



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

CERTIFICATION TEST REPORT

FOR

CELLULAR PHONE WITH BLUETOOTH AND WLAN RADIOS

MODEL NUMBER: A1778

**FCC ID: BCG-E3091A
IC: 579C-E3091A**

REPORT NUMBER: 16U23328-E10V5

ISSUE DATE: JULY 28, 2016

Prepared for
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	07/07/2016	Initial Issue	Tom. Chen
V2	07/15/2016	Address TCB's questions	Chin Pang
V3	07/19/2016	Address TCB's Questions	Tom Chen
V4	07/20/2016	Updated 818Kbps to 848Kbps	Joe Vang
V5	07/28/2016	Updated Section 5.4	Tina Chu

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: APPLE, INC.
1 INFINITE LOOP
CUPERTINO, CA 95014, U.S.A.

EUT DESCRIPTION: CELLULAR PHONE WITH BLUETOOTH AND WLAN RADIOS

MODEL: A1778

SERIAL NUMBER: C7CRP03XHCWH

DATE TESTED: FEBRUARY 23, 2016 – APRIL 19, 2016

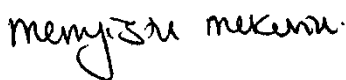
APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 15 SUBPART C	Pass
INDUSTRY CANADA RSS-210 Issue 8, Annex 2	Pass
INDUSTRY CANADA RSS-GEN Issue 4	Pass

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 any government.

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Prepared By:



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SENIOR ENGINEER
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TOM CHEN
EMC ENGINEER
UL Verification Services Inc.

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 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	☒ Chamber D
☐ Chamber B	☐ Chamber E
☐ Chamber C	☒ Chamber F
	☐ Chamber G
	☐ Chamber H

The above test sites and facilities are covered under FCC Test Firm Registration # 208313. Chambers A through H are covered under Industry Canada company address code 2324B with site numbers 2324B -1 through 2324B-8, respectively

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://ts.nist.gov/standards/scopes/2000650.htm>.

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
Conducted Disturbance, 0.15 to 30 MHz	± 3.52 dB
Radiated Disturbance, 30 to 1000 MHz	± 4.94 dB
Radiated Disturbance, 1 to 6 GHz	± 3.86 dB
Radiated Disturbance, 6 to 18 GHz	± 4.23 dB
Radiated Disturbance, 18 to 26 GHz	± 5.30 dB
Radiated Disturbance, 26 to 40 GHz	± 5.23 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT, Model A1778 is a mobile phone with multimedia functions (music, application support, and video), cellular GSM/GPRS/EGPRS/WCDMA/HSPA+/DC-HSDPA/LTE radio, IEEE 802.11a/b/g/n/ac, NFC and Bluetooth radio. The rechargeable battery is not user accessible. CE mode is NFC Card Emulation Mode

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak radiated magnetic field strength as follows:

Frequency Range (MHz)	Mode	Type	E Field at 30m distance (dBuV/m)
13.56	*CE Mode	A	18.84
		B	19.89
		F	18.62
13.56	Reader	A	20.03
		B	19.82
		F	19.48

5.3. SOFTWARE AND FIRMWARE

The test utility software used during testing was NCI UART RTM3 A2 Rev 1.24.

5.4. WORST-CASE CONFIGURATION AND MODE

The fundamental of the EUT was investigated under three orthogonal orientations X (Flatbed), Y (Landscape), and Z (Portrait). The Y (Landscape) orientation was determined to be the worst-case orientation.

The worst case position of the EUT was investigated under two configurations: EUT with power supply, EUT with earphones. The EUT with power supply configuration was determined to be worst-case configurations; therefore, all final tests were performed on the EUT with power supply.

Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open area test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 937606.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Laptop	Apple	Mac Book Pro	W801200UD94	n/a
Laptop AC/DC Adapter	Apple	85W MagSafe Power adapter	A122	n/a
EUT AC/DC Adapter	Apple	A1385	D292365B2FQDHLHC7	n/a

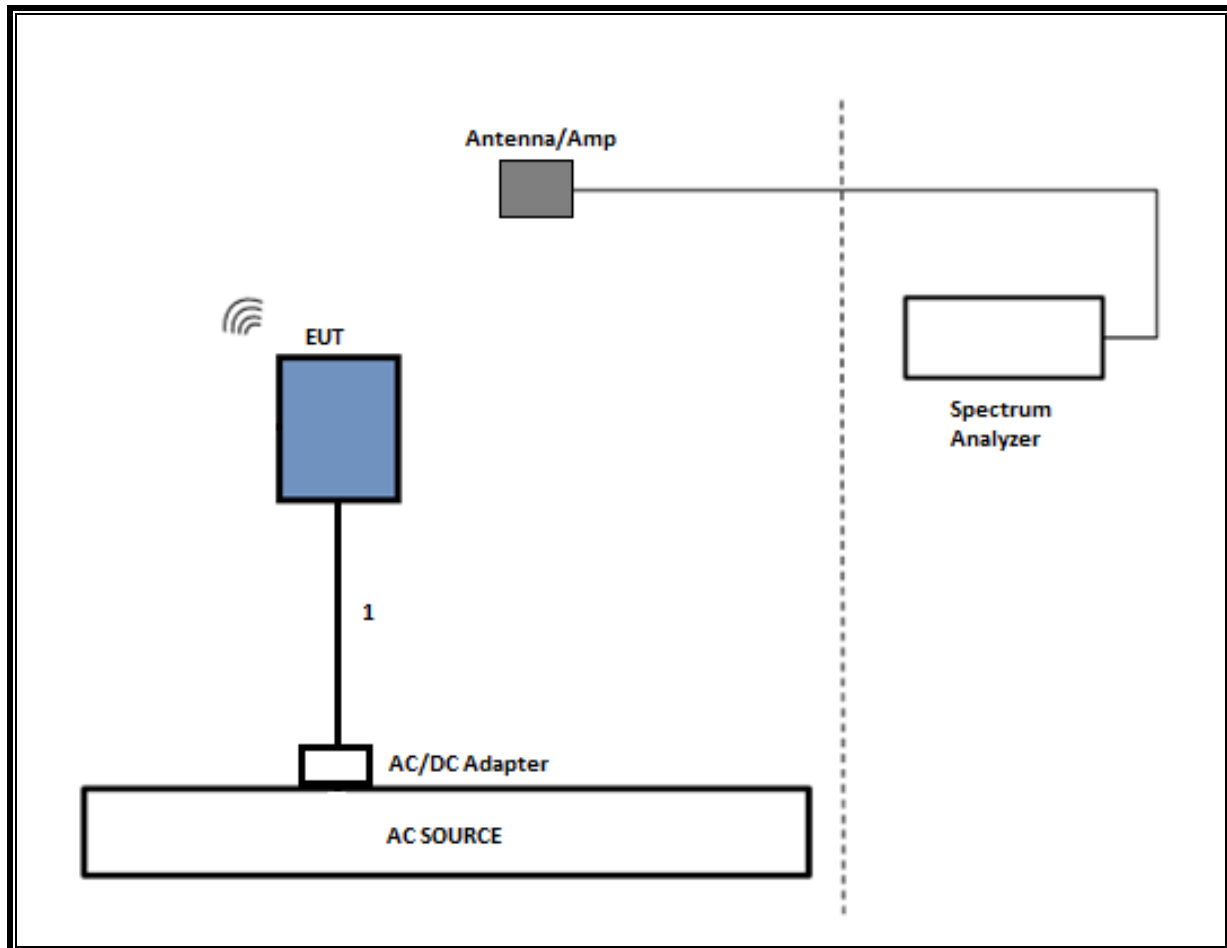
I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	USB	1	lightning	Un-shielded	1	n/a
2	Audio	1	Jack	Un-shielded	0.5	n/a
3	DC	2	Alligator	18 AWG strand	1	Insulated cable

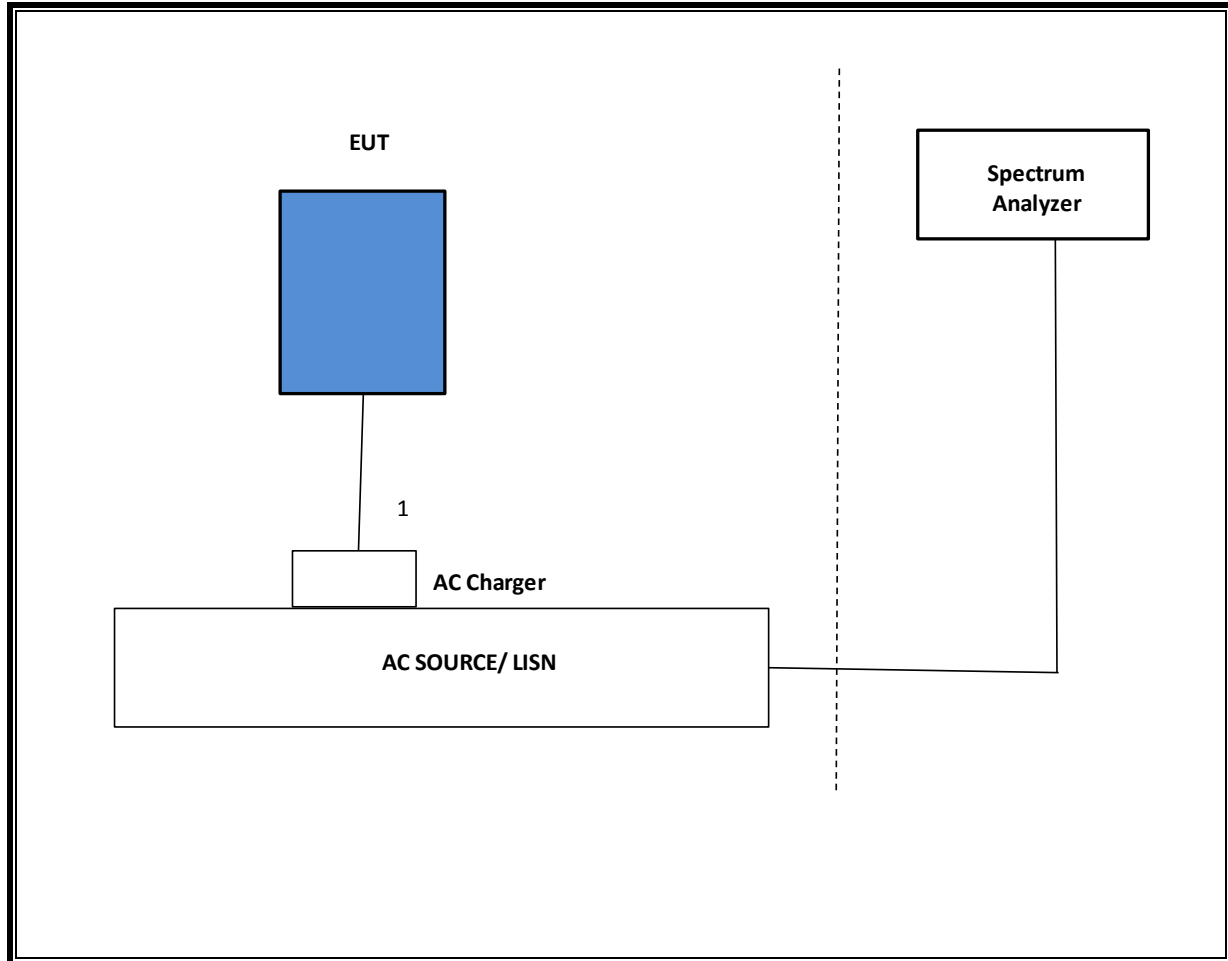
TEST SETUP

The EUT is installed in a host laptop computer during the tests. Test software exercised the radio card.

SETUP DIAGRAM FOR TESTS



SETUP DIAGRAM FOR LINE CONDUCTED TESTS



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	T No.	Cal Due
Spectrum Analyzer	Agilent	N9030A	906	06/11/16
Antenna, Broadband Hybrid	Sunol Sciences	JB3	408	10/16/16
Amplifier, 10KHz to 1GHz, 32dB	Sonoma	310N	835	06/09/16
Amplifier, 10KHz to 1GHz, 32dB	Sonoma	310N	834	06/08/16
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent	N9030A	906	06/11/16
Antenna, Loop, 30 MHz	ETS Lindgren	6502	757	05/21/16
Chamber, Environmental	Cincinnati Sub Zero	ZPHS-8-3.5-SCT/WC	754	09/14/16
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent	N9030A	1222	12/17/16
EMI Test Receiver, 9 kHz-7 GHz	R & S	ESCI 7	212	08/07/16
LISN for Conducted Emissions CISPR-16	FCC	LISN-50/250-25-2	24	01/16/17
Line conducted Power cable ANSI 63.4	UL	PG1	861	07/28/16
UL SOFTWARE				
*Radiated Software	UL	UL EMC	Fundamental mask, 5/7/15	
*Conducted Software	UL	UL EMC	Ver 2.2, March 31, 2015	
*Radiated Software	UL	UL EMC	Below 30Mhz, 6/24/15	
*Radiated Software	UL	UL EMC	Below 1Ghz, 7/15/14	
*AC Line Conducted Software	UL	UL EMC	Ver 9.5, April 3, 2015	

7. OCCUPIED BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. The RBW is set to 10kHz. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

ID:	42497	Date:	3/11/16
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CE MODE

Moduation	Frequency (MHz)	Data Rate (Kbps)	99% Bandwidth (KHz)	20dB Bandwidth (KHz)
Type A	13.56	848	21.808	28.08
		424	21.429	28.66
		212	21.910	28.95
		106	21.964	28.84

Moduation	Frequency (MHz)	Data Rate (Kbps)	99% Bandwidth (KHz)	20dB Bandwidth (KHz)
Type B	13.56	848	21.393	28.34
		424	21.582	29.49
		212	21.883	28.97
		106	21.810	28.09

Moduation	Frequency (MHz)	Data Rate (Kbps)	99% Bandwidth (KHz)	20dB Bandwidth (KHz)
Type F	13.56	424	21.856	28.59
		212	22.126	28.76

READER MODE

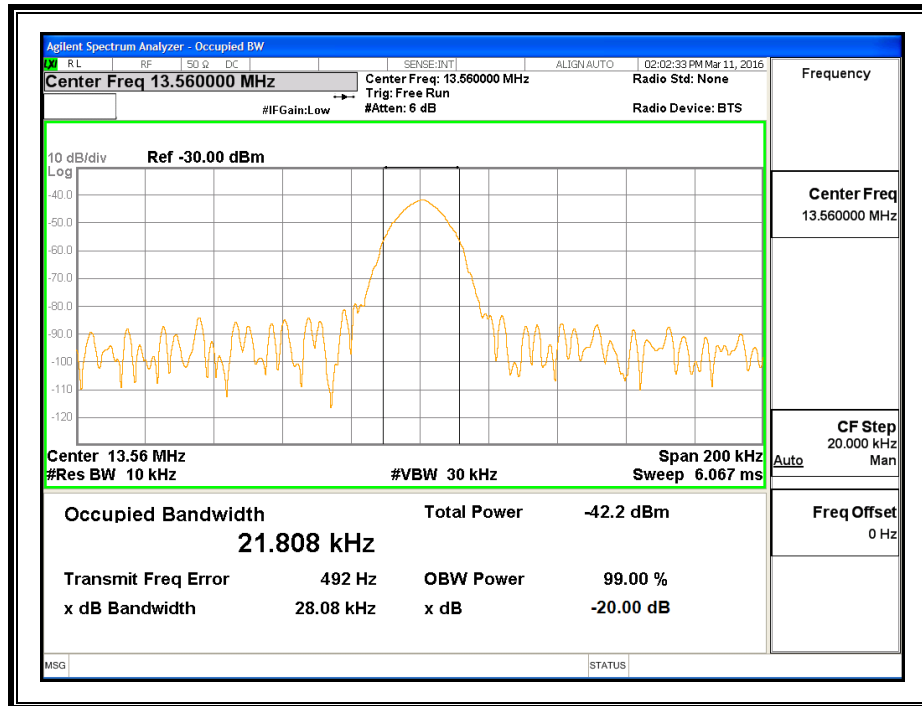
Moduation	Frequency (MHz)	Data Rate (Kbps)	99% Bandwidth (KHz)	20dB Bandwidth (KHz)
Type A	13.56	848	21.683	28.76
		424	22.095	30.38
		212	22.812	30.57
		106	23.401	29.32

Moduation	Frequency (MHz)	Data Rate (Kbps)	99% Bandwidth (KHz)	20dB Bandwidth (KHz)
Type B	13.56	848	22.389	28.80
		424	22.759	30.23
		212	23.641	31.87
		106	23.801	29.57

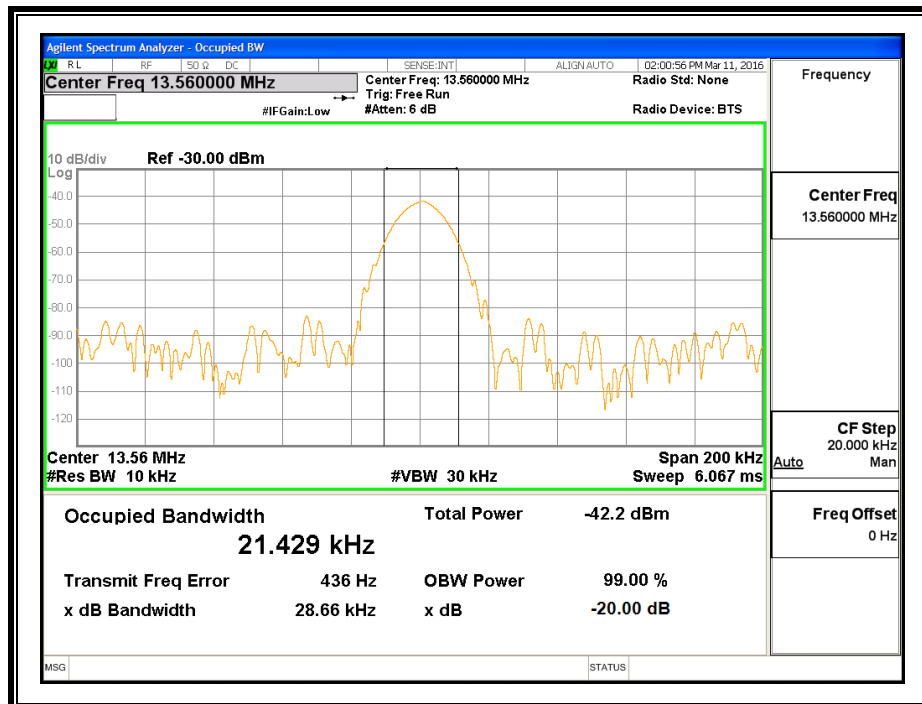
Moduation	Frequency (MHz)	Data Rate (Kbps)	99% Bandwidth (KHz)	20dB Bandwidth (KHz)
Type F	13.56	424	21.607	28.59
		212	22.178	29.08

7.1. CE MODE Type A

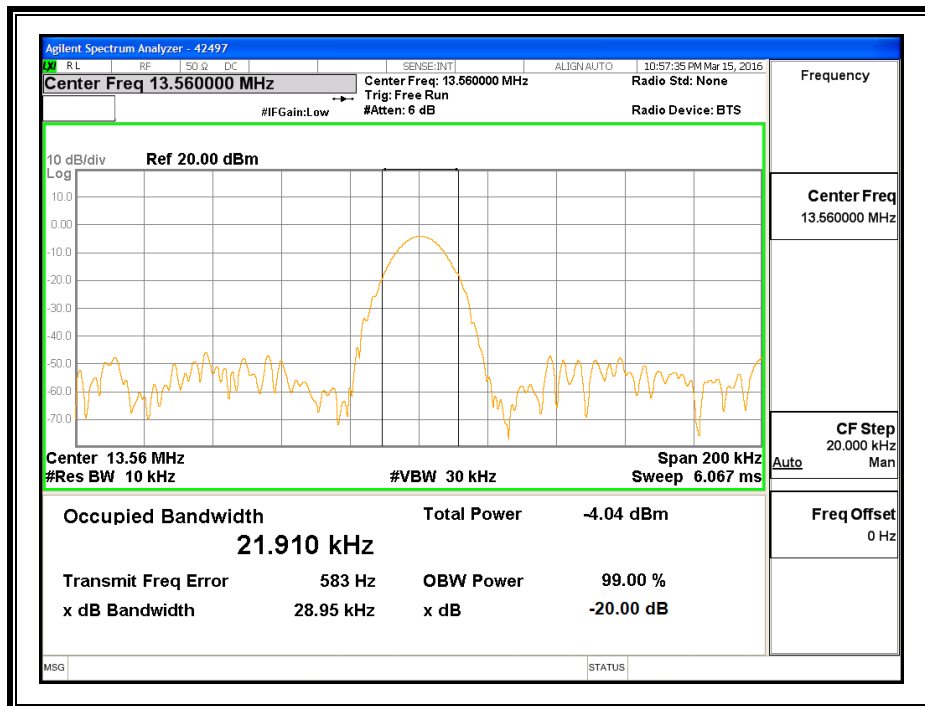
848Kbps



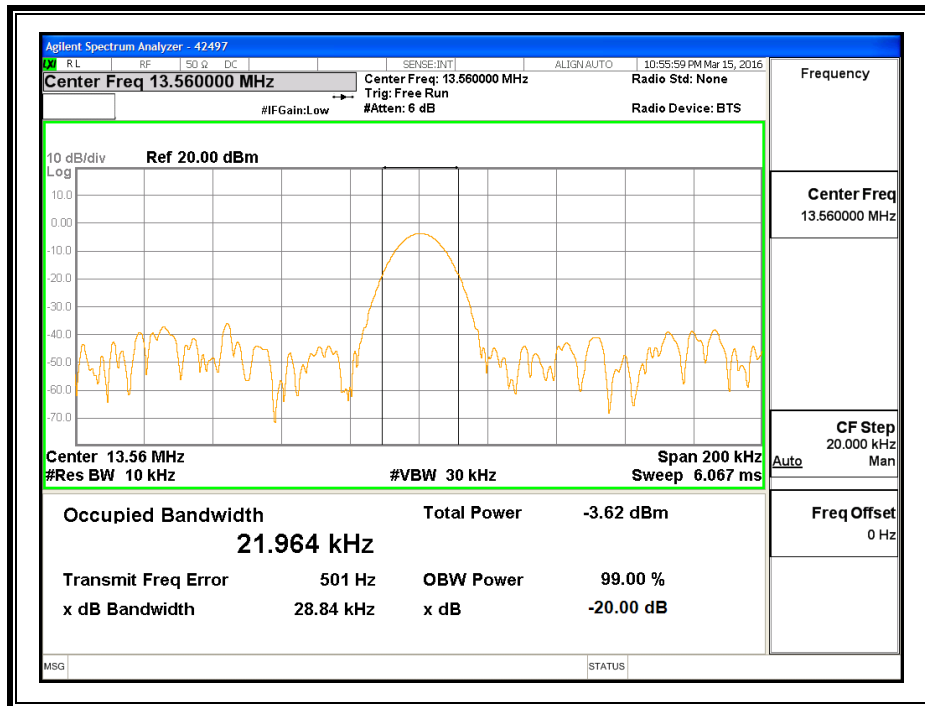
424Kbps



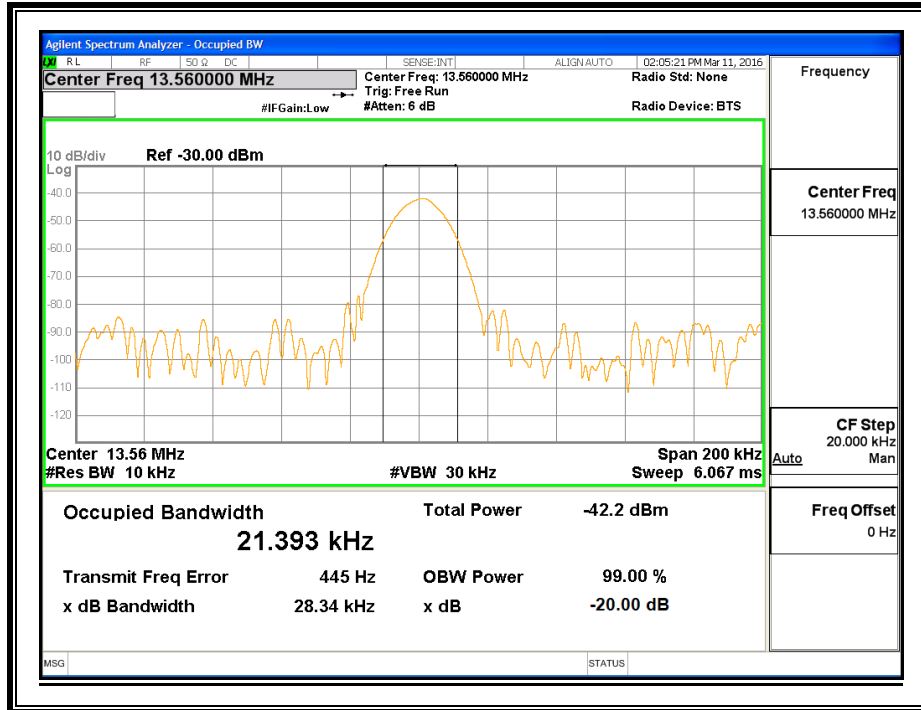
212Kbps



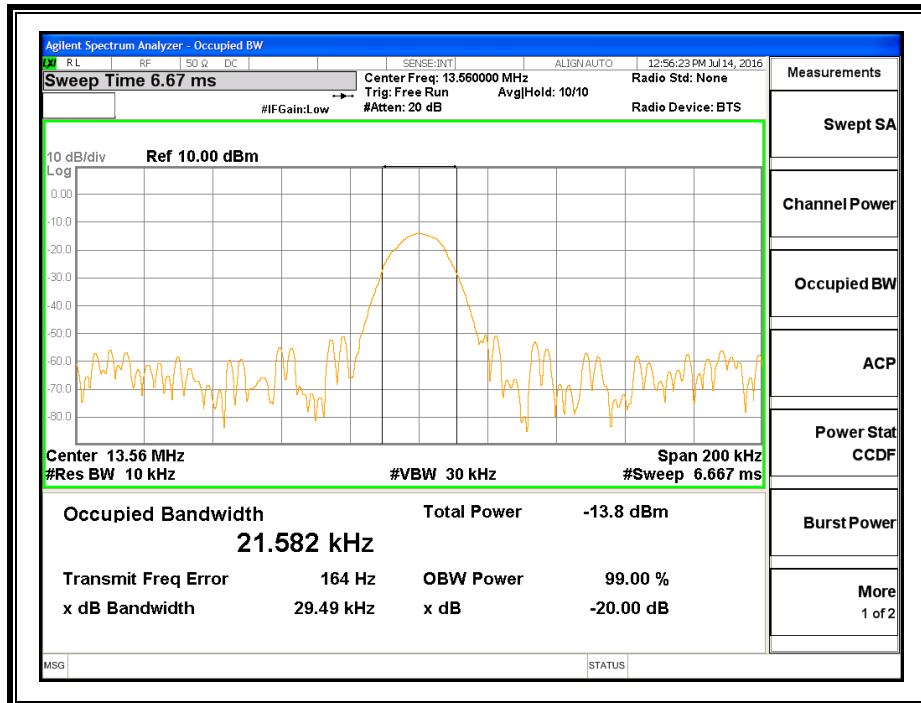
106Kbps



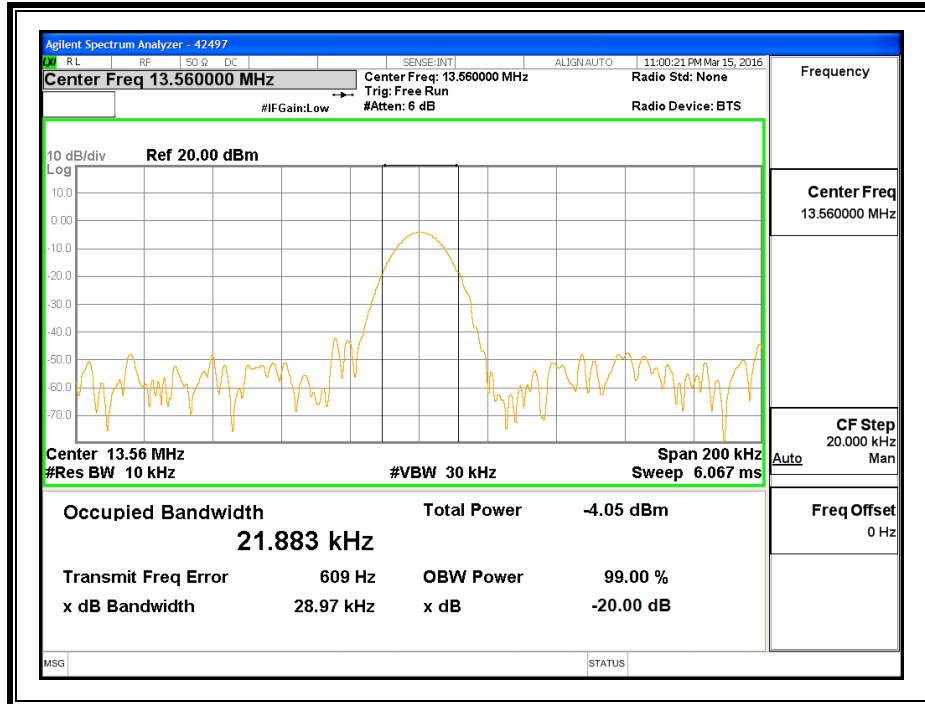
Type B 848Kbps



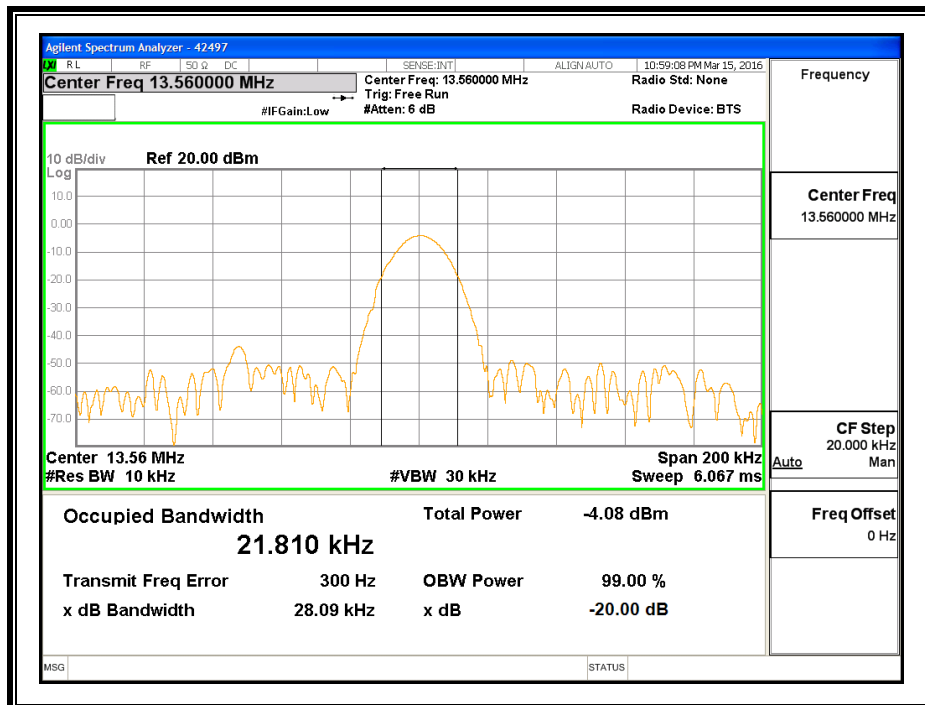
424Kbps



212Kbps

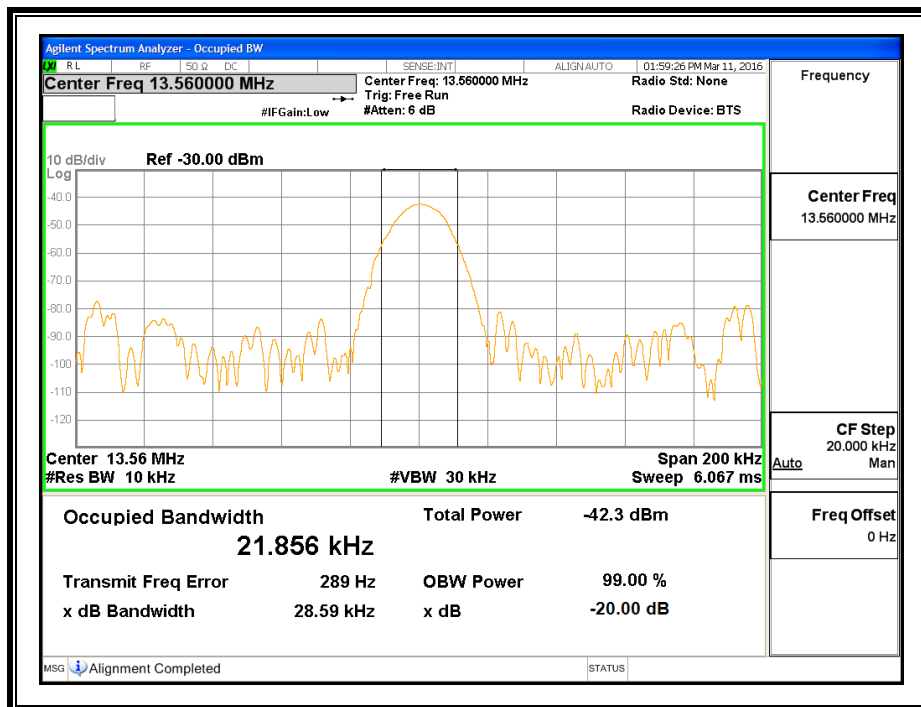


106Kbps

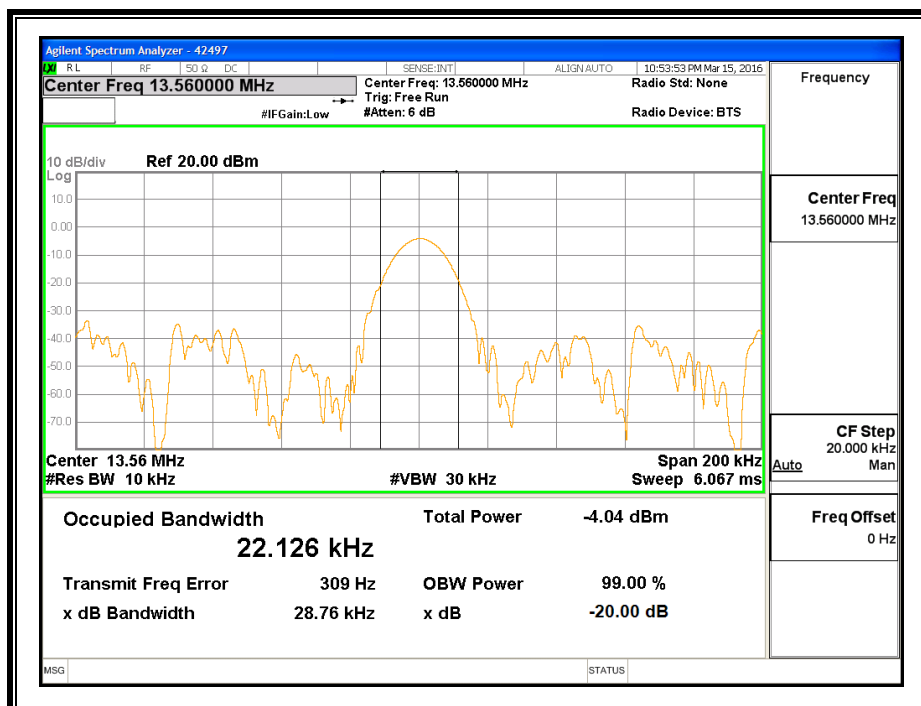


TYPE F

424Kbps

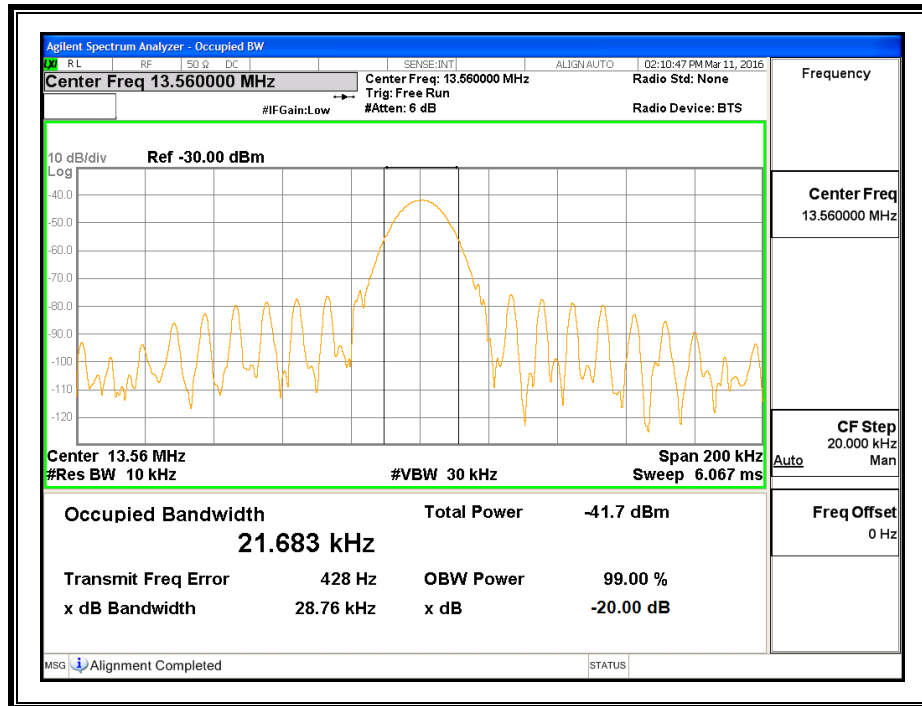


212Kbps

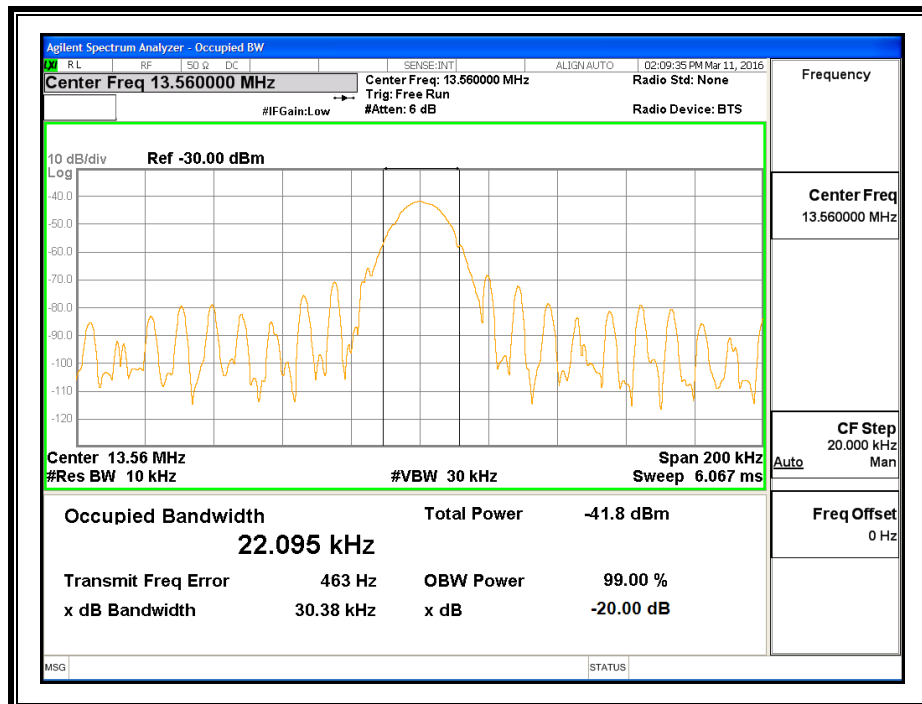


7.2. READER MODE Type A

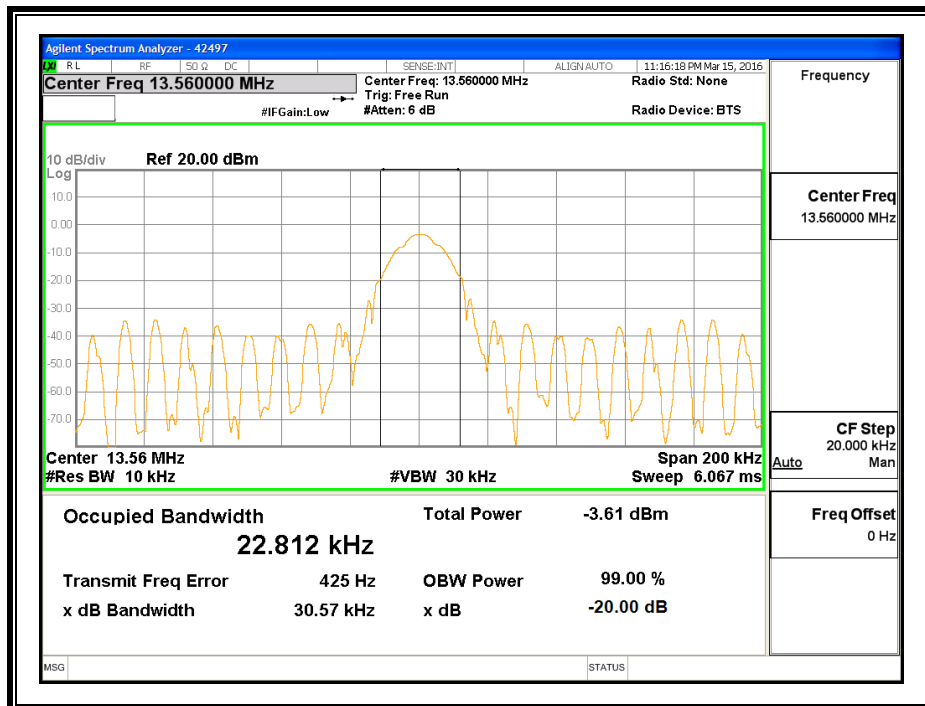
848Kbps



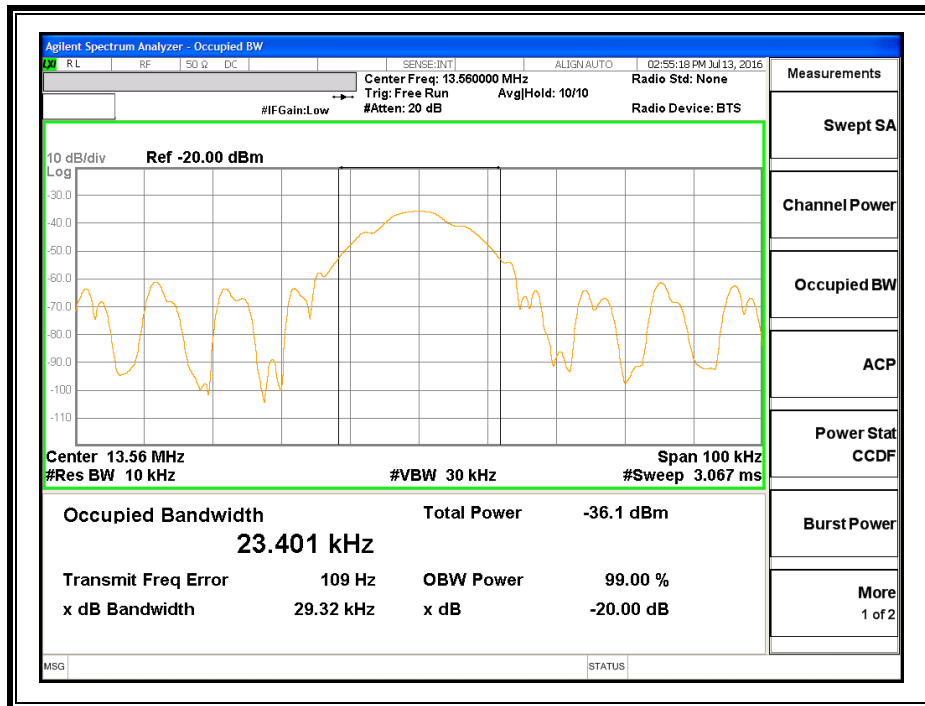
424Kbps



212Kbps

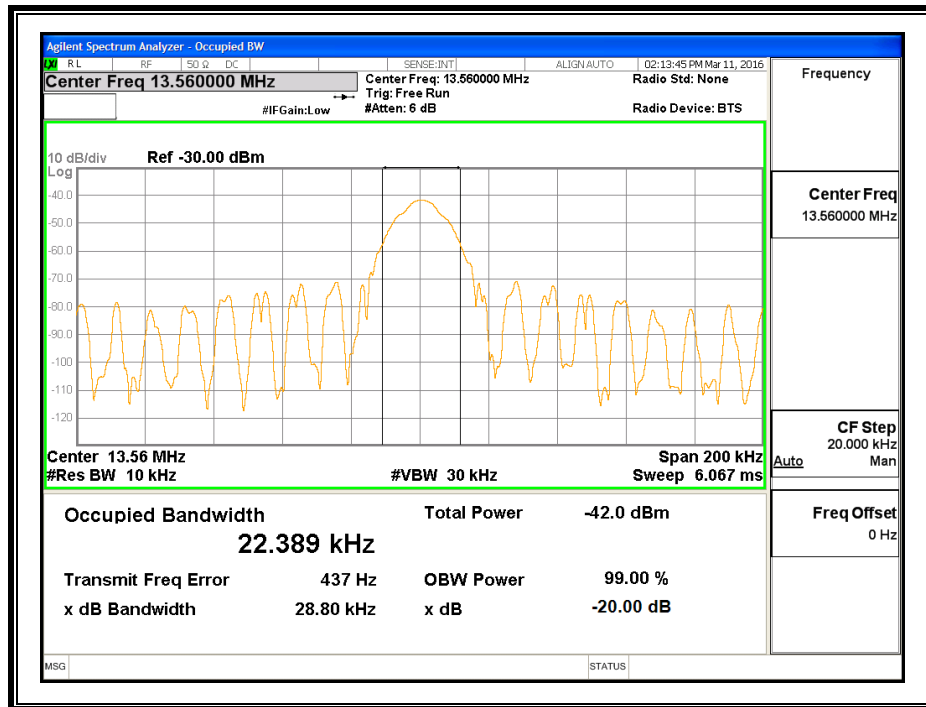


106Kbps

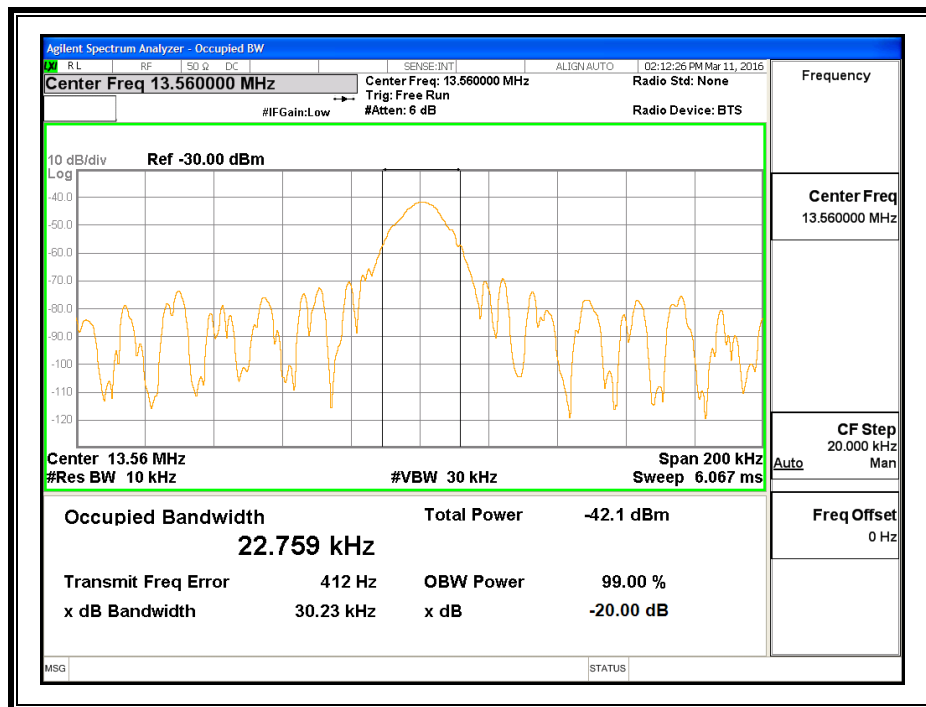


Type B

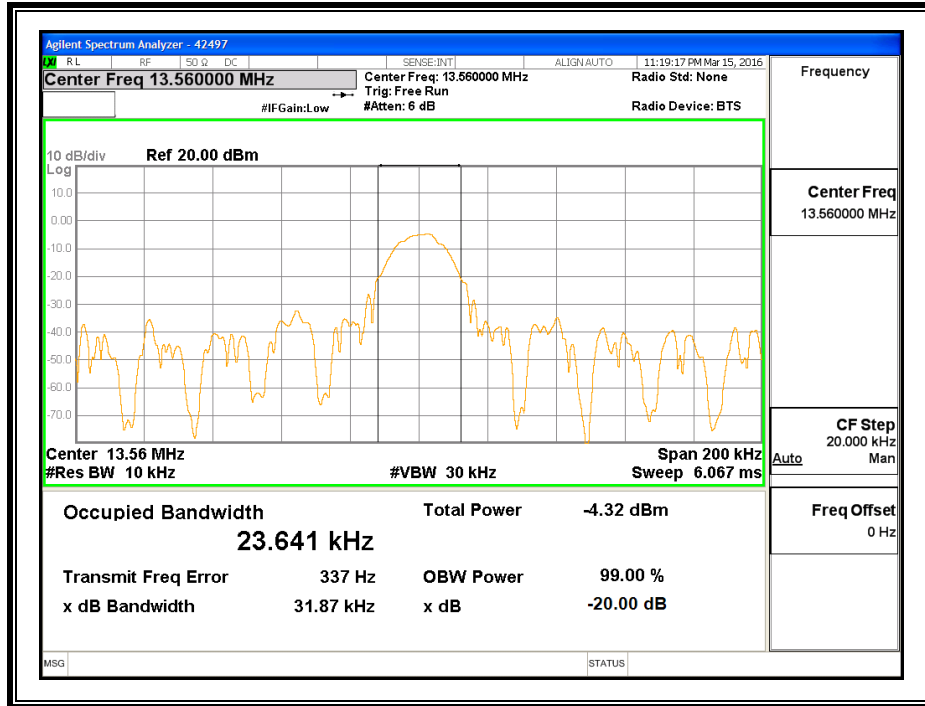
848Kbps



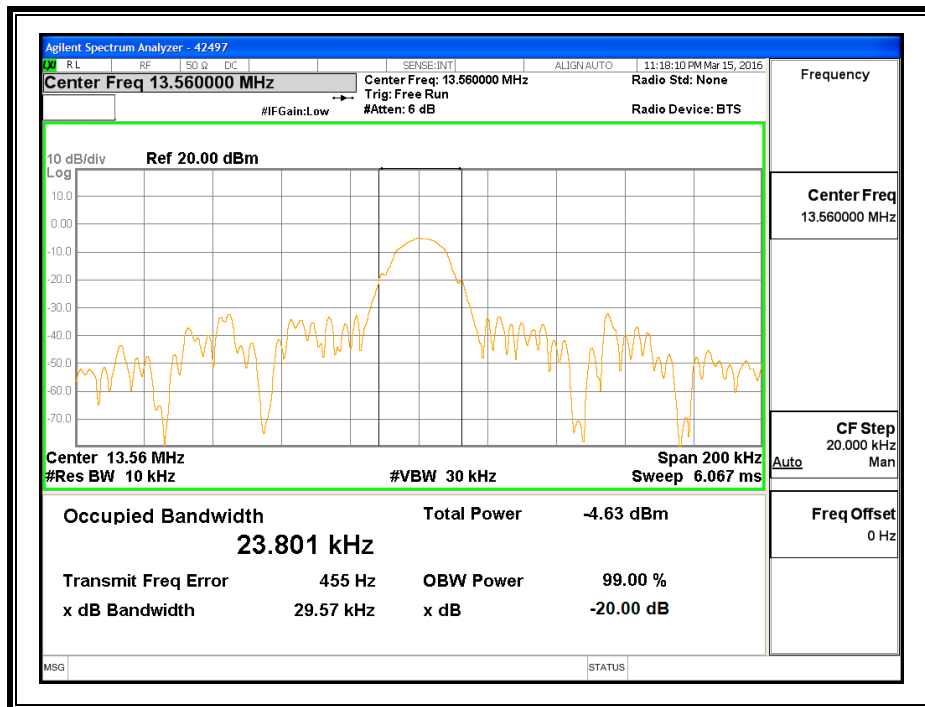
424Kbps



212Kbps

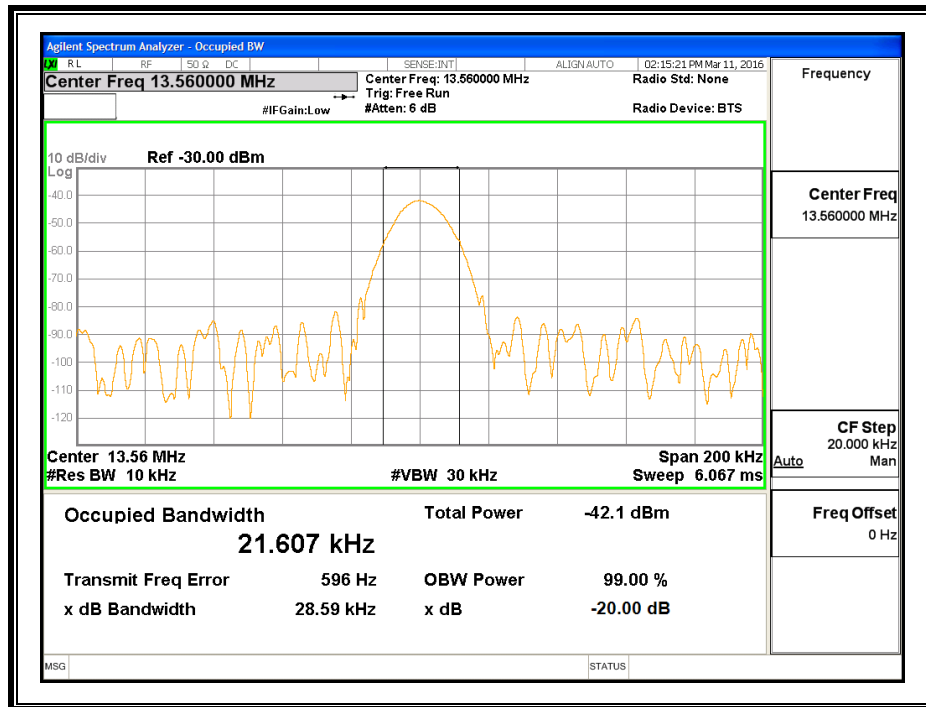


106Kbps

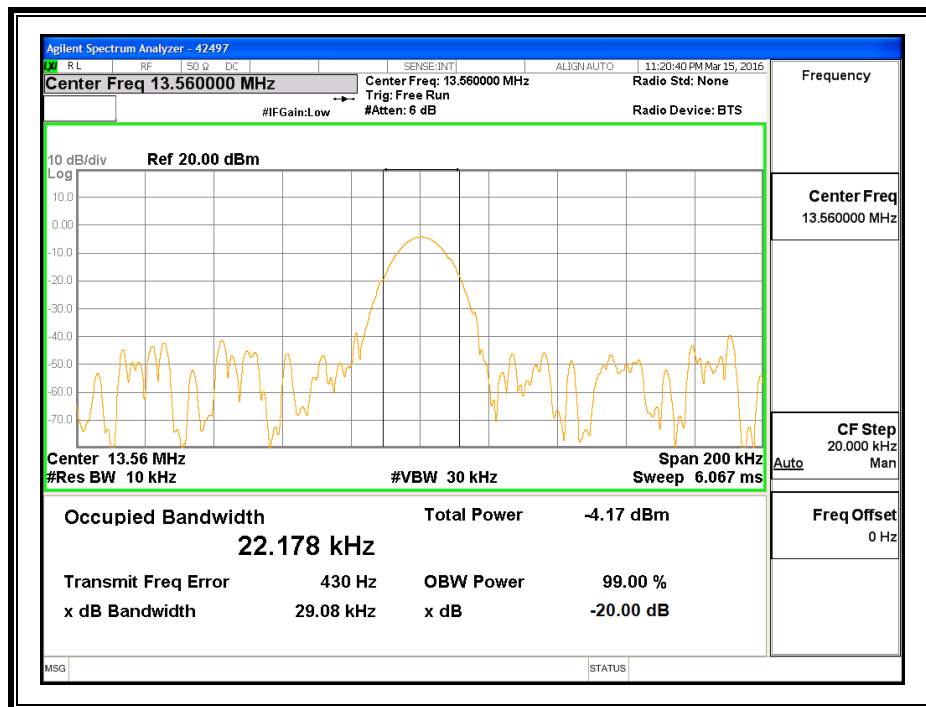


TYPE F

424Kbps



212Kbps



8. RADIATED EMISSION TEST RESULTS

8.1. LIMITS AND PROCEDURE

LIMIT

§15.225

IC RSS-210, A2.6

IC RSS-GEN, Section 8.9 (Transmitter)

IC RSS-GEN, Section 7.1.2 (Receiver)

(a) The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/ meter at 30 meters.

(b) Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.

(c) Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.

(d) The field strength of any emissions appearing outside of the 13.110– 14.010 MHz and shall not exceed the general radiated emission limits in § 15.209 as follows:

§15.209 (a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Limits for radiated disturbance of an intentional radiator		
Frequency range (MHz)	Limits (µV/m)	Measurement Distance (m)
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.

§15.209 (b) In the emission table above, the tighter limit applies at the band edges.

Formula for converting the field strength from µV/m to dBuV/m is:

Limit (dBuV/m) = 20 log limit (µV/m)

In addition:

§15.209 (d) The emission limits shown the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emissions limits in these three bands are based on measurements employing an average detector.

§15.209 (d) The provisions in §§ 15.225, measuring emissions at distances other than the distances specified in the above table, determining the frequency range over which radiated emissions are to be measured, and limiting peak emissions apply to all devices operated under this part.

TEST PROCEDURE

ANSI C63.10, 2013

The EUT is an intentional radiator that incorporates a digital device, the highest fundamental frequency generated or used in the device is 13.56 MHz; therefore, the frequency range was investigated from 0.15 MHz to the 10th harmonic of the highest fundamental frequency, or 1000 MHz, whichever is greater.

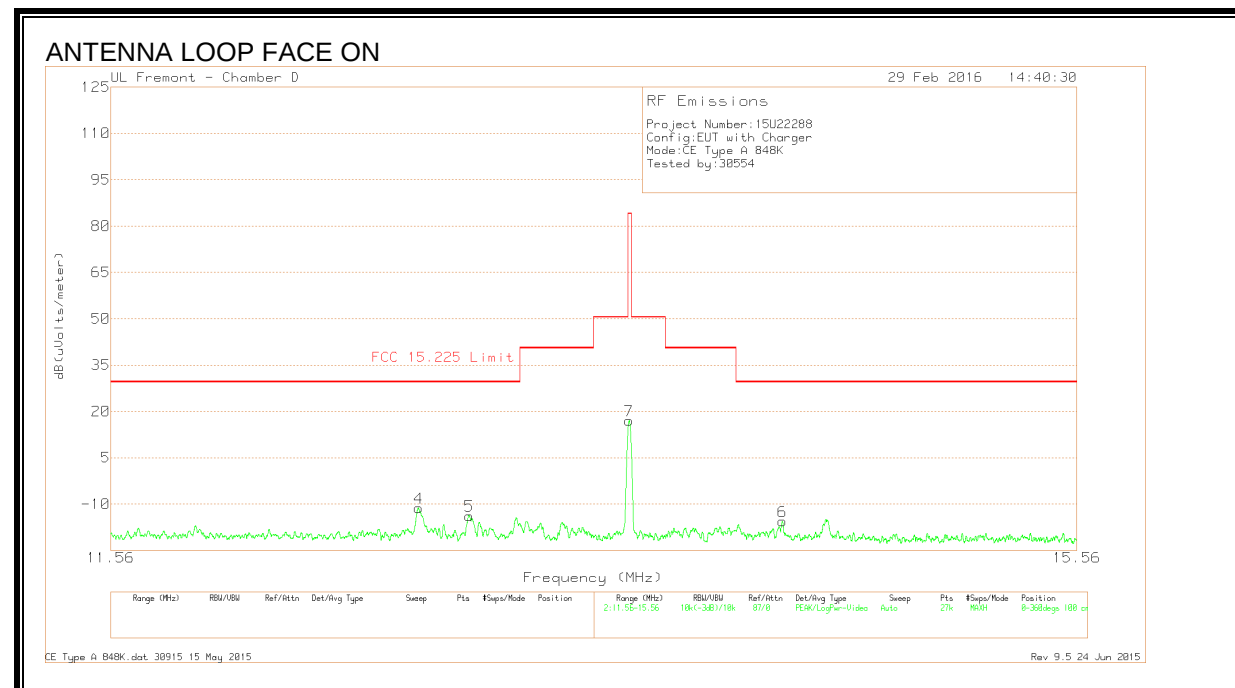
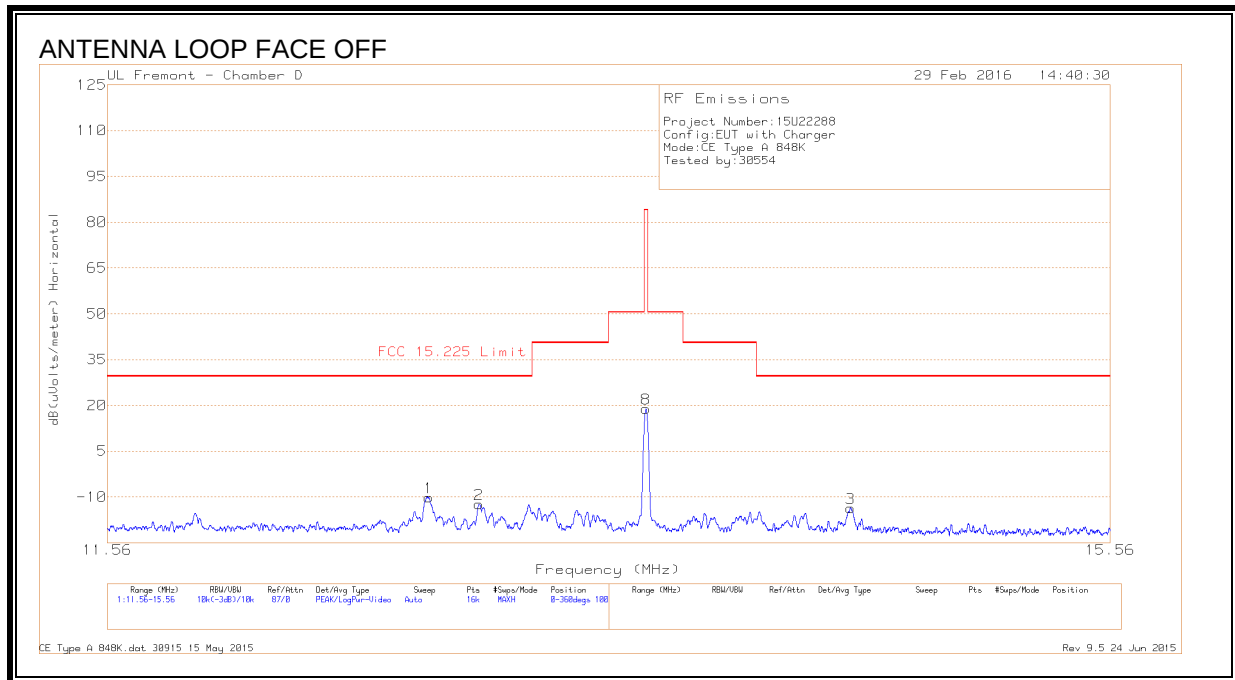
RESULTS

8.2. FUNDAMENTAL AND SPURIOUS EMISSIONS (0.15 – 30 MHz)

8.2.1. CE MODE

TYPE A

848Kbps FUNDAMENTAL

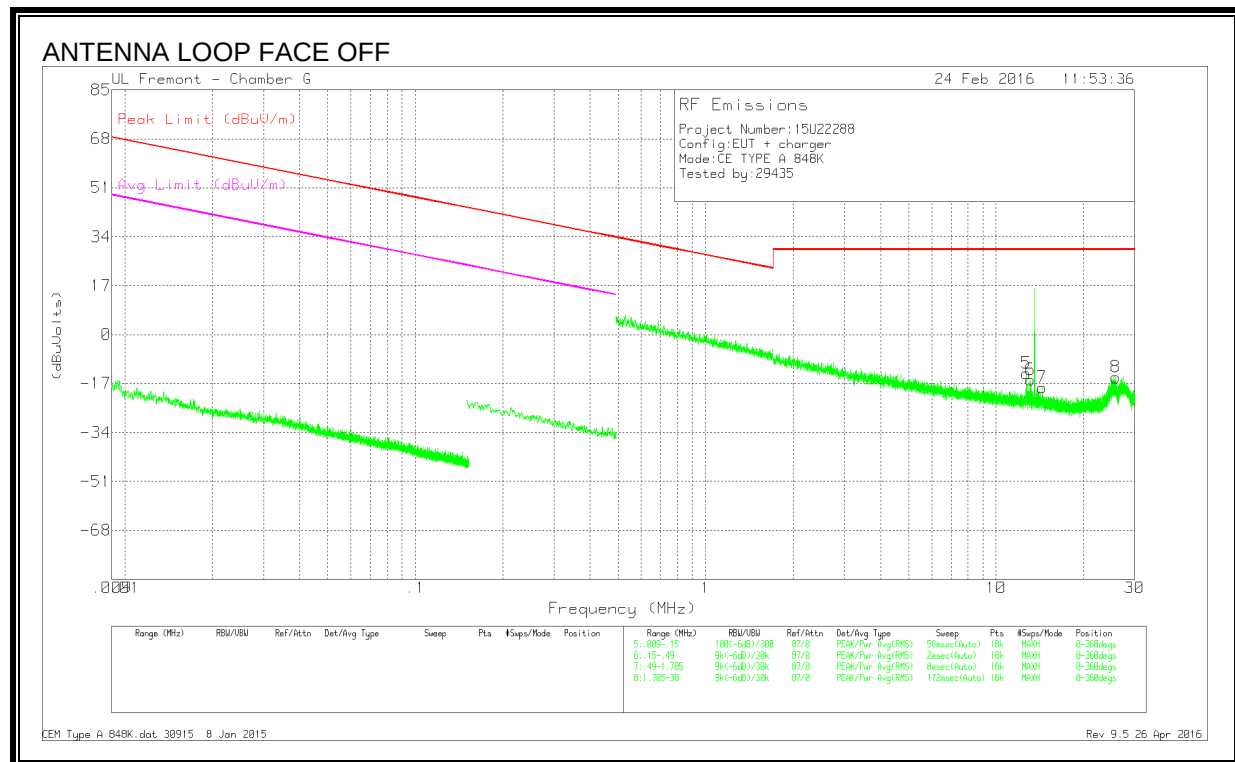
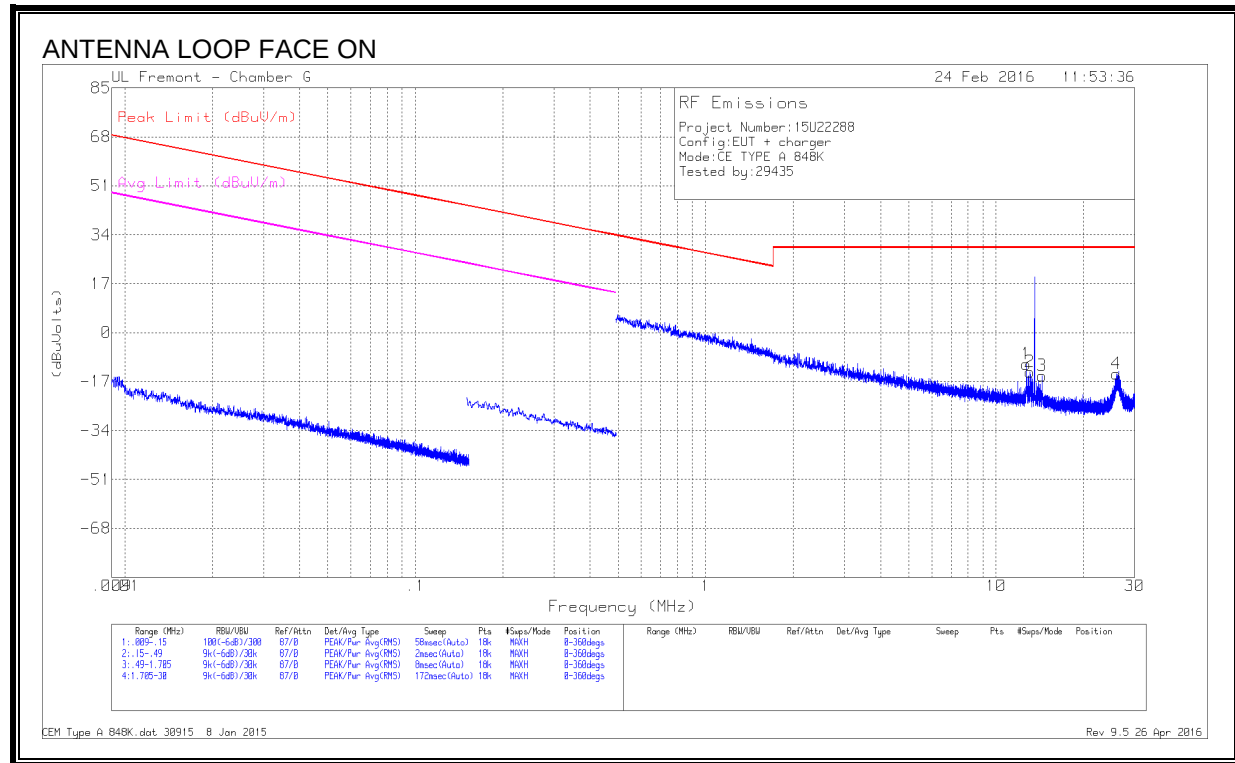


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
4	12.70789	17.86	Pk	10.4	.4	-40	-11.34	29.54	-40.88	0-360
1	12.71488	18.99	Pk	10.4	.4	-40	-10.21	29.54	-39.75	0-360
2	12.9045	16.74	Pk	10.4	.4	-40	-12.46	29.54	-42	0-360
5	12.9071	15.41	Pk	10.4	.4	-40	-13.79	29.54	-43.33	0-360
7	13.55889	46.22	Pk	10.4	.4	-40	17.02	84	-66.98	0-360
8	13.56038	48.04	Pk	10.4	.4	-40	18.84	84	-65.16	0-360
6	14.21238	13.66	Pk	10.3	.4	-40	-15.64	29.54	-45.18	0-360
3	14.40675	15.63	Pk	10.3	.4	-40	-13.67	29.54	-43.21	0-360

Pk - Peak detector

SPURIOUS EMISSION

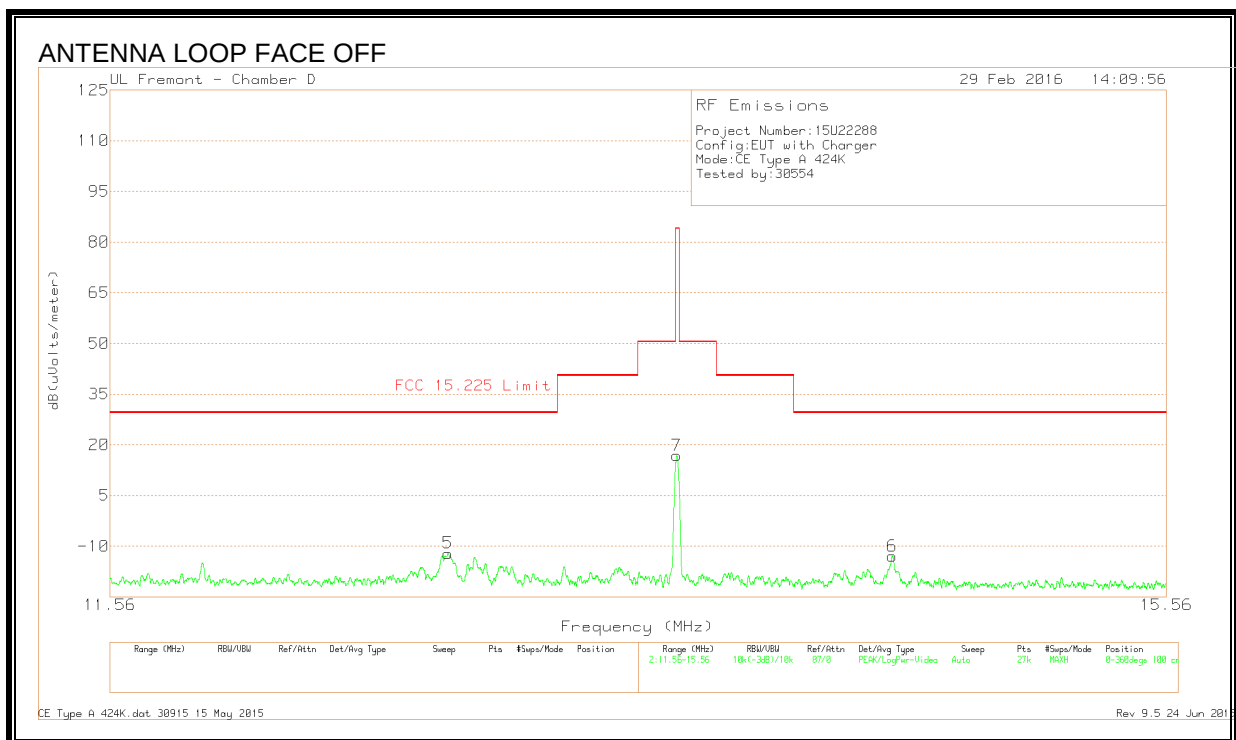
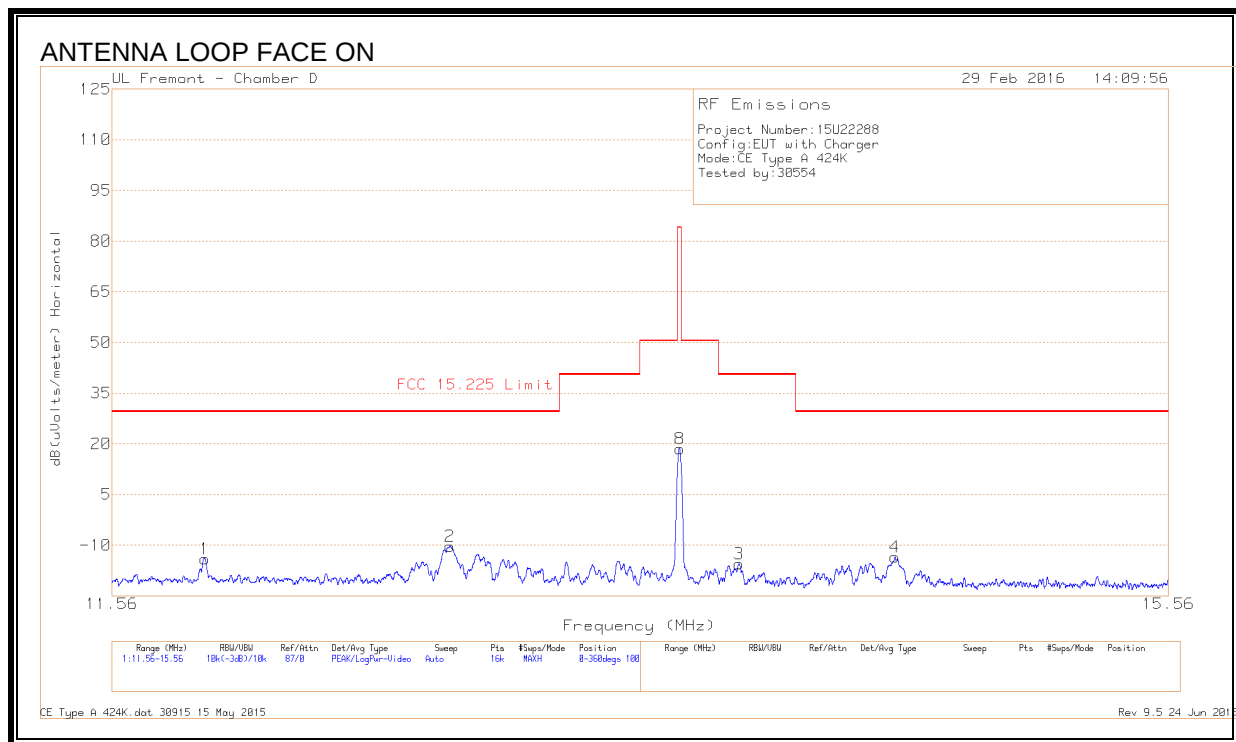


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr 30m	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
5	12.70821	15.75	Pk	10.4	.4	-40	-13.45	29.54	-42.99	-	-	0-360
1	12.71529	18.27	Pk	10.4	.4	-40	-10.93	29.54	-40.47	-	-	0-360
2	13.102	15.5	Pk	10.4	.4	-40	-13.7	29.54	-43.24	-	-	0-360
6	13.13816	13.43	Pk	10.4	.4	-40	-15.77	29.54	-45.31	-	-	0-360
3	14.40833	14.22	Pk	10.3	.4	-40	-15.08	29.54	-44.62	-	-	0-360
7	14.4099	10.99	Pk	10.3	.4	-40	-18.31	29.54	-47.85	-	-	0-360
8	25.75817	15.81	Pk	8.7	.6	-40	-14.89	29.54	-44.43	-	-	0-360
4	25.96096	16.45	Pk	8.7	.6	-40	-14.25	29.54	-43.79	-	-	0-360

Pk - Peak detector

424Kbps FUNDAMENTAL

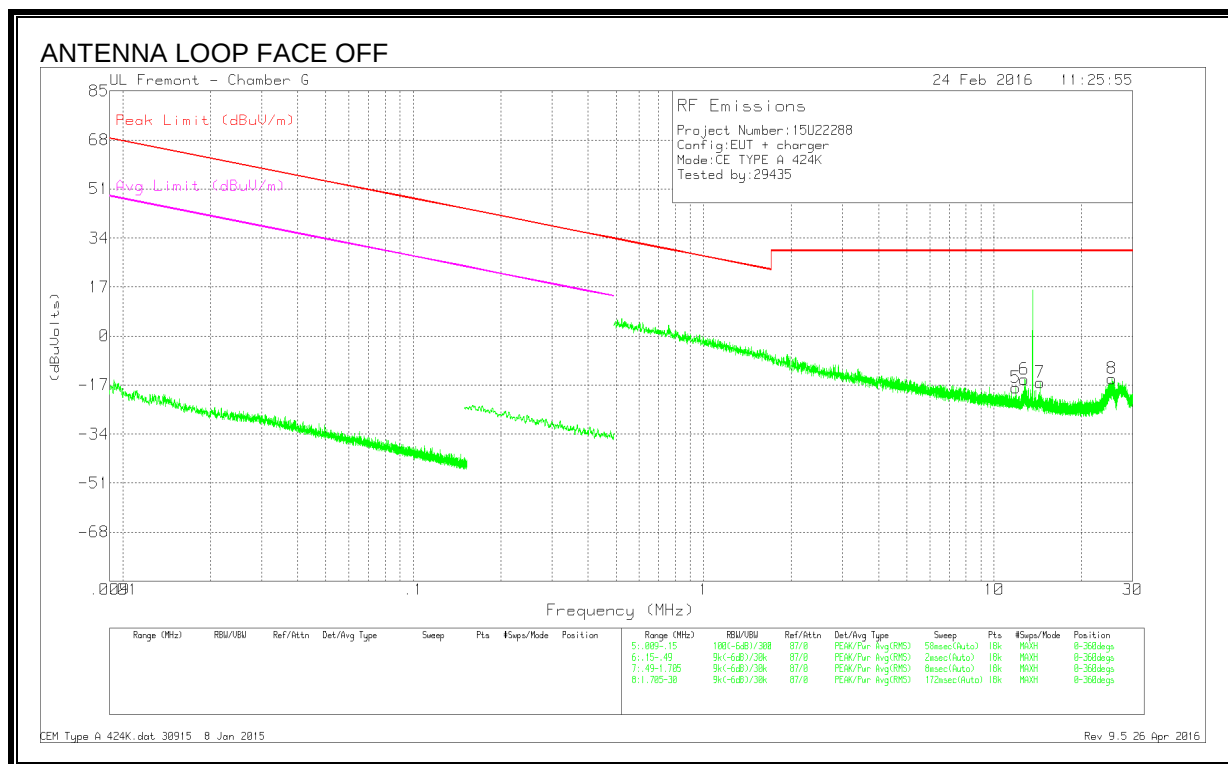
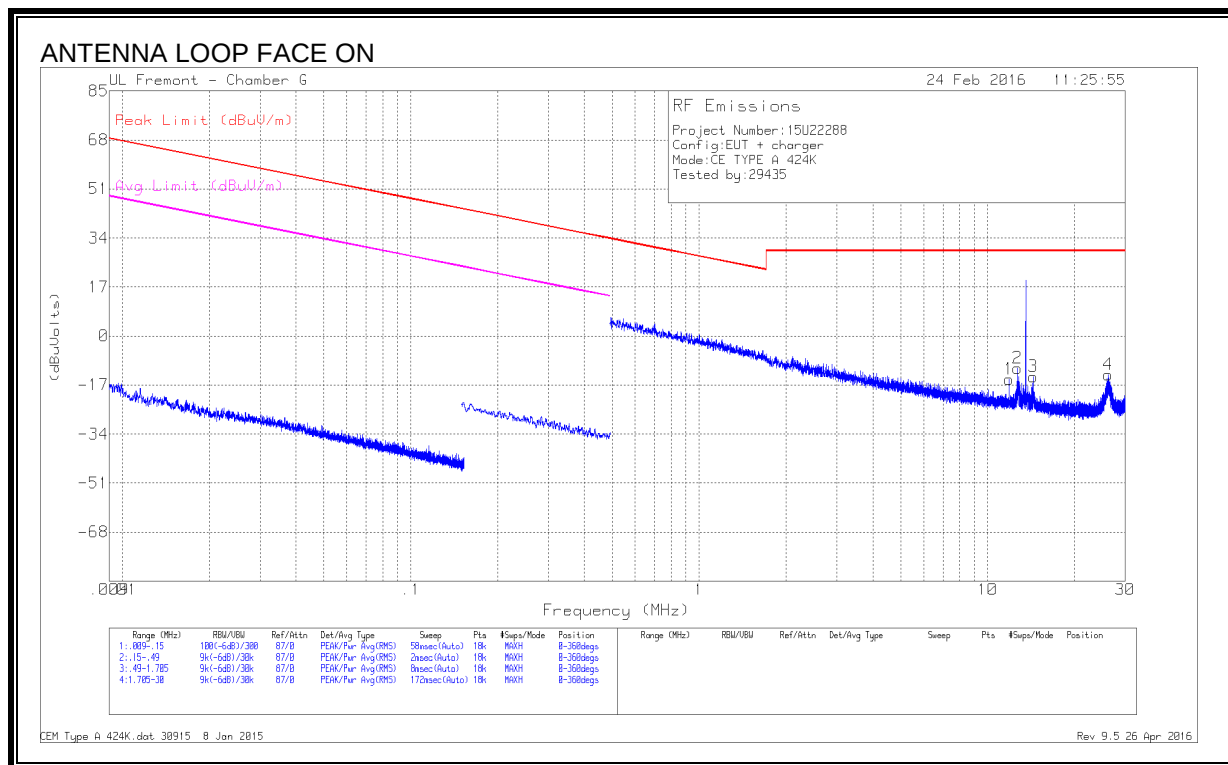


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
1	11.867	15.12	Pk	10.4	.4	-40	-14.08	29.54	-43.62	0-360
2	12.71225	18.91	Pk	10.4	.4	-40	-10.29	29.54	-39.83	0-360
5	12.71329	17.09	Pk	10.4	.4	-40	-12.11	29.54	-41.65	0-360
7	13.55867	45.97	Pk	10.4	.4	-40	16.77	84	-67.23	0-360
8	13.56175	47.67	Pk	10.4	.4	-40	18.47	84	-65.53	0-360
3	13.78988	13.76	Pk	10.3	.4	-40	-15.54	40.51	-56.05	0-360
6	14.40611	16.34	Pk	10.3	.4	-40	-12.96	29.54	-42.5	0-360
4	14.40675	15.75	Pk	10.3	.4	-40	-13.55	29.54	-43.09	0-360

Pk - Peak detector

SPURIOUS EMISSION

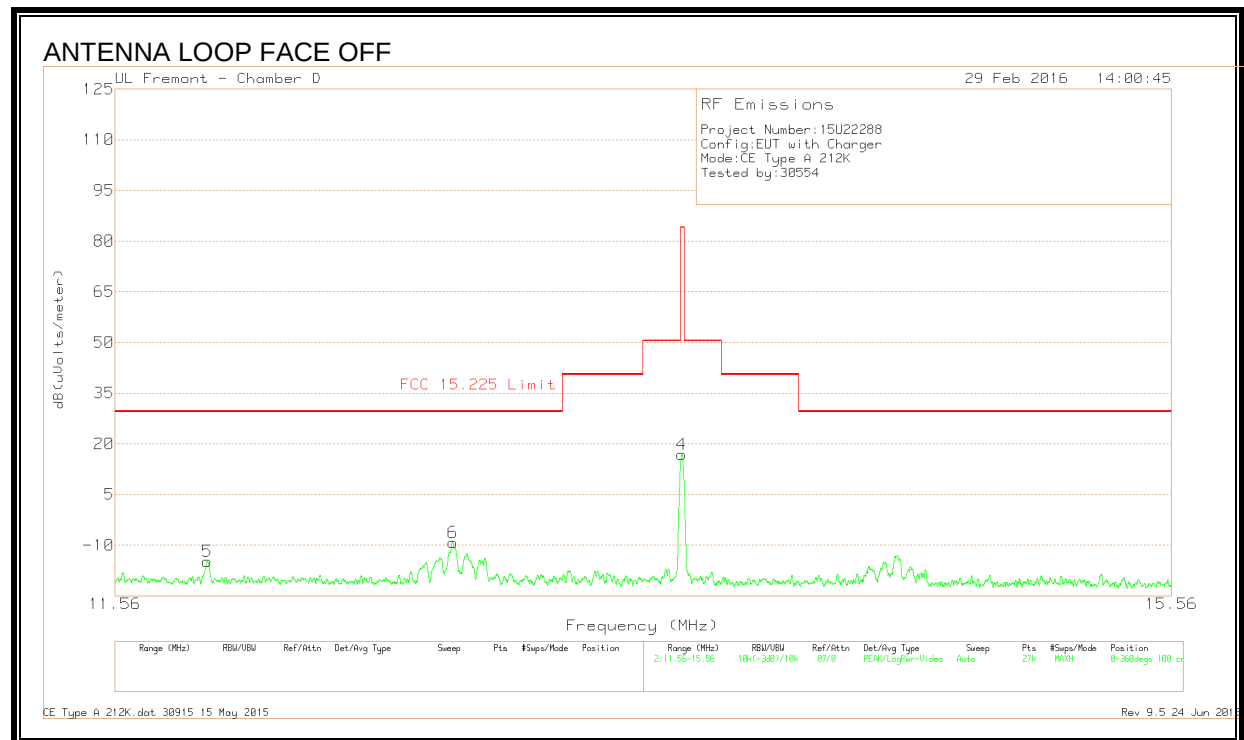
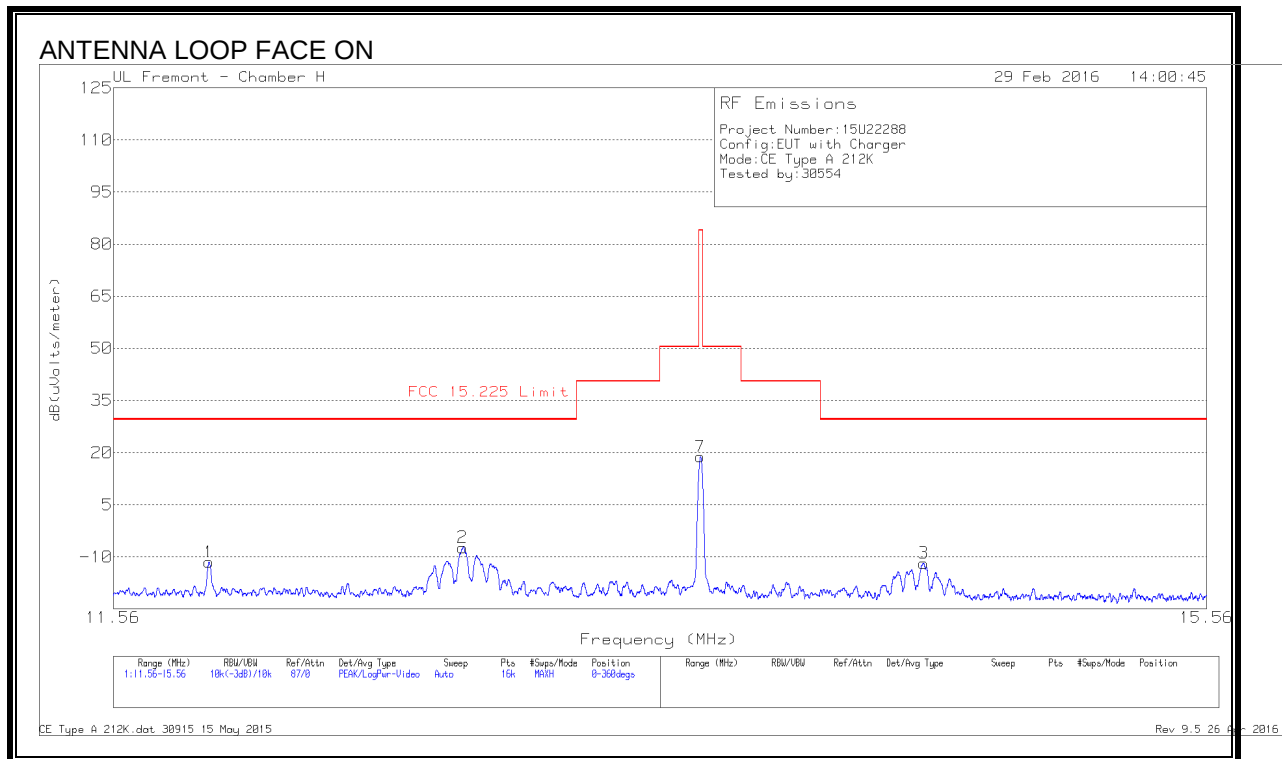


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr 30m	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
5	11.86484	11.31	Pk	10.4	.4	-40	-17.89	29.54	-47.43	-	-	0-360
1	11.86641	14.17	Pk	10.4	.4	-40	-15.03	29.54	-44.57	-	-	0-360
2	12.71372	17.97	Pk	10.4	.4	-40	-11.23	29.54	-40.77	-	-	0-360
6	12.71529	14.11	Pk	10.4	.4	-40	-15.09	29.54	-44.63	-	-	0-360
3	14.4099	15.18	Pk	10.3	.4	-40	-14.12	29.54	-43.66	-	-	0-360
7	14.4099	13.1	Pk	10.3	.4	-40	-16.2	29.54	-45.74	-	-	0-360
8	25.39976	15.81	Pk	8.8	.6	-40	-14.79	29.54	-44.33	-	-	0-360
4	26.20541	17.22	Pk	8.6	.7	-40	-13.48	29.54	-43.02	-	-	0-360

Pk - Peak detector

212Kbps FUNDAMENTAL

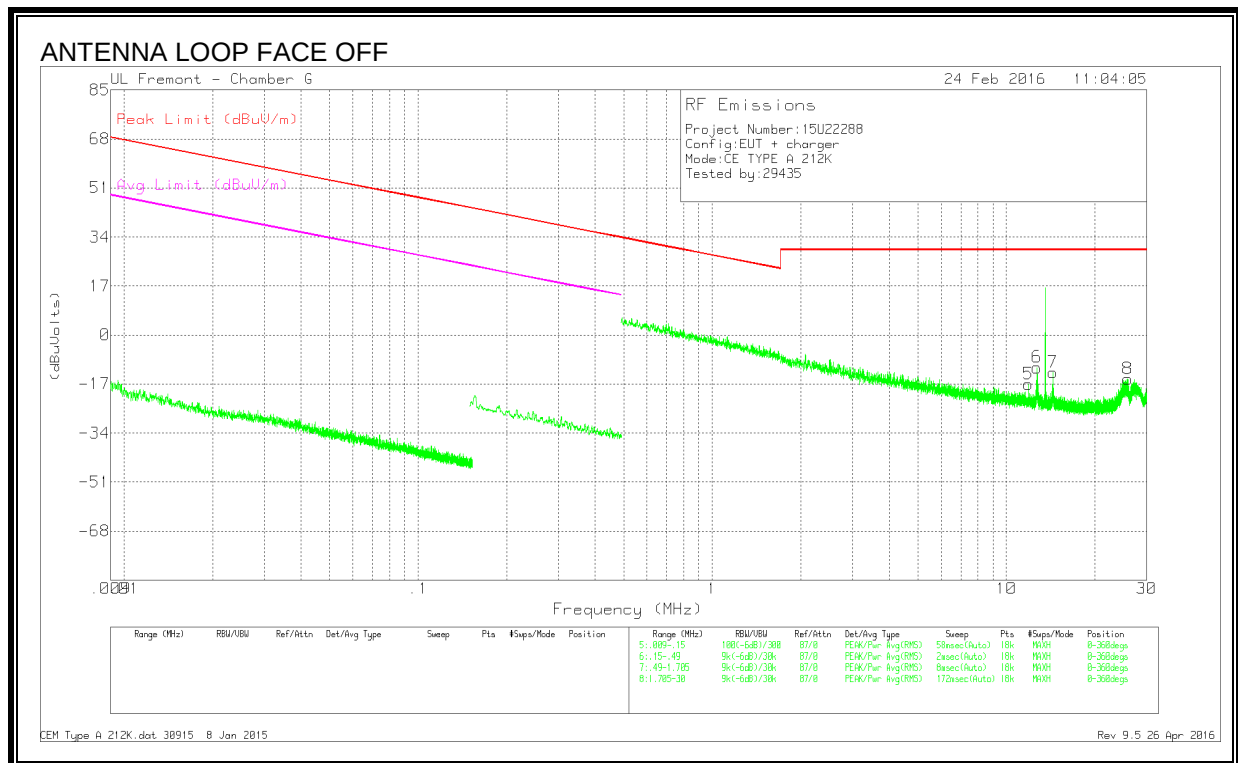
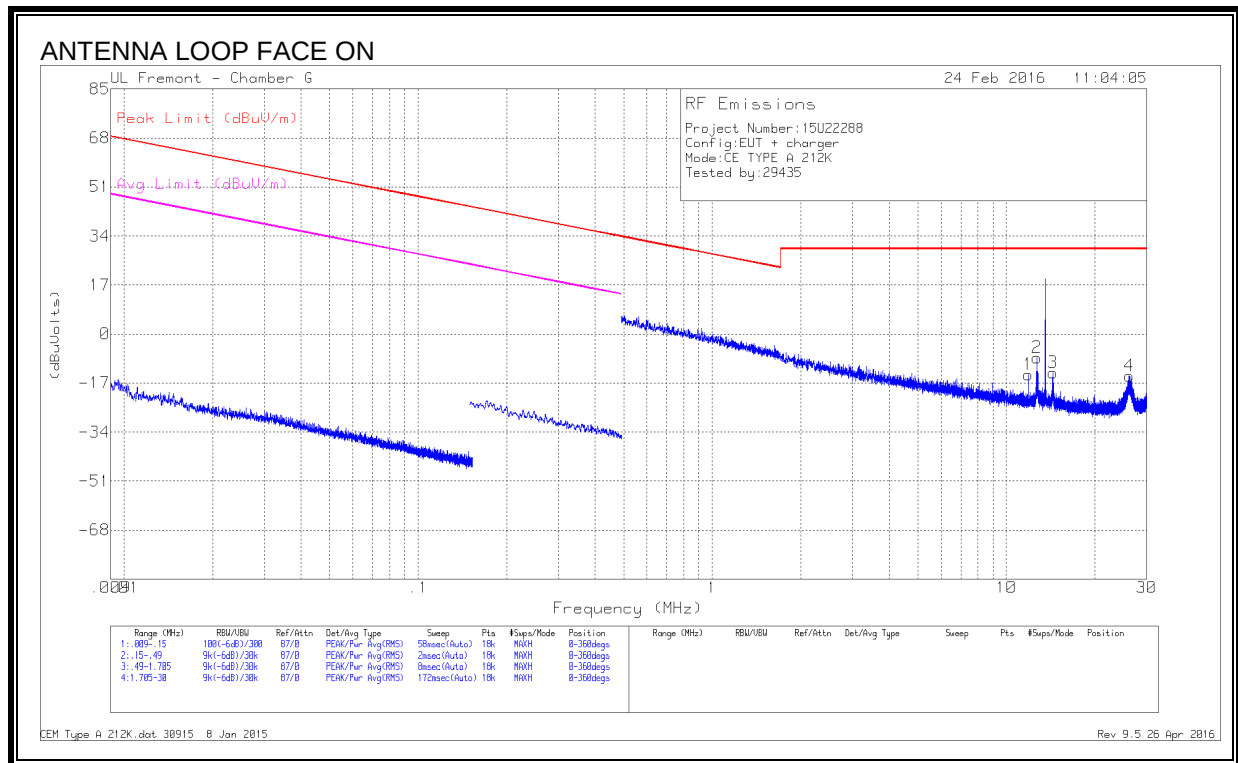


DATA

Marker	Frequenc y (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts/m eter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
5	11.86436	14.32	Pk	10.4	.4	-40	-14.88	29.54	-44.42	0-360
1	11.86538	17.68	Pk	10.4	.4	-40	-11.52	29.54	-41.06	0-360
2	12.71225	21.91	Pk	10.4	.4	-40	-7.29	29.54	-36.83	0-360
6	12.71233	20.04	Pk	10.4	.4	-40	-9.16	29.54	-38.7	0-360
4	13.55852	46.04	Pk	10.4	.4	-40	16.84	84	-67.16	0-360
7	13.55975	48	Pk	10.4	.4	-40	18.8	84	-65.2	0-360
3	14.40713	17.56	Pk	10.3	.4	-40	-11.74	29.54	-41.28	0-360

Pk - Peak detector

SPURIOUS EMISSION

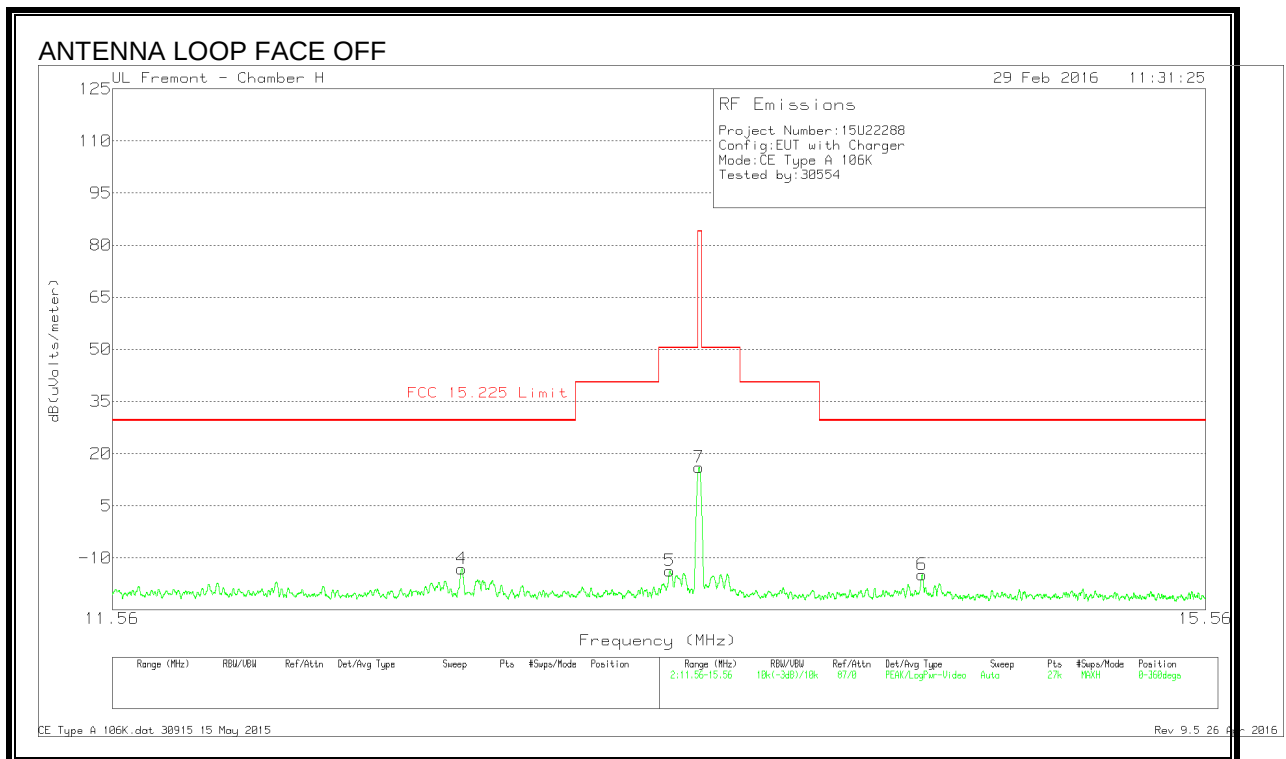
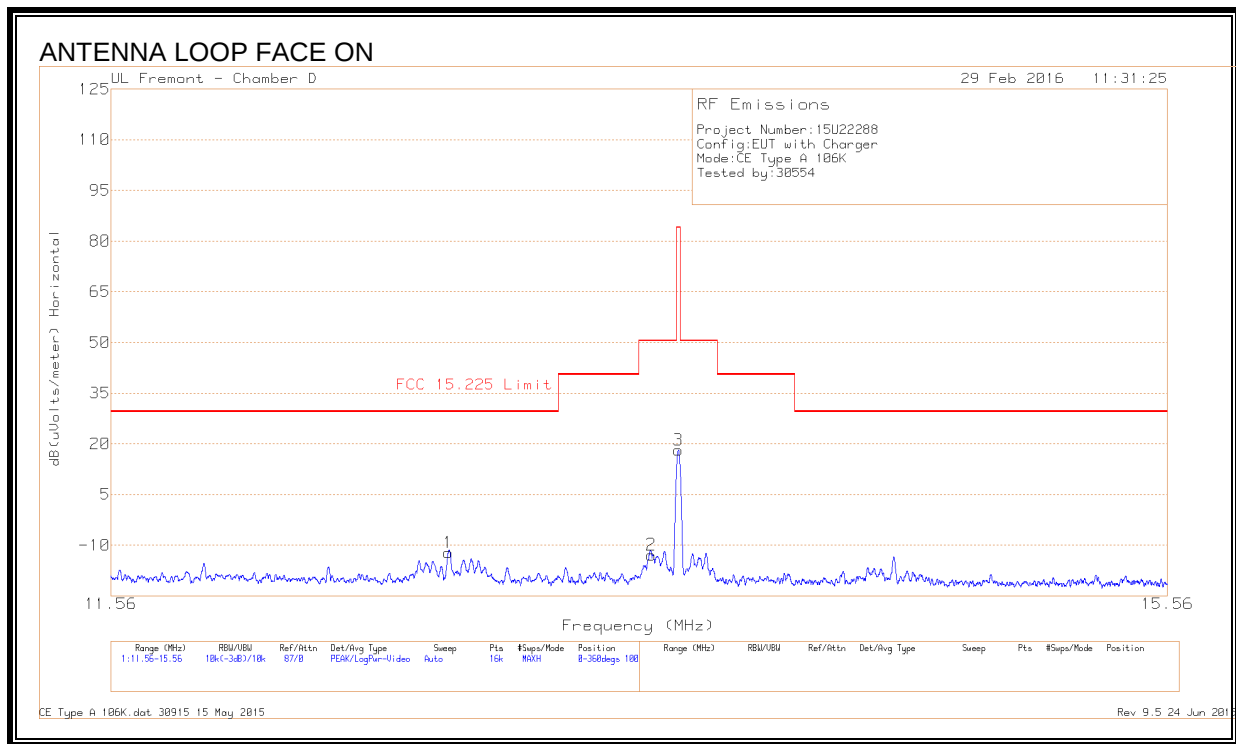


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr 30m	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
5	11.86484	12.08	Pk	10.4	.4	-40	-17.12	29.54	-46.66	-	-	0-360
1	11.86641	14.99	Pk	10.4	.4	-40	-14.21	29.54	-43.75	-	-	0-360
6	12.71529	17.92	Pk	10.4	.4	-40	-11.28	29.54	-40.82	-	-	0-360
2	12.71686	20.91	Pk	10.4	.4	-40	-8.29	29.54	-37.83	-	-	0-360
3	14.40676	15.92	Pk	10.3	.4	-40	-13.38	29.54	-42.92	-	-	0-360
7	14.40833	16.3	Pk	10.3	.4	-40	-13	29.54	-42.54	-	-	0-360
8	25.87293	15.45	Pk	8.7	.6	-40	-15.25	29.54	-44.79	-	-	0-360
4	26.22899	16.17	Pk	8.6	.7	-40	-14.53	29.54	-44.07	-	-	0-360

Pk - Peak detector

106Kbps FUNDAMENTAL

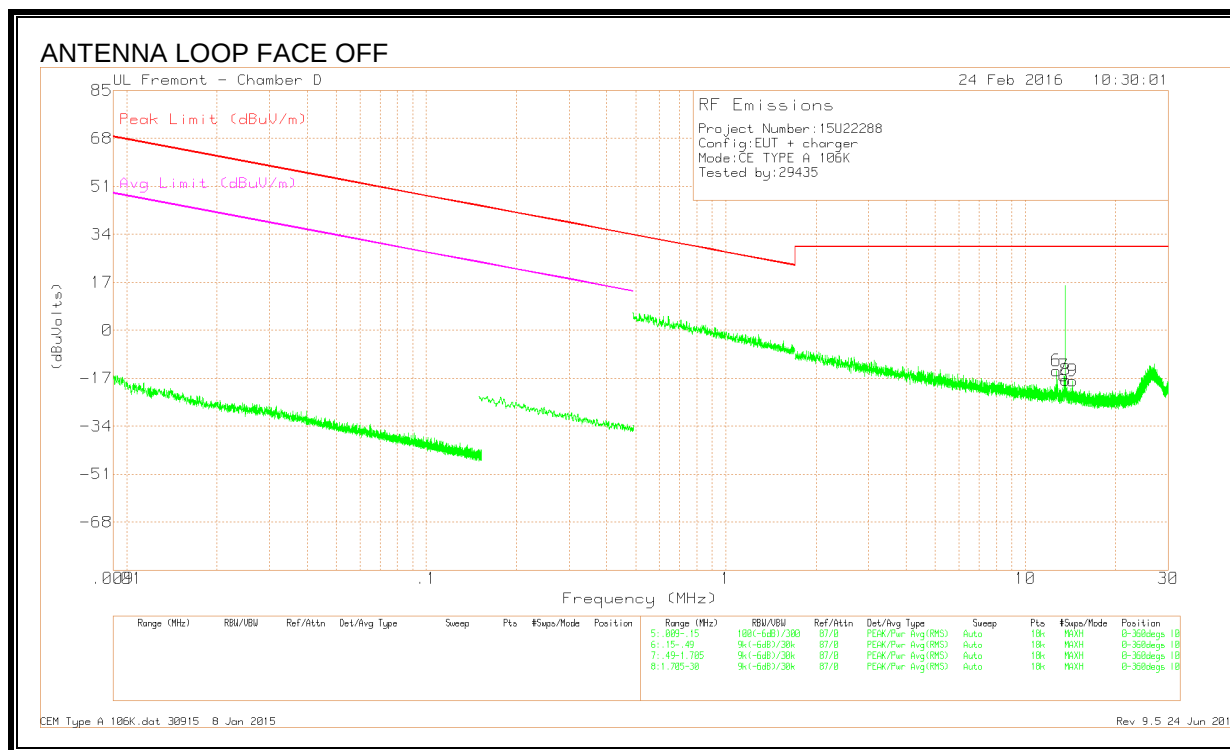
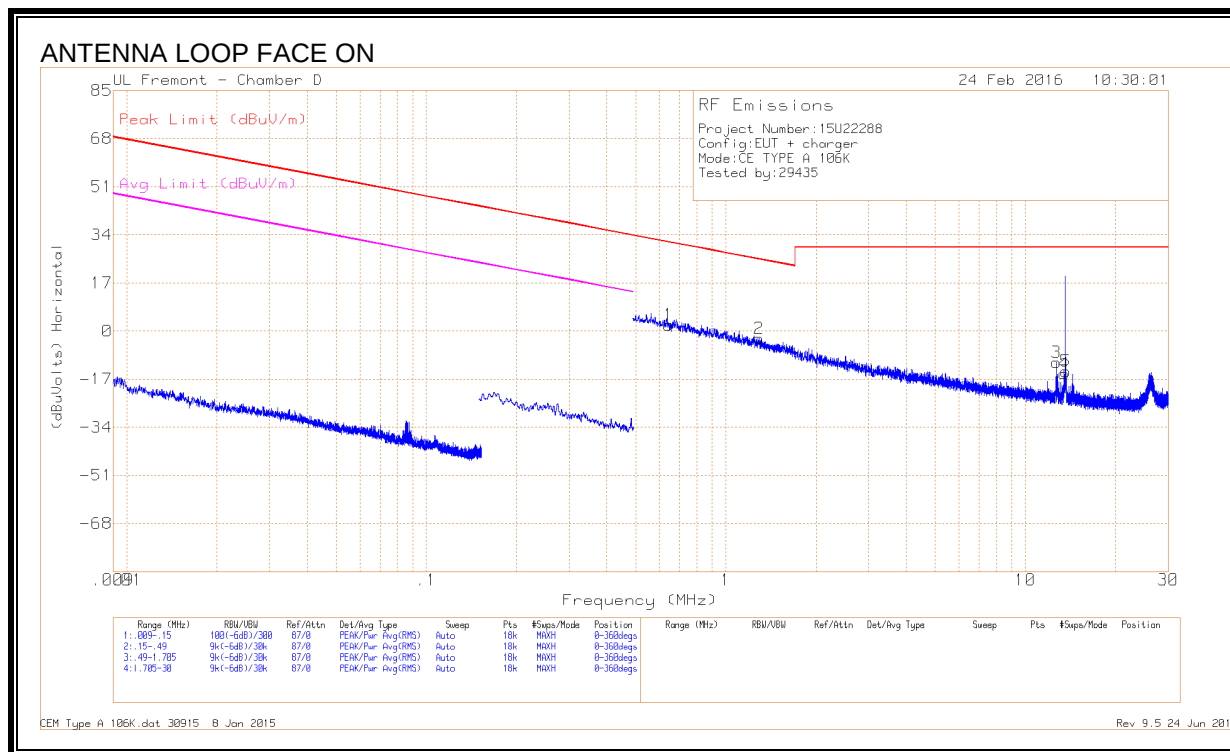


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
1	12.71	17.02	Pk	10.4	.4	-40	-12.18	29.54	-41.72	0-360
4	12.71159	16.04	Pk	10.4	.4	-40	-13.16	29.54	-42.7	0-360
5	13.45211	15.53	Pk	10.4	.4	-40	-13.67	50.5	-64.17	0-360
2	13.45875	16.34	Pk	10.4	.4	-40	-12.86	50.5	-63.36	0-360
3	13.56038	47.27	Pk	10.4	.4	-40	18.07	84	-65.93	0-360
6	14.40597	14.55	Pk	10.3	.4	-40	-14.75	29.54	-44.29	0-360
7	13.55867	45.34	Pk	10.4	.4	-40	16.14	84	-67.86	0-360

Pk - Peak detector

SPURIOUS EMISSION



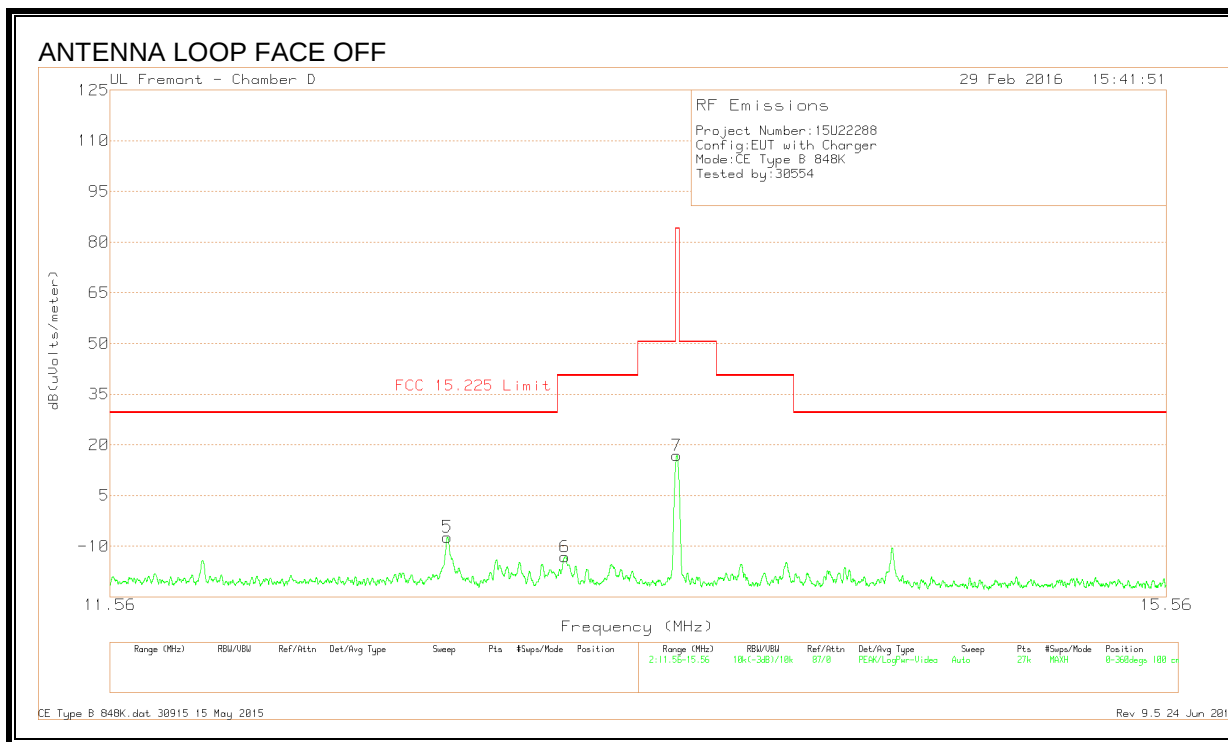
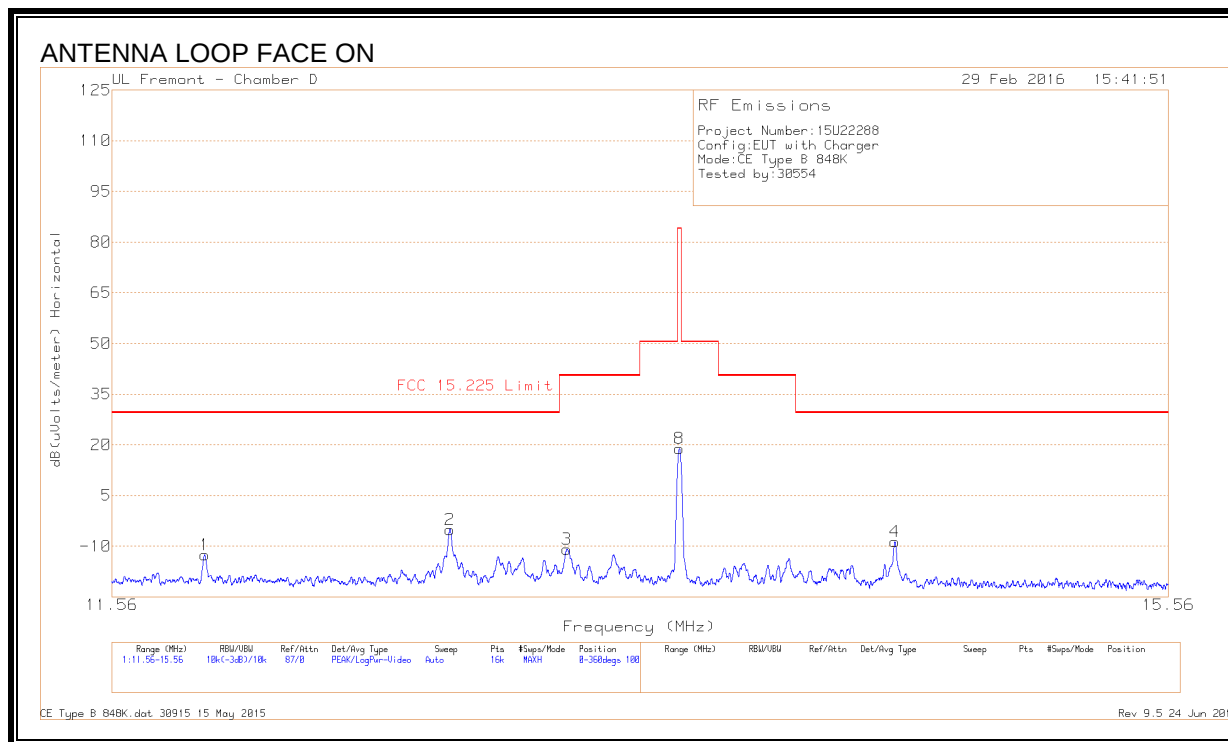
RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr 30m	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.64403	31.88	Pk	10.2	.1	-40	2.18	31.43	-29.25	-	-	0-360
2	1.28991	26.87	Pk	10.4	.1	-40	-2.63	25.39	-28.02	-	-	0-360
6	12.71214	14.87	Pk	10.4	.4	-40	-14.33	29.54	-43.87	-	-	0-360
3	12.71372	18.13	Pk	10.4	.4	-40	-11.07	29.54	-40.61	-	-	0-360
7	13.45334	13.08	Pk	10.4	.4	-40	-16.12	29.54	-45.66	-	-	0-360
4	13.47771	14.07	Pk	10.4	.4	-40	-15.13	29.54	-44.67	-	-	0-360
5	13.63962	14.93	Pk	10.4	.4	-40	-14.27	29.54	-43.81	-	-	0-360
8	13.66478	11.6	Pk	10.4	.4	-40	-17.6	29.54	-47.14	-	-	0-360
9	14.40912	11.42	Pk	10.3	.4	-40	-17.88	29.54	-47.42	-	-	0-360

Pk - Peak detector

TYPE B

848Kbps FUNDAMENTAL

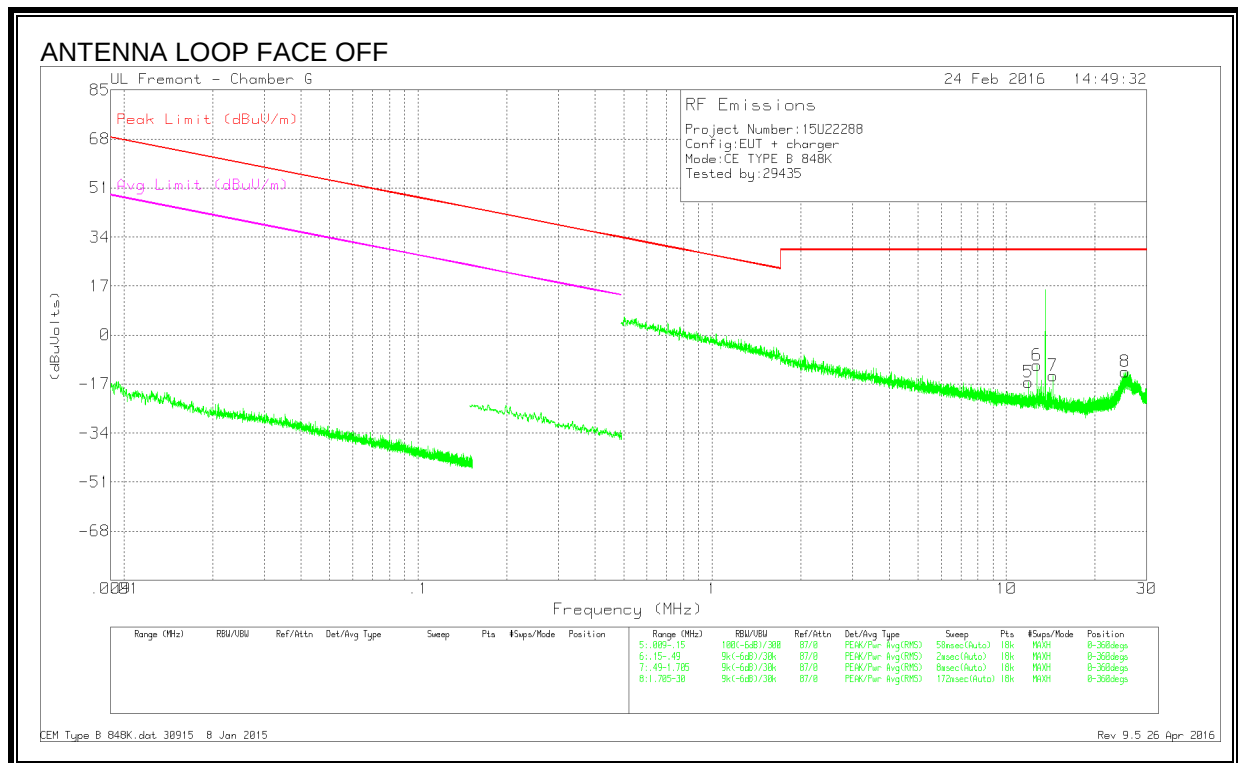
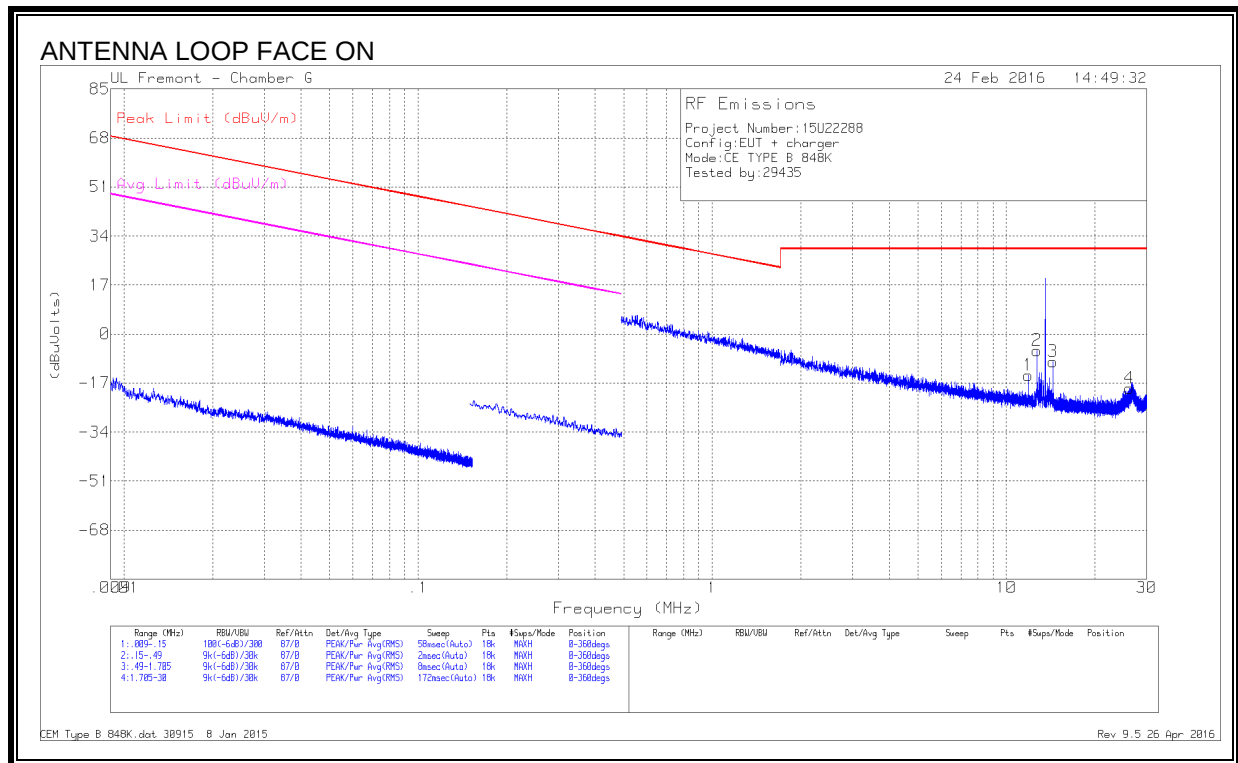


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
1	11.86538	16.65	Pk	10.4	.4	-40	-12.55	29.54	-42.09	0-360
5	12.71151	21.93	Pk	10.4	.4	-40	-7.27	29.54	-36.81	0-360
2	12.71225	24.14	Pk	10.4	.4	-40	-5.06	29.54	-34.6	0-360
6	13.13886	16.02	Pk	10.4	.4	-40	-13.18	40.51	-53.69	0-360
3	13.13913	18.23	Pk	10.4	.4	-40	-10.97	40.51	-51.48	0-360
7	13.55867	46.02	Pk	10.4	.4	-40	16.82	84	-67.18	0-360
8	13.56063	48.09	Pk	10.4	.4	-40	18.89	84	-65.11	0-360
4	14.40813	20.63	Pk	10.3	.4	-40	-8.67	29.54	-38.21	0-360

Pk - Peak detector

SPURIOUS EMISSION

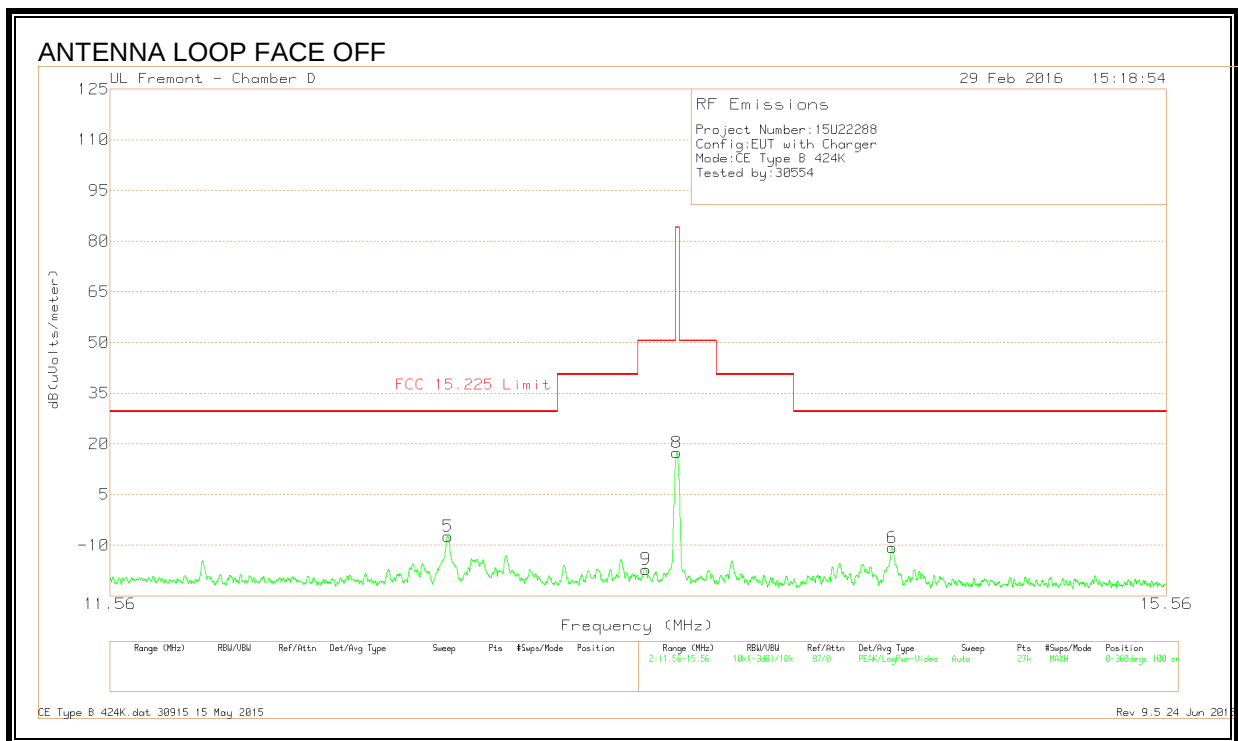
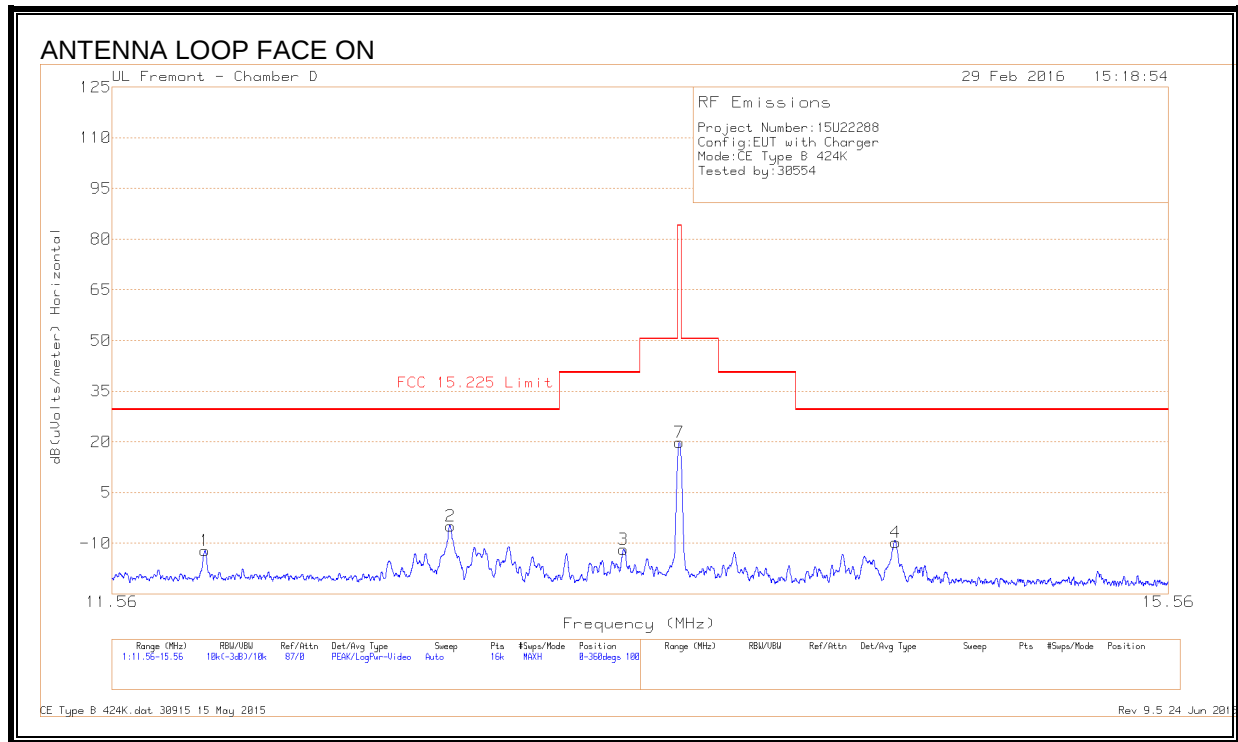


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr 30m	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	11.86484	14.96	Pk	10.4	.4	-40	-14.24	29.54	-43.78	-	-	0-360
5	11.86484	12.81	Pk	10.4	.4	-40	-16.39	29.54	-45.93	-	-	0-360
6	12.71057	18.73	Pk	10.4	.4	-40	-10.47	29.54	-40.01	-	-	0-360
2	12.71372	23.52	Pk	10.4	.4	-40	-5.68	29.54	-35.22	-	-	0-360
7	14.40676	15.16	Pk	10.3	.4	-40	-14.14	29.54	-43.68	-	-	0-360
3	14.40833	19.77	Pk	10.3	.4	-40	-9.53	29.54	-39.07	-	-	0-360
8	25.32744	17.81	Pk	8.8	.6	-40	-12.79	29.54	-42.33	-	-	0-360
4	26.19362	11.87	Pk	8.6	.7	-40	-18.83	29.54	-48.37	-	-	0-360

Pk - Peak detector

424Kbps FUNDAMENTAL

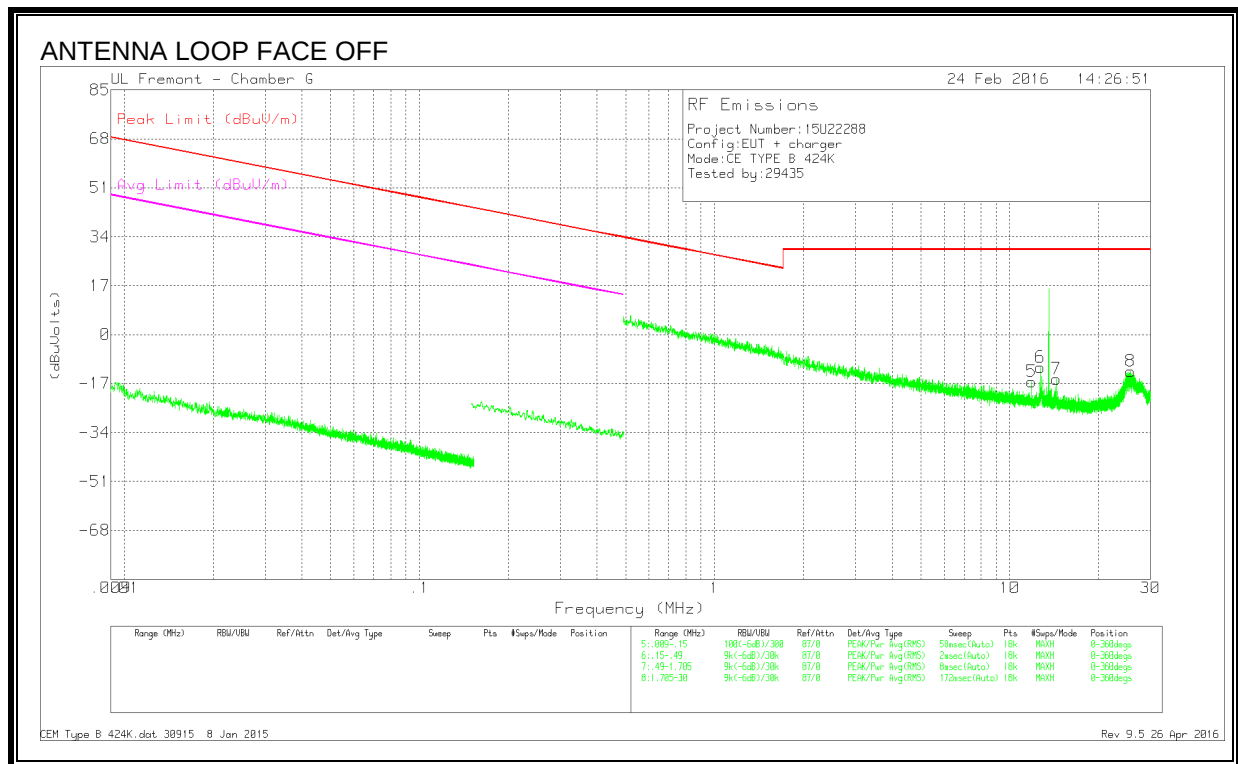
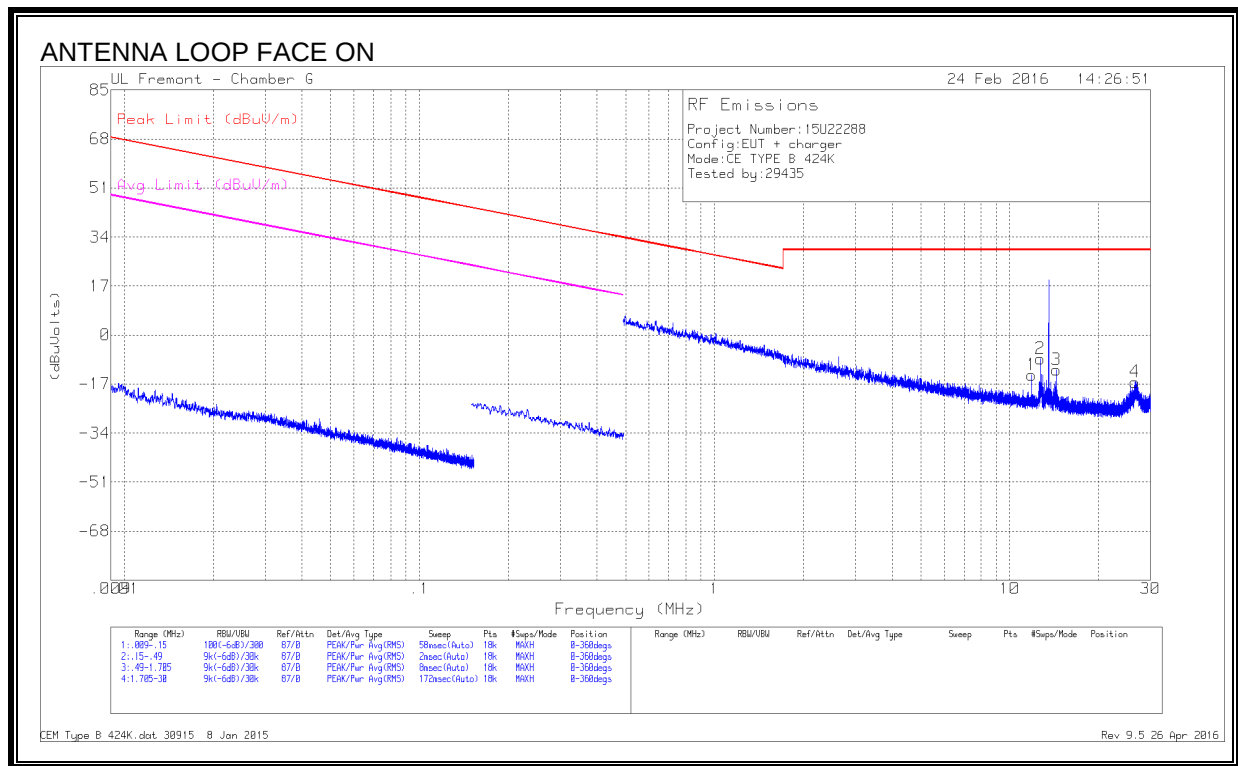


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
1	11.867	16.97	Pk	10.4	.4	-40	-12.23	29.54	-41.77	0-360
5	12.71233	21.87	Pk	10.4	.4	-40	-7.33	29.54	-36.87	0-360
2	12.71425	24.26	Pk	10.4	.4	-40	-4.94	29.54	-34.48	0-360
3	13.34963	17.39	Pk	10.4	.4	-40	-11.81	40.51	-52.32	0-360
9	13.44078	12.06	Pk	10.4	.4	-40	-17.14	50.5	-67.64	0-360
8	13.55852	46.58	Pk	10.4	.4	-40	17.38	84	-66.62	0-360
7	13.56038	49.09	Pk	10.4	.4	-40	19.89	84	-64.11	0-360
6	14.40508	18.56	Pk	10.3	.4	-40	-10.74	29.54	-40.28	0-360
4	14.41175	19.52	Pk	10.3	.4	-40	-9.78	29.54	-39.32	0-360

Pk - Peak detector

SPURIOUS EMISSION

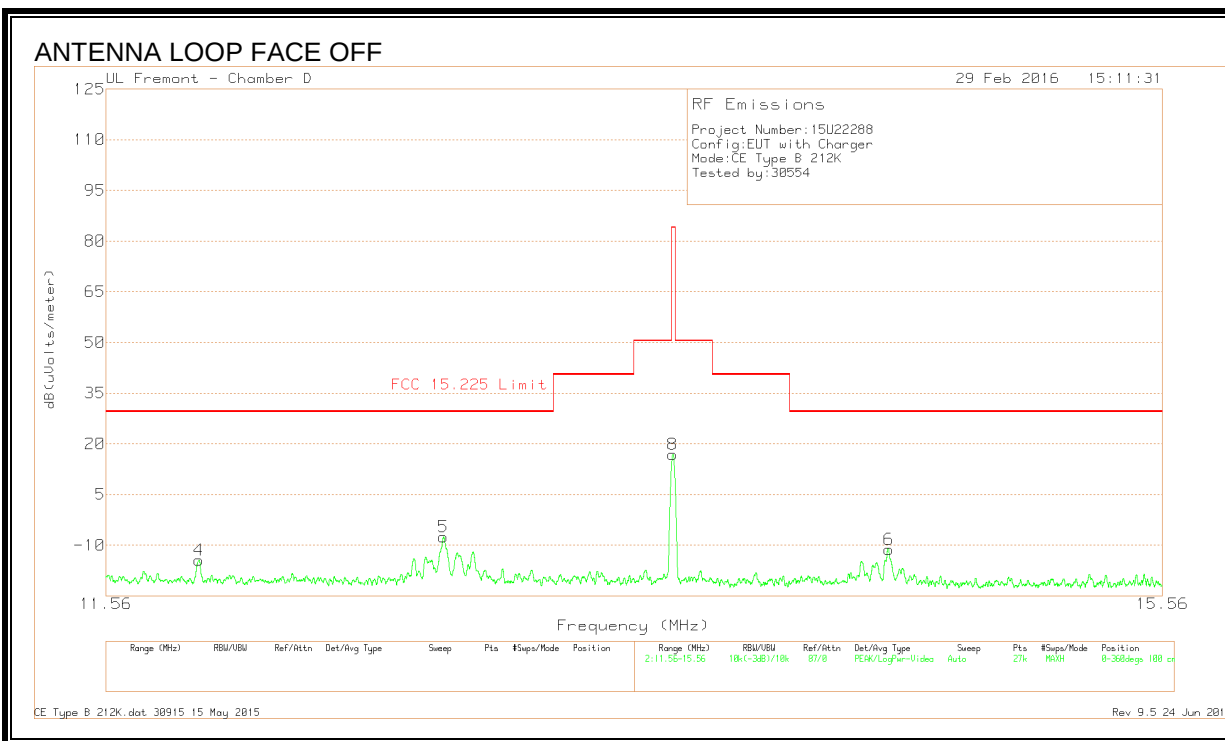
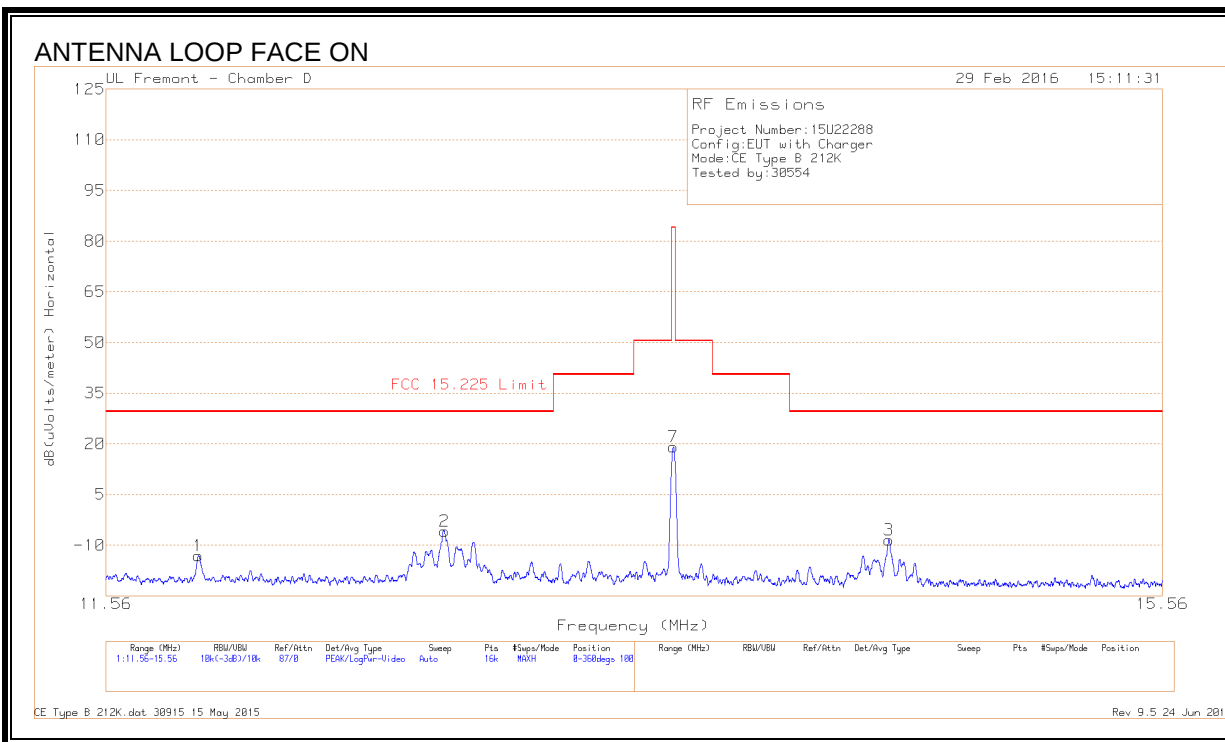


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr 30m	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	11.86641	15.29	Pk	10.4	.4	-40	-13.91	29.54	-43.45	-	-	0-360
5	11.86641	12.81	Pk	10.4	.4	-40	-16.39	29.54	-45.93	-	-	0-360
2	12.71057	20.88	Pk	10.4	.4	-40	-8.32	29.54	-37.86	-	-	0-360
6	12.71529	17.81	Pk	10.4	.4	-40	-11.39	29.54	-40.93	-	-	0-360
3	14.4099	17.31	Pk	10.3	.4	-40	-11.99	29.54	-41.53	-	-	0-360
7	14.4099	13.87	Pk	10.3	.4	-40	-15.43	29.54	-44.97	-	-	0-360
8	25.64342	17.76	Pk	8.8	.6	-40	-12.84	29.54	-42.38	-	-	0-360
4	26.55203	14.44	Pk	8.6	.7	-40	-16.26	29.54	-45.8	-	-	0-360

Pk - Peak detector

212Kbps FUNDAMENTAL

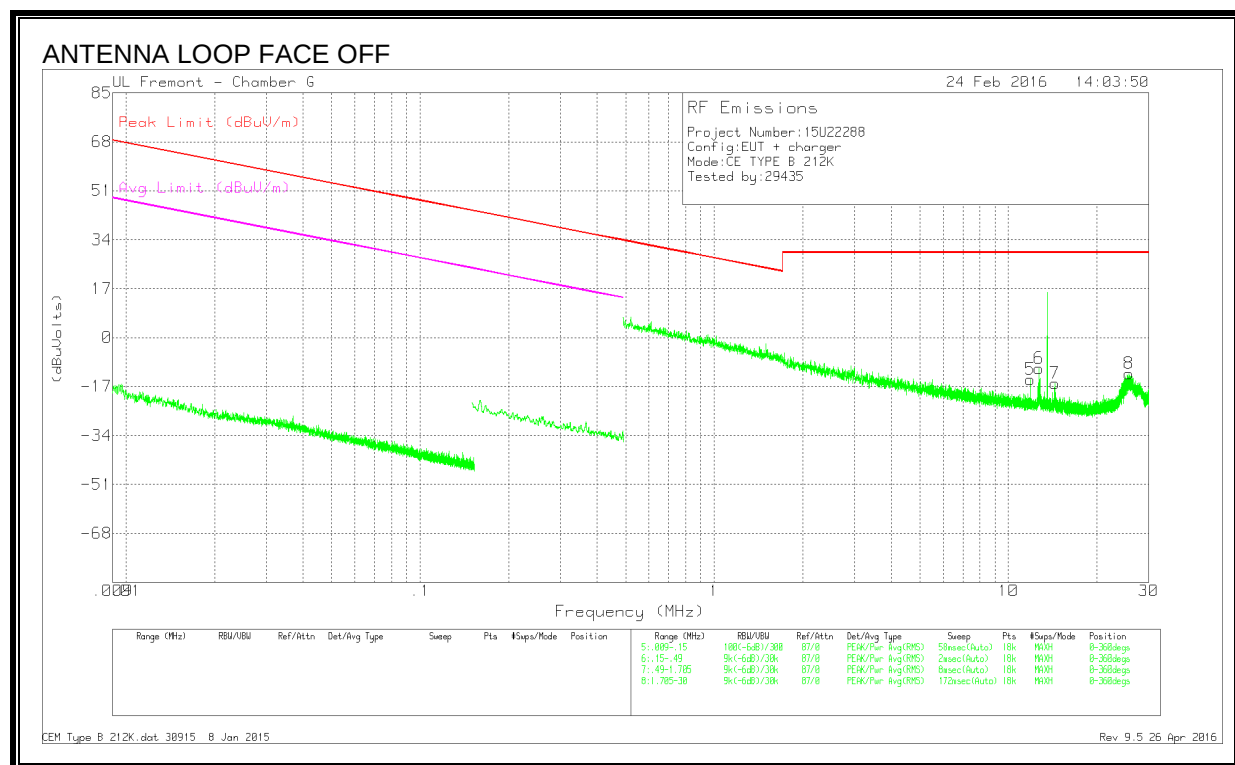
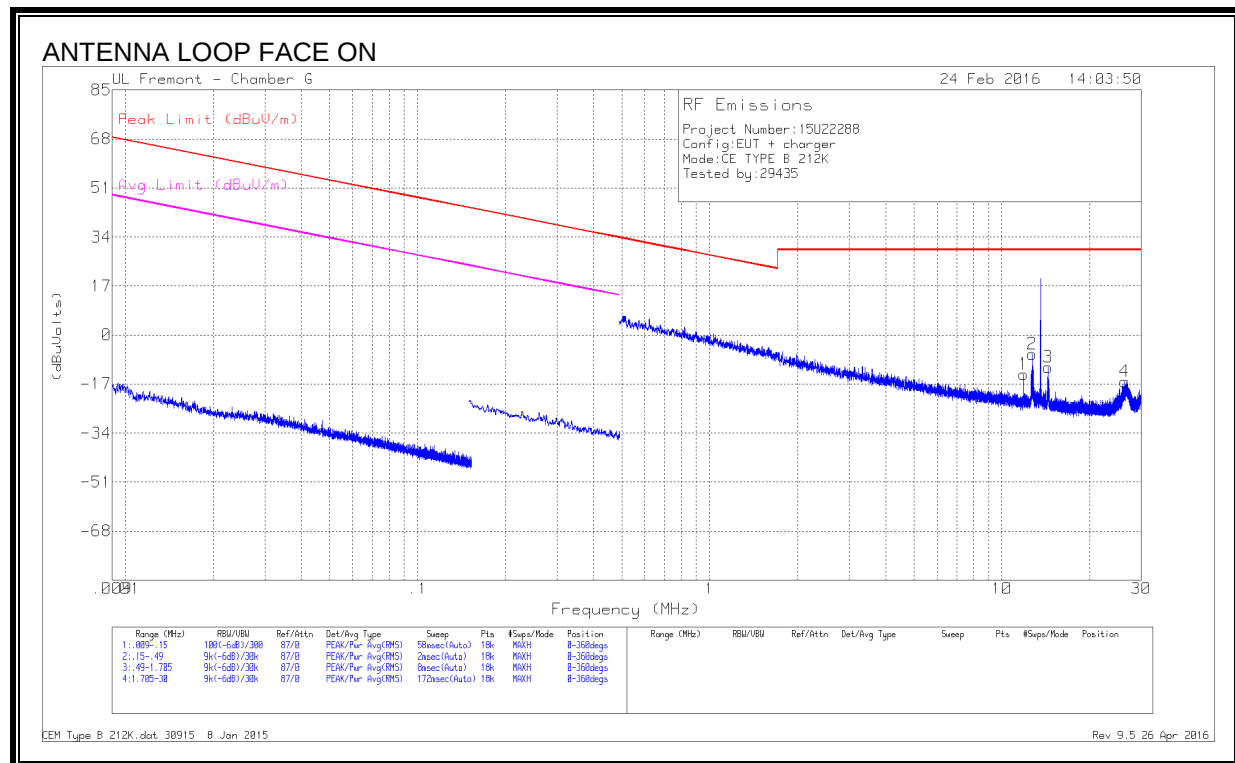


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
1	11.865	16.01	Pk	10.4	.4	-40	-13.19	29.54	-42.73	0-360
4	11.86643	14.82	Pk	10.4	.4	-40	-14.38	29.54	-43.92	0-360
5	12.71151	21.59	Pk	10.4	.4	-40	-7.61	29.54	-37.15	0-360
2	12.71425	23.31	Pk	10.4	.4	-40	-5.89	29.54	-35.43	0-360
8	13.55852	46.13	Pk	10.4	.4	-40	16.93	84	-67.07	0-360
7	13.56038	48.21	Pk	10.4	.4	-40	19.01	84	-64.99	0-360
3	14.40675	20.84	Pk	10.3	.4	-40	-8.46	29.54	-38	0-360
6	14.40722	18.02	Pk	10.3	.4	-40	-11.28	29.54	-40.82	0-360

Pk - Peak detector

SPURIOUS EMISSION

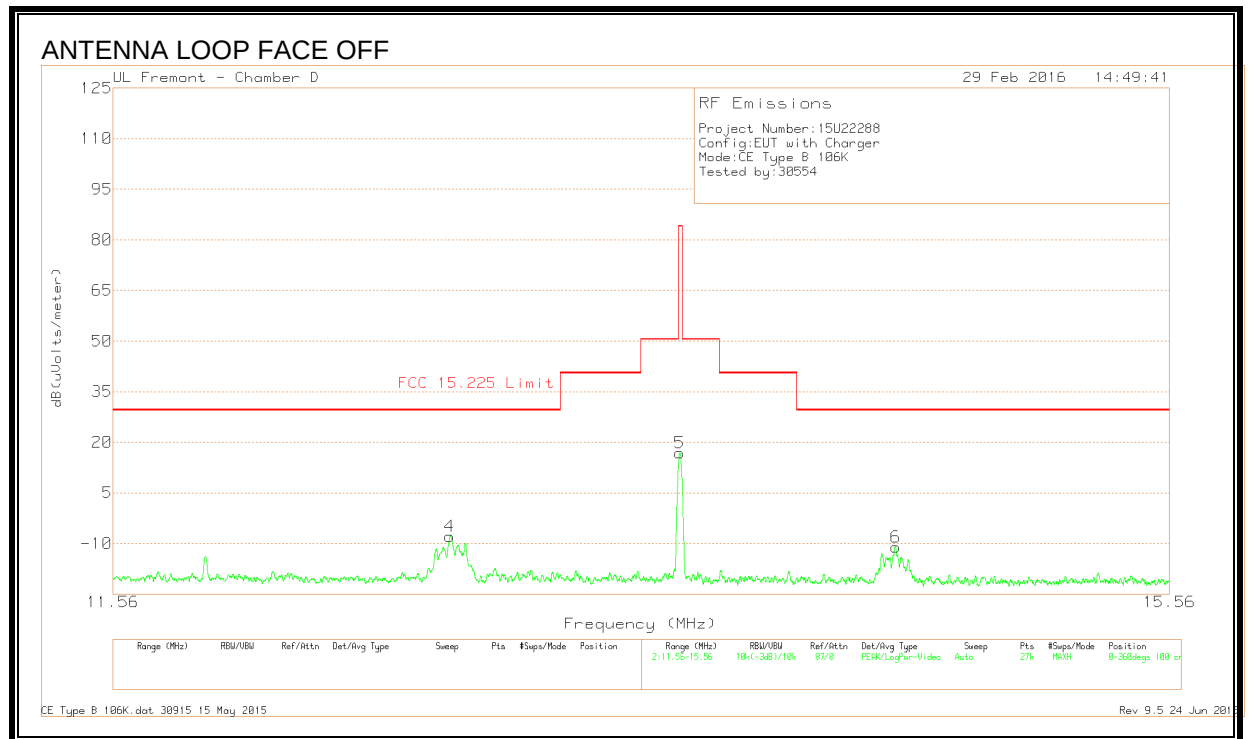
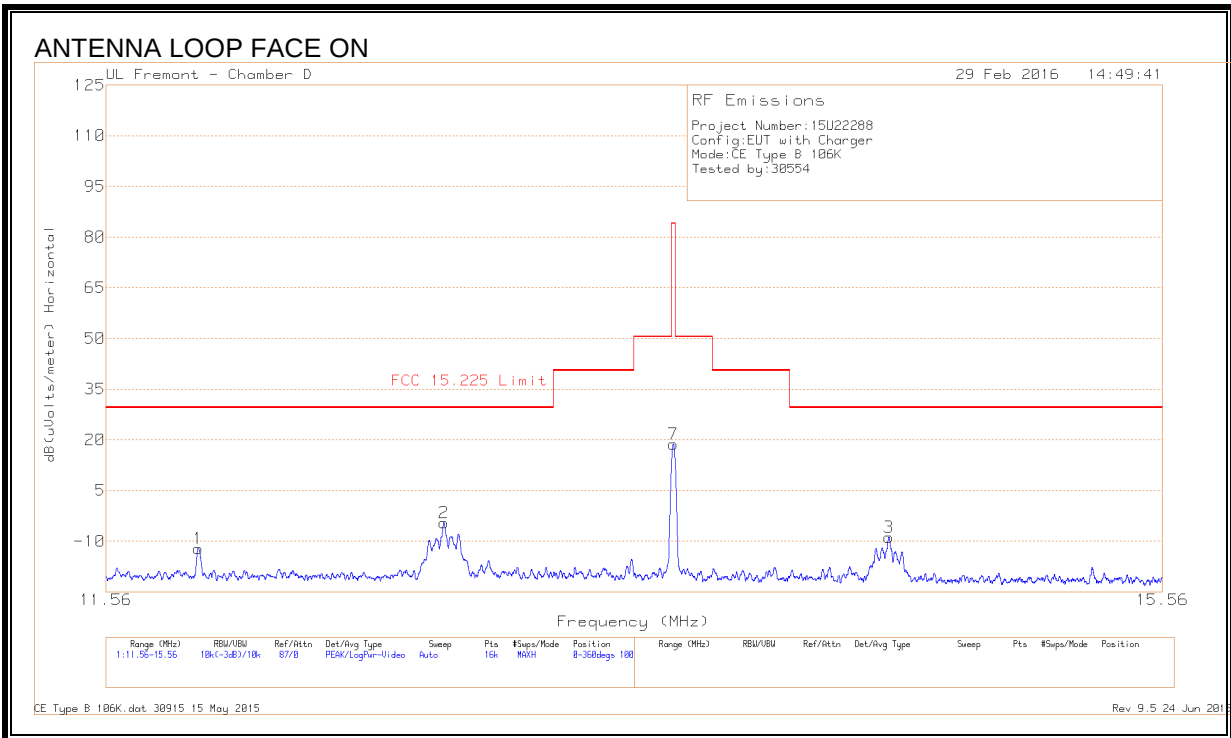


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr 30m	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	11.86484	15.63	Pk	10.4	.4	-40	-13.57	29.54	-43.11	-	-	0-360
5	11.86484	14.61	Pk	10.4	.4	-40	-14.59	29.54	-44.13	-	-	0-360
6	12.71372	18.52	Pk	10.4	.4	-40	-10.68	29.54	-40.22	-	-	0-360
2	12.71529	22.55	Pk	10.4	.4	-40	-6.65	29.54	-36.19	-	-	0-360
7	14.40204	13.44	Pk	10.3	.4	-40	-15.86	29.54	-45.4	-	-	0-360
3	14.40676	18.09	Pk	10.3	.4	-40	-11.21	29.54	-40.75	-	-	0-360
8	25.68822	18.11	Pk	8.7	.6	-40	-12.59	29.54	-42.13	-	-	0-360
4	26.25964	14.56	Pk	8.6	.7	-40	-16.14	29.54	-45.68	-	-	0-360

Pk - Peak detector

106Kbps FUNDAMENTAL

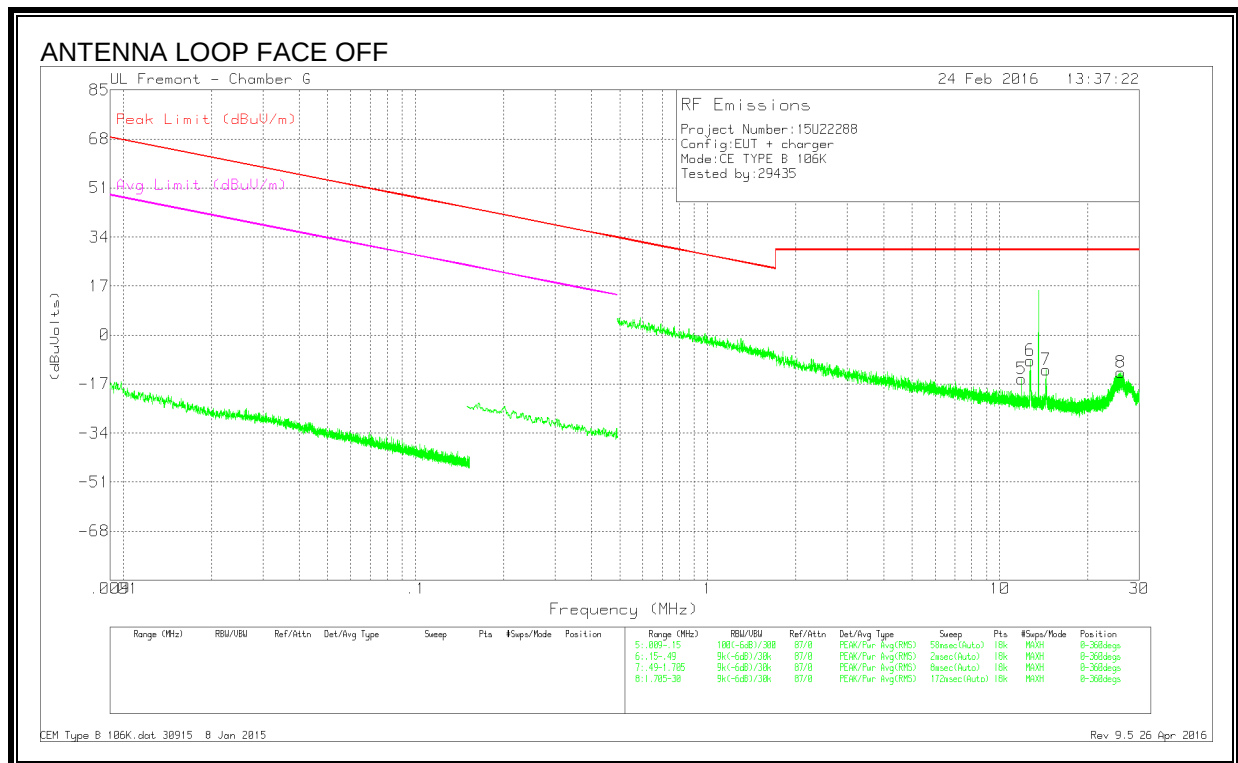
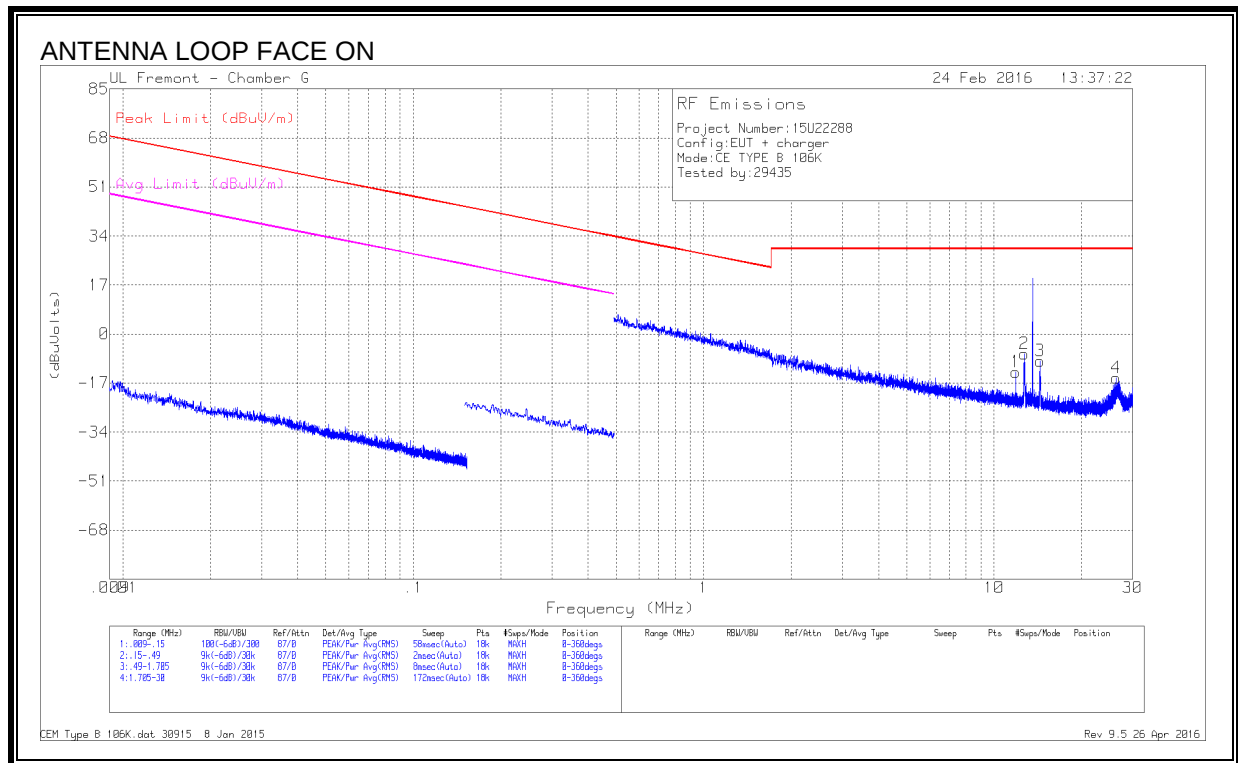


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
1	11.86438	17.08	Pk	10.4	.4	-40	-12.12	29.54	-41.66	0-360
4	12.70937	21.21	Pk	10.4	.4	-40	-7.99	29.54	-37.53	0-360
2	12.71225	24.71	Pk	10.4	.4	-40	-4.49	29.54	-34.03	0-360
5	13.55867	45.99	Pk	10.4	.4	-40	16.79	84	-67.21	0-360
7	13.56063	47.99	Pk	10.4	.4	-40	18.79	84	-65.21	0-360
6	14.40722	18.19	Pk	10.3	.4	-40	-11.11	29.54	-40.65	0-360
3	14.40788	20.53	Pk	10.3	.4	-40	-8.77	29.54	-38.31	0-360

Pk - Peak detector

SPURIOUS EMISSION



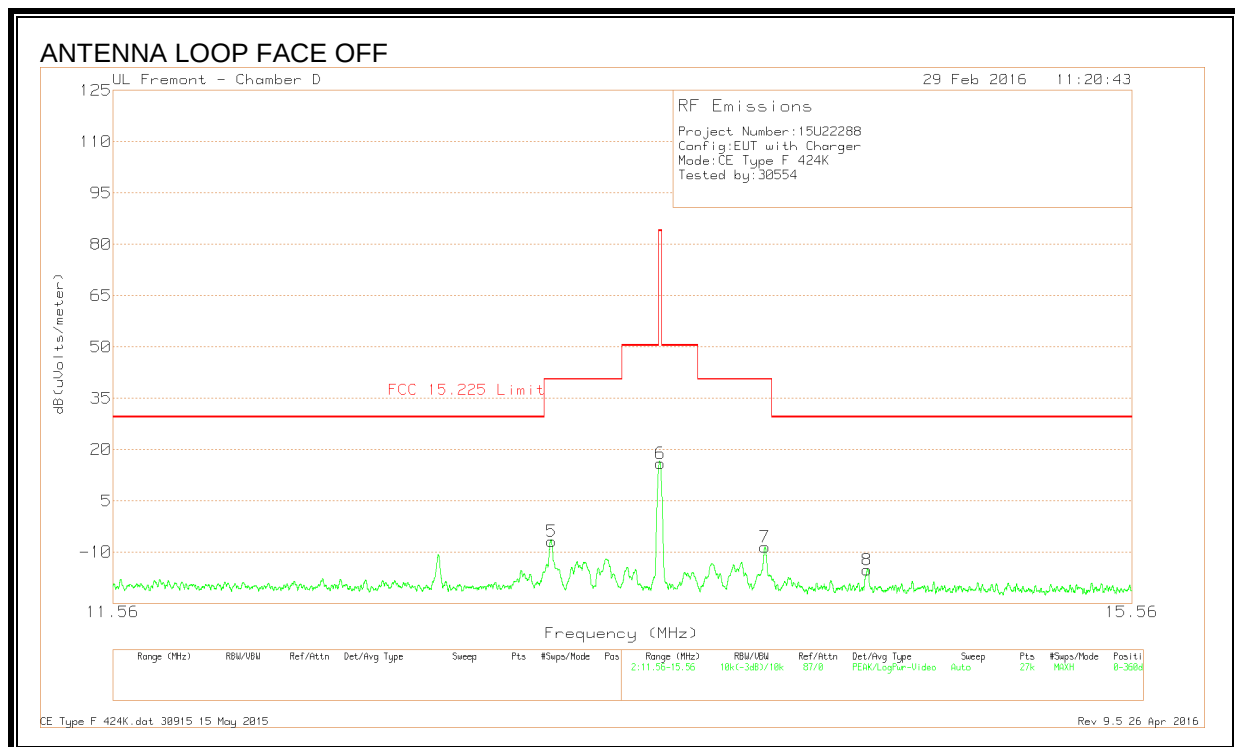
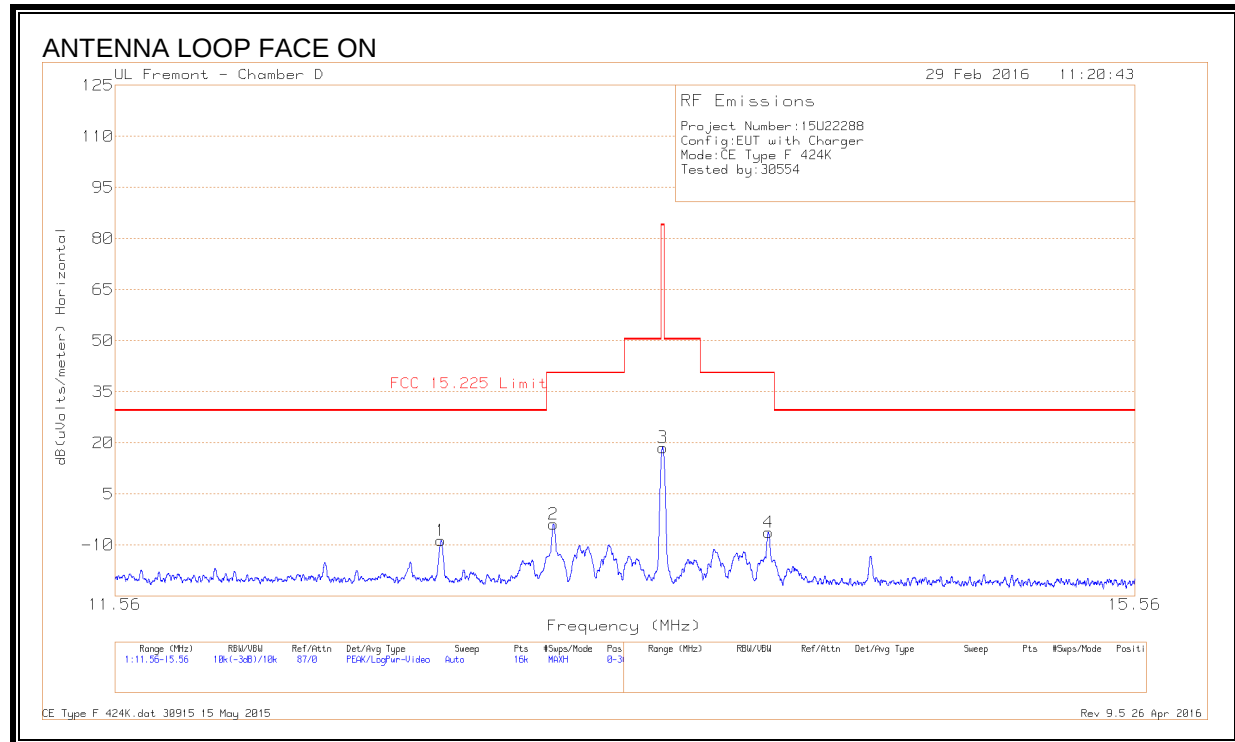
RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr 30m	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	11.86641	16.03	Pk	10.4	.4	-40	-13.17	29.54	-42.71	-	-	0-360
5	11.86641	13.97	Pk	10.4	.4	-40	-15.23	29.54	-44.77	-	-	0-360
2	12.71529	22.3	Pk	10.4	.4	-40	-6.9	29.54	-36.44	-	-	0-360
6	12.71529	20.19	Pk	10.4	.4	-40	-9.01	29.54	-38.55	-	-	0-360
3	14.40833	19.91	Pk	10.3	.4	-40	-9.39	29.54	-38.93	-	-	0-360
7	14.40833	17.21	Pk	10.3	.4	-40	-12.09	29.54	-41.63	-	-	0-360
8	25.92166	17.67	Pk	8.7	.6	-40	-13.03	29.54	-42.57	-	-	0-360
4	26.28322	15.36	Pk	8.6	.7	-40	-15.34	29.54	-44.88	-	-	0-360

Pk - Peak detector

TYPE F

424Kbps FUNDAMENTAL

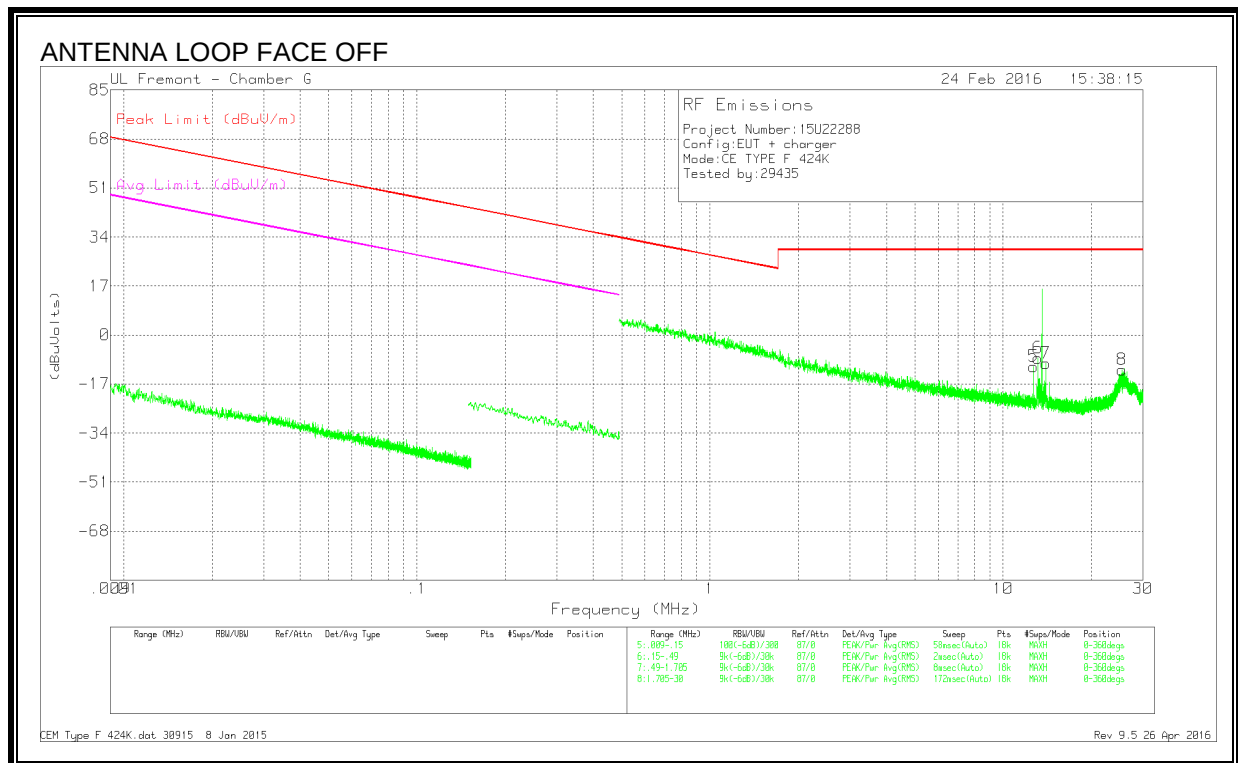
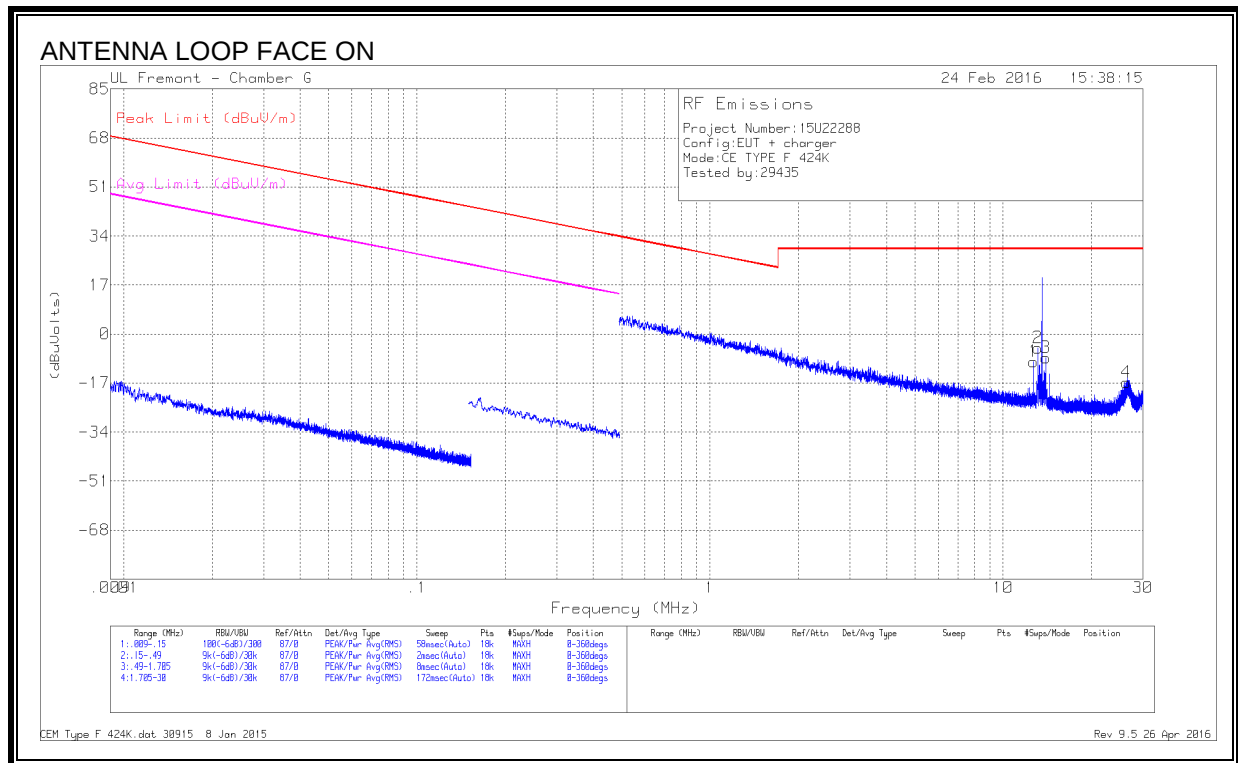


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts/meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
1	12.71225	20.43	Pk	10.4	.4	-40	-8.77	29.54	-38.31	0-360
2	13.13613	25.26	Pk	10.4	.4	-40	-3.94	40.51	-44.45	0-360
5	13.13768	22.38	Pk	10.4	.4	-40	-6.82	40.51	-47.33	0-360
6	13.56096	45.16	Pk	10.4	.4	-40	15.96	84	-68.04	0-360
3	13.5615	47.82	Pk	10.4	.4	-40	18.62	84	-65.38	0-360
7	13.9818	20.78	Pk	10.3	.4	-40	-8.52	40.51	-49.03	0-360
4	13.98463	23.01	Pk	10.3	.4	-40	-6.29	40.51	-46.8	0-360
8	14.405	14.17	Pk	10.3	.4	-40	-15.13	29.54	-44.67	0-360

Pk - Peak detector

SPURIOUS EMISSION

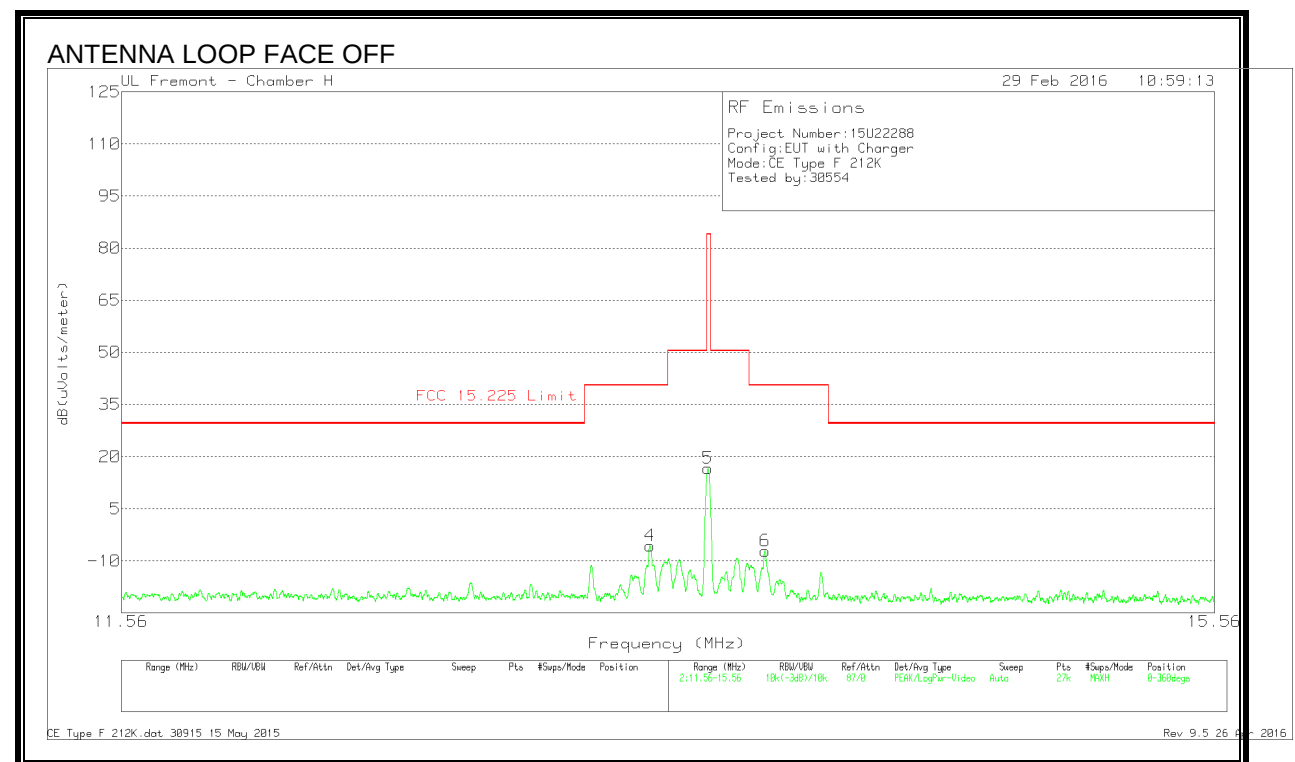
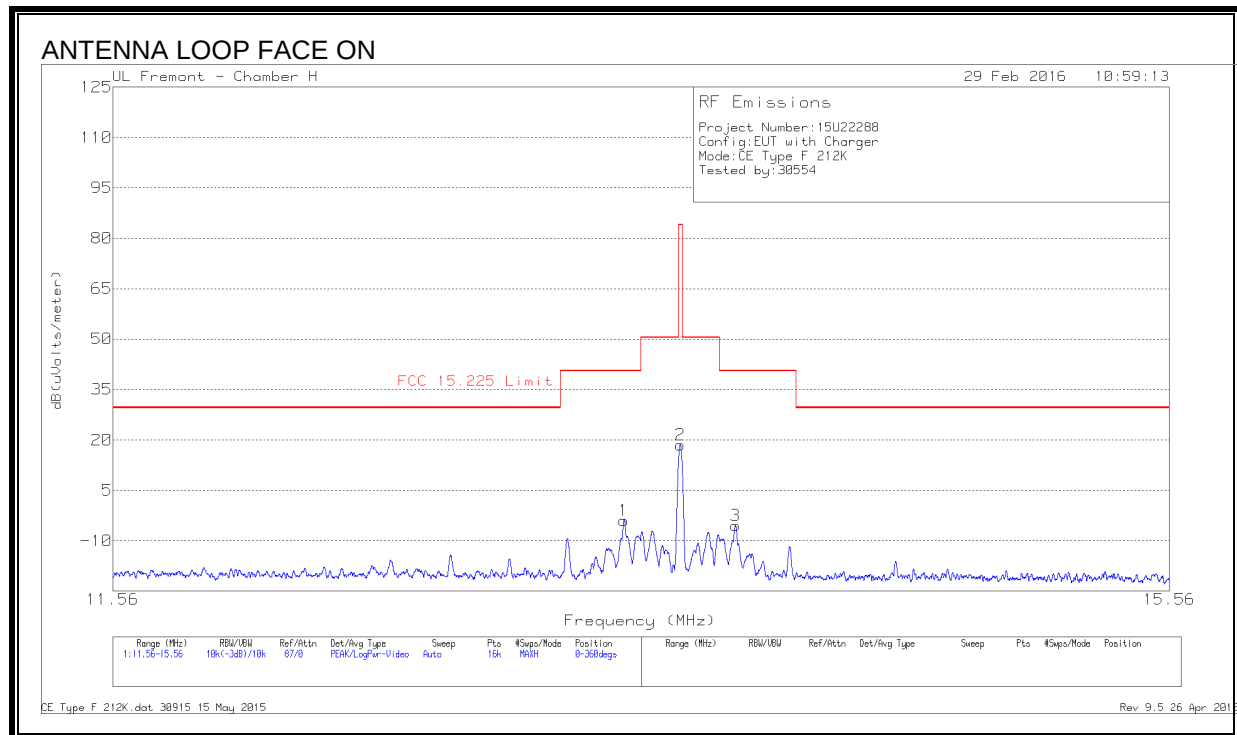


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr 30m	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	12.71372	19.66	Pk	10.4	.4	-40	-9.54	29.54	-39.08	-	-	0-360
5	12.71372	18.33	Pk	10.4	.4	-40	-10.87	29.54	-40.41	-	-	0-360
2	13.13658	24.29	Pk	10.4	.4	-40	-4.91	29.54	-34.45	-	-	0-360
6	13.13658	21.1	Pk	10.4	.4	-40	-8.1	29.54	-37.64	-	-	0-360
3	13.98153	21.16	Pk	10.3	.4	-40	-8.14	29.54	-37.68	-	-	0-360
7	13.98546	19.5	Pk	10.3	.4	-40	-9.8	29.54	-39.34	-	-	0-360
8	25.45949	18.48	Pk	8.8	.6	-40	-12.12	29.54	-41.66	-	-	0-360
4	26.2675	13.97	Pk	8.6	.7	-40	-16.73	29.54	-46.27	-	-	0-360

Pk - Peak detector

212Kbps FUNDAMENTAL

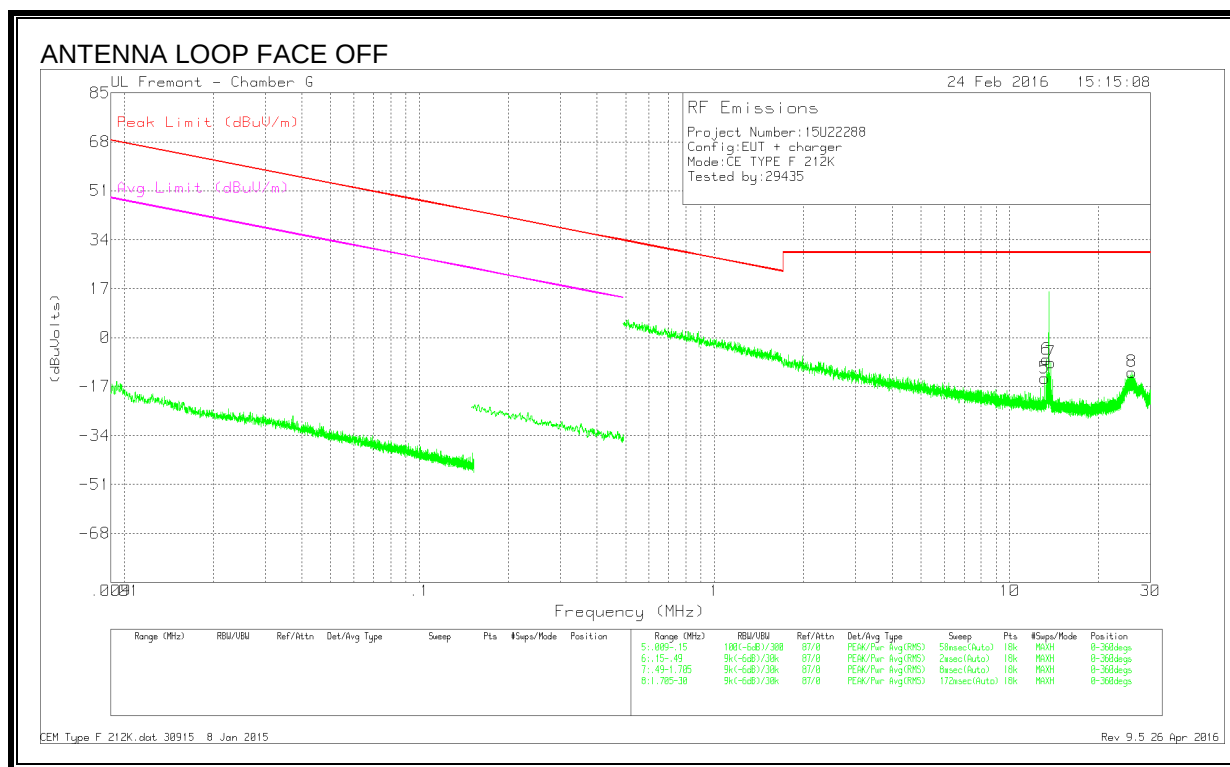
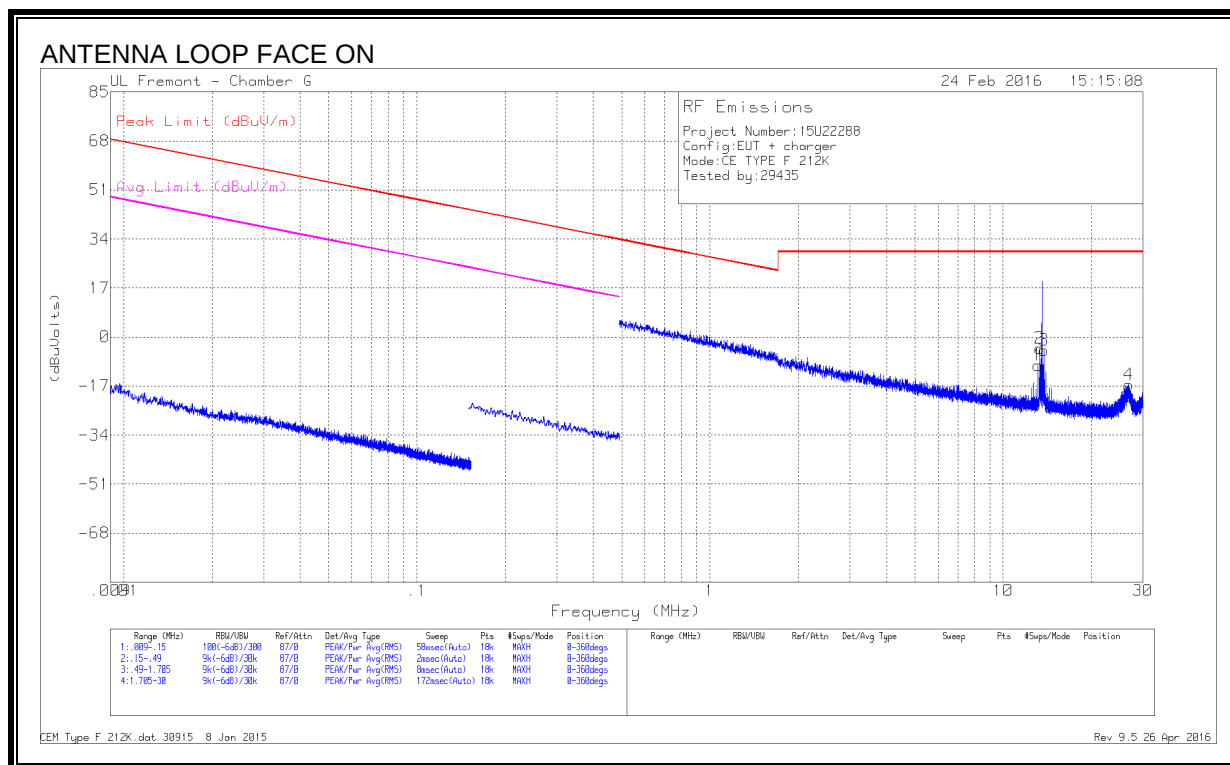


DATA

Marker	Frequenc y (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts/m eter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
4	13.34688	23.65	Pk	10.4	.4	-40	-5.55	40.51	-46.06	0-360
1	13.34775	25.31	Pk	10.4	.4	-40	-3.89	40.51	-44.4	0-360
5	13.55852	45.89	Pk	10.4	.4	-40	16.69	84	-67.31	0-360
2	13.56125	47.78	Pk	10.4	.4	-40	18.58	84	-65.42	0-360
6	13.77031	22.14	Pk	10.3	.4	-40	-7.16	40.51	-47.67	0-360
3	13.77238	23.9	Pk	10.3	.4	-40	-5.4	40.51	-45.91	0-360

Pk - Peak detector

SPURIOUS EMISSION



RESULTS

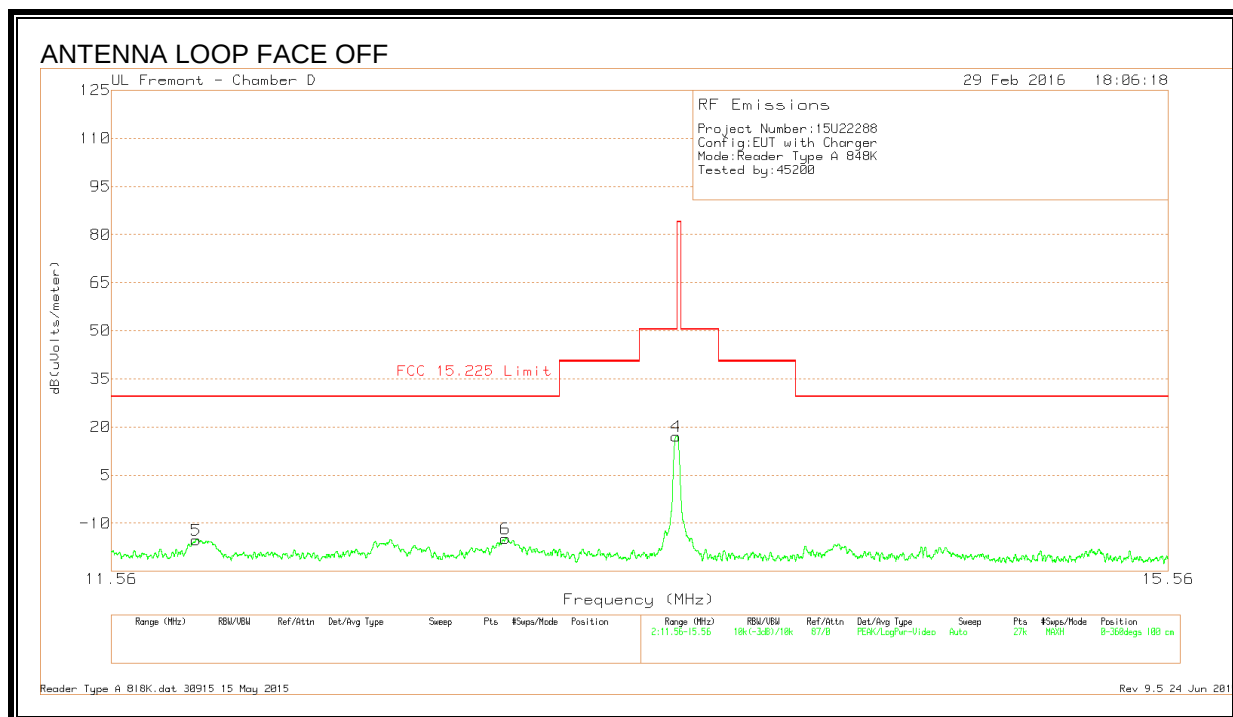
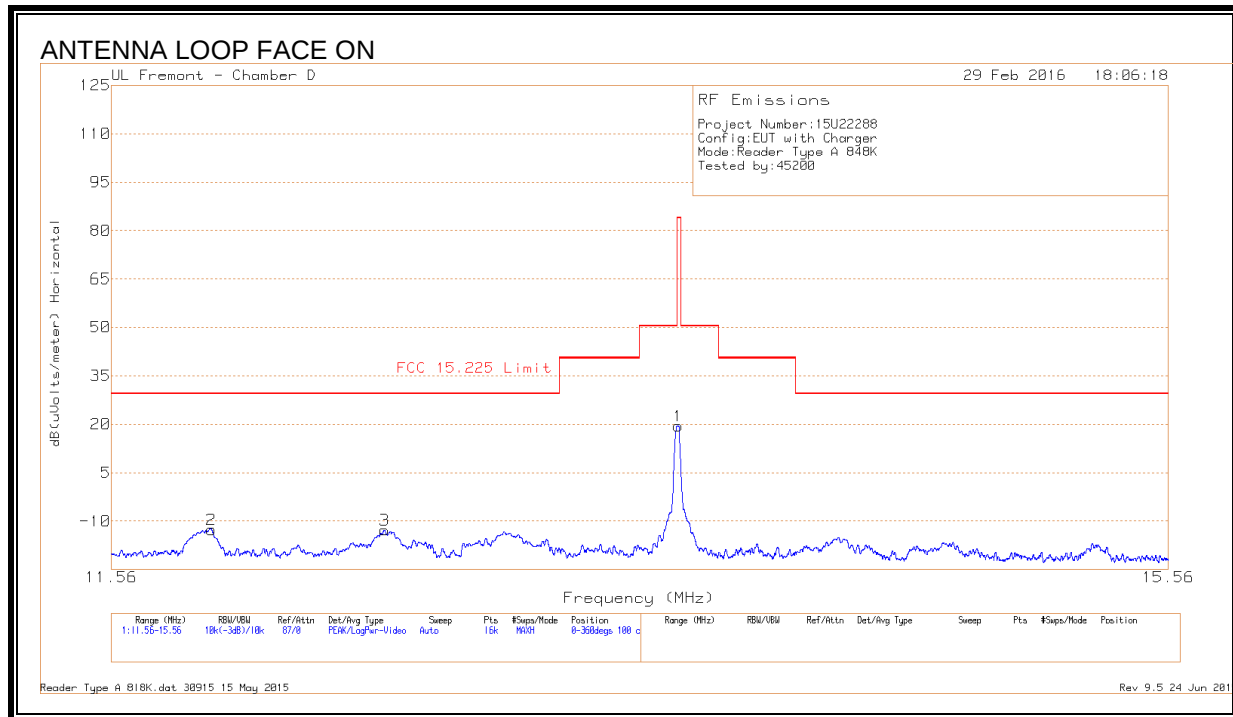
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr 30m	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	13.13658	19.35	Pk	10.4	.4	-40	-9.85	29.54	-39.39	-	-	0-360
5	13.13816	15.19	Pk	10.4	.4	-40	-14.01	29.54	-43.55	-	-	0-360
2	13.3488	25.34	Pk	10.4	.4	-40	-3.86	29.54	-33.4	-	-	0-360
6	13.3488	21.59	Pk	10.4	.4	-40	-7.61	29.54	-37.15	-	-	0-360
7	13.77167	20.67	Pk	10.3	.4	-40	-8.63	29.54	-38.17	-	-	0-360
3	13.77324	24.59	Pk	10.3	.4	-40	-4.71	29.54	-34.25	-	-	0-360
8	25.98611	18.74	Pk	8.7	.6	-40	-11.96	29.54	-41.5	-	-	0-360
4	26.80984	14.24	Pk	8.5	.7	-40	-16.56	29.54	-46.1	-	-	0-360

Pk - Peak detector

8.2.2. READER MODE

TYPE A

848Kbps FUNDAMENTAL

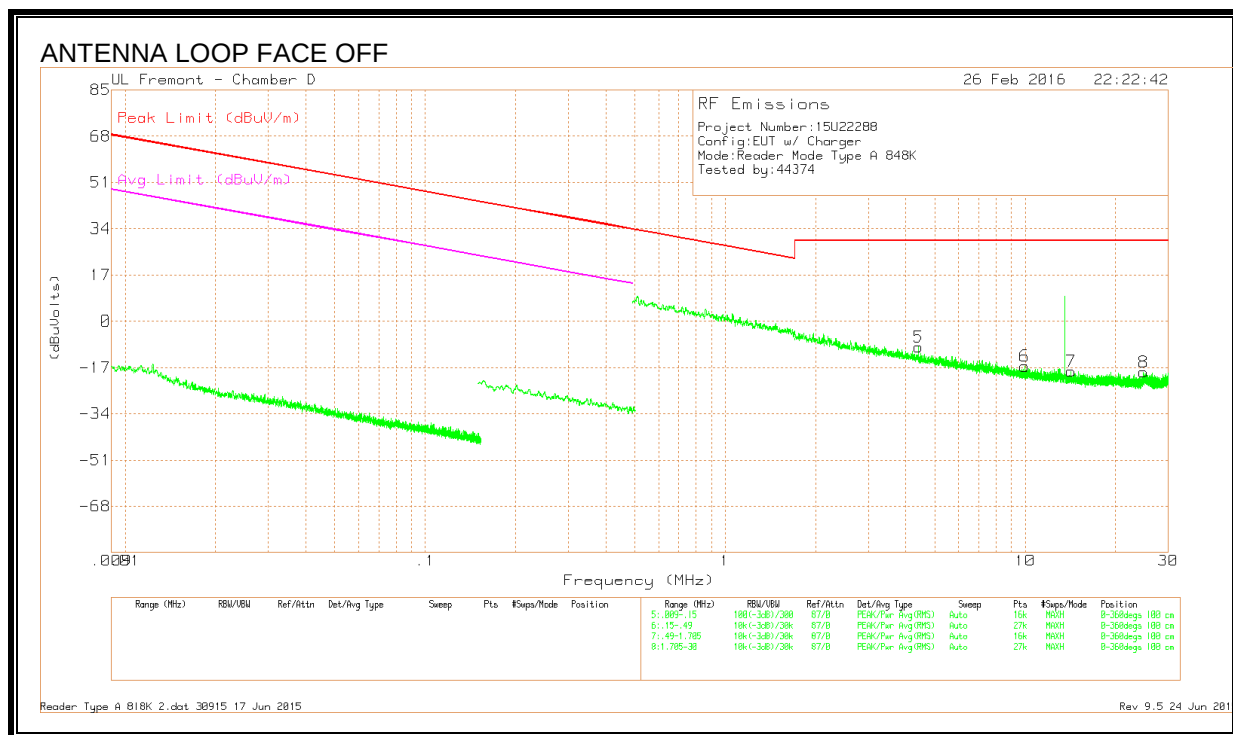
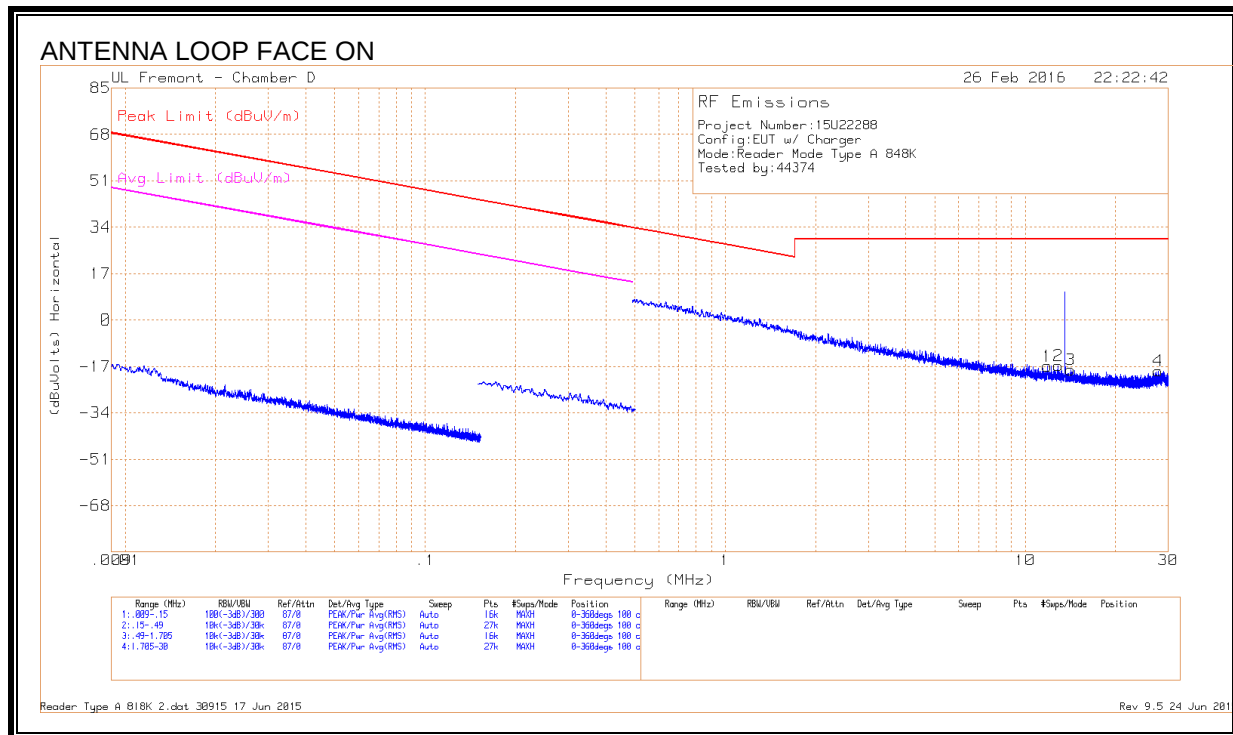


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
5	11.83765	13.96	Pk	10.4	.4	-40	-15.24	29.54	-44.78	0-360
2	11.89025	16.53	Pk	10.4	.4	-40	-12.67	29.54	-42.21	0-360
3	12.4825	16.38	Pk	10.4	.4	-40	-12.82	29.54	-42.36	0-360
6	12.91316	14.39	Pk	10.4	.4	-40	-14.81	29.54	-44.35	0-360
4	13.54905	46.26	Pk	10.4	.4	-40	17.06	84	-66.94	0-360
1	13.55663	48.67	Pk	10.4	.4	-40	19.47	84	-64.53	0-360

Pk - Peak detector

SPURIOUS EMISSION

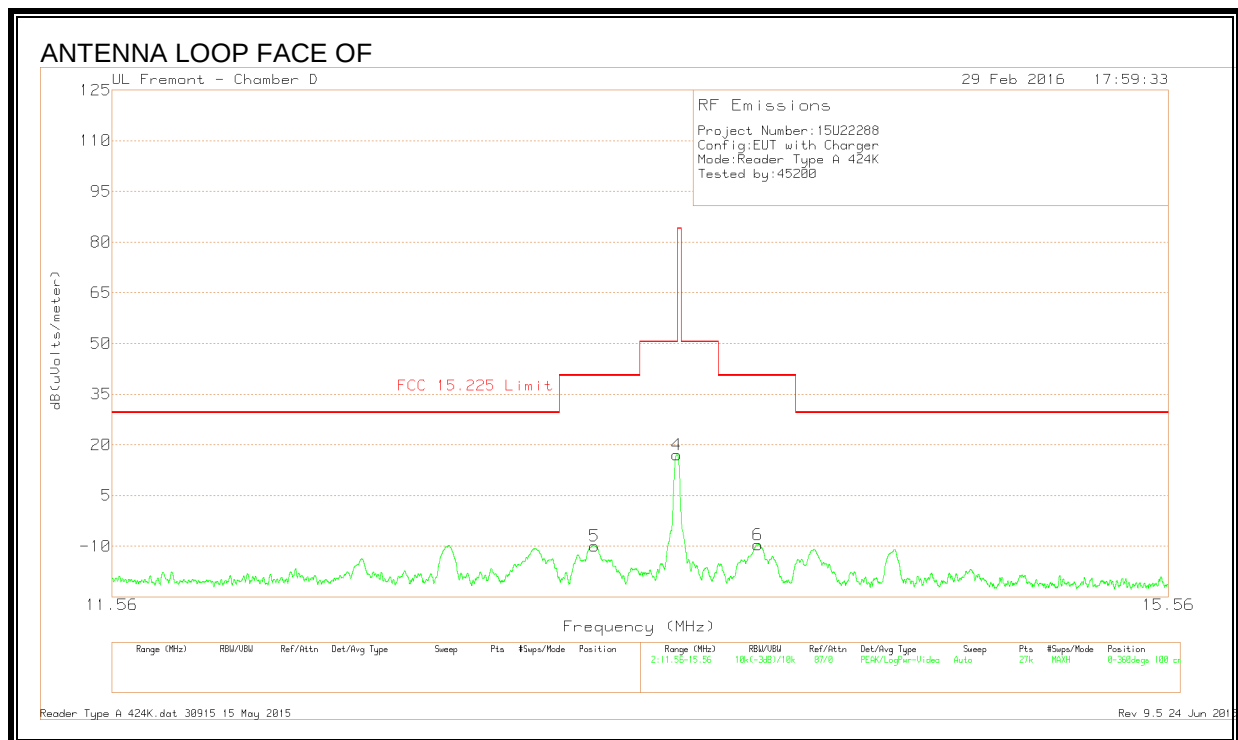
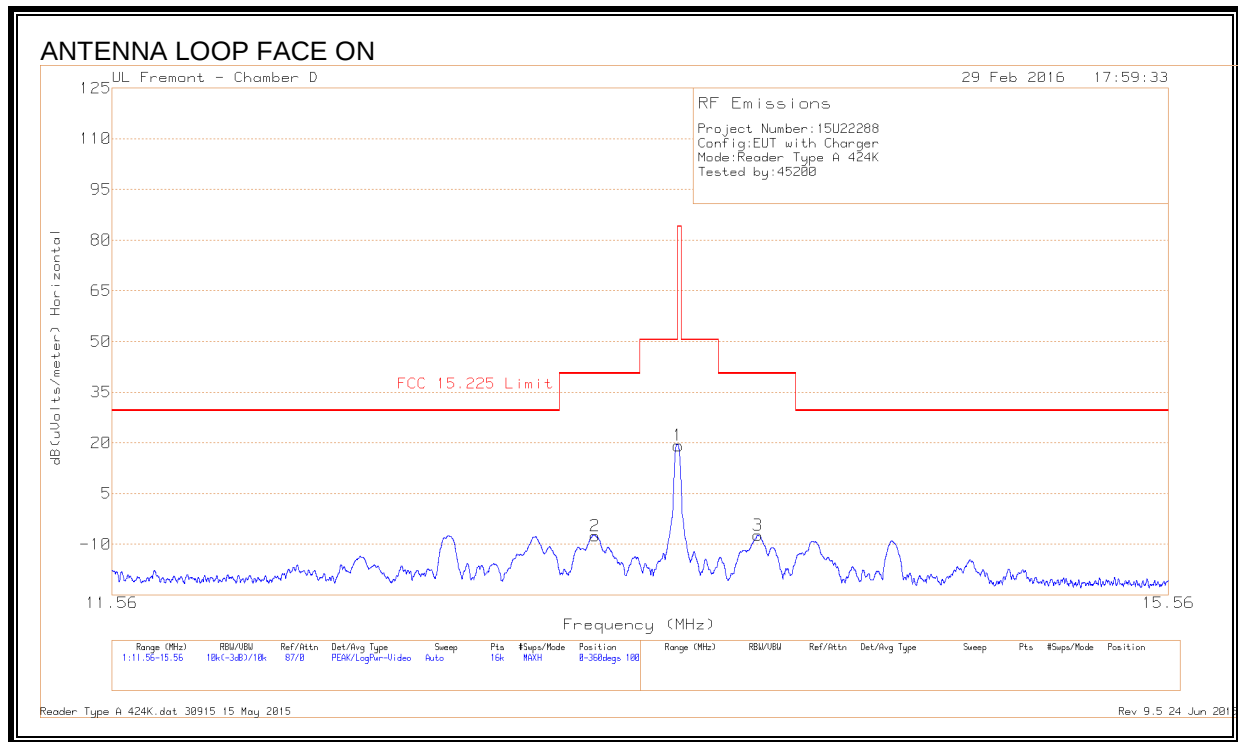


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
5	4.40989	19.46	Pk	10.9	.2	-40	-9.44	29.54	-38.98	-	-	0-360
6	9.97058	12.38	Pk	10.8	.3	-40	-16.52	29.54	-46.06	-	-	0-360
1	11.84597	12.05	Pk	10.7	.4	-40	-16.85	29.54	-46.39	-	-	0-360
2	12.8772	12.15	Pk	10.7	.4	-40	-16.75	29.54	-46.29	-	-	0-360
3	14.1631	10.78	Pk	10.6	.4	-40	-18.22	29.54	-47.76	-	-	0-360
7	14.20921	10.64	Pk	10.6	.4	-40	-18.36	29.54	-47.9	-	-	0-360
8	24.80082	11.51	Pk	9.2	.6	-40	-18.69	29.54	-48.23	-	-	0-360
4	27.77819	12.16	Pk	8.5	.7	-40	-18.64	29.54	-48.18	-	-	0-360

Pk - Peak detector

424Kbps FUNDAMENTAL

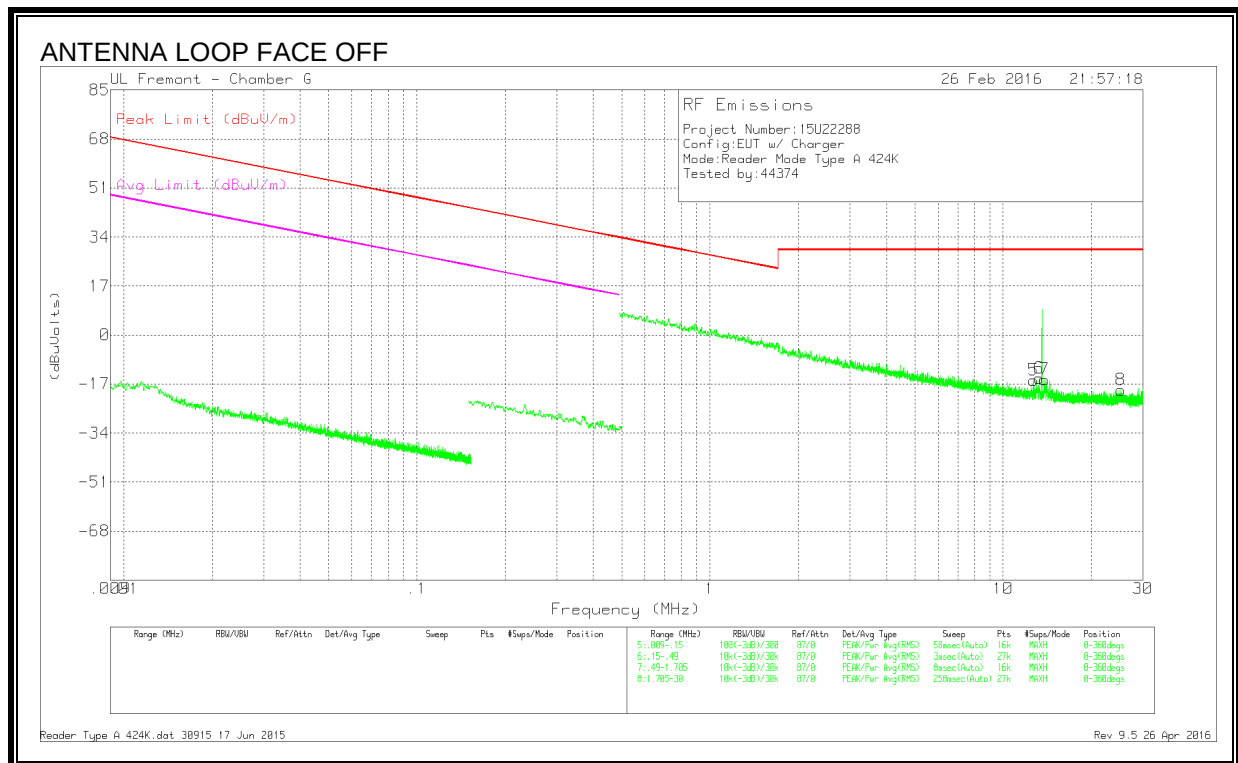
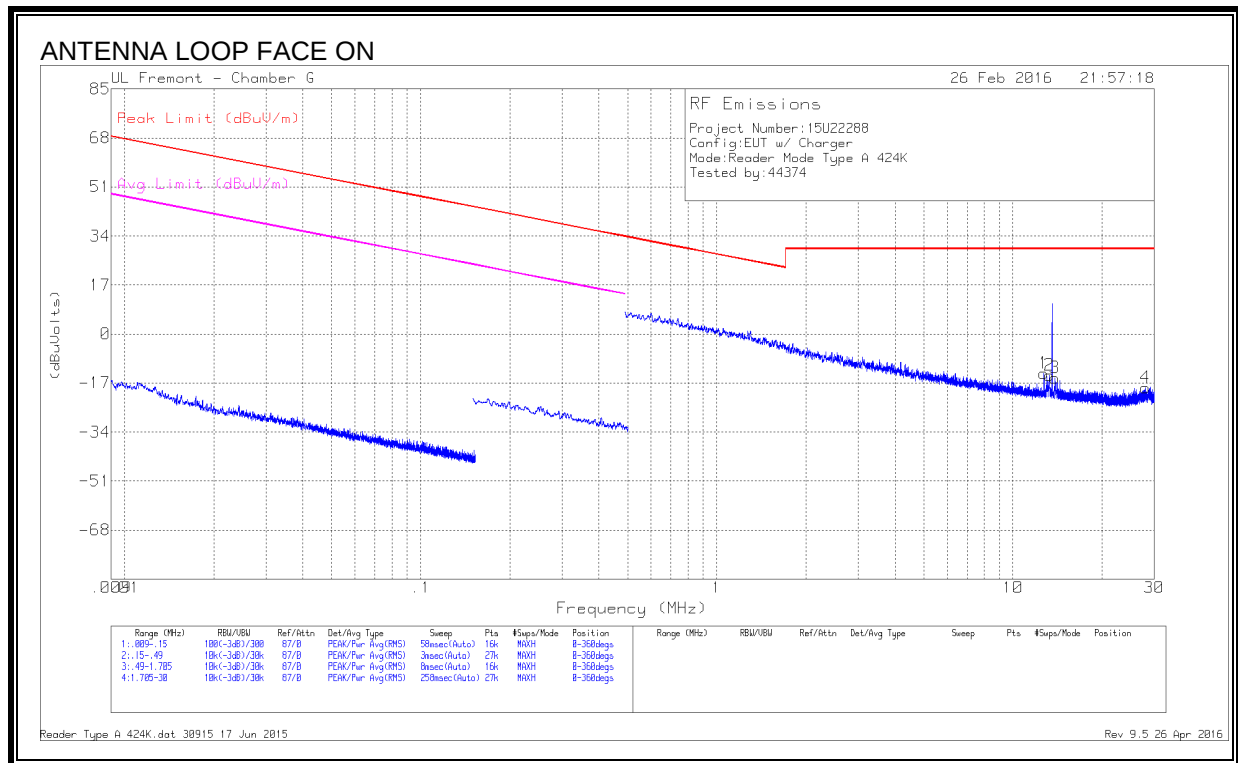


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
5	13.24076	19.28	Pk	10.4	.4	-40	-9.92	40.51	-50.43	0-360
2	13.244	21.64	Pk	10.4	.4	-40	-7.56	40.51	-48.07	0-360
4	13.55141	46.27	Pk	10.4	.4	-40	17.07	84	-66.93	0-360
1	13.55675	48.38	Pk	10.4	.4	-40	19.18	84	-64.82	0-360
6	13.86406	19.69	Pk	10.3	.4	-40	-9.61	40.51	-50.12	0-360
3	13.86413	21.97	Pk	10.3	.4	-40	-7.33	40.51	-47.84	0-360

Pk - Peak detector

SPURIOUS EMISSION

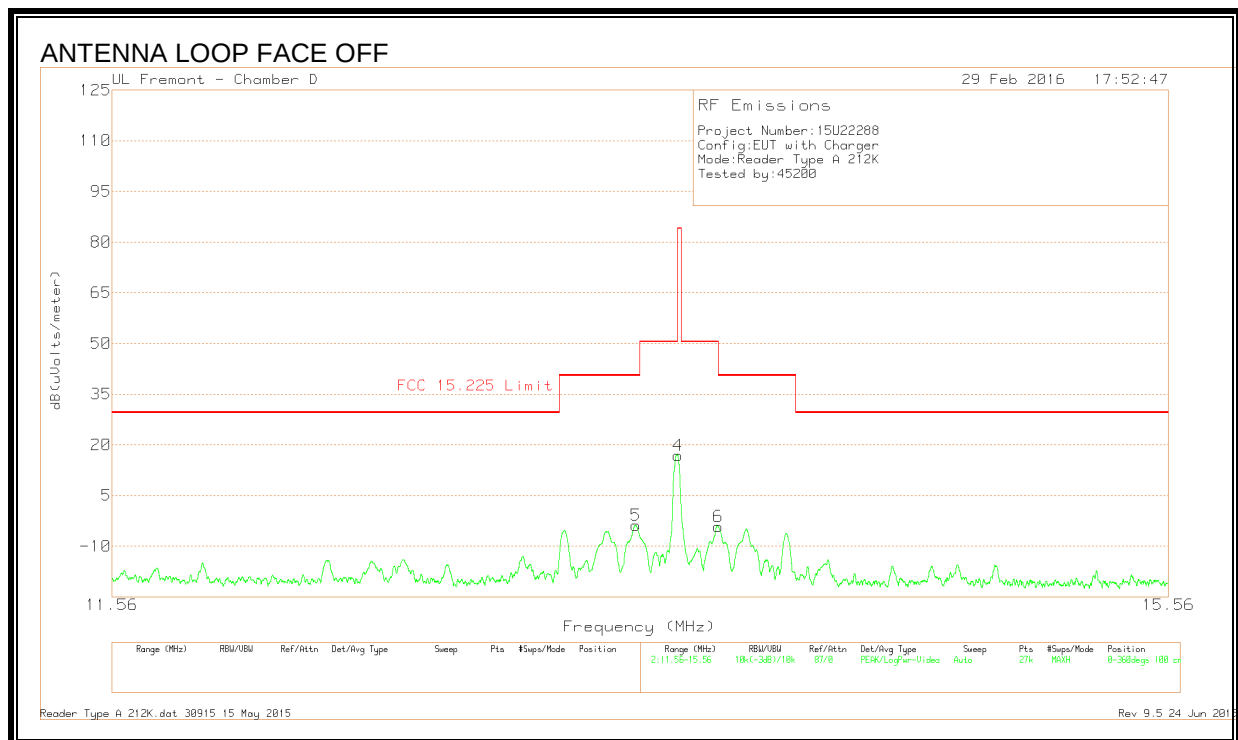
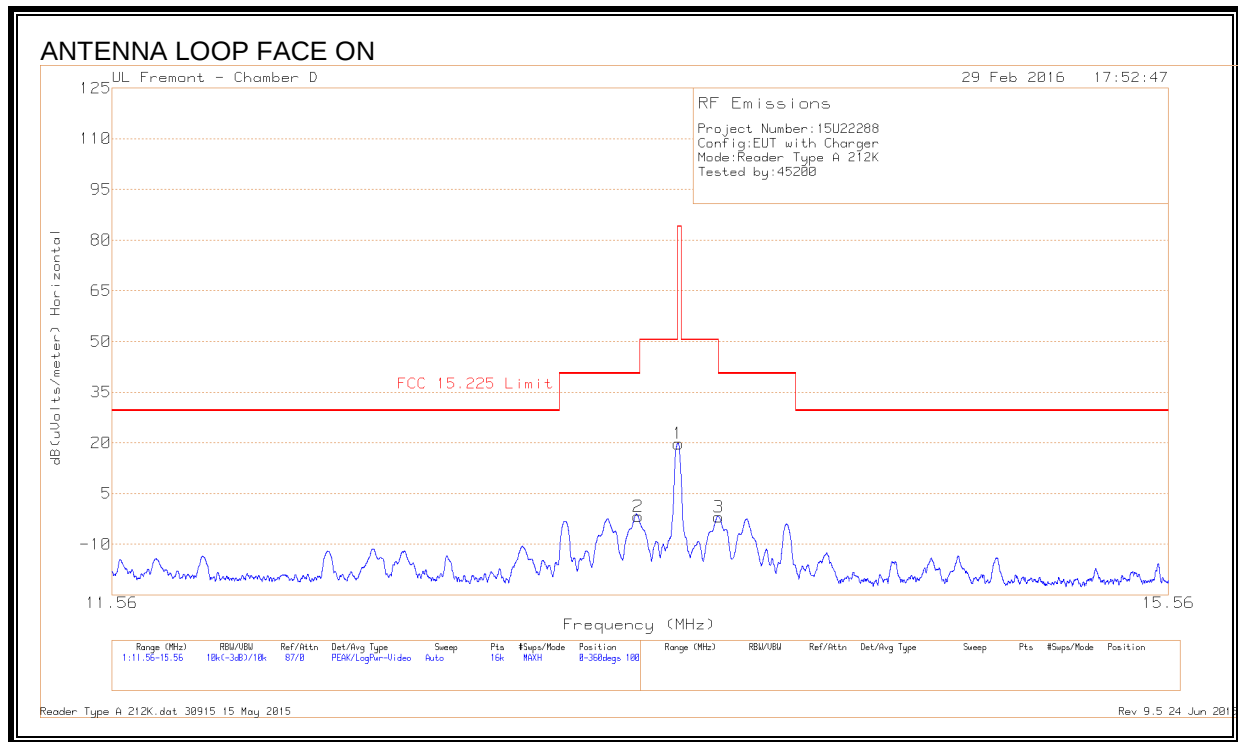


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
5	12.70324	13.24	Pk	10.7	.4	-40	-15.66	29.54	-45.2	-	-	0-360
1	12.71581	15.22	Pk	10.7	.4	-40	-13.68	29.54	-43.22	-	-	0-360
6	13.24453	13.94	Pk	10.7	.4	-40	-14.96	29.54	-44.5	-	-	0-360
2	13.2482	14.62	Pk	10.7	.4	-40	-14.28	29.54	-43.82	-	-	0-360
3	13.8749	13.85	Pk	10.6	.4	-40	-15.15	29.54	-44.69	-	-	0-360
7	13.87647	13.59	Pk	10.6	.4	-40	-15.41	29.54	-44.95	-	-	0-360
8	25.15872	11.1	Pk	9.2	.6	-40	-19.1	29.54	-48.64	-	-	0-360
4	28.07373	12.17	Pk	8.5	.7	-40	-18.63	29.54	-48.17	-	-	0-360

Pk - Peak detector

212Kbps FUNDAMENTAL

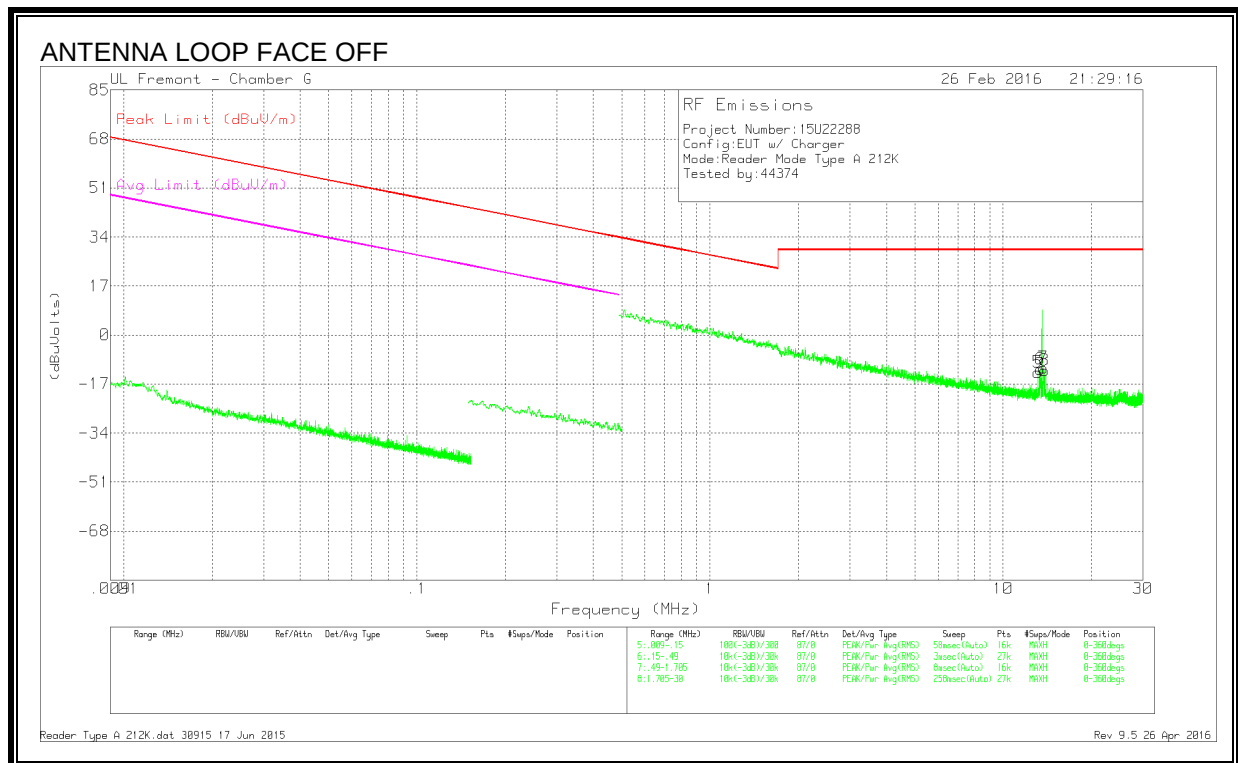
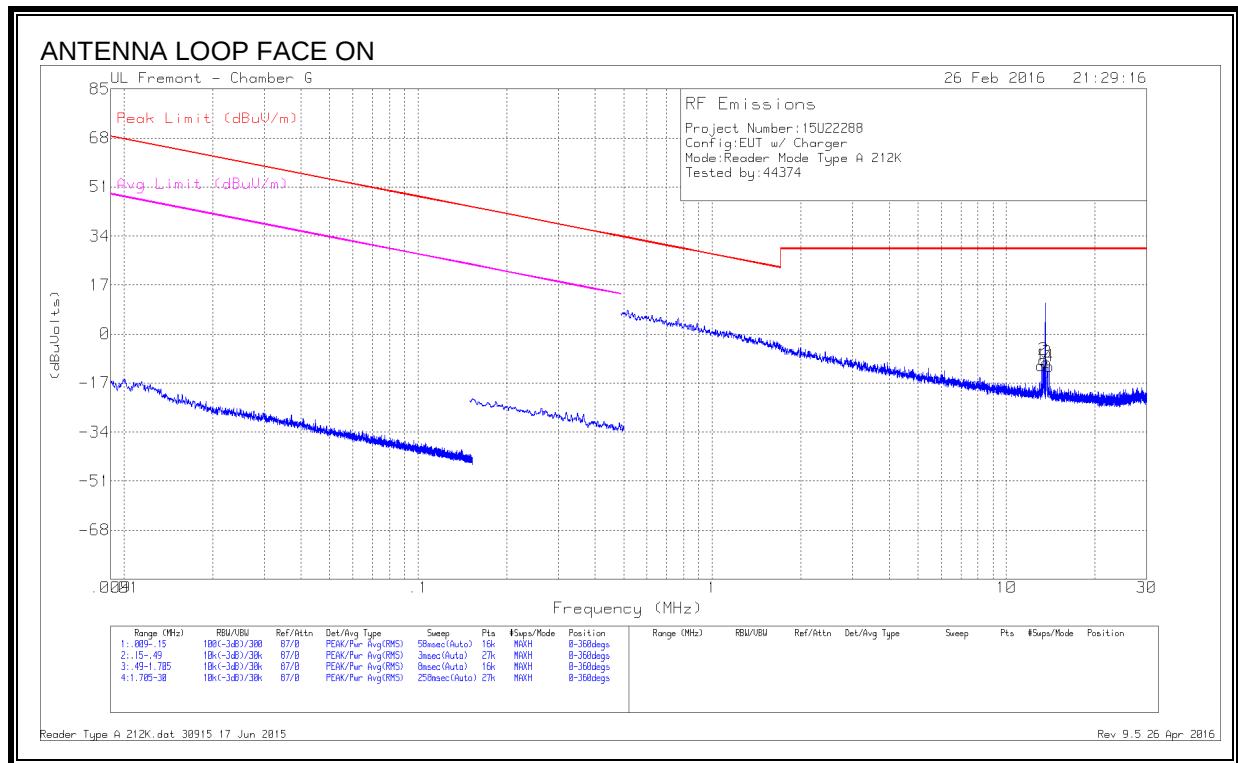


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
5	13.39535	25.39	Pk	10.4	.4	-40	-3.81	40.51	-44.32	0-360
2	13.40425	27.37	Pk	10.4	.4	-40	-1.83	40.51	-42.34	0-360
4	13.55489	46.02	Pk	10.4	.4	-40	16.82	84	-67.18	0-360
1	13.55675	48.94	Pk	10.4	.4	-40	19.74	84	-64.26	0-360
6	13.70911	24.98	Pk	10.4	.4	-40	-4.22	50.5	-54.72	0-360
3	13.711	27.32	Pk	10.4	.4	-40	-1.88	40.51	-42.39	0-360

Pk - Peak detector

SPURIOUS EMISSION

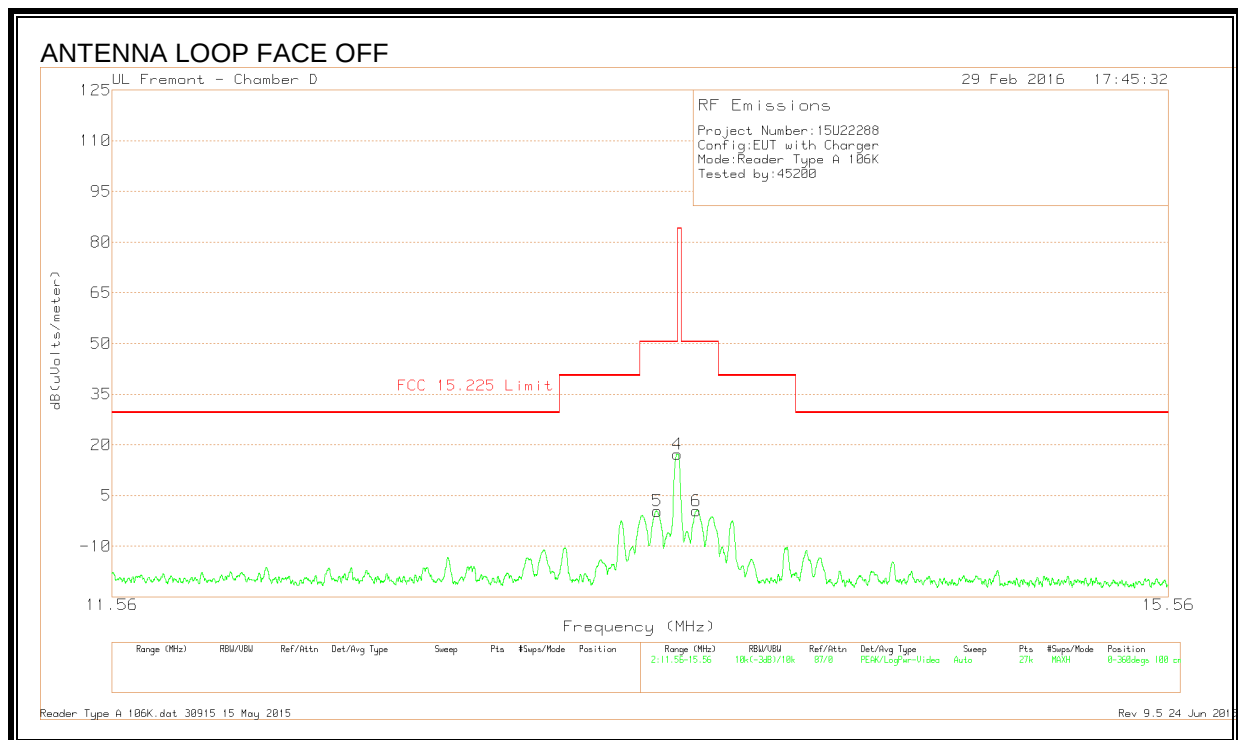
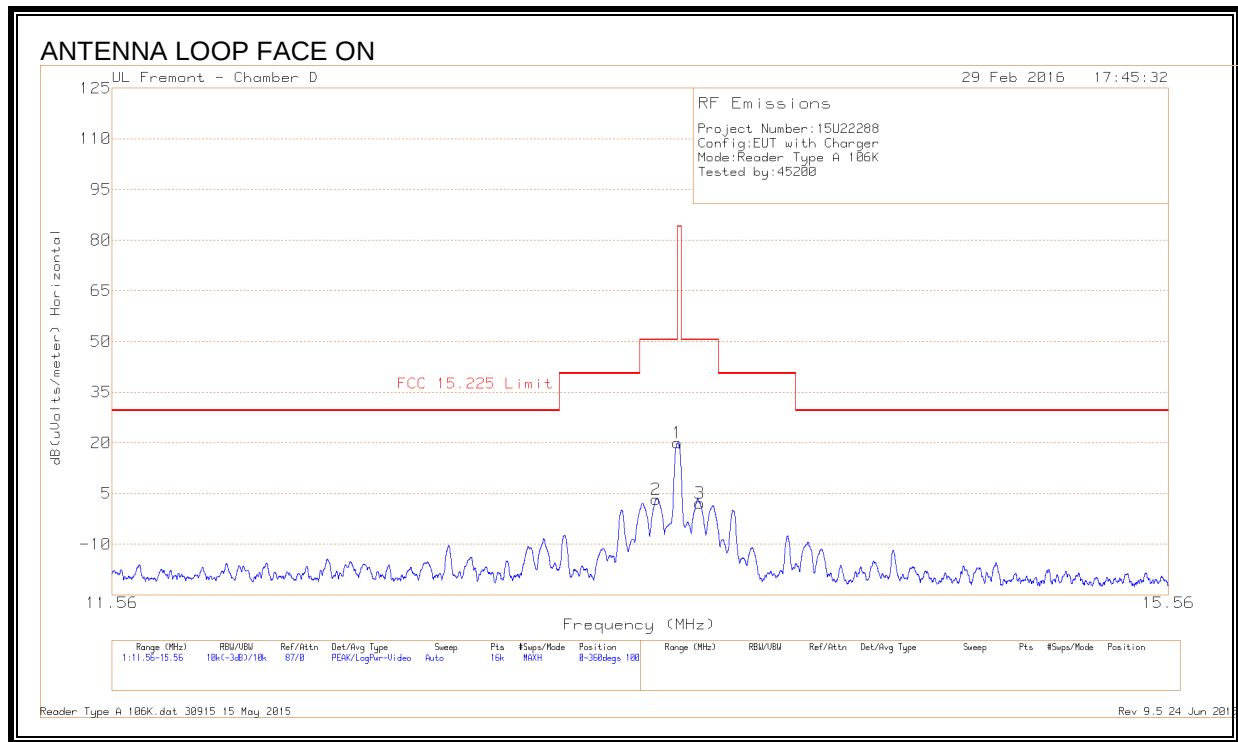


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	13.13344	17.99	Pk	10.7	.4	-40	-10.91	29.54	-40.45	-	-	0-360
5	13.13816	16.01	Pk	10.7	.4	-40	-12.89	29.54	-42.43	-	-	0-360
2	13.40225	20	Pk	10.7	.4	-40	-8.9	29.54	-38.44	-	-	0-360
6	13.40487	17	Pk	10.7	.4	-40	-11.9	29.54	-41.44	-	-	0-360
7	13.71613	17.53	Pk	10.7	.4	-40	-11.37	29.54	-40.91	-	-	0-360
3	13.71822	19.16	Pk	10.7	.4	-40	-9.74	29.54	-39.28	-	-	0-360
8	13.82774	16.79	Pk	10.6	.4	-40	-12.21	29.54	-41.75	-	-	0-360
4	13.98442	17.92	Pk	10.6	.4	-40	-11.08	29.54	-40.62	-	-	0-360

Pk - Peak detector

106Kbps FUNDAMENTAL

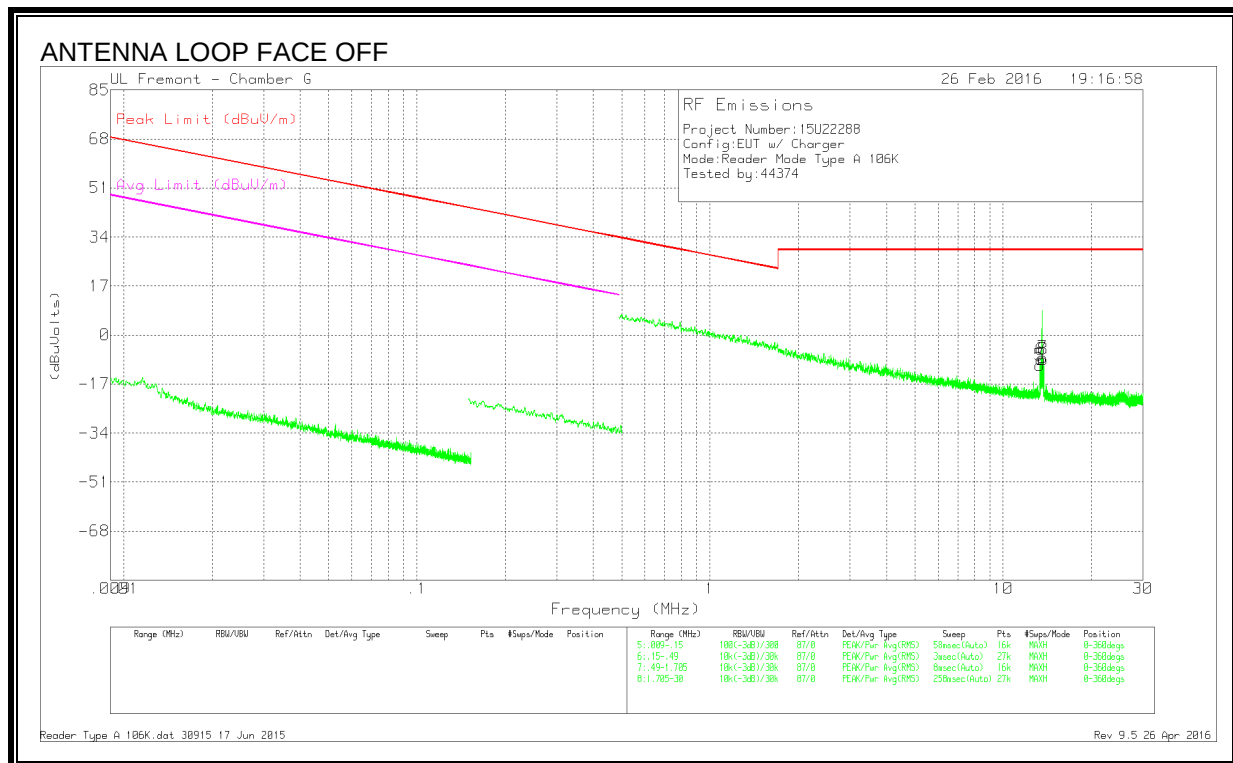
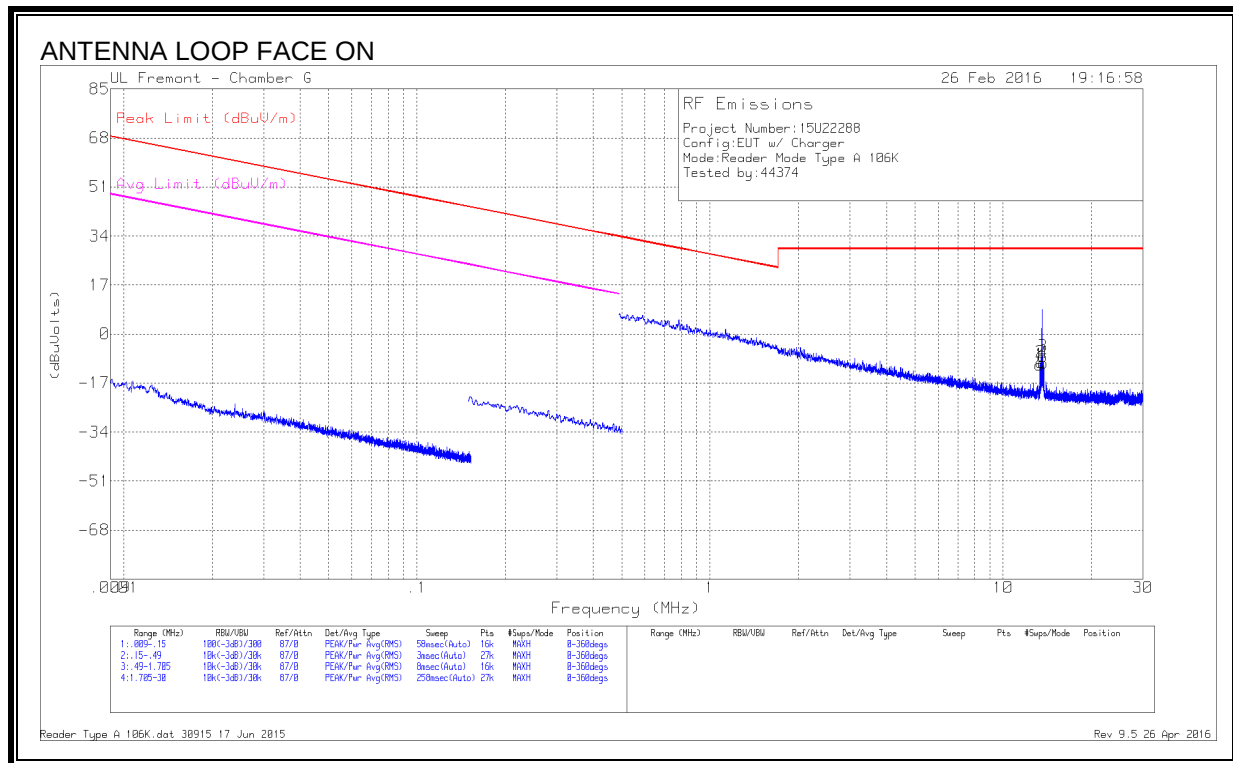


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
2	13.47263	32.5	Pk	10.4	.4	-40	3.3	50.5	-47.2	0-360
5	13.47608	29.57	Pk	10.4	.4	-40	.37	50.5	-50.13	0-360
4	13.5526	46.47	Pk	10.4	.4	-40	17.27	84	-66.73	0-360
1	13.55425	49.23	Pk	10.4	.4	-40	20.03	84	-63.97	0-360
6	13.62608	29.59	Pk	10.4	.4	-40	.39	50.5	-50.11	0-360
3	13.6385	31.33	Pk	10.4	.4	-40	2.13	50.5	-48.37	0-360

Pk - Peak detector

SPURIOUS EMISSION



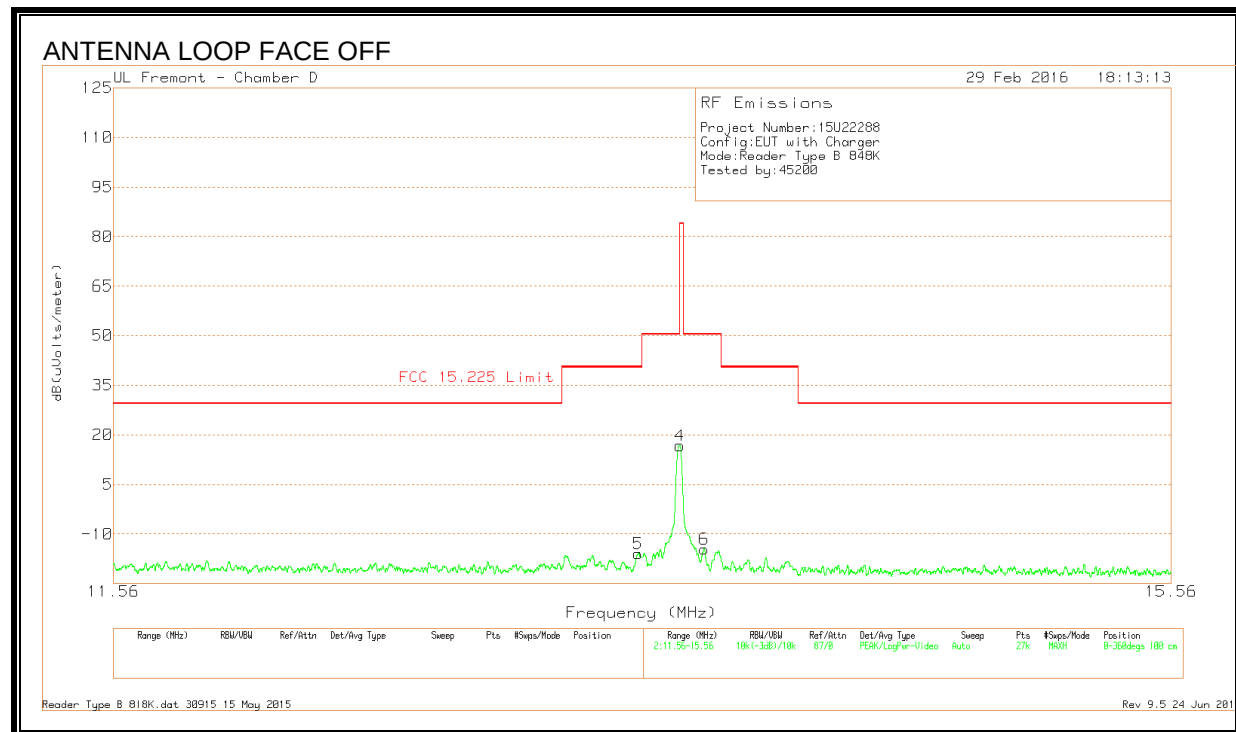
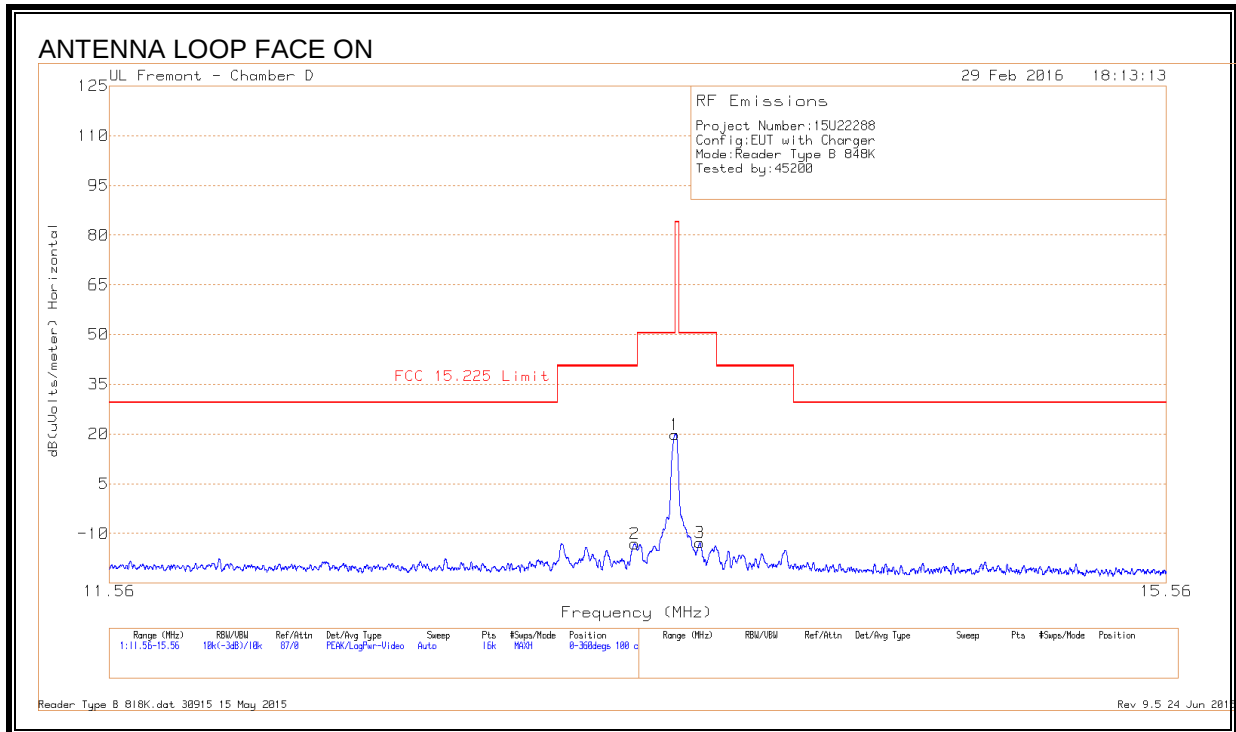
RESULTS

Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading (dBUVolts)	Peak Limit (dBUV/m)	Margin (dB)	Avg Limit (dBUV/m)	Margin (dB)	Azimuth (Degs)
1	13.34828	18.26	Pk	10.7	.4	-40	-10.64	29.54	-40.18	-	-	0-360
5	13.34828	18.37	Pk	10.7	.4	-40	-10.53	29.54	-40.07	-	-	0-360
2	13.43212	19.18	Pk	10.7	.4	-40	-9.72	29.54	-39.26	-	-	0-360
6	13.48085	20.42	Pk	10.7	.4	-40	-8.48	29.54	-38.02	-	-	0-360
3	13.6391	21.17	Pk	10.7	.4	-40	-7.73	29.54	-37.27	-	-	0-360
7	13.64067	21.17	Pk	10.7	.4	-40	-7.73	29.54	-37.27	-	-	0-360
4	13.69307	18.8	Pk	10.7	.4	-40	-10.1	29.54	-39.64	-	-	0-360
8	13.6936	20.48	Pk	10.7	.4	-40	-8.42	29.54	-37.96	-	-	0-360

Pk - Peak detector

TYPE B

848Kbps FUNDAMENTAL

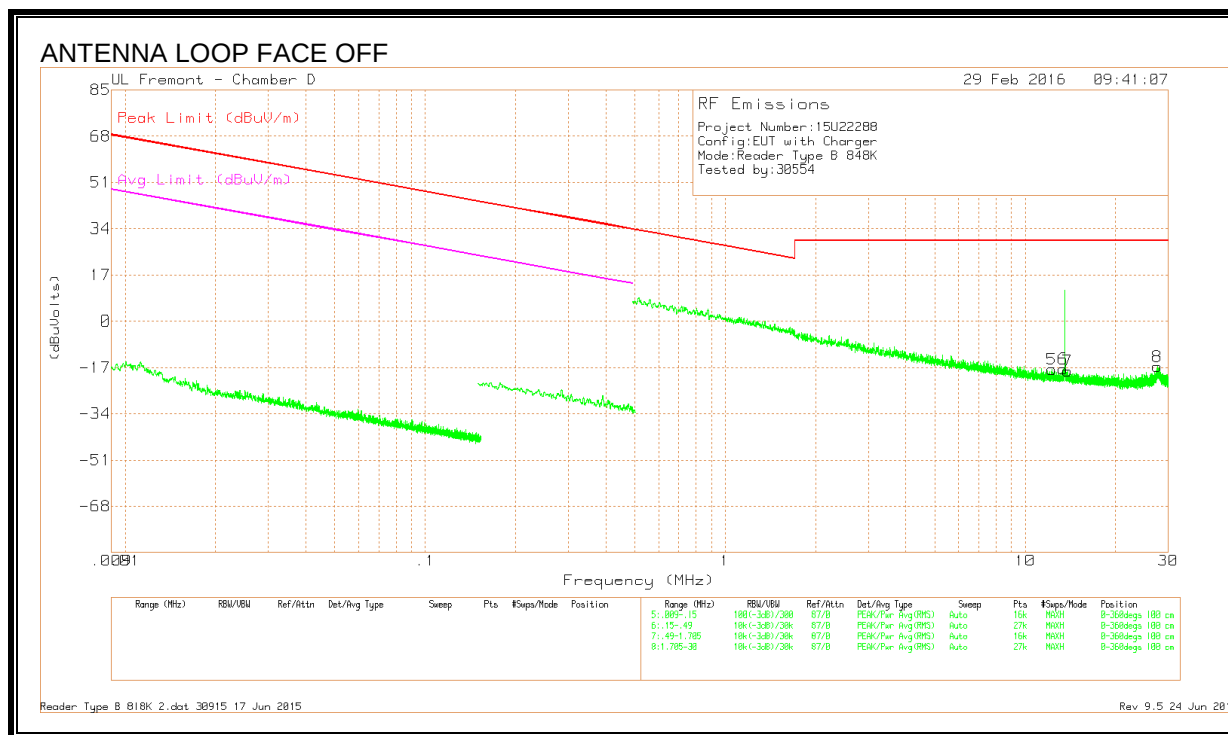
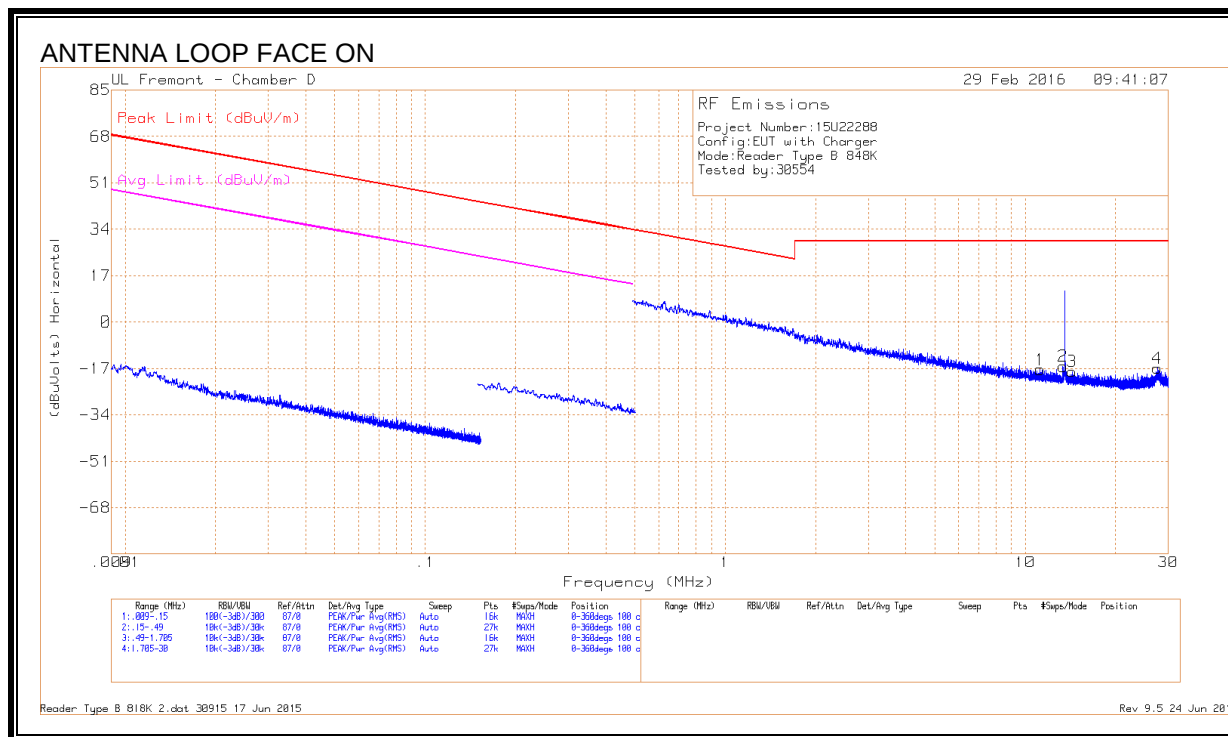


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
5	13.3955	13.21	Pk	10.4	.4	-40	-15.99	40.51	-56.5	0-360
2	13.39988	16.08	Pk	10.4	.4	-40	-13.12	40.51	-53.63	0-360
1	13.552	49.02	Pk	10.4	.4	-40	19.82	84	-64.18	0-360
4	13.55312	45.93	Pk	10.4	.4	-40	16.73	84	-67.27	0-360
6	13.64636	14.61	Pk	10.4	.4	-40	-14.59	50.5	-65.09	0-360
3	13.64763	16.39	Pk	10.4	.4	-40	-12.81	50.5	-63.31	0-360

Pk - Peak detector

SPURIOUS EMISSION

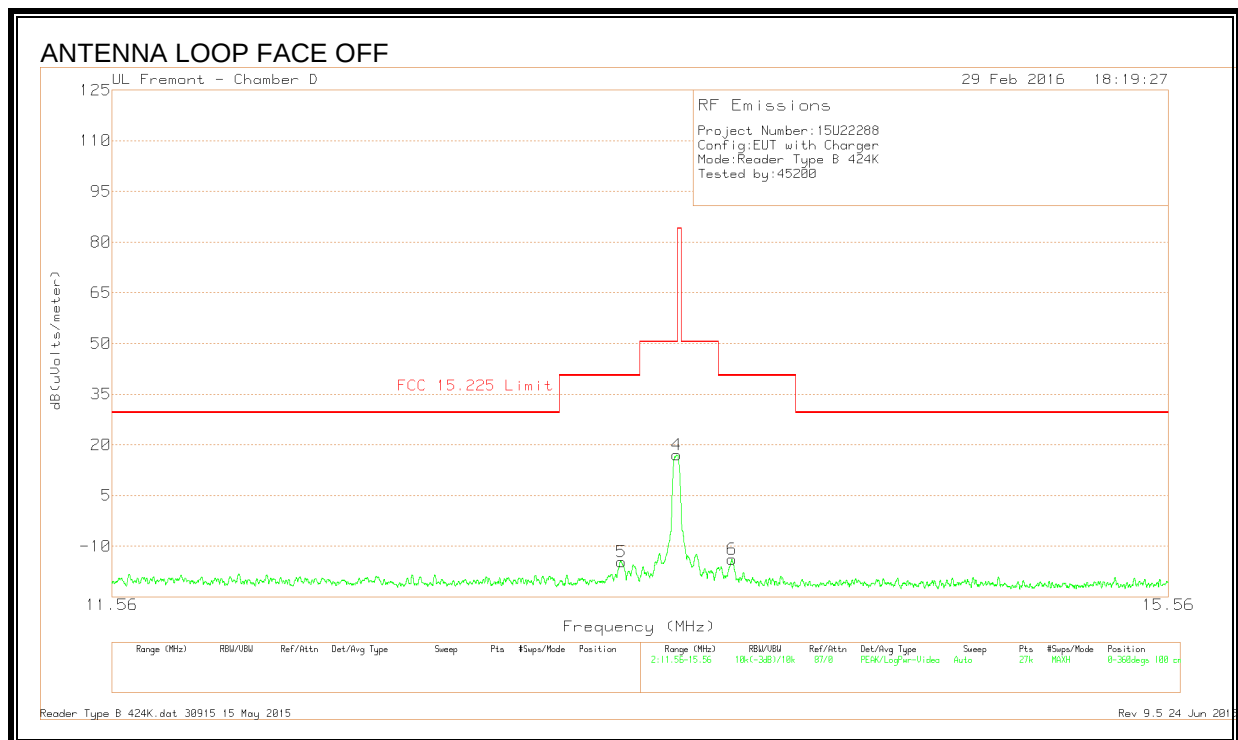
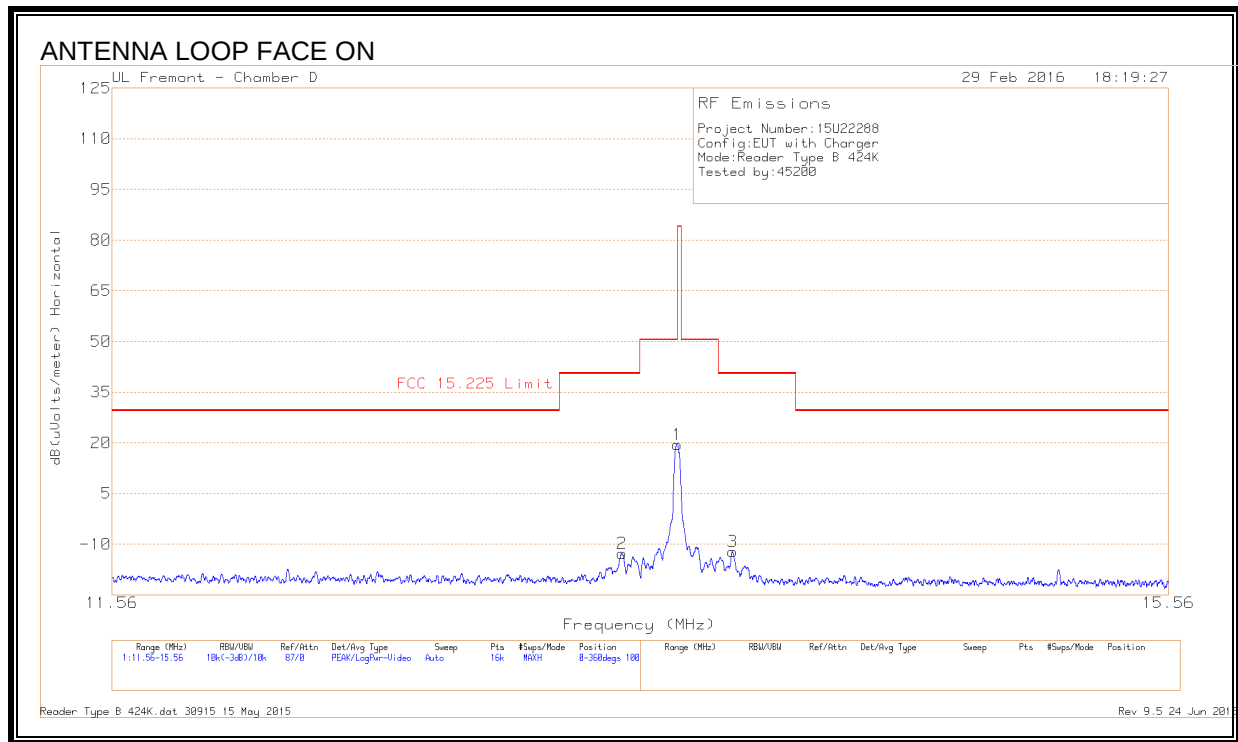


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	11.21088	11.5	Pk	10.8	.3	-40	-17.4	29.54	-46.94	-	-	0-360
5	12.27932	11.24	Pk	10.7	.4	-40	-17.66	29.54	-47.2	-	-	0-360
2	13.34933	12.66	Pk	10.7	.4	-40	-16.24	29.54	-45.78	-	-	0-360
6	13.39544	11.33	Pk	10.7	.4	-40	-17.57	29.54	-47.11	-	-	0-360
7	13.85499	10.7	Pk	10.6	.4	-40	-18.3	29.54	-47.84	-	-	0-360
3	14.31558	10.89	Pk	10.6	.4	-40	-18.11	29.54	-47.65	-	-	0-360
8	27.5382	14.04	Pk	8.6	.7	-40	-16.66	29.54	-46.2	-	-	0-360
4	27.55078	13.79	Pk	8.6	.7	-40	-16.91	29.54	-46.45	-	-	0-360

Pk - Peak detector

424Kbps FUNDAMENTAL

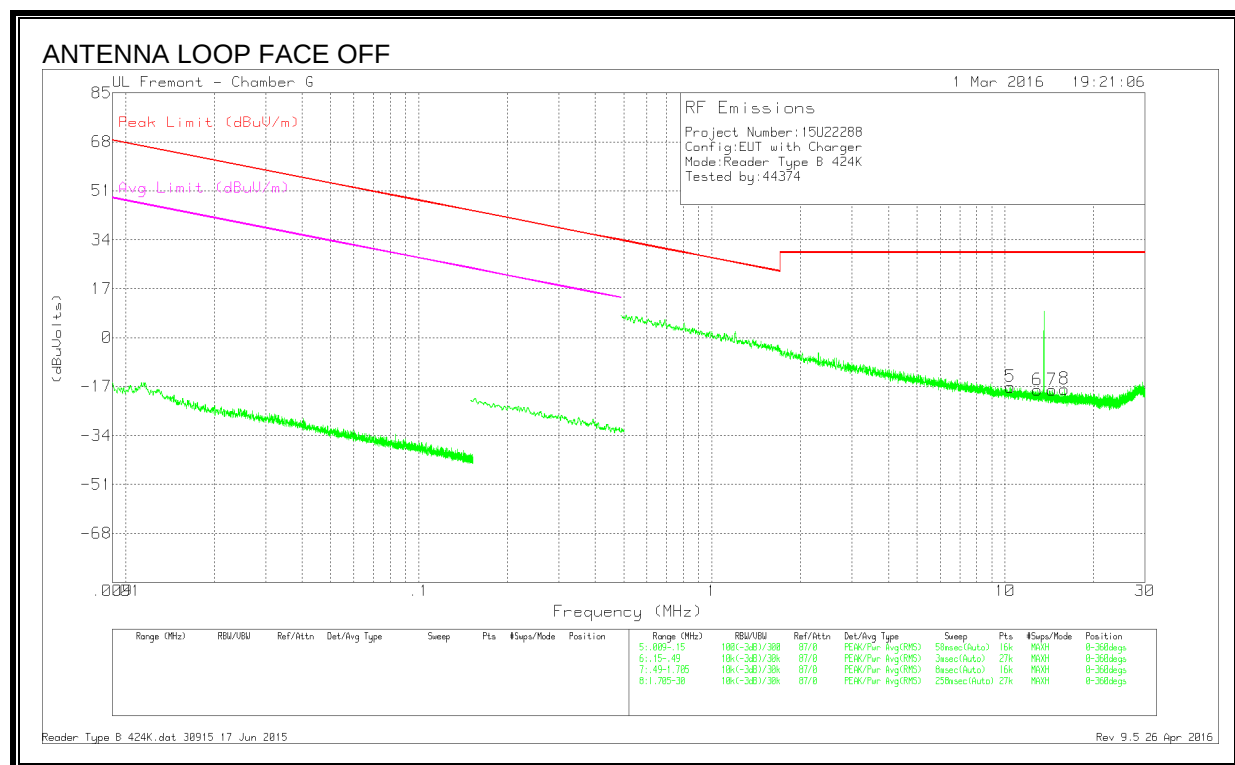
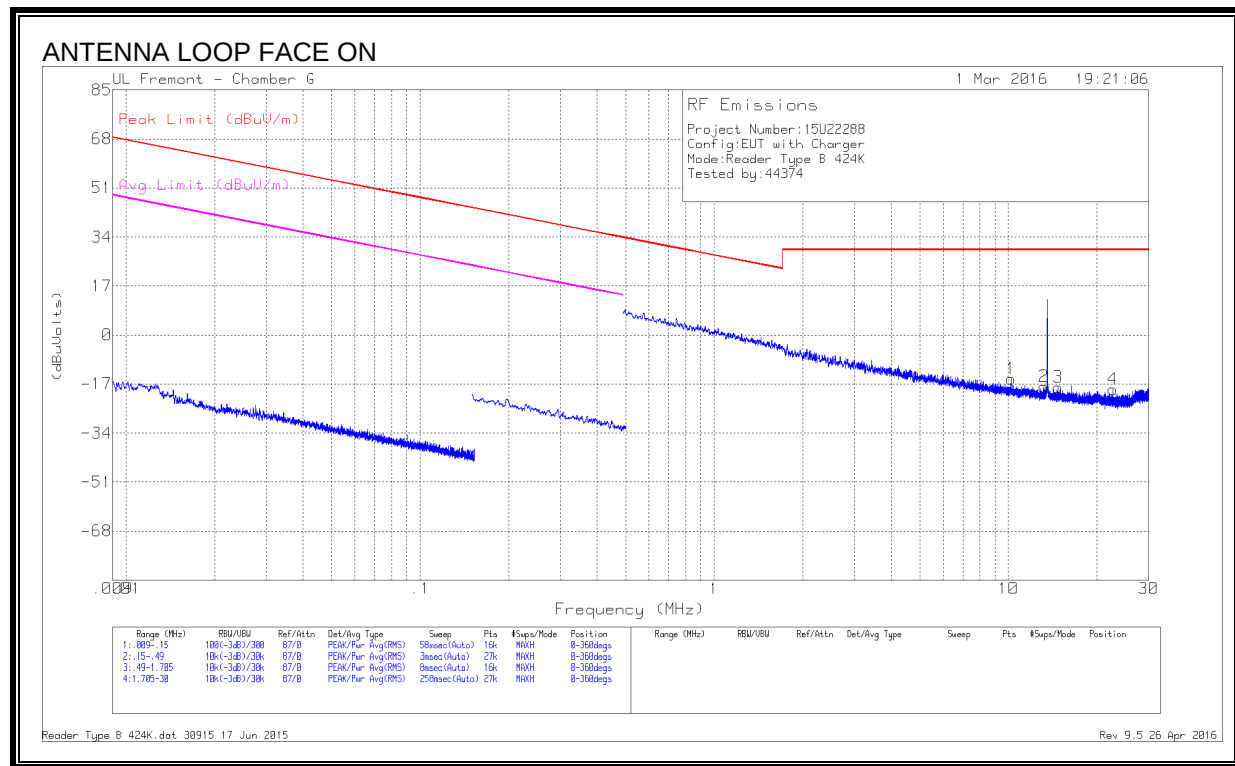


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
5	13.34088	14.61	Pk	10.4	.4	-40	-14.59	40.51	-55.1	0-360
2	13.34313	16.46	Pk	10.4	.4	-40	-12.74	40.51	-53.25	0-360
4	13.55112	46.15	Pk	10.4	.4	-40	16.95	84	-67.05	0-360
1	13.55425	48.58	Pk	10.4	.4	-40	19.38	84	-64.62	0-360
6	13.76254	15.35	Pk	10.3	.4	-40	-13.95	40.51	-54.46	0-360
3	13.76488	17.14	Pk	10.3	.4	-40	-12.16	40.51	-52.67	0-360

Pk - Peak detector

SPURIOUS EMISSION

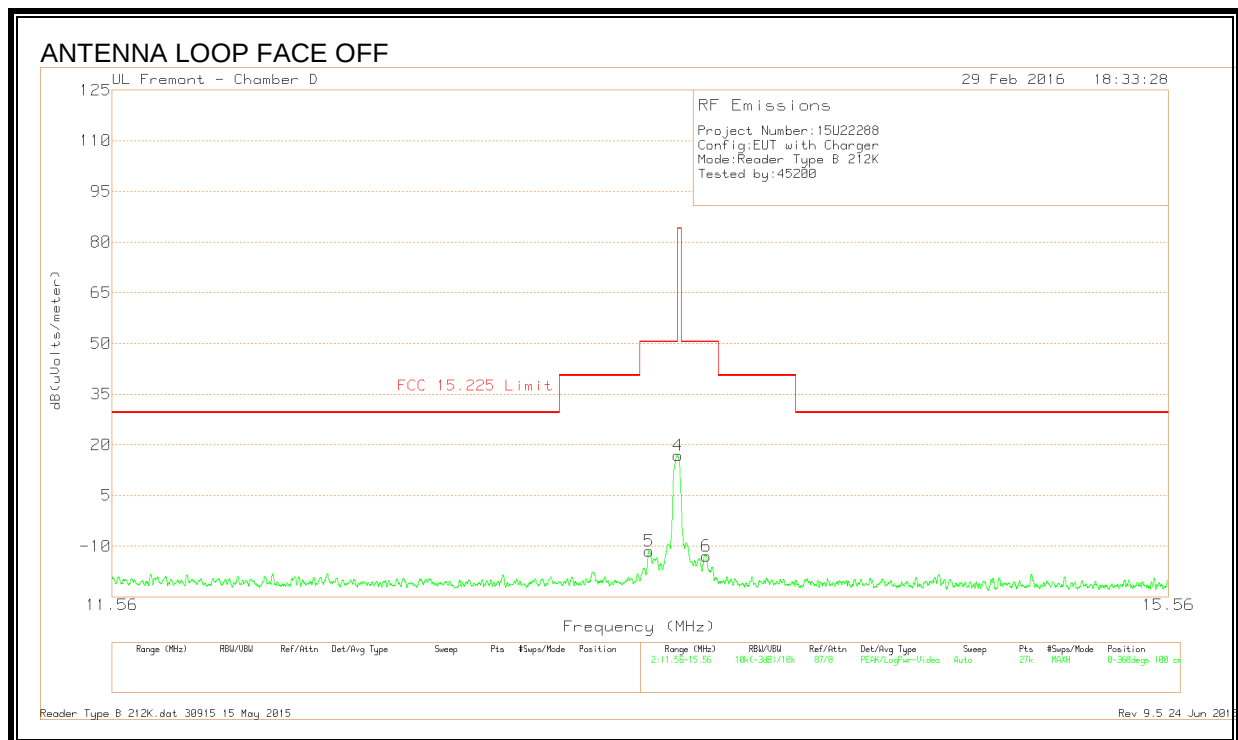
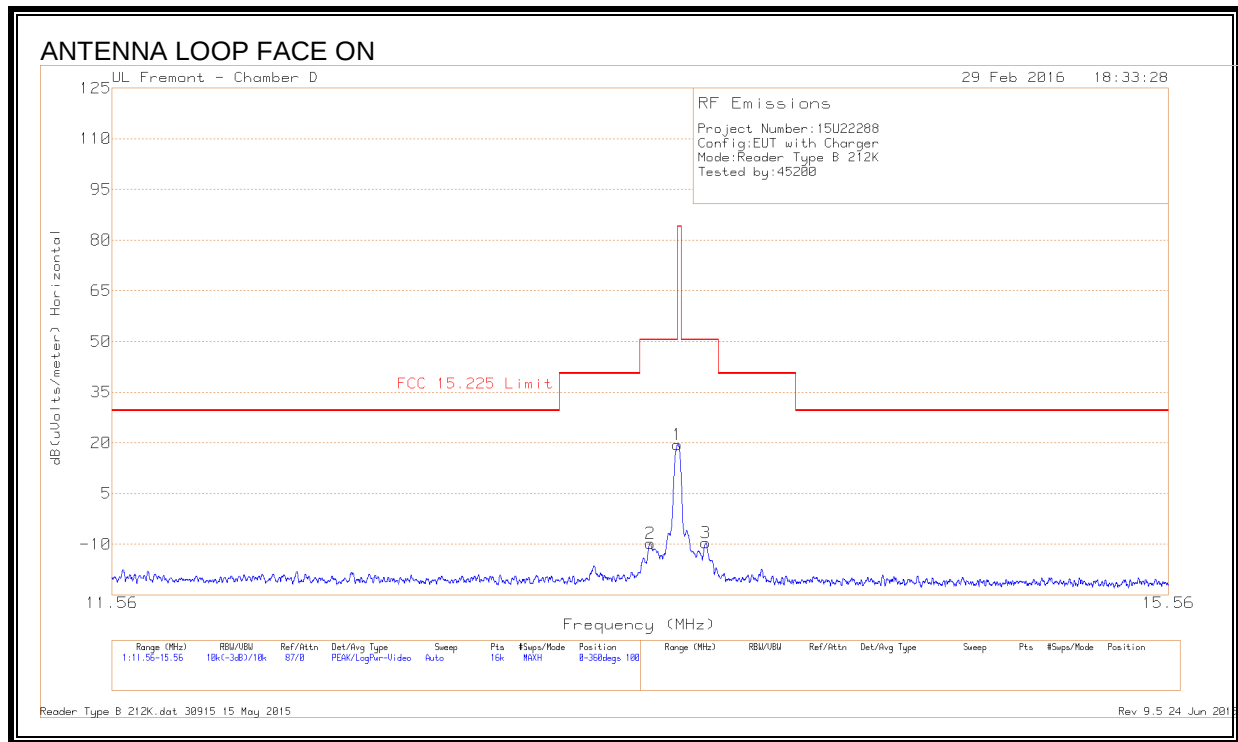


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	10.22105	13.76	Pk	10.8	.3	-40	-15.14	29.54	-44.68	-	-	0-360
5	10.42279	11.75	Pk	10.8	.3	-40	-17.15	29.54	-46.69	-	-	0-360
6	12.85782	10.75	Pk	10.7	.4	-40	-18.15	29.54	-47.69	-	-	0-360
2	13.2178	10.86	Pk	10.7	.4	-40	-18.04	29.54	-47.58	-	-	0-360
7	14.46702	10.86	Pk	10.6	.4	-40	-18.14	29.54	-47.68	-	-	0-360
3	14.76622	10.81	Pk	10.6	.4	-40	-18.19	29.54	-47.73	-	-	0-360
8	15.90121	11.26	Pk	10.5	.4	-40	-17.84	29.54	-47.38	-	-	0-360
4	22.66919	10.93	Pk	9.6	.6	-40	-18.87	29.54	-48.41	-	-	0-360

Pk - Peak detector

212Kbps FUNDAMENTAL

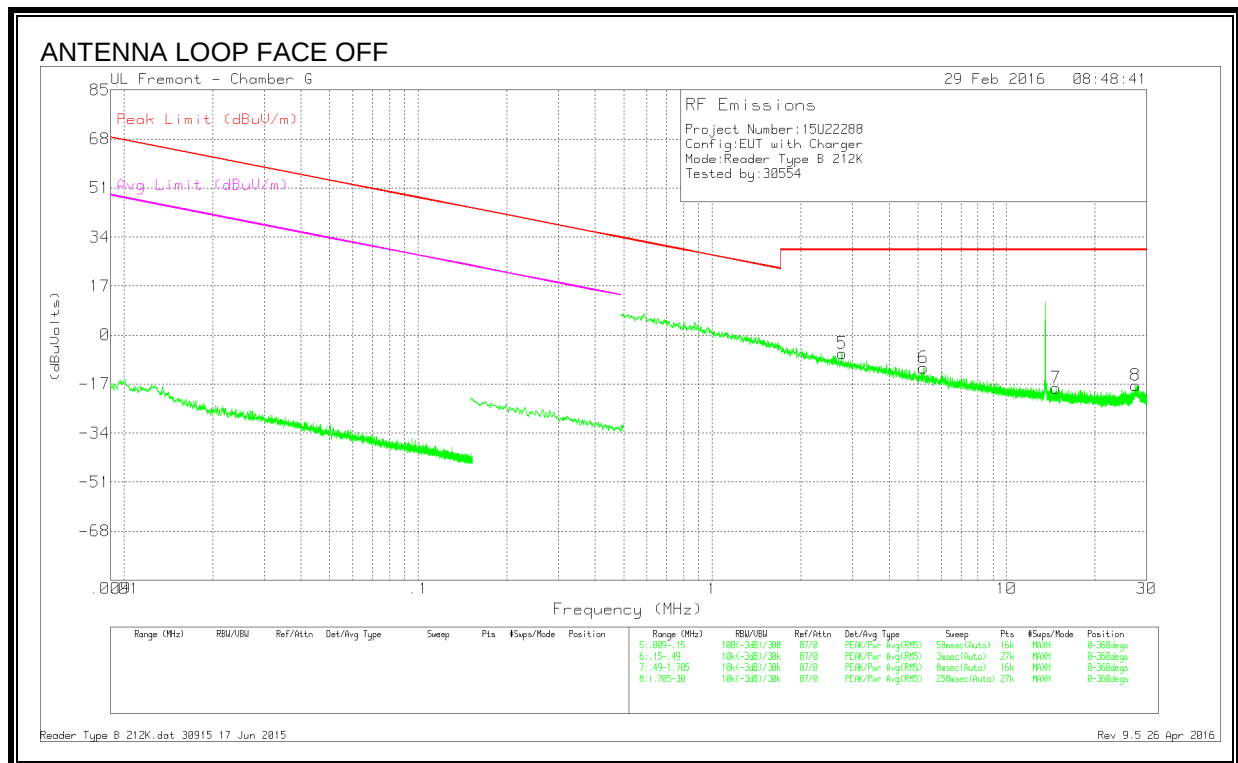
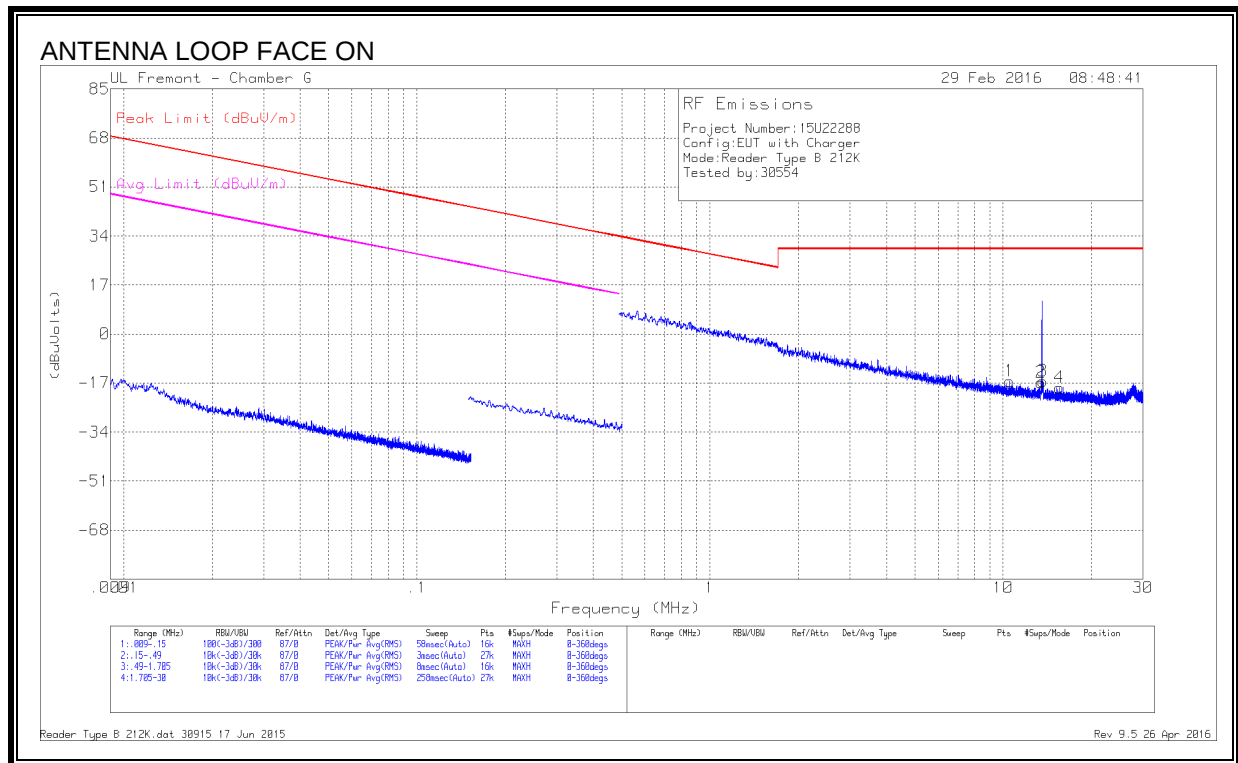


DATA

Marker	Frequenc y (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
5	13.44604	17.8	Pk	10.4	.4	-40	-11.4	50.5	-61.9	0-360
2	13.45063	19.38	Pk	10.4	.4	-40	-9.82	50.5	-60.32	0-360
1	13.55388	48.71	Pk	10.4	.4	-40	19.51	84	-64.49	0-360
4	13.55489	46	Pk	10.4	.4	-40	16.8	84	-67.2	0-360
3	13.66238	19.65	Pk	10.4	.4	-40	-9.55	50.5	-60.05	0-360
6	13.66308	16.32	Pk	10.4	.4	-40	-12.88	50.5	-63.38	0-360

Pk - Peak detector

SPURIOUS EMISSION

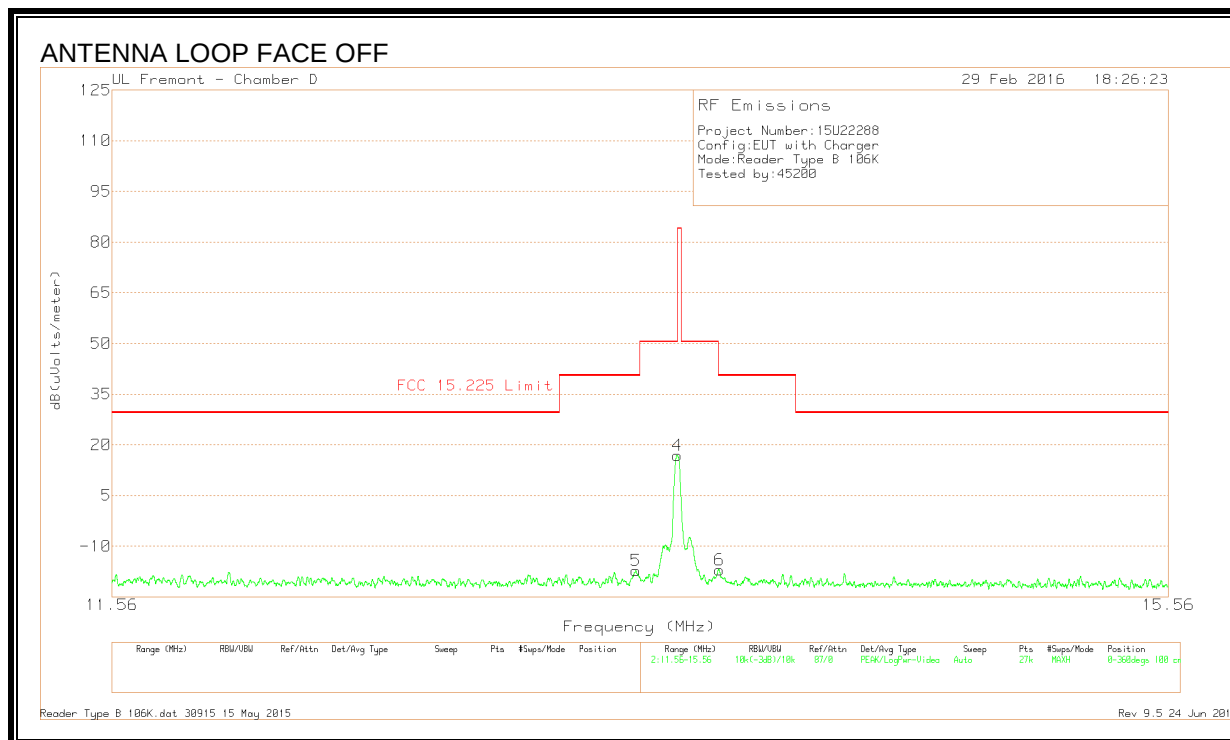
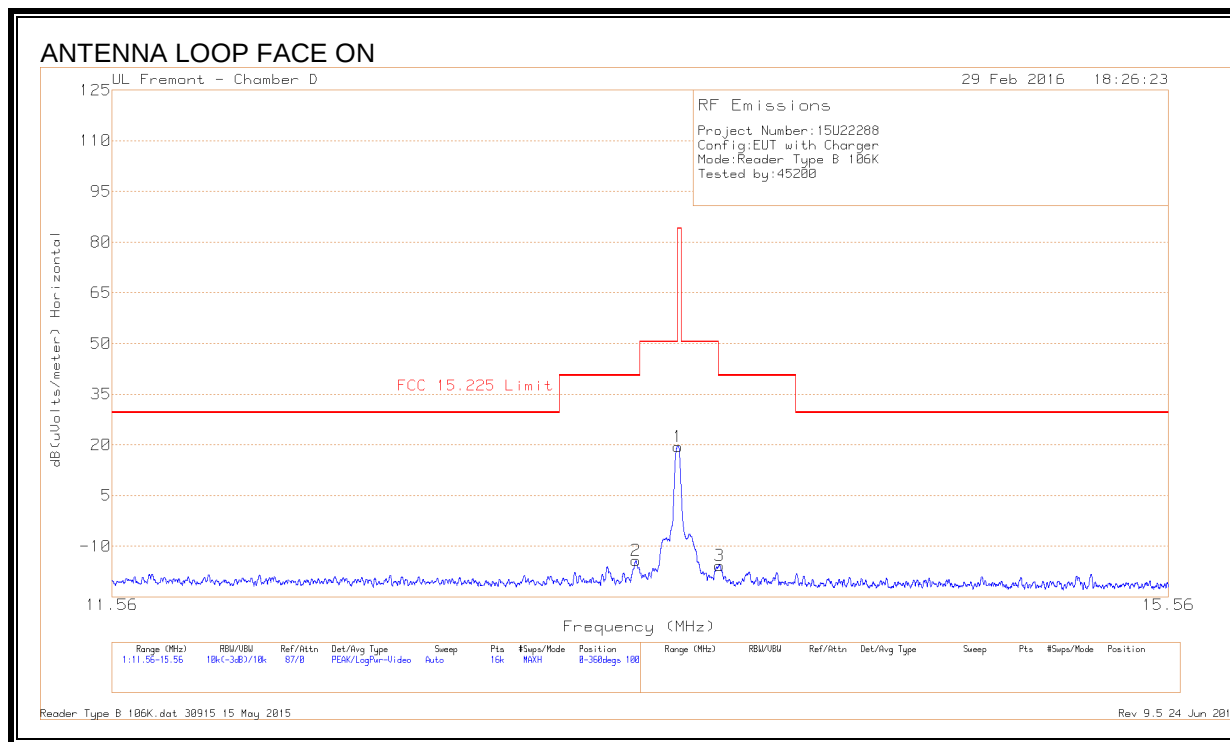


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
5	2.75824	22.55	Pk	10.8	.2	-40	-6.45	29.54	-35.99	-	-	0-360
6	5.23781	17.4	Pk	10.9	.2	-40	-11.5	29.54	-41.04	-	-	0-360
1	10.50401	12.43	Pk	10.8	.3	-40	-16.47	29.54	-46.01	-	-	0-360
2	13.45465	12.07	Pk	10.7	.4	-40	-16.83	29.54	-46.37	-	-	0-360
3	13.66687	12.46	Pk	10.7	.4	-40	-16.44	29.54	-45.98	-	-	0-360
7	14.77775	10.64	Pk	10.6	.4	-40	-18.36	29.54	-47.9	-	-	0-360
4	15.5669	10.53	Pk	10.5	.4	-40	-18.57	29.54	-48.11	-	-	0-360
8	27.50047	13.14	Pk	8.6	.7	-40	-17.56	29.54	-47.1	-	-	0-360

Pk - Peak detector

106Kbps FUNDAMENTAL

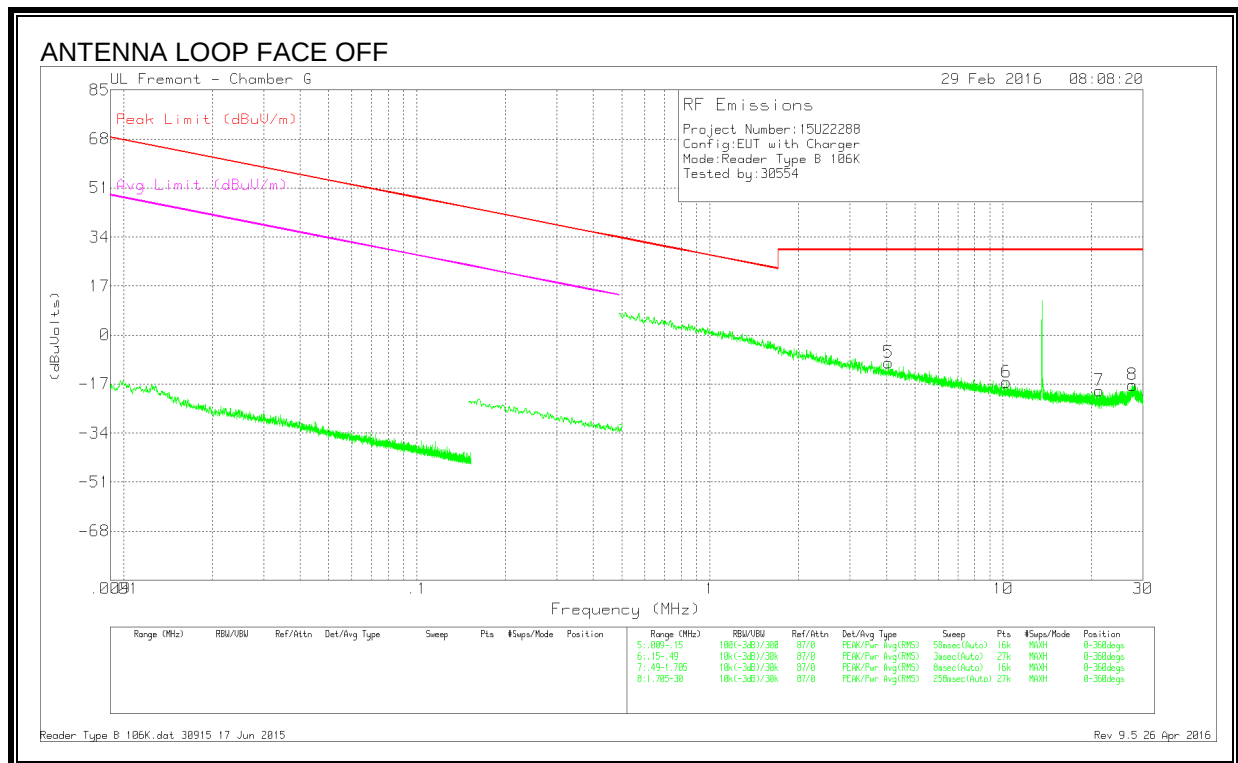
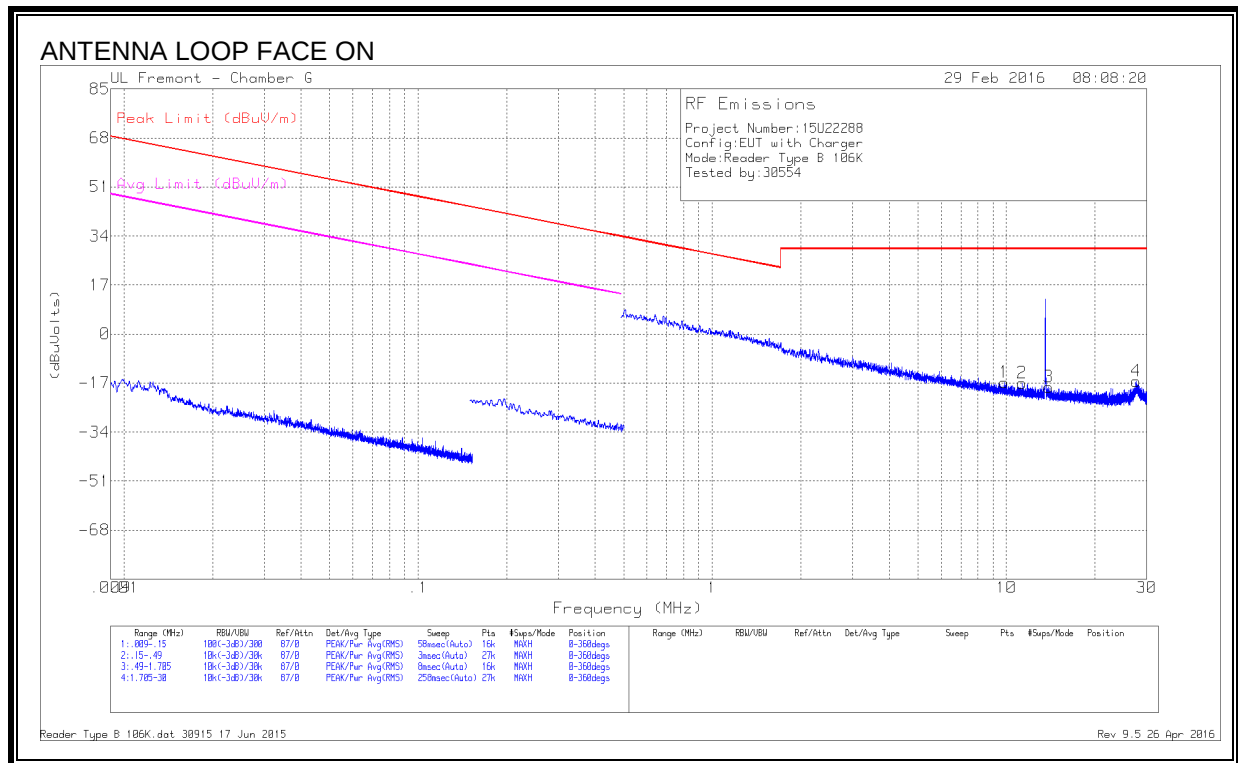


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
2	13.39563	14.87	Pk	10.4	.4	-40	-14.33	40.51	-54.84	0-360
5	13.39601	12	Pk	10.4	.4	-40	-17.2	40.51	-57.71	0-360
4	13.55275	46.07	Pk	10.4	.4	-40	16.87	84	-67.13	0-360
1	13.5545	48.73	Pk	10.4	.4	-40	19.53	84	-64.47	0-360
6	13.71399	12.07	Pk	10.4	.4	-40	-17.13	40.51	-57.64	0-360
3	13.71575	13.43	Pk	10.4	.4	-40	-15.77	40.51	-56.28	0-360

Pk - Peak detector

SPURIOUS EMISSION



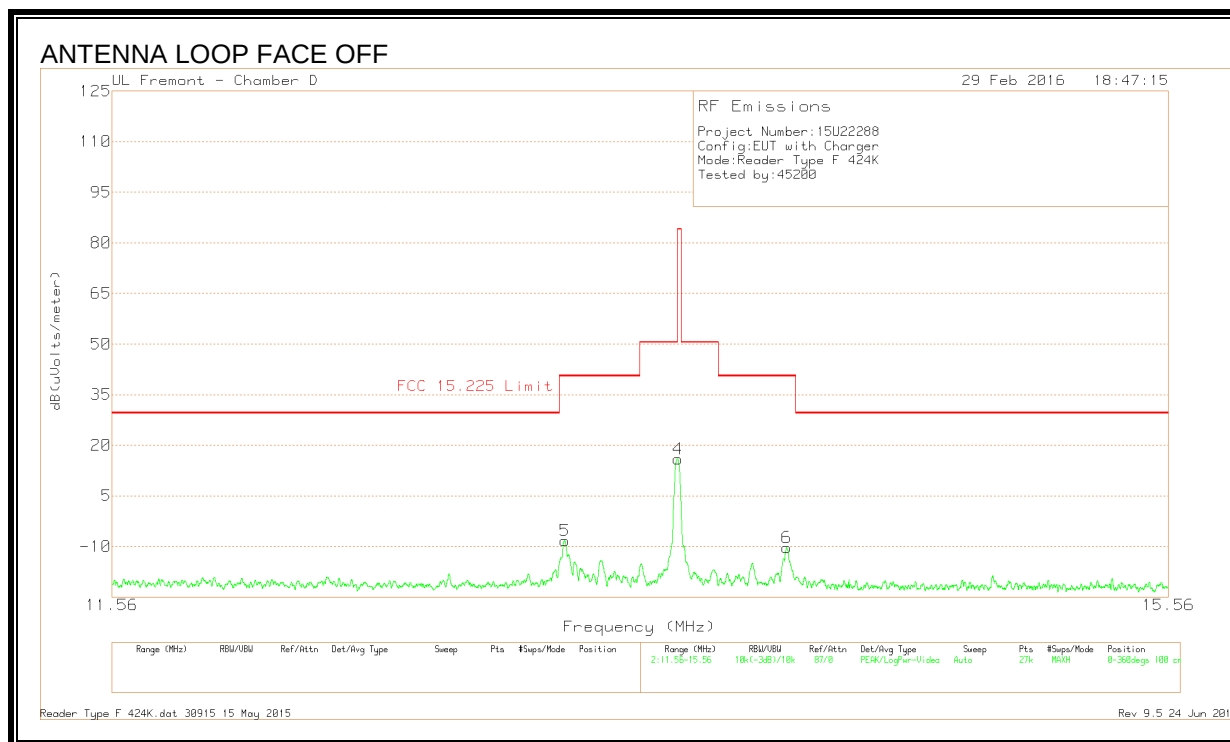
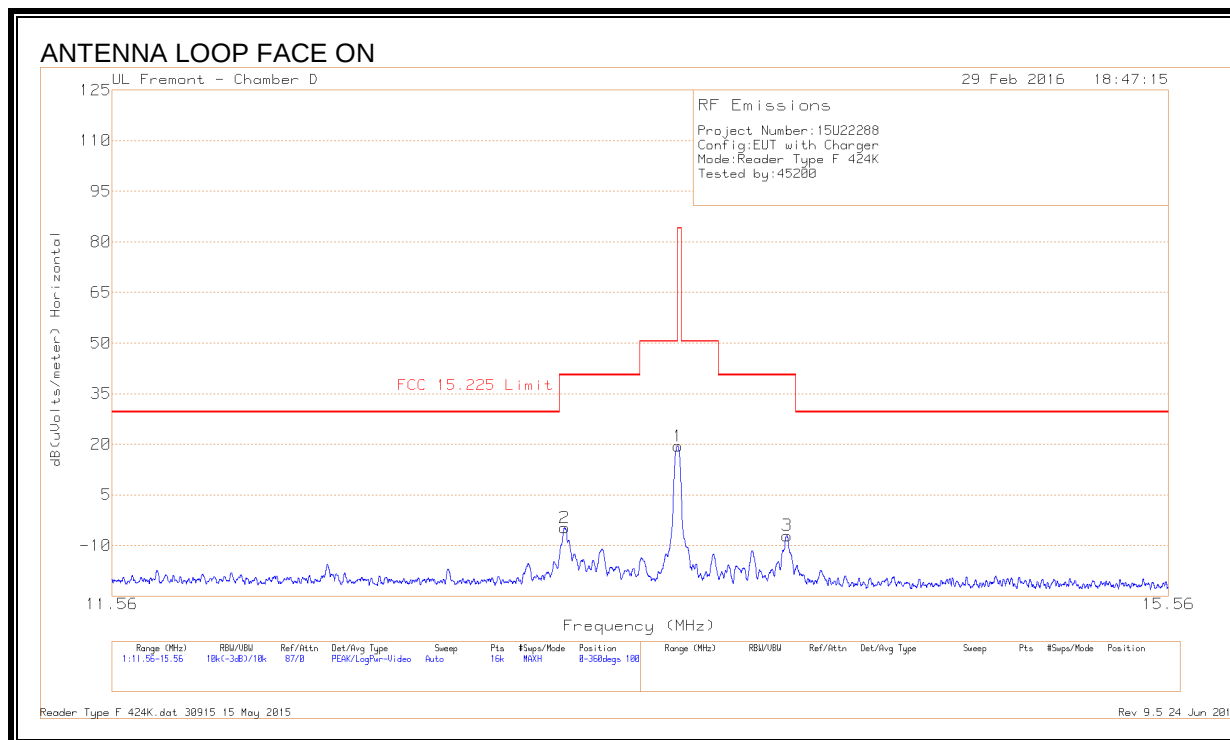
RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
5	4.05881	19.33	Pk	10.9	.2	-40	-9.57	29.54	-39.11	-	-	0-360
1	9.82438	12.03	Pk	10.8	.3	-40	-16.87	29.54	-46.41	-	-	0-360
6	10.26926	12.43	Pk	10.8	.3	-40	-16.47	29.54	-46.01	-	-	0-360
2	11.3183	12.01	Pk	10.7	.3	-40	-16.99	29.54	-46.53	-	-	0-360
3	13.91001	10.54	Pk	10.6	.4	-40	-18.46	29.54	-48	-	-	0-360
7	21.31622	10.13	Pk	9.9	.6	-40	-19.37	29.54	-48.91	-	-	0-360
4	27.59217	14.28	Pk	8.6	.7	-40	-16.42	29.54	-45.96	-	-	0-360
8	27.59689	13.32	Pk	8.6	.7	-40	-17.38	29.54	-46.92	-	-	0-360

Pk - Peak detector

TYPE F

424Kbps FUNDAMENTAL

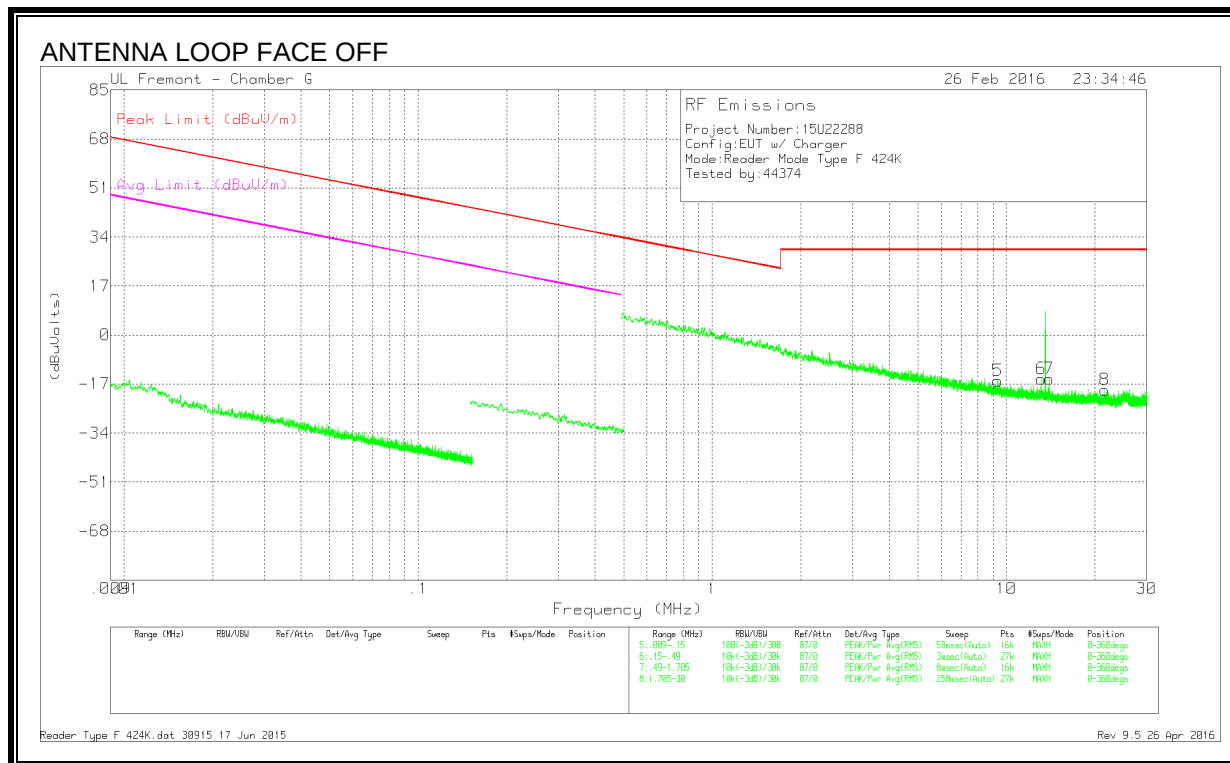
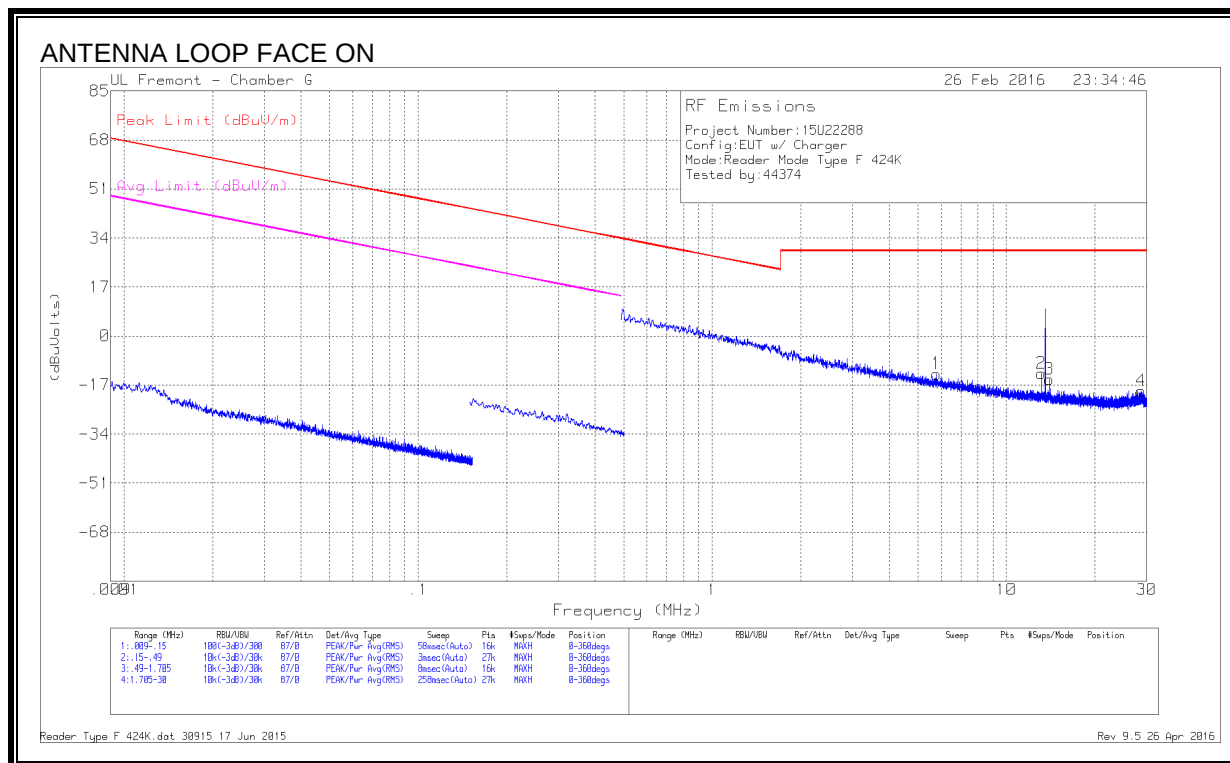


DATA

Marker	Frequenc y (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
2	13.12988	24.36	Pk	10.4	.4	-40	-4.84	40.51	-45.35	0-360
5	13.13043	20.94	Pk	10.4	.4	-40	-8.26	40.51	-48.77	0-360
1	13.55488	48.68	Pk	10.4	.4	-40	19.48	84	-64.52	0-360
4	13.55489	45.04	Pk	10.4	.4	-40	15.84	84	-68.16	0-360
6	13.97573	19.04	Pk	10.3	.4	-40	-10.26	40.51	-50.77	0-360
3	13.97775	22.22	Pk	10.3	.4	-40	-7.08	40.51	-47.59	0-360

Pk - Peak detector

SPURIOUS EMISSION

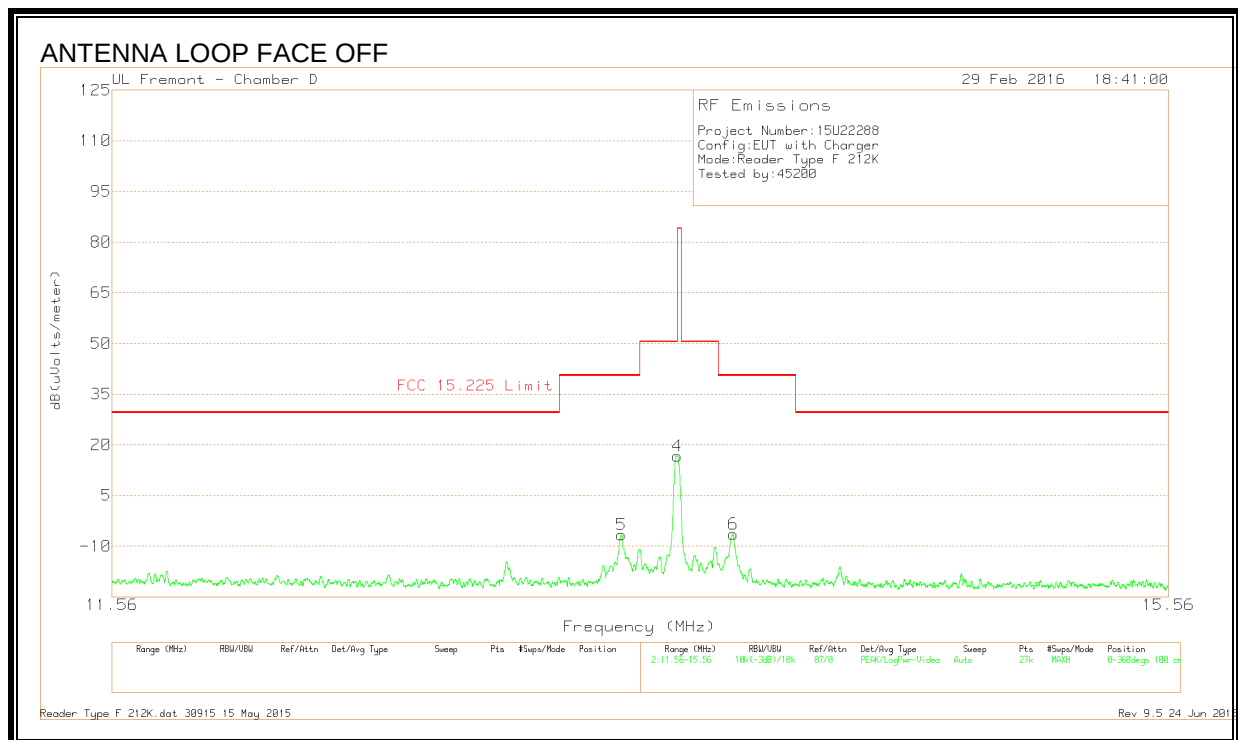
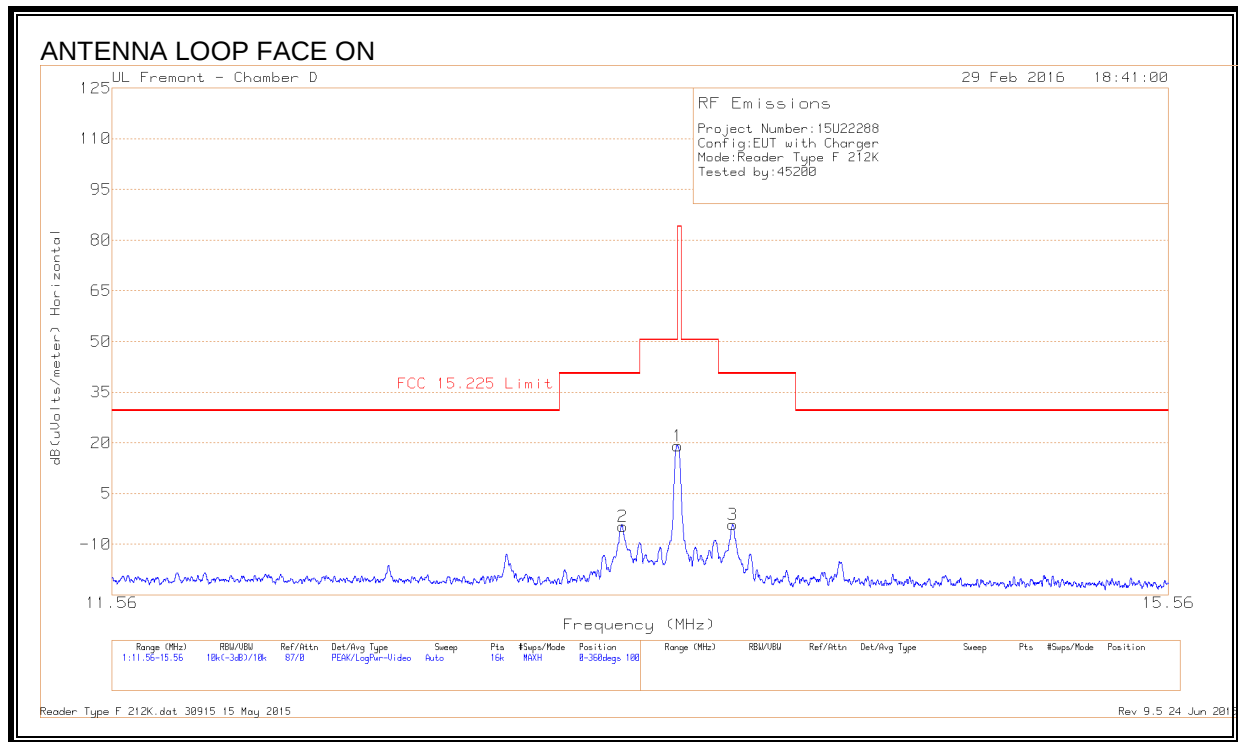


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	5.77438	15.8	Pk	10.9	.2	-40	-13.1	29.54	-42.64	-	-	0-360
5	9.34754	13.01	Pk	10.8	.3	-40	-15.89	29.54	-45.43	-	-	0-360
6	13.13449	13.61	Pk	10.7	.4	-40	-15.29	29.54	-44.83	-	-	0-360
2	13.13868	16	Pk	10.7	.4	-40	-12.9	29.54	-42.44	-	-	0-360
3	13.98651	13.95	Pk	10.6	.4	-40	-15.05	29.54	-44.59	-	-	0-360
7	13.98651	13.8	Pk	10.6	.4	-40	-15.2	29.54	-44.74	-	-	0-360
8	21.6039	10.61	Pk	9.8	.6	-40	-18.99	29.54	-48.53	-	-	0-360
4	28.65799	12.02	Pk	8.3	.7	-40	-18.98	29.54	-48.52	-	-	0-360

Pk - Peak detector

212Kbps FUNDAMENTAL

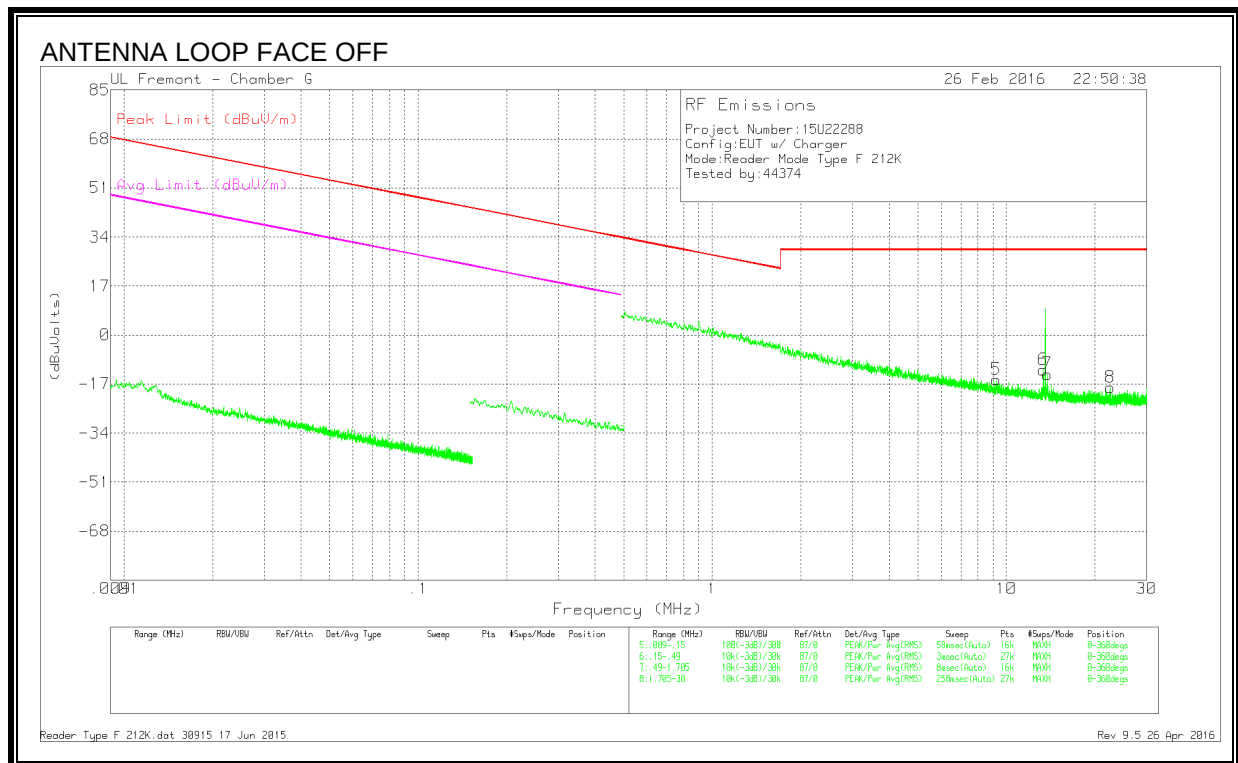
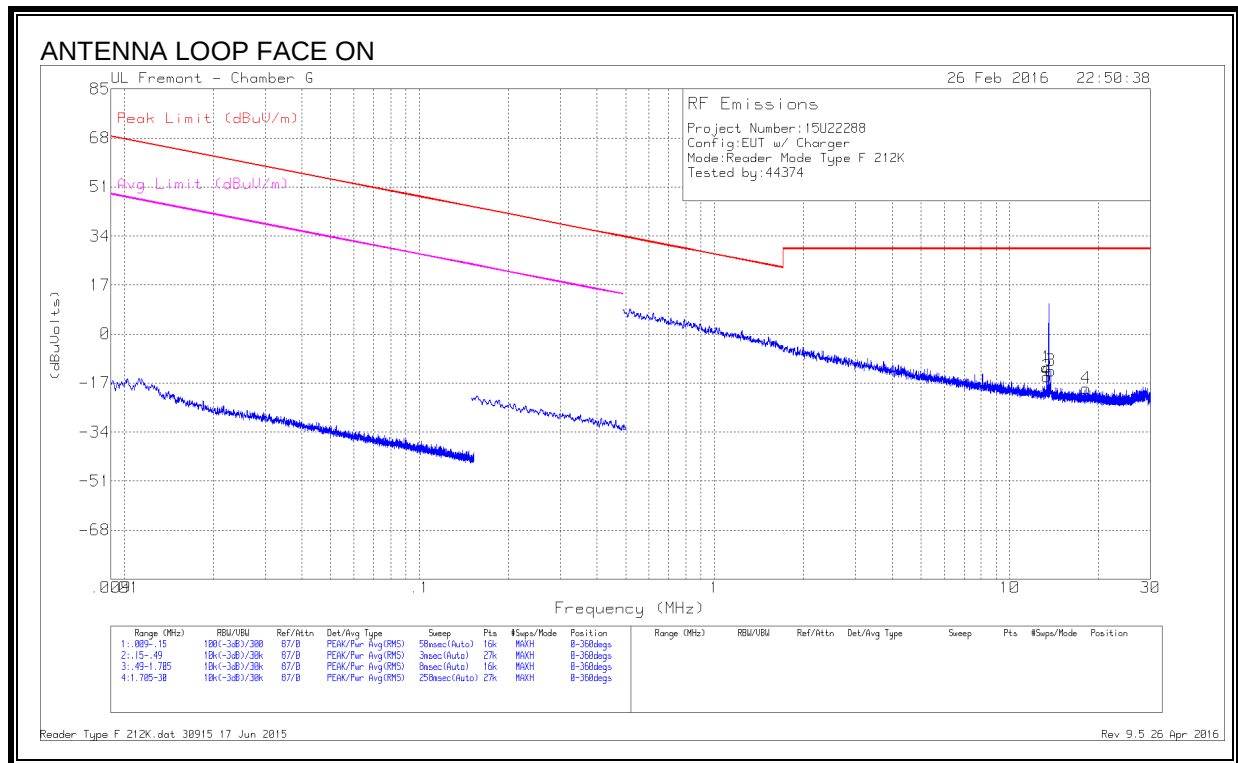


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading dB(uVolts /meter)	FCC 15.225 Limit	PK Margin (dB)	Azimuth (Degs)
5	13.3414	22.58	Pk	10.4	.4	-40	-6.62	40.51	-47.13	0-360
2	13.34525	24.43	Pk	10.4	.4	-40	-4.77	40.51	-45.28	0-360
4	13.55252	45.82	Pk	10.4	.4	-40	16.62	84	-67.38	0-360
1	13.55438	48.34	Pk	10.4	.4	-40	19.14	84	-64.86	0-360
3	13.7645	25.04	Pk	10.3	.4	-40	-4.26	40.51	-44.77	0-360
6	13.76742	22.86	Pk	10.3	.4	-40	-6.44	40.51	-46.95	0-360

Pk - Peak detector

SPURIOUS EMISSION



RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna (dB/m)	Amp/Cbl (dB)	Dist Corr (dB) 40Log	Corrected Reading (dBuVolts)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
5	9.25008	13.37	Pk	10.8	.3	-40	-15.53	29.54	-45.07	-	-	0-360
1	13.3488	17.2	Pk	10.7	.4	-40	-11.7	29.54	-41.24	-	-	0-360
6	13.3488	16.77	Pk	10.7	.4	-40	-12.13	29.54	-41.67	-	-	0-360
2	13.41745	14.18	Pk	10.7	.4	-40	-14.72	29.54	-44.26	-	-	0-360
3	13.7722	16.24	Pk	10.6	.4	-40	-12.76	29.54	-42.3	-	-	0-360
7	13.77377	15.46	Pk	10.6	.4	-40	-13.54	29.54	-43.08	-	-	0-360
4	18.14812	10.35	Pk	10.3	.5	-40	-18.85	29.54	-48.39	-	-	0-360
8	22.49837	11.51	Pk	9.7	.6	-40	-18.19	29.54	-47.73	-	-	0-360

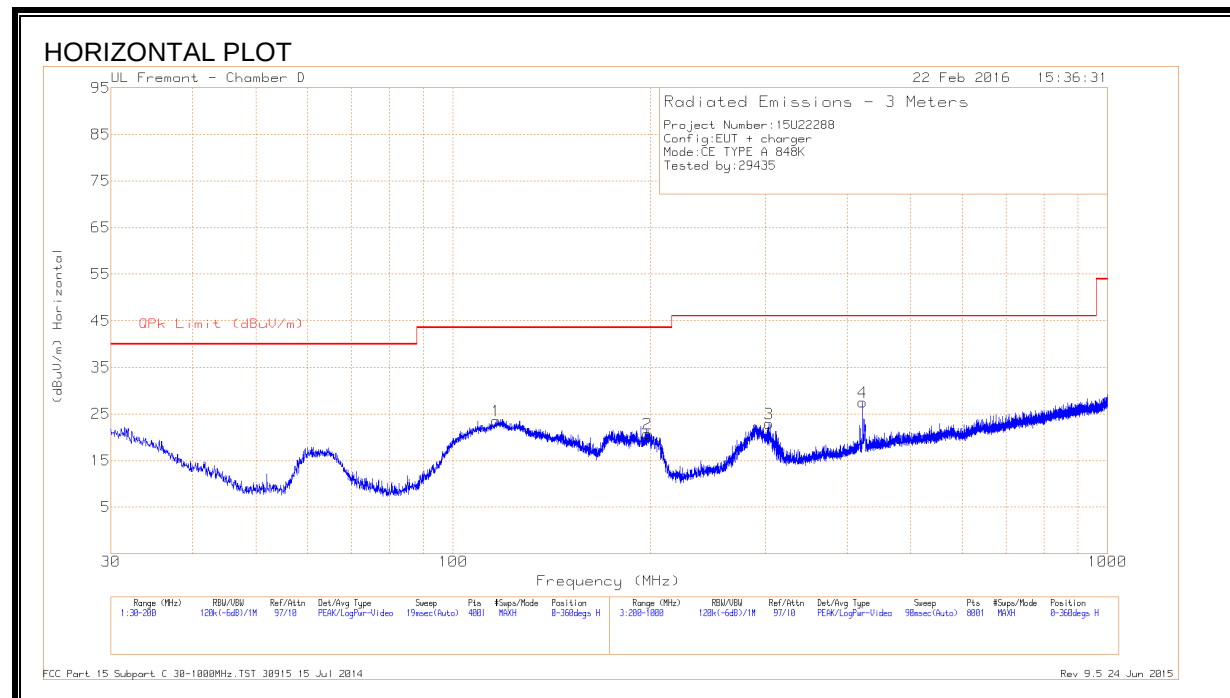
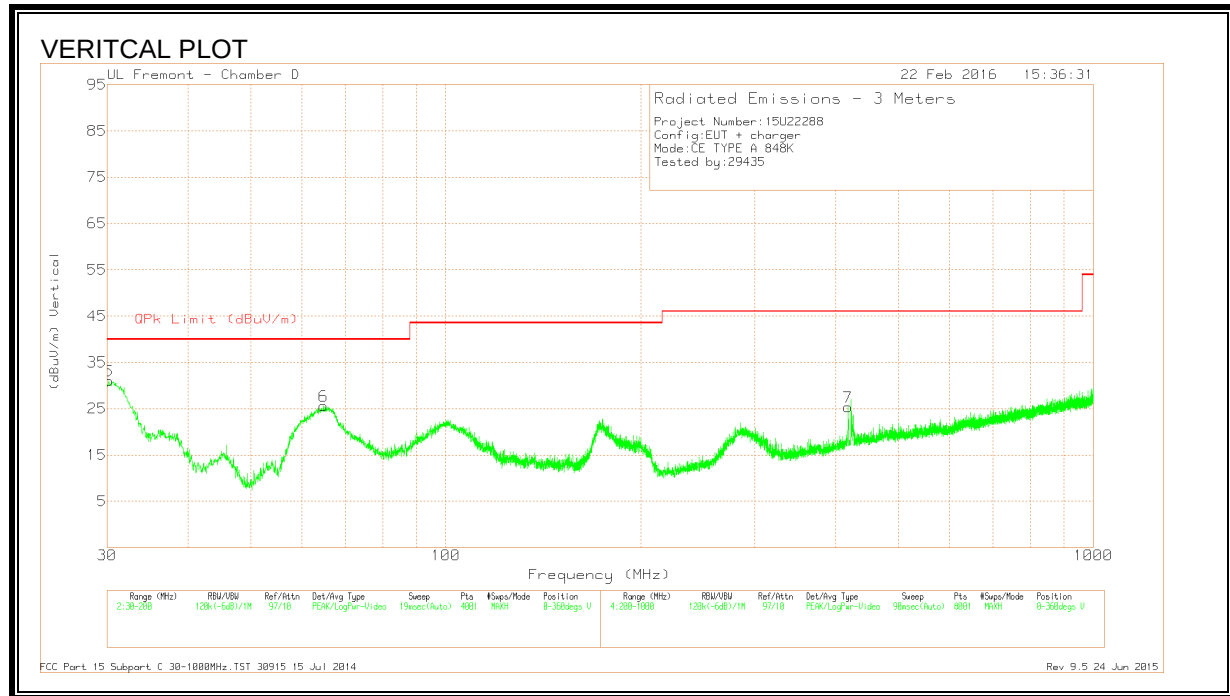
Pk - Peak detector

8.1. TX SPURIOUS EMISSION 30 TO 1000 MHz

8.1.1. CE MODE

TYPE A

848Kbps



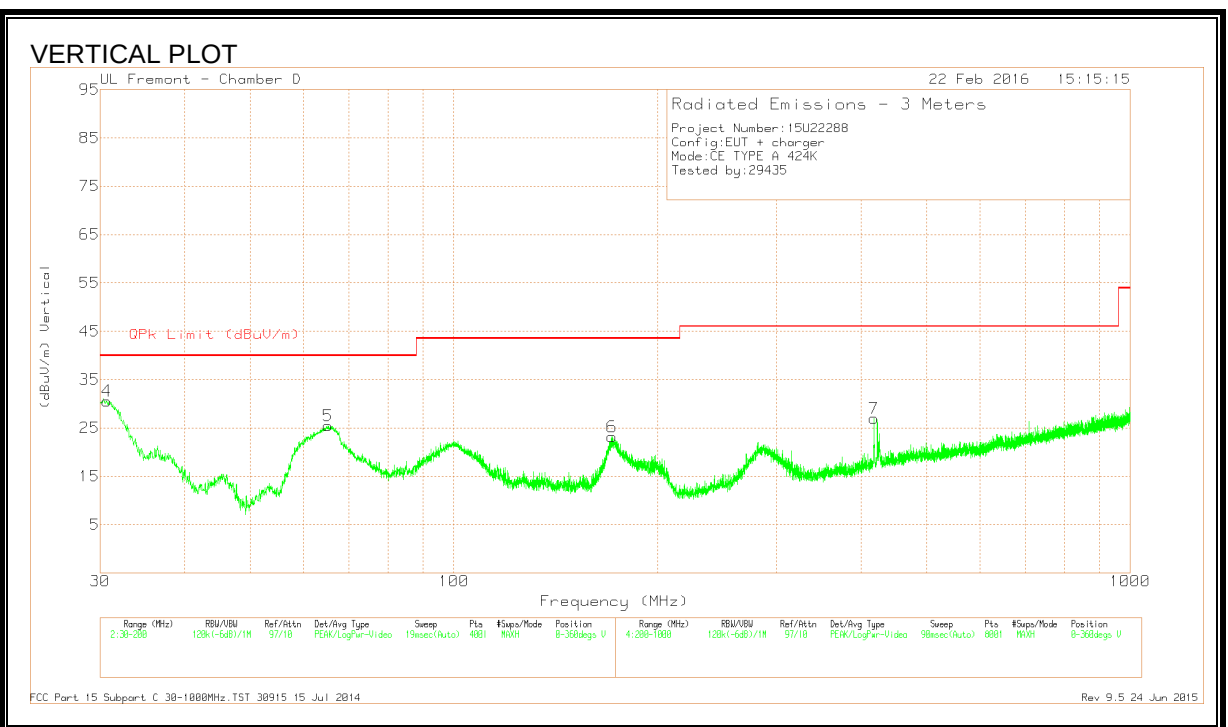
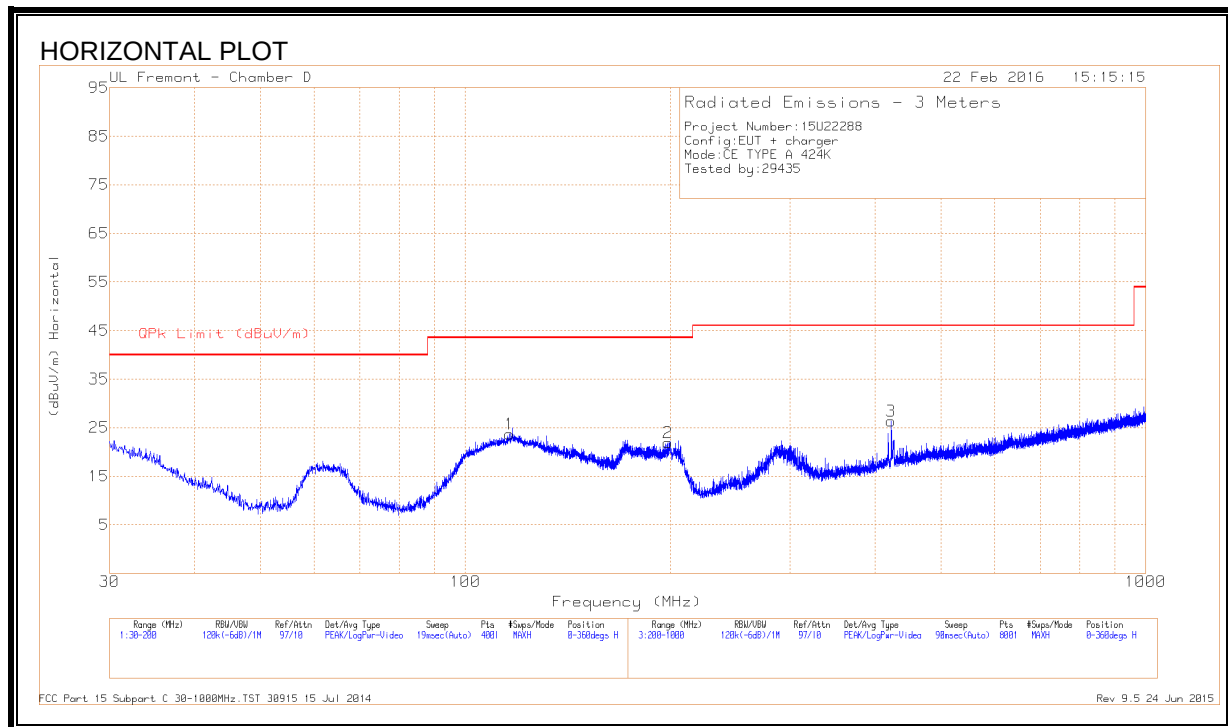
RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T408 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 116.275	37.41	Pk	17.3	-31.2	23.51	43.52	-20.01	0-360	301	H
2	197.9175	35.43	Pk	16.1	-30.8	20.73	43.52	-22.79	0-360	100	H
5	30.17	37.52	Pk	25.4	-31.9	31.02	40	-8.98	0-360	100	V
3	303.5	35.87	Pk	17.4	-30.3	22.97	46.02	-23.05	0-360	100	H
7	417.8	35.1	Pk	20.1	-29.9	25.3	46.02	-20.72	0-360	100	V
4	422.4	37.15	Pk	20.2	-29.9	27.45	46.02	-18.57	0-360	201	H
6	64.7225	45.35	Pk	11.9	-31.6	25.65	40	-14.35	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

424Kbps



DATA

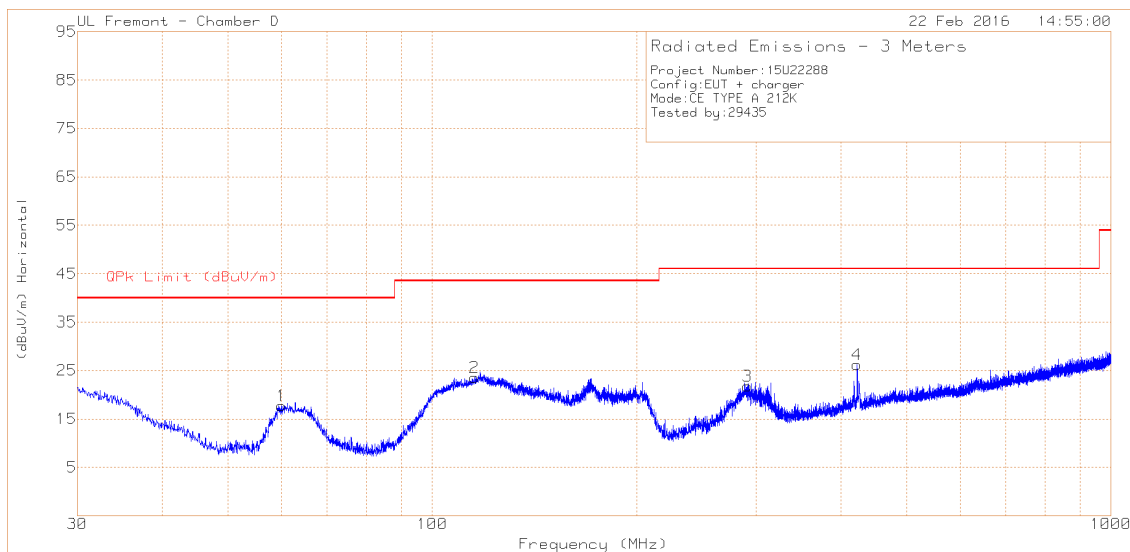
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T408 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 116.105	37.63	Pk	17.3	-31.2	23.73	43.52	-19.79	0-360	301	H
6	* 171.355	38.53	Pk	15.6	-30.9	23.23	43.52	-20.29	0-360	100	V
2	198.64	36.55	Pk	16.2	-30.8	21.95	43.52	-21.57	0-360	201	H
4	30.68	37.51	Pk	25	-31.9	30.61	40	-9.39	0-360	100	V
7	417.7	36.82	Pk	20.1	-29.9	27.02	46.02	-19	0-360	301	V
3	422.5	35.94	Pk	20.3	-29.9	26.34	46.02	-19.68	0-360	201	H
5	65.19	45.15	Pk	11.9	-31.6	25.45	40	-14.55	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

212Kbps

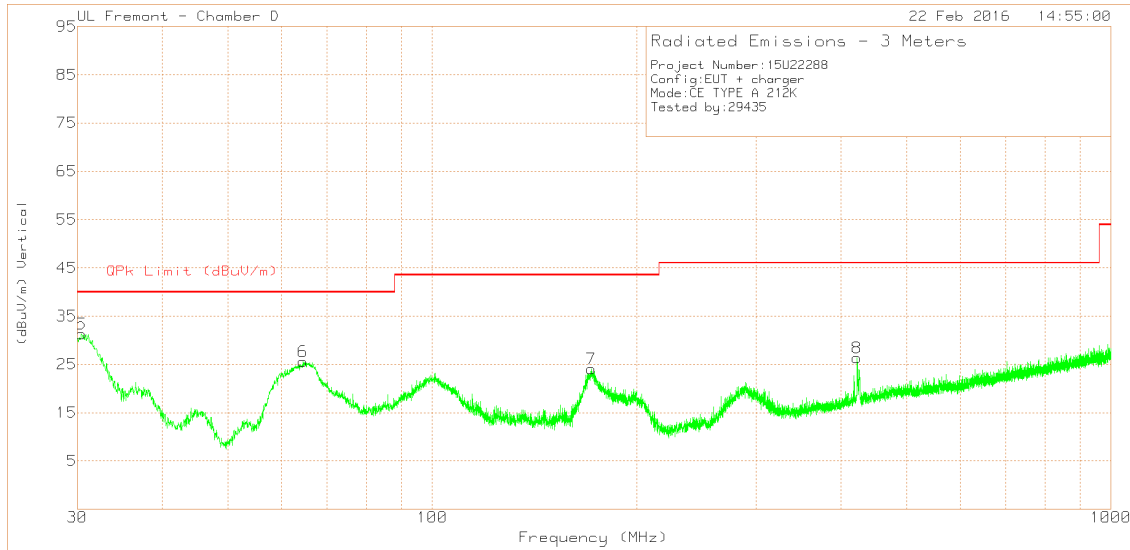
HORIZONTAL PLOT



FCC Part 15 Subpart C 30-1000MHz.TST 30915 15 Jul 2014

Rev 9.5 24 Jun 2015

VERTICAL PLOT



FCC Part 15 Subpart C 30-1000MHz.TST 30915 15 Jul 2014

Rev 9.5 24 Jun 2015

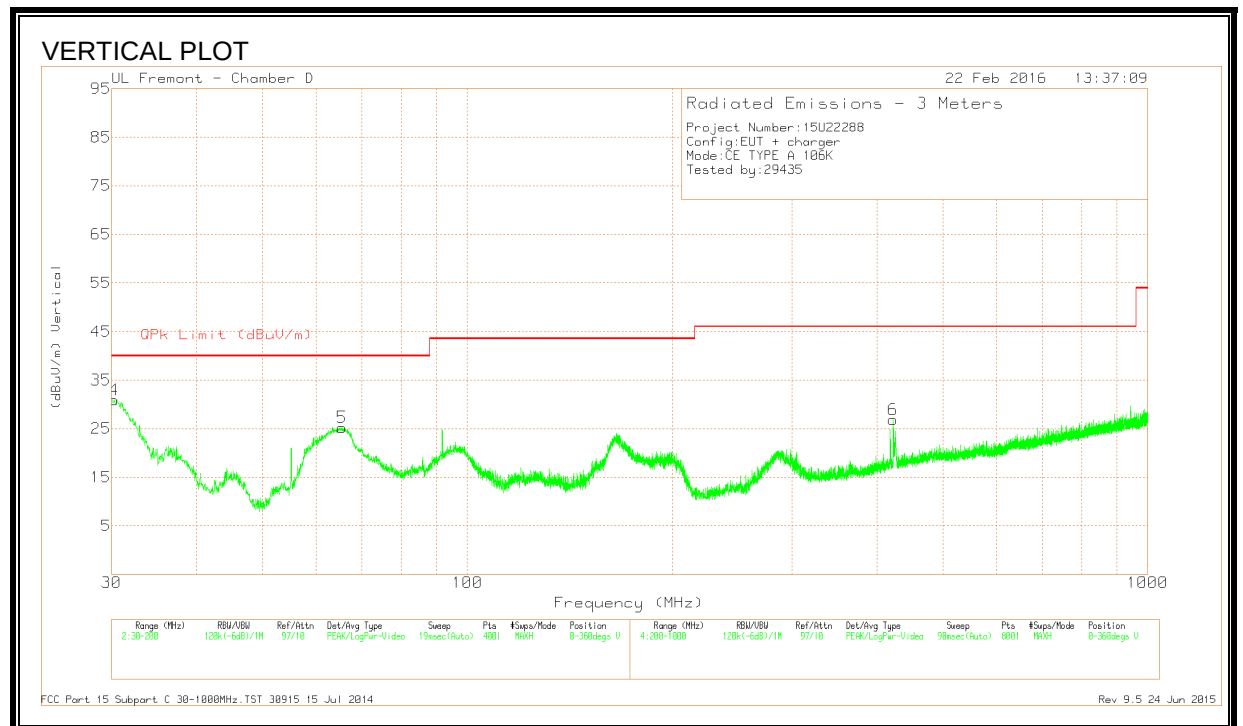
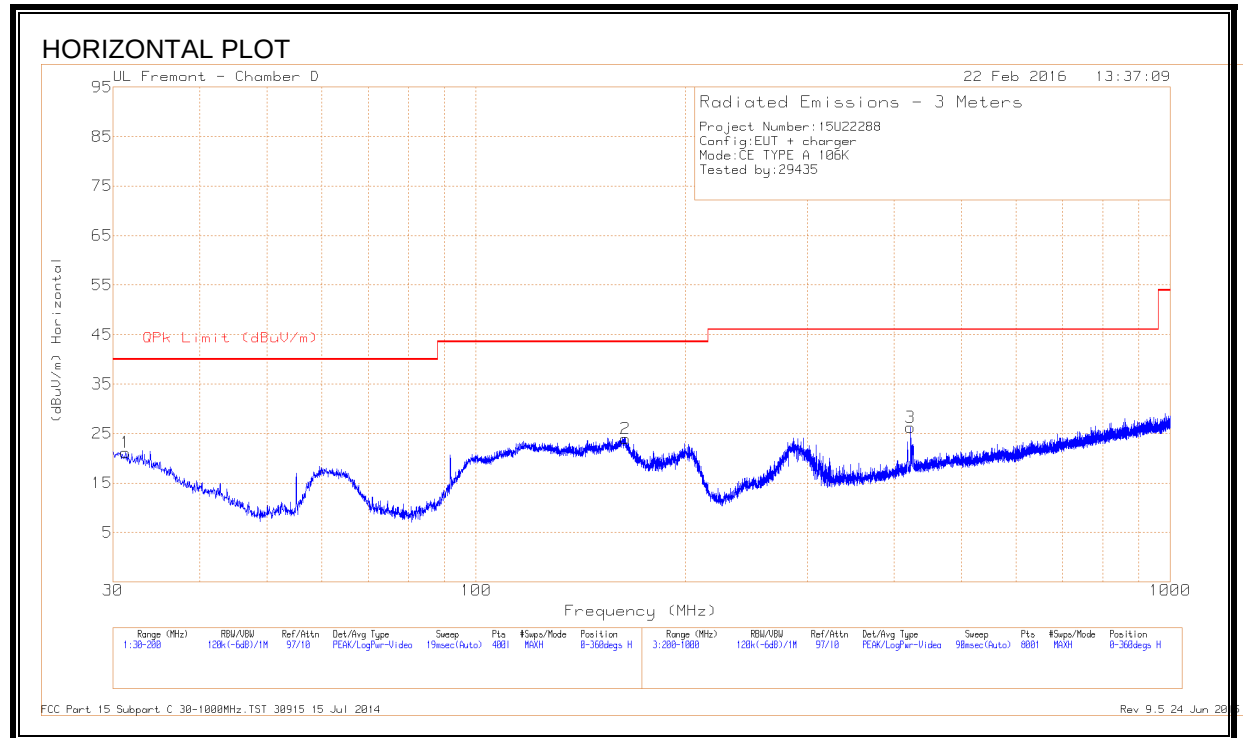
DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T408 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 115.51	37.43	Pk	17.3	-31.2	23.53	43.52	-19.99	0-360	301	H
7	* 171.44	39.37	Pk	15.6	-30.9	24.07	43.52	-19.45	0-360	100	V
5	30.425	37.97	Pk	25.2	-31.9	31.27	40	-8.73	0-360	100	V
1	59.92	37.92	Pk	11.4	-31.6	17.72	40	-22.28	0-360	401	H
6	64.4675	45.38	Pk	11.8	-31.6	25.58	40	-14.42	0-360	100	V
3	291.5	34.94	Pk	17.2	-30.4	21.74	46.02	-24.28	0-360	100	H
8	422.5	35.93	Pk	20.3	-29.9	26.33	46.02	-19.69	0-360	201	V
4	422.55	35.84	Pk	20.3	-29.9	26.24	46.02	-19.78	0-360	201	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

106Kbps



DATA

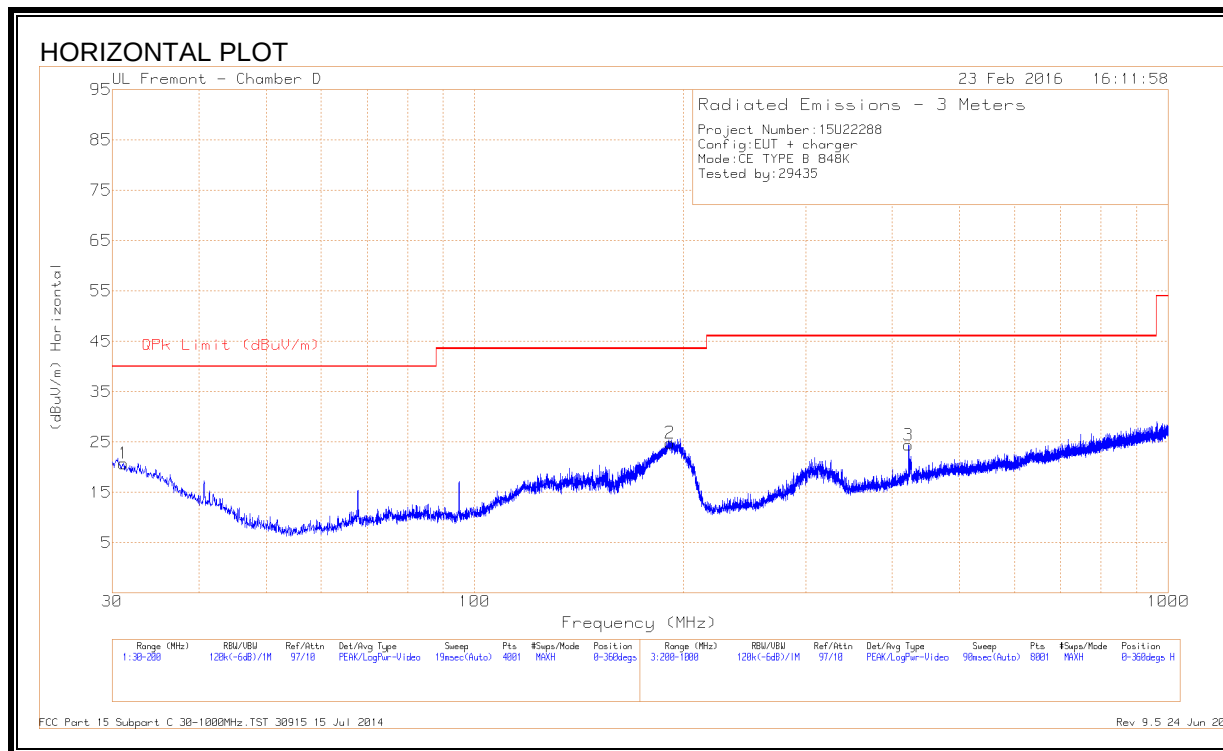
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T408 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 164.215	38.97	Pk	16	-31	23.97	43.52	-19.55	0-360	201	H
4	30.255	37.56	Pk	25.3	-31.9	30.96	40	-9.04	0-360	100	V
1	31.275	28.52	Pk	24.5	-31.9	21.12	40	-18.88	0-360	301	H
5	65.445	44.88	Pk	11.9	-31.5	25.28	40	-14.72	0-360	100	V
3	422.6	35.82	Pk	20.3	-29.9	26.22	46.02	-19.8	0-360	201	H
6	422.6	36.44	Pk	20.3	-29.9	26.84	46.02	-19.18	0-360	201	V

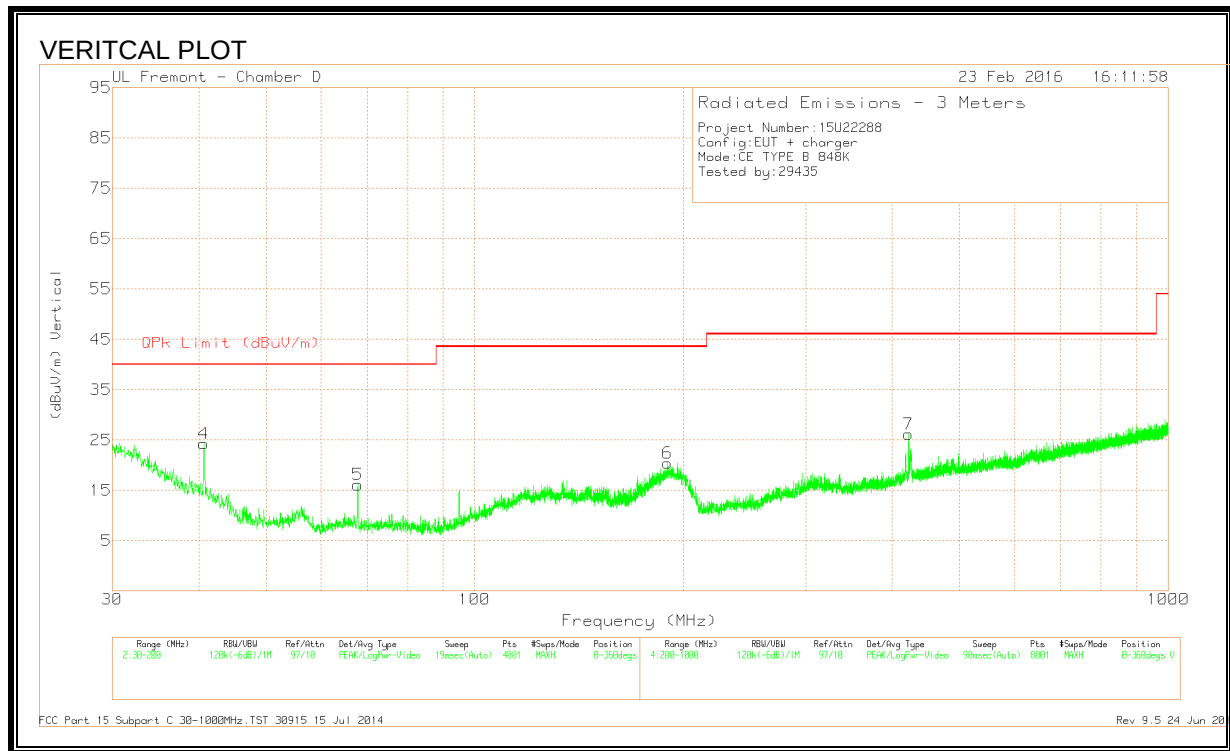
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

TYPE B

848Kbps



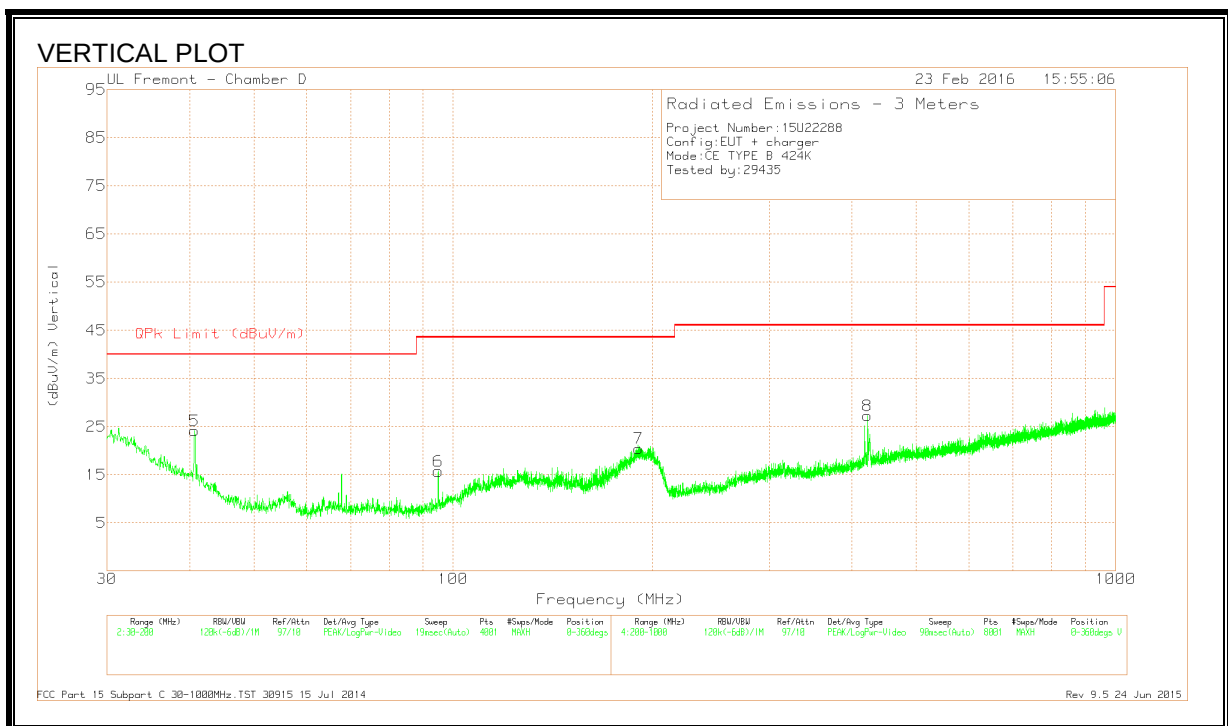
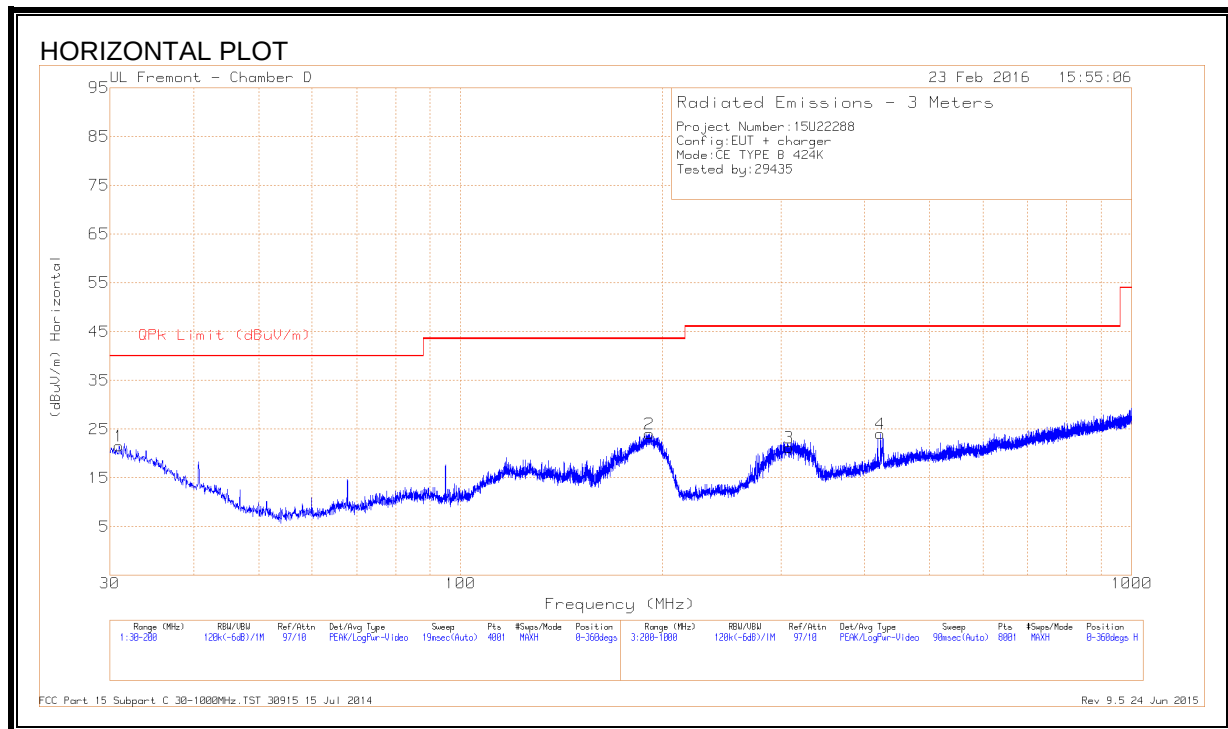


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T408 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	31.1475	28.03	Pk	24.6	-31.9	20.73	40	-19.27	0-360	301	H
4	40.6675	38.66	Pk	17.4	-31.8	24.26	40	-15.74	0-360	100	V
5	67.825	35.61	Pk	12	-31.5	16.11	40	-23.89	0-360	100	V
6	189.63	36.01	Pk	15.2	-30.8	20.41	43.52	-23.11	0-360	100	V
2	191.3725	40.31	Pk	15.3	-30.8	24.81	43.52	-18.71	0-360	100	H
3	422.2	34.08	Pk	20.2	-29.9	24.38	46.02	-21.64	0-360	301	H
7	422.3	35.83	Pk	20.2	-29.9	26.13	46.02	-19.89	0-360	301	V

Pk - Peak detector

424Kbps

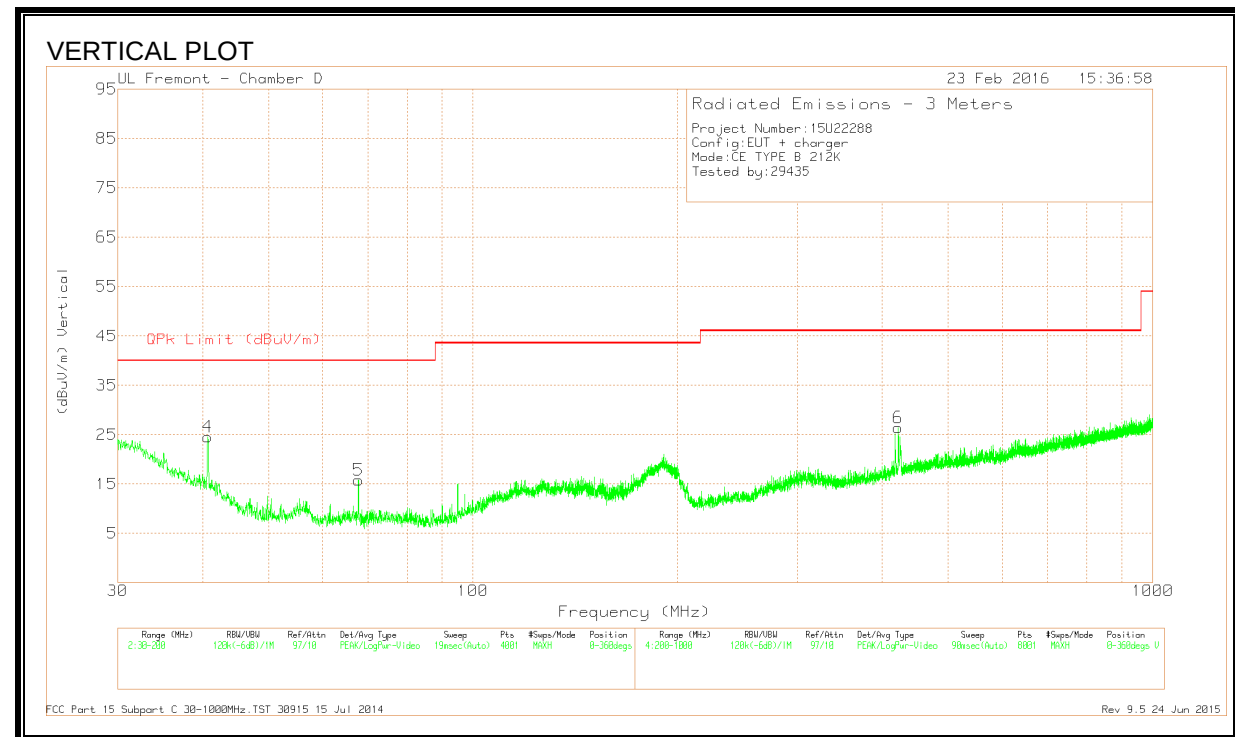
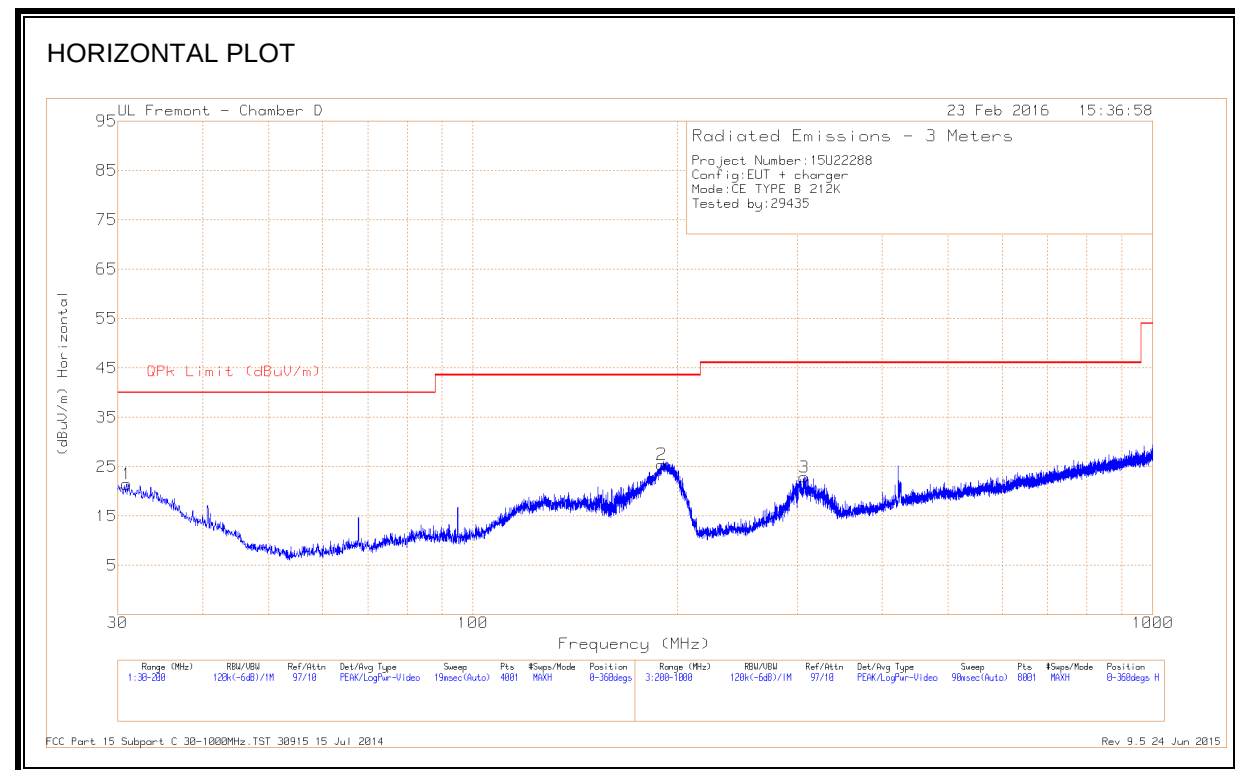


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T408 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	30.9775	28.72	Pk	24.7	-31.9	21.52	40	-18.48	0-360	301	H
5	40.6675	38.55	Pk	17.4	-31.8	24.15	40	-15.85	0-360	103	V
6	94.94	34.44	Pk	12.7	-31.4	15.74	43.52	-27.78	0-360	103	V
7	190.395	36.06	Pk	15.2	-30.8	20.46	43.52	-23.06	0-360	103	V
2	191.075	39.52	Pk	15.3	-30.8	24.02	43.52	-19.5	0-360	100	H
3	308.7	33.89	Pk	17.6	-30.3	21.19	46.02	-24.83	0-360	103	H
4	422.1	33.71	Pk	20.2	-29.9	24.01	46.02	-22.01	0-360	201	H
8	422.2	36.98	Pk	20.2	-29.9	27.28	46.02	-18.74	0-360	201	V

Pk - Peak detector

212Kbps

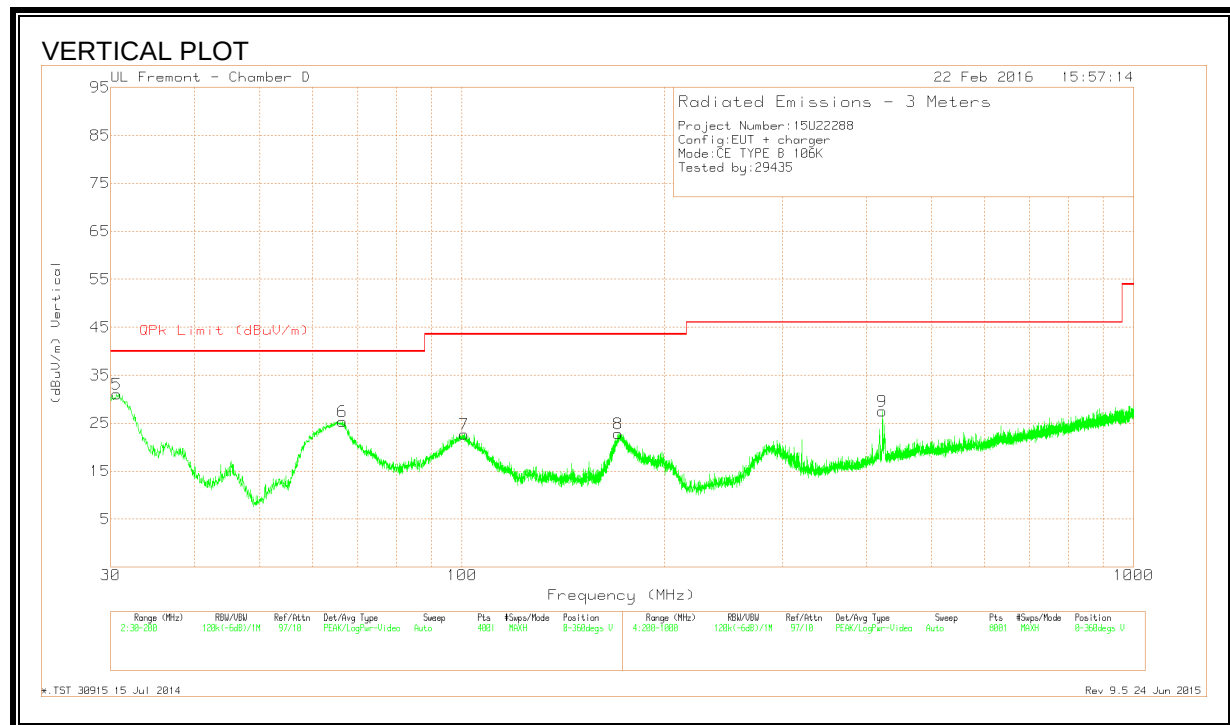
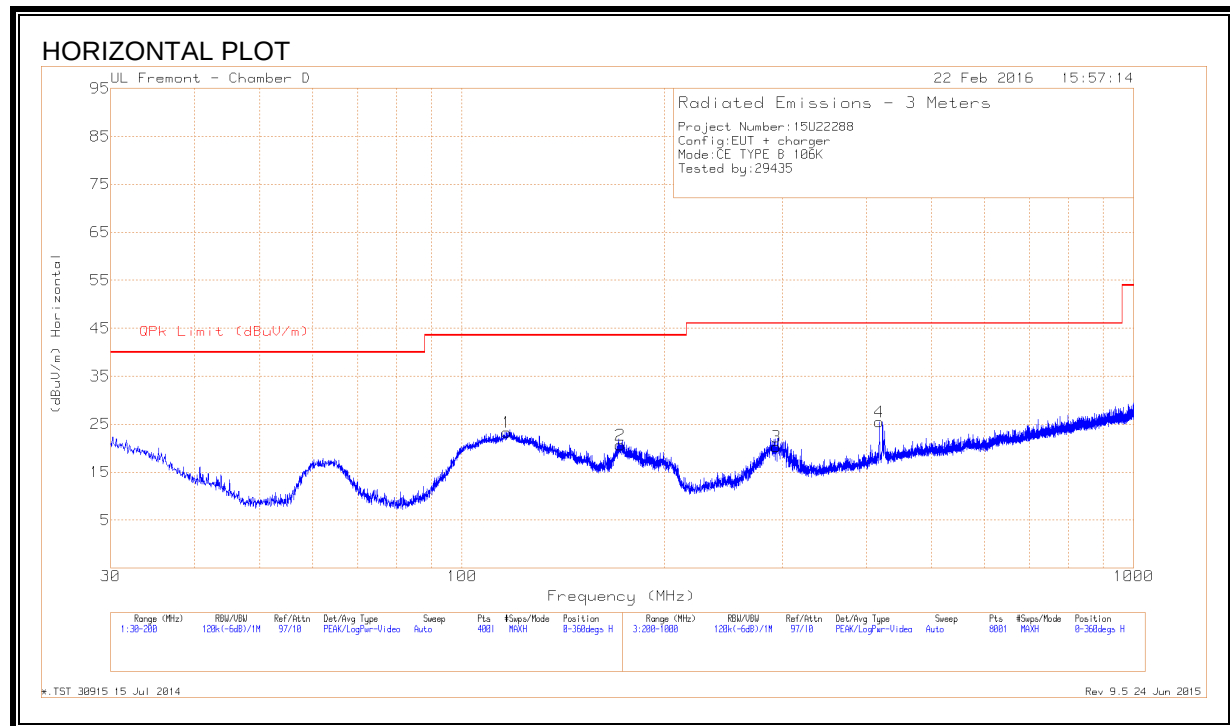


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T408 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	30.935	28.58	Pk	24.8	-31.9	21.48	40	-18.52	0-360	301	H
4	40.71	38.98	Pk	17.4	-31.8	24.58	40	-15.42	0-360	100	V
5	67.825	35.3	Pk	12	-31.5	15.8	40	-24.2	0-360	100	V
2	189.46	41.03	Pk	15.2	-30.8	25.43	43.52	-18.09	0-360	100	H
3	307	35.71	Pk	17.5	-30.3	22.91	46.02	-23.11	0-360	100	H
6	422.2	36.12	Pk	20.2	-29.9	26.42	46.02	-19.6	0-360	201	V

Pk - Peak detector

106Kbps



DATA

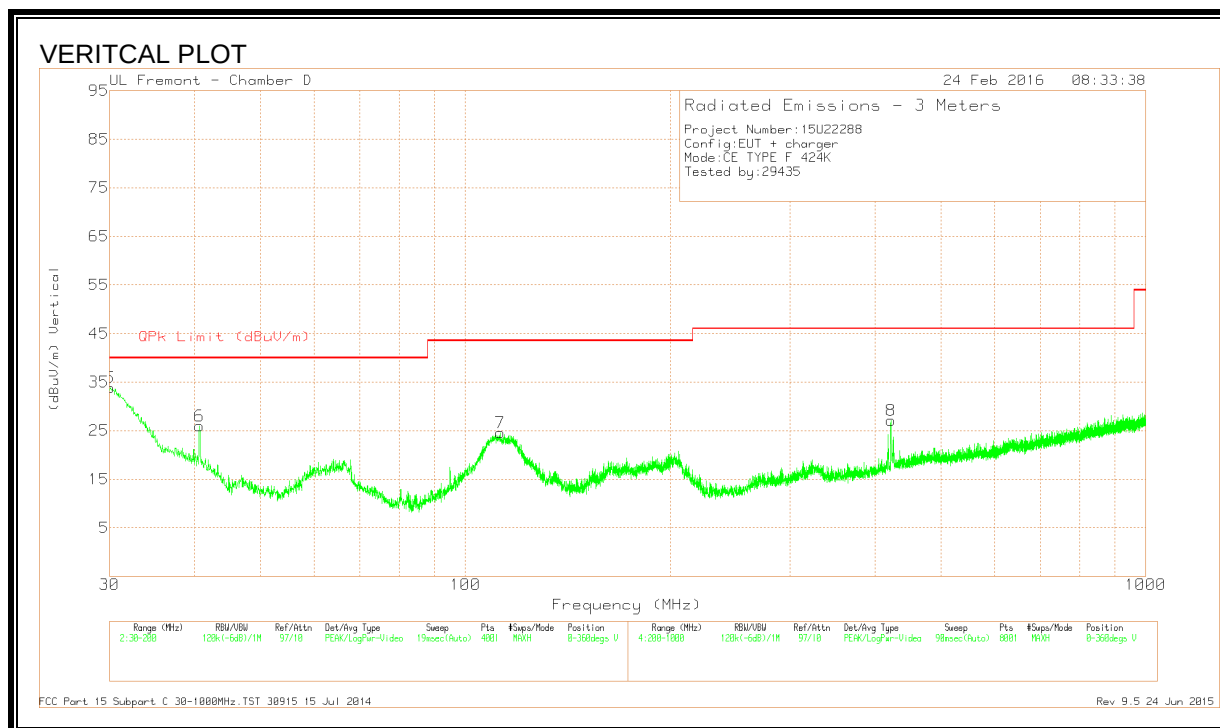
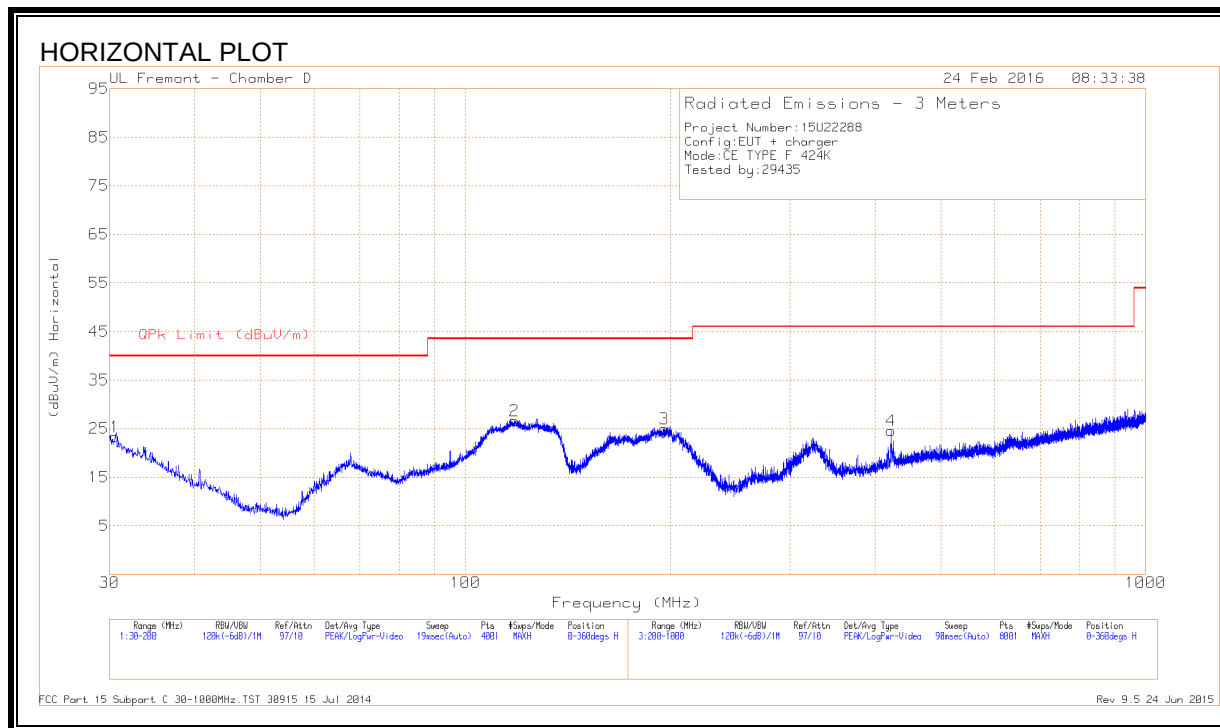
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T408 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 116.6575	37.15	Pk	17.4	-31.2	23.35	43.52	-20.17	0-360	301	H
8	* 170.93	38.11	Pk	15.6	-30.9	22.81	43.52	-20.71	0-360	100	V
2	* 172.0775	36	Pk	15.5	-30.9	20.6	43.52	-22.92	0-360	201	H
7	100.7625	39.8	Pk	14.2	-31.3	22.7	43.52	-20.82	0-360	100	V
3	293.7	33.53	Pk	17.2	-30.4	20.33	46.02	-25.69	0-360	100	H
5	30.595	37.93	Pk	25	-31.9	31.03	40	-8.97	0-360	100	V
4	417.7	35.32	Pk	20.1	-29.9	25.52	46.02	-20.5	0-360	301	H
9	422.4	37.26	Pk	20.2	-29.9	27.56	46.02	-18.46	0-360	201	V
6	66.38	44.94	Pk	11.9	-31.5	25.34	40	-14.66	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

TYPE F

424Kbps



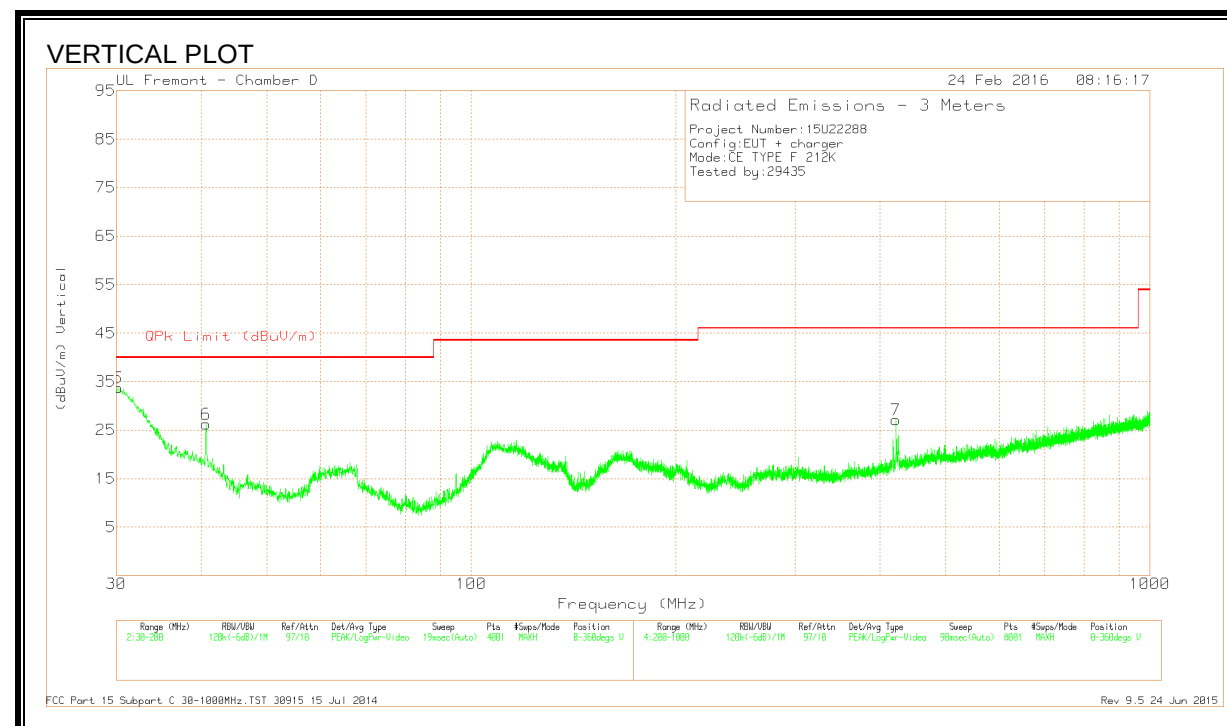
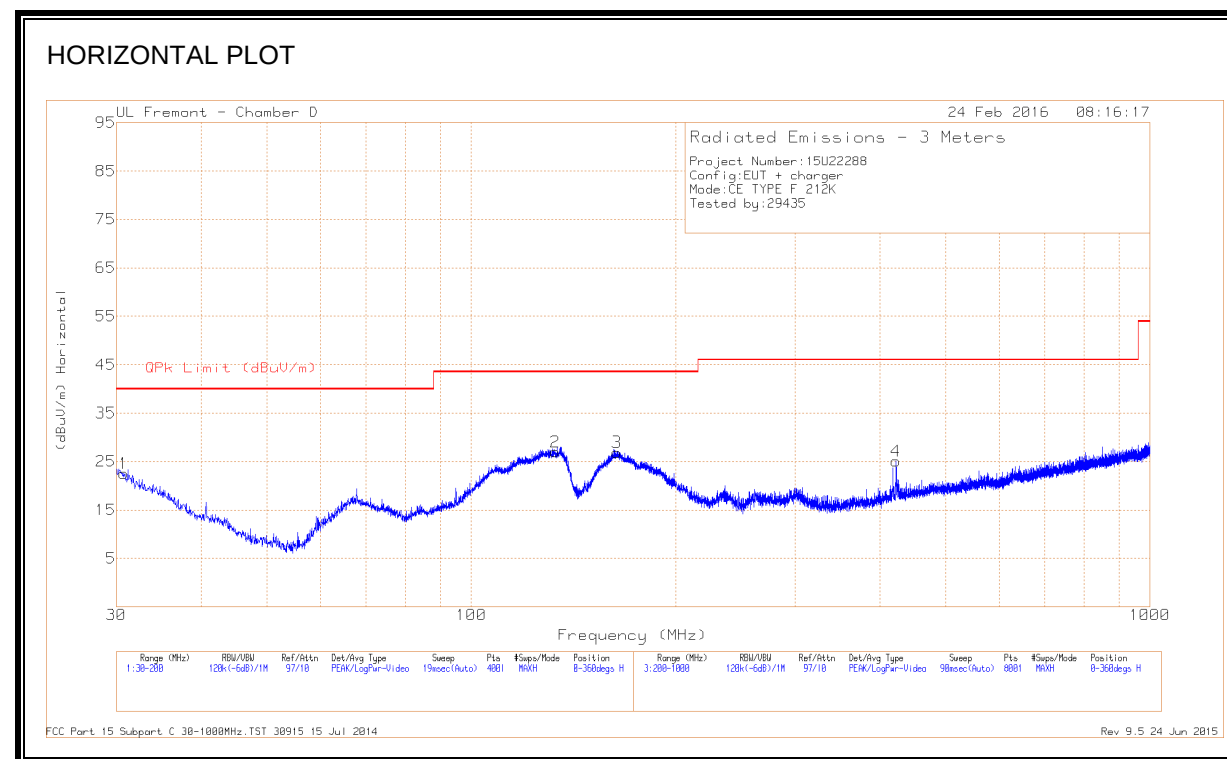
RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T408 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 118.06	40.31	Pk	17.5	-31.2	26.61	43.52	-16.91	0-360	301	H
7	* 112.45	39.07	Pk	16.8	-31.3	24.57	43.52	-18.95	0-360	100	V
5	30.085	40.36	Pk	25.4	-31.9	33.86	40	-6.14	0-360	100	V
1	30.5525	30.13	Pk	25.1	-31.9	23.33	40	-16.67	0-360	201	H
6	40.6675	40.44	Pk	17.4	-31.8	26.04	40	-13.96	0-360	100	V
3	195.92	39.94	Pk	15.8	-30.8	24.94	43.52	-18.58	0-360	100	H
8	422	36.79	Pk	20.2	-29.9	27.09	46.02	-18.93	0-360	99	V
4	422.3	34.32	Pk	20.2	-29.9	24.62	46.02	-21.4	0-360	301	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

212Kbps



DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T408 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 133.105	40.63	Pk	17.5	-31.1	27.03	43.52	-16.49	0-360	201	H
3	* 163.875	41.93	Pk	16	-31	26.93	43.52	-16.59	0-360	201	H
5	30.17	40.25	Pk	25.4	-31.9	33.75	40	-6.25	0-360	100	V
1	30.765	29.51	Pk	24.9	-31.9	22.51	40	-17.49	0-360	201	H
6	40.6675	40.59	Pk	17.4	-31.8	26.19	40	-13.81	0-360	100	V
4	422.3	34.75	Pk	20.2	-29.9	25.05	46.02	-20.97	0-360	301	H
7	422.4	36.85	Pk	20.2	-29.9	27.15	46.02	-18.87	0-360	99	V

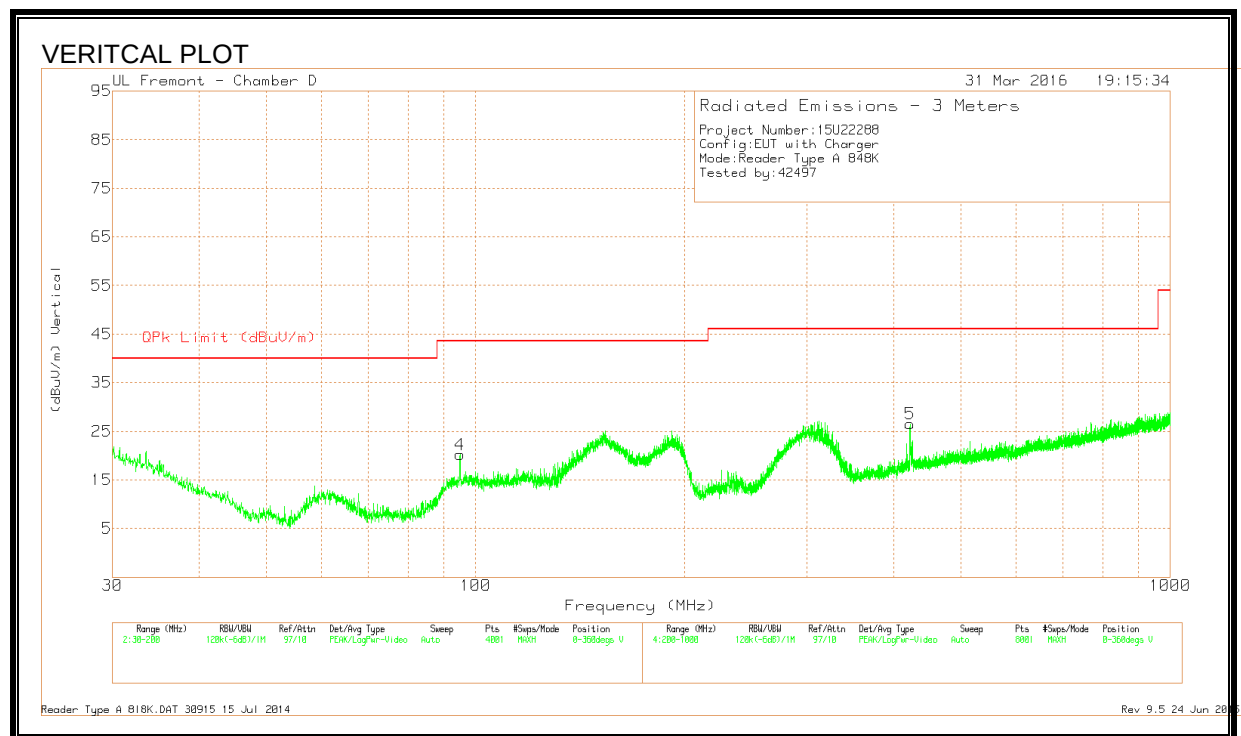
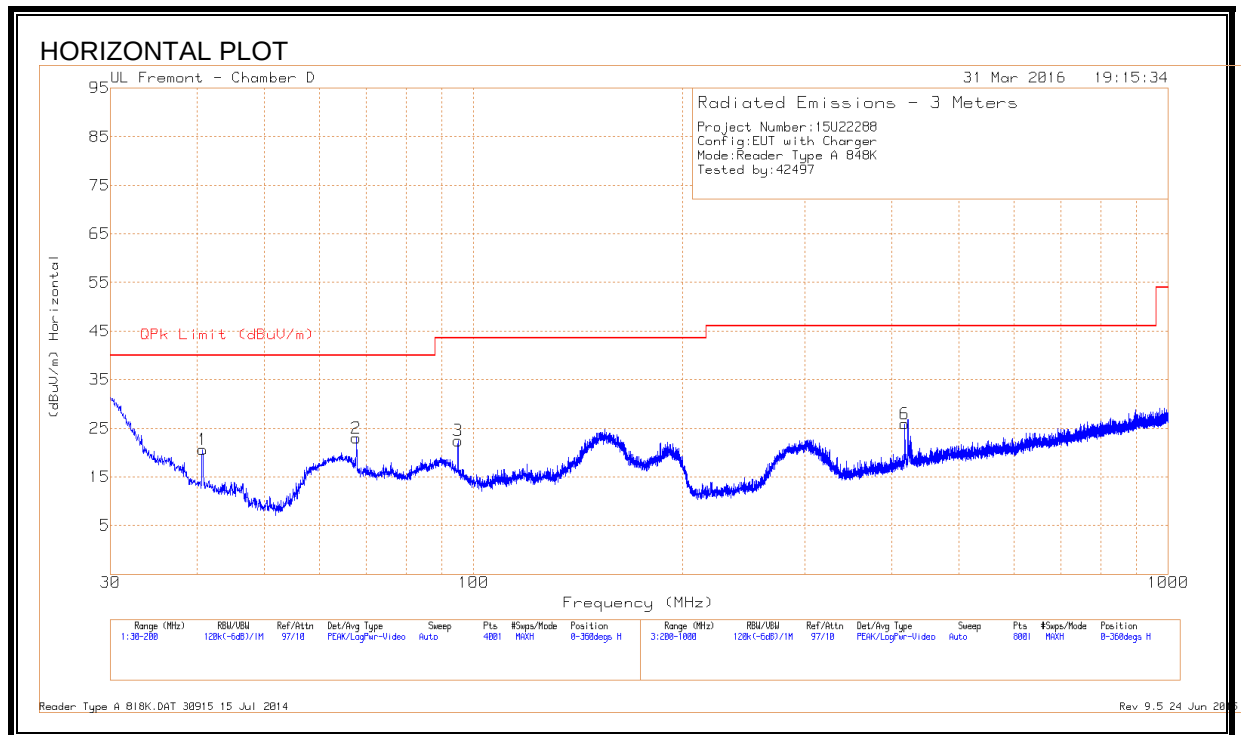
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

8.1.2. READER MODE

TYPE A

848Kbps

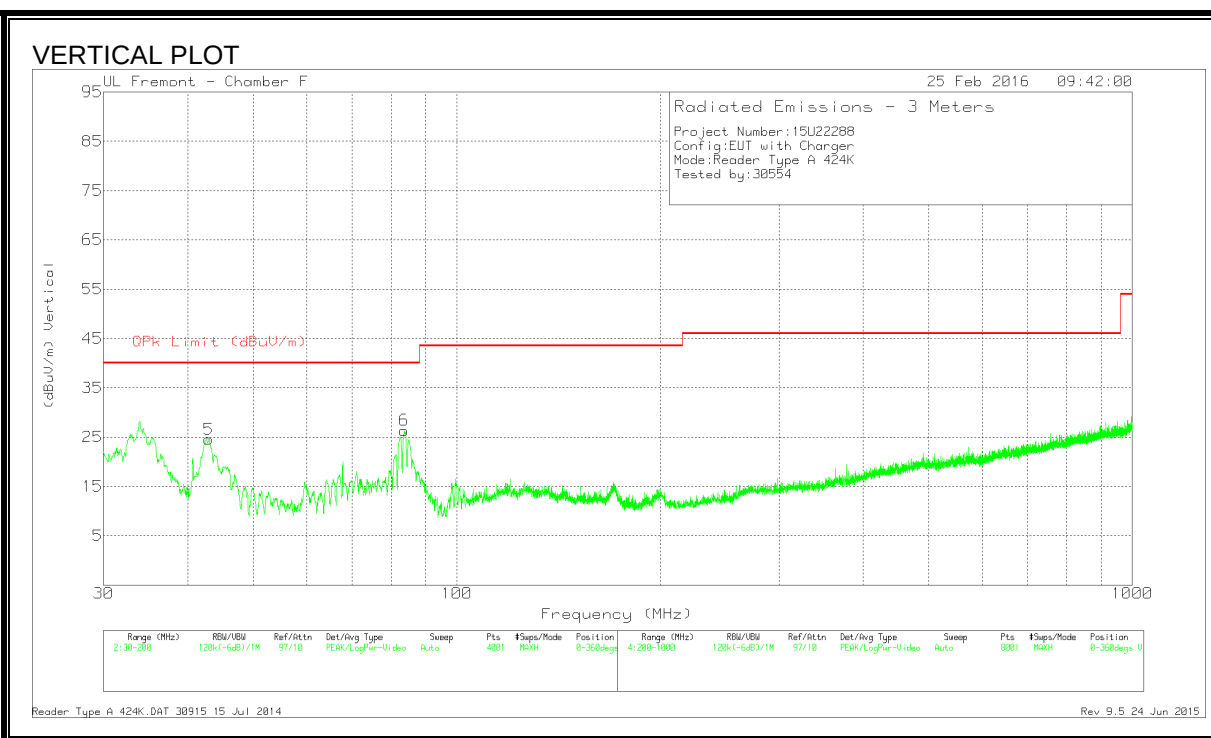
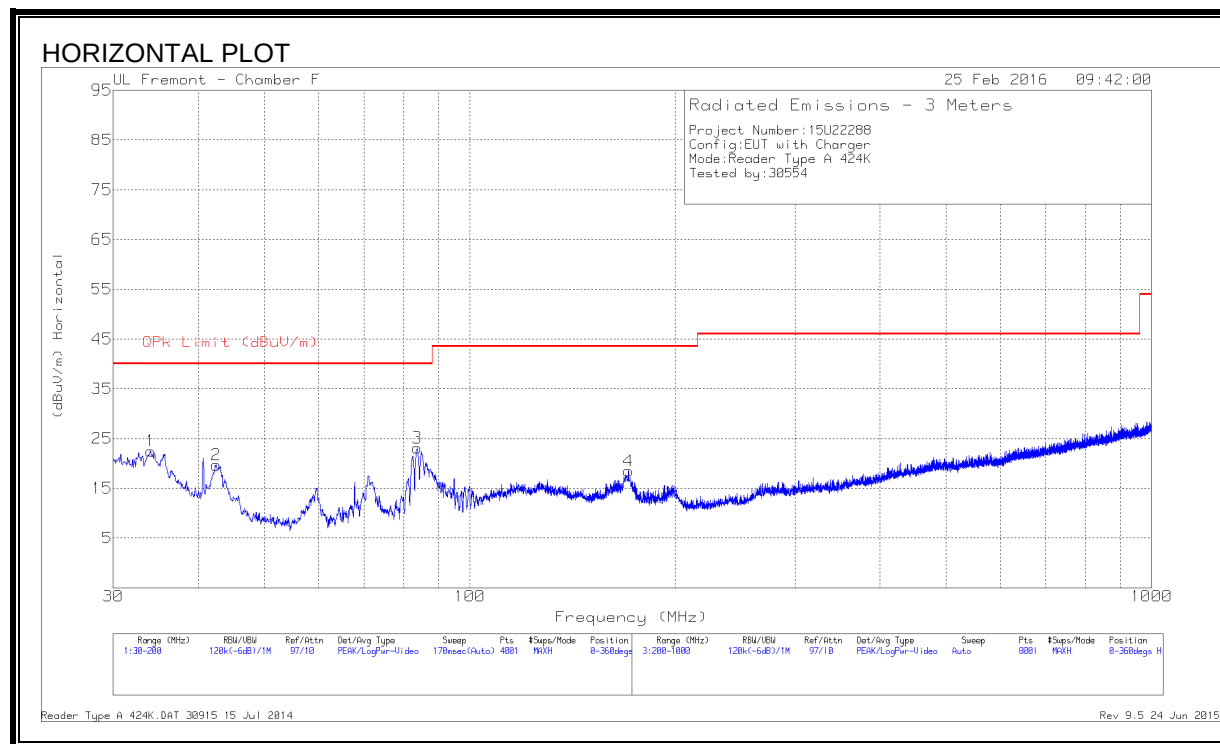


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	40.71	35.2	Pk	17.2	-31.8	20.6	40	-19.4	0-360	100	H
2	67.7825	42.7	Pk	11.9	-31.6	23	40	-17	0-360	100	H
3	94.94	41.14	Pk	12.7	-31.4	22.44	43.52	-21.08	0-360	100	H
4	94.94	38.94	Pk	12.7	-31.4	20.24	43.52	-23.28	0-360	100	V
6	417.3	35.63	Pk	20.2	-29.9	25.93	46.02	-20.09	0-360	301	H
5	421.9	36.02	Pk	20.3	-29.8	26.52	46.02	-19.5	0-360	301	V

Pk - Peak detector

424Kbps



DATA

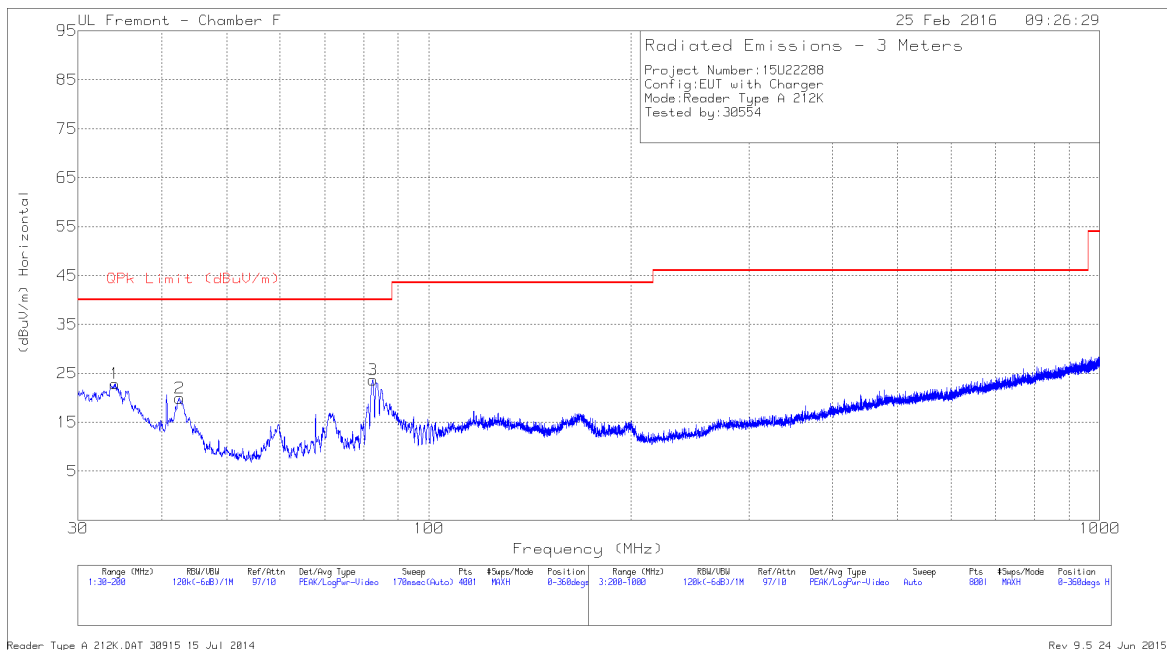
Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBUV/m)	QPk Limit (dBUV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	34.0375	32.12	Pk	22.2	-31.8	22.52	40	-17.48	0-360	301	H
2	42.495	35.58	Pk	15.9	-31.8	19.68	40	-20.32	0-360	301	H
3	83.7625	43.42	Pk	11.2	-31.5	23.12	40	-16.88	0-360	201	H
4	* 170.9725	33.95	Pk	15.5	-31	18.45	43.52	-25.07	0-360	201	H
5	42.9625	40.67	Pk	15.6	-31.7	24.57	40	-15.43	0-360	100	V
6	83.6563	46.68	Pk	11.2	-31.5	26.38	40	-13.62	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

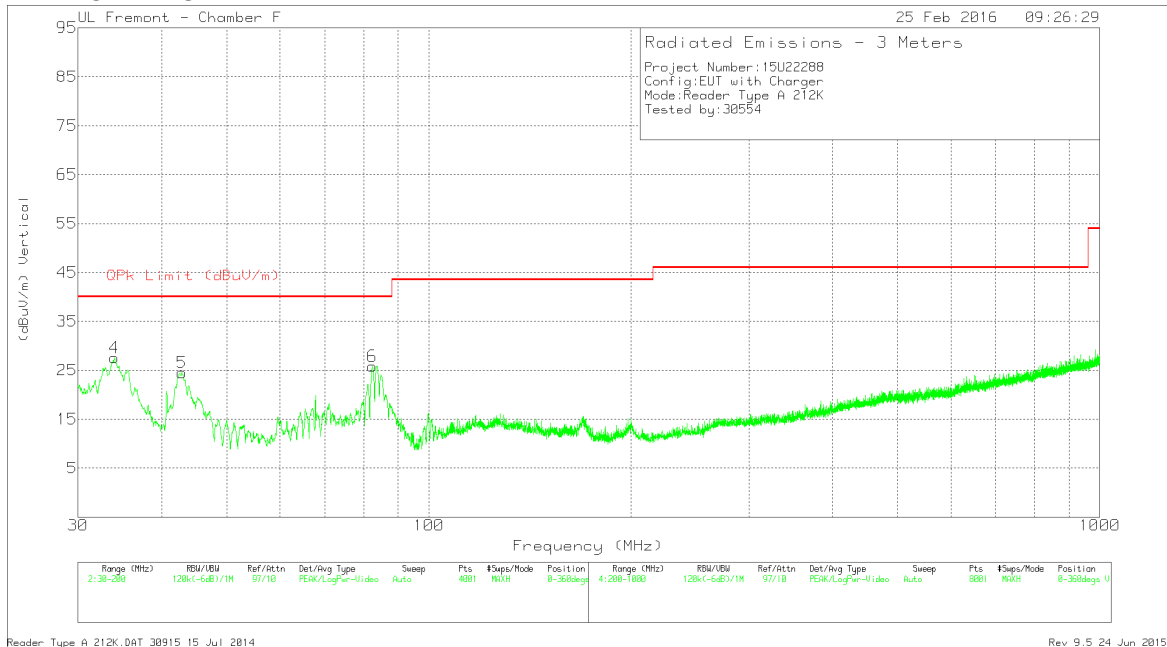
Pk - Peak detector

212Kbps

HORIZONTAL PLOT



VERTICAL PLOT



DATA

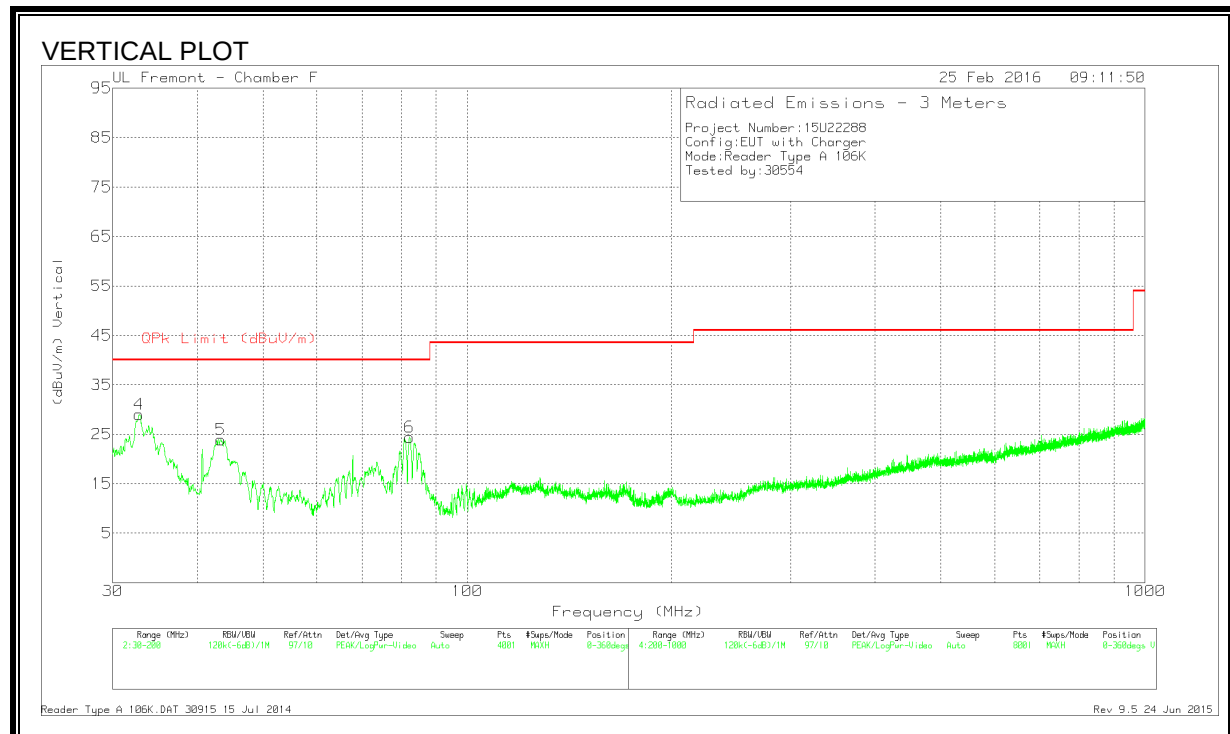
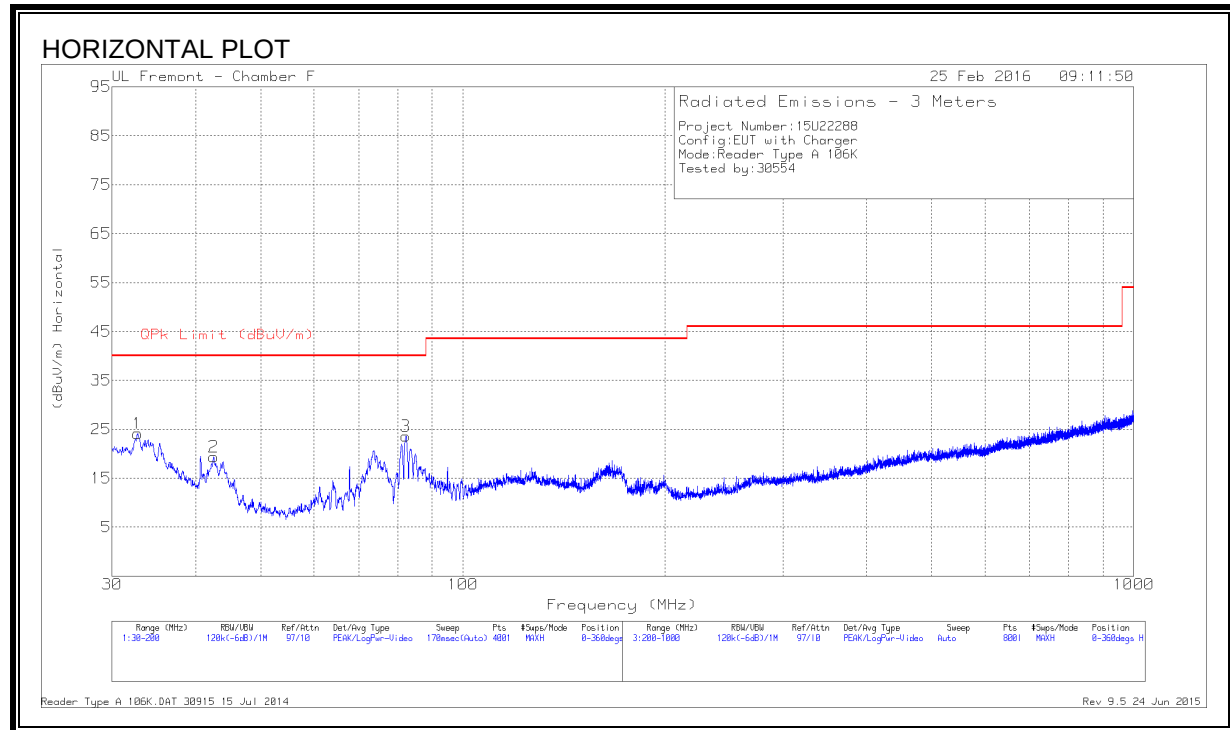
Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	34.08	32.59	Pk	22.1	-31.8	22.89	40	-17.11	0-360	201	H
2	42.5375	35.83	Pk	15.9	-31.8	19.93	40	-20.07	0-360	301	H
3	82.5088	43.87	Pk	11.3	-31.5	23.67	40	-16.33	0-360	201	H
4	33.995	37.19	Pk	22.2	-31.8	27.59	40	-12.41	0-360	100	V
5	42.835	40.53	Pk	15.7	-31.7	24.53	40	-15.47	0-360	100	V
6	82.36	45.94	Pk	11.3	-31.4	25.84	40	-14.16	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

106Kbps



DATA

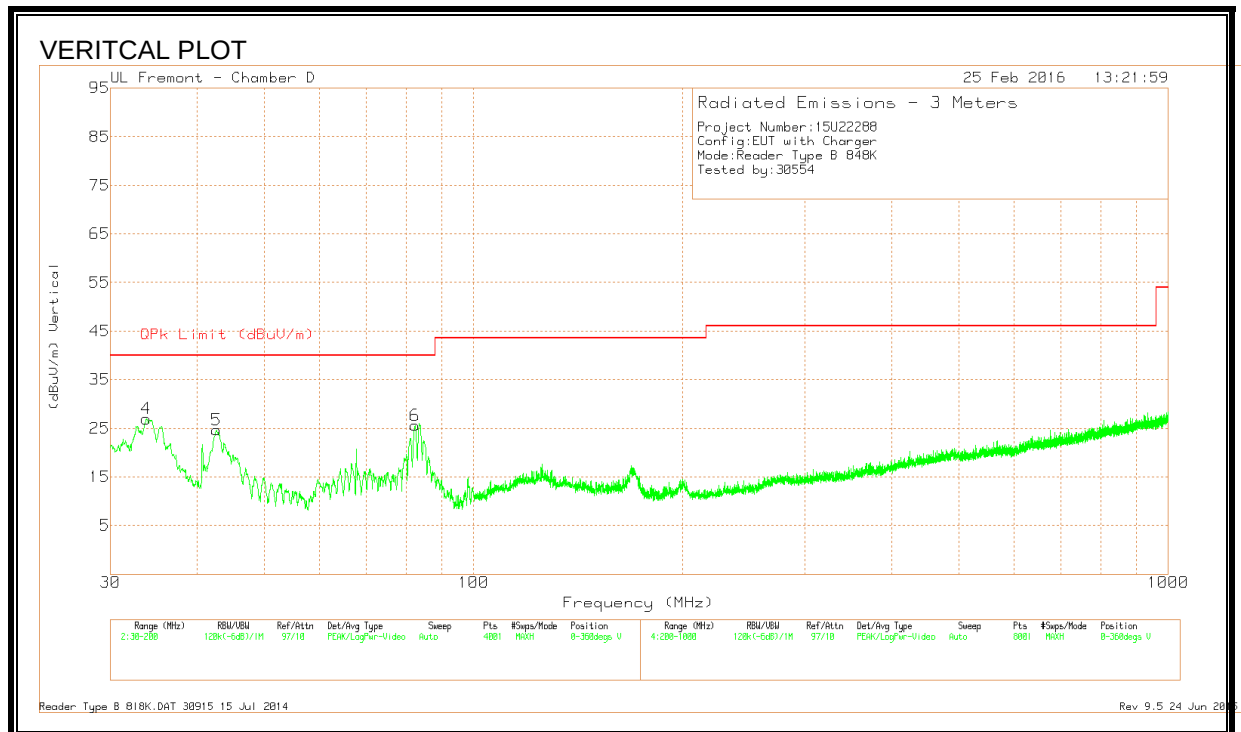
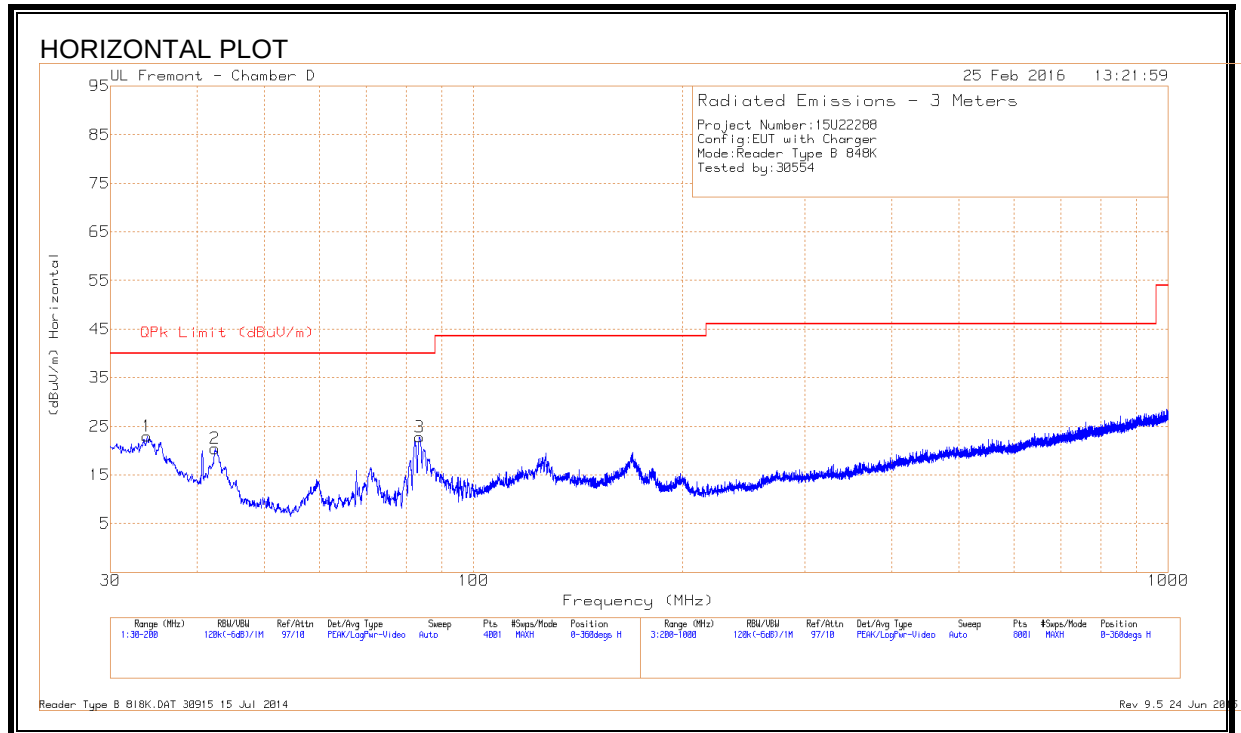
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	32.7625	32.85	Pk	23.1	-31.8	24.15	40	-15.85	0-360	201	H
2	42.5375	35.28	Pk	15.9	-31.8	19.38	40	-20.62	0-360	301	H
3	82.275	43.7	Pk	11.3	-31.4	23.6	40	-16.4	0-360	201	H
4	32.805	37.8	Pk	23	-31.8	29	40	-11	0-360	100	V
5	43.2813	40.21	Pk	15.4	-31.7	23.91	40	-16.09	0-360	100	V
6	82.2325	44.5	Pk	11.3	-31.4	24.4	40	-15.6	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

TYPE B

848Kbps

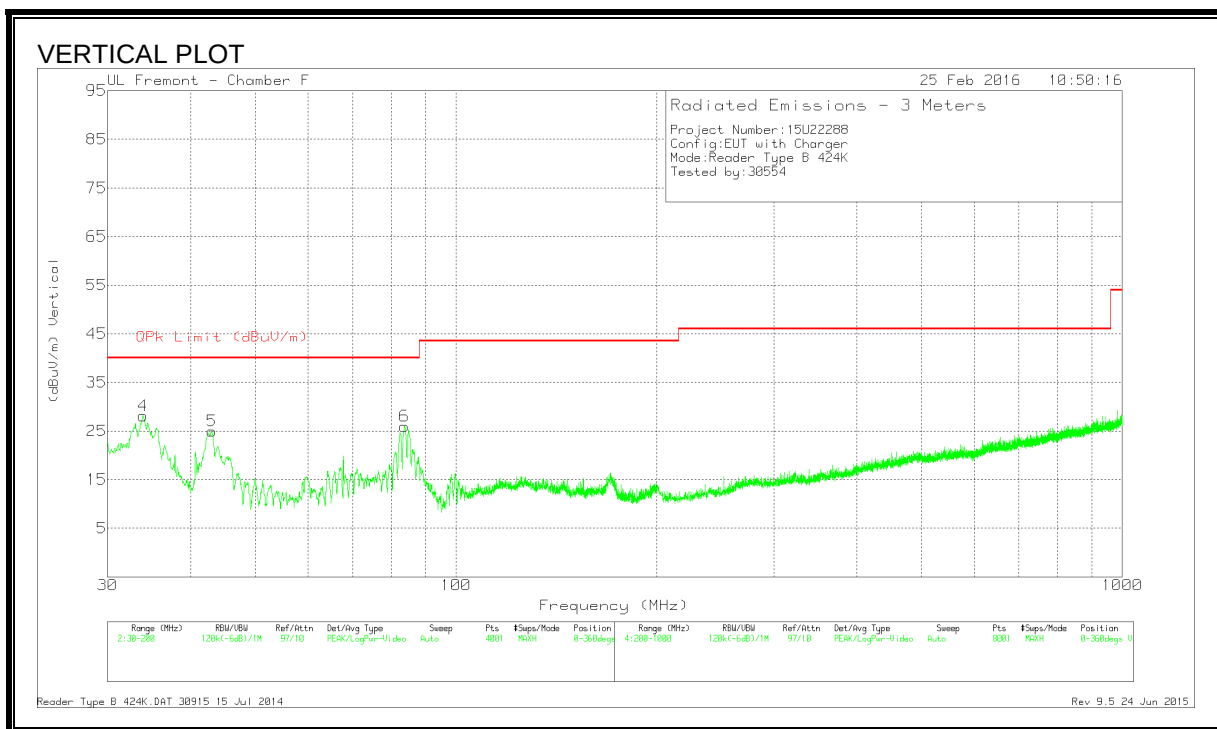
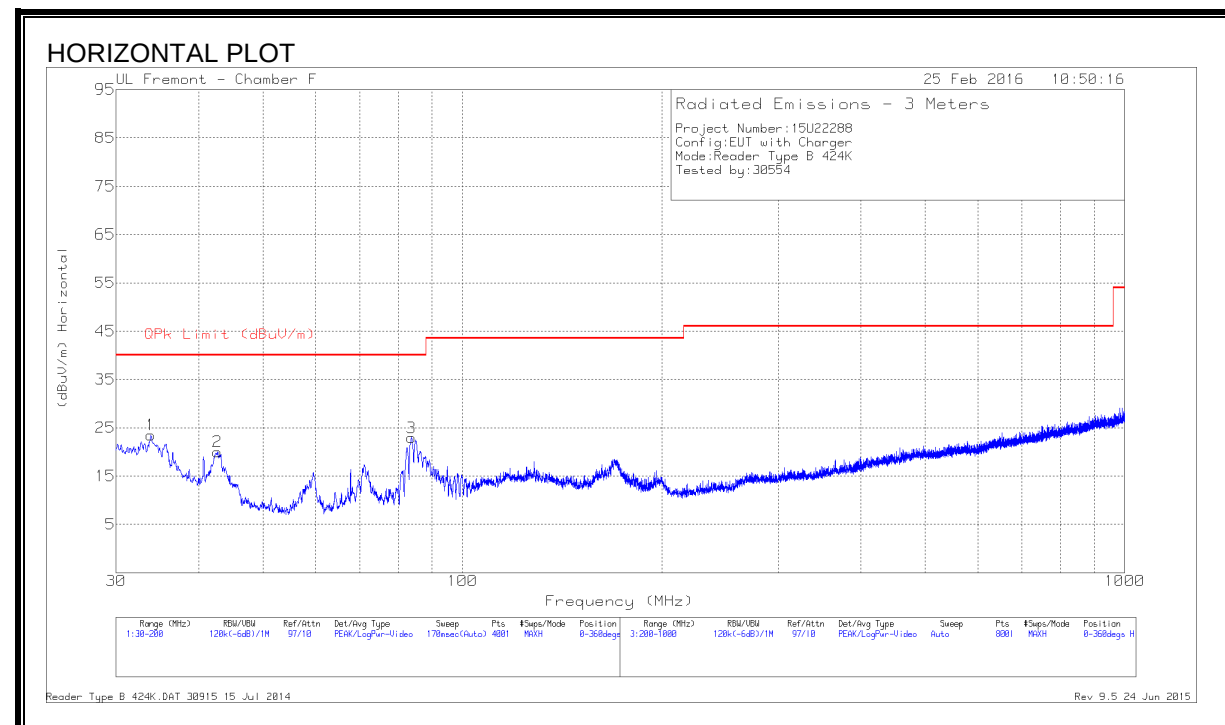


RESULTS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	33.8675	32.48	Pk	22.3	-31.8	22.98	40	-17.02	0-360	301	H
2	42.41	36.23	Pk	16	-31.8	20.43	40	-19.57	0-360	301	H
3	83.55	43.08	Pk	11.2	-31.5	22.78	40	-17.22	0-360	201	H
4	33.7825	36.35	Pk	22.4	-31.8	26.95	40	-13.05	0-360	100	V
5	42.665	40.64	Pk	15.8	-31.8	24.64	40	-15.36	0-360	100	V
6	82.36	45.67	Pk	11.3	-31.4	25.57	40	-14.43	0-360	100	V

Pk - Peak detector

424Kbps

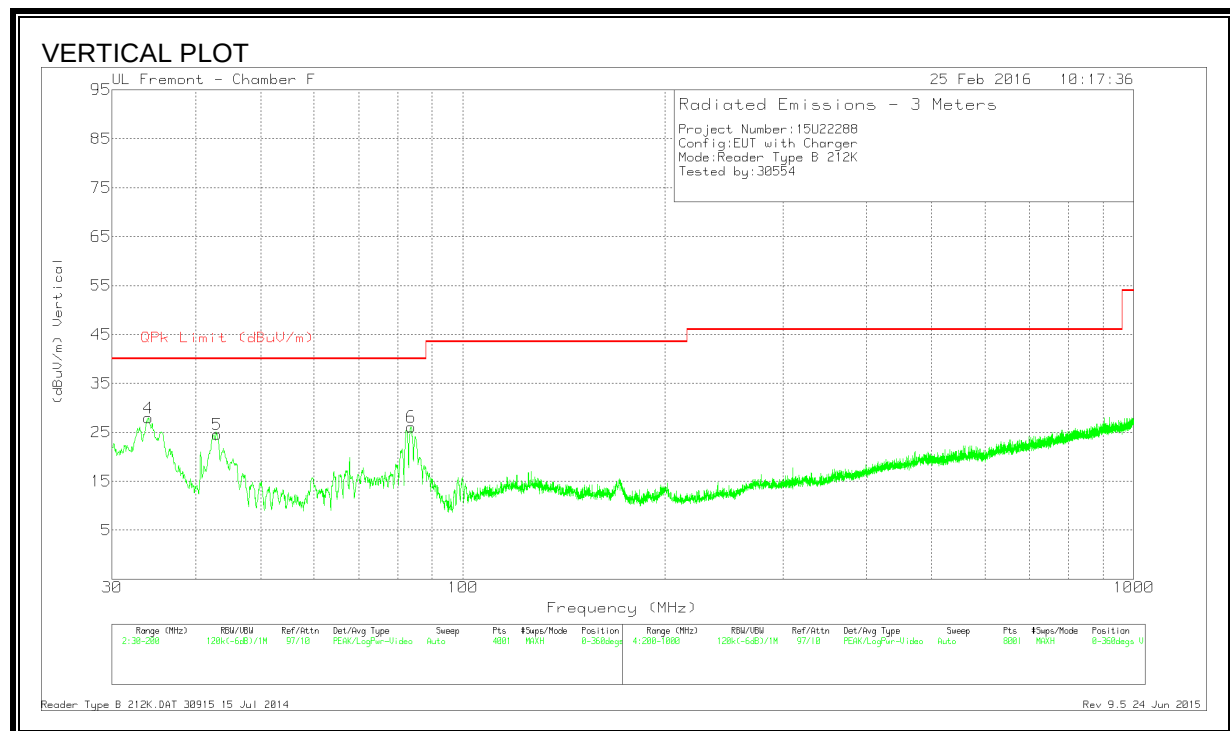
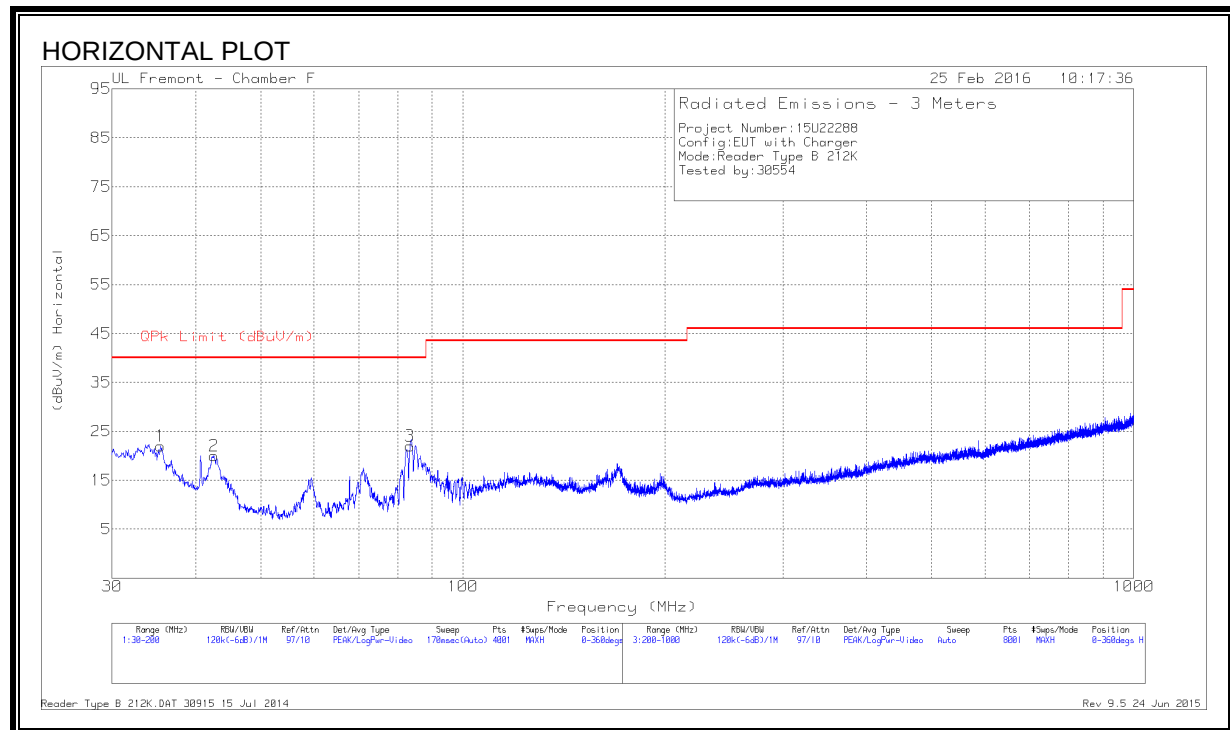


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	33.8675	33.01	Pk	22.3	-31.8	23.51	40	-16.49	0-360	201	H
2	42.7075	35.93	Pk	15.8	-31.7	20.03	40	-19.97	0-360	201	H
3	83.8475	43.24	Pk	11.2	-31.5	22.94	40	-17.06	0-360	301	H
4	33.91	37.65	Pk	22.3	-31.8	28.15	40	-11.85	0-360	100	V
5	43.005	41.11	Pk	15.6	-31.7	25.01	40	-14.99	0-360	100	V
6	83.6988	46.3	Pk	11.2	-31.5	26	40	-14	0-360	100	V

Pk - Peak detector

212Kbps

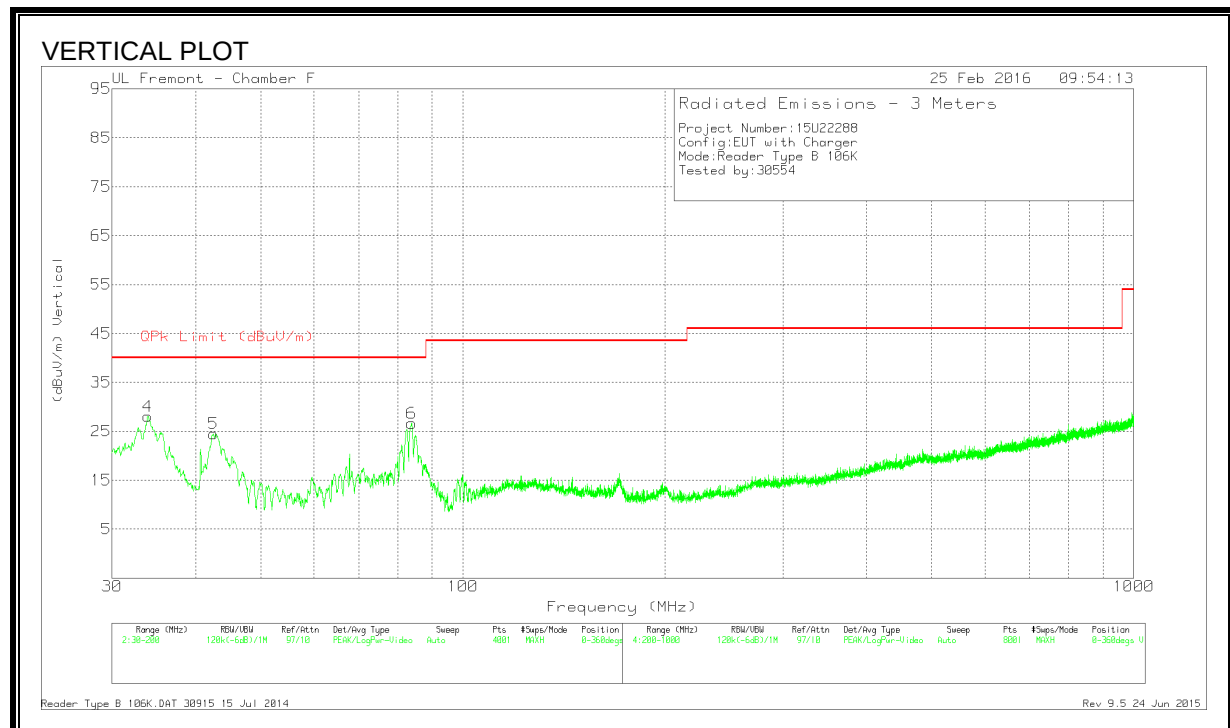
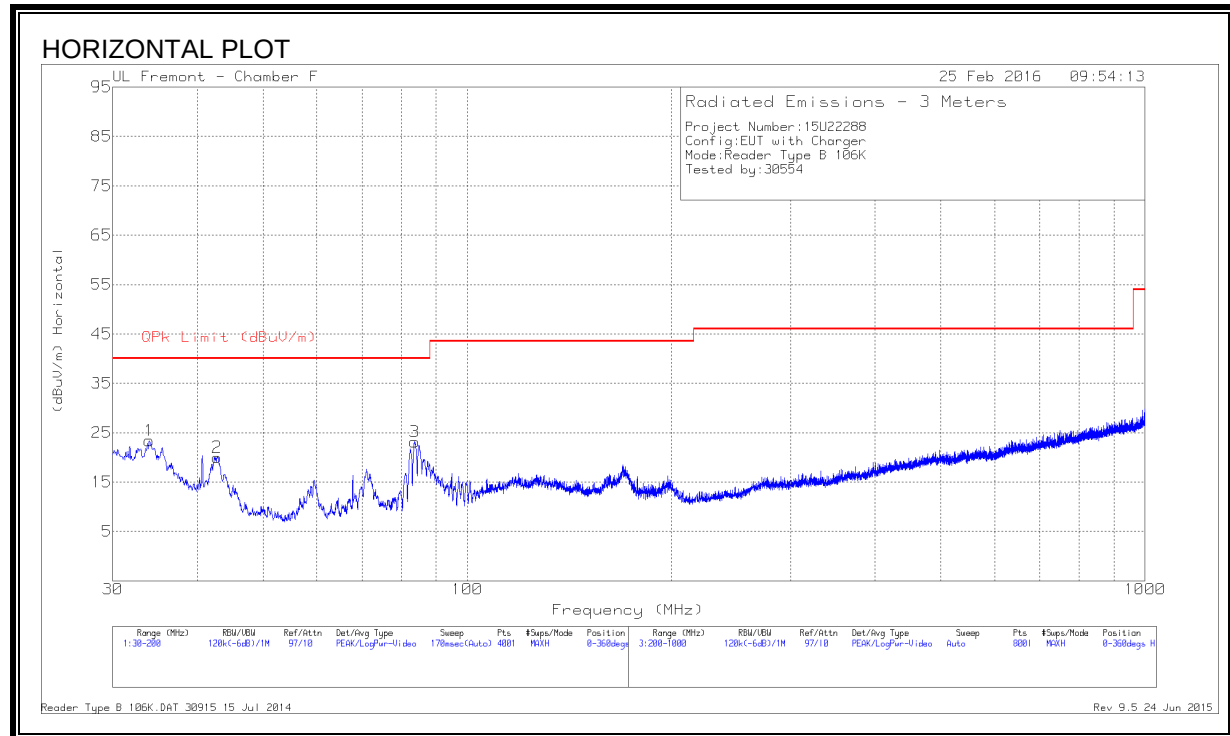


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	35.4188	32.69	Pk	21.1	-31.8	21.99	40	-18.01	0-360	301	H
2	42.58	35.9	Pk	15.9	-31.8	20	40	-20	0-360	301	H
3	83.465	42.19	Pk	11.3	-31.5	21.99	40	-18.01	0-360	301	H
4	33.995	37.51	Pk	22.2	-31.8	27.91	40	-12.09	0-360	100	V
5	43.005	40.65	Pk	15.6	-31.7	24.55	40	-15.45	0-360	100	V
6	83.7838	46.38	Pk	11.2	-31.5	26.08	40	-13.92	0-360	100	V

Pk - Peak detector

106Kbps



DATA

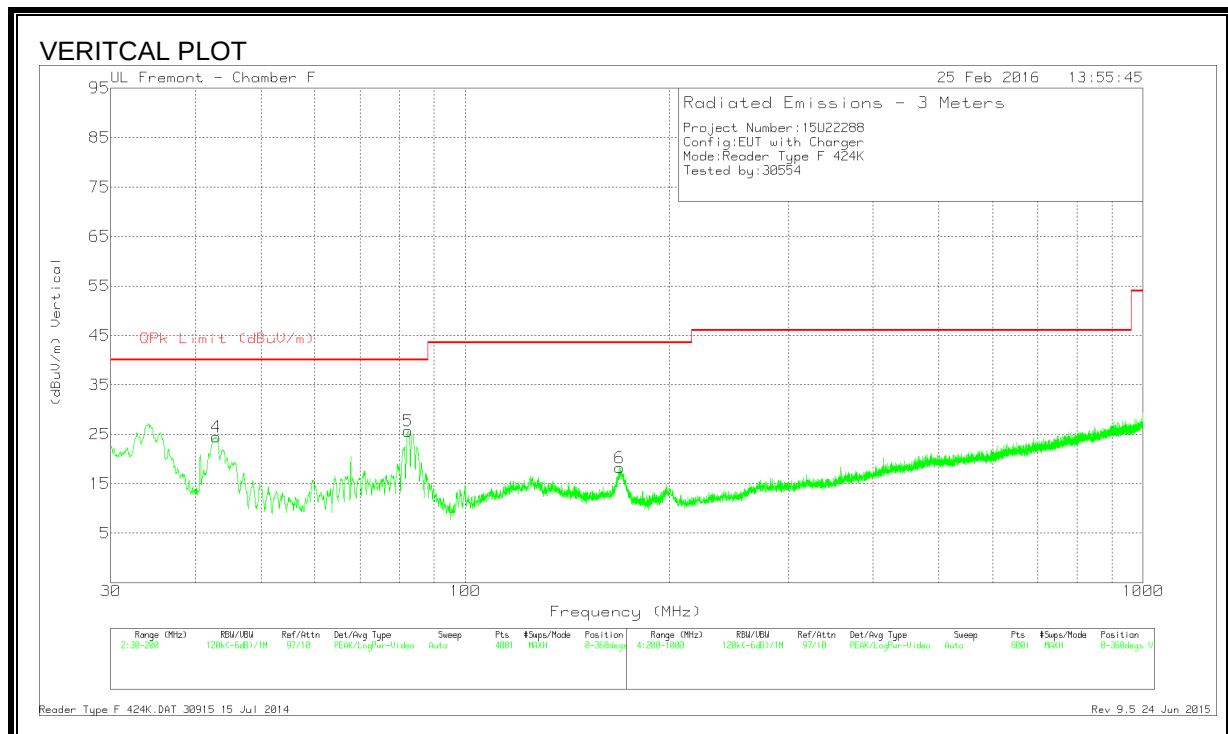
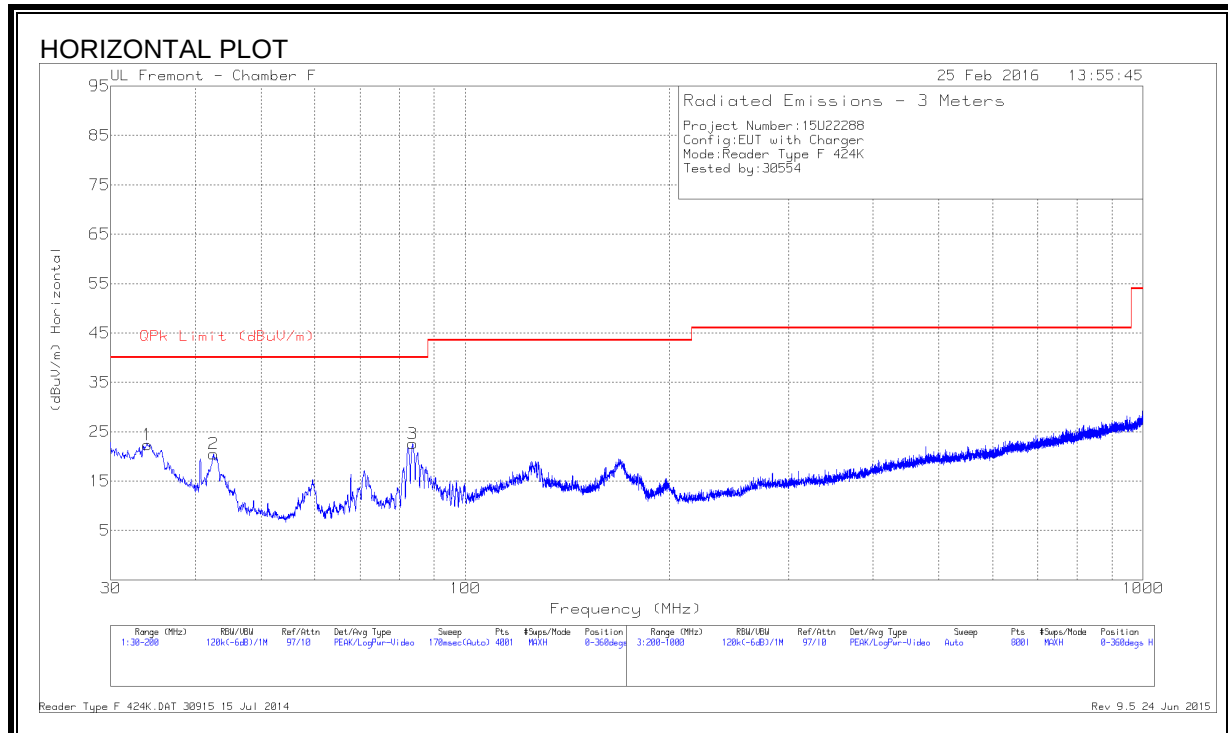
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	33.9525	33	Pk	22.2	-31.8	23.4	40	-16.6	0-360	301	H
2	42.75	35.89	Pk	15.8	-31.7	19.99	40	-20.01	0-360	301	H
3	83.6775	43.46	Pk	11.2	-31.5	23.16	40	-16.84	0-360	201	H
4	33.9313	37.66	Pk	22.2	-31.8	28.06	40	-11.94	0-360	100	V
5	42.495	40.42	Pk	15.9	-31.8	24.52	40	-15.48	0-360	100	V
6	83.89	46.95	Pk	11.2	-31.5	26.65	40	-13.35	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

TYPE F

424Kbps



RESULTS

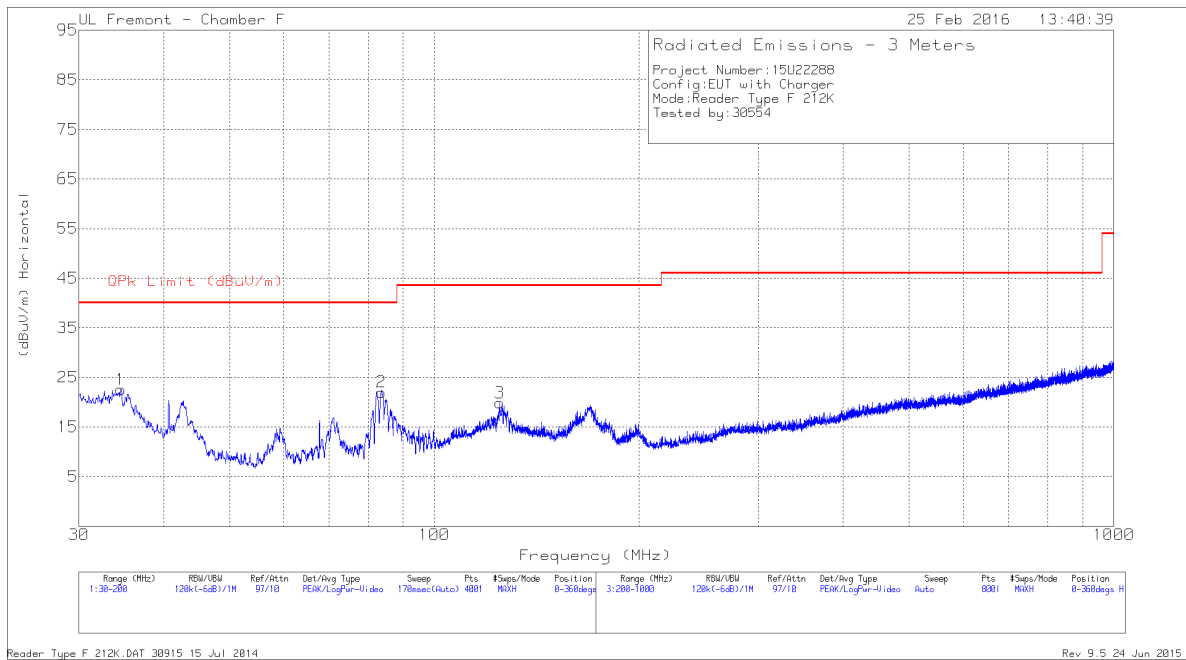
Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBUV/m)	QPk Limit (dBUV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	33.995	31.96	Pk	22.2	-31.8	22.36	40	-17.64	0-360	301	H
2	42.5375	36.43	Pk	15.9	-31.8	20.53	40	-19.47	0-360	301	H
3	83.6775	42.87	Pk	11.2	-31.5	22.57	40	-17.43	0-360	201	H
4	42.9413	40.56	Pk	15.6	-31.7	24.46	40	-15.54	0-360	100	V
5	82.36	45.76	Pk	11.3	-31.4	25.66	40	-14.34	0-360	100	V
6	* 169.1025	33.53	Pk	15.7	-31	18.23	43.52	-25.29	0-360	100	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

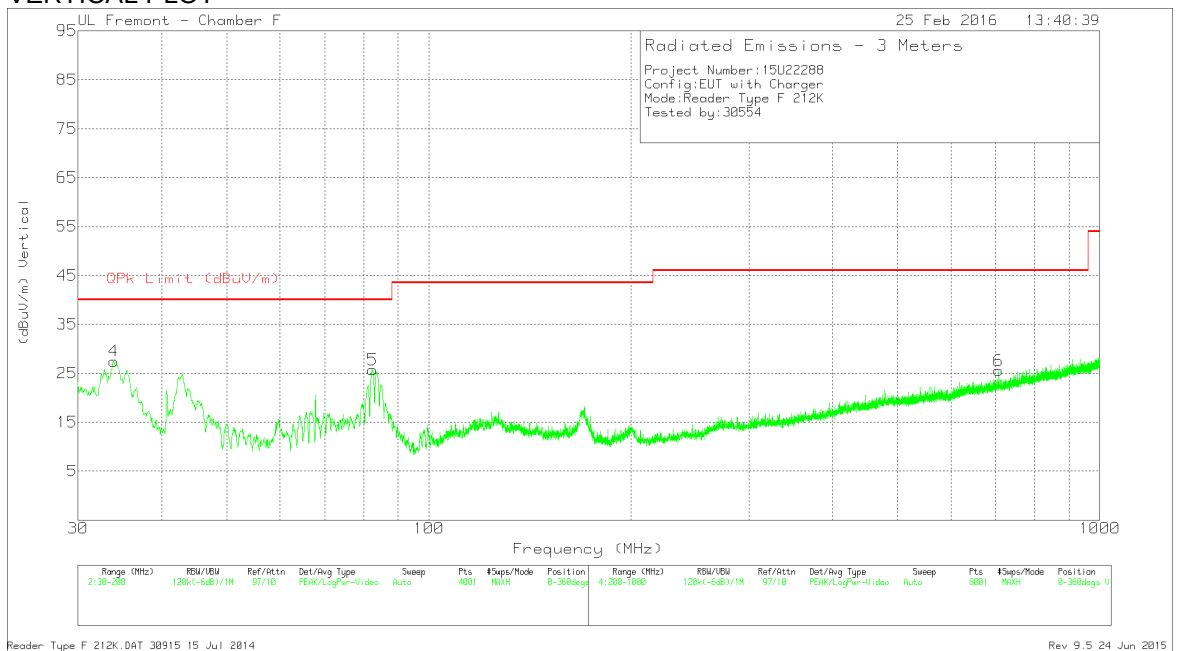
Pk - Peak detector

212Kbps

HORIZONTAL PLOT



VERTICAL PLOT



DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	34.59	32.68	Pk	21.7	-31.8	22.58	40	-17.42	0-360	201	H
2	83.55	42.33	Pk	11.2	-31.5	22.03	40	-17.97	0-360	201	H
3	* 124.775	32.99	Pk	18	-31.1	19.89	43.52	-23.63	0-360	201	H
4	33.91	36.99	Pk	22.3	-31.8	27.49	40	-12.51	0-360	100	V
5	82.4875	45.82	Pk	11.3	-31.4	25.72	40	-14.28	0-360	100	V
6	707.1	30.56	Pk	24.2	-29.2	25.56	46.02	-20.46	0-360	99	V

* - indicates frequency in CFR15

8.2. FREQUENCY STABILITY

LIMIT

§15.225 (e) The frequency tolerance of the carrier signal shall be maintained within $\pm 0.01\%$ of the operating frequency, over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

TEST PROCEDURE

ANSI C63.10:2013 Clause 2.3.1 and 2.3.2

RESULTS

No non-compliance noted.

8.2.1. CE Mode

TYPE A 106Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603398	-0.126	13.5603396	-0.116	13.5603395	-0.108	13.5603393	-0.094	± 100
3.80	40	13.5603405	-0.183	13.5603406	-0.190	13.5603407	-0.193	13.5603407	-0.193	± 100
3.80	30	13.5603393	-0.091	13.5603393	-0.093	13.5603394	-0.098	13.5603395	-0.107	± 100
3.80	20	13.560338	0.000	13.5603381	-0.003	13.5603381	-0.004	13.5603381	-0.007	± 100
3.80	10	13.560338	0.003	13.560338	0.003	13.560338	0.003	13.5603386	-0.038	± 100
3.80	0	13.5603377	0.028	13.5603377	0.024	13.5603377	0.023	13.5603377	0.025	± 100
3.80	-10	13.5603367	0.099	13.5603367	0.097	13.5603368	0.094	13.5603368	0.093	± 100
3.80	-20	13.5603357	0.172	13.5603358	0.166	13.5603357	0.169	13.5603358	0.168	± 100
3.23	20	13.5603382	-0.013	13.5603382	-0.013	13.5603382	-0.015	13.5603382	-0.014	± 100
4.37	20	13.5603382	-0.009	13.5603381	-0.008	13.5603382	-0.009	13.5603382	-0.013	± 100

TYPE A 212Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603397	-0.111	13.5603394	-0.088	13.5603392	-0.073	13.5603389	-0.056	± 100
3.80	40	13.5603402	-0.146	13.5603403	-0.156	13.5603403	-0.157	13.5603403	-0.154	± 100
3.80	30	13.5603393	-0.084	13.5603393	-0.083	13.5603393	-0.083	13.5603393	-0.082	± 100
3.80	20	13.5603382	0.000	13.5603381	0.004	13.5603381	0.004	13.5603381	0.003	± 100
3.80	10	13.5603371	0.078	13.5603373	0.066	13.5603373	0.062	13.5603374	0.058	± 100
3.80	0	13.5603366	0.119	13.5603364	0.132	13.5603364	0.131	13.5603364	0.131	± 100
3.80	-10	13.5603350	0.235	13.5603350	0.235	13.5603360	0.161	13.5633600	-222.848	± 100
3.80	-20	13.5603350	0.235	13.5603355	0.198	13.5603370	0.087	13.5603370	0.087	± 100
3.23	20	13.5603381	0.005	13.5603383	-0.006	13.5603340	0.305	13.5603383	-0.010	± 100
4.37	20	13.5603382	-0.002	13.5603382	-0.002	13.5603383	-0.006	13.5603382	-0.002	± 100

TYPE A 424Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603410	-0.074	13.5603410	-0.074	13.5603420	-0.147	13.5603420	-0.147	± 100
3.80	40	13.5603400	0.000	13.5603400	0.000	13.5603410	-0.074	13.5603410	-0.074	± 100
3.80	30	13.5603390	0.074	13.5603390	0.074	13.5603400	0.000	13.5603400	0.000	± 100
3.80	20	13.560340	0.000	13.560340	0.000	13.560341	-0.074	13.560341	-0.074	± 100
3.80	10	13.5603390	0.074	13.5603390	0.074	13.5603400	0.000	13.5603400	0.000	± 100
3.80	0	13.5603380	0.147	13.5603380	0.147	13.5603390	0.074	13.5603390	0.074	± 100
3.80	-10	13.5603370	0.221	13.5603370	0.221	13.5603380	0.147	13.5603380	0.147	± 100
3.80	-20	13.5603350	0.369	13.5603360	0.295	13.5603380	0.147	13.5603380	0.147	± 100
3.23	20	13.5603320	0.590	13.5603330	0.516	13.5603340	0.442	13.5603350	0.369	± 100
4.37	20	13.5603310	0.664	13.5603310	0.664	13.5603320	0.590	13.5603330	0.516	± 100

TYPE A 848Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603400	-0.221	13.5603400	-0.221	13.5603410	-0.295	13.5634100	-226.622	± 100
3.80	40	13.5603400	-0.221	13.5603400	-0.221	13.5603410	-0.295	13.5603410	-0.295	± 100
3.80	30	13.5603380	-0.074	13.5603380	-0.074	13.5603900	-3.909	13.5603400	-0.221	± 100
3.80	20	13.560337	0.000	13.560338	-0.074	13.560338	-0.074	13.560339	-0.147	± 100
3.80	10	13.5603370	0.000	13.5603380	-0.074	13.5603380	-0.074	13.5603390	-0.147	± 100
3.80	0	13.5603360	0.074	13.5603360	0.074	13.5603370	0.000	13.5603370	0.000	± 100
3.80	-10	13.5603350	0.147	13.5603350	0.147	13.5603360	0.074	13.5603360	0.074	± 100
3.80	-20	13.5603340	0.221	13.5603340	0.221	13.5603350	0.147	13.5603350	0.147	± 100
3.23	20	13.5603370	0.000	13.5603370	0.000	13.5603380	-0.074	13.5603390	-0.147	± 100
4.37	20	13.5602250	8.260	13.5603350	0.147	13.5603360	0.074	13.5603360	0.074	± 100

TYPE B 106Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603404	-0.066	13.5603403	-0.059	13.5603401	-0.044	13.5603400	-0.037	± 100
	40	13.5603405	-0.074	13.5603405	-0.074	13.5603406	-0.081	13.5603406	-0.081	± 100
	30	13.5603394	0.007	13.5603394	0.007	13.5603395	0.000	13.5603395	0.000	± 100
	20	13.5603395	0.000	13.5603395	0.000	13.5603395	0	13.5603396	-0.007	± 100
	10	13.5603389	0.044	13.5603389	0.044	13.5603390	0.037	13.5603391	0.029	± 100
	0	13.5603376	0.140	13.5603377	0.133	13.5603377	0.133	13.5603377	0.133	± 100
	-10	13.5603370	0.184	13.5603370	0.184	13.5603369	0.192	13.5603367	0.206	± 100
	-20	13.5603354	0.302	13.5603355	0.295	13.5603355	0.295	13.5603353	0.310	± 100
3.40	20	13.5603396	-0.007	13.5603396	-0.007	13.5603396	-0.007	13.5603396	-0.007	± 100
4.20	20	13.5603396	-0.007	13.5603396	-0.007	13.5603396	-0.007	13.5603397	-0.015	± 100

TYPE B 212Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603396	-0.133	13.5603397	-0.140	13.5603395	-0.125	13.5603394	-0.118	± 100
	40	13.5603398	-0.147	13.5603399	-0.155	13.5603400	-0.162	13.5603402	-0.177	± 100
	30	13.5603389	-0.081	13.5603389	-0.081	13.5603388	-0.074	13.5603388	-0.074	± 100
	20	13.5603378	0.000	13.5603378	0.000	13.5603378	0.000	13.5603379	-0.007	± 100
	10	13.5603377	0.007	13.5603377	0.007	13.5603378	0.000	13.5603378	0.000	± 100
	0	13.5603367	0.081	13.5603367	0.081	13.5603367	0.081	13.5603367	0.081	± 100
	-10	13.5603358	0.147	13.5603359	0.140	13.5603360	0.133	13.5603361	0.125	± 100
	-20	13.5603354	0.177	13.5603353	0.184	13.5603355	0.170	13.5603355	0.170	± 100
3.40	20	13.5603378	0.000	13.5603378	0.000	13.5603379	-0.007	13.5603379	-0.007	± 100
4.20	20	13.5603379	-0.007	13.5603379	-0.007	13.5603379	-0.007	13.5603379	-0.007	± 100

TYPE B 424Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603398	-0.058	13.5603395	-0.034	13.5603392	-0.015	13.5603390	0.002	± 100
	40	13.5603405	-0.108	13.5603404	-0.104	13.5603404	-0.102	13.5603404	-0.101	± 100
	30	13.5603397	-0.052	13.5603398	-0.054	13.5603397	-0.052	13.5603397	-0.051	± 100
	20	13.5603390	0.000	13.5603390	0.000	13.5603391	-0.004	13.5603391	-0.006	± 100
	10	13.5603372	0.131	13.5603374	0.121	13.5603375	0.115	13.5603376	0.108	± 100
	0	13.5603368	0.163	13.5603367	0.170	13.5603367	0.174	13.5603367	0.174	± 100
	-10	13.5603358	0.238	13.5603358	0.235	13.5603360	0.225	13.5603361	0.216	± 100
	-20	13.5603354	0.266	13.5603354	0.270	13.5603354	0.265	13.5603355	0.263	± 100
3.40	20	13.5603391	-0.008	13.5603391	-0.008	13.5603392	-0.011	13.5603392	-0.010	± 100
4.20	20	13.5603392	-0.011	13.5603392	-0.010	13.5603392	-0.010	13.5603392	-0.011	± 100

TYPE B 848Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603400	-0.069	13.5603396	-0.045	13.5603394	-0.027	13.5603392	-0.011	± 100
	40	13.5603404	-0.103	13.5603404	-0.104	13.5603404	-0.105	13.5603404	-0.102	± 100
	30	13.5603394	-0.026	13.5603394	-0.030	13.5603394	-0.029	13.5603394	-0.027	± 100
	20	13.5603390	0.000	13.5603390	0.004	13.5603389	0.007	13.5603389	0.009	± 100
	10	13.5603374	0.118	13.5603375	0.110	13.5603376	0.103	13.5603377	0.098	± 100
	0	13.5603369	0.156	13.5603368	0.164	13.5603368	0.167	13.5603367	0.167	± 100
	-10	13.5603361	0.213	13.5603362	0.208	13.5603362	0.208	13.5603363	0.198	± 100
	-20	13.5603312	0.578	13.5603355	0.258	13.5603355	0.258	13.5603356	0.253	± 100
3.40	20	13.5603389	0.010	13.5603389	0.012	13.5603389	0.008	13.5603390	0.005	± 100
4.20	20	13.5603389	0.008	13.5603389	0.010	13.5603389	0.007	13.5603389	0.011	± 100

TYPE F 212Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603402	-0.068	13.5603400	-0.053	13.5603398	-0.037	13.5603396	-0.021	± 100
	40	13.5603412	-0.135	13.5603412	-0.136	13.5603411	-0.134	13.5603410	-0.127	± 100
	30	13.5603401	-0.057	13.5603402	-0.064	13.5603402	-0.065	13.5603402	-0.065	± 100
	20	13.5603393	0.000	13.5603393	-0.001	13.5603393	-0.002	13.5603393	-0.001	± 100
	10	13.5603378	0.110	13.5603379	0.105	13.5603381	0.091	13.5603382	0.084	± 100
	0	13.5603370	0.173	13.5603369	0.179	13.5603369	0.180	13.5603369	0.179	± 100
	-10	13.5603359	0.251	13.5603360	0.243	13.5603361	0.236	13.5603362	0.231	± 100
	-20	13.5603354	0.290	13.5603354	0.289	13.5603355	0.281	13.5603355	0.280	± 100
3.40	20	13.5603393	0.002	13.5603393	0.001	13.5603393	0.002	13.5603393	0.001	± 100
4.20	20	13.5603393	0.000	13.5603393	-0.001	13.5603393	0.000	13.5603393	0.003	± 100

TYPE F 424Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603401	-0.052	13.5603398	-0.031	13.5603391	0.025	13.5603396	-0.010	± 100
	40	13.5603407	-0.091	13.5603407	-0.096	13.5603407	-0.093	13.5603407	-0.093	± 100
	30	13.5603398	-0.027	13.5603398	-0.030	13.5603399	-0.032	13.5603399	-0.032	± 100
	20	13.5603394	0.000	13.5603393	0.008	13.5603393	0.010	13.5603392	0.013	± 100
	10	13.5603374	0.149	13.5603375	0.139	13.5603376	0.135	13.5603377	0.128	± 100
	0	13.5603371	0.174	13.5603368	0.196	13.5603367	0.205	13.5603366	0.206	± 100
	-10	13.5603361	0.244	13.5603362	0.240	13.5603363	0.233	13.5603363	0.228	± 100
	-20	13.5603354	0.295	13.5603355	0.292	13.5603356	0.286	13.5603356	0.282	± 100
3.40	20	13.5603392	0.014	13.5603393	0.012	13.5603393	0.013	13.5603393	0.012	± 100
4.20	20	13.5603392	0.013	13.5603393	0.013	13.5603393	0.011	13.5603393	0.012	± 100

8.2.2. Reader Mode

TYPE A 106Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.56034	-0.074	13.56034	-0.074	13.560341	-0.147	13.560341	-0.147	± 100
	40	13.56034	-0.074	13.560341	-0.147	13.560341	-0.147	13.560341	-0.147	± 100
	30	13.560339	0.000	13.560339	0.000	13.56034	-0.074	13.56034	-0.074	± 100
	20	13.5603390	0.000	13.5603390	0.000	13.5603400	-0.074	13.5603400	-0.074	± 100
	10	13.560337	0.147	13.560337	0.147	13.560338	0.074	13.560338	0.074	± 100
	0	13.560336	0.221	13.560336	0.221	13.5603365	0.184	13.5603366	0.177	± 100
	-10	13.560335	0.295	13.5603358	0.236	13.560336	0.221	13.560336	0.221	± 100
	-20	13.560334	0.369	13.560334	0.369	13.560335	0.295	13.560335	0.295	± 100
3.40	20	13.5603380	0.074	13.5603380	0.074	13.5603390	0	13.5603390	0	± 100
4.20	20	13.5603350	0.295	13.5603350	0.295	13.5603360	0.221	13.5603360	0.2212	± 100

TYPE A 212Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603410	-0.221	13.5603410	-0.221	13.5634200	-227.286	13.5603420	-0.295	± 100
	40	13.5603390	-0.074	13.5603392	-0.088	13.5603402	-0.162	13.5603400	-0.147	± 100
	30	13.5603390	-0.074	13.5603390	-0.074	13.5603400	-0.147	13.5603400	-0.147	± 100
	20	13.5603380	0.000	13.5603380	0.000	13.5603400	-0.147	13.5603400	-0.147	± 100
	10	13.5603380	0.000	13.5603380	0.000	13.5603390	-0.074	13.5603390	-0.074	± 100
	0	13.5603350	0.221	13.5603350	0.221	13.5603360	0.147	13.5603360	0.147	± 100
	-10	13.5603370	0.074	13.5603370	0.074	13.5603370	0.074	13.5603380	0.000	± 100
	-20	13.5603340	0.295	13.5603340	0.295	13.5603350	0.221	13.5603352	0.206	± 100
3.40	20	13.5603380	0.000	13.5603380	0.000	13.5603390	-0.074	13.5603400	-0.147	± 100
4.20	20	13.5603340	0.295	13.5603340	0.295	13.5603350	0.221	13.5603350	0.221	± 100

TYPE A 424Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603340	0.221	13.5603340	0.221	13.5603350	0.147	13.5603350	0.147	± 100
	40	13.5603390	-0.147	13.5603370	0.000	13.5603390	-0.147	13.5603390	-0.147	± 100
	30	13.5603390	-0.147	13.5603370	0.000	13.5603390	-0.147	13.5603390	-0.147	± 100
	20	13.5603370	0.000	13.5603370	0.000	13.5603390	-0.147	13.5603390	-0.147	± 100
	10	13.5603360	0.074	13.5603360	0.074	13.5603370	0.000	13.5603370	0.000	± 100
	0	13.5603350	0.147	13.5603350	0.147	13.5603360	0.074	13.5603360	0.074	± 100
	-10	13.5603345	0.184	13.5603350	0.147	13.5603360	0.074	13.5603360	0.074	± 100
	-20	13.5603340	0.221	13.5603340	0.221	13.5603350	0.147	13.5603350	0.147	± 100
3.40	20	13.5603350	0.147	13.5603350	0.147	13.5603360	0.074	13.5603360	0.074	± 100
4.20	20	13.5603360	0.074	13.5603360	0.074	13.5603370	0.000	13.5603370	0.000	± 100

TYPE A 848Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603410	-0.295	13.5603410	-0.295	13.5603420	-0.369	13.5603420	-0.369	± 100
	40	13.5603390	-0.147	13.5603390	-0.147	13.5603400	-0.221	13.5603400	-0.221	± 100
	30	13.5603380	-0.074	13.5603380	-0.074	13.5603390	-0.147	13.5603400	-0.221	± 100
	20	13.5603370	0.000	13.5603370	0.000	13.5603380	-0.074	13.5603390	-0.147	± 100
	10	13.5603350	0.147	13.5603350	0.147	13.5603360	0.074	13.5603360	0.074	± 100
	0	13.5603340	0.221	13.5603340	0.221	13.5603350	0.147	13.5603360	0.074	± 100
	-10	13.5603330	0.295	13.5603340	0.221	13.5603330	0.295	13.5603340	0.221	± 100
	-20	13.5603320	0.369	13.5603320	0.369	13.5603330	0.295	13.5603340	0.221	± 100
3.40	20	13.5603360	0.074	13.5603360	0.074	13.5603350	0.147	13.5603350	0.147	± 100
4.20	20	13.5603340	0.221	13.5603340	0.221	13.5603350	0.147	13.5603360	0.074	± 100

TYPE B 106Kbps

		Limit: ± 100 ppm = 1.356 kHz								
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603399	-0.152	13.5603396	-0.130	13.5603394	-0.116	13.5603392	-0.100	± 100
3.80	40	13.5603405	-0.200	13.5603405	-0.201	13.5603406	-0.203	13.5603405	-0.199	± 100
3.80	30	13.5603392	-0.101	13.5603392	-0.102	13.5603393	-0.105	13.5603392	-0.105	± 100
3.80	20	13.5603378	0.000	13.5603379	-0.009	13.560338	-0.013	13.5603381	-0.017	± 100
3.80	10	13.5603374	0.030	13.5603375	0.027	13.5603376	0.019	13.5603375	0.021	± 100
3.80	0	13.5603365	0.097	13.5603364	0.101	13.5603365	0.101	13.5603366	0.092	± 100
3.80	-10	13.5603358	0.146	13.5603359	0.141	13.560336	0.131	13.5603361	0.125	± 100
3.80	-20	13.5603352	0.193	13.5603353	0.188	13.5603354	0.180	13.5603354	0.179	± 100
3.23	20	13.5603379	-0.009	13.5603382	-0.025	13.5603381	-0.024	13.5603382	-0.03	± 100
4.37	20	13.5603380	-0.014	13.5603381	-0.019	13.5603381	-0.018	13.5603382	-0.025	± 100

TYPE B 212Kbps

		Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz								
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603397	-0.051	13.5603395	-0.036	13.5603394	-0.024	13.5603392	-0.012	± 100
3.80	40	13.5603404	-0.104	13.5603405	-0.108	13.5603404	-0.103	13.5603404	-0.100	± 100
3.80	30	13.5603395	-0.031	13.5603394	-0.029	13.5603394	-0.026	13.5603394	-0.026	± 100
3.80	20	13.5603390	0.000	13.5603390	0.006	13.5603389	0.009	13.5603389	0.007	± 100
3.80	10	13.5603375	0.116	13.5603375	0.114	13.5603376	0.107	13.5603377	0.101	± 100
3.80	0	13.5603377	0.098	13.5603377	0.098	13.5603378	0.091	13.5603378	0.091	± 100
3.80	-10	13.5603370	0.150	13.5603370	0.150	13.5603372	0.135	13.5603372	0.135	± 100
3.80	-20	13.5603357	0.246	13.5603357	0.246	13.5603357	0.246	13.5603357	0.246	± 100
3.23	20	13.5603389	0.009	13.5603388	0.014	13.5603389	0.013	13.5603389	0.012	± 100
4.37	20	13.5603389	0.012	13.5603389	0.007	13.5603389	0.012	13.5603389	0.008	± 100

TYPE B 424Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603399	-0.059	13.5603398	-0.052	143.5603396	#####	13.5603392	-0.007	± 100
3.80	40	13.5603402	-0.081	13.5603402	-0.081	13.5603403	-0.088	13.5603403	-0.088	± 100
3.80	30	13.5603391	0.000	13.5603391	0.000	13.5603391	0.000	13.5603391	0.000	± 100
3.80	20	13.5603391	0.000	13.5603391	0.000	13.5603393	-0.015	13.5603394	-0.022	± 100
3.80	10	13.5603377	0.103	13.5603377	0.103	13.5603377	0.103	13.5603378	0.096	± 100
3.80	0	13.5603365	0.192	13.5603365	0.192	13.5603365	0.192	13.5603365	0.192	± 100
3.80	-10	13.5603359	0.236	13.5603359	0.236	13.5603361	0.221	13.5603361	0.221	± 100
3.80	-20	13.5603352	0.288	13.5603352	0.288	13.5603352	0.288	13.5603353	0.280	± 100
3.23	20	13.5603393	-0.015	13.5603394	-0.022	13.5603394	-0.022	13.5603395	-0.029	± 100
4.37	20	13.5603394	-0.022	13.5603394	-0.022	13.5603394	-0.022	13.5603395	-0.029	± 100

TYPE B 848Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603390	0.000	13.5603390	0.000	13.5603391	-0.007	13.5603391	-0.007	± 100
3.80	40	13.5603394	-0.029	13.5603394	-0.029	13.5603395	-0.037	13.5603395	-0.037	± 100
3.80	30	13.5603390	0.000	13.5603390	0.000	13.5603388	0.015	13.5603385	0.037	± 100
3.80	20	13.5603390	0.000	13.5603390	0.000	13.5603388	0.015	13.5603389	0.007	± 100
3.80	10	13.5603373	0.125	13.5603374	0.118	13.5603374	0.118	13.5603375	0.111	± 100
3.80	0	13.5603365	0.184	13.5603365	0.184	13.5603364	0.192	13.5603364	0.192	± 100
3.80	-10	13.5603358	0.236	13.5603358	0.236	13.5603359	0.229	13.5603360	0.221	± 100
3.80	-20	13.5603351	0.288	13.5603351	0.288	13.5603352	0.280	13.5603352	0.280	± 100
3.23	20	13.5603388	0.015	13.5603388	0.015	13.5603388	0.015	13.5603388	0.015	± 100
4.37	20	13.5603387	0.022	13.5603388	0.015	13.5603388	0.015	13.5603387	0.022	± 100

Reader Mode

TYPE F 212Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603400	-0.053	13.5603397	-0.031	13.5603395	-0.014	13.5603393	0.003	± 100
	40	13.5603406	-0.098	13.5603406	-0.098	13.5603406	-0.096	13.5603406	-0.093	± 100
	30	13.5603396	-0.025	13.5603396	-0.023	13.5603396	-0.024	13.5603396	-0.022	± 100
	20	13.5603393	0.000	13.5603392	0.006	13.5603392	0.007	13.5603392	0.010	± 100
	10	13.5603375	0.132	13.5603376	0.126	13.5603376	0.122	13.5603377	0.116	± 100
	0	13.5603367	0.192	13.5603367	0.195	13.5603366	0.198	13.5603367	0.194	± 100
	-10	13.5603361	0.235	13.5603362	0.228	13.5603362	0.226	13.5603363	0.223	± 100
	-20	13.5603353	0.292	13.5603353	0.297	13.5603353	0.292	13.5603354	0.284	± 100
3.40	20	13.5603391	0.013	13.5603392	0.010	13.5603391	0.012	13.5603391	0.012	± 100
4.20	20	13.5603392	0.009	13.5603391	0.011	13.5603391	0.014	13.5603391	0.012	± 100

TYPE F 424Kbps

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(VAC)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.5603400	-0.089	13.5603398	-0.071	13.5603396	-0.057	13.5603394	-0.043	± 100
	40	13.5603405	-0.126	13.5603406	-0.133	13.5603407	-0.139	13.5603407	-0.138	± 100
	30	13.5603397	-0.060	13.5603396	-0.058	13.5603396	-0.060	13.5603397	-0.062	± 100
	20	13.5603388	0.000	13.5603389	-0.003	13.5603389	-0.005	13.5603389	-0.002	± 100
	10	13.5603382	0.046	13.5603382	0.045	13.5603382	0.046	13.5603383	0.042	± 100
	0	13.5603372	0.119	13.5603371	0.129	13.5603370	0.133	13.5603370	0.136	± 100
	-10	13.5603362	0.194	13.5603363	0.189	13.5603363	0.184	13.5603364	0.181	± 100
	-20	13.5603359	0.216	13.5603359	0.215	13.5603359	0.215	13.5603359	0.215	± 100
3.40	20	13.5603388	-0.001	13.5603389	-0.002	13.5603388	0.002	13.5603388	0.002	± 100
4.20	20	13.5603388	0.001	13.5603388	-0.001	13.5603389	-0.003	13.5603388	0.001	± 100