



**FCC 47 CFR PART 15 SUBPART C
INDUSTRY CANADA RSS-210 ISSUE 8**

CERTIFICATION TEST REPORT

FOR

CONSOLE WIRELESS REMOTE CONTROL

MODEL NUMBER: 420128

FCC ID: A94420128

IC: 3232A-420128

REPORT NUMBER: R11244355-E1

ISSUE DATE: 2016-08-24

Prepared for
**BOSE CORP.
100 THE MOUNTAIN ROAD
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Revision History

<u>Ver.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
1	2016-07-21	Initial Issue	Brian Kiewra
2	2016-08-03	Revised antenna gain of the EUT in Section 5.3.	Brian Kiewra
3	2016-08-04	Revised antenna gain of the EUT in Section 5.3.	Brian Kiewra
4	2016-08-19	Revised frequency range in max. field strength table.	Jeff Moser
5	2016-08-23	Added Measurement Method section (Sec. 7), added measurement method reference to test modules, expanded rule part references under Radiated Emissions and added a Radiated Emissions test procedure in Section 8.2.	Jeff Moser
6	2016-08-24	Revised channel frequencies.	Jeff Moser

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS	4
2. TEST METHODOLOGY	5
3. FACILITIES AND ACCREDITATION	5
4. CALIBRATION AND UNCERTAINTY	5
4.1. <i>MEASURING INSTRUMENT CALIBRATION</i>	5
4.2. <i>SAMPLE CALCULATION</i>	6
4.3. <i>MEASUREMENT UNCERTAINTY</i>	6
5. EQUIPMENT UNDER TEST	7
5.1. <i>DESCRIPTION OF EUT</i>	7
5.2. <i>FIELD STRENGTH</i>	7
5.3. <i>DESCRIPTION OF AVAILABLE ANTENNAS</i>	7
5.4. <i>SOFTWARE AND FIRMWARE</i>	7
5.5. <i>WORST-CASE CONFIGURATION AND MODE</i>	8
5.6. <i>DESCRIPTION OF TEST SETUP</i>	9
6. TEST AND MEASUREMENT EQUIPMENT	12
7. MEASUREMENT METHODS	15
8. TEST RESULTS	16
8.1. <i>ANTENNA PORT RESULTS</i>	16
8.1.1. <i>20 dB BANDWIDTH</i>	16
8.1.2. <i>99% BANDWIDTH</i>	19
8.2. <i>RADIATED EMISSIONS</i>	22
8.2.1. <i>FUNDAMENTAL FREQUENCY RADIATED EMISSION</i>	24
8.2.2. <i>TRANSMITTER RESTRICTED BAND EDGES</i>	30
8.2.3. <i>HARMONICS AND SPURIOUS EMISSIONS ABOVE 1GHz</i>	36
8.2.4. <i>WORST-CASE BELOW 1 GHz</i>	40
8.3. <i>AC POWER LINE CONDUCTED EMISSIONS</i>	42
9. SETUP PHOTOS	45

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: BOSE CORP.
100 THE MOUNTAIN ROAD
FRAMINGHAM, MASSACHUSETTS, 01701, USA

EUT DESCRIPTION: CONSOLE WIRELESS REMOTE CONTROL

MODEL: 420128

SERIAL NUMBER: 073247961390014AE (Radiated & Line-conducted sample);
0115 (Antenna-port sample)

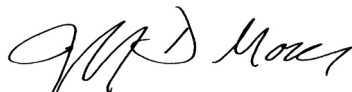
DATE TESTED: 2016-05-09 through 2016-07-19

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-210 Issue 8 Annex 2.9	Pass
INDUSTRY CANADA RSS-GEN Issue 4	Pass

UL LLC tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL LLC based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

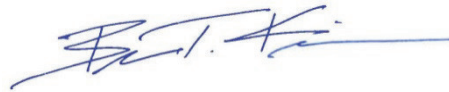
Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released
For UL LLC By:



Jeff Moser
EMC Program Manager
UL – Consumer Technology Division

Prepared By:



Brian Kiewra
WiSE Engineer
UL – Consumer Technology Division

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2013, FCC CFR 47 Part 2, FCC CFR 47 Part 15, RSS-GEN Issue 4, and RSS-210 Issue 8.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 12 Laboratory Dr., Research Triangle Park, NC 27709, USA and 2800 Suite B, Perimeter Park Drive, Morrisville, NC 27560.

12 Laboratory Dr., RTP, NC 27709	
<input type="checkbox"/>	Chamber A
<input type="checkbox"/>	Chamber C

2800 Suite B Perimeter Park Dr., Morrisville, NC 27560	
<input checked="" type="checkbox"/>	Chamber NORTH
<input checked="" type="checkbox"/>	Chamber SOUTH

The onsite chambers are covered under Industry Canada company address code 2180C with site numbers 2180C -1 through 2180C-4, respectively.

UL LLC (RTP) is accredited by NVLAP, Laboratory Code 200246-0. The full scope of accreditation can be viewed at <http://www.nist.gov/nvlap/>.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamp Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Total RF power, conducted	± 0.45
RF power density, conducted	± 1.50
Spurious emissions, conducted	± 2.94
All emissions, radiated up to 26 GHz	± 5.36
Temperature	± 0.07
Humidity	± 2.26
DC and low frequency voltages	± 1.27
Conducted Emissions (0.150-30MHz)	± 2.37

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a Console Wireless Remote Control.

5.2. FIELD STRENGTH

The transmitter has a maximum field strength as follows:

Frequency Range (MHz)	Mode	Peak Field Strength (dBuV/m)	AVG Field Strength (dBuV/m)
2401.8 – 2482.1	MSK	97	68.8

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an etched antenna on the printed circuit board, with a maximum gain of 4.42 dBi.

5.4. SOFTWARE AND FIRMWARE

The EUT contains no writeable firmware. All control of the radio is from firmware in the host console. Test commands are included in the console firmware and accessed through a diagnostic serial port. The console firmware revision at the time of test was 0.6.3.

5.5. WORST-CASE CONFIGURATION AND MODE

Radiated emission and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

The fundamental of the EUT was investigated in three orthogonal orientations X,Y,Z, it was determined that X-Axis orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X-Axis orientation.

Worst-case data rates as provided by the client were:

MSK, 0.5 Mbps

Radiated emissions for EUT with antenna was performed and passed; therefore, antenna port spurious was not performed.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Laptop	Lenovo	T440	RTP1014PC015NUR	NA
Keyspan USB to Serial Adaptor	Keyspan	USA-19HS	250ATRCU791101341	NA

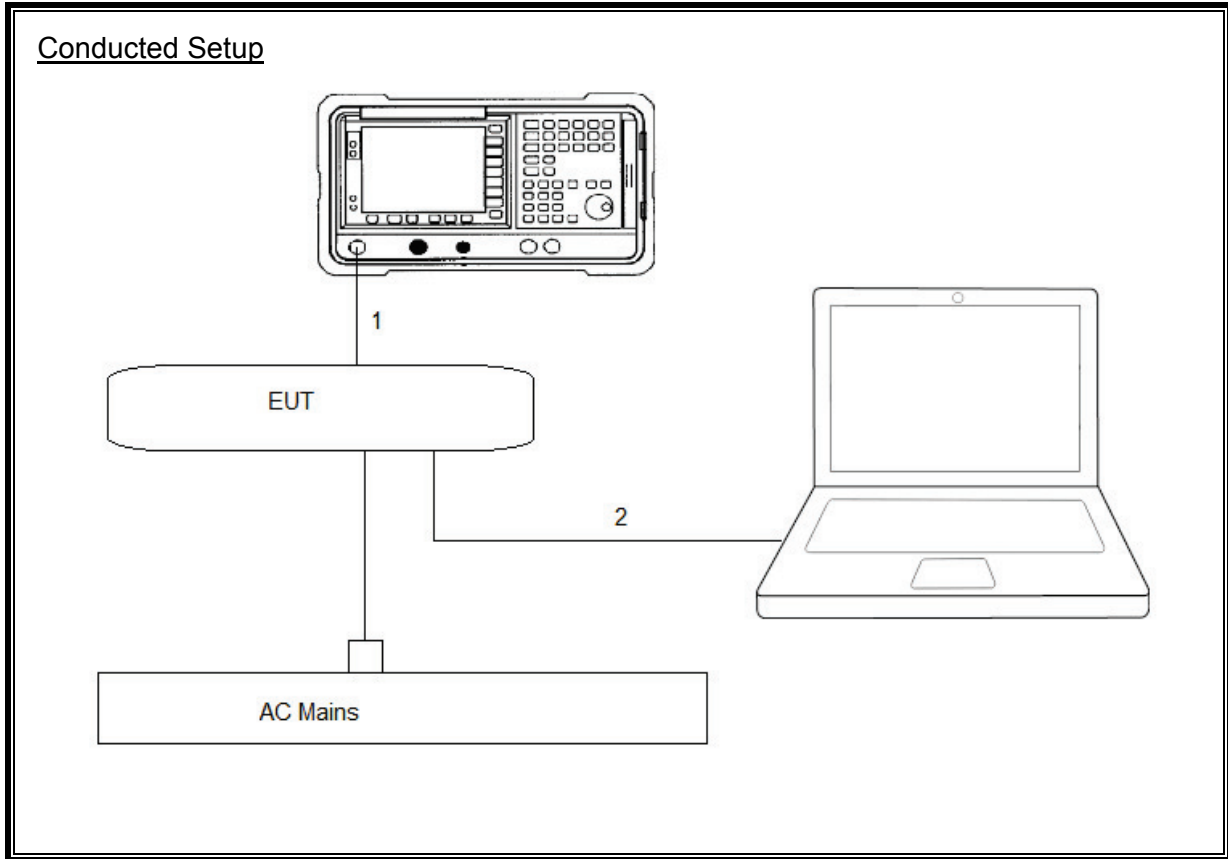
I/O CABLES

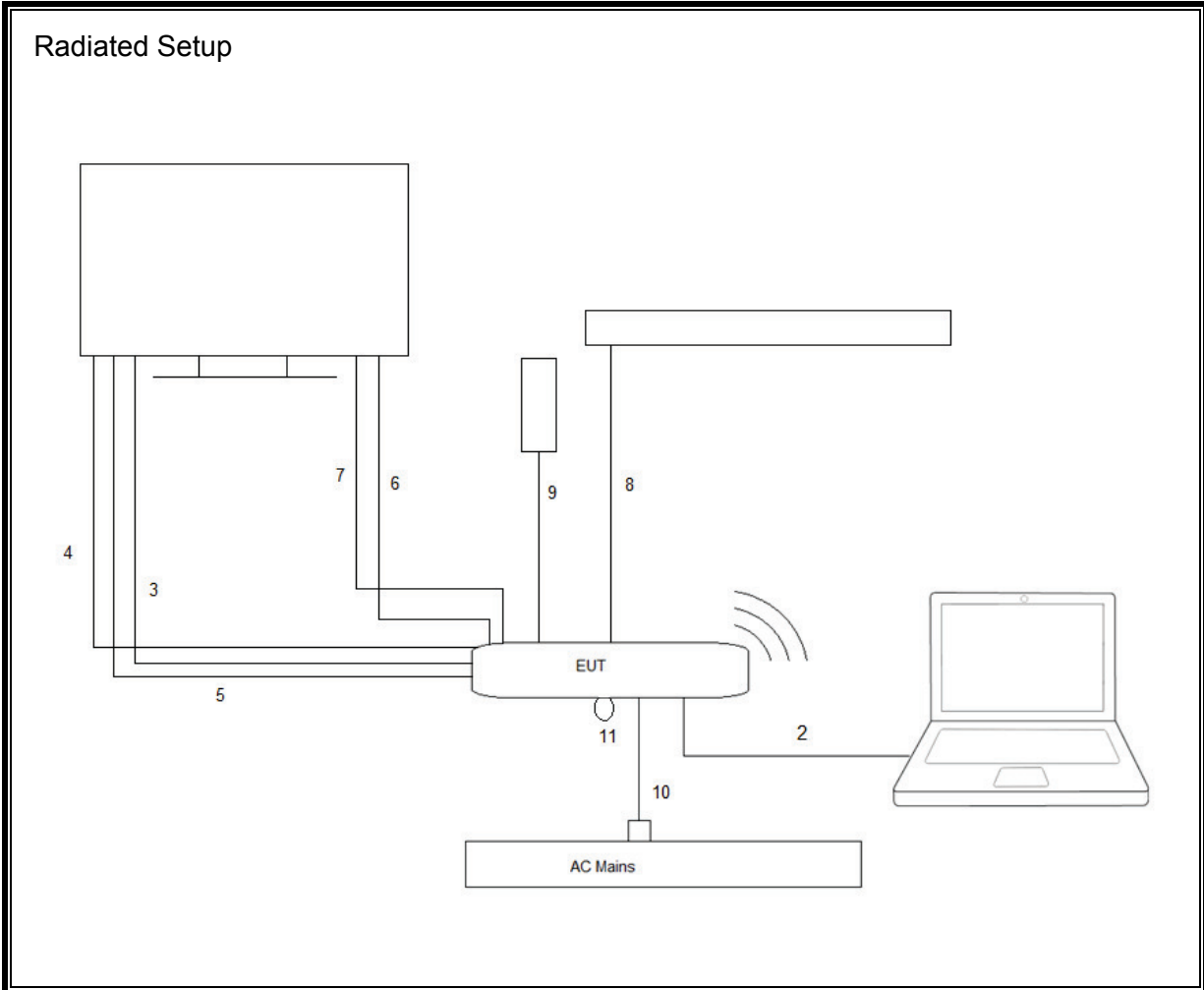
I/O Cable List						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	Antenna	1	RF	RF	0.1m	NA
2	Data	2	Serial	Serial to USB	>1m	NA
3	HDMI Out	1	HDMI	HDMI	<1m	TV
4	HDMI In	1	HDMI	HMDI	>1m	TV
5	Coax In	1	YVideo	Coax	>1m	TV
6	Analog In	1	Audio	Audio	>1m	TV
7	Acoustimas	1	PC/DVI	Audio	>1m	TV
8	Front Spkr	1	Speaker	Audio	>1m	Sound Bar
9	Rear Spkr	1	Speaker	Audio	>1m	Speaker
10	Mains	1	AC Mains	Power	>1m	
11	ENET	1	RJ45	CAT5UTP	>1m	loopback

TEST SETUP

Test software exercised the radio card.

SETUP DIAGRAM FOR TESTS





6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville - North Chamber)

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
AT0074	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2016-06-07	2017-06-30
AT0072	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2016-03-07	2017-03-31
AT0076	Horn Antenna, 18-26.5GHz	ARA	MWH-1826/B	2015-08-27	2016-08-31
N-SAC02	Gain-loss string: 30-1000MHz	Various	Various	2016-06-26	2017-06-30
N-SAC03	Gain-loss string: 1-18GHz	Various	Various	2015-09-29	2016-09-30
N-SAC04	Gain-loss string: 18-40GHz	Various	Various	2016-04-27	2017-04-30
SA0027	Spectrum Analyzer	Agilent	N9030A	2016-02-08	2017-02-08
SA0026 (18-40GHz RSE)	Spectrum Analyzer	Agilent	N9030A	2016-02-24	2017-02-28
SOFTEMI	EMI Software	UL	Version 9.5	NA	NA
HI0078	Temp/Humid/Pressure Meter	Springfield Precision	PreciseTemp	2016-06-13	2017-06-13

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville - South Chamber)

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
AT0079	Active Loop Antenna	ETS-Lindgren	6502	2015-12-08	2016-12-31
S-SAC01	Gain-loss string: 0.009-30MHz	Various	Various	2015-10-07	2016-10-31
SA0025	Spectrum Analyzer	Agilent	N9030A	2016-03-17	2017-03-31
SOFTEMI	EMI Software	UL	Version 9.5	NA	NA
HI0050	Temp/Humid/Pressure Meter	Cole-Parmer	99760-00	2015-07-01	2016-07-31

Test Equipment Used - Wireless Conducted Measurement Equipment

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
Conducted Room 1					
SA0019	Spectrum Analyzer	Agilent Technologies	E4446A	2015-09-02	2016-09-30
PWM004	RF Power Meter	Keysight Technologies	N1911A	2016-06-22	2017-06-22
PWS004	Peak and Avg Power Sensor, 50MHz to 6GHz	Keysight Technologies	E9323A	2016-06-22	2017-06-22
HI0079	Temp/Humid/Pressure Meter	Springfield	PreciseTemp	2015-07-1	2016-07-31
MM0167	True RMS Multimeter	Agilent	U1232A	2015-08-17	2016-08-31
76022	DC Regulated Power Supply	CircuitSpecialists.Com	CSI3005X5	N/A	N/A
Conducted Room 2					
SA0020	Spectrum Analyzer	Agilent Technologies	E4446A	2016-03-22	2017-03-31
PWM003	RF Power Meter	Keysight Technologies	N1911A	2016-06-21	2017-06-21
PWS003	Peak and Avg Power Sensor, 50MHz to 6GHz	Keysight Technologies	E9323A	2016-06-21	2017-06-21
1100502	Temp/Humid Chamber	Cincinnati Sub-Zero	ZPH-8-3.5-SCT/AC	2016-06-06	2017-06-06
HI0080	Temp/Humid/Pressure Meter	Springfield	PreciseTemp	2015-07-01	2016-07-31
MM0168	True RMS Multimeter	Agilent	U1232A	2015-08-17	2016-08-31
76021	DC Regulated Power Supply	CircuitSpecialists.Com	CSI3005X5	N/A	N/A

Test Equipment Used - Line-Conducted Emissions – Voltage (Morrisville – Conducted 1)

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
CBL077	Coax cable, RG223, N-male to BNC-male, 20-ft.	Pasternack	PE3476-240	2016-06-15	2017-06-30
HI0080	Temp/Humid/Pressure Meter	Springfield Precision	PreciseTemp	2015-07-01	2016-07-31
LISN003	LISN, 50-ohm/50-uH, 2-conductor, 25A	Fischer Custom Com.	FCC-LISN-50-25-2-01-550V	2015-08-24	2016-08-31
LISN008	LISN, 50-ohm/50-uH, 2-conductor, 25A (For support gear only.)	Solar Electronics	8012-50-R-24-BNC	2015-09-03	2016-09-30
MM0167	Multi-meter	Agilent	U1232A	2015-08-17	2016-08-31
PRE0101521 (75141)	EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESCI 7	2015-08-26	2016-08-31
TL001	Transient Limiter, 0.009-30MHz	Com-Power	LIT-930A	2016-06-09	2017-06-30
PS214	AC Power Source	Elgar	CW2501M (s/n 1523A02396)	NA	NA
PS215	AC Power Source	Elgar	CW2501M (s/n 1523A02397)	NA	NA
SOFTEMI	EMI Software	UL	Version 9.5	NA	NA
	Miscellaneous (if needed)				
ATA220	ISN for Unshielded Balanced Pairs	Teseq, Inc.	ISN T8	2015-08-24	2016-08-31
TN0129	ISN for Shielded Balanced Pairs	Teseq, Inc.	ISN ST08	2015-08-24	2016-08-31
TN0145	ISN for Cat-6 Unshielded Balanced Pairs	Teseq, Inc.	ISN T8-Cat6	2015-08-25	2016-08-31
CDECABLE001	ANSI C63.4 1m extension cable.	UL	Per Annex B of ANSI C63.4	2016-06-04	2017-06-30

7. MEASUREMENT METHODS

20 dB BW: ANSI C63.10-2013, Section 6.9.2.

99% Occupied Bandwidth: ANSI C63.10-2013, Section 6.9.3.

General Radiated Emissions: ANSI C63.10:2013 Sections 6.3-6.6

Radiated Bandedge: ANSI C63.10:2013 Sections 6.10.5-6.10.6

Line Conducted Emissions: ANSI C63.10:2013 Sections 6.2

8. TEST RESULTS

8.1. ANTENNA PORT RESULTS

8.1.1. 20 dB BANDWIDTH

LIMITS

None; for reporting purposes only. Measured per ANSI 63.10: 2013, Section 6.9.2.

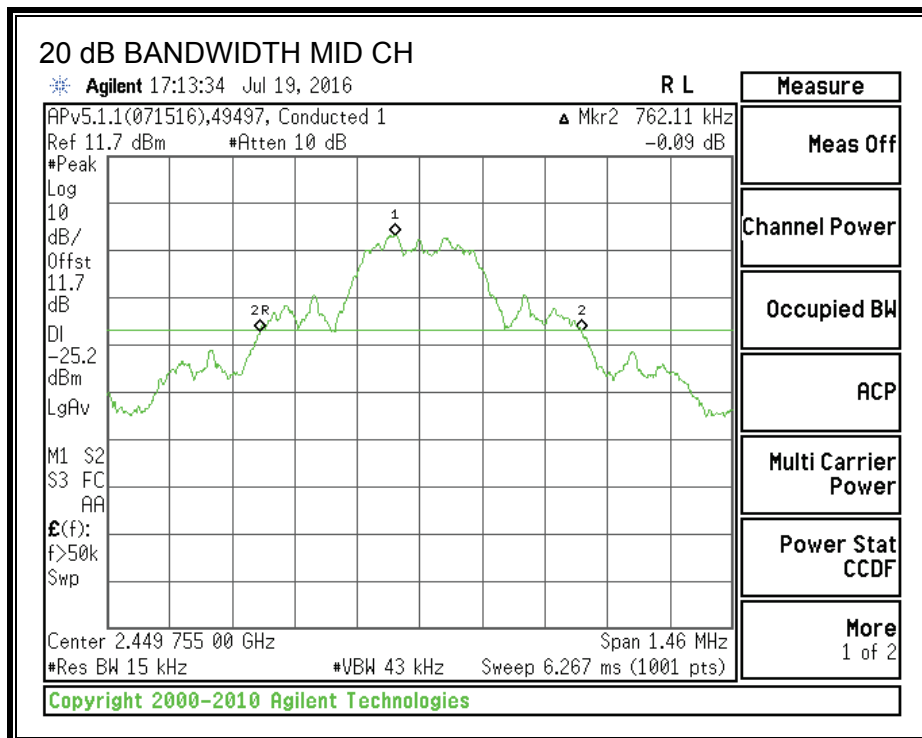
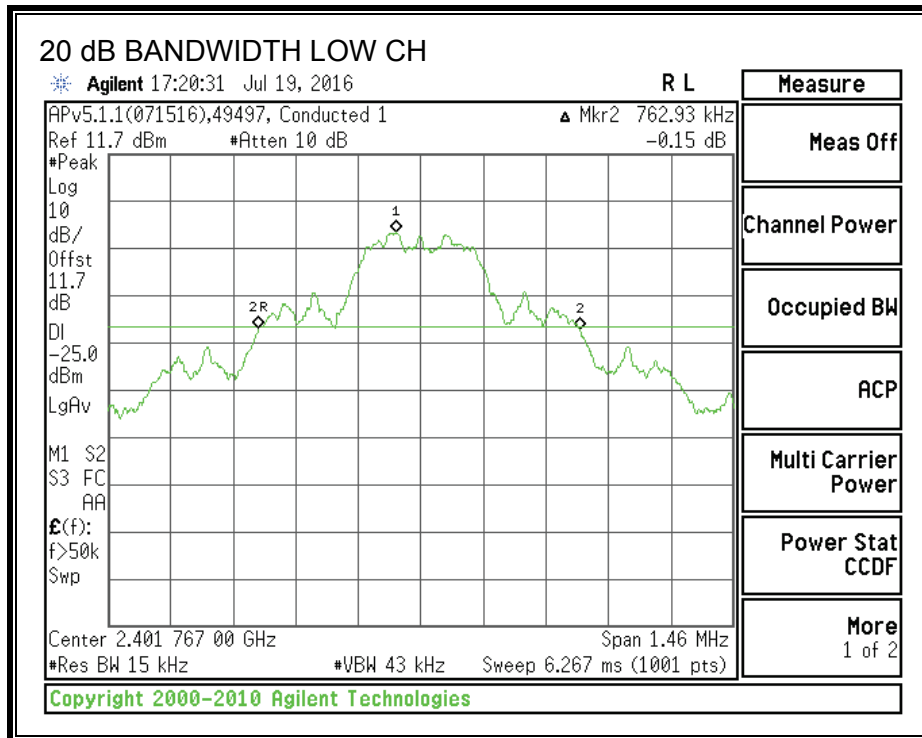
TEST PROCEDURE

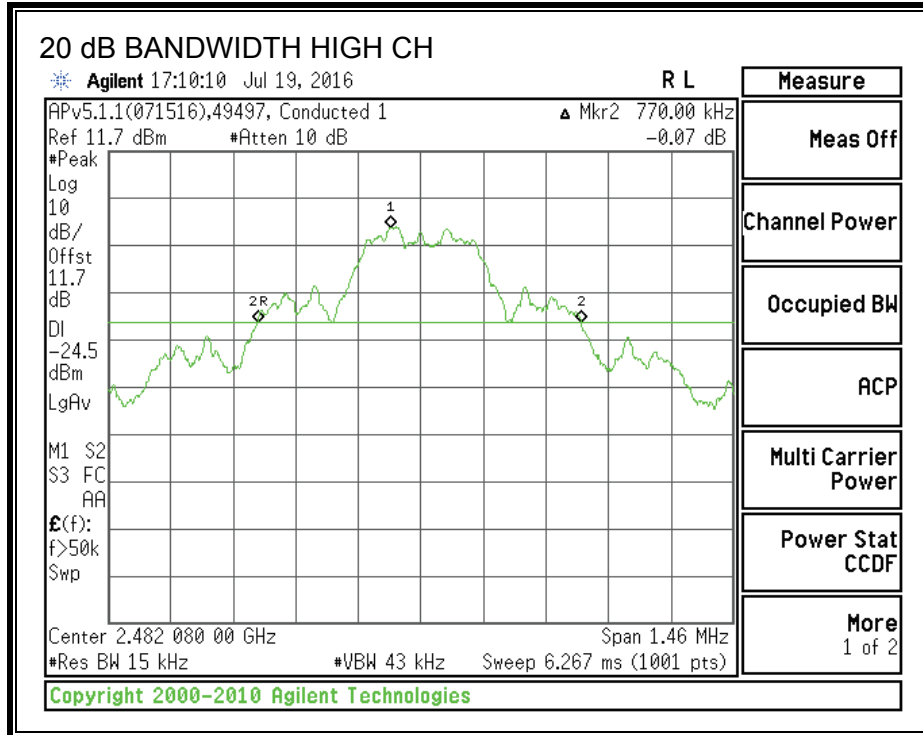
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 20 dB bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled.

RESULTS

Channel	Frequency (MHz)	20 dB Bandwidth (MHz)
Low	2401.8	0.76293
Middle	2449.8	0.76211
High	2482.1	0.77000

20 dB BANDWIDTH





8.1.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only. Measured per ANSI 63.10: 2013, Section 6.9.3.

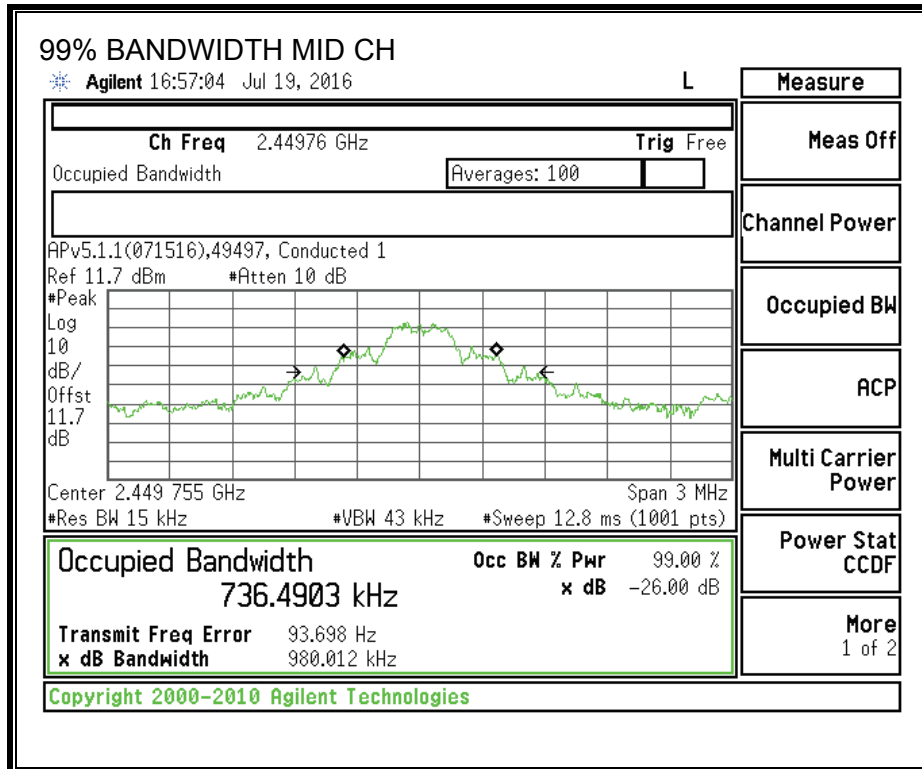
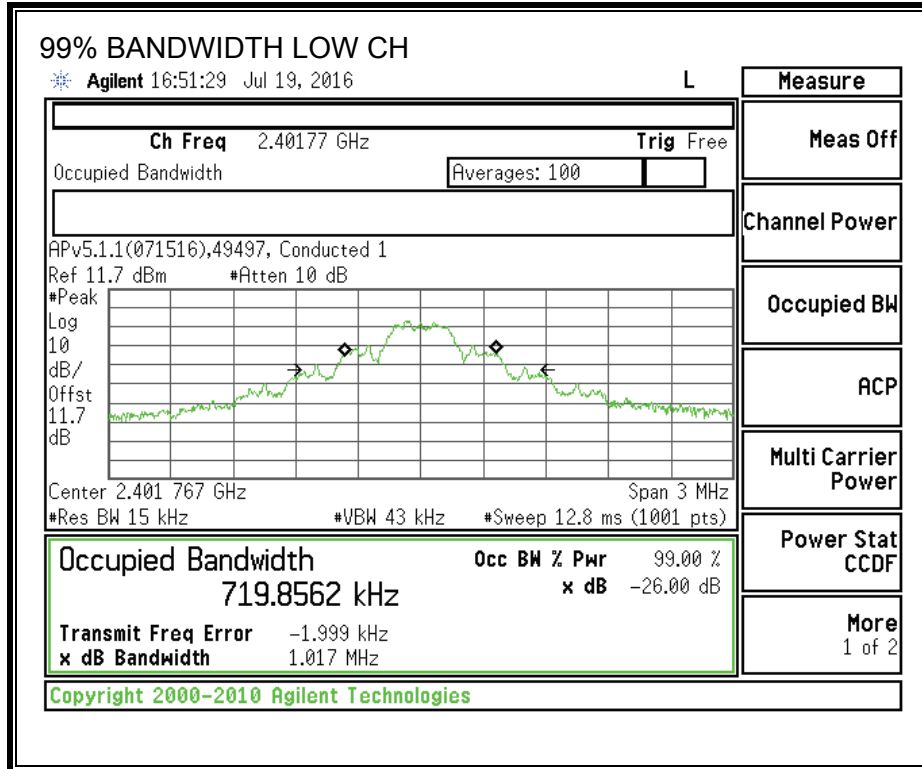
TEST PROCEDURE

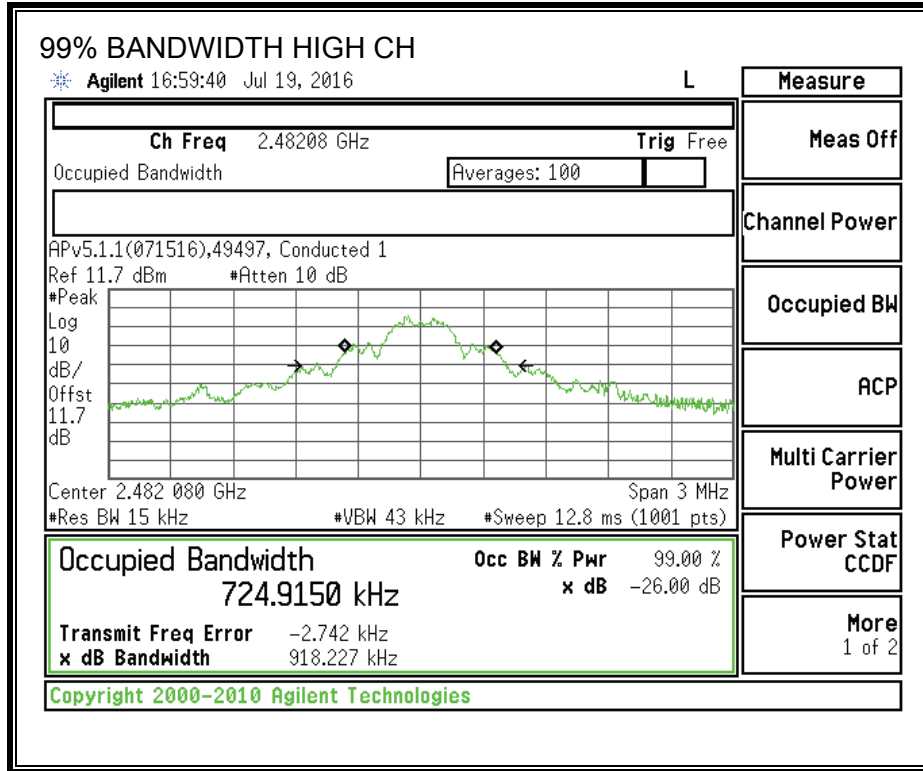
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 5% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

99% BANDWIDTH

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2401.8	0.71986
Middle	2449.8	0.73649
High	2482.1	0.72492





8.2. RADIATED EMISSIONS

LIMIT

IC RSS-210, A2.9, RSS-GEN Clause 8.9
 FCC 15.249, 15.205, 15.209.

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

(a) Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009–0.490	2400/F(kHz)	300
0.490–1.705	24000/F(kHz)	30
1.705–30.0	30	30
30–88	100 **	3
88–216	150 **	3
216–960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54–72 MHz, 76–88 MHz, 174–216 MHz or 470–806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§15.231 and 15.241.

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz measurements and 1.5 m above the ground plane for above 1GHz measurements. The antenna to EUT distance is 3 meters.

For measurements below 1 GHz the resolution bandwidth is set to 120 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements for the 30-1000 MHz range, 9 kHz for peak detection measurements or 9 kHz for quasi-peak detection measurements for the 0.15-30 MHz range and 200 Hz for peak detection measurements or 200 Hz for quasi-peak detection measurements for the 9 to 150 kHz range. Peak detection is used unless otherwise noted as quasi-peak.

For peak measurements above 1 GHz, the resolution bandwidth is set to 1 MHz and the video bandwidth is set to 3 MHz. For average measurements above 1GHz, the resolution bandwidth and video bandwidth are set as described in ANSI C63.10:2013 for the applicable measurement. For this evaluation, Voltage Averaging was used for the fundamental and restricted band edge, RMS Power Averaging was used for spurious emissions and the resolution/video bandwidth settings were 1MHz/3MHz. Please note, the marker delta method was used for 2483.5-2485.5 MHz restricted band edge measurements, per ANSI C63.10:2013 Clause 6.10.6.

The spectrum from 9 kHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

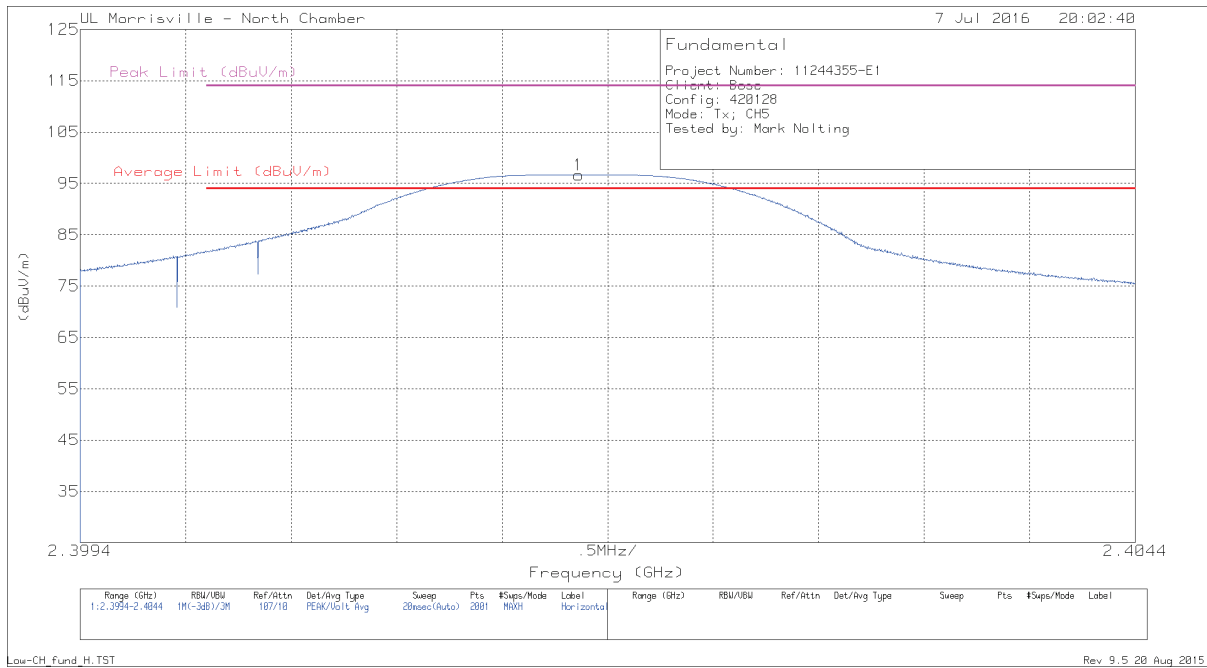
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

RESULTS

8.2.1. FUNDAMENTAL FREQUENCY RADIATED EMISSION

LOW CHANNEL

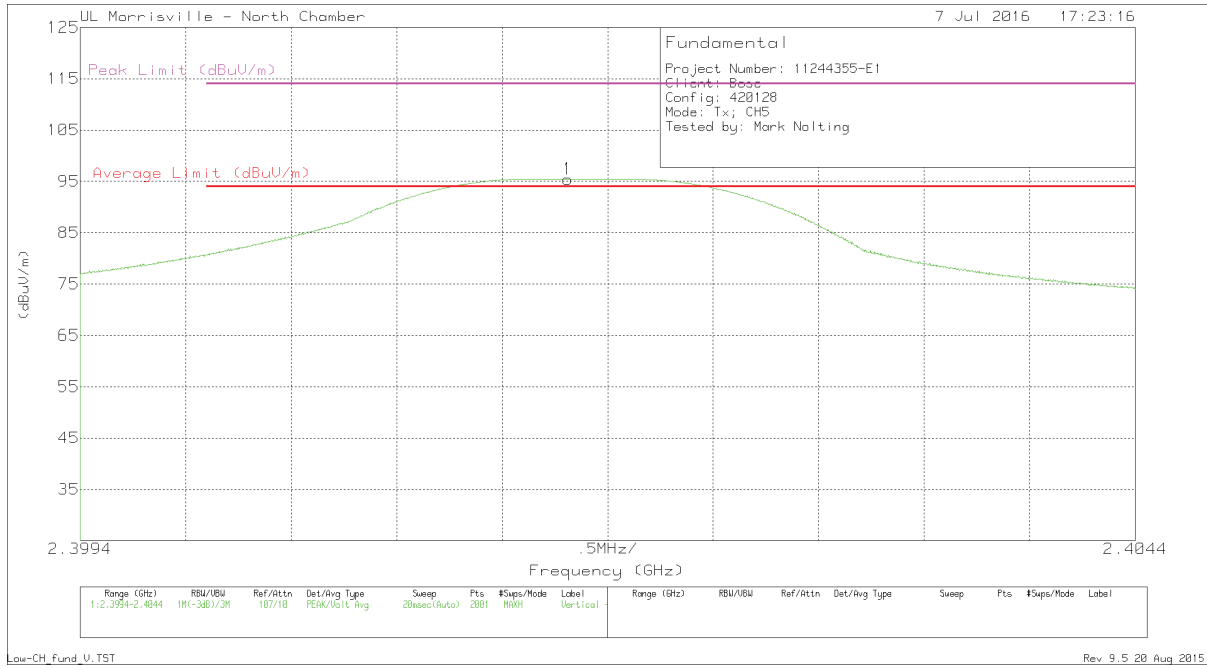
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.402	89.22	Pk	32.2	-24.8	96.62	-	-	113.98	-17.36	29	288	H
	2.402	60.98	Av	32.2	-24.8	68.38	93.98	-25.6	-	-	29	288	H

Pk - Peak detector
 Av - Average detection

VERTICAL

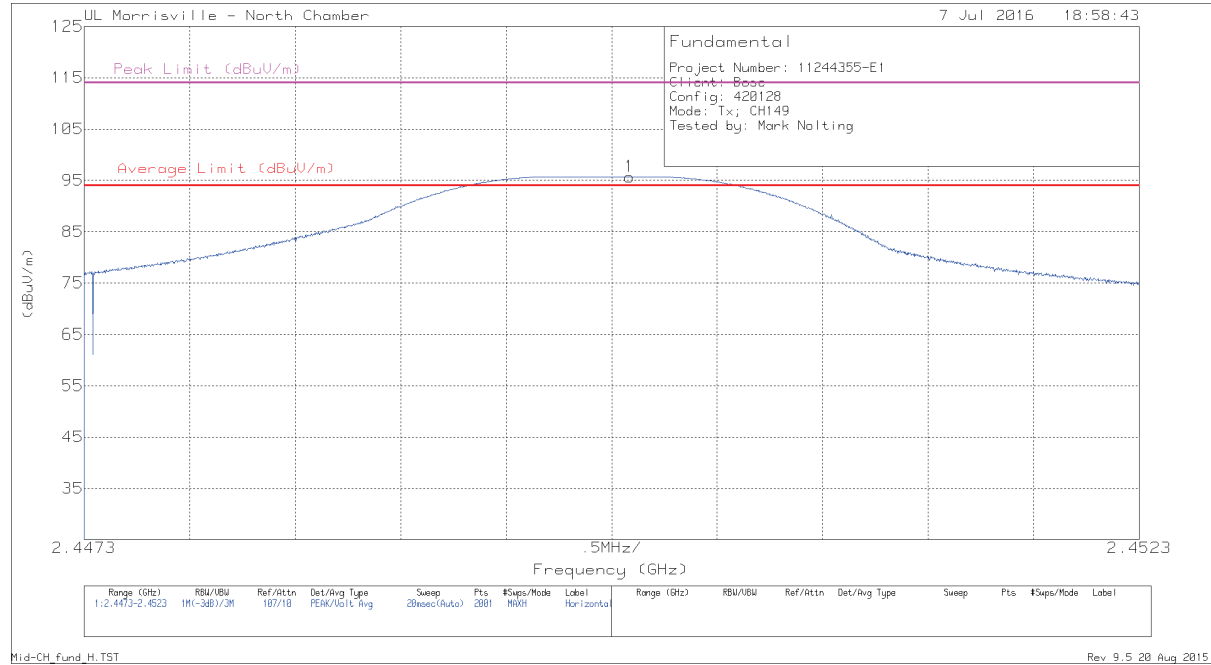


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.402	88.06	Pk	32.2	-24.8	95.46	-	-	113.98	-18.52	201	336	V
	2.402	60.1	Av	32.2	-24.8	67.5	93.98	-26.48	-	-	201	336	V

Pk - Peak detector
 Av - Average detection

MIDDLE CHANNEL

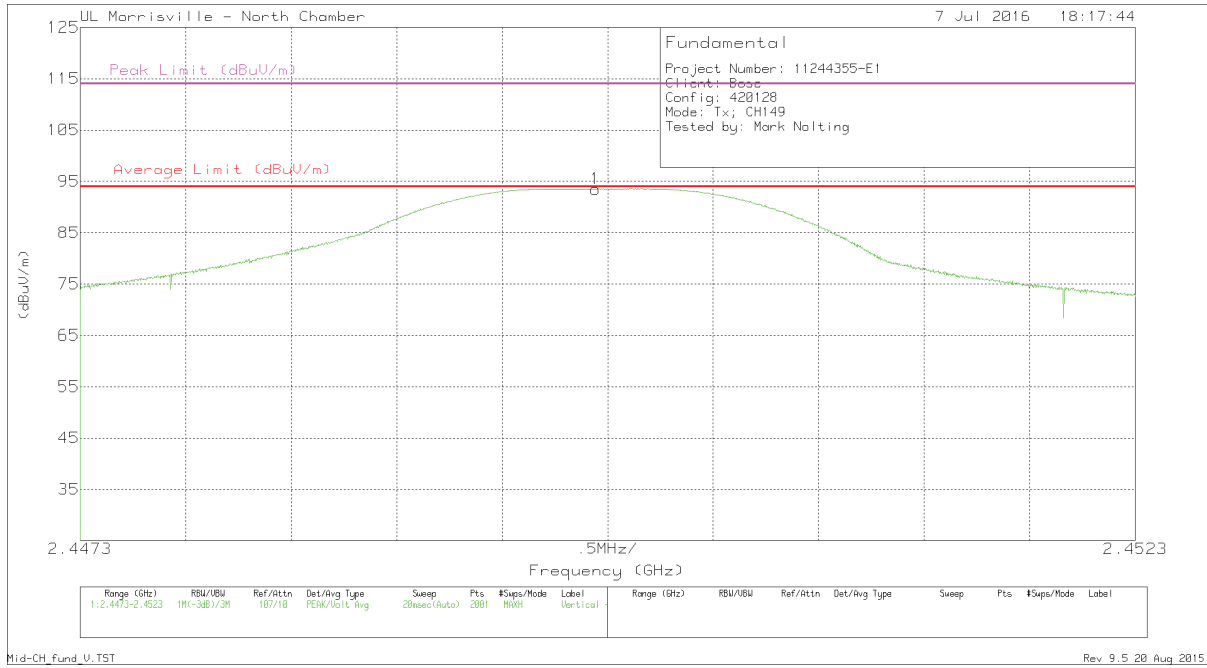
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.45	88.31	Pk	32.2	-24.8	95.71	-	-	113.98	-18.27	290	147	H
	2.45	60.31	Av	32.2	-24.8	67.71	93.98	-26.27	-	-	290	147	H

Pk - Peak detector
 Av - Average detection

VERTICAL

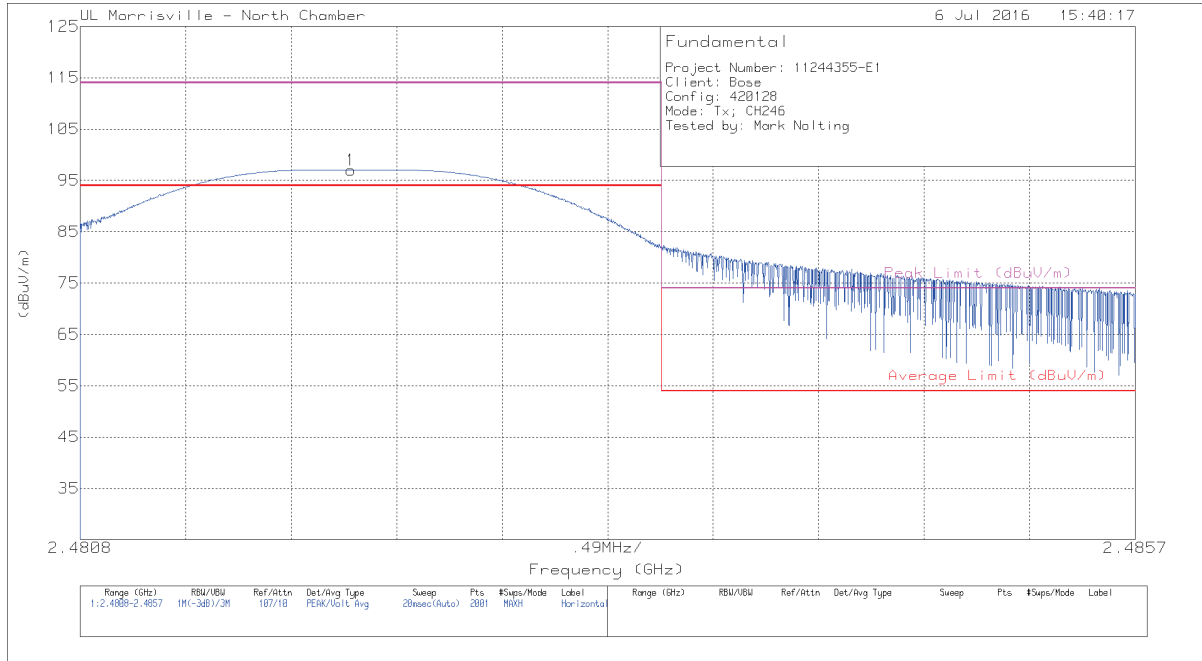


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.45	86.12	Pk	32.2	-24.8	93.52	-	-	113.98	-20.46	196	321	V
	2.45	58.01	Av	32.2	-24.8	65.41	93.98	-28.57	-	-	196	321	V

Pk - Peak detector
 Av - Average detection

HIGH CHANNEL

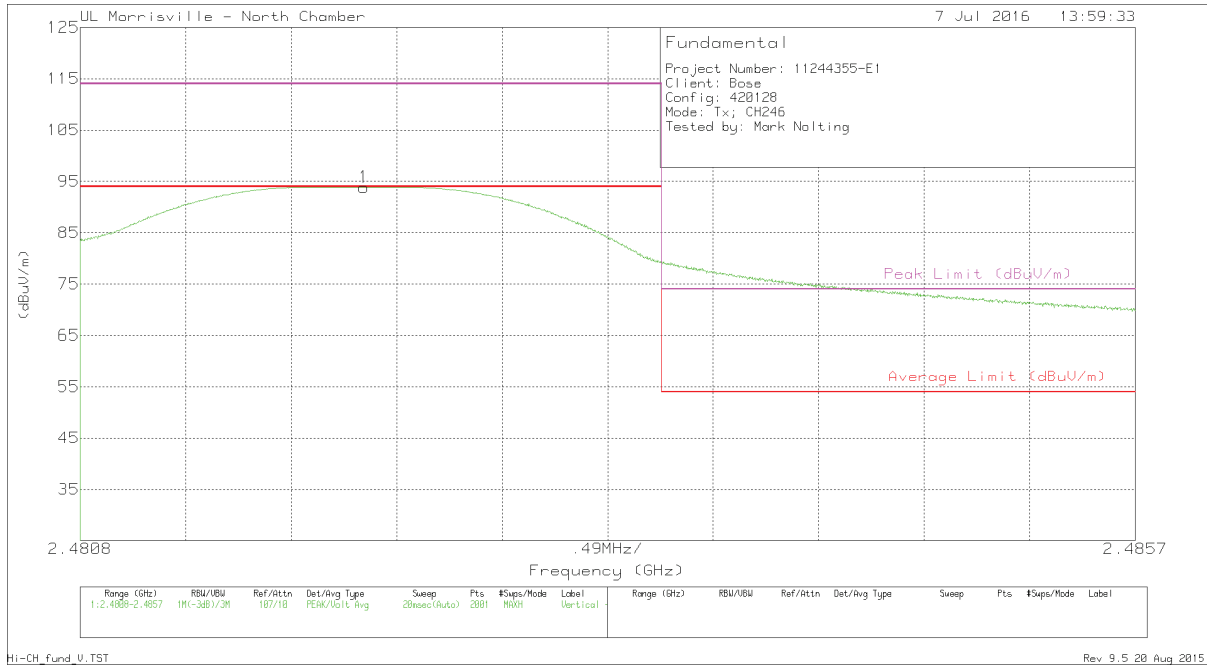
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.482	89.5	Pk	32.3	-24.8	97	-	-	113.98	-16.98	311	264	H
	2.482	61.3	Av	32.3	-24.8	68.8	93.98	-25.18	-	-	311	264	H

Pk - Peak detector
 Av - Average detection

VERTICAL

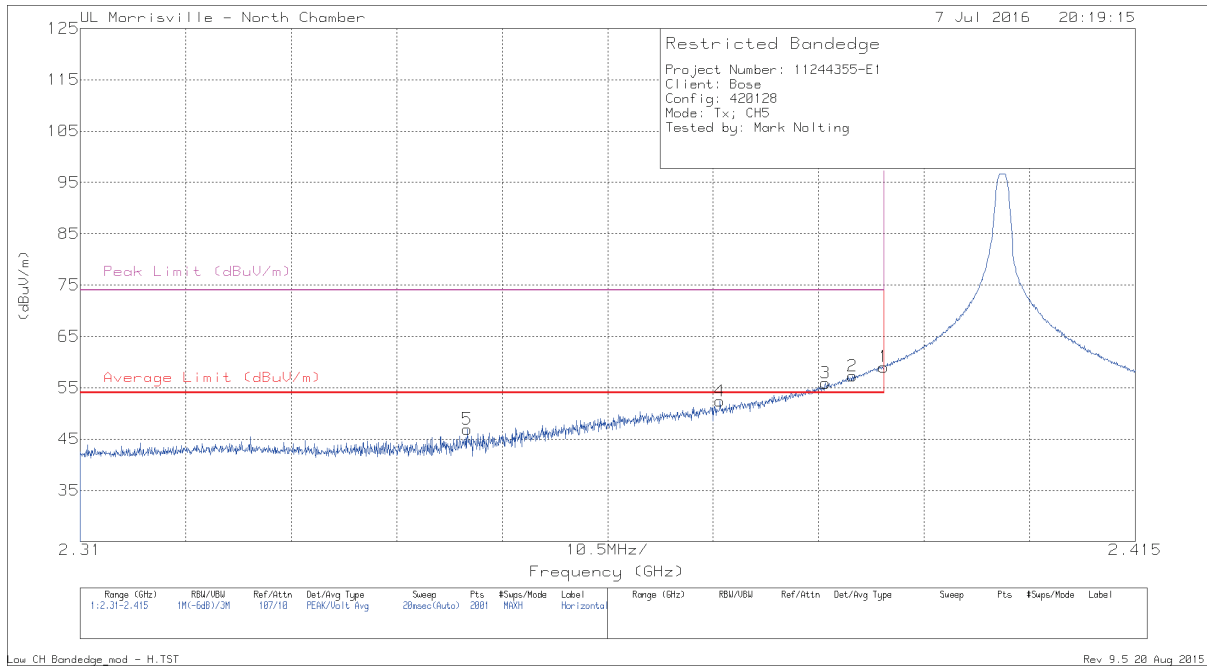


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.482	86.35	Pk	32.3	-24.8	93.85	-	-	113.98	-20.13	91	278	V
	2.482	58.45	Av	32.3	-24.8	65.95	93.98	-28.03	-	-	91	278	V

Pk - Peak detector
 Av - Average detection

8.2.2. TRANSMITTER RESTRICTED BAND EDGES

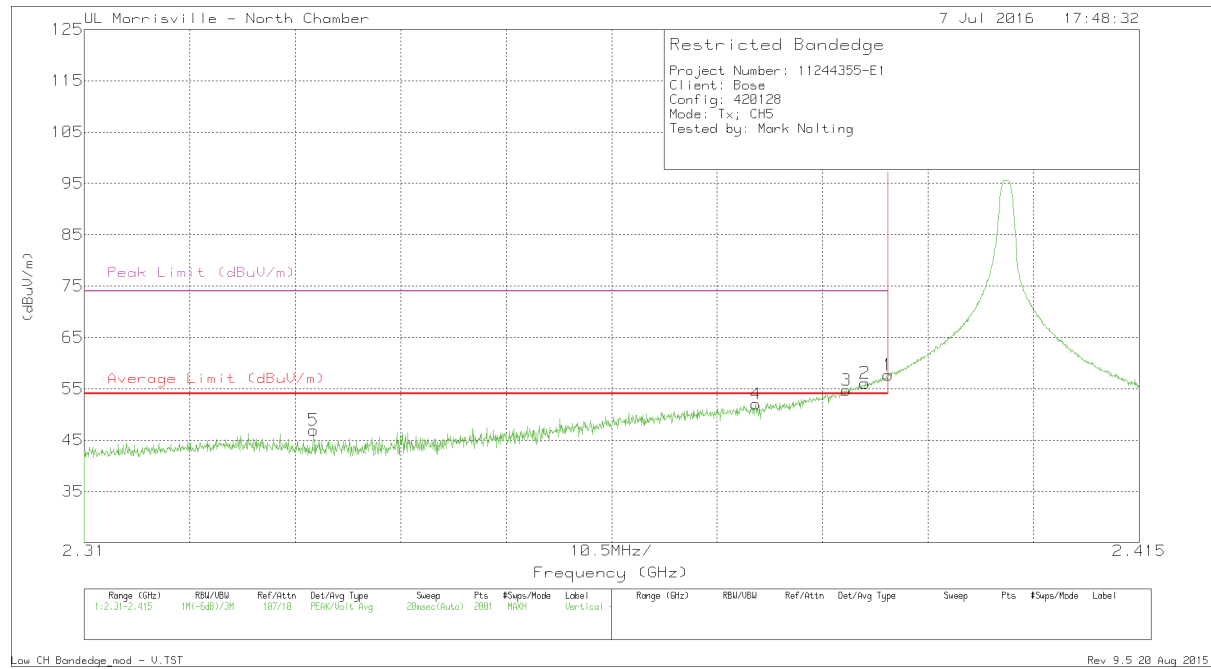
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	2.349	40.13	Pk	31.7	-24.9	46.93	-	-	74	-27.07	29	288	H
	2.349	23.44	Av	31.7	-24.9	30.24	54	-23.76	-	-	29	288	H
4	2.374	45.17	Pk	32	-24.8	52.37	-	-	74	-21.63	29	288	H
	2.374	23.54	Av	32	-24.8	30.74	54	-23.26	-	-	29	288	H
3	2.384	48.61	Pk	32.1	-24.8	55.91	-	-	74	-18.09	29	288	H
	2.384	23.59	Av	32.1	-24.8	30.89	54	-23.11	-	-	29	288	H
2	2.387	50	Pk	32.1	-24.8	57.3	-	-	74	-16.7	29	288	H
	2.387	23.6	Av	32.1	-24.8	30.9	54	-23.1	-	-	29	288	H
1	2.39	51.76	Pk	32.1	-24.8	59.06	-	-	74	-14.94	29	288	H
	2.39	23.62	Av	32.1	-24.8	30.92	54	-23.08	-	-	29	288	H

Pk - Peak detector
 Av - Average detection

RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

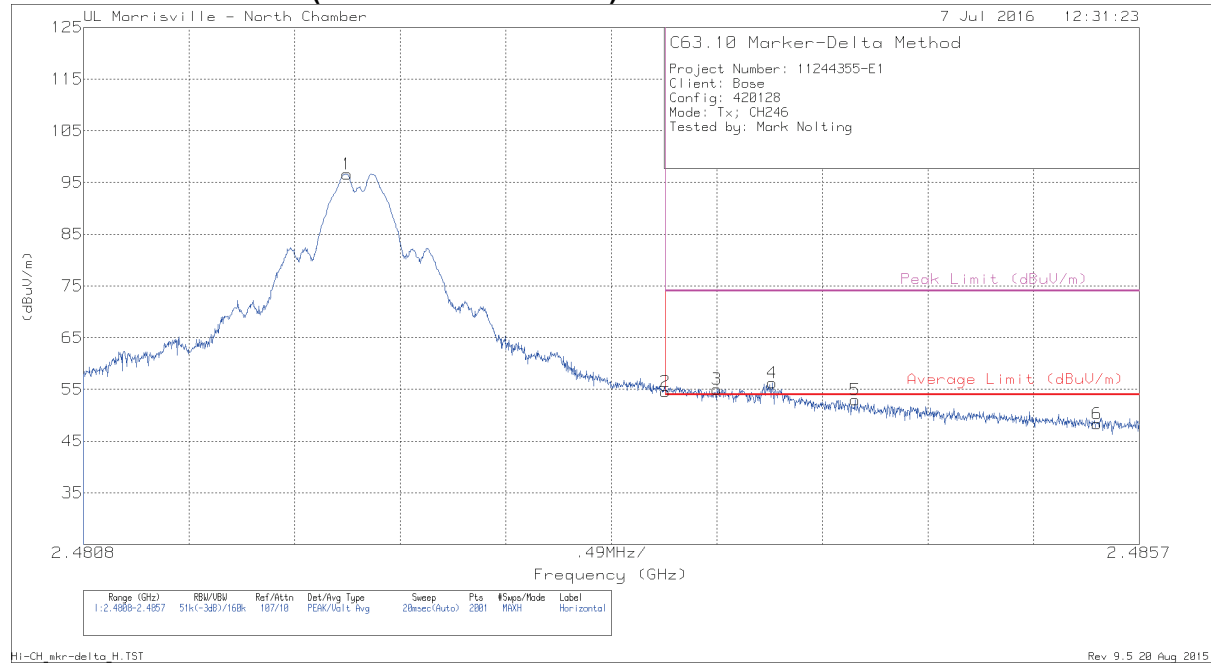


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	2.333	39.94	Pk	31.7	-24.7	46.94	-	-	74	-27.06	201	336	V
	2.333	23.45	Av	31.7	-24.7	30.45	54	-23.55	-	-	201	336	V
4	2.377	44.84	Pk	32	-24.8	52.04	-	-	74	-21.96	201	336	V
	2.377	23.58	Av	32	-24.8	30.78	54	-23.22	-	-	201	336	V
3	2.386	47.4	Pk	32.1	-24.8	54.7	-	-	74	-19.3	201	336	V
	2.386	23.58	Av	32.1	-24.8	30.88	54	-23.12	-	-	201	336	V
2	2.388	48.8	Pk	32.1	-24.8	56.1	-	-	74	-17.9	201	336	V
	2.388	23.59	Av	32.1	-24.8	30.89	54	-23.11	-	-	201	336	V
1	2.39	50.37	Pk	32.1	-24.8	57.67	-	-	74	-16.33	201	336	V
	2.39	23.61	Av	32.1	-24.8	30.91	54	-23.09	-	-	201	336	V

Pk - Peak detector
 Av - Average detection

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)

2483.5 to 2485.5 MHz (Marker Delta Method)

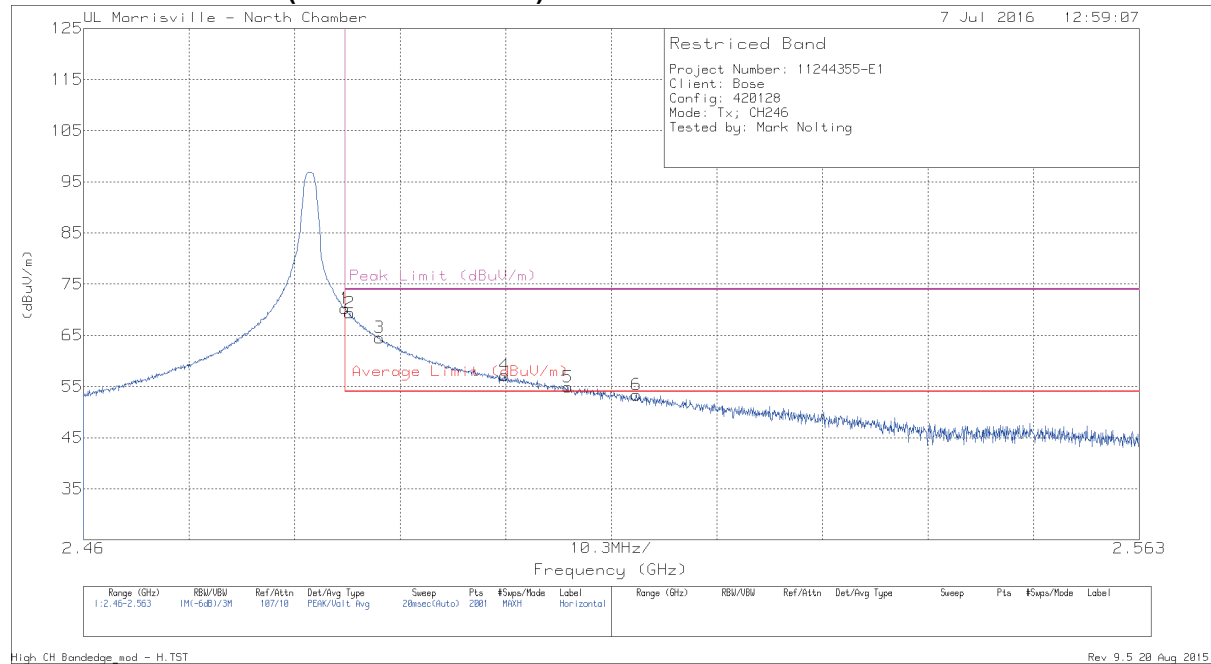


Marker	Freq. (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Marker Delta (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.482	89.1	Pk	32.3	-24.8	96.6	-	311	264	H
2	2.4835	47.03	Pk	32.3	-24.8	54.53	-42.07	311	264	H
3	2.4837	47.57	Pk	32.3	-24.8	55.07	-41.53	311	264	H
4	2.4834	48.73	Pk	32.3	-24.8	56.23	-40.37	311	264	H
5	2.4844	45.49	Pk	32.3	-24.8	52.99	-43.61	311	264	H
6	2.4855	40.86	Pk	32.3	-24.8	48.36	-48.24	311	264	H

Pk:	97	(dBuV/m)	From 07/06/2016 @ 15:40:17 Plot
Av:	68.8	(dBuV/m)	From 07/06/2016 @ 15:40:17 Plot

Marker	Freq. (GHz)	Fc Pk (dBuV/m)	Fc Avg (dBuV/m)	Marker Delta (dB)	Corrected Reading (dBuV/m)	Pk Limit (dBuV/m)	Pk margin (dB)	Avg Limit (dBuV/m)	Avg margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.4835	97	-	-42.07	54.93	73.98	-19.05	-	-	311	264	H
	2.4835	-	68.8	-42.07	26.73	-	-	53.98	-27.25	311	264	H
3	2.4837	97	-	-41.53	55.47	73.98	-18.51	-	-	311	264	H
	2.4837	-	68.8	-41.53	27.27	-	-	53.98	-26.71	311	264	H
4	2.4834	97	-	-40.37	56.63	73.98	-17.35	-	-	311	264	H
	2.4834	-	68.8	-40.37	28.43	-	-	53.98	-25.55	311	264	H
5	2.4844	97	-	-43.61	53.39	73.98	-20.59	-	-	311	264	H
	2.4844	-	68.8	-43.61	25.19	-	-	53.98	-28.79	311	264	H

2485.5 to 2500 MHz (Standard Method)



High CH Bondedged_mod - H.TST

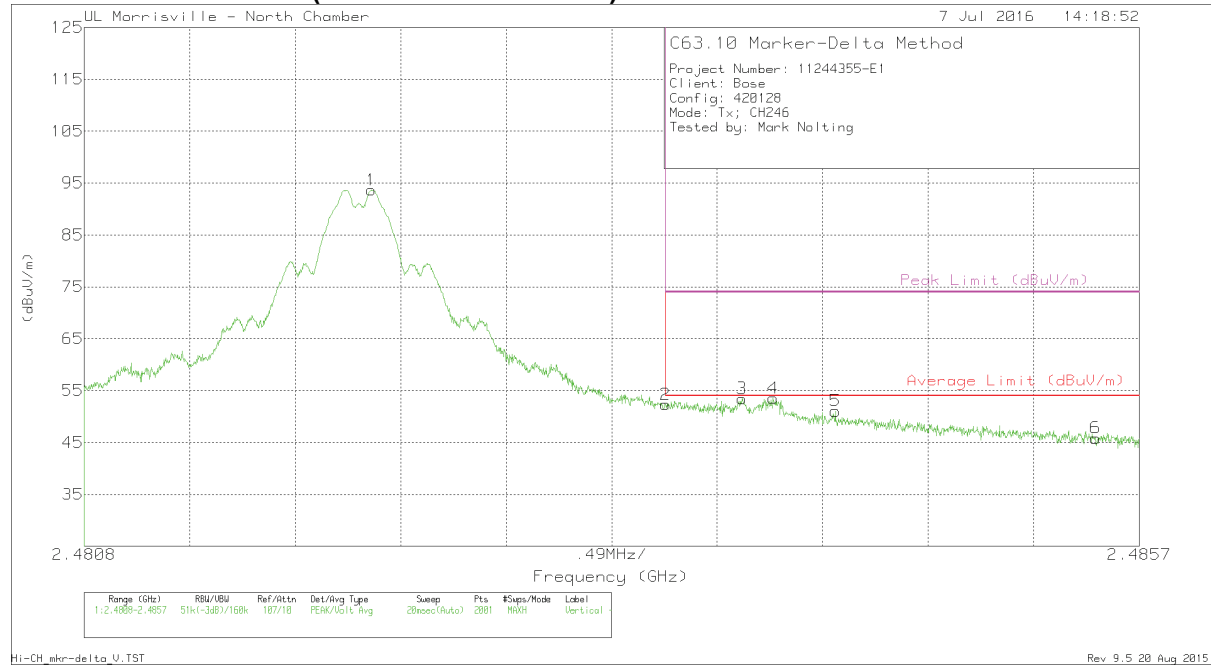
Rev. 9.5 20 Aug 2015

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.4855	62.78	Pk	32.3	-24.8	70.28	-	-	73.98	-3.70	311	264	H
	2.4855	24.96	Av	32.3	-24.8	32.46	53.98	-21.52	-	-	311	264	H
2	2.4860	61.92	Pk	32.3	-24.8	69.42	-	-	73.98	-4.56	311	264	H
	2.4860	24.84	Av	32.3	-24.8	32.34	53.98	-21.64	-	-	311	264	H
3	2.4888	57.04	Pk	32.3	-24.8	64.54	-	-	73.98	-9.44	311	264	H
	2.4888	24.21	Av	32.3	-24.8	31.71	53.98	-22.27	-	-	311	264	H
4	2.5010	49.57	Pk	32.3	-24.7	57.17	-	-	73.98	-16.81	311	264	H
	2.5010	23.87	Av	32.3	-24.7	31.47	53.98	-22.51	-	-	311	264	H
5	2.5073	47.3	Pk	32.3	-24.7	54.9	-	-	73.98	-19.08	311	264	H
	2.5073	23.92	Av	32.3	-24.7	31.52	53.98	-22.46	-	-	311	264	H
6	2.5139	45.67	Pk	32.3	-24.6	53.37	-	-	73.98	-20.61	311	264	H
	2.5139	23.93	Av	32.3	-24.6	31.63	53.98	-22.35	-	-	311	264	H

Pk - Peak detector
 Av - Average detection

RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

2483.5 to 2485.5 MHz (Marker Delta Method)

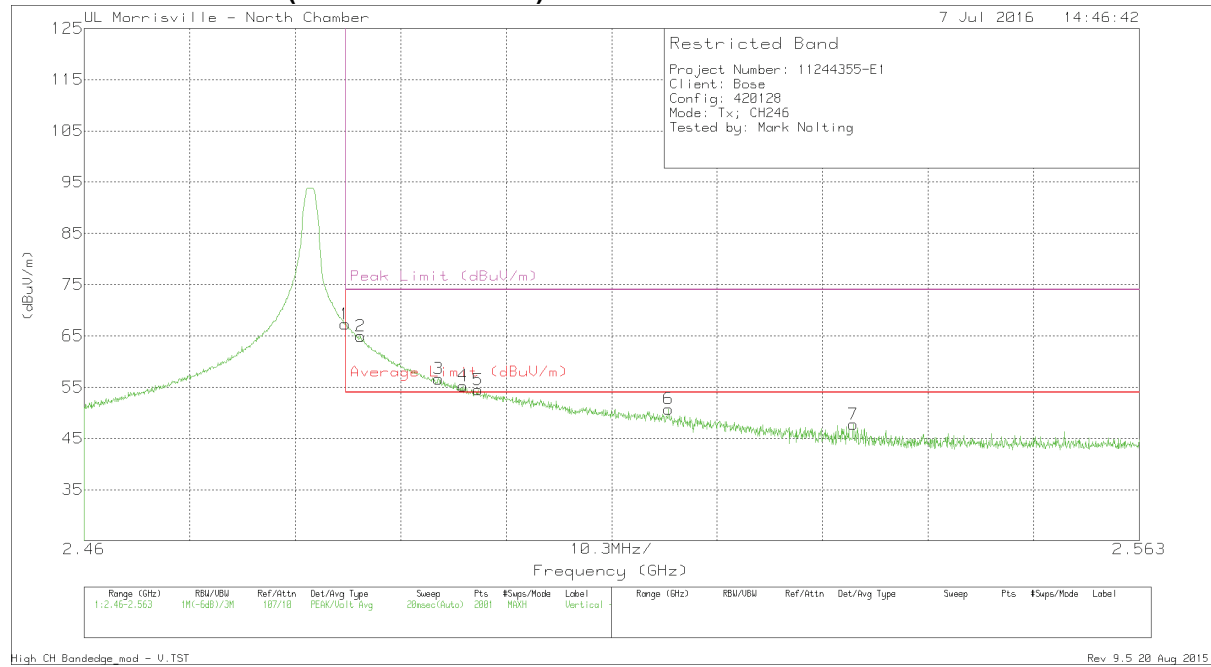


Marker	Freq. (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Marker Delta (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.4821	86.15	Pk	32.3	-24.8	93.65	-	91	278	V
2	2.4835	44.82	Pk	32.3	-24.8	52.32	-41.33	91	278	V
3	2.4839	45.96	Pk	32.3	-24.8	53.46	-40.19	91	278	V
4	2.4840	46.05	Pk	32.3	-24.8	53.55	-40.10	91	278	V
5	2.4843	43.58	Pk	32.3	-24.8	51.08	-42.57	91	278	V
6	2.4855	38.37	Pk	32.3	-24.8	45.87	-47.78	91	278	V

Pk:	93.85	(dBuV/m)	From 07/07/2016 @ 13:59:33 Plot
Av:	65.95	(dBuV/m)	From 07/07/2016 @ 13:59:33 Plot

Marker	Freq. (GHz)	Fc Pk (dBuV/m)	Fc Avg (dBuV/m)	Marker Delta (dB)	Corrected Reading (dBuV/m)	Pk Limit (dBuV/m)	Pk margin (dB)	Avg Limit (dBuV/m)	Avg margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.4835	93.85	-	-41.33	52.52	73.98	-21.46	-	-	91	278	V
	2.4835	-	65.95	-41.33	24.62	-	-	53.98	-29.36	91	278	V
3	2.4839	93.85	-	-40.19	53.66	73.98	-20.32	-	-	91	278	V
	2.4839	-	65.95	-40.19	25.76	-	-	53.98	-28.22	91	278	V
4	2.484	93.85	-	-40.1	53.75	73.98	-20.23	-	-	91	278	V
	2.484	-	65.95	-40.1	25.85	-	-	53.98	-28.13	91	278	V
5	2.4843	93.85	-	-42.57	51.28	73.98	-22.70	-	-	91	278	V
	2.4843	-	65.95	-42.57	23.38	-	-	53.98	-30.60	91	278	V

2485.5 to 2500 MHz (Standard Method)



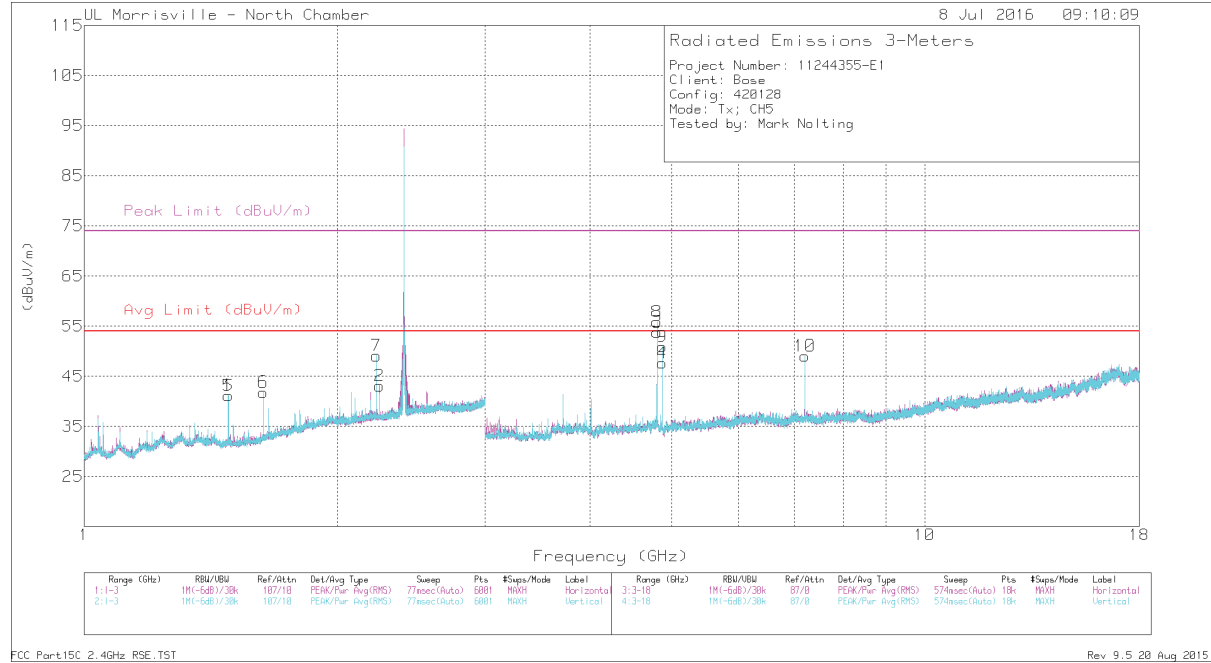
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.4855	59.79	Pk	32.3	-24.8	67.29	-	-	73.98	-6.69	91	278	V
	2.4855	24.6	Av	32.3	-24.8	32.1	53.98	-21.88	-	-	91	278	V
2	2.4870	57.45	Pk	32.3	-24.8	64.95	-	-	73.98	-9.03	91	278	V
	2.4870	24.31	Av	32.3	-24.8	31.81	53.98	-22.17	-	-	91	278	V
3	2.4946	49.04	Pk	32.3	-24.7	56.64	-	-	73.98	-17.34	91	278	V
	2.4947	23.88	Av	32.3	-24.7	31.48	53.98	-22.5	-	-	91	278	V
4	2.4970	47.66	Pk	32.3	-24.7	55.26	-	-	73.98	-18.72	91	278	V
	2.4970	23.85	Av	32.3	-24.7	31.45	53.98	-22.53	-	-	91	278	V
5	2.4985	46.88	Pk	32.3	-24.7	54.48	-	-	73.98	-19.5	91	278	V
	2.4985	23.84	Av	32.3	-24.7	31.44	53.98	-22.54	-	-	91	278	V
6	2.5171	43.05	Pk	32.3	-24.6	50.75	-	-	73.98	-23.23	91	278	V
	2.5170	23.88	Av	32.3	-24.6	31.58	53.98	-22.4	-	-	91	278	V
7	2.5351	40.14	Pk	32.3	-24.7	47.74	-	-	73.98	-26.24	91	278	V
	2.5352	23.85	Av	32.3	-24.7	31.45	53.98	-22.53	-	-	91	278	V

Pk - Peak detector
 Av - Average detection

8.2.3. HARMONICS AND SPURIOUS EMISSIONS ABOVE 1GHz

1-18GHz

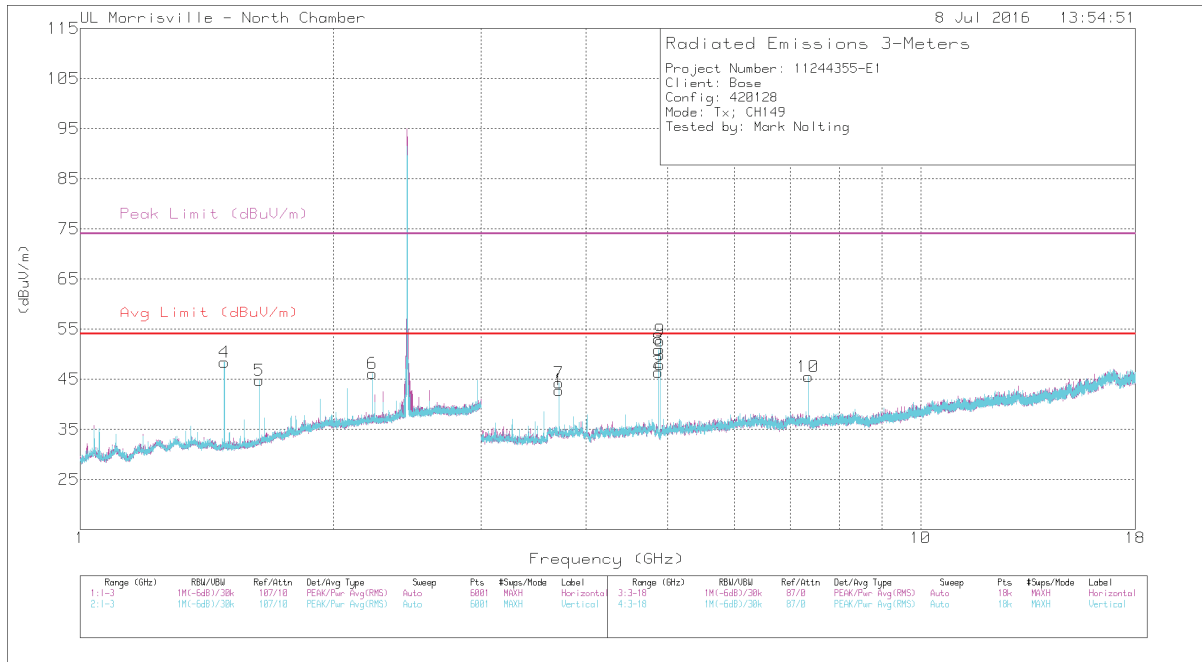
LOW CHANNEL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.485	43.32	Pk	28	-25.2	46.12	-	-	74	-27.88	119	189	H
	1.485	33.73	Av	28	-25.2	36.53	54	-17.47	-	-	119	189	H
2	2.246	41.48	Pk	31.6	-24.7	48.38	-	-	74	-25.62	333	141	H
	2.246	32.04	Av	31.6	-24.7	38.94	54	-15.06	-	-	333	141	H
3	4.804	55.07	Pk	34	-32.3	56.77	-	-	74	-17.23	292	114	H
	4.803	46.57	Av	34	-32.3	48.27	54	-5.73	-	-	292	114	H
4	4.874	49.33	Pk	34.1	-32.2	51.23	-	-	74	-22.77	50	222	H
	4.874	46.48	Av	34.1	-32.2	48.38	54	-5.62	-	-	50	222	H
5	1.485	46.77	Pk	28	-25.2	49.57	-	-	74	-24.43	181	173	V
	1.485	37.84	Av	28	-25.2	40.64	54	-13.36	-	-	181	173	V
6	1.633	44.4	Pk	28.4	-24.8	48	-	-	74	-26	139	245	V
	1.633	39.4	Av	28.4	-24.8	43	54	-11	-	-	139	245	V
7	2.227	45.9	Pk	31.7	-24.8	52.8	-	-	74	-21.2	204	188	V
	2.227	35.5	Av	31.7	-24.8	42.4	54	-11.6	-	-	204	188	V
8	4.804	55.63	Pk	34	-32.3	57.33	-	-	74	-16.67	64	104	V
	4.803	38.98	Av	34	-32.3	40.68	54	-13.32	-	-	64	104	V
9	4.874	51.51	Pk	34.1	-32.2	53.41	-	-	74	-20.59	79	101	V
	4.874	49.14	Av	34.1	-32.2	51.04	54	-2.96	-	-	79	101	V
10	7.205	47.69	Pk	35.6	-30.9	52.39	-	-	74	-21.61	236	101	V
	7.205	27.83	Av	35.6	-30.9	32.53	54	-21.47	-	-	236	101	V

Pk - Peak detector
 Av - Average detection

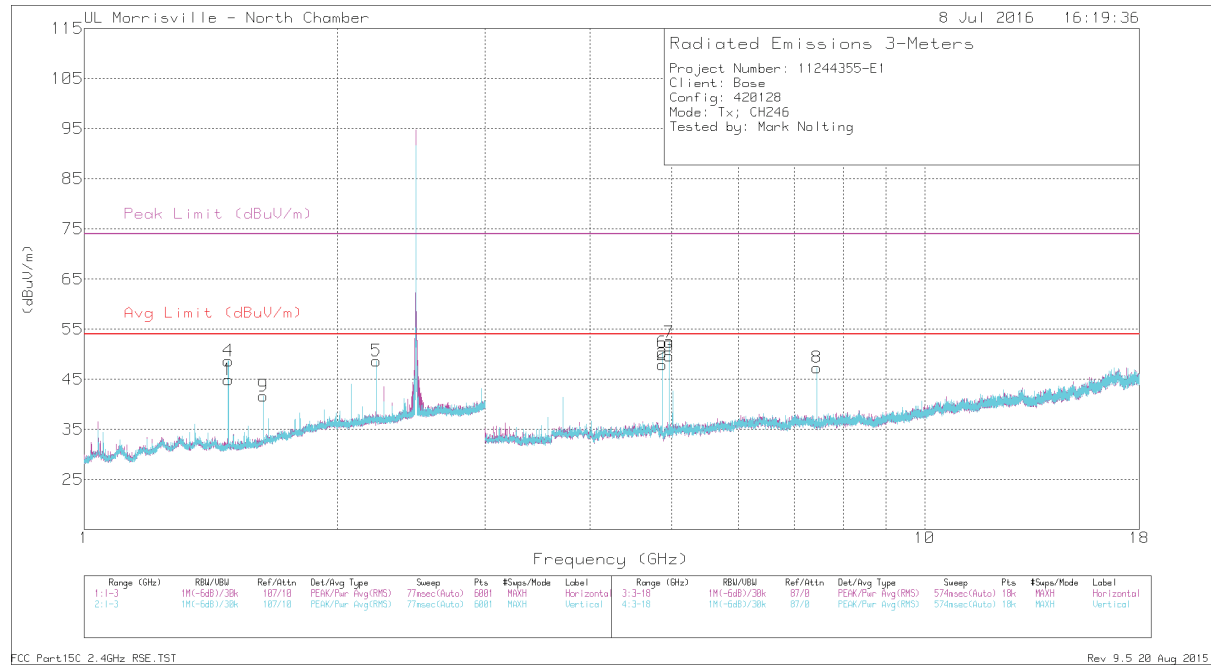
MIDDLE CHANNEL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.712	49.01	Pk	33.4	-33.1	49.31	-	-	74	-24.69	155	214	H
		34.15	Av	33.4	-33.1	34.45	54	-19.55	-	-	155	214	H
2	4.874	49.39	Pk	34.1	-32.2	51.29	-	-	74	-22.71	50	236	H
		46.52	Av	34.1	-32.2	48.42	54	-5.58	-	-	50	236	H
3	4.899	49.57	Pk	34.1	-32.4	51.27	-	-	74	-22.73	293	144	H
		42.91	Av	34.1	-32.4	44.61	54	-9.39	-	-	293	144	H
4	1.485	47.99	Pk	28	-25.2	50.79	-	-	74	-23.21	181	173	V
		39.13	Av	28	-25.2	41.93	54	-12.07	-	-	181	173	V
5	1.633	45.61	Pk	28.4	-24.8	49.21	-	-	74	-24.79	138	245	V
		40.6	Av	28.4	-24.8	44.2	54	-9.8	-	-	138	245	V
6	2.227	45.95	Pk	31.7	-24.8	52.85	-	-	74	-21.15	204	188	V
		34.95	Av	31.7	-24.8	41.85	54	-12.15	-	-	204	188	V
7	3.712	48.51	Pk	33.4	-33.1	48.81	-	-	74	-25.19	148	188	V
		33.72	Av	33.4	-33.1	34.02	54	-19.98	-	-	148	188	V
8	4.874	51.17	Pk	34.1	-32.2	53.07	-	-	74	-20.93	83	103	V
		48.91	Av	34.1	-32.2	50.81	54	-3.19	-	-	83	103	V
9	4.9	52.54	Pk	34.1	-32.4	54.24	-	-	74	-19.76	52	101	V
		33.14	Av	34.1	-32.4	34.84	54	-19.16	-	-	52	101	V
10	7.35	46.67	Pk	35.5	-30.1	52.07	-	-	74	-21.93	239	101	V
		27.07	Av	35.5	-30.1	32.47	54	-21.53	-	-	239	101	V

Pk - Peak detector
 Av - Average detection

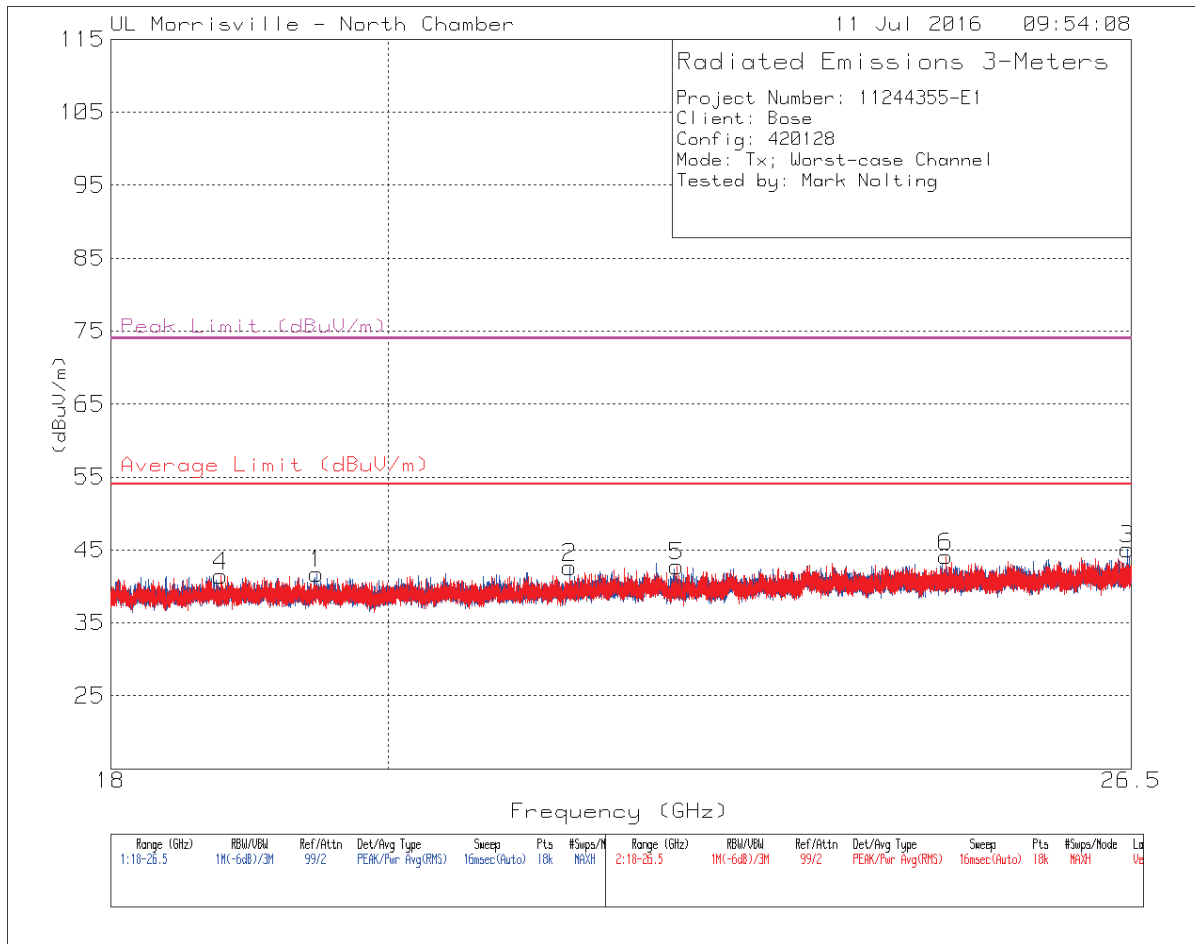
HIGH CHANEL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.485	45.11	Pk	28	-25.2	47.91	-	-	74	-26.09	128	101	H
	1.485	35.38	Av	28	-25.2	38.18	54	-15.82	-	-	128	101	H
2	4.874	49.7	Pk	34.1	-32.2	51.6	-	-	74	-22.4	55	236	H
	4.874	46.64	Av	34.1	-32.2	48.54	54	-5.46	-	-	55	236	H
3	4.964	52.1	Pk	34.2	-33.3	53	-	-	74	-21	238	102	H
	4.964	41.82	Av	34.2	-33.3	42.72	54	-11.28	-	-	238	102	H
4	1.485	47.78	Pk	28	-25.2	50.58	-	-	74	-23.42	183	173	V
	1.485	39.15	Av	28	-25.2	41.95	54	-12.05	-	-	183	173	V
9	1.633	43.59	Pk	28.4	-24.8	47.19	-	-	74	-26.81	143	245	V
	1.633	38.26	Av	28.4	-24.8	41.86	54	-12.14	-	-	143	245	V
5	2.227	46.53	Pk	31.7	-24.8	53.43	-	-	74	-20.57	211	189	V
	2.227	34.1	Av	31.7	-24.8	41	54	-13	-	-	211	189	V
6	4.874	51.11	Pk	34.1	-32.2	53.01	-	-	74	-20.99	84	103	V
	4.874	48.69	Av	34.1	-32.2	50.59	54	-3.41	-	-	84	103	V
7	4.964	53.39	Pk	34.2	-33.3	54.29	-	-	74	-19.71	46	102	V
	4.964	33.46	Av	34.2	-33.3	34.36	54	-19.64	-	-	46	102	V
8	7.446	45.83	Pk	35.5	-30.1	51.23	-	-	74	-22.77	239	101	V
	7.446	26.34	Av	35.5	-30.1	31.74	54	-22.26	-	-	239	101	V

Pk - Peak detector
 Av - Average detection

18-26GHz (WORST-CASE CHANNEL)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0076 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	18.769	49.15	Pk	32.7	-40.4	41.45	54	-12.55	74	-32.55	0-360	101	V
1	19.465	49.54	Pk	32.9	-40.7	41.74	54	-12.26	74	-32.26	0-360	249	H
2	21.419	49.6	Pk	33.5	-40.5	42.6	54	-11.4	74	-31.4	0-360	149	H
5	22.309	48.96	Pk	34	-40.2	42.76	54	-11.24	74	-31.24	0-360	151	V
6	24.705	48.91	Pk	34.6	-39.4	44.11	54	-9.89	74	-29.89	0-360	101	V
3	26.459	48.29	Pk	35	-38.2	45.09	54	-8.91	74	-28.91	0-360	101	H

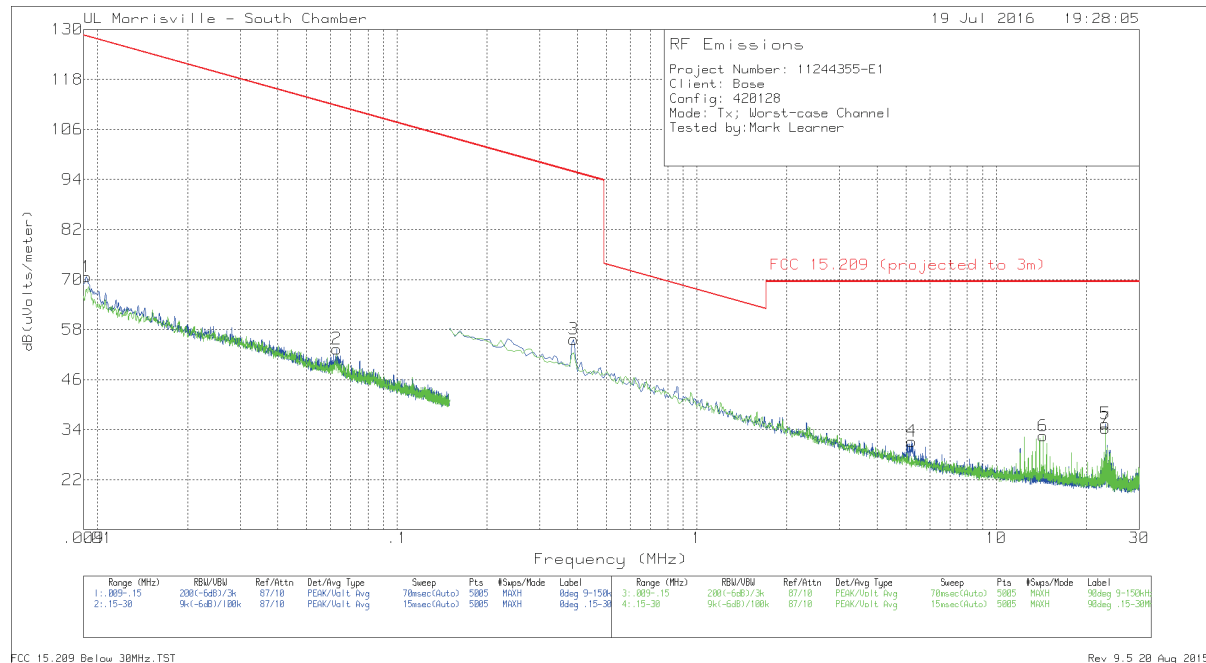
Pk - Peak detector

8.2.4. WORST-CASE BELOW 1 GHz

SPURIOUS EMISSIONS 9kHz-30 MHz (WORST-CASE CONFIGURATION)

Note: All measurements were made at a test distance of 3 m. The limits in the plots and tabular data are the FCC/IC limits extrapolated from the specification distance (300 m from 9-490 kHz and 30 m from 490 kHz – 30 MHz) to the measurement distance to clearly show the relative levels of fundamental and spurious emissions and demonstrate compliance with the requirement that the level of any spurious emissions be below the level of the intentionally transmitted signal. The extrapolation factor for the limits were 40*Log (specification distance / test distance).

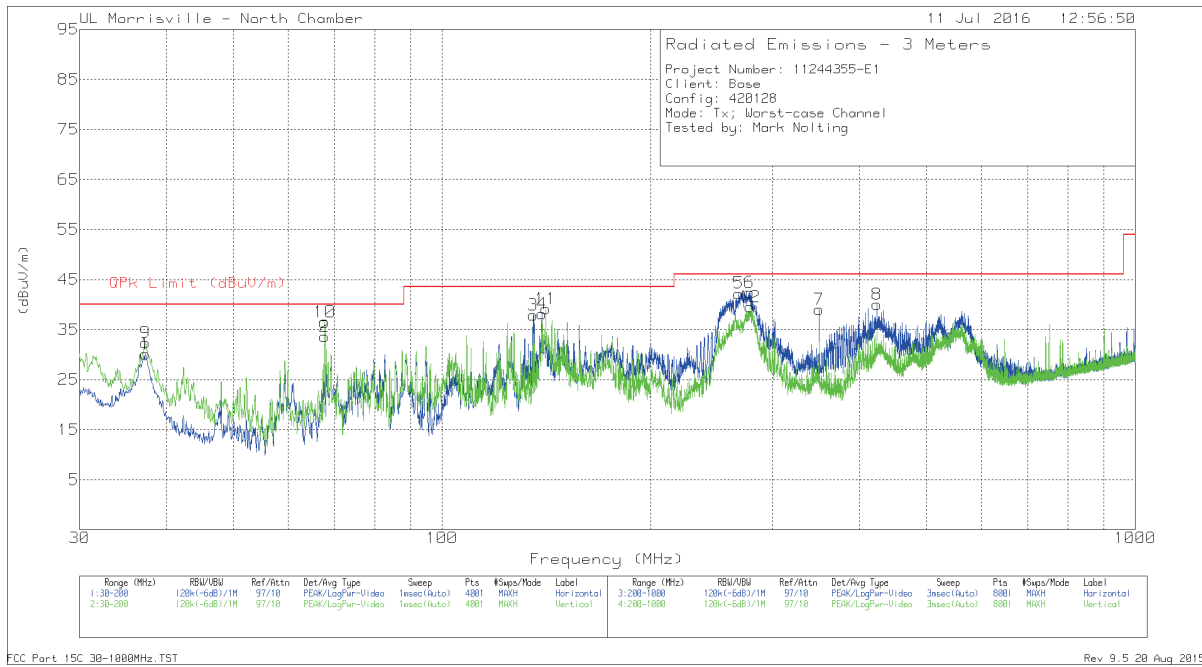
The anechoic chamber has been properly compared to ensure the measurement results correspond to what would be obtained from an open field site.



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0079 AF (dB/m)	Cbl (dB)	Corrected Reading dB(uV/m)	FCC 15.209 (projected to 3m)	Margin (dB)	Azimuth (Degs)
1	.0092	50.95	Pk	19.6	.1	70.65	128.33	-57.68	0
2	.06296	41.1	Pk	12.2	.1	53.4	111.62	-58.22	0
3	.3886	43.68	Pk	11.9	.1	55.68	95.81	-40.13	0
4	5.22025	19.54	Pk	11.3	.4	31.24	69.54	-38.3	0
6	14.33477	21.21	Pk	10.7	.6	32.51	69.54	-37.03	0
5	23.12718	25.13	Pk	9.5	.8	35.43	69.54	-34.11	90
7	23.12718	24	Pk	9.5	.8	34.3	69.54	-35.24	90

Pk - Peak detector
 FCC 15.209 Below 30MHz.TST
 Rev 9.5 20 Aug 2015

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0074 AF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	37.3525	41.29	Pk	20.4	-31.6	30.09	40	-9.91	0-360	399	H
2	67.74	52.52	Pk	12.3	-31.2	33.62	40	-6.38	0-360	399	H
3	135.468	50.14	Qp	17.9	-30.6	37.44	43.52	-6.08	236	222	H
4	139.2672	50	Qp	17.5	-30.6	36.9	43.52	-6.62	221	246	H
5	268.1194	52.38	Qp	17.6	-29.6	40.38	46.02	-5.64	284	123	H
6	277.086	52.04	Qp	17.8	-29.6	40.24	46.02	-5.78	280	149	H
7	350	48.92	Pk	19.2	-29.1	39.02	46.02	-7	0-360	102	H
8	423.9484	47.35	Qp	20.9	-28.8	39.45	46.02	-6.57	358	106	H
9	37.3525	43.6	Pk	20.4	-31.6	32.4	40	-7.6	0-360	102	V
10	67.7344	55.79	Qp	12.3	-31.2	36.89	40	-3.11	168	271	V
11	141.1124	51.14	Qp	17.4	-30.5	38.04	43.52	-5.48	310	102	V
12	277.9	51.32	Pk	17.8	-29.6	39.52	46.02	-6.5	0-360	102	V

Pk - Peak detector
 Qp - Quasi-Peak detector

8.3. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

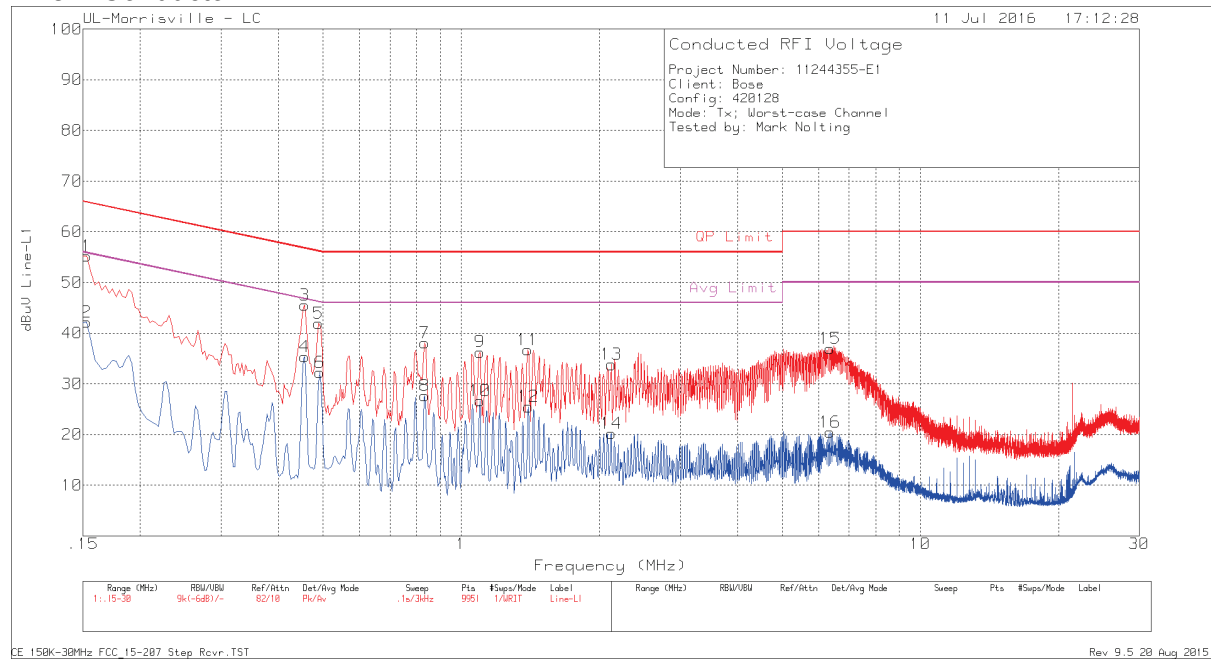
The EUT is placed on a non-conducting table 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

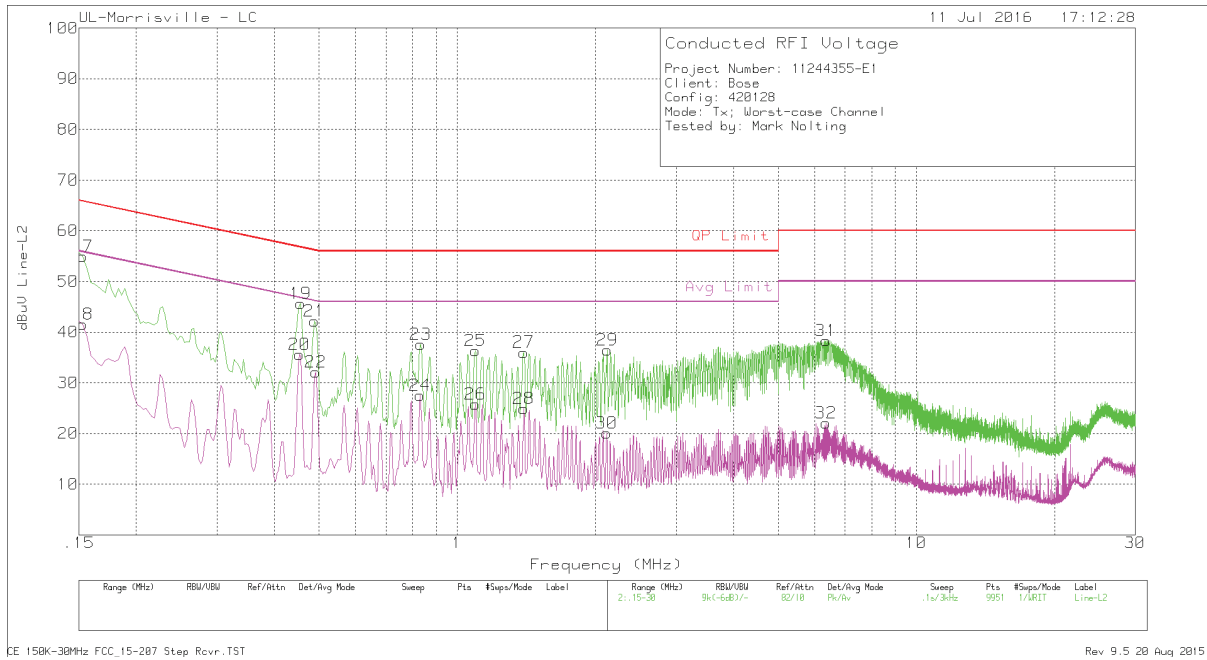
Line-1 Conductor



Line-L1:										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF [dB]	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit	Margin (dB)	Avg Limit	Margin (dB)
1	.153	45.02	Pk	.2	10	55.22	65.84	-10.62	-	-
2	.153	31.99	Av	.2	10	42.19	-	-	55.84	-13.65
3	.456	35.48	Pk	.1	10	45.58	56.77	-11.19	-	-
4	.456	25.27	Av	.1	10	35.37	-	-	46.77	-11.4
5	.489	31.8	Pk	.1	10	41.9	56.18	-14.28	-	-
6	.492	22.16	Av	.1	10	32.26	-	-	46.13	-13.87
7	.834	28.13	Pk	0	10	38.13	56	-17.87	-	-
8	.834	17.66	Av	0	10	27.66	-	-	46	-18.34
9	1.098	26.28	Pk	0	10	36.28	56	-19.72	-	-
10	1.098	16.62	Av	0	10	26.62	-	-	46	-19.38
11	1.398	26.71	Pk	0	10	36.71	56	-19.29	-	-
12	1.401	15.48	Av	0	10	25.48	-	-	46	-20.52
13	2.124	23.6	Pk	.1	10.1	33.8	56	-22.2	-	-
14	2.121	10.04	Av	.1	10.1	20.24	-	-	46	-25.76
15	6.357	26.61	Pk	.1	10.2	36.91	60	-23.09	-	-
16	6.363	10.15	Av	.1	10.2	20.45	-	-	50	-29.55

Pk - Peak detector
 Av - Average detection

Line-2 Conductor



Line-L2:										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF [dB]	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit	Margin (dB)	Avg Limit	Margin (dB)
17	.153	44.78	Pk	.2	10	54.98	65.84	-10.86	-	-
18	.153	31.31	Av	.2	10	41.51	-	-	55.84	-14.33
19	.456	35.5	Pk	.1	10	45.6	56.77	-11.17	-	-
20	.453	25.55	Av	.1	10	35.65	-	-	46.82	-11.17
21	.489	32.03	Pk	.1	10	42.13	56.18	-14.05	-	-
22	.492	21.97	Av	.1	10	32.07	-	-	46.13	-14.06
23	.834	27.56	Pk	0	10	37.56	56	-18.44	-	-
24	.831	17.54	Av	0	10	27.54	-	-	46	-18.46
25	1.095	26.32	Pk	0	10	36.32	56	-19.68	-	-
26	1.095	15.82	Av	0	10	25.82	-	-	46	-20.18
27	1.395	26.03	Pk	0	10	36.03	56	-19.97	-	-
28	1.398	14.92	Av	0	10	24.92	-	-	46	-21.08
29	2.121	26.32	Pk	0	10.1	36.42	56	-19.58	-	-
30	2.118	10.01	Av	0	10.1	20.11	-	-	46	-25.89
31	6.351	28.06	Pk	.1	10.2	38.36	60	-21.64	-	-
32	6.351	11.78	Av	.1	10.2	22.08	-	-	50	-27.92

Pk - Peak detector
 Av - Average detection