Underwriters Laboratories Inc.
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Job Number:	931079
Project Number:	08CA04874
File Number:	MC3181
Date:	19 Feb 2008
Model:	OPI

Electromagnetic Compatibility Test Report

For

Chamberlain Group Inc.

Test Report Details

Tests Performed By:	**Underwriters Laboratories Inc. 1285 Walt Whitman Rd. Melville, NY 11747**
Tests Performed For:	**Chamberlain Group Inc. 845 Larch Av Elmhurst, IL 60126**
Applicant Contact:	**Hank Sieradzki**
Title:	**Not Provided**
Phone:	**(630) 993-6564**
Fax:	**Not Provided**
E-mail:	**Hank.Sieradzki@chamberlaingroup.com**
Test Report Date:	**19 Feb 2008**
Product Type:	**Portable Intercom**
Product standards	**FCC Part 15, Subpart C, 15.249, RSS-GEN, RSS-210**
Model Number:	**OPI**
Sample Serial Number:	**Not Provided**
EUT Category:	**Low Power Transmitter 902-928MHz**
Testing Start Date:	**23 Jan 2008**
Date Testing Complete:	**12 Feb 2008**
Overall Results:	**Compliant**

Underwriters Laboratories Inc. reports apply only to the specific samples tested under stated test conditions. All samples tested were in good operating condition throughout the entire test program. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. Underwriters Laboratories Inc. shall have no liability for any deductions, inferences or generalizations drawn by the client or others from Underwriters Laboratories Inc. issued reports. This report shall not be used to claim, constitute or imply product certification, approval, or endorsement by NVLAP, A2LA, or any agency of the US government.

This report may contain test results that are not covered by the NVLAP or A2LA accreditation. The scope of accreditation is limited to the specific tests that are listed on the NVLAP and/or A2LA websites referenced at the end of this report.

Report Directory

Report Revision History

Revision Date	Description	Revised By	Revision Reviewed By
None	Original	-	-

1.0 G E N E R A L - Product Description

1.1 Equipment Description

For use with Wireless Gate & Door Intercom & Access Control. The OPI allows you to speak with the visitor or release gate. It will work with other intercoms in the home when not speaking to the gate. The OPI has a range of up to 1000ft. Multiple intercoms can be used on one site

The antenna is integral to the device and cannot be removed.

1.2 Equipment Marking Plate

Not applicable.

1.3 Device Configuration During Test

1.3.1 Equipment Used During Test:

Use	Product Type	Manufacturer	Model	Comments
EUT	Wireless Portable Intercom	Chamberlain Group Inc.	OPI	None
Note: **EUT** - Equipment Under Test, **AE** - Auxiliary/Associated Equipment, or **SIM** - Simulator (Not Subjected to Test)				

1.3.2 Input/Output Ports:

Port #	Name	Type*	Cable Max. >3m (Y/N)	Cable Shielded (Y/N)	Comments
0	Enclosure	N/E	—	—	None
1	Mains	AC / B	N/A	N/A	None

Note:
AC = AC Power Port DC = DC Power Port N/E = Non-Electrical B = Battery
I/O = Signal Input or Output Port (Not Involved in Process Control)
TP = Telecommunication Ports

1.3.3 EUT Internal Operating Frequencies:

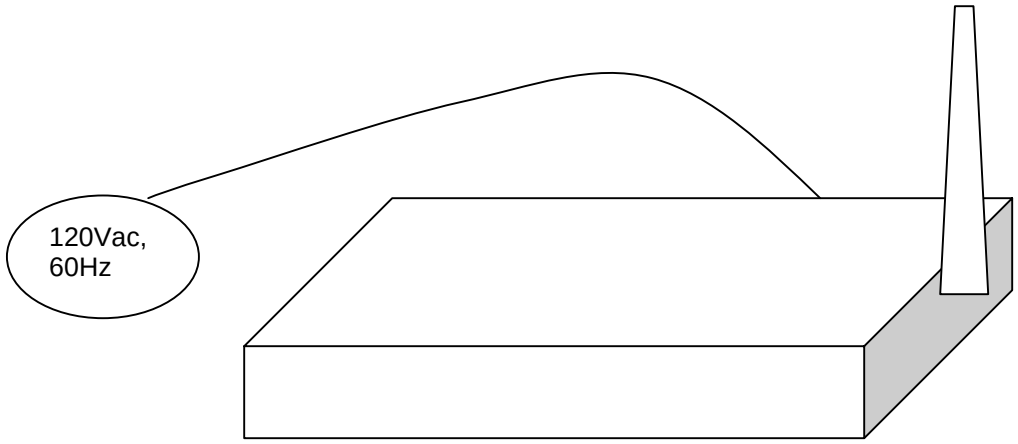
Frequency (MHz)	Description
902 – 928	Channel Frequency Range

1.3.4 Power Interface:

Mode # /Rated	Voltage (V)	Current (A)	Power (W)	Frequency (DC/AC-Hz)	Phases (#)	Comments
1	6	-	-	DC	-	Battery Powered
2	120	-	-	AC – 60	Single	None

1.4 Block Diagram:

The diagram below illustrates the configuration of the equipment above.



1.5 EUT Configurations

Mode #	Description
1	Stand Alone, Battery Powered
2	Stand Alone, Powered by AC/DC adapter

1.6 EUT Operation Modes

Mode #	Description
1	Tuned to 902MHz
2	Tuned to 914MHz
3	Tuned to 928MHz
4	Receive Mode

2.0 Summary

The tests listed in the Summary of Testing section of this report have been performed and the results recorded by Underwriters Laboratories Inc. in accordance with the procedures stated in each test requirement and specification. The applicant determined the list of tests performed were applicable to the Equipment Under Test. As a result, the subject product has been verified to comply or not comply as noted in the Summary of Testing with each test specification. The test results relate only to the items tested.

2.1 Deviations from standard test methods

None

2.2 Device Modifications Necessary for Compliance

None

2.3 Reference Standards

Standard Number	Standard Name	Standard Date
FCC Part 15, Subpart C, 15.249	Code of Federal Regulations, Part 15, Radio Frequency Devices	2007
FCC Part 15, Subpart B	Code of Federal Regulations, Part 15, Radio Frequency Devices	2007
RSS-GEN	General Requirements and Information for the Certification of Radiocommunication Equipment	2007
RSS-210	Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment	2007

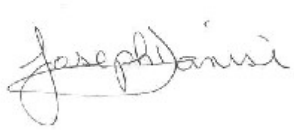
2.4 Results Summary

Requirement – Test	Result (Compliant / Non-Compliant)*
Fundamental Emissions	Compliant
Spurious Radiated Emissions	Compliant
Occupied Bandwidth	Compliant
Conducted Emissions (Rx mode)	Compliant
Conducted Emissions (Tx mode)	Compliant
Unintentional Radiated Emissions (Rx mode)	Compliant

Test Engineer:

Bob DeLisi (Ext.22452)
Senior Staff Engineer
International EMC Services
Conformity Assessment Services-

Reviewer:



Joe Danisi(Ext.23055)
Lead Engineering Associate
International EMC Services
Conformity Assessment Services

Any information and documentation involving UL Mark services are provided on behalf of Underwriters Laboratories Inc. (UL) or any authorized licensee of UL.

3.0 Calibration of Equipment Used for Measurement

All test equipment and test accessories are calibrated on a regular basis. The maximum time between calibrations is one year or the manufacturers' recommendation, whichever is less.

All test equipment calibrations are traceable to the National Institute of Standards and Technology (NIST); therefore, all test data recorded in this report is traceable to NIST.

4.0 EMISSIONS TEST RESULTS

The emissions tests were performed according to following regulations:

---------- North America ----------

Code of Federal Regulations Title 47	Part 15, Radio Frequency Devices
RSS-GEN	General Requirements and Information for the Certification of Radiocommunication Equipment
RSS-210	Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment

Unless specified otherwise in the individual Methods, the tests shall be conducted under the following ambient conditions. Confirmation of these conditions shall be verified at the time the test is conducted.

Ambient Temperature, °C	22.5 ± 2.5	Relative Humidity, %	45 ± 15	Barometric Pressure, mBar	950 ± 150

4.1 Test Conditions and Results – MAINS TERMINAL – CONDUCTED EMISSIONS

Test Description	Measurements were made on a ground plane. All power was connected to the system through Artificial Mains Network (AMN). Conducted voltage measurements on mains lines were made at the output of the AMN.	
Basic Standard	FCC Part 15 / C63.4	
UL LPG	80-EM-S0026	
	Frequency range on each side of line	Measurement Point
Fully configured sample scanned over the following frequency range	150kHz to 30MHz	Mains

Limits - Class B

Frequency (MHz)	Limit (dBµV)	
	Quasi-Peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

Supplementary information: None

Table 1 Conducted Emissions EUT Configuration Settings

Power Interface Mode #	EUT Configurations Mode #	EUT Operation Mode #
2	2	1
2	2	2
2	2	3
2	2	4

Supplementary information: None

Table 2 Conducted Emissions Test Equipment

Test Equipment Used			
Description	Manufacturer	Model	Identifier
Conducted Emissions – Shield Room			
Spectrum Analyzer	Agilent	E7405A	19695
LISN	Solar	9252-50-R-24-BNC	47367
LISN	EMCO	3825/2R	ME5-629
Switch Driver	HP	11713A	44403
RF Switch Box	UL	2	44400
Measurement Software	UL	Version 9.3	44743
Temp/Humidity/ Pressure Meter	Cole Parmer	99760-00	43736

Figure 1 Test Setup for Conducted Emissions

Figure 2 Conducted Emissions Graph

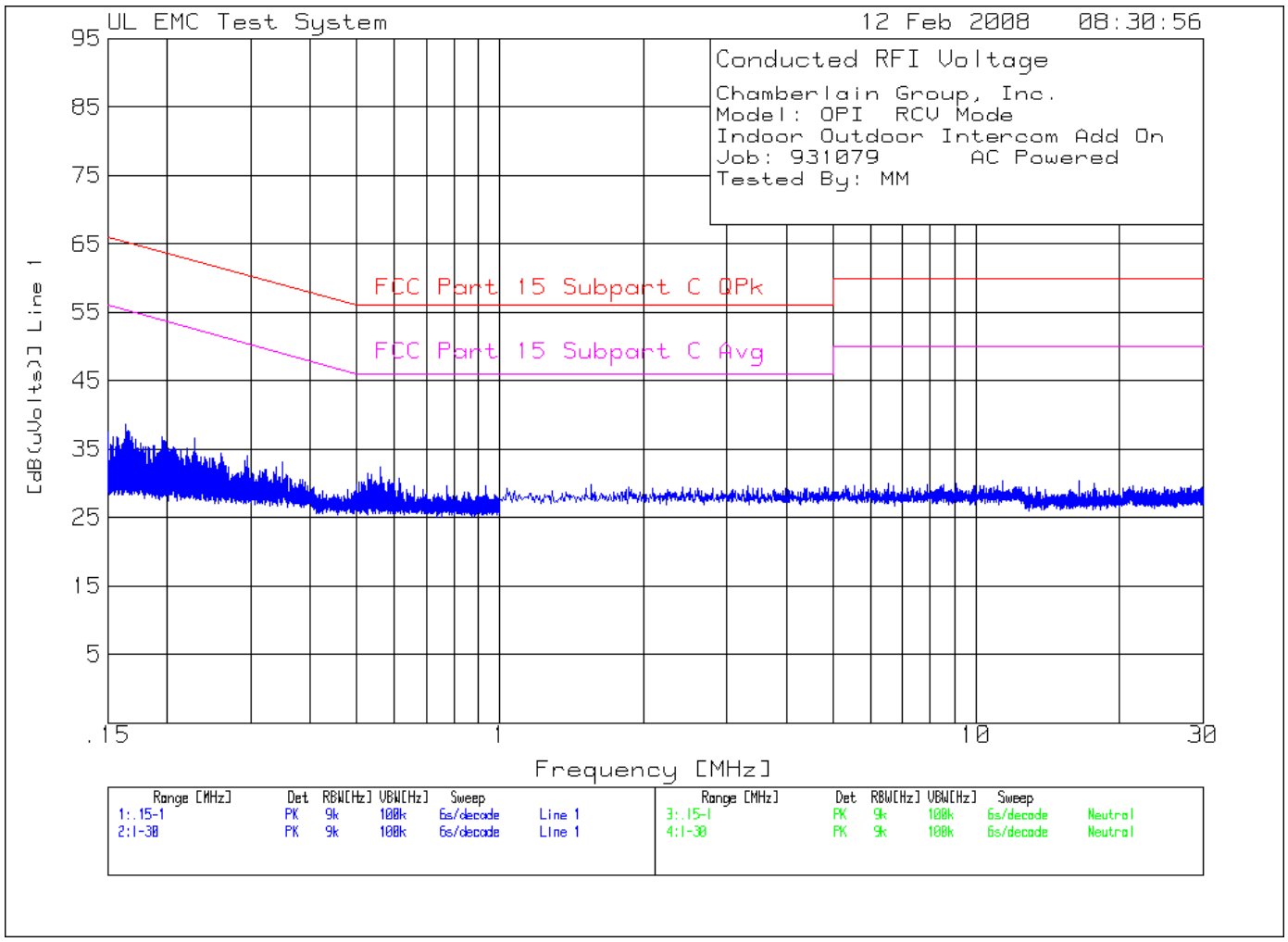


Table 3 Conducted Emissions Data Points

Chamberlain Group, Inc.
Model: OPI RCV Mode
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: MM

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Line 1 .15 - 1MHz											
1	.16421	26.71 pk	11.9	0	38.61	65.2	55.2	-	-	-	-
				Margin [dB]		-26.59	-16.59	-	-	-	-
2	.22824	25.31 pk	11.2	0	36.51	62.5	52.5	-	-	-	-
				Margin [dB]		-25.99	-15.99	-	-	-	-
3	.5592	21.8 pk	10.5	0	32.3	56	46	-	-	-	-
				Margin [dB]		-23.7	-13.7	-	-	-	-
Line 1 1 - 30MHz											
4	1.557	19.38 pk	10.4	0	29.78	56	46	-	-	-	-
				Margin [dB]		-26.22	-16.22	-	-	-	-
5	11.34423	19.61 pk	10.7	0	30.31	60	50	-	-	-	-
				Margin [dB]		-29.69	-19.69	-	-	-	-
6	16.45847	19.61 pk	10.8	0	30.41	60	50	-	-	-	-
				Margin [dB]		-29.59	-19.59	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg

pk - Peak detector
qp - Quasi-Peak detector
av - average detector
avlg - average log detection
ave - average detection
cav - CISPR average detection

Figure 3 Conducted Emissions Graph

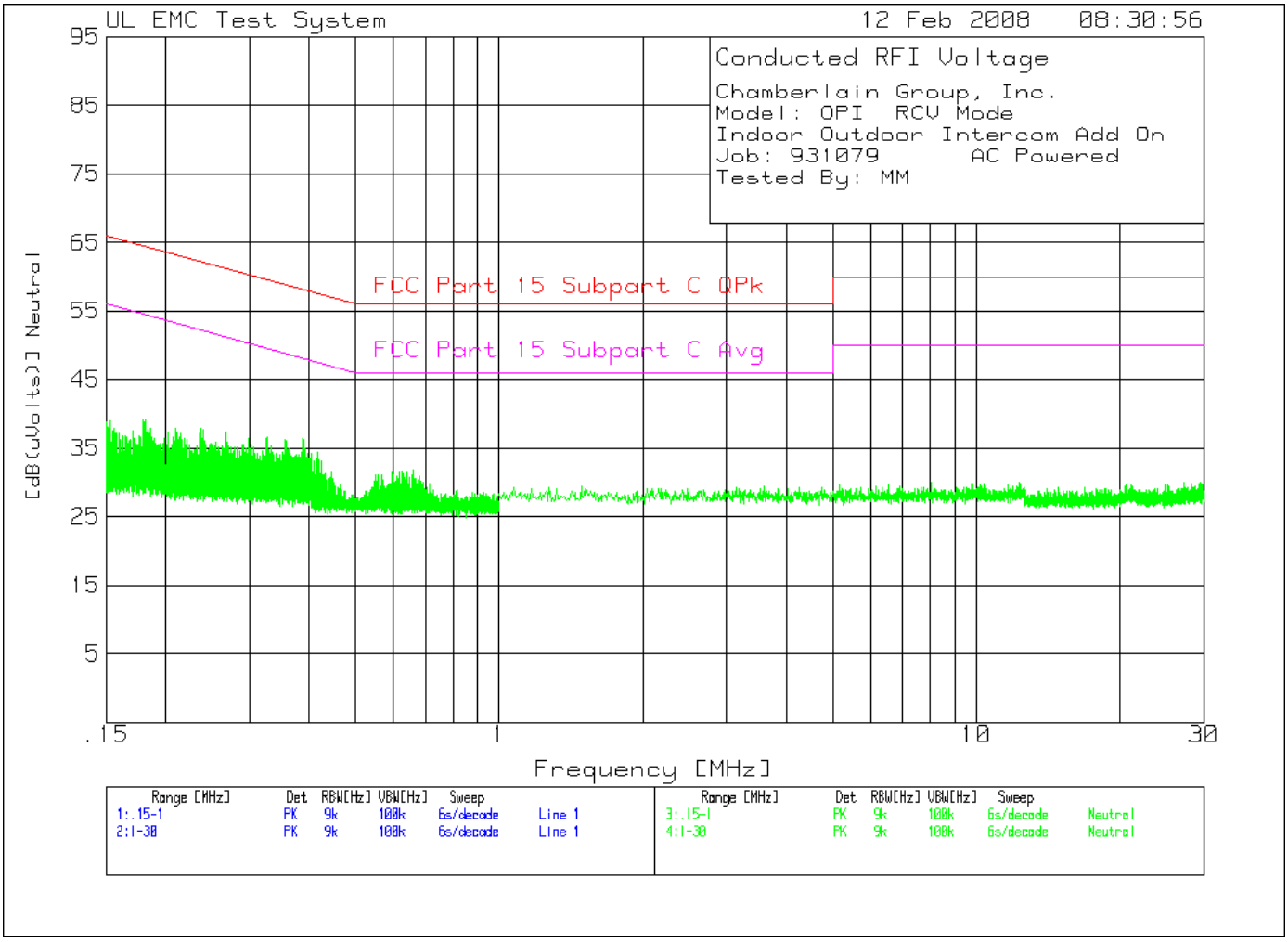


Table 4 Conducted Emissions Data Points

Chamberlain Group, Inc.
Model: OPI RCV Mode
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: MM

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Neutral .15 - 1MHz											
7	.18117	27.42 pk	11.7	0	39.12	64.4	54.4	-	-	-	-
				Margin [dB]		-25.28	-15.28	-	-	-	-
8	.26767	26.4 pk	11	0	37.4	61.2	51.2	-	-	-	-
				Margin [dB]		-23.8	-13.8	-	-	-	-
9	.35609	25.59 pk	10.7	0	36.29	58.8	48.8	-	-	-	-
				Margin [dB]		-22.51	-12.51	-	-	-	-
10	.65928	21.39 pk	10.4	0	31.79	56	46	-	-	-	-
				Margin [dB]		-24.21	-14.21	-	-	-	-
Neutral 1 - 30MHz											
11	12.27738	19.25 pk	10.7	0	29.95	60	50	-	-	-	-
				Margin [dB]		-30.05	-20.05	-	-	-	-
12	20.58169	18.31 pk	11.3	0	29.61	60	50	-	-	-	-
				Margin [dB]		-30.39	-20.39	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg

pk - Peak detector
qp - Quasi-Peak detector
av - average detector
avlg - average log detection
ave - average detection
cav - CISPR average detection

Figure 4 Conducted Emissions Graph

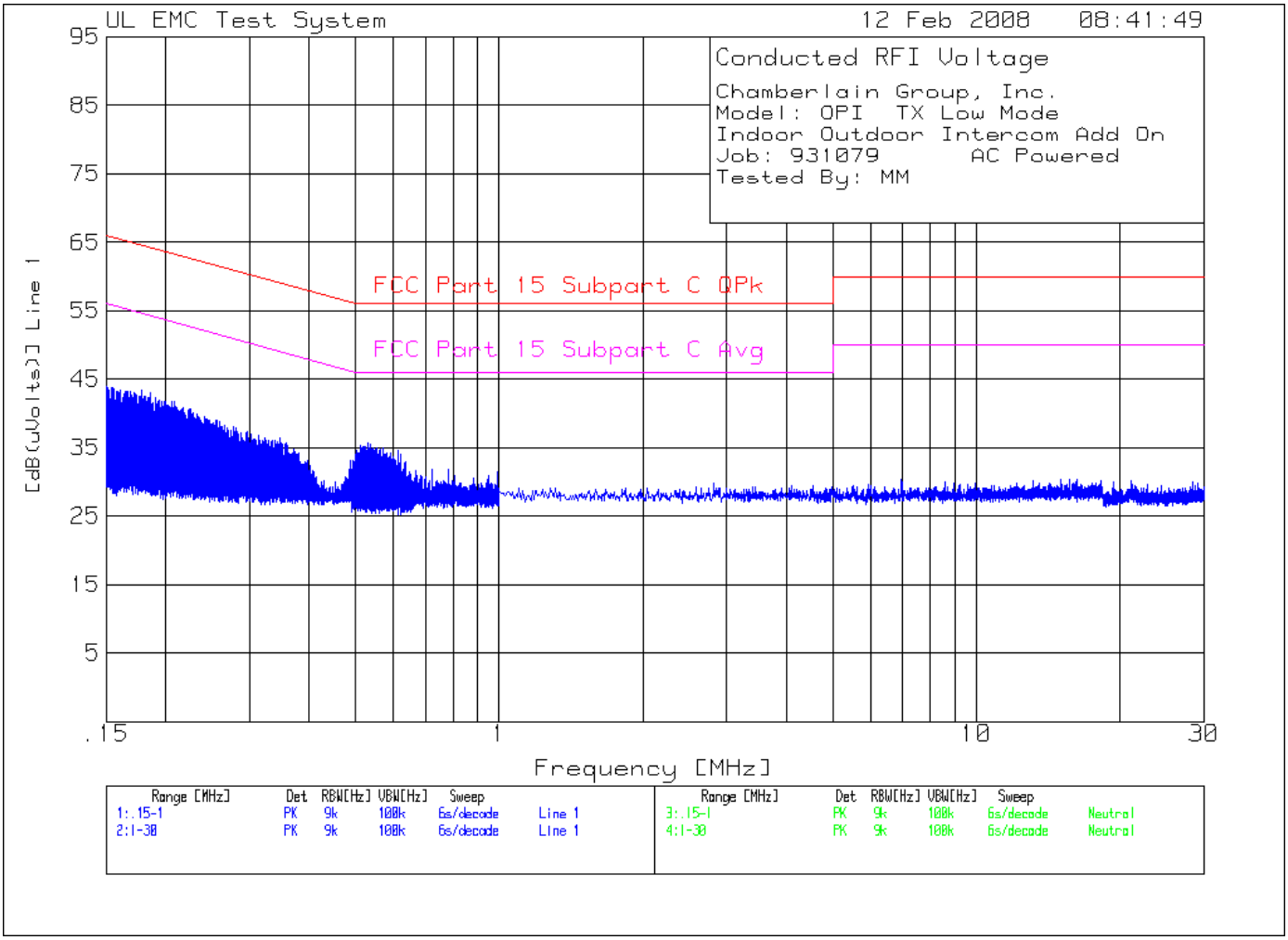


Table 5 Conducted Emissions Data Points

Chamberlain Group, Inc.
Model: OPI TX Low Mode
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: MM

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Line 1 .15 - 1MHz											
1	.15509	31.67 pk	12	0	43.67	65.7	55.7	-	-	-	-
				Margin [dB]		-22.03	-12.03	-	-	-	-
2	.19368	30.41 pk	11.5	0	41.91	63.9	53.9	-	-	-	-
				Margin [dB]		-21.99	-11.99	-	-	-	-
3	.50323	24 pk	10.5	0	34.5	56	46	-	-	-	-
				Margin [dB]		-21.5	-11.5	-	-	-	-
4	.53715	25.04 pk	10.5	0	35.54	56	46	-	-	-	-
				Margin [dB]		-20.46	-10.46	-	-	-	-
Line 1 1 - 30MHz											
5	3.4016	18.86 pk	10.4	0	29.26	56	46	-	-	-	-
				Margin [dB]		-26.74	-16.74	-	-	-	-
6	16.24146	19.53 pk	10.8	0	30.33	60	50	-	-	-	-
				Margin [dB]		-29.67	-19.67	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg

pk - Peak detector
qp - Quasi-Peak detector
av - average detector
avlg - average log detection
ave - average detection
cav - CISPR average detection

Figure 5 Conducted Emissions Graph

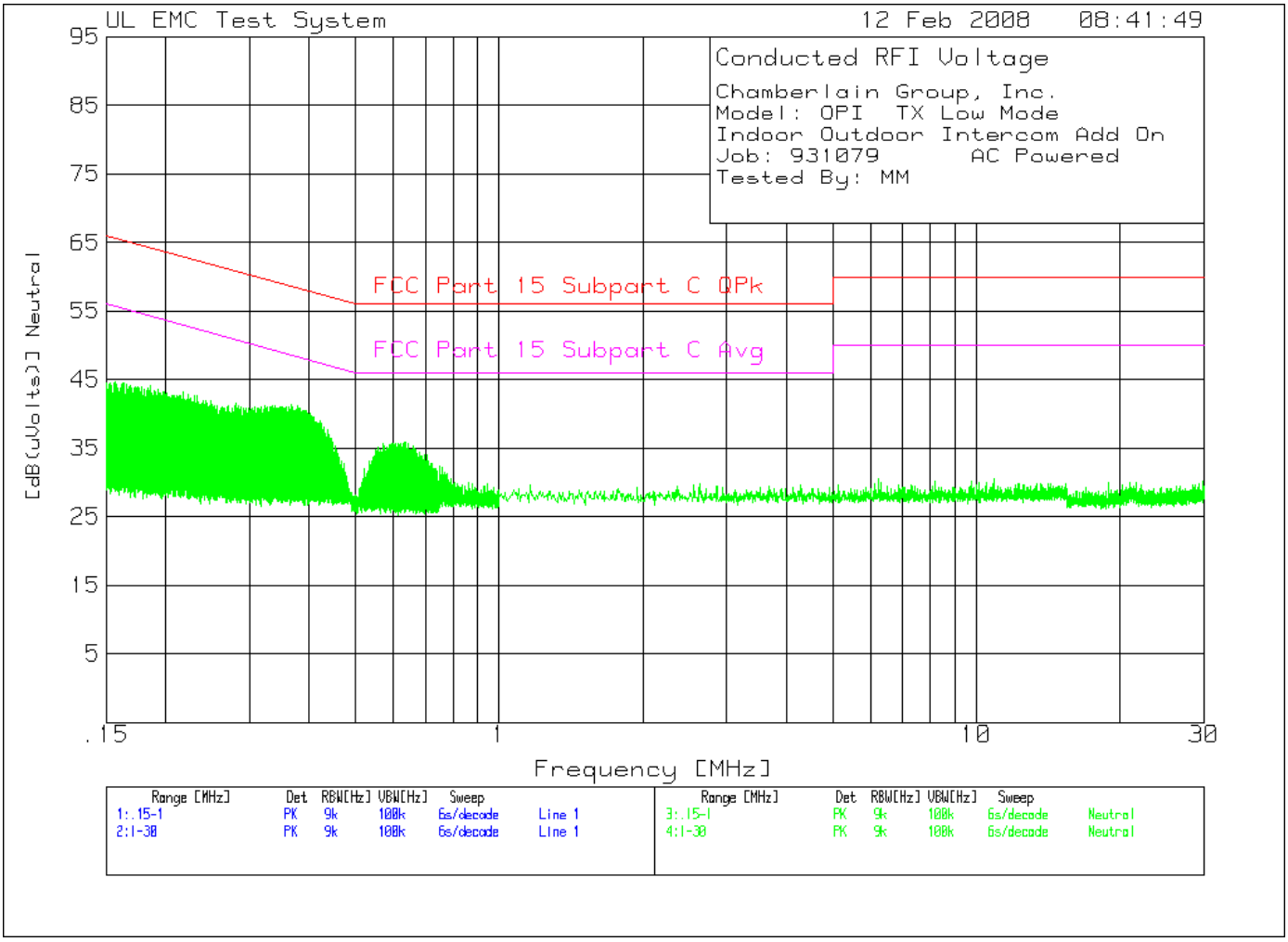


Table 6 Conducted Emissions Data Points

Chamberlain Group, Inc.
Model: OPI TX Low Mode
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: MM

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Neutral .15 - 1MHz											
7	.17502	32.17 pk	11.8	0	43.97	64.7	54.7	-	-	-	-
				Margin [dB]		-20.73	-10.73	-	-	-	-
8	.36711	30.85 pk	10.6	0	41.45	58.6	48.6	-	-	-	-
				Margin [dB]		-17.15	-7.15	-	-	-	-
9	.62302	25.32 pk	10.4	0	35.72	56	46	-	-	-	-
				Margin [dB]		-20.28	-10.28	-	-	-	-
Neutral 1 - 30MHz											
10	6.22998	20.11 pk	10.5	0	30.61	60	50	-	-	-	-
				Margin [dB]		-29.39	-19.39	-	-	-	-
11	10.88127	19.83 pk	10.7	0	30.53	60	50	-	-	-	-
				Margin [dB]		-29.47	-19.47	-	-	-	-
12	18.63582	17.88 pk	10.9	0	28.78	60	50	-	-	-	-
				Margin [dB]		-31.22	-21.22	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg

pk - Peak detector
qp - Quasi-Peak detector
av - average detector
avlg - average log detection
ave - average detection
cav - CISPR average detection

Figure 6 Conducted Emissions Graph

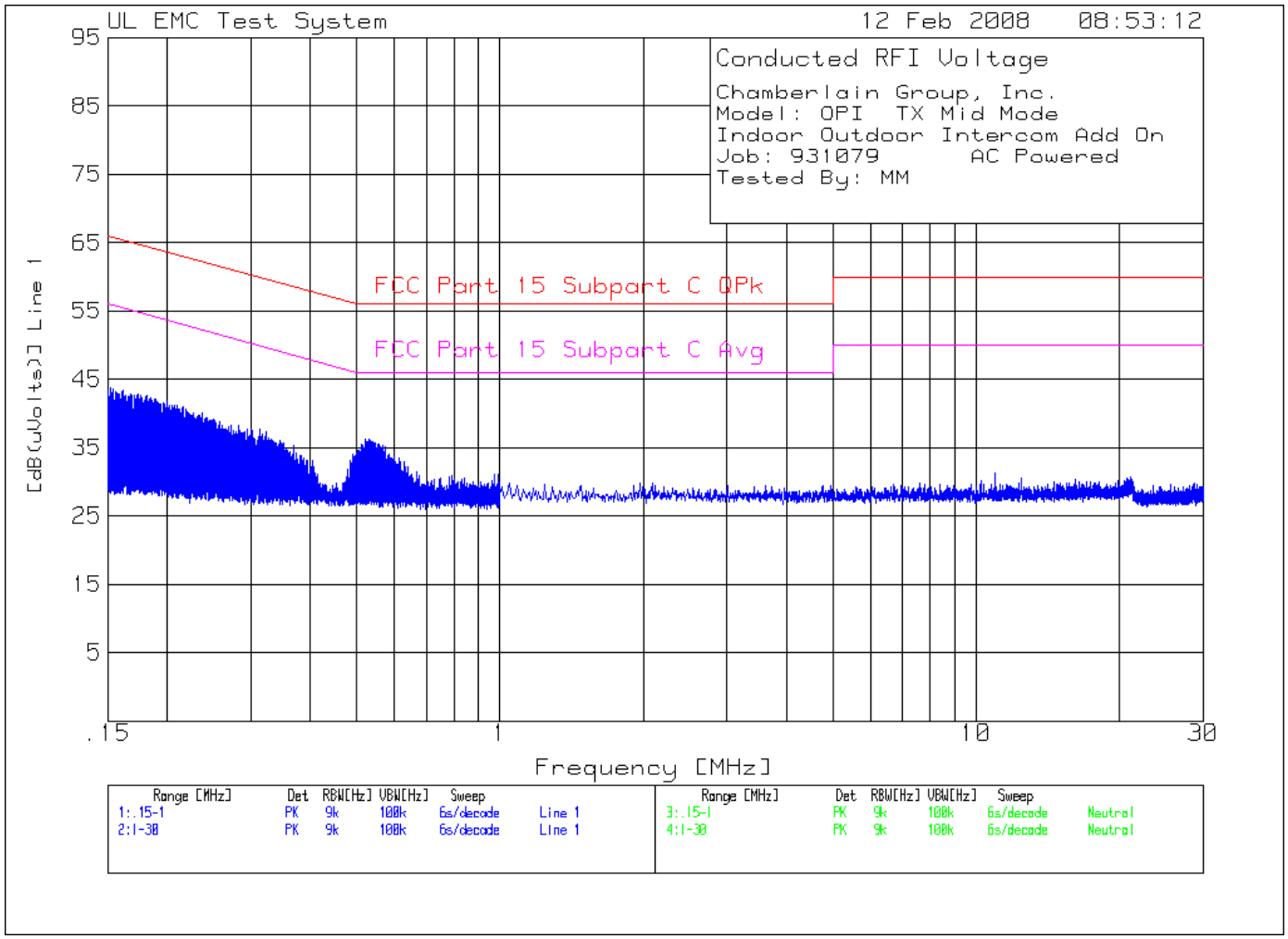


Table 7 Conducted Emissions Data Points

Chamberlain Group, Inc.
Model: OPI TX Mid Mode
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: MM

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Line 1 .15 - 1MHz											
1	.15212	31.69 pk	12	0	43.69	65.9	55.9	-	-	-	-
				Margin [dB]		-22.21	-12.21	-	-	-	-
2	.18477	30.67 pk	11.7	0	42.37	64.3	54.3	-	-	-	-
				Margin [dB]		-21.93	-11.93	-	-	-	-
3	.51235	25.04 pk	10.5	0	35.54	56	46	-	-	-	-
				Margin [dB]		-20.46	-10.46	-	-	-	-
4	.54267	25.11 pk	10.5	0	35.61	56	46	-	-	-	-
				Margin [dB]		-20.39	-10.39	-	-	-	-
Line 1 1 - 30MHz											
5	2.09229	19.41 pk	10.4	0	29.81	56	46	-	-	-	-
				Margin [dB]		-26.19	-16.19	-	-	-	-
6	10.9536	20.52 pk	10.7	0	31.22	60	50	-	-	-	-
				Margin [dB]		-28.78	-18.78	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg

pk - Peak detector
qp - Quasi-Peak detector
av - average detector
avlg - average log detection
ave - average detection
cav - CISPR average detection

Figure 7 Conducted Emissions Graph

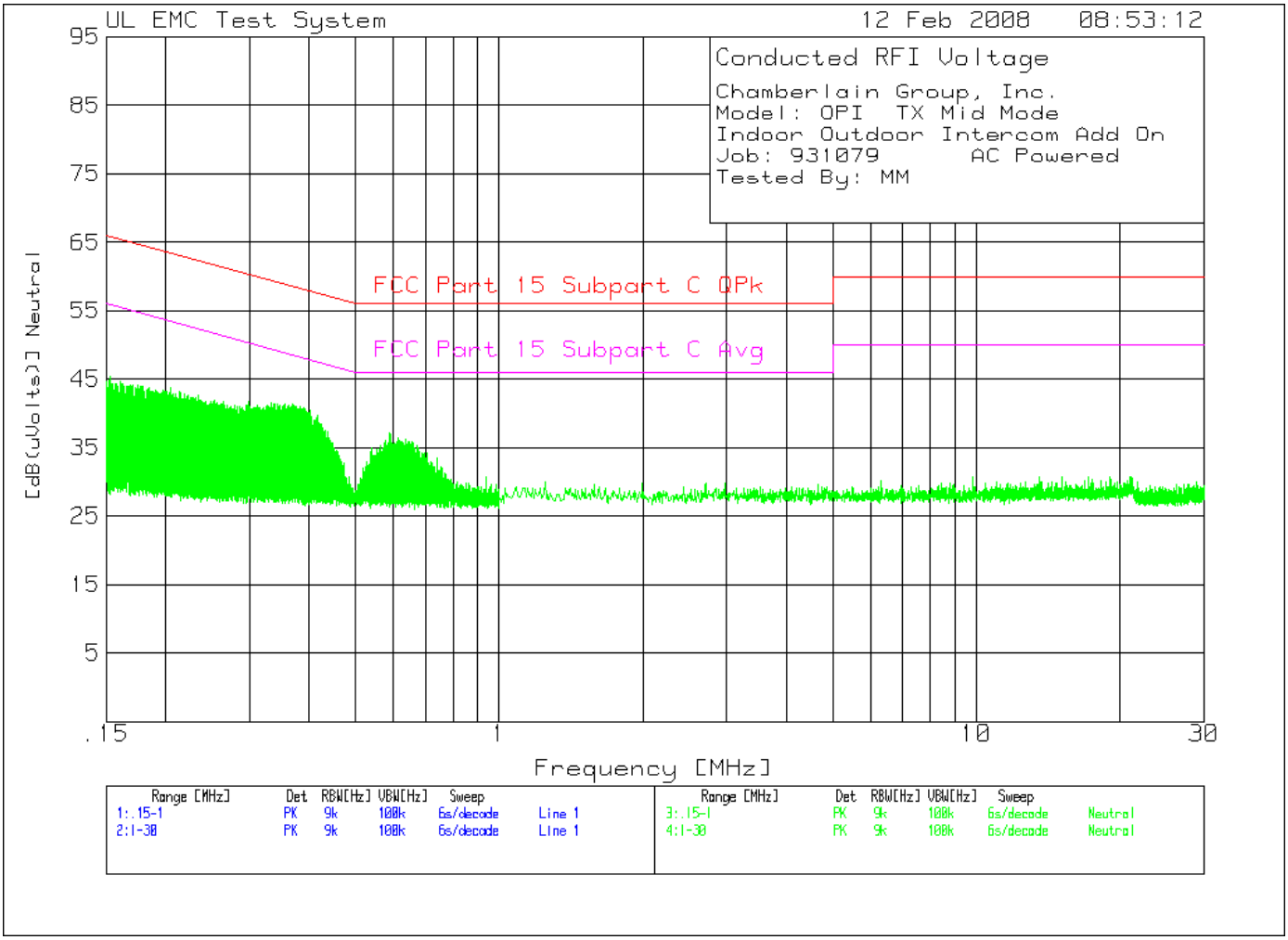


Table 8 Conducted Emissions Data Points

Chamberlain Group, Inc.
Model: OPI TX Mid Mode
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: MM

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Neutral .15 - 1MHz											
7	.16272	32.37 pk	11.9	0	44.27	65.3	55.3	-	-	-	-
				Margin [dB]		-21.03	-11.03	-	-	-	-
8	.36881	30.72 pk	10.6	0	41.32	58.5	48.5	-	-	-	-
				Margin [dB]		-17.18	-7.18	-	-	-	-
9	.58931	26.68 pk	10.4	0	37.08	56	46	-	-	-	-
				Margin [dB]		-18.92	-8.92	-	-	-	-
Neutral 1 - 30MHz											
10	1.24595	19.67 pk	10.4	0	30.07	56	46	-	-	-	-
				Margin [dB]		-25.93	-15.93	-	-	-	-
11	4.6675	19.22 pk	10.4	0	29.62	56	46	-	-	-	-
				Margin [dB]		-26.38	-16.38	-	-	-	-
12	21.06635	19.01 pk	11.8	0	30.81	60	50	-	-	-	-
				Margin [dB]		-29.19	-19.19	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg

pk - Peak detector
qp - Quasi-Peak detector
av - average detector
avlg - average log detection
ave - average detection
cav - CISPR average detection

Figure 8 Conducted Emissions Graph

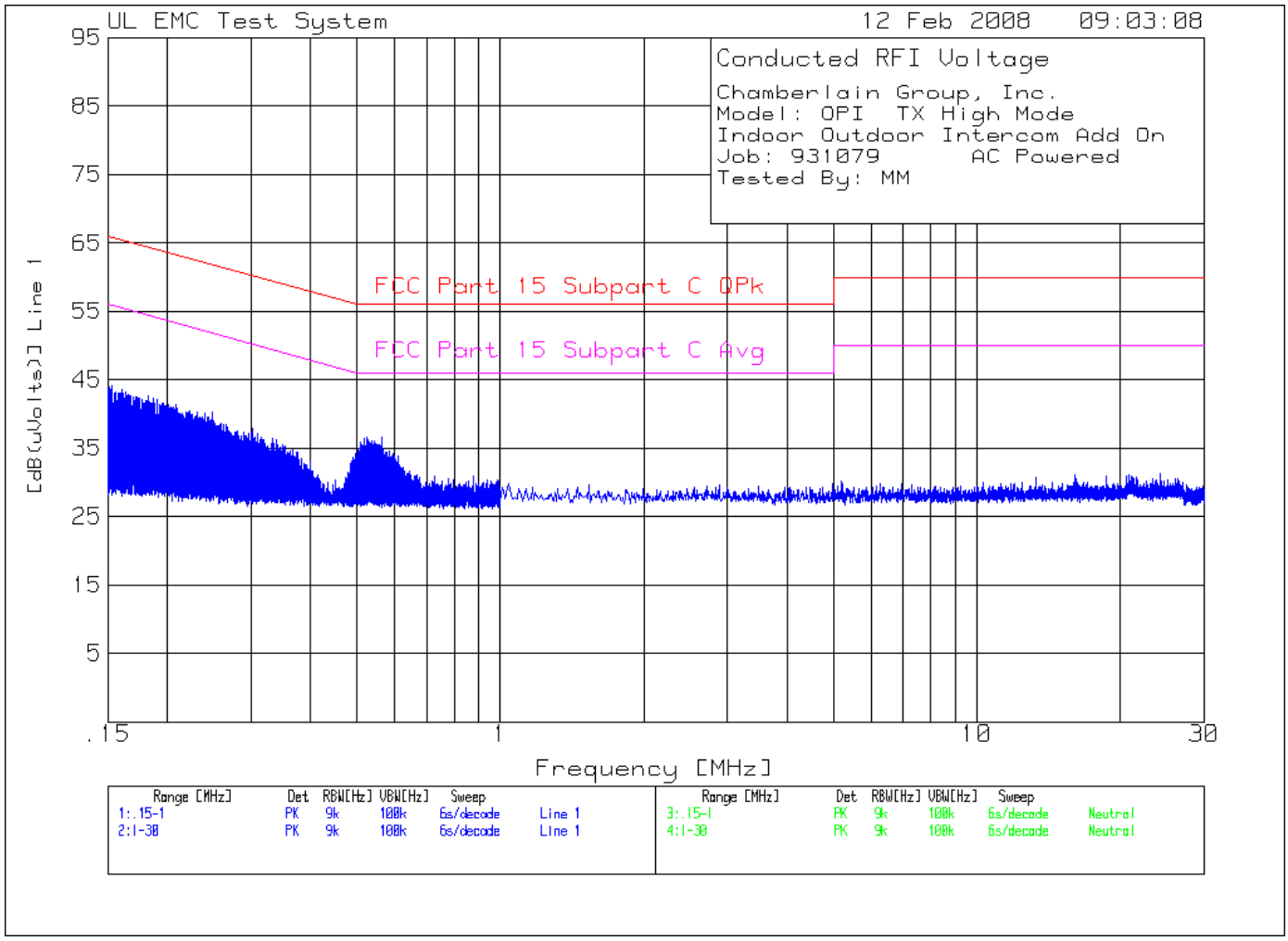


Table 9 Conducted Emissions Data Points

Chamberlain Group, Inc.
Model: OPI TX High Mode
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: MM

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Line 1 .15 - 1MHz											
1	.16103	31.7 pk	11.9	0	43.6	65.4	55.4	-	-	-	-
				Margin [dB]		-21.8	-11.8	-	-	-	-
2	.20089	29.96 pk	11.5	0	41.46	63.6	53.6	-	-	-	-
				Margin [dB]		-22.14	-12.14	-	-	-	-
3	.50768	25.34 pk	10.5	0	35.84	56	46	-	-	-	-
				Margin [dB]		-20.16	-10.16	-	-	-	-
4	.53673	25.63 pk	10.5	0	36.13	56	46	-	-	-	-
				Margin [dB]		-19.87	-9.87	-	-	-	-
Line 1 1 - 30MHz											
5	5.19556	19.63 pk	10.5	0	30.13	60	50	-	-	-	-
				Margin [dB]		-29.87	-19.87	-	-	-	-
6	16.05338	20.2 pk	10.8	0	31	60	50	-	-	-	-
				Margin [dB]		-29	-19	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg

pk - Peak detector
qp - Quasi-Peak detector
av - average detector
avlg - average log detection
ave - average detection
cav - CISPR average detection

Figure 9 Conducted Emissions Graph

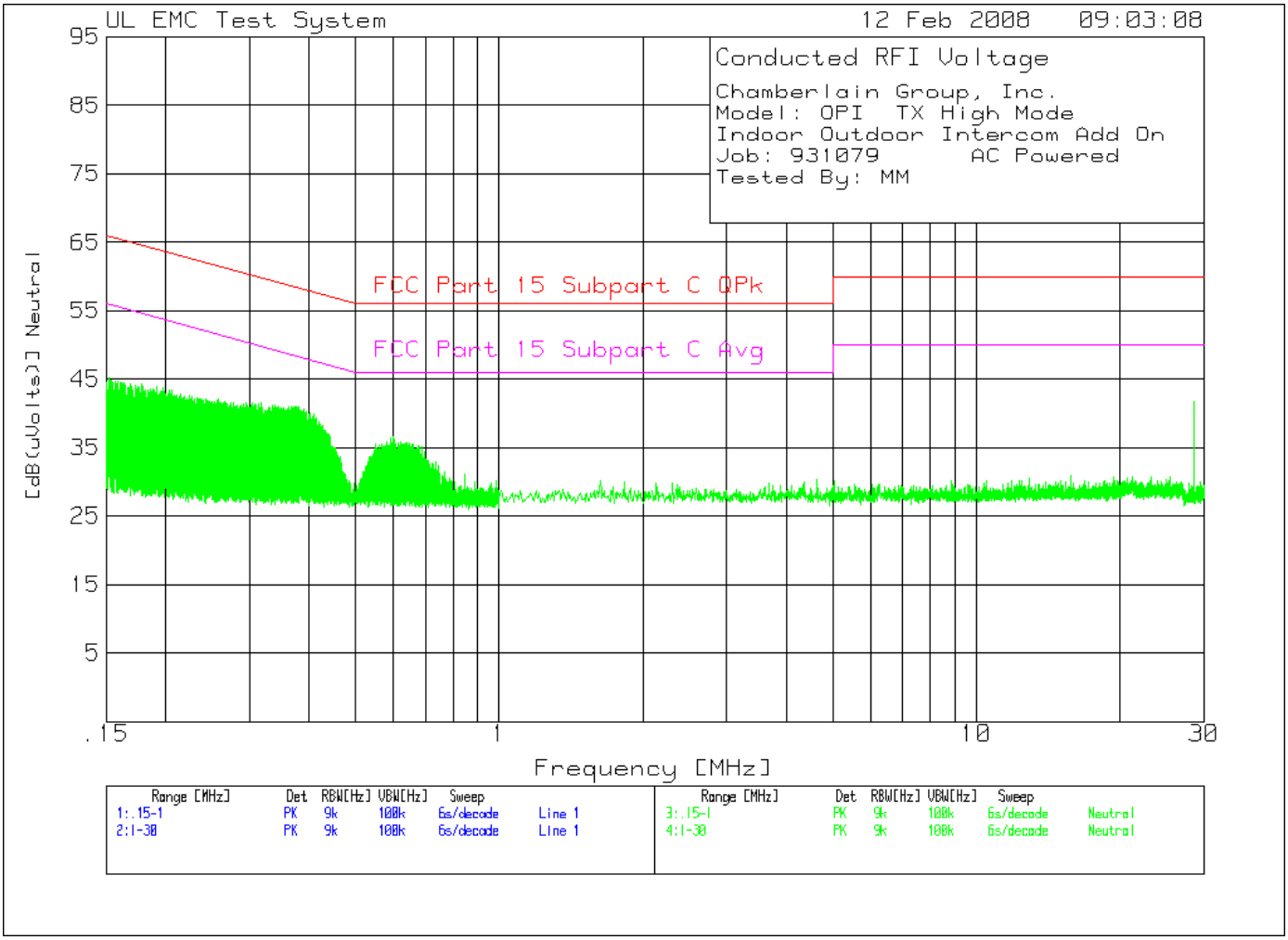


Table 10 Conducted Emissions Data Points

Chamberlain Group, Inc.
Model: OPI TX High Mode
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: MM

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Neutral .15 - 1MHz											
7	.17841	32.7 pk	11.7	0	44.4	64.6	54.6	-	-	-	-
				Margin [dB]		-20.2	-10.2	-	-	-	-
8	.37517	30.45 pk	10.6	0	41.05	58.4	48.4	-	-	-	-
				Margin [dB]		-17.35	-7.35	-	-	-	-
9	.60034	26.25 pk	10.4	0	36.65	56	46	-	-	-	-
				Margin [dB]		-19.35	-9.35	-	-	-	-
Neutral 1 - 30MHz											
10	1.62933	19.83 pk	10.4	0	30.23	56	46	-	-	-	-
				Margin [dB]		-25.77	-15.77	-	-	-	-
11	8.85582	19.55 pk	10.6	0	30.15	60	50	-	-	-	-
				Margin [dB]		-29.85	-19.85	-	-	-	-
12	28.61113	30.46 pk	11.3	0	41.76	60	50	-	-	-	-
				Margin [dB]		-18.24	-8.24	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg

pk - Peak detector
qp - Quasi-Peak detector
av - average detector
avlg - average log detection
ave - average detection
cav - CISPR average detection

4.2 Test Conditions and Results – Occupied Bandwidth

Test Description	Measurements were made in the laboratory environment. A Dipole (or equivalent) antenna tuned to the transmit frequency was attached to the input of a spectrum analyzer. The device was operated and the spectrum analyzer resolution bandwidth set per the appropriate standard. The resolution bandwidth is set to 1% of the span and the video bandwidth is set to a minimum of 3 times the resolution bandwidth.
Basic Standard	C63.4 / RSS-GEN

Table 11 Occupied Bandwidth Configuration Settings

Power Interface Mode # (See Section 1.3.4)	EUT Configurations Mode # (See Section 1.6)	EUT Operation Mode # (See 1.5)
1	1	1
1	1	3
2	1	1
2	1	3
Supplementary information: None		

Table 12 Occupied Bandwidth Spectrum Analyzer Settings

Resolution Bandwidth (MHz)	Occupied Bandwidth Requirements	
	dBc	%
10kHz	-20	99
Supplementary information: None		

Table 13 Occupied Bandwidth Test Equipment

Test Equipment Used			
Description	Manufacturer	Model	Identifier
EMI Receiver	Rohde & Schwarz	ESIB26	ME5B-081
Log-P Antenna	Schaffner	UPA6109	44068
Temp/Humidity/ Pressure Meter	Cole Parmer	99760-00	4268
Measurement Software	UL	Version 9.3	44740

Figure 10 Occupied Bandwidth Graph (-20dBc) (903MHz)

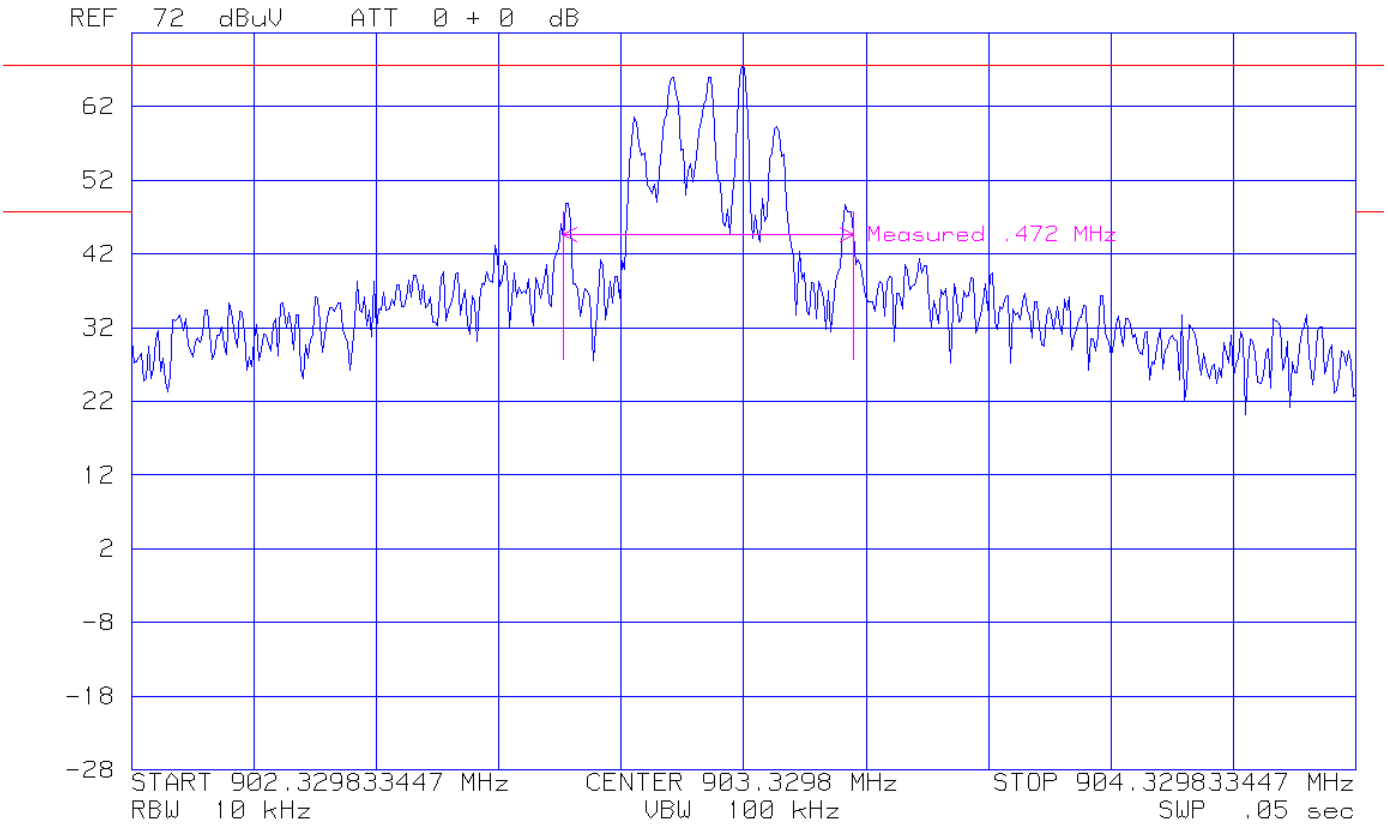


Figure 11 Occupied Bandwidth Graph (-20dBc) (926MHz)

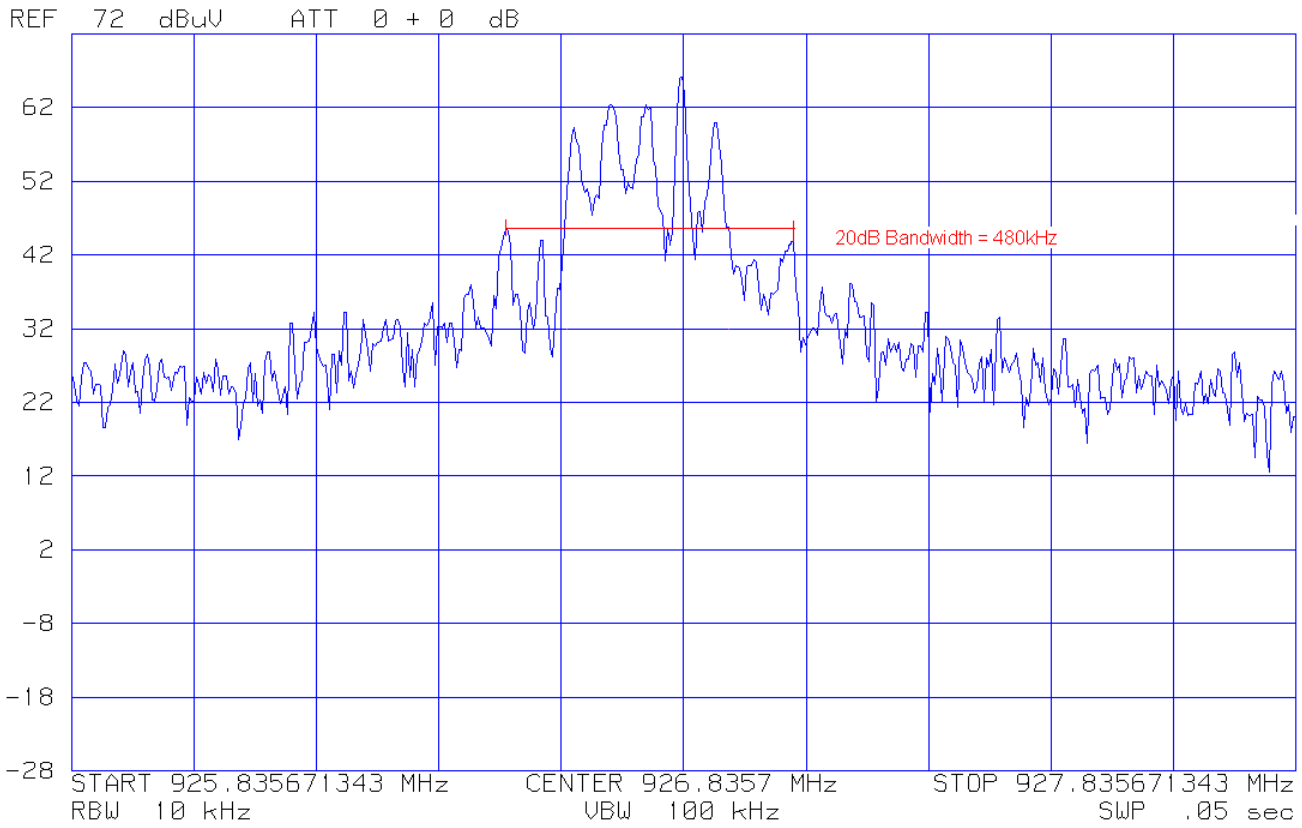


Figure 12 Occupied Bandwidth Graph (99%) (903MHz)

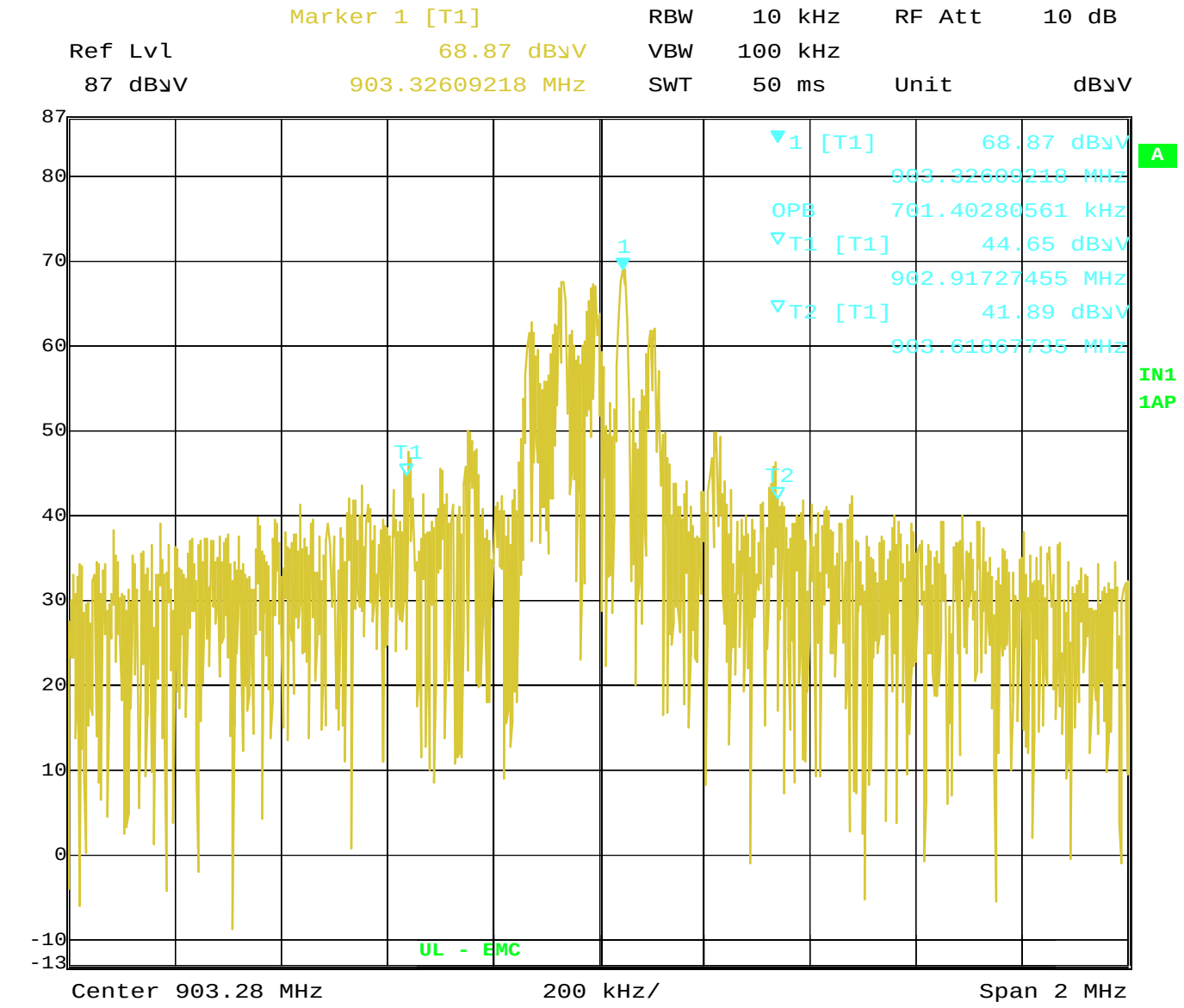
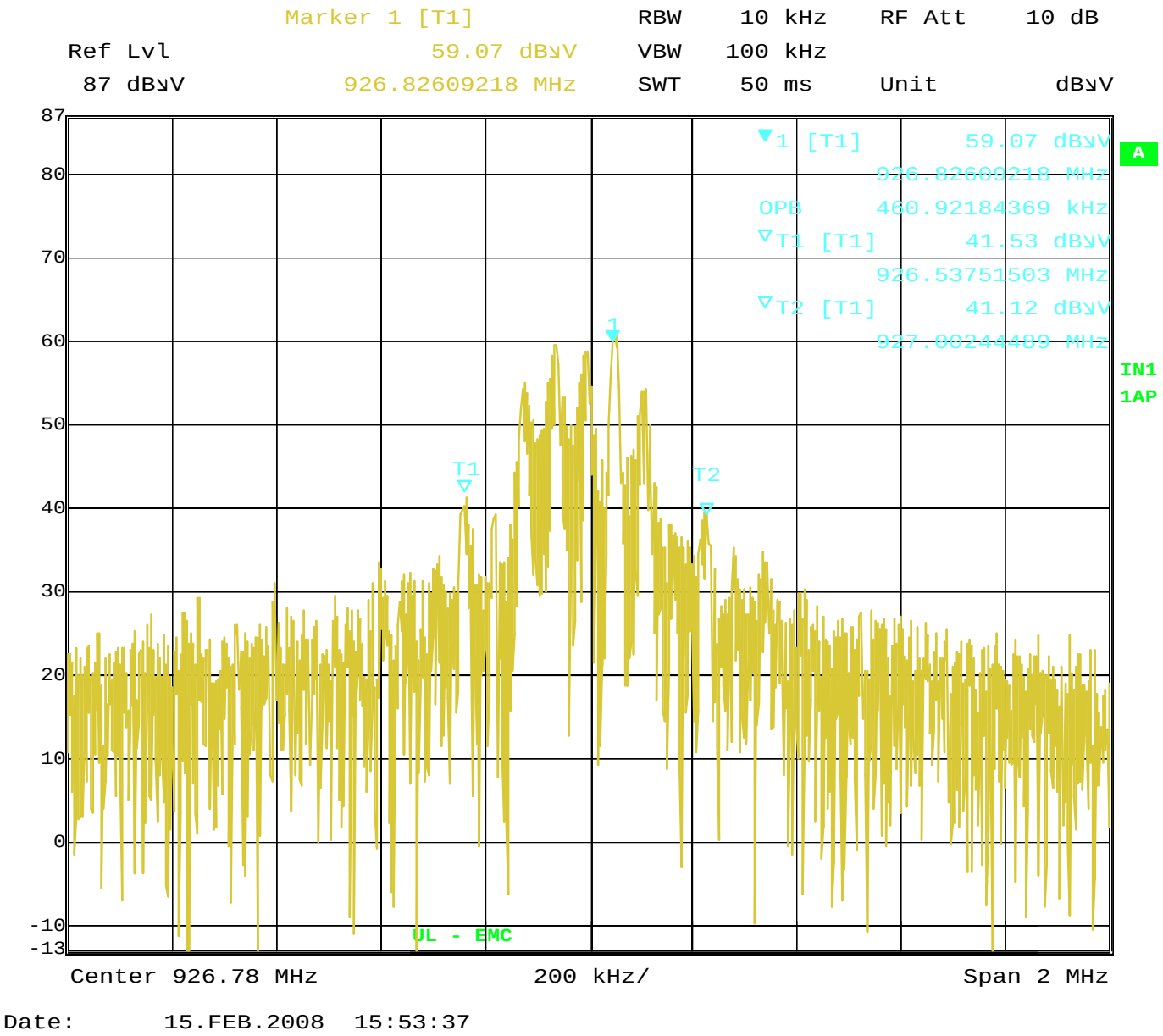


Figure 13 Occupied Bandwidth Graph (99%) (926MHz)



4.3 Test Conditions and Results – RADIATED EMISSIONS

Test Description	Measurements were made in a 10-meter semi-anechoic chamber that complies to CISPR 16/ANSI C63.4. Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 10-meter in receive mode and 3-meter in transmit mode. The EUT was rotated 360° about its azimuth with the receive antenna located at various heights in both horizontal and vertical polarities. Final measurements (quasi-peak or average as noted) were then performed by rotating the EUT 360° and adjusting the receive antenna height from 1 to 4-meters. All frequencies were investigated in both horizontal and vertical antenna polarity, where applicable.

Basic Standard	FCC Part 15 / C63.4	
UL LPG	80-EM-S0029	
	Frequency range	Measurement Point
Fully configured sample scanned over the following frequency range	30 MHz – 1GHz	RX Mode (10 meter measurement distance)
Fully configured sample scanned over the following frequency range	1GHz – 5GHz	RX Mode (3 meter measurement distance)
Fully configured sample scanned over the following frequency range	0.009 MHz – 1GHz	TX Mode (3 meter measurement distance)
Fully configured sample scanned over the following frequency range	1GHz – 10 GHz	TX Mode (3 meter measurement distance)

Limits (Transmit Mode)

Frequency (MHz)	Limit (dBµV/m)		
	Quasi-Peak	Average	
	General Emissions	Fundamental	Spurious
0.009 – 0.490	128.5 – 93.8	-	-
0.490 – 1.705	73.8 – 63	-	-
1.705 – 30	69.5	-	-
30 – 88	40	-	-
88 – 216	43.5	-	-
216-960	46	-	
1000-10000	-	-	54
902 -928	94	-	-

Limits (Receive Mode)

Frequency (MHz)	Limit (dBµV/m)
	Quasi-Peak
30 – 230	30
230 – 1000	37

1000 – 5000	54
Supplementary information: The EUT was investigated for the orientation that produced the maximum emissions and the data for that mode is shown. Limits for CISPR 22 were used for receive mode from 30MHz – 1000MHz.	

Table 14 Radiated Emissions EUT Configuration Settings

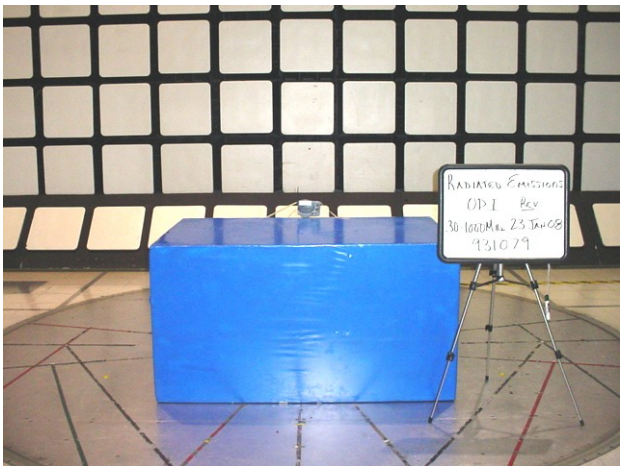
Power Interface Mode # (See Section 1.3.4)	EUT Configurations Mode # (See Section 1.6)	EUT Operation Mode # (See 1.5)
1	1	1
1	1	2
1	1	3
1	1	4
2	1	1
2	1	2
2	1	3
2	1	4
Supplementary information: Since there are no components of the fundamental in the frequency range below 30MHz, only the mid-channel with DC power, was tested to show compliance with the radiated emission limits below 30MHz.		

Table 15 Radiated Emissions Test Equipment

Test Equipment Used			
Description	Manufacturer	Model	Identifier
30-1000MHz			
EMI Receiver	Rohde & Schwarz	ESIB26	ME5B-081
Bicon Antenna	Schaffner	VBA6106A	43441
Bicon Antenna	Schaffner	VBA6106A	54
Log-P Antenna	Schaffner	UPA6109	44067
Bias Tee	Miteq	AM-1523-7687	44392
Bias Tee	Miteq	AM-1523-7687	44393
Preamp	Miteq	AM-3A-000110-7687	44391
Preamp	Miteq	AM-3A-000110-7687	44394
Switch Driver	HP	11713A	ME7A-627
System Controller	Sunol Sciences	SC99V	44396
Camera Controller	Panasonic	WV-CU254	44395
RF Switch Box	UL	1	44398
Measurement Software	UL	Version 9.3	44740

Test Equipment Used			
Description	Manufacturer	Model	Identifier
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268
Above 1GHz			
EMI Receiver	Rohde & Schwarz	ESIB26	ME5B-081
Horn Antenna	EMCO	3115	ME5A-766
Preamp (1 - 26GHz)	HP	8449B	ME5-914
Switch Driver	HP	11713A	ME7A-627
System Controller	Sunol Sciences	SC99V	44396
Camera Controller	Panasonic	WV-CU254	44395
RF Switch Box	UL	1	44398
Measurement Software	UL	Version 9.3	44740
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268

Figure 14 Test setup for Radiated Emissions (30-1000MHz DC Power Receive Mode - Front and Rear Views)



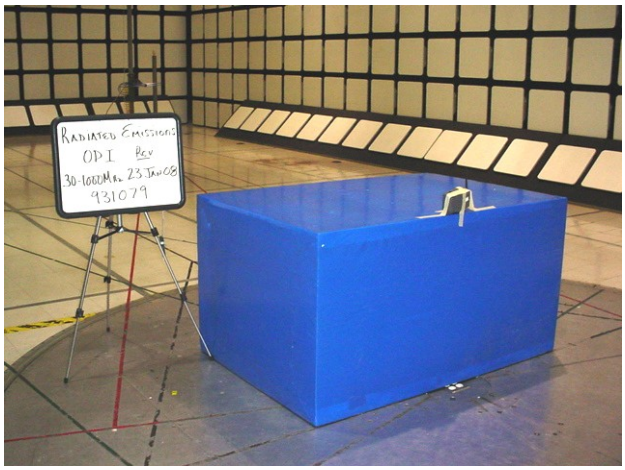
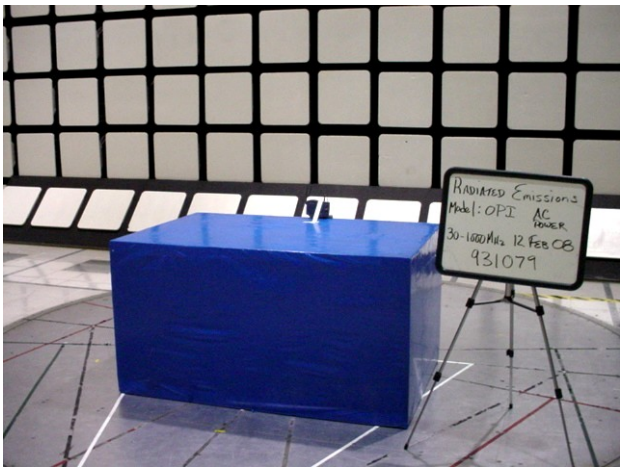


Figure 15 Test setup for Radiated Emissions (30-1000MHz AC Power Receive Mode - Front and Rear Views)



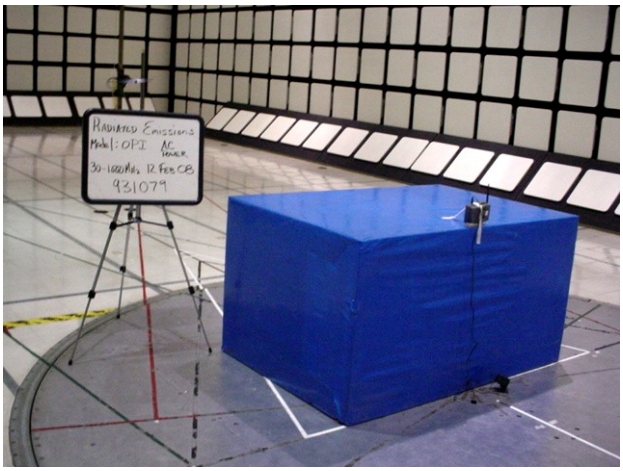
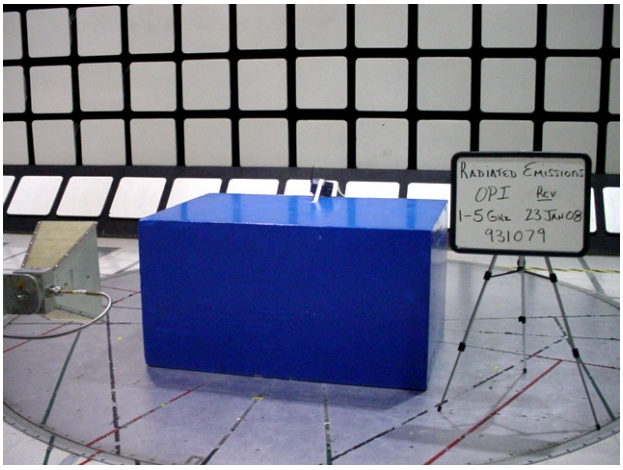


Figure 16 Test setup for Radiated Emissions (1-5GHz DC Power Receive Mode - Front and Rear Views)



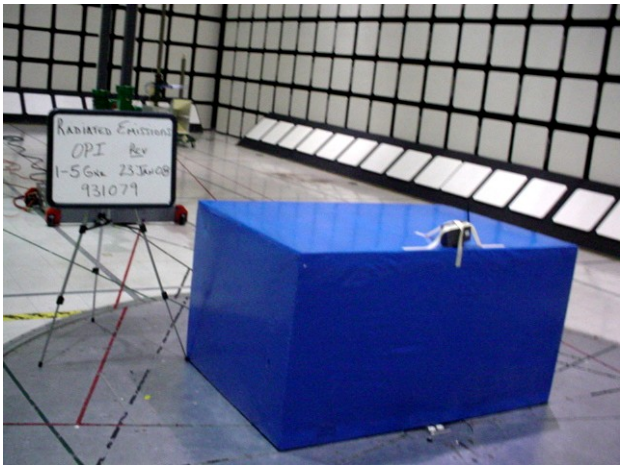
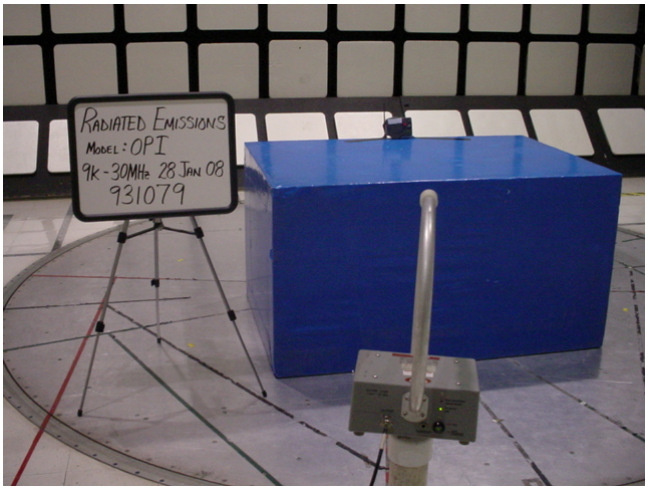


Figure 17 Test setup for Radiated Emissions (9kHz-30MHz Transmit Mode - Front and Rear Views)



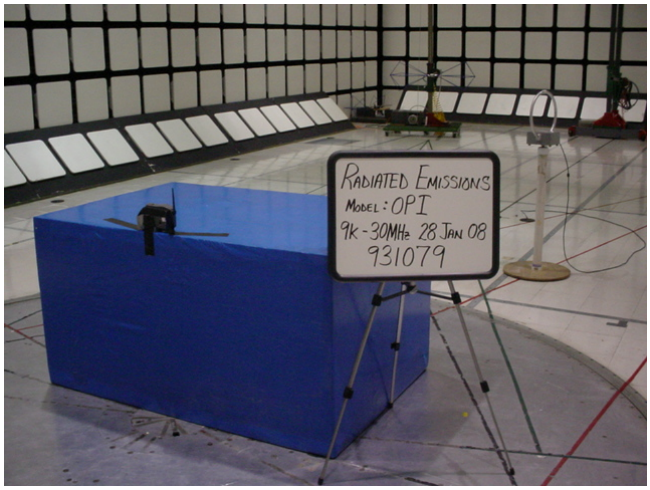
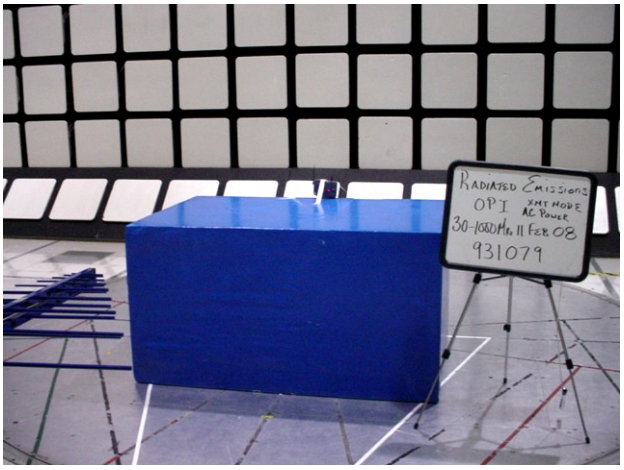


Figure 18 Test setup for Radiated Emissions (30-1000MHz AC Power Transmit Mode - Front and Rear Views)



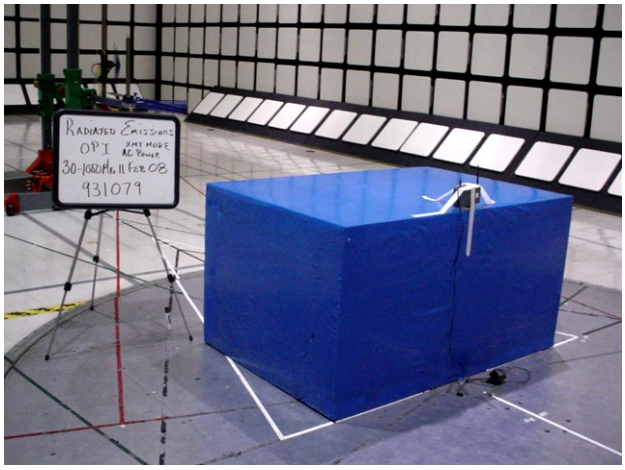


Figure 19 Test setup for Radiated Emissions (1-10GHz DC Power Transmit Mode - Front and Rear Views)

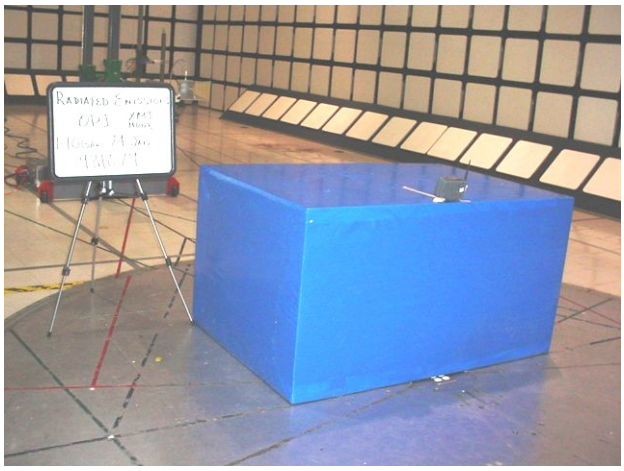
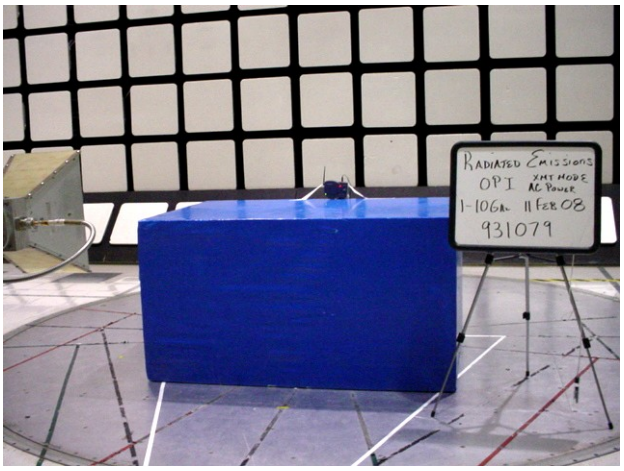


Figure 20 Test setup for Radiated Emissions (1-10GHz AC Power Transmit Mode - Front and Rear Views)



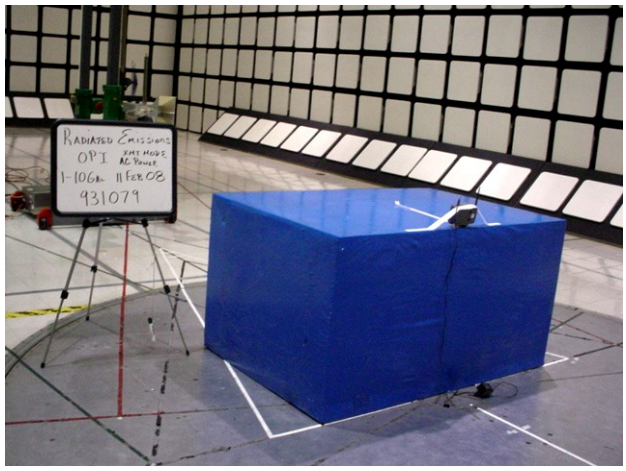


Figure 21 Radiated Emissions Graph

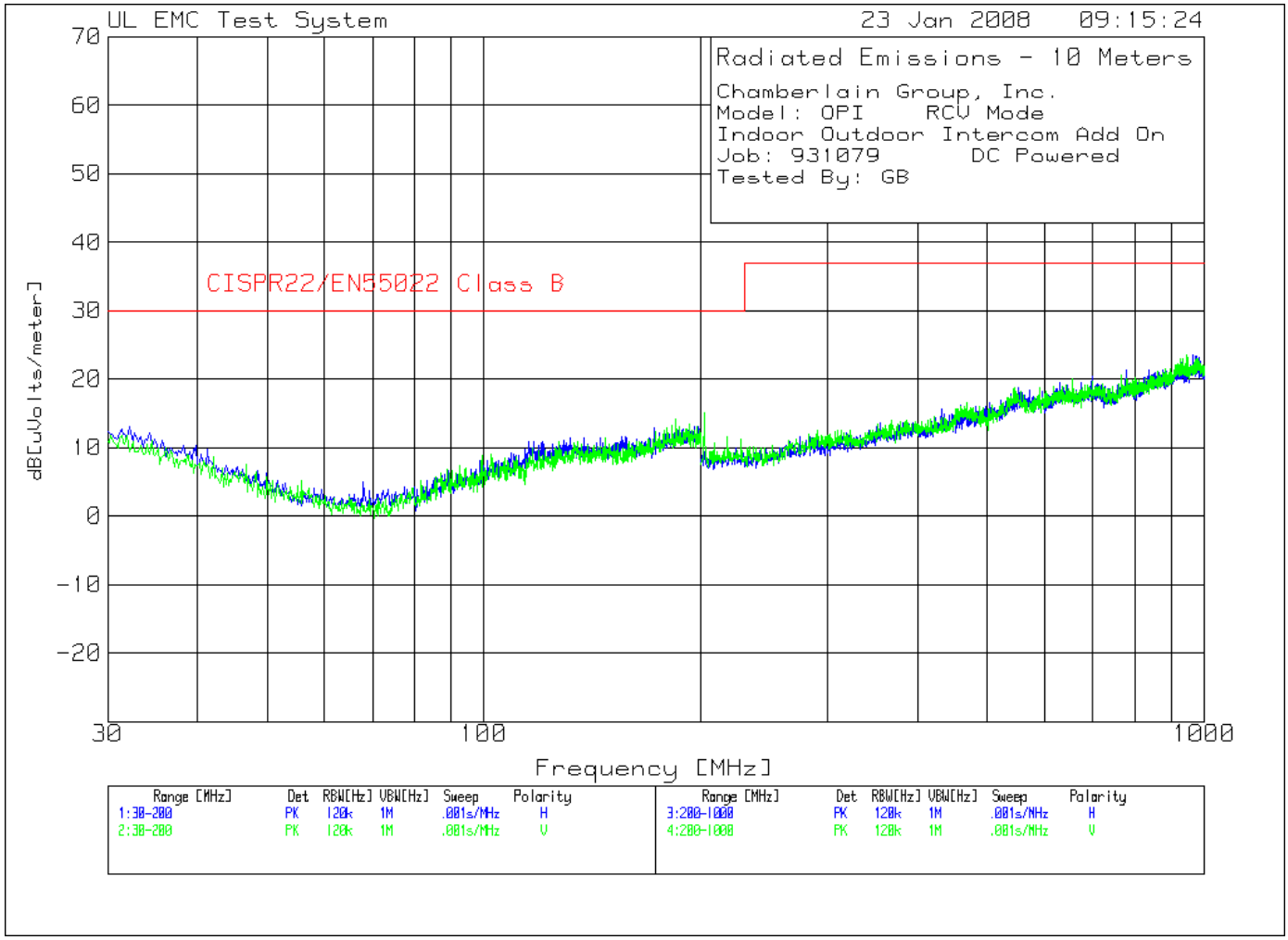


Table 16 Radiated Emissions Data Points

Chamberlain Group, Inc.
Model: OPI RCV Mode
Indoor Outdoor Intercom Add On
Job: 931079 DC Powered
Tested By: GB

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 30 - 200MHz											
1	32.2122	31.71 pk	-35.4	16.8	13.11	30	-	-	-	-	-
	Azimuth:117	Height:100 Horz		Margin [dB]		-16.89	-	-	-	-	-
2	39.8699	32.26 pk	-35.7	13.7	10.26	30	-	-	-	-	-
	Azimuth:197	Height:100 Horz		Margin [dB]		-19.74	-	-	-	-	-
3	67.9479	34.53 pk	-35.6	6.1	5.03	30	-	-	-	-	-
	Azimuth:343	Height:100 Horz		Margin [dB]		-24.97	-	-	-	-	-
4	120.7007	33.38 pk	-35.8	13.3	10.88	30	-	-	-	-	-
	Azimuth:278	Height:100 Horz		Margin [dB]		-19.12	-	-	-	-	-
Horizontal 200 - 1000MHz											
6	779.0895	31.68 pk	-31.9	21.6	21.38	37	-	-	-	-	-
	Azimuth:181	Height:100 Horz		Margin [dB]		-15.62	-	-	-	-	-
Vertical 200 - 1000MHz											
5	202.001	38.16 pk	-34.8	11.7	15.06	30	-	-	-	-	-
	Azimuth:115	Height:200 Vert		Margin [dB]		-14.94	-	-	-	-	-

LIMIT 1: CISPR22/EN55022 Class B

pk - Peak detector
qp - Quasi-Peak detector

Figure 22 Radiated Emissions Graph

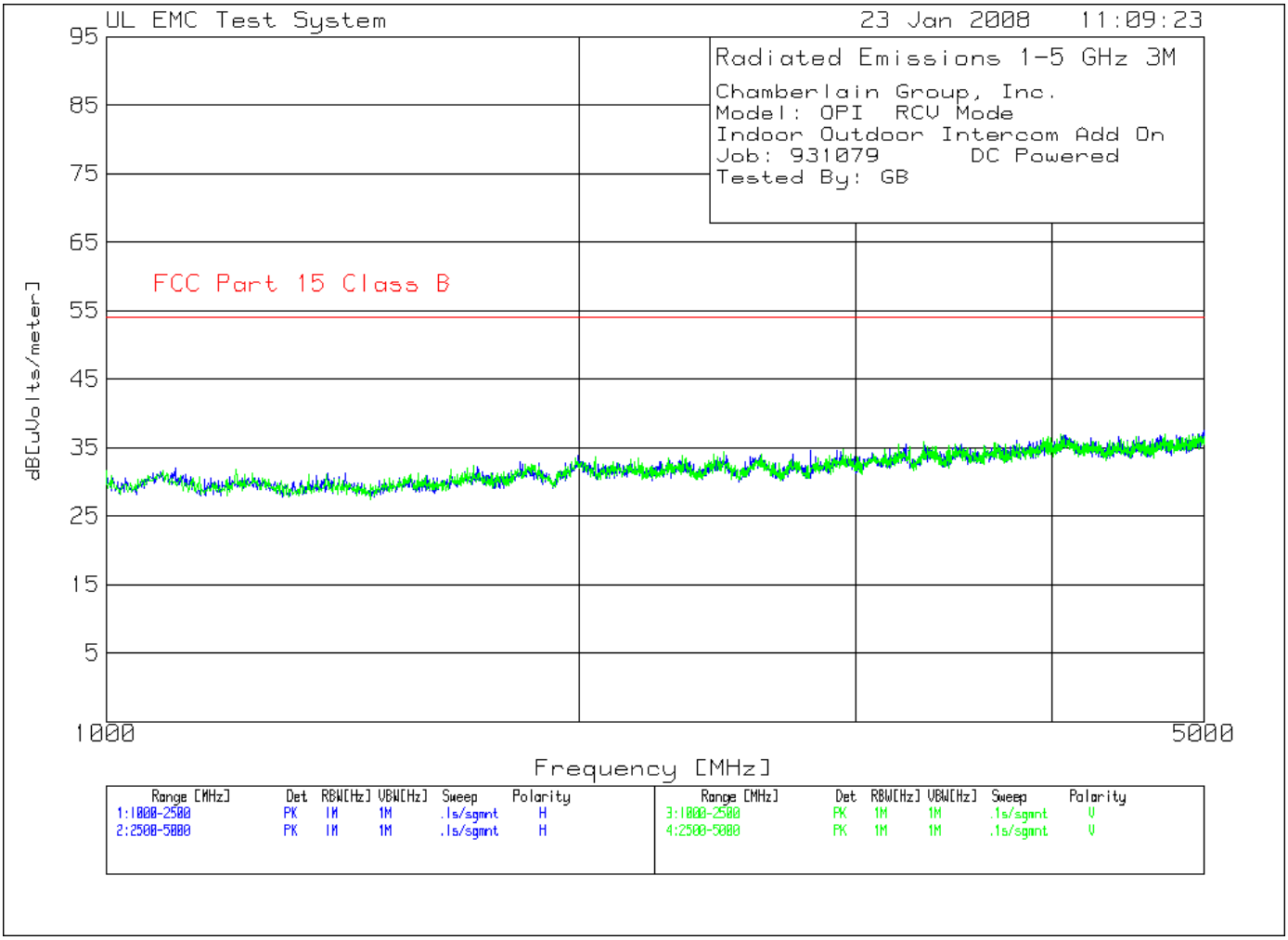


Table 17 Radiated Emissions Data Points

Chamberlain Group, Inc.
Model: OPI RCV Mode
Indoor Outdoor Intercom Add On
Job: 931079 DC Powered
Tested By: GB

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 1000 - 2500MHz											
1	1106.607	41.82 pk	-35	25.2	32.02	54	-	-	-	-	-
	Azimuth:247	Height:101 Horz		Margin [dB]		-21.98	-	-	-	-	-
Horizontal 2500 - 5000MHz											
2	2571.714	37.72 pk	-32.8	28.8	33.72	54	-	-	-	-	-
	Azimuth:220	Height:101 Horz		Margin [dB]		-20.28	-	-	-	-	-
3	4057.705	34.52 pk	-30.4	32.5	36.62	54	-	-	-	-	-
	Azimuth:1	Height:199 Horz		Margin [dB]		-17.38	-	-	-	-	-
Vertical 1000 - 2500MHz											
4	1210.21	41.27 pk	-34.6	25.1	31.77	54	-	-	-	-	-
	Azimuth:80	Height:199 Vert		Margin [dB]		-22.23	-	-	-	-	-
5	2274.775	37.28 pk	-32.9	28.3	32.68	54	-	-	-	-	-
	Azimuth:80	Height:101 Vert		Margin [dB]		-21.32	-	-	-	-	-
Vertical 2500 - 5000MHz											
6	4054.37	34.9 pk	-30.4	32.5	37	54	-	-	-	-	-
	Azimuth:7	Height:201 Vert		Margin [dB]		-17	-	-	-	-	-

LIMIT 1: FCC Part 15 Class B

Figure 23 Radiated Emissions Graph

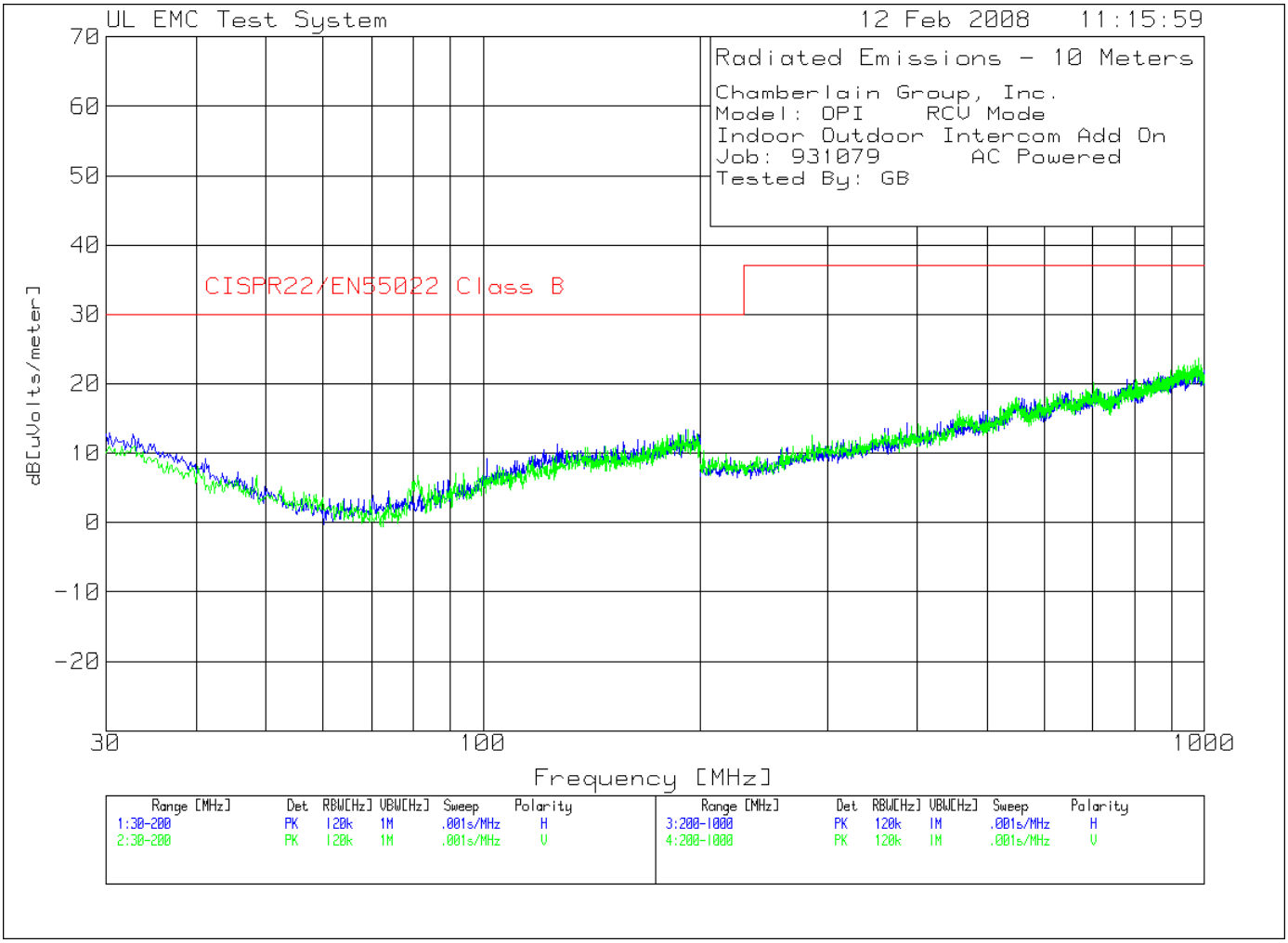


Table 18 Radiated Emissions Data Points

Chamberlain Group, Inc.
Model: OPI RCV Mode
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: GB

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 30 - 200MHz											
1	30.3403	30.83 pk	-35.2	17.3	12.93	30	-	-	-	-	-
	Azimuth:242	Height:100 Horz		Margin [dB]		-17.07	-	-	-	-	-
2	73.9039	33.9 pk	-35.7	6.4	4.6	30	-	-	-	-	-
	Azimuth:2	Height:400 Horz		Margin [dB]		-25.4	-	-	-	-	-
4	101.1311	34.02 pk	-35.7	10.9	9.22	30	-	-	-	-	-
	Azimuth:282	Height:400 Horz		Margin [dB]		-20.78	-	-	-	-	-
5	126.6567	33.24 pk	-35.7	13.8	11.34	30	-	-	-	-	-
	Azimuth:2	Height:100 Horz		Margin [dB]		-18.66	-	-	-	-	-
Vertical 30 - 200MHz											
3	81.2212	34.84 pk	-35.7	7.7	6.84	30	-	-	-	-	-
	Azimuth:320	Height:100 Vert		Margin [dB]		-23.16	-	-	-	-	-
Vertical 200 - 1000MHz											
6	980.7904	29.6 pk	-30.4	24.5	23.7	37	-	-	-	-	-
	Azimuth:359	Height:199 Vert		Margin [dB]		-13.3	-	-	-	-	-

LIMIT 1: CISPR22/EN55022 Class B

pk - Peak detector
qp - Quasi-Peak detector

Figure 24 Radiated Emissions Graph

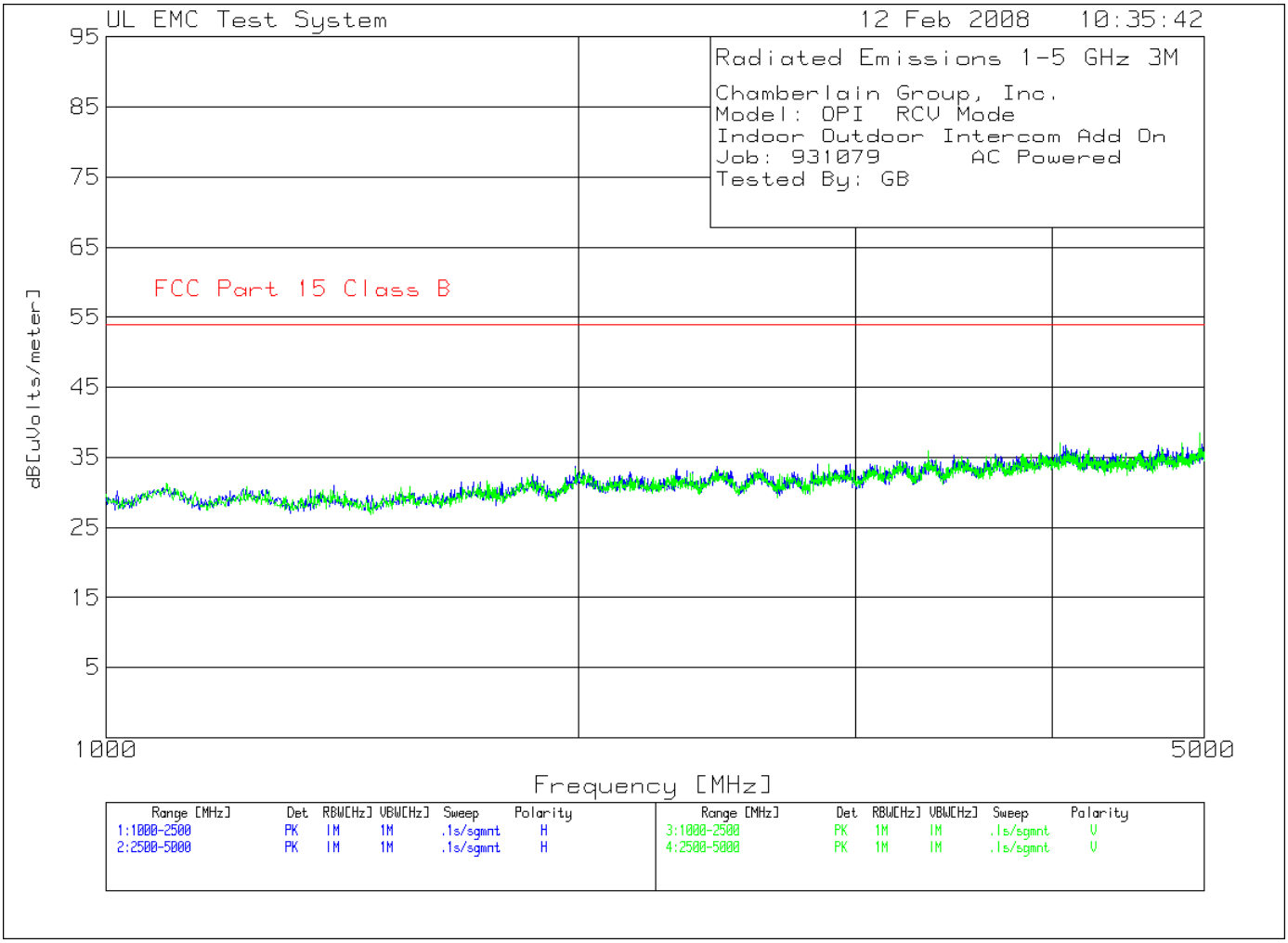


Table 19 Radiated Emissions Data Points

Chamberlain Group, Inc.
Model: OPI RCV Mode
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: GB

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 1000 - 2500MHz											
1	1016.517	40.09 pk	-35.1	25.2	30.19	54	-	-	-	-	-
	Azimuth:6	Height:200 Horz		Margin [dB]		-23.81	-	-	-	-	-
2	1396.396	40.4 pk	-34.4	25	31	54	-	-	-	-	-
	Azimuth:167	Height:200 Horz		Margin [dB]		-23	-	-	-	-	-
3	1989.489	39.3 pk	-33.3	27.7	33.7	54	-	-	-	-	-
	Azimuth:167	Height:100 Horz		Margin [dB]		-20.3	-	-	-	-	-
4	2307.808	37.83 pk	-32.8	28.4	33.43	54	-	-	-	-	-
	Azimuth:332	Height:100 Horz		Margin [dB]		-20.57	-	-	-	-	-
Vertical 2500 - 5000MHz											
5	3335.557	36.61 pk	-31.6	30.9	35.91	54	-	-	-	-	-
	Azimuth:111	Height:200 Vert		Margin [dB]		-18.09	-	-	-	-	-
6	4964.977	35.26 pk	-29.8	33.1	38.56	54	-	-	-	-	-
	Azimuth:6	Height:200 Vert		Margin [dB]		-15.44	-	-	-	-	-

LIMIT 1: FCC Part 15 Class B

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection

Figure 25 Radiated Emissions Graph

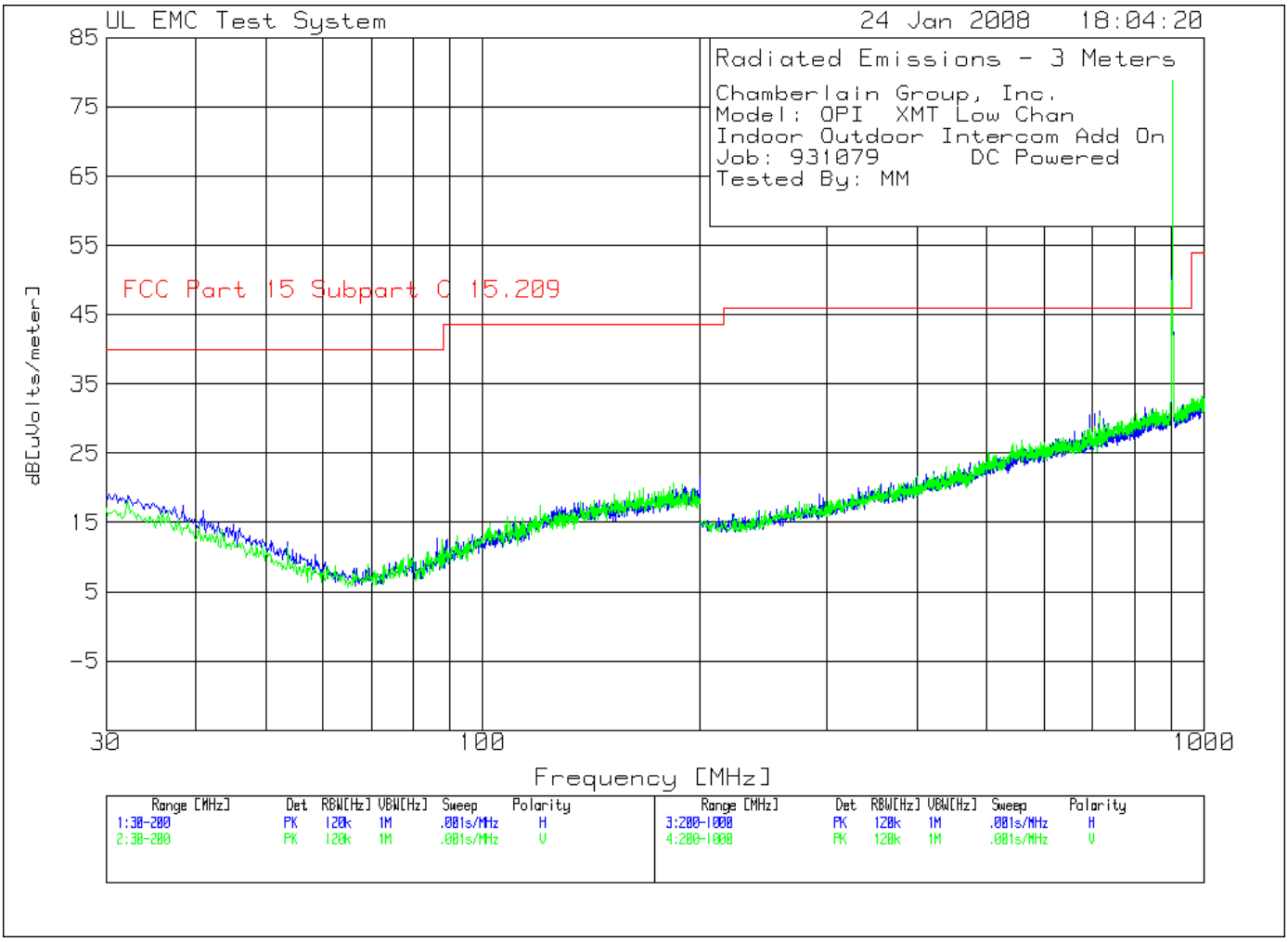


Table 20 Radiated Emissions Data Points

Chamberlain Group, Inc.
Model: OPI XMT Low Chan
Indoor Outdoor Intercom Add On
Job: 931079 DC Powered
Tested By: MM

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 30 - 200MHz											
3	34.9349	.93 pk	.2	16.7	17.83	40	-	-	-	-	-
	Azimuth:212	Height:100 Horz		Margin [dB]		-22.17	-	-	-	-	-
4	38.3383	1.95 pk	.2	15.2	17.35	40	-	-	-	-	-
	Azimuth:358	Height:250 Horz		Margin [dB]		-22.65	-	-	-	-	-
5	190.4705	3 pk	1.1	16.1	20.2	43.5	-	-	-	-	-
	Azimuth:212	Height:400 Horz		Margin [dB]		-23.3	-	-	-	-	-
Horizontal 200 - 1000MHz											
1	903.5518	50.73 pk	3.5	23.2	77.43	-	94	-	-	-	-
	Azimuth:230	Height:300 Horz		Margin [dB]		-	-16.57	-	-	-	-
6	715.4577	6.87 pk	3	21.2	31.07	46	-	-	-	-	-
	Azimuth:173	Height:100 Horz		Margin [dB]		-14.93	-	-	-	-	-
Vertical 200 - 1000MHz											
2	903.5518	51.72 pk	3.5	23.6	78.82	-	94	-	-	-	-
	Azimuth:103	Height:200 Vert		Margin [dB]		-	-15.18	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.209
LIMIT 2: FCC Part 15 Subpart C 15.249

Frequency [MHz]	Test	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 200 - 1000MHz											
903.3095	52.43 qp		3.5	23.2	79.13	94	-	-	-	-	-
Azimuth: 161	Height:170 Horz			Margin [dB]:		-14.87	-	-	-	-	-
Vertical 200 - 1000MHz											
903.3035	51.04 qp		3.5	23.6	78.14	94	-	-	-	-	-
Azimuth: 74	Height:121 Vert			Margin [dB]:		-15.86	-	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.249

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - Average log detector
ave - Average detector

Figure 26 Radiated Emissions Graph

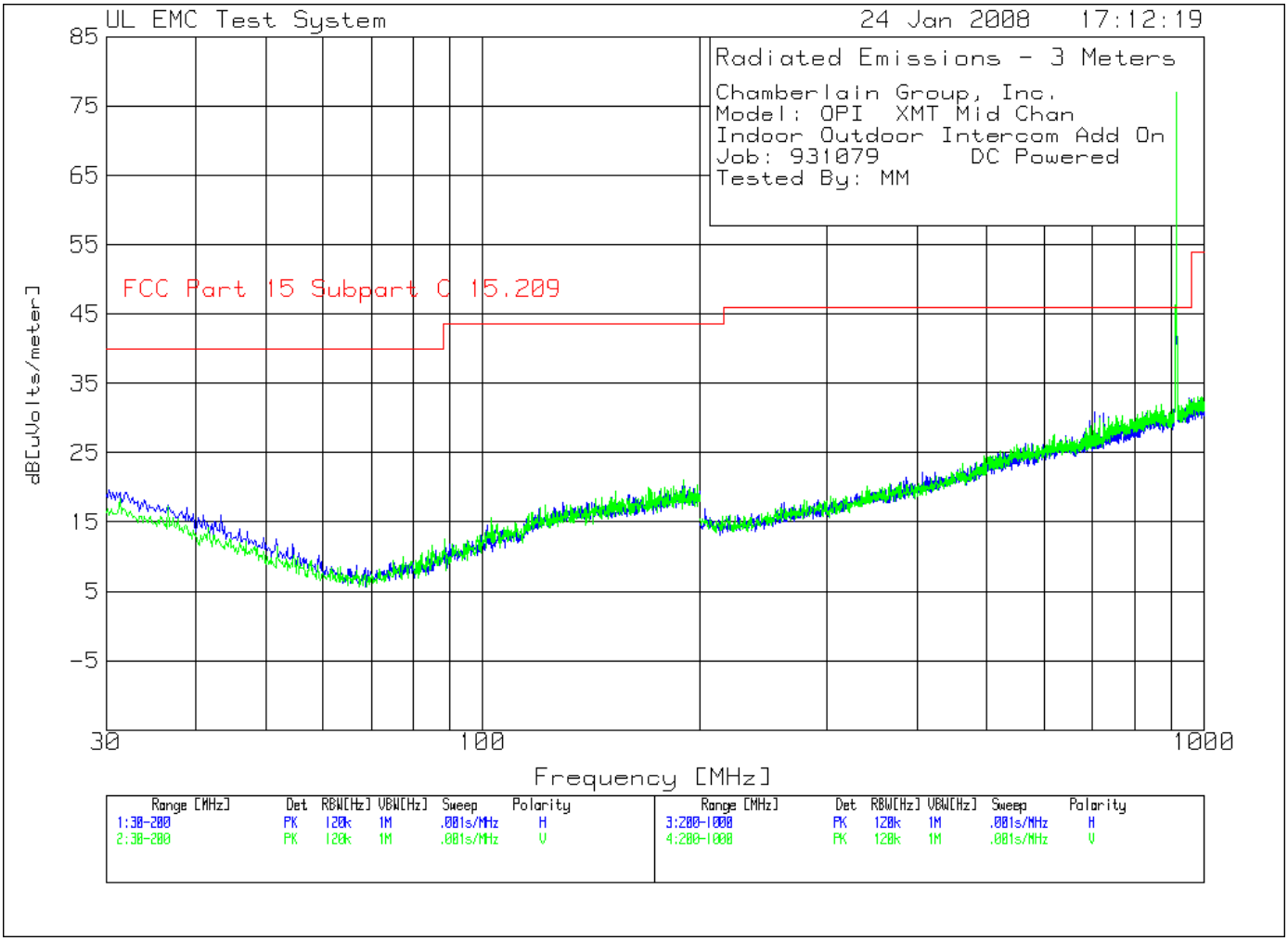


Table 21 Radiated Emissions Data Points

Chamberlain Group, Inc.
Model: OPI XMT Mid Chan
Indoor Outdoor Intercom Add On
Job: 931079 DC Powered
Tested By: MM

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 30 - 200MHz											
3	35.4454	.87 pk	.2	16.4	17.47	40	-	-	-	-	-
	Azimuth:344	Height:250 Horz		Margin [dB]		-22.53	-	-	-	-	-
4	43.2733	2.46 pk	.3	13.2	15.96	40	-	-	-	-	-
	Azimuth:66	Height:99 Horz		Margin [dB]		-24.04	-	-	-	-	-
Horizontal 200 - 1000MHz											
1	914.3572	49.24 pk	3.5	23.3	76.04	-	94	-	-	-	-
	Azimuth:18	Height:300 Horz		Margin [dB]		-	-17.96	-	-	-	-
5	693.0465	5.62 pk	2.9	21.1	29.62	46	-	-	-	-	-
	Azimuth:129	Height:100 Horz		Margin [dB]		-16.38	-	-	-	-	-
6	726.2631	6.5 pk	3	21.2	30.7	46	-	-	-	-	-
	Azimuth:43	Height:100 Horz		Margin [dB]		-15.3	-	-	-	-	-
Vertical 200 - 1000MHz											
2	914.3572	49.64 pk	3.5	23.8	76.94	-	94	-	-	-	-
	Azimuth:104	Height:200 Vert		Margin [dB]		-	-17.06	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.209
LIMIT 2: FCC Part 15 Subpart C 15.249

Frequency [MHz]	Test	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 200 - 1000MHz											
914.362	50.84 qp		3.5	23.3	77.64	94	-	-	-	-	-
Azimuth: 178	Height:173 Horz			Margin [dB]:		-16.36	-	-	-	-	-
Vertical 200 - 1000MHz											
914.359	48.74 qp		3.5	23.8	76.04	94	-	-	-	-	-
Azimuth: 86	Height:117 Vert			Margin [dB]:		-17.96	-	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.249

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - Average log detector
ave - Average detector

Figure 27 Radiated Emissions Graph

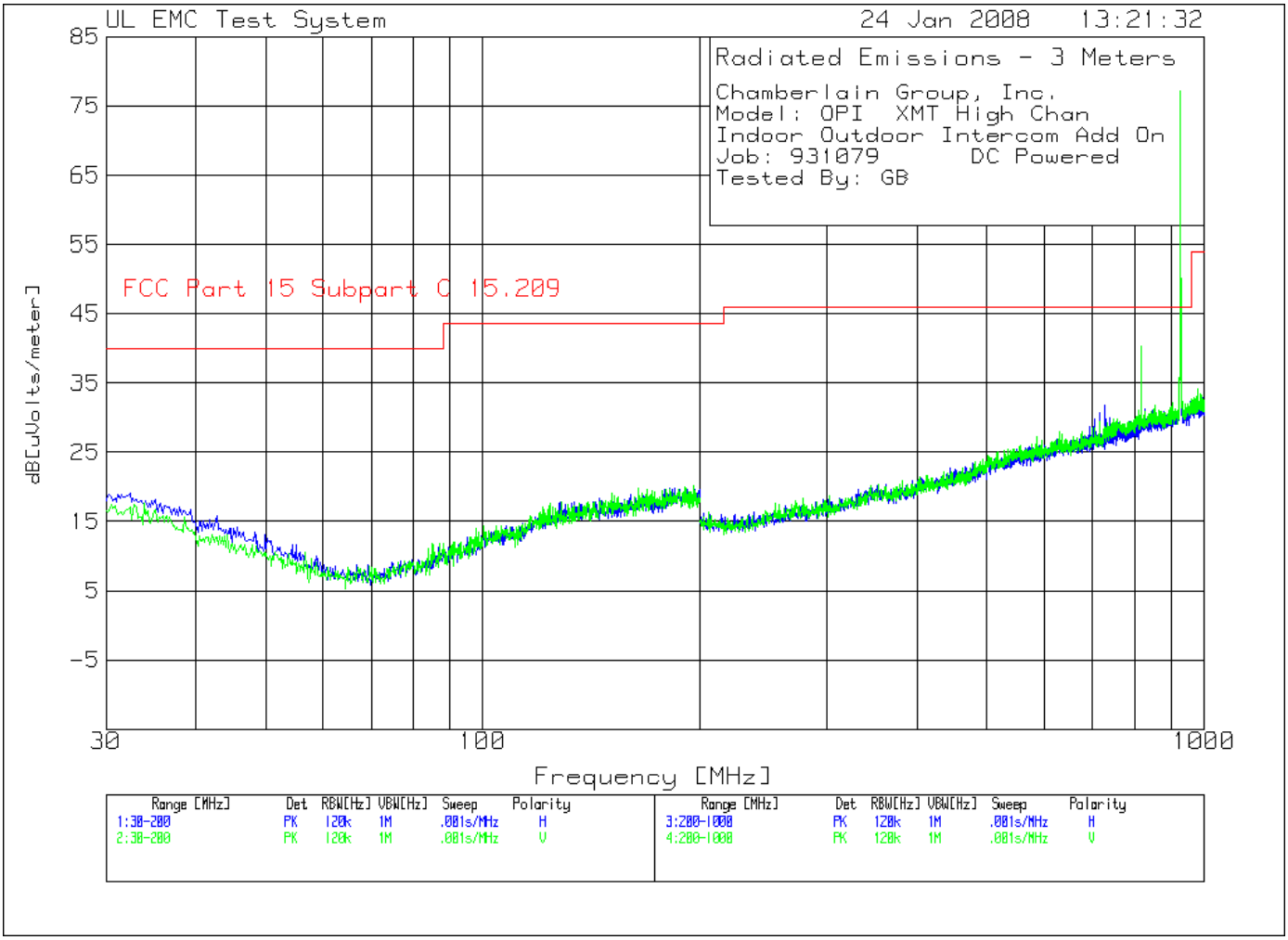


Table 22 Radiated Emissions Data Points

Chamberlain Group, Inc.
Model: OPI XMT High Chan
Indoor Outdoor Intercom Add On
Job: 931079 DC Powered
Tested By: GB

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 200 - 1000MHz											
1	716.6583	6.53 pk	3	21.2	30.73	46	-	-	-	-	-
	Azimuth:2	Height:100 Horz		Margin [dB]		-15.27	-	-	-	-	-
2	727.8639	7.42 pk	3.1	21.2	31.72	46	-	-	-	-	-
	Azimuth:173	Height:100 Horz		Margin [dB]		-14.28	-	-	-	-	-
6	927.1636	48.34 pk	3.5	23.6	75.44	46	94	-	-	-	-
	Azimuth:231	Height:300 Horz		Margin [dB]		-	-18.56	-	-	-	-
Vertical 200 - 1000MHz											
3	818.3092	13.65 pk	3.3	23.3	40.25	46	-	-	-	-	-
	Azimuth:60	Height:200 Vert		Margin [dB]		-5.75	-	-	-	-	-
4	827.5138	4.12 pk	3.3	23.5	30.92	46	-	-	-	-	-
	Azimuth:231	Height:400 Vert		Margin [dB]		-15.08	-	-	-	-	-
5	927.1636	49.72 pk	3.5	23.9	77.12	46	94	-	-	-	-
	Azimuth:103	Height:200 Vert		Margin [dB]		-	-16.88	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.209
LIMIT 2: FCC Part 15 Subpart C 15.249

Frequency [MHz]	Test	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 200 - 1000MHz											
926.6931	48.12 qp		3.5	23.6	75.22	-	94	-	-	-	-
Azimuth: 179	Height:174 Horz			Margin [dB]:		-	-18.78	-	-	-	-
Vertical 200 - 1000MHz											
926.6934	49.16 qp		3.5	23.9	76.56	-	94	-	-	-	-
Azimuth: 122	Height:195 Vert			Margin [dB]:		30.56	-17.44	-	-	-	-
814.0666	18.75 qp		3.2	23.2	45.15	46	-	-	-	-	-
Azimuth: 50	Height:299 Vert			Margin [dB]:		-.85	-	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.209
LIMIT 2: FCC Part 15 Subpart C 15.249

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - Average log detector
ave - Average detector

Figure 28 Radiated Emissions Graph

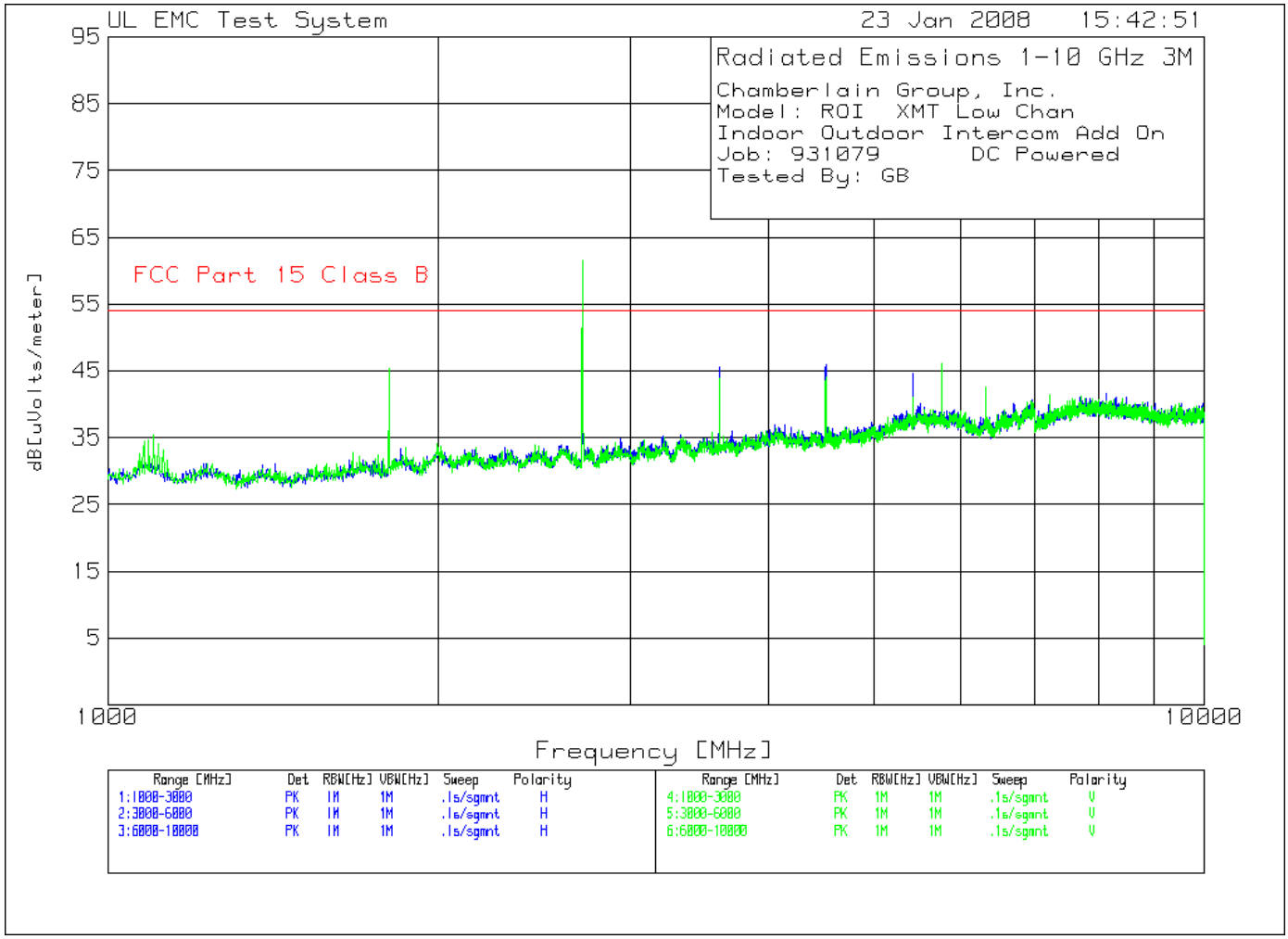


Table 23 Radiated Emissions Data Points

Chamberlain Group, Inc.
Model: OPI XMT Low Chan
Indoor Outdoor Intercom Add On
Job: 931079 DC Powered
Tested By: GB

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 1000 - 3000MHz										
1806.4409	52.46 ave	-33.7	26.7	45.46	54	-	-	-	-	-
Azimuth: 24	Height:103 Horz		Margin [dB]:	-8.54		-	-	-	-	-
2709.7976	53.99 ave	-32.6	29.4	50.79	54	-	-	-	-	-
Azimuth: 7	Height:114 Horz		Margin [dB]:	-3.21		-	-	-	-	-
Horizontal 3000 - 6000MHz										
3613.1523	46.75 ave	-31.2	31.5	47.05	54	-	-	-	-	-
Azimuth: 270	Height:131 Horz		Margin [dB]:	-6.95		-	-	-	-	-
4516.499	40.09 ave	-30.2	32.5	42.39	54	-	-	-	-	-
Azimuth: 348	Height:183 Horz		Margin [dB]:	-11.61		-	-	-	-	-
5419.5261	33.98 ave	-29.8	34	38.18	54	-	-	-	-	-
Azimuth: 208	Height:153 Horz		Margin [dB]:	-15.82		-	-	-	-	-
Horizontal 6000 - 10000MHz										
6322.8517	33.28 ave	-28.8	34.6	39.08	54	-	-	-	-	-
Azimuth: 242	Height:104 Horz		Margin [dB]:	-14.92		-	-	-	-	-
Vertical 1000 - 3000MHz										
1806.6764	47.8 ave	-33.7	26.8	40.9	54	-	-	-	-	-
Azimuth: 351	Height:145 Vert		Margin [dB]:	-13.1		-	-	-	-	-
2709.8016	52.58 ave	-32.6	29.3	49.28	54	-	-	-	-	-
Azimuth: 156	Height:119 Vert		Margin [dB]:	-4.72		-	-	-	-	-
Vertical 3000 - 6000MHz										
3613.0772	43.33 ave	-31.2	31.5	43.63	54	-	-	-	-	-
Azimuth: 184	Height:171 Vert		Margin [dB]:	-10.37		-	-	-	-	-
4516.3988	37.15 ave	-30.2	32.3	39.25	54	-	-	-	-	-
Azimuth: 43	Height:146 Vert		Margin [dB]:	-14.75		-	-	-	-	-
5419.4719	35.26 ave	-29.8	34	39.46	54	-	-	-	-	-
Azimuth: 333	Height:200 Vert		Margin [dB]:	-14.54		-	-	-	-	-
Vertical 6000 - 10000MHz										
6322.9018	39.17 ave	-28.8	34.5	44.87	54	-	-	-	-	-
Azimuth: 24	Height:148 Vert		Margin [dB]:	-9.13		-	-	-	-	-

LIMIT 1: FCC Part 15 Class B

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - Average log detector
ave - Average detector

Figure 29 Radiated Emissions Graph

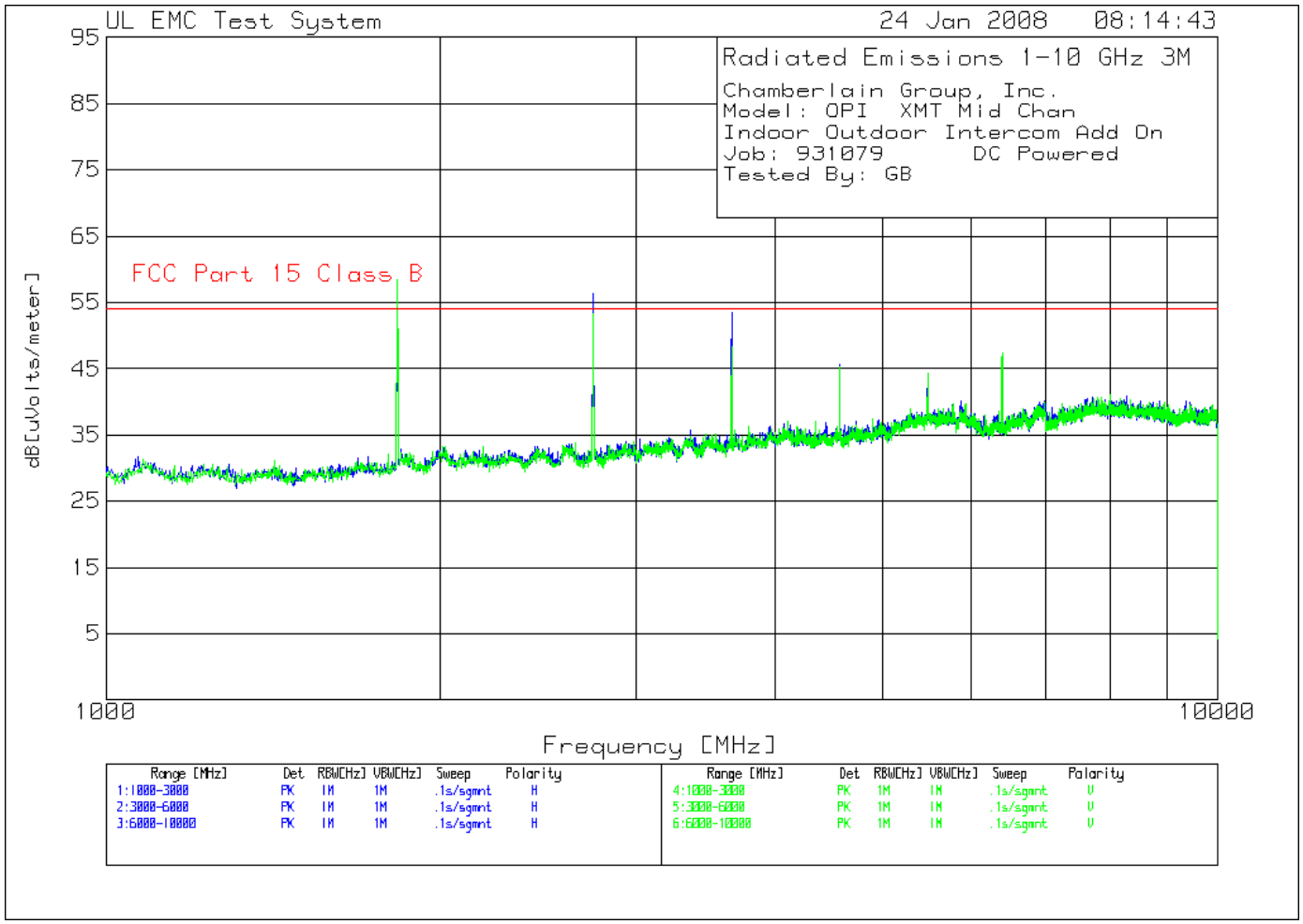


Table 24 Radiated Emissions Data Points

Chamberlain Group, Inc.
Model: OPI XMT Mid Chan
Indoor Outdoor Intercom Add On
Job: 931079 DC Powered
Tested By: GB

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 1000 - 3000MHz										
1828.3527	45.22 ave	-33.7	26.8	38.32	54	-	-	-	-	-
Azimuth: 306	Height:111 Horz		Margin [dB]:	-15.68		-	-	-	-	-
2742.9148	55.15 ave	-32.5	29.5	52.15	54	-	-	-	-	-
Azimuth: 359	Height:117 Horz		Margin [dB]:	-1.85		-	-	-	-	-
2743.0051	48.58 ave	-32.5	29.5	45.58	54	-	-	-	-	-
Azimuth: 300	Height:156 Horz		Margin [dB]:	-8.42		-	-	-	-	-
Horizontal 3000 - 6000MHz										
3657.6032	47.3 ave	-31.2	31.6	47.7	54	-	-	-	-	-
Azimuth: 250	Height:138 Horz		Margin [dB]:	-6.3		-	-	-	-	-
4571.7014	39.37 ave	-30.1	32.6	41.87	54	-	-	-	-	-
Azimuth: 355	Height:180 Horz		Margin [dB]:	-12.13		-	-	-	-	-
5486.1984	33.04 ave	-29.4	34.2	37.84	54	-	-	-	-	-
Azimuth: 210	Height:129 Horz		Margin [dB]:	-16.16		-	-	-	-	-
Horizontal 6000 - 10000MHz										
6400.6413	33.74 ave	-28.5	34.6	39.84	54	-	-	-	-	-
Azimuth: 221	Height:103 Horz		Margin [dB]:	-14.16		-	-	-	-	-
Vertical 1000 - 3000MHz										
1828.7325	44.04 ave	-33.7	26.9	37.24	54	-	-	-	-	-
Azimuth: 103	Height:161 Vert		Margin [dB]:	-16.76		-	-	-	-	-
2742.9599	54.62 ave	-32.5	29.4	51.52	54	-	-	-	-	-
Azimuth: 45	Height:133 Vert		Margin [dB]:	-2.48		-	-	-	-	-
Vertical 3000 - 6000MHz										
3657.503	45.16 ave	-31.2	31.6	45.56	54	-	-	-	-	-
Azimuth: 227	Height:130 Vert		Margin [dB]:	-8.44		-	-	-	-	-
4571.7415	34.5 ave	-30.1	32.4	36.8	54	-	-	-	-	-
Azimuth: 110	Height:122 Vert		Margin [dB]:	-17.2		-	-	-	-	-
5485.982	32.59 ave	-29.4	34.1	37.29	54	-	-	-	-	-
Azimuth: 312	Height:173 Vert		Margin [dB]:	-16.71		-	-	-	-	-
Vertical 6000 - 10000MHz										
6400.3407	37.43 ave	-28.5	34.5	43.43	54	-	-	-	-	-
Azimuth: 20	Height:160 Vert		Margin [dB]:	-10.57		-	-	-	-	-

LIMIT 1: FCC Part 15 Class B

pk - Peak detector
qp - Quasi-Peak detector
ave - Average detector

Figure 30 Radiated Emissions Graph

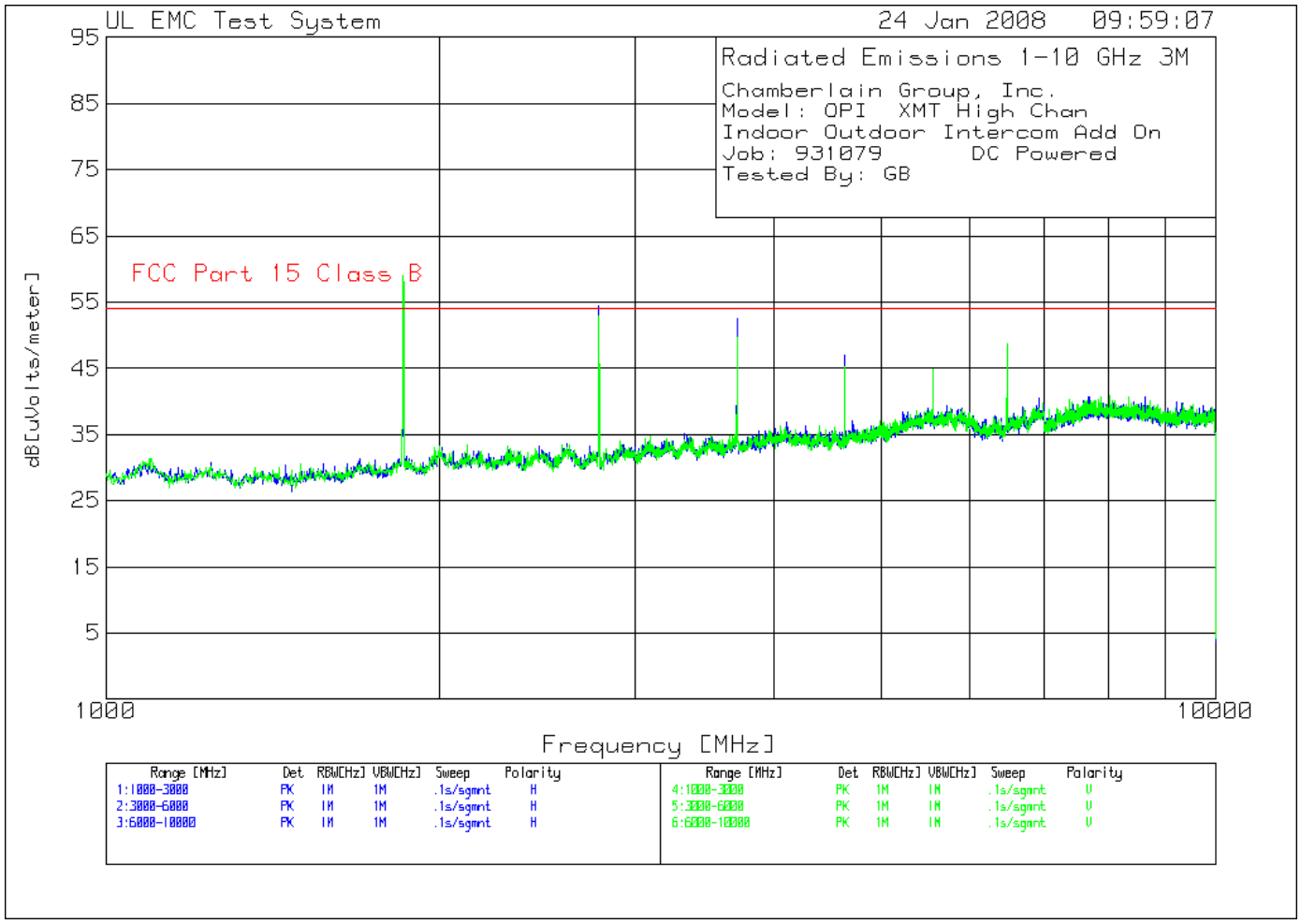


Table 25 Radiated Emissions Data Points

Chamberlain Group, Inc.
Model: OPI XMT High Chan
Indoor Outdoor Intercom Add On
Job: 931079 DC Powered
Tested By: GB

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 1000 - 3000MHz										
1853.8327	44.88 ave	-33.6	27	38.28	54	-	-	-	-	-
Azimuth: 276	Height:112 Horz		Margin [dB]:	-15.72		-	-	-	-	-
2780.1383	54.87 ave	-32.5	29.6	51.97	54	-	-	-	-	-
Azimuth: 0	Height:116 Horz		Margin [dB]:	-2.03		-	-	-	-	-
Horizontal 3000 - 6000MHz										
3706.9218	48.4 ave	-31.1	31.7	49	54	-	-	-	-	-
Azimuth: 240	Height:103 Horz		Margin [dB]:	-5		-	-	-	-	-
4633.8778	39.07 ave	-30.1	32.7	41.67	54	-	-	-	-	-
Azimuth: 358	Height:174 Horz		Margin [dB]:	-12.33		-	-	-	-	-
5560.7745	34.44 ave	-29.2	34.2	39.44	54	-	-	-	-	-
Azimuth: 204	Height:200 Horz		Margin [dB]:	-14.56		-	-	-	-	-
Horizontal 6000 - 10000MHz										
6487.4429	34.54 ave	-28.4	34.6	40.74	54	-	-	-	-	-
Azimuth: 240	Height:102 Horz		Margin [dB]:	-13.26		-	-	-	-	-
Vertical 1000 - 3000MHz										
1853.7415	44.84 ave	-33.6	27	38.24	54	-	-	-	-	-
Azimuth: 96	Height:155 Vert		Margin [dB]:	-15.76		-	-	-	-	-
2780.2685	54.6 ave	-32.5	29.5	51.6	54	-	-	-	-	-
Azimuth: 60	Height:177 Vert		Margin [dB]:	-2.4		-	-	-	-	-
Vertical 3000 - 6000MHz										
3707.2224	43.24 ave	-31.1	31.7	43.84	54	-	-	-	-	-
Azimuth: 217	Height:132 Vert		Margin [dB]:	-10.16		-	-	-	-	-
4633.8377	36.95 ave	-30.1	32.5	39.35	54	-	-	-	-	-
Azimuth: 97	Height:116 Vert		Margin [dB]:	-14.65		-	-	-	-	-
5560.479	33.85 ave	-29.2	34.1	38.75	54	-	-	-	-	-
Azimuth: 216	Height:139 Vert		Margin [dB]:	-15.25		-	-	-	-	-
Vertical 6000 - 10000MHz										
6487.8036	38.37 ave	-28.4	34.5	44.47	54	-	-	-	-	-
Azimuth: 31	Height:156 Vert		Margin [dB]:	-9.53		-	-	-	-	-

LIMIT 1: FCC Part 15 Class B

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - Average log detector
ave - Average detector

Figure 31 Radiated Emissions Graph

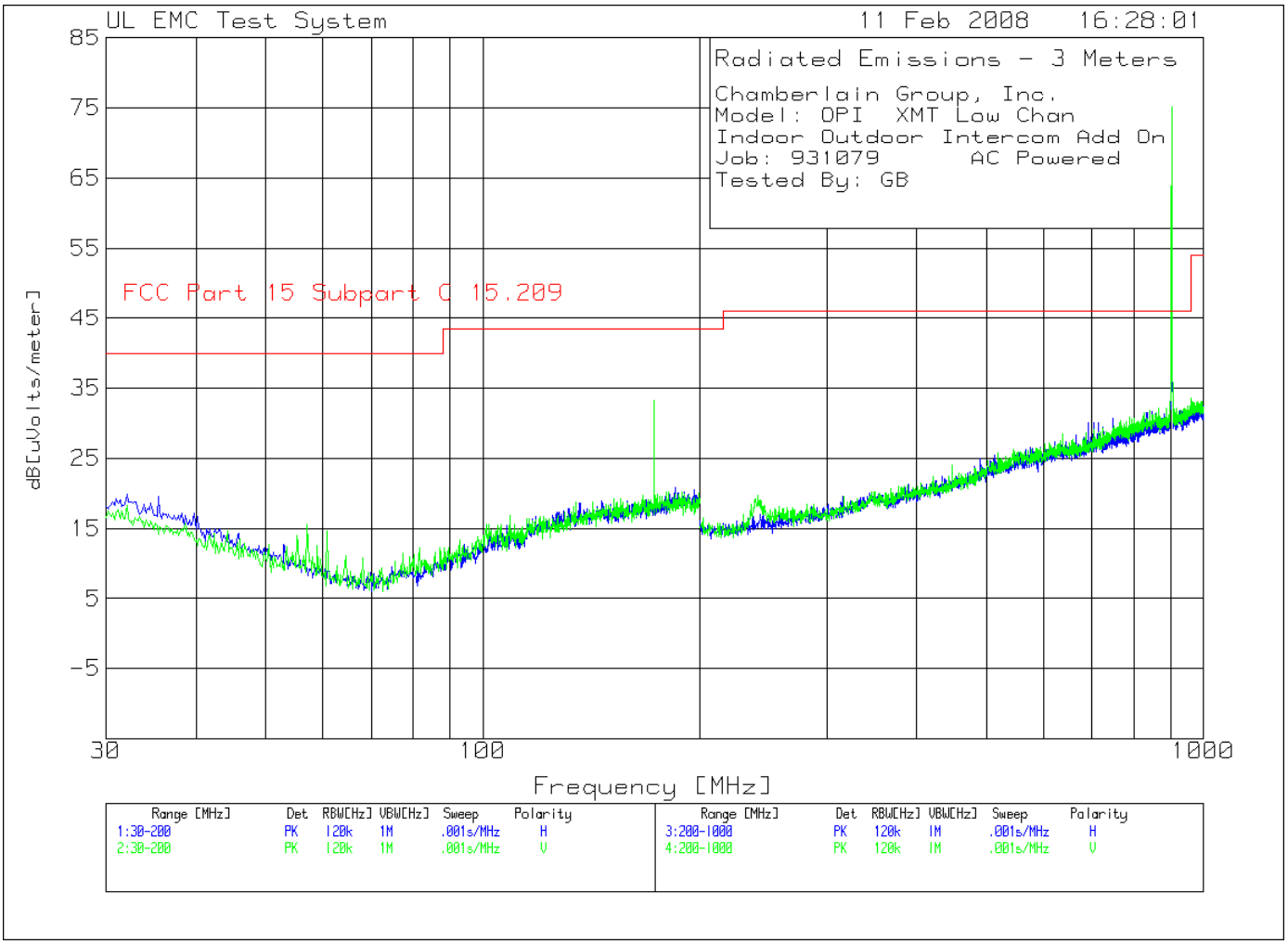


Table 26 Radiated Emissions Data Points

Chamberlain Group, Inc.
Model: OPI XMT Low Chan
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: GB

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 30 - 200MHz											
1	32.042	1.93 pk	0	18	19.93	40	-	-	-	-	-
	Azimuth:1	Height:400 Horz		Margin [dB]		-20.07	-	-	-	-	-
2	136.3564	3.62 pk	.8	14.2	18.62	43.5	-	-	-	-	-
	Azimuth:259	Height:400 Horz		Margin [dB]		-24.88	-	-	-	-	-
Vertical 30 - 200MHz											
3	57.0571	7.66 pk	.4	7.5	15.56	40	-	-	-	-	-
	Azimuth:343	Height:100 Vert		Margin [dB]		-24.44	-	-	-	-	-
4	172.7728	16.32 pk	1	15.9	33.22	43.5	-	-	-	-	-
	Azimuth:260	Height:100 Vert		Margin [dB]		-10.28	-	-	-	-	-
Horizontal 200 - 1000MHz											
5	903.5518	47.38 pk	3.5	23.2	74.08	-	94	-	-	-	-
	Azimuth:171	Height:100 Horz		Margin [dB]		-	-19.92	-	-	-	-
Vertical 200 - 1000MHz											
6	903.5518	48.13 pk	3.5	23.6	75.23	-	94	-	-	-	-
	Azimuth:212	Height:200 Vert		Margin [dB]		-	-18.77	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.209
LIMIT 2: FCC Part 15 Subpart C 15.249

Frequency [MHz]	Test	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 200 - 1000MHz											
903.3181	48.81 pk		3.5	23.2	75.51	94	-	-	-	-	-
Azimuth: 168	Height:181 Horz			Margin [dB]:		-18.49	-	-	-	-	-
Vertical 200 - 1000MHz											
903.3176	50.57 pk		3.5	23.6	77.67	94	-	-	-	-	-
Azimuth: 295	Height:127 Vert			Margin [dB]:		-16.33	-	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.249

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - Average log detector
ave - Average detector

Figure 32 Radiated Emissions Graph

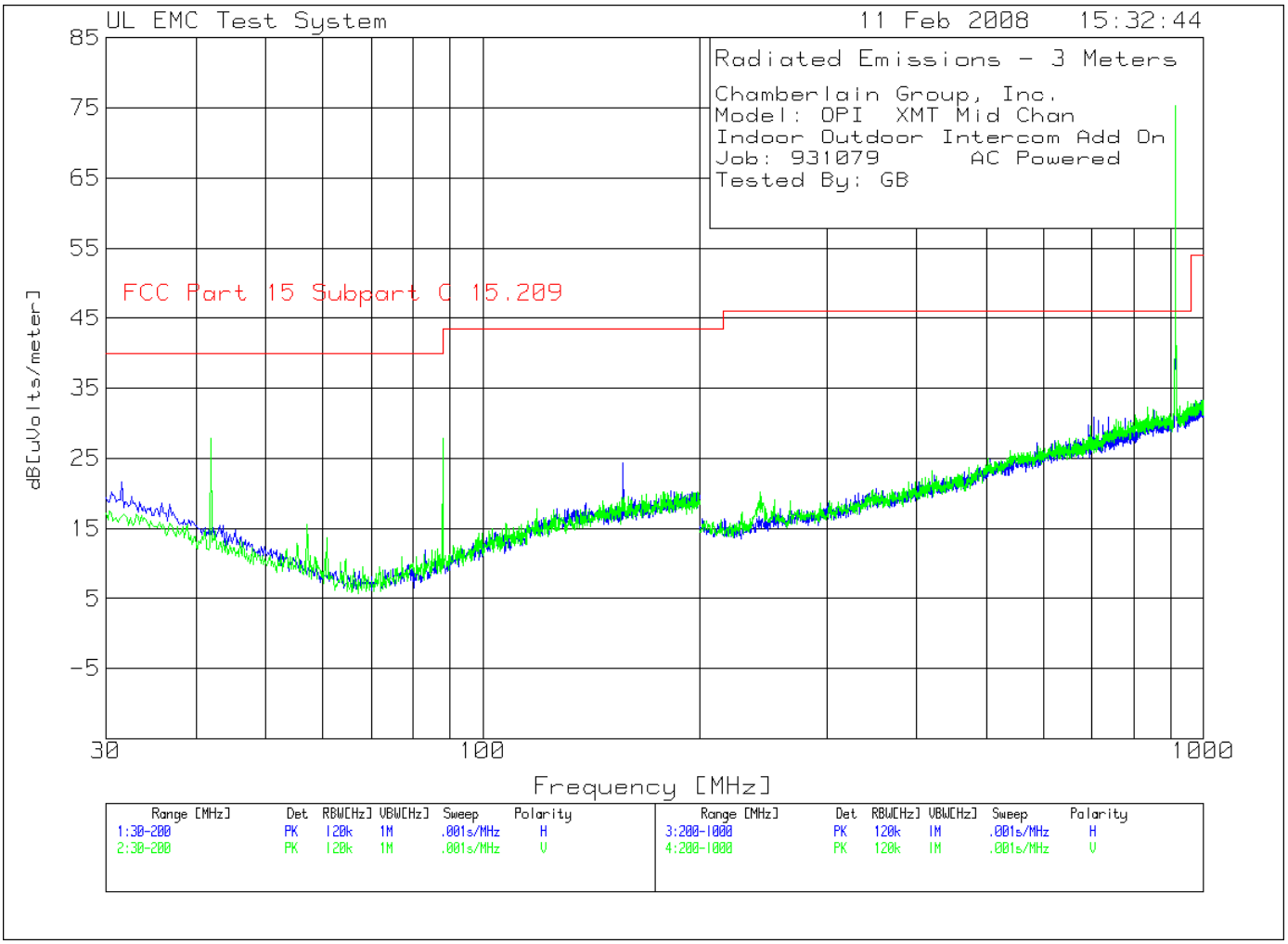


Table 27 Radiated Emissions Data Points

Chamberlain Group, Inc.
Model: OPI XMT Mid Chan
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: GB

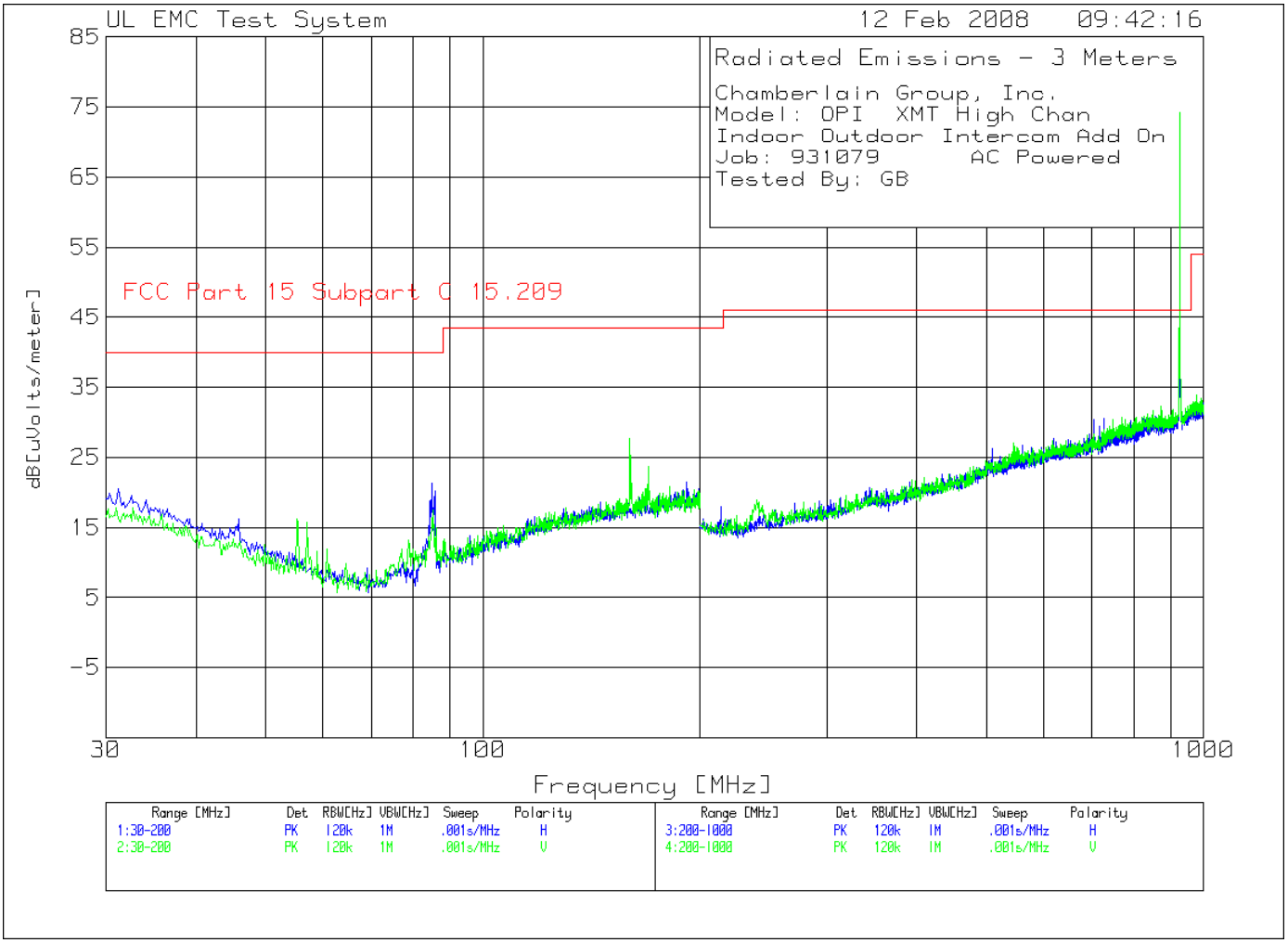
No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 30 - 200MHz											
4	156.6066	9.11 pk	.8	14.5	24.41	43.5	-	-	-	-	-
	Azimuth:211	Height:400 Horz		Margin [dB]		-19.09	-	-	-	-	-
Vertical 30 - 200MHz											
1	41.9119	14.91 pk	.2	12.7	27.81	40	-	-	-	-	-
	Azimuth:211	Height:100 Vert		Margin [dB]		-12.19	-	-	-	-	-
2	57.0571	7.68 pk	.4	7.5	15.58	40	-	-	-	-	-
	Azimuth:27	Height:100 Vert		Margin [dB]		-24.42	-	-	-	-	-
3	88.028	18.01 pk	.5	9.4	27.91	43.5	-	-	-	-	-
	Azimuth:211	Height:100 Vert		Margin [dB]		-15.59	-	-	-	-	-
Horizontal 200 - 1000MHz											
5	914.3572	46.98 pk	3.5	23.3	73.78	-	94	-	-	-	-
	Azimuth:231	Height:100 Horz		Margin [dB]		-	-20.22	-	-	-	-
Vertical 200 - 1000MHz											
6	914.3572	48.05 pk	3.5	23.8	75.35	-	94	-	-	-	-
	Azimuth:232	Height:200 Vert		Margin [dB]		-	-18.65	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.209
LIMIT 2: FCC Part 15 Subpart C 15.249

Frequency [MHz]	Test	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 200 - 1000MHz											
914.3807	48.06 qp		3.5	23.3	74.86	94	-	-	-	-	-
Azimuth: 167	Height:177 Horz			Margin [dB]:		-19.14	-	-	-	-	-
Vertical 200 - 1000MHz											
914.3764	48.5 qp		3.5	23.8	75.8	94	-	-	-	-	-
Azimuth: 291	Height:125 Vert			Margin [dB]:		-18.2	-	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.249

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - Average log detector
ave - Average detector


UL EMC Test System
12 Feb 2008 09:42:16
Radiated Emissions - 3 Meters
Chamberlain Group, Inc.
Model: OPI XMT High Chan
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: GB
FCC Part 15 Subpart C 15.209
dB[uVolts/meter]
85
75
65
55
45
35
25
15
5
-5
30
100
1000
Frequency [MHz]
Range [MHz] Det RBW[Hz] VBW[Hz] Sweep Polarity
1:30-200 PK 120k 1M .001s/MHz H
2:30-200 PK 120k 1M .001s/MHz V
Range [MHz] Det RBW[Hz] VBW[Hz] Sweep Polarity
3:200-1000 PK 120k 1M .001s/MHz H
4:200-1000 PK 120k 1M .001s/MHz V

Chamberlain Group, Inc.
Model: OPI XMT High Chan
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: GB

Test No.	Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 30 - 200MHz											
2	85.1351	12.74 pk	.5	8	21.24	40	-	-	-	-	-
	Azimuth:286	Height:399 Horz		Margin [dB]		-18.76	-	-	-	-	-
Vertical 30 - 200MHz											
1	55.1852	7.92 pk	.4	7.9	16.22	40	-	-	-	-	-
	Azimuth:344	Height:100 Vert		Margin [dB]		-23.78	-	-	-	-	-
3	160.01	11.2 pk	1	15.5	27.7	43.5	-	-	-	-	-
	Azimuth:26	Height:100 Vert		Margin [dB]		-15.8	-	-	-	-	-
4	169.7097	6.91 pk	1	15.8	23.71	43.5	-	-	-	-	-
	Azimuth:16	Height:100 Vert		Margin [dB]		-19.79	-	-	-	-	-
Horizontal 200 - 1000MHz											
5	927.1636	45.02 pk	3.5	23.6	72.12	-	94	-	-	-	-
	Azimuth:232	Height:100 Horz		Margin [dB]		-	-21.88	-	-	-	-
Vertical 200 - 1000MHz											
6	927.1636	46.79 pk	3.5	23.9	74.19	-	94	-	-	-	-
	Azimuth:274	Height:200 Vert		Margin [dB]		-	-19.81	-	-	-	-

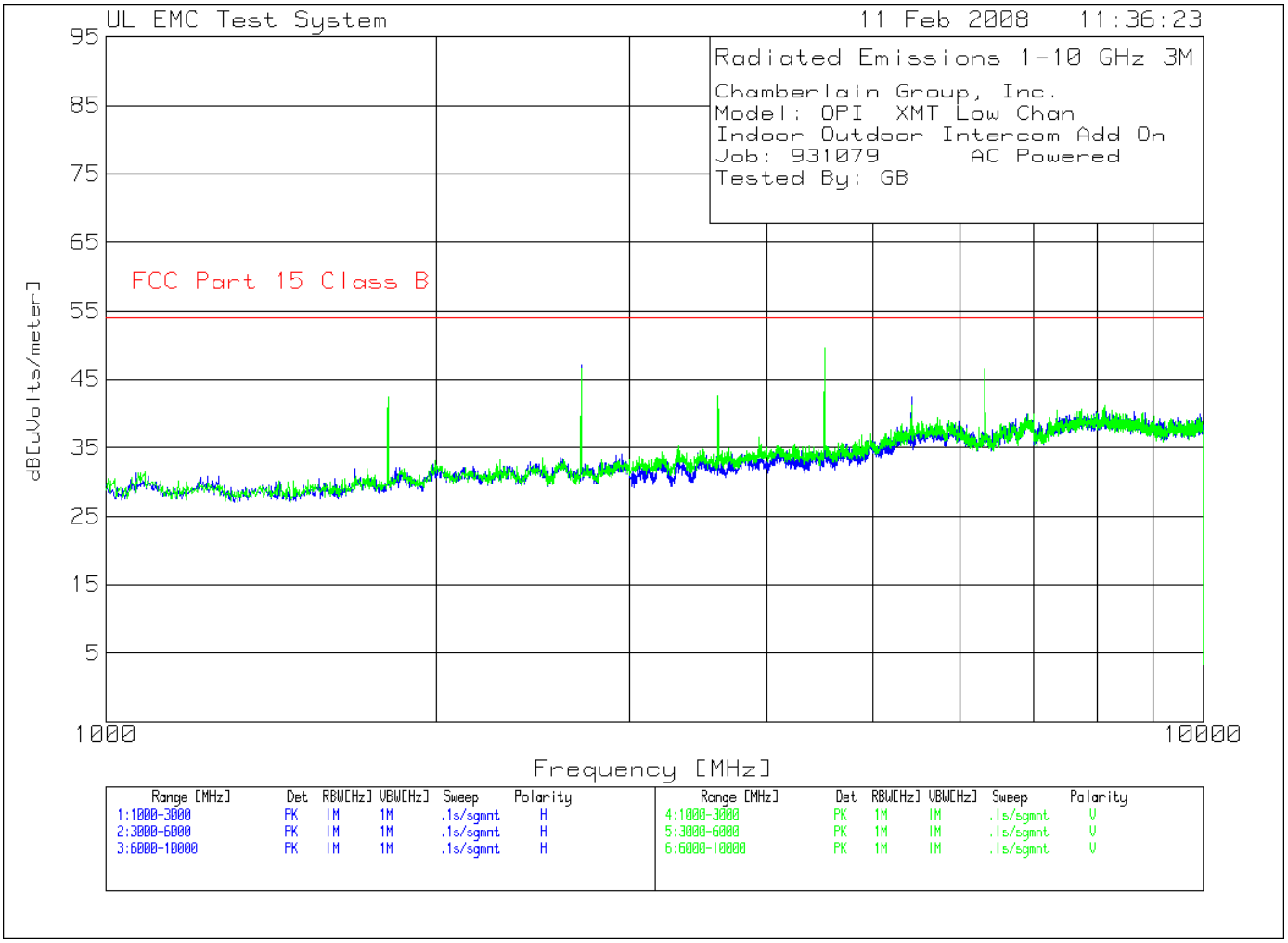
LIMIT 1: FCC Part 15 Subpart C 15.209
LIMIT 2: FCC Part 15 Subpart C 15.249

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 200 - 1000MHz										
926.8091	44.02 pk	3.5	23.6	71.12	94	-	-	-	-	-
Azimuth: 191	Height:102 Horz		Margin [dB]:		-22.88	-	-	-	-	-
Vertical 200 - 1000MHz										
926.8153	50.5 pk	3.5	23.9	77.9	94	-	-	-	-	-
Azimuth: 345	Height:123 Vert		Margin [dB]:		-16.1	-	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.249

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - Average log detector
ave - Average detector

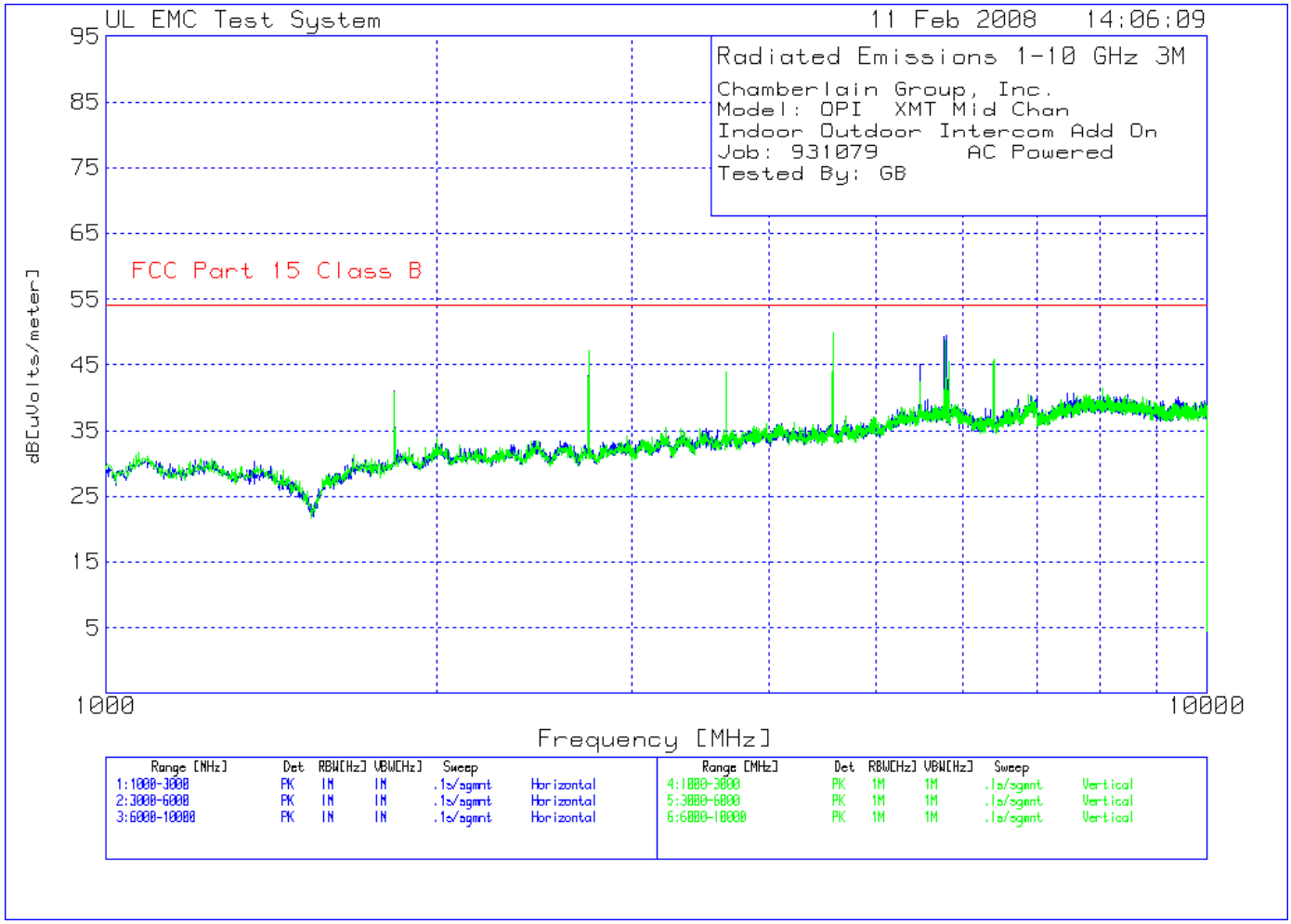
Figure 33 Radiated Emissions Graph



Chamberlain Group, Inc.
Model: OPI XMT Low Chan
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: GB

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 1000 - 3000MHz											
1	1806.807	48.43 pk	-33.7	26.7	41.43	54	-	-	-	-	-
	Azimuth:29	Height:100 Horz		Margin [dB]		-12.57	-	-	-	-	-
2	2711.712	50.26 pk	-32.6	29.4	47.06	54	-	-	-	-	-
	Azimuth:306	Height:200 Horz		Margin [dB]		-6.94	-	-	-	-	-
Horizontal 3000 - 6000MHz											
3	3612.408	37.48 pk	-31.2	31.5	37.78	54	-	-	-	-	-
	Azimuth:333	Height:200 Horz		Margin [dB]		-16.22	-	-	-	-	-
4	4517.011	42.71 pk	-30.2	32.5	45.01	54	-	-	-	-	-
	Azimuth:0	Height:200 Horz		Margin [dB]		-8.99	-	-	-	-	-
5	5419.613	38.21 pk	-29.8	34	42.41	54	-	-	-	-	-
	Azimuth:29	Height:200 Horz		Margin [dB]		-11.59	-	-	-	-	-
Horizontal 6000 - 10000MHz											
6	6322.161	40.08 pk	-28.8	34.6	45.88	54	-	-	-	-	-
	Azimuth:278	Height:200 Horz		Margin [dB]		-8.12	-	-	-	-	-
Vertical 1000 - 3000MHz											
7	1806.807	49.28 pk	-33.7	26.8	42.38	54	-	-	-	-	-
	Azimuth:354	Height:100 Vert		Margin [dB]		-11.62	-	-	-	-	-
8	2709.71	49.9 pk	-32.6	29.3	46.6	54	-	-	-	-	-
	Azimuth:278	Height:200 Vert		Margin [dB]		-7.4	-	-	-	-	-
Vertical 3000 - 6000MHz											
9	3612.408	42.28 pk	-31.2	31.5	42.58	54	-	-	-	-	-
	Azimuth:1	Height:100 Vert		Margin [dB]		-11.42	-	-	-	-	-
10	4515.01	47.42 pk	-30.2	32.3	49.52	54	-	-	-	-	-
	Azimuth:54	Height:200 Vert		Margin [dB]		-4.48	-	-	-	-	-
11	5419.613	37.05 pk	-29.8	34	41.25	54	-	-	-	-	-
	Azimuth:1	Height:200 Vert		Margin [dB]		-12.75	-	-	-	-	-
Vertical 6000 - 10000MHz											
12	6322.161	40.71 pk	-28.8	34.5	46.41	54	-	-	-	-	-
	Azimuth:250	Height:100 Vert		Margin [dB]		-7.59	-	-	-	-	-

LIMIT 1: FCC Part 15 Class B


UL EMC Test System
11 Feb 2008 14:06:09
Radiated Emissions 1-10 GHz 3M
Chamberlain Group, Inc.
Model: OPI XMT Mid Chan
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: GB
FCC Part 15 Class B
dBEuVolts/meter
95
85
75
65
55
45
35
25
15
5
1000
10000
Frequency [MHz]
Range [MHz] Det RBW[Hz] VBW[Hz] Sweep
1:1000-3000 PK 1M 1M .1s/sgmnt Horizontal
2:3000-6000 PK 1M 1M .1s/sgmnt Horizontal
3:6000-10000 PK 1M 1M .1s/sgmnt Horizontal
Range [MHz] Det RBW[Hz] VBW[Hz] Sweep
4:1000-3000 PK 1M 1M .1s/sgmnt Vertical
5:3000-6000 PK 1M 1M .1s/sgmnt Vertical
6:6000-10000 PK 1M 1M .1s/sgmnt Vertical

Chamberlain Group, Inc.
Model: OPI XMT Mid Chan
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: GB

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 1000 - 3000MHz										
1828.7669	45.69 ave	-33.7	26.8	38.79	54	-	-	-	-	-
Azimuth: 283	Height:108 Horz		Margin [dB]:	-15.21		-	-	-	-	-
2742.9123	49.82 ave	-32.5	29.5	46.82	54	-	-	-	-	-
Azimuth: 106	Height:101 Horz		Margin [dB]:	-7.18		-	-	-	-	-
Horizontal 3000 - 6000MHz										
3657.3753	42.16 ave	-31.2	31.6	42.56	54	-	-	-	-	-
Azimuth: 280	Height:161 Horz		Margin [dB]:	-11.44		-	-	-	-	-
4571.6513	44.14 ave	-30.1	32.6	46.64	54	-	-	-	-	-
Azimuth: 129	Height:190 Horz		Margin [dB]:	-7.36		-	-	-	-	-
5486.24	32.24 ave	-29.4	34.2	37.04	54	-	-	-	-	-
Azimuth: 21	Height:183 Horz		Margin [dB]:	-16.96		-	-	-	-	-
5796.2725	28.28 ave	-28.8	34.4	33.88	54	-	-	-	-	-
Azimuth: 70	Height:191 Horz		Margin [dB]:	-20.12		-	-	-	-	-
Vertical 1000 - 3000MHz										
1828.8178	47.75 ave	-33.7	26.9	40.95	54	-	-	-	-	-
Azimuth: 21	Height:160 Vert		Margin [dB]:	-13.05		-	-	-	-	-
2742.9123	47.84 ave	-32.5	29.4	44.74	54	-	-	-	-	-
Azimuth: 197	Height:120 Vert		Margin [dB]:	-9.26		-	-	-	-	-
Vertical 3000 - 6000MHz										
3657.3753	39.33 ave	-31.2	31.6	39.73	54	-	-	-	-	-
Azimuth: 118	Height:137 Vert		Margin [dB]:	-14.27		-	-	-	-	-
4571.6513	45.74 ave	-30.1	32.4	48.04	54	-	-	-	-	-
Azimuth: 154	Height:193 Vert		Margin [dB]:	-5.96		-	-	-	-	-
5486.24	32.56 ave	-29.4	34.1	37.26	54	-	-	-	-	-
Azimuth: 120	Height:101 Vert		Margin [dB]:	-16.74		-	-	-	-	-
5789	28.22 ave	-28.8	34.3	33.72	54	-	-	-	-	-
Azimuth: 268	Height:113 Vert		Margin [dB]:	-20.28		-	-	-	-	-
Vertical 6000 - 10000MHz										
6400.5561	35.65 ave	-28.5	34.5	41.65	54	-	-	-	-	-
Azimuth: 96	Height:104 Vert		Margin [dB]:	-12.35		-	-	-	-	-

LIMIT 1: FCC Part 15 Class B

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - Average log detector
ave - Average detector

Figure 34 Radiated Emissions Graph

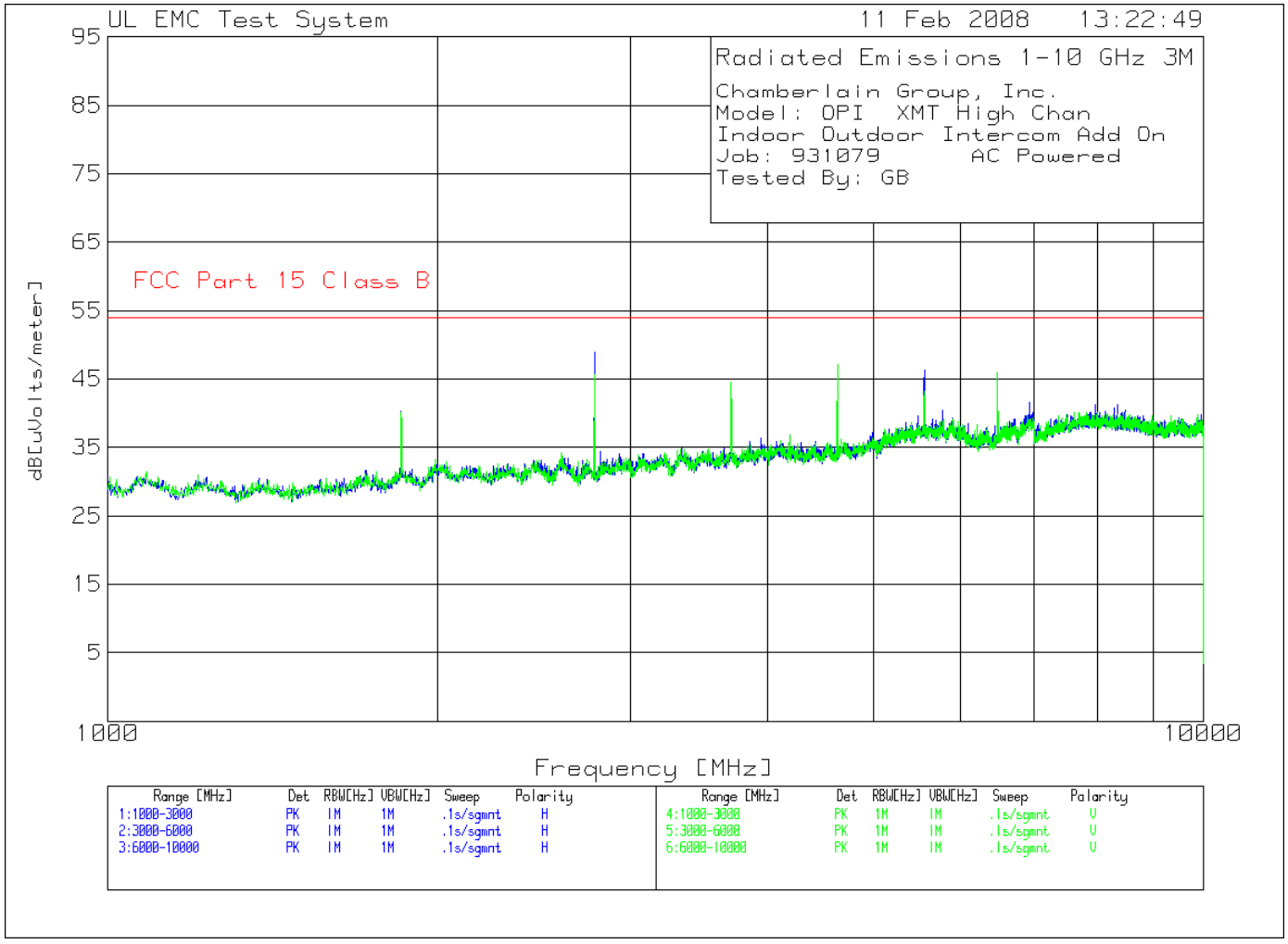


Table 28 Radiated Emissions Data Points

Chamberlain Group, Inc.
Model: OPI XMT High Chan
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: GB

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 1000 - 3000MHz											
1	1852.853	46.83 pk	-33.6	27	40.23	54	-	-	-	-	-
	Azimuth:354	Height:100 Horz		Margin [dB]		-13.77	-	-	-	-	-
2	2781.782	51.86 pk	-32.5	29.6	48.96	54	-	-	-	-	-
	Azimuth:332	Height:200 Horz		Margin [dB]		-5.04	-	-	-	-	-
Horizontal 3000 - 6000MHz											
3	3706.471	40.67 pk	-31.1	31.7	41.27	54	-	-	-	-	-
	Azimuth:109	Height:100 Horz		Margin [dB]		-12.73	-	-	-	-	-
4	4633.089	44.12 pk	-30.1	32.7	46.72	54	-	-	-	-	-
	Azimuth:1	Height:200 Horz		Margin [dB]		-7.28	-	-	-	-	-
5	5561.708	41.38 pk	-29.2	34.2	46.38	54	-	-	-	-	-
	Azimuth:53	Height:200 Horz		Margin [dB]		-7.62	-	-	-	-	-
Horizontal 6000 - 10000MHz											
6	6486.243	38.49 pk	-28.4	34.6	44.69	54	-	-	-	-	-
	Azimuth:303	Height:100 Horz		Margin [dB]		-9.31	-	-	-	-	-
Vertical 1000 - 3000MHz											
7	1852.853	46.67 pk	-33.6	27	40.07	54	-	-	-	-	-
	Azimuth:82	Height:100 Vert		Margin [dB]		-13.93	-	-	-	-	-
8	2781.782	48.66 pk	-32.5	29.5	45.66	54	-	-	-	-	-
	Azimuth:276	Height:100 Vert		Margin [dB]		-8.34	-	-	-	-	-
Vertical 3000 - 6000MHz											
9	3706.471	43.86 pk	-31.1	31.7	44.46	54	-	-	-	-	-
	Azimuth:331	Height:200 Vert		Margin [dB]		-9.54	-	-	-	-	-
10	4635.09	44.77 pk	-30.1	32.5	47.17	54	-	-	-	-	-
	Azimuth:56	Height:100 Vert		Margin [dB]		-6.83	-	-	-	-	-
11	5561.708	38.27 pk	-29.2	34.1	43.17	54	-	-	-	-	-
	Azimuth:353	Height:100 Vert		Margin [dB]		-10.83	-	-	-	-	-
Vertical 6000 - 10000MHz											
12	6486.243	39.91 pk	-28.4	34.5	46.01	54	-	-	-	-	-
	Azimuth:109	Height:100 Vert		Margin [dB]		-7.99	-	-	-	-	-

LIMIT 1: FCC Part 15 Class B (15.209)

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - Average log detector
ave - Average detector

Chamberlain Group, Inc.
Model: OPI XMT High Chan
Indoor Outdoor Intercom Add On
Job: 931079 AC Powered
Tested By: GB

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
Horizontal 1000 - 3000MHz										
2780.3337	46.22 ave	-32.5	29.6	43.32	54	-	-	-	-	-
Azimuth: 182	Height:192 Horz		Margin [dB]:	-10.68	-	-	-	-	-	

LIMIT 1: FCC Part 15 Class B (15.209)

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - Average log detector
ave - Average detector

Appendix A

Accreditations and Authorizations

NVLAP Lab code: 100255-0

NVLAP: Recognized under the National Voluntary Laboratory Accreditation Program (NVLAP) for satisfactory compliance with criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC EN17025 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. For a full scope listing see http://ts.nist.gov/ts/htdocs/210/214/scopes/1002550.htm

FCC: Details of the measurement facilities used for these tests have been filed with the Federal Communications Commission's Laboratory in Columbia, Maryland (Ref. No. 91040).

Industry Canada Industrie Canada

Industry of Canada: Accredited by Industry Canada for performance of radiated measurements. Our test site complies with RSP 100, Issue 7, Section 3.3. File #: IC 2181

VCCI: Accepted as an Associate Member to the VCCI. The measurement facilities detailed in this test report have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. Registration Nos.: (Radiated Emissions) R-797, (Conducted Emissions) C-832, C-833, C-834 and (Conducted Emissions - Telecommunications Ports) T-160.

ICASA: ICASA (Independent Communications Authority of South Africa) has appointed UL as a Designated Test Laboratory to test Telecommunications equipment for type approval in compliance with CISPR 22 to assist in fulfilling its mandate under section 54(1) of the Telecommunications Act, 1996 (Act 103 of 1996).

NIST/CAB: Validated by the European Commission as a U.S. Conformity Assessment Body (CAB) of the U.S.-EU Mutual Recognition Agreement (MRA) for the Electromagnetic Compatibility - Council Directive 89/336/EEC, Article 10 (2). Also validated for the Telecommunication Equipment-Council Directive 99/5/EC, Annex III and IV, Identification Number: 0983.
NIST/CAB: Provisioned to act as a U.S. Conformity Assessment Body (CAB) under Appendix B, Phase I Procedures, of the Asia Pacific Economic Cooperation (APEC) MRA between the American Institute in Taiwan (AIT) and the United States. Our laboratory is considered qualified to test equipment subject to the applicable EMC regulations of the Chinese Taipei Bureau of Standards, Metrology and Inspection (BSMI) which require testing to CNS 13438 (CISPR 22).
NIST/CAB: Recognized by the Infocomm Development Authority of Singapore (IDA) under the Asia Pacific Economic Cooperation Mutual Recognition Agreement (APEC MRA). Our laboratory is provisionally designated to act as a Conformity Assessment Body (CAB) under Appendix B, Phase I Procedures, of the APEC MRA. Our scope of designation includes IDA TS EMC (CISPR 22), IEC 61000-4-2, -4-3, -4-4, -4-5, and -4-6