MOTOROLA

ACCREDITED

TESTING CERT #2518.01

FCC ID: AZ492FT1630
DECLARATION OF COMPLIANCE MPE ASSESSMENT

Networks & Enterprise
EME Test Laboratory
8000 West Sunrise Blvd
Fort Lauderdale, FL. 33322

Date of Report: 7/3/07
Report Revision: Rev. O
Report ID: MPE rpt_PM1200_ 37-50MHz _ Rev O_070703_SR4788

Responsible Engineer: Kim Uong (Principle Staff EME Eng.)
Date/s Tested: 5/4/07, 6/27/07
Manufacturer/Location: Vertex, Japan
Date submitted for test: 3/28/07
DUT Description: PM1200 37-50MHz 120W
Test TX mode(s): CW
Max. Power output: 132W, 50% Duty Cycle (PTT)
TX Frequency Bands: 37-50 MHz
Signaling type: FM
Model(s) Tested: AAM32CMD9PW5AN
Model(s) Certified: AAM32CMD9PW5AN
Serial Number(s): 1591HE0034
Classification: Occupational Controlled (Operator); General Population/Uncontrolled (Passengers/Bystanders)
Rule Part(s): 2.1091 (d)

Approved Accessories:
Antenna(s):
RAB4004ARB (42-50MHz ¼ Wave 0dBd)
RAB4003ARB (36-42MHz ¼ Wave 0dBd)

Final RF Exposure Results:
Mobile max calculated Magnetic Field Strength = 0.05A/m

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.

Signature on file –Deanna Zakharia
Deanna Zakharia – N&E EME Lab Senior Resource Manager,
Laboratory Director,

Approval Date: 7/3/07

Certification Date: 7/3/07

Certification No.: L1070701

TABLE OF CONTENTS

REVISION HISTORY

Date	Revision	Comments
7/3/07	O	Initial release

1.0 Product and System Description

FCC ID: AZ492FT1630, model AAM32CMD9PW5AN is a mobile transceiver that utilizes frequency modulation (FM) half duplex transmission technology. The modulation could be conventional analog voice, tone PL and DPL. This device uses the external 1/4λ antennas that are capable of transmitting within their respective ranges in the 37-50MHz bands and with transmit powers up to 132 watts maximum.

The intended use of the radio is Push-To-Talk (PTT) while the device is properly installed in a vehicle with an external antenna mounted at the center of the trunk.

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 passengers inside the vehicle and the bystanders external to the vehicle are evaluated to the General Population/Uncontrolled Exposure Limits.

(Note that “By-standers” as used herein mean people other than operator)

2.0 Additional Options and Accessories:

NA

3.0 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 RF Exposure.

For test frequencies ranging from 37-50 MHz the MPE (Maximum Permissible Exposure) limit to electromagnetic energy in equivalent plane wave free-space power density is 0.2mW/cm^2, and 0.073A/m for the Electromagnetic field strength.

4.0 Data Collection Consideration

Power density testing was performed with DUT installed in a 1991 Ford Taurus (4-door). Measurement data was taken with the vehicle running at idle and the vehicle battery measuring 13.8 volts.

5.0 Measurement System Uncertainty Levels

The information below presents an estimate of the possible errors that are associated with the measurement system.

Uncertainty Budget for Near Field Probe Measurements

	Tol. (± %)	Prob. Dist.	Divisor	u_i (±%)
Measurement System				
Survey Meter Calibration	3.0	N	1.00	3.0
Repeatability Accuracy	7.0	N	1.00	7.0
Combined Standard Uncertainty		RSS		7.6
Expanded Uncertainty		*k*=2		15

6.0 Method of Measurement

6.1 EME measurements made with trunk mounted antenna(s)

(For reference, see Illustration of antenna location and test distances in appendix A)

6.1.1 External vehicle EME measurement

(Antenna mounted at trunk center)

MPE measurements for by-stander conditions are determined by taking the average of (10) measurements in a 2m vertical line for each of the (3) test locations indicated in appendix A with 20cm increments at the test distance of 150cm from the vehicle's body, as stated in the user manual. The measurement probe sensor is rotated 180º at each of the ten incremental measurements to ensure the highest result is captured. These measurements are representative of persons other than the operator standing next to the vehicle.

The offered antenna mounted at the center of the trunk was assessed at the rear of the vehicle while maintaining a twenty (20) centimeter separation distance between the probe sensor and vehicle body. The worst case antenna/frequency was then tested at a 45º radial at the corner of the trunk, and 90º radial at the side of the trunk.

For the current test vehicle, the antenna to probe sensor separation distance is 180cm (directly behind vehicle), 226.5cm (45 degree radial) and 233cm (90 degree radial).

6.2.2 Internal vehicle EME measurement

(Antenna mounted at trunk center)

While rotating survey meter probe through 180 degrees to ensure that the highest level is found, scans were performed inside of the vehicle, at both front and back seating areas, across the TX band to ascertain the highest level at the head. After the highest level is found, scans were performed vertically making two (2) additional measurements within an area approximately 40cm wide (representing the width of a person) so as to have a total of three (3) measured points, indicated below, that are averaged.

a) Head area

b) Chest area

c) Lower Trunk area

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 Due Date
Automobile	1991 Ford Taurus, 4-Door		
*Survey Meter	NARDA Model 8718	01108	7/11/07
*Probe - E-Field (Electric Field)	NARDA Model 8722B	13001	7/11/07
Survey Meter	NARDA Model 8718	01108	4/30/08
Probe - E-Field (Electric Field)	NARDA Model 8722B	13001	4/30/08
Probe - H-Field (Magnetic Field)	NARDA Model 8731	03006	4/30/08

* Equipment used during Internal E-field assessment (test date 5/4/2007).

9.0 Test Unit Description

Power density measurements were performed on AAM32CMD9PW5AN with serial numbers 1591HE0034. The tested frequencies and associated power outputs are presented below.

Frequency (MHz)	Po (W)
37	132
39	132
42	132
43	132
46	132
50	132

10.0 Test Set-Up Description

The following is the mobile antenna test configuration used for this product.
(for reference, see Illustration of antenna location and test distances in the appendix A)

The ¼ Wave antennas RAB4003ARB (0dBd gain) and RAB4004ARB (0dBd gain) were assessed while mounted at the center of the trunk of the test vehicle.

Assessments were made internal and external to the test vehicle at the specified distances and test locations indicated in sections 6.0, 11.0, and appendix A.

11.0 Test Results Summary

Appendix D presents detailed MPE measurement information for each test configuration; person external or internal to the vehicle, TX frequency, antenna (location, model and gain), distance from antenna to probe sensor, E field measurements, calibration factor, MPE average over body, initial power, power density calc, power density max calc, IEEE/FCC controlled and uncontrolled limits, and maximum output power.

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

The MPE test measurements were done at 100% duty cycle test mode, then the final calculated results are based on a 50% actual duty cycle which is in accordance with the User Manual instructions.

External to vehicle - 10 measurements are averaged over the body (*Body_Avg*).
Internal to vehicle - 3 measurements are averaged over the body (*Body_Avg*).
Narda Survey Meter measures in percent of the controlled limit. Therefore the averages over the body used in the calculations below reflect percentages.

MPE results are based on a Push-To-Talk (PTT) 50% duty cycle in CW mode.

Therefore;

$$Average\_over\_Body = Body\_Avg * Controlled\_Limit$$

$$Pwr\_Density\_Calc = Average\_over\_Body * \_Duty\_Cycle$$

$$Pwr\_Density\_Max\_Calc = Pwr\_Density\_Calc * \frac{Max\_Output\_Power}{Initial\_Output\_Power}$$

Note; For *Initial Output Power*> *Max_Output_Power*, *Max_Output_Power* / *Initial Output Power* = 1

The tables below summarizes the MPE results of the E/H field test configurations for the AAM32CMD9PW5AN mobile radio. See appendices A and D respectively for test positions and detailed MPE measurement data.

TABLE 1: E-Field

Tables	Antenna Model	Antenna Location	Test Frequency (MHz)	E/H Field	Passenger / By-stander	Max Calc Pwr Density (mW/cm^2)	% of Uncontrolled Limit
Trunk Mount – By Stander							
1	RAB4003ARB	Trunk	37	E	By-stander	0.12	60%
2	RAB4003ARB	Trunk	37	E	Passenger	0.05	25%
3	RAB4003ARB	Trunk	39	E	By-stander	0.03	15%
4	RAB4003ARB	Trunk	39	E	Passenger	0.01	5%
5	RAB4003ARB	Trunk	42	E	By-stander	0.01	5%
6	RAB4003ARB	Trunk	42	E	Passenger	0.01	5%
7	RAB4004ARB	Trunk	43	E	By-stander	0.02	10%
8	RAB4004ARB	Trunk	43	E	Passenger	0.01	5%
9	RAB4004ARB	Trunk	46	E	By-stander	0.02	10%
10	RAB4004ARB	Trunk	46	E	Passenger	0.01	5%
11	RAB4004ARB	Trunk	50	E	By-stander	0.01	5%
12	RAB4004ARB	Trunk	50	E	Passenger	0.00	0%
45 Degree From Trunk							
13	RAB4003ARB	Trunk	37	E	By-stander	0.06	30%
90 Degree From Trunk							
14	RAB4003ARB	Trunk	37	E	By-stander	0.04	20%

TABLE 2: H-Field

Tables	Antenna Model	Antenna Location	Test Frequency (MHz)	E/H Field	Passenger / By-stander	**Max Calc Magnetic Field Strength (A/m)	% of Uncontrolled Limit
Trunk Mount – By Stander							
15	RAB4003ARB	Trunk	37	H	By-stander	0.05	68%
16	RAB4003ARB	Trunk	37	H	Passenger	0.05	68%
17	RAB4003ARB	Trunk	39	H	By-stander	0.00	0%
18	RAB4003ARB	Trunk	39	H	Passenger	0.03	41%
19	RAB4003ARB	Trunk	42	H	By-stander	0.00	0%
20	RAB4003ARB	Trunk	42	H	Passenger	0.04	55%
21	RAB4004ARB	Trunk	43	H	By-stander	0.03	41%
22	RAB4004ARB	Trunk	43	H	Passenger	0.02	27%
23	RAB4004ARB	Trunk	46	H	By-stander	0.03	41%
24	RAB4004ARB	Trunk	46	H	Passenger	0.00	0%
25	RAB4004ARB	Trunk	50	H	By-stander	0.04	55%
26	RAB4004ARB	Trunk	50	H	Passenger	0.00	0%
45 Degree From Trunk							
27	RAB4003ARB	Trunk	37	H	By-stander	0.04	55%
90 Degree From Trunk							
28	RAB4003ARB	Trunk	37	H	By-stander	0.04	55%

(**)All Electromagnetic field measurements were done using the Power Density H-field probe (mW/cm^2), then the results are converted to Magnetic field strength (A/m) using the following formula:

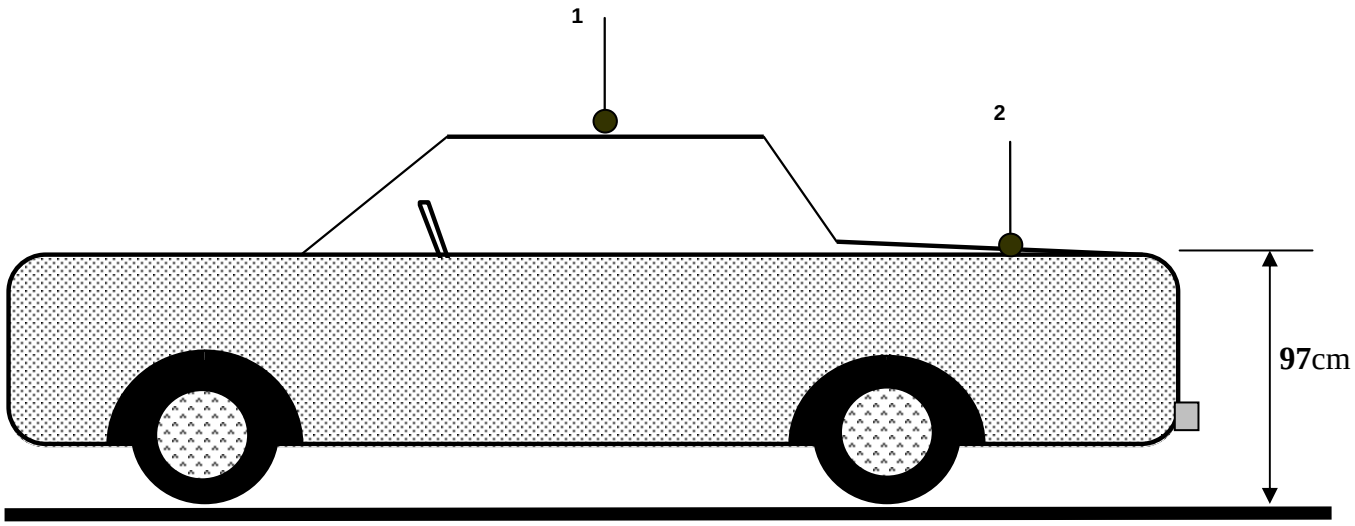
$SQRT(((H*10^{-3})/377)*10^{4})$, where H is H-field Power Density (mW/cm^2).

12.0 Conclusion

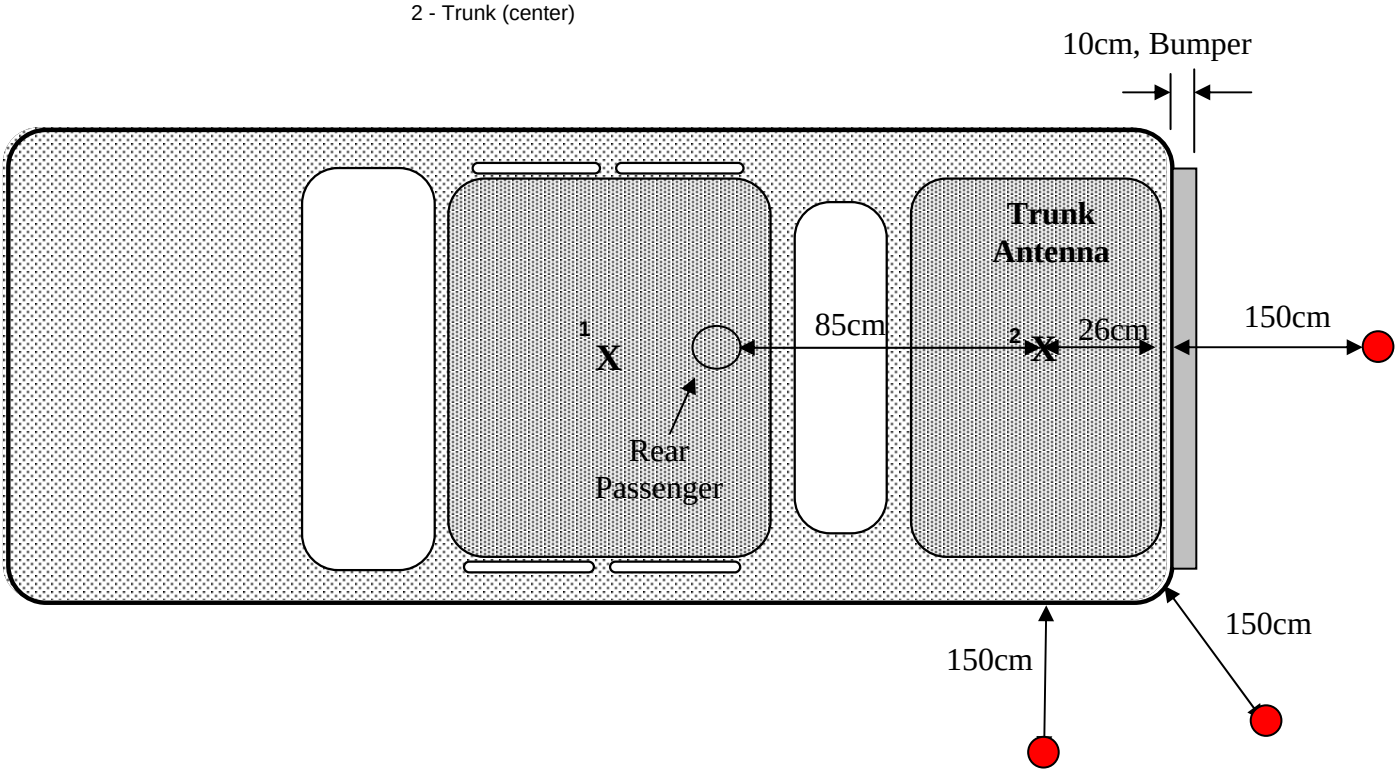
Depending on the test frequency, the AAM32CMD9PW5AN mobile assessments were performed with an output power range of 132-132W for 37-50 MHz. The highest power density results for the AAM32CMD9PW5AN mobile device scaled to the maximum allowable power output is 0.05A/m internal to the vehicle, and 0.05A/m external to the vehicle.
These MPE results demonstrate compliance to the FCC/IEEE General Population/Uncontrolled Exposure limit.

APPENDIX A

Illustration of Antenna Locations and Test Distances



1 - Roof (center)
2 - Trunk (center)



By-Stander Test Locations

APPENDIX B

Meter/Probe Calibration Certificates

CERTIFICATION OF CALIBRATION CONFORMANCE

LIBERTY LABS, INC. 1346 Yellowwood Road Kimballton, IA 51543
EMAIL: mhoward@liberty-labs.com TEL: (712) 773-2199 FAX: (712)773-2299

This probe has been individually calibrated using IEEE Standard for Calibration of Electromagnetic Field Sensors and Probes, Excluding Antennas, from 9 kHz to 40 GHz; IEEE Std. 1309-1996. All results of this calibration relate only to the items that were calibrated.

ACCREDITATION NOTES:
A complete copy of the scope of our A2LA accreditation is available upon request.

Instrumentation Environment: TEMP: 23°C RH: 41%
Calibration Environment: TEMP: 23°C RH: 41%
Barometric Pressure (inches): 29.82
CERTIFICATE NO.: 2006061922
CLIENT: Motorola, Inc., 8000 W. Sunrise Blvd., Plantation, FL, 33322-9947, USA
MANUFACTURER: Narda
MODEL NUMBER: 8722B & 8718
SERIAL NUMBER: 13001 & 01108
ASSET NUMBER:
DATE OF CALIBRATION: Tuesday, July 11, 2006
NAME OF CALIBRATING ORGANIZATION Liberty Labs, Inc.
CALIBRATED BY: DSG DSG
RE-CERTIFICATION DATE: Re-Certification interval is at customer discretion.

RECEIVED STATUS
Received in tolerance: ☑

RETURNED STATUS
Returned in tolerance: ☑
Returned limited cal.: ☐

NOTES: We have deviated from IEEE 1309 with the use of a tri-plate line as a transfer standard for frequencies at and/or below 1GHz. Client declined isotropic response testing. In/Out of tolerance based on alignment/mounting position and not on manufacturer's specifications. A probe position document is included with this certificate.

LL, Inc.

Michael W. Howard

ENGINEER IN CHARGE
MICHAEL W. HOWARD
NARTE CERTIFIED EMC ENGINEER, NO. EM C-000102-NE

ACCREDITED
Certificate Number: 2123.01
Rev. D: Issue Date 12/12/03

Probe01.txt

Date of Calibration: 11-July-2006
Date Printed: Tuesday, July 11, 2006
Customer Name: Motorola, Inc.
Probe Manufacturer: Narda
Probe Model: 8722B & 8718
Probe Serial No.: 13001 & 01108
Temperature (Deg C): 23
Humidity (%): 41
Notes: Calibrated with 8718 Monitor, s/n 01108.
CAL CERT #: 2006061922

Correction Factors

Frequency in MHz	Mutiplier	dB
1	1.91	5.62
15	1.23	1.82
30	0.89	-1.04
75	0.82	-1.74
100	0.71	-3.02
150	1.04	0.36
200	0.90	-0.88
300	0.73	-2.79
400	0.92	-0.75
500	1.08	0.70
600	1.35	2.62
700	0.86	-1.29
800	1.06	0.47
900	1.58	3.97
1000	0.68	-3.38
2000	1.10	0.80
2450	0.95	-0.49
3000	0.90	-0.91
4000	1.29	2.22
5000	0.90	-0.92
6000	0.84	-1.52
7000	0.98	-0.15

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CERTIFICATION OF CALIBRATION CONFORMANCE

LIBERTY LABS, INC. 1346 Yellowwood Road Kimballton, IA 51543
EMAIL: mhoward@liberty-labs.com TEL: (712) 773-2199 FAX: (712)773-2299

This probe has been individually calibrated using IEEE Standard for Calibration of Electromagnetic Field Sensors and Probes, Excluding Antennas, from 9 kHz to 40 GHz; IEEE Std. 1309-1996. All results of this calibration relate only to the items that were calibrated.

ACCREDITATION NOTES:
A complete copy of the scope of our A2LA accreditation is available upon request.

Instrumentation Environment: TEMP: 23°C RH: 35%
Calibration Environment: TEMP: 23°C RH: 35%
Barometric Pressure (inches): 29.85
CERTIFICATE NO.: 2007041704
CLIENT: Lockheed Martin IMC, Bldg. 5100, Stennis Space Center, MS, 39529, USA
MANUFACTURER: Narda
MODEL NUMBER: 8722B & 8718
SERIAL NUMBER: 12023 & 01122
ASSET NUMBER: PRNRA002 & RFNRA001
DATE OF CALIBRATION: Monday, April 30, 2007
NAME OF CALIBRATING ORGANIZATION Liberty Labs, Inc.
CALIBRATED BY: DSG DSG
RE-CERTIFICATION DATE: 1 year from calibration date. This is a recommended recalibration interval but there are any number of factors that may cause the calibration item to drift out of calibration before the recommended interval has expired. Customer has been contacted concerning re-certification interval and documentation has been received and is on-file.

RECEIVED STATUS
Received in tolerance: ☑

RETURNED STATUS
Returned in tolerance: ☑
Returned limited cal.: ☐

NOTES: Below 1 GHz Liberty Labs uses a transfer standard calibrated to IEEE1309 Standards. Liberty Labs uses this transfer standard via the substitute method outlined in IEEE 1309 in a triplate test cell to calibrate probes. The uncertainty between the TEM and Triplate is minimal in this application. Client declined isotropic response testing. In/Out of tolerance based on alignment/mounting position and not on manufacturer's specifications. A probe position document is included with this certificate.

LL, Inc.

Michael W. Howard

ENGINEER IN CHARGE
MICHAEL W. HOWARD
NARTE CERTIFIED EMC ENGINEER, NO. EM C-000102-NE

ACCREDITED
Certificate Number: 2123.01

ispb-position

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Rev. D: Issue Date 12/12/03

Probe01.txt

Date of Calibration: 30-April-2007
Date Printed: Monday, April 30, 2007
Customer Name: Lockheed Martin IMC
Probe Manufacturer: Narda
Probe Model: 8722B & 8718
Probe Serial No.: 12023 & 01122
Temperature (Deg C): 23
Humidity (%): 35
Notes: Calibrated with 8718 Monitor, s/n 01122.
CAL CERT #: 2007041704

	Correction Factors	
Frequency in MHz	Mutiplier	dB
1	3.15	9.96
15	1.11	0.87
30	0.74	-2.66
75	0.60	-4.44
100	0.62	-4.15
150	0.47	-6.56
200	0.57	-4.85
250	0.67	-3.45
300	0.66	-3.57
400	0.68	-3.40
500	0.62	-4.16
600	0.42	-7.62
700	0.40	-8.05
800	0.44	-7.12
900	1.14	1.10
1000	0.64	-3.85
2000	0.65	-3.71
2450	0.76	-2.40
3000	0.83	-1.57
3500	1.18	1.41
4000	1.08	0.67
5000	0.76	-2.37
5500	0.88	-1.07
6000	0.99	-0.08
7000	0.72	-2.83
10000	0.93	-0.64
10500	0.72	-2.80
11000	0.70	-3.07

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CERTIFICATION OF CALIBRATION CONFORMANCE

LIBERTY LABS, INC. 1346 Yellowwood Road Kimballton, IA 51543
EMAIL: mhoward@liberty-labs.com TEL: (712) 773-2199 FAX: (712)773-2299

This probe has been individually calibrated using IEEE Standard for Calibration of Electromagnetic Field Sensors and Probes, Excluding Antennas, from 9 kHz to 40 GHz; IEEE Std. 1309-1996. All results of this calibration relate only to the items that were calibrated.

ACCREDITATION NOTES:
A complete copy of the scope of our A2LA accreditation is available upon request.

Instrumentation Environment: TEMP: 23°C RH: 35%
Calibration Environment: TEMP: 23°C RH: 35%
Barometric Pressure (inches): 29.85
CERTIFICATE NO.: 2007041703
CLIENT: Lockheed Martin IMC, Bldg. 5100, Stennis Space Center, MS, 39529, USA
MANUFACTURER: Narda
MODEL NUMBER: 8731 & 8718
SERIAL NUMBER: 03006 & 01122
ASSET NUMBER: PRNRH003 & RFNRA001
DATE OF CALIBRATION: Monday, April 30, 2007
NAME OF CALIBRATING ORGANIZATION Liberty Labs, Inc.
CALIBRATED BY: DSG DSG
RE-CERTIFICATION DATE: 1 year from calibration date. This is a recommended recalibration interval but there are any number of factors that may cause the calibration item to drift out of calibration before the recommended interval has expired. Customer has been contacted concerning re-certification interval and documentation has been received and is on file.

RECEIVED STATUS
Received in tolerance: ☑

RETURNED STATUS
Returned in tolerance: ☑
Returned limited cal.: ☐

NOTES: Below 1 GHz Liberty Labs uses a transfer standard calibrated to IEEE1309 Standards. Liberty Labs uses this transfer standard via the substitute method outlined in IEEE 1309 in a triplate test cell to calibrate probes. The uncertainty between the TEM and Triplate is minimal in this application. Client declined isotropic response testing. In/Out of tolerance based on alignment/mounting position and not on manufacturer's specifications. A probe position document is included with this certificate.

LL, Inc.

Michael W. Howard

ENGINEER IN CHARGE
MICHAEL W. HOWARD
NARTE CERTIFIED EMC ENGINEER, NO. EM C-000102-NE

ACCREDITED
Certificate Number: 2123.01

ispb-position

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Rev. D: Issue Date 12/12/03

Probe01.txt

Date of Calibration: 30-April-2007
Date Printed: Monday, April 30, 2007
Customer Name: Lockheed Martin IMC
Probe Manufacturer: Narda
Probe Model: 8731 & 8718
Probe Serial No.: 03006 & 01122
Temperature (Deg C): 23
Humidity (%): 35
Notes:
CAL CERT #: 2007041703

Correction Factors for mW/cm^2

Frequency in MHz	Multiplier	in dB
10	0.54	-5.32
15	0.63	-4.05
30	1.46	3.27
50	1.34	2.54
75	0.51	-5.92
100	0.67	-3.42
150	1.29	2.23
200	0.87	-1.25
250	0.91	-0.86
300	1.70	4.62

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APPENDIX C

Photos of Assessed Antenna

Antenna kit numbers: RAB4003ARB, RAB4004ARB

APPENDIX D

Detailed MPE Measurement Data

Table 1

External Vehicle MPE Assessment @ 37 MHz									
Antenna Location	Antenna Model	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Body (mW/cm^2)	Initial Power (W)	Pwr. Density Calc. (mW/cm^2)	Pwr. Density Max Calc. (mW/cm^2)
Trunk (cnt)	RAB4003ARB (36-42MHz)	2.15	150	E	0.72	0.242	132.0	0.121	0.12

Measurement Grid							
Test Position	Height (cm)	% of Control Limit	Test Position	Height (cm)	% of Control Limit	IEEE Controlled Limit	IEEE Uncontrolled Limit
1	20	6.70%	6	120	25.00%	1.00	0.20
2	40	8.90%	7	140	30.60%		
3	60	13.60%	8	160	36.60%		
4	80	20.10%	9	180	40.30%		RF Po (*Max)
5	100	18.70%	10	200	41.50%		132.0

Table 2

Internal Vehicle MPE Assessment @ 37 MHz										
Antenna Location	Antenna	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head, Chest, Lower Trunk Back/Front seats (mW/cm^2)		Initial Power (W)	Pwr. Density Calc. (mW/cm^2)	Pwr. Density Max Calc. (mW/cm^2)
						Back	Front			
Trunk (cnt)	RAB4003ARB (36-42MHz)	2.15	Highest Reading	E	0.88	0.009	0.109	132.0	0.055	0.05

Measurement Grid					
Test Position	% of Control Limit Head	% of Control Limit Chest	% of Control Limit Lower Trunk	IEEE Controlled Limit:	1.00
Back Seat	1.8%	0.5%	0.3%	IEEE Uncontrolled Limit:	0.20
Front Seat	3.6%	15.1%	14.0%	RF Po (*Max):	132.0

Table 3

External Vehicle MPE Assessment @ 39 MHz									
Antenna Location	Antenna Model	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Body (mW/cm^2)	Initial Power (W)	Pwr. Density Calc. (mW/cm^2)	Pwr. Density Max Calc. (mW/cm^2)
Trunk (cnt)	RAB4003ARB (36-42MHz)	2.15	150	E	0.71	0.059	132.0	0.029	0.03

Measurement Grid							
Test Position	Height (cm)	% of Control Limit	Test Position	Height (cm)	% of Control Limit	IEEE Controlled Limit	IEEE Uncontrolled Limit
1	20	2.50%	6	120	6.20%	1.00	0.20
2	40	3.00%	7	140	7.30%		
3	60	3.90%	8	160	8.00%		
4	80	5.50%	9	180	8.40%		RF Po (*Max)
5	100	5.70%	10	200	8.40%		132.0

Table 4

Internal Vehicle MPE Assessment @ 39 MHz										
Antenna Location	Antenna	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head, Chest, Lower Trunk Back/Front seats (mW/cm^2)		Initial Power (W)	Pwr. Density Calc. (mW/cm^2)	Pwr. Density Max Calc. (mW/cm^2)
						Back	Front			
Trunk (ent)	RAB4003ARB (36-42MHz)	2.15	Highest Reading	E	0.88	0.005	0.023	132.0	0.012	0.01
Measurement Grid										
Test Position		% of Control Limit Head		% of Control Limit Chest		% of Control Limit Lower Trunk			IEEE Controlled Limit:	1.00
Back Seat		0.8%		0.3%		0.3%			IEEE Uncontrolled Limit:	0.20
Front Seat		2.6%		2.1%		2.3%			RF Po (*Max):	132.0

Table 5

External Vehicle MPE Assessment @ 42 MHz									
Antenna Location	Antenna Model	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Body (mW/cm^2)	Initial Power (W)	Pwr. Density Calc. (mW/cm^2)	Pwr. Density Max Calc. (mW/cm^2)
Trunk (ent)	RAB4003ARB (36-42MHz)	2.15	150	E	0.7	0.028	132.0	0.014	0.01
Measurement Grid									
Test Position	Height (cm)	% of Control Limit		Test Position	Height (cm)	% of Control Limit		IEEE Controlled Limit	IEEE Uncontrolled Limit
1	20	1.80%		6	120	2.90%		1.00	0.20
2	40	1.90%		7	140	3.20%			
3	60	2.20%		8	160	3.30%			
4	80	2.70%		9	180	3.80%			RF Po (*Max)
5	100	2.50%		10	200	3.70%			132.0

Table 6

Internal Vehicle MPE Assessment @ 42 MHz										
Antenna Location	Antenna	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head, Chest, Lower Trunk Back/Front seats (mW/cm^2)		Initial Power (W)	Pwr. Density Calc. (mW/cm^2)	Pwr. Density Max Calc. (mW/cm^2)
						Back	Front			
Trunk (ent)	RAB4003ARB (36-42MHz)	2.15	Highest Reading	E	0.87	0.004	0.011	132.0	0.006	0.01
Measurement Grid										
Test Position		% of Control Limit Head		% of Control Limit Chest		% of Control Limit Lower Trunk			IEEE Controlled Limit:	1.00
Back Seat		0.5%		0.3%		0.3%			IEEE Uncontrolled Limit:	0.20
Front Seat		1.1%		1.1%		1.2%			RF Po (*Max):	132.0

Table 7

External Vehicle MPE Assessment @ 43 MHz									
Antenna Location	Antenna Model	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Body (mW/cm^2)	Initial Power (W)	Pwr. Density Calc. (mW/cm^2)	Pwr. Density Max Calc. (mW/cm^2)
Trunk (cnt)	RAB4004ARB (42-50 MHz)	2.15	150	E	0.7	0.047	132.0	0.024	0.02
Measurement Grid									
Test Position	Height (cm)	% of Control Limit	Test Position	Height (cm)	% of Control Limit			IEEE Controlled Limit	IEEE Uncontrolled Limit
1	20	2.30%	6	120	4.80%			1.00	0.20
2	40	2.80%	7	140	5.60%				
3	60	3.10%	8	160	6.40%				
4	80	4.60%	9	180	6.70%				RF Po (*Max)
5	100	4.20%	10	200	6.80%				132.0

Table 8

Internal Vehicle MPE Assessment @ 43 MHz										
Antenna Location	Antenna	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head, Chest, Lower Trunk Back/Front seats (mW/cm^2)		Initial Power (W)	Pwr. Density Calc. (mW/cm^2)	Pwr. Density Max Calc. (mW/cm^2)
						Back	Front			
Trunk (cnt)	RAB4004ARB (42-50 MHz)	2.15	Highest Reading	E	0.87	0.005	0.018	132.0	0.009	0.01
Measurement Grid										
Test Position		% of Control Limit Head		% of Control Limit Chest		% of Control Limit Lower Trunk			IEEE Controlled Limit:	1.00
Back Seat		0.7%		0.5%		0.4%			IEEE Uncontrolled Limit:	0.20
Front Seat		1.7%		1.8%		1.9%			RF Po (*Max):	132.0

Table 9

External Vehicle MPE Assessment @ 46 MHz									
Antenna Location	Antenna Model	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Body (mW/cm^2)	Initial Power (W)	Pwr. Density Calc. (mW/cm^2)	Pwr. Density Max Calc. (mW/cm^2)
Trunk (cnt)	RAB4004ARB (42-50 MHz)	2.15	150	E	0.69	0.031	132.0	0.015	0.02
Measurement Grid									
Test Position	Height (cm)	% of Control Limit	Test Position	Height (cm)	% of Control Limit			IEEE Controlled Limit	IEEE Uncontrolled Limit
1	20	1.60%	6	120	3.40%			1.00	0.20
2	40	2.10%	7	140	3.60%				
3	60	2.20%	8	160	3.90%				
4	80	2.90%	9	180	4.00%				RF Po (*Max)
5	100	2.90%	10	200	3.90%				132.0

Table 10

Internal Vehicle MPE Assessment @ 46 MHz										
Antenna Location	Antenna	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head, Chest, Lower Trunk Back/Front seats (mW/cm^2) Back	Front	Initial Power (W)	Pwr. Density Calc. (mW/cm^2)	Pwr. Density Max Calc. (mW/cm^2)
Trunk (cnt)	RAB4004ARB (42-50 MHz)	2.15	Highest Reading	E	0.87	0.004	0.011	132.0	0.006	0.01
Measurement Grid										
Test Position		% of Control Limit Head		% of Control Limit Chest		% of Control Limit Lower Trunk			IEEE Controlled Limit:	1.00
Back Seat		0.4%		0.3%		0.5%			IEEE Uncontrolled Limit:	0.20
Front Seat		1.1%		1.1%		1.2%			RF Po (*Max):	132.0

Table 11

External Vehicle MPE Assessment @ 50 MHz									
Antenna Location	Antenna Model	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Body (mW/cm^2)	Initial Power (W)	Pwr. Density Calc. (mW/cm^2)	Pwr. Density Max Calc. (mW/cm^2)
Trunk (cnt)	RAB4004ARB (42-50 MHz)	2.15	150	E	0.68	0.020	132.0	0.010	0.01
Measurement Grid									
Test Position	Height (cm)	% of Control Limit		Test Position	Height (cm)	% of Control Limit		IEEE Controlled Limit	IEEE Uncontrolled Limit
1	20	1.50%		6	120	2.00%		1.00	0.20
2	40	1.60%		7	140	2.10%			
3	60	1.70%		8	160	2.40%			
4	80	1.90%		9	180	2.40%			RF Po (*Max)
5	100	1.90%		10	200	2.50%			132.0

Table 12

Internal Vehicle MPE Assessment @ 50 MHz										
Antenna Location	Antenna	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head, Chest, Lower Trunk Back/Front seats (mW/cm^2) Back	Front	Initial Power (W)	Pwr. Density Calc. (mW/cm^2)	Pwr. Density Max Calc. (mW/cm^2)
Trunk (cnt)	RAB4004ARB (42-50 MHz)	2.15	Highest Reading	E	0.86	0.002	0.006	132.0	0.003	0.00
Measurement Grid										
Test Position		% of Control Limit Head		% of Control Limit Chest		% of Control Limit Lower Trunk			IEEE Controlled Limit:	1.00
Back Seat		0.2%		0.2%		0.2%			IEEE Uncontrolled Limit:	0.20
Front Seat		0.6%		0.6%		0.5%			RF Po (*Max):	132.0

Table 13 -- 45 Degree

External Vehicle MPE Assessment @ 37 MHz									
Antenna Location	Antenna Model	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Body (mW/cm^2)	Initial Power (W)	Pwr. Density Calc. (mW/cm^2)	Pwr. Density Max Calc. (mW/cm^2)
Trunk (cnt)	RAB4003ARB (36-42MHz)	2.15	150	E	0.72	0.113	132.0	0.056	0.06
Measurement Grid									
Test Position	Height (cm)	% of Control Limit	Test Position	Height (cm)	% of Control Limit			IEEE Controlled Limit	IEEE Uncontrolled Limit
1	20	3.40%	6	120	11.10%			1.00	0.20
2	40	3.40%	7	140	14.00%				
3	60	4.50%	8	160	16.60%				
4	80	7.00%	9	180	19.80%				RF Po (*Max)
5	100	9.00%	10	200	23.90%				132.0

Table 14 -- 90 Degree

External Vehicle MPE Assessment @ 37 MHz									
Antenna Location	Antenna Model	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Body (mW/cm^2)	Initial Power (W)	Pwr. Density Calc. (mW/cm^2)	Pwr. Density Max Calc. (mW/cm^2)
Trunk (cnt)	RAB4003ARB (36-42MHz)	2.15	150	E	0.72	0.083	132.0	0.042	0.04
Measurement Grid									
Test Position	Height (cm)	% of Control Limit	Test Position	Height (cm)	% of Control Limit			IEEE Controlled Limit	IEEE Uncontrolled Limit
1	20	2.30%	6	120	7.30%			1.00	0.20
2	40	2.30%	7	140	9.50%				
3	60	2.90%	8	160	12.00%				
4	80	4.50%	9	180	17.10%				RF Po (*Max)
5	100	5.40%	10	200	20.10%				132.0

Table 15

External Vehicle MPE Assessment @ 37 MHz									
Antenna Location	Antenna Model	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Body (mW/cm^2)	Initial Power (W)	Magnetic Field Strength Calc. (A/m)	Magnetic Field Strength Max Calc. (A/m)
Trunk (cnt)	RAB4003ARB (36-42MHz)	2.15	150	H	1.42	0.153	132.0	0.045	0.05
Measurement Grid									
Test Position	Height (cm)	Meas. Pwr. Density (mW/cm^2)		Test Position	Height (cm)	Meas. Pwr. Density (mW/cm^2)		IEEE Controlled Limit	IEEE Uncontrolled Limit
1	20	0.120		6	120	0.170		0.163	0.073
2	40	0.130		7	140	0.150			
3	60	0.160		8	160	0.210			
4	80	0.180		9	180	0.130			RF Po (*Max)
5	100	0.180		10	200	0.100			132.0

Table 16

Internal Vehicle MPE Assessment @ (30-100MHz) 37 MHz										
Antenna Location	Antenna	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head, Chest, Lower Trunk Back/Front seats (mW/cm^2)		Initial Power (W)	Magnetic Field Strength Calc. (A/m)	Magnetic Field Strength Max Calc. (A/m)
						Back	Front			
Trunk (cnt)	RAB4003ARB (36-42MHz)	2.15	Highest Reading	H	1.42	0.177	0.060	132	0.048	0.05
Measurement Grid										
Test Position	Meas. Pwr. Density Head (mW/cm^2)		Meas. Pwr. Density Chest (mW/cm^2)		Meas. Pwr. Density Lower Trunk (mW/cm^2)			IEEE Controlled Limit:		0.163
Back Seat	0.280		0.150		0.100			IEEE Uncontrolled Limit:		0.073
Front Seat	0.060		0.060		0.060				RF Po (*Max):	132.0

Table 17

External Vehicle MPE Assessment @ 39 MHz									
Antenna Location	Antenna Model	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Body (mW/cm^2)	Initial Power (W)	Magnetic Field Strength Calc. (A/m)	Magnetic Field Strength Max Calc. (A/m)
Trunk (cnt)	RAB4003ARB (36-42MHz)	2.15	150	H	1.41	0.000	132.0	0.000	0.00
Measurement Grid									
Test Position	Height (cm)	Meas. Pwr. Density (mW/cm^2)		Test Position	Height (cm)	Meas. Pwr. Density (mW/cm^2)		IEEE Controlled Limit	IEEE Uncontrolled Limit
1	20	0.000		6	120	0.000		0.163	0.073
2	40	0.000		7	140	0.000			
3	60	0.000		8	160	0.000			
4	80	0.000		9	180	0.000			RF Po (*Max)
5	100	0.000		10	200	0.000			132.0

Table 18

Internal Vehicle MPE Assessment @ (30-100MHz) 39 MHz										
Antenna Location	Antenna	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head, Chest, Lower Trunk Back/Front seats (mW/cm^2)		Initial Power (W)	Magnetic Field Strength Calc. (A/m)	Magnetic Field Strength Max Calc. (A/m)
						Back	Front			
Trunk (cnt)	RAB4003ARB (36-42MHz)	2.15	Highest Reading	H	1.41	0.063	0.000	132	0.029	0.03

Measurement Grid					
Test Position	Meas. Pwr. Density Head (mW/cm^2)	Meas. Pwr. Density Chest (mW/cm^2)	Meas. Pwr. Density Lower Trunk (mW/cm^2)	IEEE Controlled Limit:	0.163
Back Seat	0.110	0.050	0.030	IEEE Uncontrolled Limit:	0.073
Front Seat	0.000	0.000	0.000	RF Po (*Max):	132.0

Table 19

External Vehicle MPE Assessment @ 42 MHz									
Antenna Location	Antenna Model	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Body (mW/cm^2)	Initial Power (W)	Magnetic Field Strength Calc. (A/m)	Magnetic Field Strength Max Calc. (A/m)
Trunk (cnt)	RAB4003ARB (36-42MHz)	2.15	150	H	1.39	0.001	132.0	0.003	0.00

Measurement Grid								
Test Position	Height (cm)	Meas. Pwr. Density (mW/cm^2)	Test Position	Height (cm)	Meas. Pwr. Density (mW/cm^2)	IEEE Controlled Limit	IEEE Uncontrolled Limit	
1	20	0.000	6	120	0.000	0.163	0.073	
2	40	0.000	7	140	0.000			
3	60	0.000	8	160	0.000			
4	80	0.000	9	180	0.000		RF Po (*Max)	
5	100	0.008	10	200	0.000		132.0	

Table 20

Internal Vehicle MPE Assessment @ (30-100MHz) 42 MHz										
Antenna Location	Antenna	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head, Chest, Lower Trunk Back/Front seats (mW/cm^2)		Initial Power (W)	Magnetic Field Strength Calc. (A/m)	Magnetic Field Strength Max Calc. (A/m)
						Back	Front			
Trunk (cnt)	RAB4003ARB (36-42MHz)	2.15	Highest Reading	H	1.39	0.123	0.043	132	0.040	0.04

Measurement Grid					
Test Position	Meas. Pwr. Density Head (mW/cm^2)	Meas. Pwr. Density Chest (mW/cm^2)	Meas. Pwr. Density Lower Trunk (mW/cm^2)	IEEE Controlled Limit:	0.163
Back Seat	0.130	0.120	0.120	IEEE Uncontrolled Limit:	0.073
Front Seat	0.050	0.030	0.050	RF Po (*Max):	132.0

Table 21

External Vehicle MPE Assessment @ 43 MHz									
Antenna Location	Antenna Model	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Body (mW/cm^2)	Initial Power (W)	Magnetic Field Strength Calc. (A/m)	Magnetic Field Strength Max Calc. (A/m)
Trunk (cnt)	RAB4004ARB (42-50 MHz)	2.15	150	H	1.38	0.049	132.0	0.025	0.03
Measurement Grid									
Test Position	Height (cm)	Meas. Pwr. Density (mW/cm^2)	Test Position	Height (cm)	Meas. Pwr. Density (mW/cm^2)			IEEE Controlled Limit	IEEE Uncontrolled Limit
1	20	0.031	6	120	0.063			0.163	0.073
2	40	0.045	7	140	0.043				
3	60	0.064	8	160	0.030				
4	80	0.053	9	180	0.031				RF Po (*Max)
5	100	0.081	10	200	0.046				132.0

Table 22

Internal Vehicle MPE Assessment @ (30-100MHz) 43 MHz										
Antenna Location	Antenna	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head, Chest, Lower Trunk Back/Front seats (mW/cm^2)		Initial Power (W)	Magnetic Field Strength Calc. (A/m)	Magnetic Field Strength Max Calc. (A/m)
						Back	Front			
Trunk (cnt)	RAB4004ARB (42-50 MHz)	2.15	Highest Reading	H	1.38	0.027	0.000	132	0.019	0.02
Measurement Grid										
Test Position		Meas. Pwr. Density Head (mW/cm^2)		Meas. Pwr. Density Chest (mW/cm^2)		Meas. Pwr. Density Lower Trunk (mW/cm^2)		IEEE Controlled Limit:		0.163
Back Seat		0.040		0.020		0.020		IEEE Uncontrolled Limit:		0.073
Front Seat		0.000		0.000		0.000			RF Po (*Max):	132.0

Table 23

External Vehicle MPE Assessment @ 46 MHz									
Antenna Location	Antenna Model	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Body (mW/cm^2)	Initial Power (W)	Magnetic Field Strength Calc. (A/m)	Magnetic Field Strength Max Calc. (A/m)
Trunk (cnt)	RAB4004ARB (42-50 MHz)	2.15	150	H	1.36	0.090	132.0	0.035	0.03
Measurement Grid									
Test Position	Height (cm)	Meas. Pwr. Density (mW/cm^2)	Test Position	Height (cm)	Meas. Pwr. Density (mW/cm^2)			IEEE Controlled Limit	IEEE Uncontrolled Limit
1	20	0.120	6	120	0.083			0.163	0.073
2	40	0.120	7	140	0.056				
3	60	0.110	8	160	0.053				
4	80	0.086	9	180	0.060				RF Po (*Max)
5	100	0.140	10	200	0.075				132.0

Table 24

Internal Vehicle MPE Assessment @ 46 MHz										
Antenna Location	Antenna	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head, Chest, Lower Trunk Back/Front seats (mW/cm^2)		Initial Power (W)	Magnetic Field Strength Calc. (A/m)	Magnetic Field Strength Max Calc. (A/m)
						Back	Front			
Trunk (cnt)	RAB4004ARB (42-50 MHz)	2.15	Highest Reading	H	1.36	0.000	0.000	132.0	0.000	0.00

Measurement Grid					
Test Position	Meas. Pwr. Density Head (mW/cm^2)	Meas. Pwr. Density Chest (mW/cm^2)	Meas. Pwr. Density Lower Trunk (mW/cm^2)	IEEE Controlled Limit:	0.163
Back Seat	0.000	0.000	0.000	IEEE Uncontrolled Limit:	0.073
Front Seat	0.000	0.000	0.000	RF Po (*Max):	132.0

Table 25

External Vehicle MPE Assessment @ 50 MHz									
Antenna Location	Antenna Model	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Body (mW/cm^2)	Initial Power (W)	Magnetic Field Strength Calc. (A/m)	Magnetic Field Strength Max Calc. (A/m)
Trunk (cnt)	RAB4004ARB (42-50 MHz)	2.15	150	H	1.34	0.107	132.0	0.038	0.04

Measurement Grid								
Test Position	Height (cm)	Meas. Pwr. Density (mW/cm^2)	Test Position	Height (cm)	Meas. Pwr. Density (mW/cm^2)	IEEE Controlled Limit	IEEE Uncontrolled Limit	
1	20	0.110	6	120	0.100	0.163	0.073	
2	40	0.087	7	140	0.079			
3	60	0.079	8	160	0.120			
4	80	0.100	9	180	0.110		RF Po (*Max)	
5	100	0.110	10	200	0.170		132.0	

Table 26

Internal Vehicle MPE Assessment @ (30-100MHz) 50 MHz										
Antenna Location	Antenna	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Head, Chest, Lower Trunk Back/Front seats (mW/cm^2)		Initial Power (W)	Magnetic Field Strength Calc. (A/m)	Magnetic Field Strength Max Calc. (A/m)
						Back	Front			
Trunk (cnt)	RAB4004ARB (42-50 MHz)	2.15	Highest Reading	H	1.34	0.000	0.000	132	0.000	0.00

Measurement Grid					
Test Position	Meas. Pwr. Density Head (mW/cm^2)	Meas. Pwr. Density Chest (mW/cm^2)	Meas. Pwr. Density Lower Trunk (mW/cm^2)	IEEE Controlled Limit:	0.163
Back Seat	0.000	0.000	0.000	IEEE Uncontrolled Limit:	0.073
Front Seat	0.000	0.000	0.000	RF Po (*Max):	132.0

Table 27 -- 45 Degree

External Vehicle MPE Assessment @ 37 MHz									
Antenna Location	Antenna Model	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Body (mW/cm^2)	Initial Power (W)	Magnetic Field Strength Calc. (A/m)	Magnetic Field Strength Max Calc. (A/m)
Trunk (cnt)	RAB4003ARB (36-42MHz)	2.15	150	H	1.42	0.105	132.0	0.037	0.04
Measurement Grid									
Test Position	Height (cm)	Meas. Pwr. Density (mW/cm^2)		Test Position	Height (cm)	Meas. Pwr. Density (mW/cm^2)		IEEE Controlled Limit	IEEE Uncontrolled Limit
1	20	0.100		6	120	0.100		0.163	0.073
2	40	0.097		7	140	0.100			
3	60	0.083		8	160	0.120			
4	80	0.082		9	180	0.110			RF Po (*Max)
5	100	0.094		10	200	0.160			132.0

Table 28 -- 90 Degree

External Vehicle MPE Assessment @ 37 MHz									
Antenna Location	Antenna Model	Gain (dBi)	Meas. Distance (cm)	E/H Field	Calibration Factor	Average over Body (mW/cm^2)	Initial Power (W)	Magnetic Field Strength Calc. (A/m)	Magnetic Field Strength Max Calc. (A/m)
Trunk (cnt)	RAB4003ARB (36-42MHz)	2.15	150	H	1.42	0.137	132.0	0.043	0.04
Measurement Grid									
Test Position	Height (cm)	Meas. Pwr. Density (mW/cm^2)		Test Position	Height (cm)	Meas. Pwr. Density (mW/cm^2)		IEEE Controlled Limit	IEEE Uncontrolled Limit
1	20	0.140		6	120	0.110		0.163	0.073
2	40	0.110		7	140	0.130			
3	60	0.100		8	160	0.150			
4	80	0.120		9	180	0.160			RF Po (*Max)
5	100	0.110		10	200	0.240			132.0