

FCC Part 15 Class B

Electric Field Strength

EUT: Renaissance Receiver
Manufacturer: Renaissance Learning
Operating Condition: 72 deg F; 46% R.H.
Test Site: DLS O.F. Site 2
Operator: Jason L.
Test Specification: Powered by USB
Comment: Worst Case Emissions found during Transmit and Receive Mode
Date: 07/28/05

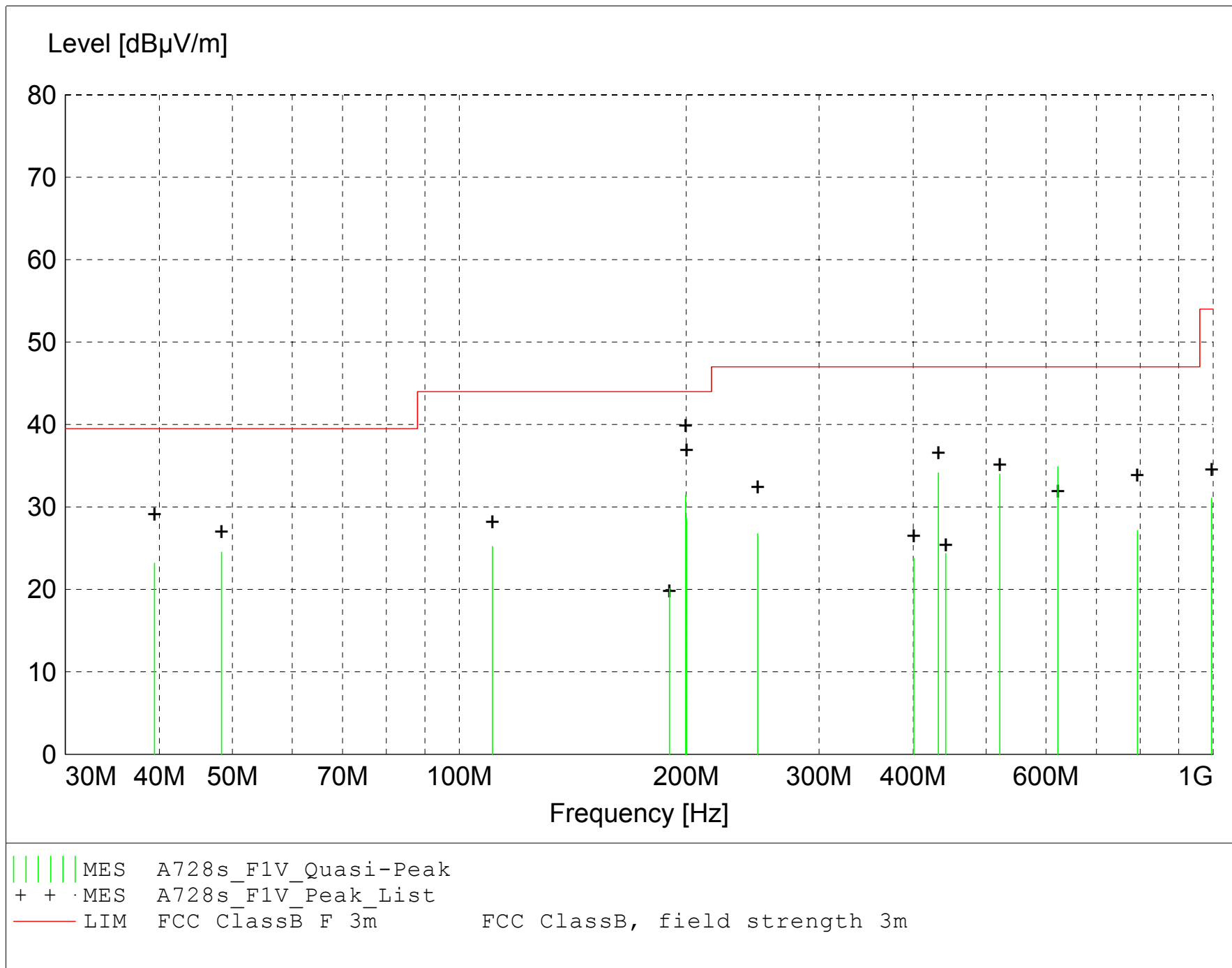
TEXT: "Site 2 MidV 3M"

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

Antennas ---
Biconical -- EMCO 3104C SN: 0005-4892
Log Periodic -- Electro Metrics LPA-25 SN: 1205

Pre-Amp --- Rohde&Schwarz TS-PR10 SN: 032001/004

TEST SET-UP: EuT Measured at 3 Meters with VERTICAL Antenna Polarisation



MEASUREMENT RESULT: "A728s_F1V_Final"

7/28/2005 1:29PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBμV	Factor	Loss	Level			Ant.	Angle	Detector	
		dBμV/m	dB	dBμV/m	dBμV/m	dB	m	deg		
622.310000	35.58	19.35	-20.1	34.9	47.0	12.1	1.00	300	QUASI-PEAK	None
199.640000	36.59	17.31	-22.4	31.5	44.0	12.5	1.00	325	QUASI-PEAK	None
432.030000	39.46	15.78	-21.1	34.1	47.0	12.9	1.00	0	QUASI-PEAK	None
521.100000	36.72	17.95	-20.7	34.0	47.0	13.0	1.00	0	QUASI-PEAK	None
48.360000	36.65	11.74	-23.9	24.5	39.5	15.0	1.00	345	QUASI-PEAK	None
200.150000	39.41	11.66	-22.4	28.6	44.0	15.4	1.00	0	QUASI-PEAK	None
39.410000	35.23	11.84	-23.9	23.2	39.5	16.3	1.00	225	QUASI-PEAK	None
110.630000	35.82	12.66	-23.3	25.2	44.0	18.8	1.00	270	QUASI-PEAK	None
793.550000	24.25	21.42	-18.5	27.2	47.0	19.8	1.00	45	QUASI-PEAK	None
248.790000	36.11	12.67	-22.0	26.7	47.0	20.3	1.00	90	QUASI-PEAK	None
441.920000	29.49	16.08	-21.2	24.4	47.0	22.6	1.00	270	QUASI-PEAK	None
995.250000	23.82	24.31	-17.0	31.1	54.0	22.9	1.00	270	QUASI-PEAK	None
400.850000	29.44	15.60	-21.3	23.8	47.0	23.2	1.00	0	QUASI-PEAK	None
190.000000	25.56	17.02	-22.5	20.1	44.0	23.9	1.00	90	QUASI-PEAK	None

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Date: 07/28/05

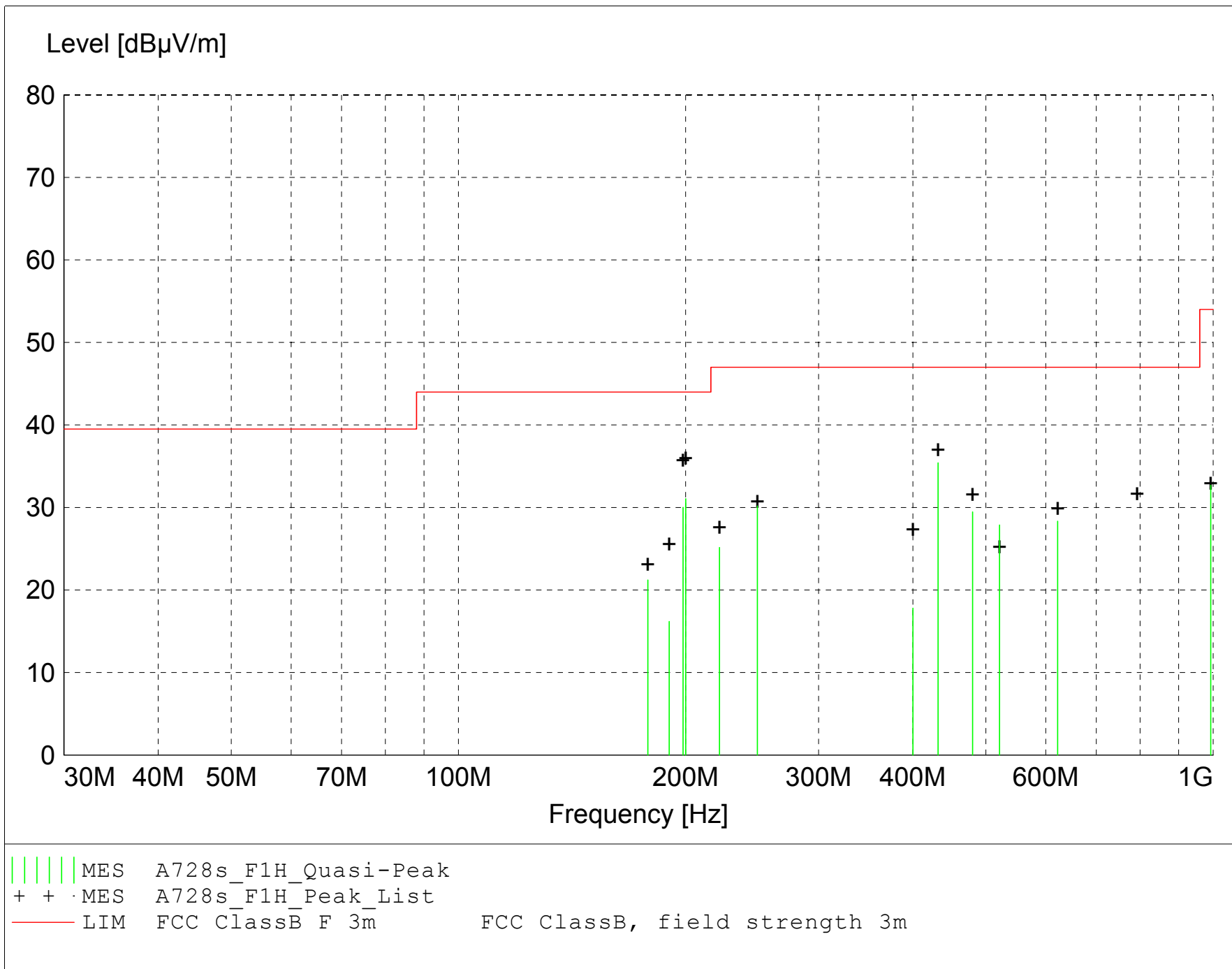
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Log Periodic -- Electro Metrics LPA-25 SN: 1205

Pre-Amp --- Rohde&Schwarz TS-PR10 SN: 032001/004

TEST SET-UP: EuT Measured at 3 Meters with HORIZONTAL Antenna Polarisation



MEASUREMENT RESULT: "A728s_F1H_Final"

7/28/2005 1:42PM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBμV	Factor	Loss	Level			Ant.	Angle	Detector	
		dBμV/m	dB	dBμV/m	dBμV/m	dB	m	deg		
432.010000	40.76	15.78	-21.1	35.4	47.0	11.6	2.25	90	QUASI-PEAK	None
200.080000	41.83	11.65	-22.4	31.1	44.0	12.9	1.50	125	QUASI-PEAK	None
198.420000	35.36	17.08	-22.4	30.0	44.0	14.0	1.00	125	QUASI-PEAK	None
248.920000	39.55	12.68	-22.0	30.2	47.0	16.8	1.20	30	QUASI-PEAK	None
480.040000	33.13	17.37	-21.0	29.5	47.0	17.5	1.80	270	QUASI-PEAK	None
622.260000	29.04	19.35	-20.1	28.3	47.0	18.7	2.25	30	QUASI-PEAK	None
521.130000	30.61	17.95	-20.7	27.9	47.0	19.1	2.00	270	QUASI-PEAK	None
992.670000	25.53	24.26	-17.1	32.7	54.0	21.3	2.25	300	QUASI-PEAK	None
221.740000	36.25	11.34	-22.4	25.2	47.0	21.8	1.20	270	QUASI-PEAK	None
178.190000	28.03	15.78	-22.6	21.2	44.0	22.8	1.80	270	QUASI-PEAK	None
190.180000	21.65	16.98	-22.4	16.2	44.0	27.8	2.00	270	QUASI-PEAK	None
400.200000	23.48	15.58	-21.3	17.8	47.0	29.2	2.25	180	QUASI-PEAK	None

FCC Part 15 Class B

Electric Field Strength

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Operating Condition: 728 deg F; 46% R.H.
Test Site: DLS O.F. Site 2
Operator: Jason L.
Test Specification: Powered by USB
Comment: Receive Mode Low Channel: 2405 MHz
Date: 07/28/05

TEXT: "Site 2 5731&106 V3M"

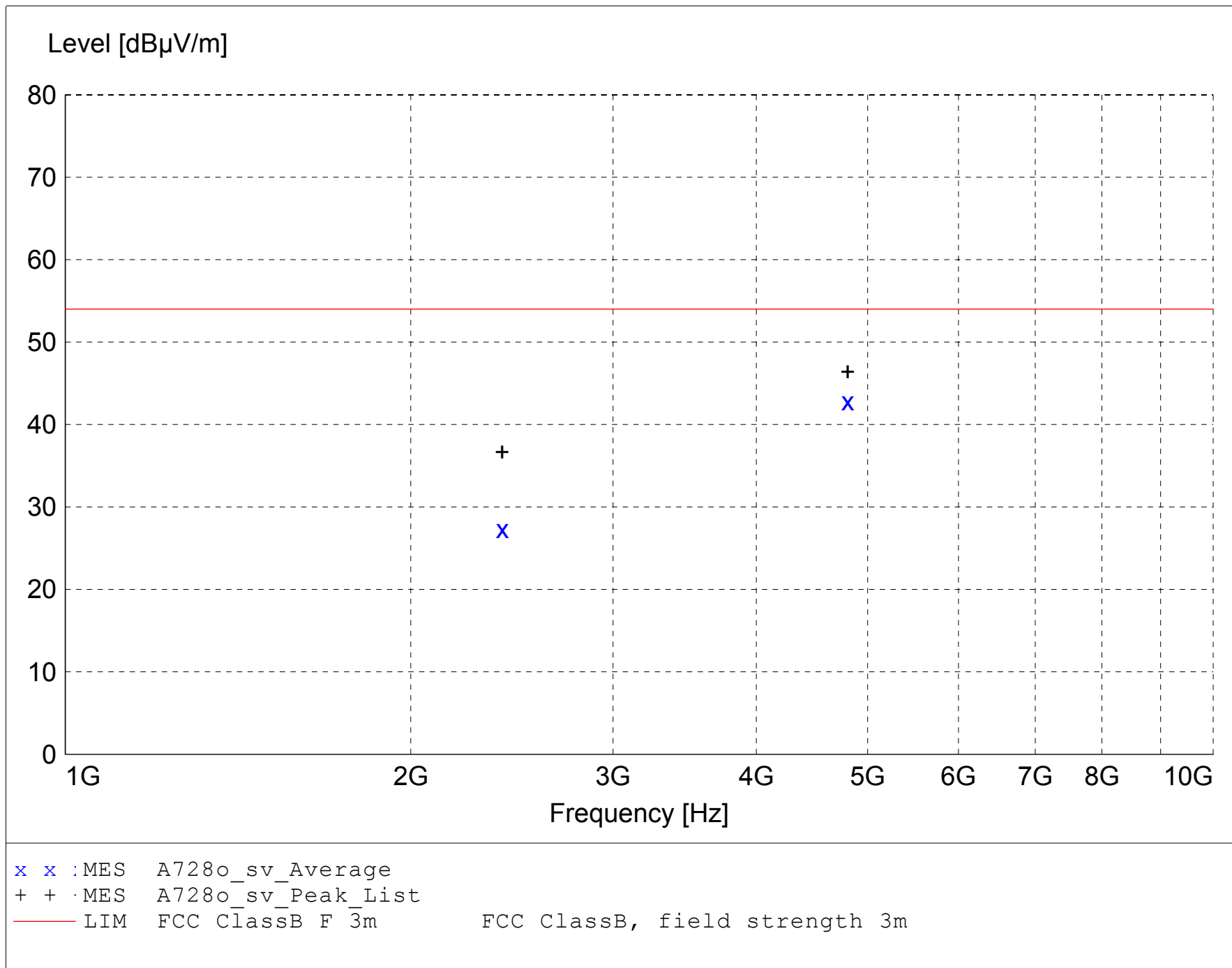
Short Description: Test Set-up Vert1GHz-
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 26 SN: 837491/010

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

Pre-Amps ---

1 - 18 GHz -- Miteq AMF-6B-100200-50 SN: 313936
18 - 26 GHz -- Miteq AMF-6D-010100-50 SN: 213976

TEST SET-UP: EuT Measured at 3 Meters with VERTICAL Antenna Polarisation



MEASUREMENT RESULT: "A728o_sv_Final"

7/28/2005 11:14AM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBμV	Factor	Loss	Level			Ant.	Angle	Detector	
		dBμV/m	dB	dBμV/m	dBμV/m	dB	m	deg		
4805.900000	45.04	32.73	-35.0	42.8	54.0	11.2	1.00	225	AVERAGE	None
2403.000000	35.85	28.25	-36.8	27.3	54.0	26.7	1.00	225	AVERAGE	None

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Comment: Receive Mode Low Channel: 2405 MHz
Date: 07/28/05

TEXT: "Site 2 5731&106 H3M"

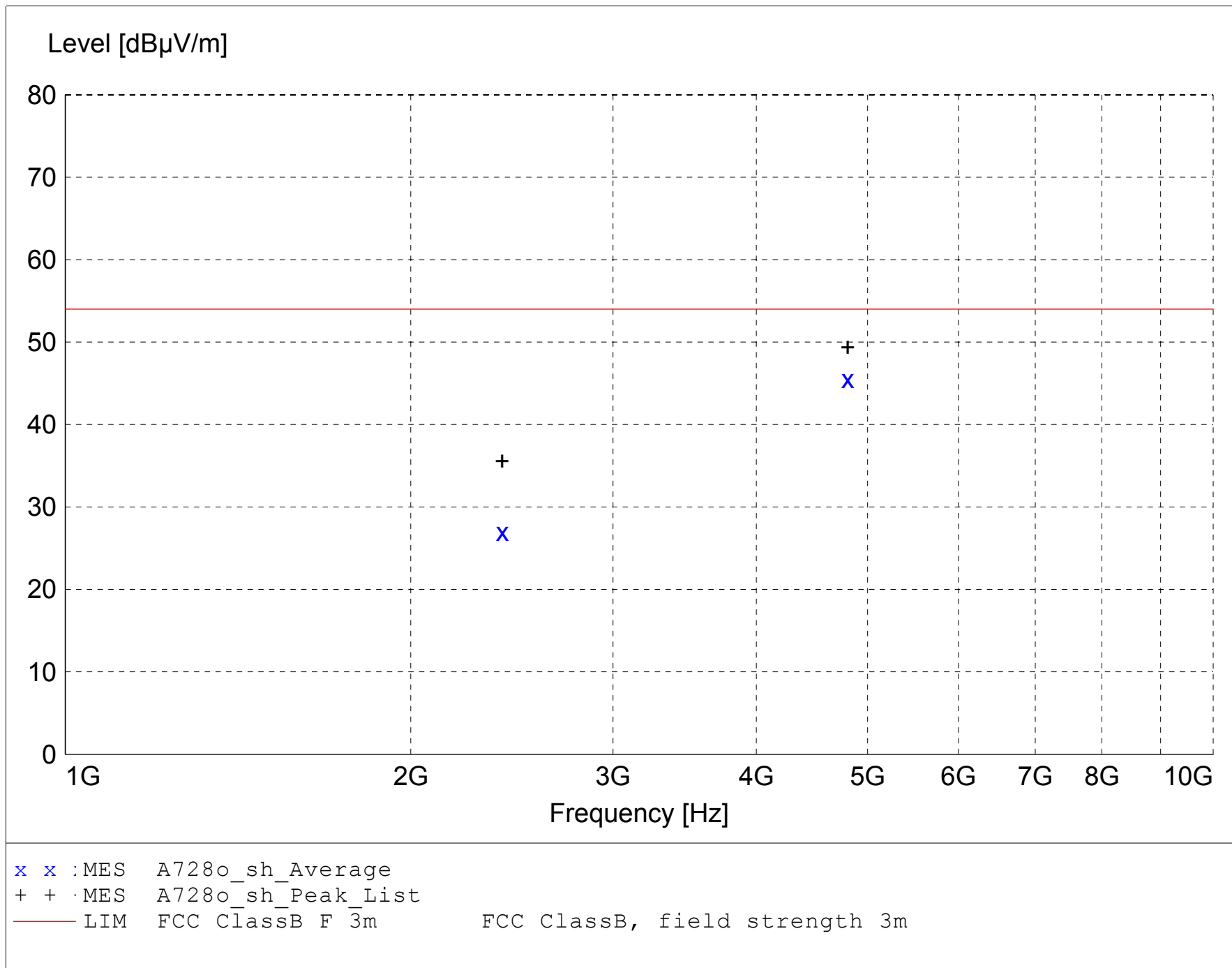
Short Description: Test Set-up Horz1GHz-
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 26 SN: 837491/010

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

Pre-Amps ---

1 - 18 GHz -- Miteq AMF-6D-010100-50 SN: 213976
18 - 26 GHz -- Miteq AMF-6B-100200-50 SN: 313936

TEST SET-UP: EuT Measured at 3 Meters with HORIZONTAL Antenna Polarisation



MEASUREMENT RESULT: "A728o_sh_Final"

7/28/2005 11:10AM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBμV	Factor	Loss	Level			Ant.	Angle	Detector	
		dBμV/m	dB	dBμV/m	dBμV/m	dB	m	deg		
4805.900000	47.76	32.73	-35.0	45.5	54.0	8.5	1.10	0	AVERAGE	None
2403.000000	35.54	28.25	-36.8	27.0	54.0	27.0	1.10	0	AVERAGE	None

FCC Part 15 Class B

Electric Field Strength

EUT: Renaissance Receiver
Manufacturer: Renaissance Learning
Operating Condition: 728 deg F; 46% R.H.
Test Site: DLS O.F. Site 2
Operator: Jason L.
Test Specification: Powered by USB
Comment: Receive Mode Middle Channel: 2440 MHz
Date: 07/28/05

TEXT: "Site 2 5731&106 V3M"

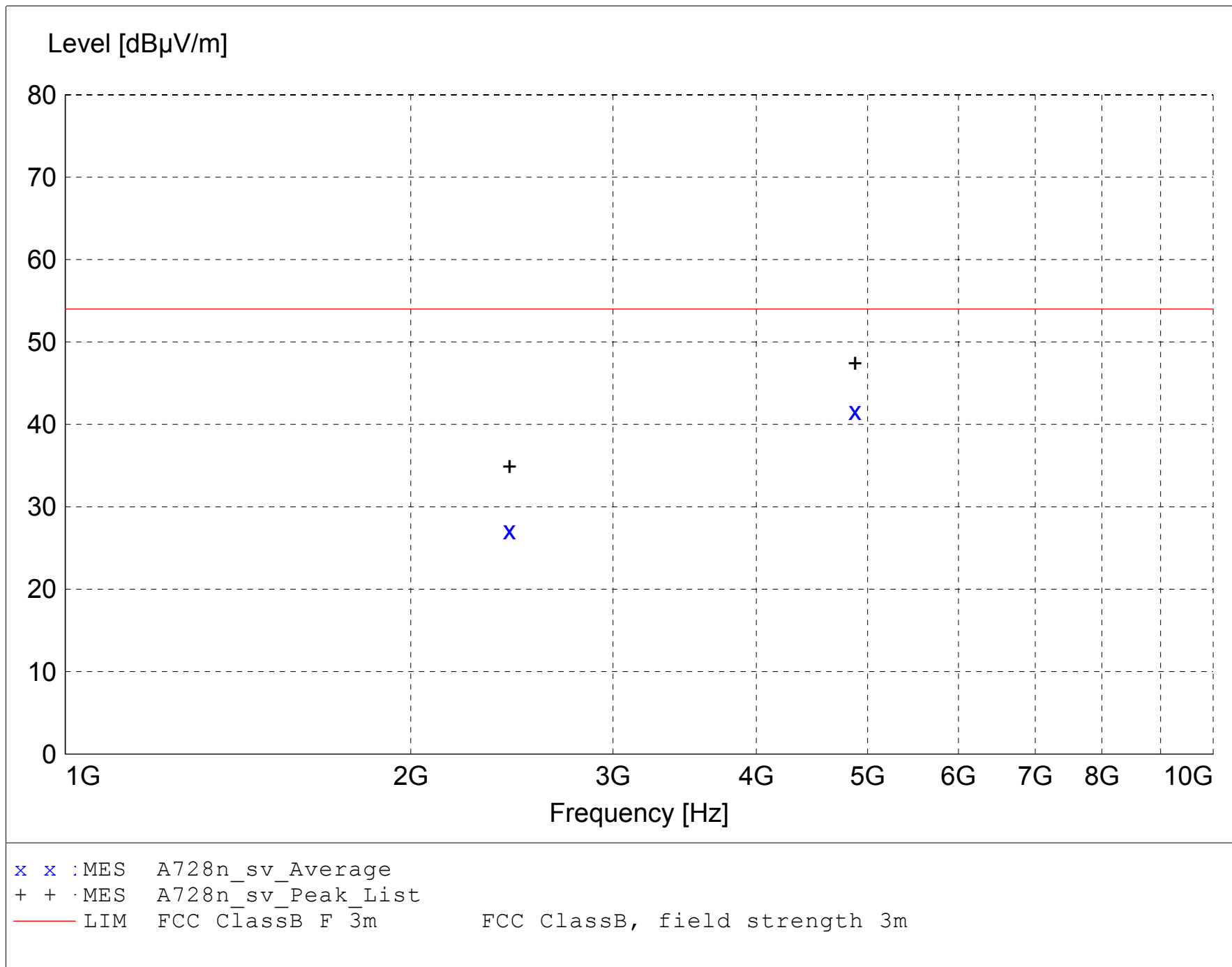
Short Description: Test Set-up Vert1GHz-
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 26 SN: 837491/010

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

Pre-Amps ---

1 - 18 GHz -- Miteq AMF-6B-100200-50 SN: 313936
18 - 26 GHz -- Miteq AMF-6D-010100-50 SN: 213976

TEST SET-UP: EuT Measured at 3 Meters with VERTICAL Antenna Polarisation



MEASUREMENT RESULT: "A728n_sv_Final"

7/28/2005 11:00AM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBμV	Factor	Loss	Level			Ant.	Angle	Detector	
		dBμV/m	dB	dBμV/m	dBμV/m	dB	m	deg		
4875.900000	43.54	32.88	-34.8	41.7	54.0	12.3	1.00	90	AVERAGE	None
2438.000000	35.64	28.32	-36.8	27.2	54.0	26.8	1.00	90	AVERAGE	None

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Test Specification: Powered by USB
Comment: Receive Mode Middle Channel: 2440 MHz
Date: 07/28/05

TEXT: "Site 2 5731&106 H3M"

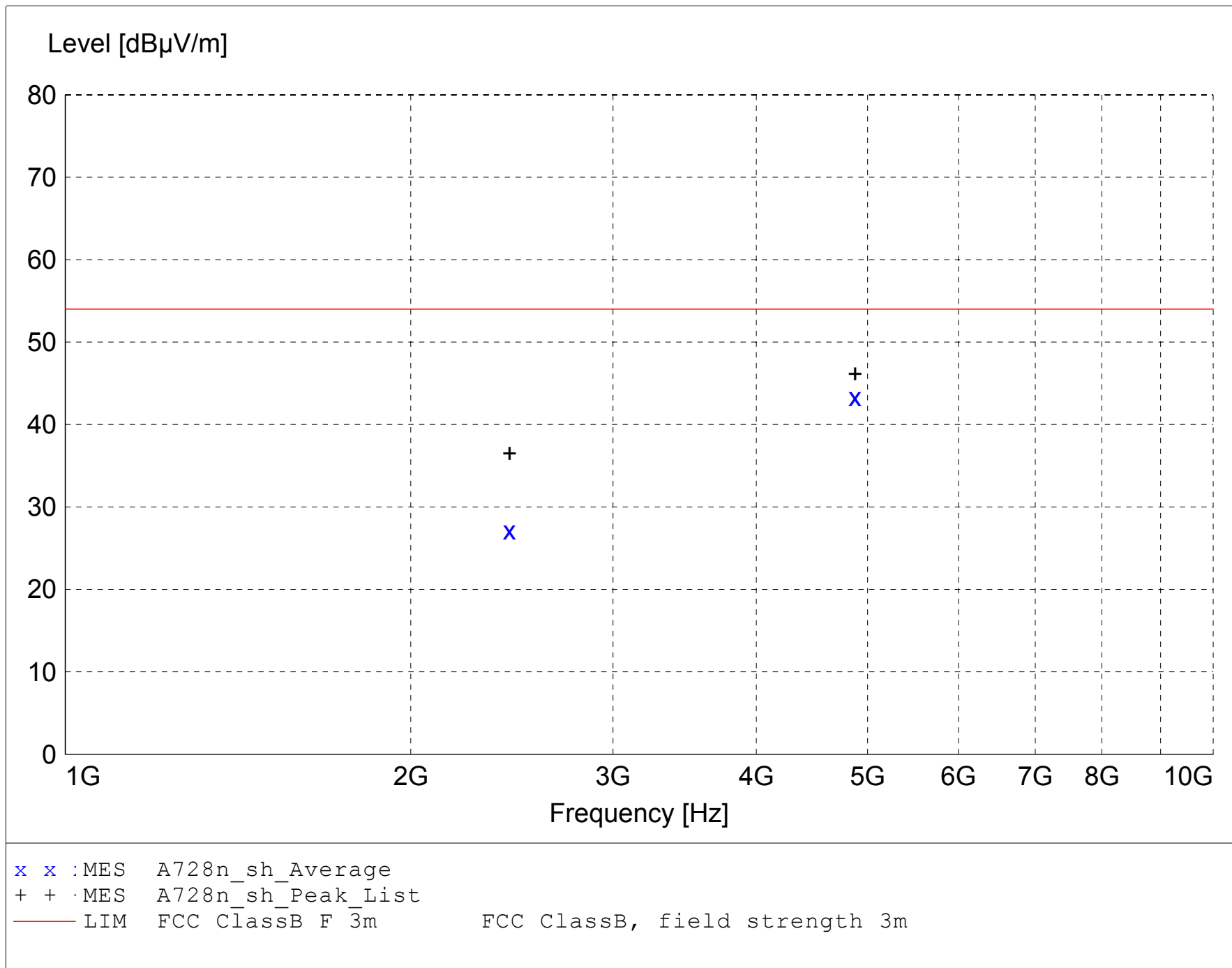
Short Description: Test Set-up Horz1GHz-
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 26 SN: 837491/010

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

Pre-Amps ---

1 - 18 GHz -- Miteq AMF-6D-010100-50 SN: 213976
18 - 26 GHz -- Miteq AMF-6B-100200-50 SN: 313936

TEST SET-UP: EuT Measured at 3 Meters with HORIZONTAL Antenna Polarisation



MEASUREMENT RESULT: "A728n_sh_Final"

7/28/2005 11:04AM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBµV	Factor	Loss	Level			Ant.	Angle	Detector	
		dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
4875.900000	45.21	32.88	-34.8	43.3	54.0	10.7	1.10	90	AVERAGE	None
2438.000000	35.59	28.32	-36.8	27.1	54.0	26.9	1.10	90	AVERAGE	None

FCC Part 15 Class B

Electric Field Strength

EUT: Renaissance Receiver
Manufacturer: Renaissance Learning
Operating Condition: 68 deg F; 50% R.H.
Test Site: DLS O.F. Site 2
Operator: Jason L.
Test Specification: Powered by USB
Comment: Receive Mode High Channel: 2480 MHz
Date: 07/28/05

TEXT: "Site 2 5731&106 V3M"

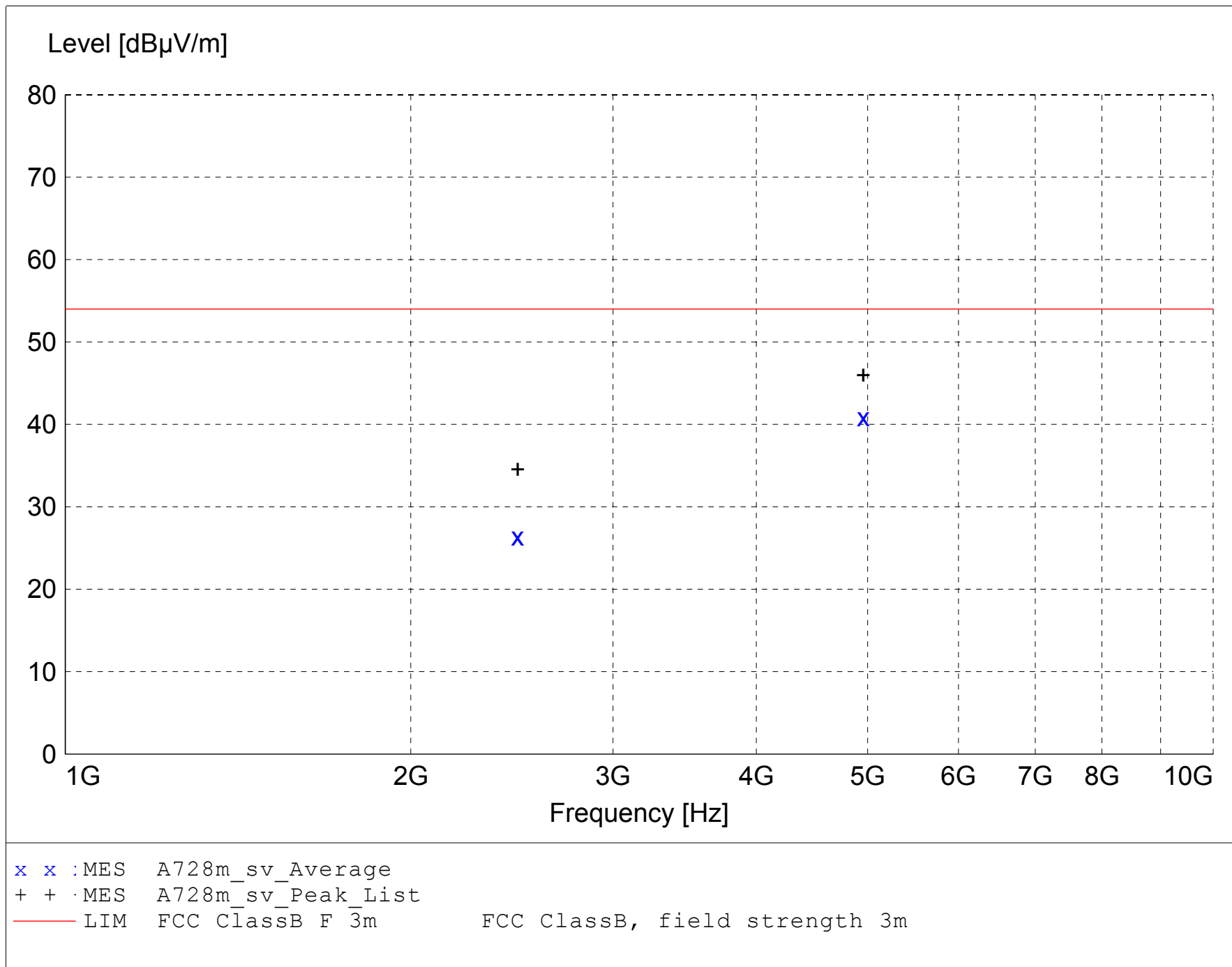
Short Description: Test Set-up Vert1GHz-
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 26 SN: 837491/010

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

Pre-Amps ---

1 - 18 GHz -- Miteq AMF-6B-100200-50 SN: 313936
18 - 26 GHz -- Miteq AMF-6D-010100-50 SN: 213976

TEST SET-UP: EuT Measured at 3 Meters with VERTICAL Antenna Polarisation



MEASUREMENT RESULT: "A728m_sv_Final"

7/28/2005 10:54AM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBµV	Factor	Loss	Level			Ant.	Angle	Detector	
		dBµV/m	dB	dBµV/m	dBµV/m	dB	m	deg		
4955.900000	42.32	33.05	-34.5	40.9	54.0	13.1	1.00	90	AVERAGE	None
2478.000000	34.78	28.40	-36.8	26.4	54.0	27.6	1.00	180	AVERAGE	None

FCC Part 15 Class B

Electric Field Strength

EUT: Renaissance Receiver
Manufacturer: Renaissance Learning
Operating Condition: 68 deg F; 50% R.H.
Test Site: DLS O.F. Site 2
Operator: Jason L.
Test Specification: Powered by USB
Comment: Receive Mode High Channel: 2480 MHz
Date: 07/28/05

TEXT: "Site 2 5731&106 H3M"

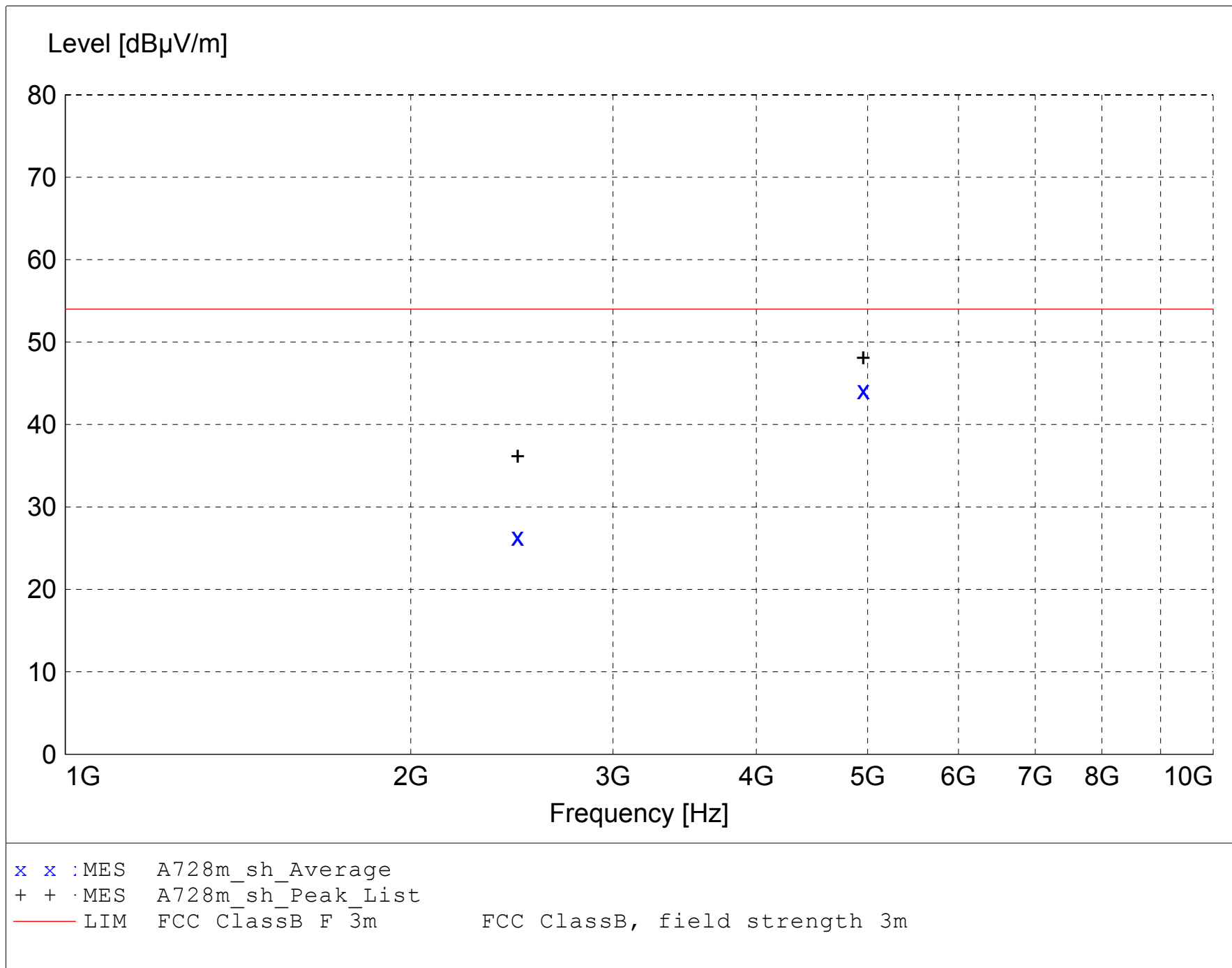
Short Description: Test Set-up Horz1GHz-
TEST EQUIPMENT: Receiver --- Rohde&Schwarz ESI 26 SN: 837491/010

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

Pre-Amps ---

1 - 18 GHz -- Miteq AMF-6D-010100-50 SN: 213976
18 - 26 GHz -- Miteq AMF-6B-100200-50 SN: 313936

TEST SET-UP: EuT Measured at 3 Meters with HORIZONTAL Antenna Polarisation



MEASUREMENT RESULT: "A728m_sh_Final"

7/28/2005 10:48AM

Frequency	Level	Antenna	System	Total	Limit	Margin	Height	EuT	Final	Comment
MHz	dBμV	Factor	Loss	Level			Ant.	Angle	Detector	
		dBμV/m	dB	dBμV/m	dBμV/m	dB	m	deg		
4955.900000	45.63	33.05	-34.5	44.2	54.0	9.8	1.10	90	AVERAGE	None
2478.000000	34.82	28.40	-36.8	26.4	54.0	27.6	1.10	270	AVERAGE	None

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Operating Condition: 72 deg F; 46% R.H.
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Operator: Jason L.
Test Specification: Powered by USB
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Date: 07/28/05

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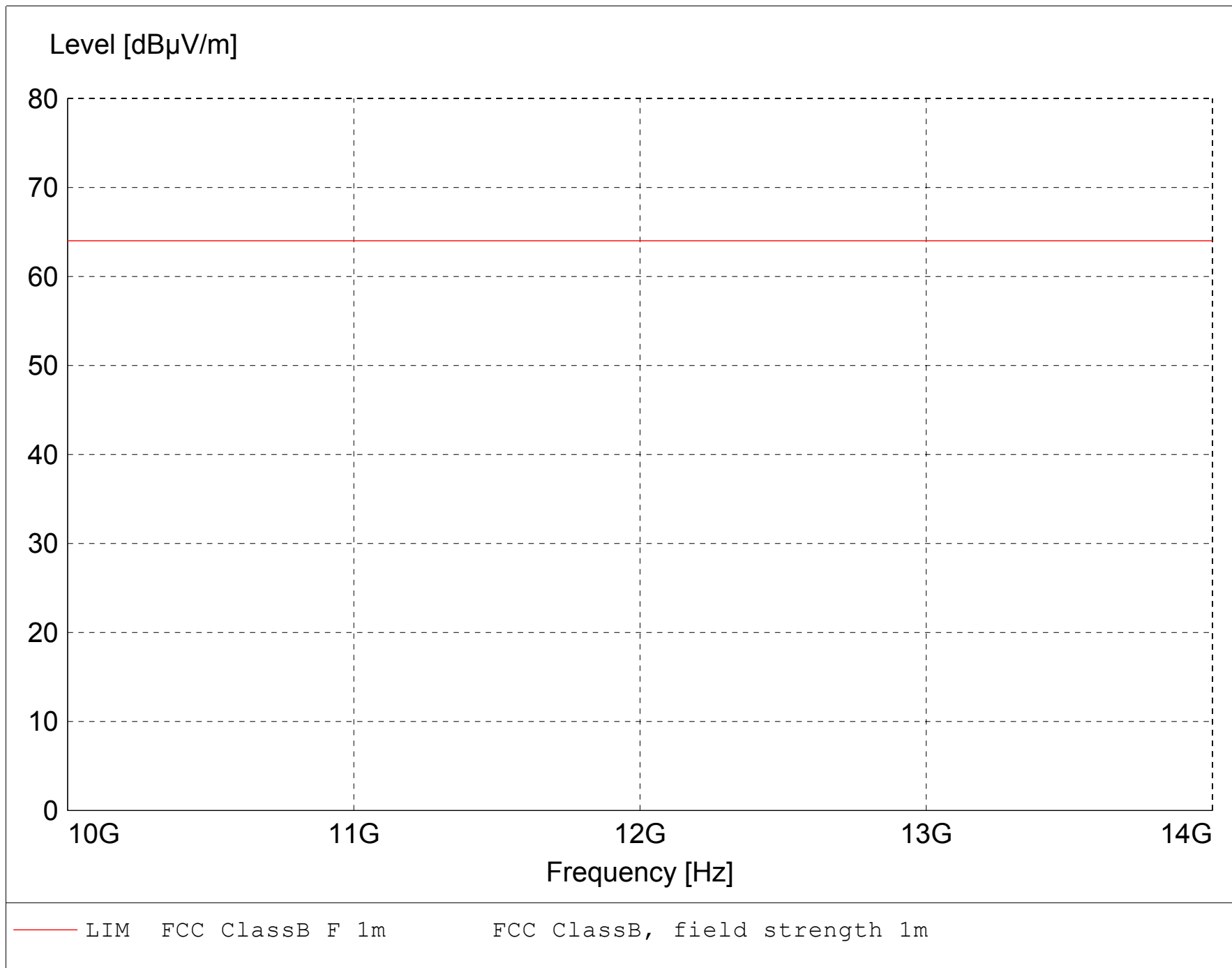
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Horn Antenna --- EMCO 3115 SN: 9903-5731

Pre-Amps ---

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TEST SET-UP: EuT Measured at 1 Meters with VERTICAL Antenna Polarisation



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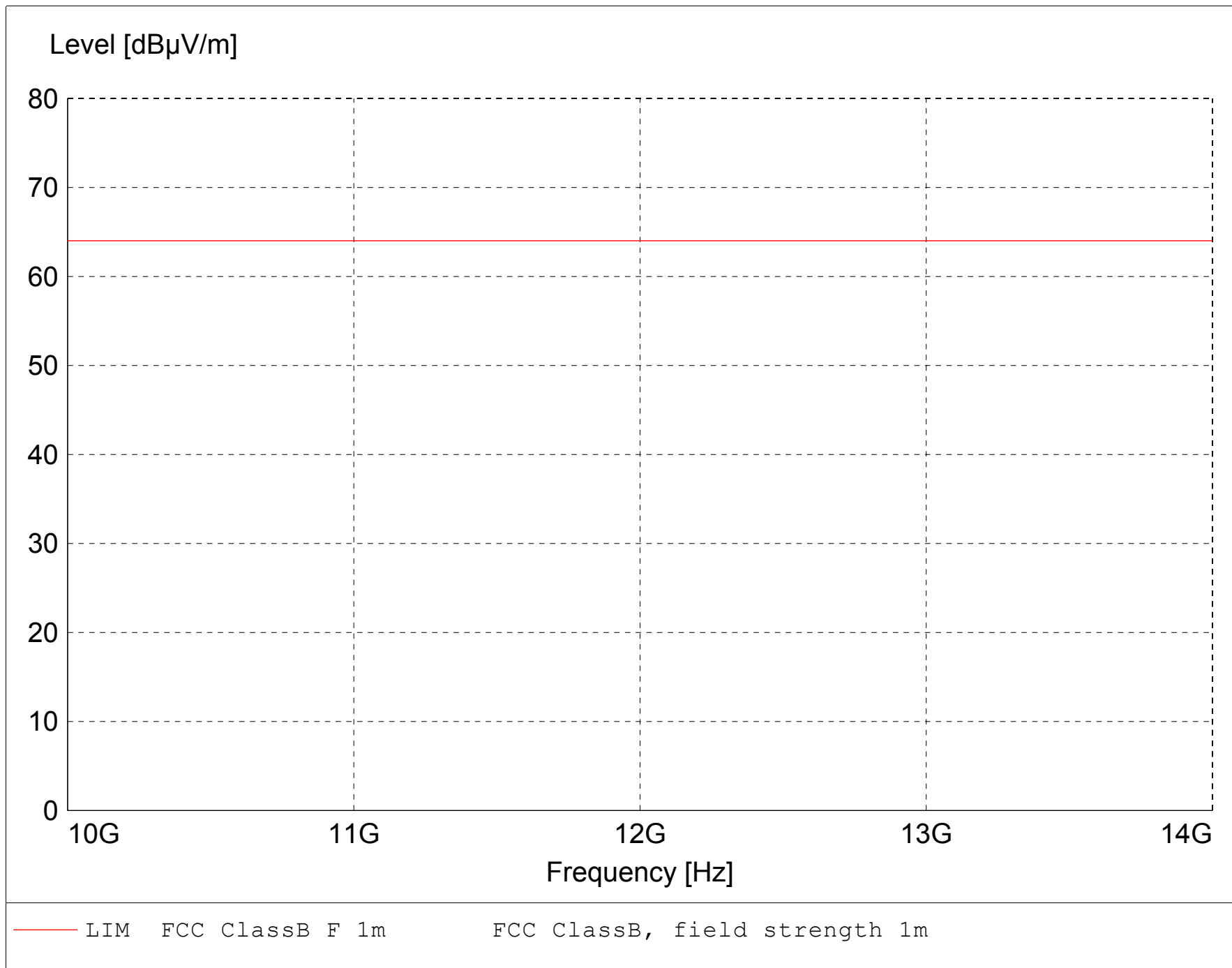
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TEST SET-UP: EuT Measured at 1 Meters with HORIZONTAL Antenna Polarisation



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Test Site: DLS O.F. Site 2
Operator: Jason L.
Test Specification: Powered by USB
Comment: Receive Mode Middle Channel: 2440 MHz
Date: 07/28/05

TEXT: "Site 2 5731&106 V1M"

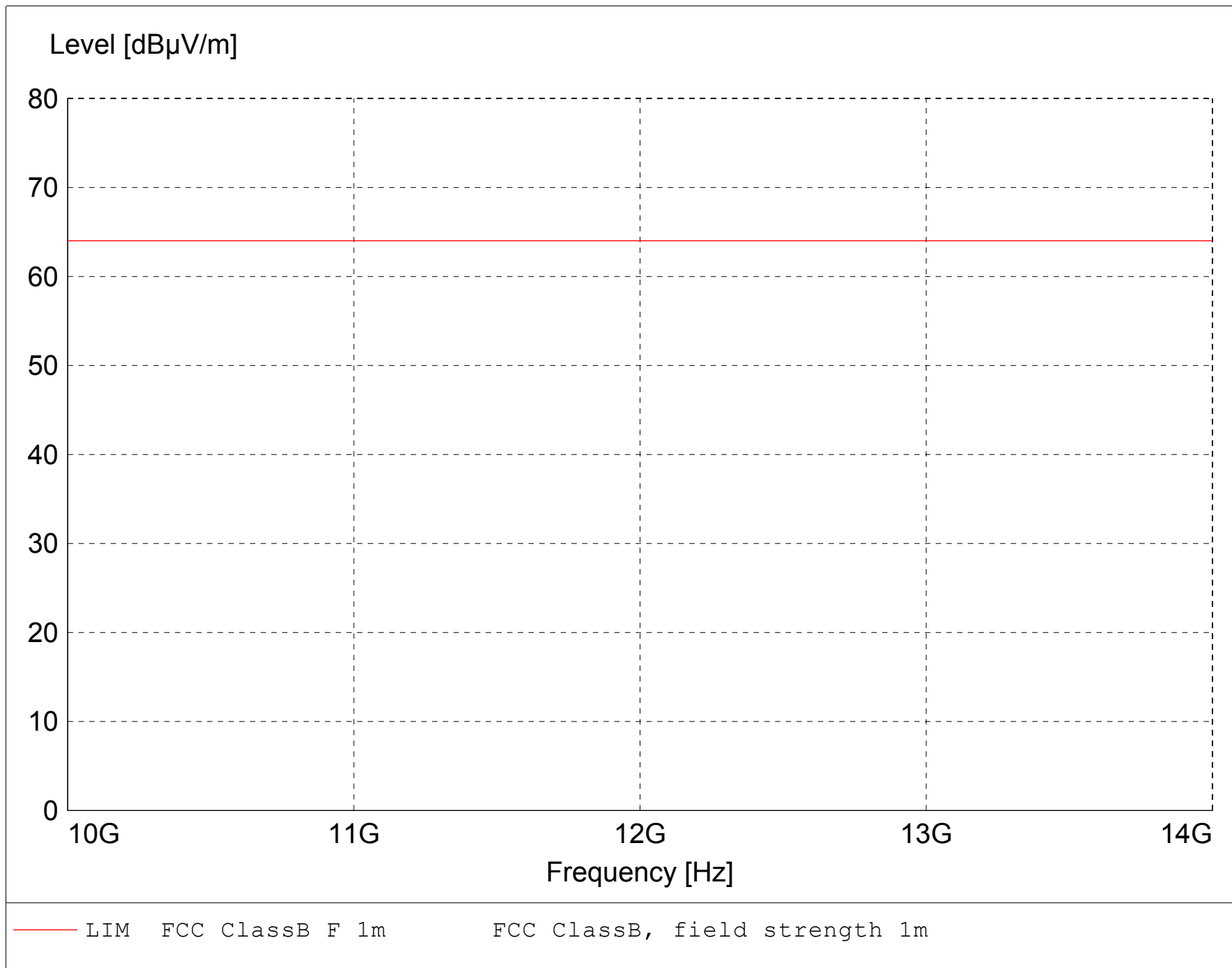
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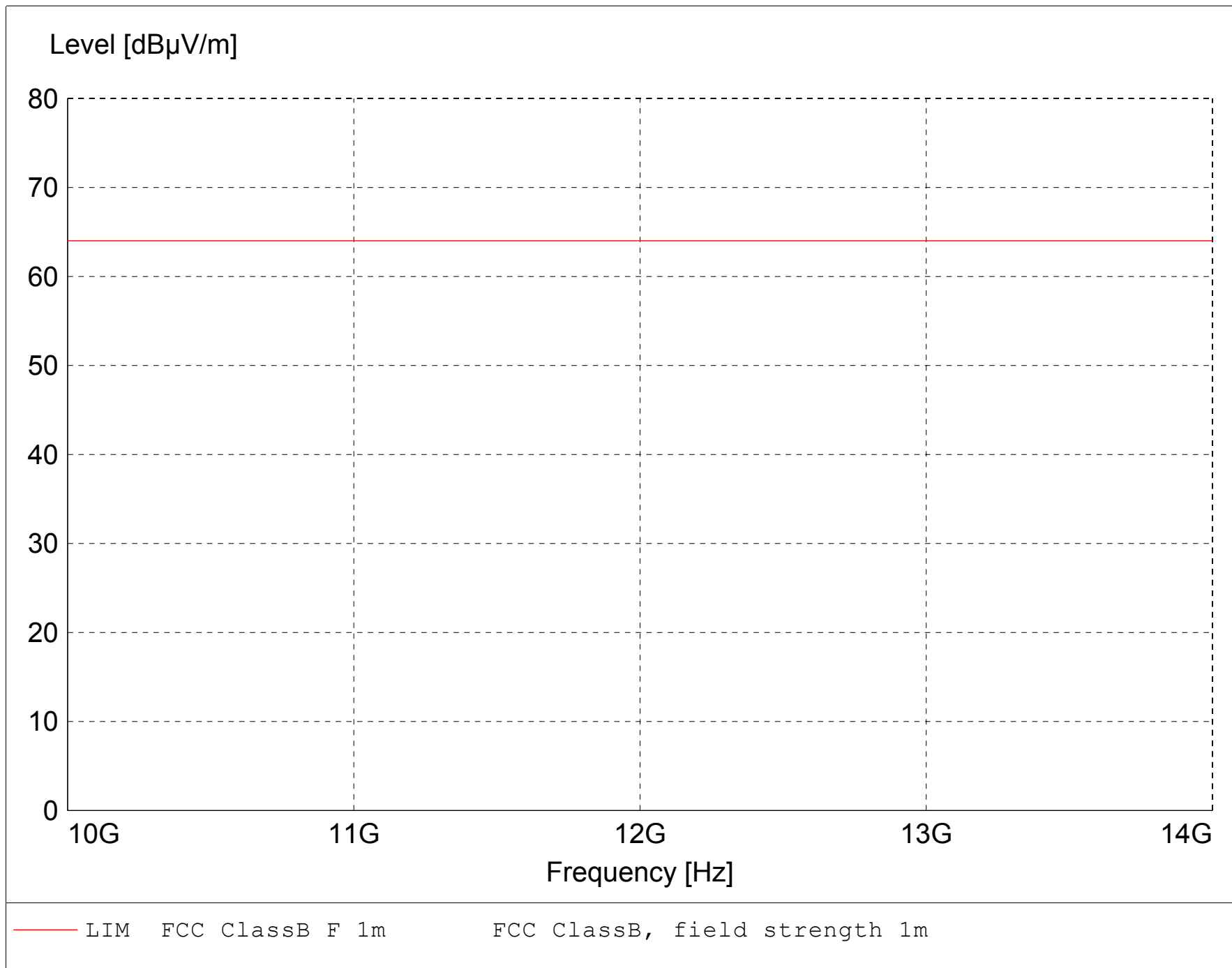
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Pre-Amps ---

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Operator: Jason L.
Test Specification: Powered by USB
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TEXT: "Site 2 5731&106 V1M"

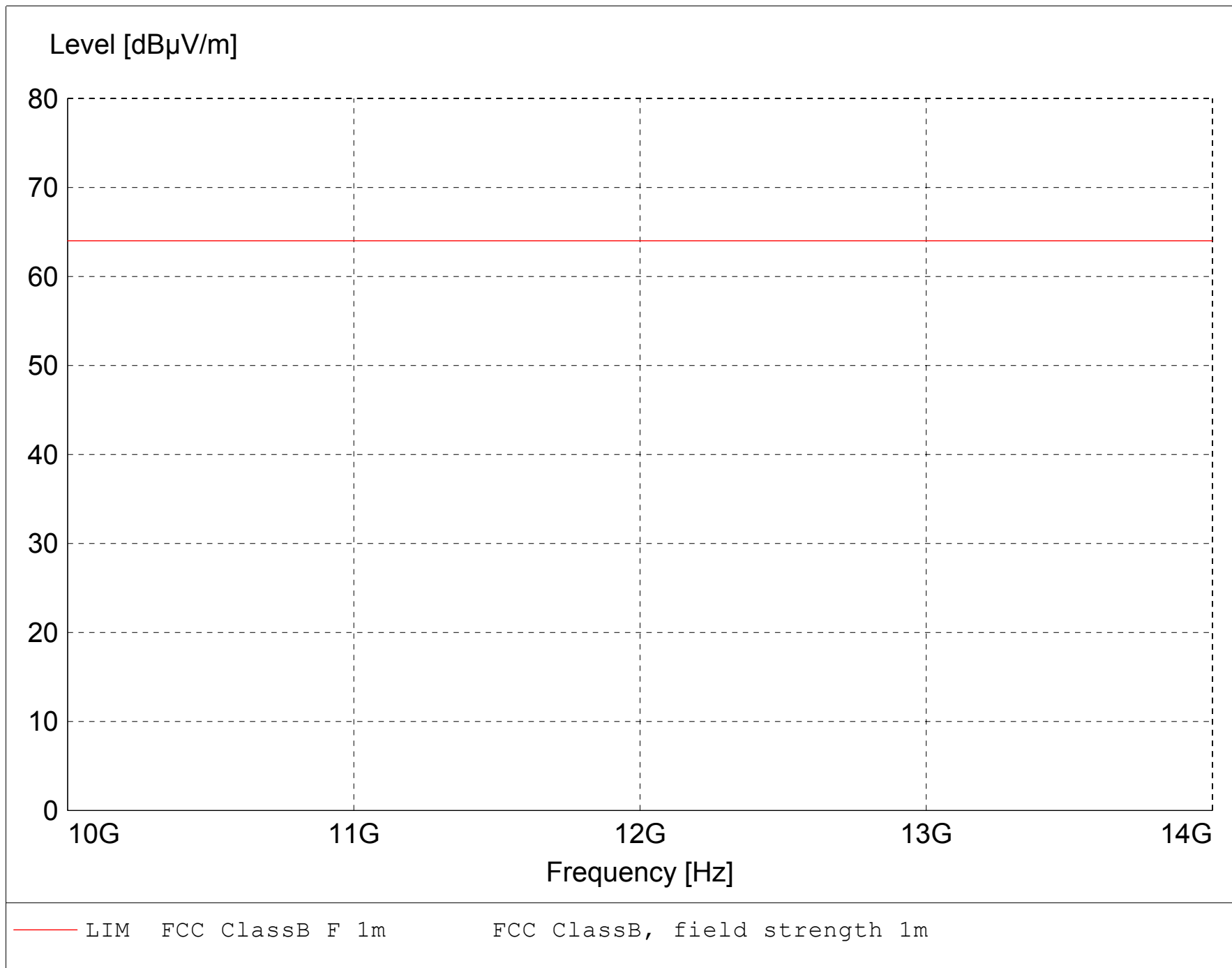
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Horn Antenna --- EMCO 3115 SN: 9903-5731

Pre-Amps ---

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TEST SET-UP: EuT Measured at 1 Meters with VERTICAL Antenna Polarisation



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