1250 Peterson Dr., Wheeling, IL 60090

Company: Motorola
Model Tested: 5700SMC connectorized with 17dBi antenna, 5700SM (single patch) and 5700SM (Dual Patch)
Report Number: 14262

FCC Rules and Regulations / Intentional Radiators

Operational in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz, Bands

Part 15, Subpart C, Section 15.247

THE FOLLOWING **MEETS** THE ABOVE TEST SPECIFICATION

Power Spectral Density Data will be provided by Motorola

Formal Name:	DUSAL 5700G
Kind of Equipment:	Digital Transmission Transceiver
Frequency Range:	5735 MHz - 5840 MHz
Test Configuration:	Phihong 29.5V power Supply PSA 15R (Tested at 120 vac, 60 Hz)
Model Number(s):	5700SM 5700AP 5700BH
Model(s) Tested:	5700SMC connectorized with 17dBi antenna, 5700SM (single patch) 5700SM (Dual Patch)
Serial Number(s):	Patch: 0A003ED2F9AC; Dual Patch: 0A003ED2F9B8; Connectorized: 0A003ED2F97F
Date of Tests:	June 16, 17, 23, 24, 25, July 7 & 8, 2008
Test Conducted For:	Motorola 1299 E. Algonquin Road Schaumburg, Illinois 60193

NOTICE: "This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government". Please see the "Additional Description of Equipment Under Test" page listed inside of this report.

SIGNATURE PAGE

Report By:

Arnom C. Rowe
Test Engineer
EMC-001375-NE

Reviewed By:

William Stumpf
OATS Manager

Approved By:

Brian Mattson
General Manager

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United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 100276-0

D.L.S. Electronic Systems, Inc.

Wheeling, IL

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated 18 June 2005).

2007-10-01 through 2008-09-30

Effective dates

For the National Institute of Standards and Technology

NVLAP-01C (REV 2006-09-13)

1.0 SUMMARY OF TEST REPORT

It was found that the DUSAL 5700G, Model Number(s) 5700SMC connectorized with 17dBi antenna, 5700SM (single patch) 5700SM (Dual Patch), **meets** the radio interference conducted and radiated emission requirements of the FCC "Rules and Regulations", Part 15, Subpart C, Section 15.247 for operational in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz, Bands.

2.0 INTRODUCTION

On June 16, 17, 23, 24, 25, July 7 & 8, 2008, a series of radio frequency interference measurements was performed on DUSAL 5700G, Model Number(s) 5700SMC connectorized with 17dBi antenna, 5700SM (single patch) 5700SM (Dual Patch), Serial Number: Patch: 0A003ED2F9AC; Dual Patch: 0A003ED2F9B8; Connectorized: 0A003ED2F97F. The tests were performed according to the procedures of the FCC as stated in the "Methods of Measurement of Radio-Noise Emissions for Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz" found in the American National Standards Institute, ANSI C63.4-2003. Tests were performed by personnel of D.L.S. Electronic Systems, Inc. who are responsible to Donald L. Sweeney, Senior EMC Engineer.

D.L.S. Electronic Systems, Inc. is a full service EMC/Safety Testing Laboratory accredited to ISO 17025. NVLAP Certificate and Scope can be viewed at http://www.dlsemc.com/certificate. Our facilities are registered with the FCC, Industry Canada, and VCCI.

Main Test Facility:
D.L.S. Electronic Systems, Inc.
1250 Peterson Drive
Wheeling, Illinois 60090

O.A.T.S. Test Facility:
D.L.S. Electronic Systems, Inc.
166 S. Carter Street
Genoa City, Wisconsin 53128

3.0 OBJECT

The purpose of this series of tests was to determine if the test sample could meet the radio frequency interference emission requirements of the FCC "Rules and Regulations", Part 15, Subpart C, Sections 15.205, 15.209 & 15.247 for Intentional Radiators operating in the Bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz.

4.0 TEST SET-UP

All emission tests were performed at D.L.S. Electronic Systems, Inc. and set up according to the ANSI C63.4-2003, Annex H.

The conducted tests were performed with the test item placed on a non-conductive table (table top equipment), located in the test room. Equipment normally operated on the floor was tested by placing it on the metal ground plane. The ground plane has an electrical isolation layer over its surface approximately 7mm thick. The power line supplied was connected to a dual line impedance stabilization network electrically bonded to the ground plane, located on the floor. The networks were constructed per the requirements of the ANSI C63.4-2003, Annex H.

All radiated emissions tests were performed with the test item placed on a 80 cm high rotating non-conductive table, located in the test room. Equipment normally operated on the floor was placed on a metal covered turntable which is flush with the surrounding conducting ground plane. The ground plane has an electrical isolation layer over its surface approximately 7 mm thick. The EUT is separated from the turntable ground plane by a non-conductive layer. The equipment under test was set up according to ANSI C63.4-2003, Sections 6 and 8.

5.0 TEST EQUIPMENT (Bandwidths and Detector Function)

All preliminary data below 1000 MHz was automatically plotted using the ESI 26/40 Fixed Tuned Receiver. The data was taken using Peak, Quasi-Peak or the Average Detector Functions as required. This information was then used to determine the frequencies of maximum emissions. Above 1000 MHz, final data was taken using the Average Detector.

Below 1000 MHz, final data was taken using the ESI 26/40 Fixed Tuned Receiver. These plots were made using the Peak or Quasi-Peak Detector functions, with manual measurements performed on the questionable frequencies using the Quasi-Peak or the Average Detector Function of the ESI 26/40 Fixed Tuned Receiver as required. Above 1000 MHz, final data was taken using the Average Detector on the Spectrum Analyzer.

The bandwidths shown below are specified by ANSI C63.4-2003, Section 4.2.

Frequency Range	Bandwidth (-6 dB)
10 to 150 kHz	200 Hz
150 kHz to 30 MHz	9 kHz
30 MHz to 1 GHz	120 kHz
Above 1 GHz	1 MHz

A list of the equipment used can be found in Table 1. All primary equipment was calibrated against known reference standards with a verified traceable path to NIST.

6.0 AMBIENT MEASUREMENTS

For emissions measurements, broadband antennas and an EMI Test Receiver with a panoramic spectrum display are used. First the frequency range is scanned and displayed on the test receiver display. Next the scanned frequency range is divided into smaller ranges, and then it is manually tuned through to determine the emissions from the EUT. A headset or loudspeaker is connected to the test receiver's AM/FM demodulated output as an aid in detecting ambient signals and finding frequencies of significant emission from the EUT. If there is any doubt as to the source of the emission, it is further investigated by rotating the EUT, or by disconnecting the power from the EUT.

The EUT is set up in its typical configuration and operated in its various modes. For tabletop systems, cables are manipulated within the range of likely configurations. For floor-standing equipment, the cables are located in the same manner as the user would install them and no further manipulation is made. If the manner of cable installation is not known, or if it changes with each installation, cables or wires for floor-standing equipment shall be manipulated to the extent possible to produce the maximum level of emissions. For each mode of operation, the frequency spectrum is monitored. Variations in antenna height, antenna polarization, EUT azimuth, and cable or wire placement (each variable within bounds specified elsewhere) are explored to produce the emissions that have the highest amplitude relative to the limit. These methods are performed to the specifications in ANSI C63.4-2003.

7.0 DESCRIPTION OF TEST SAMPLE: (See also Paragraph 8.0)

7.1 Description:

5.7 GHz ISM transciever Canopy FSK Radio

7.2 PHYSICAL DIMENSIONS OF EQUIPMENT UNDER TEST

12" Length: x 3" Width: x 1" Height:

7.3 LINE FILTER USED:

N/A

7.4 INTERNAL CLOCK FREQUENCIES:

Switching Power Supply Frequencies:

150 kHz

Clock Frequencies:

20 MHz & 25 MHz

7.5 DESCRIPTION OF ALL CIRCUIT BOARDS:

1. DUSAL 5.7G	PN: 8415114A01 Iss.P2
2. Patch Antenna	PN: 8571110N01
3. Dual Patch Antenna	PN: 8589971D01
4. Connector	PN: 0988664D01
5. Cable for Connectorized Antenna	PN: 3089544D01

8.0 ADDITIONAL DESCRIPTION OF TEST SAMPLE:
(See also Paragraph 7.0)

1: There were no additional descriptions noted at the time of test.

NOTE:

Continuous Transmit. Low, Mid, and High channels.

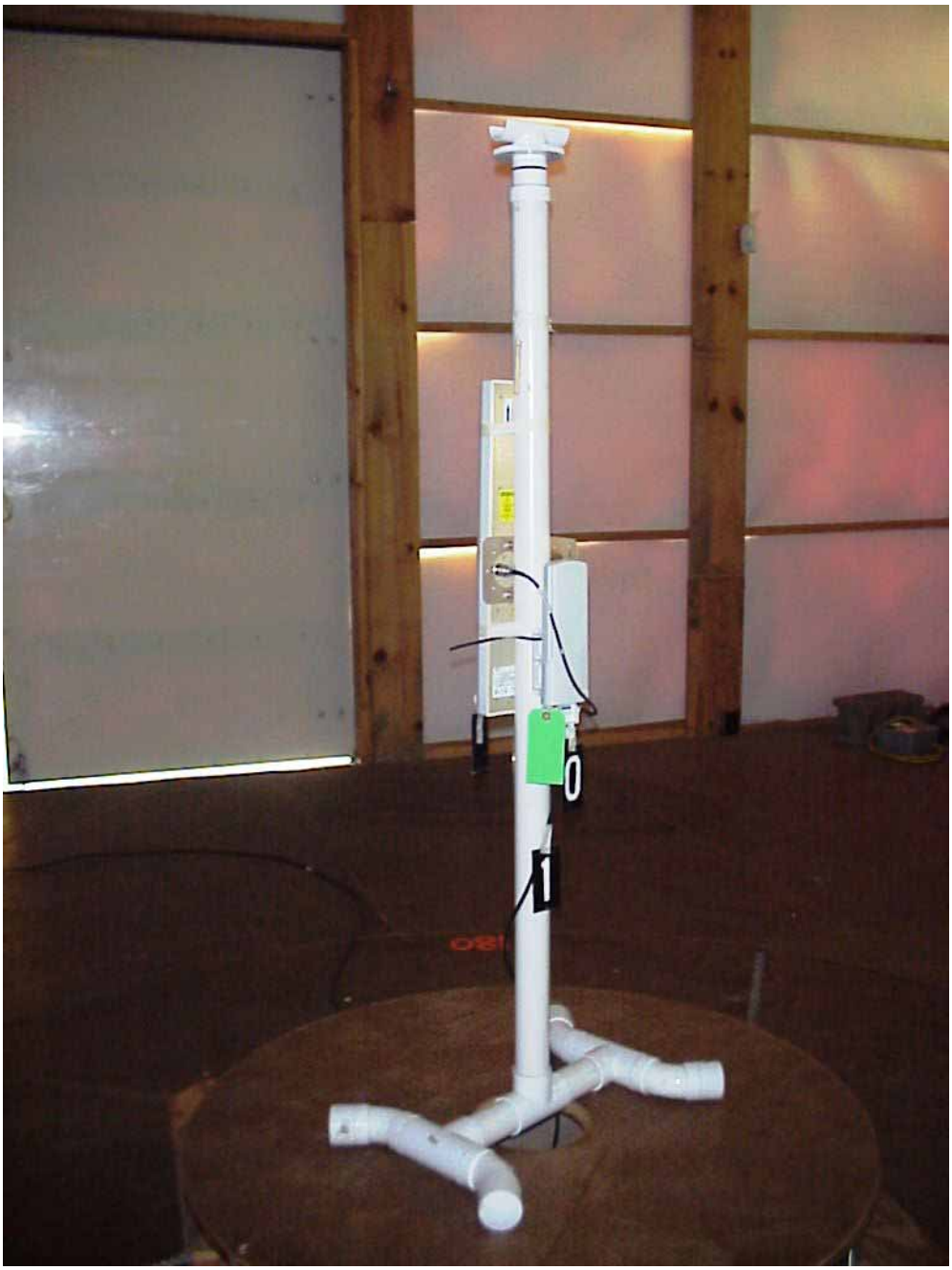
9.0 PHOTO INFORMATION AND TEST SET-UP

Item 0 DUSAL 5700G
Model Numbers: 5700SMC connectorized with 17dBi antenna, 5700SM (single patch) and 5700SM (Dual Patch)
Serial Number: Patch: 0A003ED2F9AC; Dual Patch: 0A003ED2F9B8; and Connectorized: 0A003ED2F97F

Item 1 Shielded Power/Communications Cable with Metal Shells. 10m

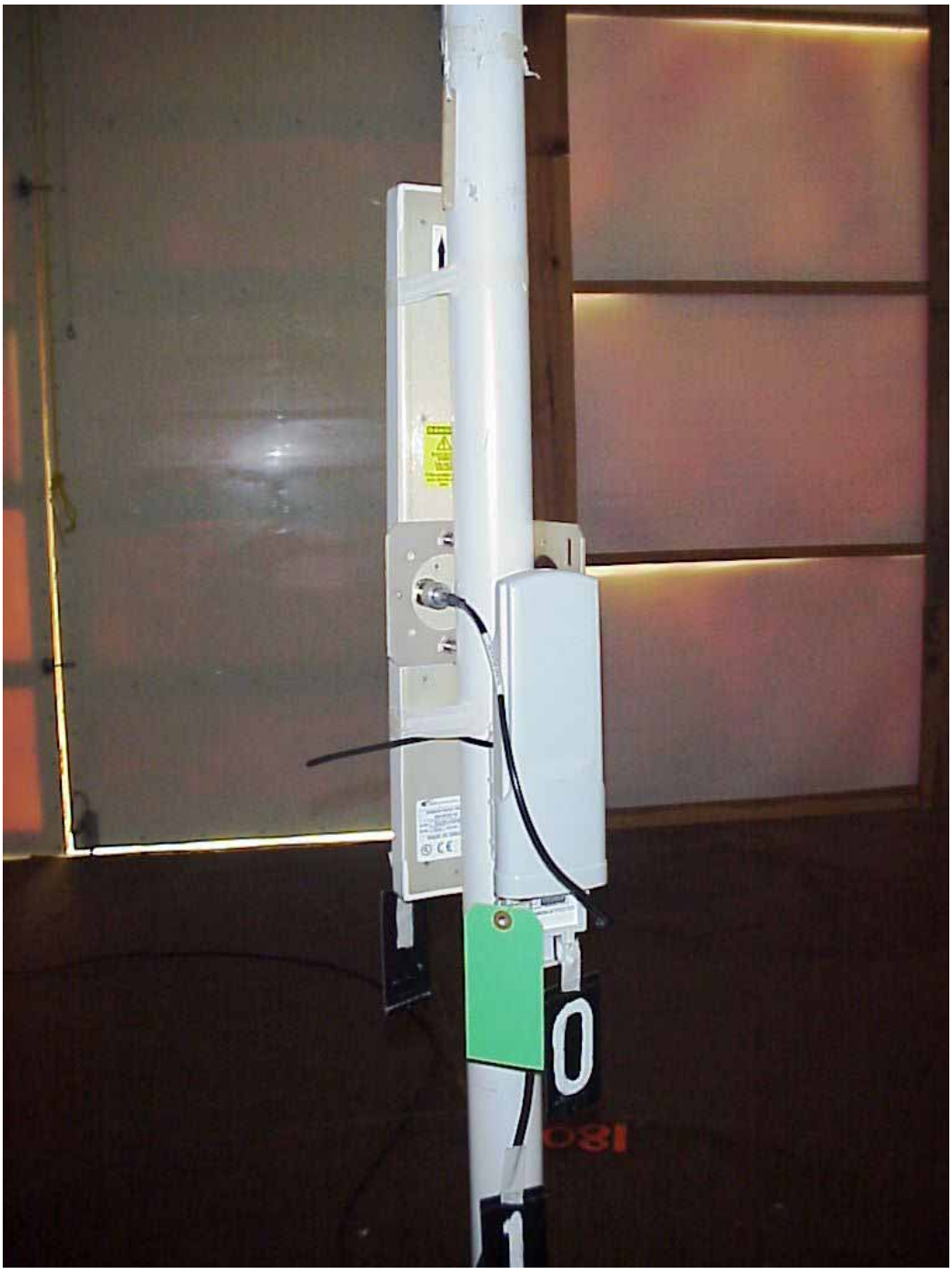
Item 2 17 dBi Connectorized Antenna

10.0 RADIATED PHOTOS TAKEN DURING TESTING



FRONT WITH CONNECTORIZED ANTENNA

10.0 RADIATED PHOTOS TAKEN DURING TESTING

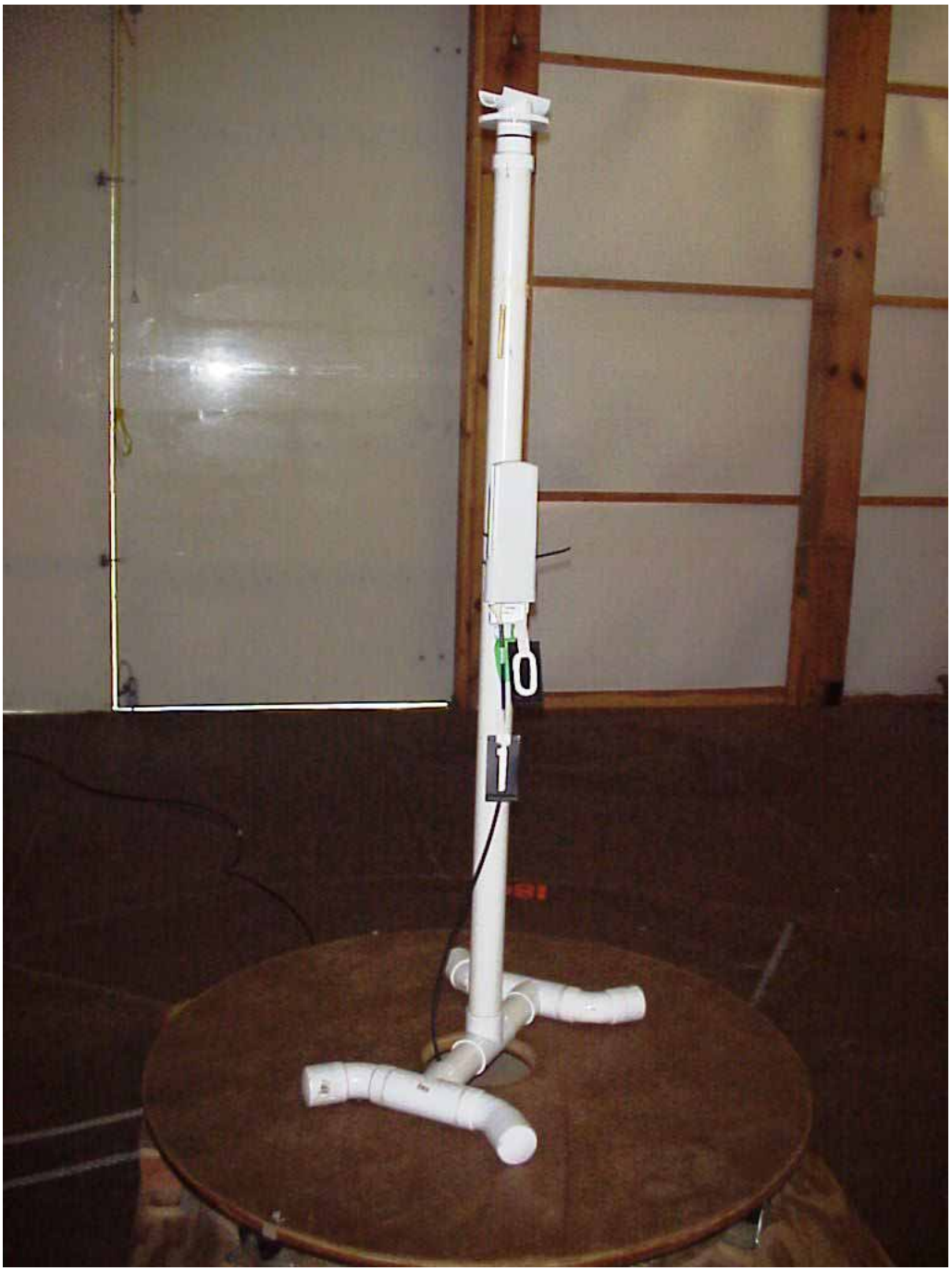


FRONT CLOSEUP WITH CONNECTORIZED ANTENNA

10.0 RADIATED PHOTOS TAKEN DURING TESTING

BACK WITH CONNECTORIZED ANTENNA

10.0 RADIATED PHOTOS TAKEN DURING TESTING



FRONT WITH PATCH ANTENNA

10.0 RADIATED PHOTOS TAKEN DURING TESTING

FRONT CLOSEUP WITH PATCH ANTENNA

10.0 CONDUCTED PHOTOS TAKEN DURING TESTING

11.0 RESULTS OF TESTS

The radio interference emission charts can be seen on the pages at the end of this report. Data sheets indicating the test measurements taken during testing can also be found at the end of this report.

12.0 CONCLUSION

It was found that the DUSAL 5700G, Model Number(s) 5700SMC connectorized with 17dBi antenna, 5700SM (single patch) 5700SM (Dual Patch) **meets** the radio interference conducted and radiated emission requirements of the FCC "Rules and Regulations", Part 15, Subpart C, Section 15.247 for operational in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz, Bands.

TABLE 1 – EQUIPMENT LIST

Test Equipment	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Due Dates
RF Tuned Receiver	Rohde & Schwarz	ESI 40	837808/006	60 Hz-40 GHz	3/24/2009
RF Preamp	Miteq	AMF-6D-100200-50	313936	1 GHz-10 GHz	5/8/2009
RF Preamp	Miteq	AMF-6D-010100-50	213976	10 GHz-18 GHz	5/8/2009
Preamp	Miteq	AMF-8B-180265-40-10P-H/S	NA	18 GHz-26 GHz	9/18/2008
RF Preamp	Rohde & Schwarz	TS-PR40	052002/025	26 GHz-40 GHz	10/8/2008
Signal Generator, RF	Rohde & Schwarz	SMR40	100092	1 GHz-40 GHz	9/27/2008
Power Meter	Anritsu	ML2487A	6K00002069		10/21/2008
Power Sensor	Anritsu	MA2491A	031650		10/21/2008
High Pass Filter	Solar Electronics Co.	7930-10	921541		1/9/2009
High Pass Filter	Planar	HP8G-7G8-CD-SFF	PF1225/0728		7/14/2008
RF 20dB Fixed Attenuator	Aeroflex/ Weinschel	75A-20-12	1071		7/18/2008

All primary equipment is calibrated against known reference standards with a verified traceable path to NIST.

TABLE 1 – EQUIPMENT LIST

Test Equipment	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Due Dates
Biconical Antenna	EMCO	3104C	9701-4785	20 MHz-220 MHz	4/21/2009
Log Periodic Antenna	EMCO	3146	9702-4895	200 MHz-1 GHz	4/21/2009
Horn Antenna,	EMCO	3115	9903-5731	1 G-18 GHz	6/12/2009
Horn Antenna,	EMCO	3116	2549	18 G-40 GHz	6/12/2009
Horn Antenna,	ETS Lindgren	3116	00062917	18 G-40 GHz	11/15/2008
Limiter, Transient, RF	Electro-Metrics	EM7600	706		1/9/2009
LISN	Solar Electronics Co.	9252-50-R-24-BNC	961019		7/18/2008

All primary equipment is calibrated against known reference standards with a verified traceable path to NIST.

APPENDIX A

TEST PROCEDURE

Part 15, Subpart C, Section 15.247 (a-h)

OPERATION WITHIN THE BAND 902-928 MHz,

2400-2483.5 MHz AND 5725-5857 MHz

APPENDIX A

1.0 AC POWER LINE CONDUCTED EMISSION MEASUREMENTS

If applicable, the conducted emissions were measured over the frequency range from 150 kHz to 30 MHz in accordance with the power line measurements as specified in the American National Standards Institute, ANSI C63.4-2003, Section 12. Since the device is operated from the public utility lines, the 115 Vac 60 Hz power leads, high and low sides, were to be measured by connecting the measuring equipment to the appropriate meter terminal of the LISN. All signals were then recorded. The allowed levels for Intentional Radiators cannot exceed the following:

Frequency of Emissions (MHz)	Conducted Limits (dBuV)	
	Quasi Peak	Average
.15 to .5	66 to 56	56 to 46
.5 to 5	56	46
5 to 30	60	50

All conducted emissions measurements were made at a test room temperature of **73°F** at **65%** relative humidity.

APPENDIX A

AC POWER LINE DATA AND GRAPH(S)

TAKEN DURING TESTING

PART 15.207

FCC Part 15 Class B

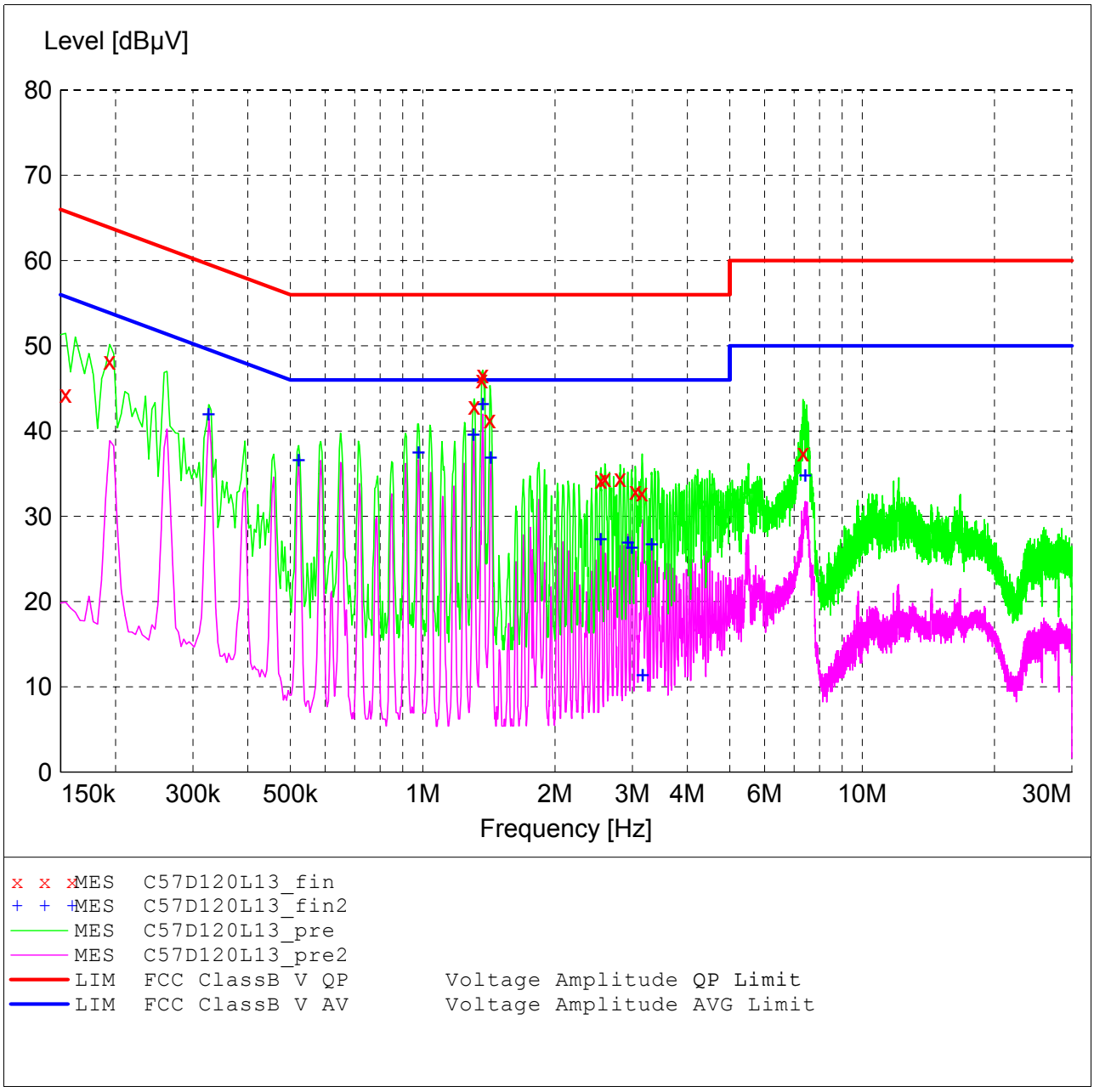
Voltage Mains Test

```
EUT:                  Canopy DUSAL 5700G
Manufacturer:         Motorola
Operating Condition:  73 deg F,  65 %  R.H.
Test Site:            D.L.S. O.F. Site 3
Operator:             Craig B
Test Specification:   120 V   60 Hz
Comment:              Line 1
                      Date:  06-25-2008
```

SCAN TABLE: "Line Cond.Site3Final"

Short Description: Line Conducted Emissions

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	30.0 MHz	4.0 kHz	QuasiPeak CISPR AV	2.0 s	9 kHz	LISN DLS#126



MEASUREMENT RESULT: "C57D120L13_fin"

6/25/2008 3:24PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.154000	44.30	12.2	66	21.5	QP	---	---
0.194000	48.20	11.8	64	15.7	QP	---	---
1.310000	42.90	10.9	56	13.1	QP	---	---
1.362000	46.00	11.0	56	10.0	QP	---	---
1.370000	46.60	11.0	56	9.4	QP	---	---
1.422000	41.30	11.0	56	14.7	QP	---	---
2.542000	34.30	11.0	56	21.7	QP	---	---
2.598000	34.50	11.0	56	21.5	QP	---	---
2.814000	34.50	11.0	56	21.5	QP	---	---
3.046000	33.00	11.0	56	23.0	QP	---	---
3.158000	32.80	11.0	56	23.2	QP	---	---
7.338000	37.50	11.4	60	22.5	QP	---	---

MEASUREMENT RESULT: "C57D120L13_fin2"

6/25/2008 3:24PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.326000	41.90	11.2	50	7.7	CAV	---	---
0.522000	36.60	11.0	46	9.4	CAV	---	---
0.978000	37.50	10.9	46	8.5	CAV	---	---
1.306000	39.50	10.9	46	6.5	CAV	---	---
1.370000	43.10	11.0	46	2.9	CAV	---	---
1.430000	36.90	11.0	46	9.1	CAV	---	---
2.542000	27.30	11.0	46	18.7	CAV	---	---
2.934000	26.90	11.0	46	19.1	CAV	---	---
2.994000	26.30	11.0	46	19.7	CAV	---	---
3.166000	11.40	11.0	46	34.6	CAV	---	---
3.322000	26.70	11.0	46	19.3	CAV	---	---
7.422000	34.80	11.4	50	15.2	CAV	---	---

FCC Part 15 Class B

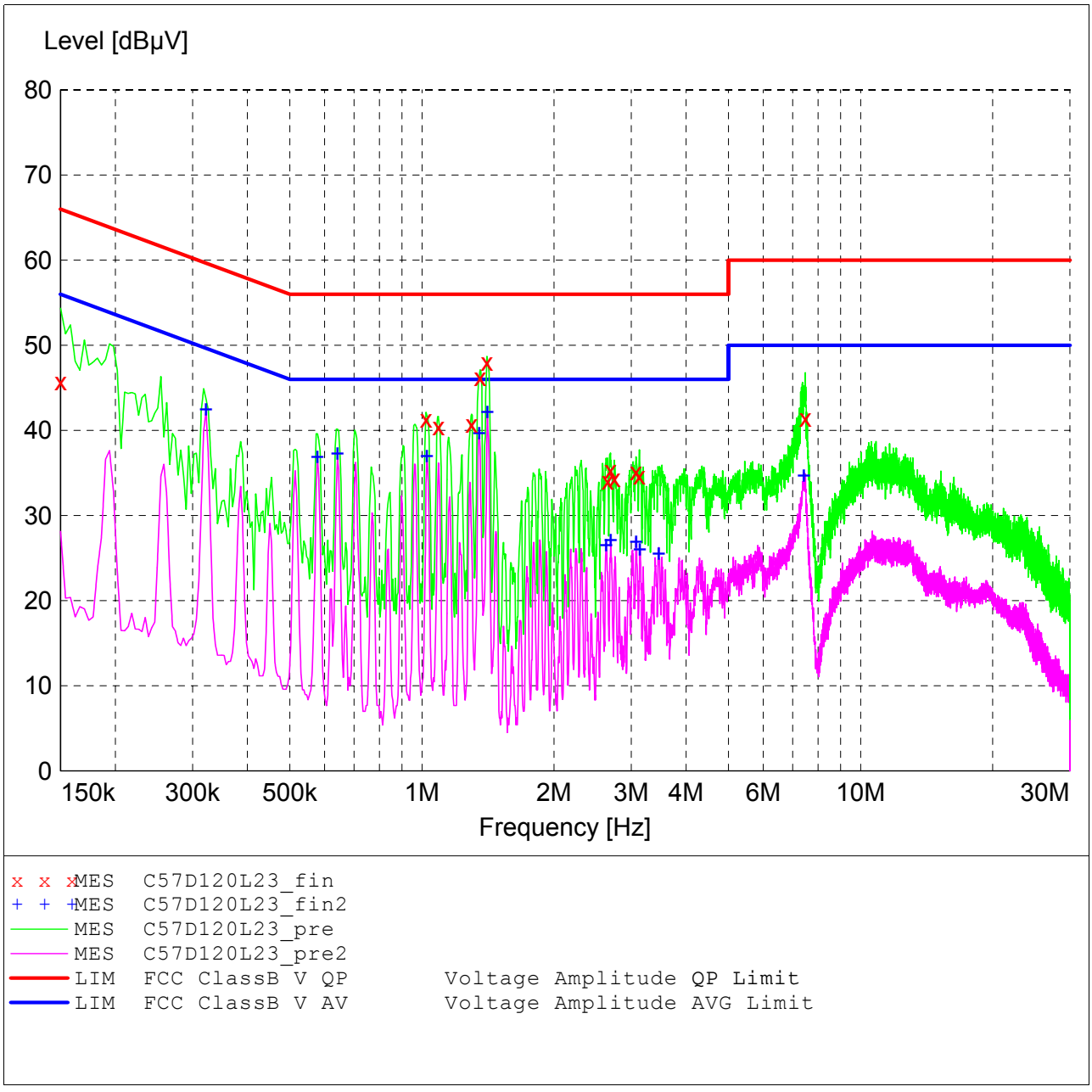
Voltage Mains Test

```
EUT:                  Canopy DUSAL 5700G
Manufacturer:         Motorola
Operating Condition:  73 deg F,  65 %  R.H.
Test Site:            D.L.S. O.F. Site 3
Operator:             Craig B
Test Specification:   120 V   60 Hz
Comment:              Line 2
                      Date:  06-25-2008
```

SCAN TABLE: "Line Cond.Site3Final"

Short Description: Line Conducted Emissions

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	30.0 MHz	4.0 kHz	QuasiPeak CISPR AV	2.0 s	9 kHz	LISN DLS#126



MEASUREMENT RESULT: "C57D120L23_fin"

6/25/2008 3:18PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	45.70	12.3	66	20.3	QP	---	---
1.022000	41.30	10.9	56	14.7	QP	---	---
1.090000	40.50	10.9	56	15.5	QP	---	---
1.298000	40.70	10.9	56	15.3	QP	---	---
1.358000	46.20	11.0	56	9.8	QP	---	---
1.406000	48.00	11.0	56	8.0	QP	---	---
2.650000	34.10	11.0	56	21.9	QP	---	---
2.690000	35.40	11.0	56	20.6	QP	---	---
2.746000	34.40	11.0	56	21.6	QP	---	---
3.078000	35.20	11.0	56	20.8	QP	---	---
3.130000	34.70	11.0	56	21.3	QP	---	---
7.482000	41.40	11.4	60	18.6	QP	---	---

MEASUREMENT RESULT: "C57D120L23_fin2"

6/25/2008 3:18PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.322000	42.40	11.2	50	7.3	CAV	---	---
0.578000	36.90	11.0	46	9.1	CAV	---	---
0.642000	37.20	11.0	46	8.8	CAV	---	---
1.026000	37.00	10.9	46	9.0	CAV	---	---
1.350000	39.70	11.0	46	6.3	CAV	---	---
1.410000	42.10	11.0	46	3.9	CAV	---	---
2.630000	26.50	11.0	46	19.5	CAV	---	---
2.694000	27.10	11.0	46	18.9	CAV	---	---
3.074000	26.90	11.0	46	19.1	CAV	---	---
3.138000	26.00	11.0	46	20.0	CAV	---	---
3.466000	25.50	11.0	46	20.5	CAV	---	---
7.426000	34.70	11.4	50	15.3	CAV	---	---

APPENDIX A

2.0 SPURIOUS EMISSIONS AT ANTENNA TERMINALS – PART 15.247(c)

Spurious conducted emissions were measured at the antenna terminals. Plots were made showing the amplitude of each harmonic emission with the equipment operated. As shown by the radiated charts there was no reason to believe that there were any spurious emissions other than the harmonics that were than individually investigated when doing the conducted test at the antenna terminals. Measurements were made up to the 10^{th} harmonic of the fundamental.

The allowed emissions for transmitters operating in the 5725 MHz - 5850 MHz bands for DUSAL 5700G equipment are found under Part 15, Section 15.247(c). This paragraph states that in any 100 kHz bandwidth outside the frequency band which the spread spectrum intentional radiator is operating, the radio frequency power produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

NOTE: See the following pages for the data and graphs of the actual measurements made:

APPENDIX A

CONDUCTED EMISSION DATA AND GRAPH(S)

TAKEN FOR

SPURIOUS EMISSION MEASUREMENTS MADE

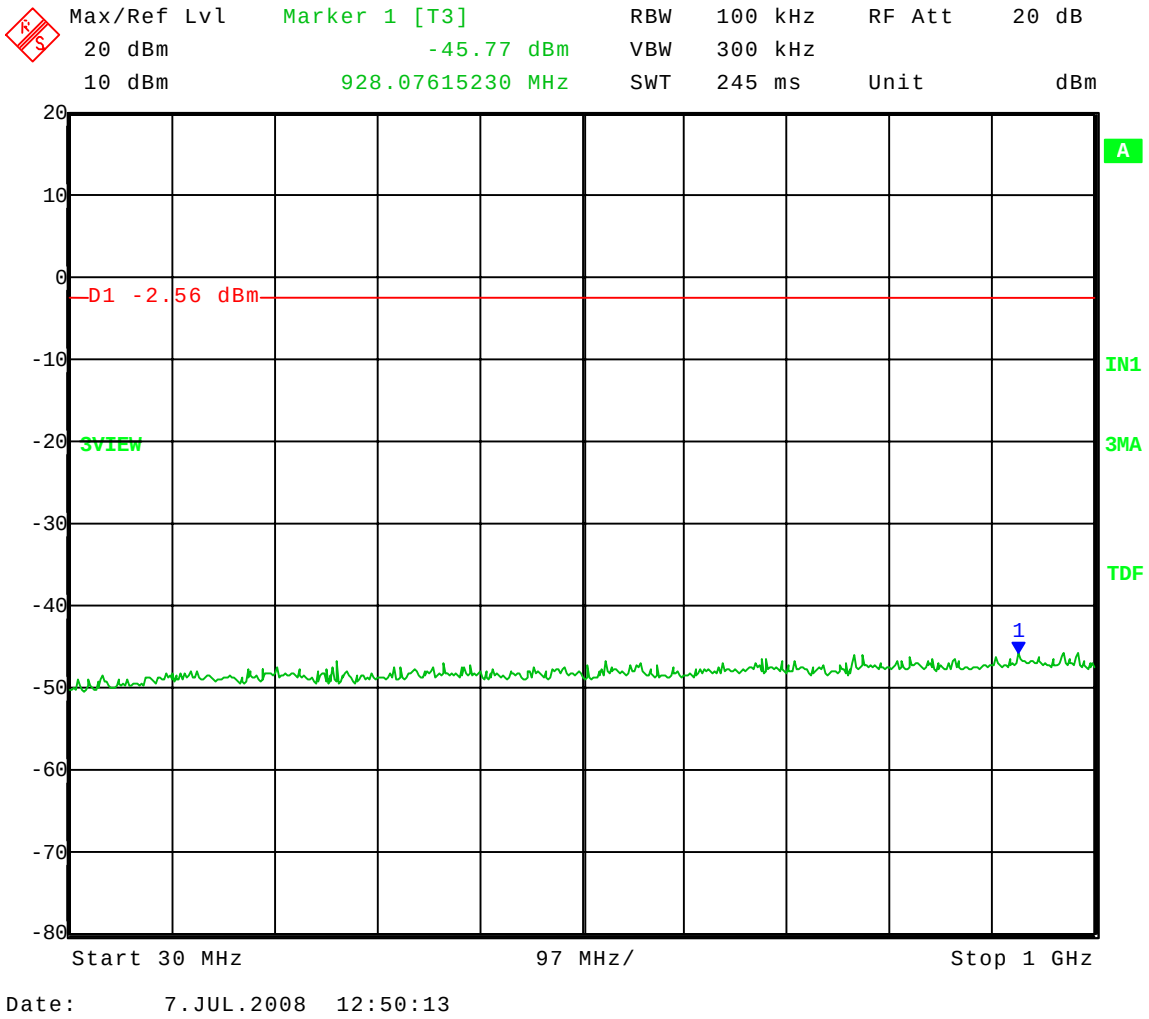
AT THE ANTENNA TERMINALS

PART 15.247(c)

APPENDIX A

Test Date: 07-07-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: Low Channel Transmit = 5.735 GHz
2-Level; Max duty cycle
Frequency Range: 30 to 1000 MHz
Limit = -2.56 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency

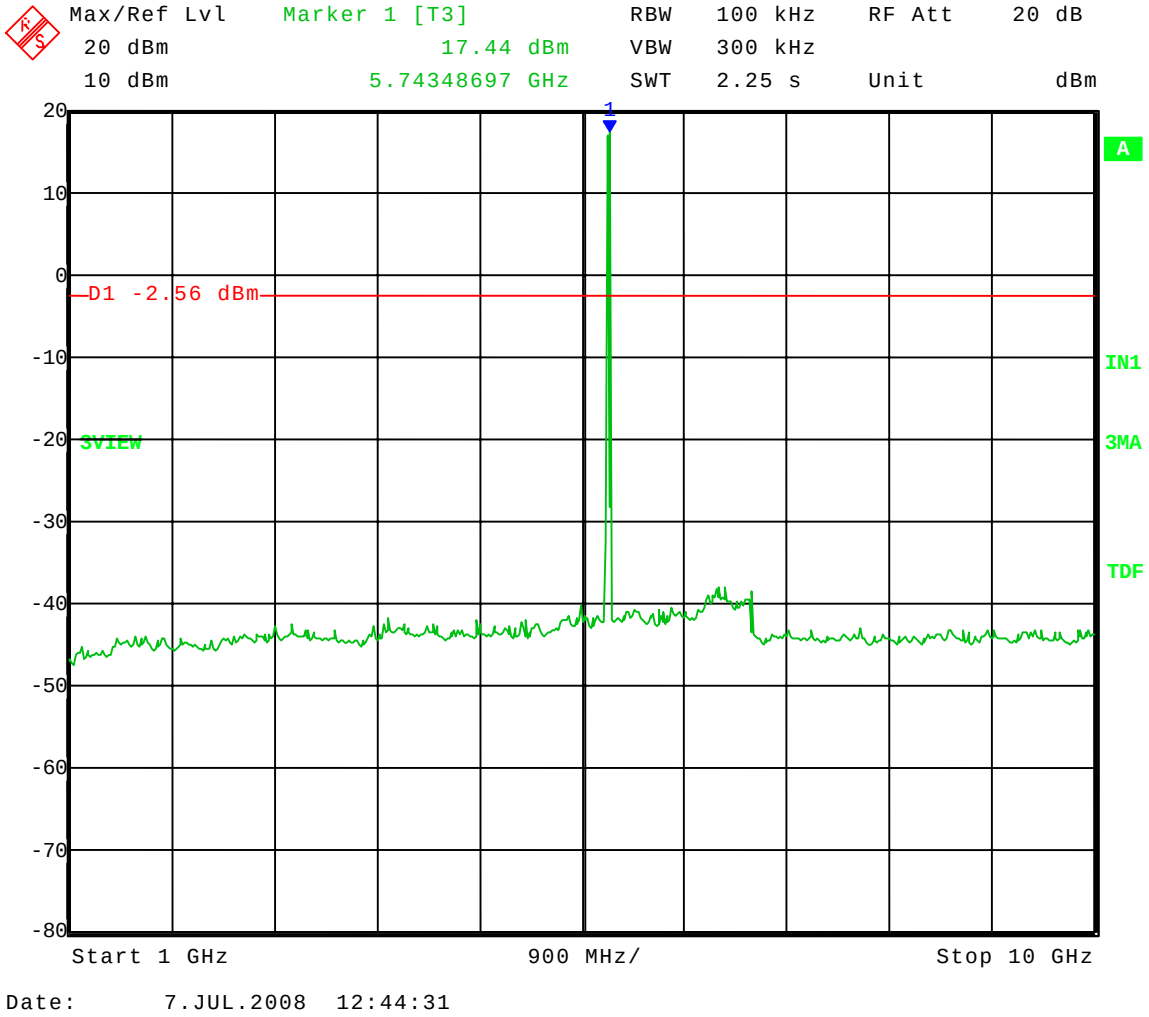


1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 07-07-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: Low Channel Transmit = 5.735 GHz
2-Level; Max duty cycle
Frequency Range: 1 to 10 GHz
Limit = -2.56 dBm

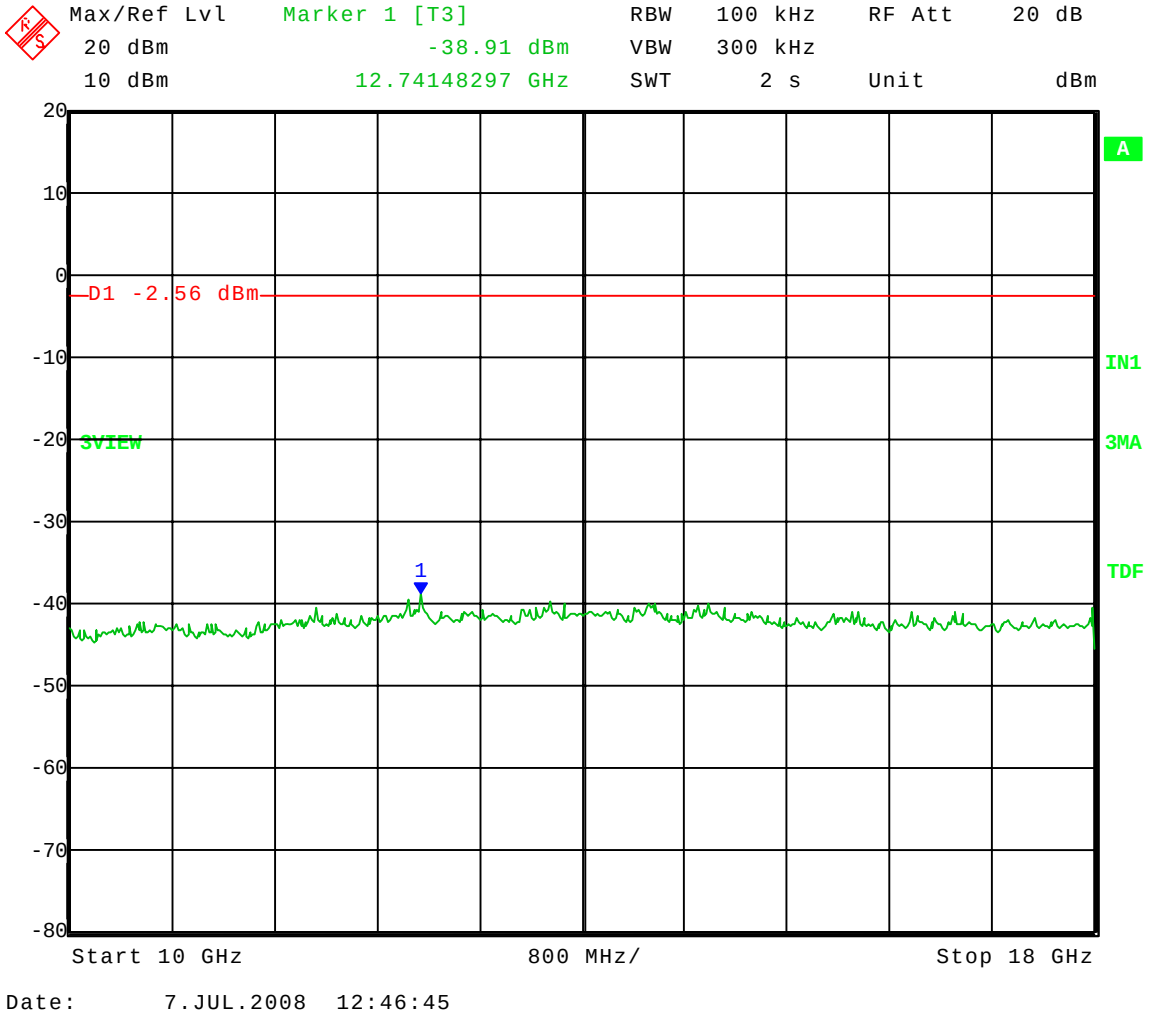
All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



APPENDIX A

Test Date: 07-07-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: Low Channel Transmit = 5.735 GHz
2-Level; Max duty cycle
Frequency Range: 10 to 18 GHz
Limit = -2.56 dBm

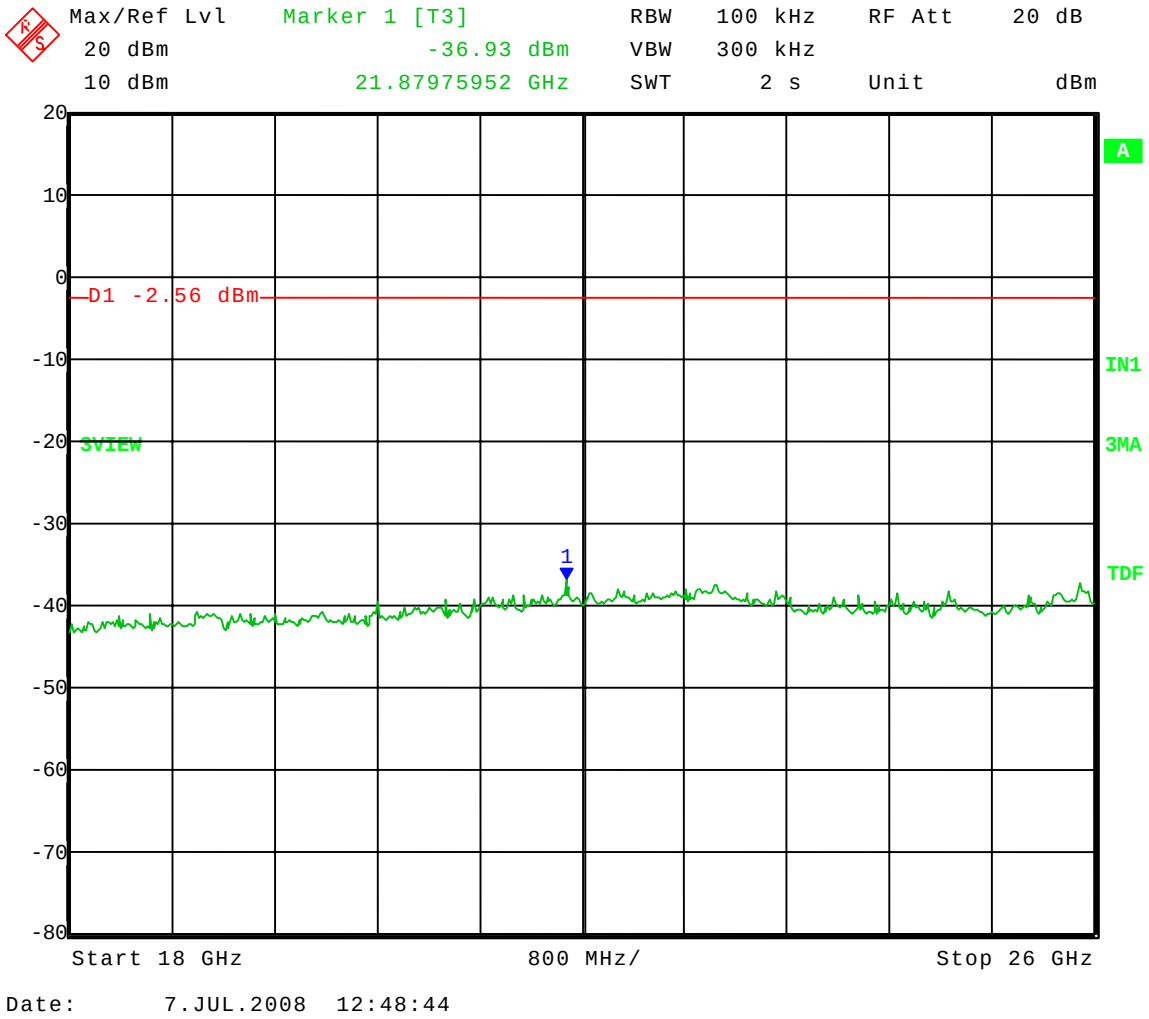
All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



APPENDIX A

Test Date: 07-07-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: Low Channel Transmit = 5.735 GHz
2-Level; Max duty cycle
Frequency Range: 18 to 26 GHz
Limit = -2.56 dBm

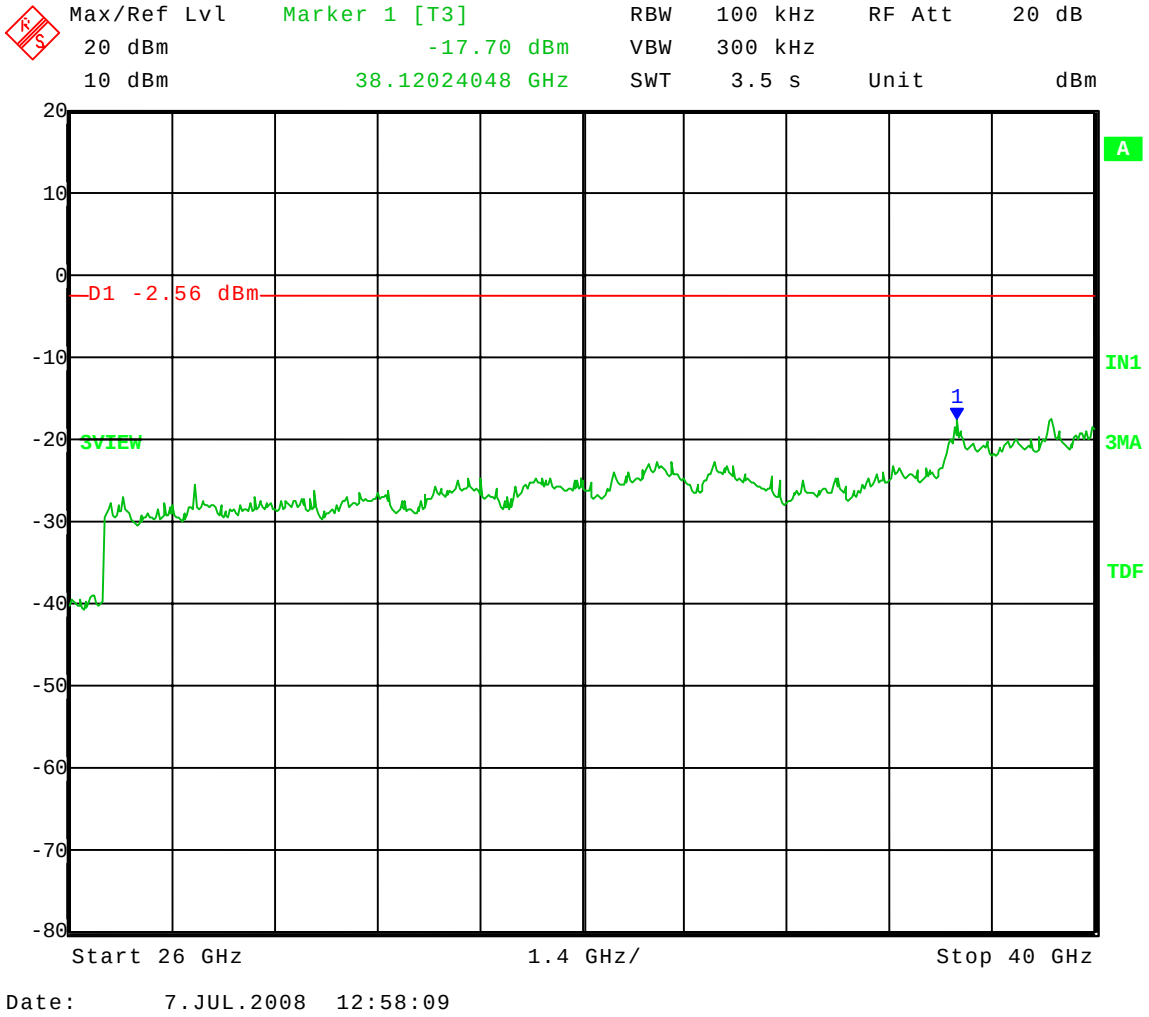
All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



APPENDIX A

Test Date: 07-07-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: Low Channel Transmit = 5.735 GHz
2-Level; Max duty cycle
Frequency Range: 26 to 40 GHz
Limit = -2.56 dBm

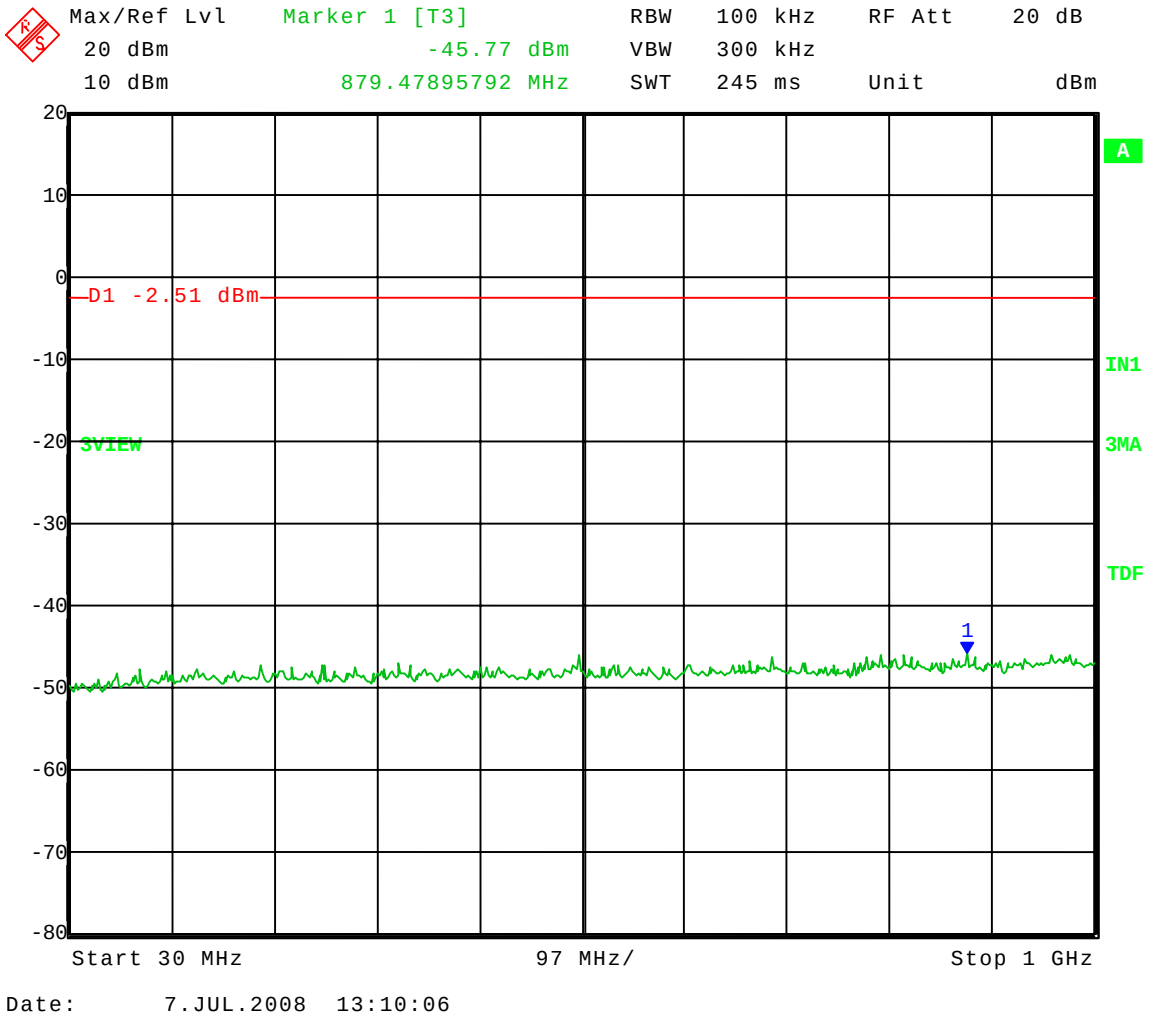
All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



APPENDIX A

Test Date: 07-07-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: Mid Channel Transmit = 5.775 GHz
2-Level; Max duty cycle
Frequency Range: 30 to 1000 MHz
Limit = -2.51 dBm

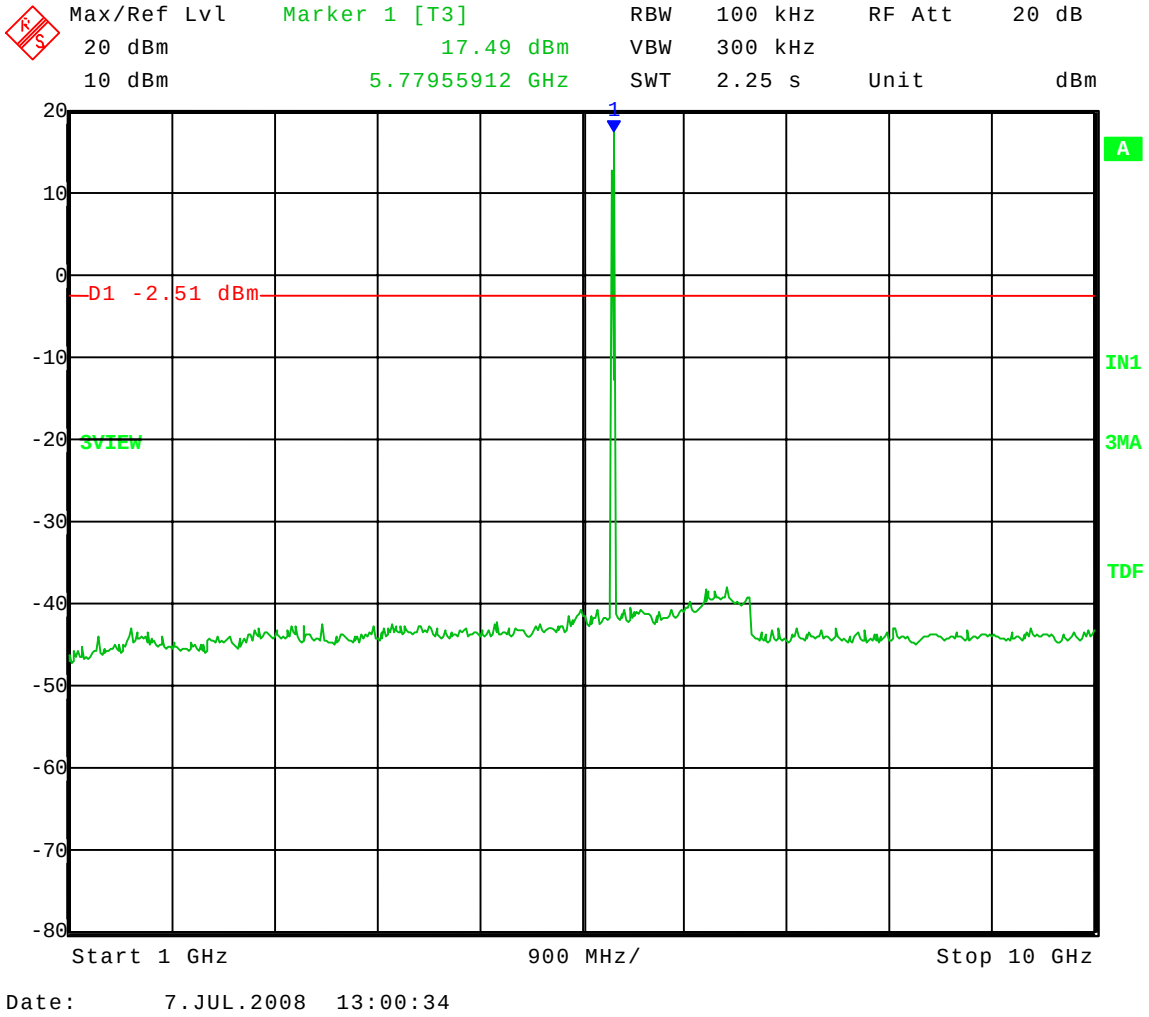
All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



APPENDIX A

Test Date: 07-07-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: Mid Channel Transmit = 5.775 GHz
2-Level; Max duty cycle
Frequency Range: 1 to 10 GHz
Limit = -2.51 dBm

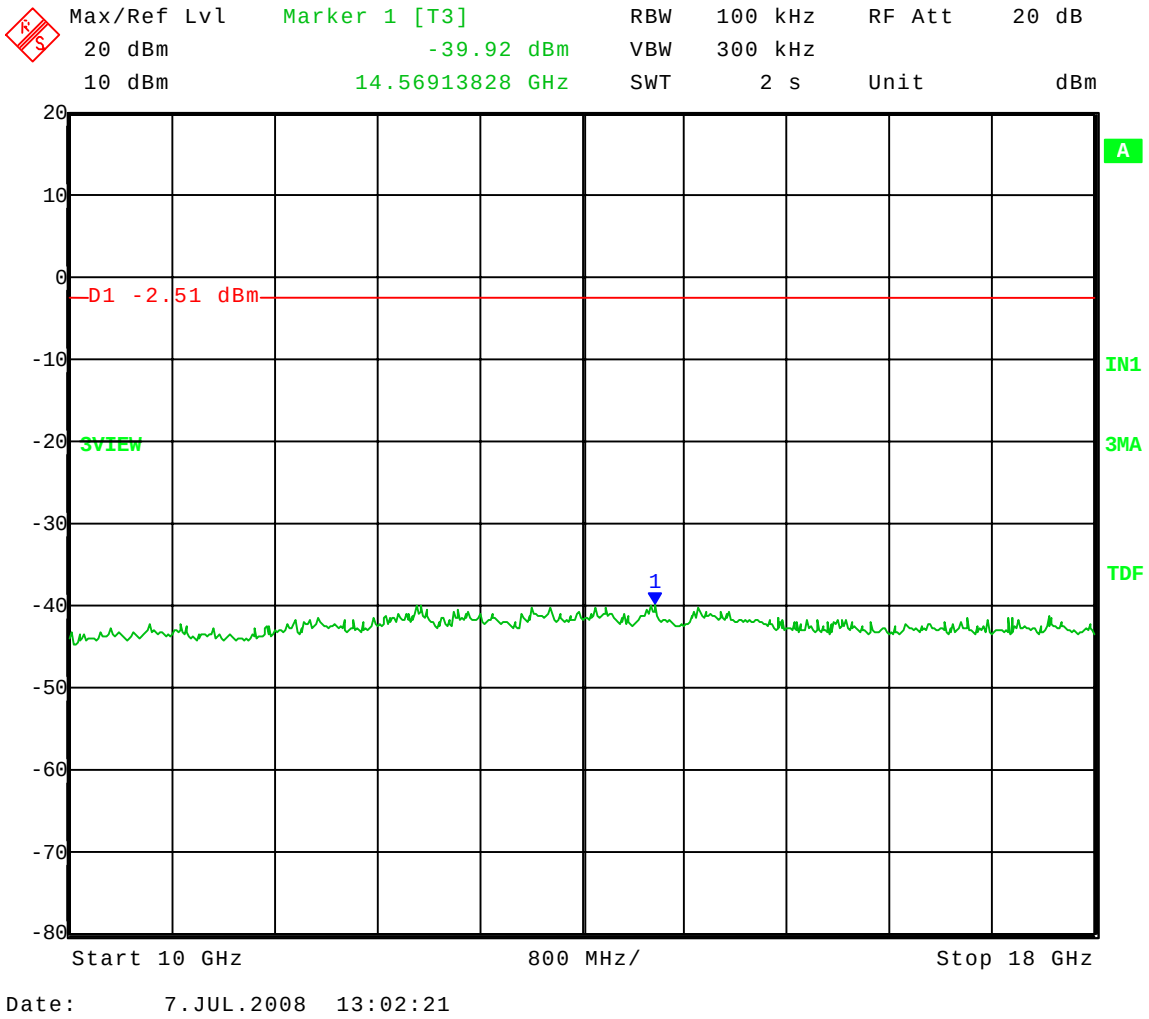
All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



APPENDIX A

Test Date: 07-07-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: Mid Channel Transmit = 5.775 GHz
2-Level; Max duty cycle
Frequency Range: 10 to 18 GHz
Limit = -2.51 dBm

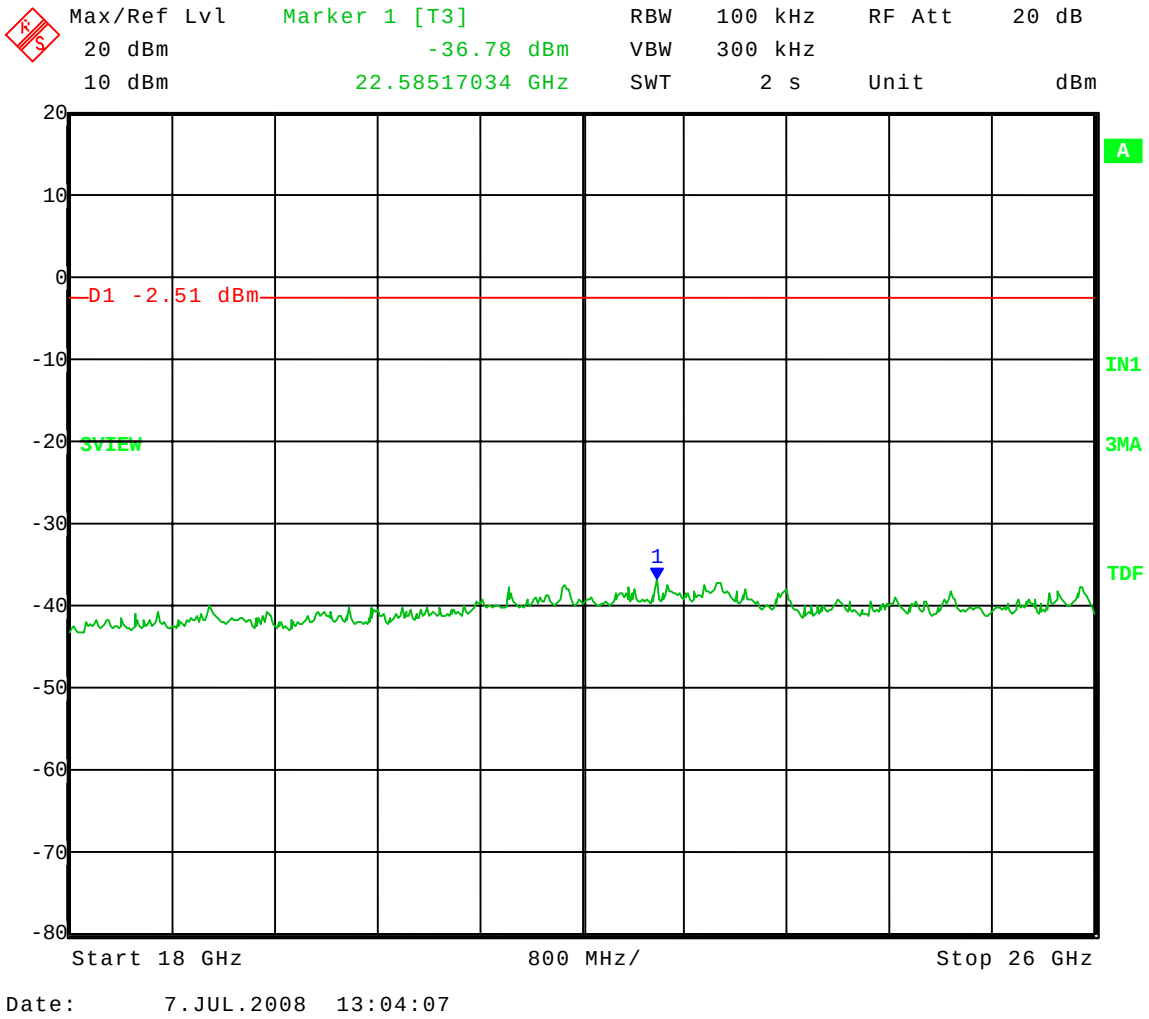
All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



APPENDIX A

Test Date: 07-07-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: Mid Channel Transmit = 5.775 GHz
2-Level; Max duty cycle
Frequency Range: 18 to 26 GHz
Limit = -2.51 dBm

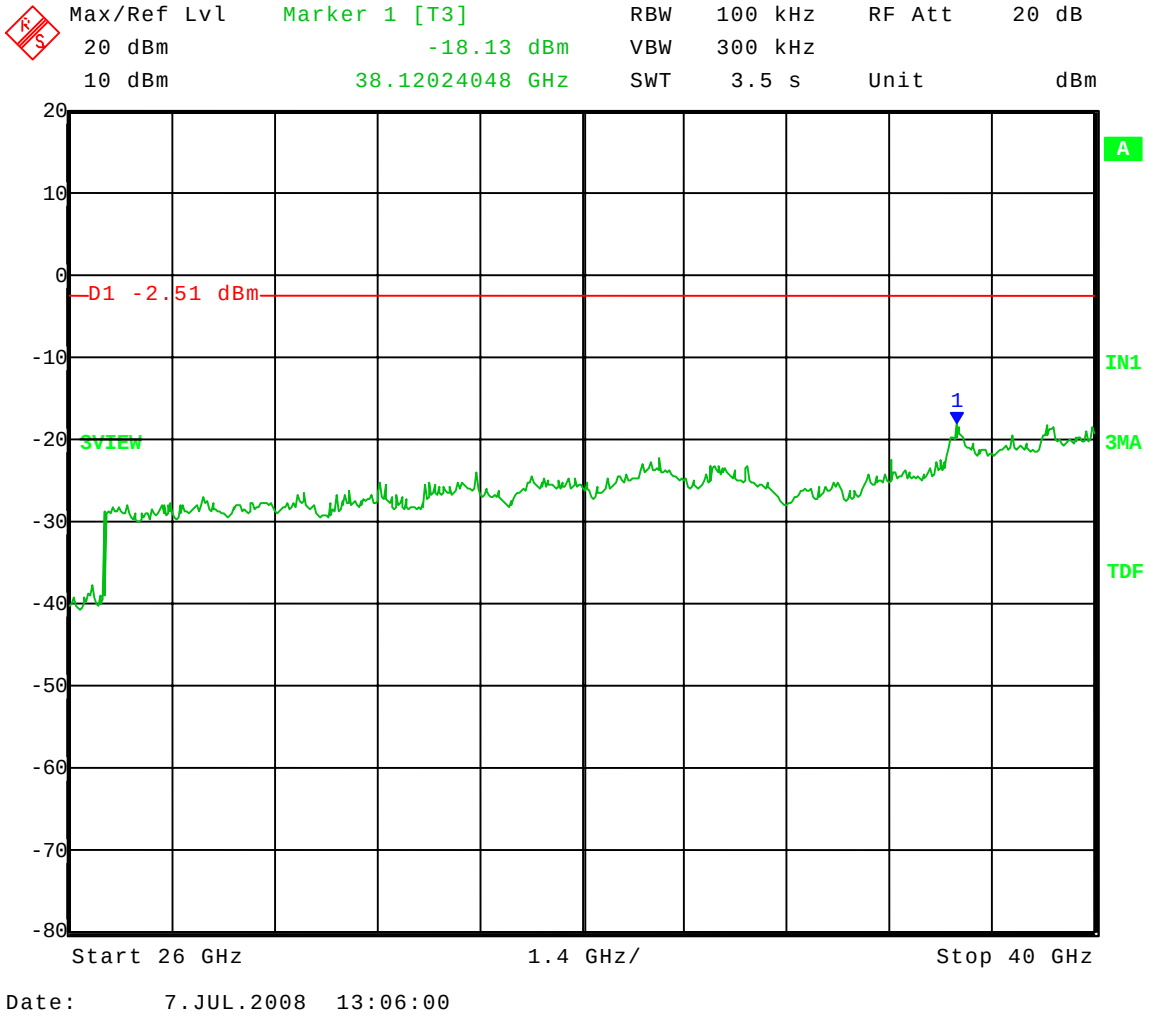
All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



APPENDIX A

Test Date: 07-07-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: Mid Channel Transmit = 5.775 GHz
2-Level; Max duty cycle
Frequency Range: 26 to 40 GHz
Limit = -2.51 dBm

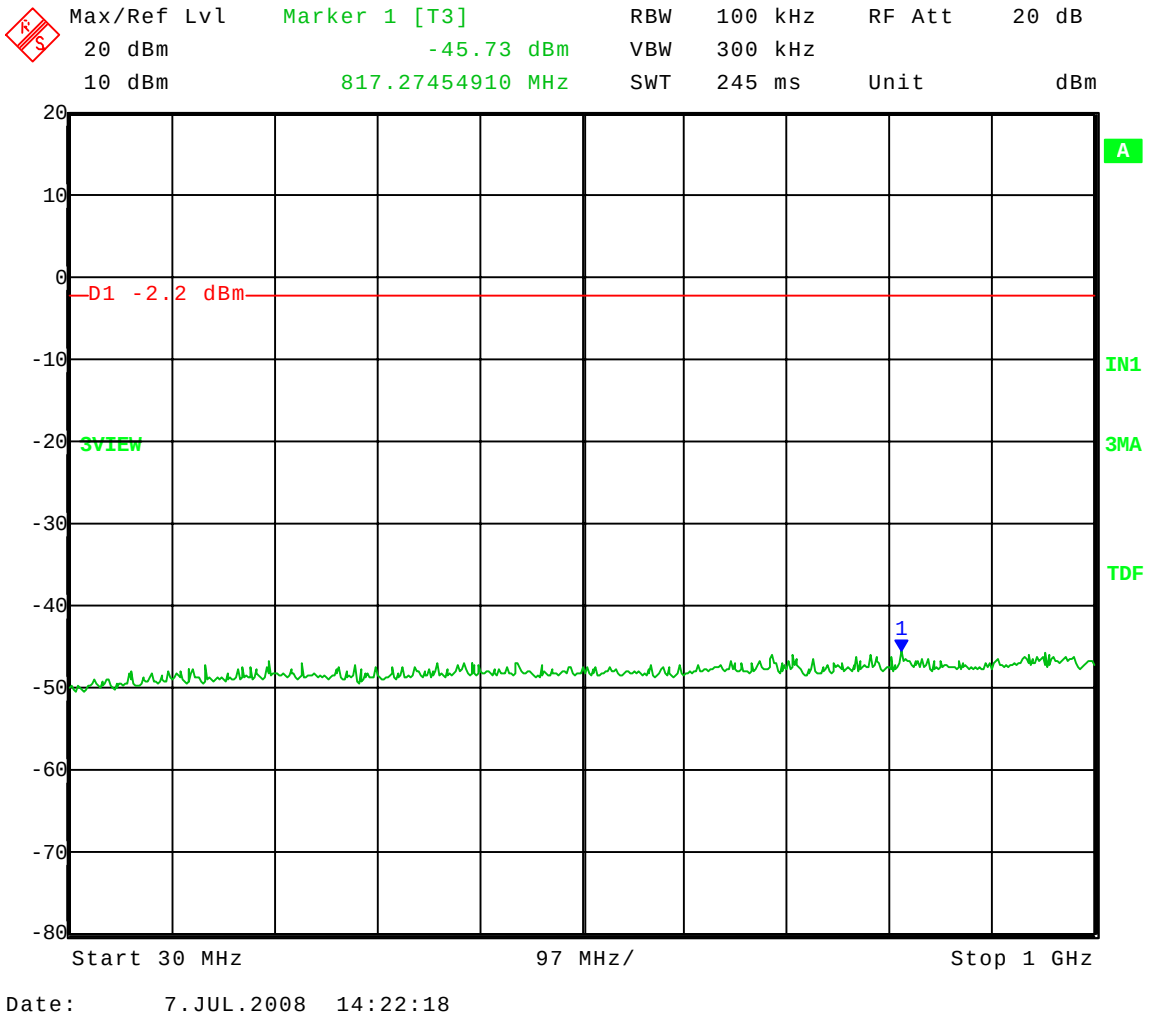
All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



APPENDIX A

Test Date: 07-07-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: High Channel Transmit = 5.840 GHz
2-Level; Max duty cycle
Frequency Range: 30 to 1000 MHz
Limit = -2.20 dBm

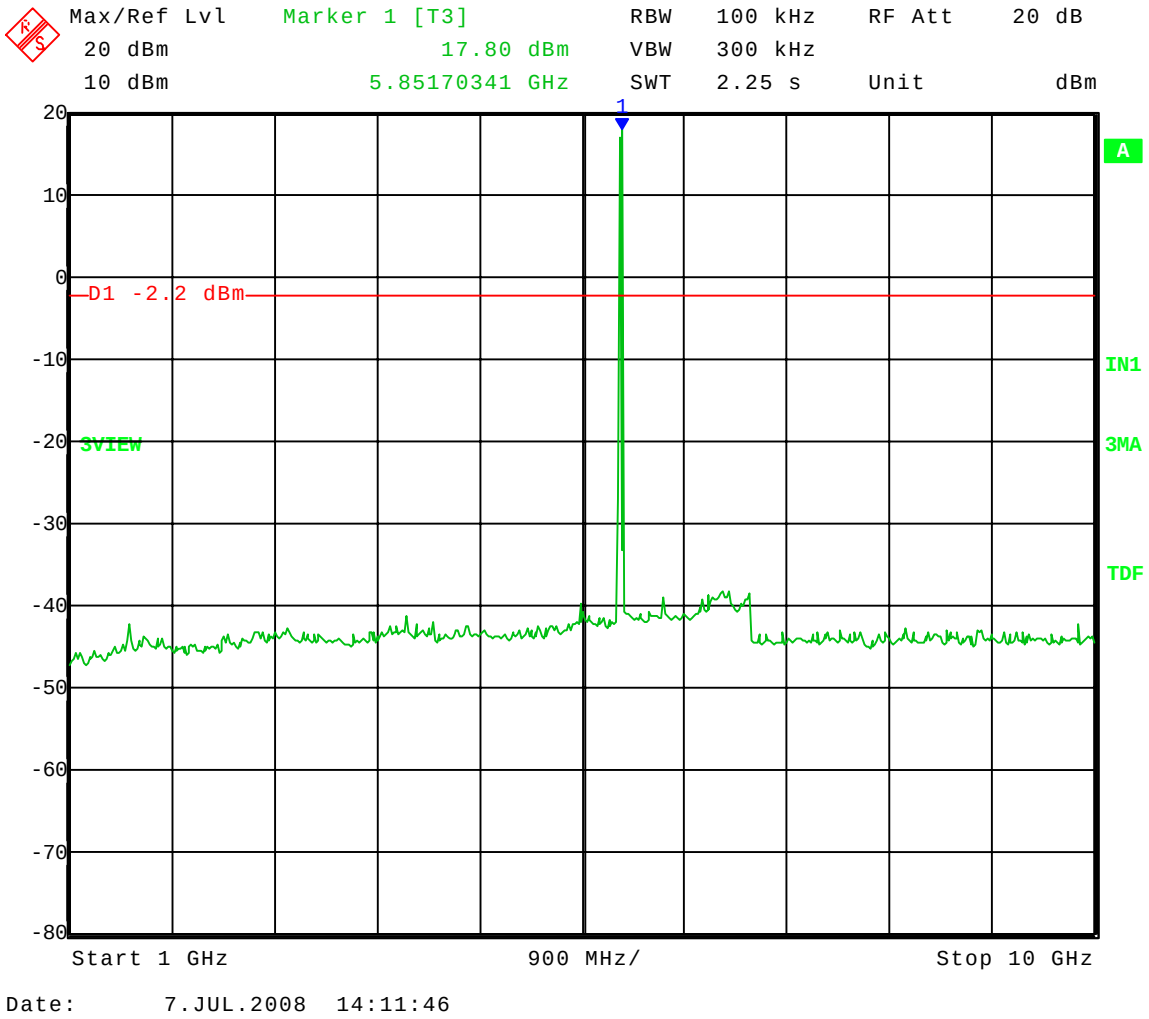
All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



APPENDIX A

Test Date: 07-07-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: High Channel Transmit = 5.840 GHz
2-Level; Max duty cycle
Frequency Range: 1 to 10 GHz
Limit = -2.20 dBm

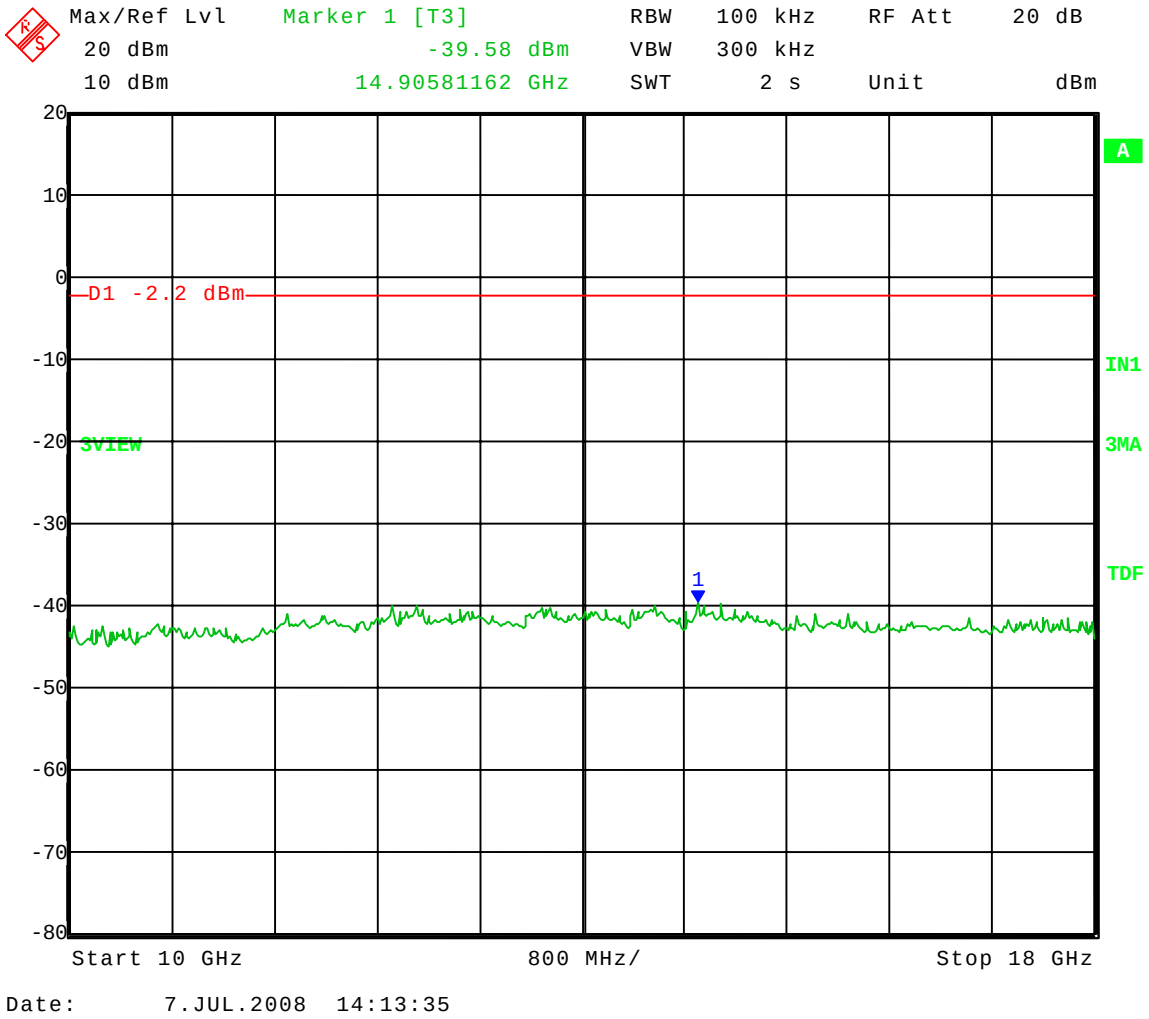
All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



APPENDIX A

Test Date: 07-07-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: High Channel Transmit = 5.840 GHz
2-Level; Max duty cycle
Frequency Range: 10 to 18 GHz
Limit = -2.20 dBm

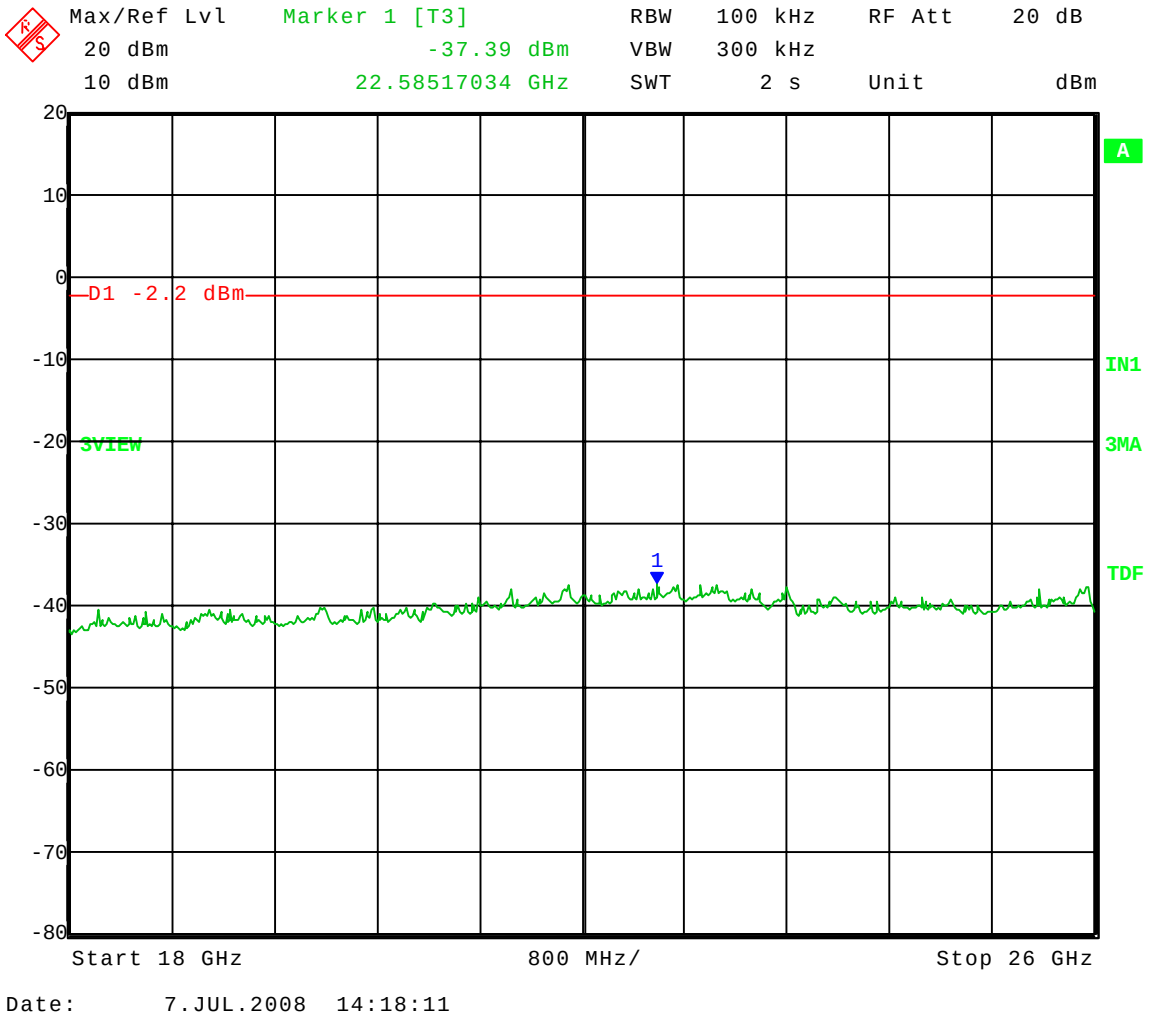
All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



APPENDIX A

Test Date: 07-07-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: High Channel Transmit = 5.840 GHz
2-Level; Max duty cycle
Frequency Range: 18 to 26 GHz
Limit = -2.20 dBm

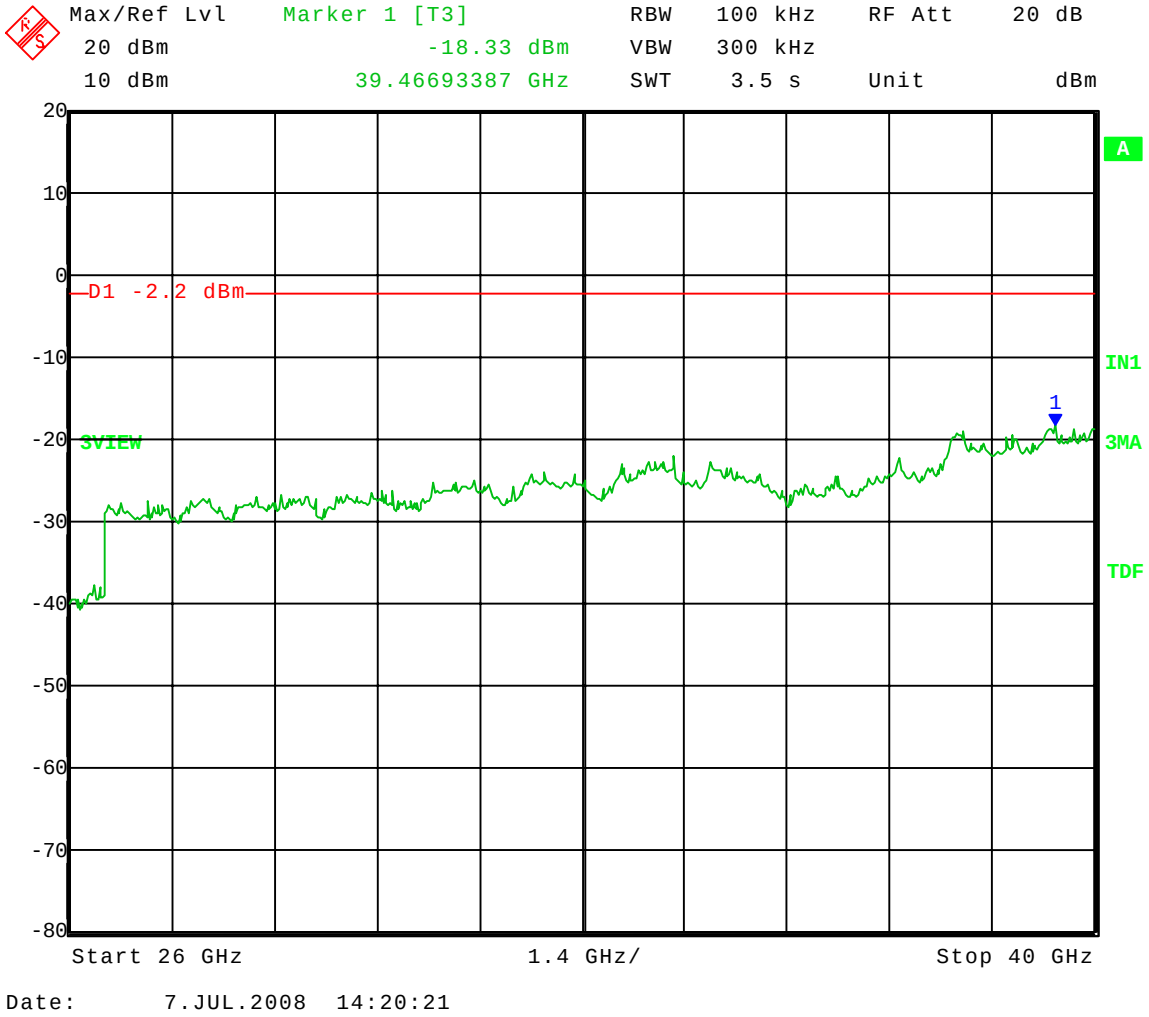
All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



APPENDIX A

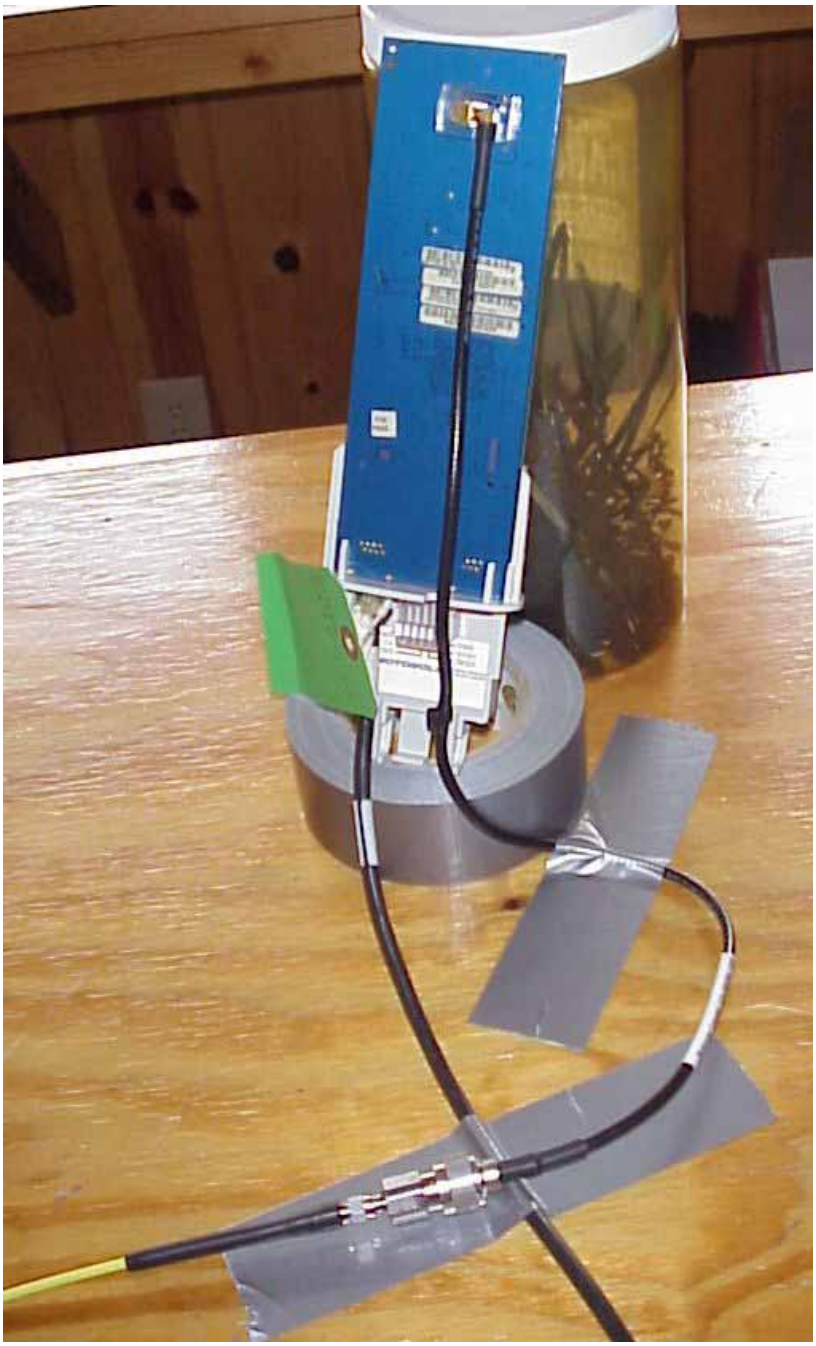
Test Date: 07-07-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Spurious Emissions - Conducted
Operator: Craig B
Comment: High Channel Transmit = 5.840 GHz
2-Level; Max duty cycle
Frequency Range: 26 to 40 GHz
Limit = -2.20 dBm

All Spurious Emissions at Least 20 dB below Peak Level of In Band Frequency



APPENDIX A

3.0 CONDUCTED EMISSIONS (ANTENNA TERMINAL) PHOTOS TAKEN DURING TESTING



APPENDIX A

4.0 RESTRICTED BANDS

As stated in Section 15.205a, the fundamental emission from the DUSAL 5700G shall not fall within any of the bands listed below:

Frequency in MHz	Frequency in MHz	Frequency in MHz	Frequency in GHz
.0900 to .1100	162.0125 to 167.17	2310.0 to 2390	9.30 to 9.50
.4900 to .5100	167.7200 to 173.20	2483.5 to 2500	10.60 to 12.70
2.1735 to 2.1905	240.000 to 285.00	2655.0 to 2900	13.25 to 13.40
8.362 to 8.3660	322.200 to 335.40	3260.0 to 3267	14.47 to 14.50
13.36 to 13.410	399.900 to 410.00	3332.0 to 3339	15.35 to 16.20
25.50 to 25.670	608.000 to 614.00	3345.8 to 3358	17.70 to 21.40
37.50 to 38.250	960.000 to 1240.00	3600.0 to 4400	22.01 to 23.13
73.00 to 75.500	1300.000 to 1427.00	4500.0 to 5250	23.60 to 24.00
108.00 to 121.94	1435.000 to 1626.50	5350.0 to 5450	31.20 to 31.80
123.00 to 138.00	1660.000 to 1710.00	7250.0 to 7750	36.43 to 36.50
149.90 to 150.00	1718.800 to 1722.20	8025.0 to 8500	ABOVE 38.60
156.70 to 156.90	2200.000 to 2300.00	9000.0 to 9200	

NOTE:

The noise floor within the Restricted Bands for the EMC Receiver will typically lay 20 dB below the limit.

5.0 RESTRICTED BAND AND BAND EDGE COMPLIANCE

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the attenuation below the general limits specified in 15.209 is not required.

The field strength of any **radiated emissions** which fall within the restricted bands shall not exceed the general radiated emissions limits as stated Section 15.209.

NOTE: See the following page(s) for the graph(s) made showing compliance for Restricted Band and Band Edge Compliance:

APPENDIX A

DATA AND GRAPH(S) TAKEN SHOWING

THE RESTRICTED BAND COMPLIANCE

PART 15.247(c)

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Radiated Spurious Emissions in Restricted Bands - 1 GHz to 40 GHz

1 GHz to 18 GHz: Tested at a 3 Meter Distance
18 GHz to 40 GHz: Tested at a 1 Meter Distance

EUT: Canopy DUSAL 5700G w/ Connectorized 17 dBi antenna
Manufacturer: Motorola
Operating Condition: 68 deg F; 62% R.H.
Test Site: Site 3
Operator: Craig B
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: Continuous transmit.
Date: 06/24/2008

Notes: **(1)** Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz
(2) Average measurements were taken with RBW = 1 MHz, VBW = 10 Hz
(3) All other restricted band emissions at least 20 dB under the limit.

Low Channel (5735 MHz)

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
11.47	Average	Vert	35.50	40.71	-27.5	48.7	---	48.7	54	5.3	Res. Band
11.47	Max Peak	Vert	47.39	40.71	-27.5	60.6	---	60.6	74	13.4	Res. Band
11.47	Average	Horz	38.47	40.71	-27.5	51.7	---	51.7	54	2.3	Res. Band
11.47	Max Peak	Horz	47.99	40.71	-27.5	61.2	---	61.2	74	12.8	Res. Band
22.94	Average	Vert	46.15	46.49	-36.3	56.3	---	56.3	63.5	7.2	Res. Band
22.94	Max Peak	Vert	59.51	46.49	-36.3	69.7	---	69.7	83.5	13.8	Res. Band
22.94	Average	Horz	43.38	46.49	-36.3	53.6	---	53.6	63.5	9.9	Res. Band
22.94	Max Peak	Horz	55.82	46.49	-36.3	66.0	---	66.0	83.5	17.5	Res. Band

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APPENDIX A

Radiated Spurious Emissions in Restricted Bands - 1 GHz to 40 GHz

1 GHz to 18 GHz: Tested at a 3 Meter Distance
18 GHz to 40 GHz: Tested at a 1 Meter Distance

EUT: Canopy DUSAL 5700G w/ Connectorized 17 dBi antenna
Manufacturer: Motorola
Operating Condition: 68 deg F; 62% R.H.
Test Site: Site 3
Operator: Craig B
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: Continuous transmit.
Date: 06/24/2008

Notes: **(1)** Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz
(2) Average measurements were taken with RBW = 1 MHz, VBW = 10 Hz
(3) All other restricted band emissions at least 20 dB under the limit.

Mid Channel (5775 MHz)

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
11.55	Average	Vert	34.91	40.70	-27.2	48.4	---	48.4	54	5.6	Res. Band
11.55	Max Peak	Vert	46.46	40.70	-27.2	60.0	---	60.0	74	14.0	Res. Band
11.55	Average	Horz	34.03	40.70	-27.2	47.5	---	47.5	54	6.5	Res. Band
11.55	Max Peak	Horz	46.59	40.70	-27.2	60.1	---	60.1	74	13.9	Res. Band
23.10	Average	Vert	48.22	46.52	-35.8	58.9	---	58.9	63.5	4.6	Res. Band
23.10	Max Peak	Vert	59.54	46.52	-35.8	70.3	---	70.3	83.5	13.2	Res. Band
23.10	Average	Horz	45.02	46.52	-35.8	55.7	---	55.7	63.5	7.8	Res. Band
23.10	Max Peak	Horz	57.01	46.52	-35.8	67.7	---	67.7	83.5	15.8	Res. Band

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APPENDIX A

Radiated Spurious Emissions in Restricted Bands - 1 GHz to 40 GHz

1 GHz to 18 GHz: Tested at a 3 Meter Distance
18 GHz to 40 GHz: Tested at a 1 Meter Distance

EUT: Canopy DUSAL 5700G w/ Connectorized 17 dBi antenna
Manufacturer: Motorola
Operating Condition: 68 deg F; 62% R.H.
Test Site: Site 3
Operator: Craig B
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: Continuous transmit.
Date: 06/24/2008

Notes: **(1)** Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz
(2) Average measurements were taken with RBW = 1 MHz, VBW = 10 Hz
(3) All other restricted band emissions at least 20 dB under the limit.

Mid Channel (5775 MHz)

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
11.55	Average	Vert	34.91	40.70	-27.2	48.4	---	48.4	54	5.6	Res. Band
11.55	Max Peak	Vert	46.46	40.70	-27.2	60.0	---	60.0	74	14.0	Res. Band
11.55	Average	Horz	34.03	40.70	-27.2	47.5	---	47.5	54	6.5	Res. Band
11.55	Max Peak	Horz	46.59	40.70	-27.2	60.1	---	60.1	74	13.9	Res. Band
23.10	Average	Vert	48.22	46.52	-35.8	58.9	---	58.9	63.5	4.6	Res. Band
23.10	Max Peak	Vert	59.54	46.52	-35.8	70.3	---	70.3	83.5	13.2	Res. Band
23.10	Average	Horz	45.02	46.52	-35.8	55.7	---	55.7	63.5	7.8	Res. Band
23.10	Max Peak	Horz	57.01	46.52	-35.8	67.7	---	67.7	83.5	15.8	Res. Band

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APPENDIX A

Radiated Spurious Emissions in Restricted Bands - 1 GHz to 40 GHz

1 GHz to 18 GHz: Tested at a 3 Meter Distance
18 GHz to 40 GHz: Tested at a 1 Meter Distance

EUT: Canopy DUSAL 5700G w/ Connectorized 17 dBi antenna
Manufacturer: Motorola
Operating Condition: 68 deg F; 62% R.H.
Test Site: Site 3
Operator: Craig B
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: Continuous transmit.
Date: 06/24/2008

Notes: **(1)** Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz
(2) Average measurements were taken with RBW = 1 MHz, VBW = 10 Hz
(3) All other restricted band emissions at least 20 dB under the limit.

High Channel (5840 MHz)

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
11.68	Average	Vert	35.16	40.44	-27.5	48.1	---	48.1	54	5.9	Res. Band
11.68	Max Peak	Vert	47.11	40.44	-27.5	60.1	---	60.1	74	14.0	Res. Band
11.68	Average	Horz	34.44	40.44	-27.5	47.4	---	47.4	54	6.6	Res. Band
11.68	Max Peak	Horz	47.28	40.44	-27.5	60.2	---	60.2	74	13.8	Res. Band

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APPENDIX A

Radiated Spurious Emissions in Restricted Bands - 1 GHz to 40 GHz

1 GHz to 18 GHz: Tested at a 3 Meter Distance
18 GHz to 40 GHz: Tested at a 1 Meter Distance

EUT: Canopy DUSAL 5700G w/ Integral Patch antenna
Manufacturer: Motorola
Operating Condition: 70 deg F; 55% R.H.
Test Site: Site 3
Operator: Craig B
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: Continuous transmit.
Date: 06/17/2008

Notes: **(1)** Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz
(2) Average measurements were taken with RBW = 1 MHz, VBW = 10 Hz
(3) All other restricted band emissions at least 20 dB under the limit.

Low Channel (5735 MHz)

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
11.47	Average	Vert	36.32	40.71	-27.5	49.5	---	49.5	54	4.5	Res. Band
11.47	Max Peak	Vert	49.20	40.71	-27.5	62.4	---	62.4	74	11.6	Res. Band
11.47	Average	Horz	38.43	40.71	-27.5	51.6	---	51.6	54	2.4	Res. Band
11.47	Max Peak	Horz	49.78	40.71	-27.5	63.0	---	63.0	74	11.0	Res. Band
22.94	Average	Vert	52.01	46.49	-36.3	62.2	---	62.2	63.5	1.3	Res. Band
22.94	Max Peak	Vert	63.89	46.49	-36.3	74.1	---	74.1	83.5	9.4	Res. Band
22.94	Average	Horz	50.92	46.49	-36.3	61.1	---	61.1	63.5	2.4	Res. Band
22.94	Max Peak	Horz	61.82	46.49	-36.3	72.0	---	72.0	83.5	11.5	Res. Band

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APPENDIX A

Radiated Spurious Emissions in Restricted Bands - 1 GHz to 40 GHz

1 GHz to 18 GHz: Tested at a 3 Meter Distance
18 GHz to 40 GHz: Tested at a 1 Meter Distance

EUT: Canopy DUSAL 5700G w/ Integral Patch antenna
Manufacturer: Motorola
Operating Condition: 70 deg F; 55% R.H.
Test Site: Site 3
Operator: Craig B
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: Continuous transmit.
Date: 06/17/2008

Notes: **(1)** Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz
(2) Average measurements were taken with RBW = 1 MHz, VBW = 10 Hz
(3) All other restricted band emissions at least 20 dB under the limit.

Mid Channel (5775 MHz)

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
11.55	Average	Vert	35.25	40.70	-27.2	48.8	---	48.8	54	5.3	Res. Band
11.55	Max Peak	Vert	47.03	40.70	-27.2	60.5	---	60.5	74	13.5	Res. Band
11.55	Average	Horz	36.26	40.70	-27.2	49.8	---	49.8	54	4.2	Res. Band
11.55	Max Peak	Horz	48.37	40.70	-27.2	61.9	---	61.9	74	12.1	Res. Band
23.10	Average	Vert	51.48	46.52	-35.8	62.2	---	62.2	63.5	1.3	Res. Band
23.10	Max Peak	Vert	62.86	46.52	-35.8	73.6	---	73.6	83.5	9.9	Res. Band
23.10	Average	Horz	50.35	46.52	-35.8	61.1	---	61.1	63.5	2.4	Res. Band
23.10	Max Peak	Horz	63.47	46.52	-35.8	74.2	---	74.2	83.5	9.3	Res. Band

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APPENDIX A

Radiated Spurious Emissions in Restricted Bands - 1 GHz to 40 GHz

1 GHz to 18 GHz: Tested at a 3 Meter Distance
18 GHz to 40 GHz: Tested at a 1 Meter Distance

EUT: Canopy DUSAL 5700G w/ Integral Patch antenna
Manufacturer: Motorola
Operating Condition: 70 deg F; 55% R.H.
Test Site: Site 3
Operator: Craig B
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: Continuous transmit.
Date: 06/17/2008

Notes: **(1)** Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz
(2) Average measurements were taken with RBW = 1 MHz, VBW = 10 Hz
(3) All other restricted band emissions at least 20 dB under the limit.

High Channel (5840 MHz)

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
11.68	Average	Vert	37.98	40.44	-27.5	50.9	---	50.9	54	3.1	Res. Band
11.68	Max Peak	Vert	49.60	40.44	-27.5	62.5	---	62.5	74	11.5	Res. Band
11.68	Average	Horz	38.99	40.44	-27.5	51.9	---	51.9	54	2.1	Res. Band
11.68	Max Peak	Horz	51.40	40.44	-27.5	64.3	---	64.3	74	9.7	Res. Band

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APPENDIX A

Radiated Spurious Emissions in Restricted Bands - 1 GHz to 40 GHz

1 GHz to 18 GHz: Tested at a 3 Meter Distance
18 GHz to 40 GHz: Tested at a 1 Meter Distance

EUT: Canopy DUSAL 5700G w/ Integral Dual Patch antenna
Manufacturer: Motorola
Operating Condition: 68 deg F; 62% R.H.
Test Site: Site 3
Operator: Craig B
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: Continuous transmit.
Date: 06/23/2008

Notes: **(1)** Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz
(2) Average measurements were taken with RBW = 1 MHz, VBW = 10 Hz
(3) All other restricted band emissions at least 20 dB under the limit.

Low Channel (5735 MHz)

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
11.47	Average	Vert	36.61	40.71	-27.5	49.8	---	49.8	54	4.2	Res. Band
11.47	Max Peak	Vert	48.08	40.71	-27.5	61.3	---	61.3	74	12.7	Res. Band
11.47	Average	Horz	37.48	40.71	-27.5	50.7	---	50.7	54	3.3	Res. Band
11.47	Max Peak	Horz	48.60	40.71	-27.5	61.8	---	61.8	74	12.2	Res. Band
22.94	Average	Vert	51.41	46.49	-36.3	61.6	---	61.6	63.5	1.9	Res. Band
22.94	Max Peak	Vert	63.57	46.49	-36.3	73.8	---	73.8	83.5	9.7	Res. Band
22.94	Average	Horz	49.86	46.49	-36.3	60.1	---	60.1	63.5	3.5	Res. Band
22.94	Max Peak	Horz	61.88	46.49	-36.3	72.1	---	72.1	83.5	11.4	Res. Band

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Radiated Spurious Emissions in Restricted Bands - 1 GHz to 40 GHz

1 GHz to 18 GHz: Tested at a 3 Meter Distance
18 GHz to 40 GHz: Tested at a 1 Meter Distance

EUT: Canopy DUSAL 5700G w/ Integral Dual Patch antenna
Manufacturer: Motorola
Operating Condition: 68 deg F; 62% R.H.
Test Site: Site 3
Operator: Craig B
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: Continuous transmit.
Date: 06/23/2008

Notes: **(1)** Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz
(2) Average measurements were taken with RBW = 1 MHz, VBW = 10 Hz
(3) All other restricted band emissions at least 20 dB under the limit.

Mid Channel (5775 MHz)

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
11.55	Average	Vert	37.08	40.70	-27.2	50.6	---	50.6	54	3.4	Res. Band
11.55	Max Peak	Vert	48.34	40.70	-27.2	61.8	---	61.8	74	12.2	Res. Band
11.55	Average	Horz	38.55	40.70	-27.2	52.1	---	52.1	54	2.0	Res. Band
11.55	Max Peak	Horz	49.57	40.70	-27.2	63.1	---	63.1	74	10.9	Res. Band
23.10	Average	Vert	51.59	46.52	-35.8	62.3	---	62.3	63.5	1.2	Res. Band
23.10	Max Peak	Vert	63.68	46.52	-35.8	74.4	---	74.4	83.5	9.1	Res. Band
23.10	Average	Horz	48.64	46.52	-35.8	59.4	---	59.4	63.5	4.1	Res. Band
23.10	Max Peak	Horz	60.88	46.52	-35.8	71.6	---	71.6	83.5	11.9	Res. Band

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Radiated Spurious Emissions in Restricted Bands - 1 GHz to 40 GHz

1 GHz to 18 GHz: Tested at a 3 Meter Distance
18 GHz to 40 GHz: Tested at a 1 Meter Distance

EUT: Canopy DUSAL 5700G w/ Integral Dual Patch antenna
Manufacturer: Motorola
Operating Condition: 68 deg F; 62% R.H.
Test Site: Site 3
Operator: Craig B
Test Specification: FCC Part 15.247(d) and FCC Part 15.205
Comment: Continuous transmit.
Date: 06/23/2008

Notes: **(1)** Peak measurements were taken with RBW = 1 MHz, VBW = 3 MHz
(2) Average measurements were taken with RBW = 1 MHz, VBW = 10 Hz
(3) All other restricted band emissions at least 20 dB under the limit.

High Channel (5840 MHz)

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
11.68	Average	Vert	37.98	40.44	-27.5	50.9	---	50.9	54	3.1	Res. Band
11.68	Max Peak	Vert	49.60	40.44	-27.5	62.5	---	62.5	74	11.5	Res. Band
11.68	Average	Horz	38.99	40.44	-27.5	51.9	---	51.9	54	2.1	Res. Band
11.68	Max Peak	Horz	51.40	40.44	-27.5	64.3	---	64.3	74	9.7	Res. Band

APPENDIX A

DATA AND GRAPH(S) TAKEN SHOWING

THE BAND EDGE CONDUCTED COMPLIANCE

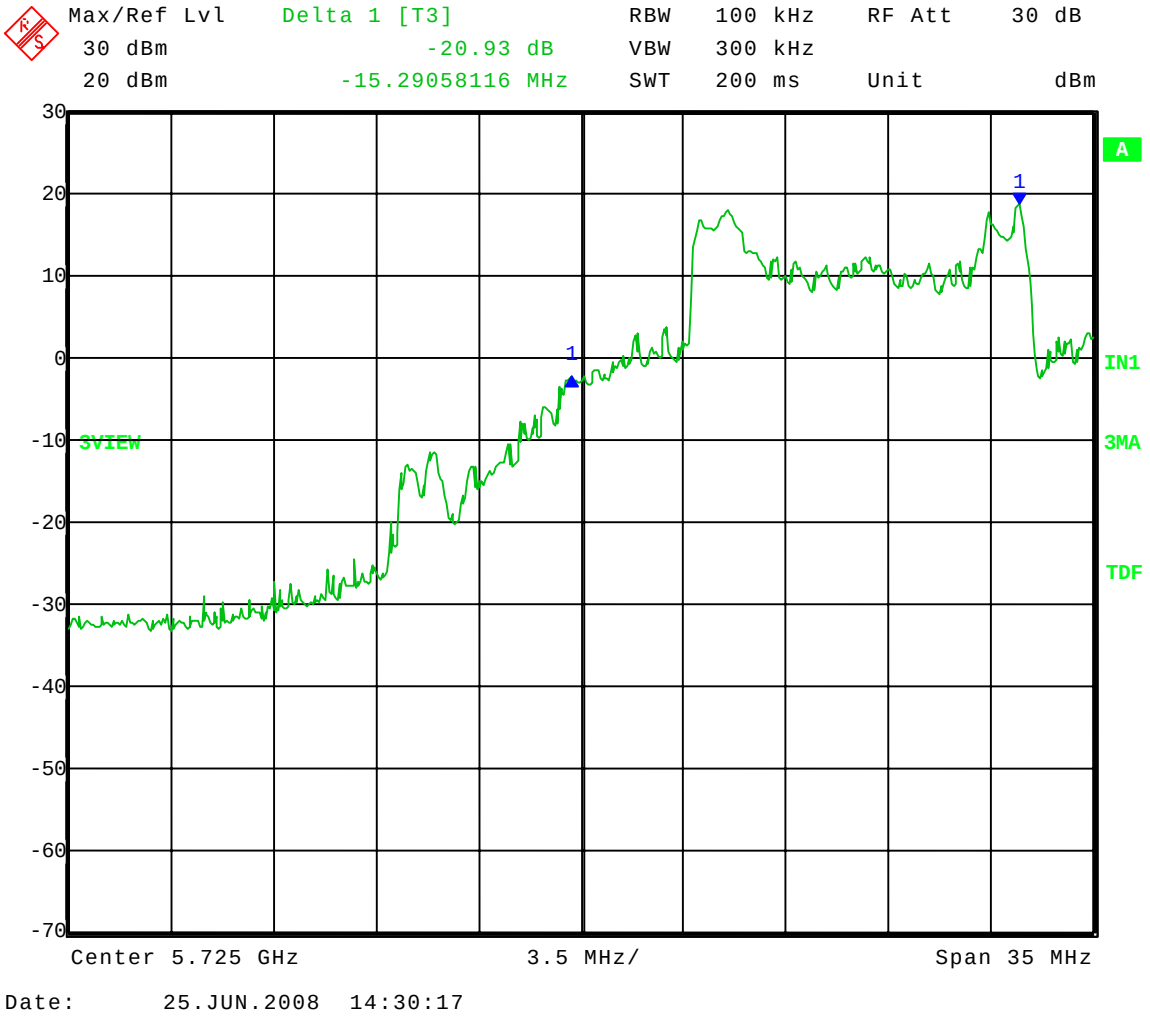
PART 15.247(c)

APPENDIX A

Test Date: 06-25-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Low Band-Edge Compliance - Conducted
Operator: Craig B
Comment: Low Channel: Frequency – 5.735 GHz

Modulation: **2-Level**

Band-Edge Frequency = 5.725 GHz
Band-Edge > 20 dB Below Peak In-Band Emission

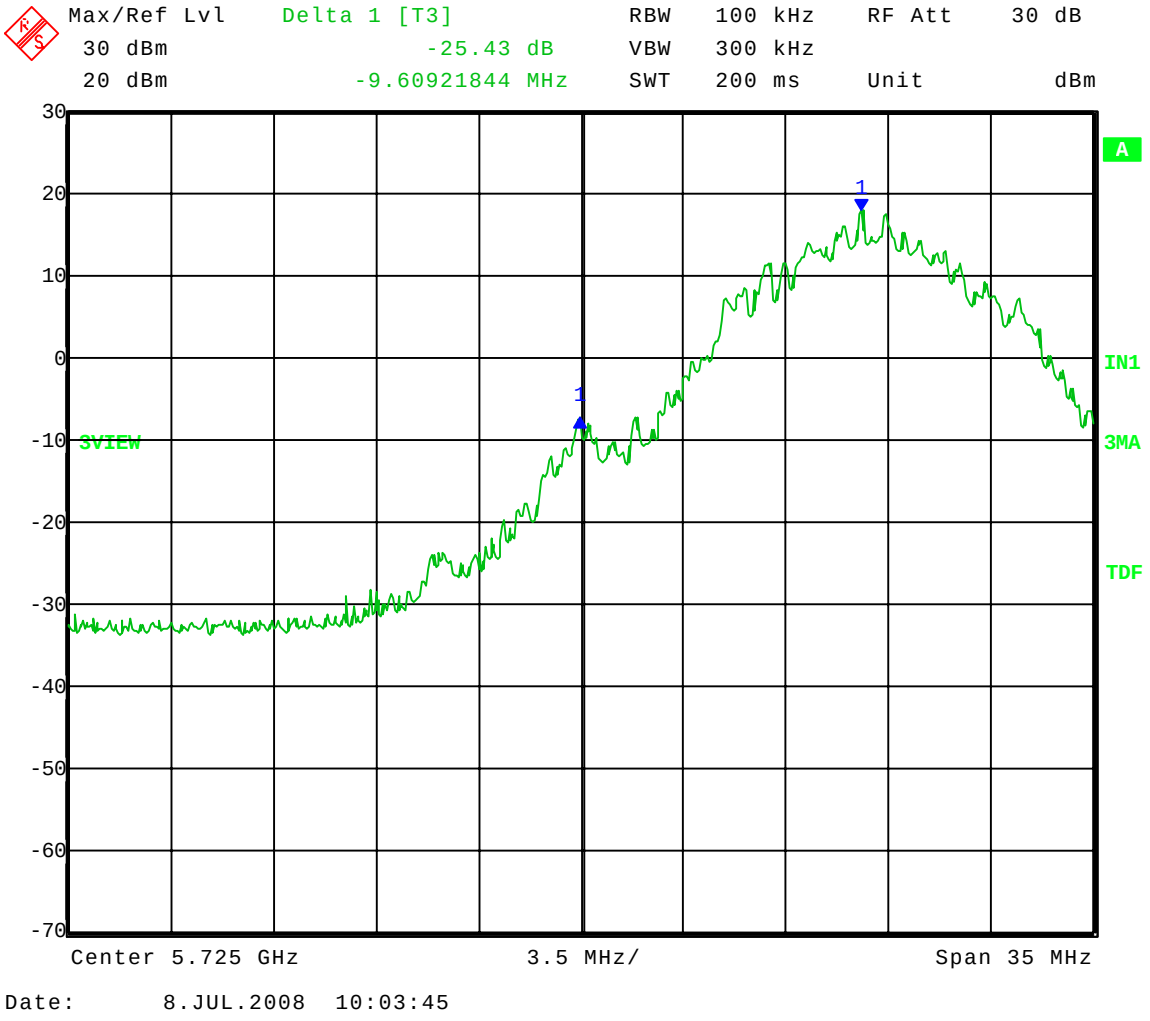


APPENDIX A

Test Date: 07-08-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Low Band-Edge Compliance - Conducted
Operator: Craig B
Comment: Low Channel: Frequency – 5.735 GHz

Modulation: **4-Level**

Band-Edge Frequency = 5.725 GHz
Band-Edge > 20 dB Below Peak In-Band Emission

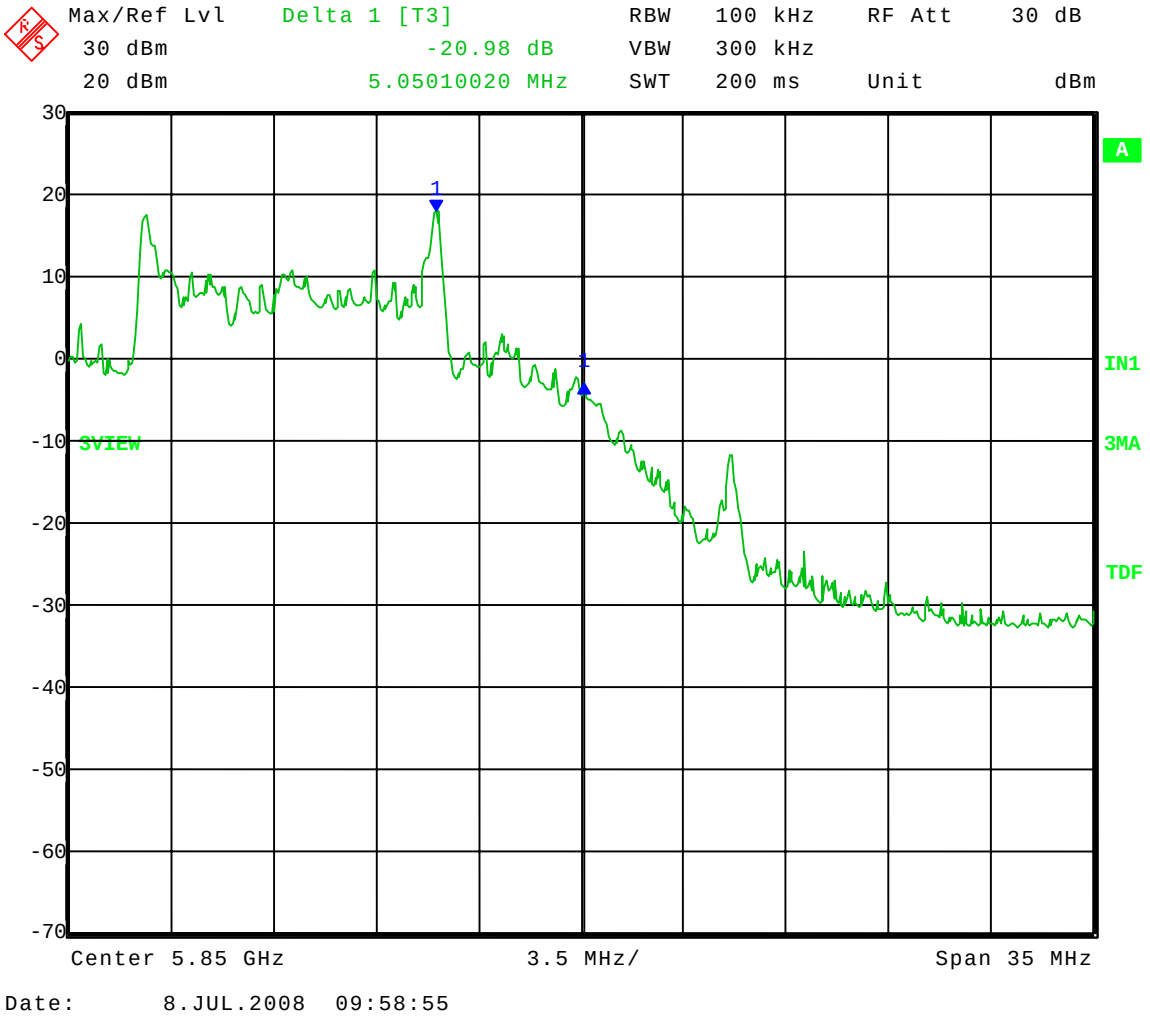


APPENDIX A

Test Date: 07-08-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: High Band-Edge Compliance - Conducted
Operator: Craig B
Comment: High Channel: Frequency – 5.840 GHz

Modulation: **2-Level**

Band-Edge Frequency = 5.850 GHz
Band-Edge > 20 dB Below Peak In-Band Emission

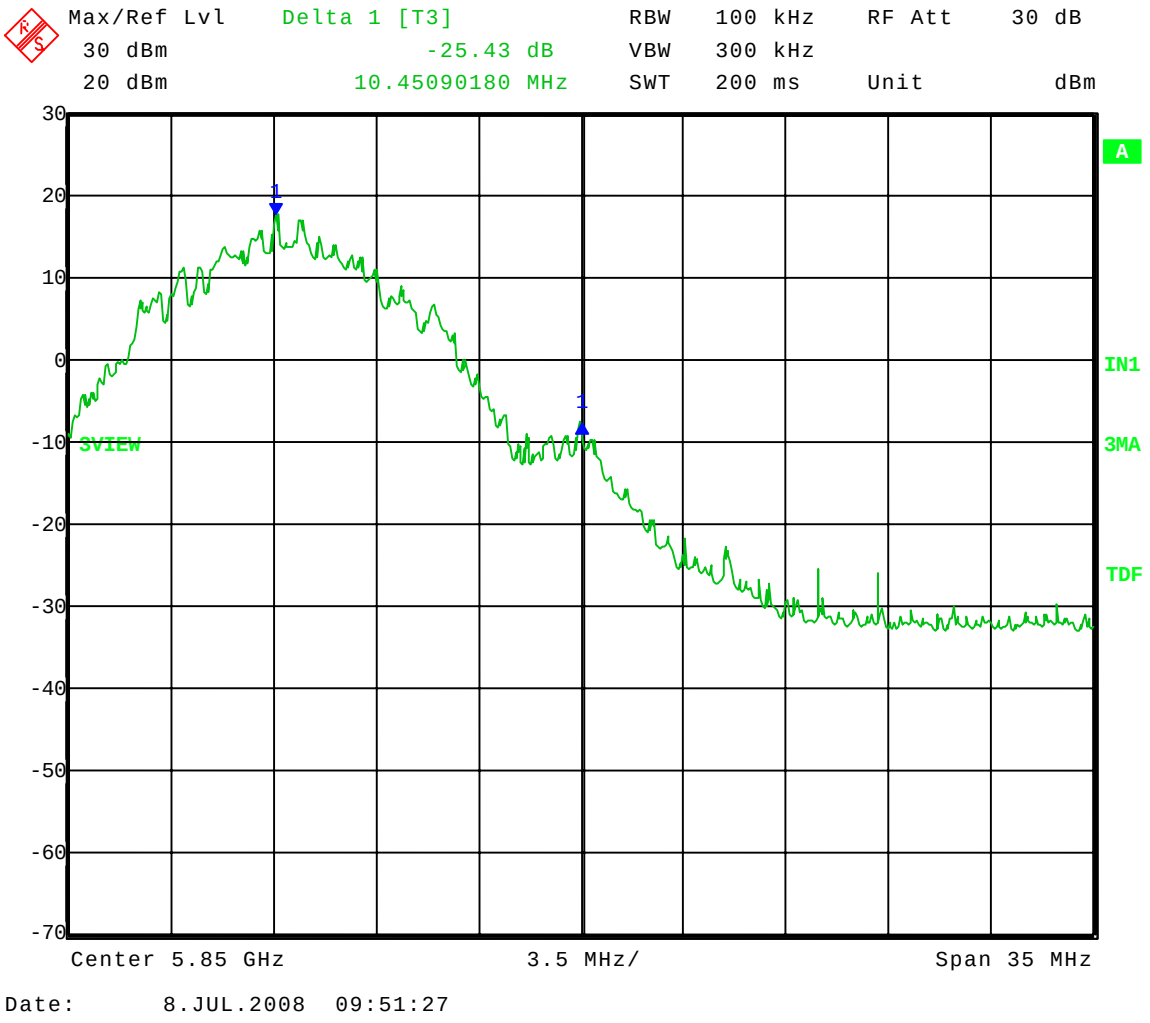


APPENDIX A

Test Date: 07-08-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: High Band-Edge Compliance - Conducted
Operator: Craig B
Comment: High Channel: Frequency – 5.840 GHz

Modulation: **4-Level**

Band-Edge Frequency = 5.850 GHz
Band-Edge > 20 dB Below Peak In-Band Emission



APPENDIX A

6.0 FIELD STRENGTH OF FUNDAMENTAL AND SPURIOUS EMISSION MEASUREMENTS

The radiated measurements made at D.L.S. Electronic Systems, Inc., for the DUSAL 5700G, Model Number: 5700SMC connectorized with 17dBi antenna, 5700SM (single patch) 5700SM (Dual Patch), are shown in tabulated and graph form. Preliminary radiation measurements were performed at a 3 meter test distance with the limits adjusted linearly when required. The frequency range from 30 MHz to over 960 MHz, depending upon the fundamental frequency as stated in Part 15.33a, was automatically scanned and plotted at various angles.

Measurements for the DUSAL 5700G were made up to 40,000 MHz, in accordance with Section 15.33a for Intentional Radiators with a fundamental frequency of 5840 MHz. For intentional radiators, the frequency range to be investigated is determined by the lowest radio frequency generated by the device without going below 30 MHz, up to at least the tenth harmonic of the highest fundamental frequency or 10 GHz, whichever is lower. At those frequencies where significant signals were detected, measurements were made over the entire frequency range specified in FCC Part 15, Subpart C, Section 15.247 at the open field test site, located at Genoa City, Wisconsin, FCC file number **31040/SIT**. When required, limits were extrapolated using a linear extrapolation.

All signals in the frequency range of 30 MHz to 2000 MHz were measured with a Biconical Antenna or tuned dipoles and from 200 MHz to 1000 MHz, a Log Periodic or Tuned Dipoles were used. From 1000 MHz to 25 GHz Horn Antennas were used. During the test the equipment was rotated and the antenna was raised and lowered from 1 meter to 4 meters to find the maximum level of emissions. In order to find maximum emissions, the cables were moved through all the positions the equipment would be expected to experience in the field. The EUT, peripheral equipment and cables were configured to meet the conditions in ANSI C63.4-2003, Clauses 6 & 8. Tests were made with the receive antenna(s) in both the horizontal and vertical planes of polarization. In each case, the table was rotated to find the maximum emissions.

APPENDIX A

6.0 FIELD STRENGTH OF FUNDAMENTAL AND SPURIOUS EMISSION MEASUREMENTS (CON'T)

As stated in Section 15.247(b) the allowed maximum peak output power of the transmitter shall not exceed 1 Watt. In any 100 kHz bandwidth outside these frequency bands (the power that is produced by the modulation products of the spreading sequence), the information sequence and the carrier frequency shall be either at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power. Attenuation below the general limits specified in 15.209 is not required.

Field strength limits are at a distance of 3 meters. The emission limits shown are based on measurement instrumentation employing an average detector.

Emissions radiated outside of the specified frequency bands, except for harmonics are attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

Preliminary radiated emission measurements were performed at a 3 meter test distance. The frequency range from 30 MHz to 1000 MHz was automatically scanned and plotted at various angles.

NOTE:

All radiated emissions measurements were made at a test room temperature of 68°F at 62% relative humidity.

APPENDIX A

RADIATED DATA AND GRAPH(S) TAKEN FOR FIELD STRENGTH OF FUNDAMENTAL AND SPURIOUS EMISSION MEASUREMENTS

CONNECTORIZED ANTENNA

PART 15.247

30 MHz – 1000 MHz

FCC Part 15 Class B

Electric Field Strength

```
EUT:                 Canopy DUSAL 5700G   w/ Connectorized 17 dBi antenna
Manufacturer:        Motorola
Operating Condition: 68 deg. F; 62% R.H.
Test Site:           DLS O.F. Site 3
Operator:            Craig B
Test Specification:
Comment:             Tx and Rx;  Low, Mid, and High channels
                     Date:  06-25-2008
```

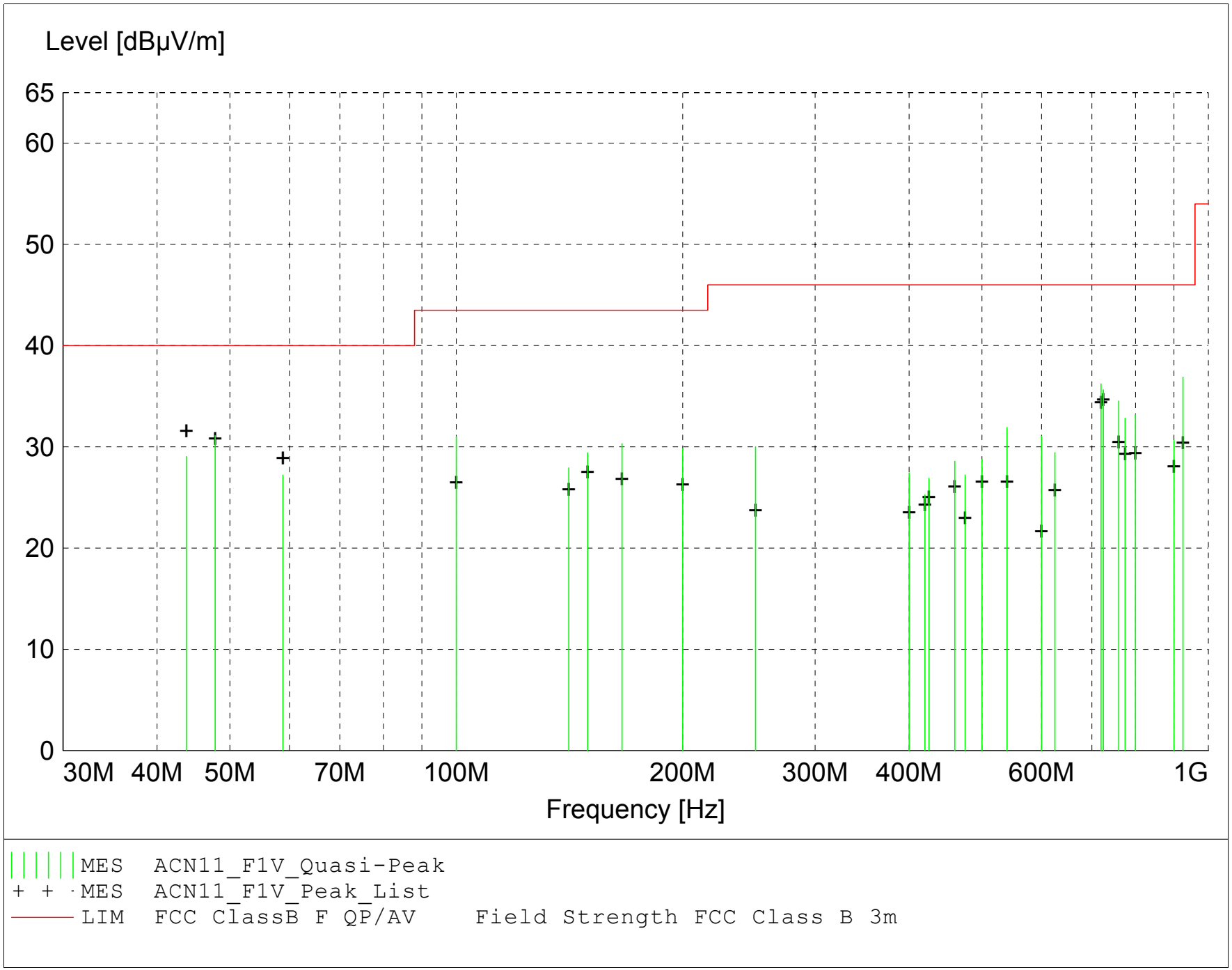
TEXT: "Site 3 MidV 3M"

```
  Short Description:            Test Set-up Vert30-1000MHz
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/005

                Antennas ---
                Biconical    -- EMCO 3104C SN: 9701-4785
                Log Periodic -- EMCO 3146  SN: 9702-4895

                Pre-Amp  --- Rohde&Schwarz TS-PR10 SN: 032001/005

TEST SET-UP:    EUT Measured at 3 Meters with VERTICAL Antenna Polarization
```


Level [dBµV/m]
65
60
50
40
30
20
10
0
30M
40M
50M
70M
100M
200M
300M
400M
600M
1G
Frequency [Hz]
MES ACN11_F1V_Quasi-Peak
MES ACN11_F1V_Peak_List
LIM FCC ClassB F QP/AV Field Strength FCC Class B 3m

MEASUREMENT RESULT: "ACN11_F1V_Final"

6/25/2008 10:12AM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
47.790000	39.28	16.31	-24.5	31.1	40.0	8.9	1.00	270	QUASI-PEAK	None
924.990000	31.33	24.13	-18.6	36.9	46.0	9.1	1.00	280	QUASI-PEAK	None
719.990000	31.39	23.32	-18.5	36.2	46.0	9.8	1.10	275	QUASI-PEAK	None
724.990000	30.81	23.06	-18.2	35.6	46.0	10.4	1.10	270	QUASI-PEAK	None
43.760000	37.33	16.28	-24.6	29.0	40.0	11.0	1.00	135	QUASI-PEAK	None
759.990000	29.79	23.35	-18.6	34.5	46.0	11.5	1.20	270	QUASI-PEAK	None
100.000000	38.21	16.45	-23.7	31.0	43.5	12.5	1.00	0	QUASI-PEAK	None
58.810000	36.48	15.06	-24.3	27.2	40.0	12.8	1.00	135	QUASI-PEAK	None
799.980000	29.19	23.52	-19.5	33.2	46.0	12.8	1.10	270	QUASI-PEAK	None
166.070000	34.58	18.68	-22.9	30.3	43.5	13.2	1.00	290	QUASI-PEAK	None
774.990000	28.32	23.55	-19.0	32.8	46.0	13.2	1.20	270	QUASI-PEAK	None
200.000000	31.81	20.73	-22.7	29.8	43.5	13.7	1.00	0	QUASI-PEAK	None
539.990000	31.74	21.33	-21.1	31.9	46.0	14.1	1.00	180	QUASI-PEAK	None
149.465000	36.12	16.45	-23.2	29.4	43.5	14.1	1.00	270	QUASI-PEAK	None
599.980000	30.05	21.86	-20.9	31.0	46.0	15.0	2.00	180	QUASI-PEAK	None
899.980000	25.34	24.10	-18.8	30.6	46.0	15.4	1.40	270	QUASI-PEAK	None
141.150000	34.90	16.28	-23.2	27.9	43.5	15.6	1.00	200	QUASI-PEAK	None
250.000000	35.15	17.20	-22.3	30.0	46.0	16.0	1.00	90	QUASI-PEAK	None
624.990000	27.98	22.23	-20.8	29.4	46.0	16.6	1.00	90	QUASI-PEAK	None
500.000000	29.03	20.96	-21.2	28.8	46.0	17.2	1.00	160	QUASI-PEAK	None
459.990000	29.54	20.42	-21.4	28.6	46.0	17.4	1.00	170	QUASI-PEAK	None
399.990000	29.77	19.26	-21.6	27.4	46.0	18.6	1.00	215	QUASI-PEAK	None
474.990000	27.93	20.63	-21.3	27.2	46.0	18.8	1.00	170	QUASI-PEAK	None
424.980000	29.09	19.34	-21.5	26.9	46.0	19.1	1.00	180	QUASI-PEAK	None
419.980000	27.53	19.27	-21.5	25.3	46.0	20.7	1.00	180	QUASI-PEAK	None

FCC Part 15 Class B

Electric Field Strength

```
EUT:                 Canopy DUSAL 5700G   w/ Connectorized 17 dBi antenna
Manufacturer:        Motorola
Operating Condition: 68 deg. F; 62% R.H.
Test Site:           DLS O.F. Site 3
Operator:            Craig B
Test Specification:
Comment:             Tx and Rx;  Low, Mid, and High channels
                     Date:  06-25-2008
```

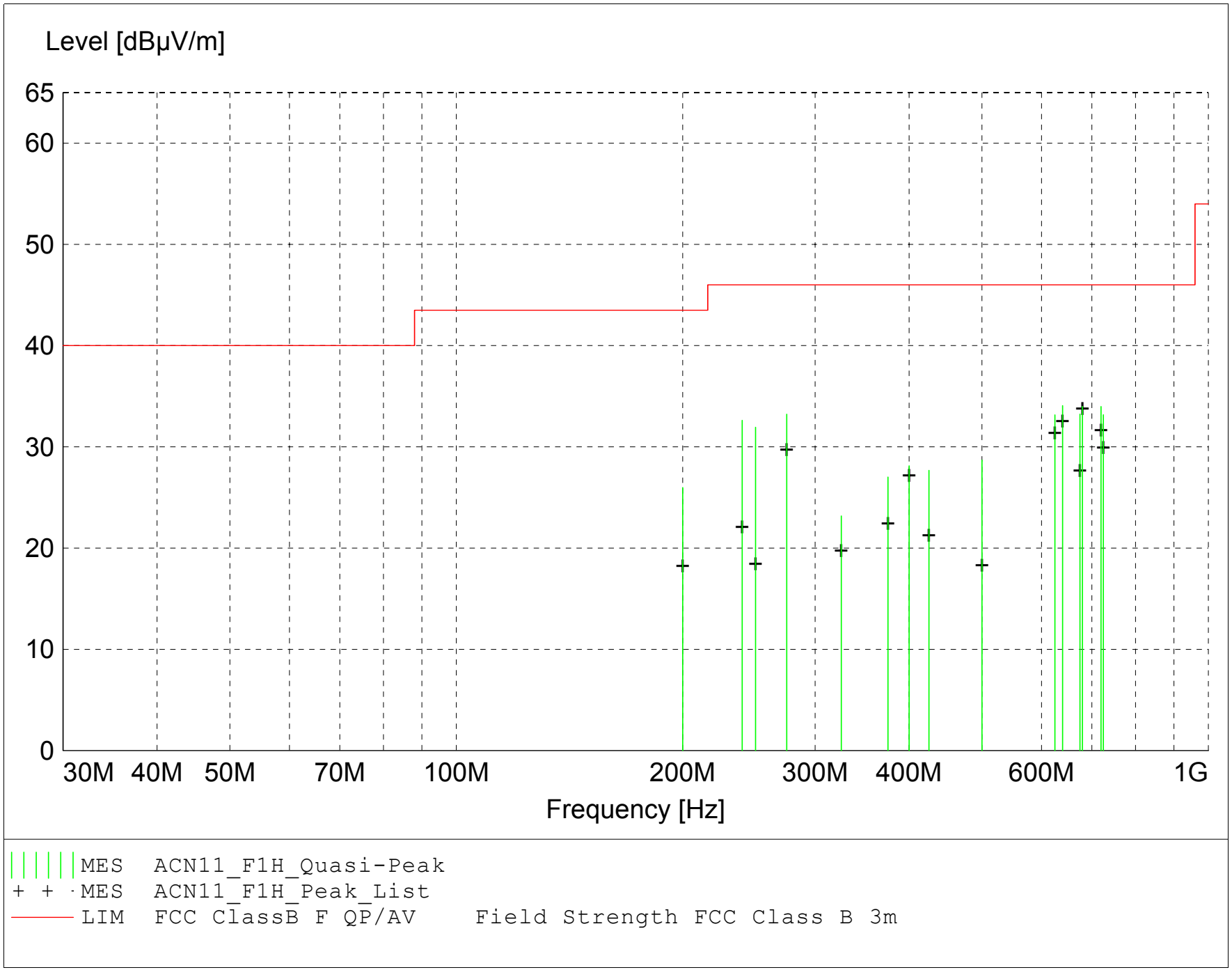
TEXT: "Site 3 MidH 3M"

```
  Short Description:            Test Set-up Horz30-1000MHz
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/005

                Antennas ---
                Biconical    -- EMCO 3104C SN: 9701-4785
                Log Periodic -- EMCO 3146  SN: 9702-4895

                Pre-Amp  --- Rohde&Schwarz TS-PR10 SN: 032001/005

TEST SET-UP:    EUT Measured at 3 Meters with HORIZONTAL Antenna Polarization
```


Level [dBµV/m]
65
60
50
40
30
20
10
0
30M
40M
50M
70M
100M
200M
300M
400M
600M
1G
Frequency [Hz]
MES ACN11_F1H_Quasi-Peak
MES ACN11_F1H_Peak_List
LIM FCC ClassB F QP/AV Field Strength FCC Class B 3m

MEASUREMENT RESULT: "ACN11_F1H_Final"

6/25/2008 10:30AM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
639.980000	32.31	22.46	-20.7	34.1	46.0	11.9	1.00	240	QUASI-PEAK	None
679.980000	30.98	23.44	-20.4	34.0	46.0	12.0	1.00	80	QUASI-PEAK	None
719.990000	29.16	23.32	-18.5	34.0	46.0	12.0	1.00	75	QUASI-PEAK	None
674.990000	30.28	23.46	-20.5	33.2	46.0	12.8	1.00	90	QUASI-PEAK	None
275.000000	38.02	17.42	-22.2	33.2	46.0	12.8	1.00	260	QUASI-PEAK	None
724.990000	28.35	23.06	-18.2	33.2	46.0	12.8	1.00	225	QUASI-PEAK	None
624.990000	31.71	22.23	-20.8	33.2	46.0	12.8	1.00	75	QUASI-PEAK	None
239.980000	38.99	16.04	-22.4	32.6	46.0	13.4	1.00	270	QUASI-PEAK	None
249.990000	37.08	17.19	-22.3	31.9	46.0	14.1	1.00	290	QUASI-PEAK	None
500.000000	28.97	20.96	-21.2	28.7	46.0	17.3	3.00	45	QUASI-PEAK	None
200.000000	27.96	20.73	-22.7	26.0	43.5	17.5	1.00	225	QUASI-PEAK	None
399.990000	30.48	19.26	-21.6	28.1	46.0	17.9	2.00	135	QUASI-PEAK	None
424.990000	29.87	19.34	-21.5	27.7	46.0	18.3	1.40	260	QUASI-PEAK	None
374.990000	30.46	18.30	-21.7	27.0	46.0	19.0	1.00	135	QUASI-PEAK	None
325.000000	27.43	17.75	-22.0	23.2	46.0	22.8	2.30	180	QUASI-PEAK	None

APPENDIX A

RADIATED DATA AND GRAPH(S) TAKEN FOR FIELD STRENGTH OF FUNDAMENTAL AND SPURIOUS EMISSION MEASUREMENTS

DOUBLE PATCH ANTENNA

PART 15.247

30 MHz – 1000 MHz

FCC Part 15 Class B

Electric Field Strength

```
EUT:                 Canopy DUSAL 5700G   w/ Dual Patch antenna
Manufacturer:        Motorola
Operating Condition: 68 deg. F; 62% R.H.
Test Site:           DLS O.F. Site 3
Operator:            Craig B / Adam A
Test Specification:
Comment:             Receive mode; Low, Mid, High ch
                     Date:  06-24-2008
```

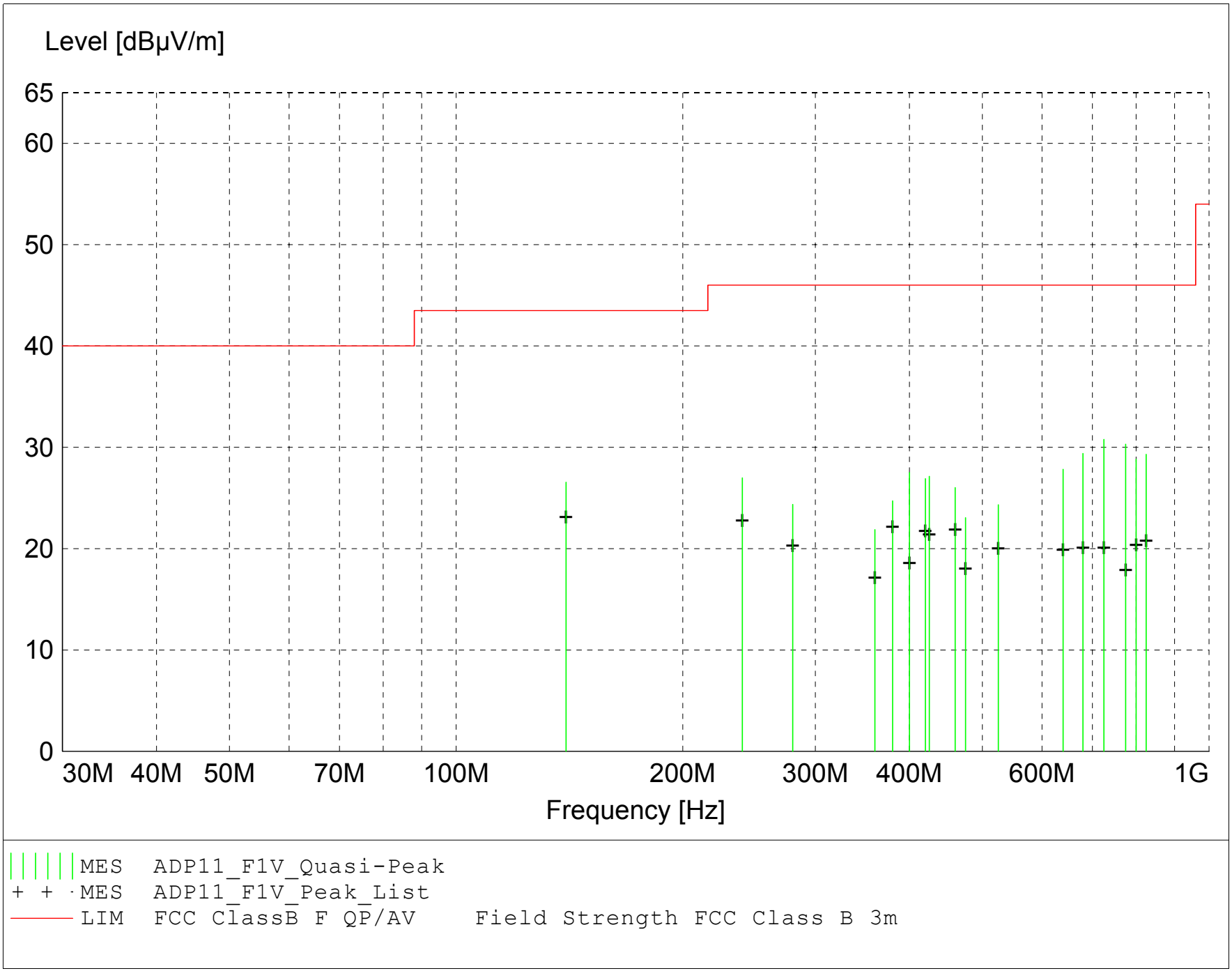
TEXT: "Site 3 MidV 3M"

```
  Short Description:            Test Set-up Vert30-1000MHz
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/005

                Antennas ---
                Biconical    -- EMCO 3104C SN: 9701-4785
                Log Periodic -- EMCO 3146  SN: 9702-4895

                Pre-Amp  --- Rohde&Schwarz TS-PR10 SN: 032001/005

TEST SET-UP:    EUT Measured at 3 Meters with VERTICAL Antenna Polarization
```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60
50
40
30
20
10
0
30M
40M
50M
70M
100M
200M
300M
400M
600M
1G
Frequency [Hz]
MES ADP11_F1V_Quasi-Peak
MES ADP11_F1V_Peak_List
LIM FCC ClassB F QP/AV Field Strength FCC Class B 3m

MEASUREMENT RESULT: "ADP11_F1V_Final"

6/24/2008 10:42AM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
725.000000	25.96	23.07	-18.2	30.8	46.0	15.2	1.00	185	QUASI-PEAK	None
774.980000	25.81	23.55	-19.0	30.3	46.0	15.7	1.00	185	QUASI-PEAK	None
680.000000	26.37	23.44	-20.4	29.4	46.0	16.6	1.00	0	QUASI-PEAK	None
825.020000	24.93	23.77	-19.4	29.3	46.0	16.7	1.00	180	QUASI-PEAK	None
139.980000	33.38	16.43	-23.3	26.6	43.5	16.9	1.00	35	QUASI-PEAK	None
800.000000	24.83	23.53	-19.5	28.8	46.0	17.2	1.00	180	QUASI-PEAK	None
639.980000	26.07	22.46	-20.7	27.8	46.0	18.2	1.00	0	QUASI-PEAK	None
400.000000	29.87	19.26	-21.6	27.5	46.0	18.5	1.00	165	QUASI-PEAK	None
425.000000	29.32	19.34	-21.5	27.1	46.0	18.9	1.00	0	QUASI-PEAK	None
240.005000	33.34	16.04	-22.4	27.0	46.0	19.0	1.00	35	QUASI-PEAK	None
419.995000	29.19	19.27	-21.5	26.9	46.0	19.1	1.00	355	QUASI-PEAK	None
459.995000	26.98	20.42	-21.4	26.0	46.0	20.0	1.00	345	QUASI-PEAK	None
379.995000	28.04	18.38	-21.7	24.7	46.0	21.3	1.00	0	QUASI-PEAK	None
279.985000	28.96	17.60	-22.2	24.4	46.0	21.6	1.90	0	QUASI-PEAK	None
525.020000	23.94	21.58	-21.2	24.3	46.0	21.7	1.10	0	QUASI-PEAK	None
474.995000	23.76	20.63	-21.3	23.1	46.0	22.9	1.00	255	QUASI-PEAK	None
359.975000	25.53	18.17	-21.8	21.9	46.0	24.1	1.00	355	QUASI-PEAK	None

FCC Part 15 Class B

Electric Field Strength

```
EUT:                 Canopy DUSAL 5700G   w/ Dual Patch antenna
Manufacturer:        Motorola
Operating Condition: 68 deg. F; 62% R.H.
Test Site:           DLS O.F. Site 3
Operator:            Craig B / Adam A
Test Specification:
Comment:             Receive mode; Low, Mid, High ch
                     Date:  06-24-2008
```

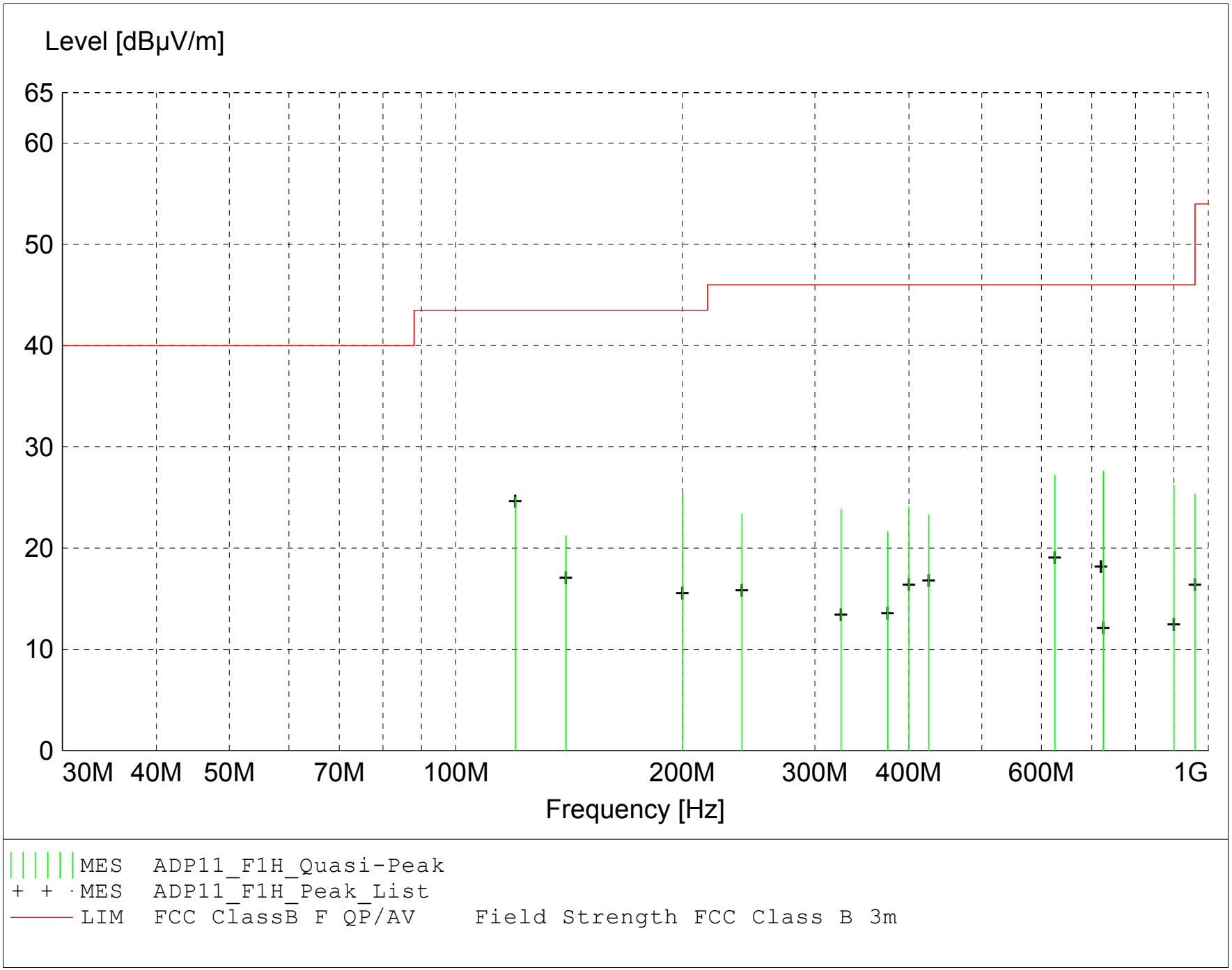
TEXT: "Site 3 MidH 3M"

```
  Short Description:            Test Set-up Horz30-1000MHz
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/005

                Antennas ---
                Biconical    -- EMCO 3104C SN: 9701-4785
                Log Periodic -- EMCO 3146  SN: 9702-4895

                Pre-Amp  --- Rohde&Schwarz TS-PR10 SN: 032001/005

TEST SET-UP:    EUT Measured at 3 Meters with HORIZONTAL Antenna Polarization
```


Level [dBµV/m]
65
60
50
40
30
20
10
0
30M
40M
50M
70M
100M
200M
300M
400M
600M
1G
Frequency [Hz]
MES ADP11_F1H_Quasi-Peak
MES ADP11_F1H_Peak_List
LIM FCC ClassB F QP/AV Field Strength FCC Class B 3m

MEASUREMENT RESULT: "ADP11_F1H_Final"

6/24/2008 10:57AM

Frequency	Level	Antenna Factor	System Loss	Total Level	Limit	Margin	Height Ant.	EuT Angle	Final Detector	Comment
MHz	dBµV	dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
200.000000	27.38	20.73	-22.7	25.4	43.5	18.1	1.50	80	QUASI-PEAK	None
725.000000	22.77	23.07	-18.2	27.6	46.0	18.4	1.00	10	QUASI-PEAK	None
119.995000	31.06	17.39	-23.4	25.0	43.5	18.5	1.00	90	QUASI-PEAK	None
624.980000	25.76	22.23	-20.8	27.2	46.0	18.8	1.20	190	QUASI-PEAK	None
899.960000	20.98	24.10	-18.8	26.3	46.0	19.7	1.00	90	QUASI-PEAK	None
400.000000	26.42	19.26	-21.6	24.1	46.0	21.9	1.60	15	QUASI-PEAK	None
324.990000	28.08	17.75	-22.0	23.8	46.0	22.2	2.10	15	QUASI-PEAK	None
139.995000	28.05	16.43	-23.3	21.2	43.5	22.3	1.50	45	QUASI-PEAK	None
239.985000	29.75	16.04	-22.4	23.4	46.0	22.6	1.00	255	QUASI-PEAK	None
425.000000	25.47	19.34	-21.5	23.3	46.0	22.7	1.60	255	QUASI-PEAK	None
374.985000	25.06	18.30	-21.7	21.6	46.0	24.4	1.90	235	QUASI-PEAK	None
960.020000	19.05	24.31	-18.0	25.4	54.0	28.6	1.00	15	QUASI-PEAK	None

APPENDIX A

RADIATED DATA AND GRAPH(S) TAKEN FOR E.I.R.P. OF FUNDAMENTAL EMISSION MEASUREMENTS PART 15.247

APPENDIX A

DLS Electronic Systems, Inc.

Company: Motorola
Operator: Craig B
Date of test: 06-24-2008
Temperature: 73 deg. F
Humidity: 55% R.H.

Limit = 30 dBm + 6 dBi antenna = 36 dBm
Internal transmit attenuator set for 4.42 dB

EIRP - Substitution Method

Model: **Canopy DUSAL 5700G with Connectorized 17 dBi antenna**								
Channel: **5735 MHz**								
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Limit (dBm)	Margin (dB)	Strength of emission [EIRP] (W)
5735 vertical	131.60	27.47	2.80	11.28	35.95	36.00	0.05	3.94
5735 horizontal	109.46	5.68	2.80	11.28	14.16	36.00	21.84	0.03

EIRP = Signal generator output - cable loss + antenna gain

$ERP_{(ref.\ to\ \frac{1}{2}\lambda\ dipole)}$ = Signal generator output - cable loss + antenna gain - 2.15

APPENDIX A

DLS Electronic Systems, Inc.

Company: Motorola
Operator: Craig B
Date of test: 06-24-2008
Temperature: 73 deg. F
Humidity: 55% R.H.

Limit = 30 dBm + 6 dBi antenna = 36 dBm
Internal transmit attenuator set for 4.31 dB

EIRP - Substitution Method

Model: **Canopy DUSAL 5700G with Connectorized 17 dBi antenna**								
Channel: **5775 MHz**								
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Limit (dBm)	Margin (dB)	Strength of emission [EIRP] (W)
5775 vertical	131.63	27.41	2.81	11.33	35.93	36.00	0.07	3.92
5775 horizontal	108.78	4.87	2.81	11.33	13.39	36.00	22.61	0.02

EIRP = Signal generator output - cable loss + antenna gain

$ERP_{(ref.\ to\ \frac{1}{2}\lambda\ dipole)}$ = Signal generator output - cable loss + antenna gain - 2.15

APPENDIX A

DLS Electronic Systems, Inc.

Company: Motorola
Operator: Craig B
Date of test: 06-24-2008
Temperature: 73 deg. F
Humidity: 55% R.H.

Limit = 30 dBm + 6 dBi antenna = 36 dBm
Internal transmit attenuator set for 4.81 dB

EIRP - Substitution Method

Model: **Canopy DUSAL 5700G with Connectorized 17dBi antenna**								
Channel: **5840 MHz**								
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Limit (dBm)	Margin (dB)	Strength of emission [EIRP] (W)
5840 vertical	130.95	27.19	2.85	11.41	35.75	36.00	0.25	3.76
5840 horizontal	109.77	5.96	2.85	11.41	14.52	36.00	21.48	0.03

EIRP = Signal generator output - cable loss + antenna gain

$ERP_{(ref.\ to\ \frac{1}{2}\lambda\ dipole)}$ = Signal generator output - cable loss + antenna gain - 2.15

APPENDIX A

DLS Electronic Systems, Inc.

Company: Motorola
Operator: Craig B
Date of test: 06-16-2008
Temperature: 68 deg. F
Humidity: 63% R.H.

No limit (Point-to-Point)

EIRP - Substitution Method

Model: **Canopy DUSAL 5700G with Vertical Integral Patch antenna**								
Channel: **5735 MHz**								
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Limit (dBm)	Margin (dB)	Strength of emission [EIRP] (W)
5735 vertical	127.44	23.31	2.80	11.28	31.79	NA	NA	1.51
5735 horizontal	118.92	15.14	2.80	11.28	23.62	NA	NA	0.23

EIRP = Signal generator output - cable loss + antenna gain

$ERP_{(ref.\ to\ \frac{1}{2}\lambda\ dipole)}$ = Signal generator output - cable loss + antenna gain - 2.15

APPENDIX A

DLS Electronic Systems, Inc.

Company: Motorola
Operator: Craig B
Date of test: 06-16-2008
Temperature: 68 deg. F
Humidity: 63% R.H.

No limit (Point-to-Point)

EIRP - Substitution Method

Model: **Canopy DUSAL 5700G with Vertical Integral Patch antenna**								
Channel: **5775 MHz**								
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Limit (dBm)	Margin (dB)	Strength of emission [EIRP] (W)
5775 vertical	127.07	22.85	2.81	11.33	31.37	NA	NA	1.37
5775 horizontal	120.26	16.35	2.81	11.33	24.87	NA	NA	0.31

EIRP = Signal generator output - cable loss + antenna gain

$ERP_{(ref.\ to\ \frac{1}{2}\lambda\ dipole)}$ = Signal generator output - cable loss + antenna gain - 2.15

APPENDIX A

DLS Electronic Systems, Inc.

Company: Motorola
Operator: Craig B
Date of test: 06-16-2008
Temperature: 68 deg. F
Humidity: 63% R.H.

No limit (Point-to-Point)

EIRP - Substitution Method

Model: **Canopy DUSAL 5700G with Vertical Integral Patch antenna**								
Channel: **5840 MHz**								
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Limit (dBm)	Margin (dB)	Strength of emission [EIRP] (W)
5840 vertical	126.41	22.65	2.85	11.41	31.21	NA	NA	1.32
5840 horizontal	119.91	16.10	2.85	11.41	24.66	NA	NA	0.29

EIRP = Signal generator output - cable loss + antenna gain

$ERP_{(ref.\ to\ \frac{1}{2}\lambda\ dipole)}$ = Signal generator output - cable loss + antenna gain - 2.15

APPENDIX A

DLS Electronic Systems, Inc.

Company: Motorola
Operator: Craig B
Date of test: 06-16-2008
Temperature: 68 deg. F
Humidity: 63% R.H.

No limit (Point-to-Point)

EIRP - Substitution Method

Model: **Canopy DUSAL 5700G with Dual Integral Patch antenna**								
Channel: **5735 MHz**								
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Limit (dBm)	Margin (dB)	Strength of emission [EIRP] (W)
5735 vertical	130.13	26.00	2.80	11.28	34.48	NA	NA	2.81
5735 horizontal	120.54	16.76	2.80	11.28	25.24	NA	NA	0.33

EIRP = Signal generator output - cable loss + antenna gain

$ERP_{(ref.\ to\ \frac{1}{2}\lambda\ dipole)}$ = Signal generator output - cable loss + antenna gain - 2.15

APPENDIX A

DLS Electronic Systems, Inc.

Company: Motorola
Operator: Craig B
Date of test: 06-16-2008
Temperature: 68 deg. F
Humidity: 63% R.H.

No limit (Point-to-Point)

EIRP - Substitution Method

Model: **Canopy DUSAL 5700G with Dual Integral Patch antenna**								
Channel: **5775 MHz**								
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Limit (dBm)	Margin (dB)	Strength of emission [EIRP] (W)
5775 vertical	129.42	25.20	2.81	11.33	33.72	NA	NA	2.36
5775 horizontal	122.01	18.10	2.81	11.33	26.62	NA	NA	0.46

EIRP = Signal generator output - cable loss + antenna gain

$ERP_{(ref.\ to\ \frac{1}{2}\lambda\ dipole)}$ = Signal generator output - cable loss + antenna gain - 2.15

APPENDIX A

DLS Electronic Systems, Inc.

Company: Motorola
Operator: Craig B
Date of test: 06-16-2008
Temperature: 68 deg. F
Humidity: 63% R.H.

No limit (Point-to-Point)

EIRP - Substitution Method

Model: **Canopy DUSAL 5700G with Dual Integral Patch antenna**								
Channel: **5840 MHz**								
Frequency and Polarization (MHz)	Max. Field Strength of EUT @ 3 meters (dBuV/m)	Output of Signal Generator when field strength equals that of EUT (dBm)	Correction factor for cable between Signal Gen. and subst. antenna (dB)	Gain of subst. antenna (dBi)	Strength of emission [EIRP] (dBm)	Limit (dBm)	Margin (dB)	Strength of emission [EIRP] (W)
5840 vertical	128.16	24.40	2.85	11.41	32.96	NA	NA	1.98
5840 horizontal	120.91	17.10	2.85	11.41	25.66	NA	NA	0.37

EIRP = Signal generator output - cable loss + antenna gain

$ERP_{(ref.\ to\ \frac{1}{2}\lambda\ dipole)}$ = Signal generator output - cable loss + antenna gain - 2.15

APPENDIX A

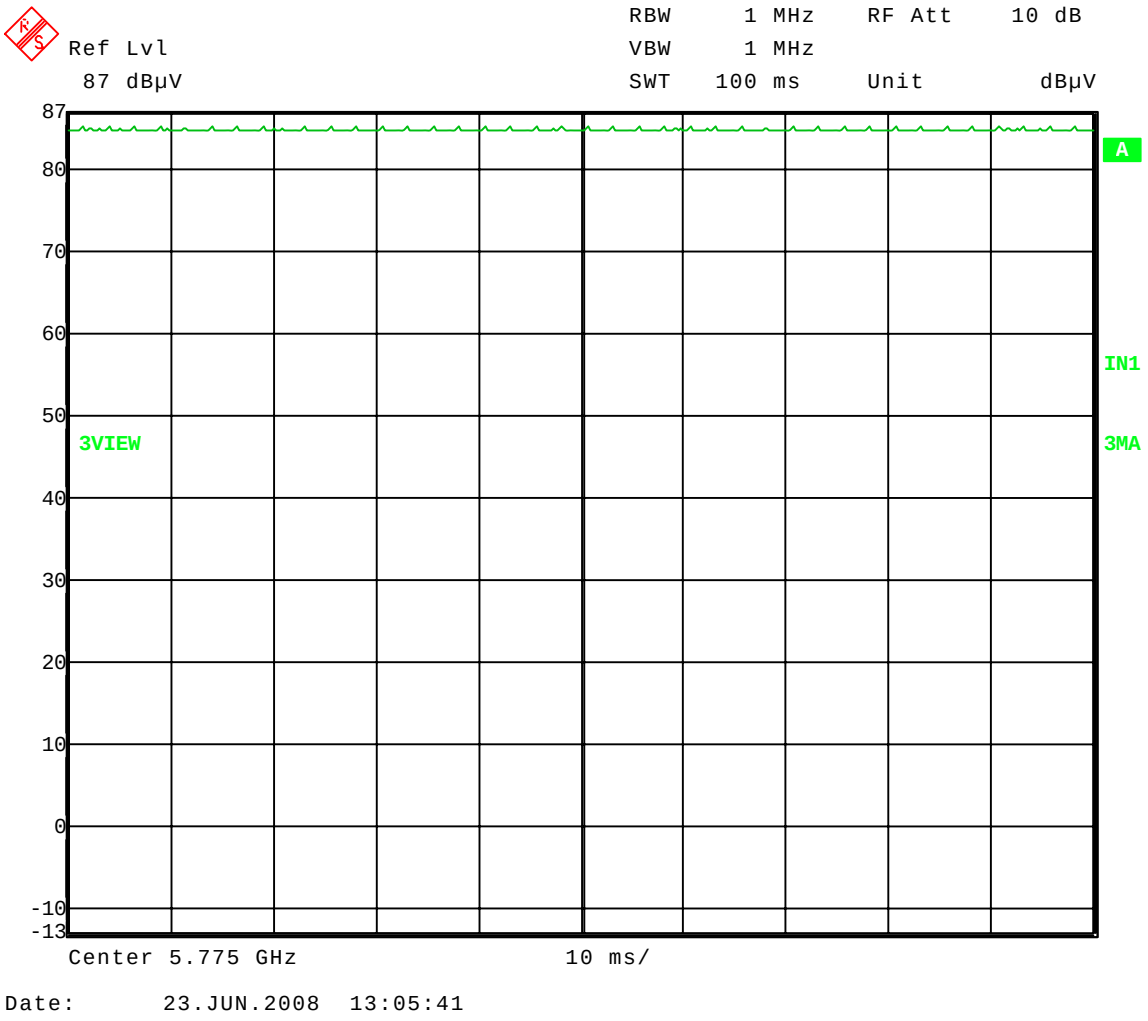
DUTY CYCLE GRAPH

PART 15.247

APPENDIX A

Test Date: 06-23-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Duty Cycle – Transmit Max Duty Cycle (used for testing)
Operator: Craig B

Comment: Duty Cycle = 100%



APPENDIX A

6 dB BANDWIDTH GRAPHS

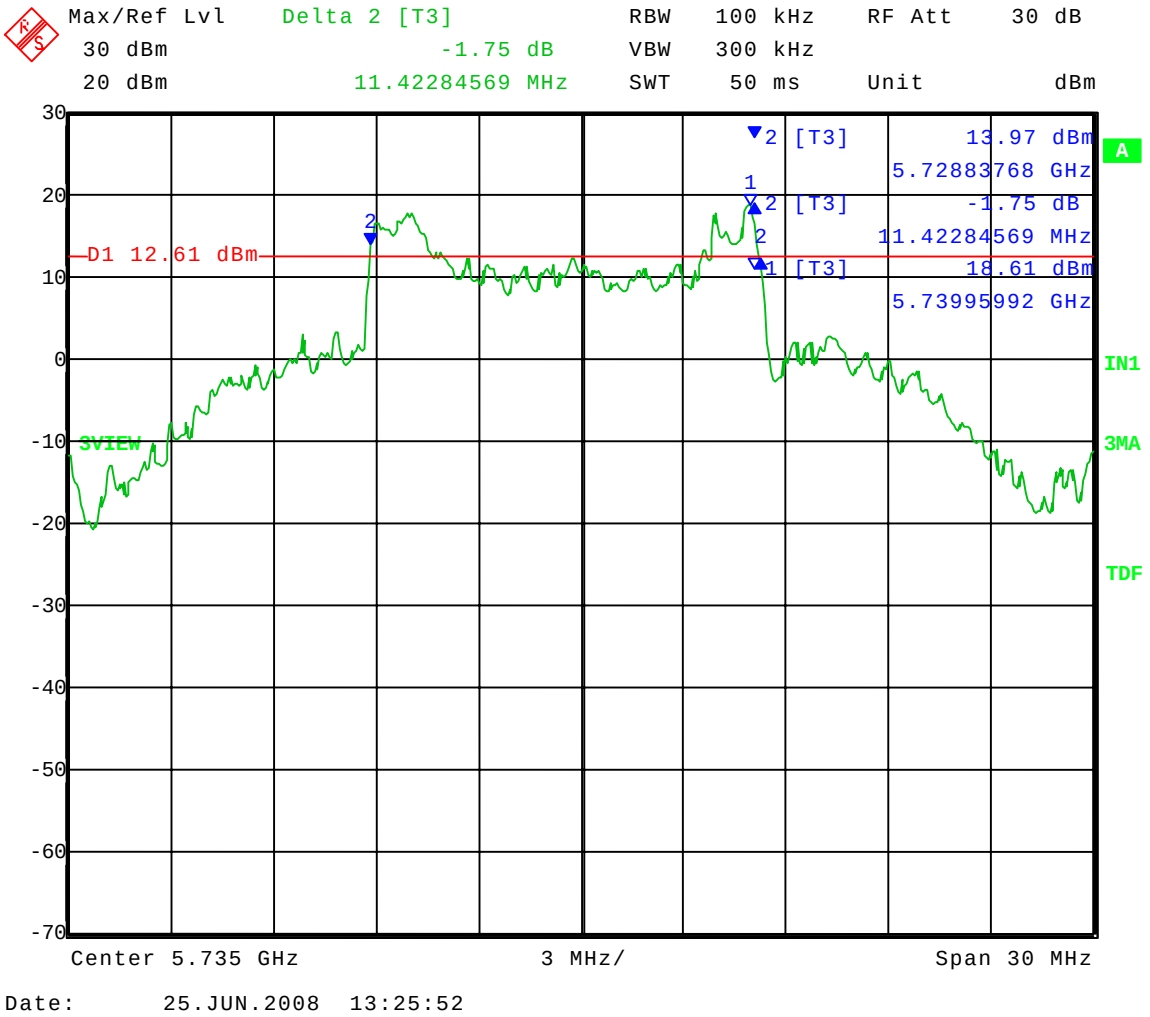
PART 15.247

APPENDIX A

Test Date: 06-25-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: 6 dB Bandwidth - Conducted
Operator: Craig B
Comment: Low Channel: Frequency – 5.735 GHz

Modulation: **2-Level**

6 dB Bandwidth = 11.42 MHz

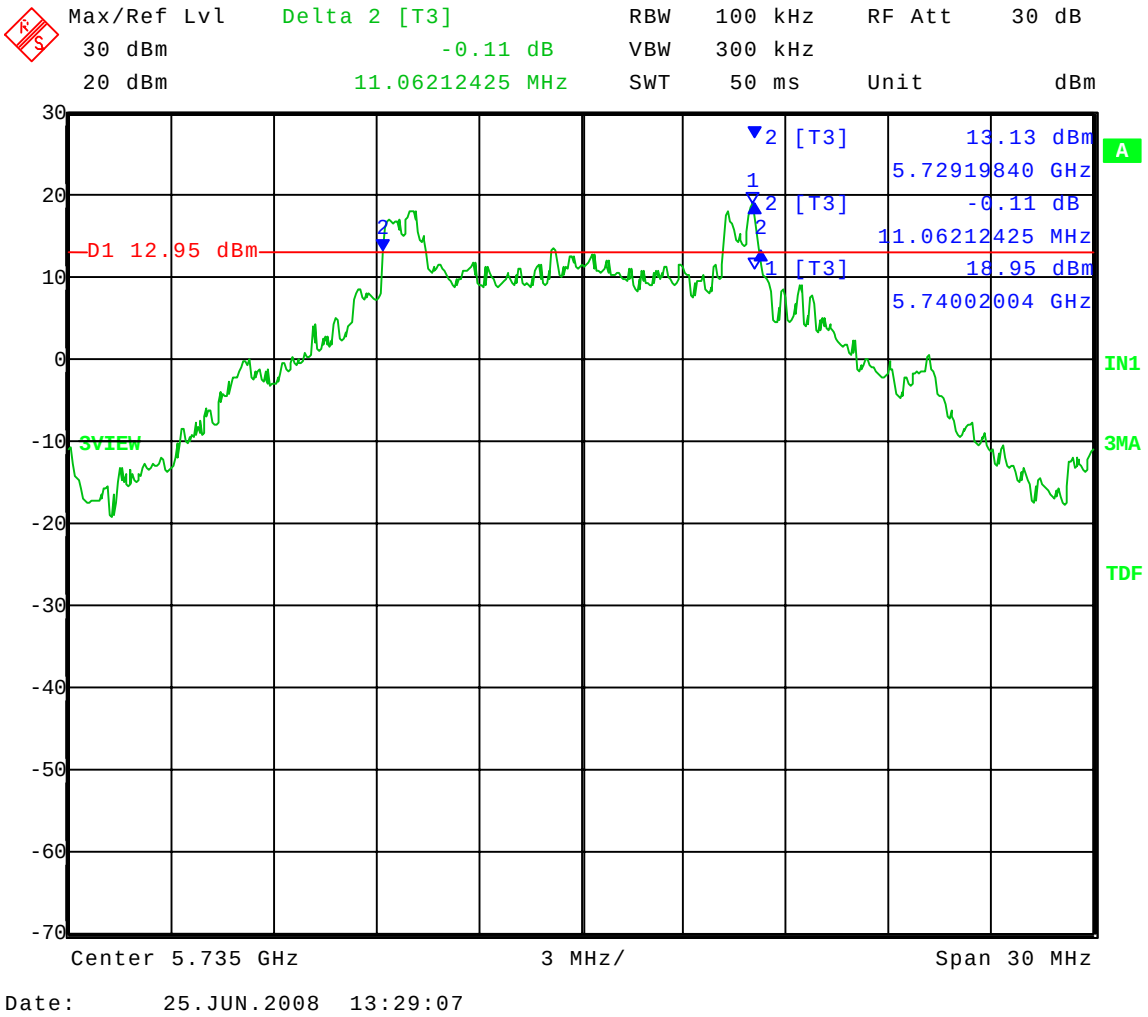


APPENDIX A

Test Date: 06-25-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: 6 dB Bandwidth - Conducted
Operator: Craig B
Comment: Low Channel: Frequency – 5.735 GHz

Modulation: **4-Level**

6 dB Bandwidth = 11.06 MHz

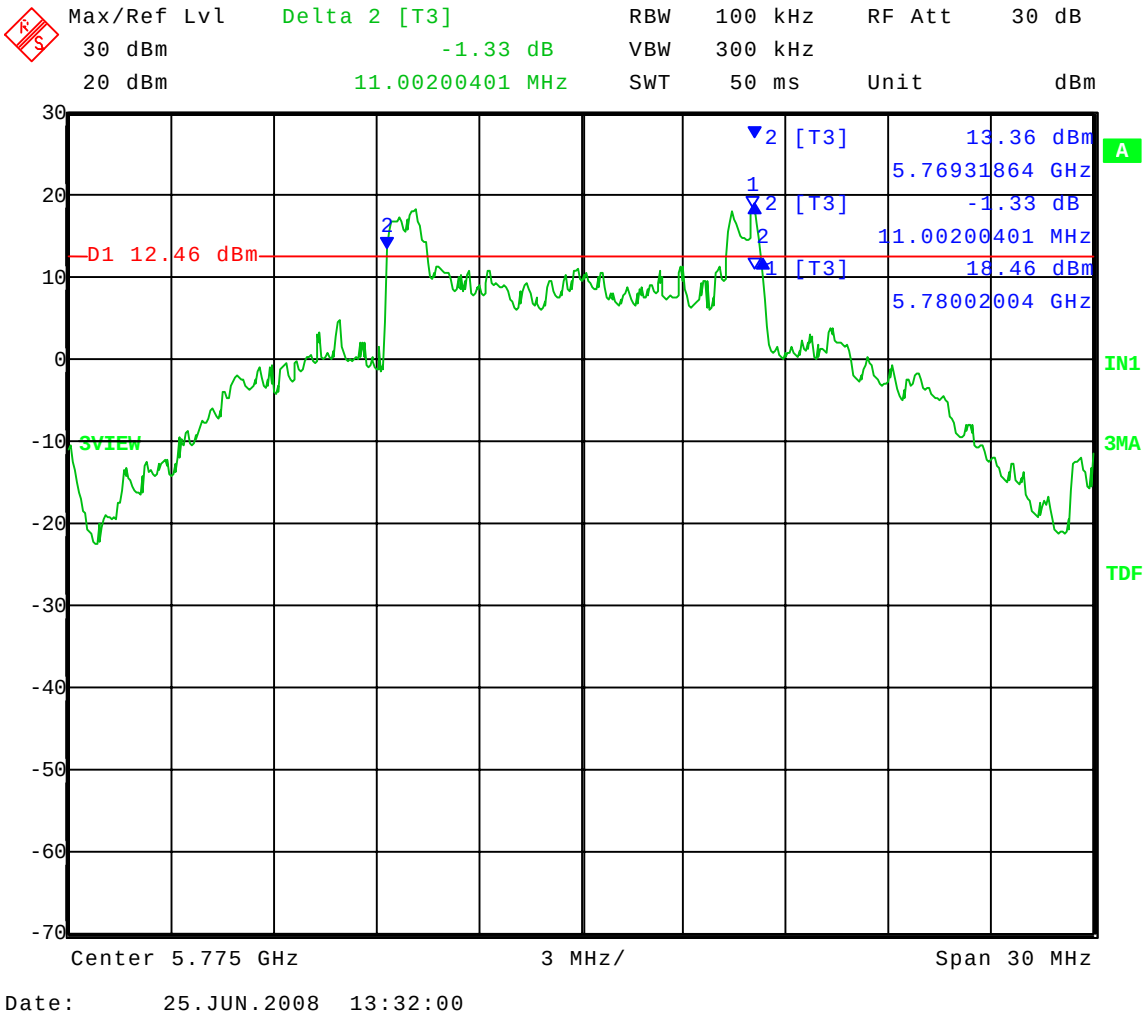


APPENDIX A

Test Date: 06-25-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: 6 dB Bandwidth - Conducted
Operator: Craig B
Comment: Mid Channel: Frequency – 5.775 GHz

Modulation: **2-Level**

6 dB Bandwidth = 11.00 MHz

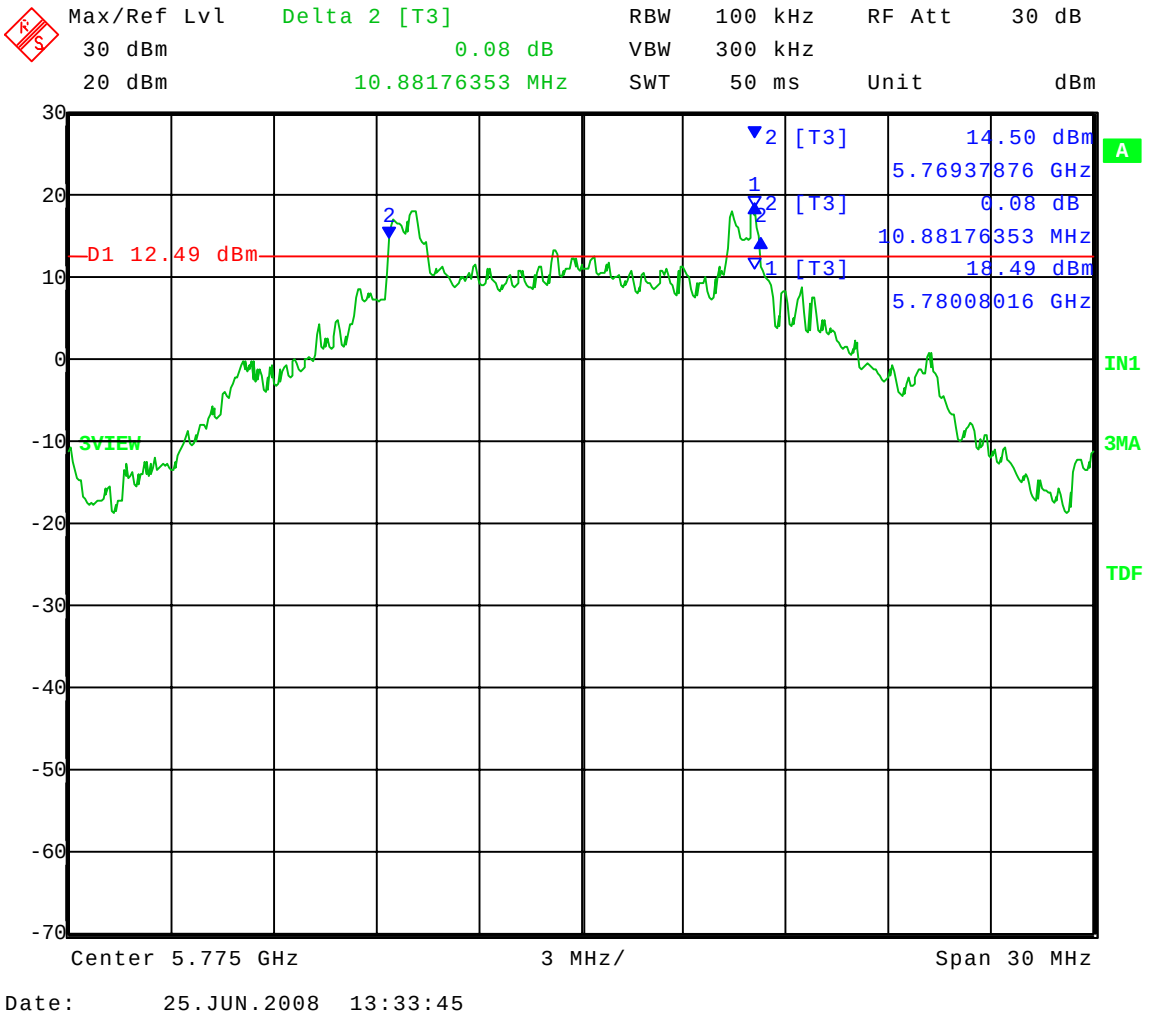


APPENDIX A

Test Date: 06-25-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: 6 dB Bandwidth - Conducted
Operator: Craig B
Comment: Mid Channel: Frequency – 5.775 GHz

Modulation: **4-Level**

6 dB Bandwidth = 10.88 MHz

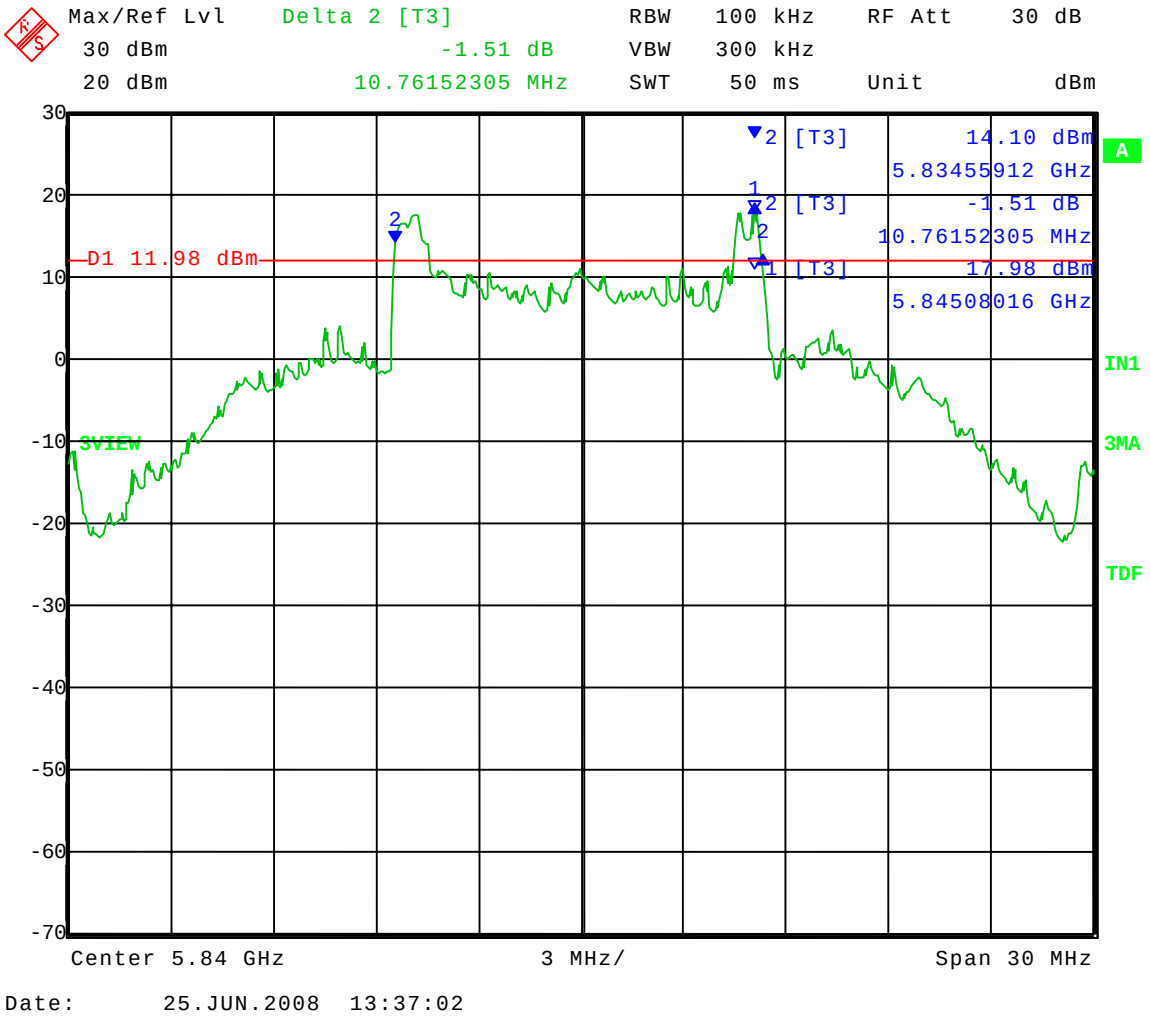


APPENDIX A

Test Date: 06-25-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: 6 dB Bandwidth - Conducted
Operator: Craig B
Comment: High Channel: Frequency – 5.840 GHz

Modulation: **2-Level**

6 dB Bandwidth = 10.76 MHz

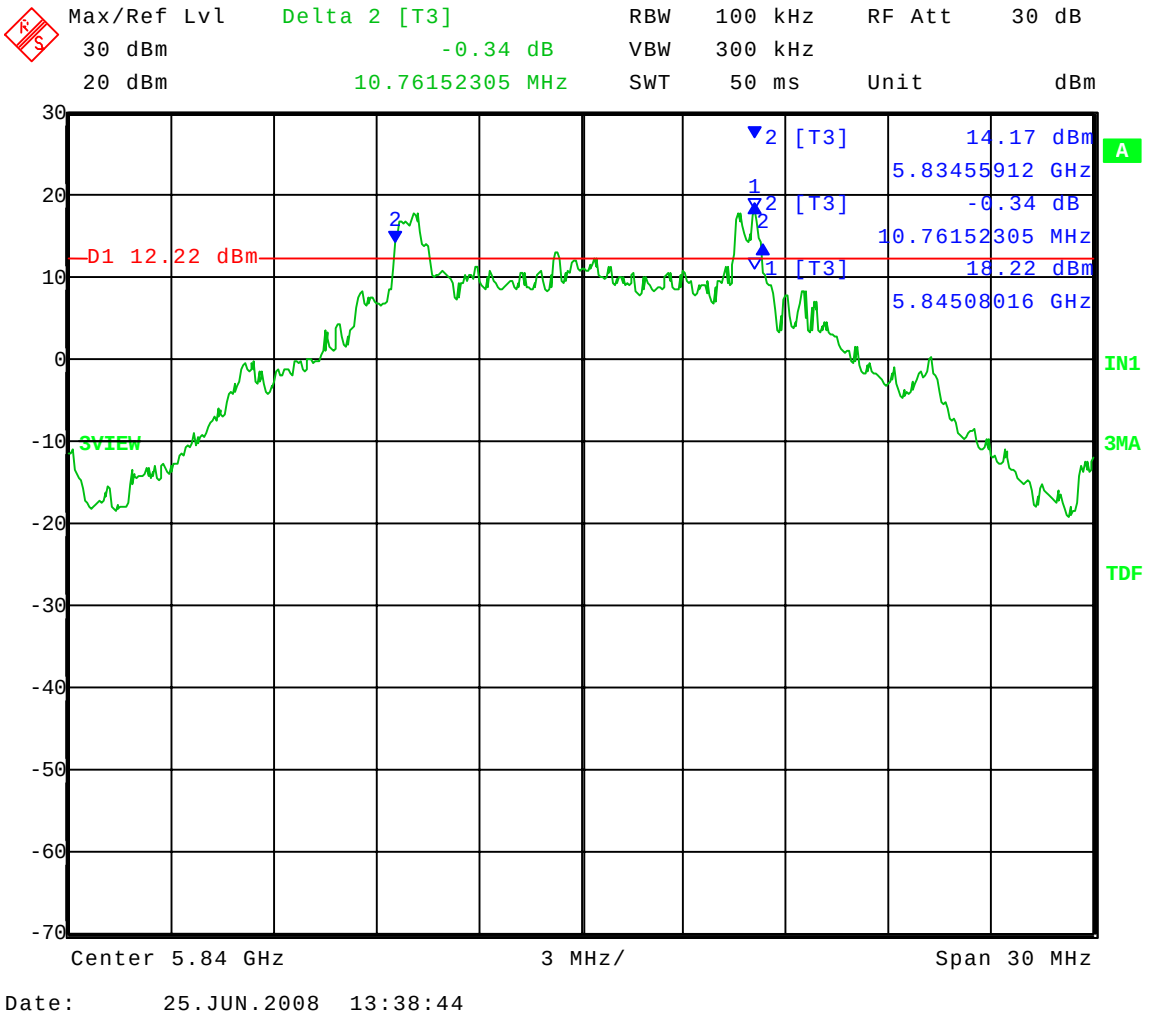


APPENDIX A

Test Date: 06-25-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: 6 dB Bandwidth - Conducted
Operator: Craig B
Comment: High Channel: Frequency – 5.840 GHz

Modulation: **4-Level**

6 dB Bandwidth = 10.76 MHz



APPENDIX A

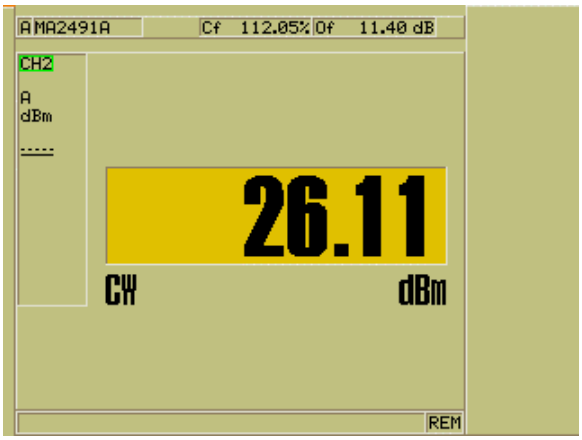
CONDUCTED PEAK OUTPUT POWER GRAPHS

PART 15.247

APPENDIX A

Test Date: 06-25-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Peak Power Output - Conducted
Operator: Craig B
Comment: Low Channel: Frequency – 5.735 GHz

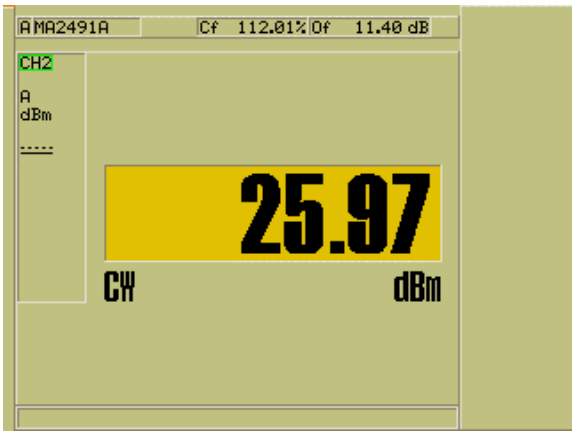
Peak Output Power = 26.11 dBm = **408.3 mW**



APPENDIX A

Test Date: 06-25-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Peak Power Output - Conducted
Operator: Craig B
Comment: Mid Channel: Frequency – 5.775 GHz

Peak Output Power = 25.97 dBm = **395.4 mW**



APPENDIX A

Test Date: 06-25-2008
Company: Motorola
EUT: Canopy DUSAL 5700G
Test: Peak Power Output - Conducted
Operator: Craig B
Comment: High Channel: Frequency – 5.840 GHz

Peak Output Power = 25.83 dBm = **382.8 mW**