ELECTRONICS TEST CENTRE
MPB TECHNOLOGIES INC.

Test Report Prepared By:

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Emissions Testing of ETHx in accordance with FCC Part 15.249,

Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHZ, and 24.0-24.25 GHz.

Test Personnel: Trung Nguyen, Jianming Zhang, David Raynes

Prepared for: Eleven Engineering Inc.

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Authorized Signatory

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1.0 INTRODUCTION

1.1 SCOPE

The purpose of this report is to present the findings and results of compliance testing performed in accordance with CFR Title 47 FCC Part 15.249.

1.2 APPLICANT

This test report has been prepared for Eleven Engineering Inc., located in Edmonton, Alberta, Canada.

1.3 APPLICABILITY

All test procedures, limits, and results defined in this document apply to the Eleven Engineering Inc. ETHx unit, referred to herein as the Equipment Under Test (EUT).

The results contained in this report relate only to the item tested.

This report does not imply product endorsement by NVLAP or the Canadian or US governments.

1.4 TEST SAMPLE DESCRIPTION

The test sample provided for testing was an ETHx wireless Ethernet bridge:

Product Type:	Commercial
Model Number:	Prototype
Serial Number:	Prototype
Cables:	- power cable - Ethernet cable - RS 232 cable
Power Requirements:	- 120 VAC - 0.3 amps - 60 Hz
Peripheral Equipment:	- computer laptop

More detailed information is provided by Eleven Engineering Inc. in Appendix A.

1.5 GENERAL TEST CONDITIONS AND ASSUMPTIONS

The EUT was set up and exercised using the configurations, modes of operation and arrangements defined in this report only. All inputs and outputs to and from other equipment associated with the EUT were adequately simulated.

Where relevant, the EUT was only tested using the monitoring methods and test criteria defined in this report.

Environmental conditions are recorded for each test.

1.6 SCOPE OF TESTING

Testing was performed in accordance with FCC Part 15.249 Subpart C (2000), and ANSI C63.4 (2000).

1.6.1 VARIATIONS IN TEST METHODS

There were no variations from the test procedures outlined above.

1.6.2 MARGINAL EMISSIONS MEASUREMENTS

As noted in Section 4, some emissions were measured to be within -6 dB of the specified limit:

1.6.3 TEST SAMPLE CONFIGURATION & MODIFICATIONS

No EUT modifications were performed in order to meet the specifications.

2.0 ABBREVIATIONS

AP -Average Peak
CE -Conducted Emissions
E -Field - Electric Field
H -Field - Magnetic Field
N/T -Not Tested
N/A -Not Applicable
PK -Peak
QP -Quasi Peak
RE -Radiated Emissions

3.0 MEASUREMENT UNCERTAINTY

For Radiated E-Field Emissions and Conducted Emissions, the uncertainties in the measurements were calculated using the methods outlined in the NAMAS document, NIS81: May 1984.

Frequency	= ± 1 kHz
Amplitude (RE)	= ± 4.01 dB
Amplitude (CE)	= ± 3.25 dB

4.0 TEST CONCLUSION

STATEMENT OF COMPLIANCE

The client equipment referred to in this report was found to comply with the requirements as stated below.

The EUT was subjected to the following tests. Compliance status is reported as **PASS** or **FAIL**. Test conditions that are not applicable to the EUT are marked **n/a**. If testing was not performed at this time, the appropriate field is marked **n/t**.

The following table summarizes the test results in terms of the specification and class or level applied, the unique test sample identification, the EUT modification state, and configuration as applicable.

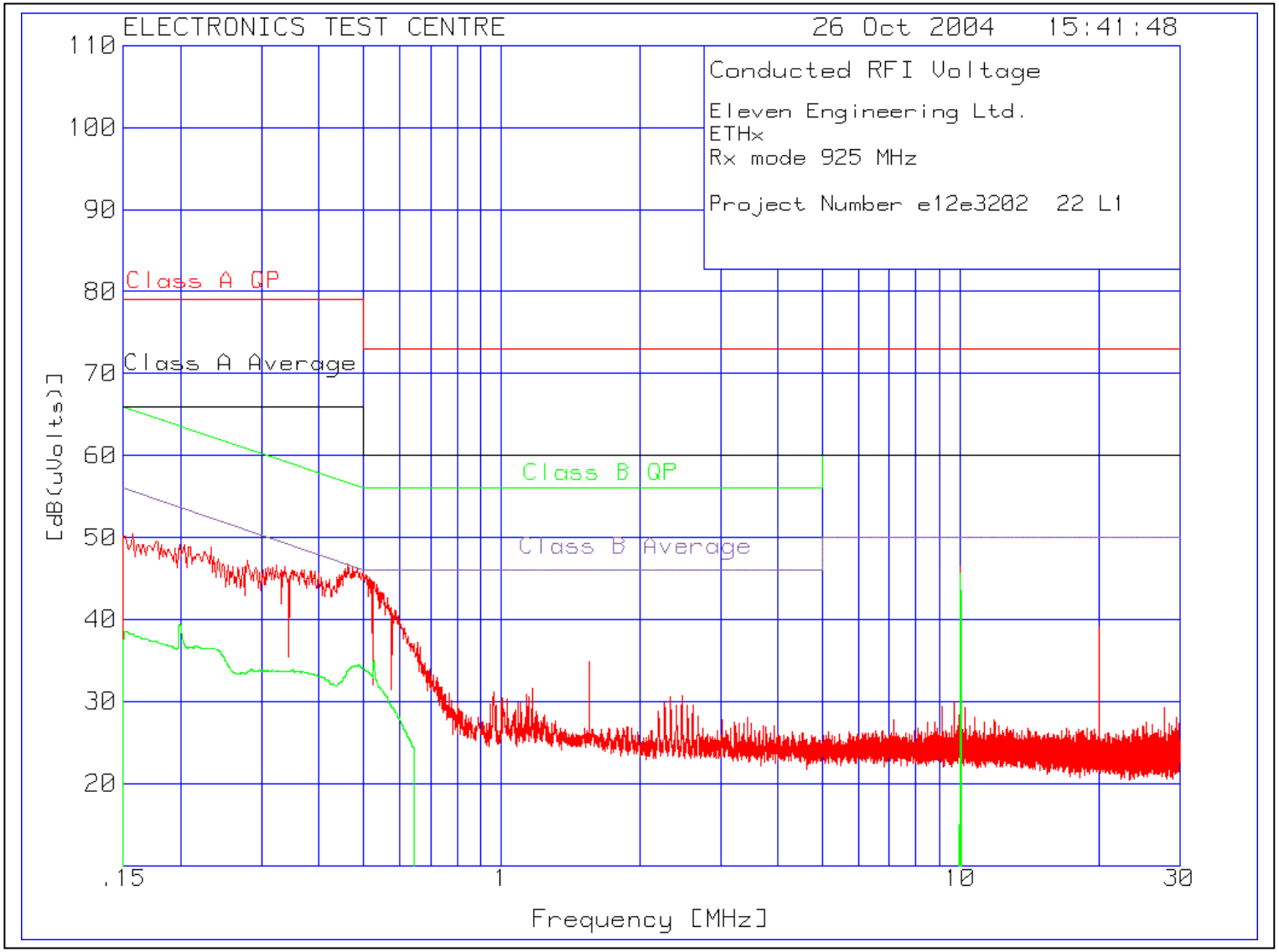
TEST CASE	TEST TYPE	SPECIFICATION	TEST SAMPLE	MOD. STATE	CONFIGURATION	RESULT
§4.1	Conducted Emissions at AC lines	FCC Part 15.107 and 15.207	ETHx	nil	See § 1.6.3	**PASS**
§4.2a	Radiated Emissions (Rx Mode)	FCC Part 15.109	ETHx	nil	See § 1.6.3	**PASS**
§4.2b	Radiated Emissions (Tx Mode)	FCC Parts 15.205, 15.209 and 15.249	ETHx	nil	See § 1.6.3	**PASS**

4.1 CONDUCTED EMISSIONS ON AC POWER LINES

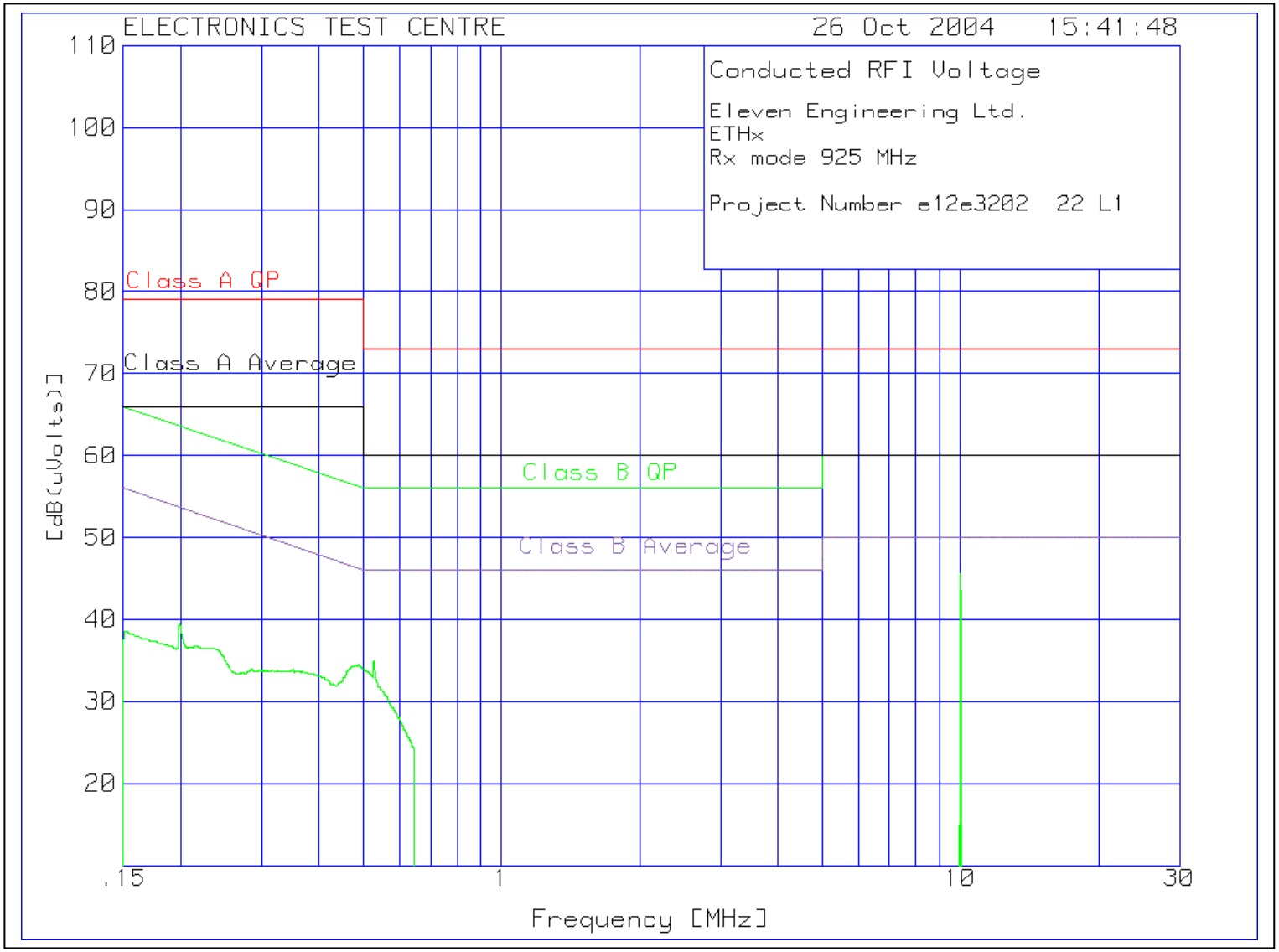
4.1a Receive Mode

Test Lab: Electronics Test Centre (Airdrie) Test Personnel: David Raynes Test Date: 26 October 2004	Product: ETHx
Test Result, ETHx: **PASS**	
Objectives/Criteria The Conducted emissions produced by a system or sub-system shall not exceed the limits for the specifications as stated. **Emission levels should meet the requirements with a margin of 6dB**. Temperature = 21 °C Humidity = 37 %	Specification: Frequency (MHz) QP Avg 0.150 - 0.50 66 – 56 56 - 46 0.50 – 5.0 56 46 5 – 30 60 50 Units of measurement are dBμV.
There were no emissions measured within -6 dB of the specified limit. Refer to the test data and plots for more detail.	

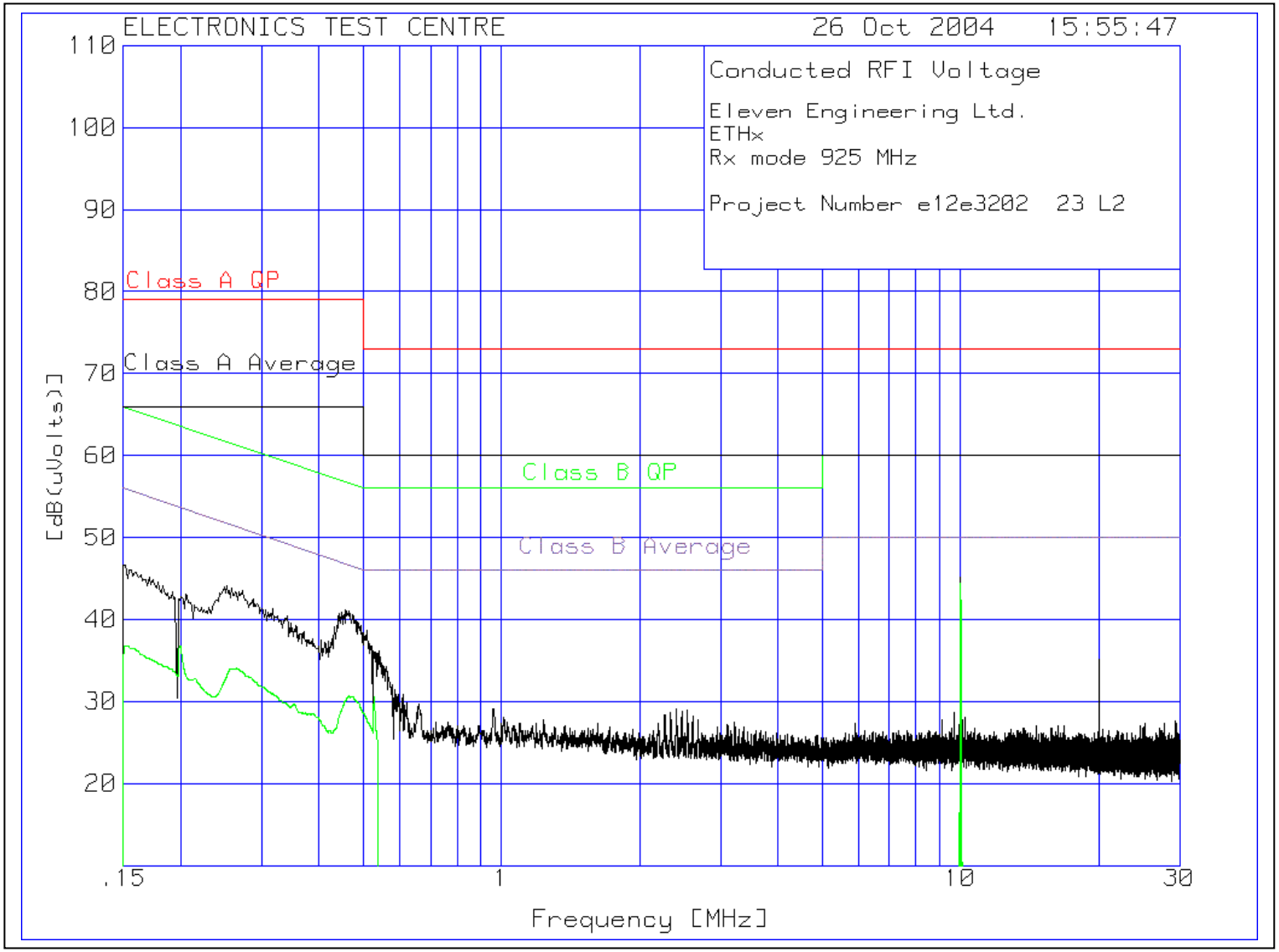
Plot of Conducted Emissions on AC Power Lines: Line 1



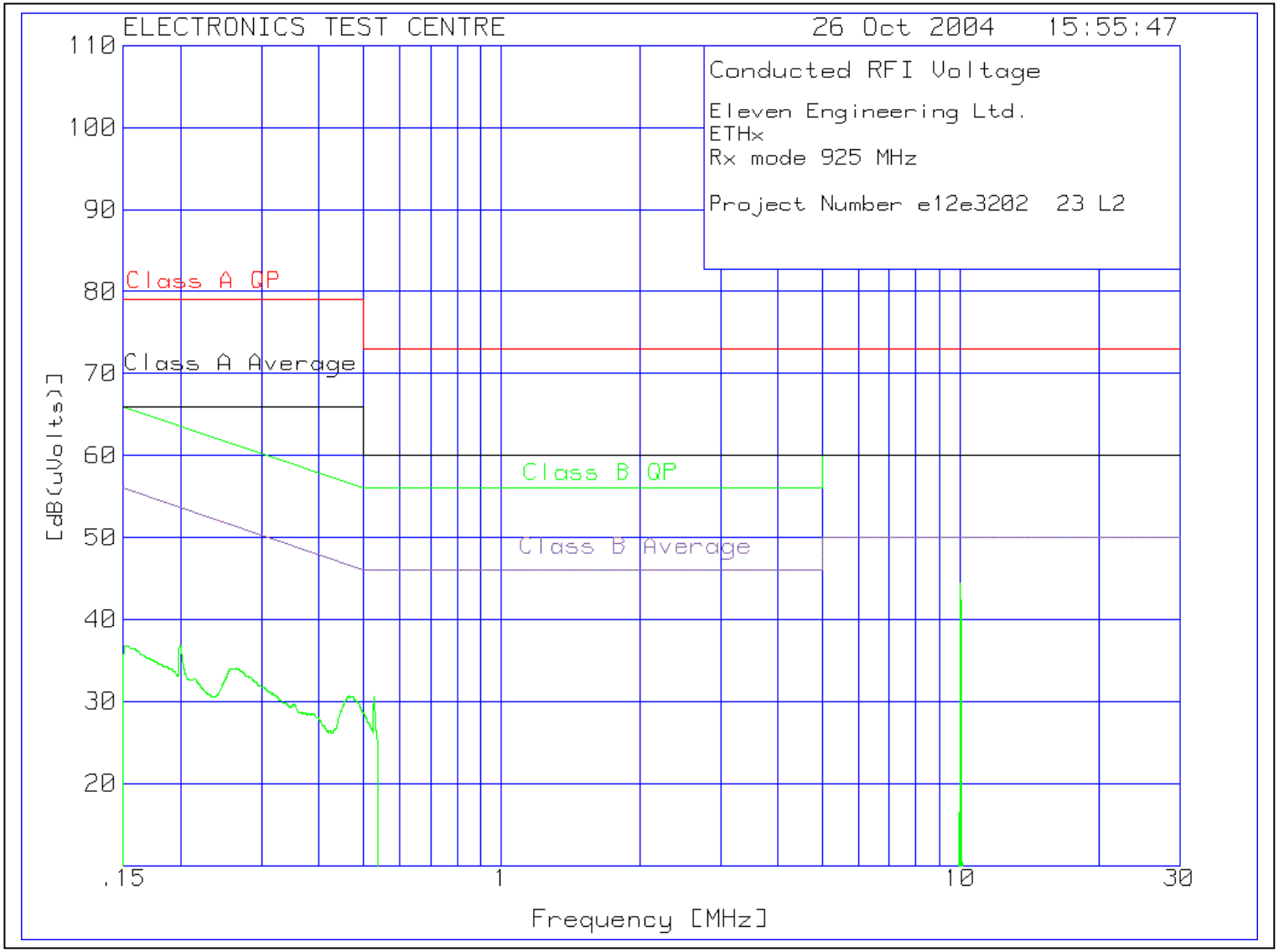
Plot of Conducted Emissions on AC Power Lines: Line 1



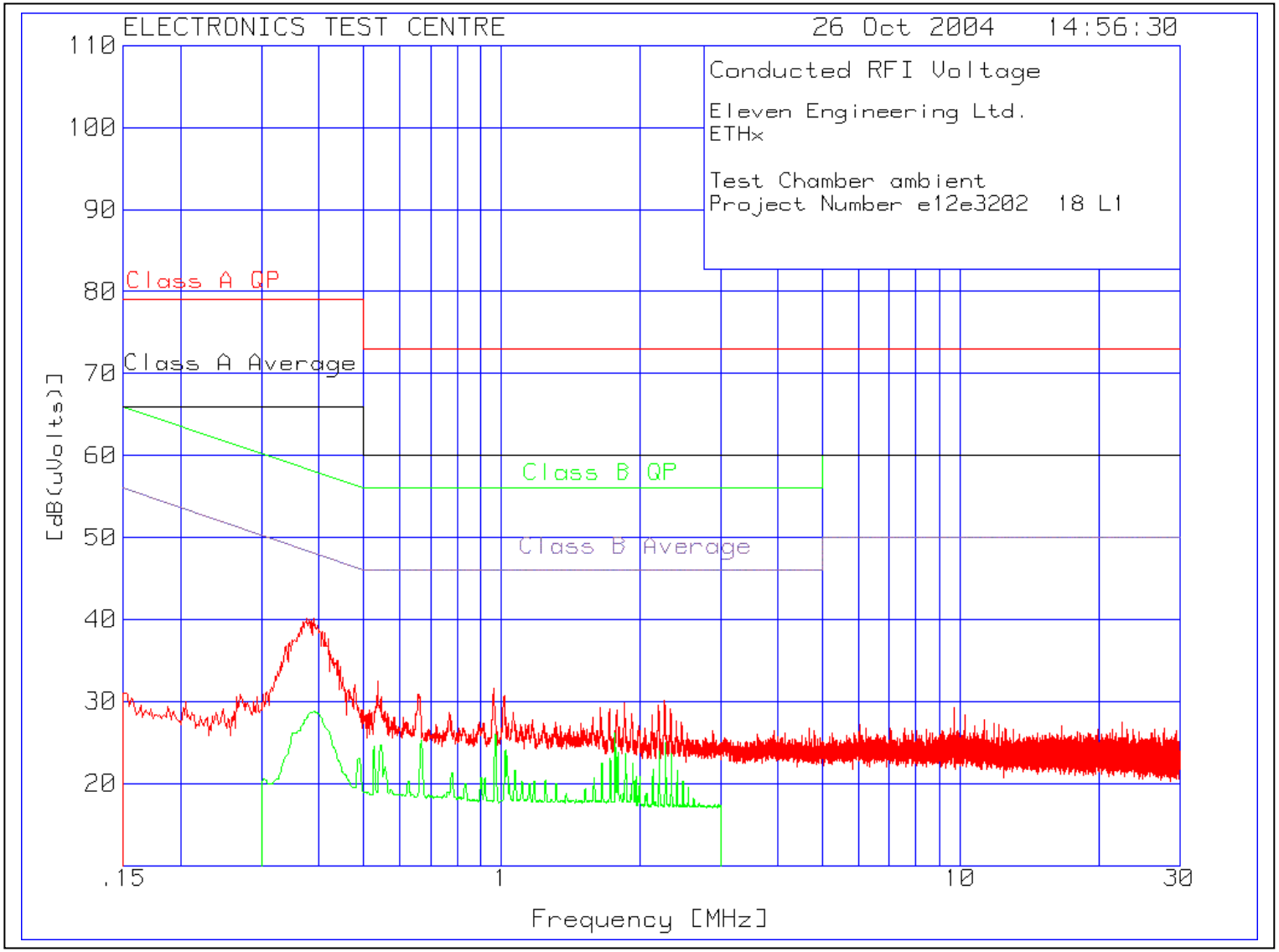
Plot of Conducted Emissions on AC Power Lines: Line 2



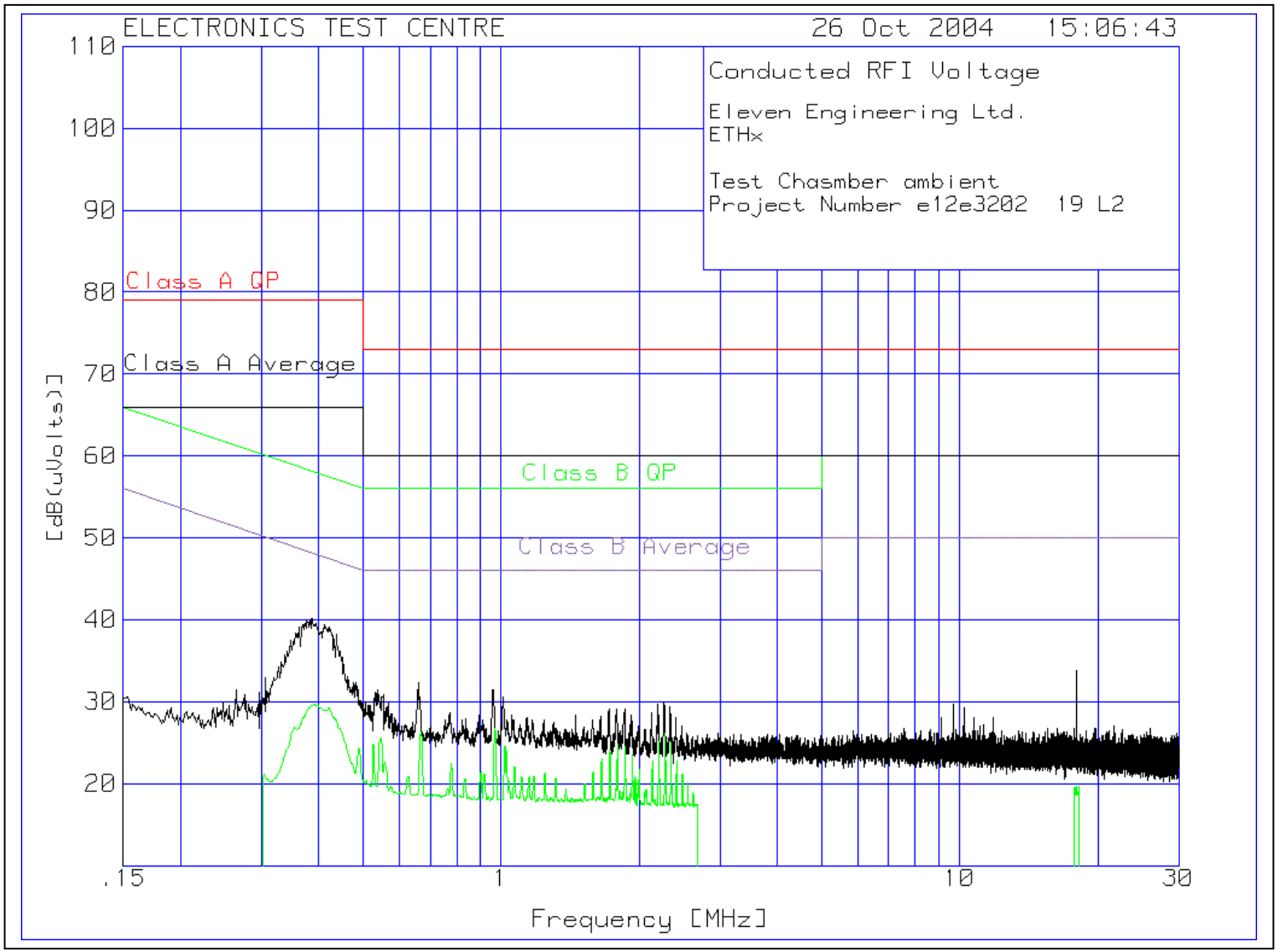
Plot of Conducted Emissions on AC Power Lines: Line 2



Plot of Conducted Emissions Test Chamber Ambient on AC Power Lines: Line 1



Plot of Conducted Emissions Test Chamber Ambient on AC Power Lines: Line 2



4.1b Transmit Mode

f_c = 905 MHz

Test Lab: Electronics Test Centre (Airdrie) Test Personnel: David Raynes Test Date: 26 October 2004	Product: ETHx
Test Result, ETHx: **PASS**	
Objectives/Criteria The Conducted emissions produced by a system or sub-system shall not exceed the limits for the specifications as stated. **Emission levels should meet the requirements with a margin of 6dB**. Temperature = 21 °C Humidity = 37 %	Specification: Frequency (MHz) QP Avg 0.150 - 0.50 66 – 56 56 - 46 0.50 – 5.0 56 46 5 – 30 60 50 Units of measurement are dBμV.
There were no emissions measured within -6 dB of the specified limit. Refer to the test data and plots for more detail.	

Conducted Emissions Data:

The emissions data is presented in tabular form, showing the uncorrected spectrum analyzer reading, the type of detector, the correction factors applied, the net result, the value(s) of up to 4 limits at the frequency measured, and the margin between the result and the limit(s).

For example:

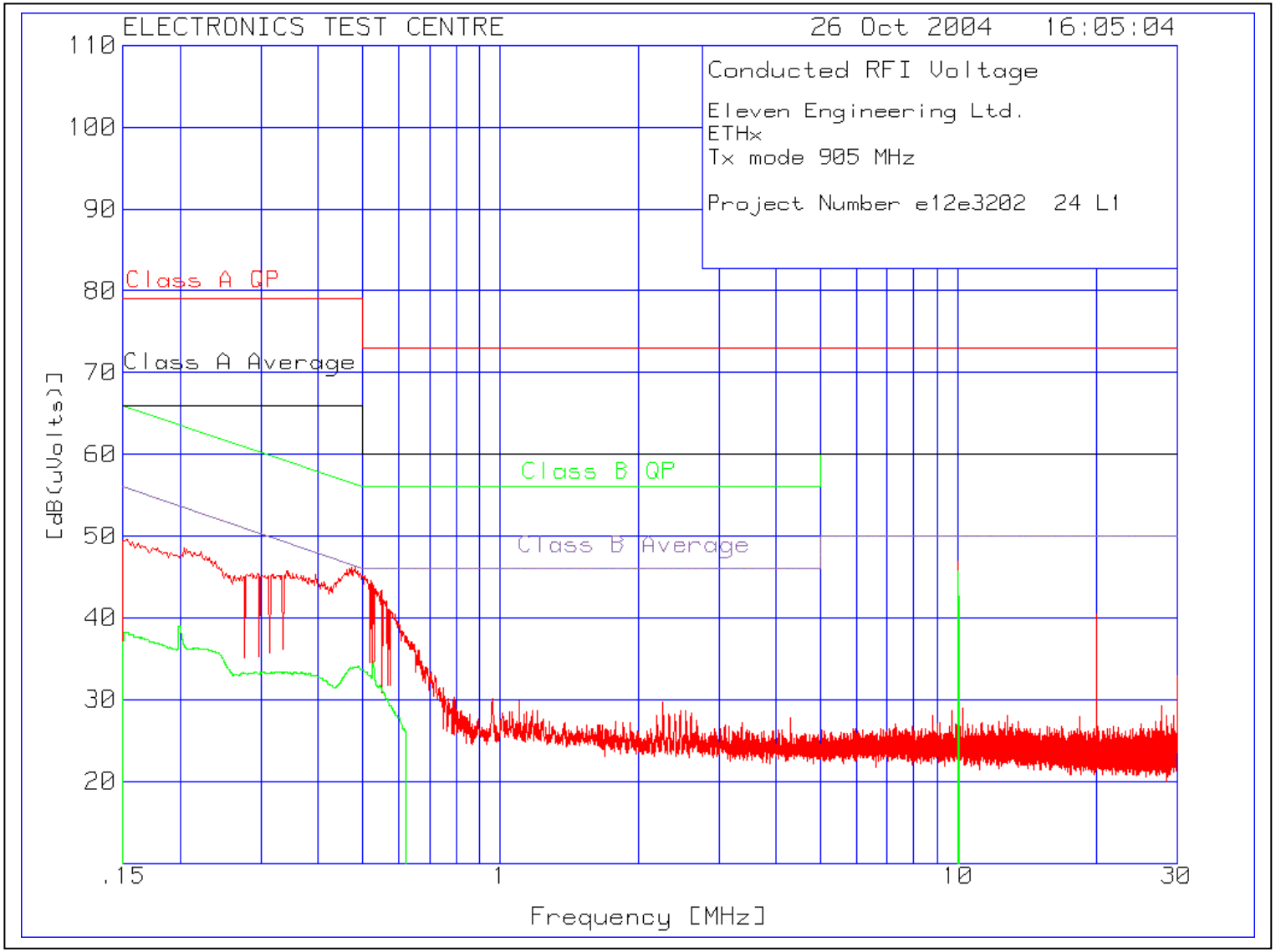
```
Test    Meter  Gain/Loss Transducer Level Limit:1      2     3     4
Frequency Reading  Factor    Factor    [dB(uVolts)]
  [MHz]   [dB(uV)]  [dB]      [dB]                          ⇓
=========================================================================
L1
.3052      35.6 pk   10       1.1      46.7   66      79     50.1   60.1
                             Margin [dB]     -19.3   -32.3  -3.4   -13.4
```

⇓		The applicable Limit
L1		This reading was taken on Line 1
Test Frequency [MHz}	.3052	Test Frequency f = 0.3052 MHz (305.2 kHz)
Meter Reading [dB (uV)]	35.6 pk	The reading with Peak detector
Gain/Loss Factor [dB]	10	Net correction for preamp gain & cable loss
Transducer Factor [dB]	1.1	Correction for LISN loss
Level [dB (uVolts)]	46.7	Corrected value for voltage measurement
Limit: 1	66	The value of Limit 1 at 0.3052 MHz
Margin [dB]	-19.3	The measured voltage is 19.3 dB below Limit 1
Limit: 2	79	The value of Limit 2 at 0.3052 MHz
Margin [dB]	-32.3	The measured voltage is 32.3 dB below Limit 2
Limit: 3	50.1	The value of Limit 3 at 0.3052 MHz
Margin [dB]	-3.4	The measured voltage is 3.4 dB below Limit 3
Limit: 4	60.4	The value of Limit 4 at 0.3052 MHz
Margin [dB]	-13.4	The measured voltage is 13.4 dB below Limit 4

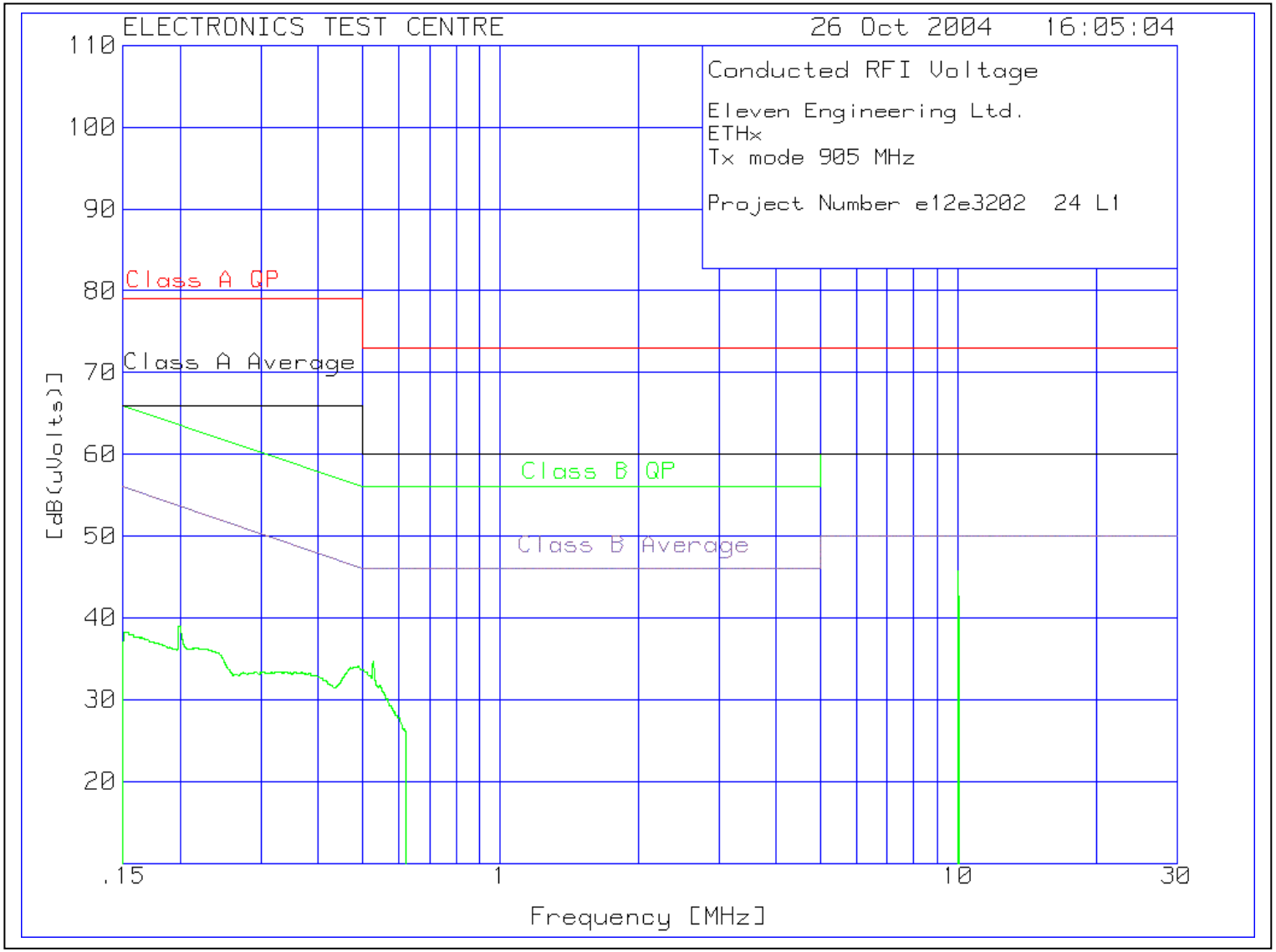
Meter Reading in dBuV + Gain/Loss Factor in dB + Transducer Factor in dB = Corrected Voltage

Note: When a preamp is used, the resulting gain is compensated.
Highlighting indicates a margin of less than 6 dB.

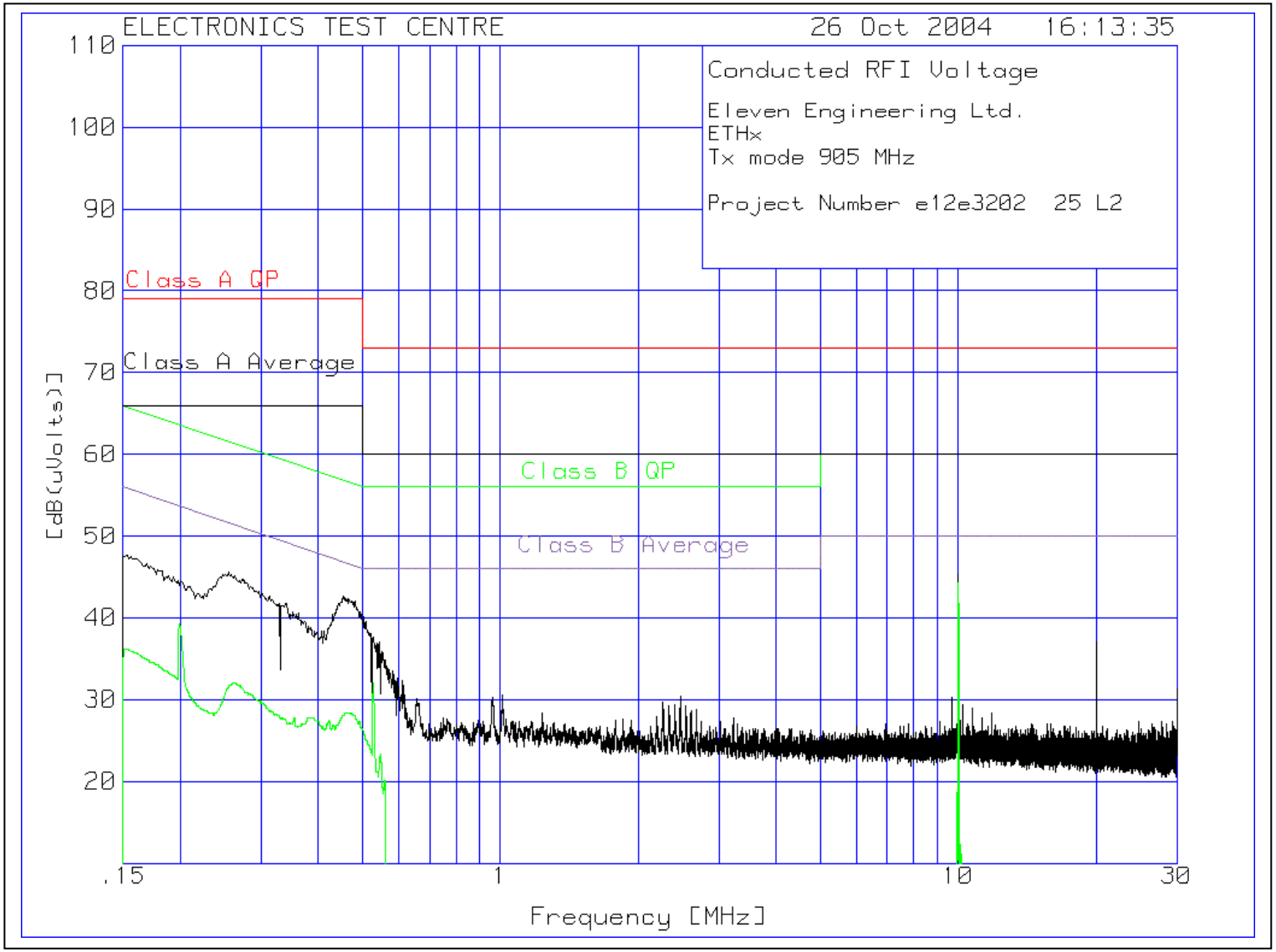
Plot of Conducted Emissions on AC Power Lines: Line 1



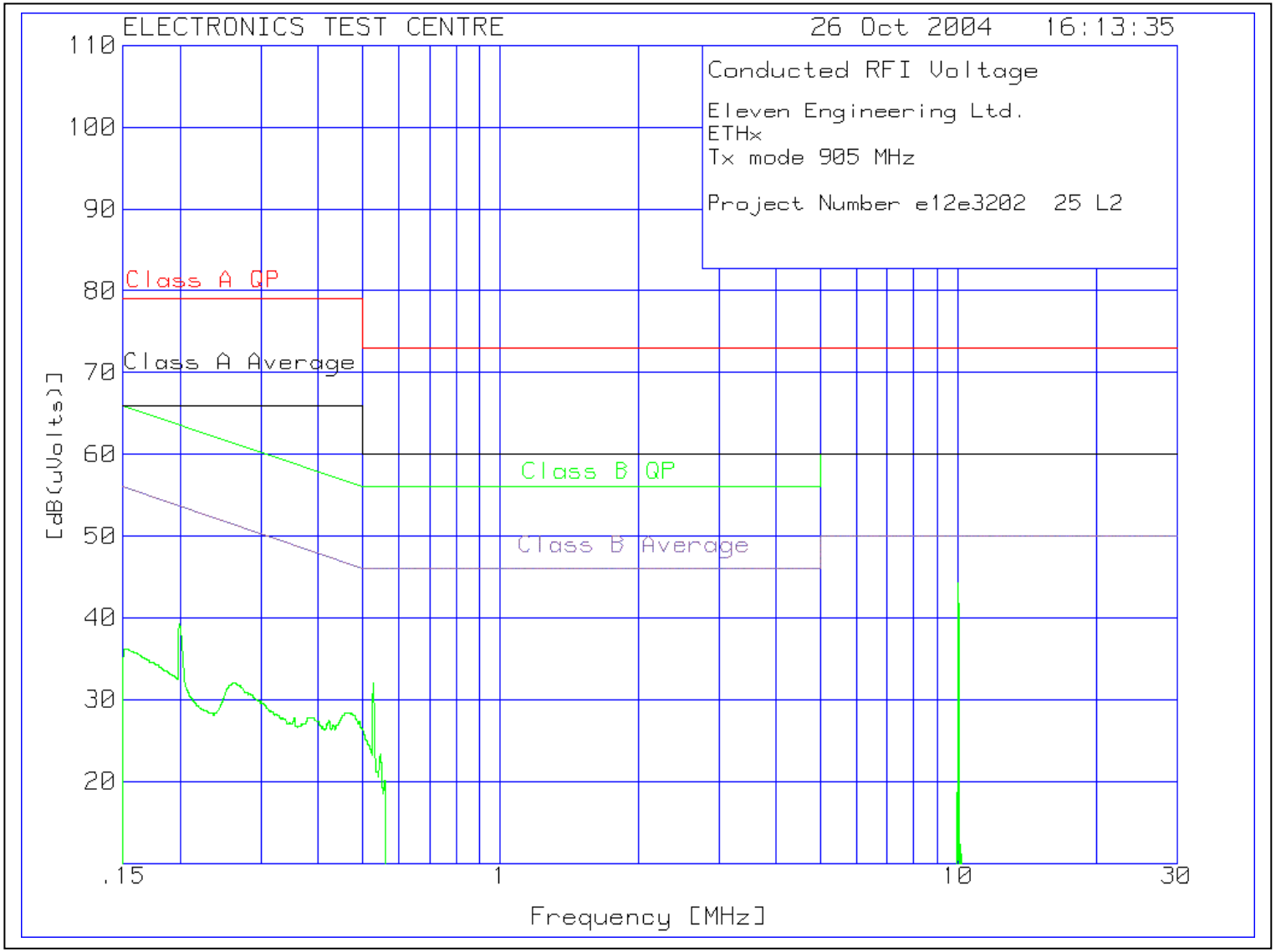
Plot of Conducted Emissions on AC Power Lines: Line 1



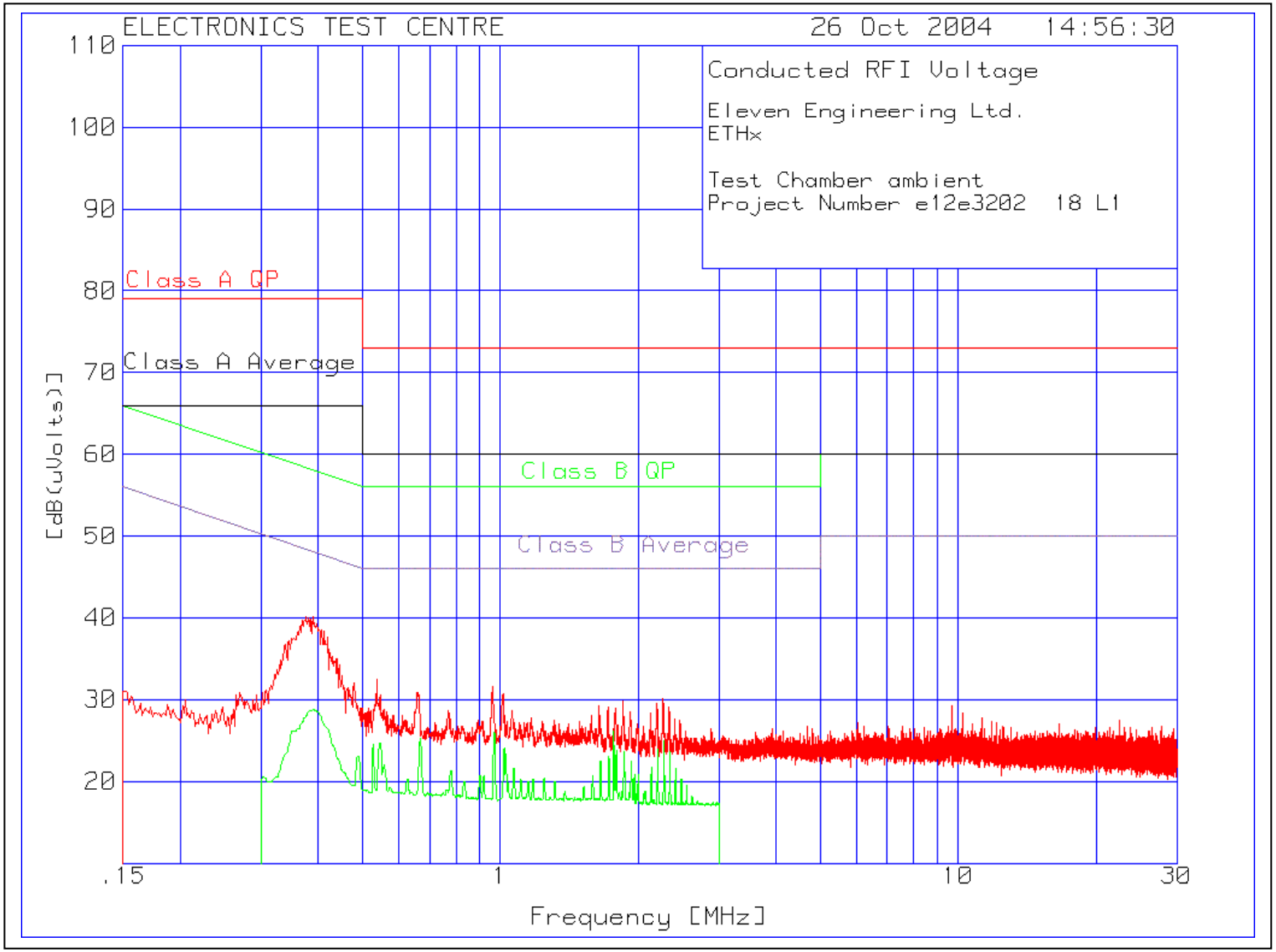
Plot of Conducted Emissions on AC Power Lines: Line 2



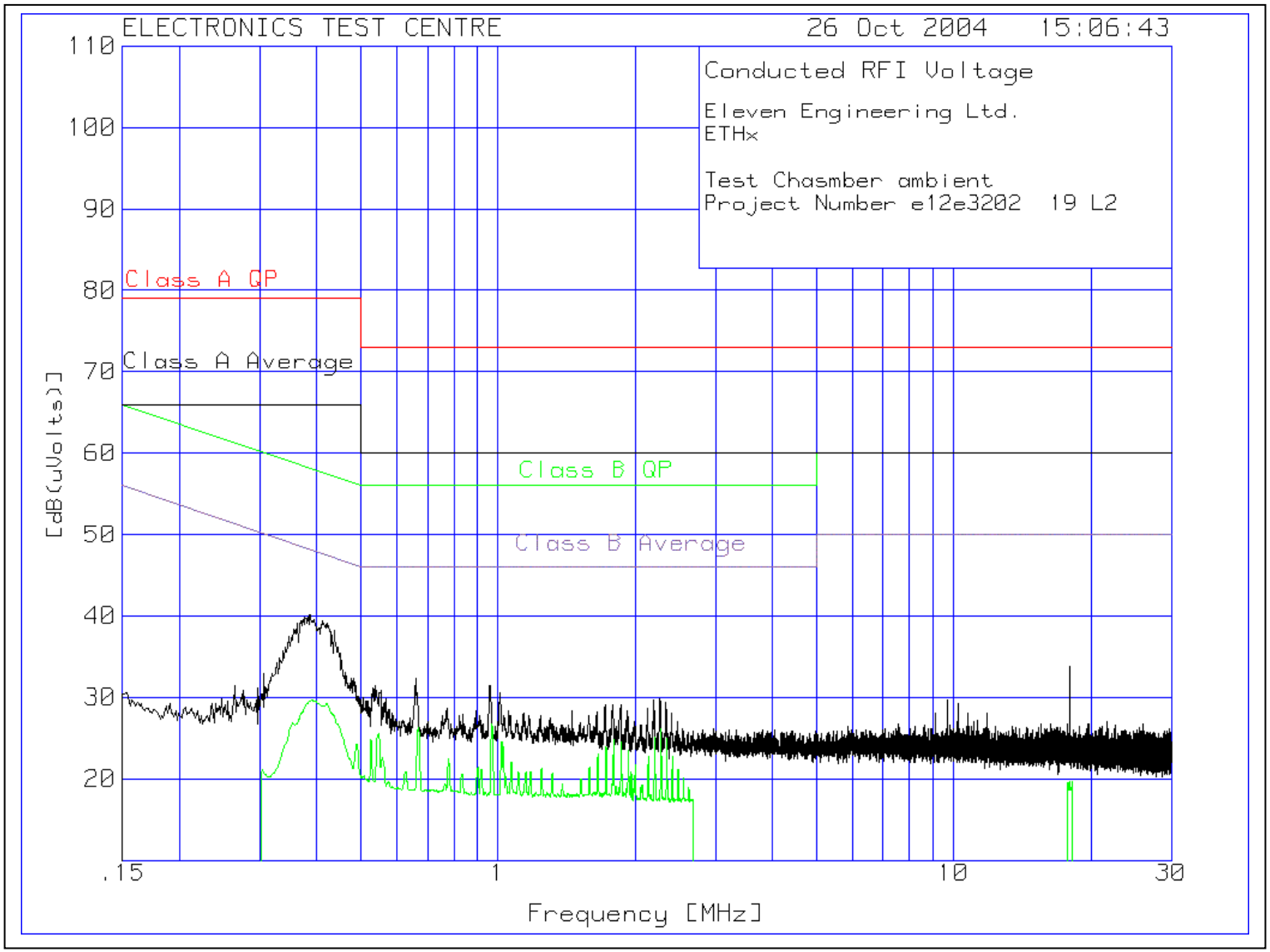
Plot of Conducted Emissions on AC Power Lines: Line 2



Plot of Conducted Emissions Test Chamber Ambient on AC Power Lines: Line 1



Plot of Conducted Emissions Test Chamber Ambient on AC Power Lines: Line 2



f_c = 915 MHz

Test Lab: Electronics Test Centre (Airdrie) Test Personnel: David Raynes Test Date: 26 October 2004	Product: ETHx
Test Result, ETHx: **PASS**	
Objectives/Criteria The Conducted emissions produced by a system or sub-system shall not exceed the limits for the specifications as stated. **Emission levels should meet the requirements with a margin of 6dB**. Temperature = 21 °C Humidity = 37 %	Specification: Frequency (MHz) QP Avg 0.150 - 0.50 66 – 56 56 - 46 0.50 – 5.0 56 46 5 – 30 60 50 Units of measurement are dBμV.
There were no emissions measured within -6 dB of the specified limit. Refer to the test data and plots for more detail.	

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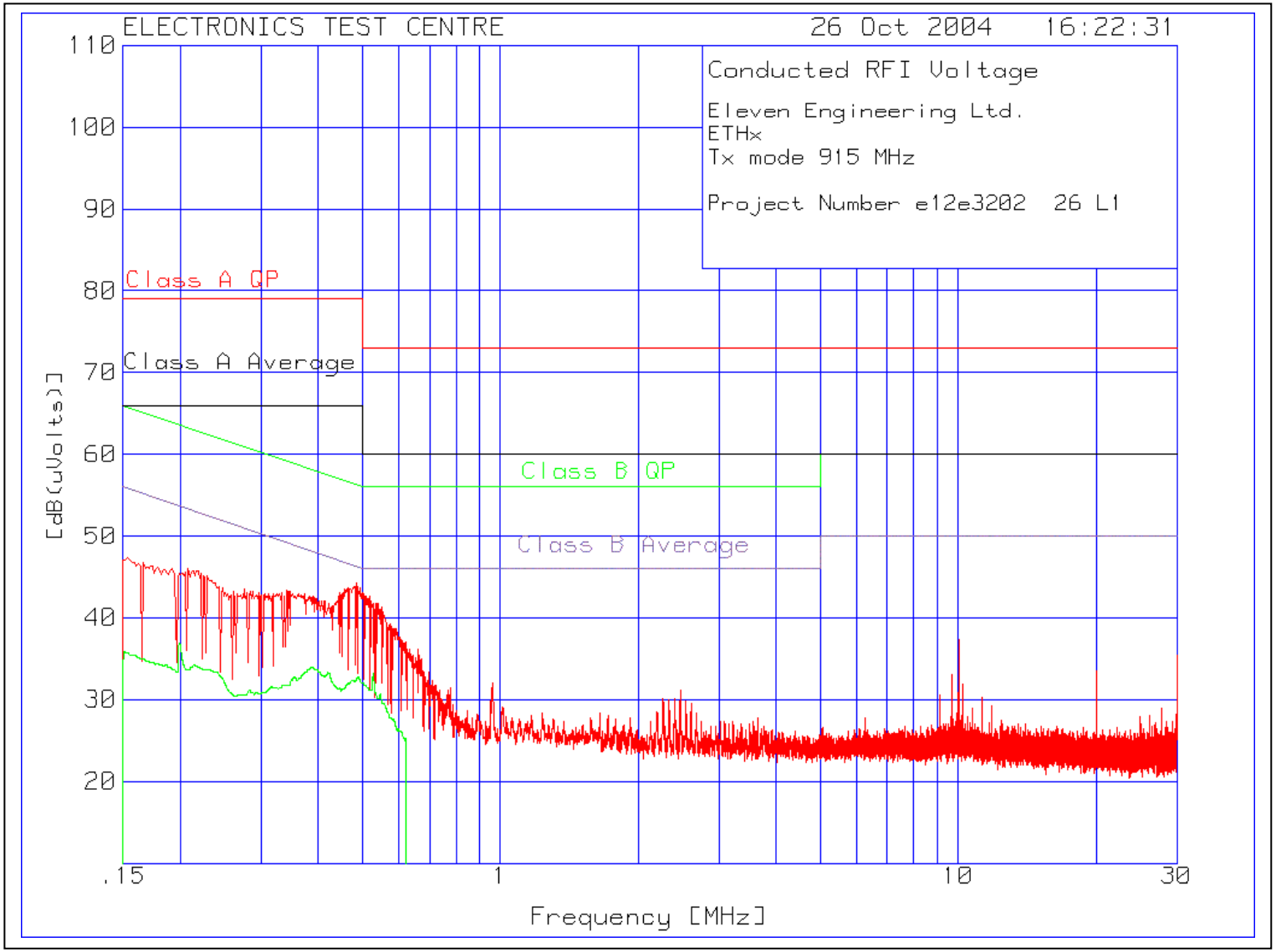
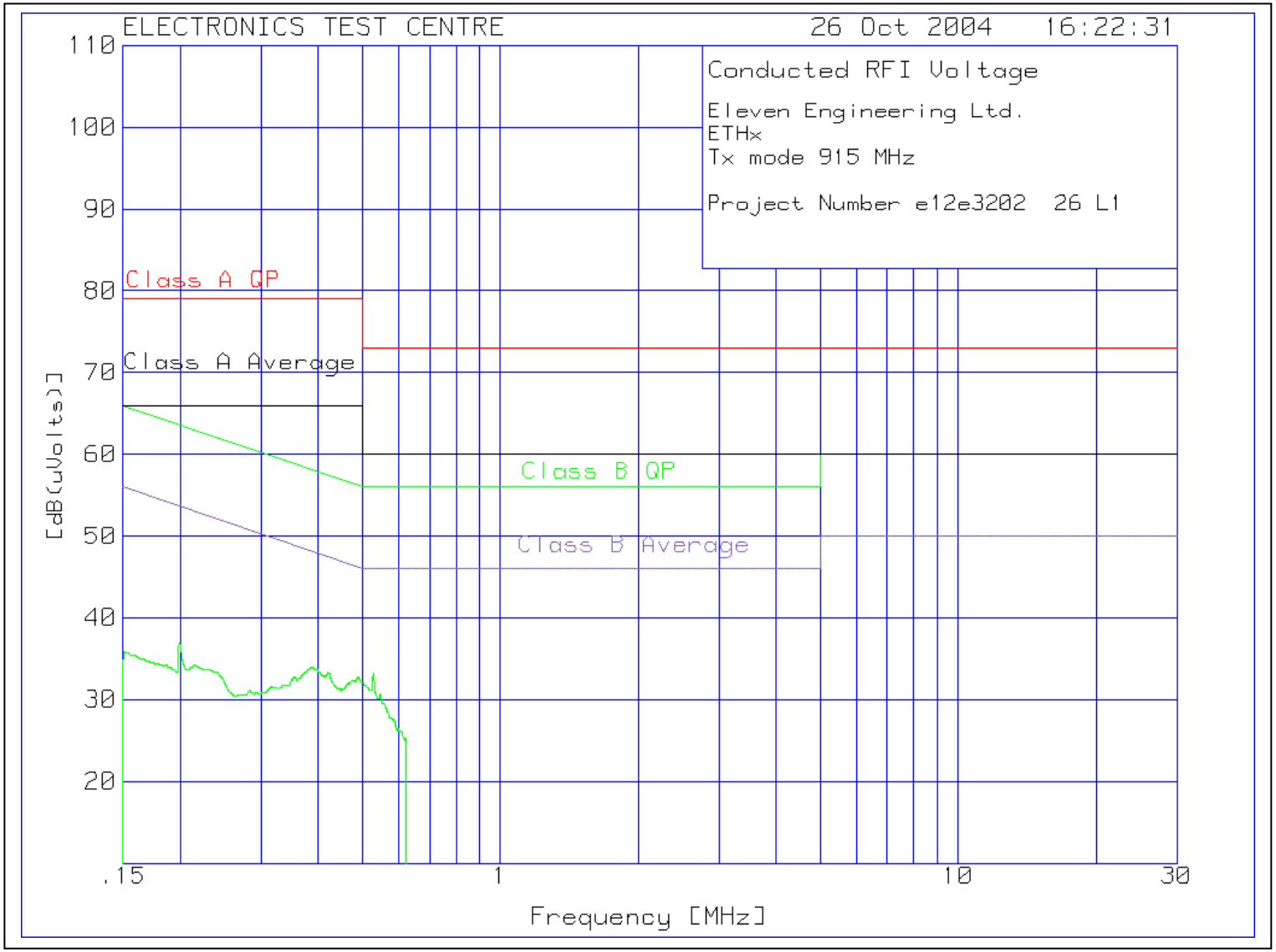
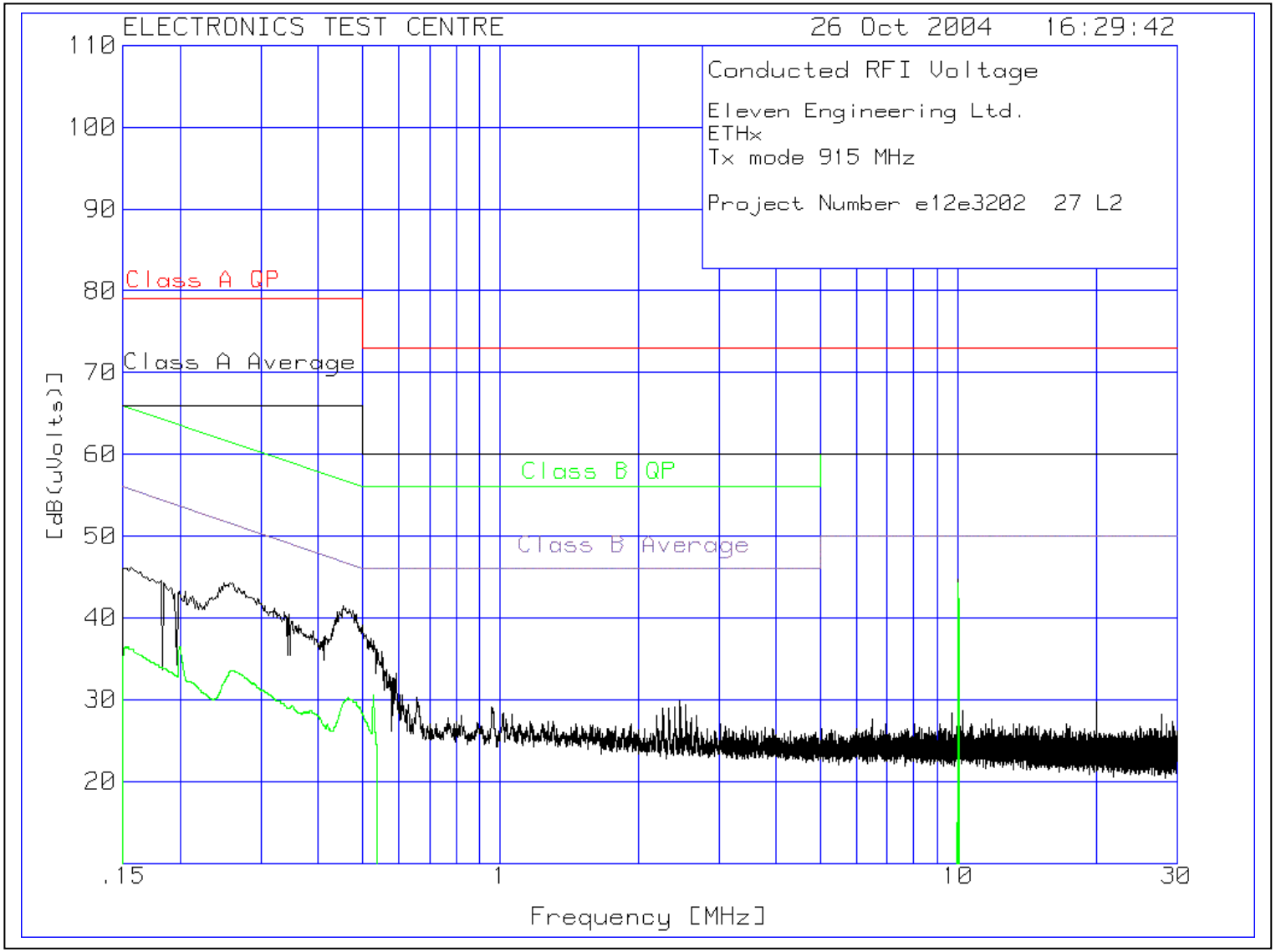
Plot of Conducted Emissions on AC Power Lines: Line 1



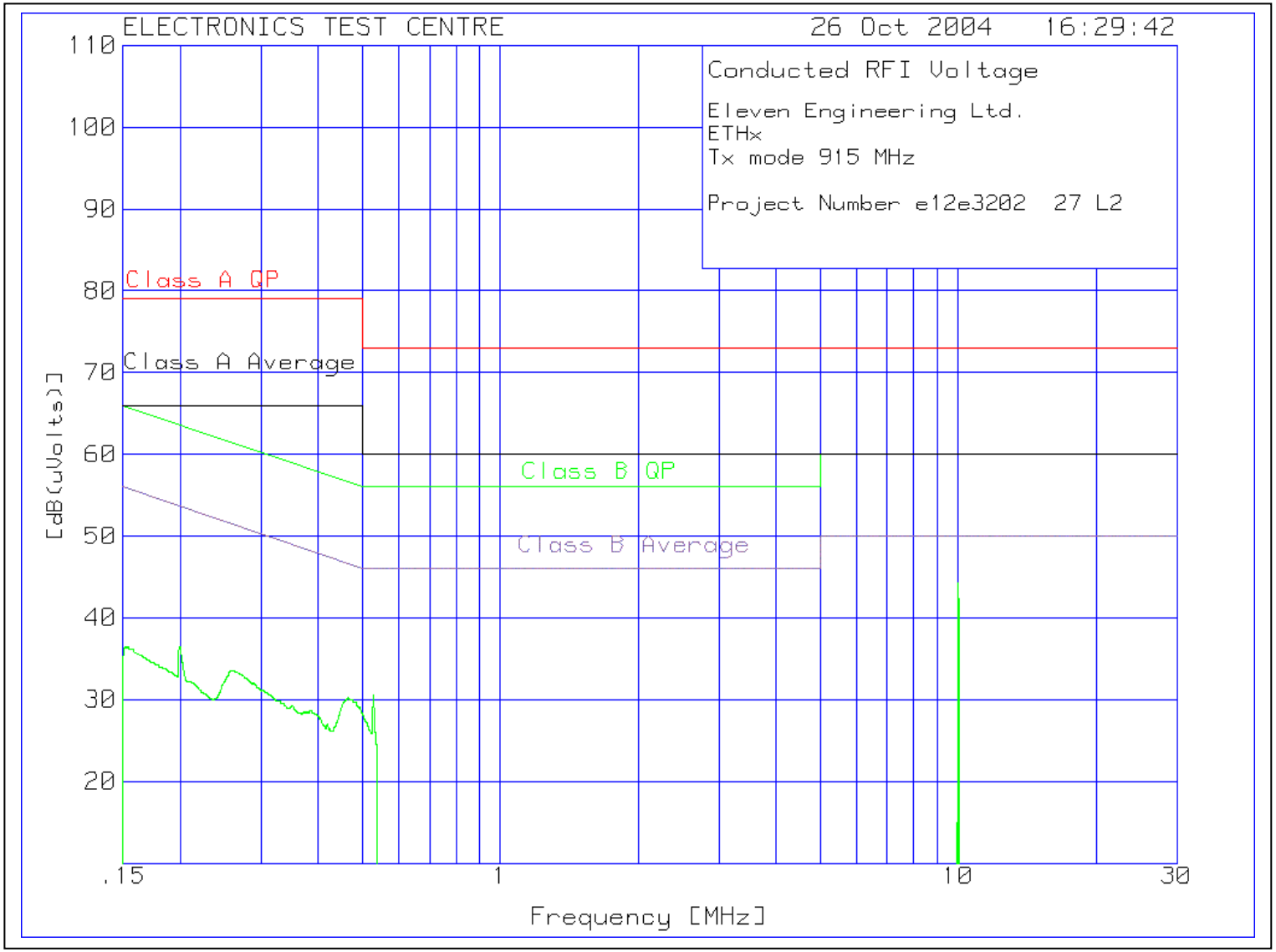
Plot of Conducted Emissions on AC Power Lines: Line 1



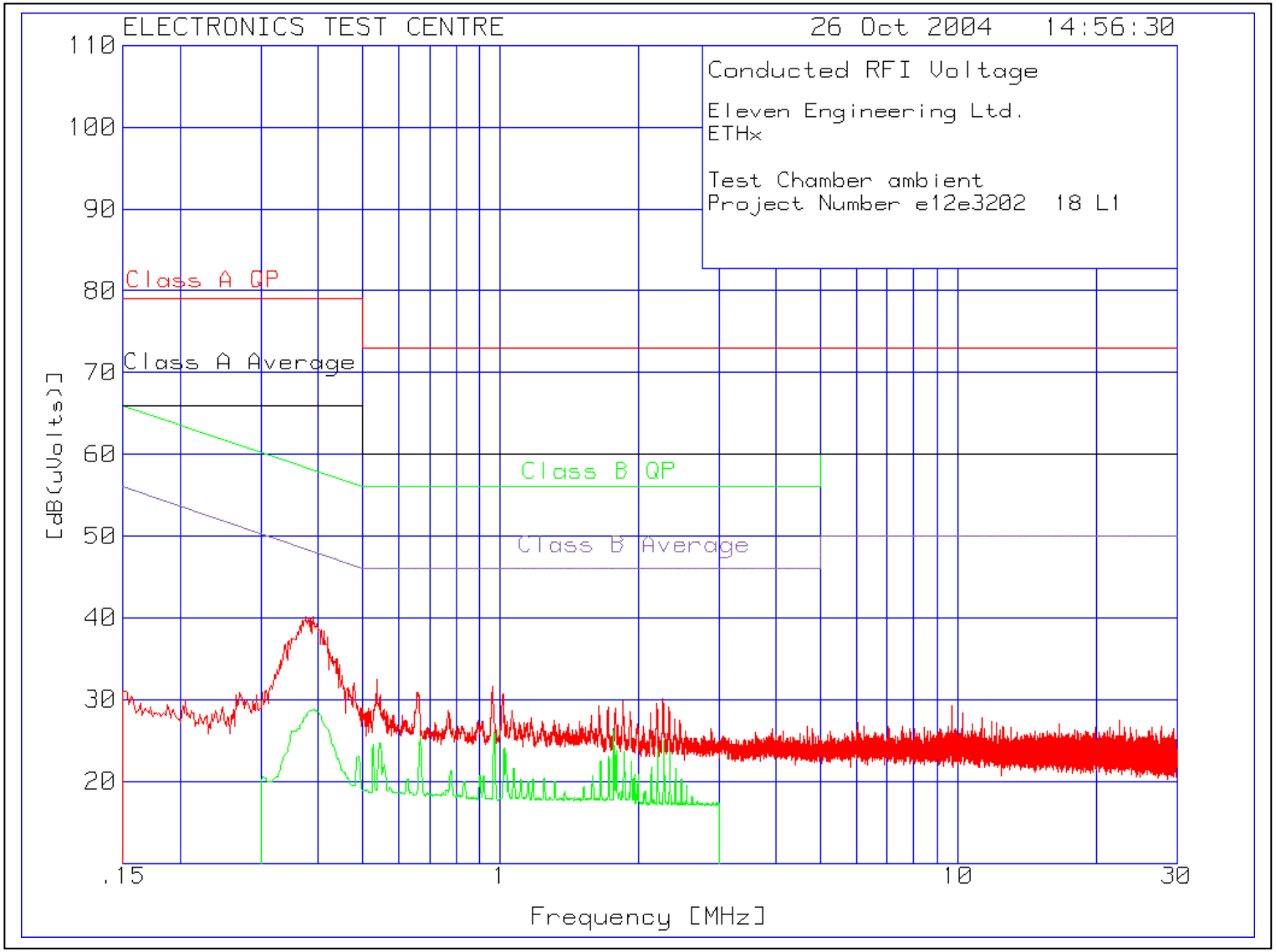
Plot of Conducted Emissions on AC Power Lines: Line 2



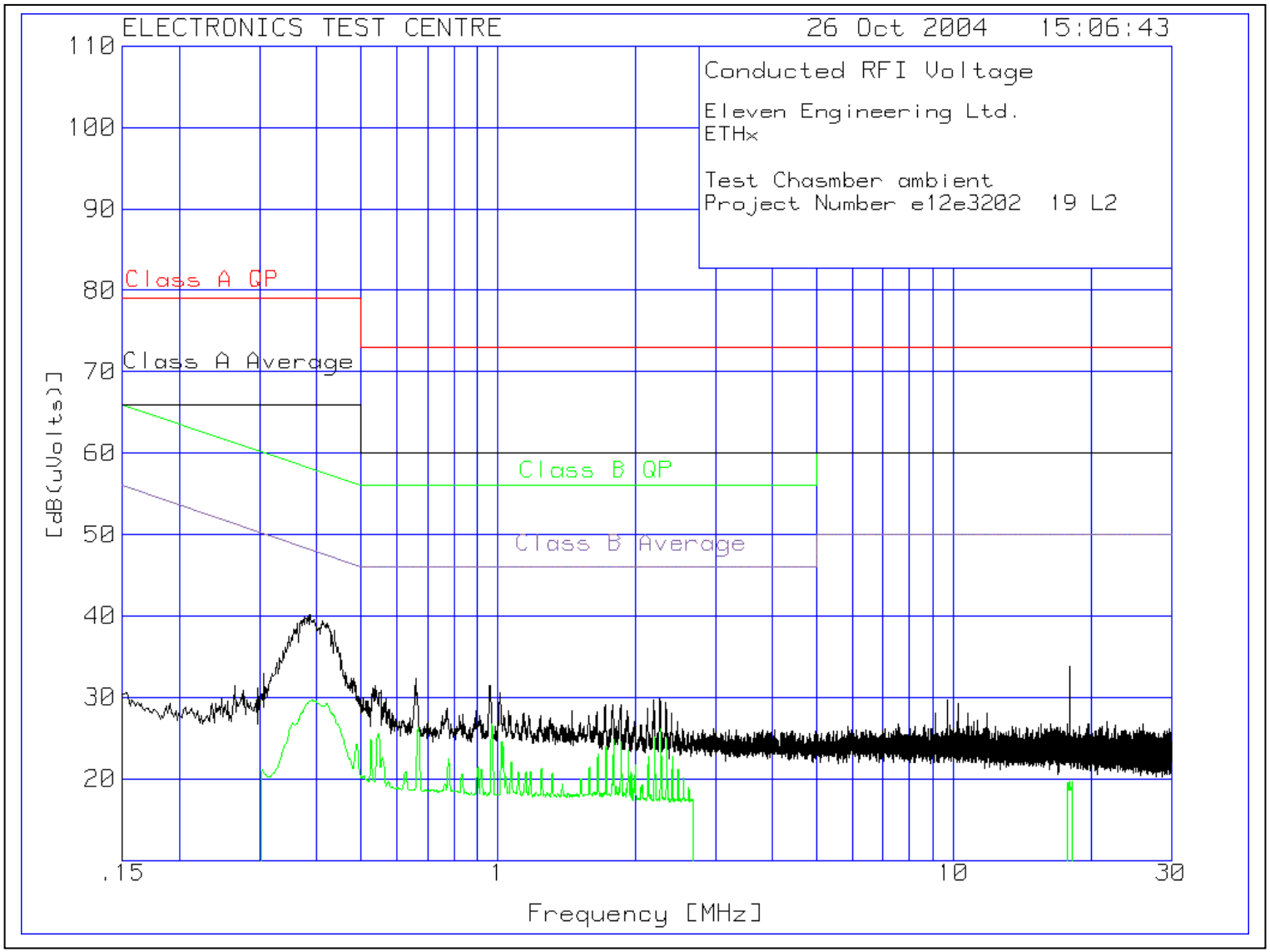
Plot of Conducted Emissions on AC Power Lines: Line 2



Plot of Conducted Emissions Test Chamber Ambient on AC Power Lines: Line 1



Plot of Conducted Emissions Test Chamber Ambient on AC Power Lines: Line 2



f_c = 925 MHz

Test Lab: Electronics Test Centre (Airdrie) Test Personnel: David Raynes Test Date: 26 October 2004	Product: ETHx
Test Result, ETHx: **PASS**	
Objectives/Criteria The Conducted emissions produced by a system or sub-system shall not exceed the limits for the specifications as stated. **Emission levels should meet the requirements with a margin of 6dB**. Temperature = 21 °C Humidity = 37 %	Specification: Frequency (MHz) QP Avg 0.150 - 0.50 66 – 56 56 - 46 0.50 – 5.0 56 46 5 – 30 60 50 Units of measurement are dBμV.
There were no emissions measured within -6 dB of the specified limit. Refer to the test data and plots for more detail.	

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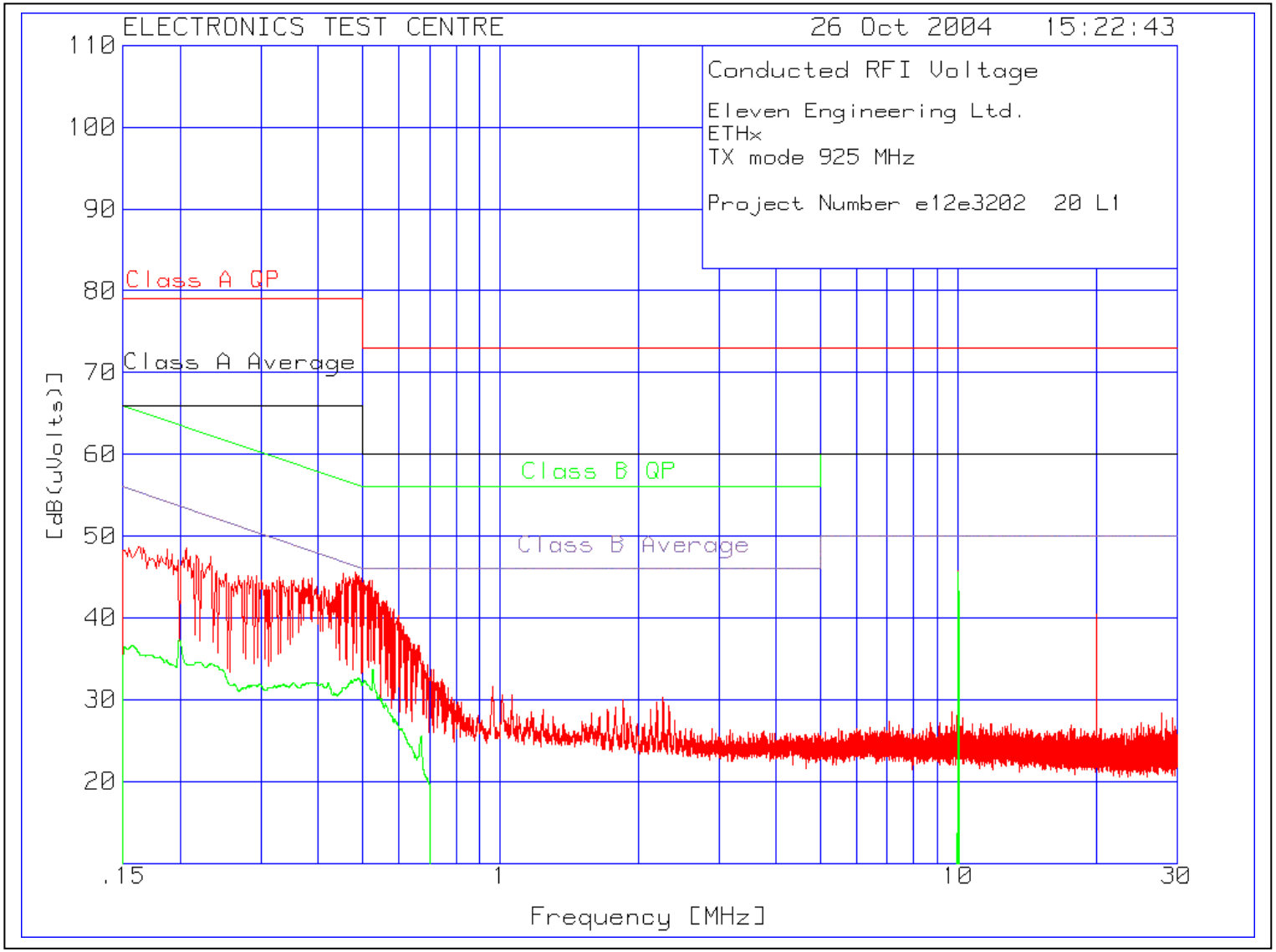
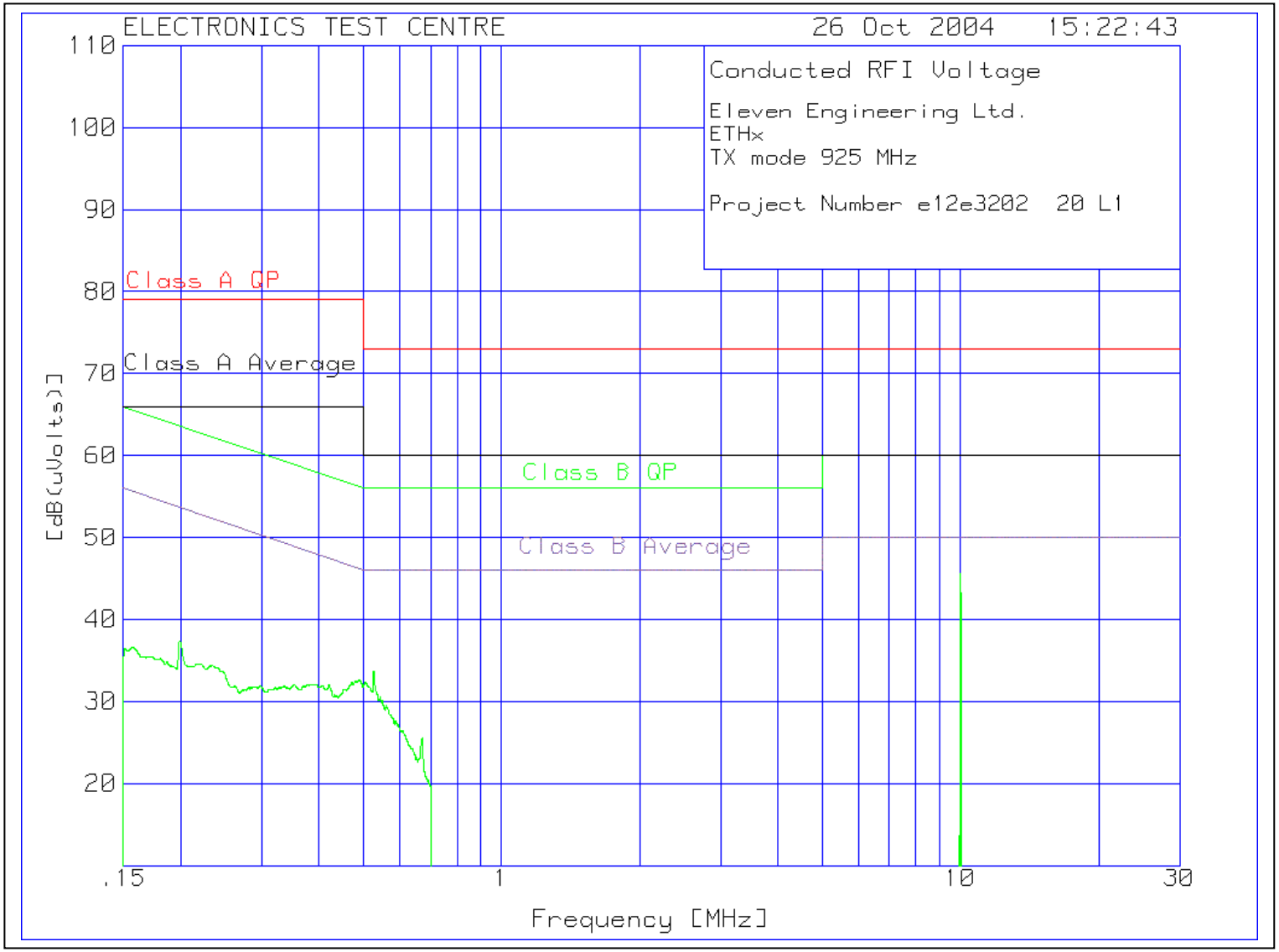
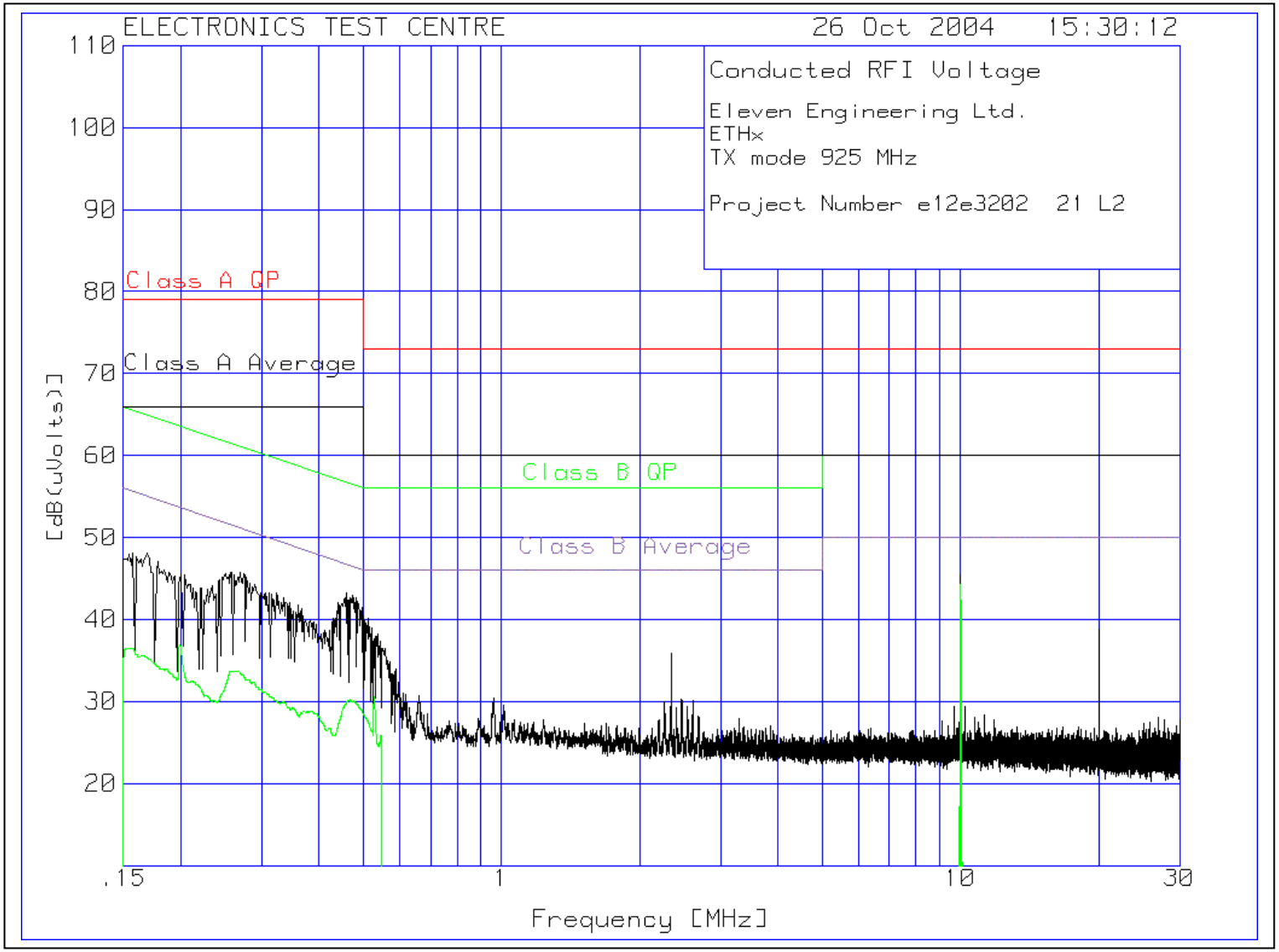
Plot of Conducted Emissions on AC Power Lines: Line 1



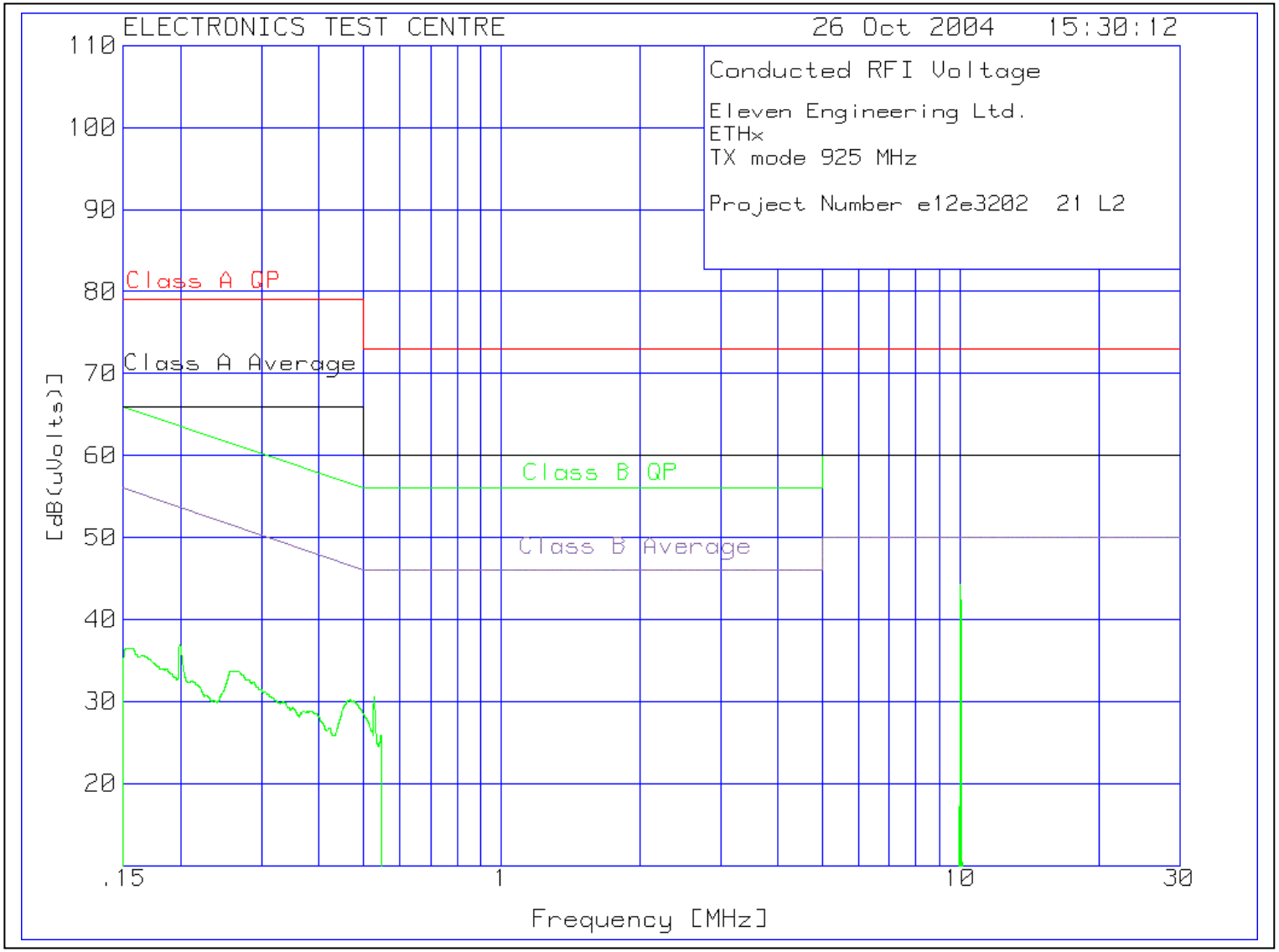
Plot of Conducted Emissions on AC Power Lines: Line 1



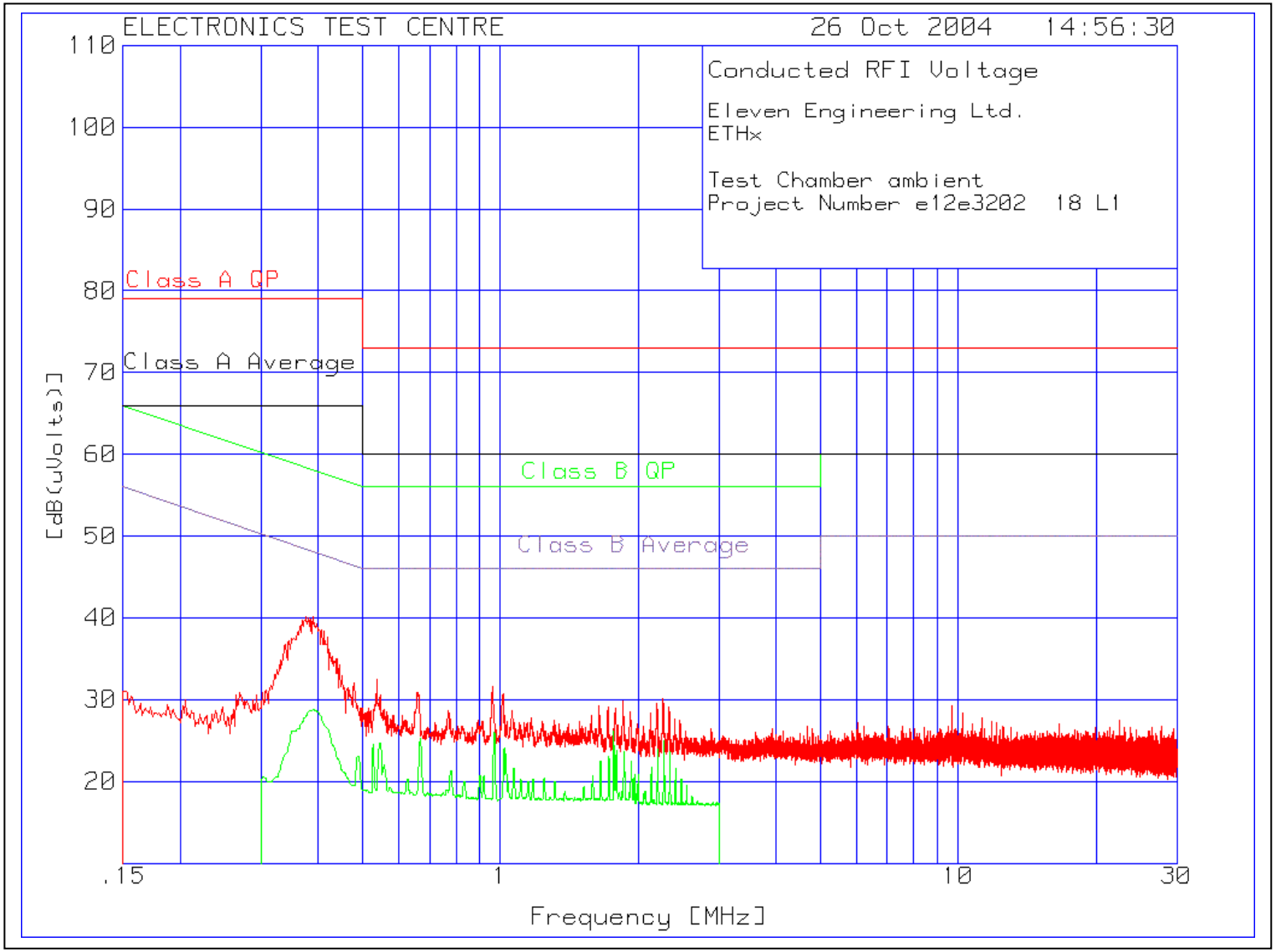
Plot of Conducted Emissions on AC Power Lines: Line 2



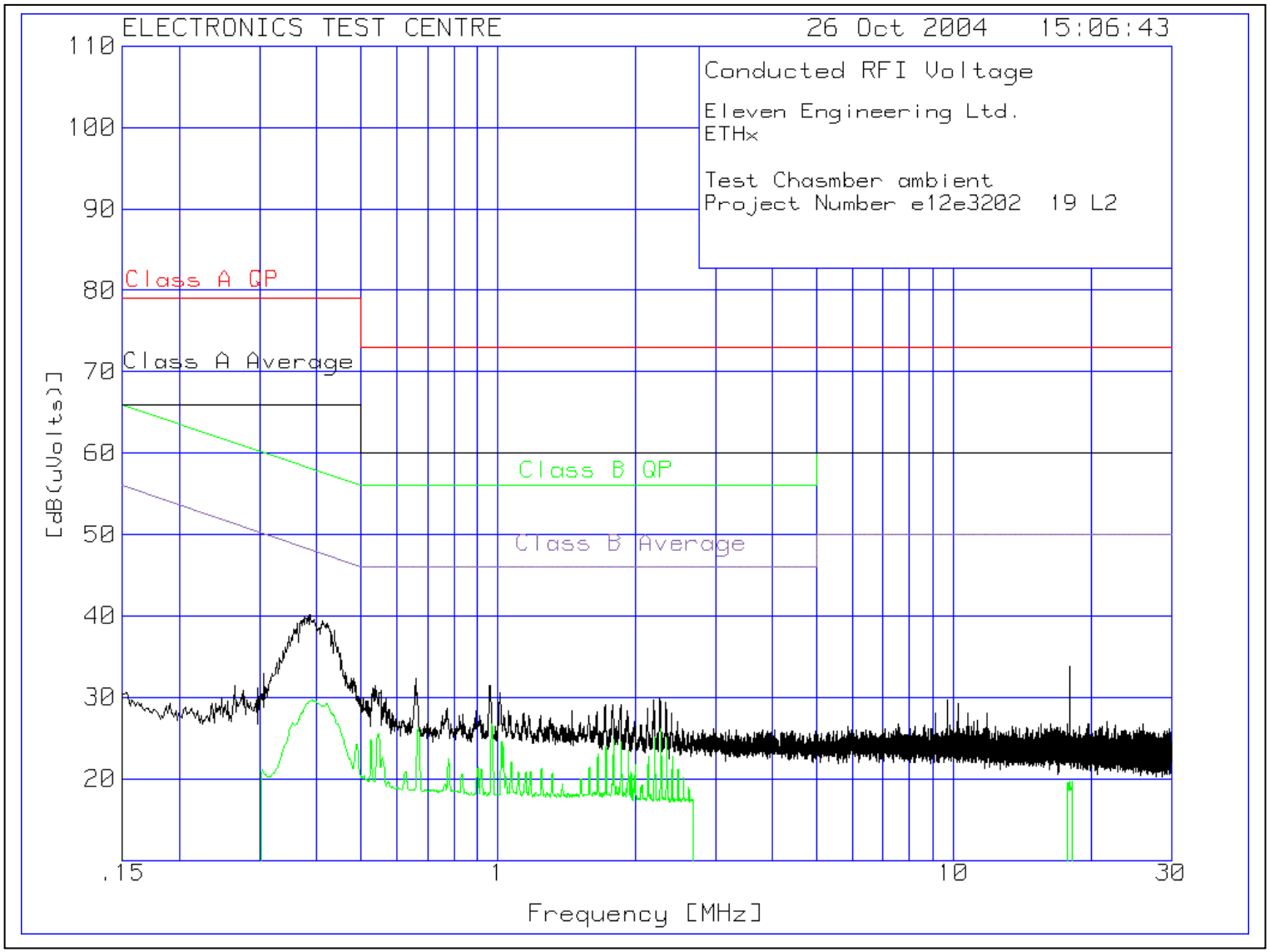
Plot of Conducted Emissions on AC Power Lines: Line 2



Plot of Conducted Emissions Test Chamber Ambient on AC Power Lines: Line 1



Plot of Conducted Emissions Test Chamber Ambient on AC Power Lines: Line 2



4.3 RADIATED EMISSIONS INCLUDING RESTRICTED BANDS OF OPERATION

4.3a Receive Mode

Test Lab: Electronics Test Centre (Airdrie) Test Personnel: David Raynes Test Date: 26 October 2004	Product: ETHx

Test Result, ETHx: **PASS**

Objectives/Criteria The Radiated E-Field emissions produced by a system or sub-system, measured at a distance of 3m from the EUT, shall not exceed the limits for the specifications as stated. **Emission levels should meet the requirements with a margin of 6dB.** The EUT was assessed against the requirements of **Class B**. Temperature = 21 °C Humidity = 37 %	Specification: FCC Part 15.249.109 Frequency [MHz] / Class A QP @ 3m / **Class B** QP @ 3m 30 – 88 / 49.54 / **40.00** 88 – 216 / 53.98 / **43.52** 216 – 960 / 56.90 / **46.02** above 960 / 60.00 / **53.98**

Horizontal:			**Vertical:**		
Frequency [MHz]	Field Strength [dBμV/m]	Delta [dB from limit]	Frequency [MHz]	Field Strength [dBμV/m]	Delta [dB from limit]
250.0088	39.37	-6.65	450.0062	40.11	-5.91
750.0119	38.19	-7.83	250.0042	38.92	-7.1
450.0054	38.02	-8.00	400.0063	37.69	-8.33

There were more emissions measured within -10 dB of the specified limit.
Refer to the test data and plots for more detail.

Radiated Emissions Data:

The emissions data is presented in tabular form, showing the uncorrected spectrum analyzer reading, the correction factors applied, the net result, the value(s) of up to 4 limits at the frequency measured, and the margin between the result and the limit(s).

For example:

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3 ⇓	4
94.0036	37.1 qp	2.2	8.5	47.8	54	43.5	50.5	40.5
Azimuth: 156	Height:113 Vert			Margin [dB]	-6.2	4.3	-2.7	7.3

⇓		The applicable Limit
Test Frequency [MHz]	94.0036	Test Frequency f = 94.0036 MHz
Meter Reading [dB (uV)]	37.1 qp	The reading with Quasi-Peak detector
Gain/Loss Factor [dB]	2.2	Net correction for preamp gain & cable loss
Transducer Factor [dB]	8.5	Correction for antenna loss
Level [dB (uVolts)]	47.8	Corrected value for field strength
Azimuth:	156	The turntable was 156 degrees CW from facing the antenna
Height:	113	The antenna was 113 cm above the ground
Limit: 1	54	The value of Limit 1 at 94.0036 MHz
Margin [dB]	-6.2	The field strength is 6.2 dB below Limit 1
Limit: 2	43.5	The value of Limit 2 at 94.0036 MHz
Margin [dB]	4.3	The field strength is 4.3 dB above Limit 2
Limit: 3	50.5	The value of Limit 3 at 94.0036 MHz
Margin [dB]	-2.7	The field strength is 2.7 dB below Limit 3
Limit: 4	40.5	The value of Limit 4 at 94.0036 MHz
Margin [dB]	7.3	The field strength is 7.3 dB above Limit 4

Meter Reading in dBuV + Gain/Loss Factor in dB + Transducer Factor in dB = Corrected Field Strength

Note: When a preamp is used, the resulting gain is compensated.
Highlighting indicates a margin of less than 6 dB.

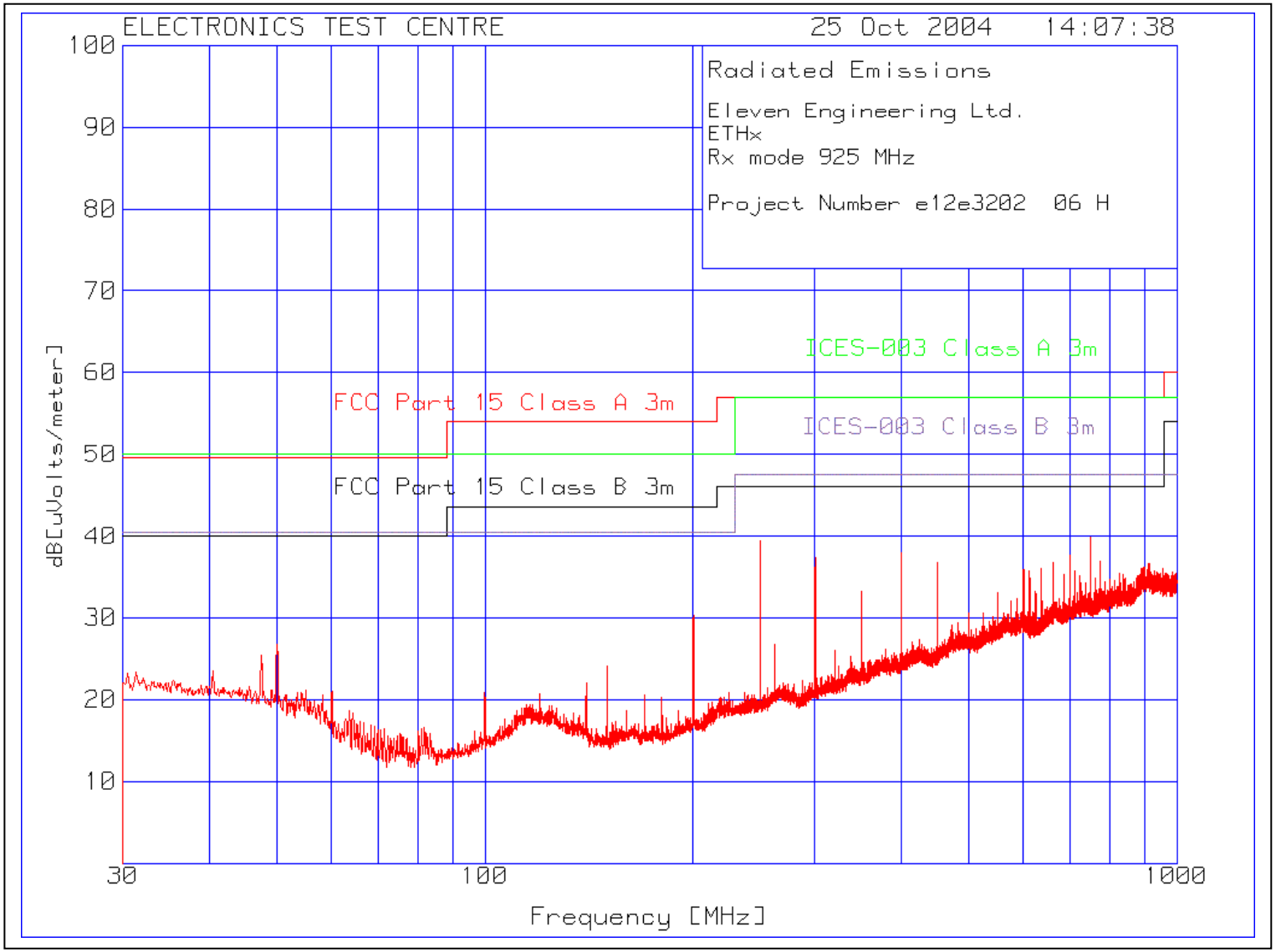
Eleven Engineering Ltd.
ETHx
Rx mode 925 MHz
Project Number e12e3202-1 06

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4
Range: 1 30 - 1000MHz								
250.0088	23.75 qp	4.42	11.2	39.37	56.9	57	46.02	47.46
Azimuth: 215	Height:124 Horz		Margin [dB]:		-17.53	-17.63	-6.65	-8.09
450.0054	16.91 qp	5.81	15.3	38.02	56.9	57	46.02	47.46
Azimuth: 196	Height:183 Horz		Margin [dB]:		-18.88	-18.98	-8	-9.44
750.0119	11.12 qp	7.37	19.7	38.19	56.9	57	46.02	47.46
Azimuth: 207	Height:100 Horz		Margin [dB]:		-18.71	-18.81	-7.83	-9.27
Range: 2 30 - 1000MHz								
40.0078	13.83 qp	1.59	13.7	29.12	49.54	50	40	40.46
Azimuth: 265	Height:105 Vert		Margin [dB]:		-20.42	-20.88	-10.88	-11.34
49.9988	18.07 qp	2.11	11.08	31.26	49.54	50	40	40.46
Azimuth: 339	Height:102 Vert		Margin [dB]:		-18.28	-18.74	-8.74	-9.2
80.0088	22.65 qp	2.57	6.15	31.37	49.54	50	40	40.46
Azimuth: 359	Height:141 Vert		Margin [dB]:		-18.17	-18.63	-8.63	-9.09
150.0066	22.62 qp	3.41	8.11	34.14	53.98	50	43.52	40.46
Azimuth: 312	Height:100 Vert		Margin [dB]:		-19.84	-15.86	-9.38	-6.32
250.0042	23.17 qp	4.42	11.33	38.92	56.9	57	46.02	47.46
Azimuth: 268	Height:126 Vert		Margin [dB]:		-17.98	-18.08	-7.1	-8.54
400.0063	17.76 qp	5.53	14.4	37.69	56.9	57	46.02	47.46
Azimuth: 195	Height:148 Vert		Margin [dB]:		-19.21	-19.31	-8.33	-9.77
450.0062	18.98 qp	5.81	15.32	40.11	56.9	57	46.02	47.46
Azimuth: 329	Height:122 Vert		Margin [dB]:		-16.79	-16.89	-5.91	-7.35

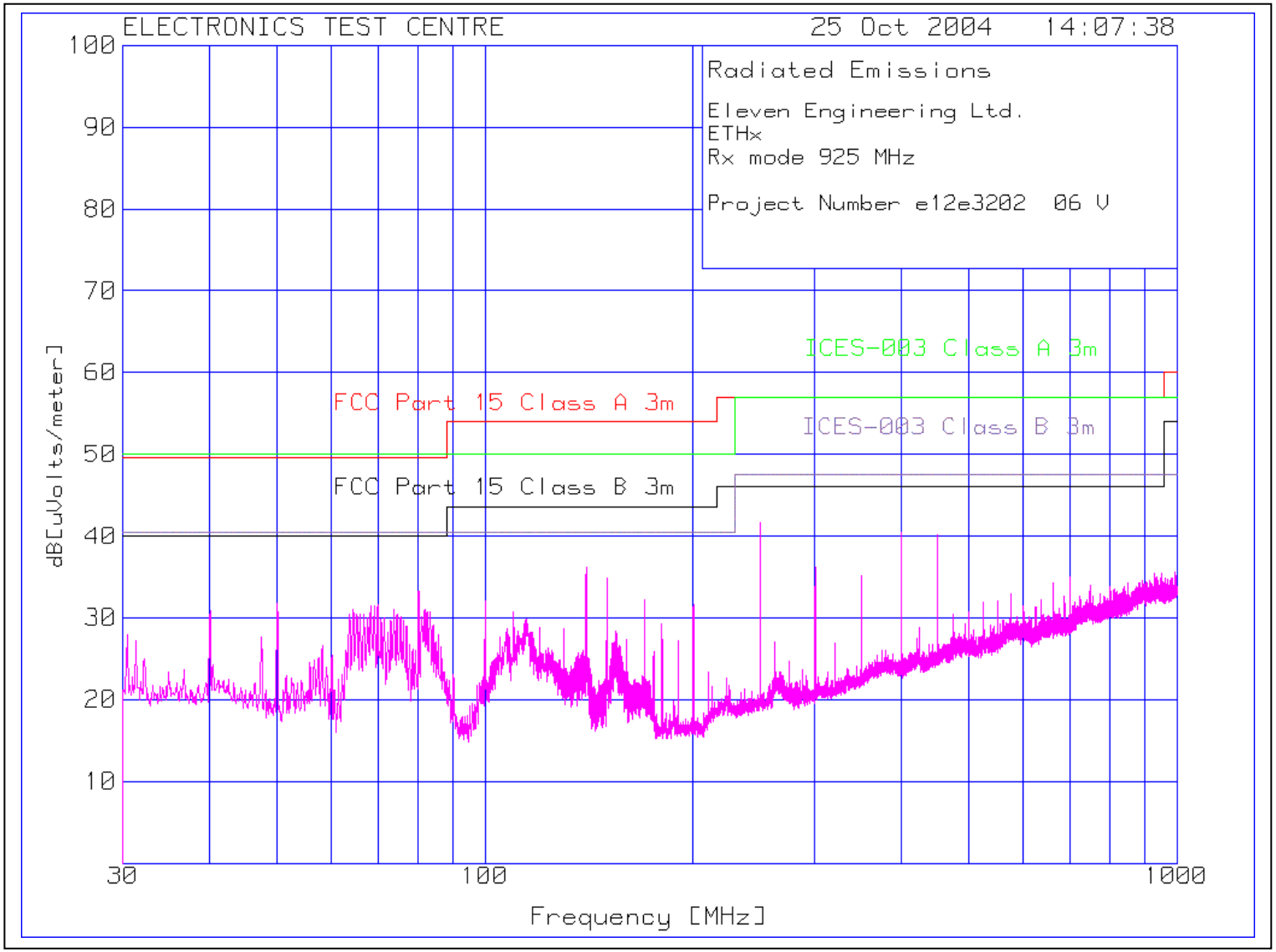
LIMIT 1: FCC Part 15 Class A 3m
LIMIT 2: ICES-003 Class A 3m
LIMIT 3: FCC Part 15 Class B 3m
LIMIT 4: ICES-003 Class B 3m

qp - Quasi-Peak detector

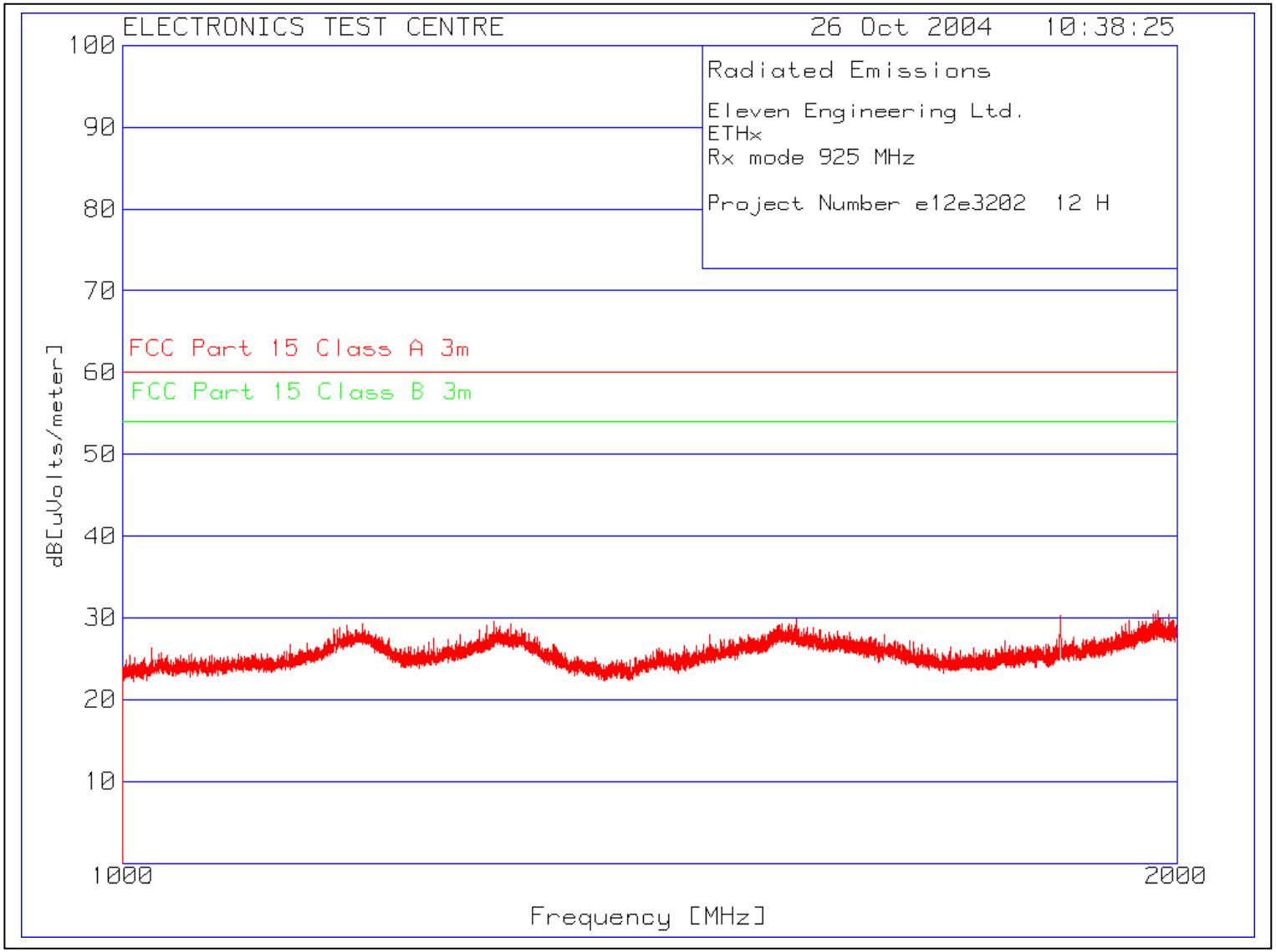
Plot of Radiated Emissions:



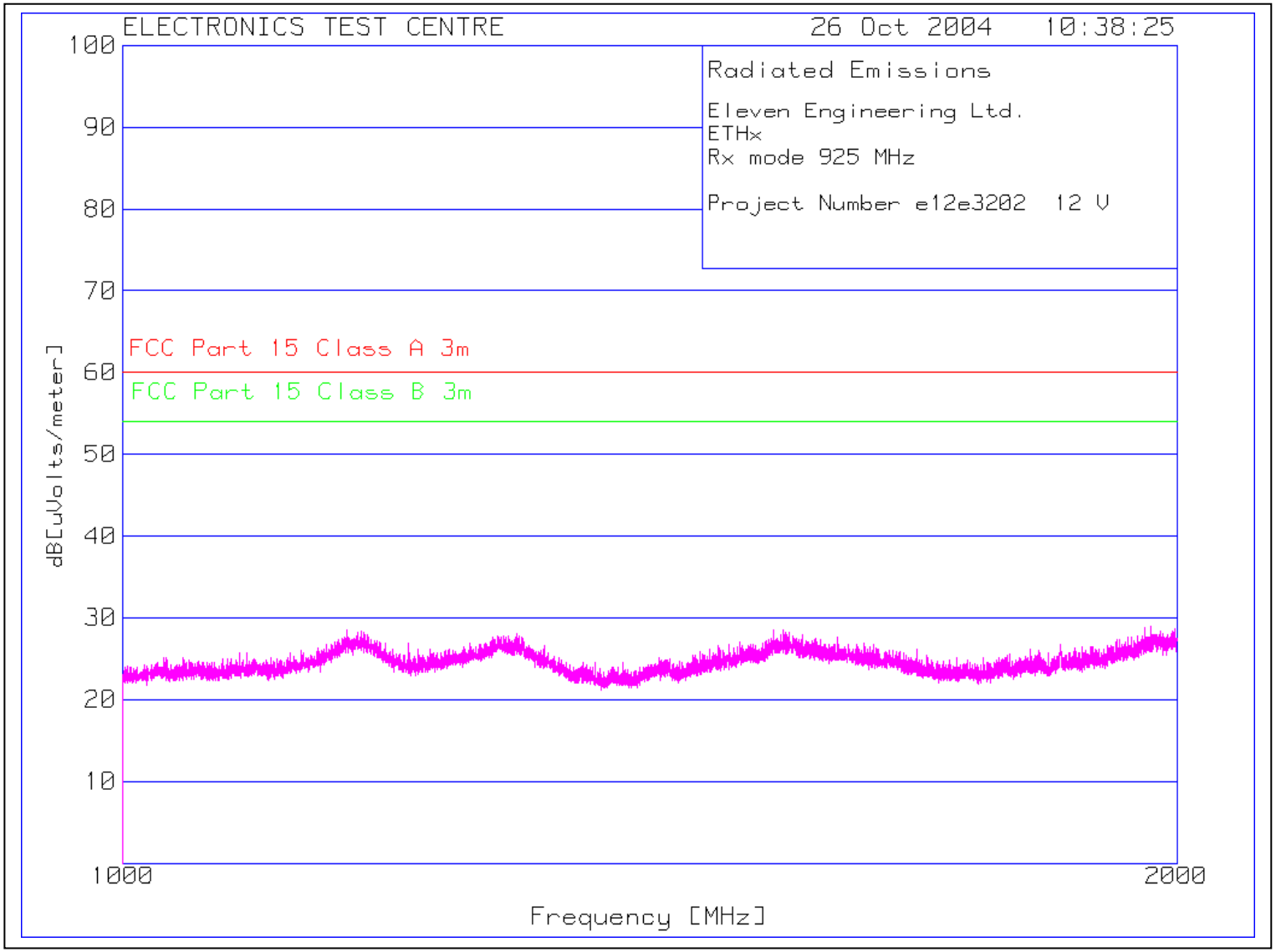
Plot of Radiated Emissions:



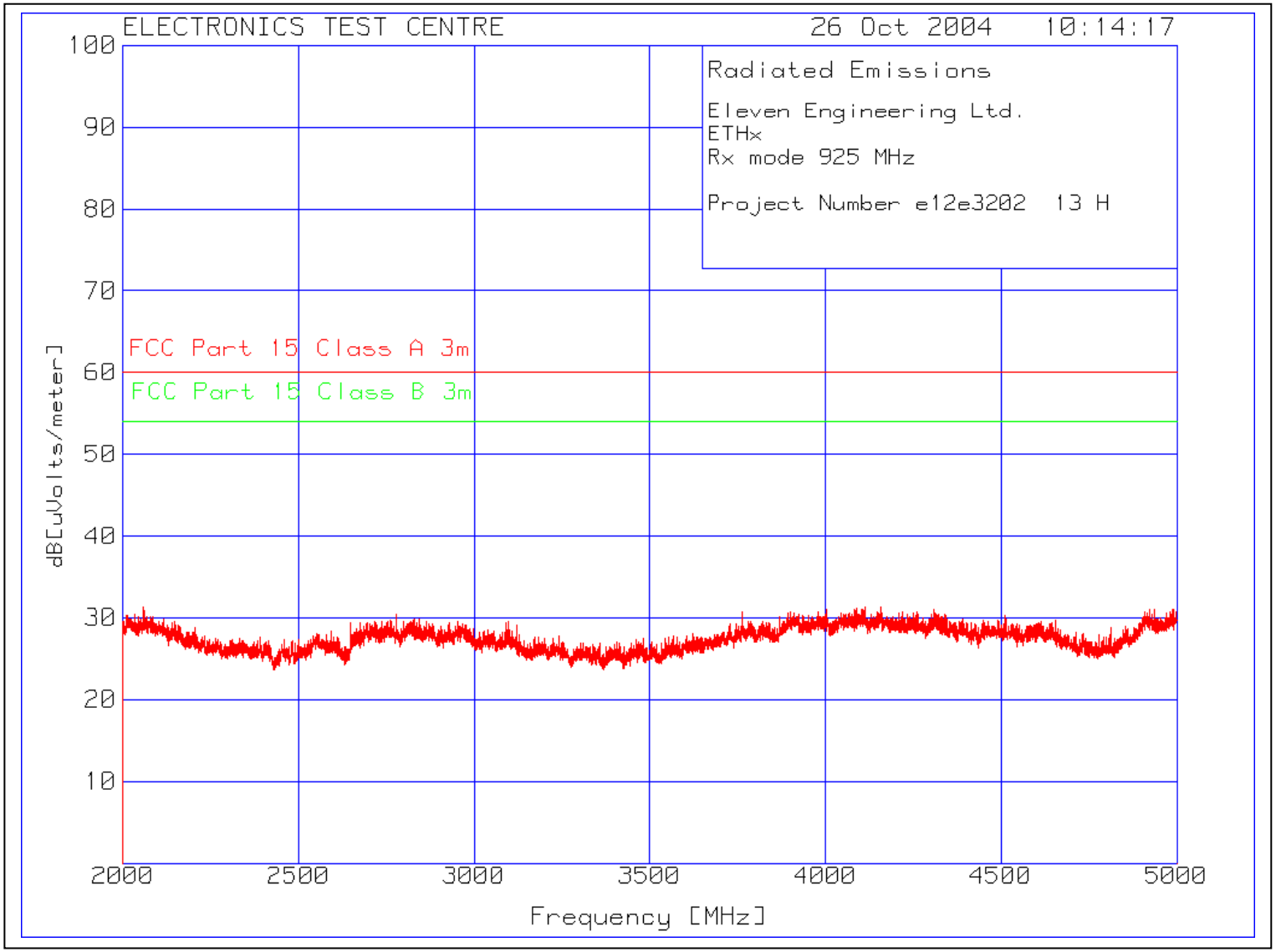
Plot of Radiated Emissions:



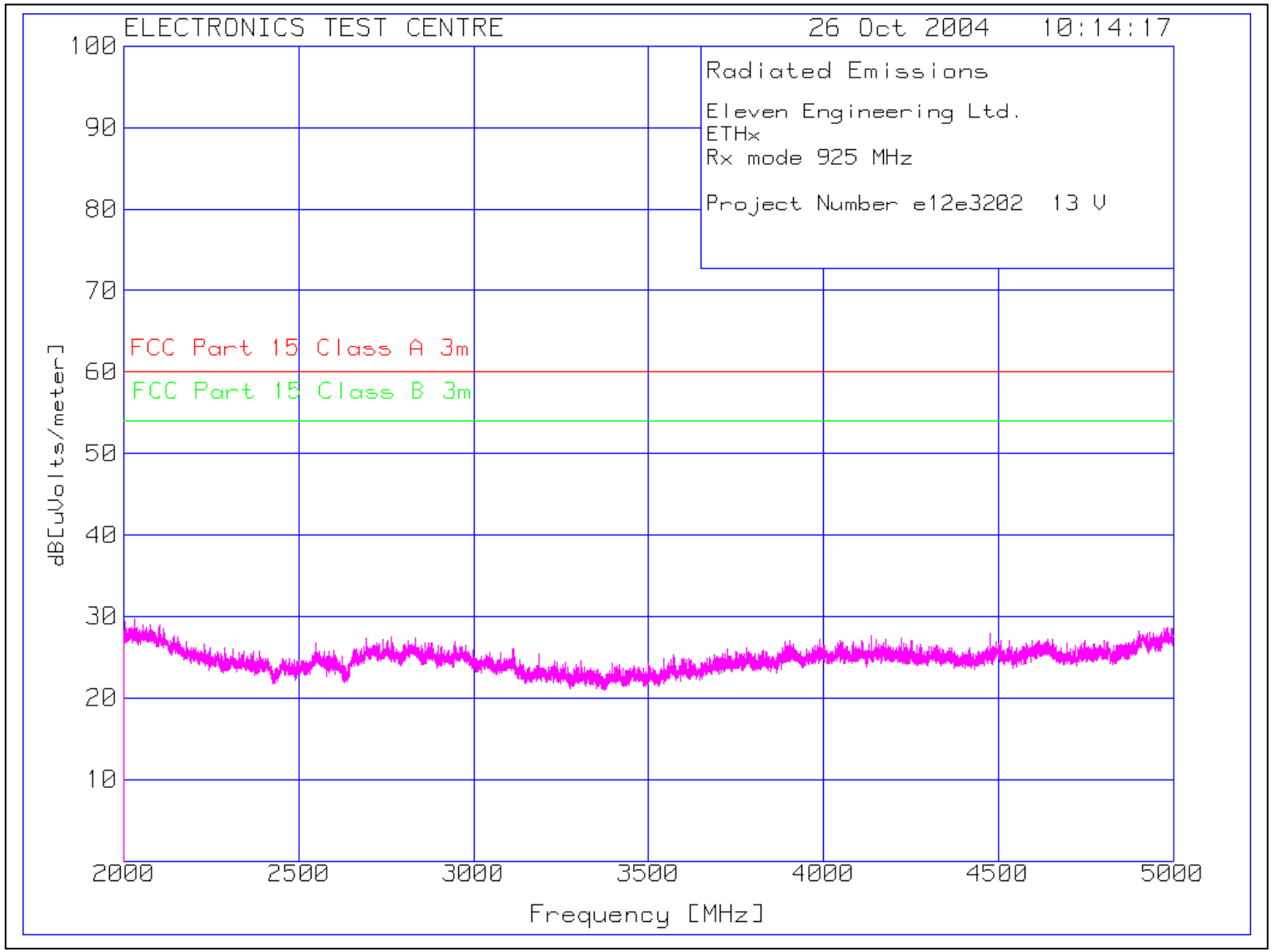
Plot of Radiated Emissions:



Plot of Radiated Emissions:



Plot of Radiated Emissions:



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4.3b Transmit Mode

Test Lab: Electronics Test Centre (Airdrie) Test Personnel: David Raynes Test Date: 25 & 26 October 2004	Product: ETHx
Test Result, EUM3003: **PASS**	
Objectives/Criteria The Radiated E-Field emissions produced by EUT, measured at a distance of 3m, shall not exceed these limits within the restricted bands of operation. Any emissions lying outside these bands (except harmonics), shall be at least 50 dB down from the level of the fundamental. Attenuation below the limits of 15.209 is not required. Note: See the table below for the Restricted Bands of Operation per Part 15.205	Specification: FCC Part 15.209 Frequency [MHz] — Limit (QP @ 3m) [dBμV/m] .009 – 0.490 — 88.5 – 53.8 .490 – 1.7 — 53.8 – 43 1.7 – 30 — 49.50 30 – 88 — 40.00 88 – 216 — 43.52 216 – 960 — 46.02 above 960 — 53.98 **Emission levels should meet the requirements with a margin of 6dB.**

The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Carrier Frequency	Field Strength of Fundamental Frequency [millivolts/meter]	Field Strength of Fundamental Harmonics [μV/meter]
902-928 MHz	50 (93.98 dBμV/meter)	500 (53.98 dBμV/meter)
2400-2483.5 MHz	50 (93.98 dBμV/meter)	500 (53.98 dBμV/meter)
5725-5875 MHz	50 (93.98 dBμV/meter)	500 (53.98 dBμV/meter)
24.0-24.25 GHz	250 (107.96 dBμV/meter)	2500(67.96 dBμV/meter)

Restricted Bands of Operation per Part 15.205:

MHz	MHz	MHz	MHz	MHz	GHz	GHz
0.0900000 – 0.1100000	8.2910000 - 8.2940000	16.804250 - 16.804750	162.01250 - 167.17000 *	1660.0000 – 1710.0000	3.6000000 – 4.4000000	14.470000 – 14.500000
0.4950000 - 0.5050000 *	8.3620000 - 8.3660000	25.500000 - 25.670000	167.72000 - 173.20000 *	1718.8000 – 1722.2000	4.5000000 – 5.1500000	15.350000 – 16.200000
2.1735000 - 2.1905000	8.3762500 - 8.3867500	37.500000 - 38.250000	240.00000 – 285.00000	2200.0000 – 2300.0000	5.3500000 – 5.4600000	17.700000 – 21.400000
4.1250000 - 4.1280000	8.4142500 - 8.4147500	73.000000 - 74.600000	322.00000 - 335.40000	2310.0000 – 2390.0000	7.2500000 – 7.7500000	22.010000 – 23.120000
4.1772500 - 4.1777500	12.290000 - 12.293000	74.800000 - 75.200000	399.90000 – 410.00000	2483.5000 – 2500.0000 *	8.0250000 – 8.5000000	23.600000 – 24.000000
4.2072500 - 4.2077500	12.519750 - 12.520250	108.00000 - 121.94000 **	608.00000 – 614.00000	2655.0000 – 2900.0000	9.0000000 – 9.2000000	31.200000 – 31.800000
5.6770000 - 5.6830000	12.576750 - 12.577250	123.00000 - 138.00000 **	960.00000 – 1240.0000 ***	3260..0000 – 3267.0000	9.3000000 – 9.5000000	36.430000 – 36.500000
6.2150000 - 6.2180000	13.360000 - 13.410000	149.90000 - 150.05000 *	1300.0000 – 1427.0000 ***	3332.0000 – 3339.0000	10.600000 – 12.700000	Above 38.600000
6.2677500 - 6.2682500	16.420000 - 16.423000	156.52475-156.52525	1435.0000 – 1626.5000	3345.8000 – 3358.0000	13.250000 – 13.400000	
6.3117500 - 6.3122500	16.694750 - 16.695250	156.70000 - 156.90000	1645.5000 – 1646.5000	3500.0000 – 3600.0000 ****		

* US only ** Canada 108 – 138 MHz *** Canada 960 – 1427 MHz **** Canada only

Radiated Emissions Data: Operation in Restricted Bands

nominal f_c (MHz)	**f** (MHz)	Field Strength (dBμV/m) Average	Limit (dBμV/m) Average	Delta (dB)	Antenna Polarization	Antenna Height (cm)	Azimuth (Degrees)
905	2714.1774	22.32	54	-31.68	H	103	137
905	2714.6992	13.20	54	-40.80	V	140	29
905	2717.2016	5.41	54	-48.59	H	103	137
905	2717.1957	2.36	54	-51.64	V	140	29
905	3620.2580	6.32	54	-47.68	V	103	285
915	2750.0756	19.39	54	-34.61	H	262	261
915	2748.6224	18.61	54	-35.39	V	129	115
915	2751.6117	22.77	54	-31.23	V	136	109
915	3666.8430	17.04	54	-36.96	H	264	119
925	2773.5794	22.2	54	-31.8	H	177	139
925	2773.5720	21.85	54	-32.15	V	101	111
925	3700.2441	16.26	54	-37.74	H	202	107
925	3700.2390	16.86	54	-37.14	V	146	281

Carrier Fundamental & Harmonics:

nominal f_c (MHz)	**f** (MHz)	Field Strength (dBμV/m) (Peak)	Limit (dBμV/m)	Delta (dB)	Antenna Polarization	Antenna Height (cm)	Azimuth (Degrees)
905	905.2135	90.67	93.98 (qp)	-3.31	H	100	145
905	905.7060	93.88	93.98 (qp)	-0.01	V	118	42
905	1810.4563	22.80	53.98 (avg)	-31.18	H	124	52
905	1809.9960	9.59	53.98 (avg)	-44.39	V	117	14
905	2714.1774	22.32	53.98 (avg)	-31.66	H	103	137
905	2714.6992	13.20	53.98 (avg)	-40.78	V	140	29
905	2717.2016	5.41	53.98 (avg)	-48.57	H	103	137
905	2717.1957	2.36	53.98 (avg)	-51.62	V	140	29
905	3620.2580	6.32	53.98 (avg)	-47.66	V	103	285
915	916.3735	89.83	93.98 (qp)	-4.15	H	101	135
915	916.0470	93.23	93.98 (qp)	-0.75	V	121	332
915	1833.1287	2.86	53.98 (avg)	-51.12	H	108	32
915	1833.3256	10.09	53.98 (avg)	-43.89	V	117	14
915	2750.0756	19.39	53.98 (avg)	-34.59	H	262	261
915	2748.6224	18.61	53.98 (avg)	-35.37	V	129	115
915	2751.6117	22.77	53.98 (avg)	-31.21	V	136	109
915	3666.8430	17.04	53.98 (avg)	-36.94	H	264	119
925	925.6700	90.09	93.98	-3.89	H	154	117
925	925.5260	92.09	93.98	-1.89	V	116	96
925	1850.1235	12.55	53.98 (avg)	-41.43	H	108	32
925	1850.1144	14.06	53.98 (avg)	-39.92	V	157	23
925	2773.5794	22.20	53.98 (avg)	-31.78	H	177	139
925	2773.5720	21.85	53.98 (avg)	-32.13	V	101	111
925	3700.2441	16.26	53.98 (avg)	37.72	H	202	107
925	3700.2390	16.86	53.98 (avg)	-37.12	V	146	281

Notes:
Investigation was performed to 10 GHz.
All other carrier harmonics were below the measuring equipment noise floor, that is ≤ 40 dBμV/m.

Eleven Engineering Ltd.
ETHx
Tx mode 905 MHz
Project Number e12e3202-1 07

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3 ⇓	4
Range: 1 30 - 1000MHz								
49.9819	5.29 qp	2.11	13.49	20.89	49.54	50	40	40.46
Azimuth: 45	Height: 137	Horz		Margin [dB]:	-28.65	-29.11	-19.11	-19.57
199.9859	17.16 qp	3.86	9.6	30.62	53.98	50	43.52	40.46
Azimuth: 219	Height: 100	Horz		Margin [dB]:	-23.36	-19.38	-12.9	-9.84
249.9842	23.55 qp	4.42	11.2	39.17	56.9	57	46.02	47.46
Azimuth: 214	Height: 123	Horz		Margin [dB]:	-17.73	-17.83	-6.85	-8.29
299.9894	23.83 qp	4.69	12.63	41.15	56.9	57	46.02	47.46
Azimuth: 208	Height: 101	Horz		Margin [dB]:	-115.75	-15.85	-4.87	-6.31
399.9867	16.61 qp	5.53	14.6	36.74	56.9	57	46.02	47.46
Azimuth: 236	Height: 257	Horz		Margin [dB]:	-20.16	-20.26	-9.28	-10.72
449.9855	18.04 qp	5.81	15.3	39.15	56.9	57	46.02	47.46
Azimuth: 220	Height: 182	Horz		Margin [dB]:	-17.75	-17.85	-6.87	-8.31
749.9923	10.59 qp	7.37	19.7	37.66	56.9	57	46.02	47.46
Azimuth: 207	Height: 101	Horz		Margin [dB]:	-19.24	-19.34	-8.36	-9.8

LIMIT 1: FCC Part 15 Class A 3m
LIMIT 2: ICES-003 Class A 3m
LIMIT 3: FCC Part 15 Class B 3m ⇐
LIMIT 4: ICES-003 Class B 3m

qp - Quasi-Peak detector

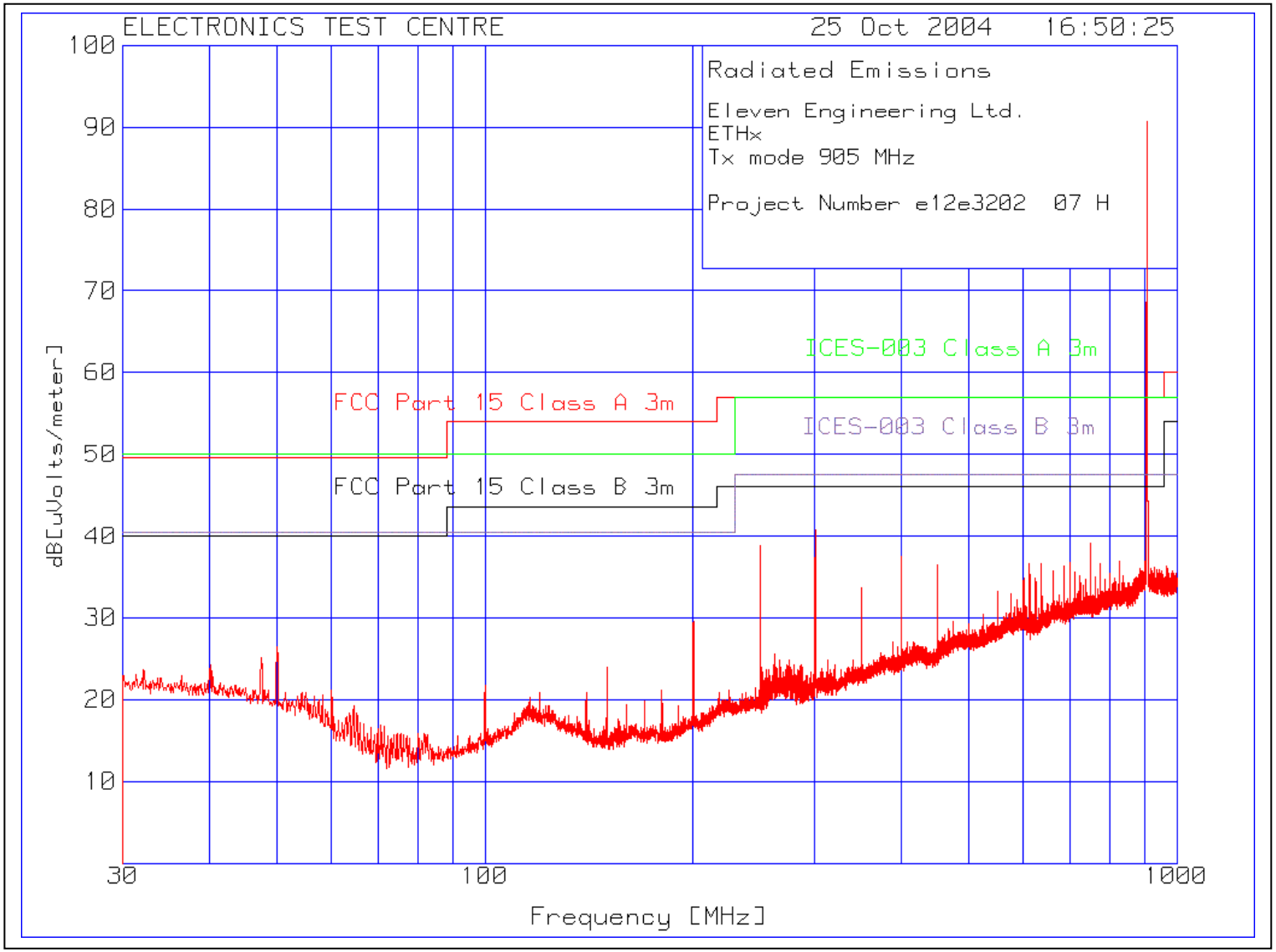
Eleven Engineering Ltd.
ETHx
Tx mode 905 MHz
Project Number e12e3202-1 07

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4
Range: 2 30 - 1000MHz								
39.9822	3.64 qp	1.59	13.7	18.93	49.54	50	40	40.46
Azimuth: 264	Height: 101	Vert		Margin [dB]:	-30.61	-31.07	-21.07	-21.53
49.9923	19.03 qp	2.11	11.09	32.23	49.54	50	40	40.46
Azimuth: 313	Height: 101	Vert		Margin [dB]:	-17.31	-17.77	-7.77	-8.23
80.0073	24.01 qp	2.57	6.15	32.73	49.54	50	40	40.46
Azimuth: 352	Height: 116	Vert		Margin [dB]:	-16.81	-17.27	-7.27	-7.73
99.9807	20.05 qp	2.61	9.26	31.92	53.98	50	43.52	40.46
Azimuth: 9	Height: 106	Vert		Margin [dB]:	-22.06	-18.08	-11.6	-8.54
139.937	13.28 qp	3.28	8.59	25.15	53.98	50	43.52	40.46
Azimuth: 14	Height: 109	Vert		Margin [dB]:	-28.83	-24.85	-18.37	-15.31
149.9805	23.65 qp	3.41	8.12	35.18	53.98	50	43.52	40.46
Azimuth: 16	Height: 100	Vert		Margin [dB]:	-18.8	-14.82	-8.34	-5.28
169.9863	18.7 qp	3.48	8.9	31.08	53.98	50	43.52	40.46
Azimuth: 167	Height: 104	Vert		Margin [dB]:	-22.9	-18.92	-12.44	-9.38
249.986	14.77 qp	4.42	11.33	30.52	56.9	57	46.02	47.46
Azimuth: 269	Height: 168	Vert		Margin [dB]:	-26.38	-26.48	-15.5	-16.94
299.9843	25.5 qp	4.69	12.46	42.65	56.9	57	46.02	47.46
Azimuth: 185	Height: 165	Vert		Margin [dB]:	-14.25	-14.35	-3.37	-4.81
349.9868	17.35 qp	5.07	13.59	36.01	56.9	57	46.02	47.46
Azimuth: 87	Height: 116	Vert		Margin [dB]:	-20.89	-20.99	-10.01	-11.45
399.9868	20.24 qp	5.53	14.4	40.17	56.9	57	46.02	47.46
Azimuth: 87	Height: 116	Vert		Margin [dB]:	-16.73	-16.83	-5.85	-7.29
449.9887	18.65 qp	5.81	15.32	39.78	56.9	57	46.02	47.46
Azimuth: 327	Height: 123	Vert		Margin [dB]:	-17.12	-17.22	-6.24	-7.68

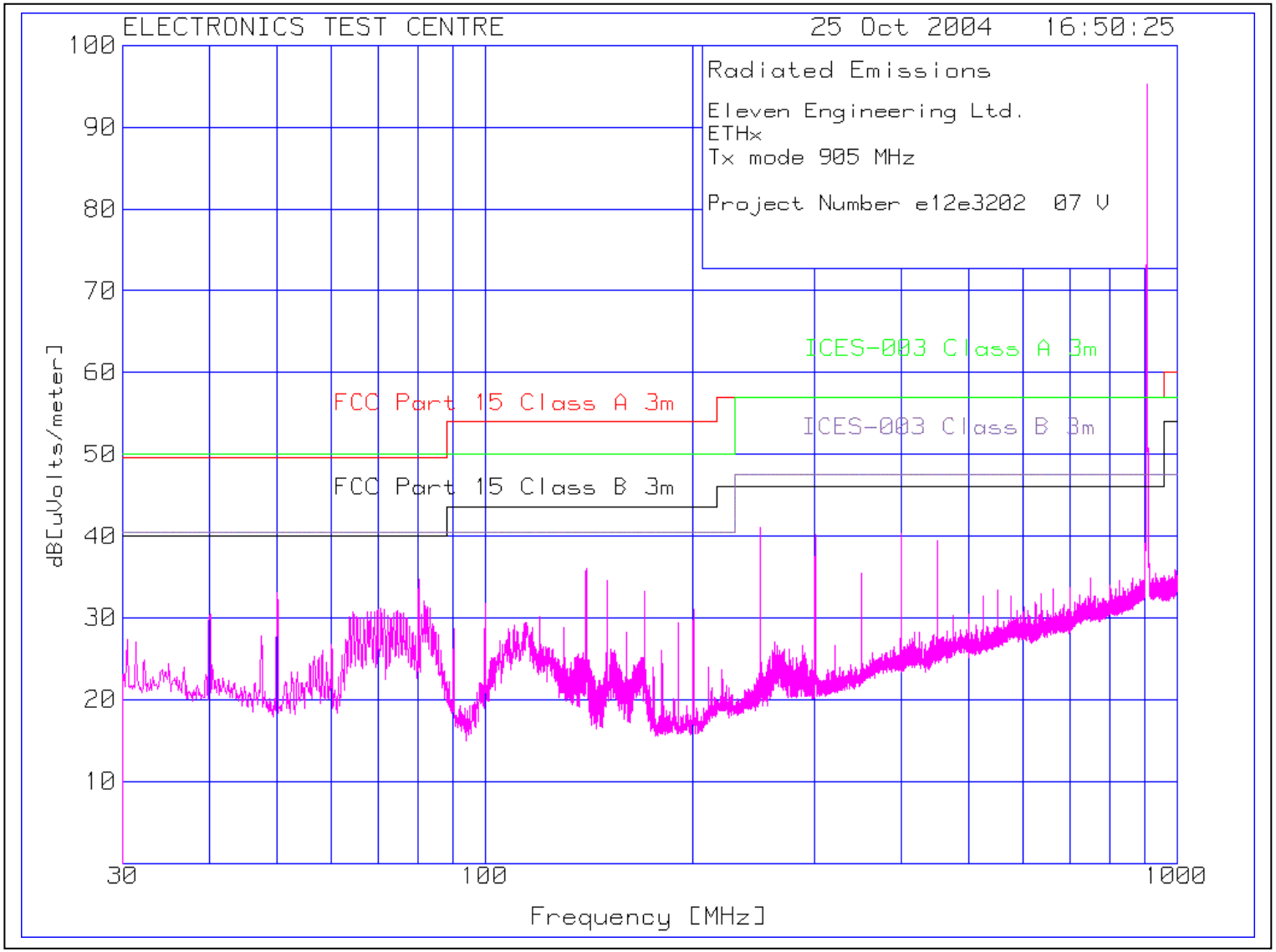
LIMIT 1: FCC Part 15 Class A 3m
LIMIT 2: ICES-003 Class A 3m
LIMIT 3: FCC Part 15 Class B 3m
LIMIT 4: ICES-003 Class B 3m

qp - Quasi-Peak detector

Plot of Radiated Emissions:



Plot of Radiated Emissions:



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Eleven Engineering Ltd.
ETHx
Tx mode 915 MHz
Project Number e12e3202-1 08

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3 ⇓	4
Range: 1 30 - 1000MHz								
249.9841	23.32 qp	4.42	11.2	38.94	56.9	57	46.02	47.46
Azimuth: 211	Height: 125	Horz		Margin [dB]:	-17.96	-18.06	-7.08	-8.52
299.9839	23.16 qp	4.69	12.63	40.48	56.9	57	46.02	47.46
Azimuth: 200	Height: 106	Horz		Margin [dB]:	-16.42	-16.52	-5.54	-6.98
399.9864	17.27 qp	5.53	14.6	37.4	56.9	57	46.02	47.46
Azimuth: 237	Height: 249	Horz		Margin [dB]:	-19.5	-19.6	-8.62	-10.06
749.99	10.46 qp	7.37	19.7	37.53	56.9	57	46.02	47.46
Azimuth: 208	Height: 102	Horz		Margin [dB]:	-19.37	-19.47	-8.49	-9.93

LIMIT 1: FCC Part 15 Class A 3m
LIMIT 2: ICES-003 Class A 3m
LIMIT 3: FCC Part 15 Class B 3m ⇐
LIMIT 4: ICES-003 Class B 3m

qp - Quasi-Peak detector

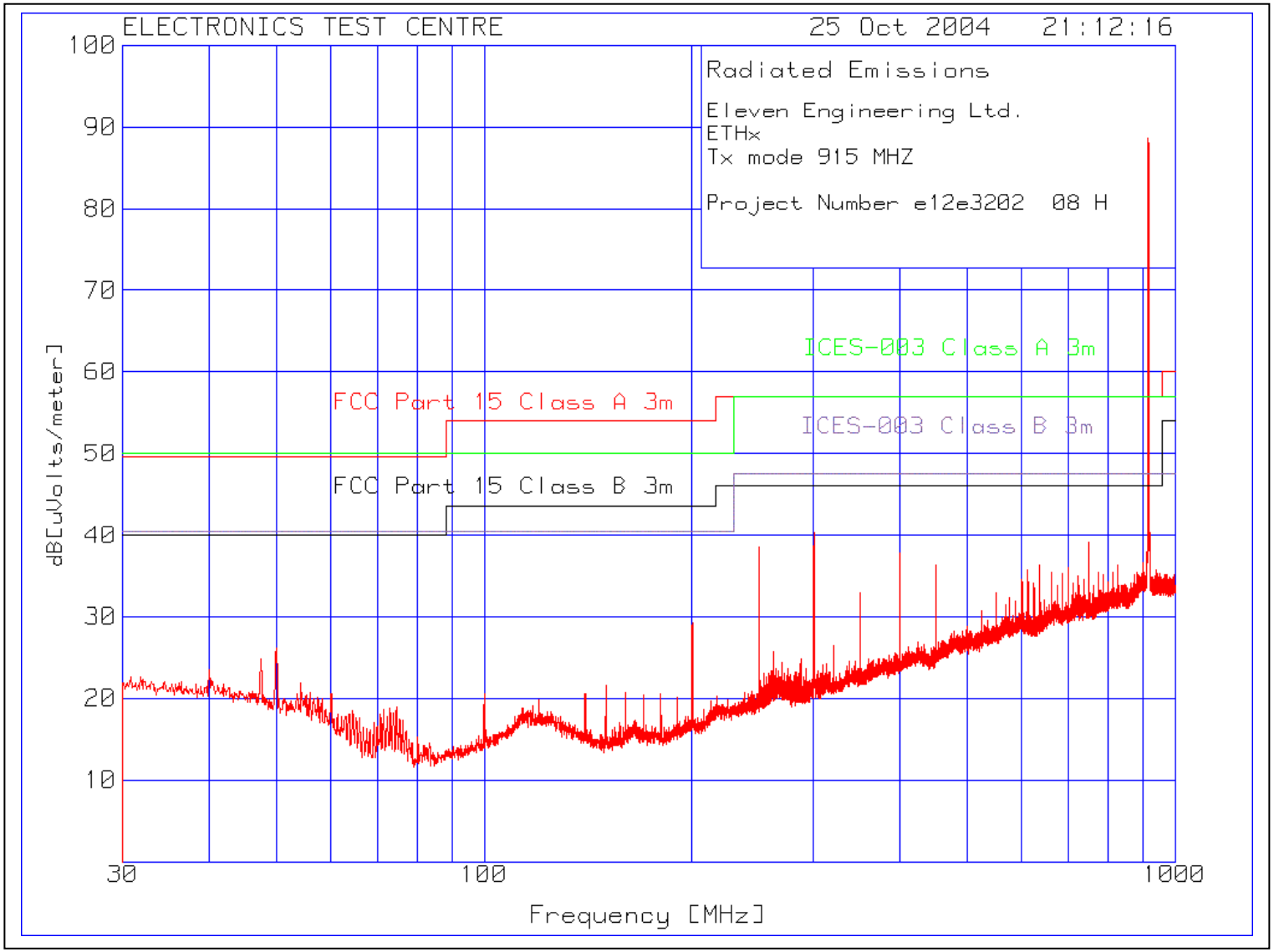
Eleven Engineering Ltd.
ETHx
Tx mode 915 MHz
Project Number e12e3202-1 08

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3 ⇓	4
Range: 2 30 - 1000MHz								
39.9862	12.53 qp	1.59	13.7	27.82	49.54	50	40	40.46
Azimuth: 253	Height: 110	Vert		Margin [dB]:	-21.72	-22.18	-12.18	-12.64
49.9826	19.53 qp	2.11	11.09	32.73	49.54	50	40	40.46
Azimuth: 359	Height: 102	Vert		Margin [dB]:	-16.81	-17.27	-7.27	-7.73
74.0631	20.61 qp	2.45	6.7	29.76	49.54	50	40	40.46
Azimuth: 1	Height: 100	Vert		Margin [dB]:	-19.78	-20.24	-10.24	-10.7
74.5863	25.33 qp	2.46	6.7	34.49	49.54	50	40	40.46
Azimuth: 358	Height: 101	Vert		Margin [dB]:	-15.05	-15.51	-5.51	-5.97
79.9779	24.4 qp	2.57	6.15	33.12	49.54	50	40	40.46
Azimuth: 349	Height: 117	Vert		Margin [dB]:	-16.42	-16.88	-6.88	-7.34
249.9838	21.44 qp	4.42	11.33	37.19	56.9	57	46.02	47.46
Azimuth: 268	Height: 100	Vert		Margin [dB]:	-19.71	-19.81	-8.83	-10.27
299.987	25.2 qp	4.69	12.46	42.35	56.9	57	46.02	47.46
Azimuth: 170	Height: 168	Vert		Margin [dB]:	-14.55	-14.65	-3.67	-5.11
399.9873	20.21 qp	5.53	14.4	40.14	56.9	57	46.02	47.46
Azimuth: 128	Height: 119	Vert		Margin [dB]:	-16.76	-16.86	-5.88	-7.32
449.9871	18.83 qp	5.81	15.32	39.37	56.9	57	46.02	47.46
Azimuth: 327	Height: 121	Vert		Margin [dB]:	-16.94	-17.04	-6.06	-7.5

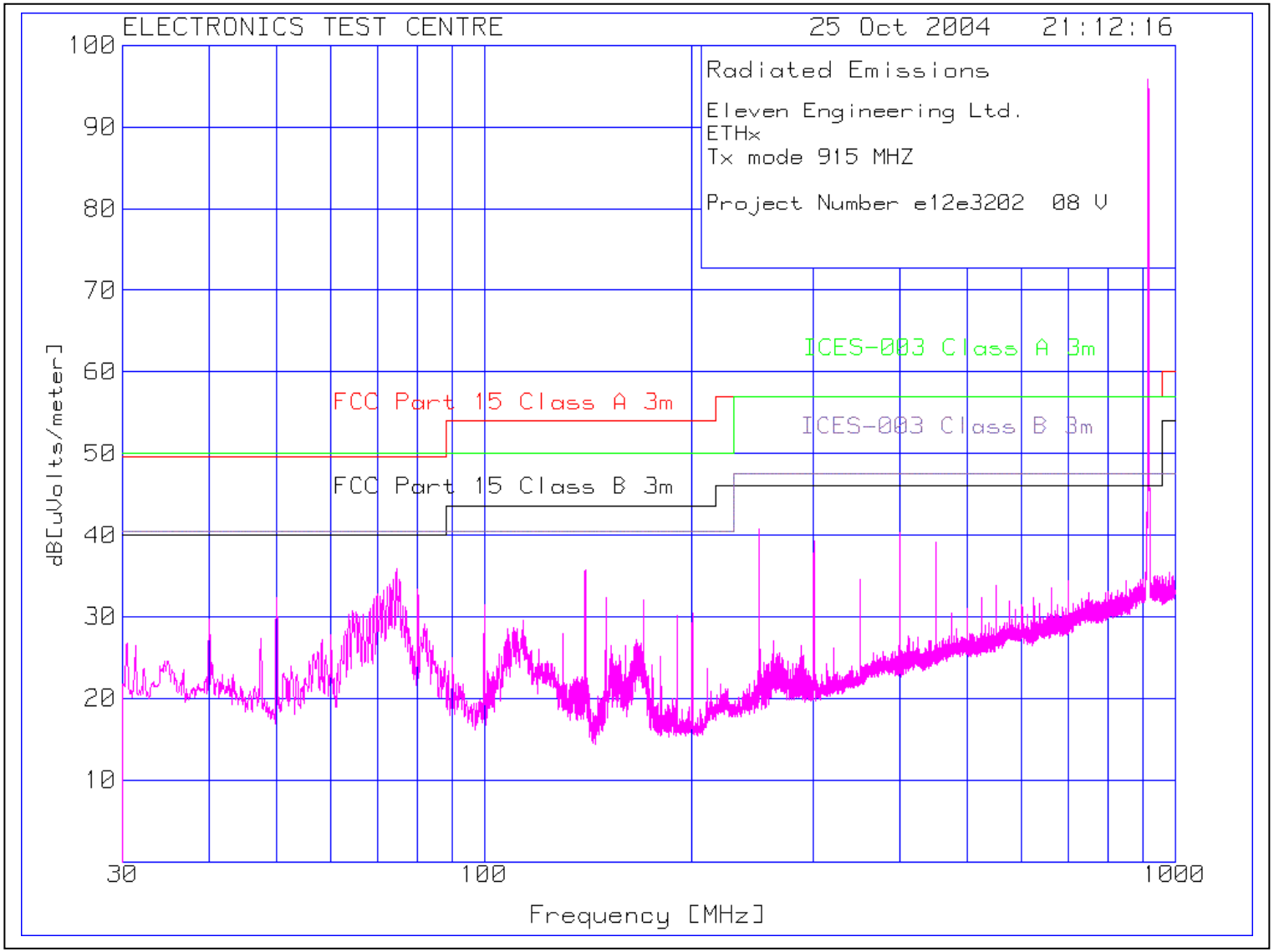
LIMIT 1: FCC Part 15 Class A 3m
LIMIT 2: ICES-003 Class A 3m
LIMIT 3: FCC Part 15 Class B 3m ⇐
LIMIT 4: ICES-003 Class B 3m

qp - Quasi-Peak detector

Plot of Radiated Emissions:



Plot of Radiated Emissions:



Eleven Engineering Ltd.
ETHx
Tx mode 925 MHz
Project Number e12e3202-1 05

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4
Range: 1 30 - 1000MHz								
50.0055	12.08 qp	2.11	13.48	27.67	49.54	50	40	40.46
Azimuth: 124	Height: 176	Horz		Margin [dB]:	-	-	-	-
200.007	16.2 qp	3.86	9.59	29.65	53.98	50	40	40.46
Azimuth: 217	Height: 103	Horz		Margin [dB]:	-24.33	-20.35	-13.87	-10.81
250.0044	23.35 qp	4.42	11.2	38.97	56.9	57	46.02	47.46
Azimuth: 208	Height: 120	Horz		Margin [dB]:	-17.93	-18.03	-7.05	-8.49
300.0053	24.22 qp	4.69	12.63	41.54	56.9	57	46.02	47.46
Azimuth: 201	Height: 105	Horz		Margin [dB]:	-15.36	-15.46	-4.48	-5.92
350.0073	15.1 qp	5.07	13.71	33.88	56.9	57	46.02	47.46
Azimuth: 228	Height: 101	Horz		Margin [dB]:	-23.02	-23.12	-12.14	-13.58
400.0064	17.23 qp	5.53	14.6	37.36	56.9	57	46.02	47.46
Azimuth: 235	Height: 248	Horz		Margin [dB]:	-19.54	-19.64	-8.66	-10.1
450.0078	17.88 qp	5.81	15.3	38.99	56.9	57	46.02	47.46
Azimuth: 222	Height: 184	Horz		Margin [dB]:	-17.91	-18.01	-7.03	-8.47
750.0107	10.01 qp	7.37	19.7	37.08	56.9	57	46.02	47.46
Azimuth: 14	Height: 106	Horz		Margin [dB]:	-19.82	-19.92	-8.94	-10.38

LIMIT 1: FCC Part 15 Class A 3m
LIMIT 2: ICES-003 Class A 3m
LIMIT 3: FCC Part 15 Class B 3m ⇐
LIMIT 4: ICES-003 Class B 3m

qp - Quasi-Peak detector

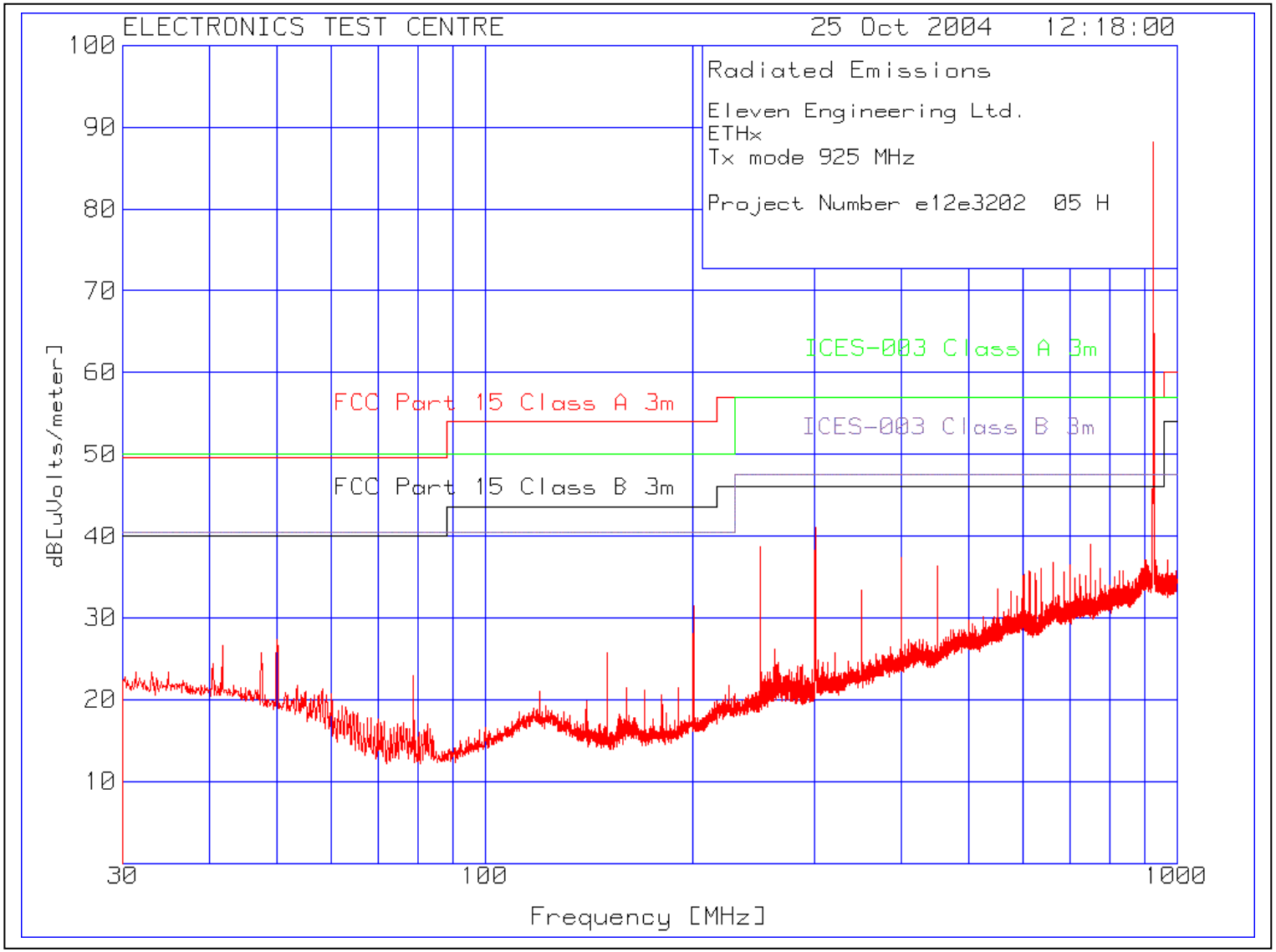
Eleven Engineering Ltd.
ETHx
Tx mode 925 MHz
Project Number e12e3202-1 05

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3 ⇓	4
Range: 2 30 - 1000MHz								
50.0023	18.84 qp	2.11	11.08	32.03	49.54	50	40	40.46
Azimuth: 343	Height: 101	Vert		Margin [dB]:	-17.51	-17.97	-7.97	-8.43
100.0032	22.07 qp	2.61	9.27	33.95	53.98	50	43.52	40.46
Azimuth: 15	Height: 107	Vert		Margin [dB]:	-20.03	-16.05	-9.57	-6.51
150.0015	21.96 qp	3.41	8.11	33.48	53.98	50	43.52	40.46
Azimuth: 313	Height: 102	Vert		Margin [dB]:	-20.5	-16.52	-10.04	-6.98
250.005	22.89 qp	4.42	11.33	38.64	56.9	57	46.02	47.46
Azimuth: 179	Height: 200	Vert		Margin [dB]:	-18.26	-18.36	-7.38	-8.82
300.0232	25.21 qp	4.69	12.46	42.36	56.9	57	46.02	47.46
Azimuth: 192	Height: 170	Vert		Margin [dB]:	-14.54	-14.64	-3.66	-5.1
400.0047	18.73 qp	5.53	14.4	38.66	56.9	57	46.02	47.46
Azimuth: 348	Height: 153	Vert		Margin [dB]:	-18.24	-18.34	-7.36	-8.8
550.0105	8.79 qp	6.18	16.9	31.87	56.9	57	46.02	47.46
Azimuth: 306	Height: 101	Vert		Margin [dB]:	-25.03	-25.13	-14.15	-15.59

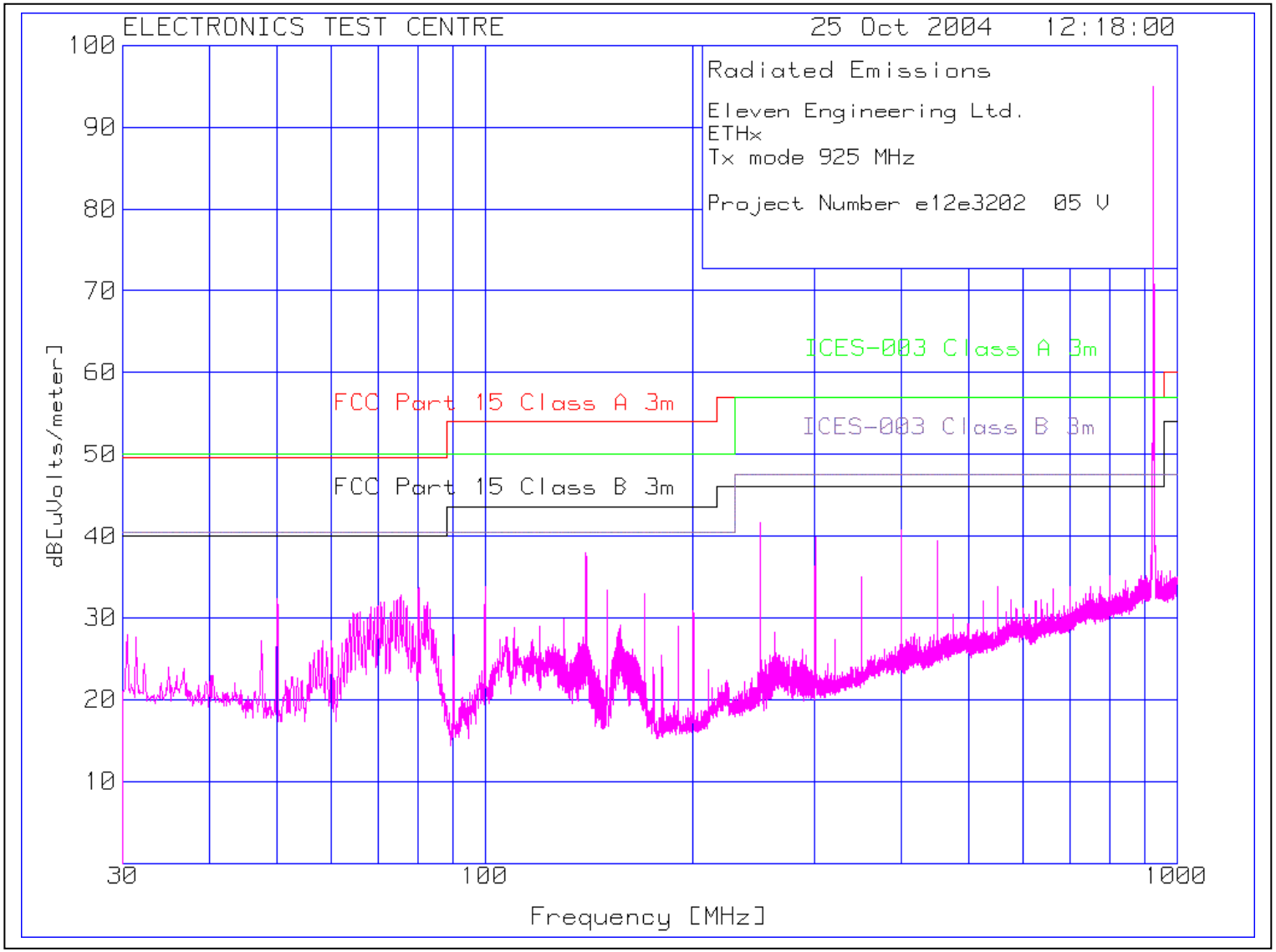
LIMIT 1: FCC Part 15 Class A 3m
LIMIT 2: ICES-003 Class A 3m
LIMIT 3: FCC Part 15 Class B 3m ⇐
LIMIT 4: ICES-003 Class B 3m

qp - Quasi-Peak detector

Plot of Radiated Emissions:



Plot of Radiated Emissions:



Carrier and spurious emissions: nominal $\mathbf{f}_c$ = 905 MHz

Frequency (MHz)	Azimuth (Degrees)	Antenna Height (cm)	Ant. Pol.	EUT Spectrum Analyzer Reading (dBuV)	Substitute Tx Spectrum Analyzer Reading (dBuV)	Power Delivered To Tx Antenna After Cable Loss (dBm)	Corrected Tx Antenna Power (dBm)	Tx Antenna Gain (dBi)	EIRP (isotropic) (dBm)	ERP (dipole) (dBm)	ERP Limit (dBm)	Delta (dB)	ERP (Watts)	ERP Limit (Watts)	Delta (Watts)
905.2135	145	100	H	63.20	63.00	2.20	2.40	6.00	8.40	6.25	23.98	-17.73	0.004	0.250	-0.246
905.7060	42	118	V	67.90	67.60	7.20	7.50	6.65	14.15	12.00	23.98	-11.98	0.016	0.250	-0.234
1810.6025	298	105	H	16.53	18.20	-73.15	-74.82	5.60	-69.22	-71.37	-13	-58.37			
1810.4563	52	124	H	43.05	42.30	-49.40	-48.65	5.60	-43.05	-45.20	-13	-32.20			
1809.9960	14	117	V	29.96	30.10	-64.40	-64.54	7.10	-57.44	-59.59	-13	-46.59			
2714.1776	137	103	H	37.27	38.80	-53.60	-55.13	4.95	-50.18	-52.33	-13	-39.33			
2714.6560	29	140	V	28.51	30.00	-60.60	-62.09	4.95	-57.14	-59.29	-13	-46.29			
2717.1913	137	103	H	37.73	38.30	-53.60	-54.17	4.95	-49.22	-51.37	-13	-38.37			
2717.1871	29	140	V	35.00	32.60	-56.60	-54.20	4.95	-49.25	-51.40	-13	-38.40			
3620.1227	285	103	V	21.32	22.30	-55.70	-56.68	3.50	-53.18	-55.33	-13	-42.33			

Carrier and spurious emissions: nominal $\mathbf{f}_c$ = 915 MHz

Frequency (MHz)	Azimuth (Degrees)	Antenna Height (cm)	Ant. Pol.	EUT Spectrum Analyzer Reading (dBuV)	Substitute Tx Spectrum Analyzer Reading (dBuV)	Power Delivered To Tx Antenna After Cable Loss (dBm)	Corrected Tx Antenna Power (dBm)	Tx Antenna Gain (dBi)	EIRP (isotropic) (dBm)	ERP (dipole) (dBm)	ERP Limit (dBm)	Delta (dB)	ERP (Watts)	ERP Limit (Watts)	Delta (Watts)
916.3735	135	101	H	62.70	62.90	2.20	2.00	6.20	8.20	6.05	23.98	-17.93	0.004	0.250	-0.246
917.0470	303	121	V	67.20	67.60	7.20	6.80	6.7	13.50	11.35	23.98	-12.63	0.014	0.250	-0.236
1833.1287	32	108	H	22.90	26.30	-72.50	-75.90	6.30	-69.60	-71.75	-13	-58.75			
1833.3256	14	195	V	30.23	32.10	-64.50	-66.37	7.20	-59.17	-61.32	-13	-48.32			
2750.0836	261	262	H	24.60	27.50	-65.80	-68.70	4.95	-63.75	-65.90	-13	-52.90			
2748.5383	115	129	V	38.17	36.20	-52.80	-50.83	4.95	-45.88	-48.03	-13	-35.03			
2751.6087	109	136	V	37.55	37.70	-52.80	-52.95	4.95	-48.00	-50.15	-13	-37.15			
3666.8430	119	264	H	15.52	19.70	-62.00	-66.18	3.50	-62.68	-64.83	-13	-51.83			
1833.1287	32	108	H	22.90	26.30	-72.50	-75.90	6.30	-69.60	-71.75	-13	-58.75			
1833.3256	14	195	V	30.23	32.10	-64.50	-66.37	7.20	-59.17	-61.32	-13	-48.32			

Carrier and spurious emissions: nominal $\mathbf{f}_c$ = 925 MHz

Frequency (MHz)	Azimuth (Degrees)	Antenna Height (cm)	Ant. Pol.	EUT Spectrum Analyzer Reading (dBuV)	Substitute Tx Spectrum Analyzer Reading (dBuV)	Power Delivered To Tx Antenna After Cable Loss (dBm)	Corrected Tx Antenna Power (dBm)	Tx Antenna Gain (dBi)	EIRP (isotropic) (dBm)	ERP (dipole) (dBm)	ERP Limit (dBm)	Delta (dB)	ERP (Watts)	ERP Limit (Watts)	Delta (Watts)
925.6700	117	154	H	63.20	62.40	2.20	3.00	6.1	9.10	6.95	23.98	-17.03	0.005	0.25	-0.25
925.5260	96	116	V	66.10	67.00	7.20	6.30	6.75	13.05	10.90	23.98	-13.08	0.012	0.25	-0.24
1850.1235	142	118	H	32.80	34.00	-67.40	-68.60	6.10	-62.50	-64.65	-13	-51.65			
1850.1144	23	157	V	34.40	35.10	-65.40	-66.10	7.10	-59.00	-61.15	-13	-48.15			
2773.5796	139	177	H	38.23	38.70	-58.70	-59.17	4.95	-54.22	-56.37	-13	-43.37			
2773.5747	111	101	V	37.81	35.20	-58.70	-56.09	4.95	-51.14	-53.29	-13	-40.29			
2776.6521	139	177	H	37.32	38.50	-58.70	-59.88	4.95	-54.93	-57.08	-13	-44.08			
2776.6479	111	101	V	37.12	35.00	-58.70	-56.58	4.95	-51.63	-53.78	-13	-40.78			
3700.2352	107	202	H	23.86	26.40	-60.10	-62.64	3.15	-59.49	-61.64	-13	-48.64			
3700.2311	281	146	V	26.94	24.90	-60.10	-58.06	3.15	-54.91	-57.06	-13	-44.06			

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5.0 TEST FACILITY

5.1 LOCATION

The EUT was tested for Electromagnetic Compatibility at the Electronics Test Centre, located in Airdrie, Alberta, Canada.

The RF Anechoic Chamber (RFAC) is identified as Chamber 1, located in the main building complex at the Electronics Test Centre. Its usable working space measures 10.6 m long x 7.3 m wide x 6.5 m high.

This test site is listed with the FCC under Registration Number 99541. Measurements taken at this site are accepted by Industry Canada per file number IC 2046-1.

The floor, walls and ceiling consist of annealed steel panels. The walls and ceiling are covered with ferrite tile, augmented by RF absorbant foam material on the end wall nearest the turntable, and on the adjacent walls and the ceiling. The chamber floor supports a 15 cm high internal floor, constructed of annealed steel panels, that forms the ground plane, and is bonded to the chamber walls.

The 3-m diameter turntable is flush-mounted with the floor. A sub-floor cable-way is provided to route cables between the turntable pit and EUT support equipment. Cables reach the EUT through an opening in the centre of the turntable.

Test instrumentation and EUT support equipment is located in two shielded vestibules located at the side of the main room. Cables are routed through bulkhead panels between the rooms as required. Power feeds are routed into the main room and vestibules through line filters providing at least 100 dB of attenuation between 10 kHz and 10 GHz.

5.2 GROUNDING PLAN

The EUT was located on a wooden table 80 cm above the ground plane.

In accordance with Eleven Engineering Inc. specifications, the EUT was not grounded.

5.3 POWER

AC power was supplied via an Underwriter's Laboratories ULW100-69, 100 dB, 100 Ampere wall mounted filter. Bonding to ground is implemented at the chamber wall.

5.4 EMISSIONS PROFILE

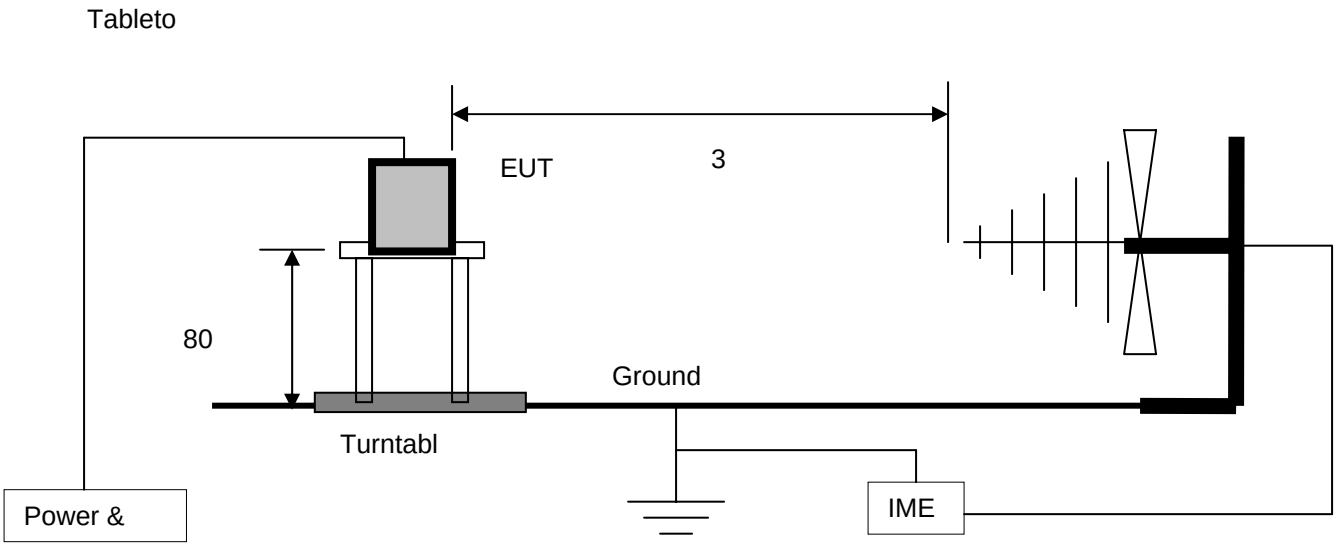
Ambient conducted and radiated electromagnetic emission profiles were generated throughout the tests and are included in the test data.

5.5 TEST CONFIGURATION

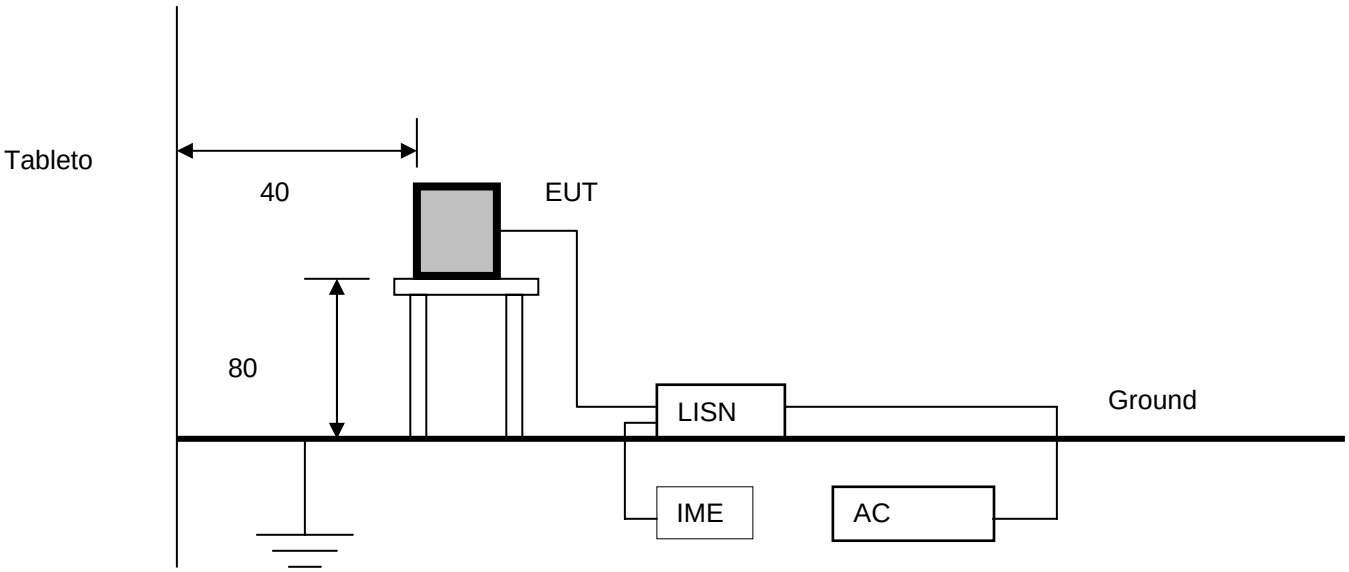
5.5.1 Tabletop Equipment

The following diagrams illustrate the configuration of the EUT test and measurement equipment for Radiated and Conducted Emissions Testing of tabletop equipment.

Radiated



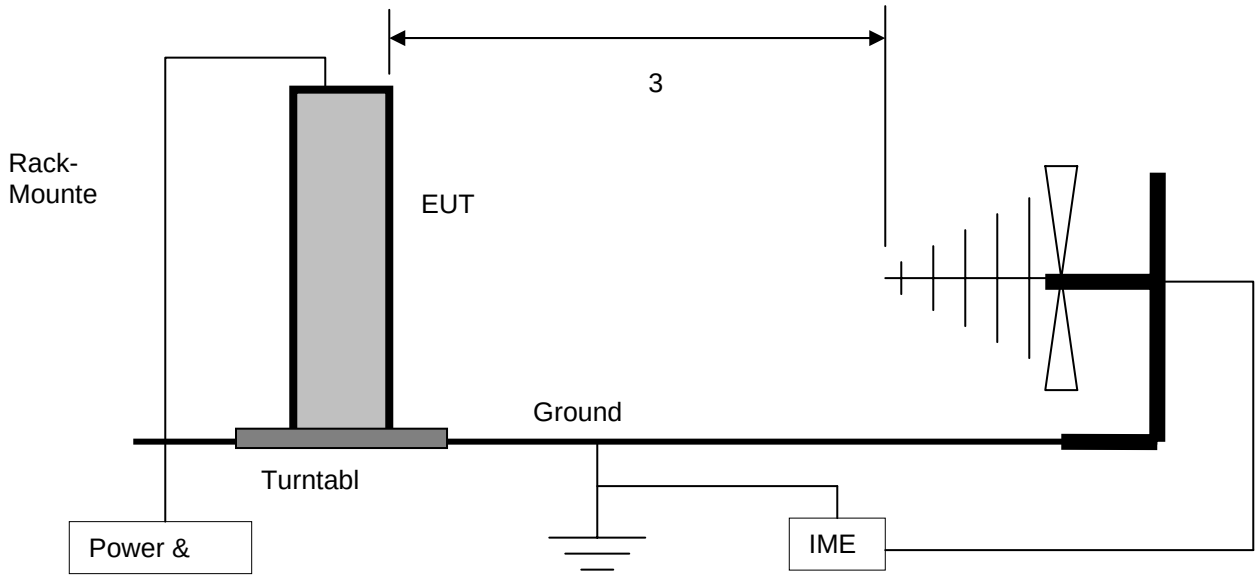
Conducted



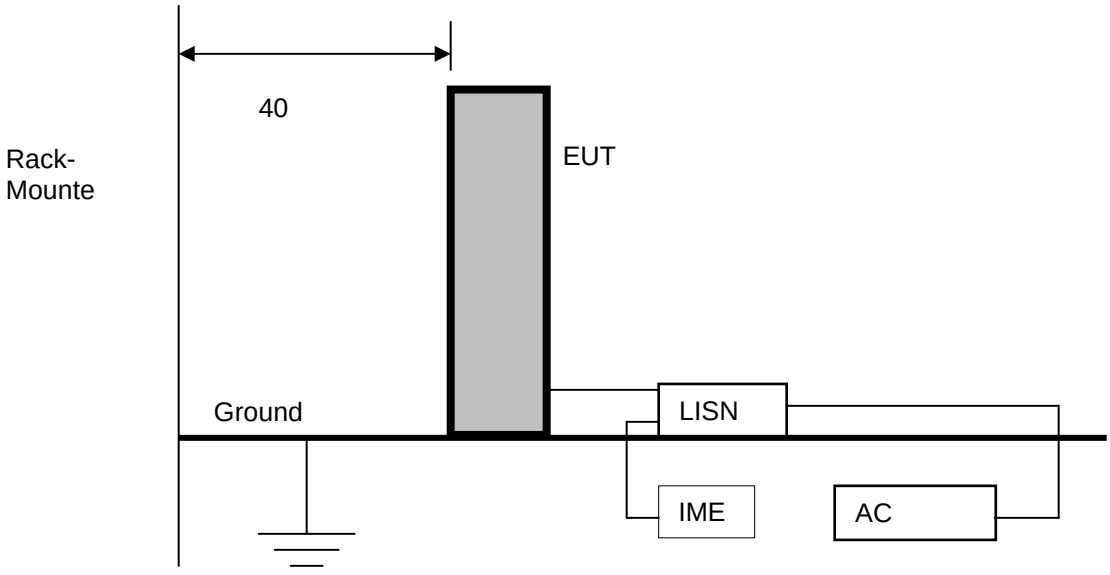
5.5.2 Rack Mount

The following diagrams illustrate the configuration of the EUT test and measurement equipment for Radiated and Conducted Emissions Testing of rack mounted equipment.

Radiated



Conducted



6.0 TEST EQUIPMENT

The following equipment was used for this procedure. All measurement devices are calibrated annually, traceable to NIST.

6.1 RADIATED EMISSIONS

a) Spectrum Analyzer with RF Preselector
b) CISPR Quasi-peak Adapter
c) Power Isolation Transformers
d) Biconilog antenna (20 MHz to 2 GHz)
e) Antenna mast positioner and controller
f) Flush-mounted turntable and controller
g) Personal Computer and EMC software

6.2 CONDUCTED EMISSIONS

a) Spectrum Analyzer with RF Preselector
b) Line Impedance Stabilization Network, 50 μH
c) CISPR Quasi-peak Adapter
d) Isolation Transformer
e) Personal Computer and EMC software

6.3 CALIBRATION

All measurement instrumentation conforms to ANSI C63.2. Calibration is maintained in accordance with manufacturer recommendations. Each measurement device is labeled with its ETC asset number and calibration due date.

6.3.1 CALIBRATION ACCURACY

Test equipment used to provide quantitative measurements are calibrated with standards traceable to the National Research Council, National Institute of Standards and Technology or other national standards. Instrumentation systems for emissions measurements have the following accuracies:

Frequency = ± 1 kHz
Amplitude (RE) = ± 4.01 dB
Amplitude (CE) = ± 3.25 dB

6.3.2 TEST EQUIPMENT DESCRIPTION

The equipment used in the tests was selected from the following list.

Instrument	Manufacturer	Model No.	Asset No.	Calibration Due
Spectrum Analyzer & Display	Hewlett Packard	8566B & 85662	9565	20 April 2005
Spectrum Analyzer & Display	Hewlett Packard	8566B & 85662	9168	17 August 2005
RF Preselector	Hewlett Packard	85685A	9728	19 August 2005
Quasi-Peak Adapter	Hewlett Packard	85650A	4411	20 August 2005
Measurement System Software	Underwriters Laboratories	Version 6.0	4443	n/a
Line Impedance Stabilization Network	EMCO	3825/2r	9331	2 November 2005
Line Impedance Stabilization Network	EMCO	3825/2r	9259	2 November 2005
Biconilog Antenna	ARA	Lpb-2520/A	4318	2 August 2005
Dual Ridged Guide Antenna	EMCO	3115	9588	2 August 2005
Low Noise Amplifier	MITEQ	JS43-01001800-21-5P	4354	3 November 2004

Appendix A

ETHx

Test Sample Description
(from data provided by Eleven Engineering Inc.)

Product Application	Product Category
Commercial ✗ Military o	Telecommunications o Information Technology ✗ Surface Transportation o Aerospace o Test & Measurement o Other o _____
Product Name	ETHx
Part/Model No.	n/a
Serial Number	n/a
Power Requirements: **(Voltage, AC/DC, Hz, Current)**	120 VAC, 60 Hz, 0.3 A
Ground Connection **(in addition to power cord)**	Nil
Internally Generated Frequencies	12.5, 25, 50, 905.2083, 907.29167, 910.41667, 913.54167, 916.66667, 919.27083, 922.39583, 923.95833 MHz
Peripheral Support Equipment	Personal Computer
Description and number of interconnecting Leads & Cables	Ethernet cable RS-232 serial cable Power cable from AC adaptor
Brief Functional Description	The system is an in-expensive wireless Ethernet bridge. It is designed to replace twisted pair Ethernet cable with a wireless link. Two devices are sold together and both are identical. The devices are paired at the factory and will only communicate between matched pairs. To operate the user only has to connect the power and Ethernet cables to each unit. No additional configuration is required.