00	7.97	8.11	7.88	7.96	0.98	1.01	1.00	1.00
250.00	19.99	20.55	19.75	20.20	0.97	1.01	0.99	0.99
250.00	70.06	72.32	70.37	70.59	0.97	1.00	0.99	0.99
250.00	125.12	128.64	124.26	125.28	0.97	1.01	1.00	0.99
300.00	8.00	8.08	7.94	7.97	0.99	1.01	1.00	1.00
300.00	20.03	20.57	20.25	20.34	0.97	0.99	0.98	0.98
300.00	69.79	72.57	71.30	71.56	0.96	0.98	0.98	0.97
300.00	125.28	130.82	128.42	128.85	0.96	0.98	0.97	0.97
400.00	8.00	8.10	7.97	7.97	0.99	1.00	1.00	1.00
400.00	19.89	20.15	19.87	19.89	0.99	1.00	1.00	1.00
400.00	69.67	70.49	69.32	69.33	0.99	1.01	1.00	1.00
400.00	125.09	126.27	124.24	124.10	0.99	1.01	1.01	1.00
500.00	8.01	7.89	7.95	7.68	1.02	1.01	1.03	1.02
500.00	19.94	19.59	19.74	19.37	1.02	1.01	1.03	1.02
500.00	70.28	69.65	70.06	68.64	1.01	1.00	1.02	1.01
500.00	124.58	123.19	123.63	121.24	1.01	1.01	1.03	1.02
600.00	8.01	7.65	7.63	7.61	1.04	1.05	1.06	1.05
600.00	20.01	19.34	19.09	19.06	1.04	1.05	1.05	1.04
600.00	69.90	67.55	67.54	66.46	1.03	1.04	1.05	1.04
600.00	125.28	120.21	120.01	119.47	1.03	1.05	1.05	1.04



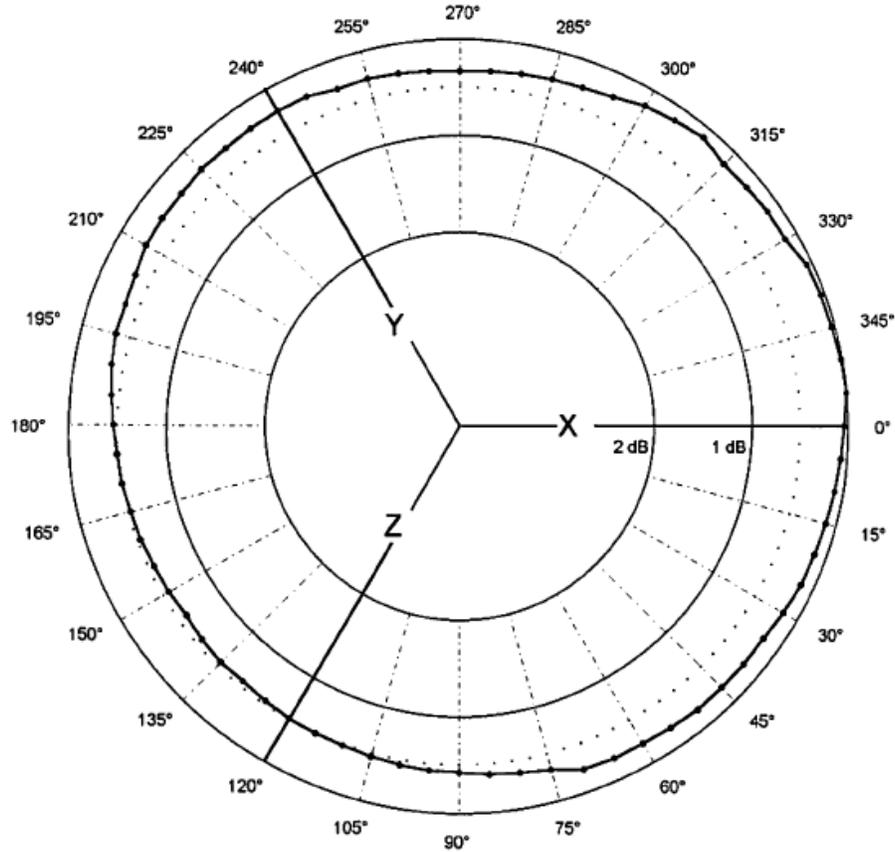
**Frequency Response Calibration Factors**  
**Model E100 Serial Number 00083370**  
**Date of Calibration 4 Dec 2008**

Frequency (MHz)	Applied V/m	Probe Reading			Correction Factor			
		X	Y	Z	X	Y	Z	Avg
700.00	7.96	7.56	7.35	7.42	1.05	1.08	1.07	1.07
700.00	20.10	19.21	18.63	18.87	1.05	1.08	1.06	1.06
700.00	70.26	67.25	65.16	65.96	1.05	1.08	1.07	1.06
700.00	125.09	119.09	115.24	116.69	1.05	1.09	1.07	1.07
800.00	8.04	7.34	7.28	7.22	1.10	1.10	1.11	1.10
800.00	20.02	18.38	18.27	18.07	1.09	1.09	1.11	1.10
800.00	69.85	64.15	63.68	63.03	1.09	1.10	1.11	1.10
800.00	124.82	113.69	112.90	111.64	1.10	1.10	1.12	1.11
900.00	7.97	7.70	7.78	7.56	1.03	1.02	1.05	1.04
900.00	20.03	19.42	19.58	19.07	1.03	1.02	1.05	1.03
900.00	70.21	67.77	68.79	66.47	1.04	1.02	1.06	1.04
900.00	124.81	119.63	120.40	117.19	1.04	1.04	1.06	1.05
1000.00	7.99	8.09	7.90	7.89	0.99	1.01	1.01	1.00
1000.00	19.92	20.17	19.63	19.74	0.99	1.01	1.01	1.00
1000.00	69.78	70.08	68.11	68.35	1.00	1.02	1.02	1.01
1000.00	124.80	124.87	120.11	120.41	1.01	1.04	1.03	1.02
2000.00	19.92	19.09	18.99	20.04	1.04	1.05	0.99	1.03
2450.00	20.38	19.27	18.50	17.75	1.06	1.10	1.15	1.10
3000.00	20.36	19.27	18.66	19.77	1.06	1.09	1.03	1.06
3500.00	20.02	21.99	21.67	19.57	0.91	0.92	1.02	0.95
4000.00	19.99	19.75	18.25	19.57	1.01	1.10	1.02	1.04
5000.00	19.97	14.40	13.92	15.38	1.39	1.43	1.30	1.37



### PROBE ROTATIONAL RESPONSE

**Model** E100  
**S/N** 00083370  
**Date** 04-Dec-2008  
**Time** 20:40:05  
**Variation** 0.59 dB



• Isotropic response measured in a 20 V/m field at 400 MHz

**APPENDIX C**  
**DUT Photos**  
**(Refer to Exhibit 7B)**