



F2 Labs
16740 Peters Road
Middlefield, Ohio 44062
United States of America
www.f2labs.com

CERTIFICATION TEST REPORT

Manufacturer: Libra Industries, Inc.
7770 Division Drive
Mentor, Ohio 44060 USA

Applicant: 7signal Solutions, Inc.
526 South Main Street, Suite 601G
Akron, Ohio 44311 USA

Product Description: **802.11ac Dual Band Module**

Product Host: Sapphire Eye 2100, model 2100

Modular Radio Model: **WLE900VX-7S**

Radio Module FCC ID: **YLFSE2100WL**

Testing Commenced: May 22, 2015

Testing Ended: July 14, 2015

Summary of Test Results: **In Compliance**

The EUT complies with the EMC requirements when manufactured identically as the unit tested in this report, including any required modifications. Any changes to the design or build of this unit subsequent to this testing may deem it non-compliant.

Standards:

- **FCC Part 15 Subpart C, Section 15.247**
- **FCC15.207 - Conducted Limits**



Order Number: F2LQ7176

Client: 7signal Solutions, Inc.

FCC ID: YLFSE2100WL

Evaluation Conducted by:

Joe Knepper, EMC Proj. Eng.

Report Reviewed by:

Ken Littell, EMC Tech. Mgr.

F2 Labs
26501 Ridge Road
Damascus, MD 20872
Ph 301.253.4500
Fax 301.253.5179

F2 Labs
16740 Peters Road
Middlefield, OH 44062
Ph 440.632.5541
Fax 440.632.5542

This test report may be reproduced in full; partial reproduction only may be made with the written consent of F2 Labs. The results in this report apply only to the equipment tested.



TABLE OF CONTENTS

Section	Title	Page
1	ADMINISTRATIVE INFORMATION	4
2	SUMMARY OF TEST RESULTS/MODIFICATIONS	5
3	ENGINEERING STATEMENT	6
4	EUT INFORMATION AND DATA	7
5	LIST OF MEASUREMENT INSTRUMENTATION	8
6	Radiated Spurious Emissions	9
7	FCC PART 15.207 – Conducted Emissions	34
8	Photos/Exhibits – Product Photos, Test Setups	39



1 ADMINISTRATIVE INFORMATION

1.1 Measurement Location:

F2 Labs in Middlefield, Ohio. Site description and attenuation data are on file with the FCC's Sampling and Measurement Branch at the FCC Laboratory in Columbia, MD.

1.2 Measurement Procedure:

All measurements were performed according to the 2009 version of ANSI C63.4 and recommended FCC procedure of measurement of DTS operating under Section 15.247 and in KDB558074. A list of the measurement equipment can be found in Section 6.

1.3 Uncertainty Budget:

Radiated Emission

- Combined Uncertainty (+ or -) 2.24 dB
- Expanded Uncertainty (+ or -) 4.48 dB

Conducted Emissions

- Combined Uncertainty (+ or -) 1.88 dB
- Expanded Uncertainty (+ or -) 3.75 dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

1.4 Document History

Document Number	Description	Issue Date	Approved By
F2LQ7176-01E	First Issue	Aug. 25, 2015	K. Littell

**2 SUMMARY OF TEST RESULTS**

Test Name	Standard(s)	Results
Radiated Spurious Emissions with 6dBi Integral Antenna	CFR 47 Part 15.247(d) / Part 15.209 / KDB558074	Complies
Conducted Emissions	CFR 47 Part 15.207(a)	Complies

Modifications Made to the Equipment
None



3 ENGINEERING STATEMENT

This report has been prepared on behalf of 7signal Solutions, Inc. to provide documentation for the testing described herein. This equipment has been tested and found to comply with Part 15.247 of the FCC Rules using ANSI C63.4 2009 and KDB558074 standards. The test results found in this test report relate only to the items tested.

The client has declared that no adjustments were made to the power of the unit as provided by the radio manufacturer. This test report is for a Class II permissive change and the power setting is identical to the power setting used for original filling.



4 EUT INFORMATION AND DATA

4.1 Equipment Under Test:

802.11ac Dual Band Module

Modular Radio Model: WLE900VX-7S

Radio Module FCC ID: YLFSE2100WL

Product Host: Sapphire Eye 2100, model 2100, Serial No.: 121400029

4.2 Trade Name:

7signal Solutions, Inc.

4.3 Power Supply:

AC/DC Adapter Shenzhen Zhen Huan Electric Co. ZF120A-1201500

4.4 Applicable Rules:

CFR 47, Part 15.247, subpart C

4.5 Equipment Category:

Radio Transmitter-DTS

4.6 Antenna:

6dBi Integral Antenna

4.7 Accessories:

Equipment Type	Manufacturer	Model	Serial Number
Router	Asus	RT-AC1900	E3IA0H005750
PoE Injector	TP-Link	TL-POE150S	None Spec.

4.8 Test Item Condition:

The equipment to be tested was received in good condition.

4.9 Testing Algorithm:

The EUT was set up in a test mode to continuous transmit at high (2462 MHz), mid (2437 MHz) and low (2412 MHz) frequencies of the 2.4GHz spectrum. EUT was powered at 120V, 60 Hz. The highest emissions were recorded in the data tables.

**5 LIST OF MEASUREMENT INSTRUMENTATION**

Equipment Type	Asset Number	Manufacturer	Model	Serial Number	Calibration Due Date
Shielded Chamber	CL166	AlbatrossProjects	B83117-DF435-T261	US140023	Jan. 1, 2016
Shield Room	0175	Ray Proof	N/A	11645	Verified
Temp/Hum. Recorder	CL137	Extech	RH520	CH16992	May 7, 2016
Receiver	CL151	Rohde & Schwarz	ESU40	100319	Nov. 12, 2015
Antenna 1-Chamber	0142	ETS/EMCO	3142B	9811-1330	Verified
Horn Antenna	CL098	Emco	3115	9809-5580	Dec. 3, 2015
Pre-Amplifier	CL045	Hewlett-Packard	8447D	2944A08445	Nov. 15, 2015
Amplifier w/Monopole & 18" Loop	CL163	A.H. Systems, Inc.	EHA-52B	100	Apr. 20, 2016
Software:	Tile Version 1.0		Software Verified: June 1, 2015		
Software:	EMC 32, Version 5.20.2		Software Verified: June 1, 2015		
Antenna, JB3 Combination	CL175	Sunol Sciences	JB3	A030315	Mar. 12, 2016
Antenna, Horn	CL114	A. H. Systems, Inc.	SAS-572	237	Oct. 16, 2016
Spectrum Analyzer	0141	Hewlett Packard	8591E	3520A04145	Sept. 2, 2015
Transient Limiter	CL102	Hewlett Packard	11947A	3107A03325	Feb. 9, 2016
LISN 1	0149	Solar	8028-50-TS-24-BNC	1130	Jan. 8, 2017
LISN 3	0148	Solar	8028-50-TS-24-BNC	1129	Jan. 8, 2017



6 RADIATED SPURIOUS EMISSION

The EUT antenna port was fitted with its integral/internal chip antenna. Radiated emissions were measured in a Semi-Anechoic Chamber. All emissions generated that fall in the restricted bands per FCC Part 15.205 were examined.

6.1 Requirements:

All emissions that fall in the restricted bands defined in FCC Part 15.205 shall not exceed the maximum field strength listed in FCC Part 15.209(a).



6.2 Radiated Spurious Emission Test Data

Test Date(s):	June 3, 2015	Test Engineer:	J. Knepper
Standards:	CFR 47 Part 15.247(d); Part 15.209 / KDB558074	Air Temperature:	22.4°C
		Relative Humidity:	46%

Notes: Plots are peak, max hold prescan data included only to determine what frequencies to investigate and measure. The EUT was initially placed in a semi-anechoic chamber, and rotated in all three orthogonal positions to maximize the emissions. The orthogonal position that showed the highest emissions was used. Characterization measurements were then performed to determine at which frequencies significant emissions occurred. These graphs are shown below.

The equipment was fully exercised with all cabling attached to the EUT and was positioned in a semi-anechoic chamber for maximum emissions. While the equipment was energized, the receiving antenna was scanned from 1.0 meter to 4.0 meters in both vertical and horizontal polarities while the turntable was adjusted 360 degrees to determine the maximum field strength. The tables of measured results can be found below.

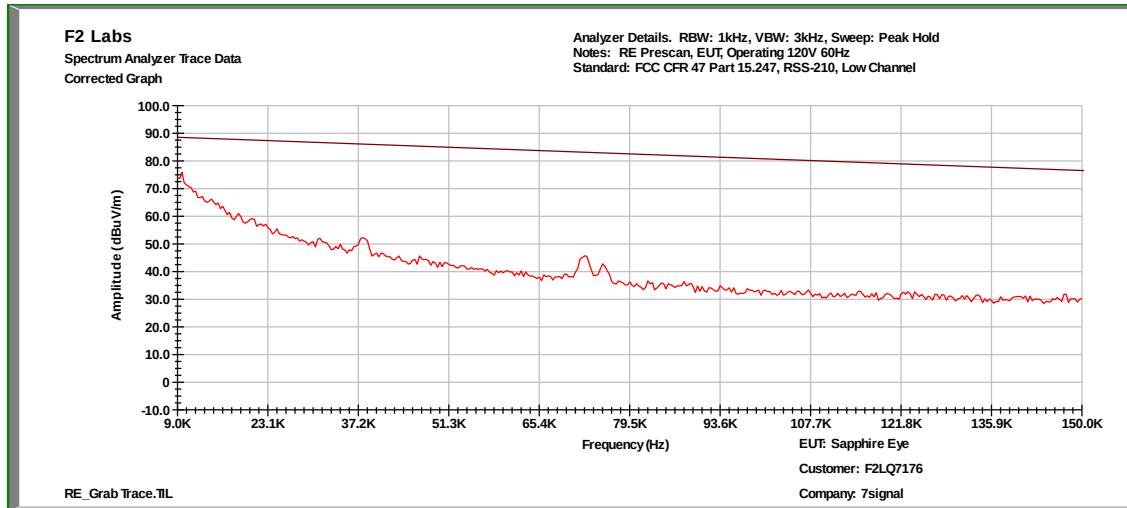
Some of the frequencies did not change with the EUT on or off. At those frequencies, the test distance was shortened to 1 meter and still no emissions from the EUT were visible or over the ambient or limit.

In the following plots, emissions to be found by the EUT were measured and listed in tables. The plots are for reference only and the limit lines are not actual limit lines but merely a guide.

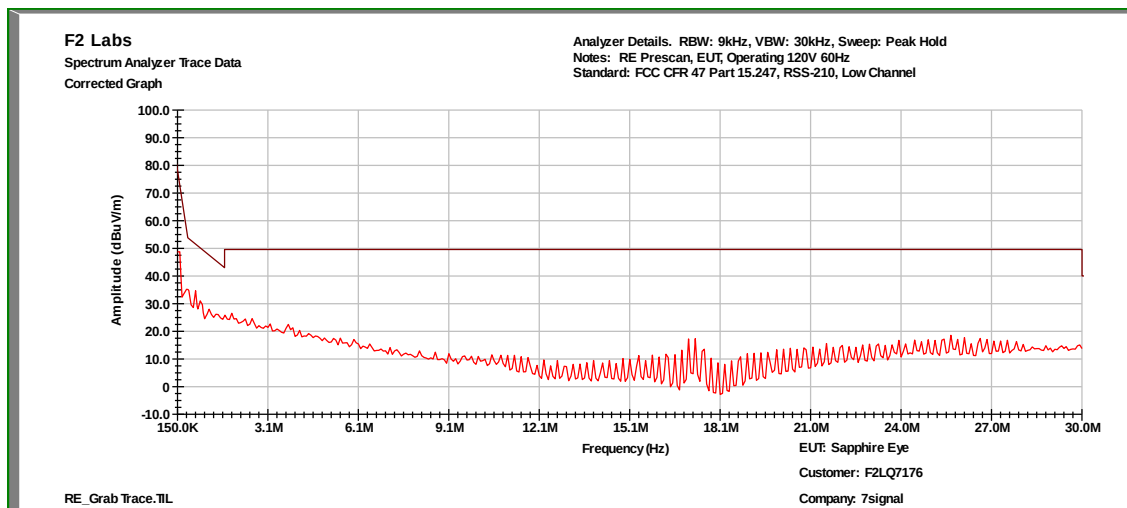
The 20 MHz 802.11n bandwidth was found to be the worst case emissions.



20M, Radiated Spurious Emissions: Low Channel, 9k to 150k

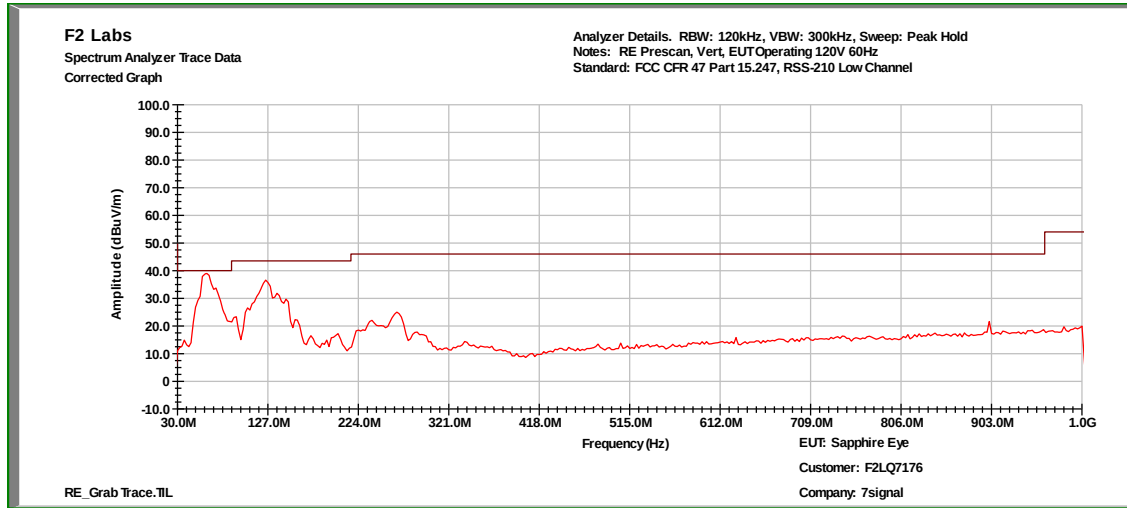


20M, Radiated Spurious Emissions: Low Channel, 150k to 30 MHz

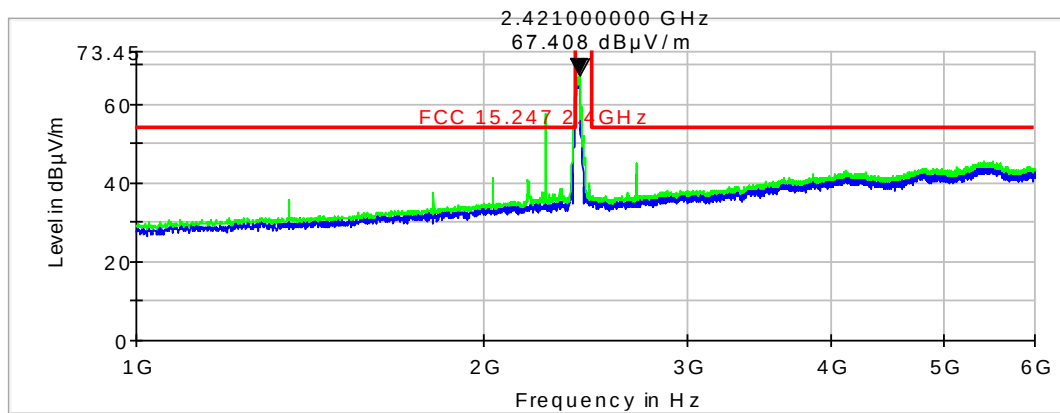




20M, Radiated Spurious Emissions: Low Channel, 30 MHz to 1 GHz, Vertical

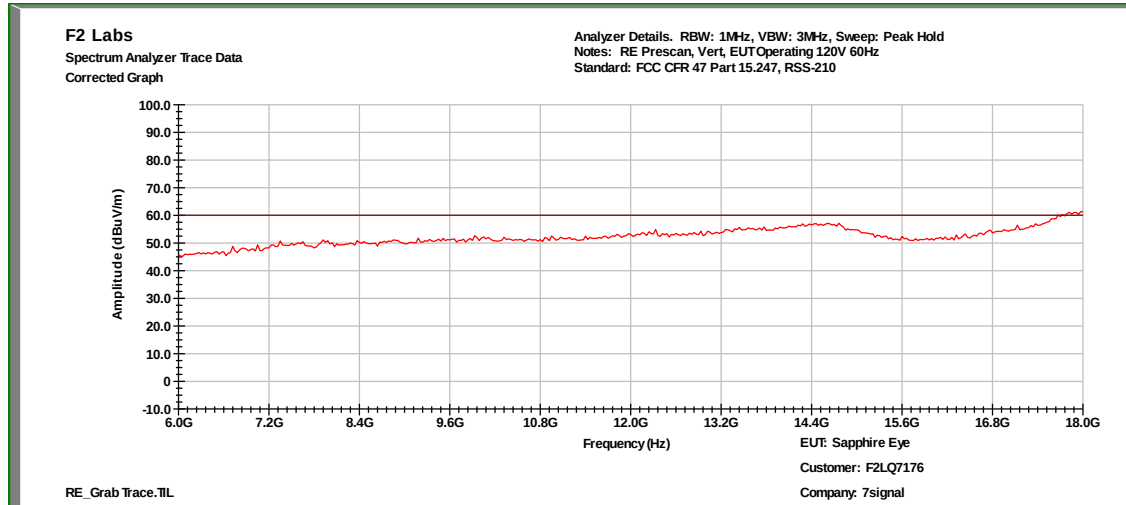


20M, Radiated Spurious Emissions: Low Channel, 1 GHz to 6 GHz, Vertical

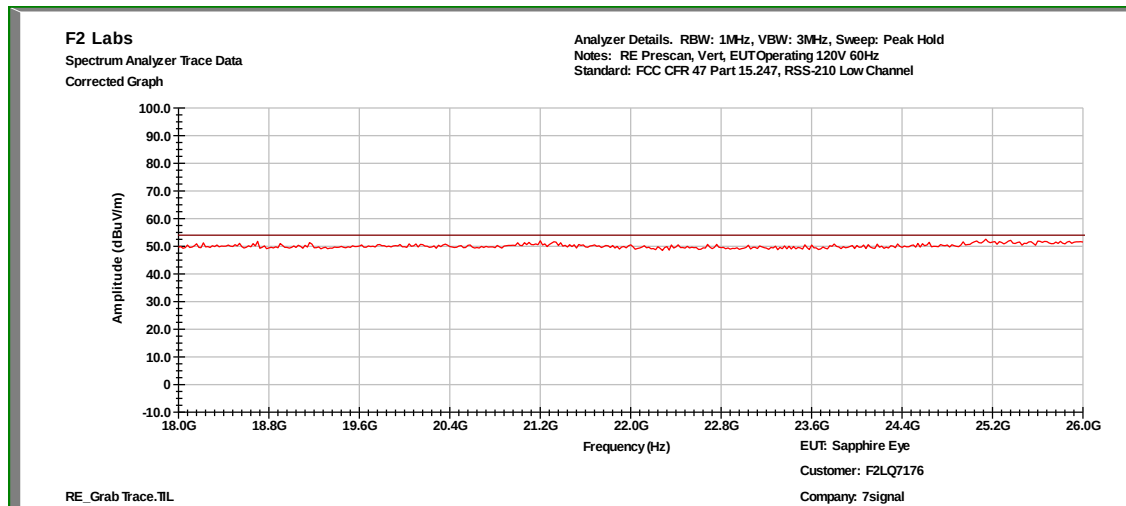




20M, Radiated Spurious Emissions: Low Channel, 6 GHz to 18 GHz, Vertical

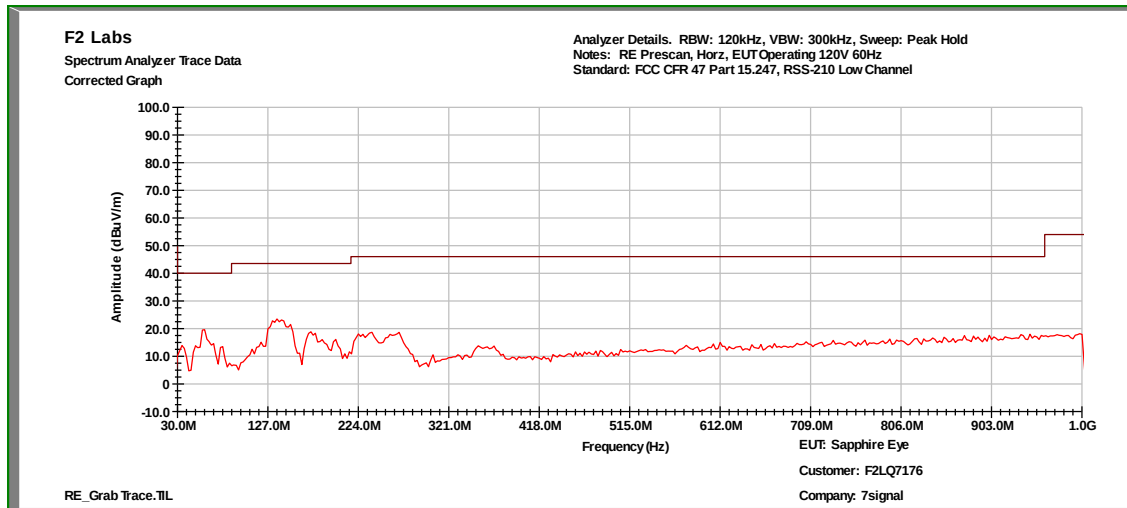


20M, Radiated Spurious Emissions: Low Channel, 18 GHz to 20 GHz, Vertical

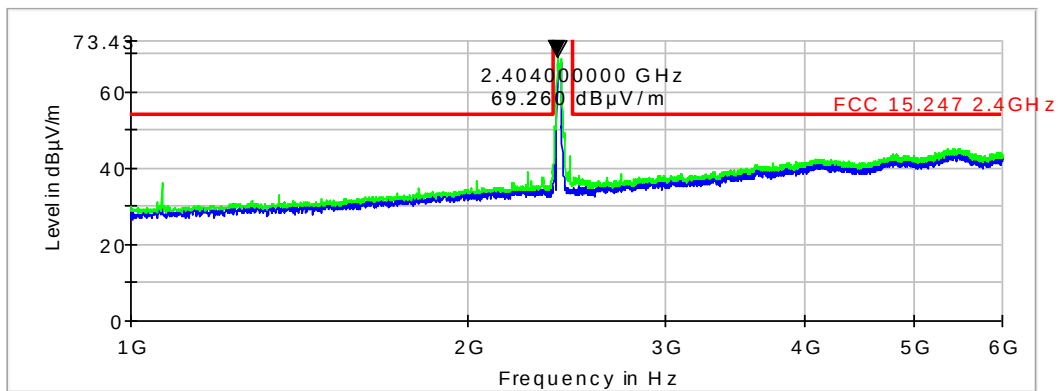




20M, Radiated Spurious Emissions: Low Channel, 30 MHz to 1 GHz, Horizontal

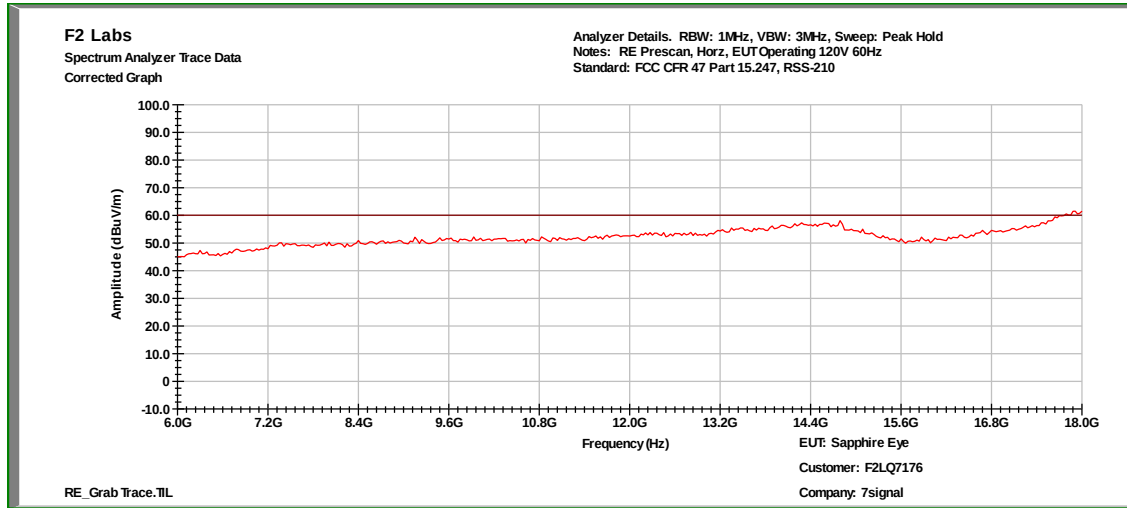


20M, Radiated Spurious Emissions: Low Channel, 1 GHz to 6 GHz, Horizontal

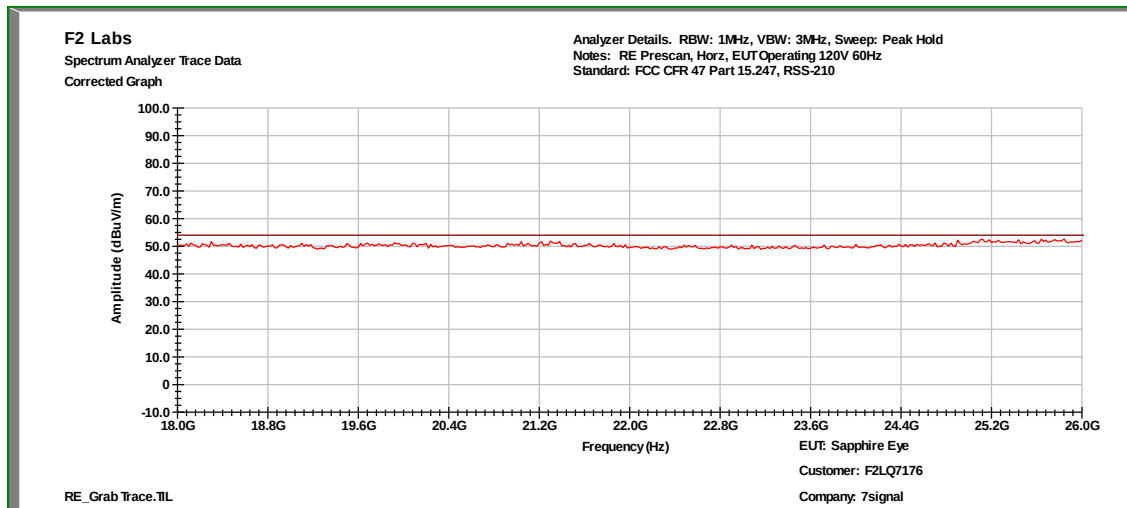




20M, Radiated Spurious Emissions: Low Channel, 6 GHz to 18 GHz, Horizontal

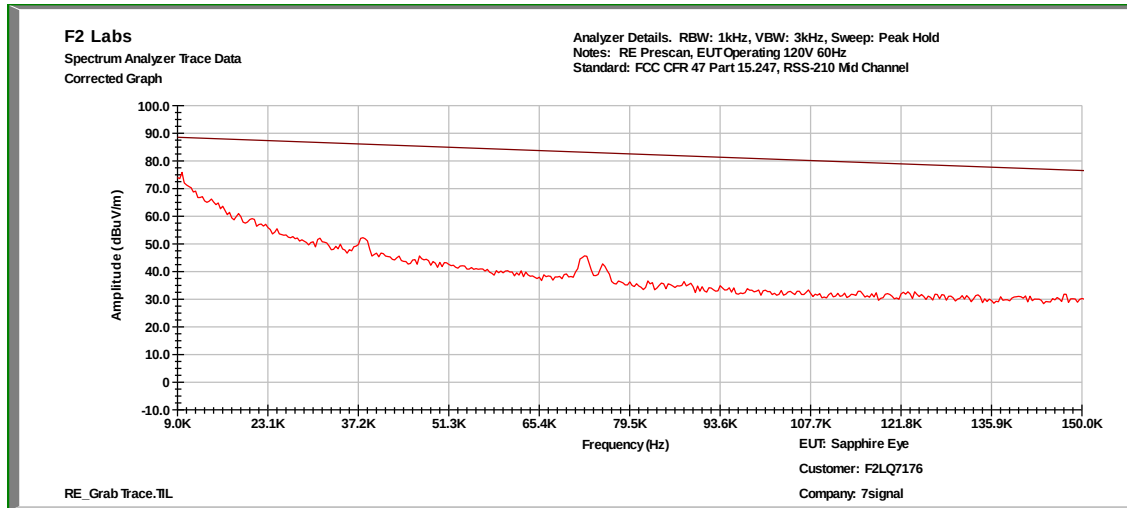


20M, Radiated Spurious Emissions: Low Channel, 18 GHz to 20 GHz, Horizontal

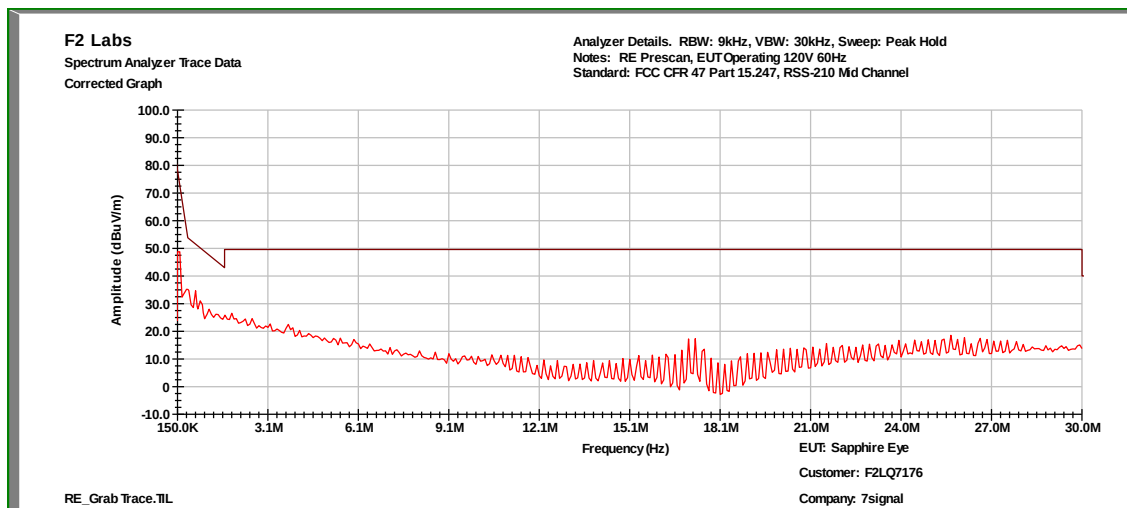




20M, Radiated Spurious Emissions: Mid Channel, 9k to 150k

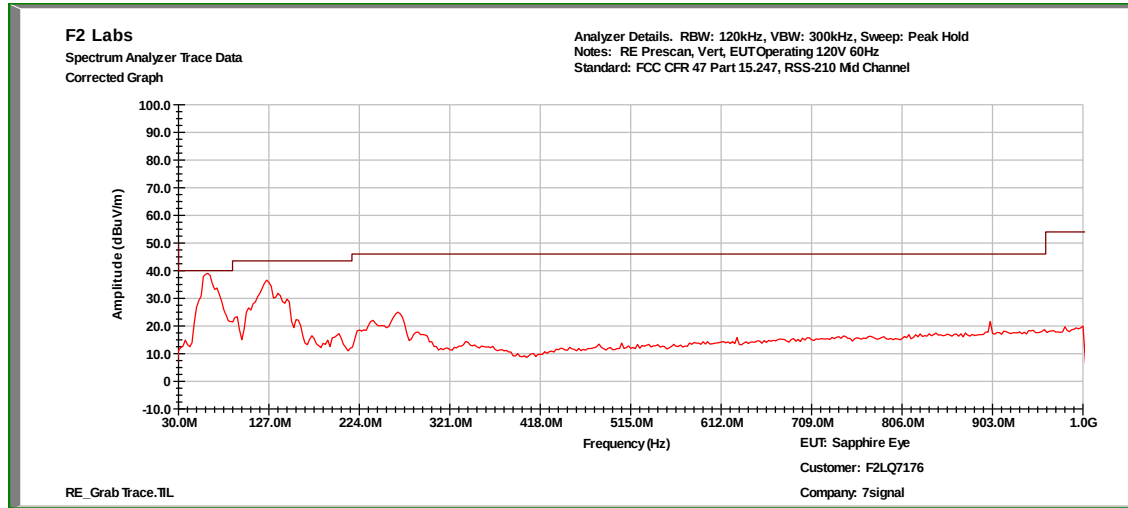


20M, Radiated Spurious Emissions: Mid Channel, 150k to 30 MHz

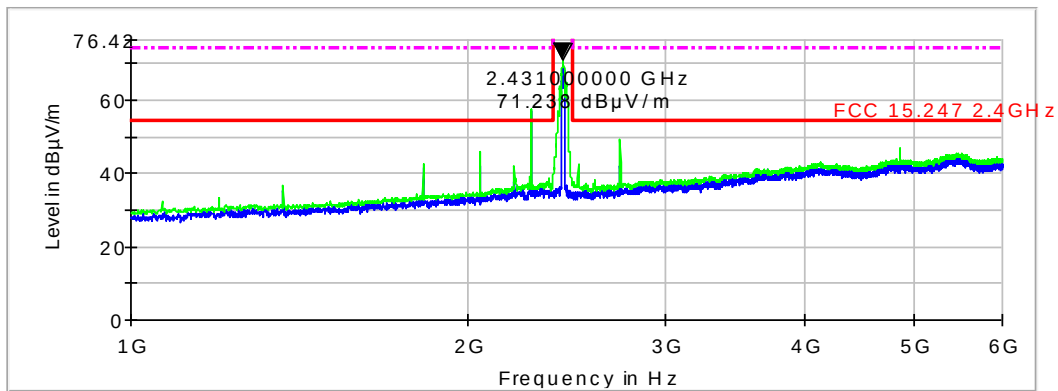




20M, Radiated Spurious Emissions: Mid Channel, 30 MHz to 1 GHz, Vertical

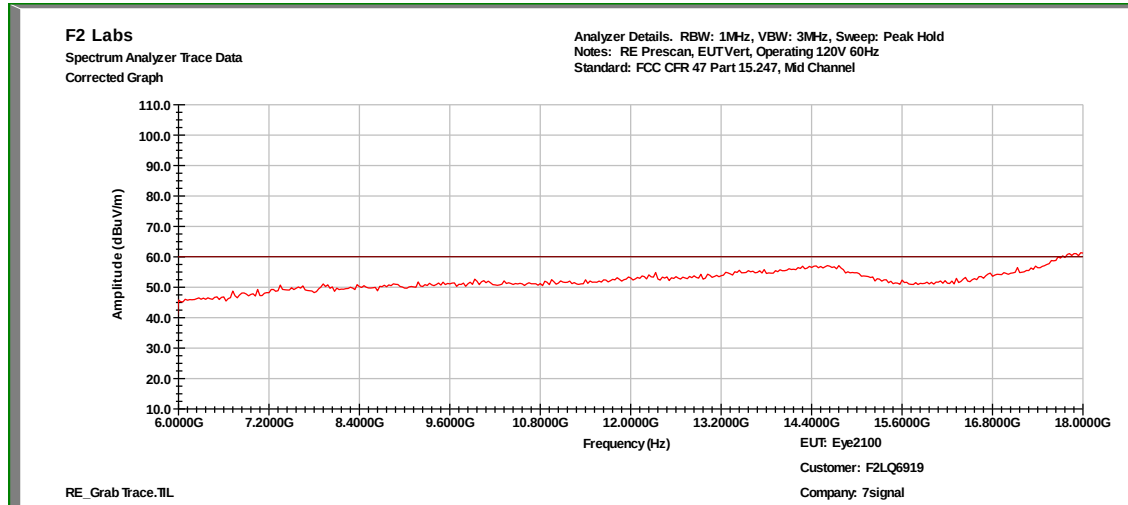


20M, Radiated Spurious Emissions: Mid Channel, 1 GHz to 6 GHz, Vertical

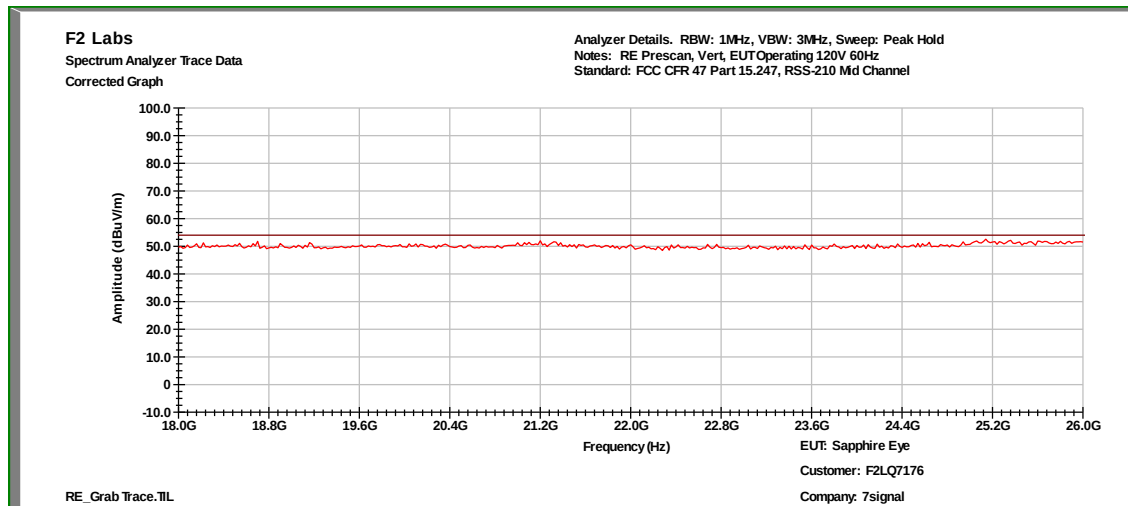




20M, Radiated Spurious Emissions: Mid Channel, 6 GHz to 18 GHz, Vertical

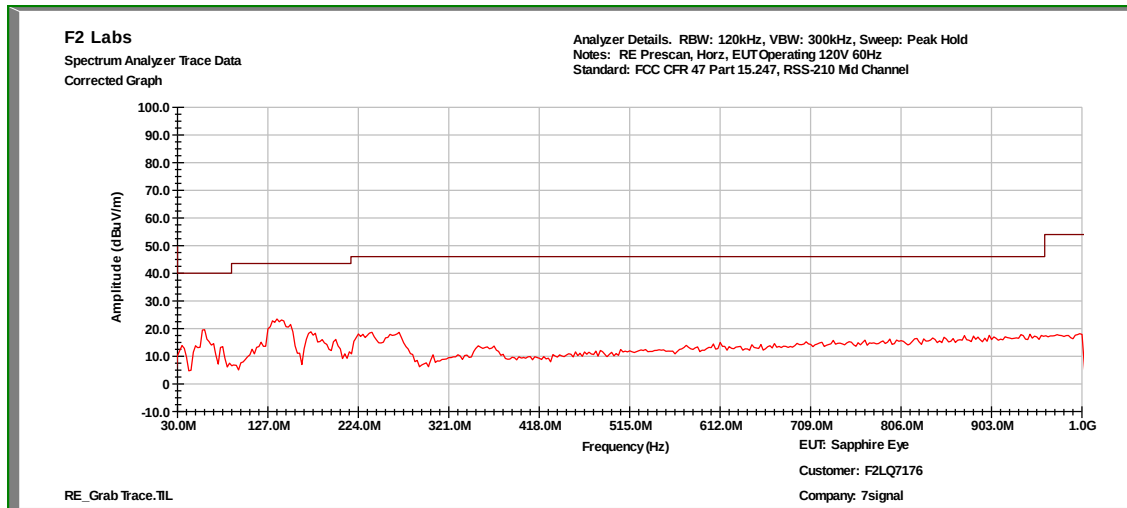


20M, Radiated Spurious Emissions: Mid Channel, 18 GHz to 20 GHz, Vertical

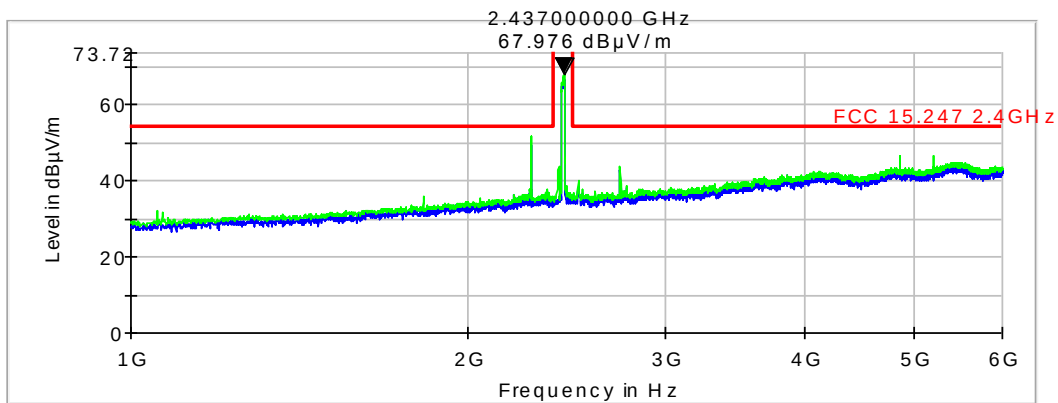




20M, Radiated Spurious Emissions: Mid Channel, 30 MHz to 1 GHz, Horizontal

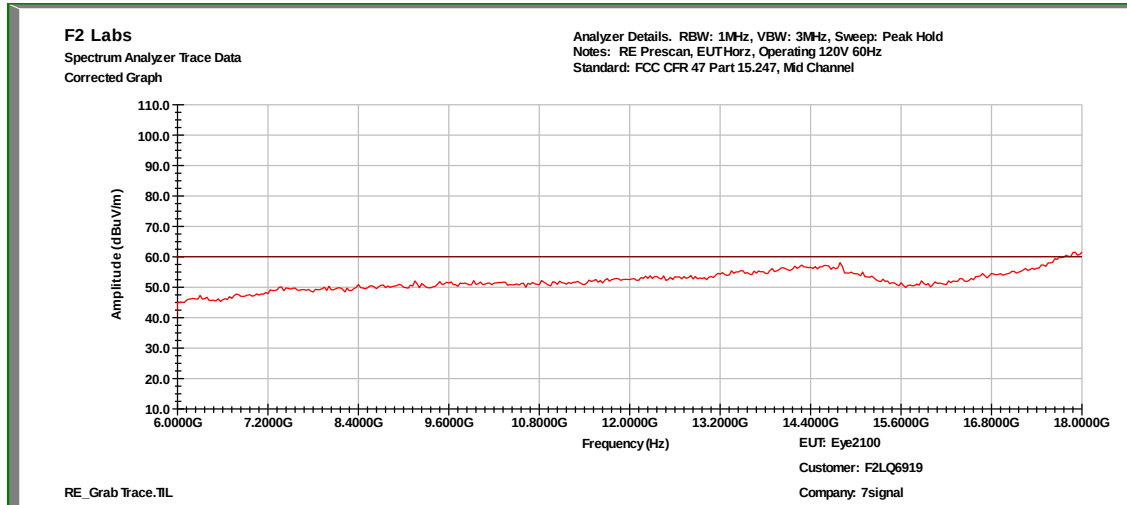


20M, Radiated Spurious Emissions: Mid Channel, 1 GHz to 6 GHz, Horizontal

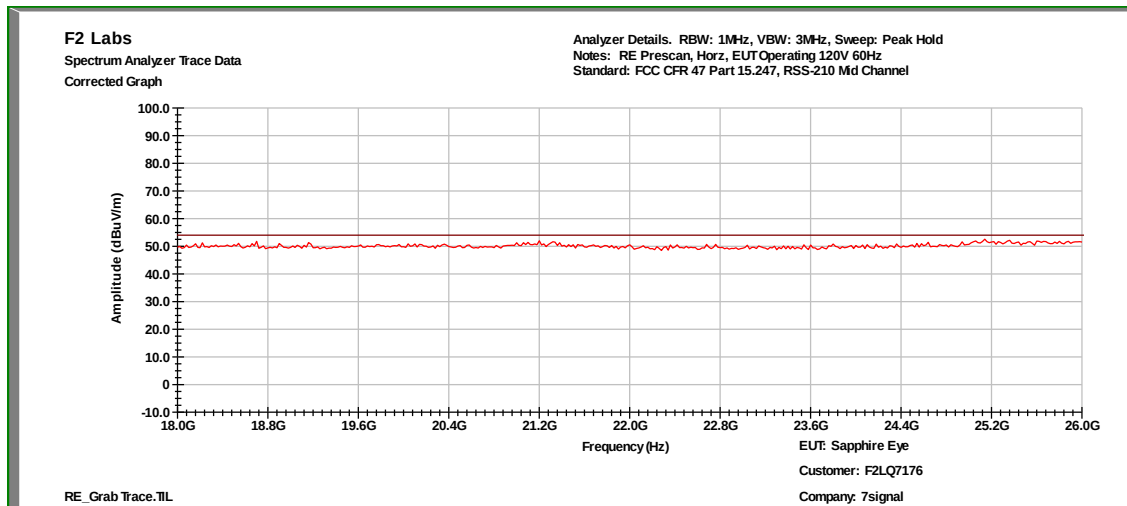




20M, Radiated Spurious Emissions: Mid Channel, 6 GHz to 18 GHz, Horizontal

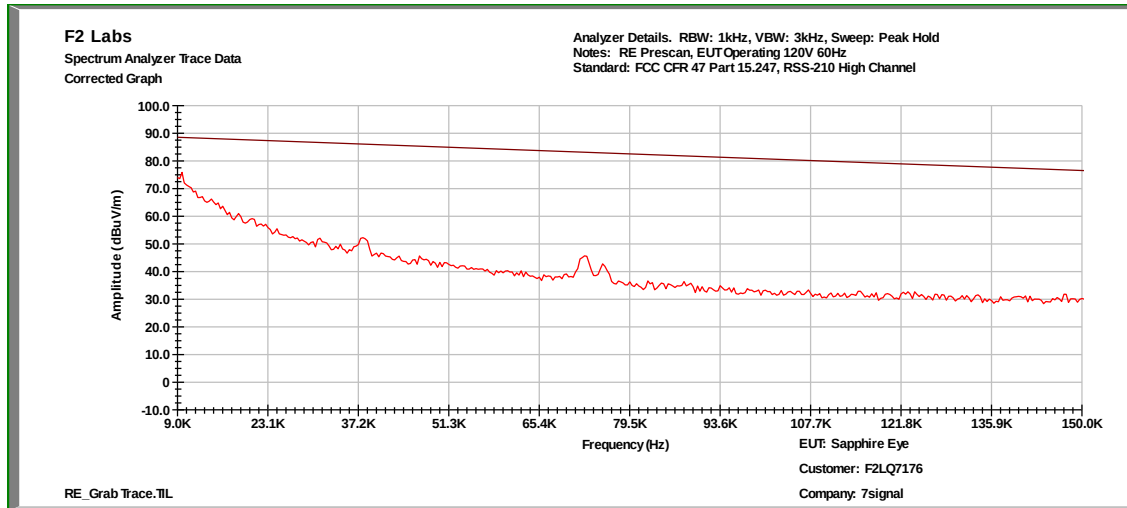


20M, Radiated Spurious Emissions: Mid Channel, 18 GHz to 20 GHz, Horizontal

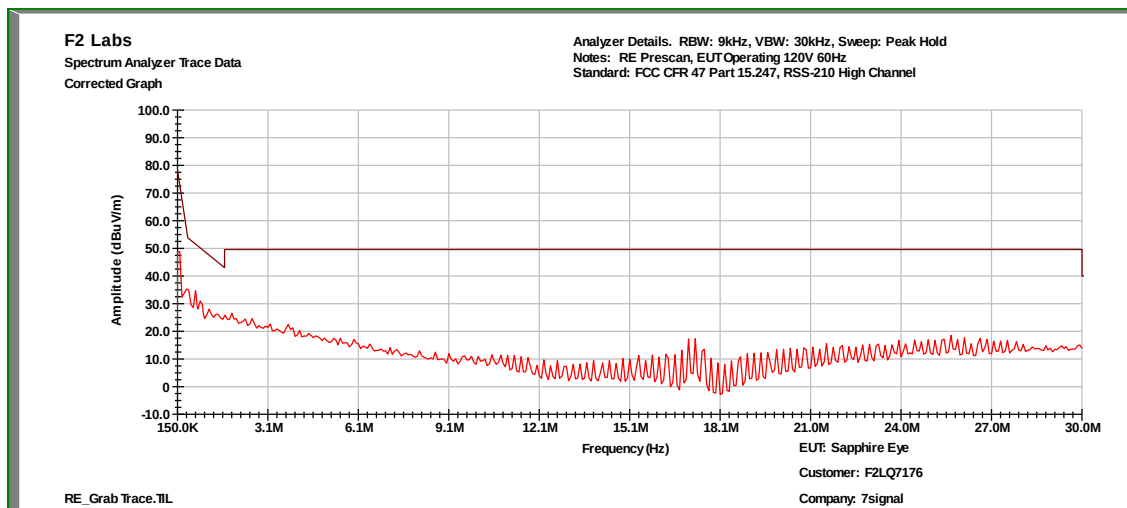




20M, Radiated Spurious Emissions: High Channel, 9k to 150k

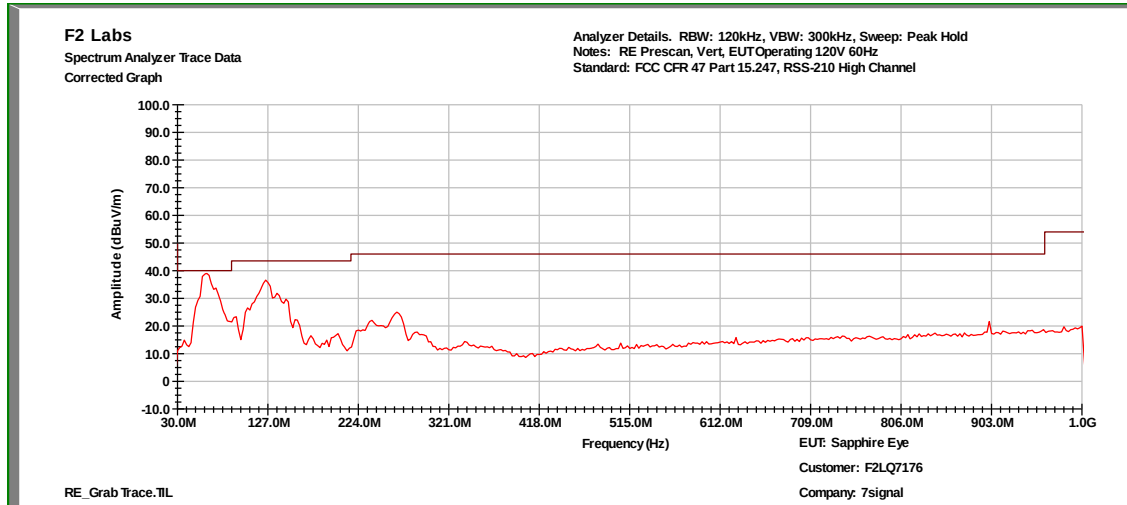


20M, Radiated Spurious Emissions: High Channel, 150k to 30 MHz

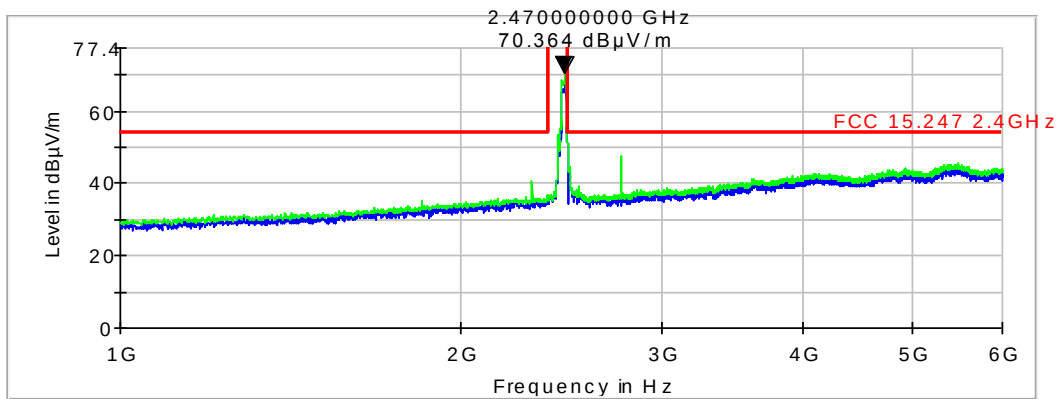




20M, Radiated Spurious Emissions: HighChannel, 30 MHz to 1 GHz, Vertical

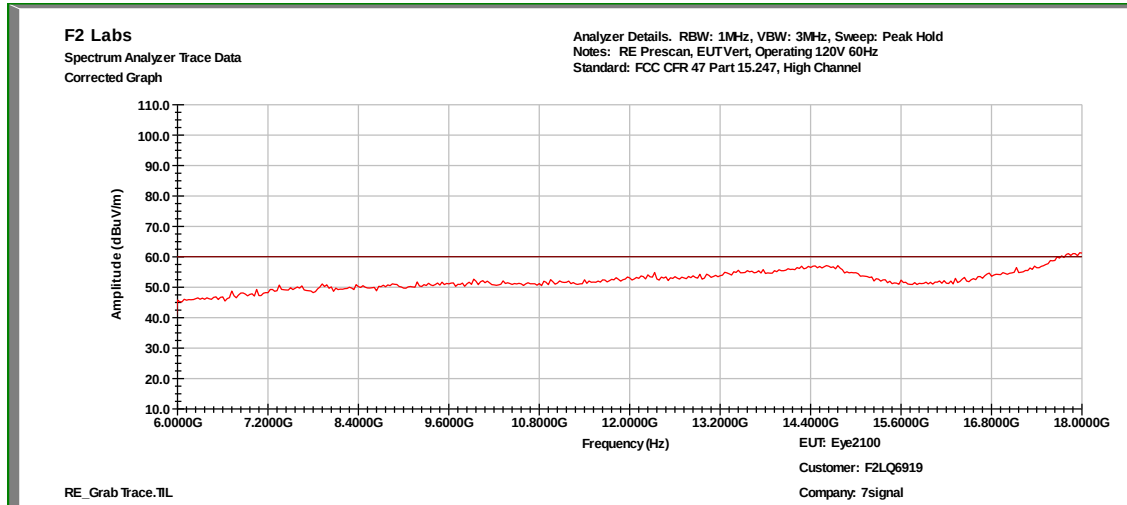


20M, Radiated Spurious Emissions: High Channel, 1 GHz to 6 GHz, Vertical

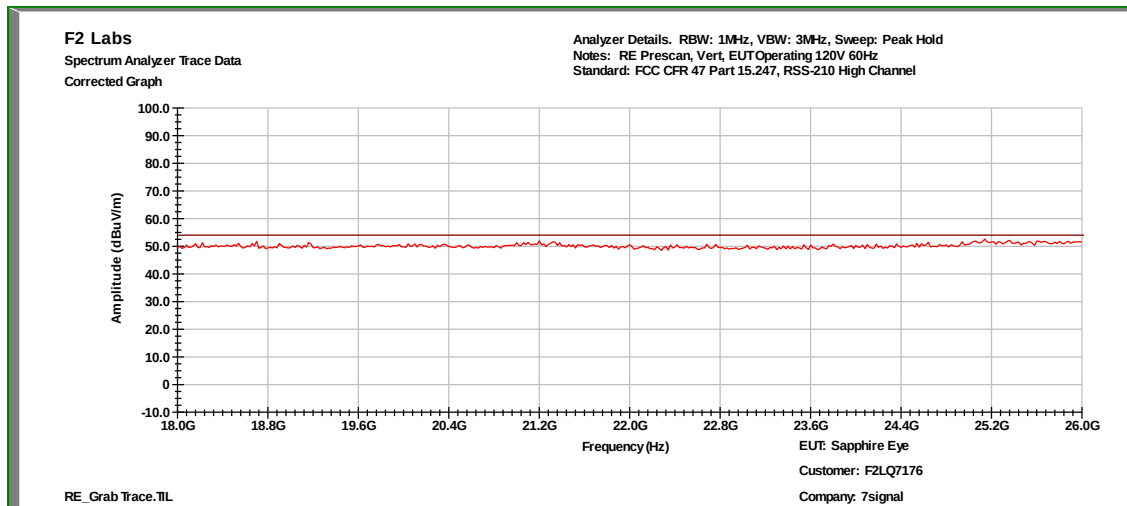




20M, Radiated Spurious Emissions: High Channel, 6 GHz to 18 GHz, Vertical

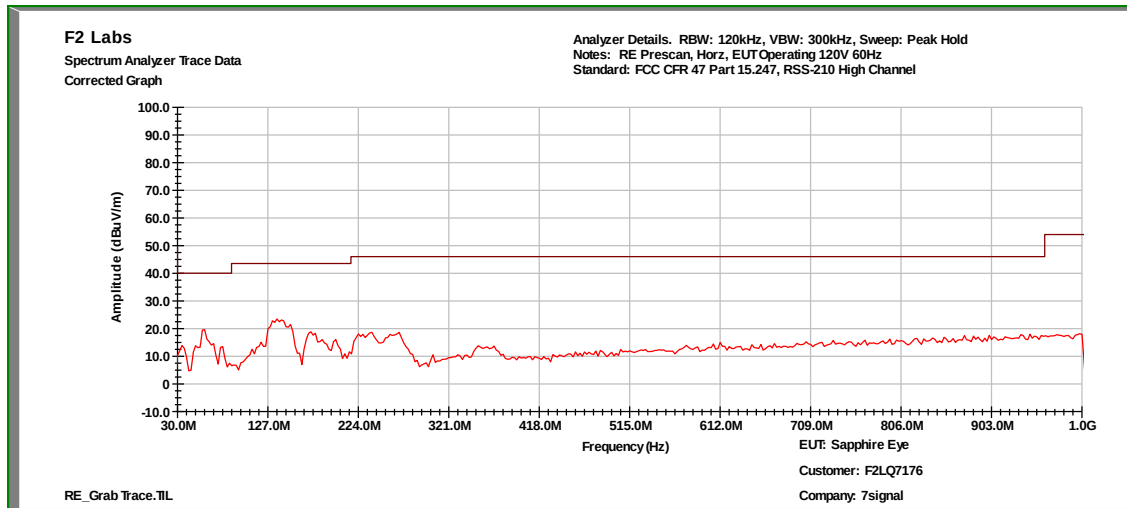


20M, Radiated Spurious Emissions: High Channel, 18 GHz to 26 GHz, Vertical

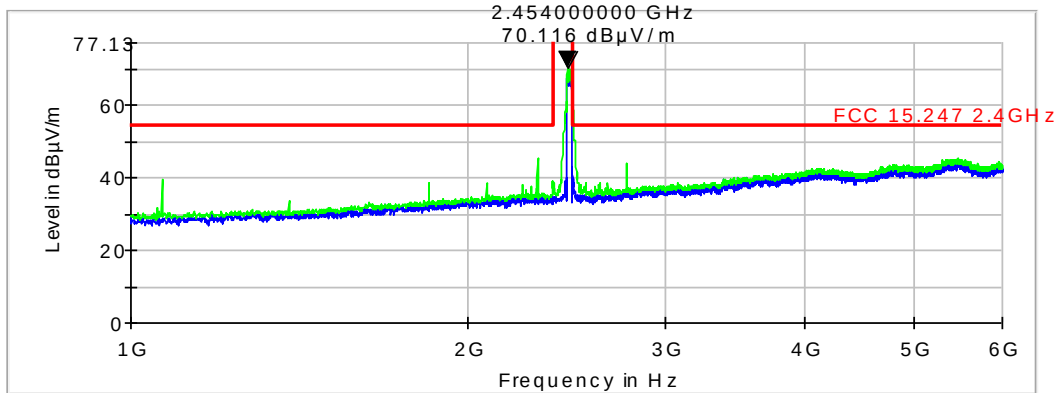




20M, Radiated Spurious Emissions: High Channel, 30 MHz to 1 GHz, Horizontal

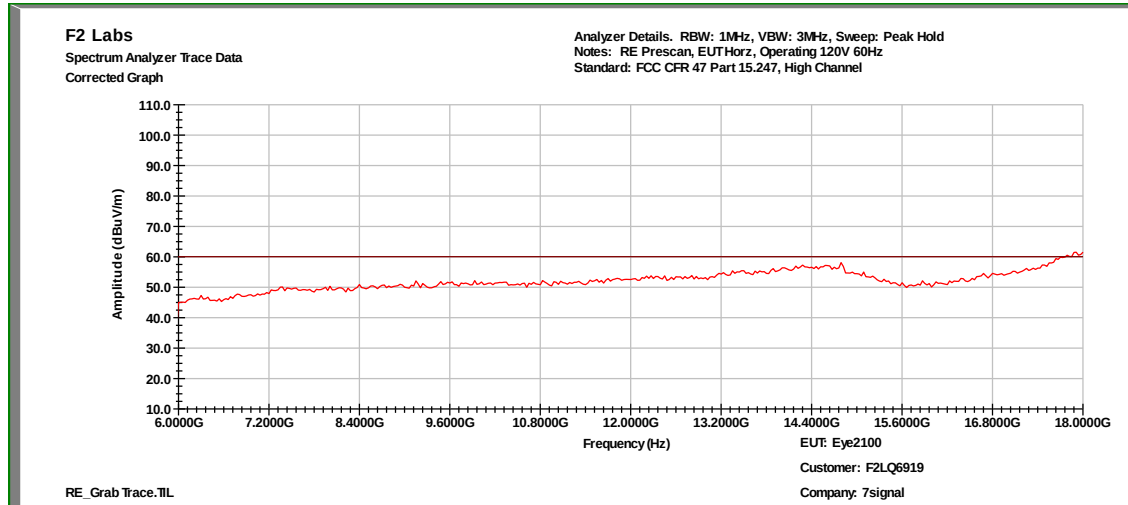


20M, Radiated Spurious Emissions: High Channel, 1 GHz to 6 GHz, Horizontal

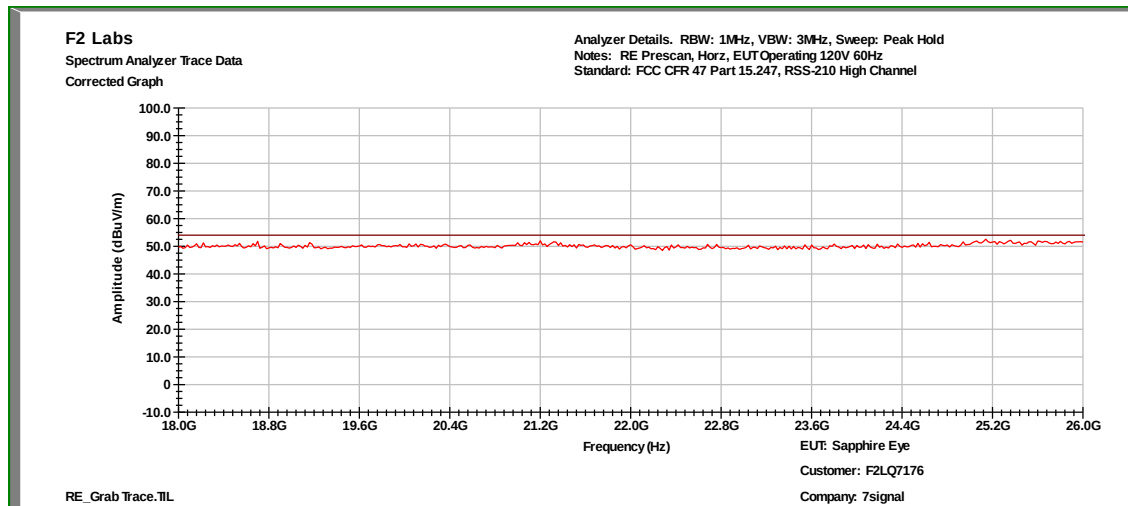




20M, Radiated Spurious Emissions: High Channel, 6 GHz to 18 GHz, Horizontal

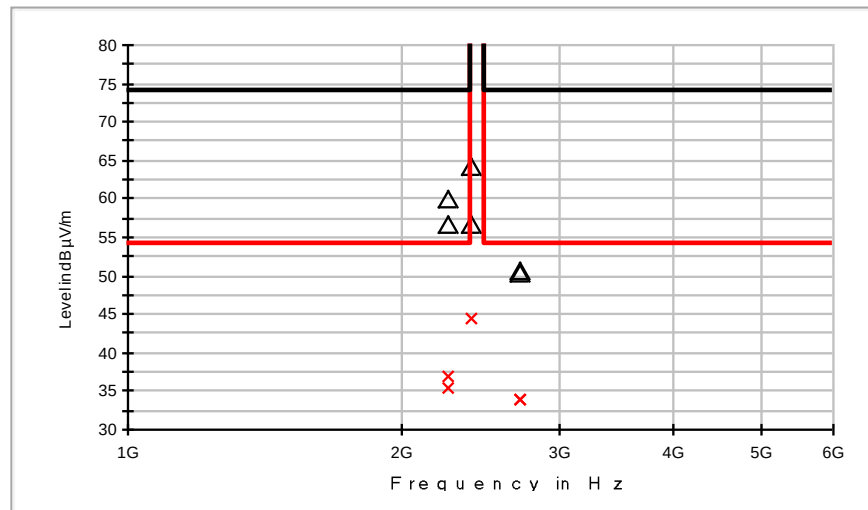


20M, Radiated Spurious Emissions: High Channel, 18 GHz to 26 GHz, Horizontal





Measurements



20M, Low Channel - MaxPeak

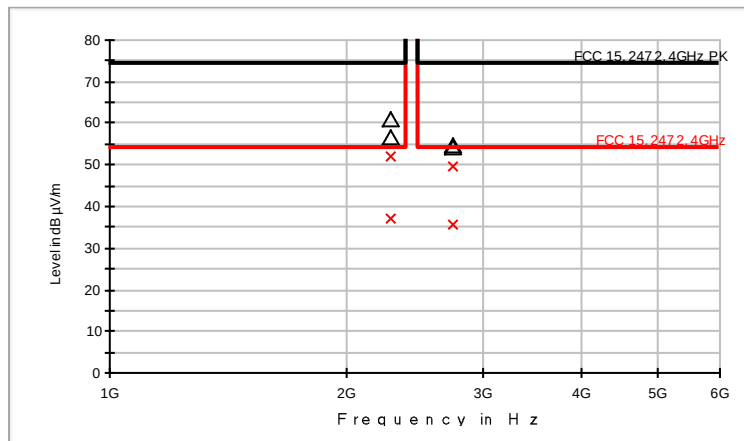
Frequency (MHz)	Antenna Polarization	Reading (dBμV)	Cable Loss & Antenna Factor (dB)	Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2261.192000	V	49.4	10.8	60.20	74.0	-13.8
2261.282000	H	45.9	10.8	56.70	74.0	-17.3
2389.467000	V	53.0	11.2	64.20	74.0	-9.8
2389.585000	H	45.7	11.2	56.90	74.0	-17.1
2713.502000	V	38.2	12.2	50.40	74.0	-23.6

20M, Low Channel - Average

Frequency (MHz)	Antenna Polarization	Reading (dBμV)	Cable Loss & Antenna Factor (dB)	Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2261.192000	V	26.2	10.8	37.00	54.0	-17.0
2261.282000	H	24.7	10.8	35.50	54.0	-18.5
2389.467000	V	33.2	11.2	44.40	54.0	-9.6
2389.585000	H	29.0	11.2	40.20	54.0	-13.8
2713.502000	V	21.9	12.2	34.10	54.0	-19.9



20M, Mid Channel



20M, Mid Channel - MaxPeak

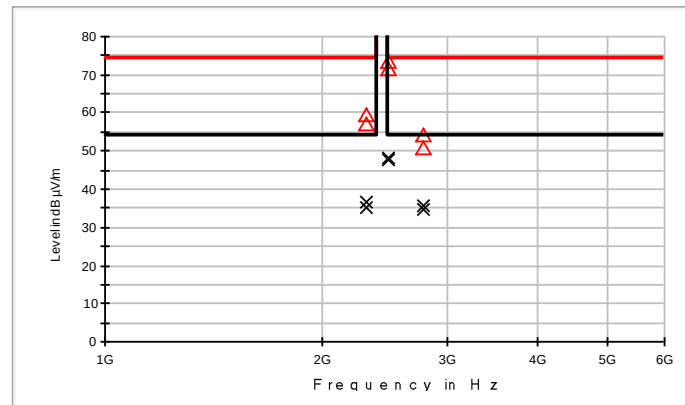
Frequency (MHz)	Antenna Polarization	Reading (dBµV)	Cable Loss & Antenna Factor (dB)	Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2280.000000	H	46.3	10.8	57.10	74.0	-16.9
2280.000000	V	50.4	10.8	61.20	74.0	-12.8
2736.000000	H	42.4	12.3	54.70	74.0	-19.3
2736.000000	V	42.2	12.3	54.50	74.0	-19.5

20M, Mid Channel - Average

Frequency (MHz)	Antenna Polarization	Reading (dBµV)	Cable Loss & Antenna Factor (dB)	Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2280.000000	H	41.1	10.8	51.90	54.0	-2.1
2280.000000	V	26.4	10.8	37.20	54.0	-16.8
2736.000000	H	37.2	12.3	49.50	54.0	-4.5
2736.000000	V	23.2	12.3	35.50	54.0	-18.5



20M, High Channel



20M, High Channel - MaxPeak

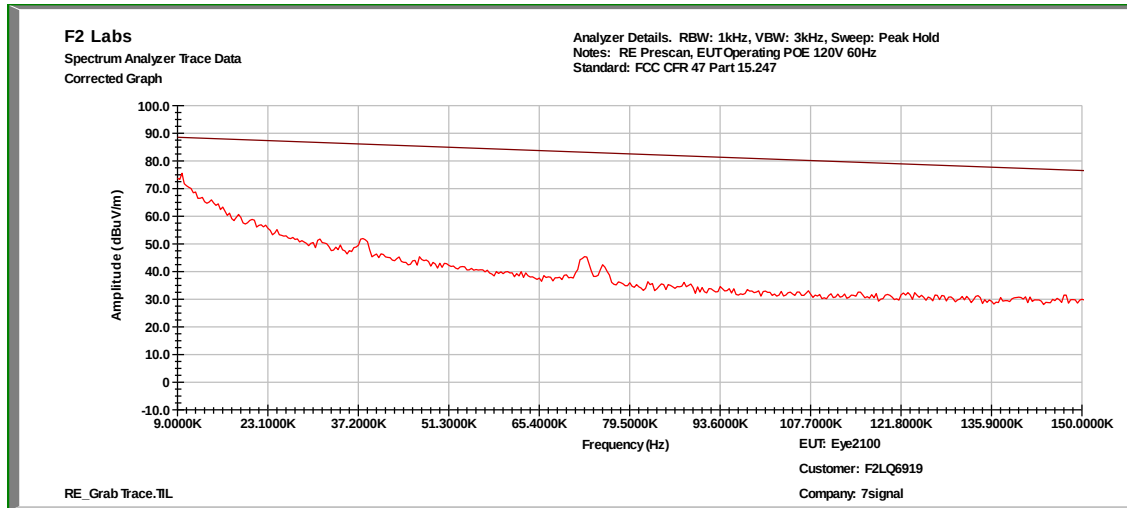
Frequency (MHz)	Antenna Polarization	Reading (dBµV)	Cable Loss & Antenna Factor (dB)	Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2308.000000	H	46.7	10.9	57.60	74.0	-16.4
2308.000000	V	48.8	10.9	59.70	74.0	-14.3
2483.500000	V	60.1	11.5	71.59	74.0	-2.4
2483.500000	H	61.9	11.5	73.37	74.0	-0.6
2483.688000	H	60.3	11.5	71.80	74.0	-2.2
2483.688000	V	62.3	11.5	73.80	74.0	-0.2
2769.680000	V	38.8	12.4	51.20	74.0	-22.8
2769.680000	H	42.1	12.4	54.50	74.0	-19.5

20M, High Channel - Average

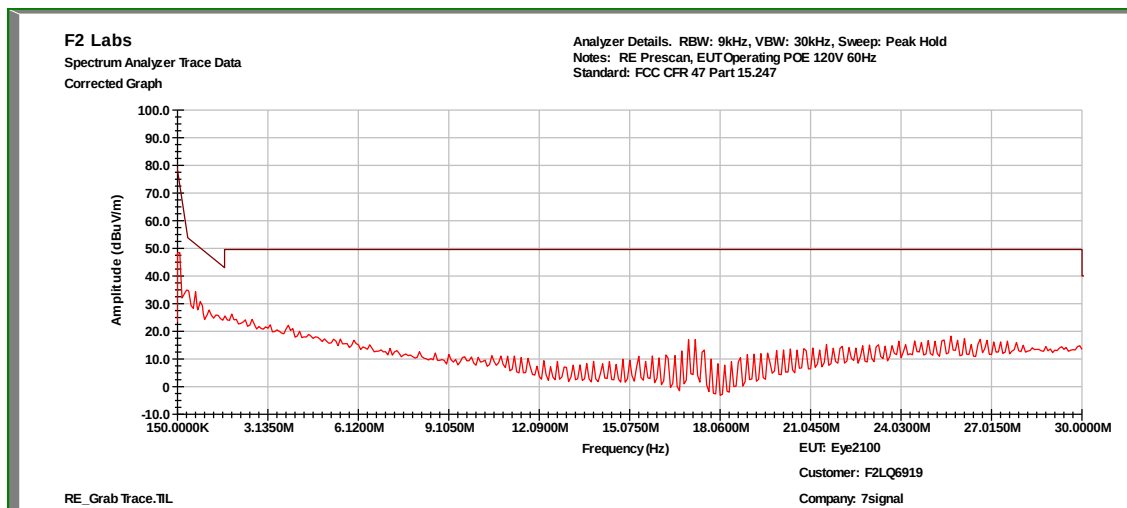
Frequency (MHz)	Antenna Polarization	Reading (dBµV)	Cable Loss & Antenna Factor (dB)	Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2308.000000	H	24.1	10.9	35.00	54.0	-19.0
2308.000000	V	25.8	10.9	36.70	54.0	-17.3
2483.500000	V	37.3	11.5	48.83	54.0	-5.2
2483.500000	H	39.7	11.5	51.19	54.0	-2.8
2483.688000	H	36.4	11.5	47.90	54.0	-6.1
2483.688000	V	36.5	11.5	48.00	54.0	-6.0
2769.680000	V	22.4	12.4	34.80	54.0	-19.2
2769.680000	H	23.4	12.4	35.80	54.0	-18.2



POE, Radiated Spurious Emissions: 9k to 150k

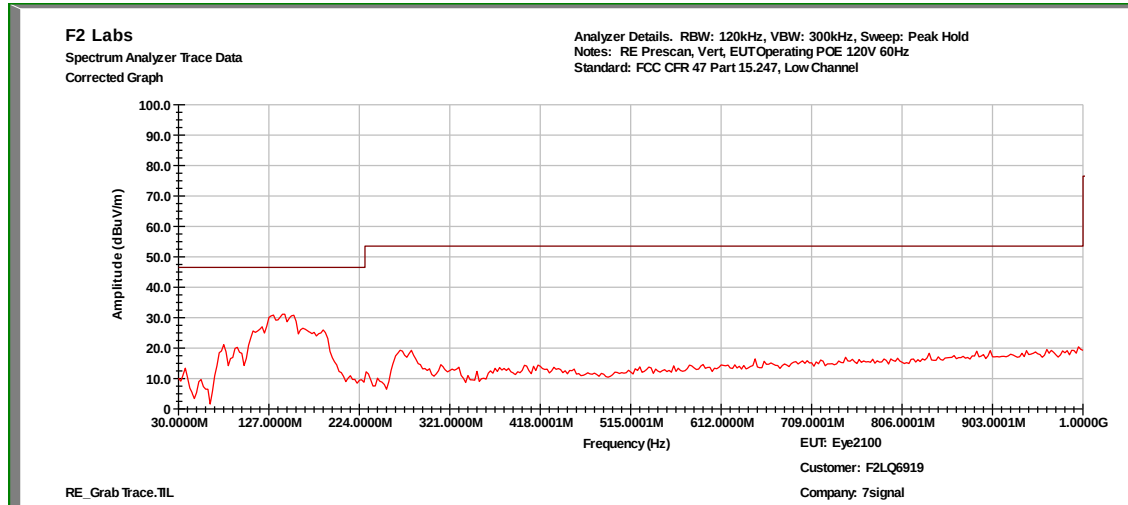


POE, Radiated Spurious Emissions: 150k to 30 MHz

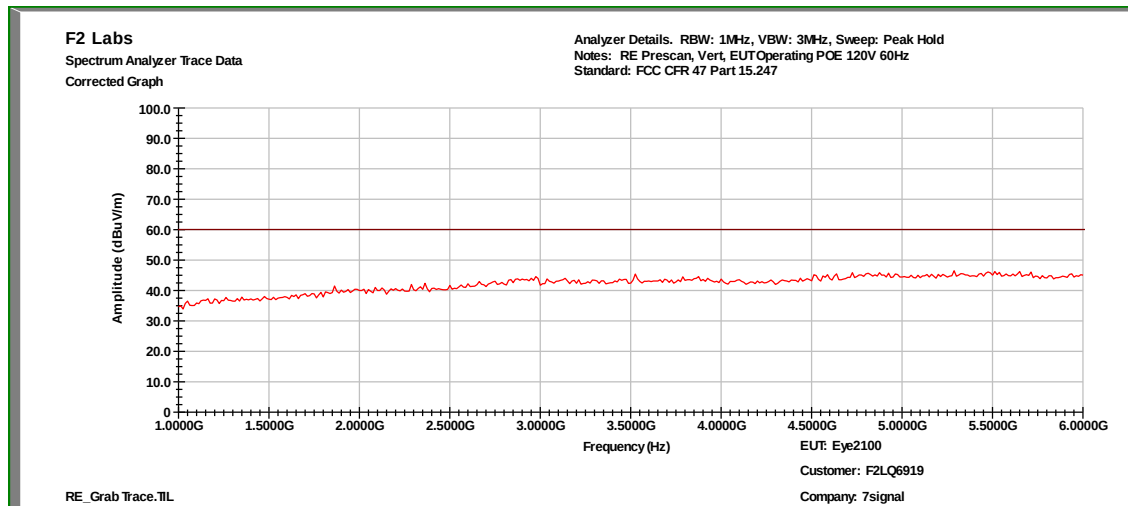




POE, Radiated Spurious Emissions: 30 MHz to 1 GHz, Vertical

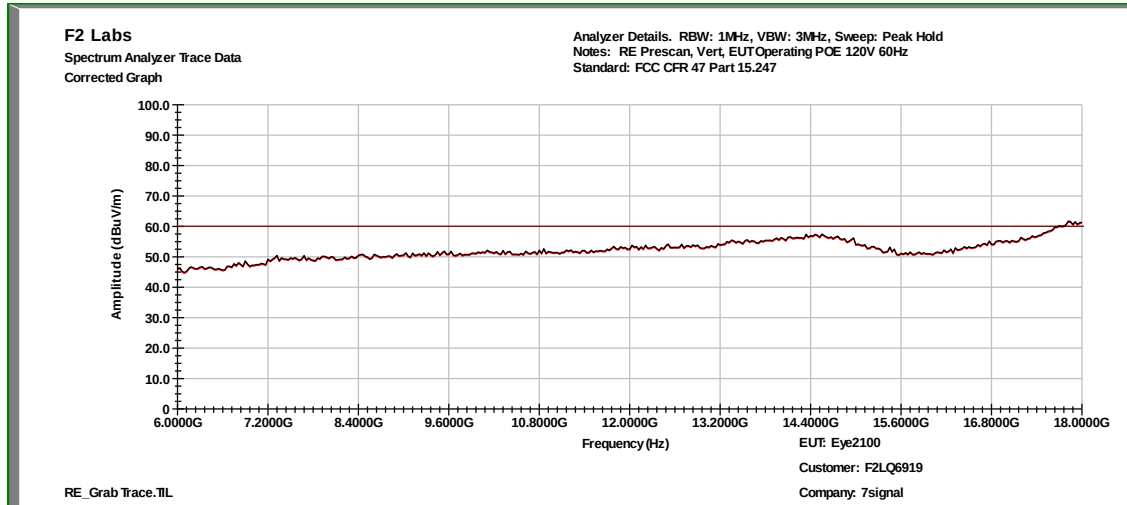


POE Radiated Spurious Emissions: 1 GHz to 6 GHz, Vertical

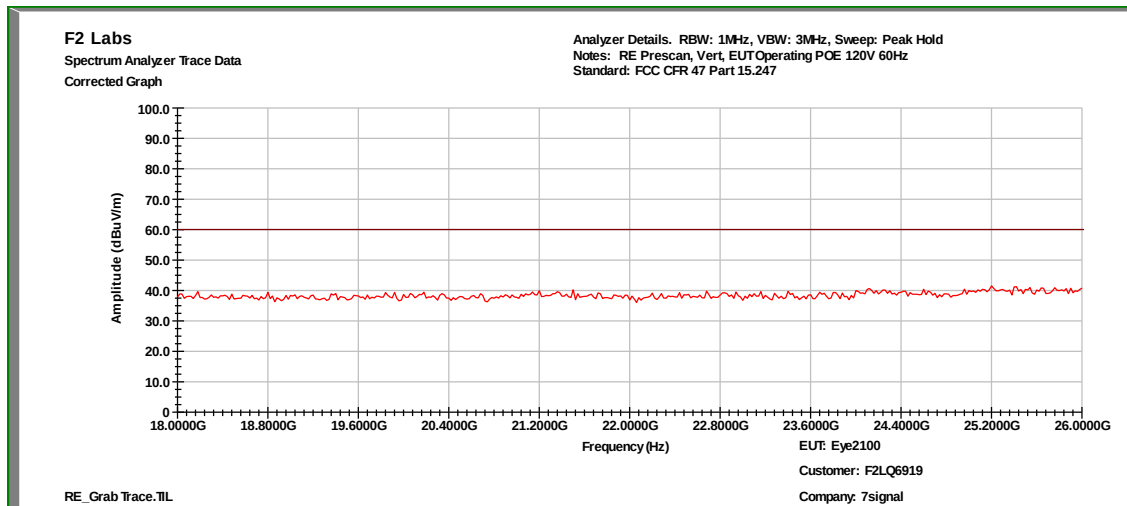




POE, Radiated Spurious Emissions: 6 GHz to 18 GHz, Vertical

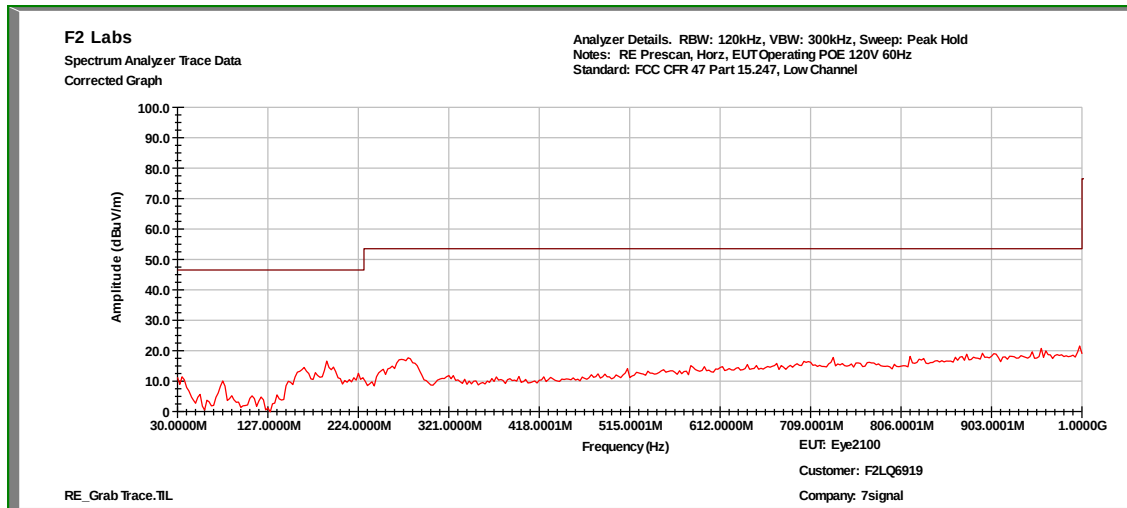


POE, Radiated Spurious Emissions: 18 GHz to 26 GHz, Vertical

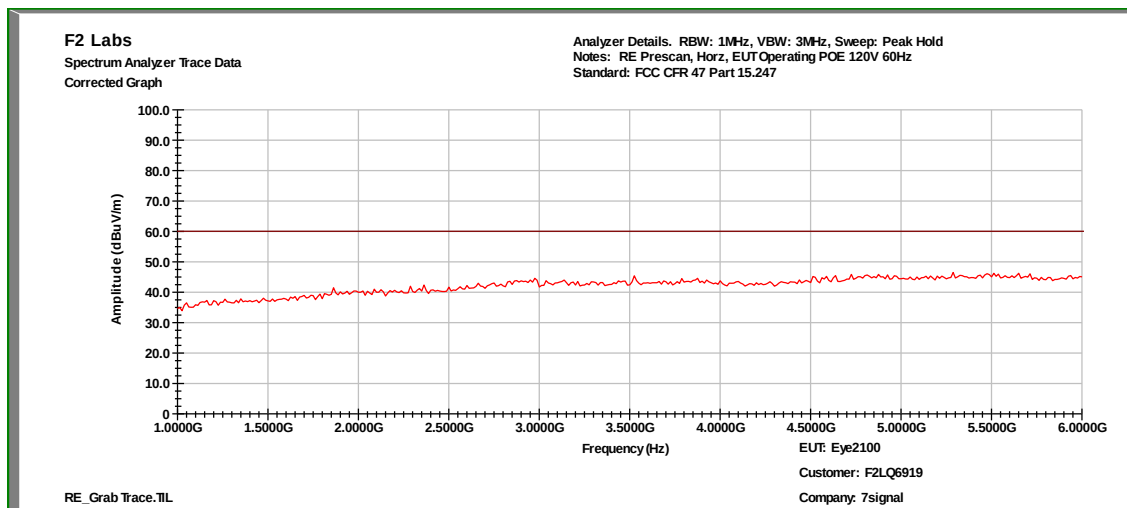




POE, Radiated Spurious Emissions: 30 MHz to 1 GHz, Horizontal

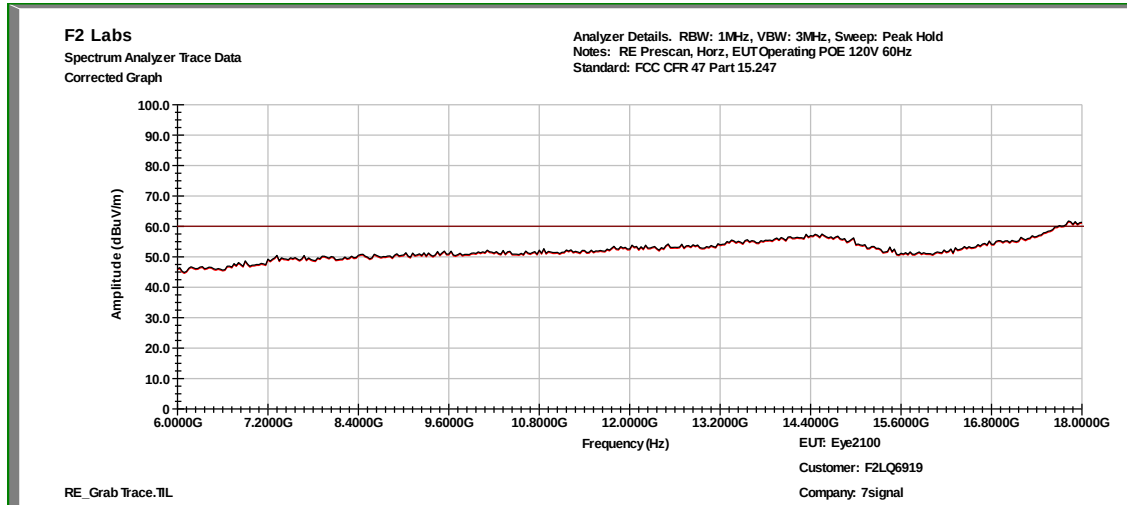


POE, Radiated Spurious Emissions: 1 GHz to 6 GHz, Horizontal

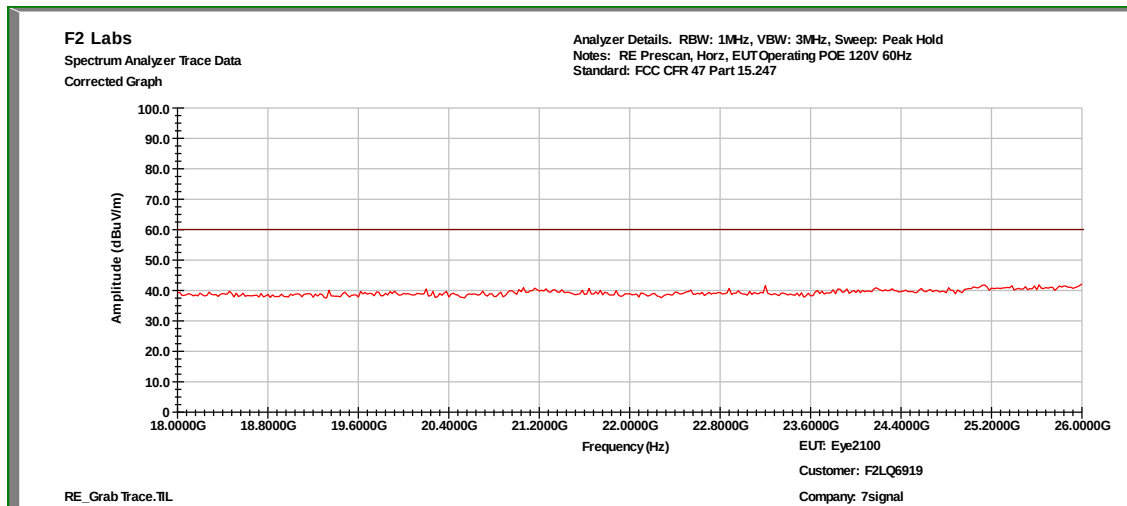




POE, Radiated Spurious Emissions: GHz to 18 GHz, Horizontal



POE, Radiated Spurious Emissions: 18 GHz to 26 GHz, Horizontal





7 CONDUCTED EMISSIONS

7.1 Requirements

In accordance with FCC CFR 47 Part 15.207(a), "Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

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

*Decreases with the logarithm of the frequency.

7.2 Procedure

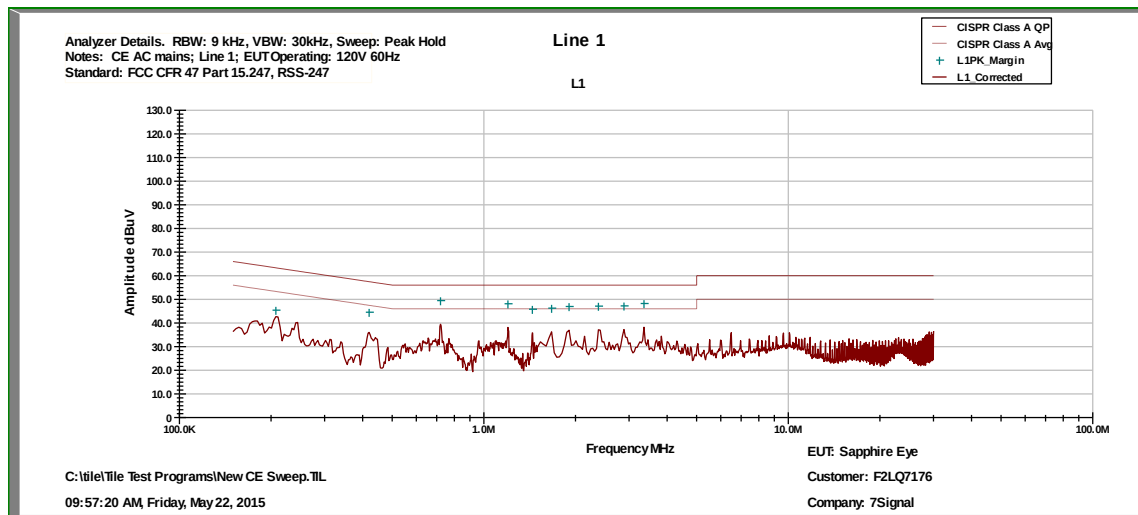
The EUT was placed on a 1.0 x 1.5 meter non-conductive table, 0.8 meter above a horizontal ground plane and 0.4 meter from a vertical ground plane. Power was provided to the EUT through a LISN bonded to a 3 x 2 meter ground plane. The LISN and peripherals were supplied power through a filtered AC power source. The output of the LISN was connected to the input of the receiver via a transient limiter, and emissions in the range 150 kHz to 30 MHz were measured. The measurements were recorded using the quasi-peak and average detectors as directed by the standard, and the resolution bandwidth during testing was 9 kHz. The raw measurements were corrected to allow for attenuation from the LISN, transient limiter and cables.



7.3 Conducted Emissions Test Data

Test Date(s):	May 22, 2015; July 14, 2015	Test Engineer:	J. Knepper
Rule:	15.207	Air Temperature:	21.0° C
Test Results:	Pass	Relative Humidity:	46%

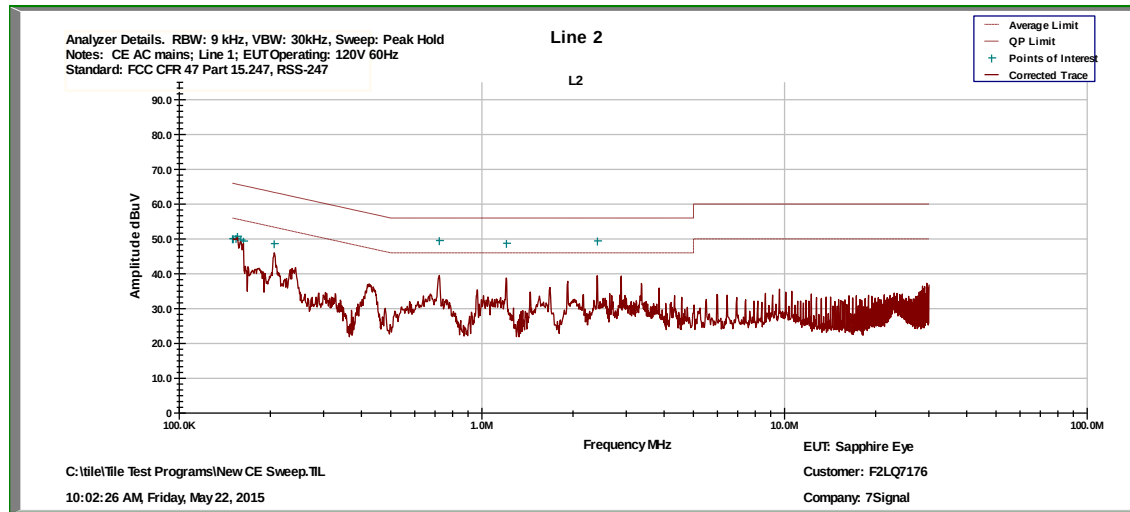
Loaded, Conducted Test – Line 1: 0.15 MHz to 30.0 MHz



Top Discrete Measurements								
No.	Conductor	Frequency (MHz)	Detector	Level (dBμV)	Adjustment (dB)	Results (dBμV)	Limit (dBμV)	Margin (dB)
1	Line 1	0.718934	Quasi-Peak	29.140	10.441	39.581	56.0	-16.419
		0.718934	Average	26.315	10.441	36.756	46.0	-9.244
2	Line 1	1.1981	Quasi-Peak	27.730	10.400	38.130	56.0	-17.87
		1.1981	Average	25.108	10.400	35.508	46.0	-10.492
3	Line 1	1.43913	Quasi-Peak	24.500	10.384	34.884	56.0	-21.116
		1.43913	Average	20.737	10.384	31.121	46.0	-14.879
4	Line 1	1.67664	Quasi-Peak	26.250	10.380	36.630	56.0	-19.37
		1.67664	Average	22.618	10.380	32.998	46.0	-13.002
5	Line 1	1.91458	Quasi-Peak	25.360	10.371	35.731	56.0	-20.269
		1.91458	Average	22.048	10.371	32.419	46.0	-13.581
6	Line 1	2.39456	Quasi-Peak	26.540	10.364	36.904	56.0	-19.096
		2.39456	Average	23.365	10.364	33.729	46.0	-12.271
7	Line 1	2.87596	Quasi-Peak	26.770	10.360	37.130	56.0	-18.870
		2.87596	Average	23.063	10.360	33.423	46.0	-12.577
8	Line 1	3.35181	Quasi-Peak	25.480	10.353	35.833	56.0	-20.167
		3.35181	Average	21.950	10.353	32.303	46.0	-13.697



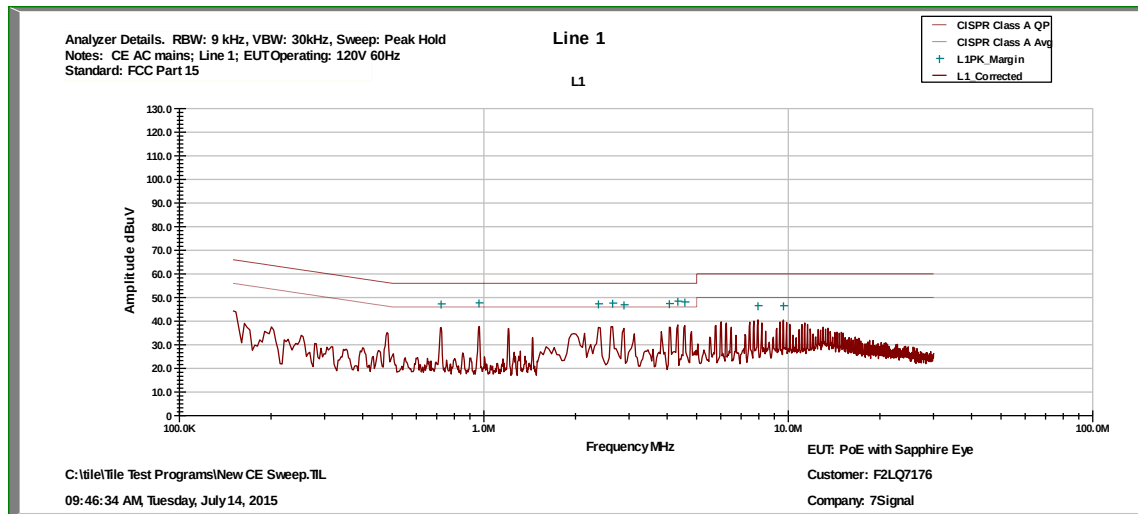
Loaded, Conducted Test – Line 2: 0.15 MHz to 30.0 MHz



Top Discrete Measurements								
No.	Conductor	Frequency (MHz)	Detector	Level (dBμV)	Adjustment (dB)	Results (dBμV)	Limit (dBμV)	Margin (dB)
1	Line 2	0.15047	Quasi-Peak	36.820	11.498	48.318	65.974	-17.656
		0.15047	Average	21.743	11.498	33.241	55.974	-22.733
2	Line 2	0.151161	Quasi-Peak	36.520	11.494	48.014	65.937	-17.923
		0.151161	Average	23.615	11.494	35.109	55.937	-20.828
3	Line 2	0.155316	Quasi-Peak	35.330	11.473	46.803	65.711	-18.908
		0.155316	Average	22.280	11.473	33.753	55.711	-21.958
4	Line 2	0.155494	Quasi-Peak	35.930	11.473	47.403	65.702	-18.299
		0.155494	Average	21.878	11.473	33.351	55.702	-22.351
5	Line 2	0.159814	Quasi-Peak	33.200	11.451	44.651	65.474	-20.82
		0.159814	Average	18.422	11.451	29.873	55.474	-25.601
6	Line 2	0.162702	Quasi-Peak	30.290	11.407	41.697	65.326	-23.629
		0.162702	Average	13.097	11.407	24.504	55.326	-30.822
7	Line 2	0.203327	Quasi-Peak	32.300	11.053	43.353	63.475	-20.122
		0.203327	Average	21.660	11.053	32.713	53.475	-20.762
8	Line 2	0.717225	Quasi-Peak	28.260	10.441	38.701	56.0	-17.299
		0.717225	Average	24.813	10.441	35.254	46.0	-10.746
9	Line 2	1.19702	Quasi-Peak	27.640	10.400	38.040	56.0	-17.960
		1.19702	Average	24.568	10.400	34.968	46.0	-11.032
10	Line 2	2.39485	Quasi-Peak	26.380	10.364	36.744	56.0	-19.256
		2.39485	Average	23.397	10.364	33.761	46.0	-12.239



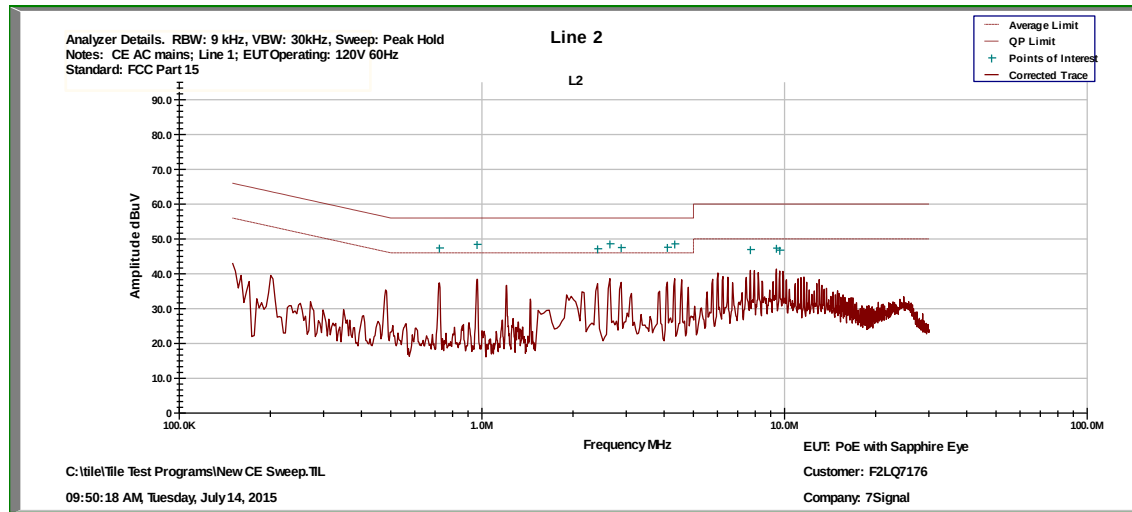
POE, Conducted Test – Line 1: 0.15 MHz to 30.0 MHz



Top Discrete Measurements								
No.	Conductor	Frequency (MHz)	Detector	Level (dBμV)	Adjustment (dB)	Results (dBμV)	Limit (dBμV)	Margin (dB)
1	Line 1	0.720586	Quasi-Peak	26.090	10.440	36.530	56.0	-19.470
		0.720586	Average	25.198	10.440	35.638	46.0	-10.362
2	Line 1	0.958628	Quasi-Peak	27.340	10.412	37.752	56.0	-18.25
		0.958628	Average	25.462	10.412	35.874	46.0	-10.126
3	Line 1	2.36193	Quasi-Peak	17.250	10.366	27.616	56.0	-28.384
		2.36193	Average	5.548	10.366	15.914	46.0	-30.086
4	Line 1	2.63803	Quasi-Peak	26.970	10.360	37.330	56.0	-18.67
		2.63803	Average	25.732	10.360	36.092	46.0	-9.908
5	Line 1	2.87655	Quasi-Peak	25.330	10.360	35.690	56.0	-20.310
		2.87655	Average	23.670	10.360	34.030	46.0	-11.970
6	Line 1	4.07699	Quasi-Peak	26.370	10.342	36.712	56.0	-19.288
		4.07699	Average	25.300	10.342	35.642	46.0	-10.358
7	Line 1	4.31777	Quasi-Peak	27.560	10.318	37.878	56.0	-18.122
		4.31777	Average	26.368	10.318	36.686	46.0	-9.314
8	Line 1	4.558	Quasi-Peak	26.750	10.301	37.051	56.0	-18.949
		4.558	Average	25.517	10.301	35.818	46.0	-10.182
9	Line 1	7.91467	Quasi-Peak	29.930	10.059	39.989	60.0	-20.011
		7.91467	Average	28.603	10.059	38.662	50.0	-11.338
10	Line 1	9.59425	Quasi-Peak	30.110	10.124	40.234	60.0	-19.766
		9.59425	Average	28.695	10.124	38.819	50.0	-11.181



POE, Conducted Test – Line 2: 0.15 MHz to 30.0 MHz

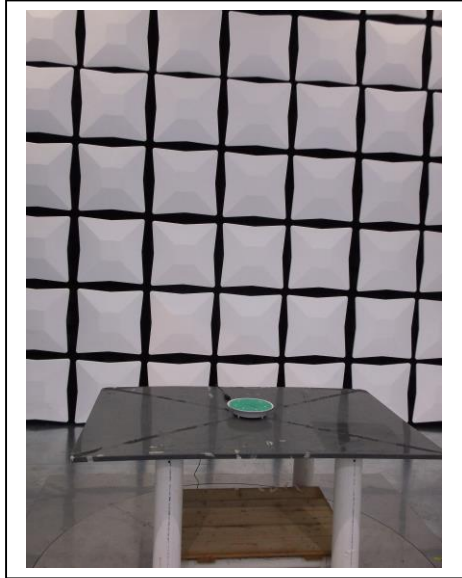


Top Discrete Measurements								
No.	Conductor	Frequency (MHz)	Detector	Level (dBμV)	Adjustment (dB)	Results (dBμV)	Limit (dBμV)	Margin (dB)
1	Line 2	0.720238	Quasi-Peak	26.320	10.440	36.760	56.000	-19.240
		0.720238	Average	25.545	10.440	35.985	46.000	-10.015
2	Line 2	0.959618	Quasi-Peak	28.080	10.412	38.492	56.000	-17.508
		0.959618	Average	26.045	10.412	36.457	46.000	-9.543
3	Line 2	2.40076	Quasi-Peak	25.270	10.364	35.634	56.000	-20.366
		2.40076	Average	24.090	10.364	34.454	46.000	-11.546
4	Line 2	2.63844	Quasi-Peak	27.120	10.360	37.480	56.000	-18.520
		2.63844	Average	25.938	10.360	36.298	46.000	-9.702
5	Line 2	2.87979	Quasi-Peak	25.850	10.360	36.210	56.000	-19.79
		2.87979	Average	24.360	10.360	34.720	46.000	-11.280
6	Line 2	4.07734	Quasi-Peak	26.500	10.342	36.842	56.000	-19.158
		4.07734	Average	25.295	10.342	35.637	46.000	-10.363
7	Line 2	4.31767	Quasi-Peak	27.560	10.318	37.878	56.000	-18.122
		4.31767	Average	26.533	10.318	36.851	46.000	-9.149
8	Line 2	7.67395	Quasi-Peak	28.870	10.086	38.956	60.0	-21.044
		7.67395	Average	27.365	10.086	37.451	50.0	-12.549
9	Line 2	9.35379	Quasi-Peak	29.570	10.114	39.684	60.0	-20.316
		9.35379	Average	27.880	10.114	37.994	50.0	-12.006
10	Line 2	9.59569	Quasi-Peak	30.270	10.124	40.394	60.0	-19.606
		9.59569	Average	28.108	10.124	38.232	50.0	-11.768



8 PHOTOGRAPHS/EXHIBITS – PRODUCT PHOTOS, TEST SETUPS

Radiated Spurious Emission



Conducted Emissions

