



Company: Saris Cycling Group Inc
Model Tested: SL2.4
Report Number: 14638

1250 Peterson Dr., Wheeling, IL 60090

LOW-POWER LICENCE-EXEMPT RADIO COMMUNICATION DEVICES
(ALL FREQUENCY BANDS: CATEGORY I EQUIPMENT)

RADIO STANDARDS SPECIFICATION
RSS-210, ISSUE 7
JUNE, 2007

THE FOLLOWING **MEETS** THE ABOVE TEST SPECIFICATION

Formal Name: PowerTap SL2.4
Kind of Equipment: RF Module in 2 host units
Test Configuration: two parts system; bicycle hub and user display (CPU)
Model Number(s): SL2.4
Model(s) Tested: SL2.4
Serial Number(s): 51739
Date of Tests: August 14, 20 & 21, 2008
Test Conducted For: Saris Cycling Group Inc
5253 Verona Road
Madison, Wisconsin 53711

NOTICE: "This test report relates only to the items tested and 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.

© Copyright 1983- 2008 D.L.S. Electronic Systems, Inc

COPYRIGHT NOTICE

This report or any portion thereof, may not be reproduced or modified in any form without the expressed written consent of D.L.S. Electronic Systems, Inc.



Company: Saris Cycling Group Inc
Model Tested: SL2.4
Report Number: 14638

1250 Peterson Dr., Wheeling, IL 60090

SIGNATURE PAGE

Report By:

Arnom C. Rowe
Test Engineer
EMC-001375-NE

Reviewed By:

William Stumpf
OATS Manager

Approved By:

Brian Mattson
General Manager



Company: Saris Cycling Group Inc
Model Tested: SL2.4
Report Number: 14638

1250 Peterson Dr., Wheeling, IL 60090

TABLE OF CONTENTS

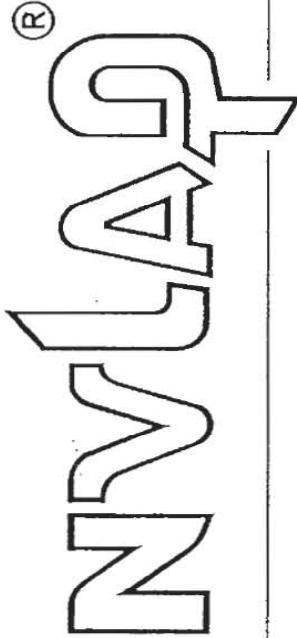
i.	Cover Page	1
ii.	Signature Page	2
iii.	Table of Contents	3
iv.	NVLAP Certificate of Accreditation	4
1.0	Summary of Test Report	5
2.0	Introduction	5
3.0	Test Facility	5
4.0	Test Equipment	5
5.0	Conducted Emission Measurements	6
6.0	Radiated Emission Measurements	6
7.0	Description of Test Sample	7
8.0	Modifications made to EUT for EMC Compliance	8
9.0	Results of Tests	8
10.0	Conclusion	8
11.0	Photo Information and Test Set-Up	8
12.0	Radiated Photos Taken During Testing	9
	TABLE 1 – EQUIPMENT LIST	10
	APPENDIX A: Radiated Data and Charts Taken During Testing	11



Company: Saris Cycling Group Inc
 Model Tested: SL2.4
 Report Number: 14638

1250 Peterson Dr., Wheeling, IL 60090

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-IAC-IAF Communiqué dated 18 June 2005).

2007-10-01 through 2008-09-30

Effective dates



Dolly S. Buse
 For the National Institute of Standards and Technology



Company: Saris Cycling Group Inc
Model Tested: SL2.4
Report Number: 14638

1250 Peterson Dr., Wheeling, IL 60090

1.0 SUMMARY OF TEST REPORT

It was found that the PowerTap SL2.4, Model Number(s) SL2.4 **meets** the radio interference radiated emission requirements of RSS-210 Issue 7, June, 2007. The Power Line Conducted emissions test was not required because the PowerTap SL2.4 is powered from a D.C. power source. It does not have a line cord to plug into the A.C. power line.

2.0 INTRODUCTION

On August 14, 20 & 21, 2008, a series of radio frequency interference measurements was performed on PowerTap SL2.4, Model Number(s) SL2.4, Serial Number: 51739. The tests were performed in conformance with RSS-210, Issue 7, June, 2007. Tests were completed by personnel of D.L.S. Electronic Systems, Inc. who are responsible to Donald L. Sweeney, Senior EMC Engineer.

3.0 TEST FACILITY

All emissions were performed at D.L.S. Electronic Systems, Inc. at an open field test site located at Genoa City, Wisconsin, Industry Canada File Number: IC 2060A-1 (Site #1), IC 2060A-2 (Site #2), & IC 2060A-3 (Site #3).

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.

4.0 TEST EQUIPMENT (Bandwidths and Detector Function)

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.



Company: Saris Cycling Group Inc
Model Tested: SL2.4
Report Number: 14638

1250 Peterson Dr., Wheeling, IL 60090

5.0 CONDUCTED EMISSION MEASUREMENTS

The PowerTap SL2.4 is powered from a D.C. power source and will not at any time be directly plugged into the public utility lines, therefore the Power Line Conducted emissions test was not performed.

6.0 RADIATED EMISSION MEASUREMENTS

Radiated emissions were measured in accordance with RSS-310, Issue 2. Plots and tabular data can be viewed in Appendix B or the Annexes at the end of this test report.

NOTE:

The PowerTap SL2.4 measurements were made up to 13000 MHz, since the fundamental frequency is 2453 MHz.



Company: Saris Cycling Group Inc
Model Tested: SL2.4
Report Number: 14638

1250 Peterson Dr., Wheeling, IL 60090

7.0 DESCRIPTION OF TEST SAMPLE: (See also Paragraph 6.0)

7.1 Description:

The PowerTap SL2.4 system is installed in any bicycle; the rear hub (or wheel) of the bicycle is replaced with the SL2.4 hub and the CPU mounts on the handle bars.

The hub measures parameters of the rear wheel; torque, wheel speed, rider cadence. The hub calculates power in watts and transmits the information at a predetermined periodic rate. The CPU receives the hub transmission and displays the information to the user real time.

The CPU calculates some parameters from the hub transmission; speed in MPH, distance, ride time etc.

7.2 PHYSICAL DIMENSIONS OF EQUIPMENT UNDER TEST

SL2.4 length = 141mm x 70mm flange diameter

7.3 LINE FILTER USED:

none - batteries only

7.4 INTERNAL CLOCK FREQUENCIES:

0.03125, 0.032768, 1.000, 4.000, 16.000 MHz

7.5 DESCRIPTION OF ALL CIRCUIT BOARDS:

SL2.4 electronics; main circuit board	16748 revision E
SL2.4 electronics; RF circuit board	16776 revision 1



Company: Saris Cycling Group Inc
Model Tested: SL2.4
Report Number: 14638

1250 Peterson Dr., Wheeling, IL 60090

8.0 MODIFICATIONS MADE TO EUT FOR EMC COMPLIANCE:

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

NOTE:

Continuous Transmit.
Continuous Receive.

9.0 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.

10.0 CONCLUSION

It was found that the PowerTap SL2.4, Model Number(s) SL2.4 **meets** the radio interference radiated emission requirements of RSS-210 Issue 7, June, 2007. The Power Line Conducted emissions test was not required because the PowerTap SL2.4 is powered from a D.C. power source. It does not have a line cord to plug into the A.C. power line.

11.0 PHOTO INFORMATION AND TEST SET-UP

Item 0 PowerTap SL2.4

Model Number: SL2.4; Serial Number: 51739



Company: Saris Cycling Group Inc
Model Tested: SL2.4
Report Number: 14638

1250 Peterson Dr., Wheeling, IL 60090

12.0 RADIATED EMISSIONS PHOTOS TAKEN DURING TESTING



HUB SETUP



Company: Saris Cycling Group Inc
 Model Tested: SL2.4
 Report Number: 14638

1250 Peterson Dr., Wheeling, IL 60090

TABLE 1 – EQUIPMENT LIST

Test Equipment	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Due Dates
Receiver, RF, Tuned	Rohde & Schwarz	ESI 40	837808/006	20Hz-40GHz	3/24/2009
Preamp, RF	Miteq	AMF-6D-100200-50	313936	1-10GHz	5/8/2009
Preamp, RF	Miteq	AMF-6D-010100-50	213976	10-18GHz	5/8/2009
Preamp	Miteq	AMF-8B-180265-40-10P-H/S	NA	18-26GHz	9/18/2008
Preamp, RF	Rohde & Schwarz	TS-PR10	032001/005		3/10/2009
RF 20dB Fixed Attenuator	Aeroflex/weinschel	75A-20-12	1071		7/28/2009
Biconical Antenna	EMCO	3104C	9701-4785	20-220MHz	4/21/2009
Log Periodic Antenna,	EMCO	3146	9702-4895	200MHz-1GHz	4/21/2009
Horn Antenna	EMCO	3115	9903-5731	1-18GHz	6/12/2009
Horn Antenna	EMCO	3116	2549	18-40GHz	6/12/2009
High Pass Filter	Q Microwave, Inc.	100462	1		5/8/2009

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



1250 Peterson Dr., Wheeling, IL 60090

Company: Saris Cycling Group Inc
Model Tested: SL2.4
Report Number: 14638

APPENDIX A

RADIATED DATA

AND

CHARTS TAKEN DURING TESTING

FCC Part 15 Class B & RSS-210

Electric Field Strength

EUT: SL2.4
Manufacturer: Saris CycleOps
Operating Condition: 72 deg. F; 65% R.H.
Test Site: DLS O.F. Site 3
Operator: Adam A
Test Specification:
Comment: Receive Mode 2.453 & 2.457GHz
Date: 08-14-2008

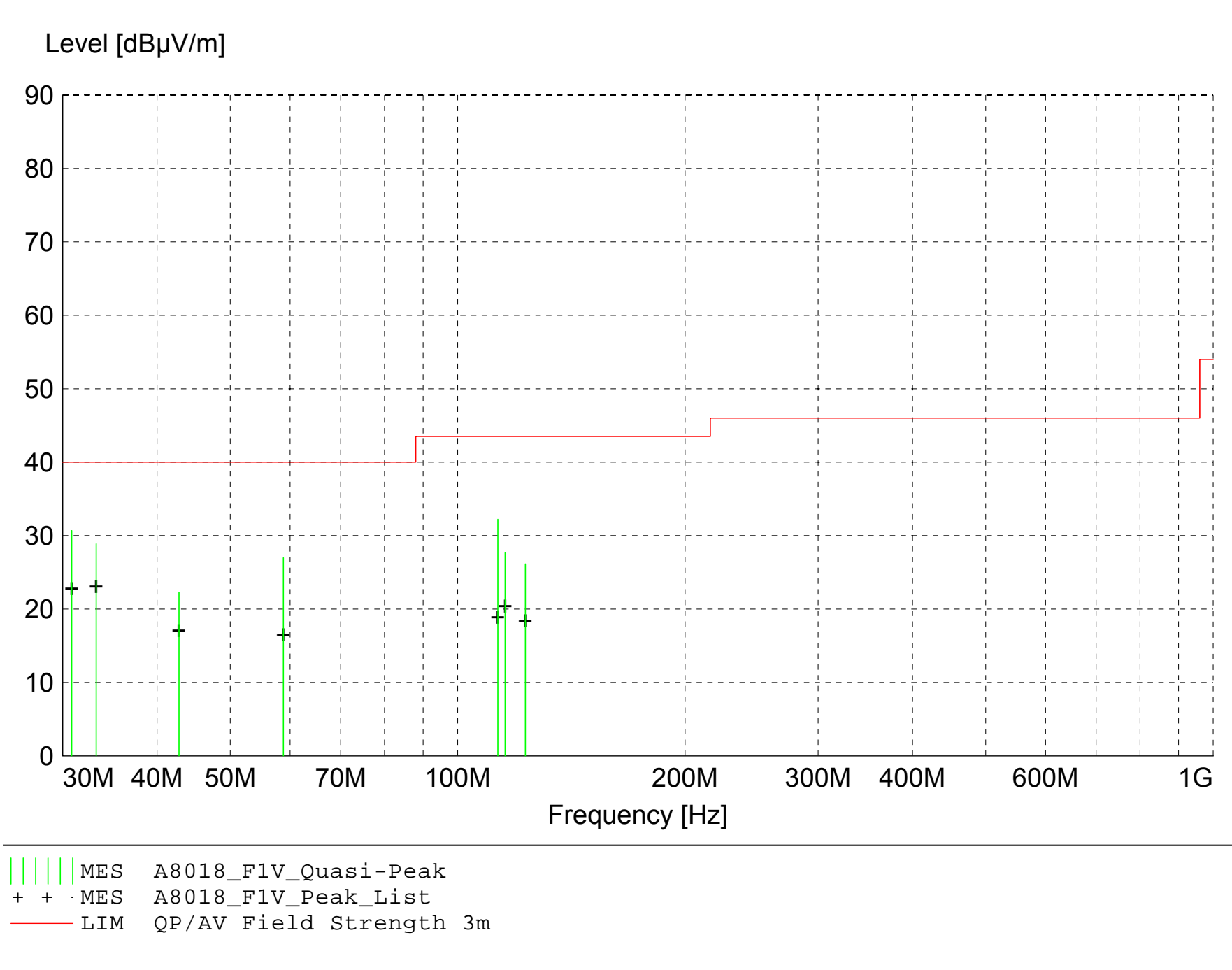
TEXT: "Site 3 MidV 3M"

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



MEASUREMENT RESULT: "A8018_F1V_Final"

8/14/2008 2:11PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBµV	Factor	Loss	Level	dBµV/m	dB	Ant.	Angle	Detector	
		dBµV/m	dB	dBµV/m	dBµV/m		m	deg		
30.840000	39.43	15.17	-24.9	29.7	40.0	10.3	1.00	80	QUASI-PEAK	None
33.240000	38.28	15.43	-24.8	28.9	40.0	11.1	1.00	105	QUASI-PEAK	None
113.040000	38.45	17.27	-23.5	32.2	43.5	11.3	1.00	90	QUASI-PEAK	None
58.800000	36.25	15.06	-24.3	27.0	40.0	13.0	1.00	15	QUASI-PEAK	None
115.560000	33.74	17.40	-23.5	27.7	43.5	15.8	1.00	15	QUASI-PEAK	None
122.940000	32.13	17.43	-23.4	26.1	43.5	17.4	1.00	15	QUASI-PEAK	None
42.780000	30.72	16.14	-24.6	22.3	40.0	17.7	1.00	345	QUASI-PEAK	None

FCC Part 15 Class B & RSS-210

Electric Field Strength

EUT: SL2.4
Manufacturer: Saris CycleOps
Operating Condition: 72 deg. F; 65% R.H.
Test Site: DLS O.F. Site 3
Operator: Adam A
Test Specification:
Comment: Receive Mode 2.453 & 2.457GHz
Date: 08-14-2008

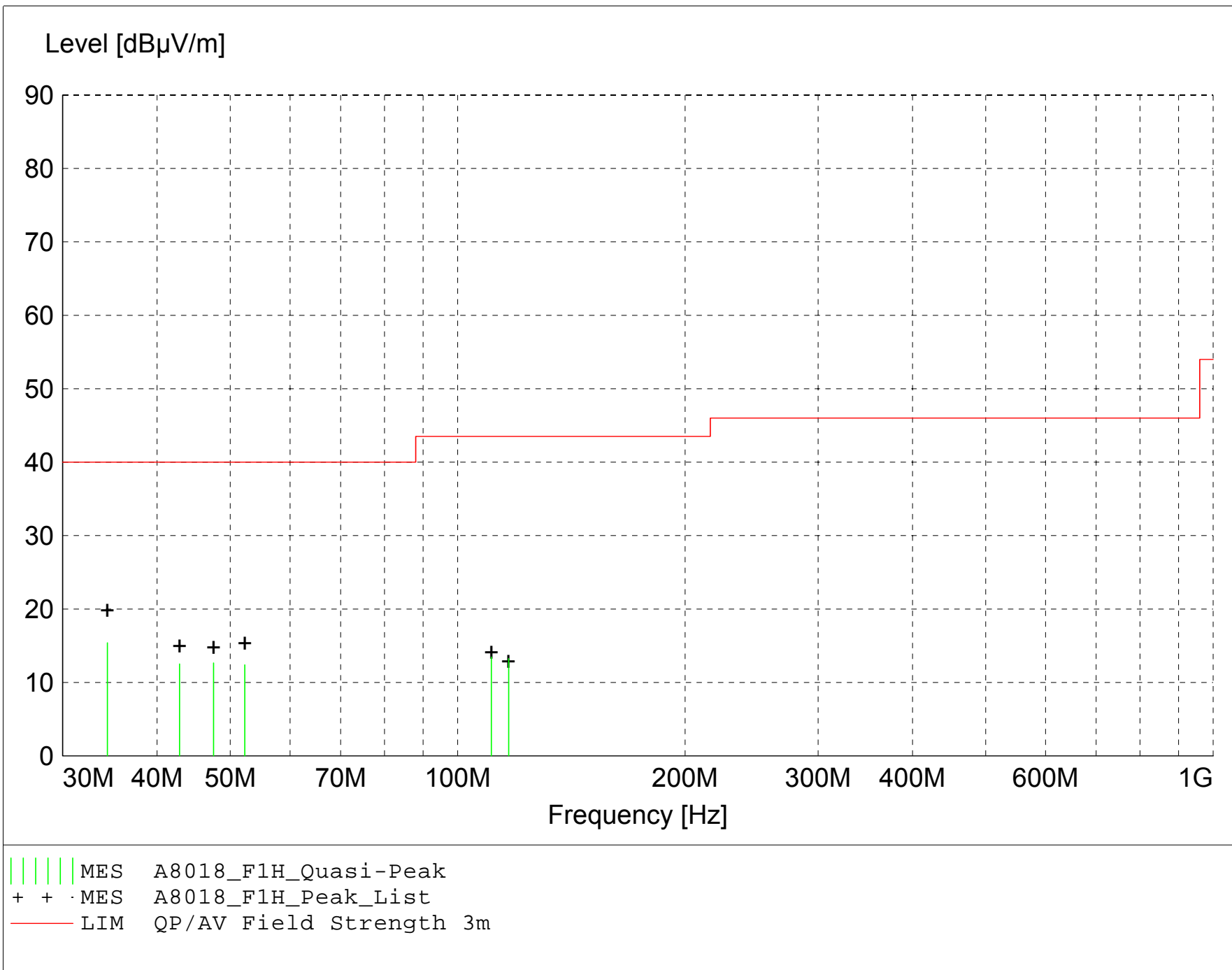
TEXT: "Site 3 MidH 3M"

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



MEASUREMENT RESULT: "A8018_F1H_Final"

8/14/2008 2:12PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBµV	Factor	Loss	Level	dBµV/m	dB	Ant.	Angle	Detector	
		dBµV/m	dB	dBµV/m	dBµV/m		m	deg		
34.380000	24.93	15.24	-24.8	15.4	40.0	24.6	3.00	0	QUASI-PEAK	Noise Floor
47.520000	20.75	16.40	-24.5	12.7	40.0	27.3	3.00	0	QUASI-PEAK	Noise Floor
42.840000	20.97	16.16	-24.6	12.5	40.0	27.5	3.00	0	QUASI-PEAK	Noise Floor
52.260000	20.76	16.03	-24.4	12.4	40.0	27.6	3.00	0	QUASI-PEAK	Noise Floor
110.820000	19.61	17.36	-23.5	13.5	43.5	30.0	3.00	0	QUASI-PEAK	Noise Floor
116.820000	19.41	17.30	-23.5	13.3	43.5	30.2	3.00	0	QUASI-PEAK	Noise Floor

FCC Part 15 Class B & RSS-210

Electric Field Strength

EUT: SL2.4
Manufacturer: Saris CycleOps
Operating Condition: 72 deg. F; 65% R.H.
Test Site: DLS O.F. Site 3
Operator: Adam A
Test Specification:
Comment: Receive Mode 2.453 GHz
Date: 08-20-2008

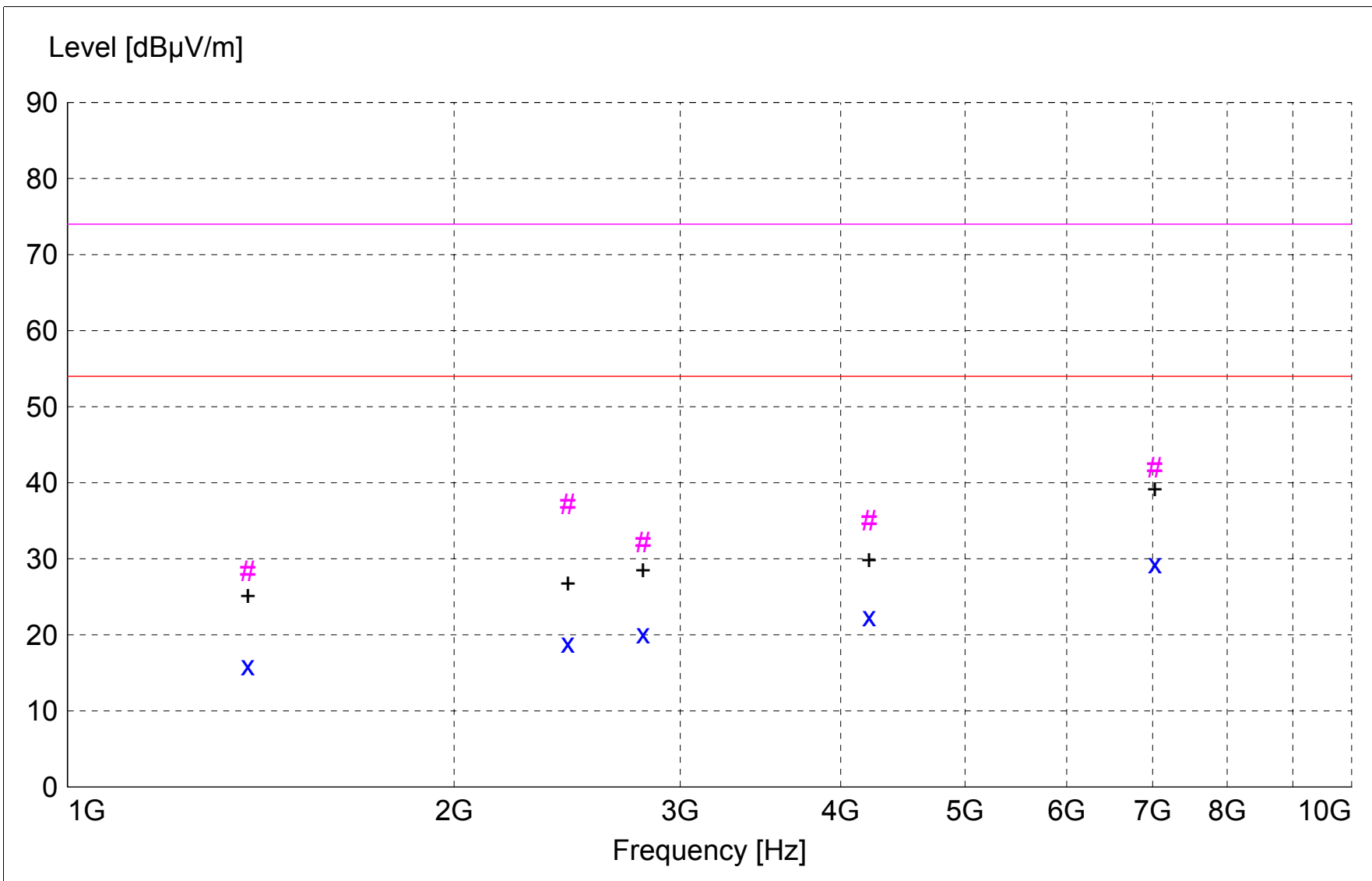
TEXT: "Site 3 5731&106 V3M"

Short Description: Test Set-up Vert1GHz-
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006

Horn Antenna --- EMCO 3115 SN: 9903-5731

Pre-Amps ---
1 - 10 GHz -- Miteq AMF-6B-100200-50 SN: 313936
10 - 18 GHz -- Miteq AMF-6D-010100-50 SN: 213976

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



```

x x :MES AP401_sv_Average
# # :MES AP401_sv_Peak
+ + :MES AP401_sv_Peak_List
— LIM 3m AVG Field Strength AVG Limit 3m
— LIM 3m PK Field Strength PEAK Limit 3m

```

MEASUREMENT RESULT: "AP401_sv_Final"

8/20/2008 1:30PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBµV	Factor	Loss	Level	dBµV/m	dB	Ant.	Angle	Detector	
		dBµV/m	dB	dBµV/m	dBµV/m		m	deg		
7027.000000	26.98	35.26	-32.9	29.4	54.0	24.6	1.10	340	AVERAGE	None
4210.200000	25.02	32.37	-35.0	22.4	54.0	31.6	1.10	340	AVERAGE	None
7027.000000	39.63	35.26	-32.9	42.0	74.0	32.0	1.10	340	MAX PEAK	None
2806.800000	26.51	29.50	-35.9	20.1	54.0	33.9	1.10	340	AVERAGE	None
2453.000000	26.65	28.60	-36.3	18.9	54.0	35.1	1.10	340	AVERAGE	None
2453.000000	44.89	28.60	-36.3	37.2	74.0	36.8	1.10	340	MAX PEAK	None
1382.000000	28.01	25.17	-37.2	16.0	54.0	38.0	1.10	340	AVERAGE	None
4210.200000	37.65	32.37	-35.0	35.0	74.0	39.0	1.10	340	MAX PEAK	None
2806.800000	38.50	29.50	-35.9	32.1	74.0	41.9	1.10	340	MAX PEAK	None
1382.000000	40.41	25.17	-37.2	28.4	74.0	45.6	1.10	340	MAX PEAK	None

FCC Part 15 Class B & RSS-210

Electric Field Strength

EUT: SL2.4
Manufacturer: Saris CycleOps
Operating Condition: 72 deg. F; 65% R.H.
Test Site: DLS O.F. Site 3
Operator: Adam A
Test Specification:
Comment: Receive Mode 2.453 GHz
Date: 08-20-2008

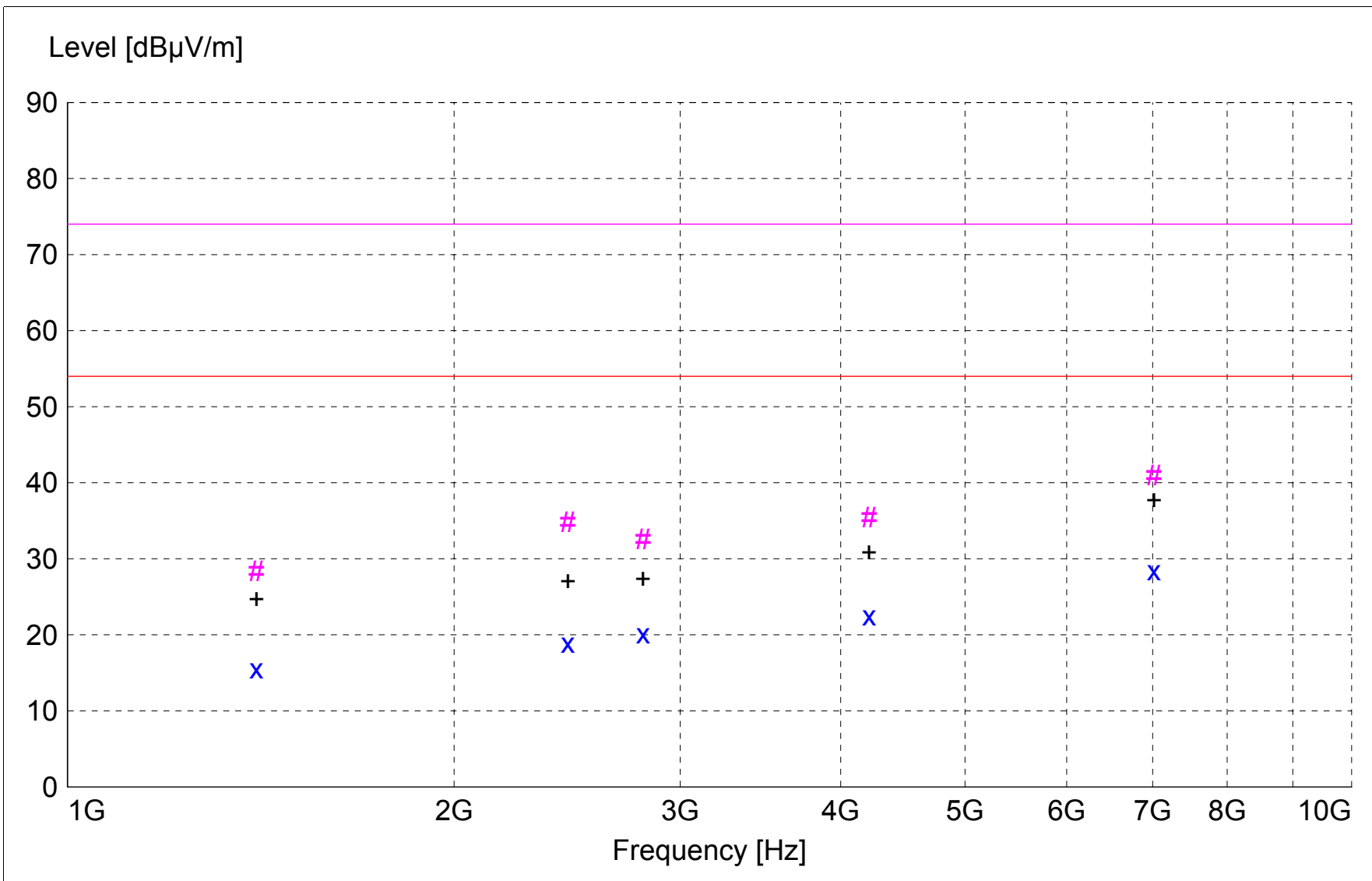
TEXT: "Site 3 5731&106 H3M"

Short Description: Test Set-up Horz1GHz-
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006

Horn Antenna --- EMCO 3115 SN: 9903-5731

Pre-Amps ---
1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 213976
10 - 18 GHz -- Miteq AMF-6B-100200-50 SN: 313936

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



```

x x :MES AP401_sh_Average
# # :MES AP401_sh_Peak
+ + :MES AP401_sh_Peak_List
— LIM 3m AVG Field Strength AVG Limit 3m
— LIM 3m PK Field Strength PEAK Limit 3m

```

MEASUREMENT RESULT: "AP401_sh_Final"

8/20/2008 1:45PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBµV	Factor	Loss	Level	dBµV/m	dB	Ant.	Angle	Detector	
		dBµV/m	dB	dBµV/m	dBµV/m		m	deg		
7017.000000	26.02	35.24	-32.9	28.4	54.0	25.6	1.00	340	AVERAGE	None
4210.200000	25.18	32.37	-35.0	22.5	54.0	31.5	1.00	0	AVERAGE	None
7017.000000	38.58	35.24	-32.9	41.0	74.0	33.0	1.00	340	MAX PEAK	None
2806.800000	26.51	29.50	-35.9	20.1	54.0	33.9	1.00	25	AVERAGE	None
2453.000000	26.65	28.60	-36.3	18.9	54.0	35.1	1.00	25	AVERAGE	None
1403.400000	27.60	25.23	-37.3	15.6	54.0	38.4	1.00	0	AVERAGE	None
4210.200000	38.13	32.37	-35.0	35.5	74.0	38.5	1.00	0	MAX PEAK	None
2453.000000	42.57	28.60	-36.3	34.9	74.0	39.1	1.00	25	MAX PEAK	None
2806.800000	38.97	29.50	-35.9	32.6	74.0	41.4	1.00	25	MAX PEAK	None
1403.400000	40.37	25.23	-37.3	28.3	74.0	45.7	1.00	0	MAX PEAK	None

FCC Part 15 Class B & RSS-210

Electric Field Strength

EUT: SL2.4
Manufacturer: Saris CycleOps
Operating Condition: 72 deg. F; 65% R.H.
Test Site: DLS O.F. Site 3
Operator: Adam A
Test Specification:
Comment: Receive Mode 2.453 GHz
Date: 08-20-2008

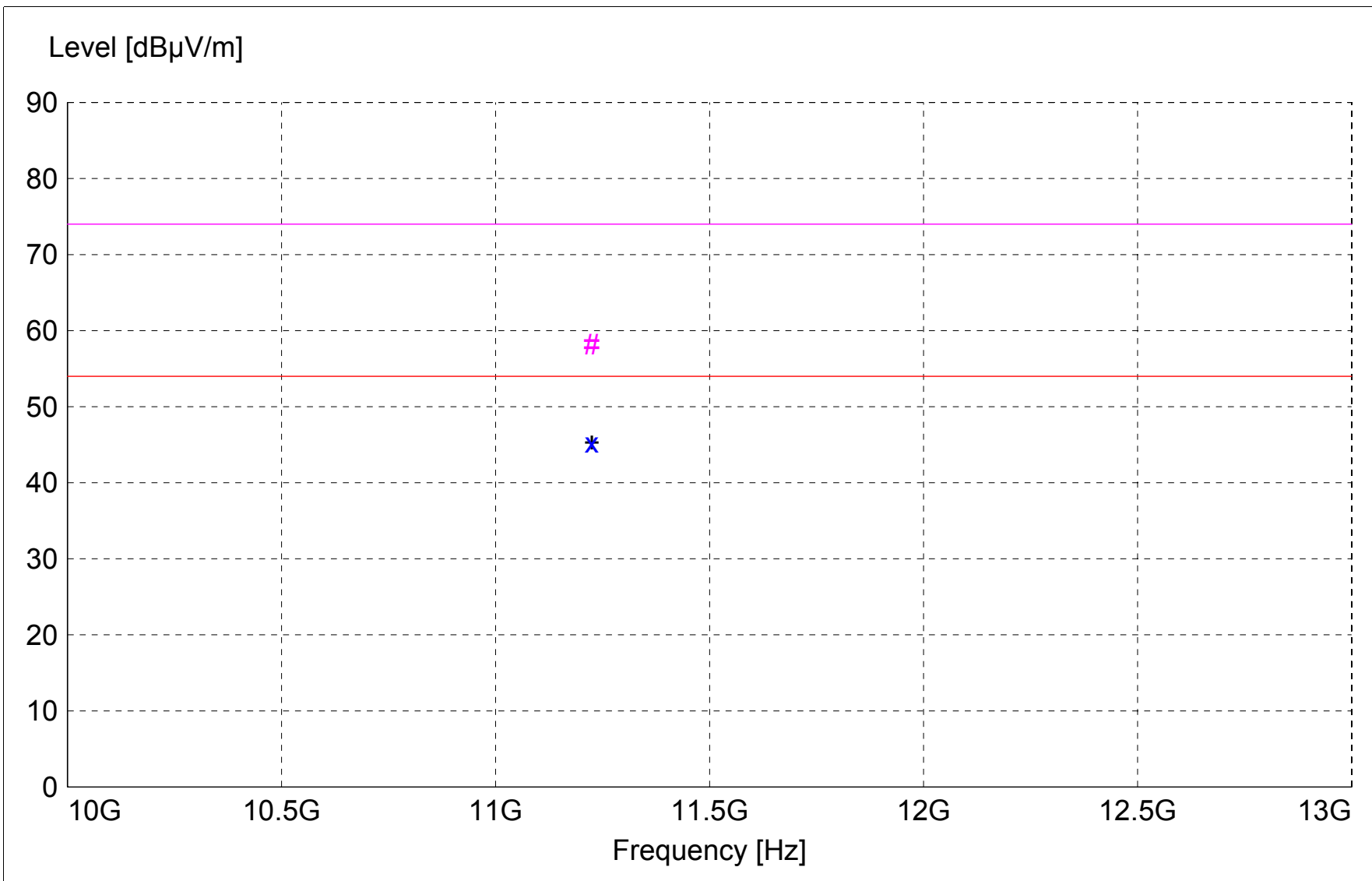
TEXT: "Site 3 5731&106 V3M"

Short Description: Test Set-up Vert1GHz-
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006

Horn Antenna --- EMCO 3115 SN: 9903-5731

Pre-Amps ---
1 - 10 GHz -- Miteq AMF-6B-100200-50 SN: 313936
10 - 18 GHz -- Miteq AMF-6D-010100-50 SN: 213976

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



```

x x :MES AP402_sv_Average
# # :MES AP402_sv_Peak
+ + :MES AP402_sv_Peak_List
— LIM 3m AVG Field Strength AVG Limit 3m
— LIM 3m PK Field Strength PEAK Limit 3m

```

MEASUREMENT RESULT: "AP402_sv_Final"

8/20/2008 1:51PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dB μ V	Factor	Loss	Level	dB μ V/m	dB	Ant.	Angle	Detector	
		dB μ V/m	dB	dB μ V/m	dB μ V/m		m	deg		
11225.000000	33.71	39.97	-28.4	45.3	54.0	8.7	1.00	0	AVERAGE	Noise Floor
11225.000000	46.63	39.97	-28.4	58.2	74.0	15.8	1.00	0	MAX PEAK	Noise Floor

FCC Part 15 Class B & RSS-210

Electric Field Strength

EUT: SL2.4
Manufacturer: Saris CycleOps
Operating Condition: 72 deg. F; 65% R.H.
Test Site: DLS O.F. Site 3
Operator: Adam A
Test Specification:
Comment: Receive Mode 2.453 GHz
Date: 08-20-2008

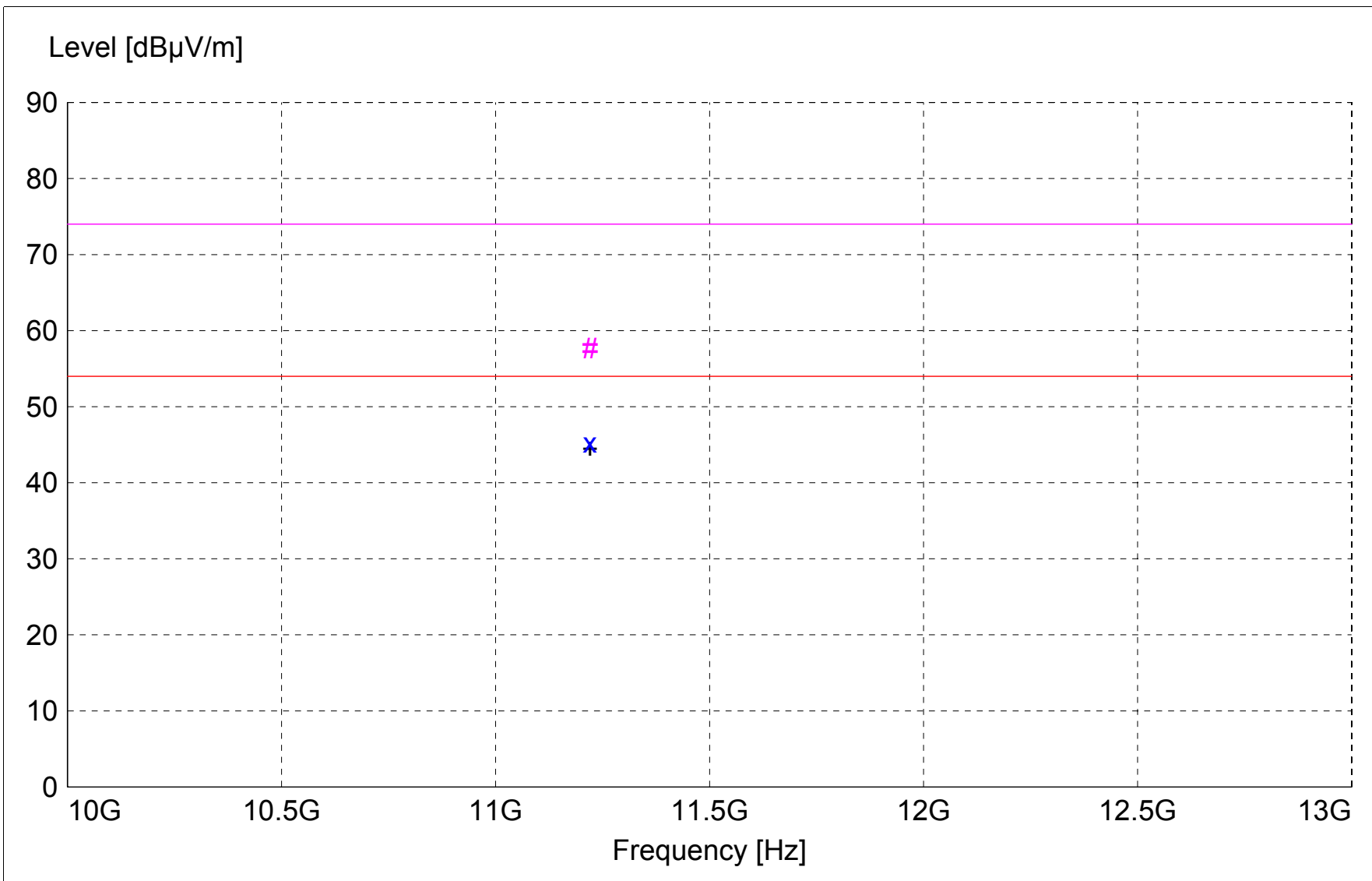
TEXT: "Site 3 5731&106 H3M"

Short Description: Test Set-up Horz1GHz-
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006

Horn Antenna --- EMCO 3115 SN: 9903-5731

Pre-Amps ---
1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 213976
10 - 18 GHz -- Miteq AMF-6B-100200-50 SN: 313936

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



```

x x :MES AP402_sh_Average
# # :MES AP402_sh_Peak
+ + :MES AP402_sh_Peak_List
— LIM 3m AVG Field Strength AVG Limit 3m
— LIM 3m PK Field Strength PEAK Limit 3m

```

MEASUREMENT RESULT: "AP402_sh_Final"

8/20/2008 1:52PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dB μ V	Factor	Loss	Level	dB μ V/m	dB	Ant.	Angle	Detector	
		dB μ V/m	dB	dB μ V/m	dB μ V/m		m	deg		
11220.800000	33.62	39.96	-28.4	45.2	54.0	8.8	1.00	0	AVERAGE	Noise Floor
11220.800000	46.10	39.96	-28.4	57.7	74.0	16.3	1.00	0	MAX PEAK	Noise Floor

FCC Part 15 Class B & RSS-210

Electric Field Strength

EUT: SL2.4
Manufacturer: Saris CycleOps
Operating Condition: 72 deg. F; 65% R.H.
Test Site: DLS O.F. Site 3
Operator: Adam A
Test Specification:
Comment: Receive Mode 2.457 GHz
Date: 08-21-2008

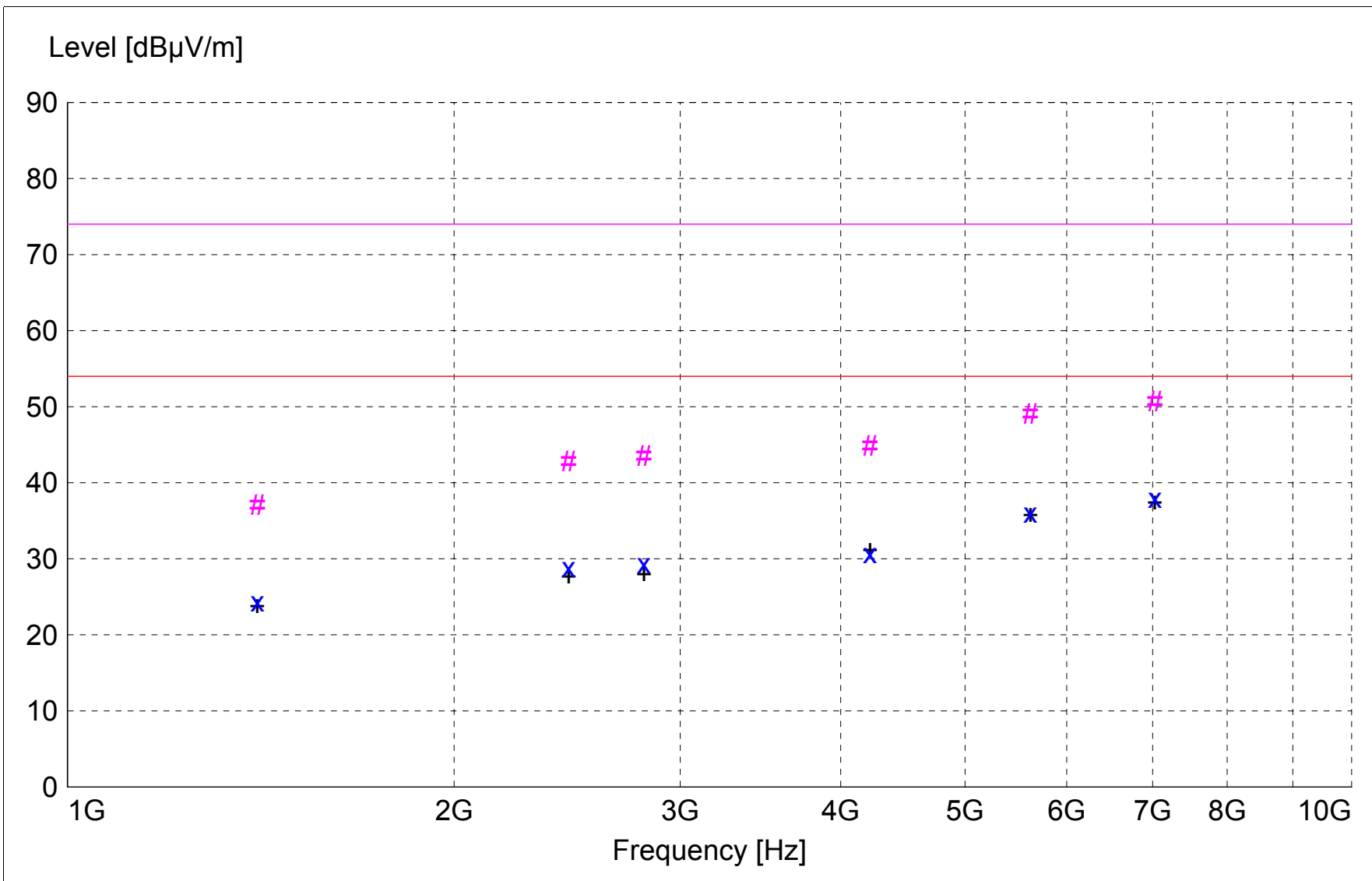
TEXT: "Site 3 5731&106 V3M"

Short Description: Test Set-up Vert1GHz-
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006

Horn Antenna --- EMCO 3115 SN: 9903-5731

Pre-Amps ---
1 - 10 GHz -- Miteq AMF-6B-100200-50 SN: 313936
10 - 18 GHz -- Miteq AMF-6D-010100-50 SN: 213976

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



```

x x :MES AP404_sv_Average
# # :MES AP404_sv_Peak
+ + :MES AP404_sv_Peak_List
— LIM 3m AVG Field Strength AVG Limit 3m
— LIM 3m PK Field Strength PEAK Limit 3m

```

MEASUREMENT RESULT: "AP404_sv_Final"

8/21/2008 2:06PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBµV	Factor	Loss	Level	dBµV/m	dB	Ant.	Angle	Detector	
		dBµV/m	dB	dBµV/m	dBµV/m		m	deg		
7028.600000	35.65	35.27	-32.9	38.0	54.0	16.0	1.00	0	AVERAGE	None
5622.800000	35.02	34.35	-33.3	36.1	54.0	17.9	1.00	0	AVERAGE	None
4217.200000	33.42	32.37	-35.0	30.8	54.0	23.2	1.00	0	AVERAGE	None
7028.600000	48.27	35.27	-32.9	50.6	74.0	23.4	1.00	0	MAX PEAK	None
2811.400000	35.72	29.51	-35.9	29.4	54.0	24.6	1.00	180	AVERAGE	None
5622.800000	48.00	34.35	-33.3	49.0	74.0	25.0	1.00	0	MAX PEAK	None
2457.000000	36.58	28.61	-36.3	28.9	54.0	25.1	1.00	0	AVERAGE	None
4217.200000	47.47	32.37	-35.0	44.8	74.0	29.2	1.00	0	MAX PEAK	None
1405.800000	36.44	25.24	-37.3	24.4	54.0	29.6	1.00	0	AVERAGE	None
2811.400000	49.87	29.51	-35.9	43.5	74.0	30.5	1.00	180	MAX PEAK	None
2457.000000	50.54	28.61	-36.3	42.8	74.0	31.2	1.00	0	MAX PEAK	None
1405.800000	49.08	25.24	-37.3	37.0	74.0	37.0	1.00	0	MAX PEAK	None

FCC Part 15 Class B & RSS-210

Electric Field Strength

EUT: SL2.4
Manufacturer: Saris CycleOps
Operating Condition: 72 deg. F; 65% R.H.
Test Site: DLS O.F. Site 3
Operator: Adam A
Test Specification:
Comment: Receive Mode 2.457 GHz
Date: 08-21-2008

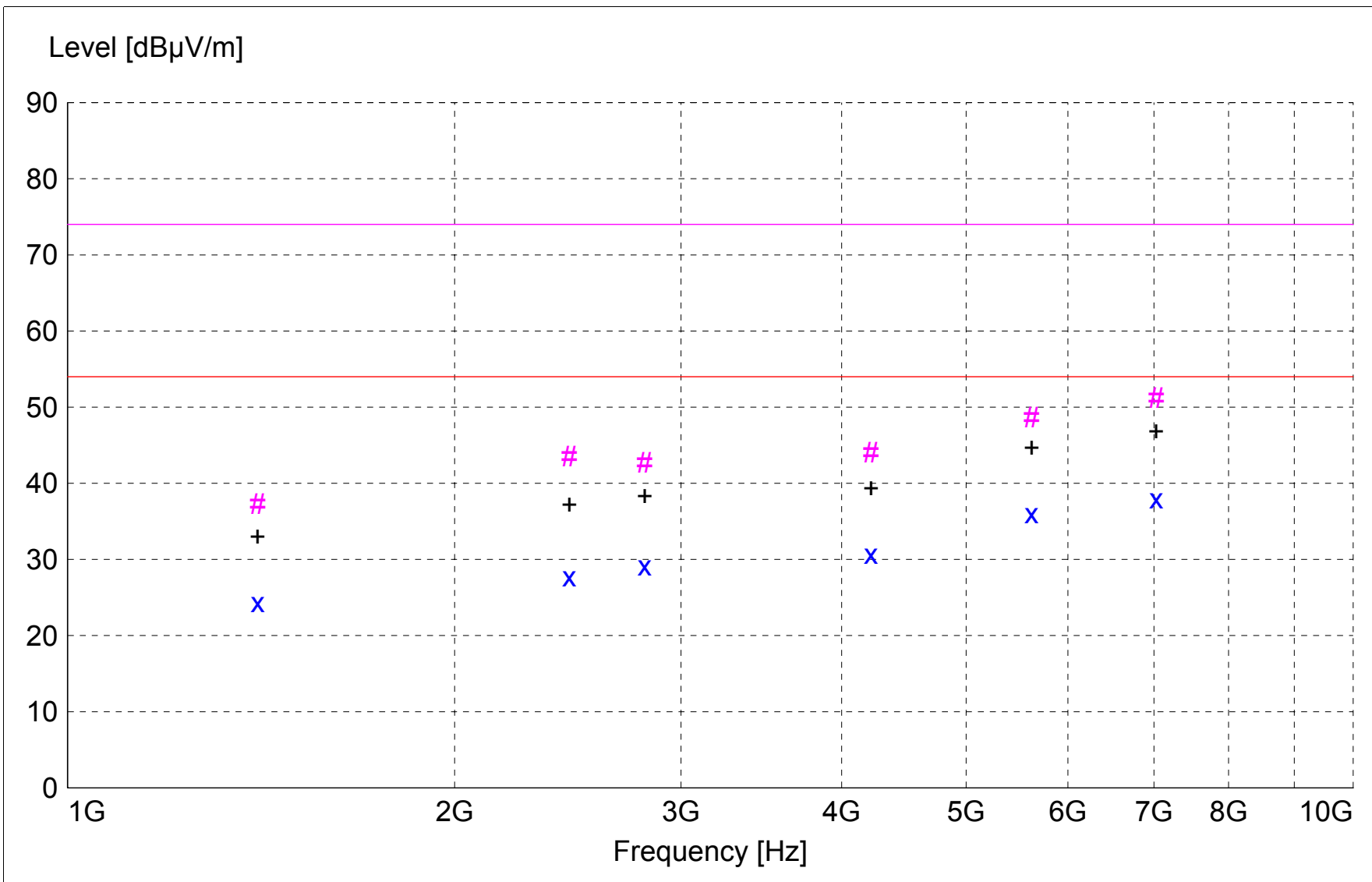
TEXT: "Site 3 5731&106 H3M"

Short Description: Test Set-up Horz1GHz-
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006

Horn Antenna --- EMCO 3115 SN: 9903-5731

Pre-Amps ---
1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 213976
10 - 18 GHz -- Miteq AMF-6B-100200-50 SN: 313936

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



x x :MES AP404_sh_Average
 # # :MES AP404_sh_Peak
 + + :MES AP404_sh_Peak_List
 — LIM 3m AVG Field Strength AVG Limit 3m
 — LIM 3m PK Field Strength PEAK Limit 3m

MEASUREMENT RESULT: "AP404_sh_Final"

8/21/2008 2:19PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBµV	Factor	Loss	Level	dBµV/m	dB	Ant.	Angle	Detector	
		dBµV/m	dB	dBµV/m	dBµV/m		m	deg		
7028.600000	35.57	35.27	-32.9	37.9	54.0	16.1	1.00	0	AVERAGE	None
5622.800000	35.02	34.35	-33.3	36.1	54.0	17.9	1.00	0	AVERAGE	None
7028.600000	48.81	35.27	-32.9	51.2	74.0	22.8	1.00	0	MAX PEAK	None
4217.200000	33.42	32.37	-35.0	30.8	54.0	23.2	1.00	0	AVERAGE	None
2811.400000	35.57	29.51	-35.9	29.2	54.0	24.8	1.10	0	AVERAGE	None
5622.800000	47.60	34.35	-33.3	48.6	74.0	25.4	1.00	0	MAX PEAK	None
2457.000000	35.50	28.61	-36.3	27.8	54.0	26.2	1.00	0	AVERAGE	None
1405.800000	36.44	25.24	-37.3	24.4	54.0	29.6	1.00	0	AVERAGE	None
4217.200000	46.67	32.37	-35.0	44.0	74.0	30.0	1.00	0	MAX PEAK	None
2457.000000	51.21	28.61	-36.3	43.5	74.0	30.5	1.00	0	MAX PEAK	None
2811.400000	49.08	29.51	-35.9	42.7	74.0	31.3	1.10	0	MAX PEAK	None
1405.800000	49.34	25.24	-37.3	37.3	74.0	36.7	1.00	0	MAX PEAK	None

FCC Part 15 Class B & RSS-210

Electric Field Strength

EUT: SL2.4
Manufacturer: Saris CycleOps
Operating Condition: 72 deg. F; 65% R.H.
Test Site: DLS O.F. Site 3
Operator: Adam A
Test Specification:
Comment: Receive Mode 2.457 GHz
Date: 08-21-2008

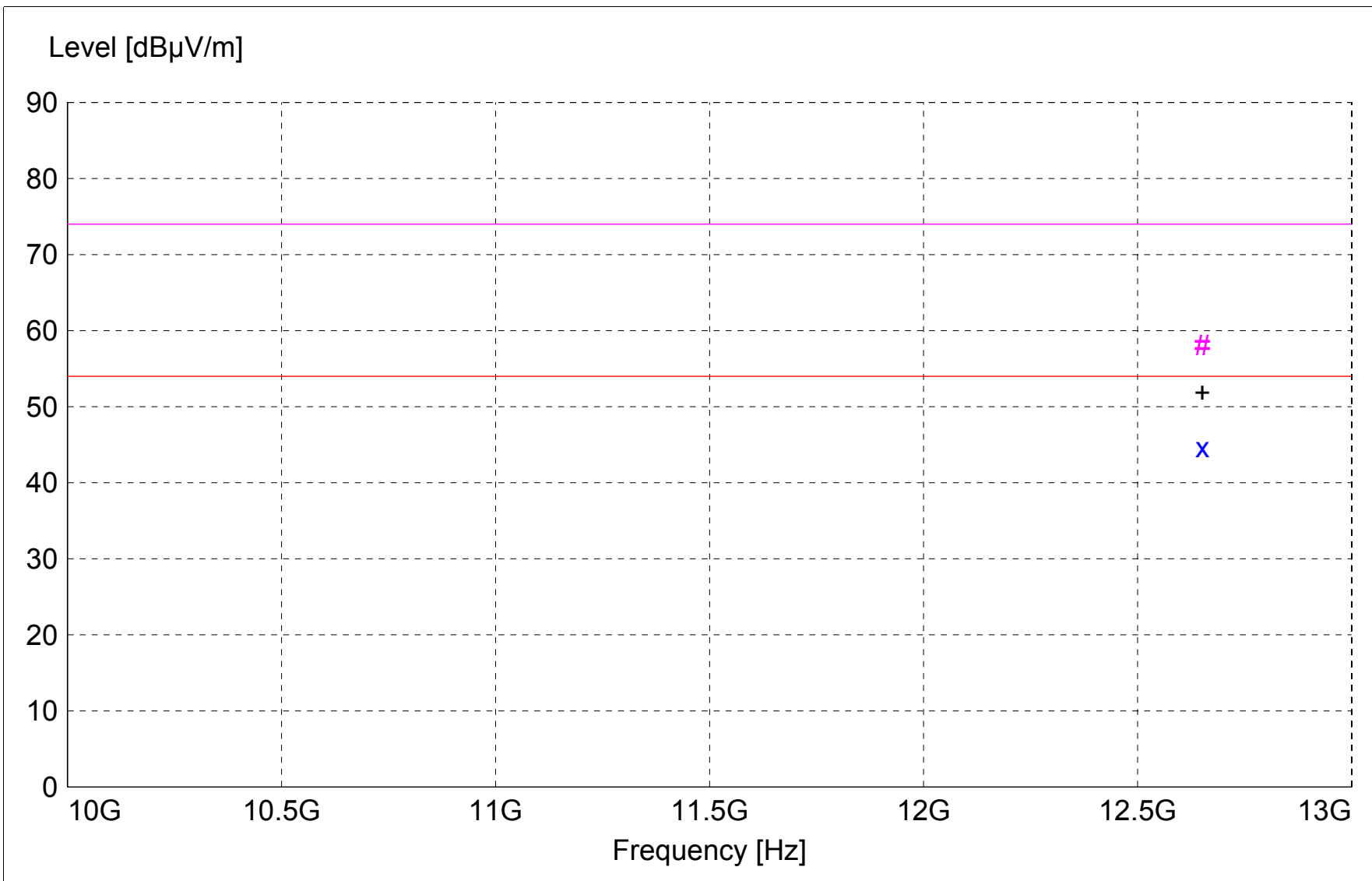
TEXT: "Site 3 5731&106 V3M"

Short Description: Test Set-up Vert1GHz-
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006

Horn Antenna --- EMCO 3115 SN: 9903-5731

Pre-Amps ---
1 - 10 GHz -- Miteq AMF-6B-100200-50 SN: 313936
10 - 18 GHz -- Miteq AMF-6D-010100-50 SN: 213976

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



```

x x :MES AP406_sv_Average
# # :MES AP406_sv_Peak
+ + :MES AP406_sv_Peak_List
— LIM 3m AVG Field Strength AVG Limit 3m
— LIM 3m PK Field Strength PEAK Limit 3m

```

MEASUREMENT RESULT: "AP406_sv_Final"

8/21/2008 2:35PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dB μ V	Factor	Loss	Level	dB μ V/m	dB	Ant.	Angle	Detector	
		dB μ V/m	dB	dB μ V/m	dB μ V/m		m	deg		
12651.400000	35.18	39.05	-29.6	44.6	54.0	9.4	1.00	0	AVERAGE	Noise Floor
12651.400000	48.68	39.05	-29.6	58.1	74.0	15.9	1.00	0	MAX PEAK	Noise Floor

FCC Part 15 Class B & RSS-210

Electric Field Strength

EUT: SL2.4
Manufacturer: Saris CycleOps
Operating Condition: 72 deg. F; 65% R.H.
Test Site: DLS O.F. Site 3
Operator: Adam A
Test Specification:
Comment: Receive Mode 2.457 GHz
Date: 08-21-2008

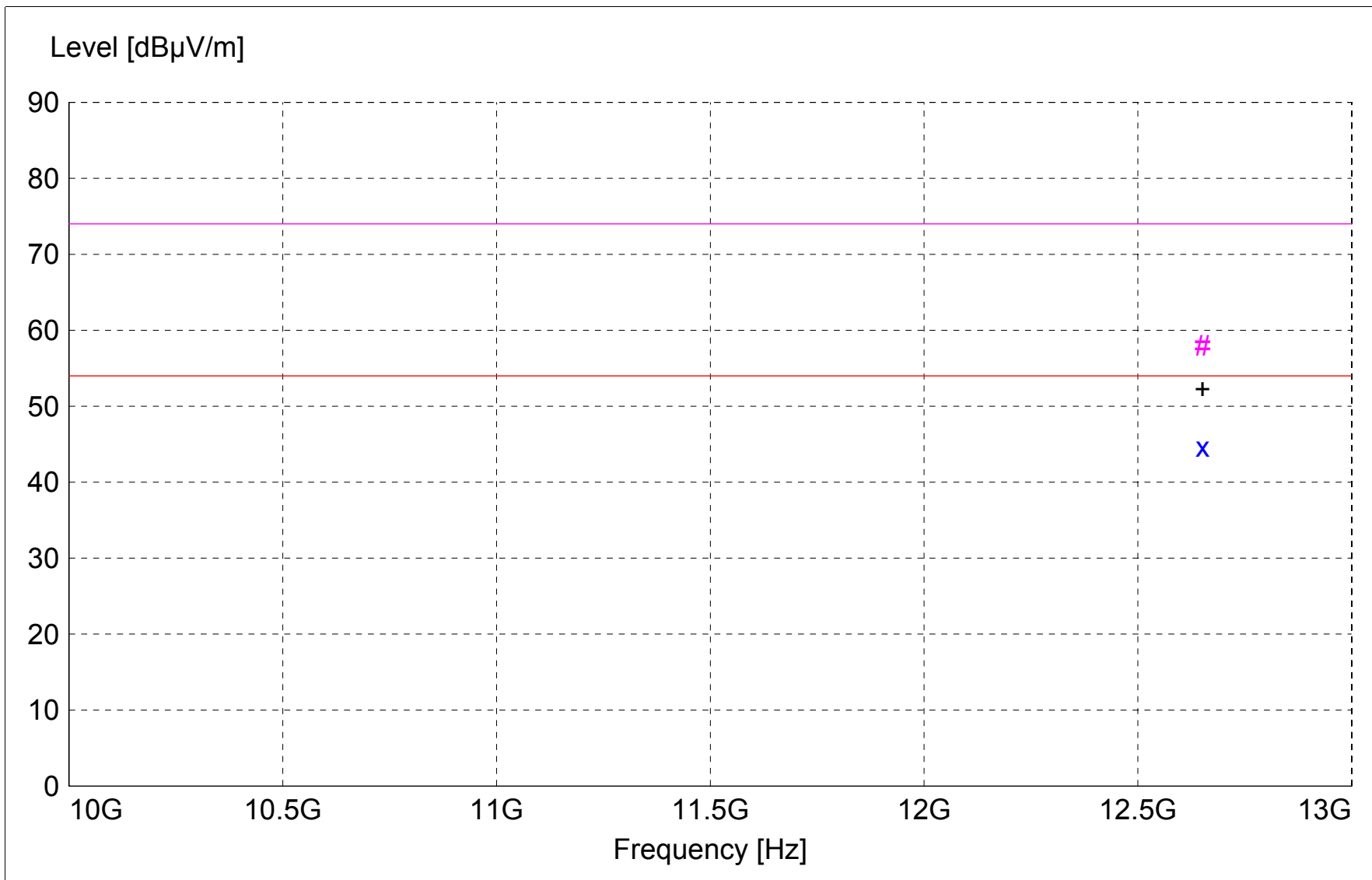
TEXT: "Site 3 5731&106 H3M"

Short Description: Test Set-up Horz1GHz-
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 40 SN: 837808/006

Horn Antenna --- EMCO 3115 SN: 9903-5731

Pre-Amps ---
1 - 10 GHz -- Miteq AMF-6D-010100-50 SN: 213976
10 - 18 GHz -- Miteq AMF-6B-100200-50 SN: 313936

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



```

x x :MES AP406_sh_Average
# # :MES AP406_sh_Peak
+ + :MES AP406_sh_Peak_List
— LIM 3m AVG Field Strength AVG Limit 3m
— LIM 3m PK Field Strength PEAK Limit 3m

```


MEASUREMENT RESULT: "AP406_sh_Final"

8/21/2008 2:39PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dB μ V	Factor	Loss	Level	dB μ V/m	dB	Ant.	Angle	Detector	
		dB μ V/m	dB	dB μ V/m			m	deg		
12651.400000	35.18	39.05	-29.6	44.6	54.0	9.4	1.00	0	AVERAGE	Noise Floor
12651.400000	48.54	39.05	-29.6	58.0	74.0	16.0	1.00	0	MAX PEAK	Noise Floor