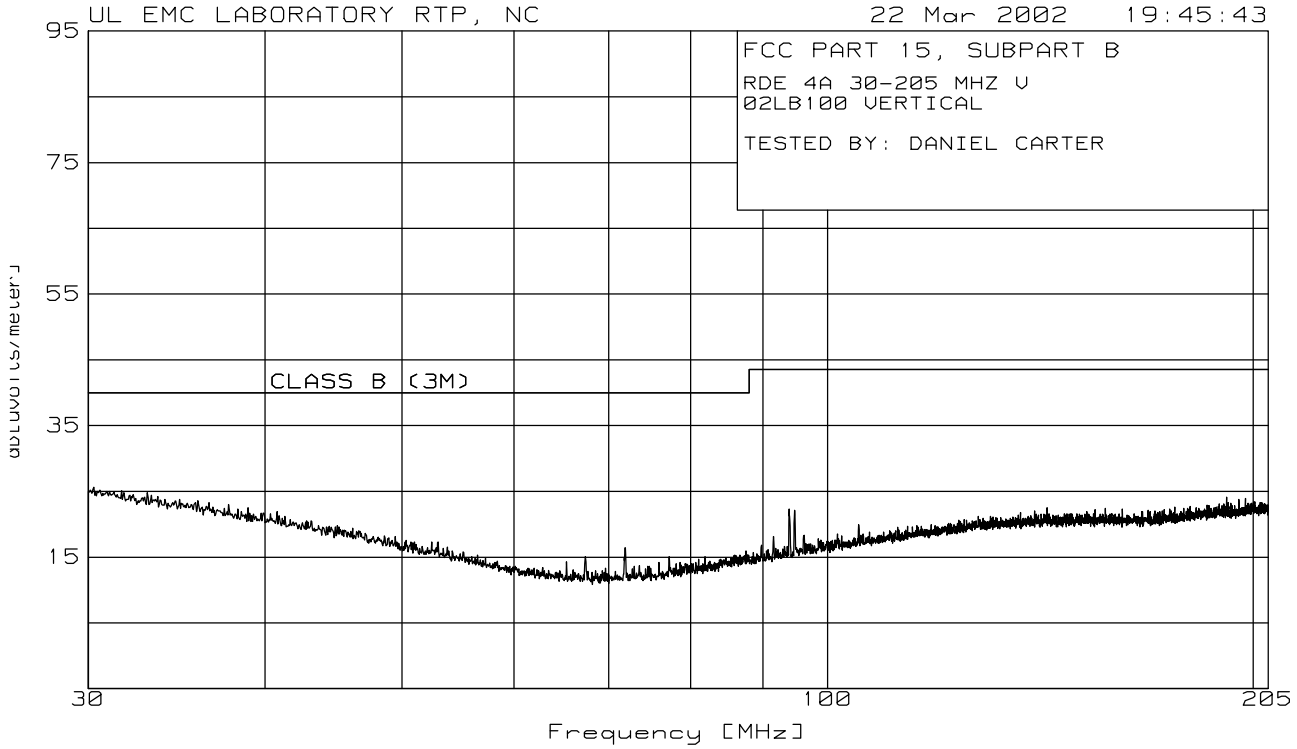
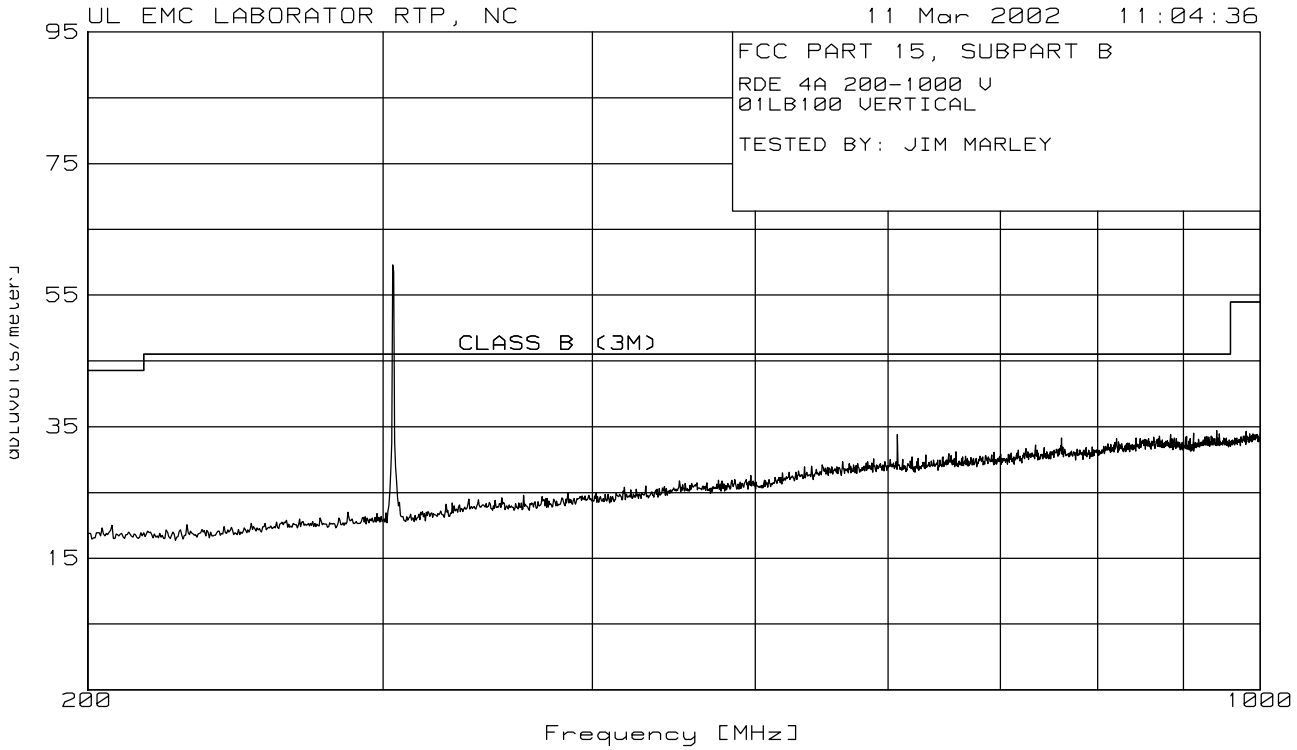
Test 4, Item A (Transmitter Active) - Peak Plot (Amplitude in dBuV/m):

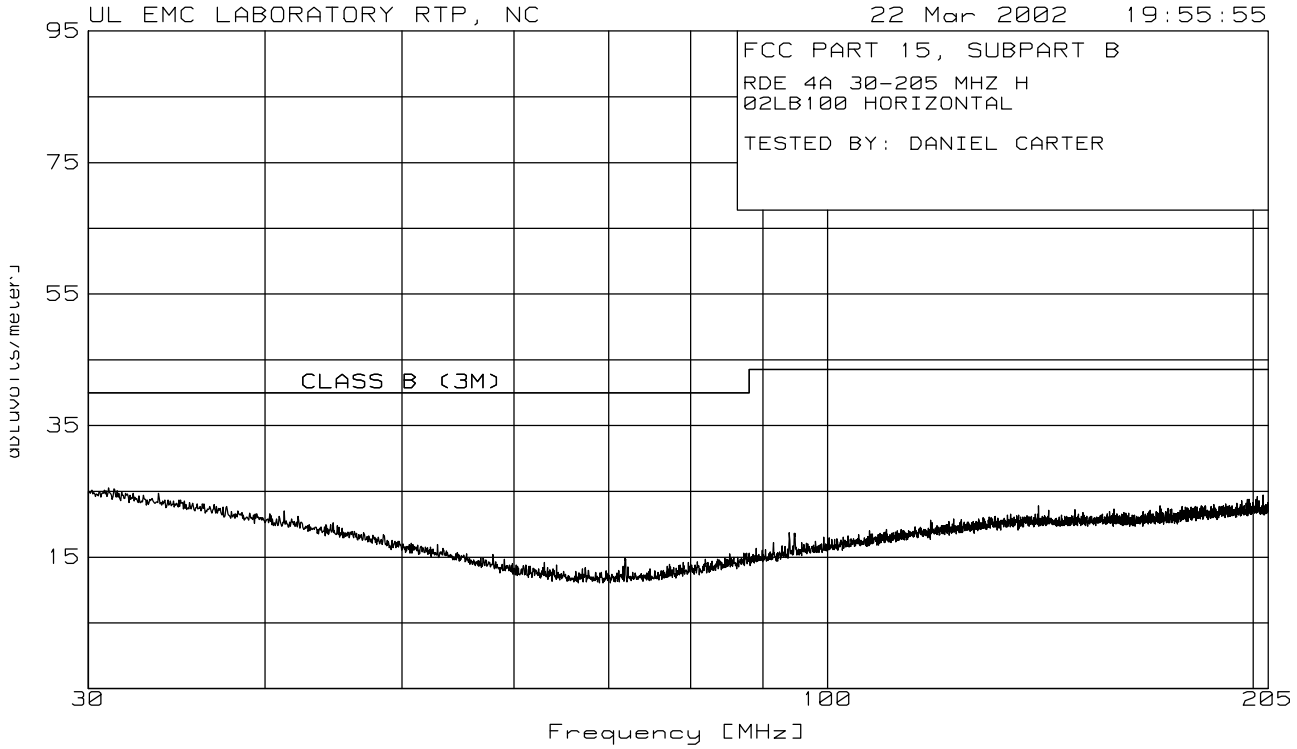
Radiated Disturbance Emissions - 30 MHz to 1000 MHz

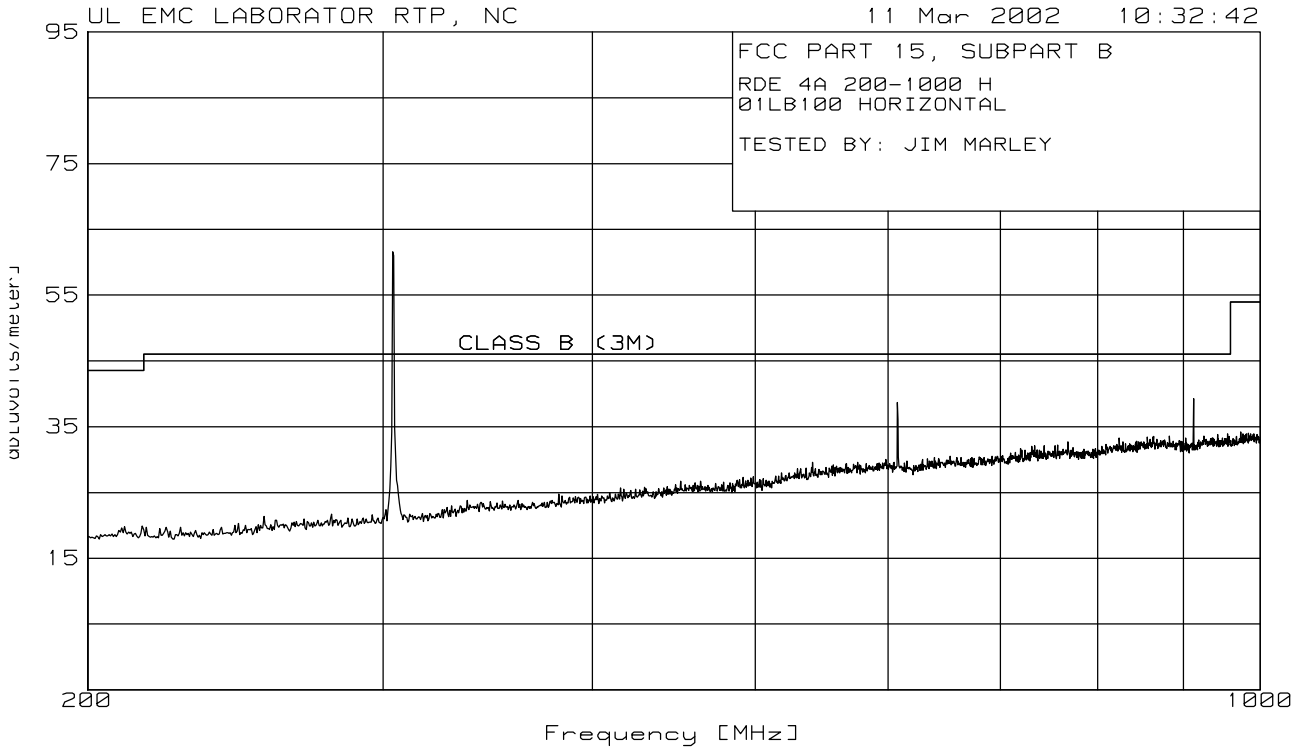




Test 4, Item A (Transmitter Active) - Peak Plot (Amplitude in dBuV/m):

Radiated Disturbance Emissions - 30 MHz to 1000 MHz





Test 4, Item A (Transmitter Active) - Discrete Data: Radiated Disturbance Emissions - 30 MHz to 1000 MHz

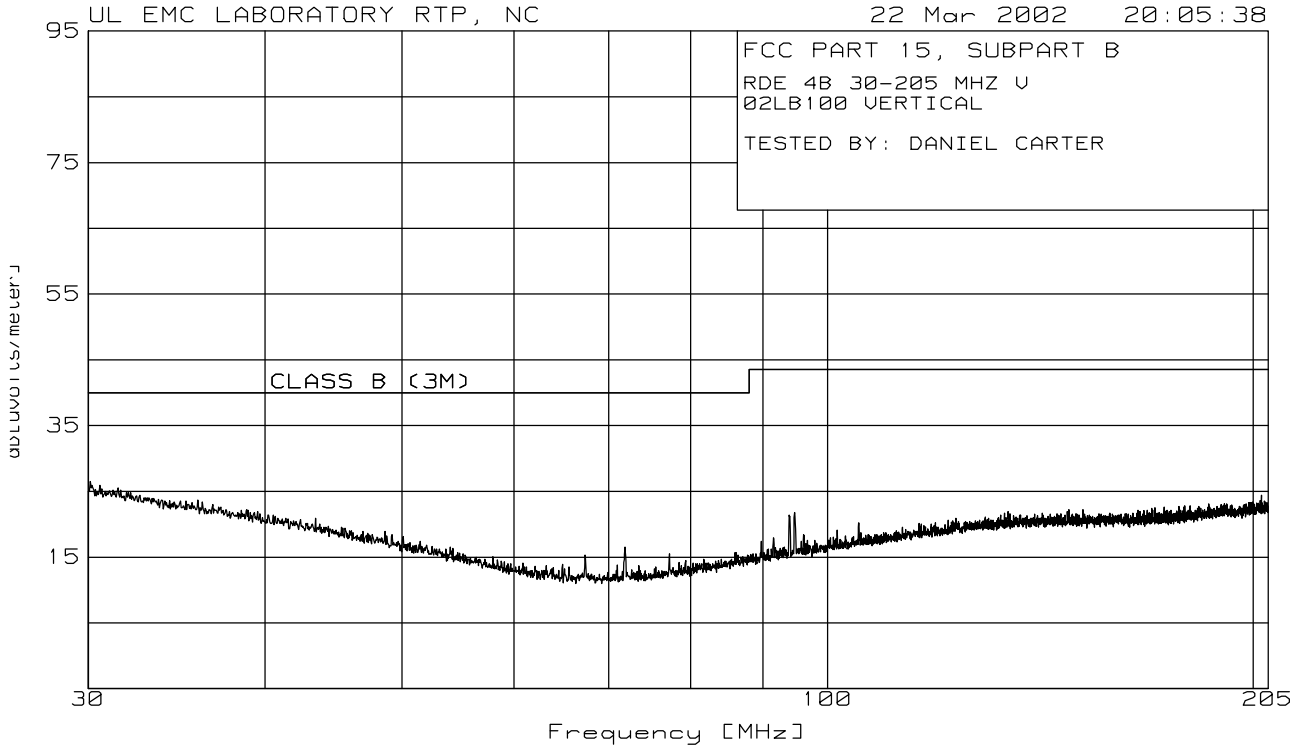
Test Item (A-Z)	Detector Type* (P/Q/A)	Antenna Polarity (H/V)	Antenna Distance (m)	Measured Frequency (MHz)	Measured Value (dBµV)	Equipment Correction (dB/m)	Corrected Value (dBµV/m)	Specified Limit** (dBµV/m)	Spec Margin (dB)	See Comment (#) ***
A	P	H	3	303.948	75.8	-14.2	61.6	94.9	-33.3	
A	A	H	3	303.948	66.4	-14.2	52.2	74.9	-22.7	
A	P	H	3	607.796	44.5	-5.8	38.7	74.9	-36.2	
A	A	H	3	607.796	35.1	-5.8	29.3	54.9	-25.6	
A	P	H	3	607.796	44.5	-5.8	38.7	46.0	-7.3	Restr Band
A	P	H	3	912.444	42.1	-2.8	39.3	74.9	-35.6	
A	A	H	3	912.444	32.7	-2.8	29.9	54.9	-25.0	
A	P	V	3	303.948	73.8	-14.2	59.6	94.9	-35.3	
A	A	V	3	303.948	64.4	-14.2	50.2	74.9	-24.7	
A	P	V	3	607.796	39.6	-5.8	33.8	74.9	-41.1	
A	A	V	3	607.796	30.2	-5.8	24.4	54.9	-30.5	
A	P	V	3	607.796	39.6	-5.8	33.8	46.0	-12.2	Restr Band
A	P	V	3	912.444	36.8	-2.8	34.0	74.9	-40.9	
A	A	V	3	912.444	27.4	-2.8	24.6	54.9	-30.3	

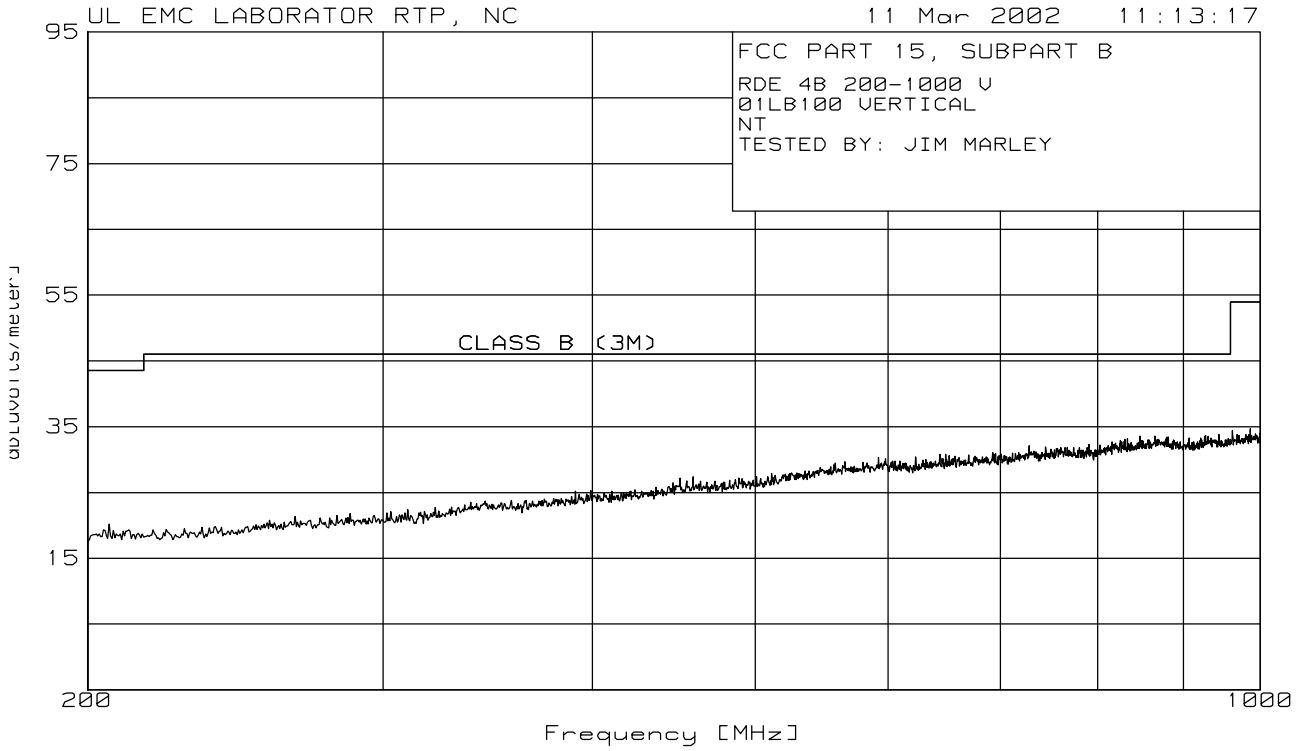
Notes: * P = Peak, Q = Quasi-Peak, A = Average.
** The Specified Limit is for the type measurement indicated. When Peak data is indicated, the tightest limit applicable is indicated.
*** # = See Comment Number Under This Test's Comments Section.

Sample Calculation: Corrected Value = Measured Value + Equipment Correction
Equipment Correction = Antenna Factor (dB/m) + Cable Loss (dB) - Amplifier Gain (dB, if used)

Test 4, Item B (Transmitter Ready) - Peak Plot (Amplitude in dBuV/m):

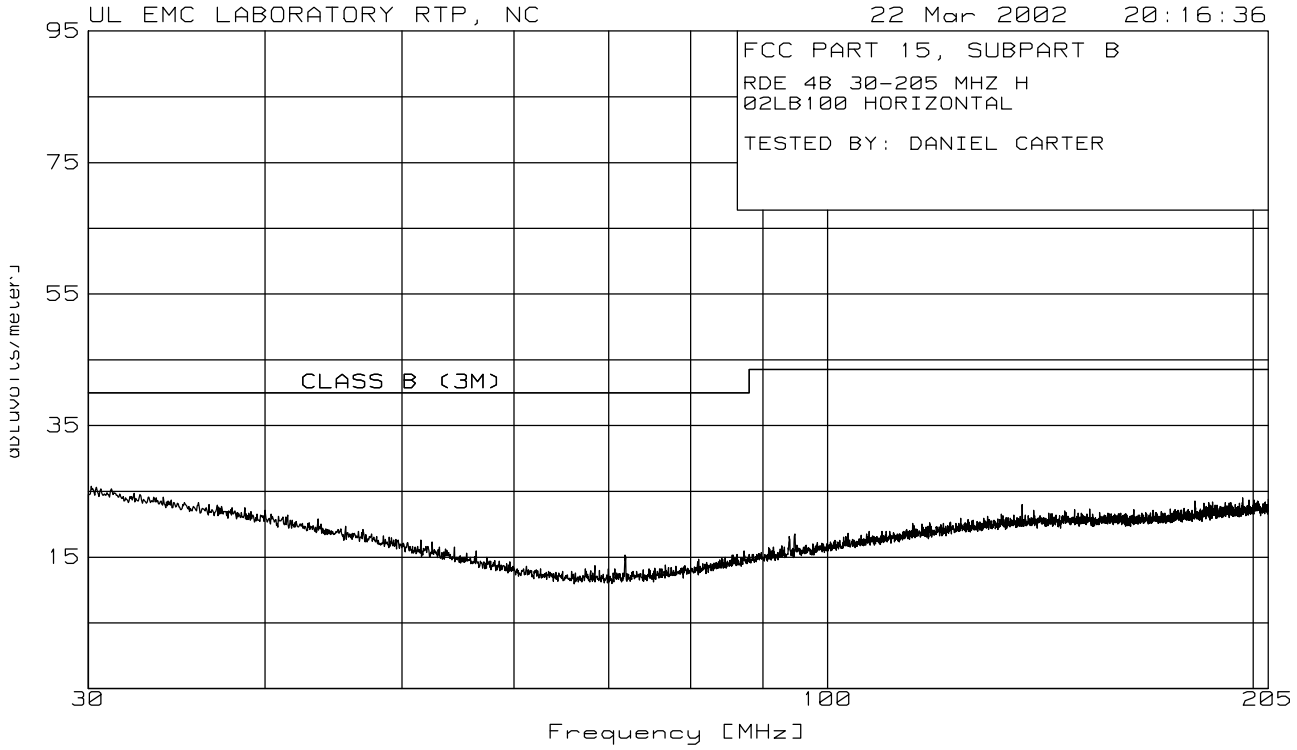
Radiated Disturbance Emissions - 30 MHz to 1000 MHz

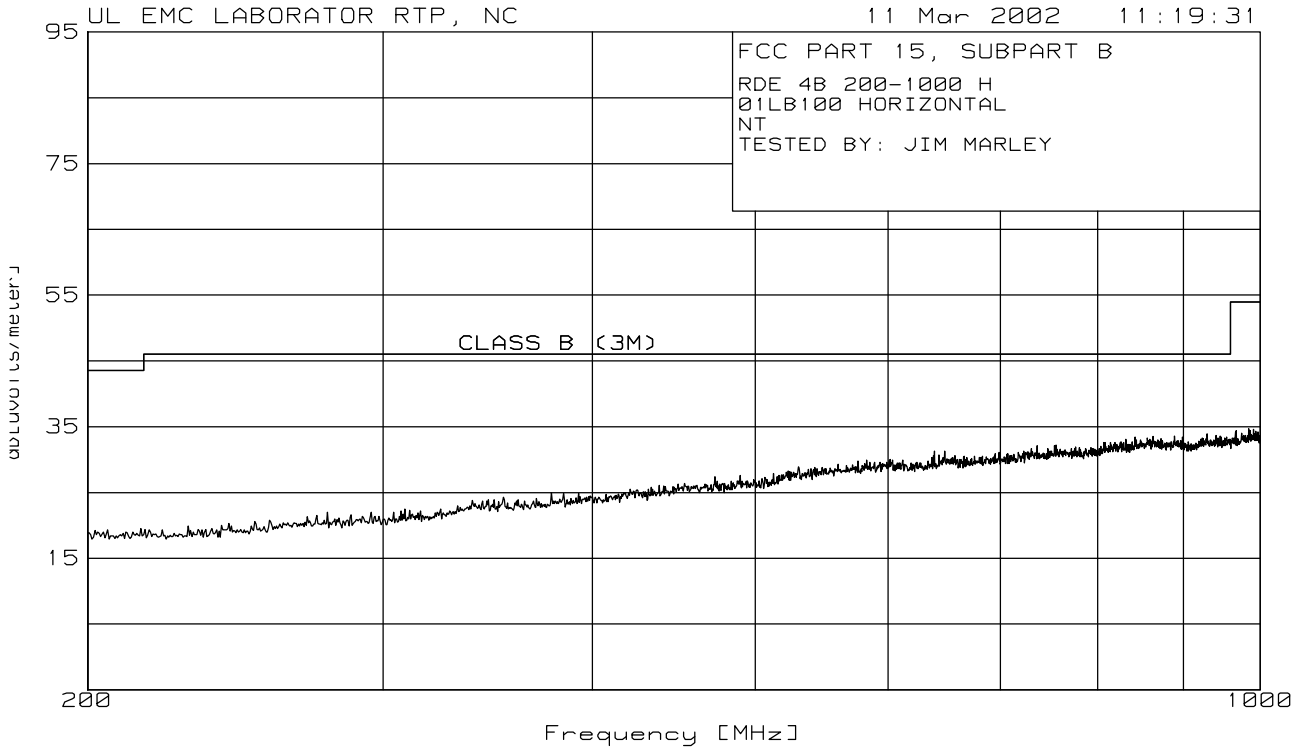




Test 4, Item B (Transmitter Ready) - Peak Plot (Amplitude in dBuV/m):

Radiated Disturbance Emissions - 30 MHz to 1000 MHz





Test 5: Radiated Disturbance Emissions - Above 1 GHz

Test Requirement: 47 CFR Part 15, Subpart C

Test Specification: 47 CFR Part 15, Subpart C, Section 15.209 and 15.231

Test Procedure:

The test was performed in accordance with the Test Requirement and Specification and configured as noted in the Test Setup. The EUT was placed inside the anechoic chamber with a fresh battery installed. A peak measurement was first made by scanning the entire test frequency range and maximizing the EUT emissions by rotating the EUT and raising the antenna height from 1 to 4 meters above the ground reference plane. Then, a measurement was taken for all peak emissions to verify each were below the Test Limits.

Radiated Disturbance Limits for Manually Operated Transmitters - Section 15.231
at a measurement distance of 3 meters

Frequency Range MHz	Field Strength of Fundamental μV/m	Field Strength of Fundamental (dBμV/m)	Field Strength of Fundamental μV/m	Field Strength of Fundamental (dBμV/m)
40.66 to 40.70	2250	67.04	225	47.04
70 to 130	1250	61.94	125	41.94
130 to 174	1250 to 3750	61.94 to 71.48	125 to 375	41.94 to 51.48
174 to 260	3750	71.48	375	51.48
260 to 470	3750 to 12,500	71.48 to 81.93	375 to 1250	51.48 to 61.93
above 470	12,500	81.93	1250	61.93

** Linear Interpolations

Test Clarifications (Specific Limits for this Transmit Frequency):

At fundamental frequency, 350 MHz, Average field strength limit = 7500 μV/m (77.5 dBμV/m).
Harmonic field strength limit = 750 μV/m (57.5 dBμV/m).
Per 15.35(b) peak limit is 20 dB above average limit for each frequency.

Test Deviations:

None

Test Setup: Only the following ports were tested. See EUT Information for details.

Test Item	Port #	Port Name	EUT Operation Mode	EUT Configuration	Power Interface
A	0	Enclosure	1	1	1
B	0	Enclosure	2	1	1

Test 5 - Results: Radiated Disturbance Emissions - Above 1 GHz

Test Results Summary:

Test Item	Test Location	Humidity (%)	Temperature (ºC)	Pressure (kPa)	Pass/Fail (P/F)	Date Completed	Comment #
A	A	44.0	23.0	100.1	P	3/11/02	
B	A	44.0	23.0	100.1	P	3/11/02	

The EUT was considered to **Pass** the Requirements.

Comments:

Comment #	Description
1	Average emissions were calculated using peak-to-average ratio of 9.4 dB determined in Test 2.

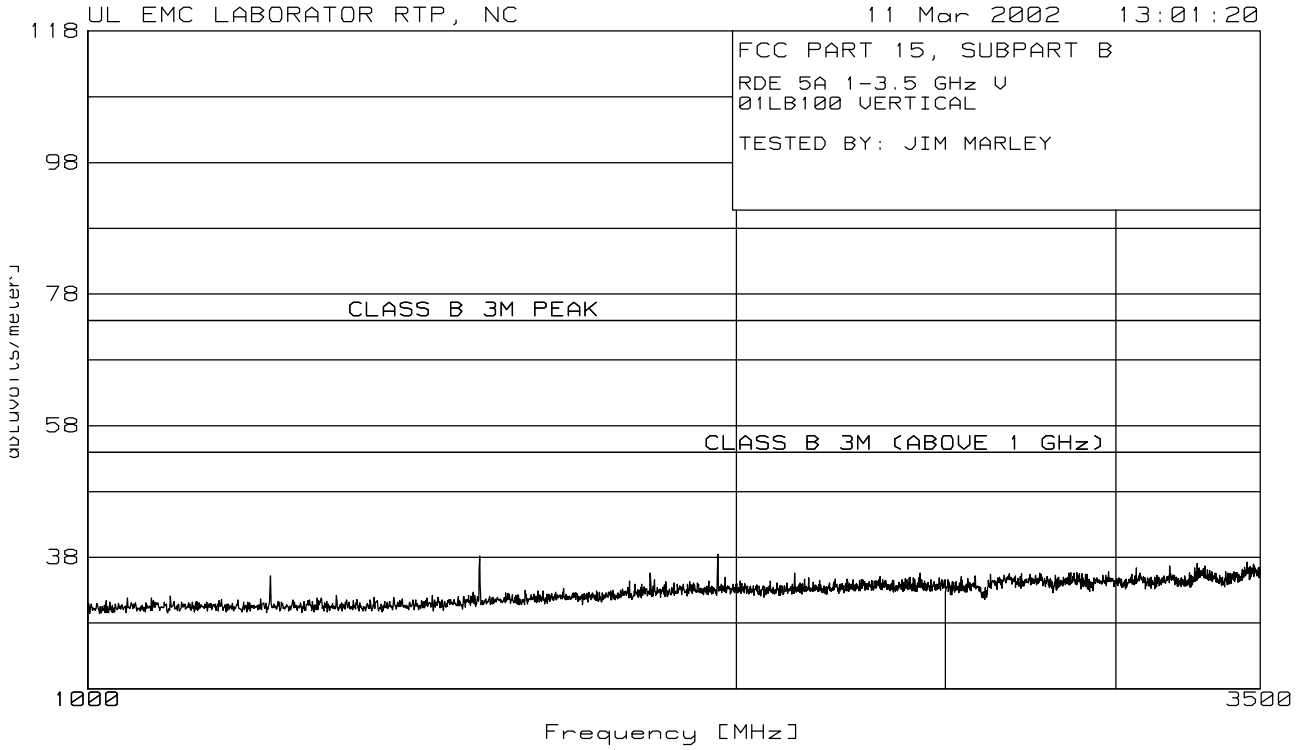
Test 5 - Test Equipment Used: Radiated Disturbance Emissions - Above 1 GHz

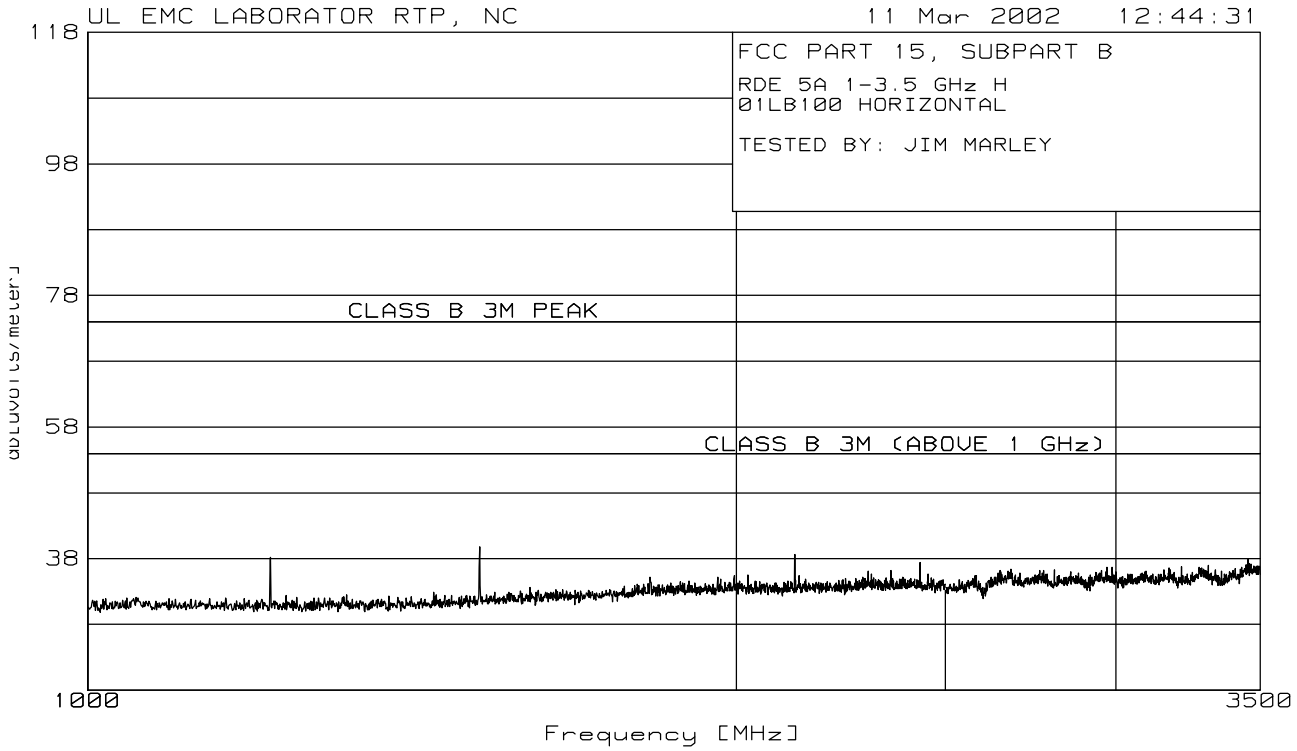
Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
AT0032	Horn Antenna, 1 to 18 GHz	EMC Test Systems	3115	3/5/01	3/31/02
ATA123	27ft N-male to N-male Low Loss Coax	Micro-coax	Low-loss cable	8/1/01	8/31/02
ATA095	6 ft, N male - N male	Micro-Coax	Coaxial Cable	4/26/01	4/30/02
ATA108	10m, N male - N male	UL	RG214	8/23/01	8/31/02
HI0034	Environmental Indicator	Cole-Palmer	99760-00	10/1/01	10/31/02
SAR001	Spectrum Analyzer / Receiver	Hewlett-Packard	8572A	12/3/01	12/31/02

The above equipment has been calibrated and is within the manufacturer's published limit of error. Calibration is traceable to the National Institute of Standards & Technology(NIST) and conforms to ANSI/NCSL Z540-1-1994.

Test 5, Item A (Transmitter Active) - Peak Plot (Amplitude in dBuV/m):

Radiated Disturbance Emissions - Above 1 GHz





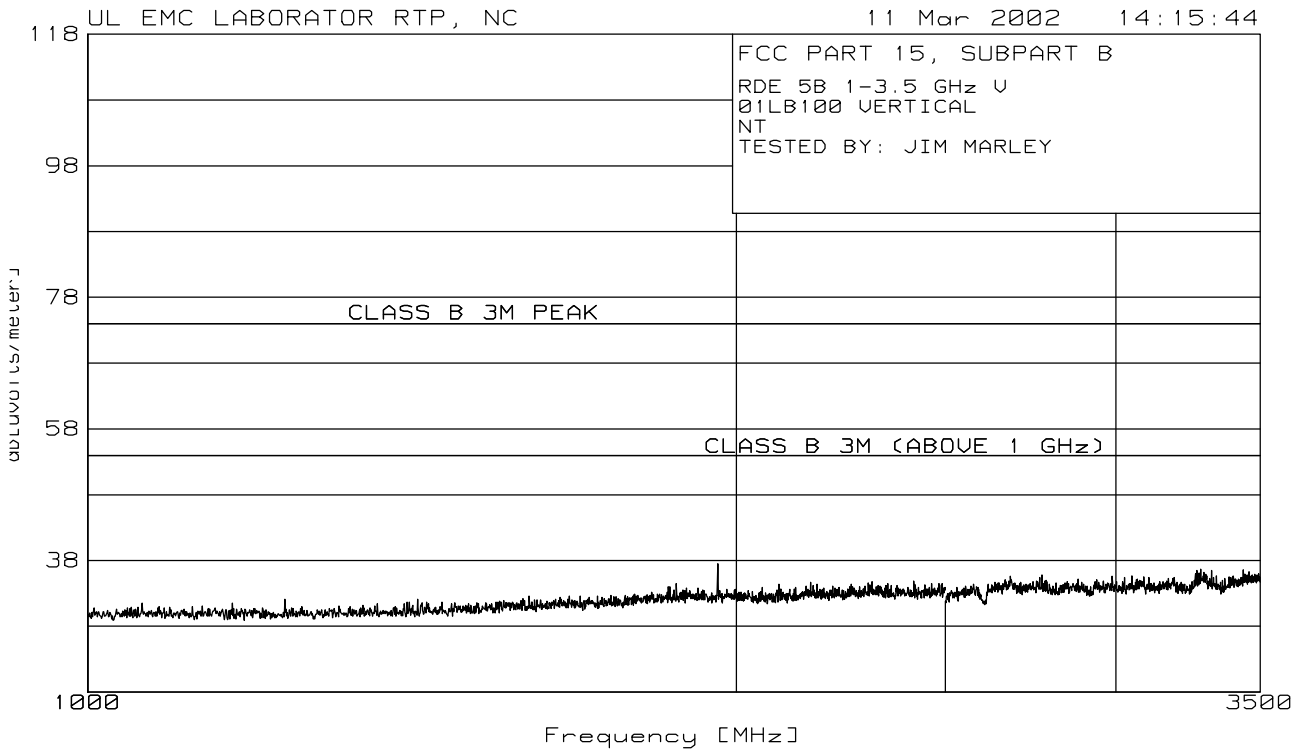
Test 5, Item A (Transmitter Active) - Discrete Data: Radiated Disturbance Emissions - Above 1 GHz

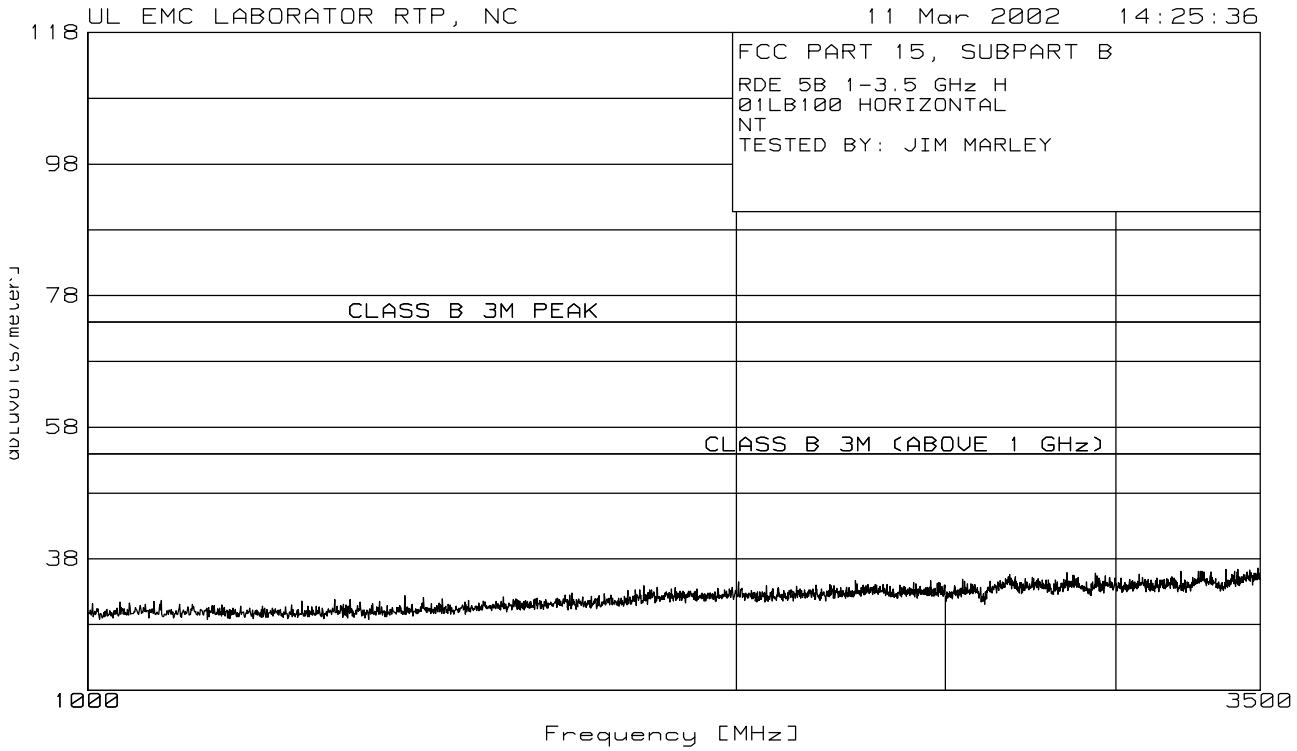
Test Item (A-Z)	Detector Type* (P/Q/A)	Antenna Polarity (H/V)	Antenna Distance (m)	Measured Frequency (MHz)	Measured Value (dBµV)	Equipment Correction (dB/m)	Corrected Value (dBµV/m)	Specified Limit** (dBµV/m)	Spec Margin (dB)	See Comment (#) ***
A	P	H	3	1215.892	50.6	-12.4	38.2	74.9	-36.7	
A	A	H	3	1215.892	41.2	-12.4	28.8	54.0	-25.2	Restr Band
A	P	H	3	1520.240	50.6	-10.8	39.8	74.9	-35.1	
A	A	H	3	1520.240	41.2	-10.8	30.4	54.0	-23.6	Restr Band
A	P	H	3	1823.838	44.3	-9.1	35.2	74.9	-39.7	
A	A	H	3	1823.838	34.9	-9.1	25.8	54.9	-29.1	
A	P	H	3	2128.936	46.2	-7.6	38.6	74.9	-36.3	
A	A	H	3	2128.936	36.8	-7.6	29.2	54.9	-25.7	
A	P	H	3	2433.283	43.9	-6.5	37.4	74.9	-37.5	
A	A	H	3	2433.283	34.5	-6.5	28.0	54.9	-26.9	
A	P	H	3	2737.000	41.3	-5.1	36.2	74.9	-38.7	
A	A	H	3	2737.000	31.9	-5.1	26.8	54.0	-27.2	Restr Band
A	P	H	3	3040.000	39.4	-3.7	35.7	74.9	-39.2	
A	A	H	3	3040.000	30.0	-3.7	26.3	54.9	-28.6	
A	P	V	3	1215.892	47.6	-12.4	35.2	74.9	-39.7	
A	A	V	3	1215.892	38.2	-12.4	25.8	54.0	-28.2	Restr Band
A	P	V	3	1520.240	49.0	-10.8	38.2	74.9	-36.7	
A	A	V	3	1520.240	39.6	-10.8	28.8	54.0	-25.2	Restr Band
A	P	V	3	1823.838	44.7	-9.1	35.6	74.9	-39.3	
A	A	V	3	1823.838	35.3	-9.1	26.2	54.9	-28.7	
A	P	V	3	2128.936	43.2	-7.6	35.6	74.9	-39.3	
A	A	V	3	2128.936	33.8	-7.6	26.2	54.9	-28.7	
A	P	V	3	2433.283	42.1	-6.5	35.6	74.9	-39.3	
A	A	V	3	2433.283	32.7	-6.5	26.2	54.9	-28.7	
A	P	V	3	2737.000	40.6	-5.2	35.4	74.9	-39.5	
A	A	V	3	2737.000	31.2	-5.2	26.0	54.9	-28.9	Restr Band
A	P	V	3	3040.000	38.4	-3.7	34.7	74.9	-40.2	
A	A	V	3	3040.000	29.0	-3.7	25.3	54.9	-29.6	
A	P	V	3	1960.270	46.9	-8.4	38.5	54.0	-15.5	Ambient

Notes: * P = Peak, Q = Quasi-Peak, A = Average.
** The Specified Limit is for the type measurement indicated. When Peak data is indicated, the tightest limit applicable is indicated.
*** # = See Comment Number Under This Test's Comments Section.

Sample Calculation: Corrected Value = Measured Value + Equipment Correction
Equipment Correction = Antenna Factor (dB/m) + Cable Loss (dB) - Amplifier Gain (dB, if used)

Test 5, Item B (Transmitter Ready) - Peak Plot (Amplitude in dBuV/m): Radiated Disturbance Emissions





Note: No transmitter spurious noted in Item B. Emission at 1960 MHz is from outside ambient coupling to measurement cables.

Test 5, Item A - Test Set-Up Photo - Maximum Emissions Configuration:

Radiated Disturbance Emissions - Above 1 GHz