


MOTOROLA


TESTING CERT # 2518.01

DECLARATION OF COMPLIANCE MPE ASSESSMENT Part 1 of 2

Enterprise Mobility Solution (EMS)
EME Test Laboratory
8000 West Sunrise Blvd
Fort Lauderdale, FL. 33322

Date of Report: June 29, 2010
Report Revision: Rev. O
Report ID: SR8485_MPE rpt_APX7500_UHFR1 and
 VHF_Motorcycle_Rev O _100629

Responsible Engineer: Stephen C. Whalen (Principle Staff EME Eng.)
Date/s Tested: 6/24/2010 & 9/25/09-10/15/09
Manufacturer/Location: Motorola, Penang
Date submitted for test: 6/16/2010
DUT Description: Mackinaw Mobile UHFR1 (15 Watts) & VHF (15 Watts)
 - Motorcycle Mount option
Test TX mode(s): CW
Max. Power output: 18W
TX Frequency Bands: UHFR1 380-470 MHz & VHF 136 – 174 MHz
Signaling type: Analog, APCO 25, and F2 (TDMA)
Model(s) Tested: M30QSS9PW1AN with G67 motorcycle option
 and M30KSS9PW1AN with G67 motorcycle option
Model(s) Certified: M30TSS9PW1AN with G67 Motorcycle option
Serial Number(s): 123ABC4567 (M30QSS9PW1AN with G67 motorcycle option),
 CAI09018Z9 (M30KSS9PW1AN with G67 motorcycle option)
Classification: Occupational/Controlled Environment

DUT Photo
 (Refer to Exhibit 7B)

Regulatory Identifications

FCC ID AZ492FT4895 – Part 22 & 90 (406.1-470 MHz & 150.8-173.4 MHz, MPE results outside of Part 90 are not applicable for FCC compliance demonstration.

IC ID 109U-92FT4895

Approved Accessories:
Antenna(s):

Antennas for UHFR1 band	Antennas for VHF band
HAE6014A (Motorcycle Mount, 380 - 433 MHz, 1/4 Wave, 2.15 dBi) HAE6032A (Motorcycle Mount, 425 - 470 MHz, 1/4 Wave, 2.15 dBi)	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)

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 4.0 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.

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

Approval Date: 6/30/2010

Certification Date:

Certification No.:

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REVISION HISTORY

Date	Revision	Comments
6/29/2010	O	Initial release

1.0 Product and System Description

Model M30QSS9PW1AN 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 380 - 470 MHz the MPE (Maximum Permissible Exposure) limits to electromagnetic energy in equivalent plane wave free-space power density are 0.20 – 0.23mW/cm² (ICNIRP) and 0.25 – 0.31mW/cm² (FCC) for General Population, and 1.0 – 1.17mW/cm² (ICNIRP) and 1.27 – 1.57mW/cm² (FCC) for Occupational.

5.0 Measurement System Uncertainty Levels

Uncertainty Budget for Near Field Probe Measurements

	Tol. (± %)	Prob Dist.	Divisor	u_i (±%)	v_i
Measurement System					
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	∞
Test sample Related					
Antenna Positioning	3.0	N	1.00	3.0	∞
Power drift	5.0	R	1.73	2.9	∞
Combined Standard Uncertainty		RSS		12.2	∞
Expanded Uncertainty (95% CONFIDENCE LEVEL)		$k=2$		24	

6.0 Method of Measurement

6.1 MPE assessments 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

Equipment Type	Model #	SN	Calibration Date
Motorcycle	2005 Kawasaki KZ1000		
Survey Meter / Probe – E-Field (Electric Field)	ETS Model HI-2200 / ETS Model E100	00086316 / 00109011	10/22/09

ETS equipments measured for E-field is in mW/cm² for E-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)
380.0125	17.2
406.5	17.3
433	17.3
425.0125	17.4
447.5	17.2
469.9875	17.2

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/cm²) and therefore the cal factors were squared as indicated in the formula above.

Note 4: The H-field measurements were done in A/m. Therefore the calculated power density results were converted to mW/cm² using the formula: mW/cm² = (A/m)²*37.699.

Table 1: E-Field MPE data summary

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/cm ²)	Calc. P.D. (mW/cm ²)	Max Calc. P.D. (mW/cm ²)	% of ICNIR P Spec Limit	ICNIR P Spec Limit (mW/cm ²)	FCC Spec Limit (mW/cm ²)
HAE6014A (380 -433 MHz)	2.15	380.0125	18	17.2	E	0.94	OP	1.13	0.53	0.56	56	1.00	1.27
HAE6014A (380 -433 MHz)	2.15	380.0125	18	17.2	E	0.94	BS	0.15	0.07	0.07	37	0.20	0.25
HAE6014A (380 -433 MHz)	2.15	406.5	18	17.3	E	0.94	OP	1.12	0.53	0.55	54	1.02	1.36
HAE6014A (380 -433 MHz)	2.15	406.5	18	17.3	E	0.94	BS	0.16	0.08	0.08	39	0.20	0.27
HAE6014A (380 -433 MHz)	2.15	433	18	17.3	E	0.95	OP	0.72	0.34	0.36	33	1.08	1.44
HAE6014A (380 -433 MHz)	2.15	433	18	17.3	E	0.95	BS	0.14	0.07	0.07	32	0.22	0.29
HAE6032A (425-470 MHz)	2.15	425.0125	18	17.4	E	0.95	OP	0.82	0.39	0.40	38	1.06	1.42
HAE6032A (425-470 MHz)	2.15	425.0125	18	17.4	E	0.95	BS	0.13	0.06	0.06	29	0.21	0.28
HAE6032A (425-470 MHz)	2.15	447.5	18	17.2	E	0.96	OP	1.01	0.49	0.51	45	1.12	1.49
HAE6032A (425-470 MHz)	2.15	447.5	18	17.2	E	0.96	BS	0.16	0.08	0.08	35	0.22	0.30
HAE6032A (425-470 MHz)	2.15	469.9875	18	17.2	E	0.97	OP	1.07	0.52	0.54	46	1.17	1.57
HAE6032A (425-470 MHz)	2.15	469.9875	18	17.2	E	0.97	BS	0.15	0.07	0.07	32	0.23	0.31

12.0 Conclusion

The assessments for this device 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 0.08mW/cm² for bystander test position and 0.56mW/cm² for operator test position.

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

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

RF Exposure Results (380-470MHz)

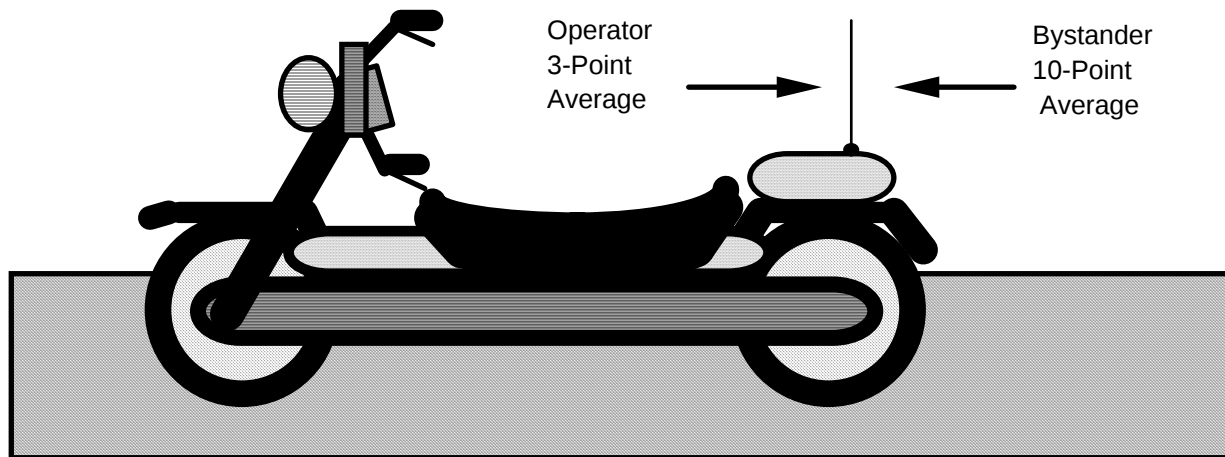
	UHFR1 Band
Operator - Max Calculated Power Density	0.56 mW/cm ²
Bystander - Max Calculated Power Density	0.08 mW/cm ²

RF Exposure Results for FCC Part 90 (406.1-470 MHz)

	UHFR1 Band
Operator - Max Calculated Power Density	0.55 mW/cm ²
Bystander - Max Calculated Power Density	0.08 mW/cm ²

APPENDIX A
Illustration of Antenna Location and Test Positions

ANTENNA LOCATION DRAWING



APPENDIX B
Meter/Probe Calibration Certificates



Cert I.D.: 75742

ETS-LINDGREN
An ESCO Technologies Company
1301 Arrow Point Drive
Cedar Park, Texas 78613
(512) 531-6498

ETS-LINDGREN
An ESCO Technologies Company
Track# S000017735 Ltd Cal ☐
By MR Date 22-Oct-09
Next Cal Due
www.ets-lindgren.com

Certificate of Calibration Conformance

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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.

Manufacturer:	ETS-Lindgren	Operating Range:	100kHz - 5GHz
Model Number:	E100	Instrument Type:	Isotropic Probe > 1 GHz
Serial Number/ ID:	00109011	Date Code:	
Tracking Number:	S000017735	Alternate ID:	
Date Completed:	22-Oct-09	Customer:	MOTOROLA INC. (FL)
Test Type:	Standard Field, Field Strength		
Calibration Uncertainty:	Std Field Method	10kHz - 18000 MHz, +/-0.7 dB, 26.5GHz - 40GHz, +/- 0.95 dB	
k=2, (95% Confidence Level)			

Test Remarks: Special calibration - Additional field levels added.

Calibration Traceability: All Measuring and Test Equipment (MTE) 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

Rohde & Schwarz	857.8008.0	Power Meter	NRVD	828110/019	10-Feb-10
Hewlett Packard	437B	HP Power Meter		3110A03972	09-Jan-10
Fluke	6060B	RF Signal Generator		5690204	11-Jun-10
Marconi	2022	Signal Generator		119019/077	25-Sep-10
Rohde & Schwarz	857.8008.0	Power Meter	NRVD	100451	18-Nov-09
Hewlett Packard	83620B	Signal Generator		3722A00541	25-Sep-10

Condition of Instrument Upon Receipt:

In Tolerance to Internal Quality Standards

On Release:

In Tolerance to Internal Quality Standards

Calibration Completed By

Maynard Reich, Calibration Technician

Attested and Issued on 22-Oct-09

Justin Terr, 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 00109011
Date of Calibration 21 Oct 2009

Frequency (MHz)	Applied V/m	Probe Reading			Correction Factor			
		X	Y	Z	X	Y	Z	Avg
1.00	7.64	7.02	7.79	6.94	1.14	1.04	0.98	1.05
1.00	19.82	16.71	17.11	16.74	1.18	1.16	1.18	1.18
1.00	71.15	57.93	59.53	58.16	1.23	1.19	1.22	1.22
1.00	125.11	100.56	104.03	102.13	1.24	1.20	1.23	1.22
15.00	7.95	8.17	8.28	8.18	0.98	0.96	0.97	0.97
15.00	19.94	19.63	19.98	19.65	1.02	1.00	1.01	1.01
15.00	70.00	67.78	68.81	67.94	1.03	1.02	1.03	1.03
15.00	124.61	120.61	122.69	121.30	1.03	1.02	1.03	1.03
30.00	7.95	8.49	8.59	8.45	0.93	0.93	0.94	0.93
30.00	19.81	19.99	20.29	20.08	1.00	0.97	0.98	0.98
30.00	69.87	69.71	70.67	70.11	1.00	0.99	1.00	1.00
30.00	124.31	124.11	125.93	125.11	1.00	0.99	0.99	0.99
75.00	8.06	8.62	8.75	8.77	0.94	0.93	0.91	0.92
75.00	19.92	20.32	20.71	20.76	0.97	0.96	0.96	0.97
75.00	69.19	71.16	72.25	72.19	0.97	0.96	0.96	0.96
75.00	123.17	126.65	128.70	128.37	0.97	0.96	0.96	0.96
100.00	7.99	8.30	8.54	8.58	0.96	0.95	0.92	0.94
100.00	19.72	20.02	20.31	20.50	0.98	0.97	0.96	0.97
100.00	70.01	70.85	71.90	72.15	0.99	0.97	0.97	0.98
100.00	126.58	128.59	130.29	130.10	0.98	0.97	0.97	0.98
150.00	8.05	8.13	8.26	8.36	0.99	0.98	0.95	0.98
150.00	19.93	20.03	20.39	20.66	0.99	0.98	0.96	0.98
150.00	69.87	70.30	71.46	71.94	0.99	0.98	0.97	0.98
150.00	124.91	126.00	127.53	128.17	0.99	0.98	0.97	0.98
200.00	8.07	8.50	8.67	8.69	0.95	0.94	0.92	0.94
200.00	19.86	20.80	21.21	21.58	0.96	0.94	0.92	0.94
200.00	69.73	73.51	74.90	75.46	0.95	0.93	0.92	0.93
200.00	125.11	132.11	134.58	134.95	0.95	0.93	0.93	0.93
250.00	8.00	8.33	8.42	8.60	0.96	0.95	0.93	0.95
250.00	20.02	20.72	21.00	21.43	0.97	0.95	0.93	0.95
250.00	70.08	72.35	73.13	74.05	0.97	0.96	0.95	0.96
250.00	123.93	128.09	129.47	130.20	0.97	0.96	0.95	0.96
300.00	8.02	8.27	8.40	8.57	0.97	0.95	0.94	0.95
300.00	19.96	20.48	20.79	21.31	0.98	0.96	0.94	0.96
300.00	69.80	71.54	72.40	73.40	0.98	0.96	0.95	0.96
300.00	125.31	129.68	131.16	131.92	0.97	0.96	0.95	0.96
400.00	7.97	8.30	8.34	8.56	0.97	0.95	0.93	0.95
400.00	20.00	20.54	20.92	21.48	0.97	0.96	0.93	0.95
400.00	70.16	71.90	72.88	73.99	0.98	0.96	0.95	0.96
400.00	126.35	129.28	131.06	132.12	0.98	0.96	0.96	0.97
500.00	7.99	8.01	8.18	8.39	1.00	0.98	0.95	0.97
500.00	20.01	20.00	20.41	20.98	1.00	0.98	0.95	0.98
500.00	69.97	69.80	71.05	72.15	1.00	0.98	0.97	0.99
500.00	124.82	125.16	127.11	128.22	1.00	0.98	0.97	0.98
600.00	8.05	8.00	8.13	8.36	1.01	0.99	0.96	0.99
600.00	19.91	19.62	19.99	20.62	1.01	1.00	0.97	0.99
600.00	70.04	68.89	69.92	71.17	1.02	1.00	0.98	1.00
600.00	126.51	124.61	126.45	127.20	1.02	1.00	0.99	1.00



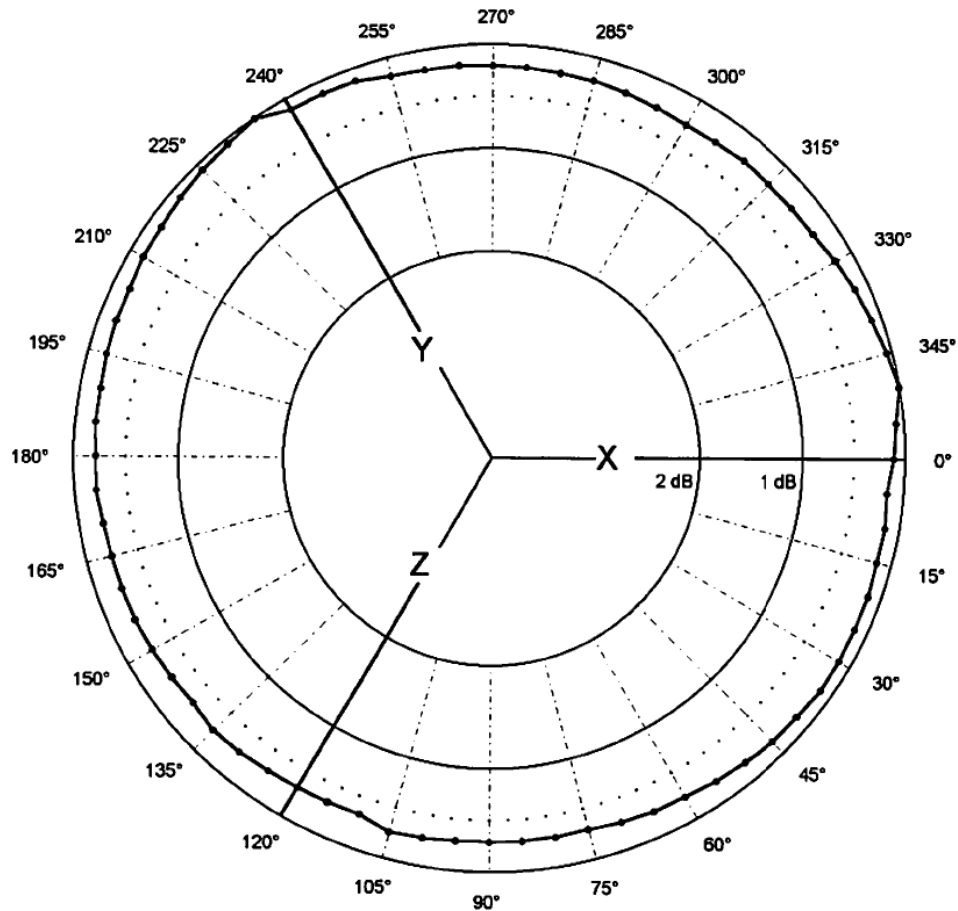
Frequency Response Calibration Factors
Model E100 Serial Number 00109011
Date of Calibration 21 Oct 2009

Frequency (MHz)	Applied V/m	Probe Reading			Correction Factor			
		X	Y	Z	X	Y	Z	Avg
700.00	8.00	7.97	8.10	8.33	1.00	0.99	0.96	0.98
700.00	19.96	19.73	20.08	20.70	1.01	0.99	0.96	0.99
700.00	70.92	70.15	71.10	72.40	1.01	1.00	0.98	1.00
700.00	126.17	124.81	126.29	127.81	1.01	1.00	0.99	1.00
800.00	8.03	7.80	7.94	8.18	1.03	1.01	0.98	1.01
800.00	20.00	19.25	19.67	20.30	1.04	1.02	0.99	1.01
800.00	70.11	67.44	68.66	69.87	1.04	1.02	1.01	1.02
800.00	124.80	120.51	122.51	123.68	1.04	1.02	1.01	1.02
900.00	8.00	7.62	7.82	8.04	1.05	1.02	1.00	1.02
900.00	20.12	19.05	19.57	20.18	1.06	1.03	1.00	1.03
900.00	69.94	66.19	67.78	68.96	1.06	1.03	1.01	1.03
900.00	124.54	118.24	120.95	121.59	1.05	1.03	1.02	1.04
1000.00	7.99	8.48	8.65	9.01	0.94	0.92	0.89	0.92
1000.00	19.88	21.08	21.49	22.22	0.94	0.92	0.89	0.92
1000.00	70.09	74.27	75.51	76.80	0.94	0.93	0.91	0.93
1000.00	126.71	134.43	136.66	137.97	0.94	0.93	0.92	0.93
2000.00	20.27	19.59	20.78	20.88	1.03	0.98	0.97	0.99
2450.00	19.89	18.55	19.38	19.12	1.07	1.03	1.04	1.05
3000.00	20.20	19.52	20.35	21.43	1.03	0.99	0.94	0.99
3500.00	19.95	20.73	22.23	21.00	0.96	0.90	0.95	0.94
4000.00	20.49	21.32	21.67	21.70	0.96	0.95	0.94	0.95
5000.00	20.26	16.24	17.62	17.17	1.25	1.15	1.18	1.19
5500.00	19.77	15.77	16.06	14.83	1.25	1.23	1.33	1.27
6000.00	19.99	14.67	16.77	16.40	1.36	1.19	1.22	1.26



PROBE ROTATIONAL RESPONSE

Model E100
S/N 00109011
Date 22-Oct-2009
Time 07:40:55
Variation 0.39 dB



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

Service Test Report
QAF 1126, 06/07
Report ID: 75744



Certificate of Test Conformance

Page 1 of 1

Reference: S 000017735

Customer: MOTOROLA INC. (FL)

The instrument listed below has been tested and verified to Internal Quality Standards. Test data is Not Applicable. Equipment used during instrument testing is controlled by laboratory compliance with ISO/IEC 17025-2005 using ETS-Lindgren Quality Management System internal procedures.

<u>Manufacturer</u>	ETS-Lindgren	<u>Status In</u>	Other
<u>Instrument Type</u>	RF Survey Meter	<u>Date Completed</u>	22-Oct-09
<u>Model</u>	HI-2200	<u>Status Out</u>	Compliant with Internal Quality Standards
<u>Serial Number/ID</u>	00086316		
<u>Remarks</u>			
Secured mounting screw on LCD to remove lines - Functional Test Performed.			

I would like to take this opportunity to express our appreciation for using ETS-Lindgren for your EMI test equipment services and I am looking forward to continued business with your organization. Please feel free to contact our offices at (512) 531-6400, if you have any questions regarding this report.

Sincerely,

Justin Tarr

Calibration Supervisor

Date Attested: 22-Oct-09

APPENDIX C
DUT Photos
(Refer to Exhibit 7B)