

Certification Test Report

For a

PAK-LINK Computer Interface

Manufacturer:

Scott Health & Safety, Division of Scott
4320 Goldmine Road
Monroe, North Carolina 28110
United States of America

Testing Laboratory:

F-Squared Laboratories
16740 Peters Road
Middlefield, Ohio 44062
United States of America

The PAK-LINK Computer Interface (Snappy) was tested and was found to comply with the requirements of the Federal Communications Commission outlined in the Federal Register CFR 47, Part 15.247.

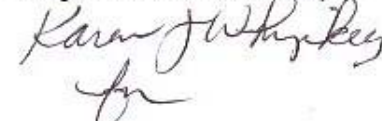
The product was received on August 17, 2007 and the testing was completed on Sept. 7, 2007.

Evaluation Conducted By:



John A. Harrington
EMC Technical Manager

Report Reviewed By:



Wendy Fuster
President



success thru compliance

F-Squared Laboratories

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Reports noted as a revision replace all previously issued reports and/or antecedent report revisions issued under this job number.

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1. ENGINEERING STATEMENT

This report has been prepared on behalf of Scott Health & Safety, Division of Scott 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 2003 standards. The test results found in this test report relate only to the items tested.

1.1. Equipment Under Test:

PAK-LINK Computer Interface (Snappy)
FCC ID T5E 200673

1.2. Trade Name:

Scott Health & Safety, Division of Scott

1.3. Model:

200673-01

1.4. Power Supply:

USB Port

1.5. Applicable Rules:

CFR 47, Part 15.247

1.6. Equipment Category:

Radio Transceiver-DTS

1.7. Antenna:

(integral)

1.8. Measurement Location:

F-Squared Laboratories 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.

1.9. Measurement Procedure:

All measurements were performed according to the 2003 version of ANSI C63.4 and recommended FCC procedure of measurement of DTS operating under Section 15.247 dated March 2005 (KDB #558074). A list of the measurement equipment can be found in Section 2.

1.10. Uncertainty Budget:

Radiated Emission - Combined Uncertainty (+ or -) 2.24 dB; Expanded Uncertainty (+ or -) 4.48 dB

2. LIST OF MEASUREMENT INFORMATION

Equipment Type	Manufacturer	Model	Serial Number	Calibration Due Date
Shield Room	Shielding Resources	3 Meter	001	Feb. 13, 2008
Temp/Hum. Recorder	Extech	RH520	H005870	Aug. 21, 2008
OATS	Compliance Labs	N/A	001	Aug. 16, 2008
Receiver	Rohde & Schwarz	Display, EASI-0-804-8932-52; RF Unit, ESMI-RF 1032-5640-53	84982/015; 849152/005	July 31, 2008
Antenna 1-Chamber	ETS/EMCO	3142B	9811-1330	June 29, 2009
Antenna 2-OATS	Sunol Sciences	JB1	A101101	June 29, 2009
Horn Antenna	Emco	3115	9809-5580	Sept. 21, 2007
Horn Antenna	A. H. Systems, Inc.	SAS-572	237	June 15, 2008
Horn Antenna	A. H. Systems, Inc.	SAS-586	142	June 15, 2008
Transient Limiter	Hewlett Packard	11947A	3107A03325	Oct. 2, 2007
Pre-Amplifier	Hewlett-Packard	8447D	2944A08445	Oct. 3, 2007
Pre-Amplifier	Hewlett Packard	83006A	310A00500	Oct. 3, 2007
LISN 2	Solar	8028-50-TS-24-BNC	1128	Oct. 2, 2007
LISN 3	Solar	8028-50-TS-24-BNC	1129	Oct. 2, 2007
Active 18" Loop Antenna	A.H. Systems, Inc.	SAS-562B	241	Aug. 23, 2009

3. EQUIPMENT UNDER TEST (EUT) INFORMATION AND DATA

3.1 Test Item Condition:

The equipment to be tested was received in good condition.

3.2 Testing Algorithm:

The EUT was tested at 1 carrier frequency, 2.425 GHz, the only frequency it operates at. The EUT was assessed while operating in a test mode that either provided constant modulated transmission or constant carrier wave transmission.

3.3 Conducted Emissions Testing:

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.

3.4 Radiated Emission Testing on Open Area Test Site (OATS):

The EUT was tested at a distance of 3.0 meters. The emissions were maximized by rotating the table and raising/lowering the antenna mounted on a 4.0 meter mast.* Both horizontal and vertical field components were measured. The output of the antenna was connected to the input of the receiver and emissions were measured in the range 10 kHz to 25 GHz. The values up to 1GHz are quasi-peak readings made at 3.0 meters with a resolution bandwidth of 200 Hz from 9 kHz to 150 kHz, 9 kHz from 150 kHz to 30 MHz and 120 kHz from 30 MHz to 1 GHz. The measurements above 1 GHz with a resolution bandwidth of 1 MHz are average readings at a distance of 3.0 meters and 1.0 meter. The raw measurements were corrected to allow for antenna factor, cable loss and preamplifier gain. All data for radiated emissions can be found in Section 10.2.

3.5 The EUT was powered via a USB port. During the applicable measurements, the input power to the PC which was supplying power to the USB port was varied between 85V (85% of 100V) and 276V (115% of 240V).

4. EUT CONFIGURATION AND CABLES

4.1. Equipment Under Test (EUT):

Device	Manufacturer	Model Number	Serial Number	Sample Number
Snappy	Scott Health & Safety	None Specified	None Specified	S01
Snappy Test Fixture	Scott Health & Safety	None Specified	None Specified	S02
Snappy Test Fixture	Scott Health & Safety	None Specified	None Specified	S03
Snappy	Scott Health & Safety	None Specified	None Specified	S04

4.2. Accessories (Support Equipment):

Device	Manufacturer	Model Number	Serial Number
Laptop PC	Dell	Inspiron 12500	N/A
Power Supply	Dell	ADP-70EB	N/A
Keyboard	Logitech	Y-BF37	MCT25213863
Mouse	Dell	M071KG	509033616

4.3. Cables:

Cable Function	Length	Shielded (Yes/No)
USB	2.0 meters	Yes

5. FCC PART 15.403(f) – DIGITAL MODULATION

Product Description:

The PAK-LINK Computer Interface (Snappy) is a digital transmission system (DTS).* Digital modulation was applied in single frequency mode for all tests.

6. FCC PART 15.31(m) – OPERATING FREQUENCIES

Number of Operating Frequencies:

The EUT was operating at 2.425 GHz, its only frequency of operation.

7. FCC PART 15.207(a) – POWER LINE CONDUCTED EMISSIONS

Test Date:	Sept. 4, 2007	Test Engineer:	J. Harrington
Standard:	FCC 47 CFR 15, subpart C, clause 15.207	Air Temperature:	23.2° C
Limit:	See Below	Relative Humidity:	58%
Pass/Fail:	Pass		

7.1. Requirements:

The power supply operating the incorporated DTS Transmitter shall not exceed the limits below when measured using procedures of ANSI C63.4.

Frequency of Emission (MHz)	Conducted Emissions Limit (db μ V)	
	Quasi-Peak	Average
0.15 – 0.5	66 – 56*	56 – 46*
0.5 – 5.0	56	48
5.0 – 30.0	60	50

*Decreasing with the logarithm of frequency.

7.2. Results:

The measured power line conducted emissions are shown in Figures 1 to 6. These measurements are peak readings.

Based on these measurements, the Transmitter incorporating the DTS Transmitter meets FCC Part 15.207(a) requirements for suppression of conducted emissions.

Reference test configuration photographs on pages 43 and 44.

8. FCC PART 15.247(a)(2) – BANDWIDTH

Test Date:	Aug. 23, 2007	Test Engineer:	J. Harrington
Standard:	FCC 47 CFR 15, Subpart C	Air Temperature:	28.9° C
Clause:	15.247(a)(2)	Relative Humidity:	46%
Test Method:	KDB #558074	Sample Assessed:	S02

8.1. Requirements:

The 6dB bandwidth shall be greater than 500 kHz.

The antenna port of the EUT was connected directly to the input of a Spectrum Analyzer via a modified 50 ohm termination. The spectrum analyzer was configured with a RBW of 120 kHz and a VBW of 300 kHz. The bandwidth was measured using the analyzer's marker function.

8.2. Results:

The measured 6dB bandwidth was 1.596 MHz (see plot in Figure 8).

The EUT complies with the requirement.

9. IC, RSS-Gen Issue 2 – 99% BANDWIDTH

Test Date:	Sept. 5, 2007	Test Engineer:	J. Harrington
Standard:	IC, RSS-Gen Issue 2:2007	Air Temperature:	27.9° C
Clause:	4.6.1	Relative Humidity:	43%
Test Method:	Industry Canada, RSS-Gen Issue 2:2007	Sample Assessed:	S03

9.1. Requirements:

Measure the 99% emission Bandwidth.

The EUT antenna port was directly connected to the spectrum analyzer via a modified 50 ohm termination. The EUT was operated at maximum power and was modulated with a continuous pseudo noise signal. The spectrum analyzer's span was set wide enough to capture all products of the modulation process. The RBW was set to be 1% of the span. The VBW was set to be ≥ 3 times the RBW.

9.2. Results:

Total sum of linear power elements: 18.992 mW

0.5% of total power: 0.0915 mW

Lowest frequency by which 0.5% power is achieved: 2423.55 MHz

Highest frequency by which 0.5% power is achieved: 2426.42 MHz

99% occupied bandwidth: 2.870 MHz

Refer to Figure 40.

10. FCC PART 15.247(b)(3) – POWER OUTPUT

Test Date:	Sept. 4, 2007	Test Engineer:	J. Harrington
Standard:	FCC 47 CFR 15, Subpart C	Air Temperature:	21.0° C
Clause:	15.247(b)	Relative Humidity:	50%
Test Method:	KDB #558074	Sample Assessed:	S03

10.1 Power Output Test

The antenna port of the EUT was connected directly to the input of a spectrum analyzer via a modified 50 ohm termination. The spectrum analyzer was configured with the RBW set to 1.7 MHz and the VBW set to 3 MHz. The peak output level was measured using the analyzer's marker function.

10.2 Requirements:

The peak power output shall be 1 watt (30 dBm) or less.

10.3 Results:

The measured peak power output found with the EUT operating (2.425 GHz) was -1.54 dBm (see plot in Figure 9).

The EUT complies with the requirement. Varying the input power to the PC which powered the EUT via a USB port; between 85V and 276V, had no effect on the output power.

11 FCC PART 15.247(i) – RF SAFETY

The EUT is not body mounted. The measured peak output power level is less than 1 mW. The user and/or general public will not be exposed to RF energy levels in excess of FCC guidelines, per OET Bulletin 65 Supplement C, Edition 01-01 June 2001.

12 FCC Part 15.247(d) – SPURIOUS EMISSIONS - ANTENNA

Test Date:	Sept. 4, 2007	Test Engineer:	J. Harrington
Standard:	FCC 47 CFR 15, Subpart C	Air Temperature:	21.0° C
Clause:	15.247(d)	Relative Humidity:	49%
Test Method:	KDB #558074	Sample Assessed:	S03

The following tests were performed to demonstrate compliance.

12.1. RF Antenna Conducted Test

The antenna port of the EUT was connected directly to the input of a spectrum analyzer via a modified 50 ohm termination. The spectrum analyzer was configured with the RBW set to 100 kHz and the VBW set to 300 kHz. The peak output levels were measured using the analyzer's marker function.

12.2. Requirements:

All harmonics and spurs must be at least 20dB down from the carrier.

Spurious emissions measurements were made at the operating frequency (2.425 GHz) with the appropriate spectrum analyzer impulse bandwidth.

12.3. Results:

The EUT meets FCC Part 15.247(d) requirements for conducted spurious emissions (refer to Figures 22 to 38).

13.0 RADIATED EMISSIONS (Restricted Bands)

Test Date:	Sept. 7, 2007	Test Engineer:	J. Harrington
Standard:	FCC 47 CFR 15, Subpart C	Air Temperature:	21.8° C
Clause:	15.209(a)	Relative Humidity:	51%
Test Method:	KDB #558074	Sample Assessed:	S04

13.1 Radiated Emissions Test

The EUT was initially placed in a semi-anechoic chamber, and wide band characterization measurements were performed to determine the frequencies at which significant emissions occurred.

The equipment was installed on a 0.8-meter high non-conductive table, on a turntable, on an Open Area Test Site (OATS). A receiving antenna was located 3.0 meters, or 1.0 meter, from the edge of the Equipment under Test (EUT). The antenna was attached to an antenna mast that allowed the antenna height to be adjusted from 1.0 to 4.0 meters above the ground plane.

The equipment was then fully exercised with all cabling attached to the EUT. 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. During the test, frequencies identified as being generated by the EUT in the frequency range of 9 kHz to 25 GHz were measured. The highest levels were recorded along with antenna polarity. These levels were then compared to the limits specified in FCC 47 CFR 15, paragraph 15.209.

13.2 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).

13.3 Results:

The EUT meets FCC Part 15.209 restrictions on field intensity in the restricted bands. Hence, the EUT satisfies FCC Part 15.247(d) regarding emissions in the restricted bands.

Harmonics & Spurious Emissions

Frequency (MHz)	Antenna Polarization	Reading (dBμV)	Cable Loss & Antenna Factor (dB)	Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
39.980000	H	7.7	14.9	22.6	40.0	-17.4
48.080000	V	18.9	9.3	28.2	40.0	-11.8
66.290000	V	13.8	9.2	23.0	40.0	-17.0
73.840000	V	21.8	9.1	30.9	40.0	-9.1
80.060000	H	14.8	9.5	24.3	40.0	-15.7
94.280000	V	19.9	11.4	31.3	43.5	-12.2
191.730000	H	17.4	14.7	32.1	43.5	-11.4
199.190000	V	17.3	16.2	33.5	43.5	-10.0
511.080000	V	13.2	22.2	35.4	46.0	-10.6
799.640000	V	5.1	27.2	32.3	46.0	-13.7
997.890000	V	4.6	29.9	34.5	54.0	-19.5

Radiated Emission Measurements - cont.

Detail

FCC 47 CFR 15 subpart C, clauses 15.205, 15.209 and 15.247(d)
F2LQ2830. Scott Health and Safety. Snappy
JAH. 09/06/07. EUT in constant CW mode.

Results

Measurements at 3m

Frequency (MHz)	Detector	Ant. Pol.	Reading (dBuV)	AF (dB/m)	CL (dB)	Pre Amp (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1,100.00	Pk	V	49.29	24.8	3.0	28.6	48.5	74.0	25.6
1,100.00	Av	V	49.29	24.8	3.0	28.6	48.5	54.0	5.6
1,300.30	Pk	V	44.77	25.2	3.3	29.2	44.1	74.0	29.9
1,300.30	Av	V	44.77	25.2	3.3	29.2	44.1	54.0	9.9
1,400.30	Pk	V	45.96	25.6	3.5	29.1	46.0	74.0	28.0
1,400.30	Av	V	45.96	25.6	3.5	29.1	46.0	54.0	8.0
1,500.00	Pk	V	45.76	25.9	3.6	28.8	46.5	74.0	27.5
1,500.00	Av	V	45.76	25.9	3.6	28.8	46.5	54.0	7.5
1,600.00	Pk	V	45.43	26.3	3.9	28.6	47.0	74.0	27.0
1,600.00	Av	V	45.43	26.3	3.9	28.6	47.0	54.0	7.0
1,700.00	Pk	V	45.63	26.7	3.9	28.4	47.8	74.0	26.2
1,700.00	Av	V	45.63	26.7	3.9	28.4	47.8	54.0	6.2
1,800.00	Pk	V	44.76	27.1	4.0	28.2	47.7	74.0	26.3
1,800.00	Av	V	44.76	27.1	4.0	28.2	47.7	54.0	6.3
1,900.00	Pk	V	44.46	27.5	4.2	28.0	48.2	74.0	25.8
1,900.00	Av	V	44.46	27.5	4.2	28.0	48.2	54.0	5.8
2,000.00	Pk	V	44.99	27.9	4.4	27.9	49.4	74.0	24.6
2,000.00	Av	V	44.99	27.9	4.4	27.9	49.4	54.0	4.6
2,425.30	Pk	V	83.97	29.0	4.7	27.3	90.4	N/A	N/A
2,425.30	Av	V	83.97	29.0	4.7	27.3	90.4	N/A	N/A
1,700.00	Pk	H	45.63	26.7	3.9	28.4	47.8	74.0	26.2
1,700.00	Av	H	45.63	26.7	3.9	28.4	47.8	54.0	6.2
2,000.00	Pk	H	44.99	27.9	4.4	27.9	49.4	74.0	24.6
2,000.00	Av	H	44.99	27.9	4.4	27.9	49.4	54.0	4.6
2,425.30	Pk	H	89.40	29.0	4.7	27.3	95.8	N/A	N/A
2,425.30	Av	H	89.40	29.0	4.7	27.3	95.8	N/A	N/A

Measurements at 1m

Frequency (MHz)	Detector	Ant. Pol.	Reading (dBuV)	AF (dB/m)	CL (dB)	Pre Amp (dB)	Emission (dBuv/m)	Limit (dBuv/m)	Margin (dB)
4,850.00	Pk	V	47.48	34.0	2.6	28.3	55.7	83.95	28.2
4,850.00	Av	V	47.48	34.0	2.6	28.3	55.7	63.95	8.2
7,275.00	Pk	V	43.70	35.9	3.2	28.3	54.5	83.95	29.5
7,275.00	Av	V	43.70	35.9	3.2	28.3	54.5	63.95	9.5
9,702.00	Pk	V	45.83	38.4	3.9	28.3	59.8	83.95	24.1
9,702.00	Av	V	45.83	38.4	3.9	28.3	59.8	63.95	4.1
4,850.00	Pk	H	46.26	34.0	2.6	28.3	54.5	83.95	29.5
4,850.00	Av	H	46.26	34.0	2.6	28.3	54.5	63.95	9.5
7,275.00	Pk	H	44.13	35.9	3.2	28.3	54.9	83.95	29.0
7,275.00	Av	H	44.13	35.9	3.2	28.3	54.9	63.95	9.0
9,702.00	Pk	H	44.11	38.4	3.9	28.3	58.1	83.95	25.9
9,702.00	Av	H	44.11	38.4	3.9	28.3	58.1	63.95	5.9

14.0 FCC PART 15.247(e) – PEAK POWER SPECTRAL DENSITY (PSD)

Test Date:	Sept. 4, 2007	Test Engineer:	J. Harrington
Standard:	FCC 47 CFR 15, Subpart C	Air Temperature:	21.0° C
Clause:	15.247(e)	Relative Humidity:	48%
Test Method:	KDB #558074	Sample Assessed:	S03

14.1 Peak Power Spectral Density (PSD) Test

The antenna port of the EUT was connected directly to the spectrum analyzer via a modified 50 ohm termination. The spectrum analyzer was configured with the RBW set to 3 kHz and the video bandwidth set to 300 kHz). The span was set to 1.5 MHz, and the sweep time was set to 500 seconds. Peak power spectral density measurements were performed.

14.2 Requirements:

The peak power spectral density shall not exceed +8dBm.

14.3 Results:

The peak spectral density was measured at 2.425410 GHz, level -17.57 dBm.

The peak power spectral density measured from the EUT is less than the 8 dBm limit per FCC Part 15.247(e). The EUT meets the requirements of FCC Part 15.247(e) (refer to Figure 39).

15 FIGURES – SPECTRAL DATA PLOTS

Figure 1: Conducted Emissions, Line 1 - 0.15 MHz to 0.5 MHz

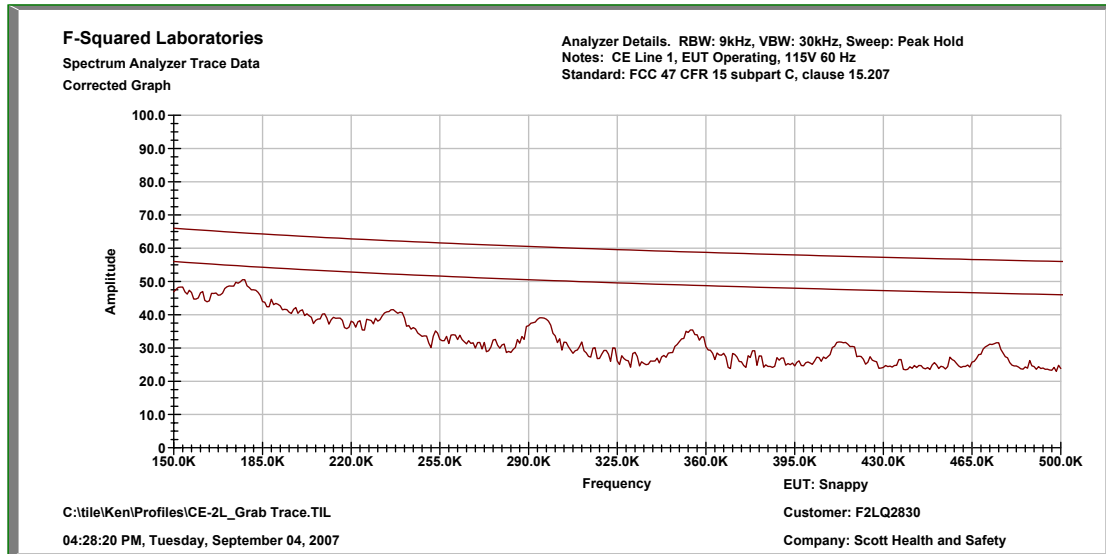


Figure 2: Conducted Emissions, Line 1 - 0.5 MHz to 5.0 MHz

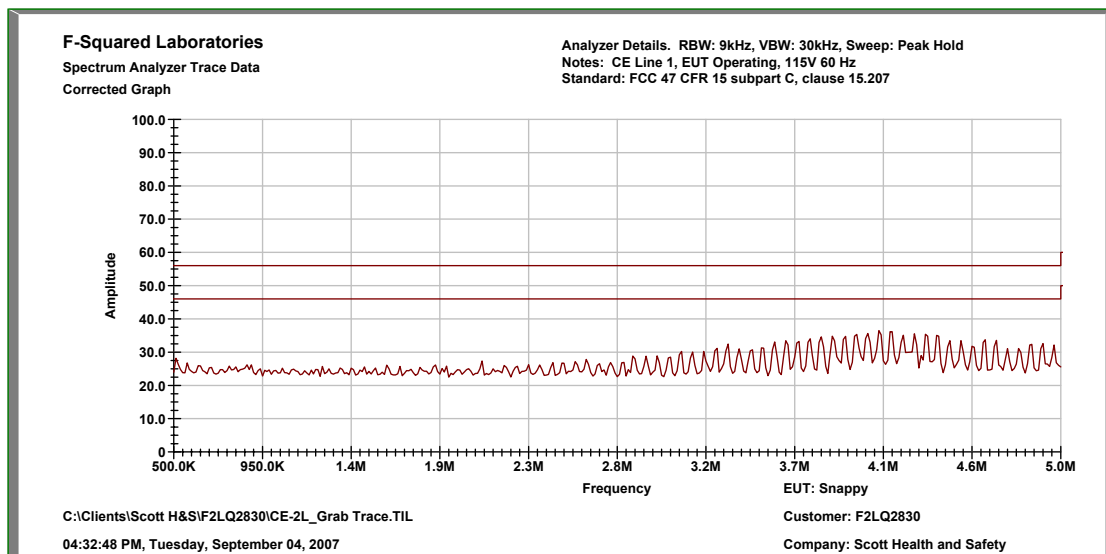


Figure 3: Conducted Emissions, Line 1 - 5.0 MHz to 30.0 MHz

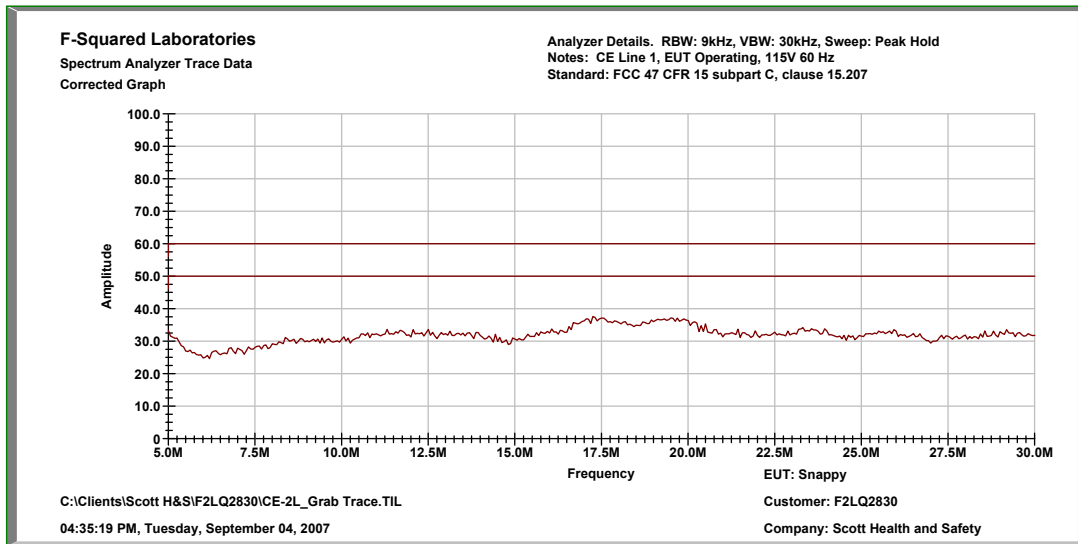


Figure 4: Conducted Emissions, Line 2 - 0.15 MHz to 0.5 MHz



Figure 5: Conducted Emissions, Line 2 – 0.5 MHz to 5.0 MHz

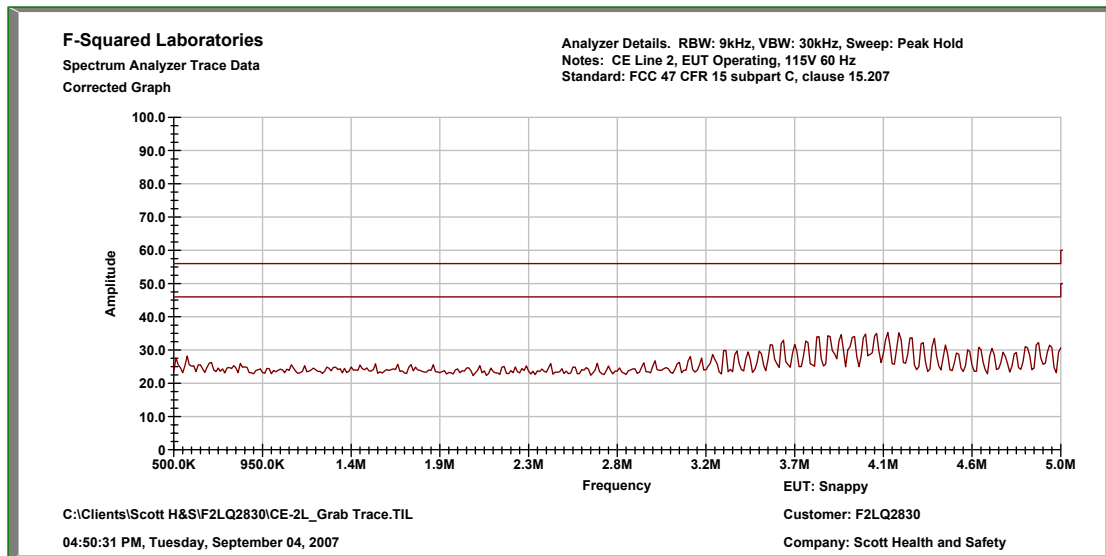


Figure 6: Conducted Emissions, Line 2 – 5.0 MHz to 30.0 MHz

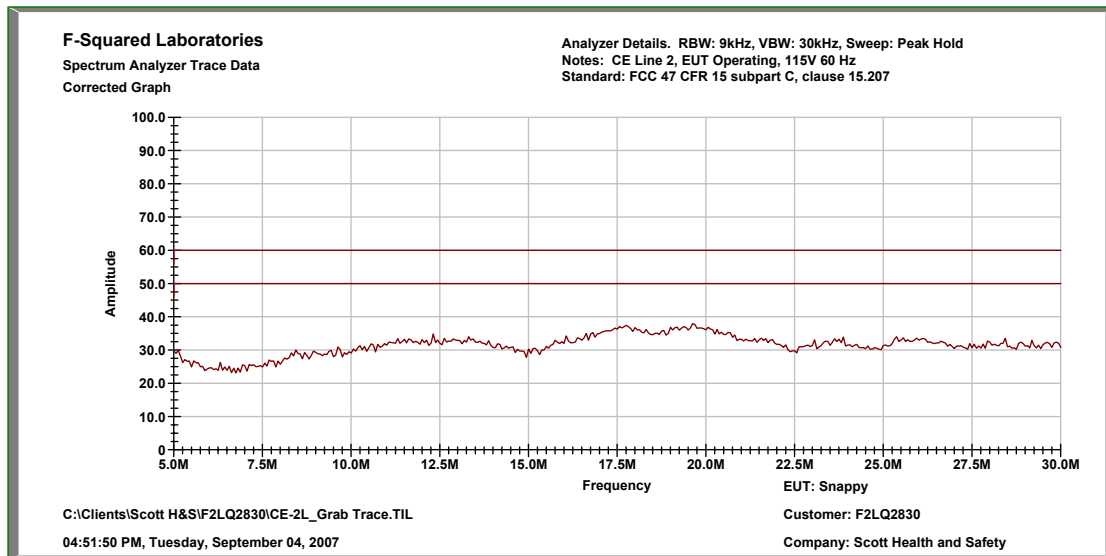


Figure 7: Occupied Bandwidth

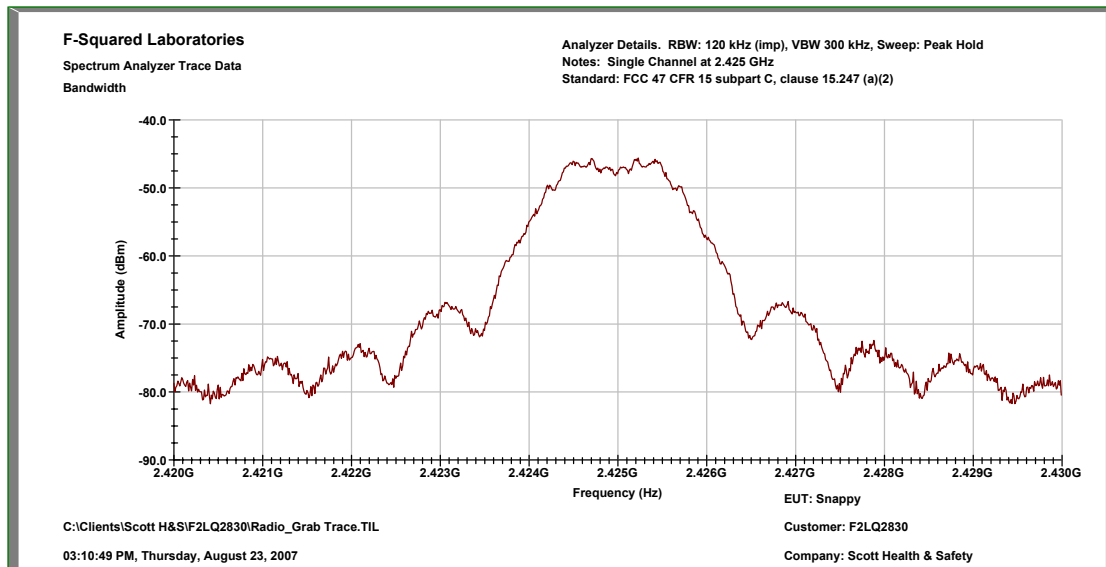


Figure 8: Occupied Bandwidth

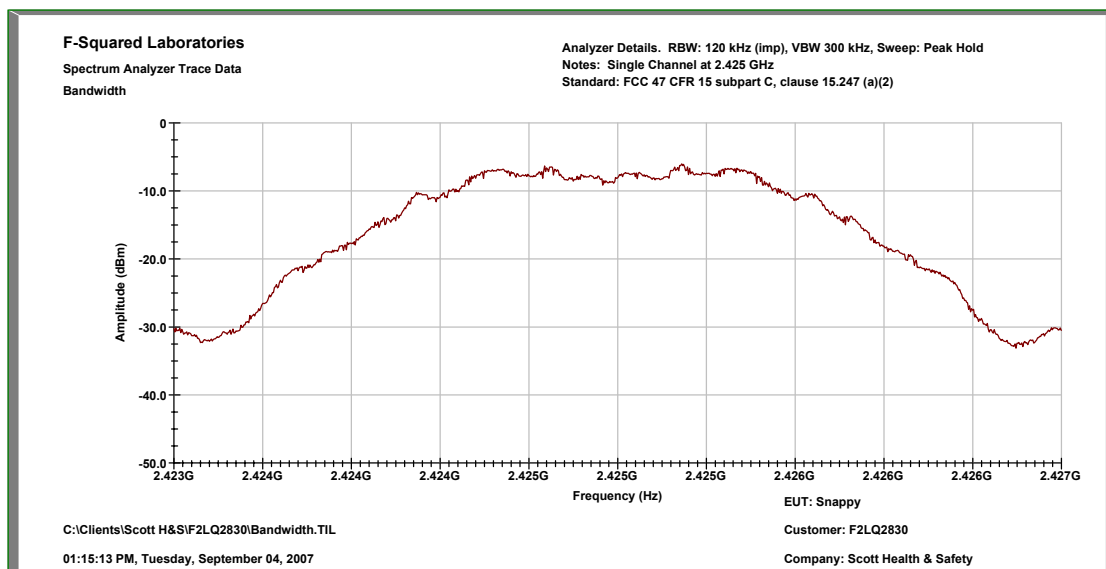


Figure 9: Peak Power Output

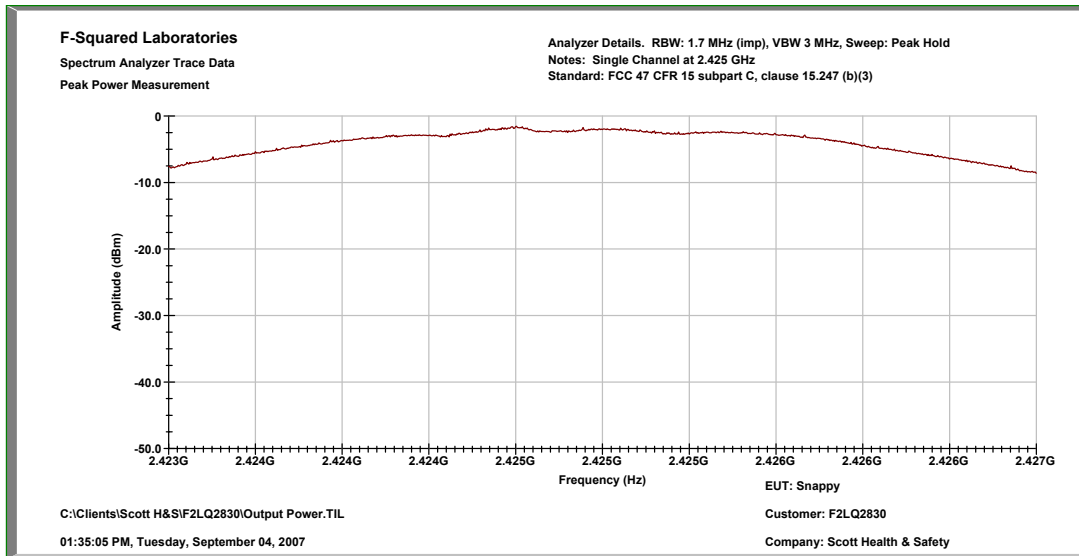


Figure 10: Harmonics & Spurious Emissions, Vertical, 30 to 300 MHz

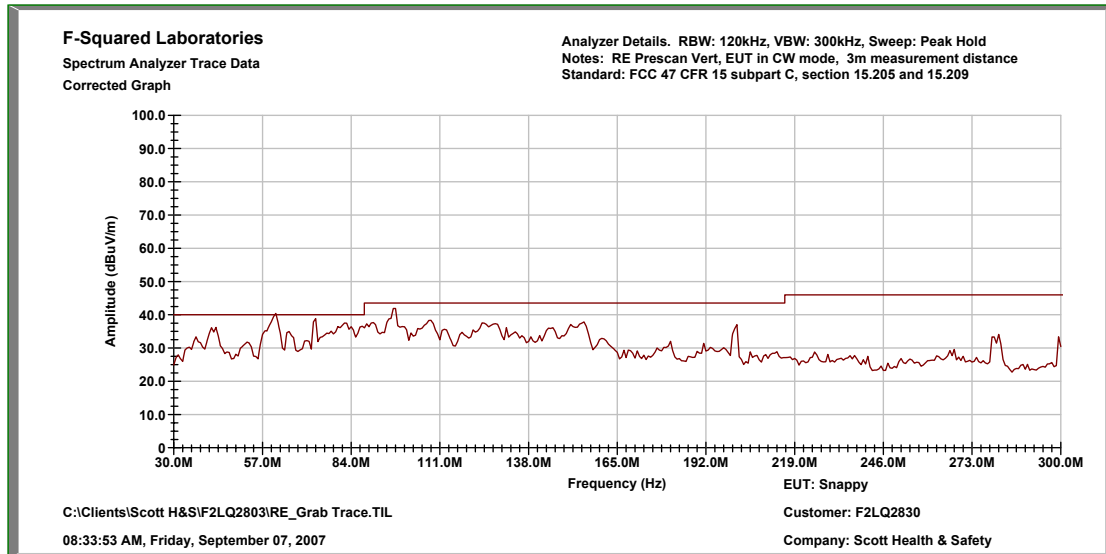


Figure 11: Harmonics & Spurious Emissions, Vertical, 300 to 1000 MHz

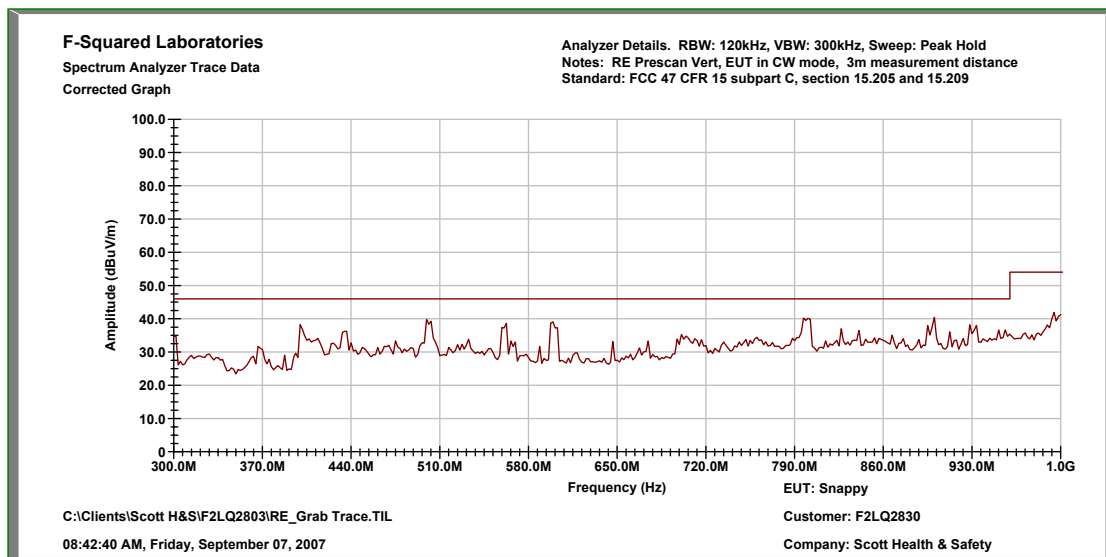


Figure 12: Harmonics & Spurious Emissions, Horizontal, 30 to 300 MHz

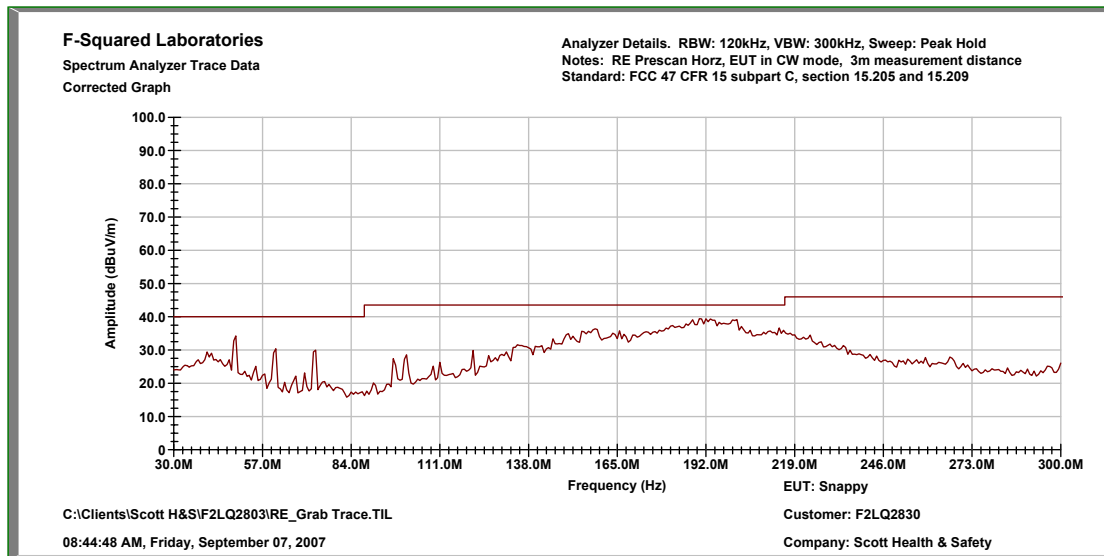


Figure 13: Harmonics & Spurious Emissions, Horizontal, 300 to 1000 MHz

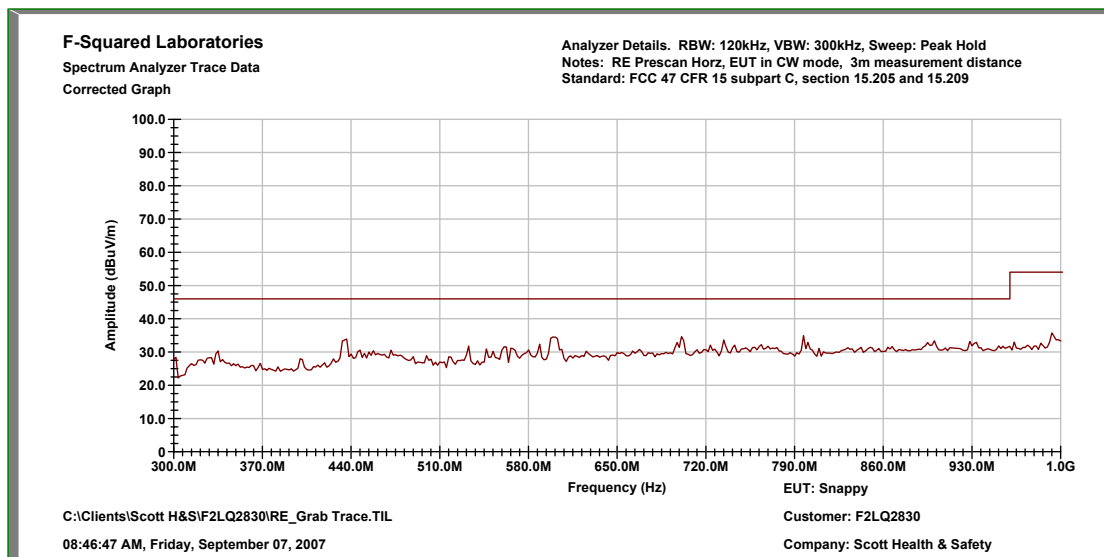


Figure 14: Harmonics & Spurious Emissions, Vertical, 1 GHz to 2 GHz

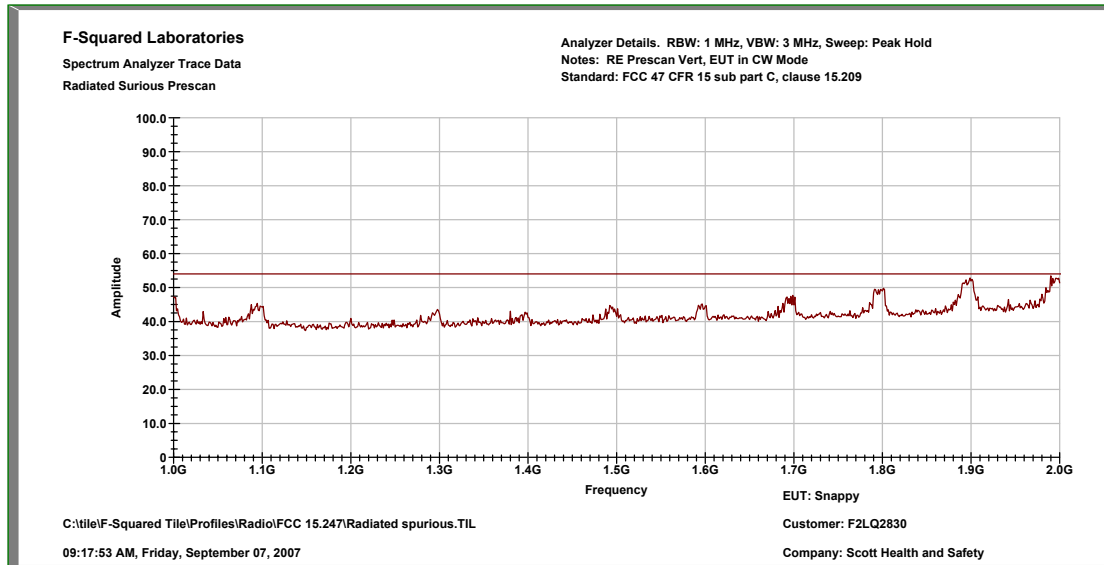


Figure 15: Harmonics & Spurious Emissions, Vertical, 2 GHz to 3 GHz

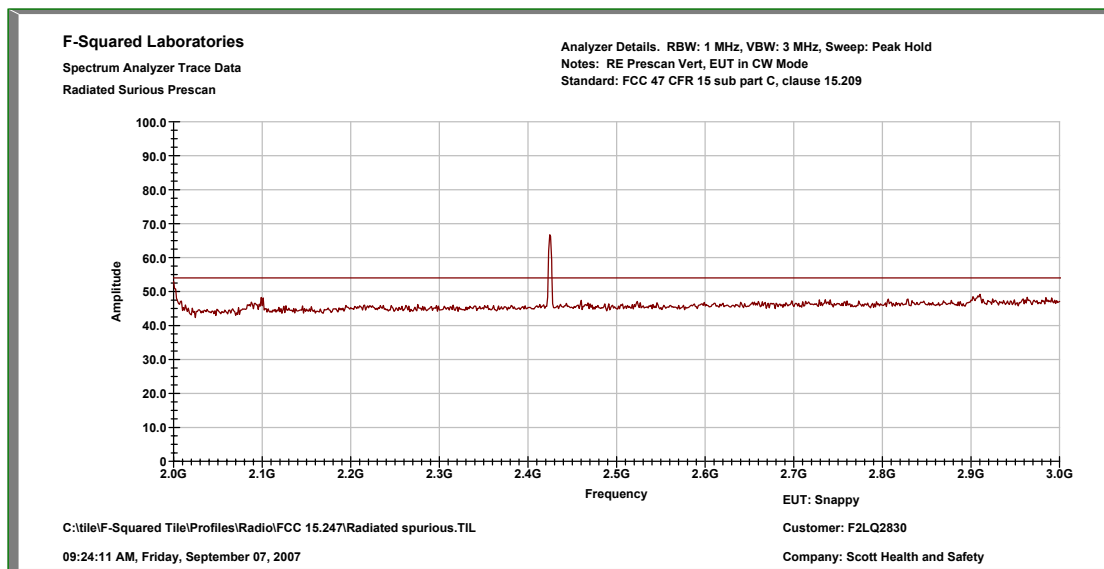


Figure 16: Harmonics & Spurious Emissions, Vertical, 3 GHz to 4 GHz

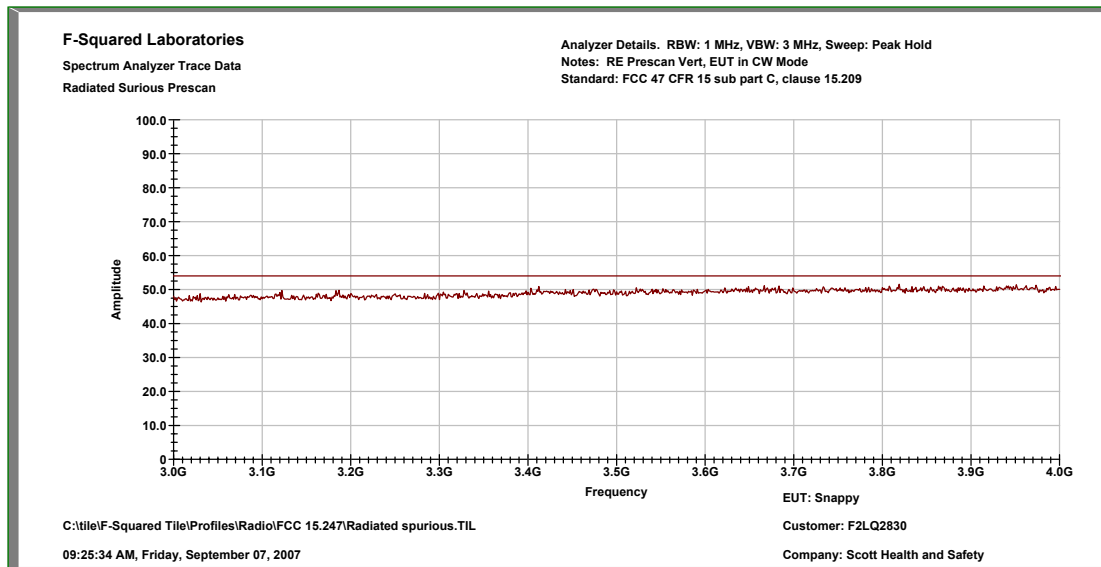


Figure 17: Harmonics & Spurious Emissions, EUT Side, Vertical, 4 GHz to 5 GHz

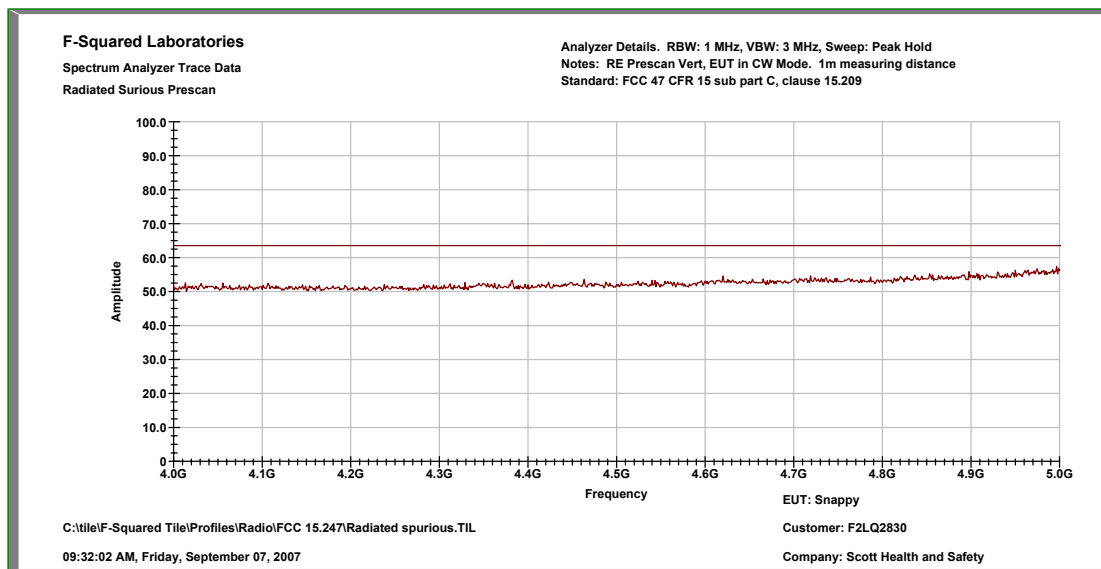


Figure 18: Harmonics & Spurious Emissions, Horizontal, 1 GHz to 2 GHz

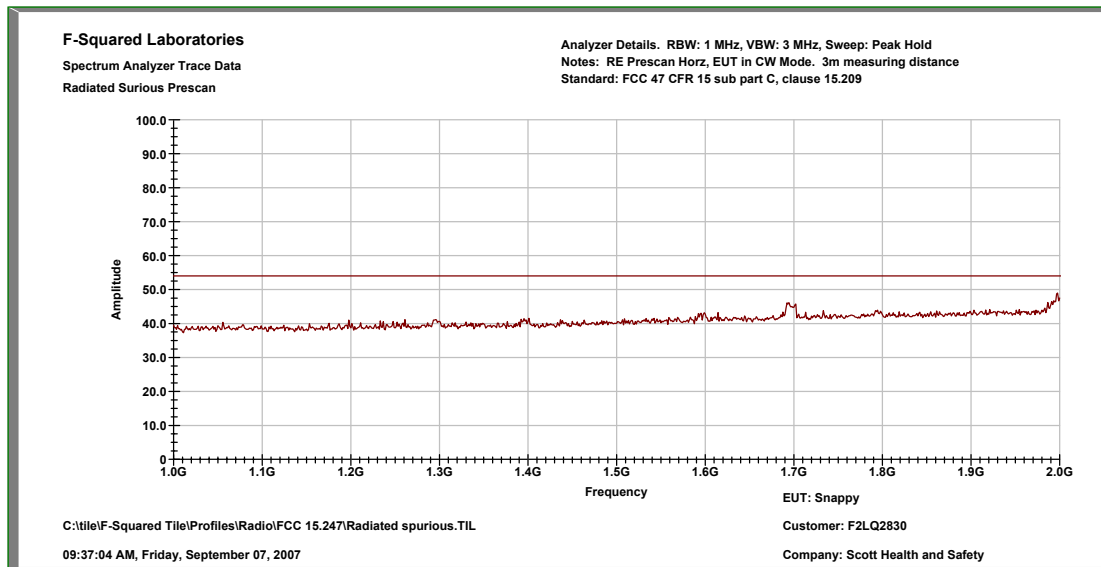


Figure 19: Harmonics & Spurious Emissions, Horizontal, 2 GHz to 3 GHz

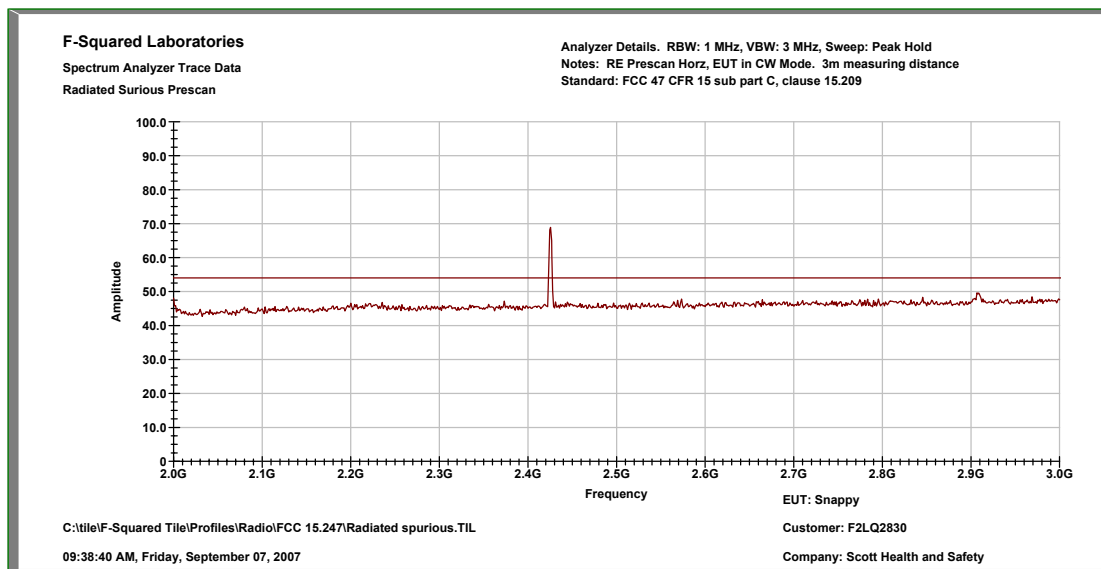


Figure 20: Harmonics & Spurious Emissions, EUT Back, Horizontal, 3 GHz to 4 GHz

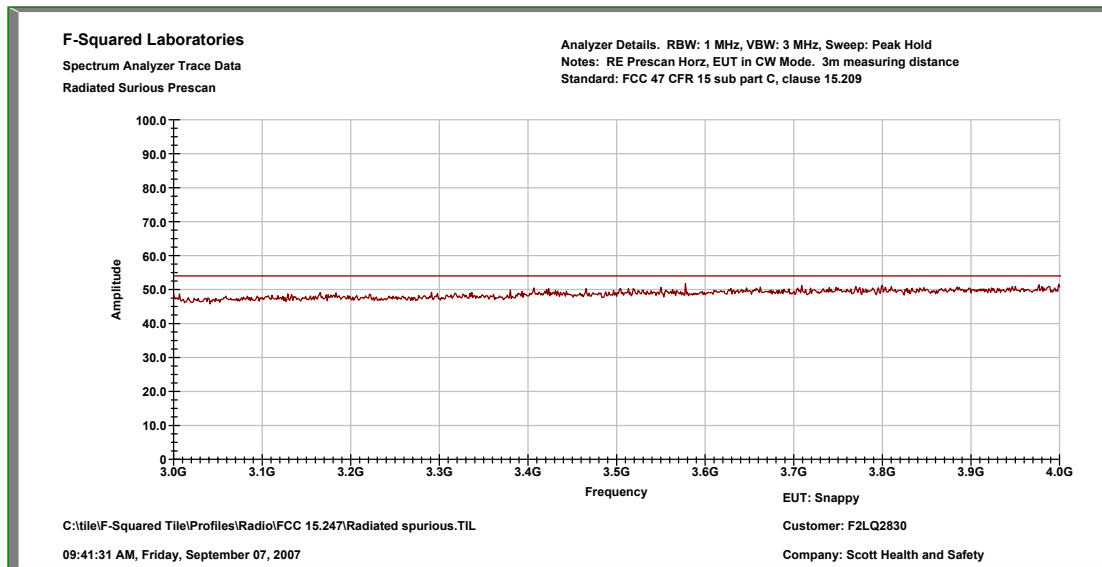


Figure 21: Harmonics & Spurious Emissions, Horizontal, 4 GHz to 5 GHz

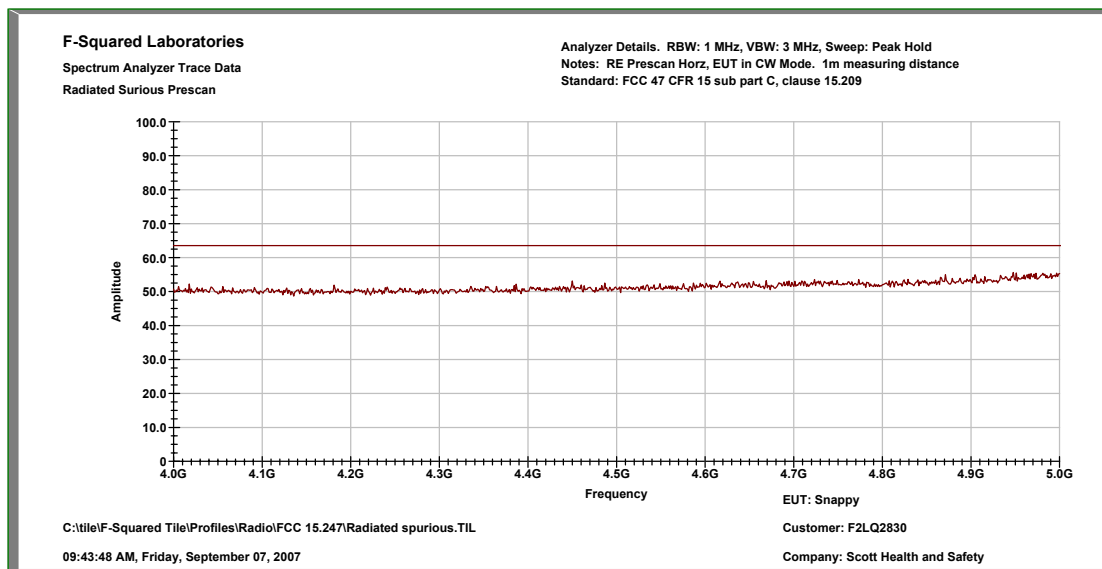


Figure 22: Spurious Emissions – Antenna Conducted, 30 MHz to 1000 MHz

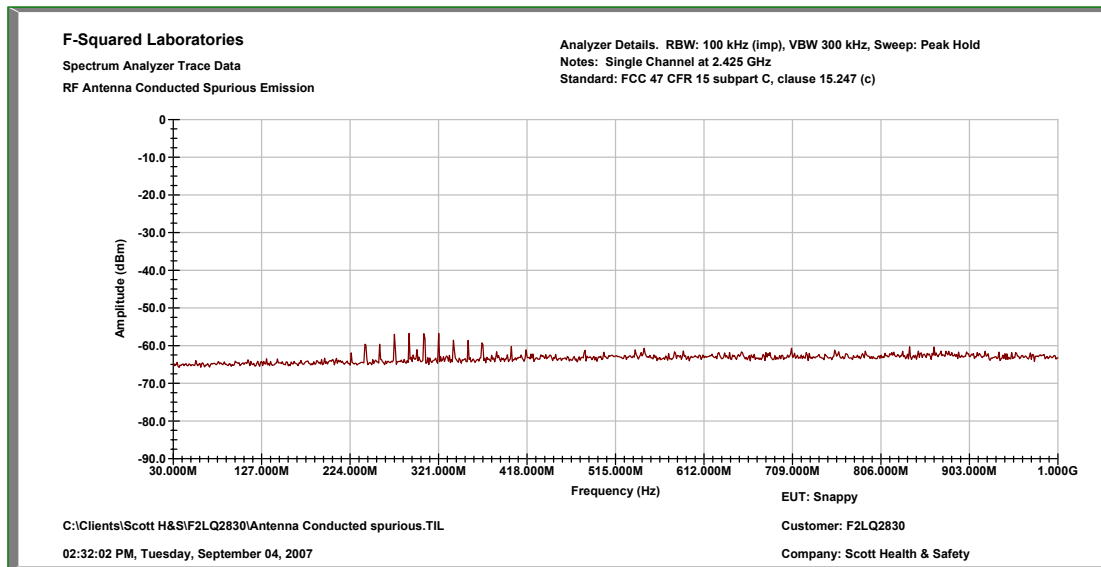


Figure 23: Spurious Emissions – Antenna Conducted, 1 GHz to 2 GHz

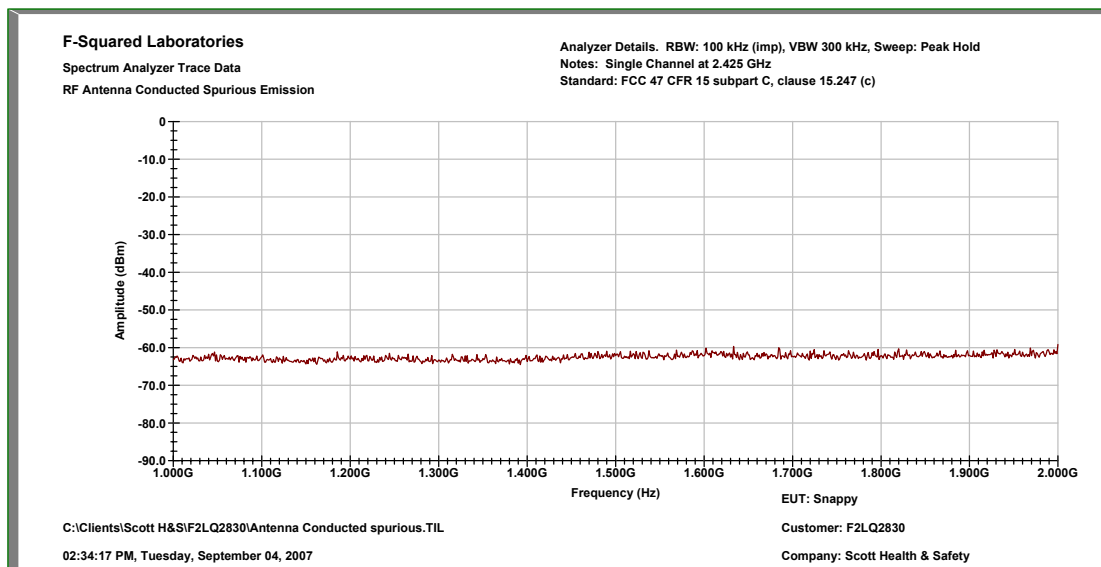


Figure 24: Spurious Emissions – Antenna Conducted, 2 GHz to 3 GHz

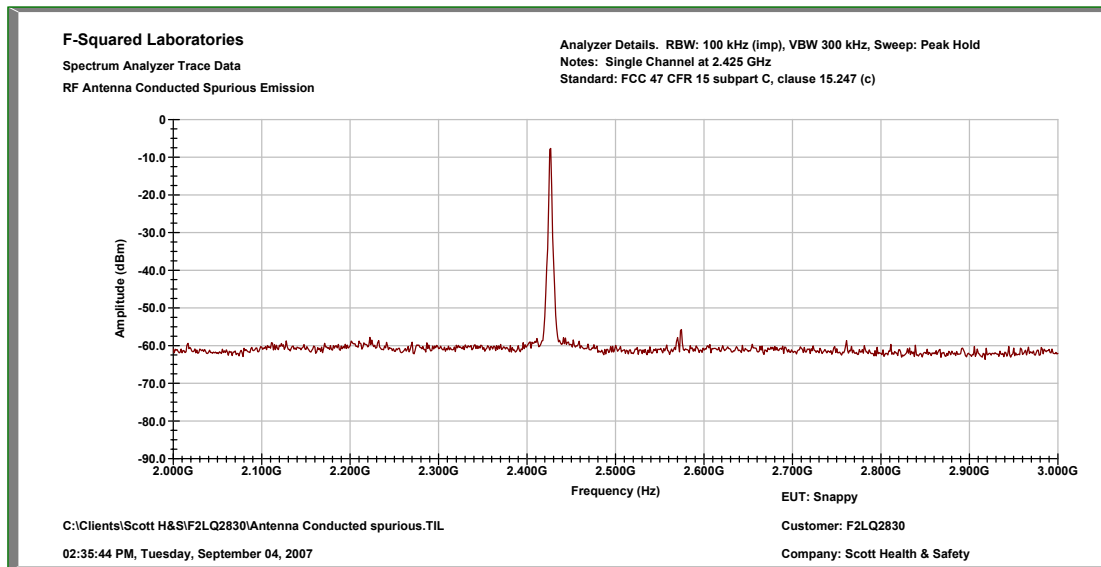


Figure 25: Spurious Emissions – Antenna Conducted, 2.4255 GHz at -6.93 dBm

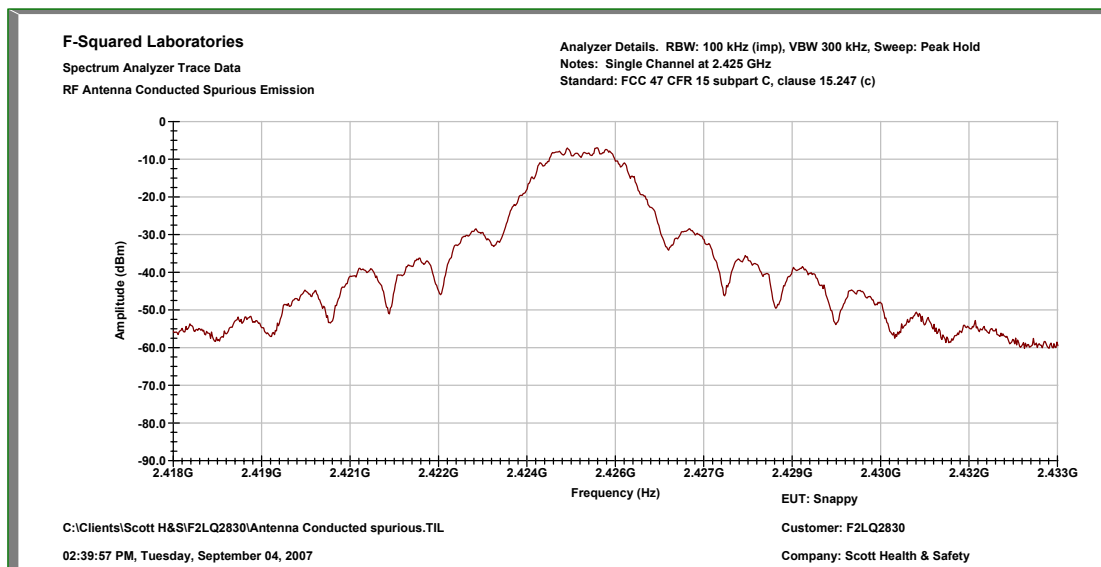


Figure 26: Spurious Emissions – Antenna Conducted, 3 GHz to 4 GHz

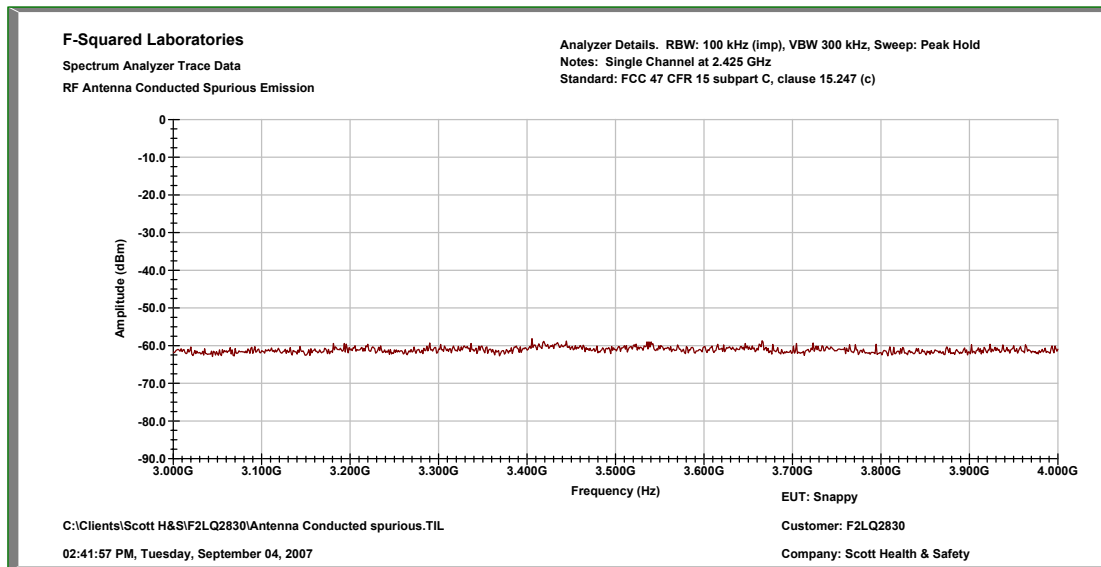


Figure 27: Spurious Emissions – Antenna Conducted, 4 GHz to 5 GHz

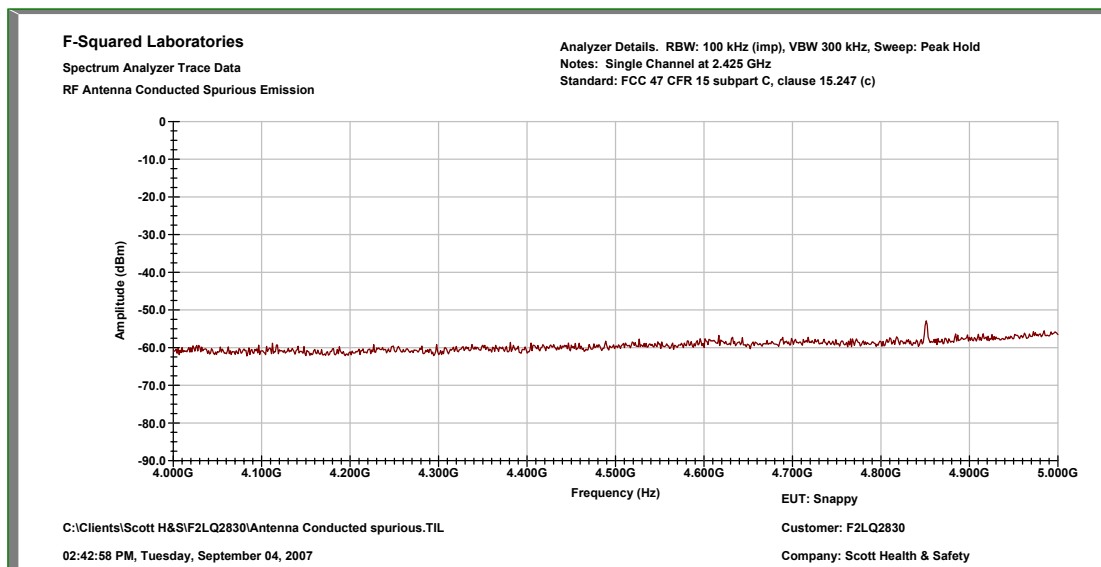


Figure 28: Spurious Emissions – Antenna Conducted, 4.84993 GHz at -52.10 dBm

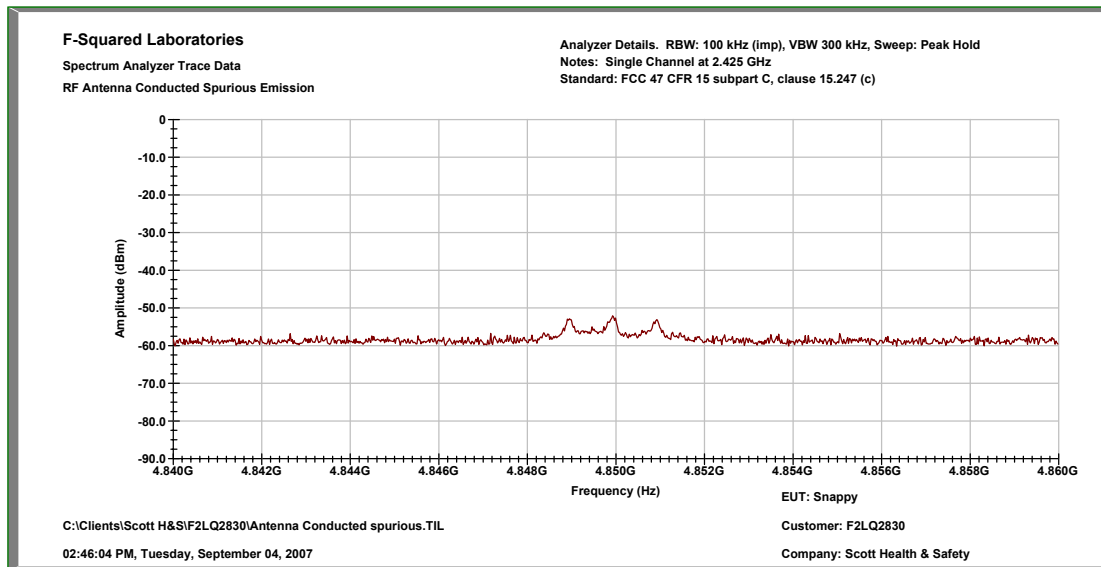


Figure 29: Spurious Emissions – Antenna Conducted, 5 GHz to 6 GHz

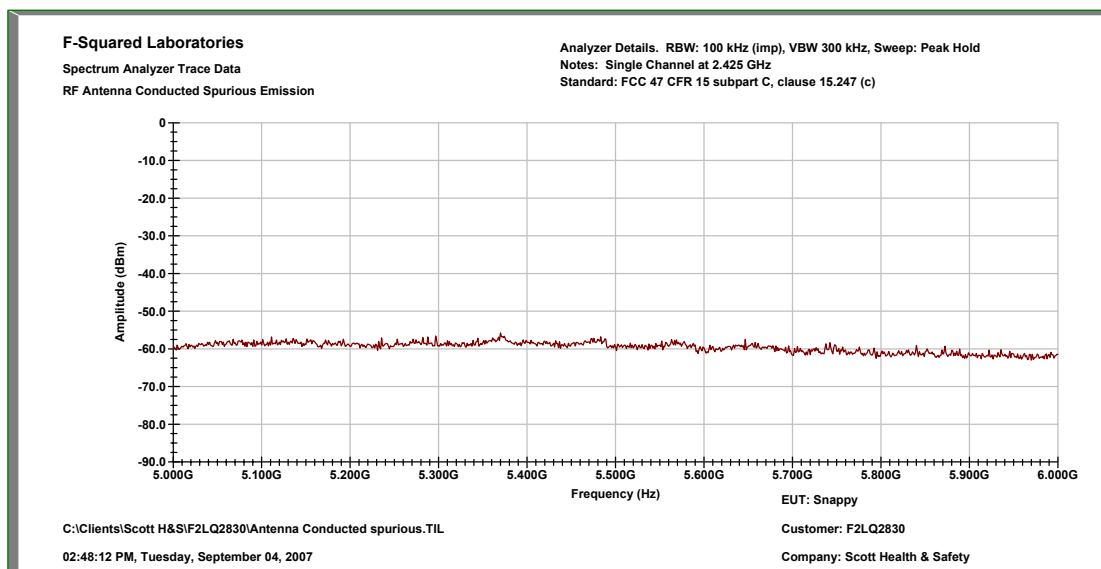


Figure 30: Spurious Emissions – Antenna Conducted, 6 GHz to 7 GHz

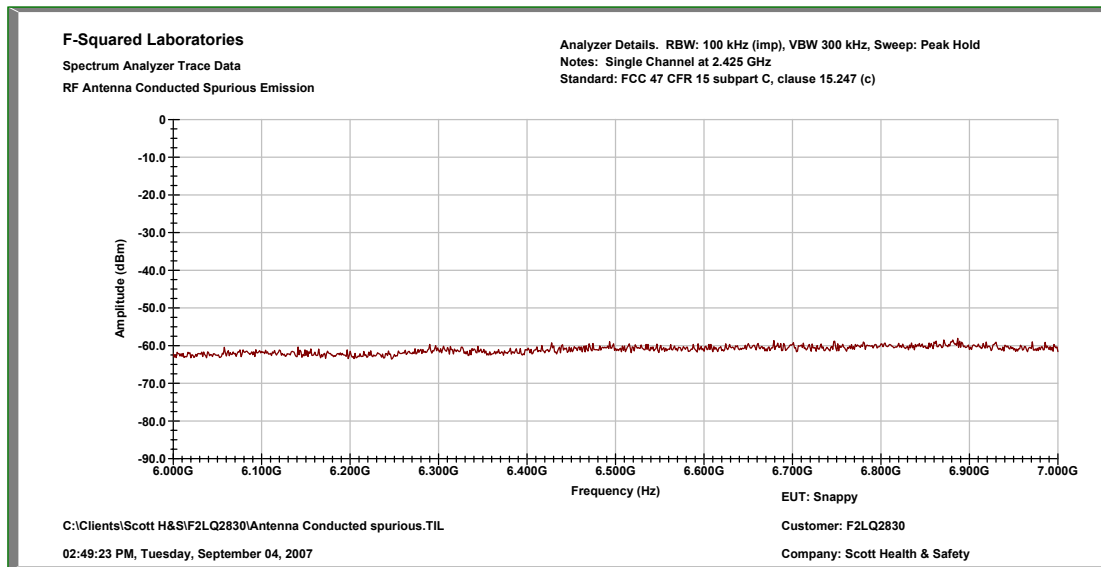


Figure 31: Spurious Emissions – Antenna Conducted, 7 GHz to 8 GHz

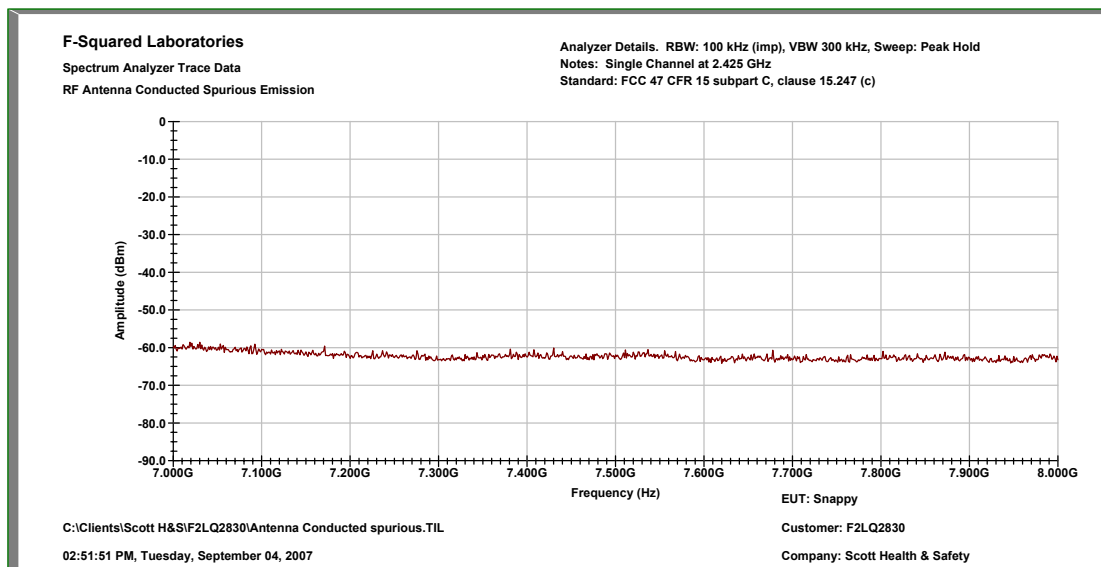


Figure 32: Spurious Emissions – Antenna Conducted, 7.27460 GHz at -59.92 dBm

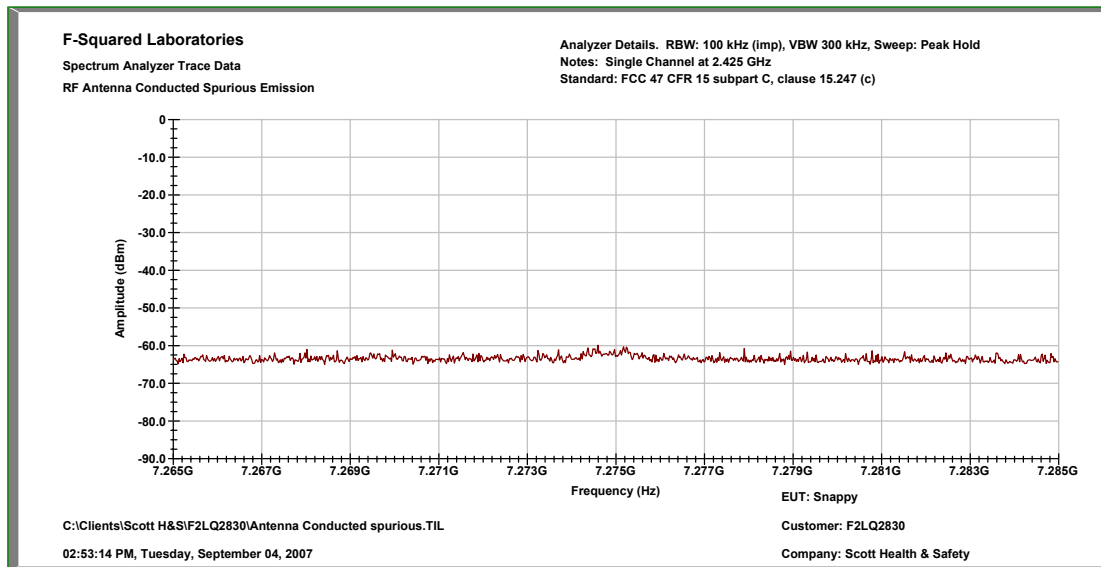


Figure 33: Spurious Emissions – Antenna Conducted, 8 GHz to 9 GHz

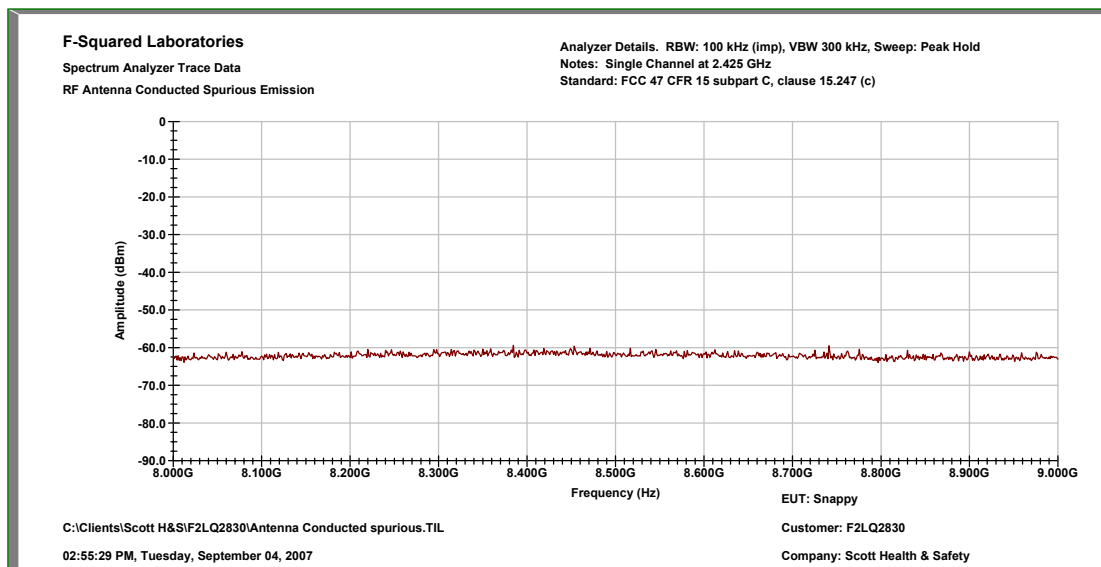


Figure 34: Spurious Emissions – Antenna Conducted, 9 GHz to 10 GHz

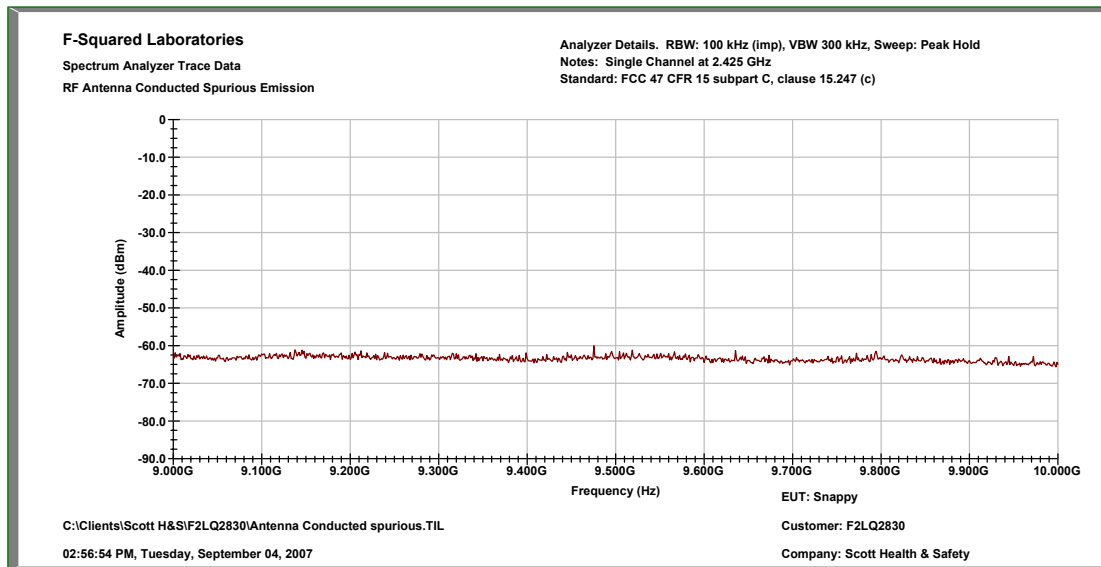


Figure 35: Spurious Emissions – Antenna Conducted, 9.70215 GHz at -62.29 dBm

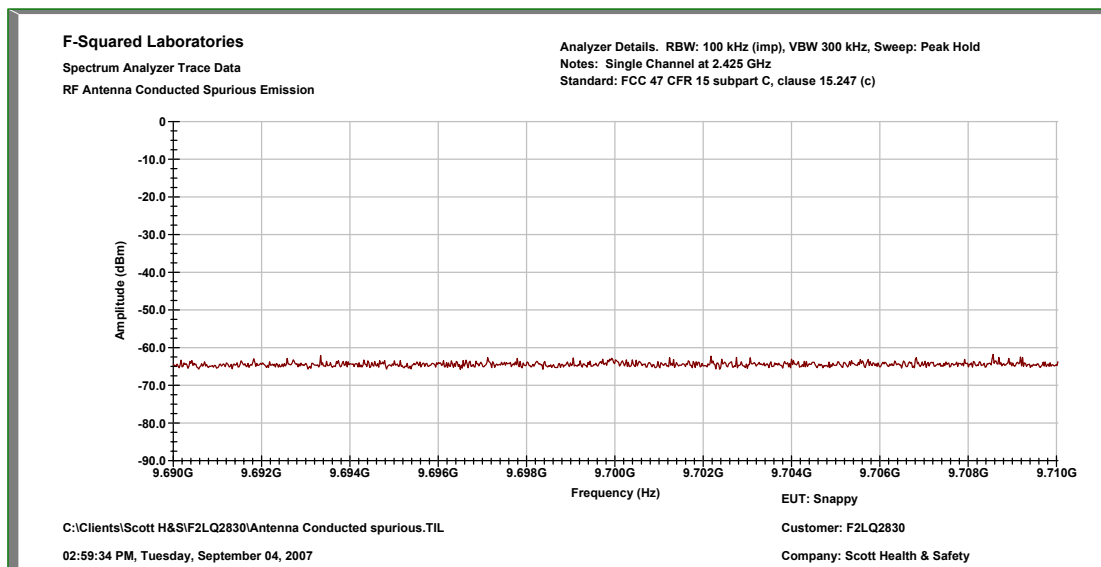


Figure 36: Spurious Emissions – Antenna Conducted, 10 GHz to 15 GHz

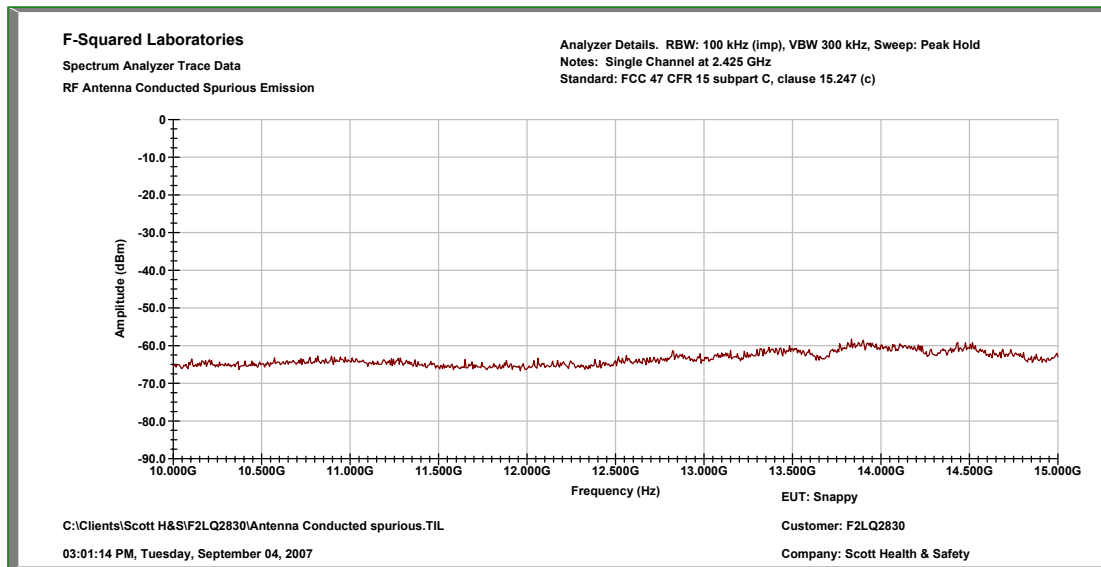


Figure 37: Spurious Emissions – Antenna Conducted, 15 GHz to 20 GHz

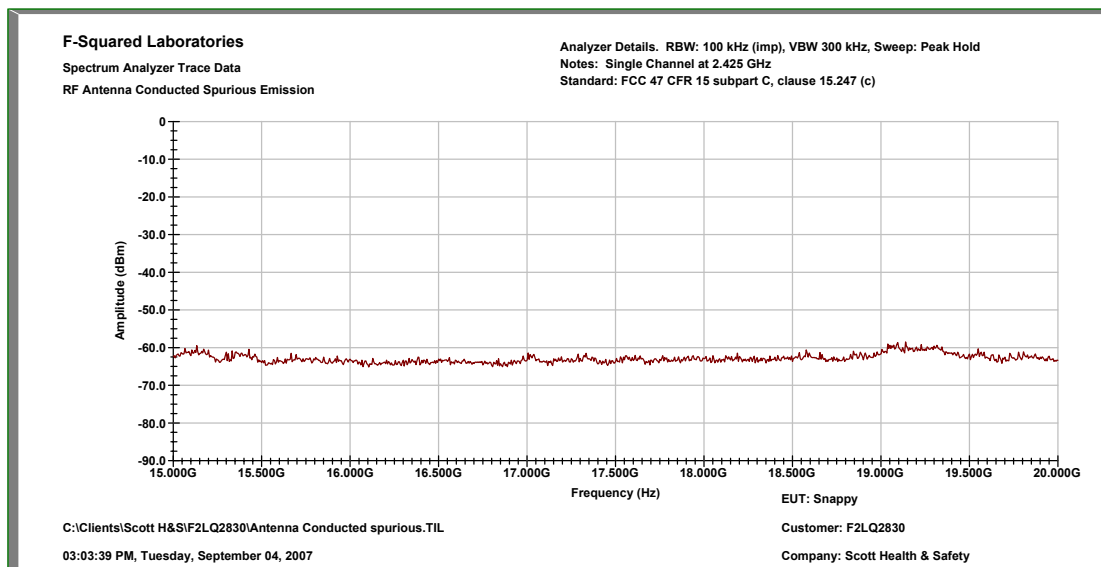


Figure 38: Spurious Emissions – Antenna Conducted, 20 GHz to 25 GHz

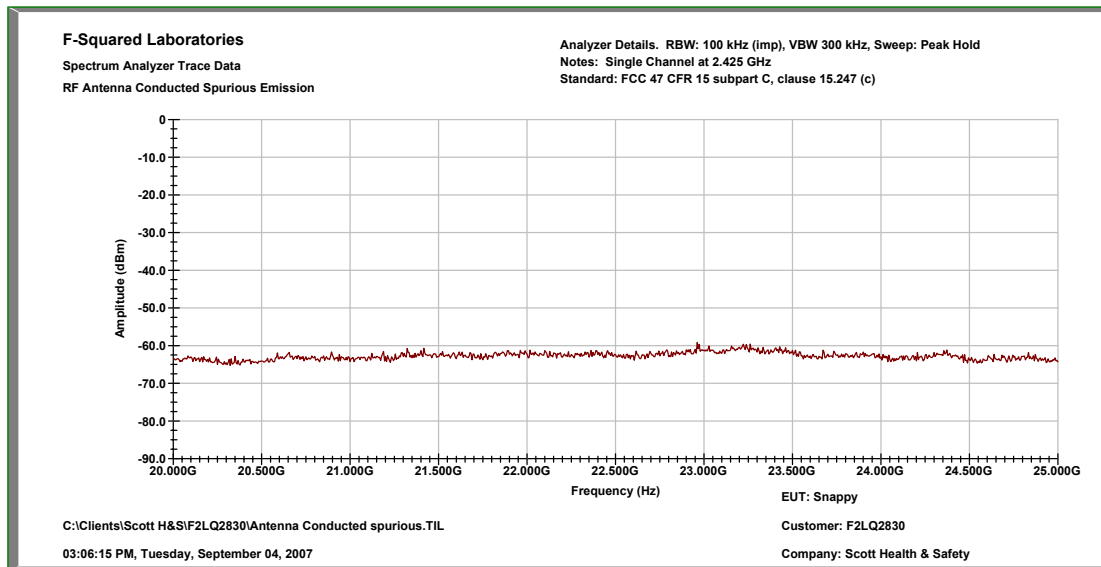
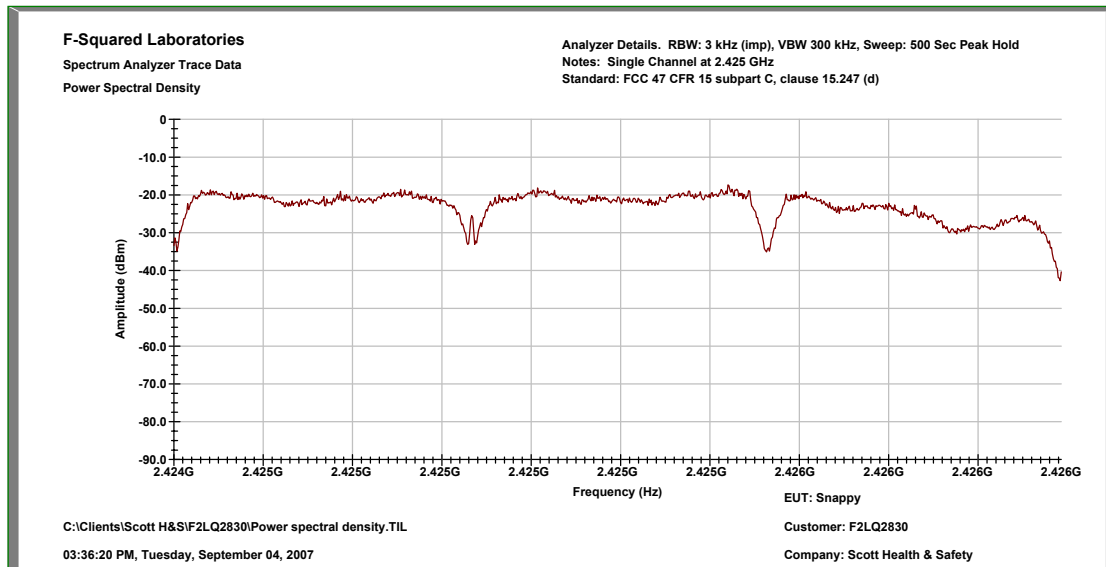
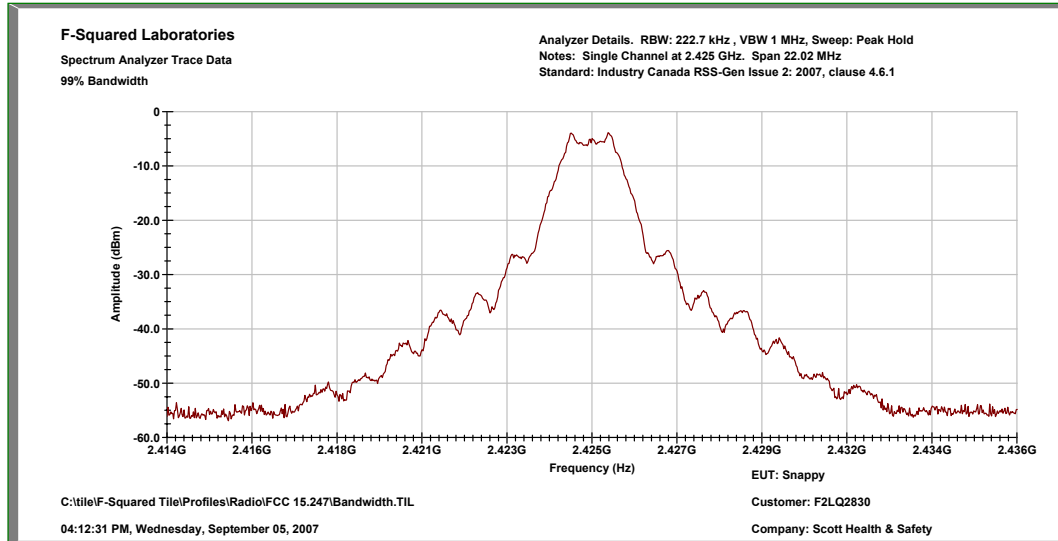


Figure 39: Peak Power Spectral Density



Span = 1.5 MHz; sweep rate = 500 seconds.

Figure 40: 99% Bandwidth



16 PHOTOGRAPHS/EXHIBITS – PRODUCT PHOTOS, TEST SETUPS

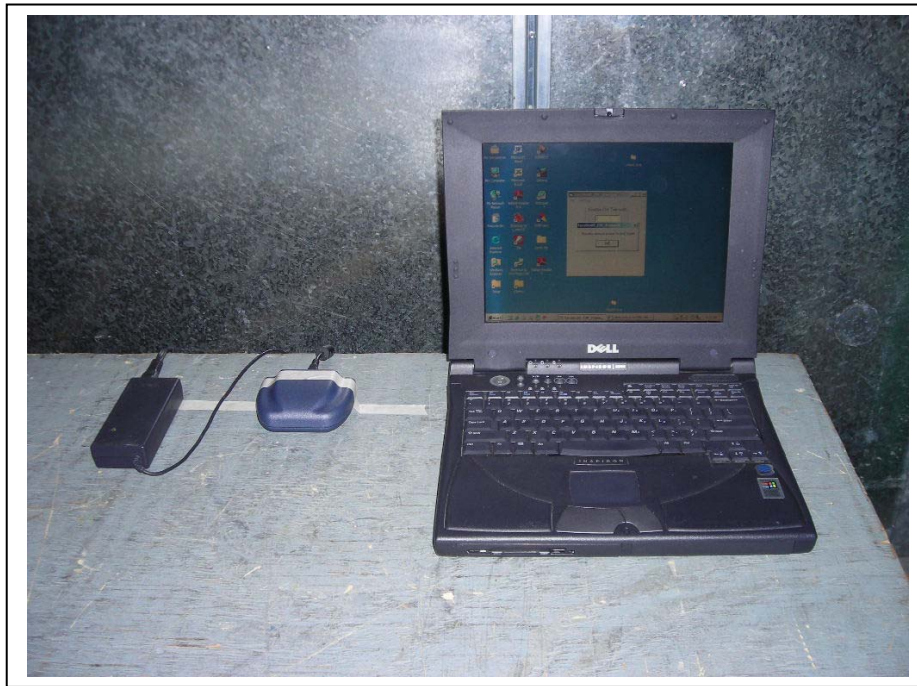
Radiated Emissions Test on OATS: Front View



Radiated Emissions Test on OATS: Rear View



Conducted Measurements: Front View



Conducted Measurements: Side View

