



Company: Midmark
Model Tested: 9A42900T
Report Number: 15557

1250 Peterson Dr., Wheeling, IL 60090

FCC Rules and Regulations / Intentional Radiators

Operational in the 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHz, and 24.0-24.25 GHz Bands

Part 15, Subpart C, Section 15.249

THE FOLLOWING MEETS THE ABOVE TEST SPECIFICATION

Formal Name: 625 Wireless Basestation

Kind of Equipment: Transmitter/Receiver

Frequency Range: 30 MHz - 26 GHz

Test Configuration: Connected to the 625 main control board via a LIN network
(Tested at 120 vac, 60 Hz)

Model Number(s): 9A42900T

Model(s) Tested: 9A42900T

Serial Number(s): N/A

Date of Tests: July 27 & 28, 2009

Test Conducted For:
Midmark
60 Vista Drive
Versailles, Ohio 45380

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.

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SIGNATURE PAGE

Report By:

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Test Engineer
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OATS Manager

Approved By:

Brian Mattson
General Manager



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United States Department of Commerce
National Institute of Standards and Technology



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 Communiqué dated 18 June 2005).



2008-10-01 through 2009-09-30

Effective dates

Jeff S. Bruce
For the National Institute of Standards and Technology



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1.0 SUMMARY OF TEST REPORT

It was found that the 625 Wireless Basestation, Model Number(s) 9A42900T **meets** the radio interference radiated emission requirements of the FCC "Rules and Regulations", Part 15, Subpart C, Section 15.249 for operational in the 2400-2483.5 MHz Band.

2.0 INTRODUCTION

On July 27 & 28, 2009, a series of radio frequency interference measurements was performed on 625 Wireless Basestation, Model Number(s) 9A42900T, Serial Number: N/A. 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
FCC Registration Number: 334127

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 15.35(b), 15.37(d), 15.209 & 15.249 for Intentional Radiators operating in the Band 2400-2483.5 MHz.



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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.



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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.



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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.



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

7.1 Description:

Wireless basestation intended to communicate with a remote hand and/or foot pendant.

7.2 PHYSICAL DIMENSIONS OF EQUIPMENT UNDER TEST

Length: 3 x Width: 2 x Height: 1

7.3 LINE FILTER USED:

None

7.4 INTERNAL CLOCK FREQUENCIES:

Switching Power Supply Frequencies:

N/A

Clock Frequencies:

16 MHz

7.5 DESCRIPTION OF ALL CIRCUIT BOARDS:

1. Basestation

PN: 015-2086-00



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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 for testing purpose.

9.0 PHOTO INFORMATION AND TEST SET-UP

Item 0 625 Wireless Basestation

Model Number: 9A42900T; Serial Number: N/A



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10.0 RADIATED PHOTOS TAKEN DURING TESTING



SIDE 1



Company: Midmark
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10.0 RADIATED PHOTOS TAKEN DURING TESTING (CON'T)



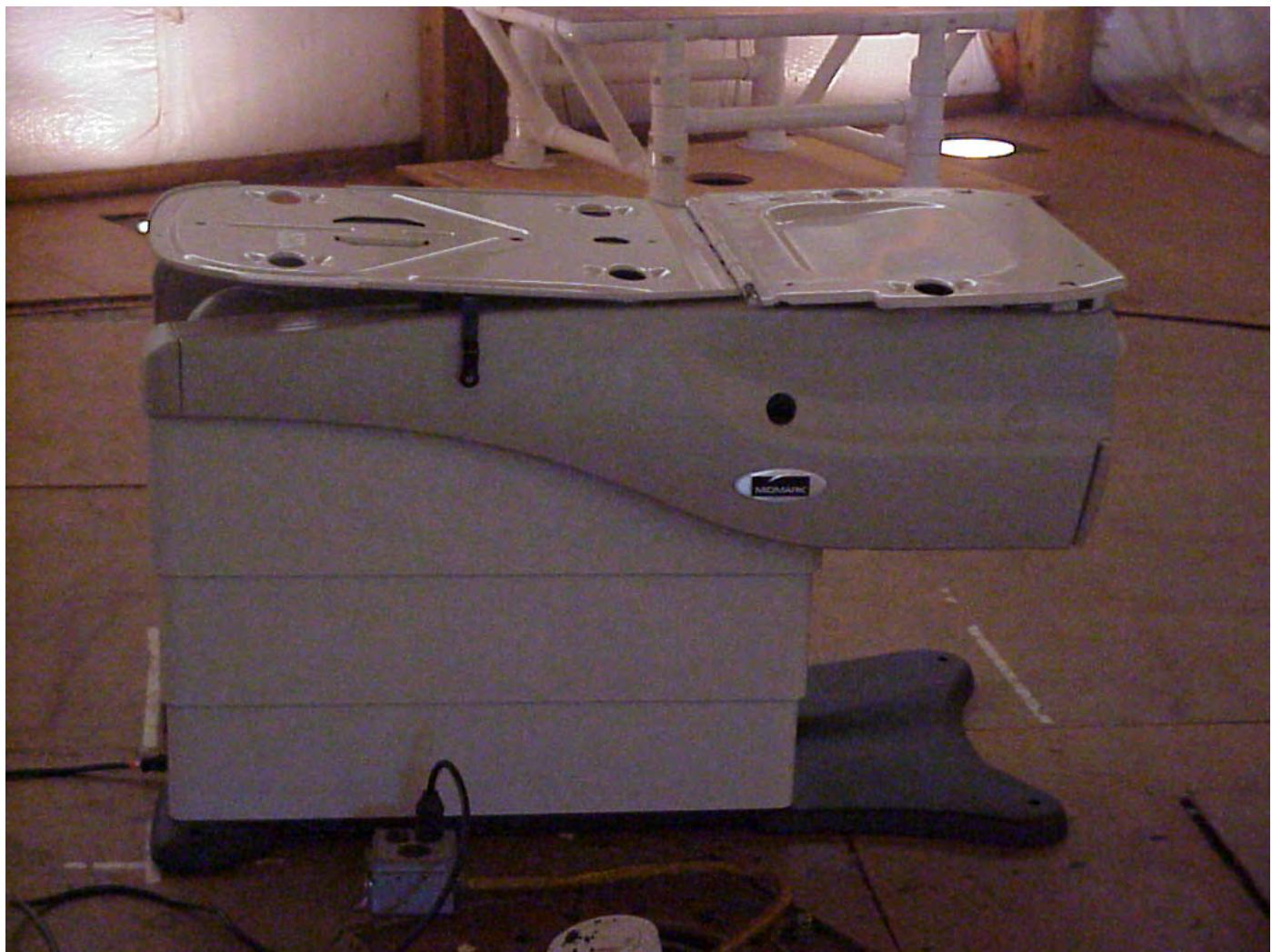
SIDE 2



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10.0 RADIATED PHOTOS TAKEN DURING TESTING (CON'T)



SIDE 3



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10.0 RADIATED PHOTOS TAKEN DURING TESTING (CON'T)



CLOSE-UP OF RADIO BOARD



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10.0 RADIATED PHOTOS TAKEN DURING TESTING (CON'T)



CLOSE-UP OF ANTENNA



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11.0 CONDUCTED PHOTOS TAKEN DURING TESTING





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12.0 CONDUCTED PHOTOS TAKEN DURING TESTING

NOTE:

The conducted emissions test was not required because the 625 Wireless Basestation is powered from a constant regulated voltage to the RF circuitry regardless of supply voltage (see schematic diagrams).

13.0 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.

14.0 CONCLUSION

It was found that the 625 Wireless Basestation, Model Number(s) 9A42900T **meets** the radio interference radiated emission requirements of the FCC "Rules and Regulations", Part 15, Subpart C, Section 15.249 for operational in the 2400-2483.5 MHz Band.



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TABLE 1 – EQUIPMENT LIST

Description	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Due Dates
Receiver	Rohde & Schwarz	ESI 26	837491/010	20 Hz – 26 GHz	12/09
LISN	Solar	9252-50-R-24-BNC	971612	10 kHz – 30 MHz	1/10
Filter- High-Pass	SOLAR	7930-120	090701	120 kHz	2/10
Limiter	Electro-Metrics	EM-7600	705	10 kHz – 30 MHz	1/10
Receiver	Rohde & Schwarz	ESI 40	837808/006	20 Hz – 40 GHz	3/10
Preamplifier	Rohde & Schwarz	TS-PR10	032001/004	9 kHz – 1 GHz	1/10
Antenna	EMCO	3104C	00054892	20 MHz – 200 MHz	4/10
Antenna	EMCO	3146	1205	200 MHz – 1 GHz	4/10
Preamp	Ciao	CA118-4010	101	1GHz-18GHz	1/10
Horn Antenna	EMCO	3115	9502-4451	1-18GHz	4/11
Preamp	Miteq	AMF-8B-180265-40-10P-H/S	438727	18GHz-26GHz	9/09
Horn Antenna	EMCO	3116	2549	18 – 40GHz	8/10

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



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APPENDIX A

TEST PROCEDURE

Part 15, Subpart C, Section 15.249(a)(c)(d)(e)

Operation within the Band 2400-2483.5 MHz



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APPENDIX A

1.0 CONDUCTED EMISSION MEASUREMENTS

Conducted emissions were measured over the frequency range from 150 kHz to 30 MHz in accordance with the power line measurements as specified in FCC Part 15, Subpart C, Section 15.207 & ANSI C63.4-2003. Since the device is operated from the public utility lines, the 120 Vac, 60 Hz power leads, high (hot) and low (neutral) sides, were measured by connecting the measuring equipment to the appropriate meter terminal of the LISN. During the test, the cables were placed and items moved (when appropriate) to maximize emissions. All signals were then recorded. The allowed levels for Intentional Radiators which is designed to connected to the public utility (AC) power line 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

NOTE:

All test measurements were made at a screen room temperature of **68°F** at **63%** relative humidity.



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APPENDIX A

AC POWER LNE CONDUCTED DATA AND GRAPH(S) TAKEN DURING TESTING

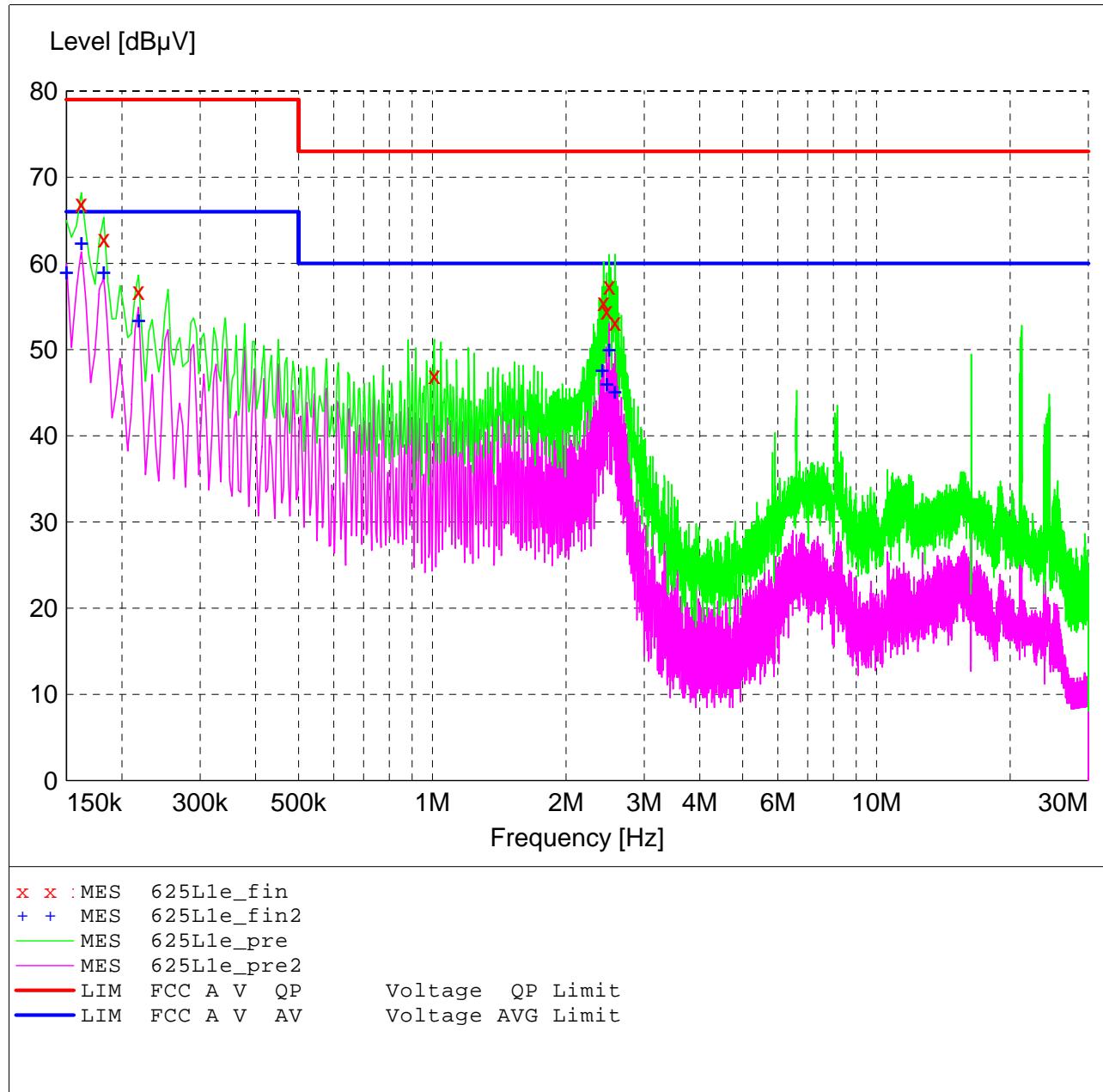
PART 15.207

Voltage Mains Test

EUT: 625 Hi\Lo Exam Table
 Manufacturer: Midmark Corp
 Operating Condition: 68 deg F, 63% R.H.
 Test Site: DLS O.F. Site 2
 Operator: Tim O
 Test Specification: 120 V 60 Hz
 Comment: Line 1 (AC)
 Date: 8-11-2009

SCAN TABLE: "Line Cond.Site2Final"

Line Conducted Emissions						
Start Frequency	Stop Frequency	Step Width	Detector	Meas.	IF Time	Transducer
150.0 kHz	30.0 MHz	4.0 kHz	QuasiPeak	2.0 s	9 kHz	LISN DLS#127
Average						



MEASUREMENT RESULT: "625L1e_fin"

8/11/2009 9:03AM

Frequency MHz	Level dB μ V	Transd dB	Limit dB μ V	Margin dB	Detector	Line	PE
0.162000	67.00	13.8	79	12.0	QP	1	---
0.182000	62.90	13.4	79	16.1	QP	1	---
0.218000	56.80	12.9	79	22.2	QP	1	---
1.010000	47.00	11.2	73	26.0	QP	1	---
2.430000	55.50	11.0	73	17.5	QP	1	---
2.470000	54.50	11.0	73	18.5	QP	1	---
2.502000	57.40	11.0	73	15.6	QP	1	---
2.578000	53.20	11.0	73	19.8	QP	1	---

MEASUREMENT RESULT: "625L1e_fin2"

8/11/2009 9:03AM

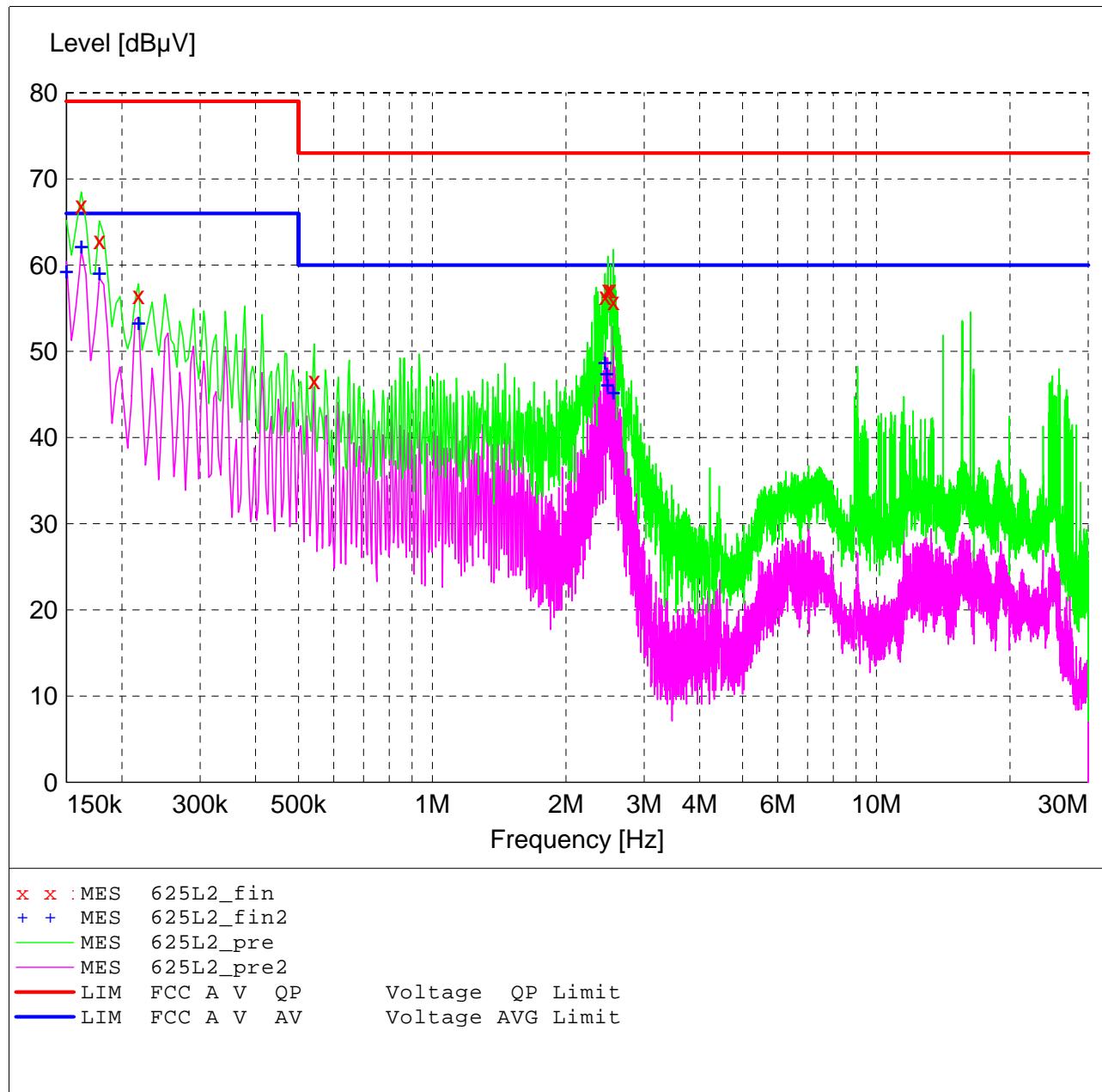
Frequency MHz	Level dB μ V	Transd dB	Limit dB μ V	Margin dB	Detector	Line	PE
0.150000	59.10	14.1	66	6.9	AV	1	---
0.162000	62.50	13.8	66	3.5	AV	1	---
0.182000	59.10	13.4	66	6.9	AV	1	---
0.218000	53.50	12.9	66	12.5	AV	1	---
2.414000	47.70	11.0	60	12.3	AV	1	---
2.470000	46.10	11.0	60	13.9	AV	1	---
2.502000	50.10	11.0	60	9.9	AV	1	---
2.578000	45.20	11.0	60	14.8	AV	1	---

Voltage Mains Test

EUT: 625 Hi\Lo Exam Table
 Manufacturer: Midmark Corp
 Operating Condition: 68 deg F, 63% R.H.
 Test Site: DLS O.F. Site 2
 Operator: Tim O
 Test Specification: 120 V 60 Hz
 Comment: Line 2 (AC)
 Date: 8-11-2009

SCAN TABLE: "Line Cond.Site2Final"

Line Conducted Emissions					
Start Frequency	Stop Frequency	Step Width	Detector	Meas.	IF Transducer
150.0 kHz	30.0 MHz	4.0 kHz	QuasiPeak	2.0 s	9 kHz LISN DLS#127
Average					



MEASUREMENT RESULT: "625L2_fin"

8/11/2009 9:11AM

Frequency MHz	Level dB μ V	Transd dB	Limit dB μ V	Margin dB	Detector	Line	PE
0.162000	67.00	13.8	79	12.0	QP	1	---
0.178000	62.90	13.5	79	16.1	QP	1	---
0.218000	56.50	12.9	79	22.5	QP	1	---
0.542000	46.60	11.6	73	26.4	QP	1	---
2.450000	56.40	11.0	73	16.6	QP	1	---
2.486000	57.20	11.0	73	15.8	QP	1	---
2.522000	57.20	11.0	73	15.8	QP	1	---
2.558000	55.80	11.0	73	17.2	QP	1	---

MEASUREMENT RESULT: "625L2_fin2"

8/11/2009 9:11AM

Frequency MHz	Level dB μ V	Transd dB	Limit dB μ V	Margin dB	Detector	Line	PE
0.150000	59.40	14.1	66	6.6	AV	1	---
0.162000	62.30	13.8	66	3.7	AV	1	---
0.178000	59.20	13.5	66	6.8	AV	1	---
0.218000	53.40	12.9	66	12.6	AV	1	---
2.450000	48.80	11.0	60	11.2	AV	1	---
2.470000	47.50	11.0	60	12.5	AV	1	---
2.482000	46.20	11.0	60	13.8	AV	1	---
2.558000	45.30	11.0	60	14.7	AV	1	---



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APPENDIX A

2.0 BAND EDGE AND RESTRICTED BAND COMPLIANCE

The field strength of any emissions appearing outside the 902 to 928 MHz band shall not exceed the general radiated emissions limits as stated Section 15.209. The fundamental from the 625 Wireless Basestation transmitter shall not be inside the restricted band 960 to 1240 MHz.

As stated in Section 15.205a, the fundamental emission from the 625 Wireless Basestation 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.

See the following page (s) for the graph (s) made showing compliance for Band Edge and Restricted Band: Also see the table of measurements made for the Fundamental, Harmonic and Spurious emissions in paragraph 4 of this section.



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APPENDIX A

20 dB BANDWIDTH

DATA AND GRAPH(S)

PART 15.249



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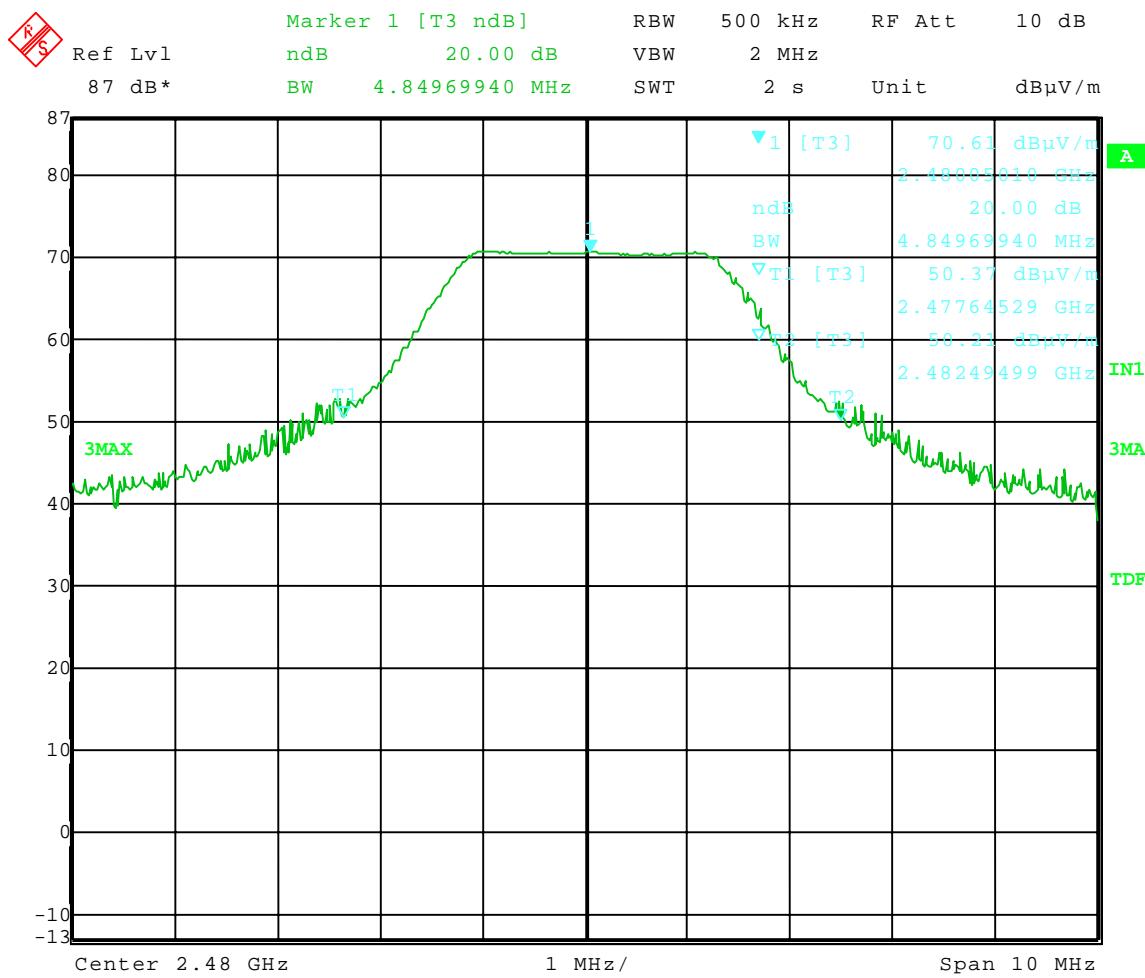
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APPENDIX A

Test Date: 7-28-2009
Company: Midmark Corporation
EUT: 625 Hi\Lo Exam Table
Test: 20 dB Bandwidth – Radiated (15.249)
Operator: Adam A
Comment: **2.480 GHz** Transmit Frequency

20 dB Bandwidth = 4.85 MHz

The lower, mid and upper frequencies are identical



Date: 28.JUL.2009 19:15:17



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APPENDIX A

BAND EDGE

DATA AND GRAPH(S)

PART 15.249



Company: Midmark
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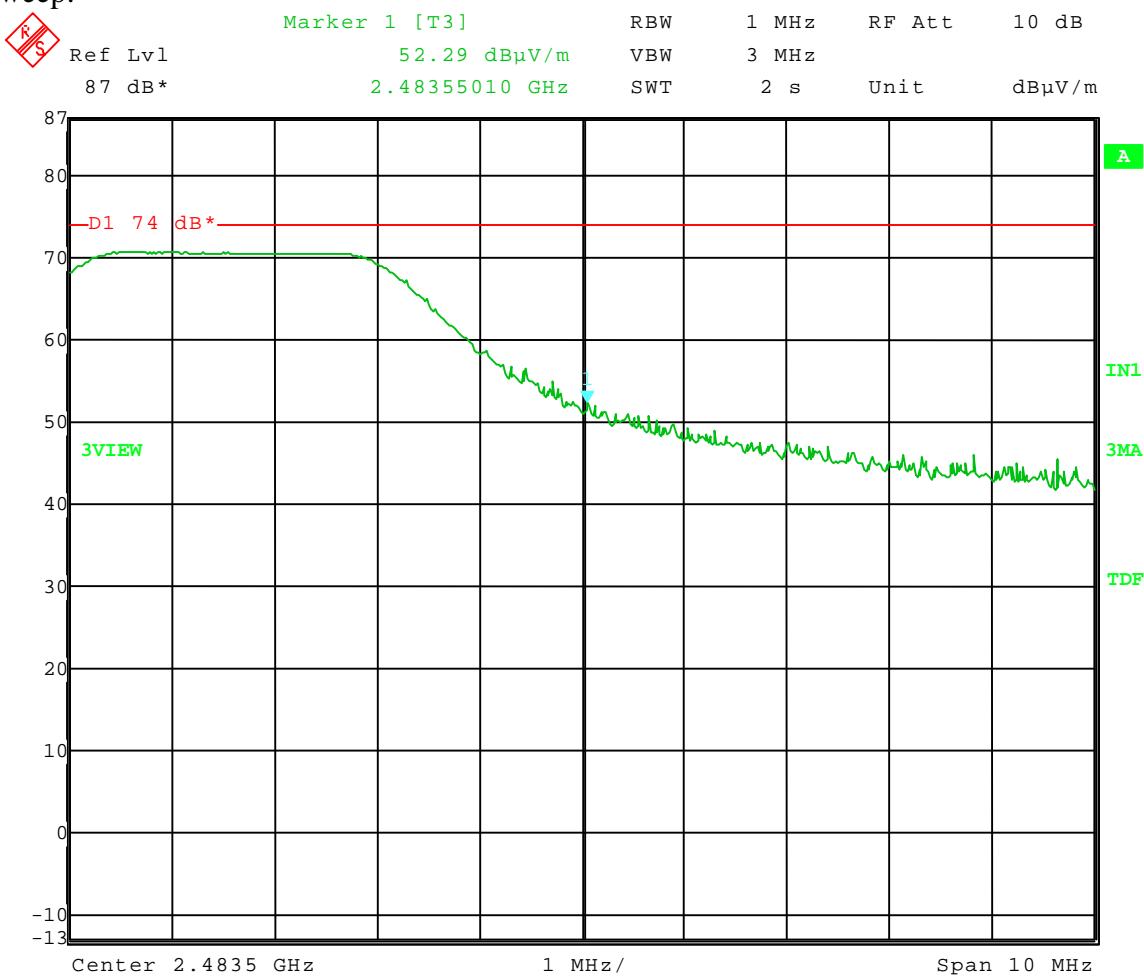
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 7-28-2009
Company: Midmark Corporation
EUT: 625 Hi\Lo Exam Table
Test: Band edge 2.4835 GHz
Operator: Adam A

Comment: 2.480 GHz Transmit Frequency. Restricted bands = 2483.5 MHz to 2500 MHz
Comment: Peak Detector

100 ms sweep:



Date: 28.JUL.2009 19:10:43



Company: Midmark
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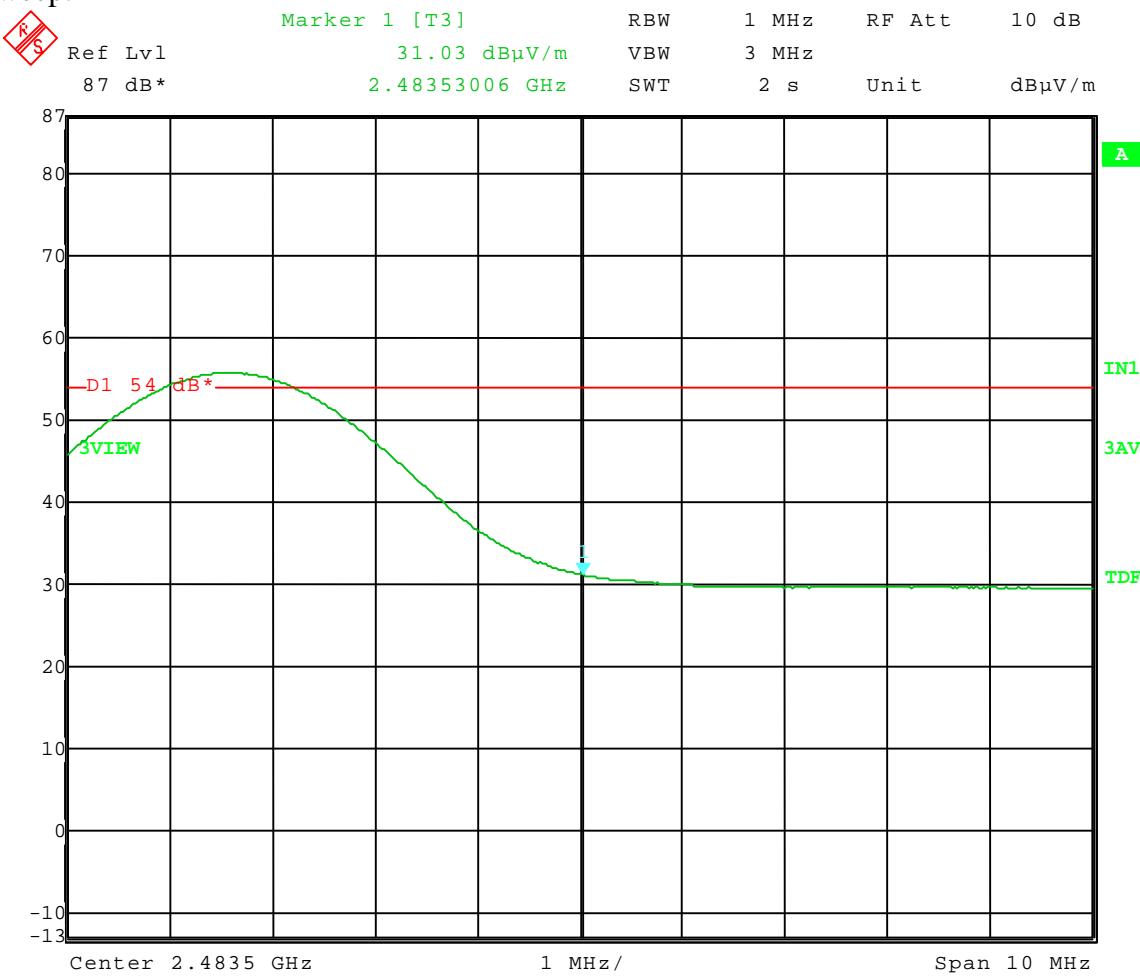
1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

Test Date: 7-28-2009
Company: Midmark Corporation
EUT: 625 Hi\Lo Exam Table
Test: Band edge 2.4835 GHz
Operator: Adam A

Comment: 2.480 GHz Transmit Frequency
Comment: Average Detector

100 ms sweep:





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APPENDIX A

3.0 ANTENNA CONNECTOR – 15.203

As stated in 15.203 the 625 Wireless Basestation was designed to ensure that no antenna other than that furnished by Midmark will be used with the EUT. The use of a permanently attached antenna or antenna that uses an unique coupling to the intentional radiator was considered to comply with section 15.203.

NOTE:

MMCX connector was used for testing only.

4.0 FIELD STRENGTH OF SPURIOUS EMISSION MEASUREMENTS (SECTION 15.249a-d)

The radiated measurements made at D.L.S. Electronic Systems, Inc., for the 625 Wireless Basestation, Model Number: 9A42900T, 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 625 Wireless Basestation were made up to 26000 MHz, in accordance with Section 15.33a for Intentional Radiators with a fundamental frequency of 2405 - 2480 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 26 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 15.249 at the open field test site, located at Genoa City, Wisconsin, FCC file number **31040/SIT**. When required, levels were extrapolated from 10 meters to 3 meters using a linear extrapolation.

All signals in the frequency range of 30 MHz to 200 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 26 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.



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Model Tested: 9A42900T
Report Number: 15557

1250 Peterson Dr., Wheeling, IL 60090

APPENDIX A

4.0 FIELD STRENGTH OF SPURIOUS EMISSION MEASUREMENTS (CON'T)

For operation in the band 2400 to 2483.5 MHz the field strength of any emissions within this band shall not exceed the field strength levels specified in the following table as stated in FCC, Part 15, Section 15.249(a).

Frequency range in MHz	Field Strength of Fundamental millivolts/meter	Field Strength of Fundamental dBuV/meter	Field Strength of Harmonics microvolts/meter	Field Strength of Harmonics dBuV/meter
902 to 928	50	93.98	500	53.98
2400 to 2483.5	50	93.98	500	53.98
5725 to 5875	50	93.98	500	53.98
24000 to 24250	250	107.96	2500	67.96

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 26000 MHz was automatically scanned and plotted at various angles.

NOTE:

All radiated emissions measurements were made at a test room temperature of 70°F at 56% relative humidity.



Company: Midmark
Model Tested: 9A42900T
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APPENDIX A

RADIATED DATA TAKEN FOR FUNDAMENTAL, HARMONIC & SPURIOUS EMISSIONS MEASUREMENTS

PART 15.249



1250 Peterson Dr., Wheeling, IL 60090

Company: Midmark
Model Tested: 9A42900T
Report Number: 15557

Radiated Fundamental and Spurious Emissions – 30 MHz to 26 GHz

30 MHz – 18 GHz Tested at a 3 Meter Distance
18 – 26 GHz Tested at a 1 Meter Distance

EUT: 625 Hi\Lo Exam Table
Manufacturer: Midmark Corporation
Operating Condition: 70 deg F; 56% R.H.
Test Site: Site 2
Operator: Adam A
Test Specification: FCC Part 15.249 and FCC Part 15.205
Comment: Continuous transmit – **Low channel: 2405 MHz**
Date: 7/27/2009

Note: All other emissions at least 20 dB under the limit(s).

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dBuV/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
2.405	Max Peak	Vert	80.0	28.53	-38.0	70.53	---	70.53	114	43.5	Fundamental
2.405	Average	Vert	80.0	28.53	-38.0	70.53	13.62	56.91	94	37.1	Fundamental
2.405	Max Peak	Horz	79.41	28.53	-38.0	69.94	---	69.94	114	44.1	Fundamental
2.405	Average	Horz	79.41	28.53	-38.0	69.94	13.62	56.32	94	37.7	Fundamental



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Company: Midmark
Model Tested: 9A42900T
Report Number: 15557

Radiated Fundamental and Spurious Emissions – 30 MHz to 26 GHz

30 MHz – 18 GHz Tested at a 3 Meter Distance
18 – 26 GHz Tested at a 1 Meter Distance

EUT: 625 Hi\Lo Exam Table
Manufacturer: Midmark Corporation
Operating Condition: 70 deg F; 56% R.H.
Test Site: Site 2
Operator: Adam A
Test Specification: FCC Part 15.249 and FCC Part 15.205
Comment: Continuous transmit – **Mid channel: 2445 MHz**
Date: 7/27/2009

Note: All other emissions at least 20 dB under the limit.

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dBuV/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
2.445	Max Peak	Vert	79.53	28.62	-38	70.15	---	70.15	114	43.9	Fundamental
2.445	Average	Vert	79.53	28.62	-38	70.15	13.62	56.53	94	37.5	Fundamental
2.445	Max Peak	Horz	76.51	28.62	-38	67.13	---	67.13	114	46.9	Fundamental
2.445	Average	Horz	76.51	28.62	-38	67.13	13.62	53.51	94	40.5	Fundamental



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Company: Midmark
Model Tested: 9A42900T
Report Number: 15557

Radiated Fundamental and Spurious Emissions – 30 MHz to 26 GHz

30 MHz – 18 GHz Tested at a 3 Meter Distance
18 – 26 GHz Tested at a 1 Meter Distance

EUT: 625 Hi\Lo Exam Table
Manufacturer: Midmark Corporation
Operating Condition: 70 deg F; 56% R.H.
Test Site: Site 2
Operator: Adam A
Test Specification: FCC Part 15.249 and FCC Part 15.205
Comment: Continuous transmit – **High channel: 2480 MHz**
Date: 7/27/2009

Note: All other emissions at least 20 dB under the limit.

Frequency (GHz)	Measurement Type	Ant. Pol.	Level (dBuV)	Antenna Factor (dBuV/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comment
2.480	Max Peak	Vert	79.95	28.69	-38.0	70.64	---	70.64	114	43.4	Fundamental
2.480	Average	Vert	79.95	28.69	-38.0	70.64	13.62	57.02	94	37.0	Fundamental
2.480	Max Peak	Horz	76.7	28.69	-38.0	67.39	---	67.39	114	46.6	Fundamental
2.480	Average	Horz	76.7	28.69	-38.0	67.39	13.62	53.77	94	40.2	Fundamental



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Company: Midmark
Model Tested: 9A42900T
Report Number: 15557

TRANSMITTER DUTY CYCLE GRAPHS

PART 15.35(c)



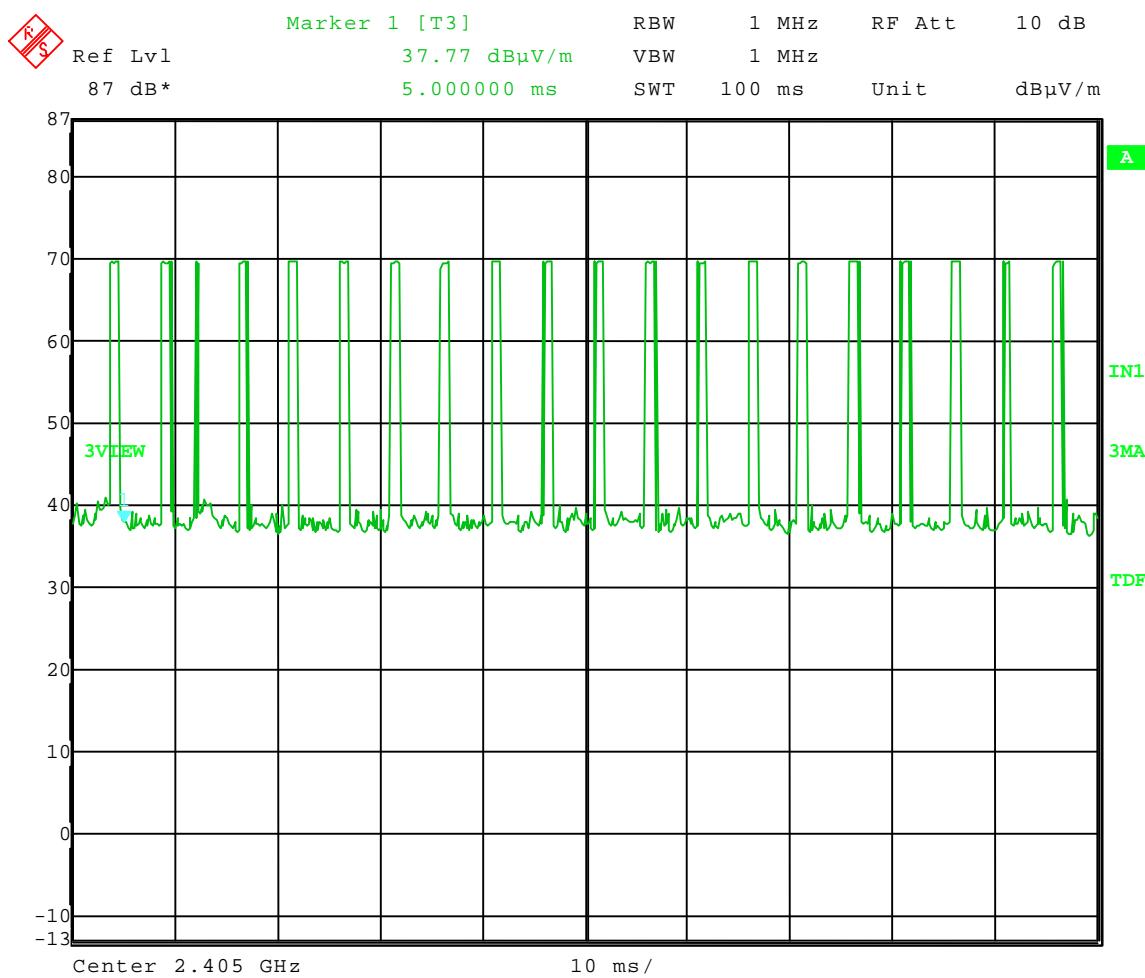
1250 Peterson Dr., Wheeling, IL 60090

Company: Midmark
Model Tested: 9A42900T
Report Number: 15557

Test Date: 7-27-2009
Company: Midmark Corporation
EUT: 625 Hi\Lo Exam Table
Test: Duty Cycle – continuous transmit (FCC Part 15.249)
Operator: Adam A

Comment: 20 pulses at 1.042 ms = 20.84ms
Duty Cycle Correction: $20\log(20.84/100) = -13.62$
Duty Cycle Correction factor: 13.62 dB

100 ms sweep:



Date: 27.JUL.2009 16:04:13



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Company: Midmark
Model Tested: 9A42900T
Report Number: 15557

Test Date: 7-27-2009
Company: Midmark Corporation
EUT: 625 Hi\Lo Exam Table
Test: Duty Cycle – continuous transmit (FCC Part 15.249)
Operator: Adam A

Comment: 20 pulses at 1.042 ms = 20.84ms
Duty Cycle Correction: $20\log(20.84/100) = -13.62$
Duty Cycle Correction factor: 13.62 dB

Duration of one pulse:

