



CERTIFICATION TEST REPORT

Report Number. : 12016469-E1V4

Applicant : CONTROL 4 CORP
11734 S ELECTION RD,
SALT LAKE CITY, UT 84020 U.S.A

FCC ID : R33C4TT105G
IC : 7848A-C4TT10

Model Number : C4-TT10-WH , C4-TT10-BL

EUT Description : PORTABLE 10" TOUCH SCREEN WITH WI-FI

Test Standard(s) : FCC 47 CFR PART 15 SUBPART E
INDUSTRY CANADA RSS - 247 ISSUE 2

Date Of Issue:
January 03, 2018

Prepared by:
UL Verification Services Inc.
47173 Benicia Street
Fremont, CA 94538, U.S.A.
TEL: (510) 771-1000
FAX: (510) 661-0888



Revision History

Rev.	Issue Date	Revisions	Revised By
V1	12/6/2017	Initial Issue	--
V2	12/11/2017	Added section 5.3 – FCC ID differences	Francisco de Anda
V3	12/14/2017	Updated sections 7, 8.2.3 and 8.3.3	Francisco de Anda
V4	01/03/2018	Updated Section 2	Tina Chu

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: CONTROL 4 CORP
11734 S ELECTION RD,
SALT LAKE CITY, UT 84020 U.S.A

EUT DESCRIPTION: PORTABLE 10" TOUCH SCREEN WITH WI-FI

MODEL NUMBER: C4-TT10-WH, C4-TT10-BL

SERIAL NUMBER: 000FFF809DFD (Conducted Sample)
000FFF80A4AF (Radiated Sample)

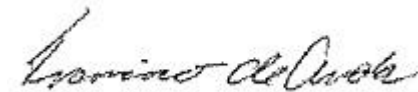
DATE TESTED: NOVEMBER 8 to 16, 2017

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart E	Complies
INDUSTRY CANADA RSS-247 Issue 2	Complies
INDUSTRY CANADA RSS-GEN Issue 4	Complies

UL Verification Services Inc. 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 Verification Services Inc. 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 Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. 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 the U.S. government.

Approved & Released For
UL Verification Services Inc. By:



Francisco de Anda
CONSUMER TECHNOLOGY DIVISION
Operations Leader
UL Verification Services Inc.

Prepared By:



Eric Yu
CONSUMER TECHNOLOGY DIVISION
Test Engineer
UL Verification Services Inc.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, FCC 14-30, FCC KDB 905462 D03 v01r02, D06 v02/D07 v02, FCC KDB 789033 D02 v02r01, ANSI C63.10-2013, RSS-GEN Issue 4, and RSS-247 Issue 2.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA. Line conducted emissions are measured only at the 47173 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

47173 Benicia Street	47266 Benicia Street
☐ Chamber A(IC: 2324B-1)	☐ Chamber D(IC: 22541-1)
☒ Chamber B(IC: 2324B-2)	☐ Chamber E(IC: 22541-2)
☐ Chamber C(IC: 2324B-3)	☐ Chamber F(IC: 22541-3)
	☐ Chamber G(IC: 22541-4)
	☐ Chamber H(IC: 22541-5)

The above test sites and facilities are covered under FCC Test Firm Registration # 208313.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0.

Chambers A through C are covered under Industry Canada company address code 2324B with site numbers 2324B -1 through 2324B-3, respectively. Chambers D through H are covered under Industry Canada company address code 22541 with site numbers 22541 -1 through 22541-5, respectively.

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:

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

4.3. MEASUREMENT UNCERTAINTY

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

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

Parameter	Uncertainty
Worst Case Conducted Disturbance, 9KHz to 0.15 MHz	3.84 dB
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.65 dB
Worst Case Radiated Disturbance, 9KHz to 30 MHz	3.15 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	5.36 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.32 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.45 dB
Worst Case Radiated Disturbance, 26000 to 40000 MHz	5.24 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a Portable 10" Touch Screen with Wi-Fi. Supports a/b/g/n modes.

5.2. MODEL DIFFERENCES

The EUT comes in two models, C4-TT10-WH and C4-TT10-BL. The difference is the cabinet color, White or Black.

5.3. FCC ID DIFFERENCES

Differences between FCC ID: R33C4TT10 and FCC ID: R33C4TT105G.
The EUT hardware is physically identical to FCC ID: R33C4TT10 and uses the same model number. FCC ID: R33C4TT10 supports 2.4 GHz Wi-Fi only. The difference between FCC ID: R33C4TT10 and the EUT assessed in this report is that the 5.2GHz Wi-Fi has been enabled. This test report covers the 5.2 GHz testing only.

5.4. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

5.2GHz Band

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
5150 - 5250	802.11a	13.25	21.13
5150 - 5250	802.11n HT20	11.92	15.56

5.5. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an integrated antennas, with the following maximum gains:

Band of operation (MHz)	5.15-5.25
Antenna Gain (dBi)	2.37

5.6. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was 2.10.0.540110

The test utility software used during testing was Ampak RFTTest Tool Ver. 4.7.

5.7. WORST-CASE CONFIGURATION AND MODE

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

Radiated emission below 1 GHz, above 18 GHz, and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

Worst-case data rates as provided by the client was: 802.11a mode: 6 Mbps

Worst-case data rates as provided by the client was: 802.11n HT20 mode: MCS0

5.8. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT & PERIPHERALS

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
10" Display Adapter	Phihong	PSAA15R-050	N/A	N/A
10" Display Charger	Control4	C4-TT10	000FFF197954	R33C4TT10

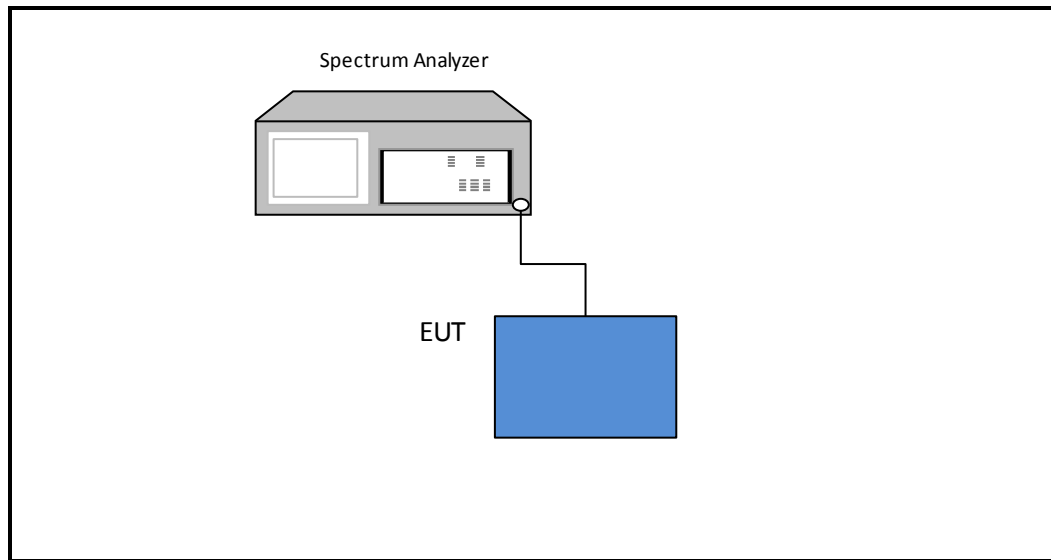
I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	DC Power	Unshielded	1m	EUT to Adapter

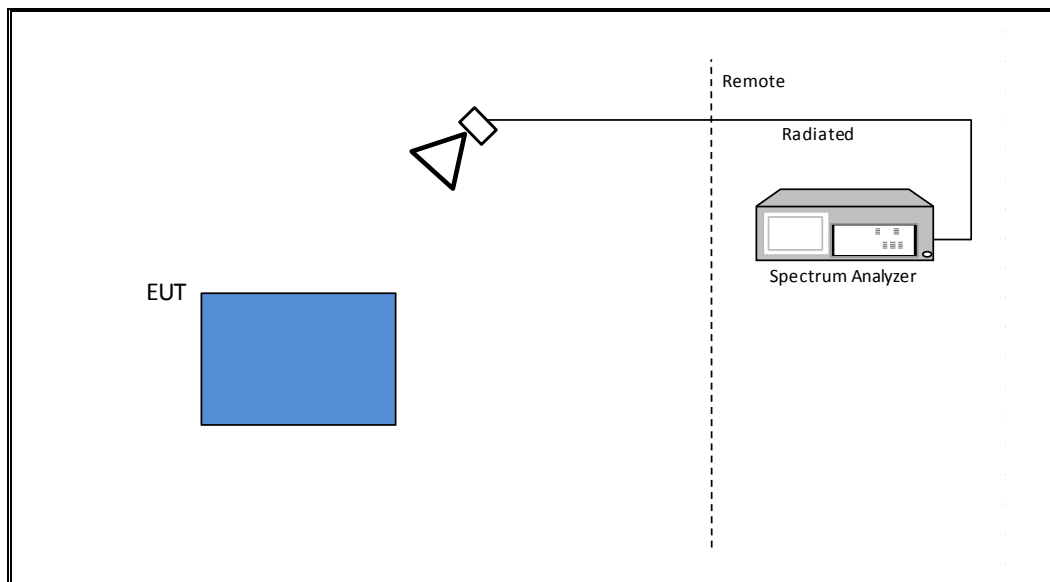
TEST SETUP

The EUT was tested as a standalone device. Battery and AC powered. Test software exercises the radio.

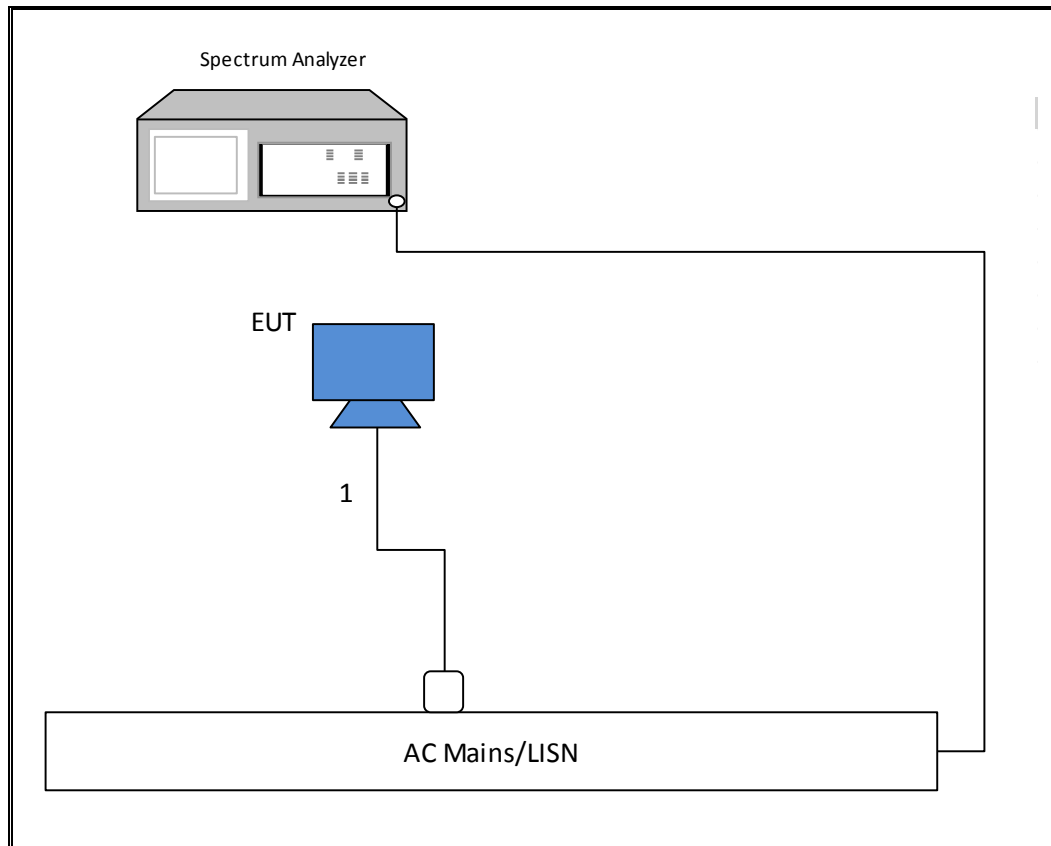
CONDUCTED PORT SETUP DIAGRAM



RADIATED EMISSIONS SETUP DIAGRAM



AC LINE CONDUCTED EMISSIONS SETUP DIAGRAM



6. TEST AND MEASUREMENT EQUIPMENT

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

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	Asset	Cal Due
Antenna, Broadband Hybrid, 30MHz to 2000MHz w/4dB Pad	Sunol Sciences Corp.	JB3	T899	06/22/2018
Antenna, Active Loop 9kHz-30MHz	COM-POWER	AL-130R	T1866	10/10/2018
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	T863	03/07/2018
Antenna, Horn 18-26.5GHz	ARA	MWH-1826/B	T89	05/26/2018
Antenna, Horn 26.5-40GHz	ARA	MWH-2640/B	T446	06/12/2018
Power Meter, P-series single channel	Agilent (Keysight) Technologies	N1911A	T1264	07/08/2018
Power Sensor, P – series, 50MHz to 18GHz, Wideband	Agilent (Keysight) Technologies	N1921A	T413	06/20/2018
Amplifier, 1-26.5GHz	Agilent (Keysight) Technologies	8449B	T404	07/05/2018
Amplifier, 1-8GHz	Miteq	AMF-4D-01000800-30-29P	T1156	02/15/2018
Amplifier, 10kHz-1GHz	Agilent (Keysight) Technologies	8447D	T15	08/26/2018
Receiver, 10kHz-7GHz	ROHDE & SCHWARZ	ESR	T1436	01/06/2018
Amplifier, 1-26.5GHz	Miteq	AMF43-00101800-25-S-42	T493	02/15/2018
Amplifier, 26-40GHz	Miteq	TTA2640	T1864	09/21/2018
Spectrum Analyzer, PSA, 3Hz to 44GHz	Agilent (Keysight) Technologies	E4440A	T146	07/22/2018
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent (Keysight) Technologies	N9030A	T907	01/23/2018
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent (Keysight) Technologies	N9030A	T1454	12/15/2017
LISN	FISCHER	FCC-LISN-50/250-25-2-01	T1310	01/17/2018

Test Software List			
Description	Manufacturer	Model	Version
Radiated Software	UL	UL EMC	Ver 9.5, Dec 01, 2016
Conducted Emissions Software	UL	UL EMC	Ver 9.5, May 26, 2015

7. MEASUREMENT METHODS

On Time and Duty Cycle: KDB 789033 D02 v02r01, Section B.

6 dB BW: KDB 789033 D02 v02r01, Section C.2

26 dB Emission BW: KDB 789033 D02 v02r01, Section C.1

99% Occupied BW: KDB 789033 D02 v02r01, Section D.

Conducted Output Power: KDB 789033 D02 v02r01, Section E.3.b (Method PM-G) and KDB 789033 D02 v2, Section E.2.b (Method SA-1)

Power Spectral Density: KDB 789033 D02 v02r01, Section F

Unwanted emissions in restricted bands: KDB 789033 D02 v02r01, Sections G.1, G.4, G.5, and G.6.

Unwanted emissions in non-restricted bands: KDB 789033 D02 v02r01, Sections G.2, G.3, G.4, and G.5.

AC Power Line Conducted Emissions: ANSI C63.10-2013, Section 6.2.

8. ANTENNA PORT TEST RESULTS

8.1. ON TIME AND DUTY CYCLE

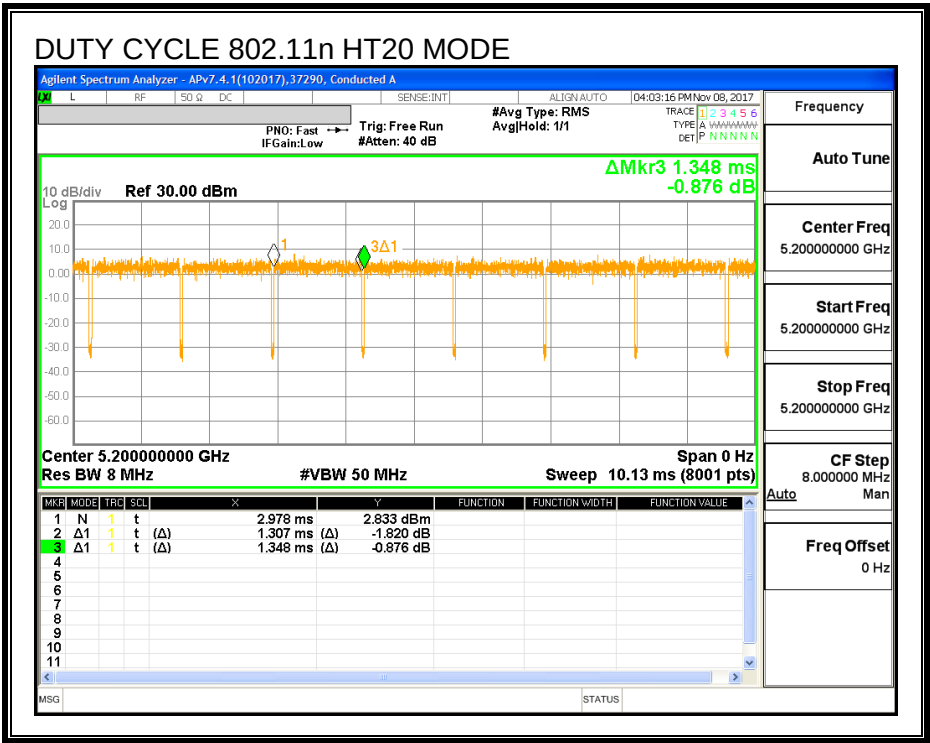
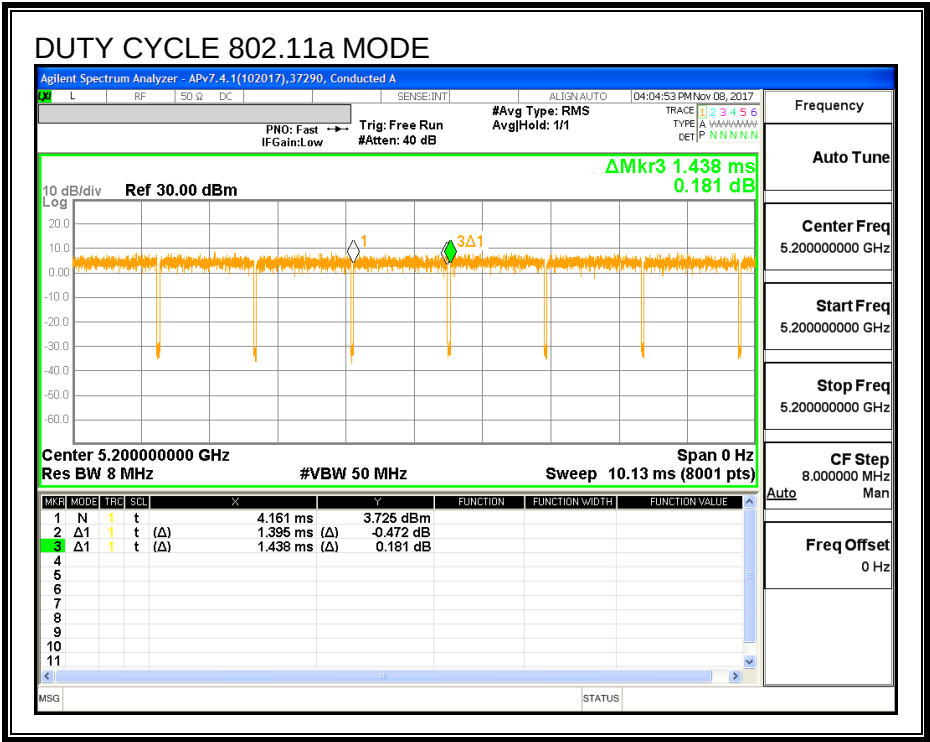
LIMITS

None; for reporting purposes only.

ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)
802.11a	1.395	1.438	0.97	97.010%	0.13	0.72
802.11n HT20	1.307	1.348	0.97	96.958%	0.13	0.77

DUTY CYCLE PLOTS



8.2. 11a MODE IN THE 5.2GHz BAND

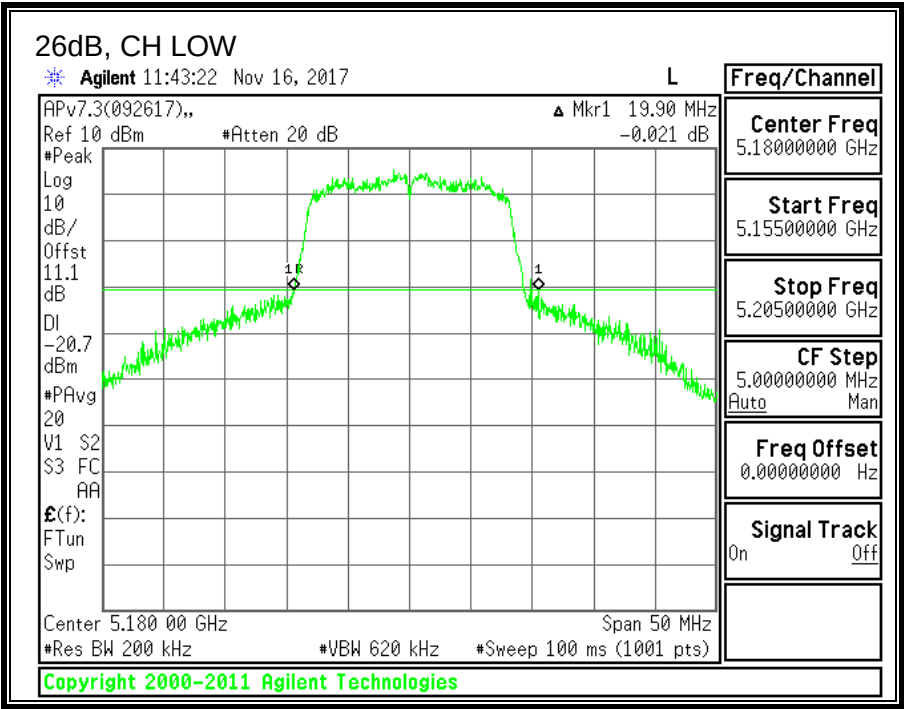
8.2.1. 26 dB BANDWIDTH

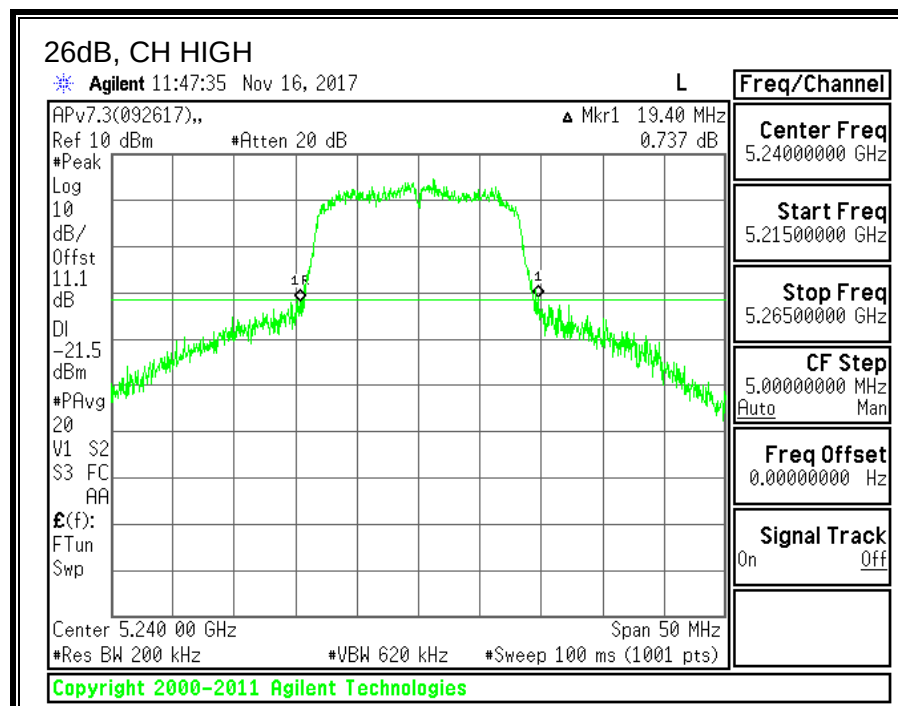
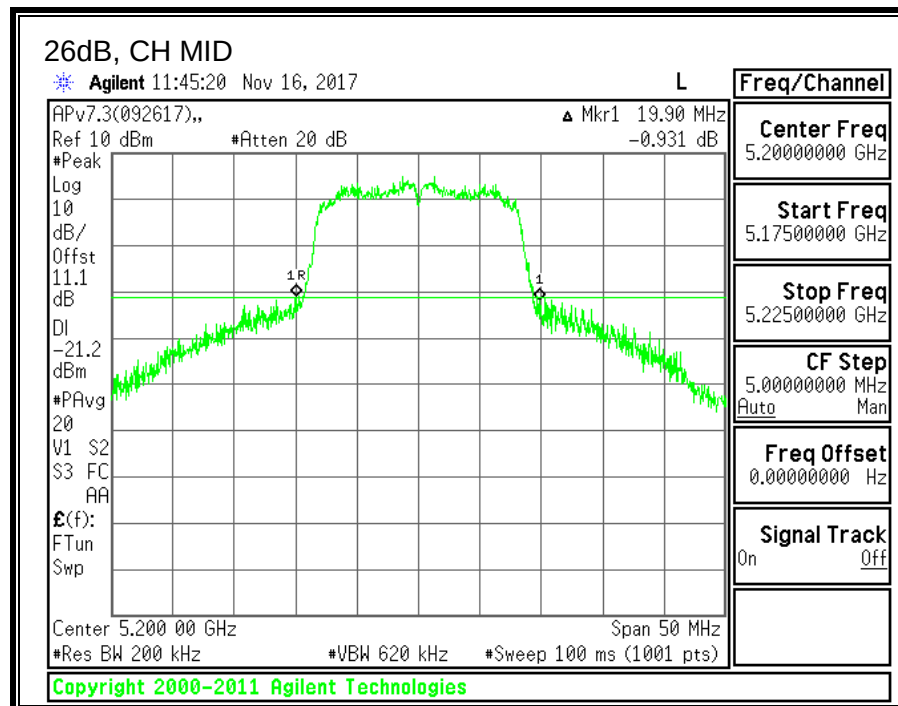
LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency	26 dB BW (MHz)
Low	5180	19.90
Mid	5200	19.90
High	5240	19.40





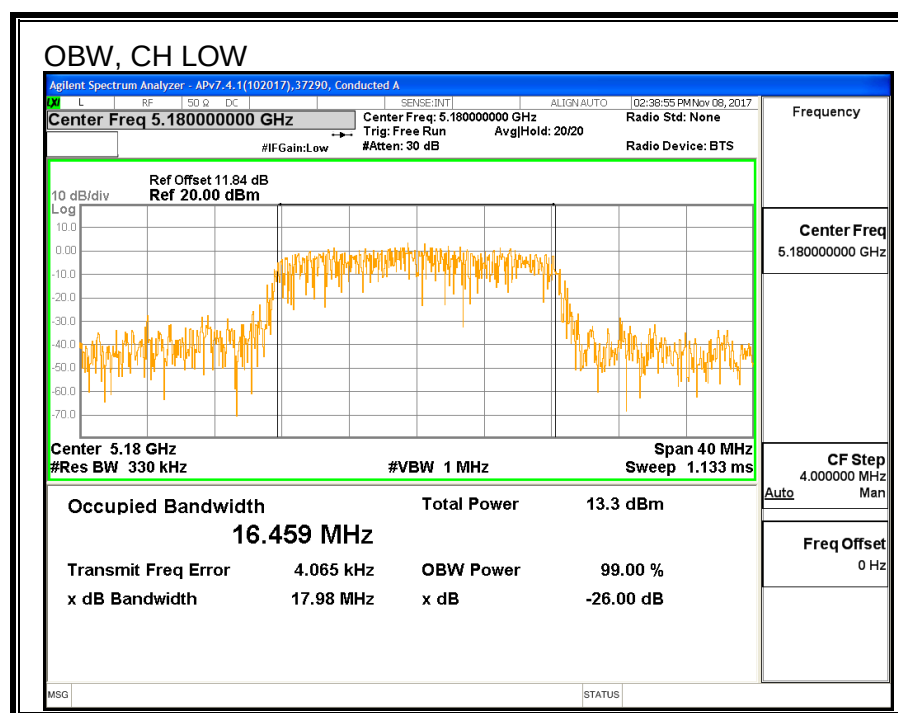
8.2.2. 99% BANDWIDTH

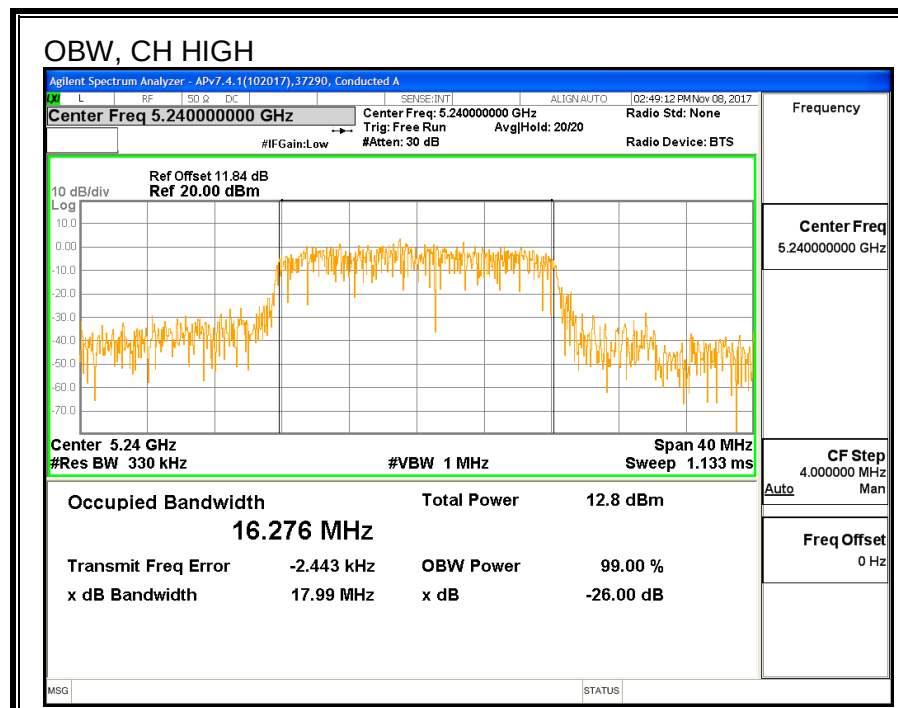
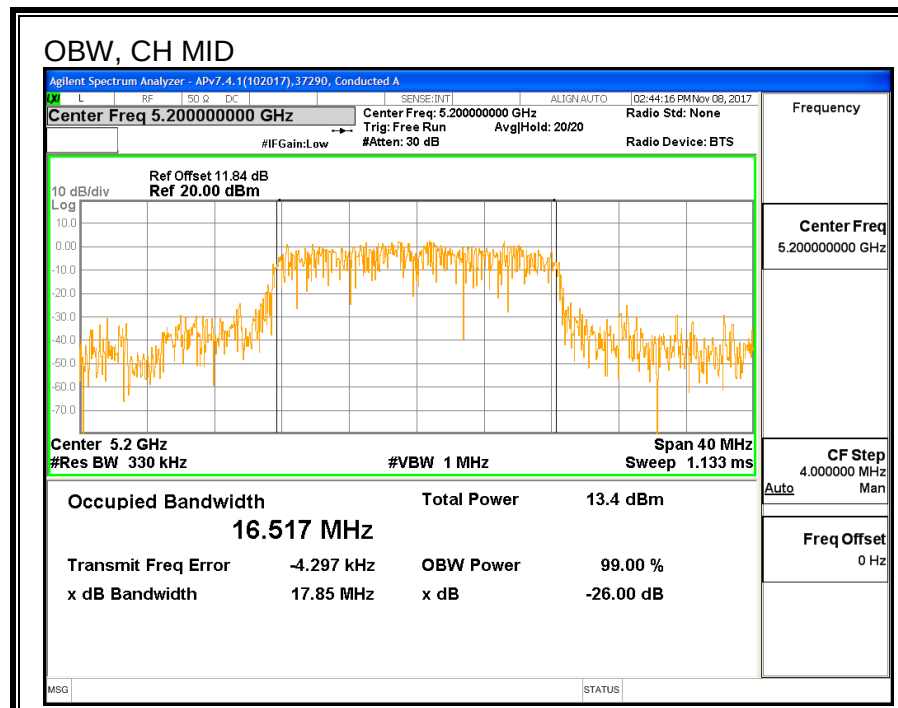
LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency	99% BW (MHz)
Low	5180	16.459
Mid	5200	16.517
High	5240	16.276





8.2.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

(iv) For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

IC RSS-247 6.2.1(1)

The maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5180	25.10	16.46	2.37
Mid	5200	24.75	16.52	2.37
High	5240	25.10	16.28	2.37

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC eirp PSD Limit (dBm)	PPSD Limit (dBm)
Low	5180	24.00	22.16	19.79	19.79	11.00	10.00	7.63
Mid	5200	24.00	22.18	19.81	19.81	11.00	10.00	7.63
High	5240	24.00	22.12	19.75	19.75	11.00	10.00	7.63

Duty Cycle CF (dB)	0.13	Included in Calculations of Corr'd PPSP
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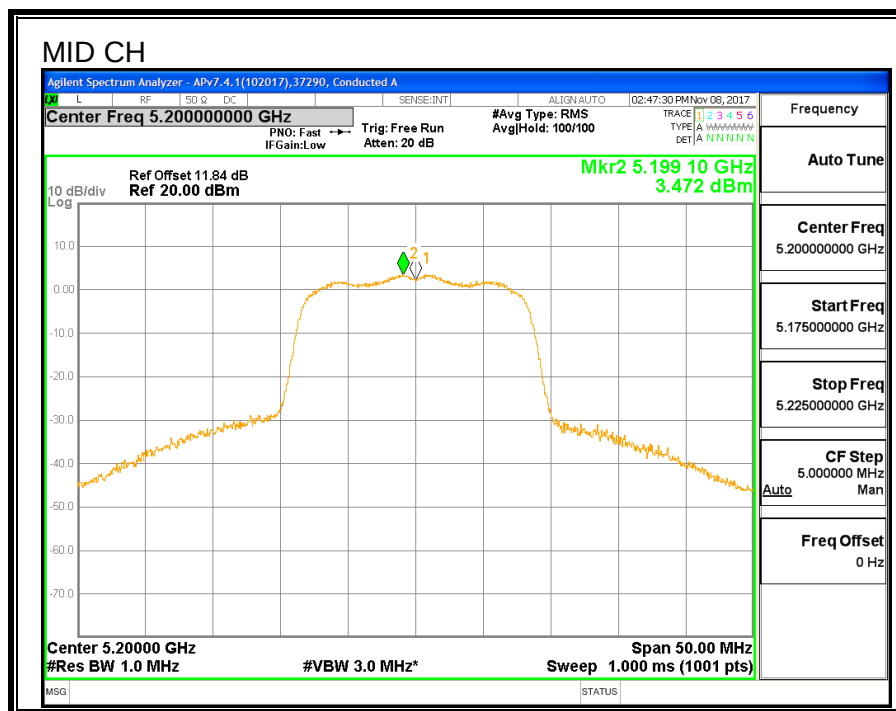
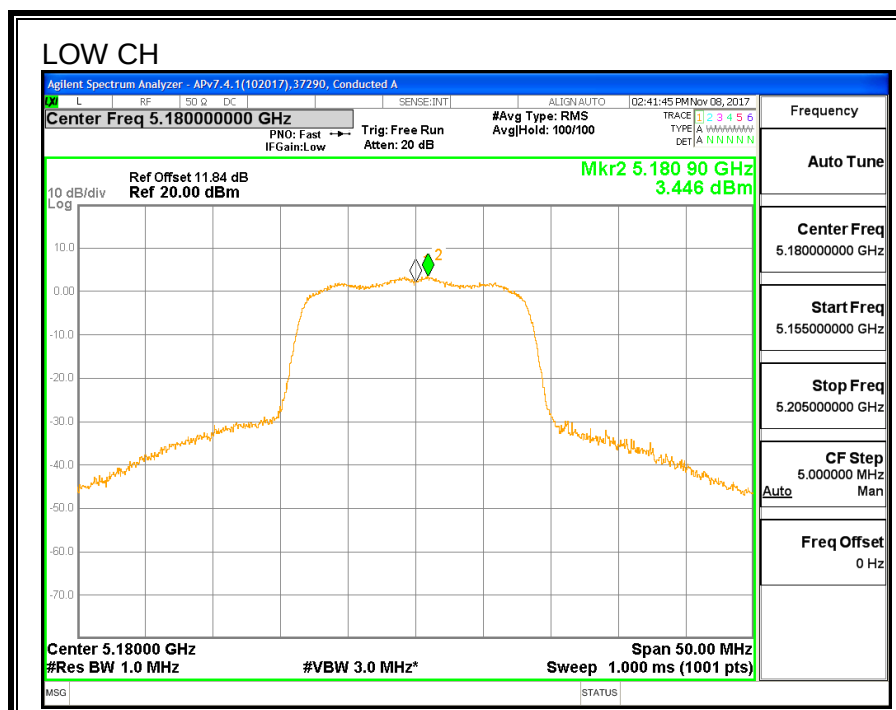
Output Power Results

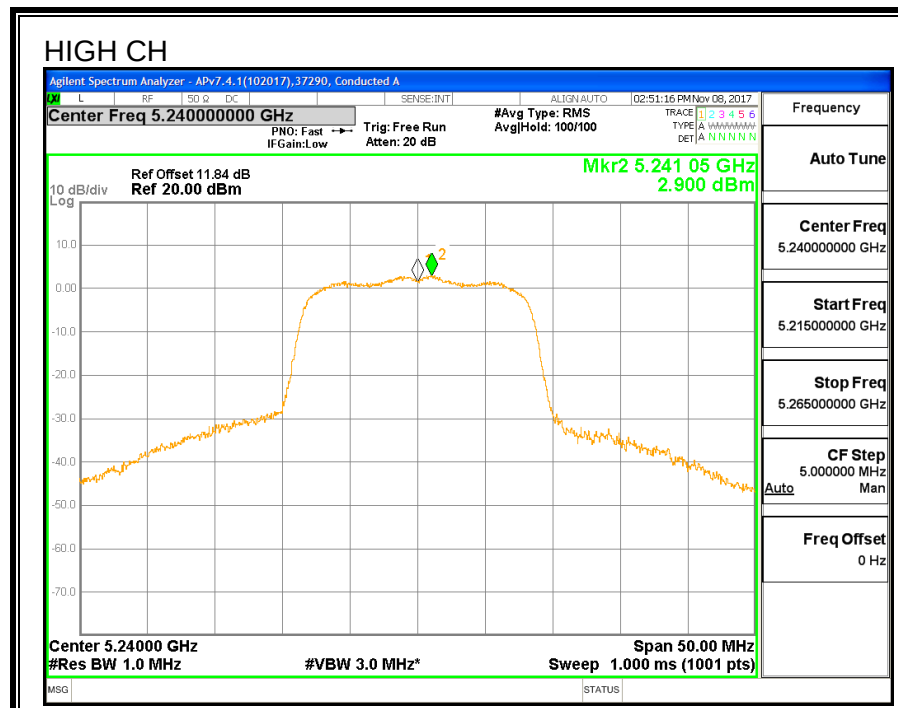
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	13.25	13.25	19.79	-6.54
Mid	5200	13.13	13.13	19.81	-6.68
High	5240	12.87	12.87	19.75	-6.88

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	3.45	3.58	7.63	-4.05
Mid	5200	3.47	3.60	7.63	-4.03
High	5240	2.90	3.03	7.63	-4.60

PPSD





8.3. 11n HT20 MODE IN THE 5.2GHz BAND

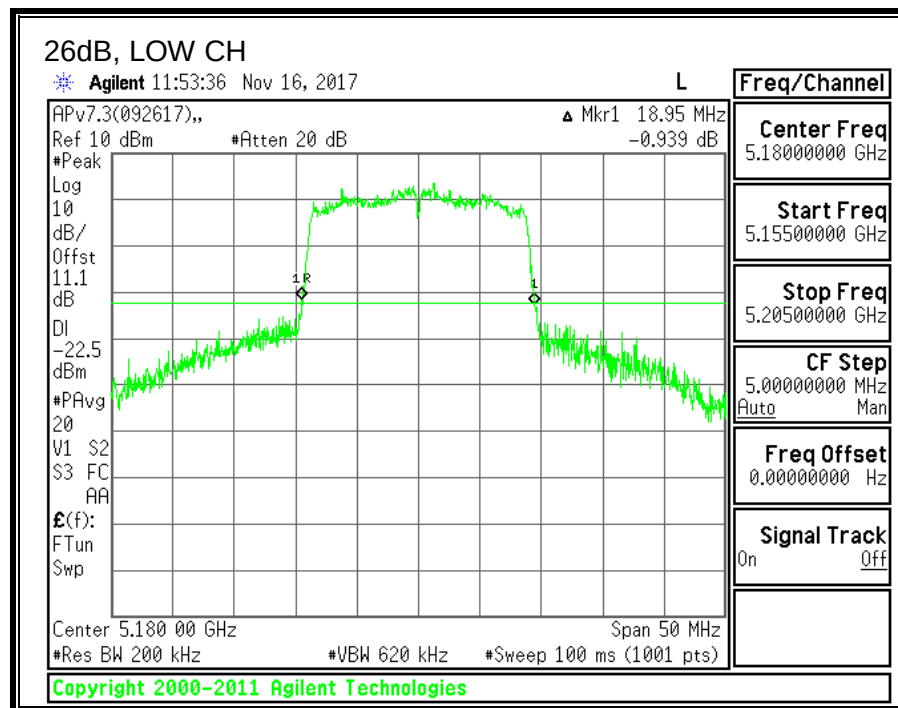
8.3.1. 26 dB BANDWIDTH

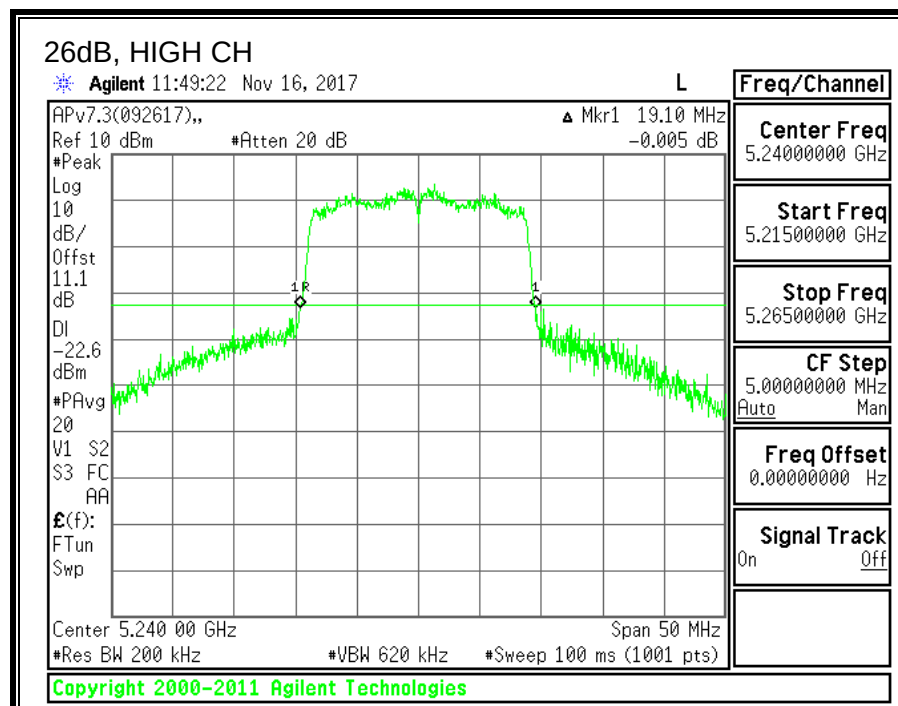
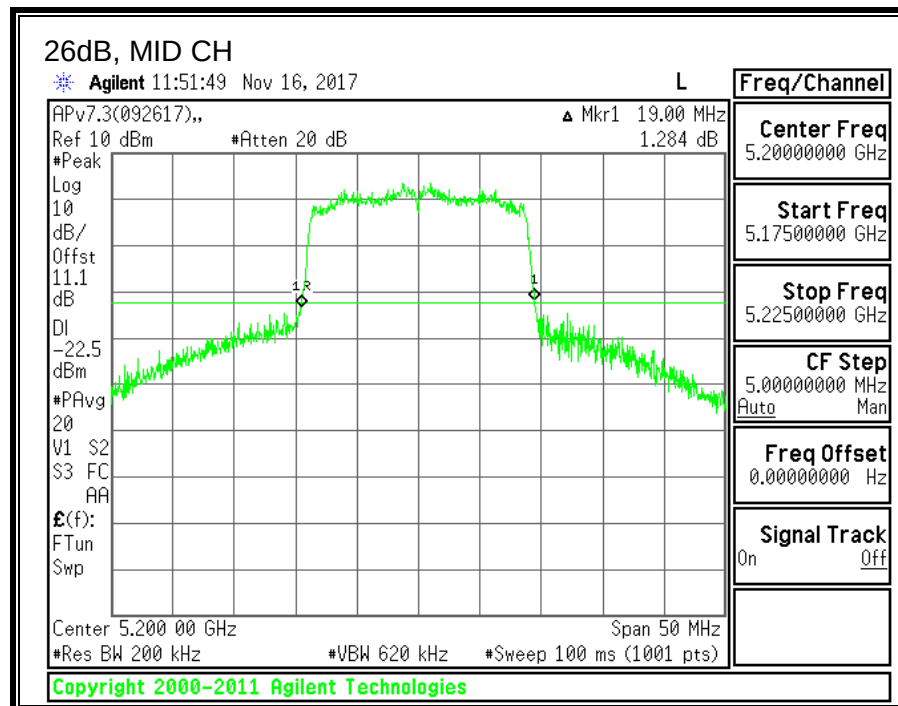
LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency	26 dB BW (MHz)
Low	5180	18.95
Mid	5200	19.00
High	5240	19.10





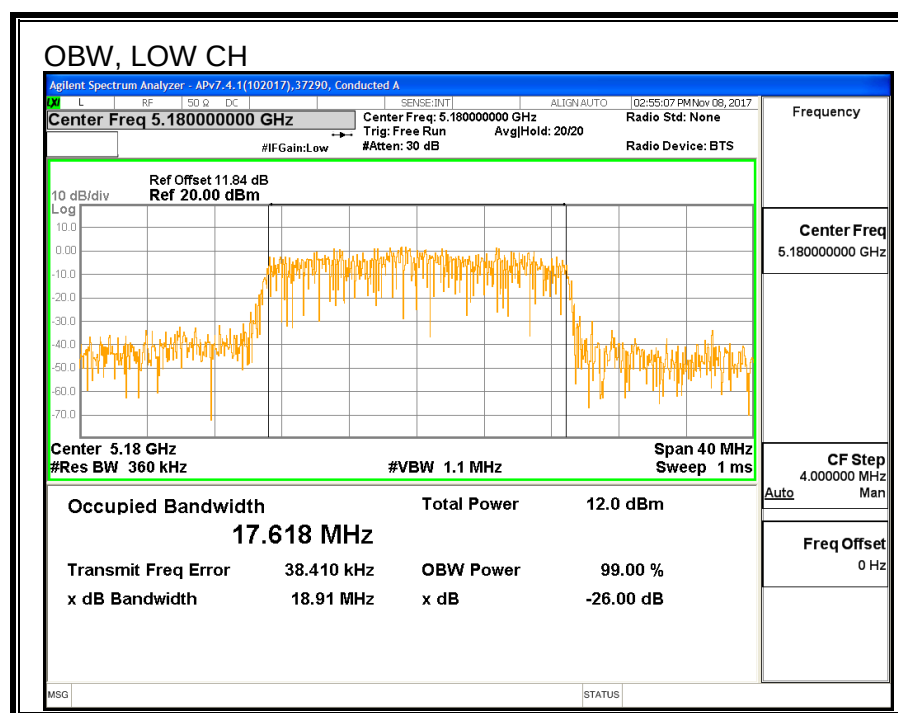
8.3.2. 99% BANDWIDTH

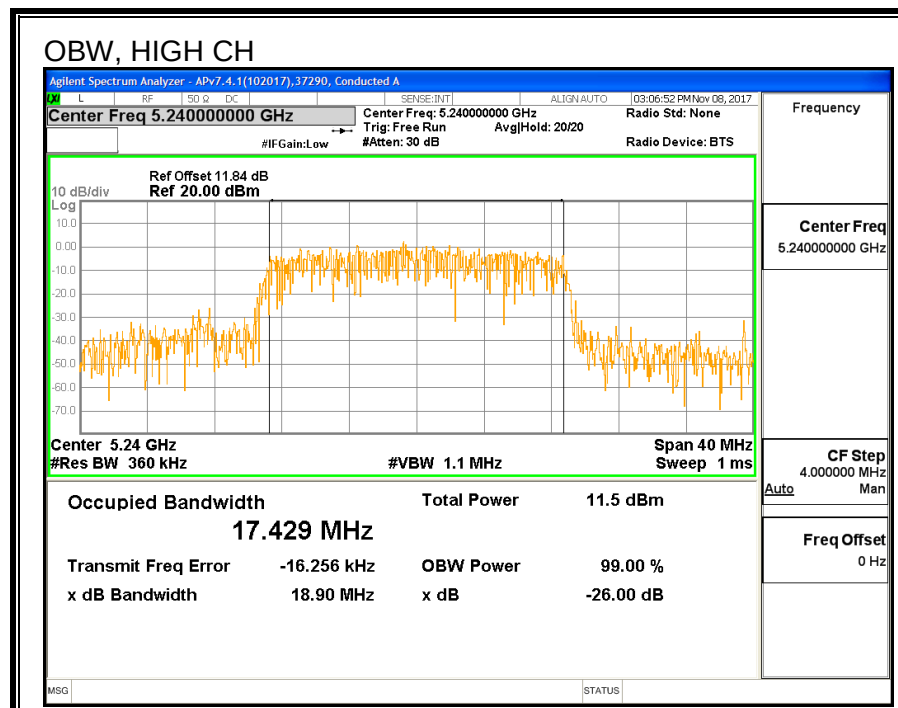
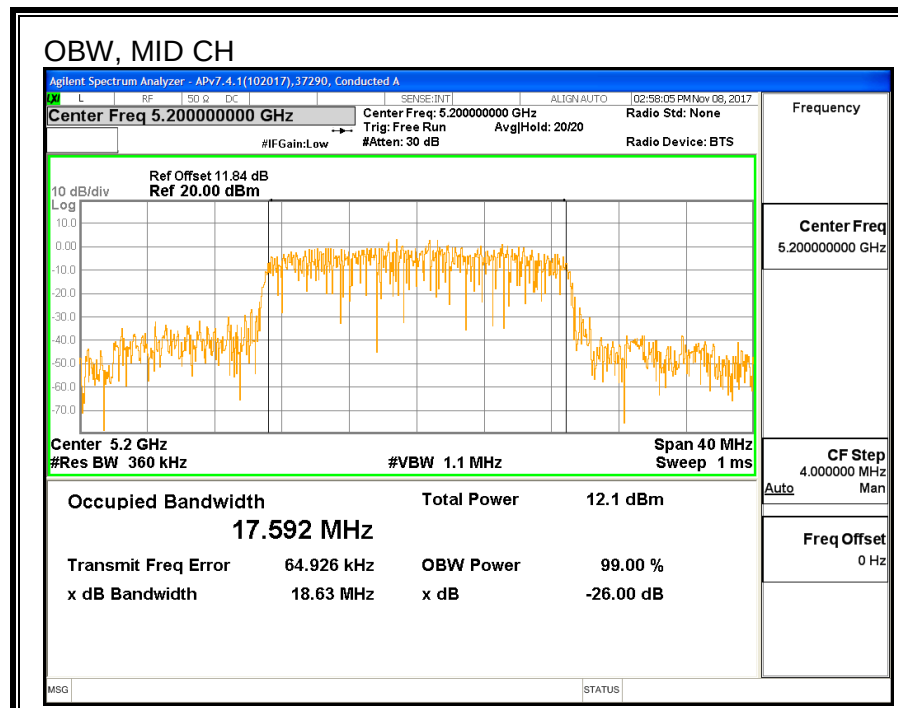
LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency	99% BW (MHz)
Low	5180	17.618
Mid	5200	17.592
High	5240	17.429





8.3.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1)

(iv) For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

IC RSS-247 6.2.1(1)

The maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

RESULTS

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)
Low	5180	19.50	17.62	2.37
Mid	5200	22.30	17.59	2.37
High	5240	19.55	17.43	2.37

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	IC EIRP Limit (dBm)	Max IC Power (dBm)	Power Limit (dBm)	FCC PPSD Limit (dBm)	IC eirp PSD Limit (dBm)	PPSD Limit (dBm)
Low	5180	24.00	22.46	20.09	20.09	11.00	10.00	7.63
Mid	5200	24.00	22.45	20.08	20.08	11.00	10.00	7.63
High	5240	24.00	22.41	20.04	20.04	11.00	10.00	7.63

Duty Cycle CF (dB)	0.13	Included in Calculations of Corr'd PPSD
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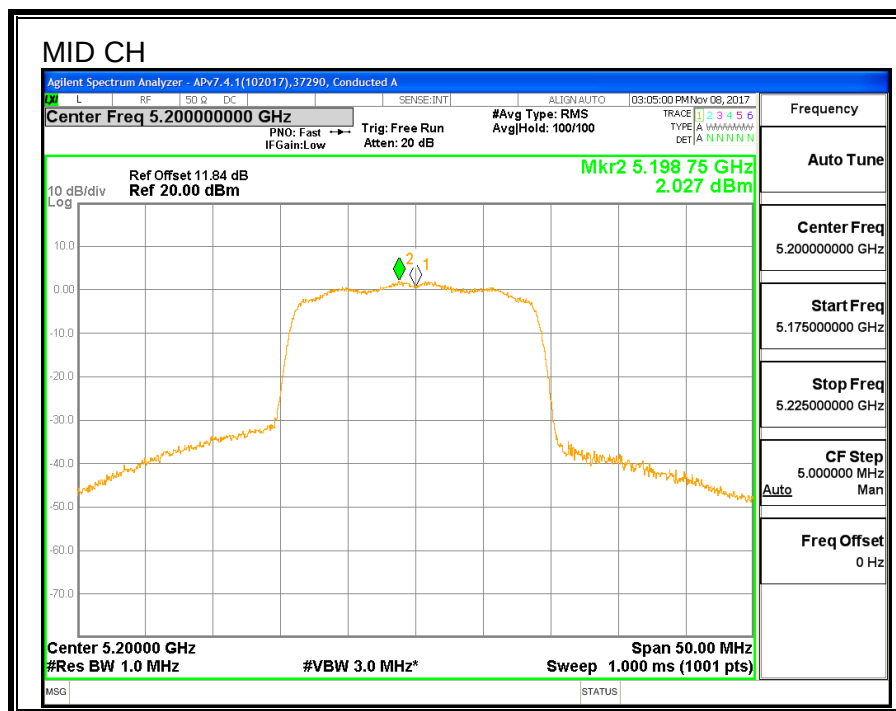
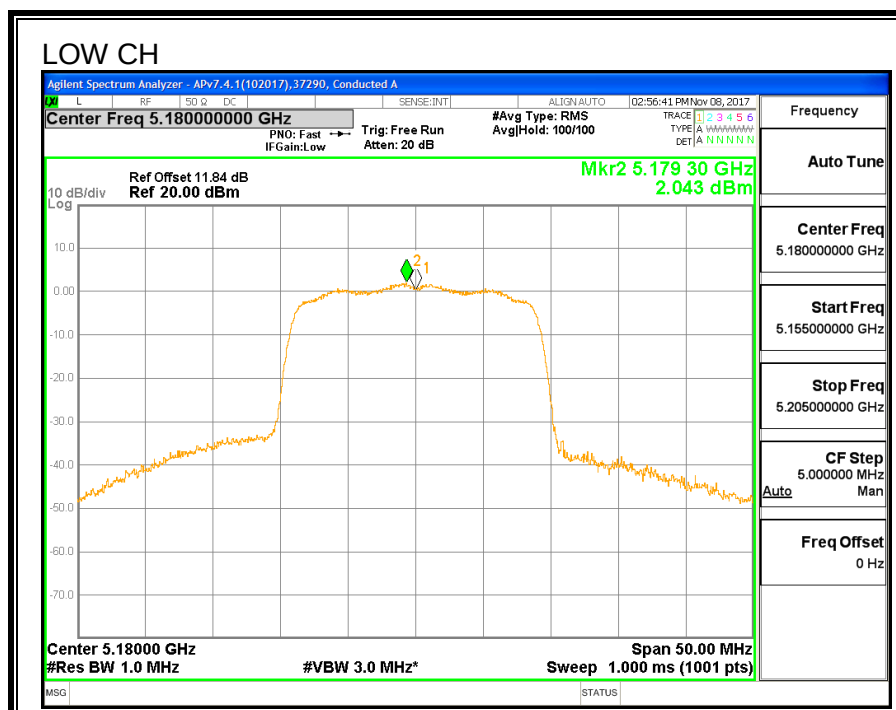
Output Power Results

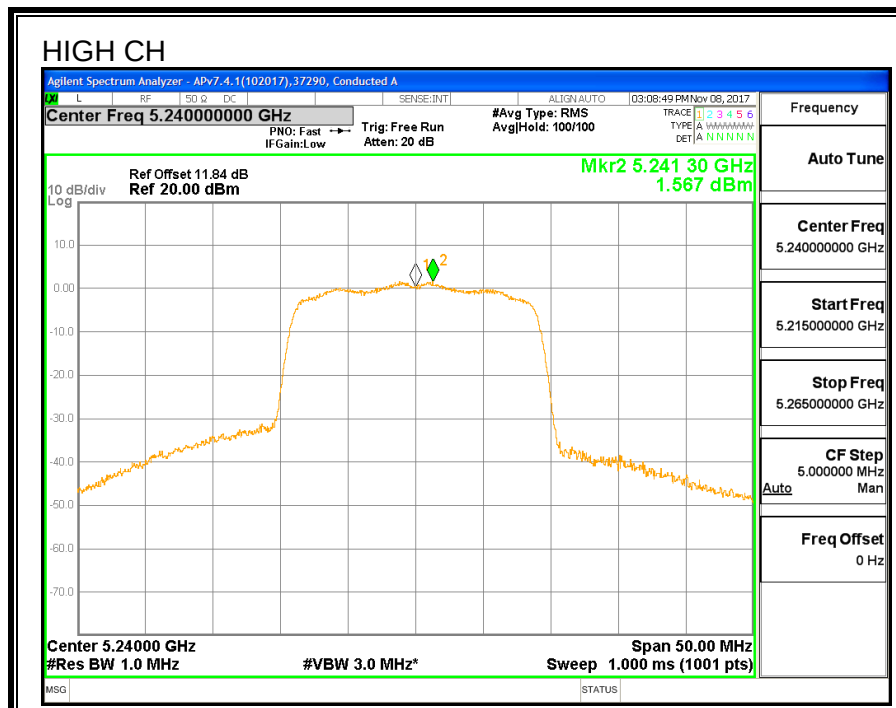
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5180	11.92	11.92	20.09	-8.17
Mid	5200	11.86	11.86	20.08	-8.22
High	5240	11.35	11.35	20.04	-8.69

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PPSD (dBm)	Total Corr'd PPSD (dBm)	PPSD Limit (dBm)	PPSD Margin (dB)
Low	5180	2.04	2.17	7.63	-5.46
Mid	5200	2.03	2.16	7.63	-5.47
High	5240	1.57	1.70	7.63	-5.93

PPSD





9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209
IC RSS-GEN, Section 8.9 and 8.10.

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For pre-scans above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 KHz for peak measurements.

For final measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for average measurements.

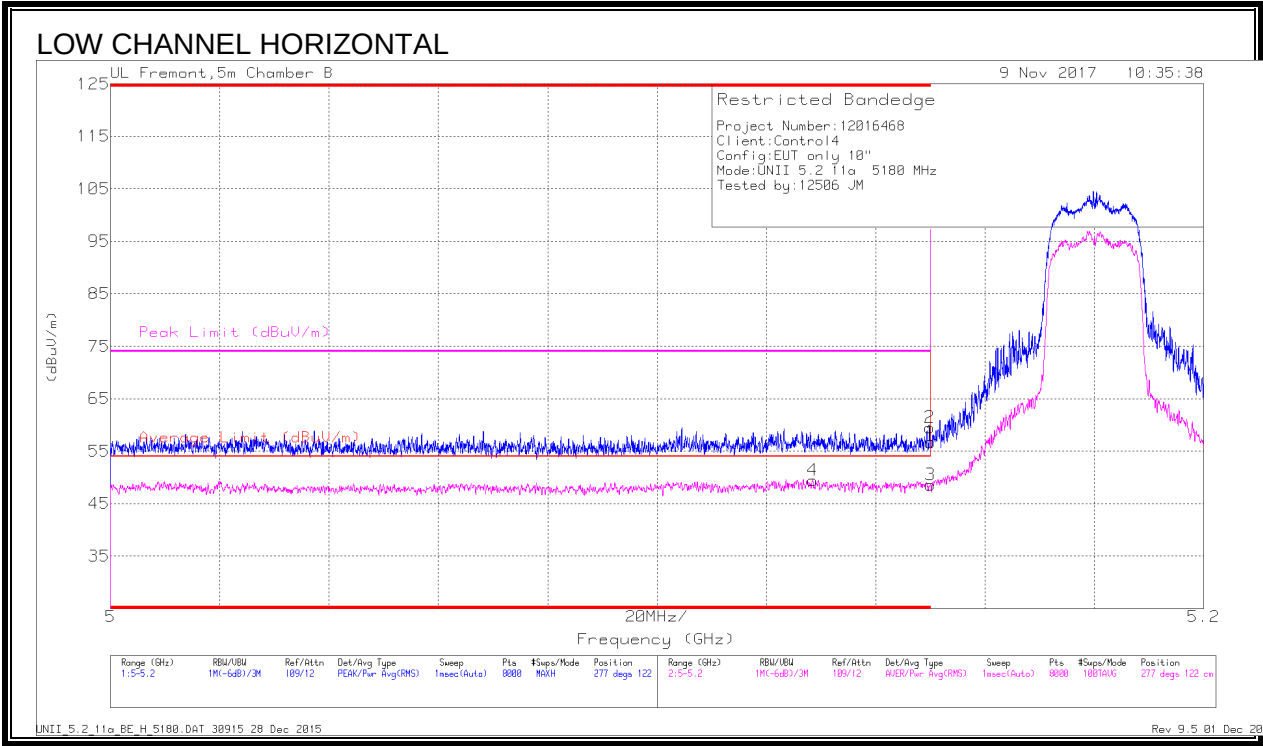
The spectrum from 30 MHz to 1GHz and 18GHz to 40 GHz is investigated with the transmitter set to transmit at the channel with highest output power as worst-case scenario. 1GHz to 18GHz was set to the lowest, middle, and highest channels in the 5 GHz bands.

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.

9.2. TRANSMITTER ABOVE 1GHz

9.2.1. 11a 1TX MODE IN THE 5.2GHz BAND

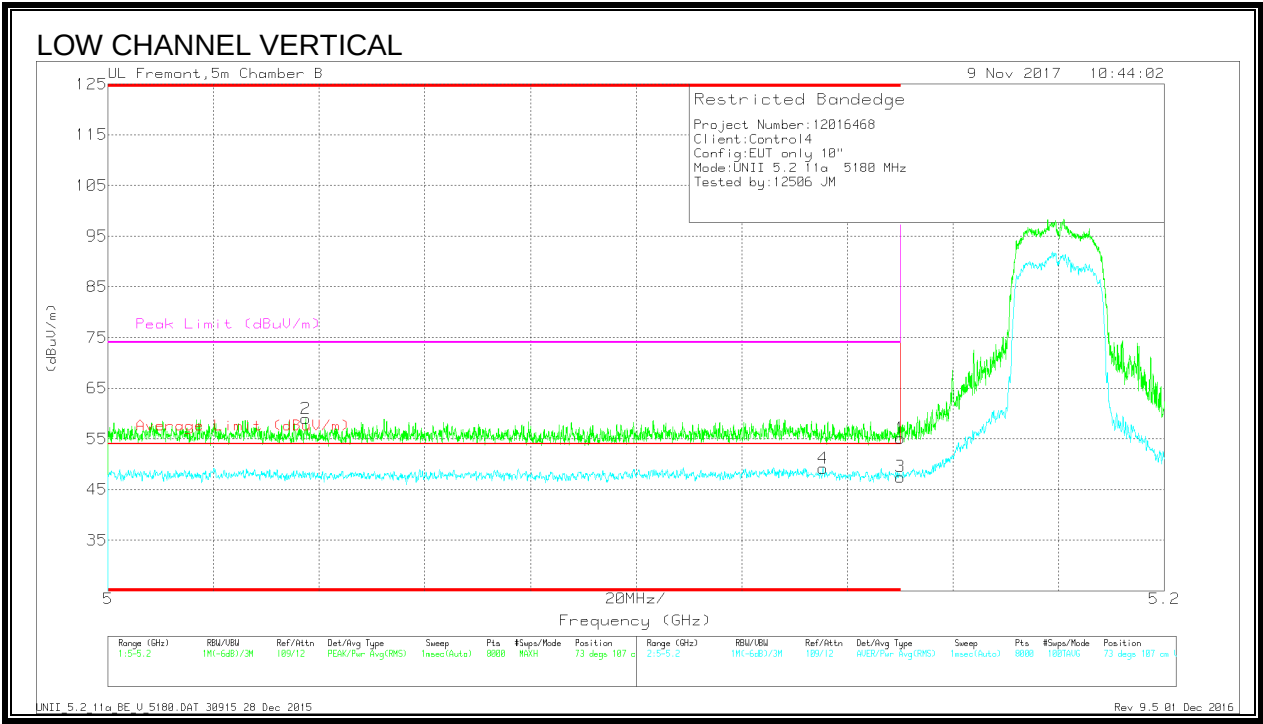
RESTRICTED BANDEDGE (LOW CHANNEL)



Trace Markers

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T863 (dBm)	Ampl/Cbl/Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 5.128	32.09	RMS	34.4	-17.1	.13	49.52	54	-4.48	-	-	277	122	H
1	* 5.15	40.09	Pk	34.4	-17.8	0	56.69	-	-	74	-17.31	277	122	H
2	* 5.15	42.92	Pk	34.4	-17.8	0	59.52	-	-	74	-14.48	277	122	H
3	* 5.15	31.93	RMS	34.4	-17.8	.13	48.66	54	-5.34	-	-	277	122	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection



Trace Markers

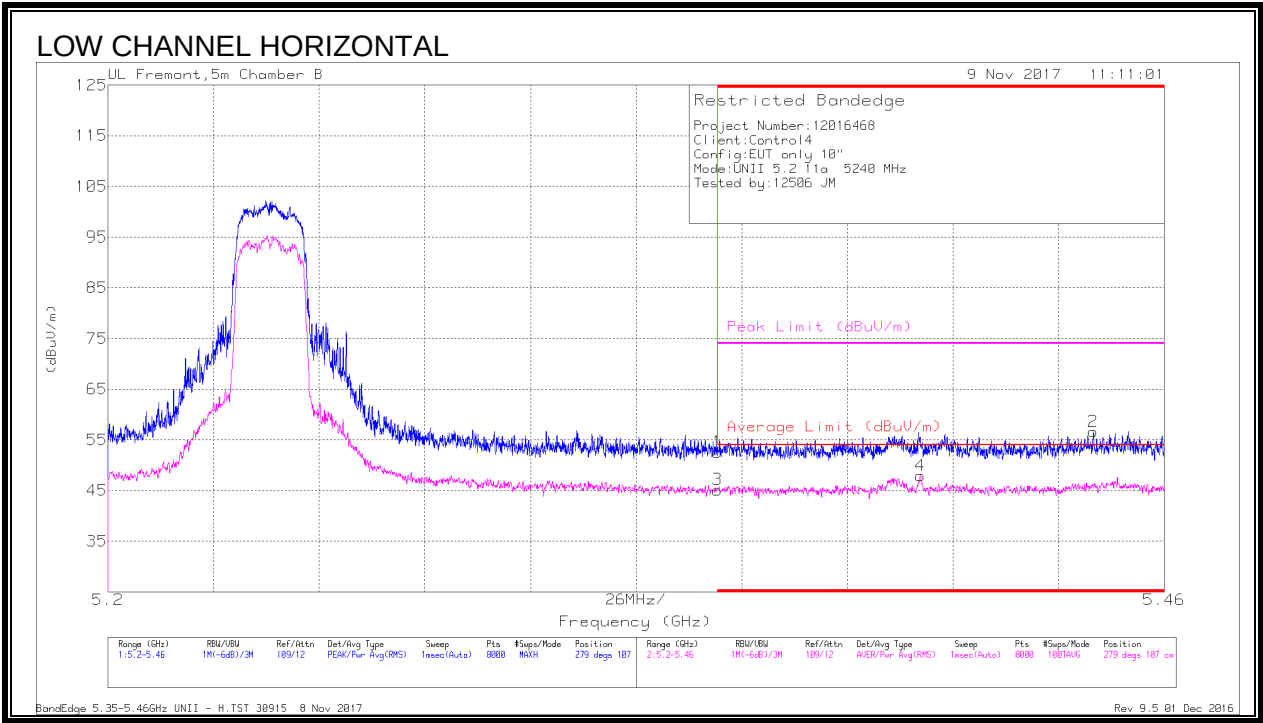
Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T863 (dBm)	Amp/Cbl/Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	38.56	Pk	34.4	-17.8	0	55.16	-	-	74	-18.84	73	107	V
2	* 5.037	41.97	Pk	34.4	-17.4	0	58.97	-	-	74	-15.03	73	107	V
3	* 5.15	30.9	RMS	34.4	-17.8	.13	47.63	54	-6.37	-	-	73	107	V
4	* 5.135	32.22	RMS	34.4	-17.4	.13	49.35	54	-4.65	-	-	73	107	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

RESTRICTED BANDEDGE (HIGH CHANNEL)



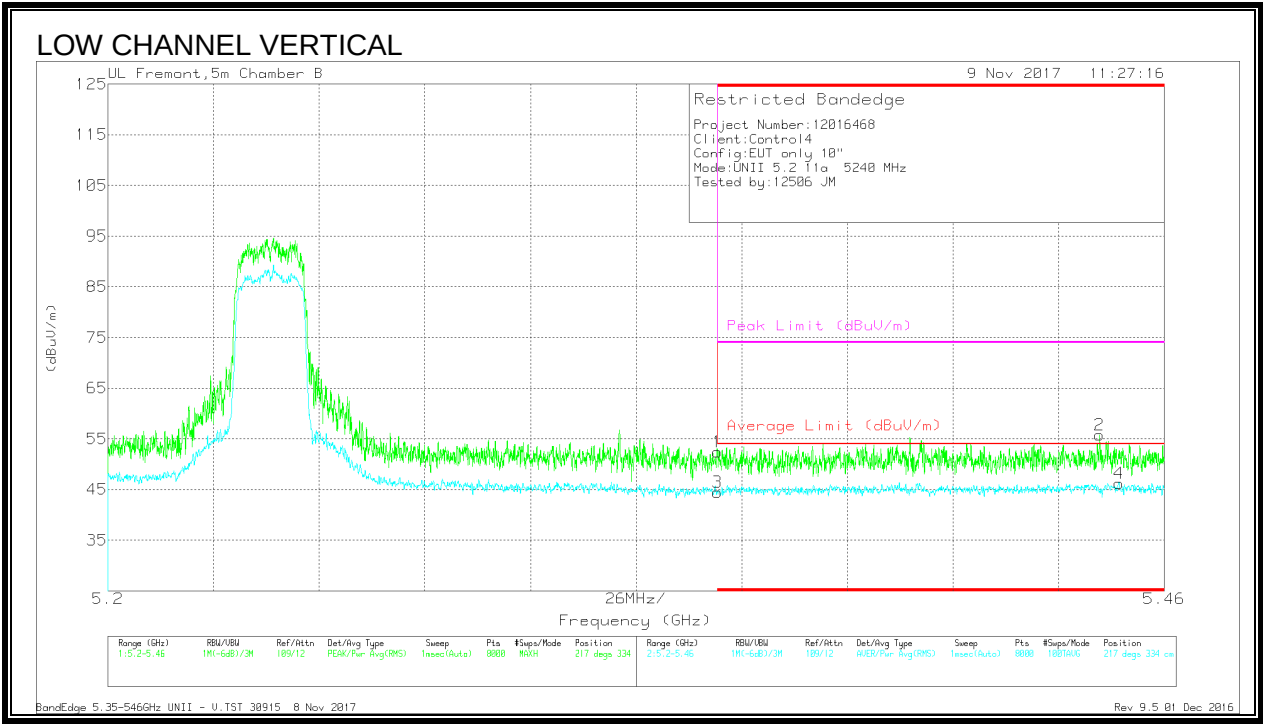
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dBm)	Amp/Cbl/Ftr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	36.19	Pk	34.9	-18.5	0	52.59	-	-	74	-21.41	279	107	H
2	* 5.443	40.1	Pk	35.1	-18.6	0	56.6	-	-	74	-17.4	279	107	H
3	* 5.35	28.74	RMS	34.9	-18.5	.13	45.27	54	-8.73	-	-	279	107	H
4	* 5.4	31.55	RMS	35.1	-18.7	.13	48.08	54	-5.92	-	-	279	107	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection



Trace Markers

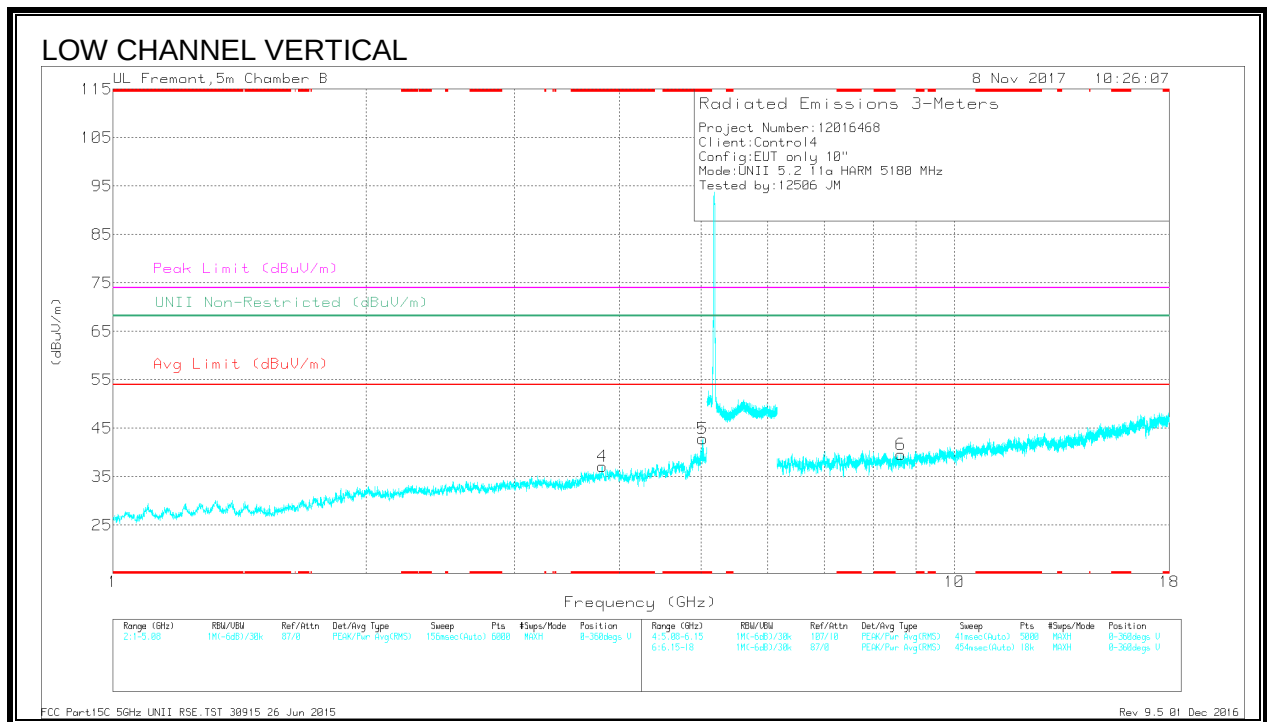
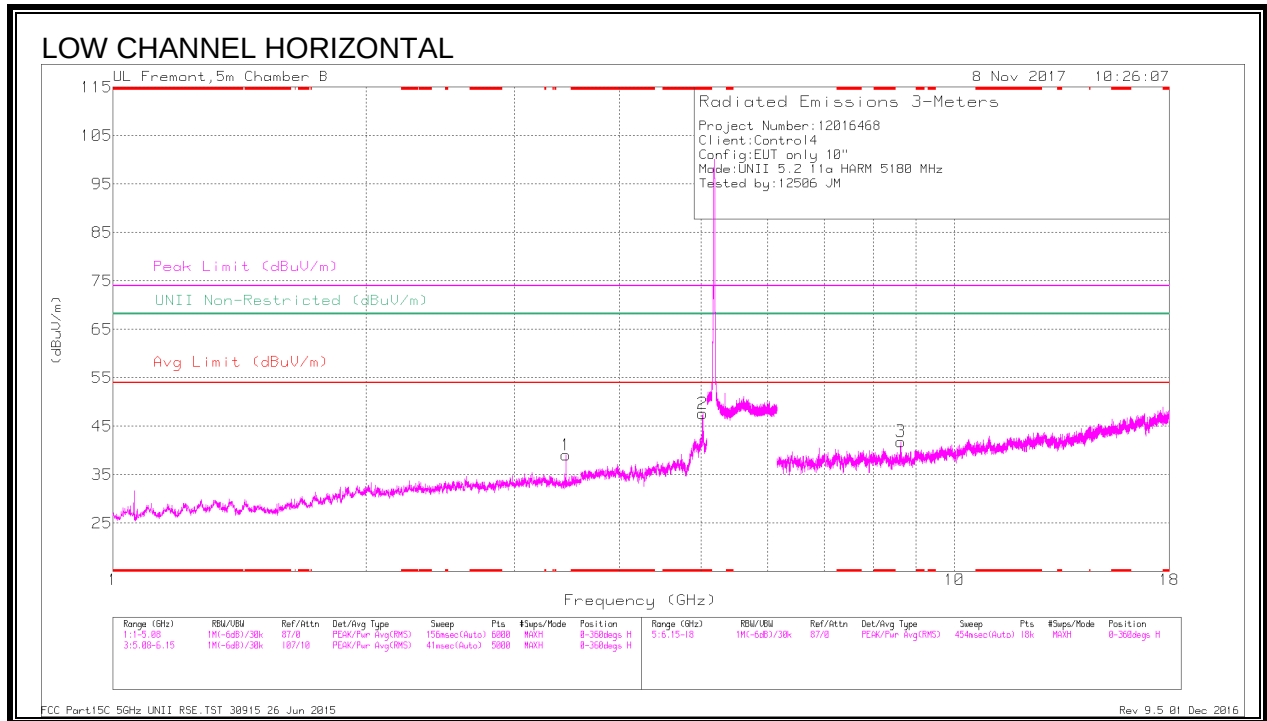
Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T863 (dBm)	Amp/Cbl/Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	35.99	Pk	34.9	-18.5	0	52.39	-	-	74	-21.61	217	334	V
2	* 5.444	39.31	Pk	35.1	-18.7	0	55.71	-	-	74	-18.29	217	334	V
3	* 5.35	28.11	RMS	34.9	-18.5	.13	44.64	54	-9.36	-	-	217	334	V
4	* 5.449	29.85	RMS	35.1	-18.7	.13	46.38	54	-7.62	-	-	217	334	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS



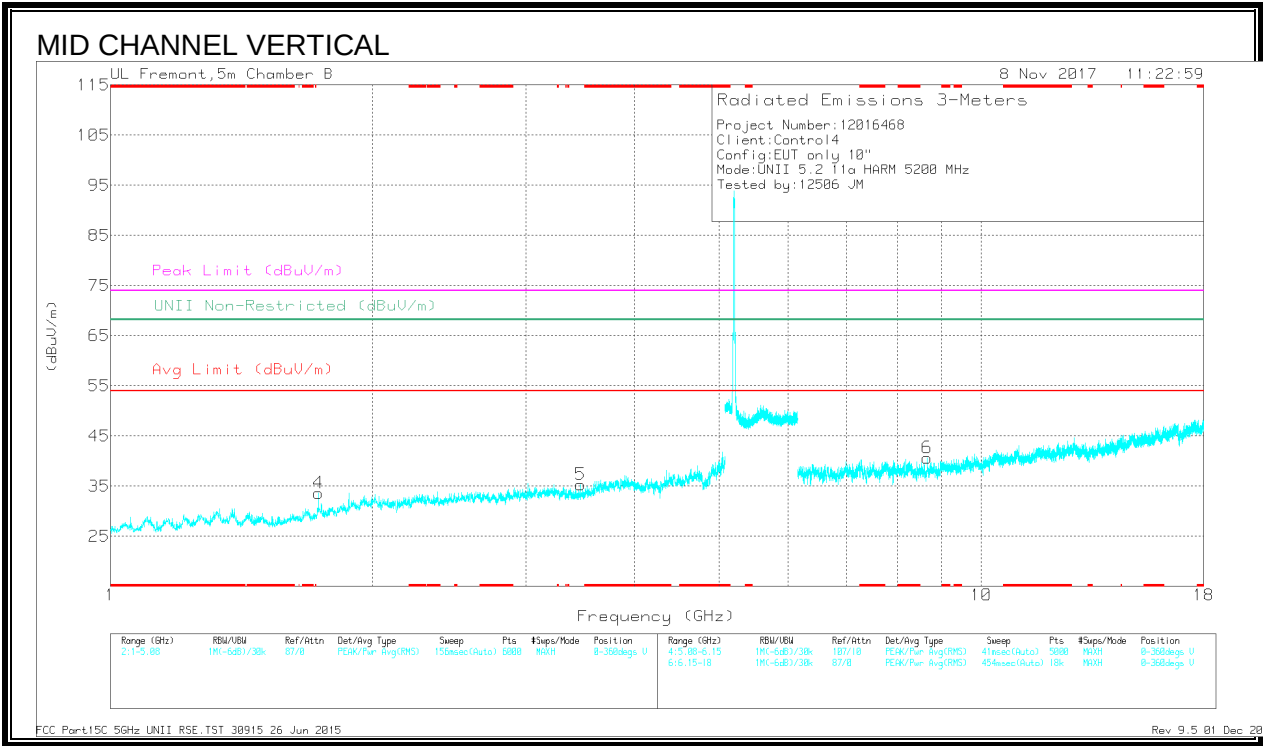
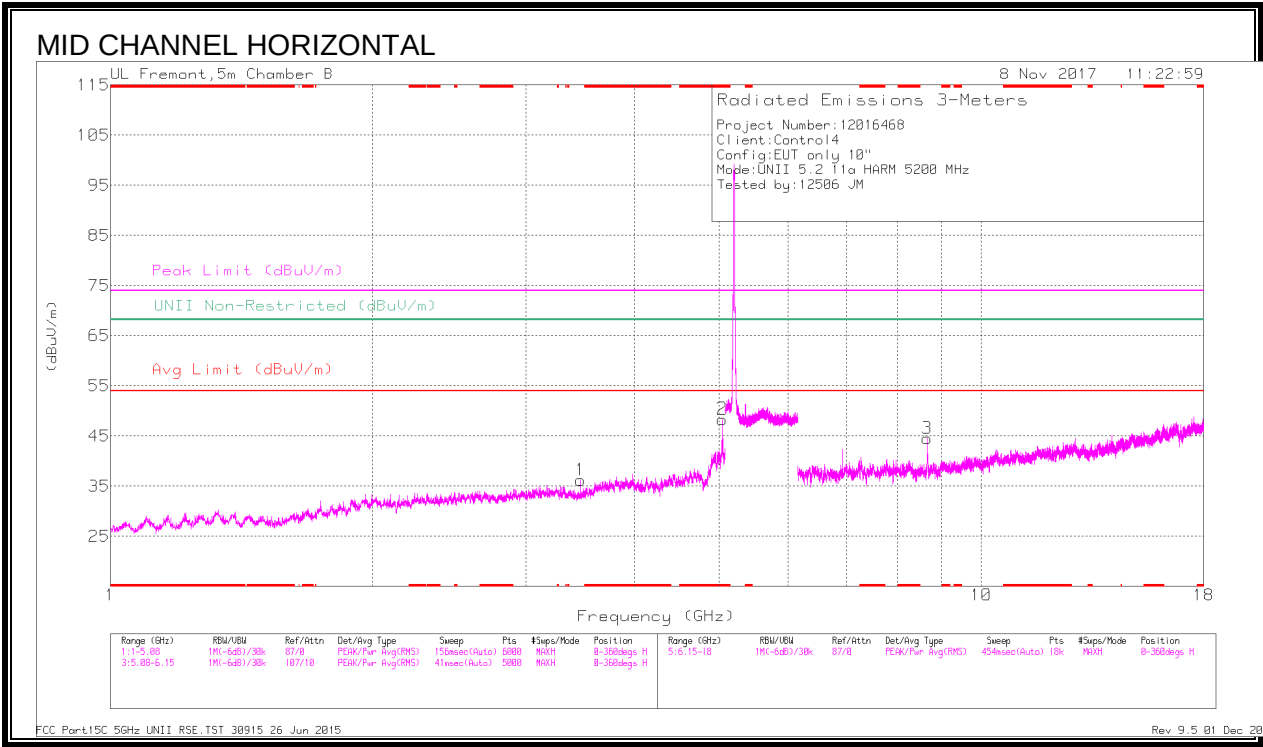
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dBm)	Amp/Cable/Tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.02	48.69	PK-U	34.4	-27.5	0	55.59	-	-	74	-18.41	-	-	77	102	H
* 5.02	38.98	ADR	34.4	-27.5	.13	46.01	54	-7.99	-	-	-	-	77	102	H
* 3.819	39.34	PK-U	33.5	-30.7	0	42.14	-	-	74	-31.86	-	-	1	116	V
* 3.82	28.38	ADR	33.5	-30.8	.13	31.21	54	-22.79	-	-	-	-	1	116	V
* 5.02	46.76	PK-U	34.4	-27.5	0	53.66	-	-	74	-20.34	-	-	305	260	V
* 5.02	36.79	ADR	34.4	-27.5	.13	43.82	54	-10.18	-	-	-	-	305	260	V
3.453	43.21	PK-U	32.6	-31.6	0	44.21	-	-	-	-	68.2	-23.99	331	147	H
6.631	35.58	PK-U	36	-25.8	0	45.78	-	-	-	-	68.2	-22.42	150	275	V
6.635	37.9	PK-U	36	-25.9	0	48	-	-	-	-	68.2	-20.2	106	110	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average



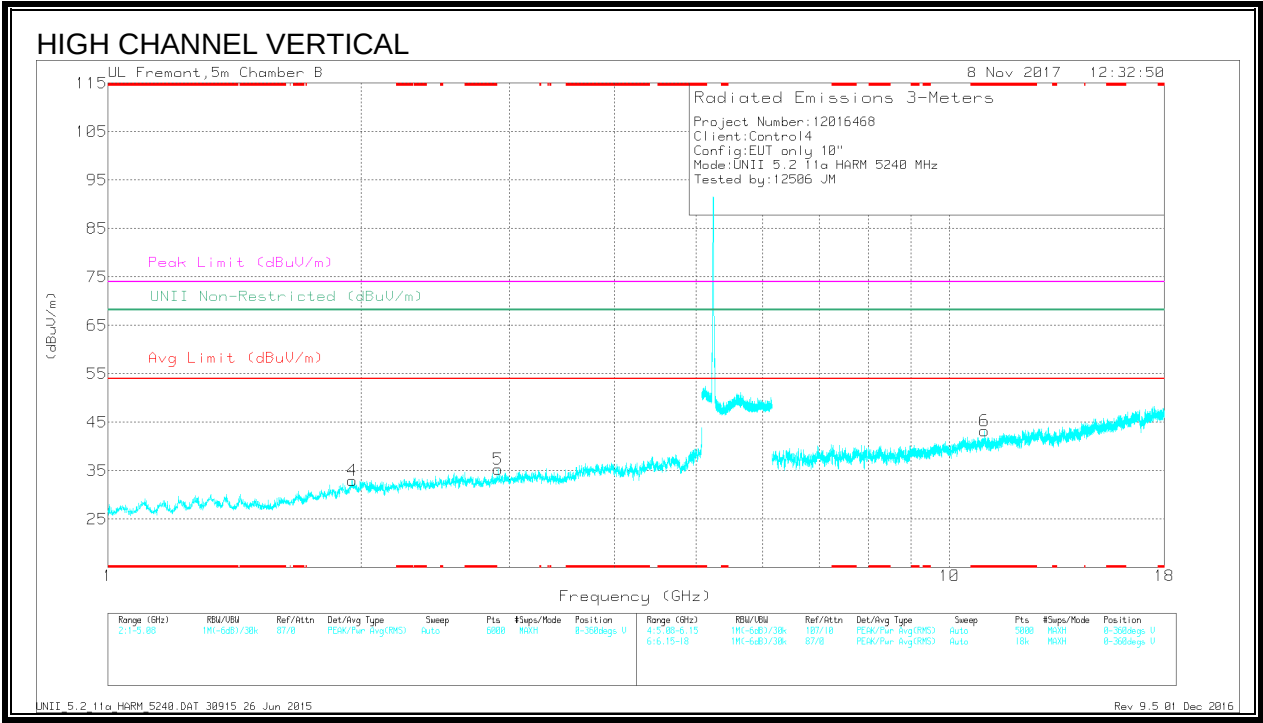
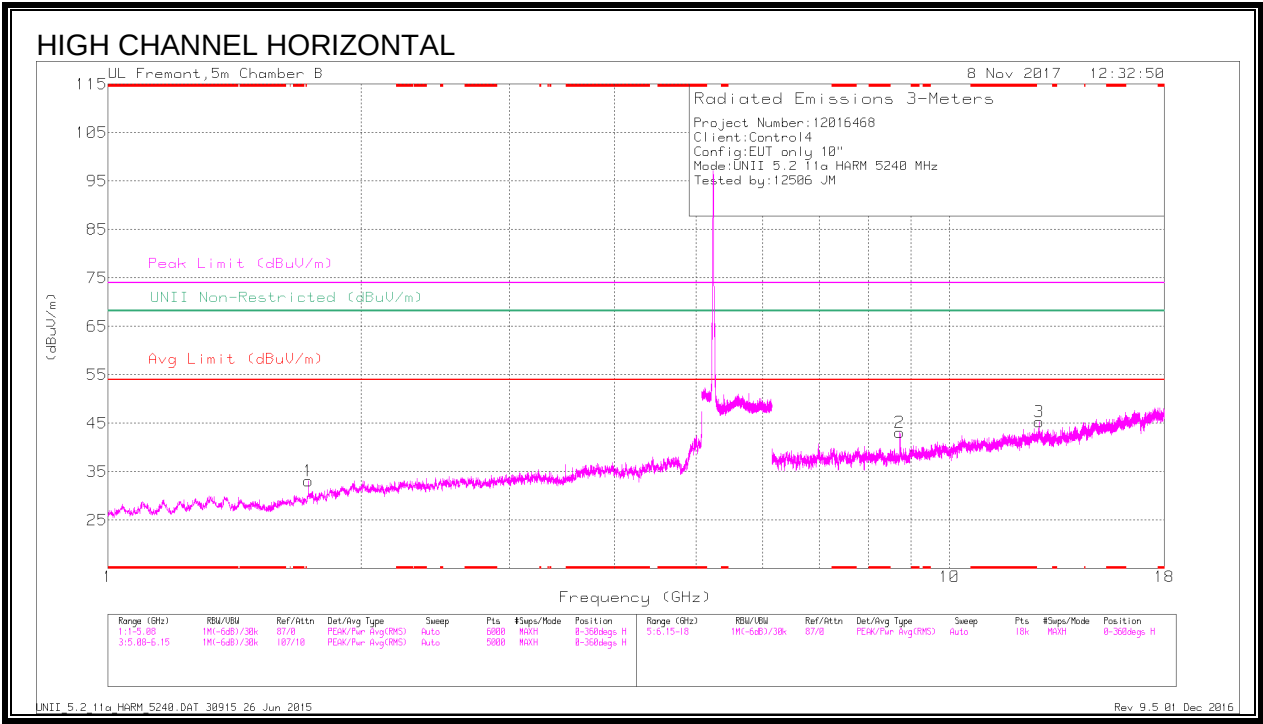
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cable/In/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.04	47.5	PK-U	34.4	-27.1	0	54.8	-	-	74	-19.2	-	-	93	110	H
* 5.04	37.77	ADR	34.4	-27.1	.13	45.2	54	-8.8	-	-	-	-	93	110	H
1.733	41.1	PK-U	29.5	-32.6	0	38	-	-	-	-	68.2	-30.2	300	385	V
3.467	42.69	PK-U	32.7	-31.5	0	43.89	-	-	-	-	68.2	-24.31	338	131	H
3.467	41.51	PK-U	32.7	-31.5	0	42.71	-	-	-	-	68.2	-25.49	311	302	V
8.665	37.22	PK-U	36.1	-25.9	0	47.42	-	-	-	-	68.2	-20.78	143	284	V
8.669	40.17	PK-U	36.1	-25.9	0	50.37	-	-	-	-	68.2	-17.83	109	228	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average



Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF YB63 (dBm)	AmplCblFltrPad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Unli Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.007	32.76	PK-U	37.7	-21.7	0	48.76	-	-	74	-25.24	-	-	188	158	V
* 11.007	20.87	ADR	37.7	-21.8	.13	36.9	54	-17.1	-	-	-	-	188	158	V
1.73	40.46	PK-U	29.4	-32.5	0	37.36	-	-	-	-	68.2	-30.84	336	204	H
1.731	28.24	PK-U	29.4	-32.5	0	25.14	-	-	-	-	68.2	-43.06	336	102	H
1.954	40.58	PK-U	31.1	-31.9	0	39.78	-	-	-	-	68.2	-28.42	170	316	V
2.907	39.03	PK-U	32.5	-31.1	0	40.43	-	-	-	-	68.2	-27.77	79	351	V
8.732	39.6	PK-U	36.2	-25.8	0	50	-	-	-	-	68.2	-18.2	112	112	H
12.775	32.49	PK-U	39.4	-21.3	0	50.59	-	-	-	-	68.2	-17.61	341	329	H

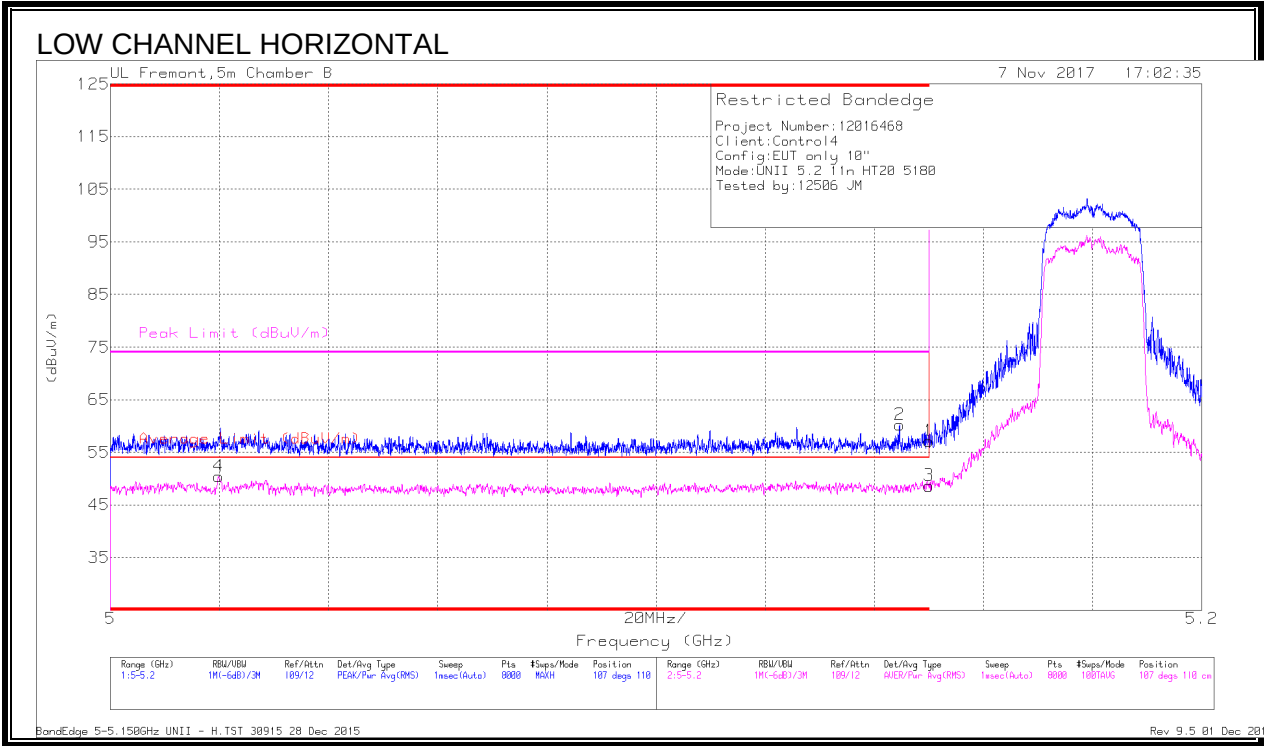
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

9.2.2. 11n HT20 1TX MODE IN THE 5.2GHz BAND

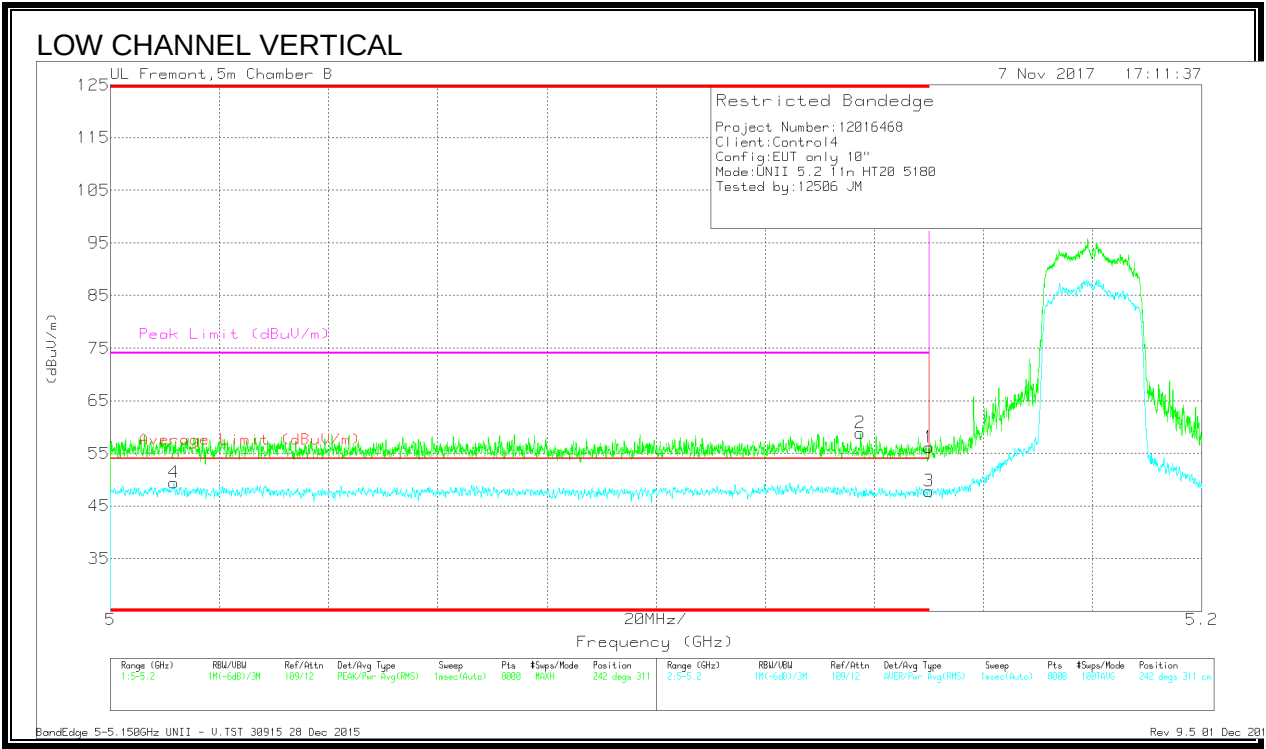
RESTRICTED BANDEDGE (LOW CHANNEL)



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF 1683 (dBm)	AmplChBf-Itz/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 5.02	33.12	RMS	34.4	-17.3	.14	50.36	54	-3.64	-	-	107	110	H
2	* 5.145	43.53	Pk	34.4	-17.7	0	60.23	-	-	74	-13.77	107	110	H
1	* 5.15	40.55	Pk	34.4	-17.8	0	57.15	-	-	74	-16.85	107	110	H
3	* 5.15	31.88	RMS	34.4	-17.8	.14	48.62	54	-5.38	-	-	107	110	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

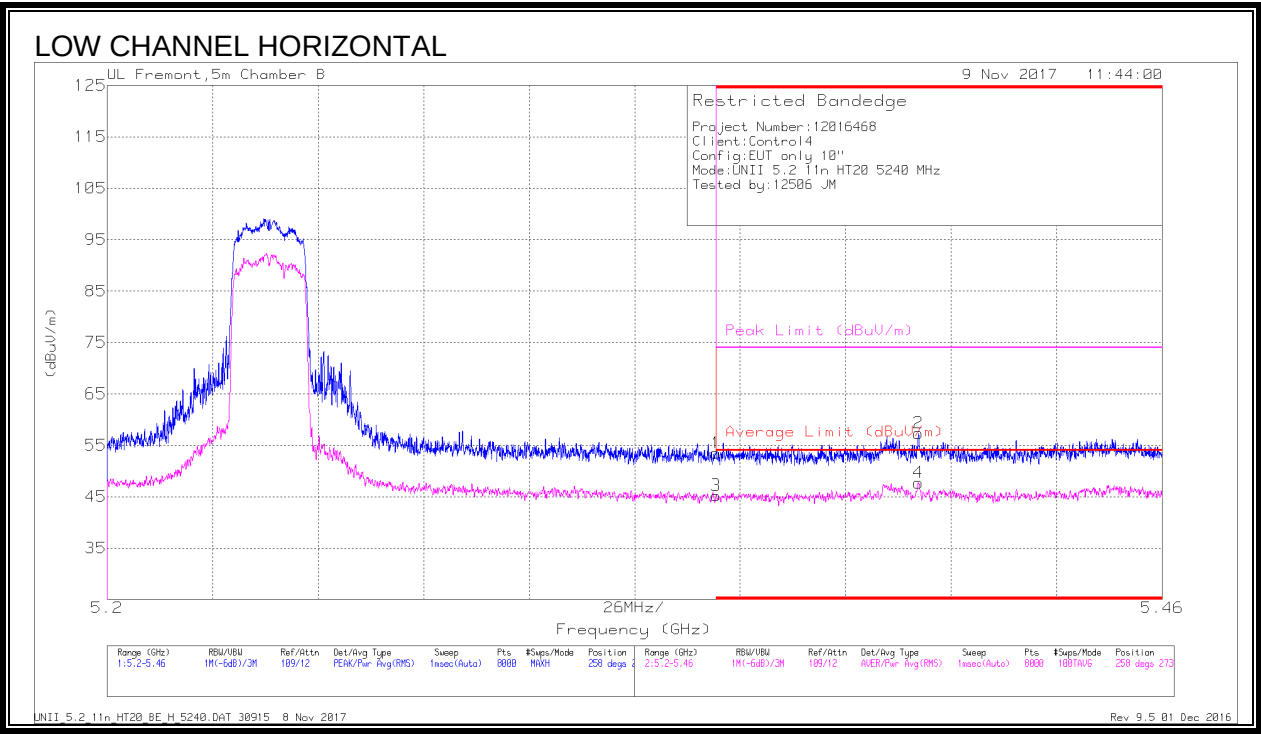


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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
4	* 5.012	32.12	RMS	34.4	-17.1	49.42	54	-4.58	-	-	242	311	V
2	* 5.137	41.9	Pk	34.4	-17.4	58.9	-	-	74	-15.1	242	311	V
1	* 5.15	39.49	Pk	34.4	-17.8	56.09	-	-	74	-17.91	242	311	V
3	* 5.15	31.21	RMS	34.4	-17.8	47.81	54	-6.19	-	-	242	311	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

RESTRICTED BANDEDGE (HIGH CHANNEL)



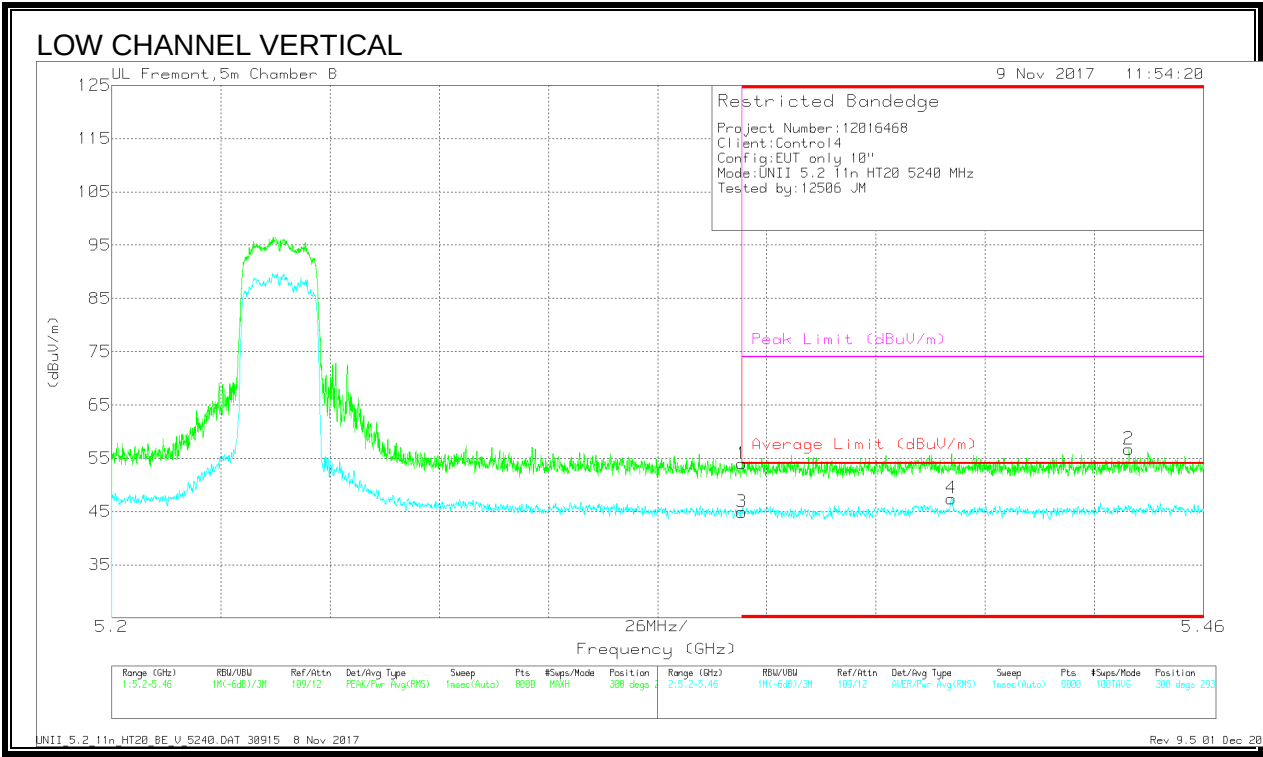
Trace Markers

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T663 (dBm)	Amp/Cbl/Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	37.1	Pk	34.9	-18.5	0	53.5	-	-	74	-20.5	258	273	H
2	* 5.4	40.96	Pk	35.1	-18.7	0	57.36	-	-	74	-16.64	258	273	H
3	* 5.35	28.68	RMS	34.9	-18.5	.14	45.22	54	-8.78	-	-	258	273	H
4	* 5.4	31.08	RMS	35.1	-18.6	.14	47.72	54	-6.28	-	-	258	273	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

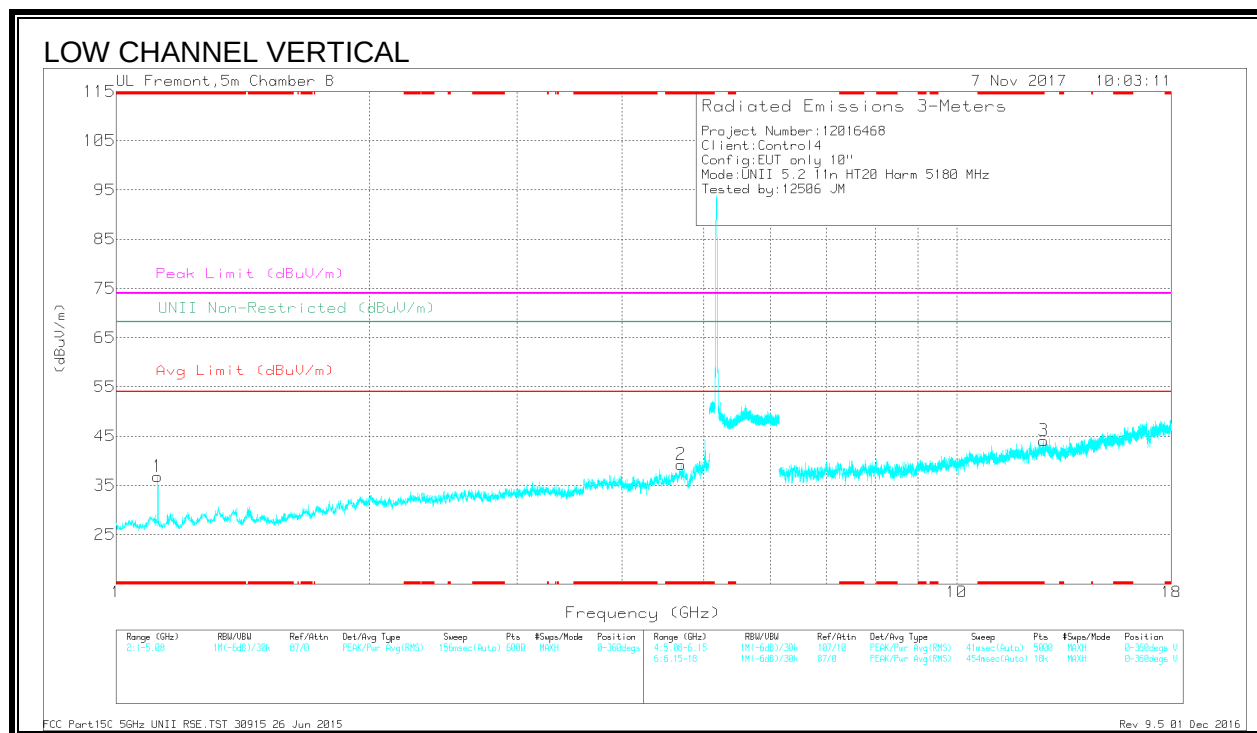
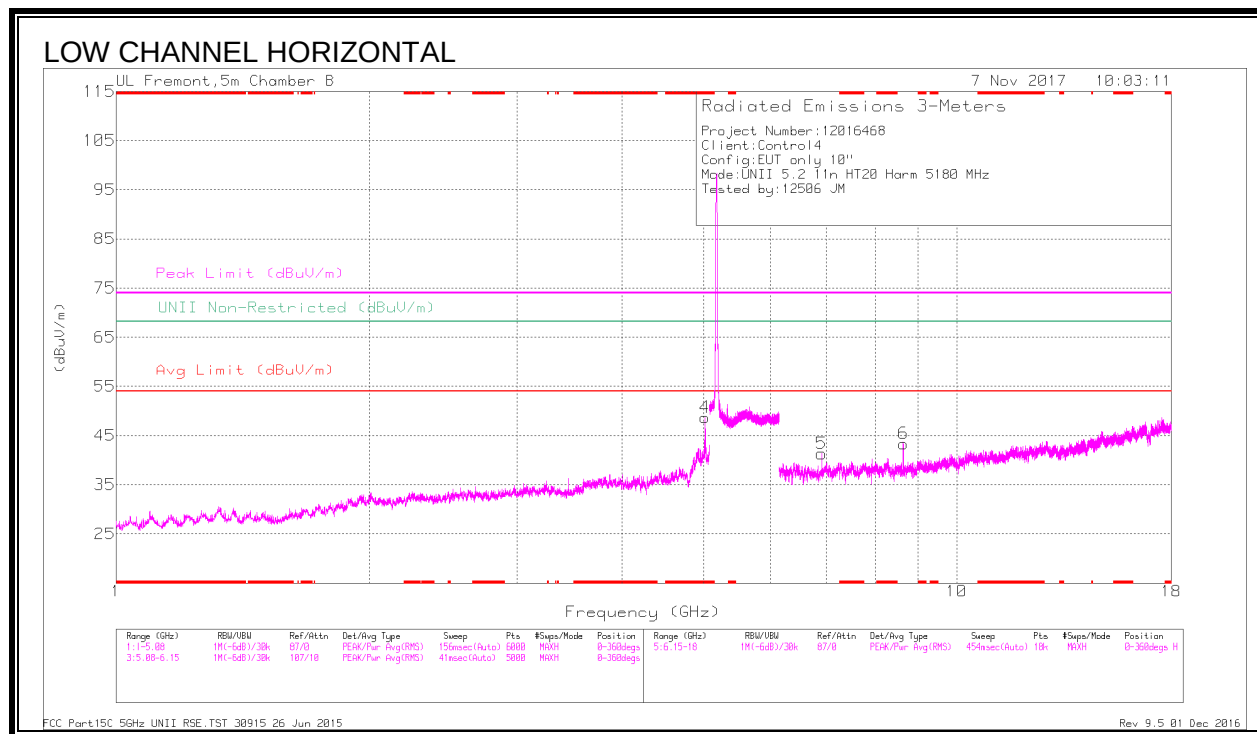


Trace Markers

Marker	Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T863 (dBm)	Ampl/Cbll/Ftr/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35	37.56	Pk	34.9	-18.5	0	53.96	-	-	74	-20.04	308	293	V
3	* 5.35	28.51	RMS	34.9	-18.5	.14	45.05	54	-8.95	-	-	308	293	V
4	* 5.4	31.05	RMS	35.1	-18.7	.14	47.59	54	-6.41	-	-	308	293	V
2	* 5.442	40.22	Pk	35.1	-18.6	0	56.72	-	-	74	-17.28	308	293	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS



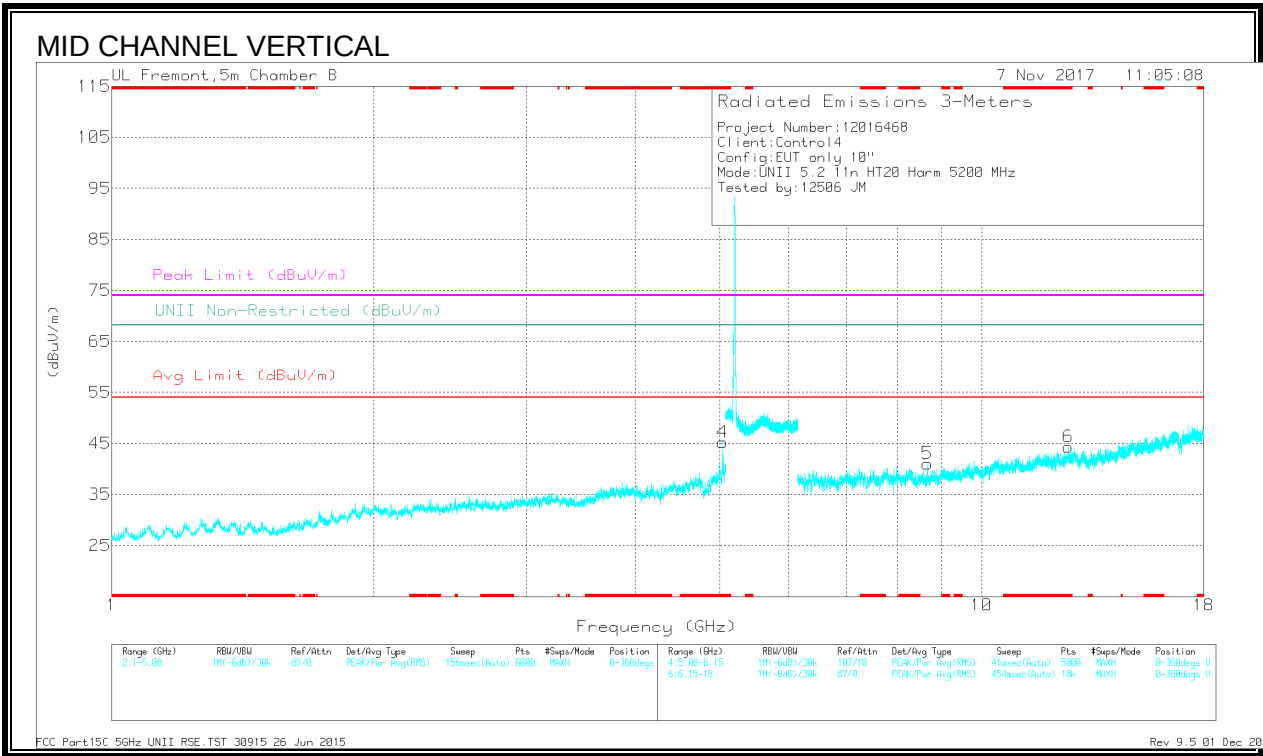
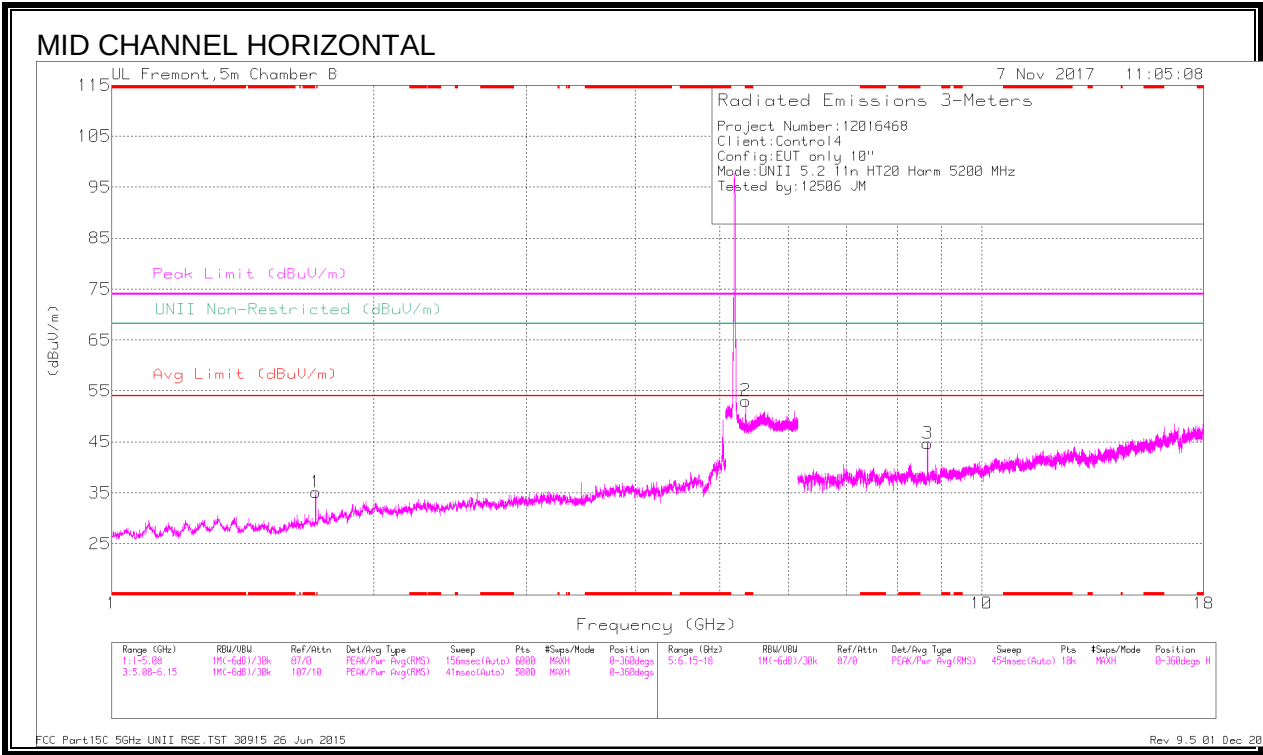
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dBm)	Amp/Coil/Film/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	U/NII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.02	48.76	PK-U	34.4	-27.5	0	55.66	-	-	74	-18.34	-	-	83	102	H
* 5.02	38.85	ADR	34.4	-27.5	.14	45.89	54	-8.11	-	-	-	-	83	102	H
* 1.122	40.54	PK-U	27.6	-33.9	0	34.24	-	-	74	-39.76	-	-	97	382	V
* 1.119	28.95	ADR	27.6	-33.9	.14	22.79	54	-31.21	-	-	-	-	97	382	V
* 4.697	39.69	PK-U	34.2	-29	0	44.89	-	-	74	-29.11	-	-	70	133	V
* 4.697	27.73	ADR	34.2	-29	.14	33.07	54	-20.93	-	-	-	-	70	133	V
* 12.69	32.38	PK-U	39.3	-22.1	0	49.58	-	-	74	-24.42	-	-	64	328	V
* 12.693	20.53	ADR	39.3	-22.2	.14	37.77	54	-16.23	-	-	-	-	64	328	V
6.906	39.39	PK-U	35.8	-28.3	0	46.89	-	-	-	-	68.2	-21.31	113	107	H
8.638	40.12	PK-U	36	-25.9	0	50.22	-	-	-	-	68.2	-17.98	115	102	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average



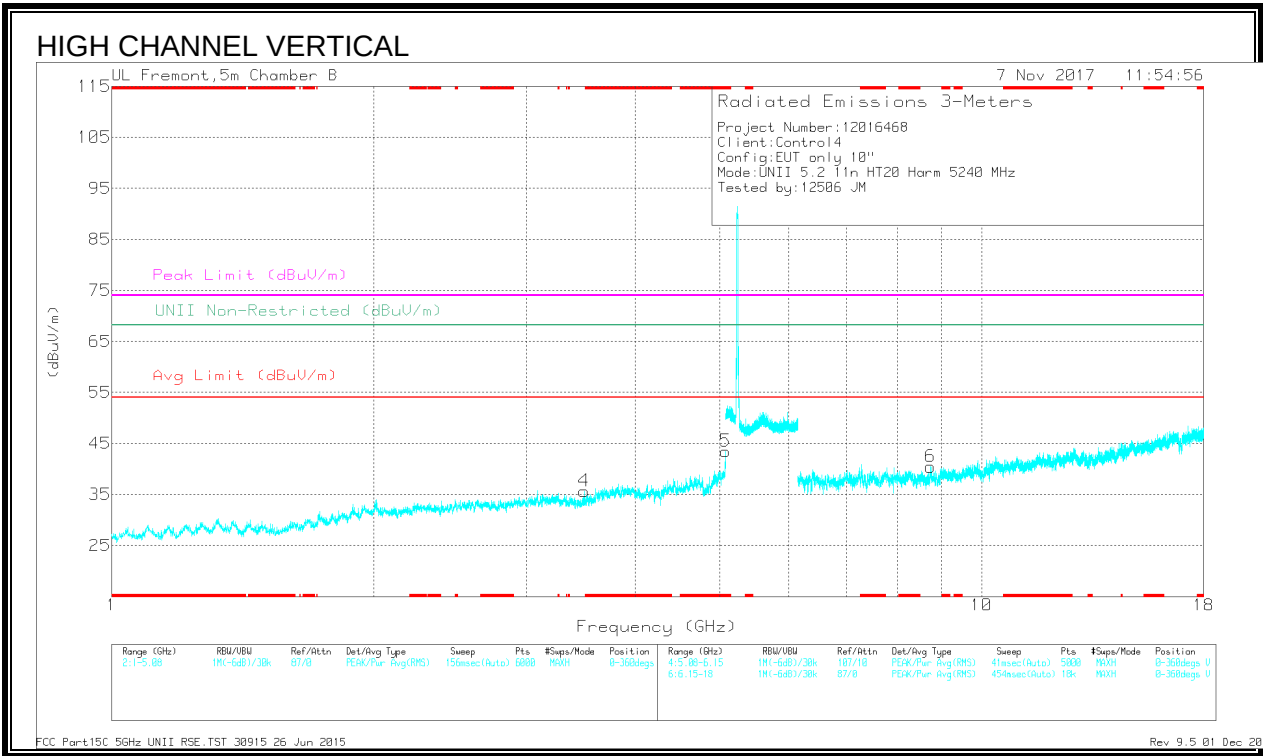
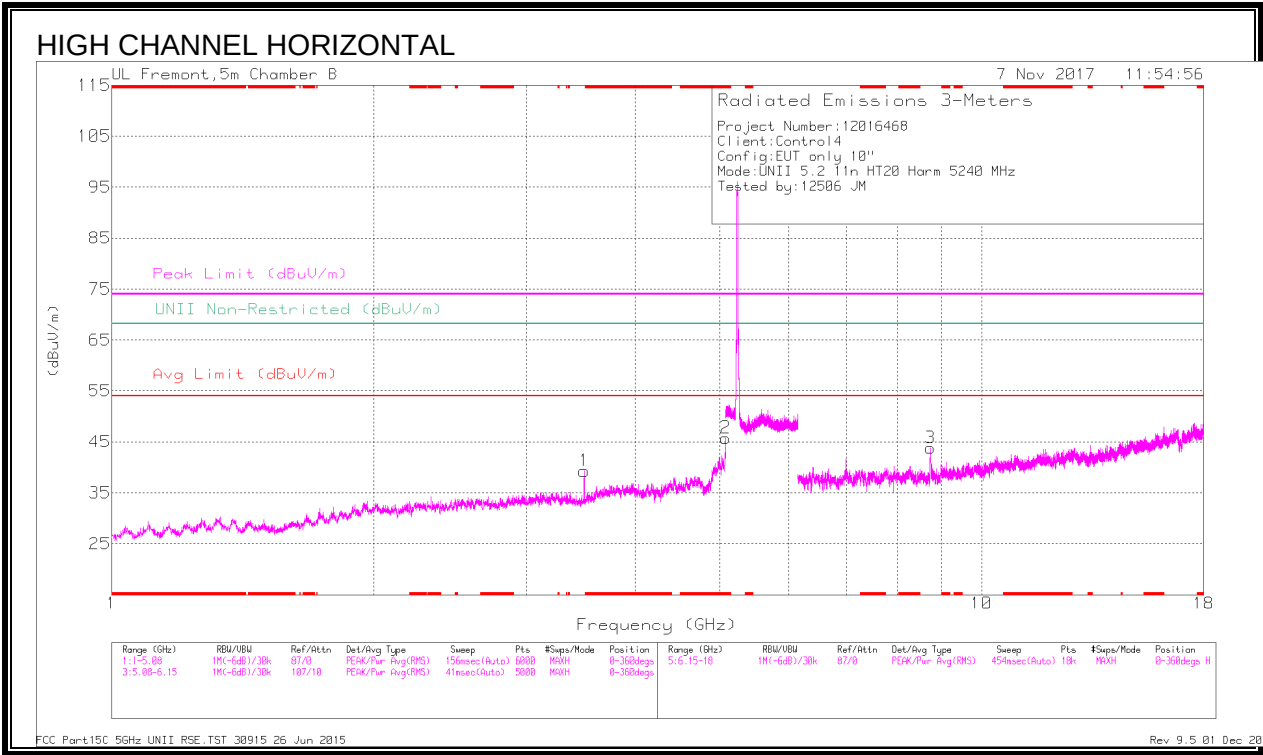
Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	AF 1863 (dBm)	Amp/Cbl/Filt/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.04	45.8	PK-U	34.4	-27.1	0	53.1	-	-	74	-20.9	-	-	305	255	V
* 5.04	35.45	ADR	34.4	-27.1	.14	42.89	54	-11.11	-	-	-	-	305	255	V
* 5.36	42.15	PK-U	34.9	-18.6	0	58.45	-	-	74	-15.55	-	-	100	125	H
* 5.36	31.77	ADR	34.9	-18.6	.14	48.21	54	-5.79	-	-	-	-	100	125	H
* 12.577	32.11	PK-U	39.2	-22.2	0	49.11	-	-	74	-24.89	-	-	341	248	V
* 12.577	20.71	ADR	39.2	-22.2	.14	37.85	54	-16.15	-	-	-	-	341	248	V
1.717	40.9	PK-U	29.3	-32.9	0	37.3	-	-	-	-	68.2	-30.9	31	179	H
8.672	42.23	PK-U	36.1	-25.9	0	52.43	-	-	-	-	68.2	-15.77	113	102	H
8.672	37.79	PK-U	36.1	-25.9	0	47.99	-	-	-	-	68.2	-20.21	162	218	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average



Radiated Emissions

Frequenc y (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cable/Fit/Pad (dB)	DC Corr (dB)	Correcte d Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.08	43.82	PK-U	34.3	-24	0	54.12	-	-	74	-19.88	-	-	93	108	H
* 5.08	34.02	ADR	34.3	-24	.14	44.46	54	-9.54	-	-	-	-	93	108	H
* 5.08	40.3	PK-U	34.3	-24	0	50.6	-	-	74	-23.4	-	-	257	106	V
* 5.08	28.89	ADR	34.3	-24	.14	39.33	54	-14.67	-	-	-	-	257	106	V
3.493	41.08	PK-U	32.8	-31	0	42.88	-	-	-	-	68.2	-25.32	324	132	H
3.493	41.16	PK-U	32.8	-31	0	42.96	-	-	-	-	68.2	-25.24	285	291	V
6.732	37.27	PK-U	36.2	-25.8	0	47.67	-	-	-	-	68.2	-20.53	215	240	V
6.735	40	PK-U	36.2	-25.9	0	50.3	-	-	-	-	68.2	-17.9	111	117	H

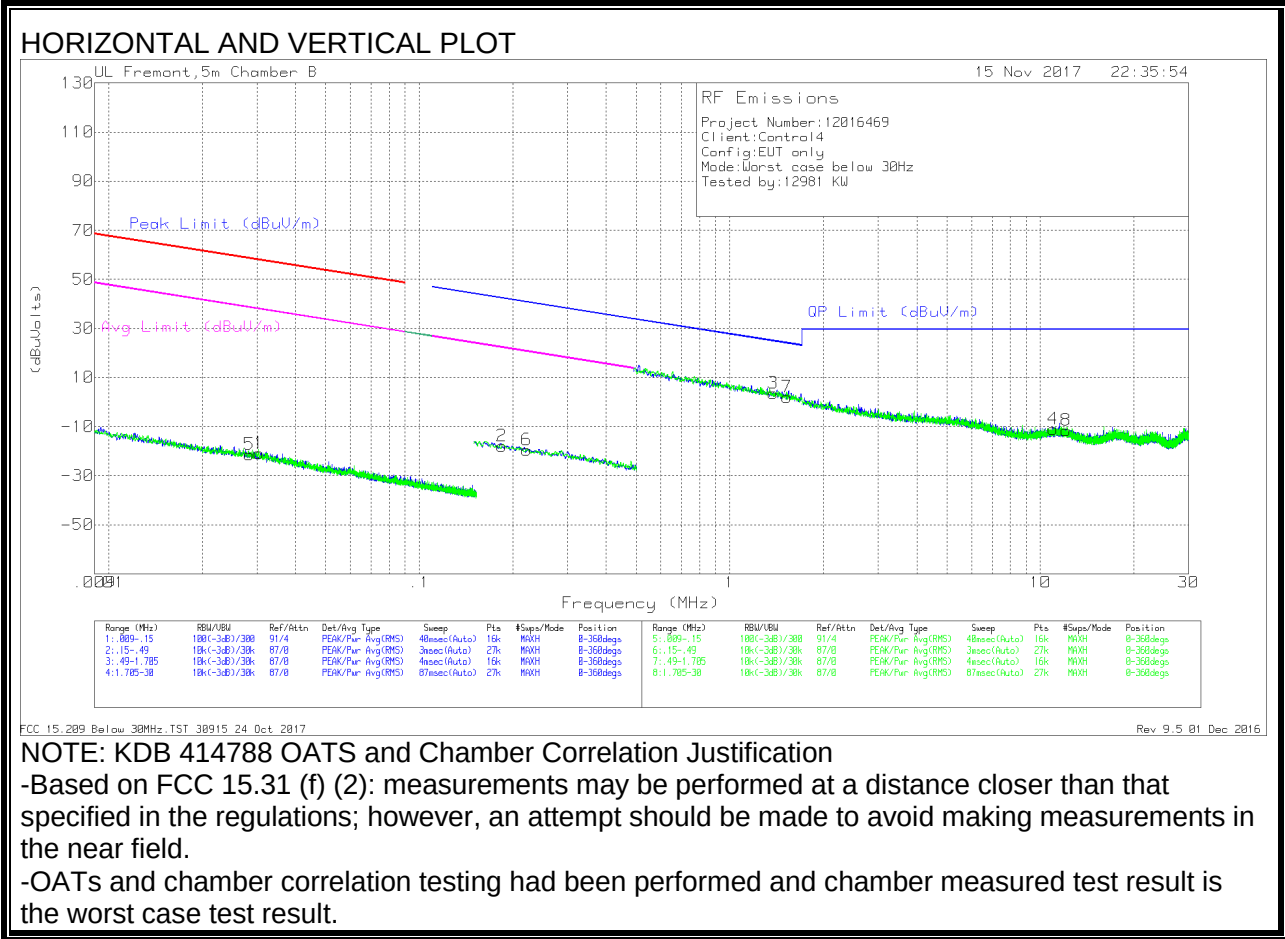
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

9.3. WORST CASE BELOW 30 MHz

SPURIOUS EMISSIONS BELOW 30 MHz (WORST-CASE CONFIGURATION)



Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Cbl (dB)	Dist Corr 300m	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
5	.02837	41.85	Pk	15.4	1.4	-80	-21.35	58.53	-79.88	38.53	-59.88	-	-	-	-	0-360
1	.03049	42.13	Pk	15.5	1.4	-80	-20.97	57.9	-78.67	37.9	-58.67	-	-	-	-	0-360
2	.18441	46.59	Pk	13.9	1.5	-80	-18.01	-	-	-	-	42.3	-60.31	22.3	-40.31	0-360
6	.22166	45.11	Pk	13.9	1.5	-80	-19.49	-	-	-	-	40.7	-60.19	20.7	-40.19	0-360

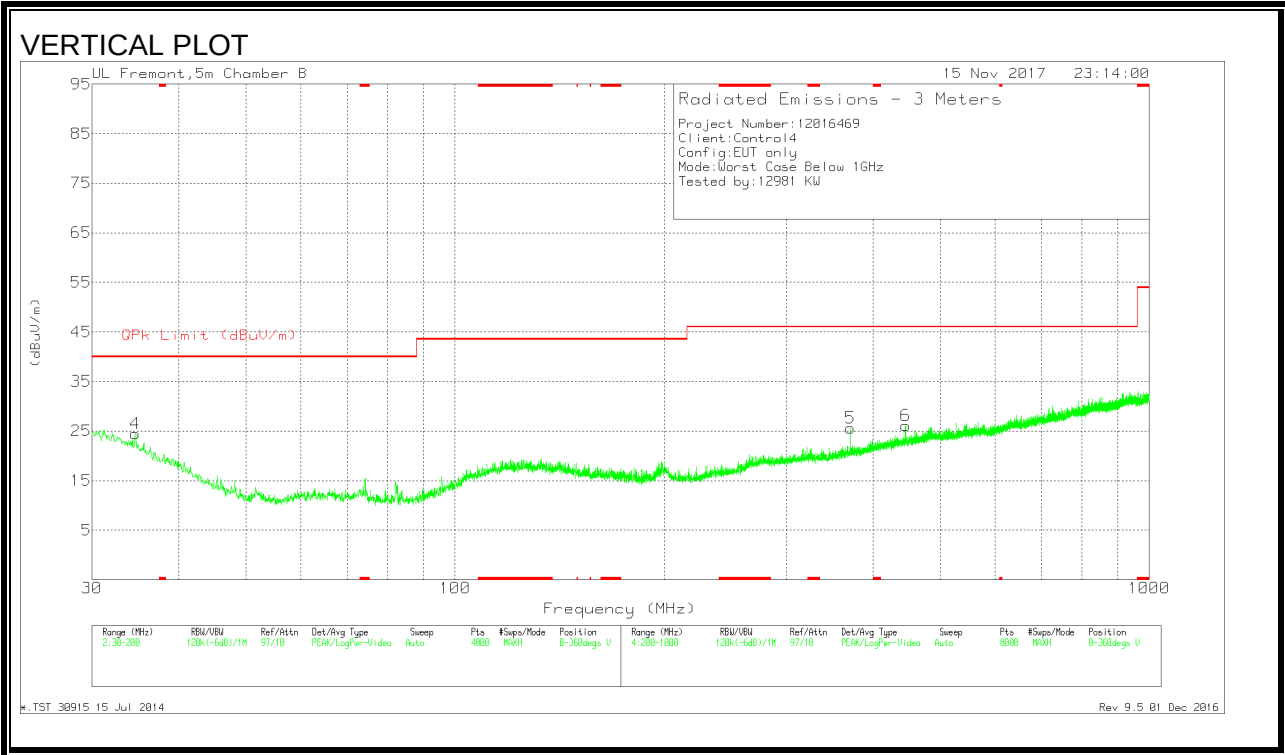
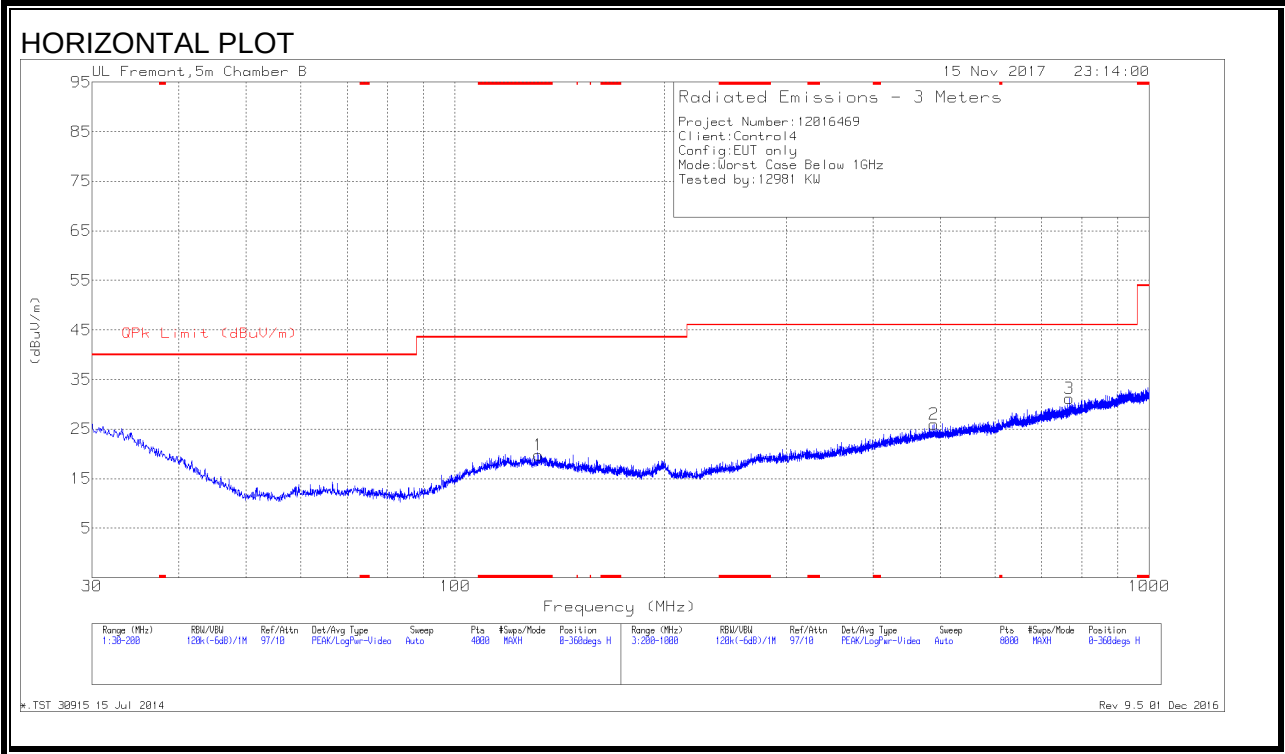
Pk - Peak detector

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading (dBuVolts)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
3	1.37935	27.88	Pk	14.3	1.5	-40	3.68	24.84	-21.16	0-360
7	1.52649	26	Pk	14.4	1.5	-40	1.9	23.96	-22.06	0-360
4	10.98714	12.61	Pk	14.7	1.6	-40	-11.09	29.5	-40.59	0-360
8	12.09906	12.2	Pk	14.7	1.6	-40	-11.5	29.5	-41	0-360

Pk - Peak detector

9.4. WORST-CASE 30 TO 1000 MHz

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



DATA

Trace Markers

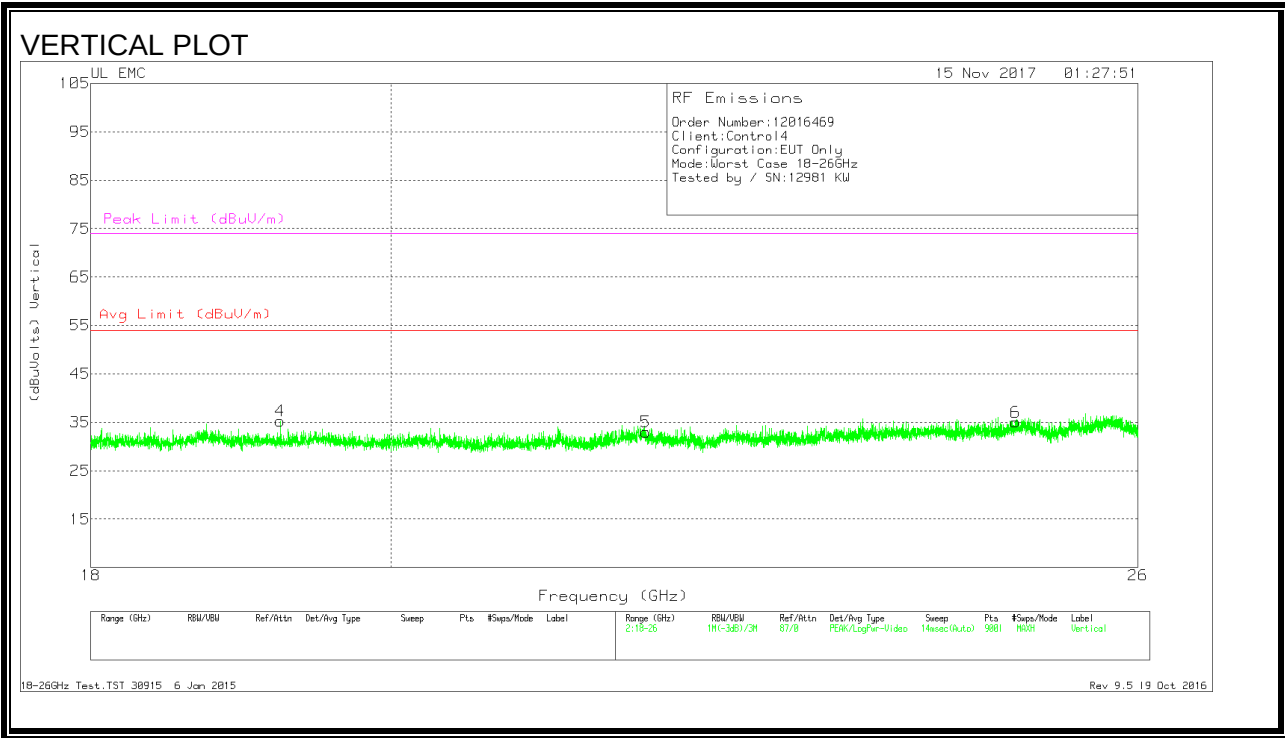
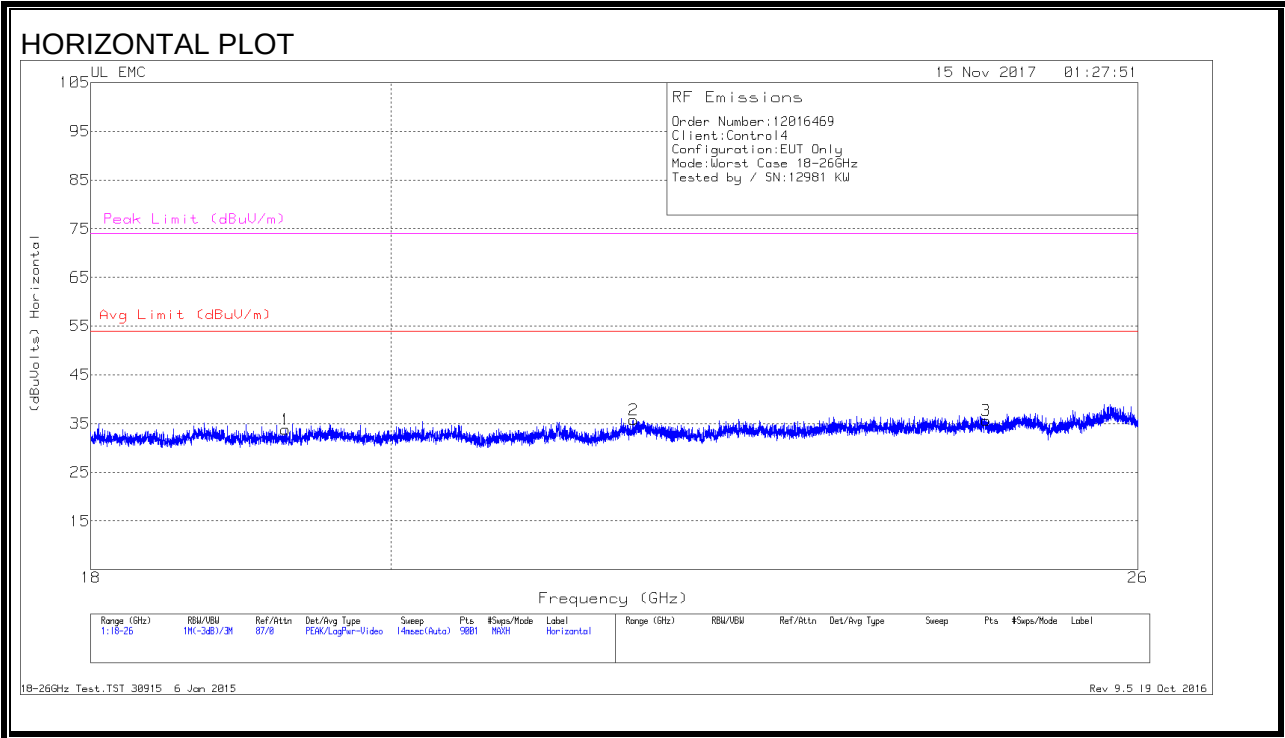
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T899 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 131.8564	29.8	Pk	17.6	-27.6	19.8	43.52	-23.72	0-360	100	H
4	34.6337	31.01	Pk	22.2	-28.7	24.51	40	-15.49	0-360	100	V
5	371.2223	32.64	Pk	18.9	-25.9	25.64	46.02	-20.38	0-360	100	V
6	445.5319	31.43	Pk	20.7	-26	26.13	46.02	-19.89	0-360	100	V
2	489.5376	30.14	Pk	21.6	-25.8	25.94	46.02	-20.08	0-360	100	H
3	766.7737	30.84	Pk	24.9	-24.6	31.14	46.02	-14.88	0-360	400	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

9.5. WORST-CASE 18TO 26 GHz

SPURIOUS EMISSIONS 18 TO 26 GHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)



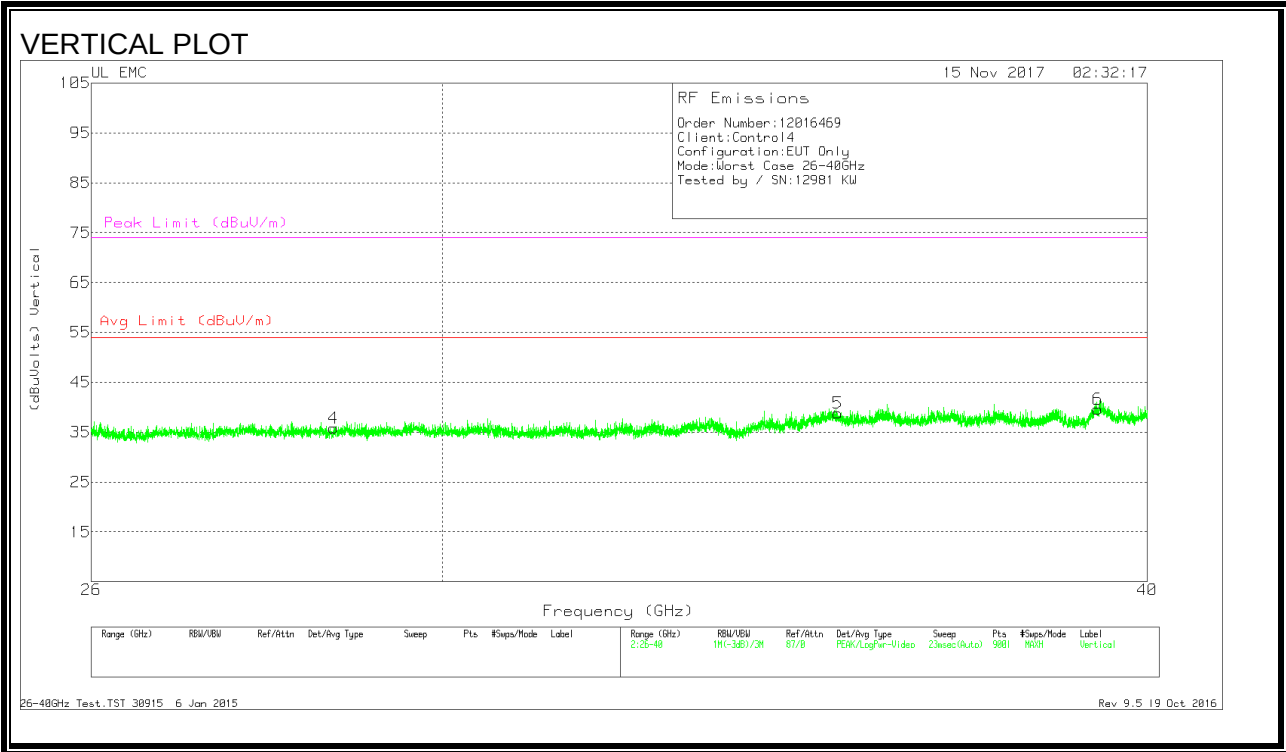
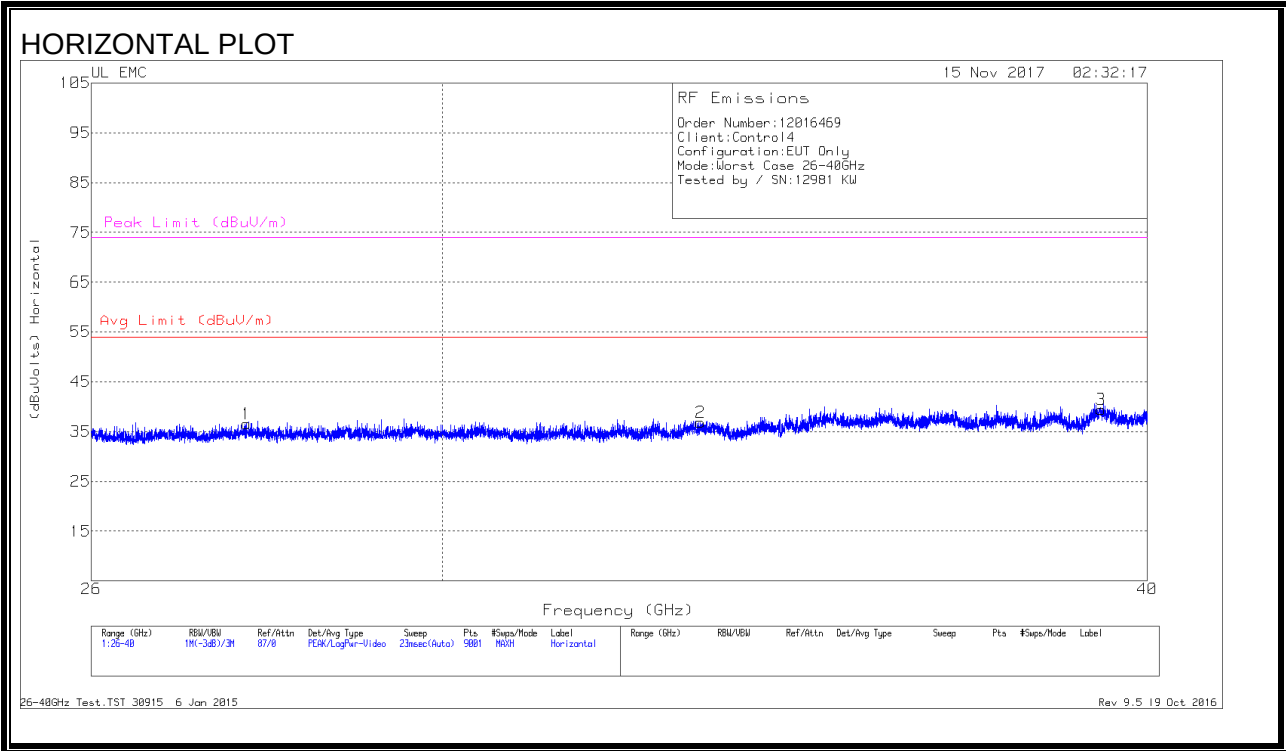
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T89 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	19.275	35.78	Pk	32.3	-24.8	-9.5	33.78	54	-20.22	74	-40.22
2	21.779	36.95	Pk	33.3	-25	-9.5	35.75	54	-18.25	74	-38.25
3	24.65	35.75	Pk	33.9	-24.5	-9.5	35.65	54	-18.35	74	-38.35
4	19.238	37.28	Pk	32.3	-24.8	-9.5	35.28	54	-18.72	74	-38.72
5	21.874	34	Pk	33.3	-24.8	-9.5	33	54	-21	74	-41
6	24.905	34.94	Pk	34	-24.4	-9.5	35.04	54	-18.96	74	-38.96

Pk - Peak detector

9.6. WORST-CASE 26 TO 40 GHz

SPURIOUS EMISSIONS 26 TO 40 GHz (WORST-CASE CONFIGURATION)



DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T90 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	27.699	43.76	Pk	35.8	-33.5	-9.5	36.56	54	-17.44	74	-37.44
2	33.333	41.54	Pk	37	-32.2	-9.5	36.84	54	-17.16	74	-37.16
3	39.252	40.8	Pk	38.6	-30.5	-9.5	39.4	54	-14.6	74	-34.6
4	28.7	41.74	Pk	35.7	-32.1	-9.5	35.84	54	-18.16	74	-38.16
5	35.252	41.99	Pk	37.7	-31.4	-9.5	38.79	54	-15.21	74	-35.21
6	39.197	41.74	Pk	38.3	-30.9	-9.5	39.64	54	-14.36	74	-34.36

Pk - Peak detector

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)
RSS-Gen 8.8

Frequency of Emission (MHz)	Conducted Limit (dBμV)	
	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

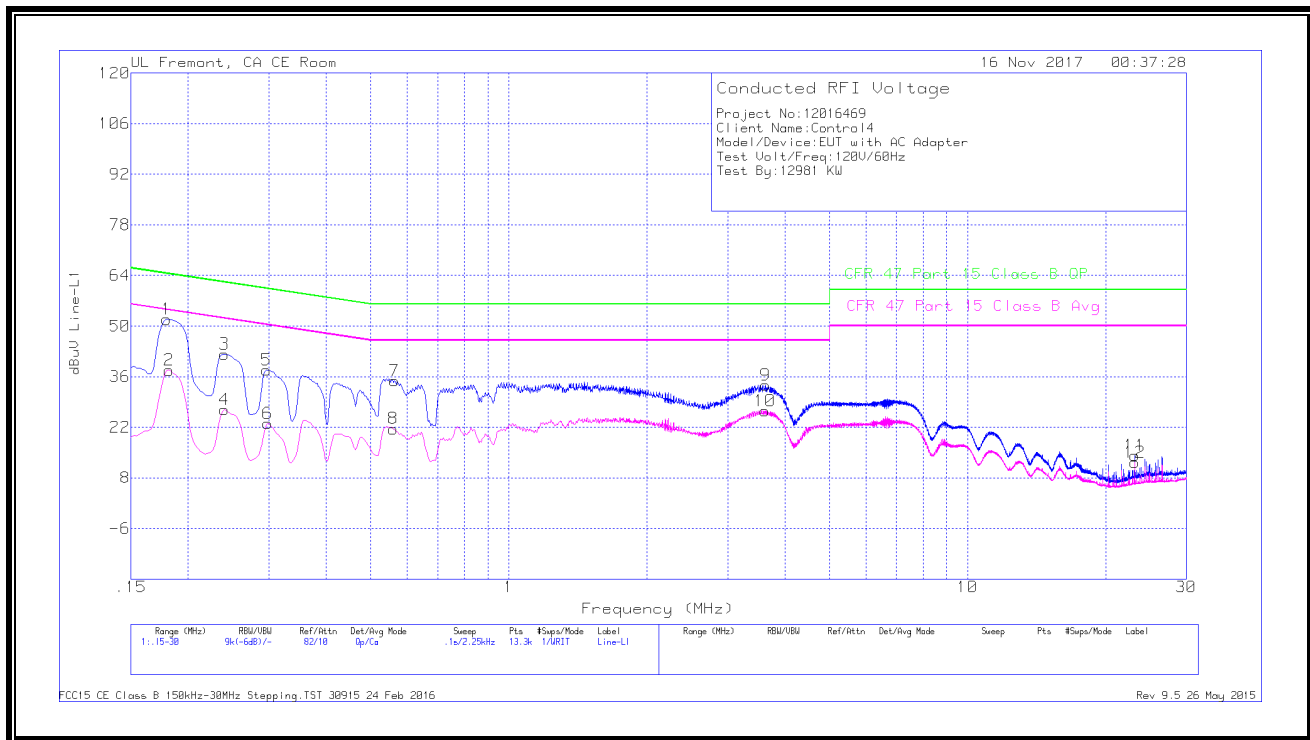
The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

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. EUT was tested with it docking station.

RESULTS

LINE 1 RESULTS



WORST EMISSIONS

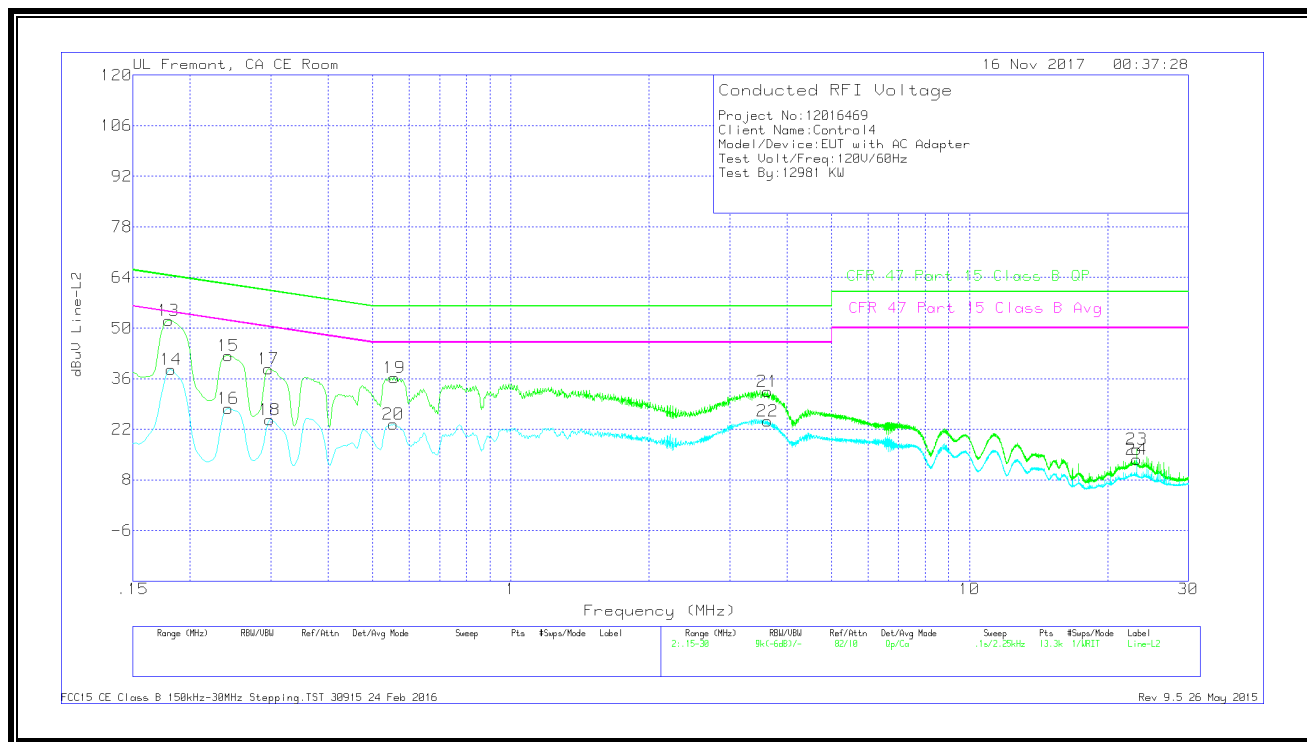
Trace Markers

Range 1: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L1	LC Cables C1&C3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR)Margin (dB)
1	.17925	41.73	Qp	0	0	10.1	51.83	64.52	-12.69	-	-
2	.1815	27.65	Ca	0	0	10.1	37.75	-	-	54.42	-16.67
3	.24	32.16	Qp	0	0	10.1	42.26	62.1	-19.84	-	-
4	.24	16.74	Ca	0	0	10.1	26.84	-	-	52.1	-25.26
5	.29625	27.77	Qp	0	0	10.1	37.87	60.35	-22.48	-	-
6	.2985	12.92	Ca	0	0	10.1	23.02	-	-	50.28	-27.26
7	.564	24.76	Qp	0	0	10.1	34.86	56	-21.14	-	-
8	.5595	11.48	Ca	0	0	10.1	21.58	-	-	46	-24.42
9	3.62513	23.31	Qp	0	.1	10.2	33.61	56	-22.39	-	-
10	3.62175	16.22	Ca	0	.1	10.2	26.52	-	-	46	-19.48
11	23.1315	3.4	Qp	.1	.3	10.4	14.2	60	-45.8	-	-
12	23.1315	1.54	Ca	.1	.3	10.4	12.34	-	-	50	-37.66

Qp - Quasi-Peak detector

Ca - CISPR average detection

LINE 2 RESULTS



WORST EMISSIONS

Trace Markers

Range 2: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN L2	LC Cables C2&C3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR)Margin (dB)
13	.17925	42.03	Qp	0	0	10.1	52.13	64.52	-12.39	-	-
14	.1815	28.42	Ca	0	0	10.1	38.52	-	-	54.42	-15.9
15	.24225	32.24	Qp	0	0	10.1	42.34	62.02	-19.68	-	-
16	.24225	17.64	Ca	0	0	10.1	27.74	-	-	52.02	-24.28
17	.29625	28.58	Qp	0	0	10.1	38.68	60.35	-21.67	-	-
18	.2985	14.52	Ca	0	0	10.1	24.62	-	-	50.28	-25.66
19	.55725	26.17	Qp	0	0	10.1	36.27	56	-19.73	-	-
20	.555	13.24	Ca	0	0	10.1	23.34	-	-	46	-22.66
21	3.62625	22.16	Qp	0	.1	10.2	32.46	56	-23.54	-	-
22	3.624	13.95	Ca	0	.1	10.2	24.25	-	-	46	-21.75
23	23.1315	5.83	Qp	0	.3	10.4	16.53	60	-43.47	-	-
24	23.1315	3.01	Ca	0	.3	10.4	13.71	-	-	50	-36.29

Qp - Quasi-Peak detector

Ca - CISPR average detection