



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

CERTIFICATION TEST REPORT

FOR

RFID INTERROGATOR

MODEL NUMBER: SM-NV

**FCC ID: WZ4-NOVA001
IC: 5893A-NOVA001**

REPORT NUMBER: 15U20118 – E1, Revision B

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Prepared for
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	03/13/15	Initial Issue	H. Mustapha
A	04/09/15	Added Average Power section Corrected span in Peak Output Power Plots Corrected margin of 1.594MGz emission on Page 55	H. Mustapha
B	06/01/15	Updated Sections 9.2.4, 9.3.4, 11.2.3 and 11.3.4 and 11.4.3 with data and photos of standalone PIFA antenna Updated section 6 with equipment used for the updates above	H. Mustapha

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SKYETEK, INC
1415 LARIMER St, STE 207
Denver, CO 80202, U.S.A.

EUT DESCRIPTION: RFID INTERROGATOR

MODEL: SM-NV

SERIAL NUMBER: Conducted: FCC 2
Radiated: FCC 1

DATE TESTED: Feb 23 to May 28, 2015

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-210 Issue 8 Annex 8	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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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2009 (for FCC), FCC CFR 47 Part 2, FCC CFR 47 Part 15, DA 00-75, ANSI C63.10-2013 (for IC), 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 Benicia Street, Fremont, California, USA.

47173 Benicia Street	47266 Benicia Street
<input type="checkbox"/> Chamber A	<input type="checkbox"/> Chamber D
<input checked="" type="checkbox"/> Chamber B	<input type="checkbox"/> Chamber E
<input type="checkbox"/> Chamber C	<input type="checkbox"/> Chamber F
	<input type="checkbox"/> Chamber G
	<input type="checkbox"/> 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:

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

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 is an RFID Interrogator.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
902.5 - 927.5	PR-ASK	26.97	497.74

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna Type	Peak Gain (dBi)	Manufacturer	P/N
Linearly Polarized Patch	9	Laird	PAV90209H-FNF
Circularly Polarized Patch	9	Laird	PAL90209H-FNF
Dipole	5.4	Linx Technologies	ANT-916-MHW-RPS-S
Planar Inverted "F" (PIFA)	2	Juniper Systems	Mesa WWAN

5.4. SOFTWARE AND FIRMWARE

The test utility software used during testing was CCB_UHF_DevAp, rev. 1.0.0.0.

5.5. WORST-CASE CONFIGURATION AND MODE

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

For the patch antennas, radiated emissions above 1 GHz were measured in two orthogonal orientations, X and Y because these are the only orientation the device will have in real applications. For radiated emissions below 1 GHz, configuration Y was used as worst-case configuration.

For the dipole antenna, the fundamental of the EUT was investigated in two orthogonal orientations, X and Y because these are the only orientation the device will have in real applications. It was determined that X orientation was worst case. All final measurements were taken in X orientation.

For the PIFA antenna, the fundamental of the EUT was investigated in three orthogonal orientations (X, Y and Z). It was determined that Y orientation was worst case. All final measurements were taken in Y orientation.

The device was configured for maximum data rate which was PR-ASK, at a fixed rate of 160 Kb/S.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Laptop	DELL	Latitude D610	40JS391	N/A
AC/DC Adapter	DELL	CBD	N/A	N/A
Laptop	Lenovo	T430	N/A	N/A
AC/DC Adapter	Lenovo	ADLX65NCT2A	N/A	N/A

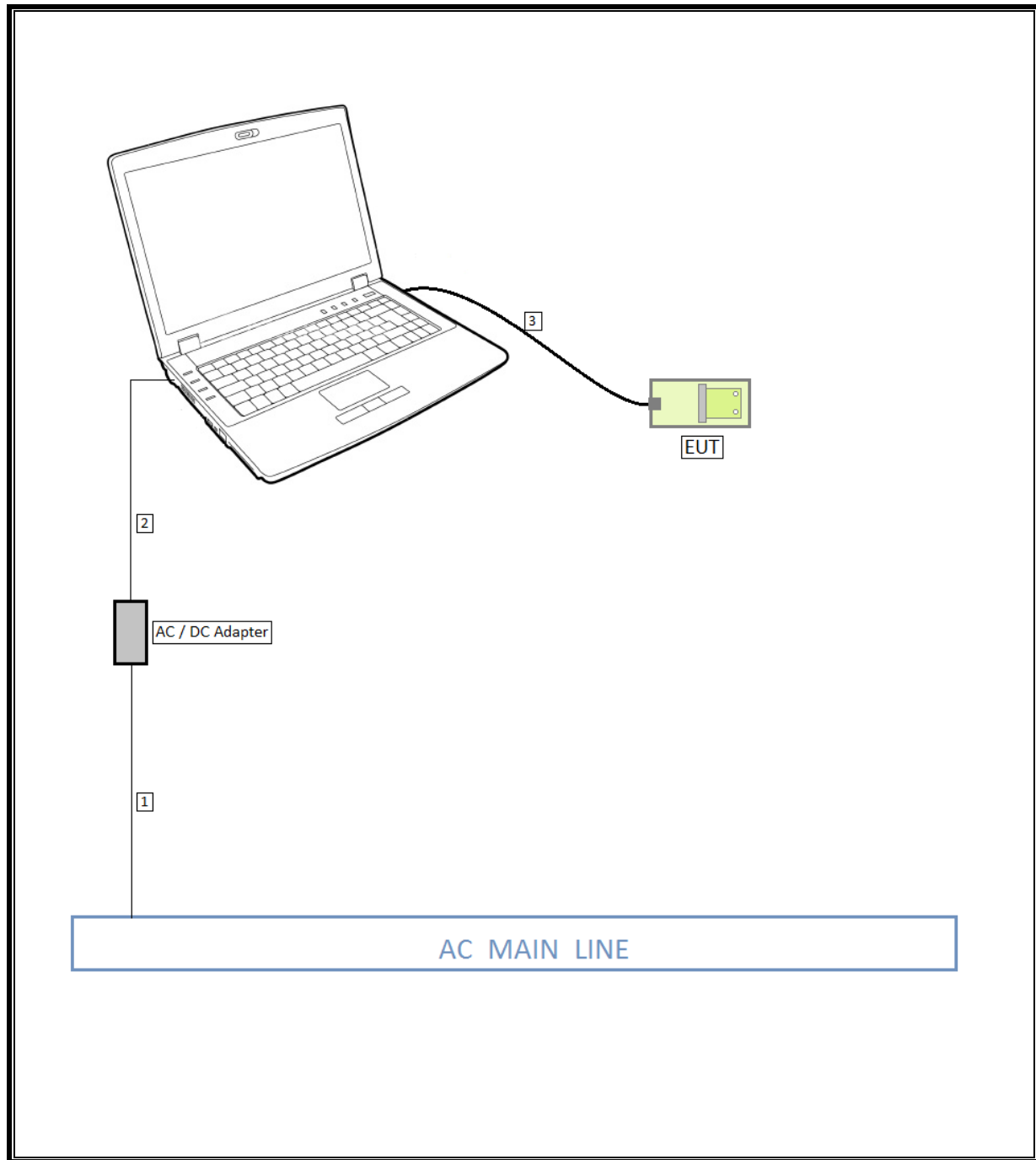
I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	AC	1	US120VAC	Unshielded	1.5	N/A
2	DC	1	DC Plug	Shielded	0.8	N/A
3	USB	1	USB	Shielded	0.8	N/A

TEST SETUP

The EUT was connected to a host laptop computer through USB cable during the tests. Test software exercised the radio card.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment List					
Description	Manufacturer	Model	Asset	Cal Date	Cal Due
Radiated Software	UL	UL-EMC	Ver 9.5 July 22 2014		
Line Conducted Software	UL	UL EMC	Ver 9.5, May 17, 2012		
Spectrum Analyzer, 3 Hz-44GHz	Agilent	N9030A	T907	07/05/14	07/05/15
Antenna, Biconolog, 30MHz-1 GHz	Sunol Sciences	JB1	T243	12/08/14	12/08/15
Antenna, Horn, 18 GHz	ETS Lindgren	3117	T712	01/07/15	01/07/16
Preamplifier, 1300 MHz	Agilent / HP	8447D	T10	01/16/15	01/16/16
Silver Box Amplifier	Miteq	AFS42-0010180	T740	08/30/14	08/30/15
Spectrum Analyzer, 3 Hz-44GHz	Agilent	N9030A-544	F00410	03/21/14	03/21/15
Spectrum Analyzer, 3 Hz-44GHz	Agilent	N9030A	T907	05/15/15	05/15/16
Power Meter	Agilent	E4416A	T84	01/26/15	01/26/16
Power Sensor, 50MHz- 6GHz	Agilent	E9323A	T392	04/29/15	04/29/16
LISN, 30MHz	FCC	50/250-25-2	T243	01/16/15	01/16/16

7. MEASUREMENT METHODS

For FCC testing:

AC Power-line conducted emissions: ANSI C63.10-2009, Section 6.2.
Radiated emissions: ANSI C63.10-2009, Sections 6.5 and 6.6.
Conducted spurious emissions: ANSI C63.10-2009, Section 7.7.10.
Occupied bandwidth (20 dB): ANSI C63.10-2009, Section 6.9.1.
Band-edge measurements for RF conducted emissions: ANSI C63.10-2009, Section 7.7.9
Carrier frequency separation: ANSI C63.10-2009, Section 7.7.2
Number of hopping frequencies: ANSI C63.10-2009, Section 7.7.3.
Average time of occupancy (dwell time): ANSI C63.10-2009, Section 7.7.4.
Peak output power: ANSI C63.10-2009, Section 6.10.1.
On time and duty cycle: KDB 558074, Section 6.0.

For IC testing:

AC Power-line conducted emissions: ANSI C63.10-2013, Section 6.2.
Radiated emissions: ANSI C63.10-2013, Sections 6.5 and 6.6.
Conducted spurious emissions: ANSI C63.10-2013, Sections 7.8.8.
Occupied bandwidth (20 dB): ANSI C63.10-2013, Sections 6.9.2.
Occupied bandwidth (99% dB): ANSI C63.10-2013, Sections 6.9.3.
Band-edge measurements for RF conducted emissions: ANSI C63.10-2013, Sections 7.8.6.
Carrier frequency separation: ANSI C63.10-2013, Sections 7.8.2.
Number of hopping frequencies: ANSI C63.10-2013, Sections 7.8.3.
Average time of occupancy (dwell time): ANSI C63.10-2013, Sections 7.8.4.
Peak output power: ANSI C63.10-2013, Sections 7.8.5.
On time and duty cycle: ANSI C63.10-2013, Section 11.6.

8. ANTENNA PORT TEST RESULTS

8.1. ON TIME AND DUTY CYCLE

LIMITS

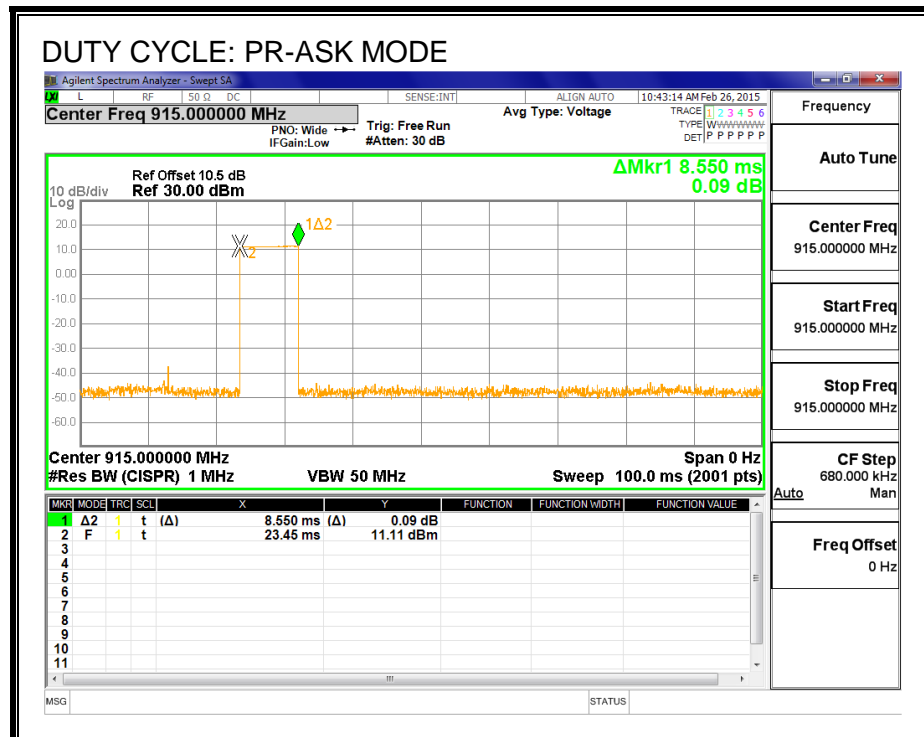
None; for reporting purposes only.

8.1.1. ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
2.4 GHz band (Hopping ON)					
902-928 MHz Band FHSS ON/PR-ASK	8.550	100	0.086	8.55%	21.36

8.1.2. DUTY CYCLE PLOTS

HOPPING ON



8.2. Maximum Data Rate: PR-ASK MODULATION

8.2.1. 20 dB BANDWIDTH

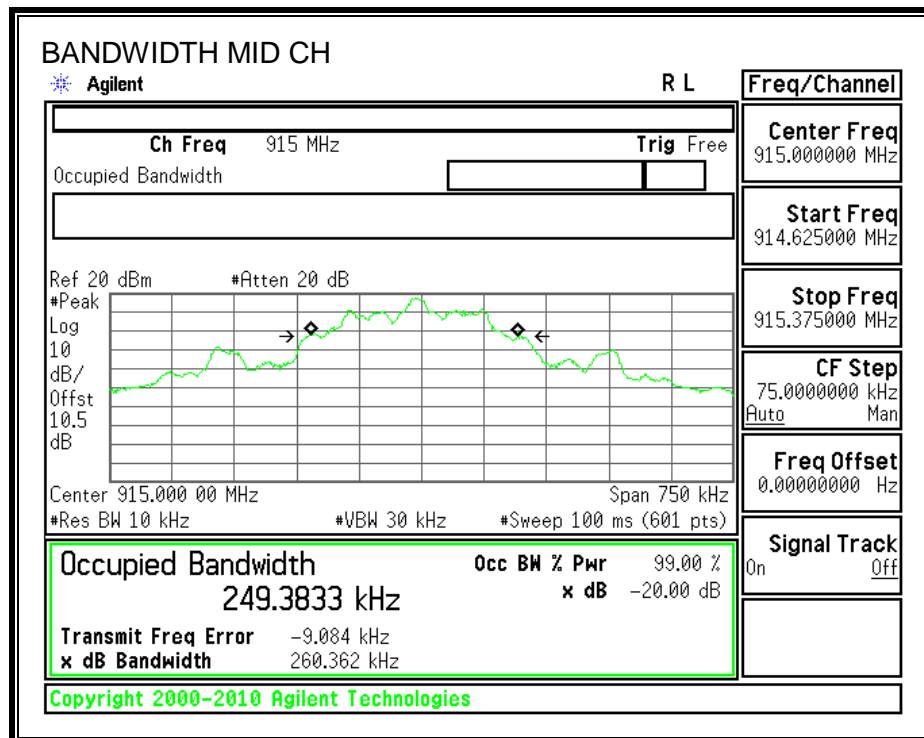
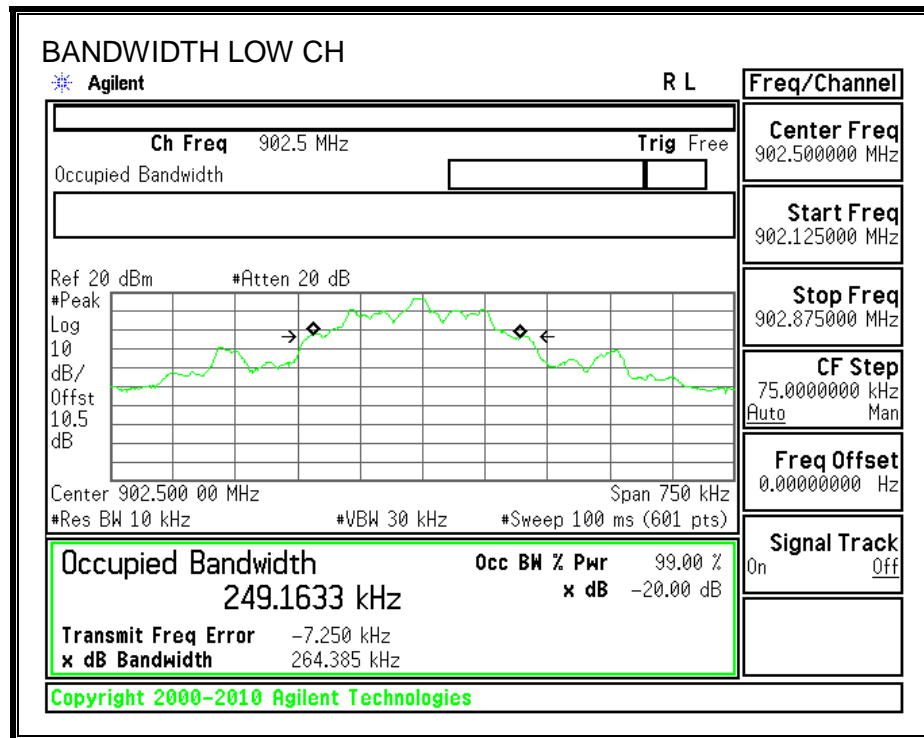
LIMIT

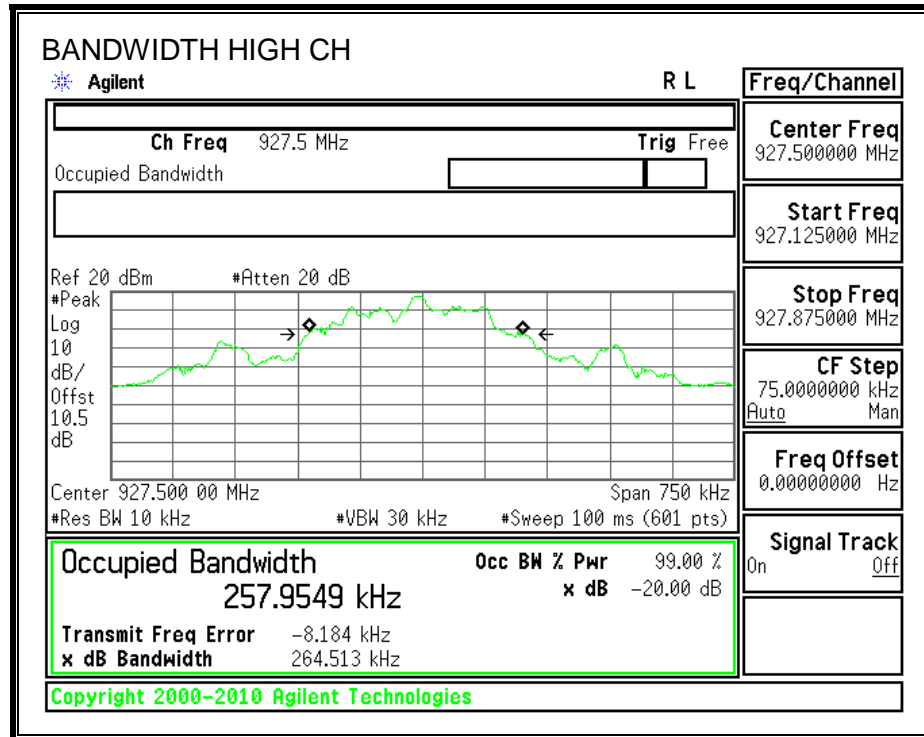
The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

RESULTS

Channel	Frequency (MHz)	20 dB Bandwidth (kHz)
Low	902.5	264.385
Middle	915.0	260.362
High	927.5	264.513

20 dB BANDWIDTH





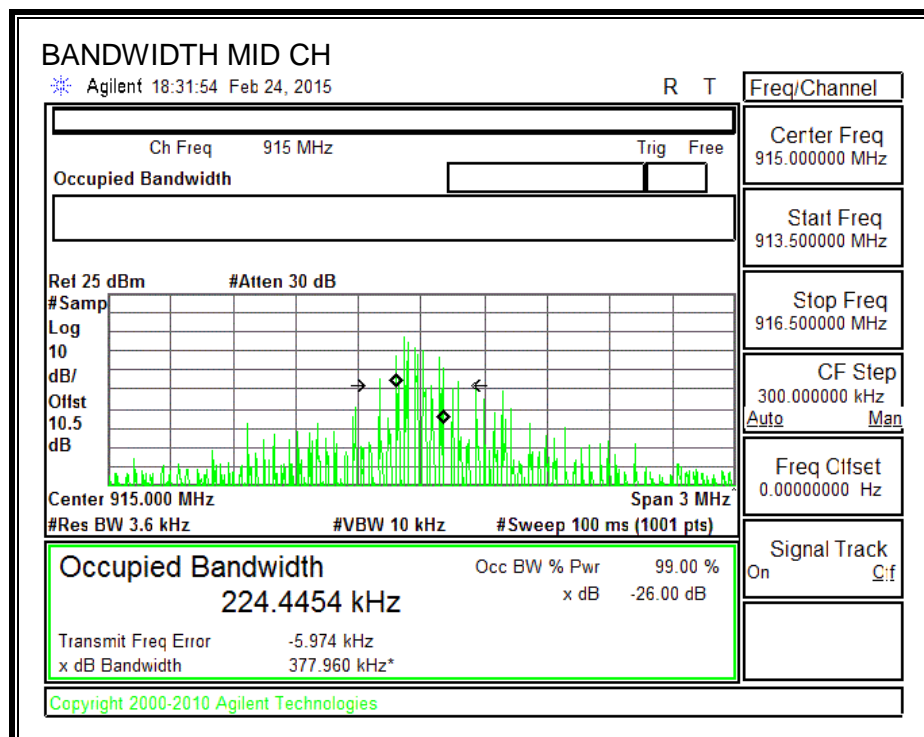
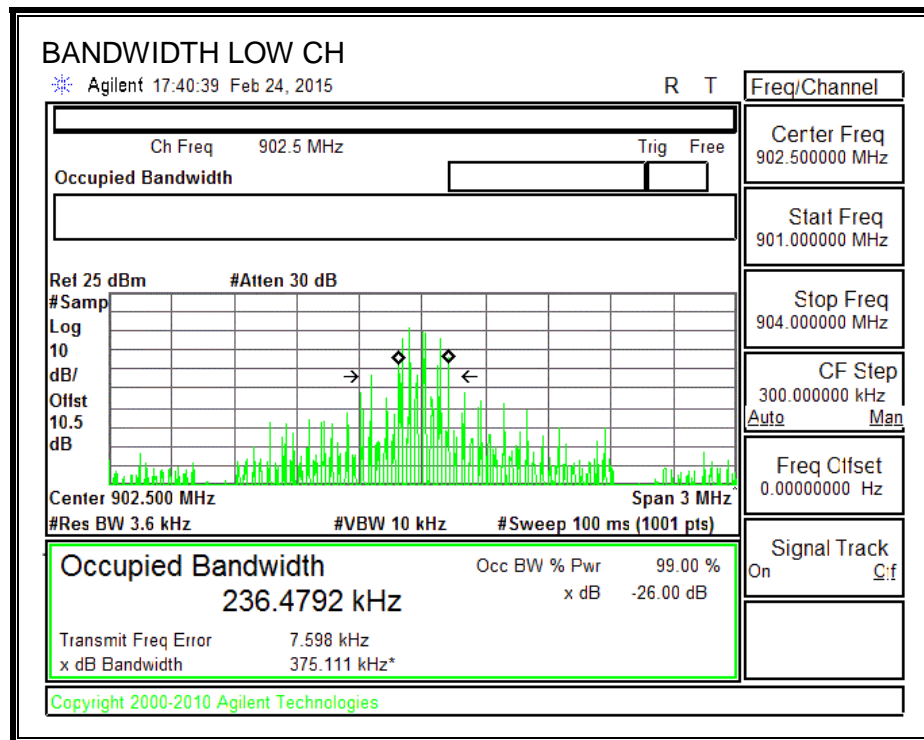
8.2.2. 99% BANDWIDTH

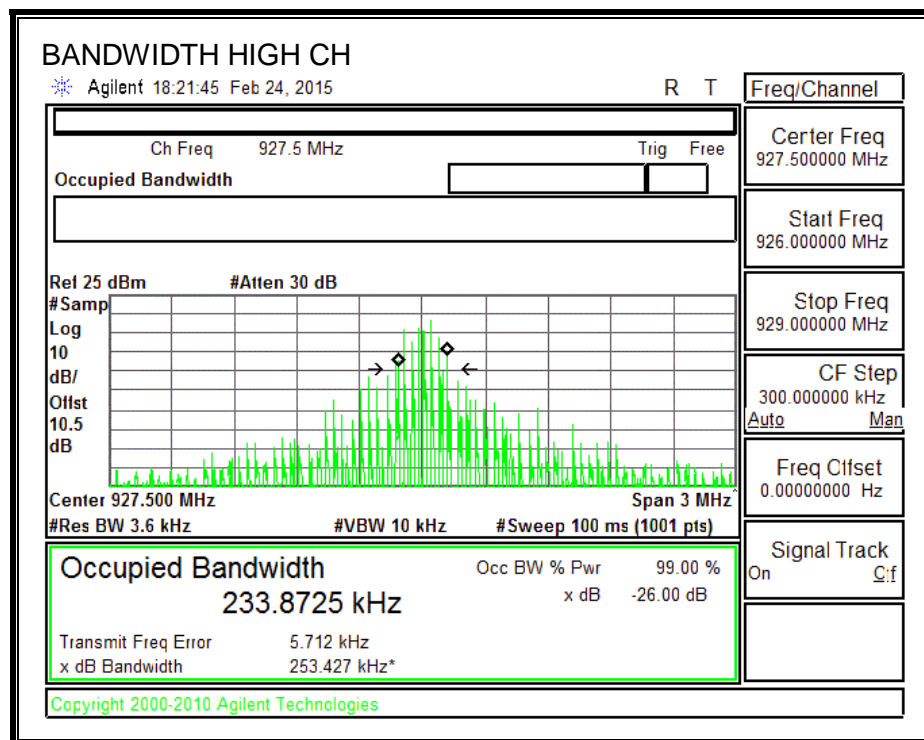
LIMIT

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (kHz)
Low	902.5	236.4792
Middle	915.0	224.4454
High	927.5	233.8725





8.2.3. CARRIER FREQUENCY SEPARATION

LIMIT

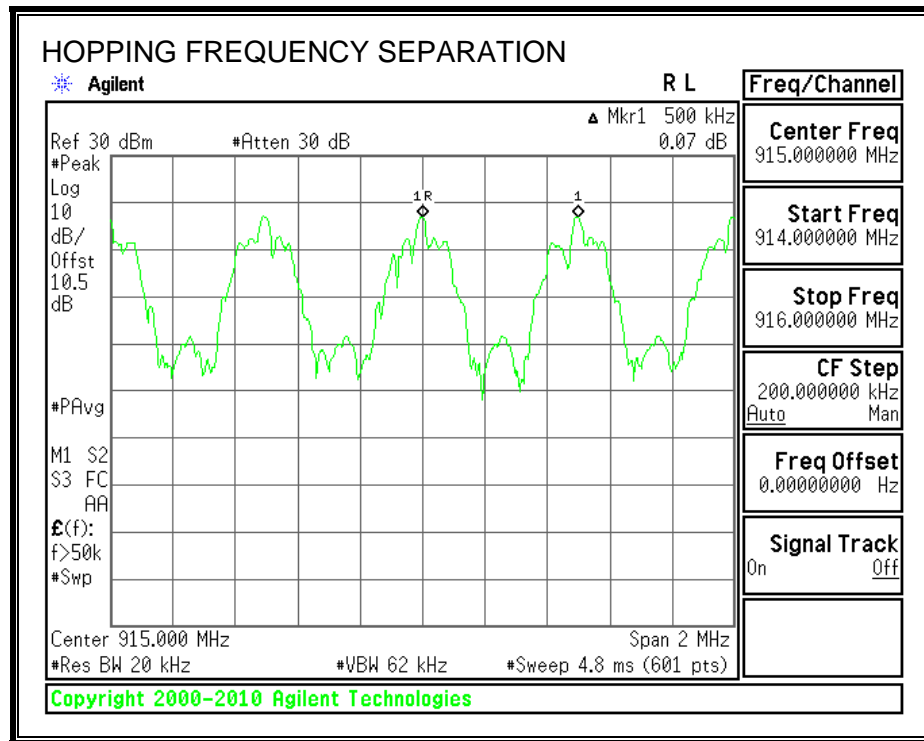
FCC §15.247 (a) (1)

IC RSS-210 A8.1 (b)

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

RESULTS

HOPPING FREQUENCY SEPARATION



8.2.4. NUMBER OF HOPPING FREQUENCIES

LIMIT

FCC §15.247 (a) (1) (i)

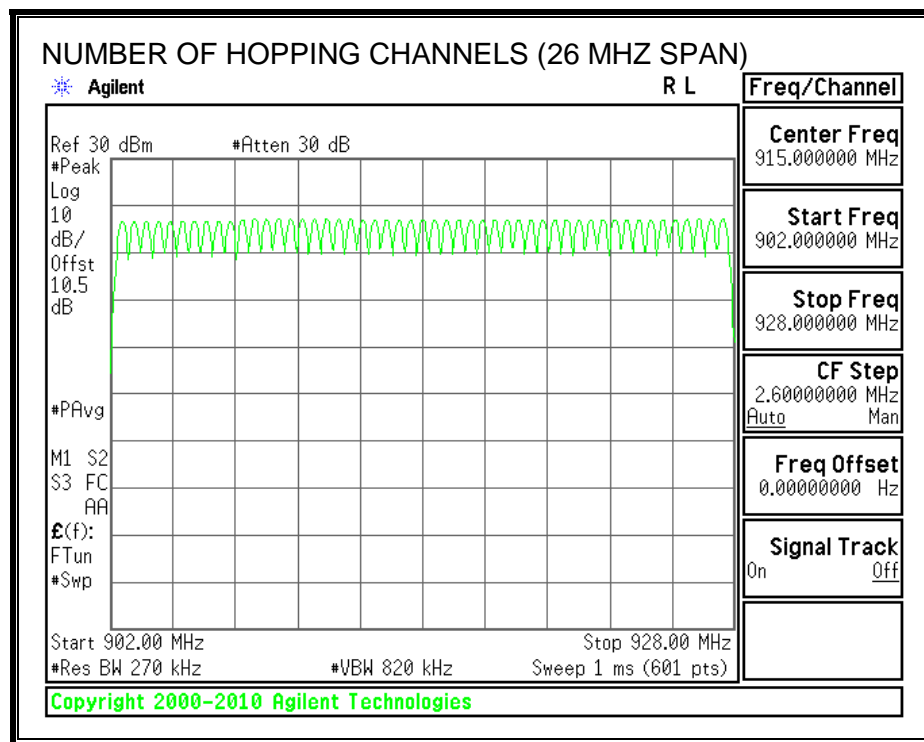
IC RSS-210 A8.1 (c)

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies.

If the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies

RESULTS

Normal Mode: 51 Channels observed.



8.2.5. AVERAGE TIME OF OCCUPANCY

LIMIT

FCC §15.247 (a) (1) (i)

IC RSS-210 A8.1 (c)

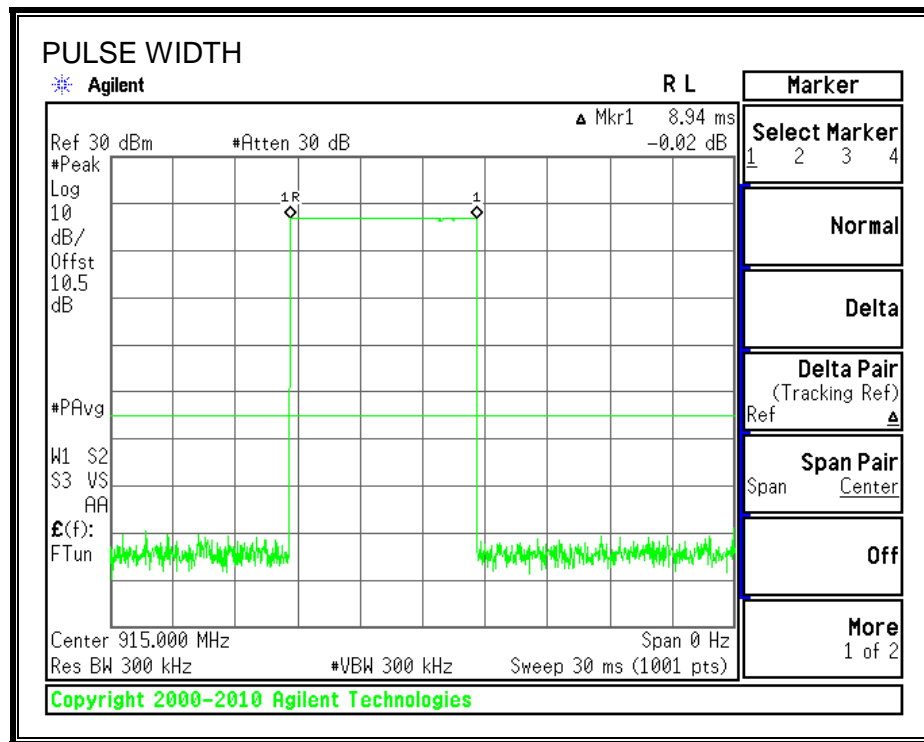
For frequency hopping systems in the band 902-928 MHz: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the average time of occupancy on any channel shall not be greater than 0.4 seconds within a 20 second period.

If the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the average time of occupancy on any channel shall not be greater than 0.4 seconds within a 10 second period.

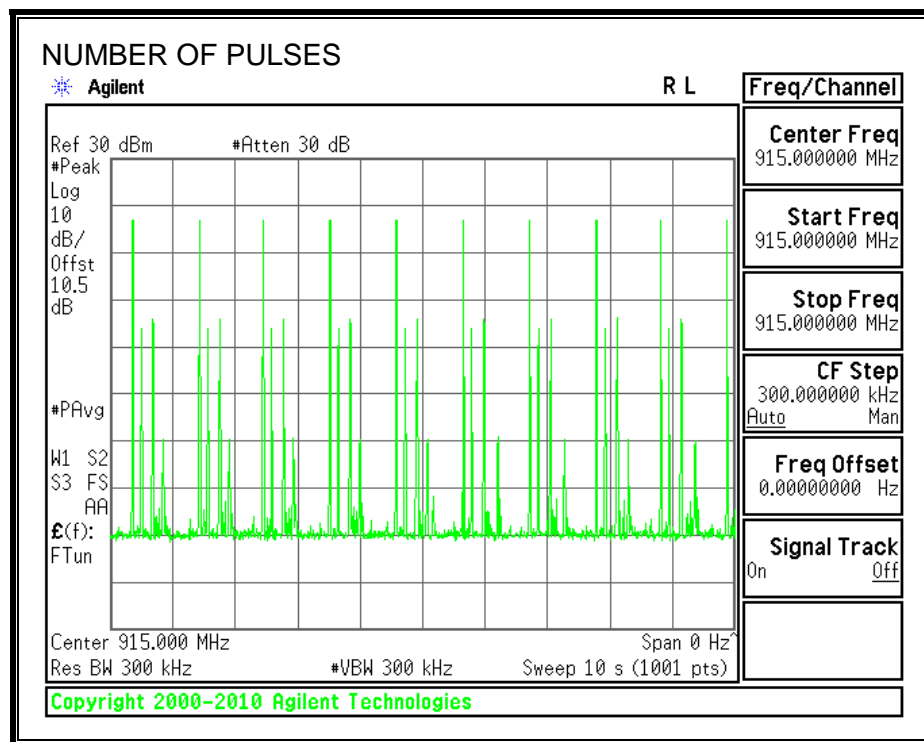
RESULTS

Mode of Operation	Pulse Width (msec)	Number of Pulses in 10 seconds	Average Time of Occupancy (sec)	Limit (sec)	Margin (sec)
PR-ASK	8.94	10	0.089	0.4	-0.311

PULSE WIDTH



NUMBER OF PULSES IN 10 SECOND OBSERVATION PERIOD



8.2.6. PEAK OUTPUT POWER

LIMIT

§15.247 (b) (2)

For frequency hopping systems operating in the 902–928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RSS-210 Issue 8 Clause A8.4 (1)

For frequency hopping systems operating in the band 902-928 MHz, the maximum peak conducted output power shall not exceed 1.0 W, and the e.i.r.p. shall not exceed 4 W if the hopset uses 50 or more hopping channels; the maximum peak conducted output power shall not exceed 0.25 W, and the e.i.r.p. shall not exceed 1 W if the hopset uses less than 50 hopping channels.

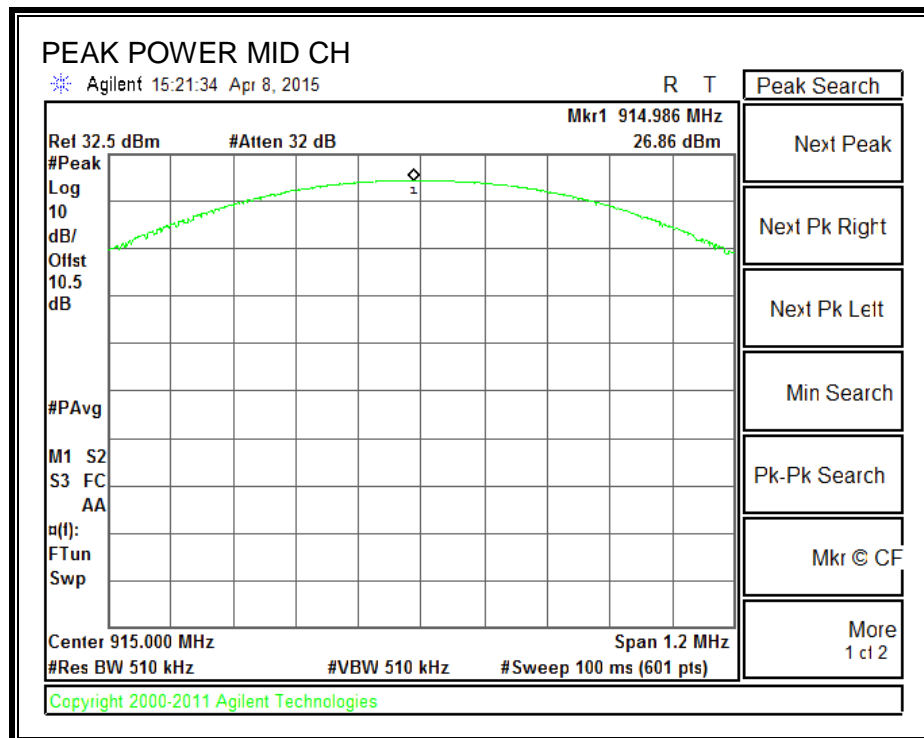
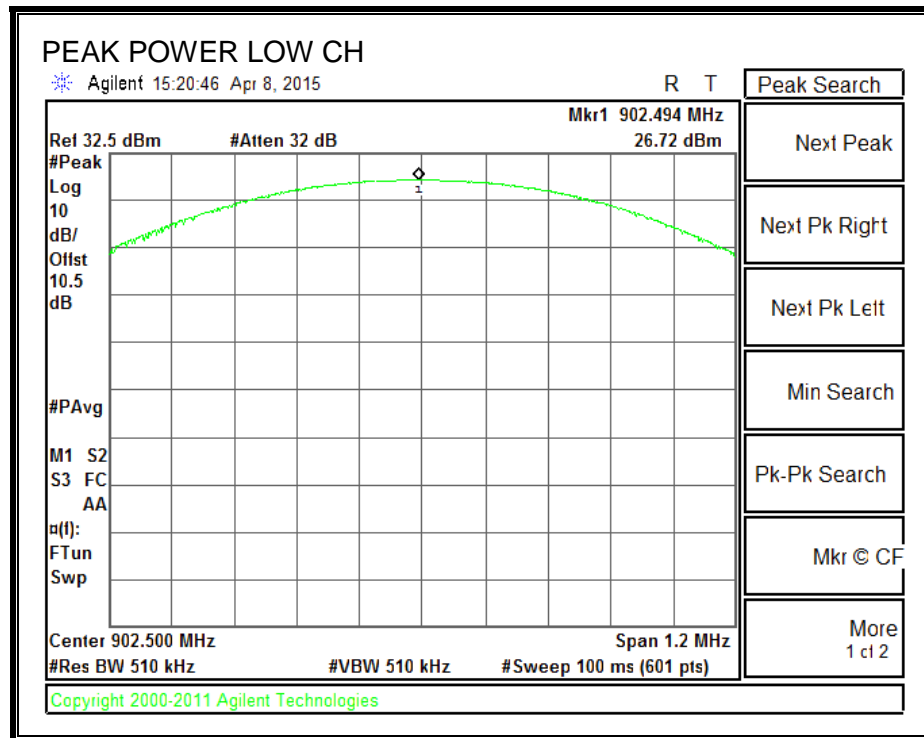
DIRECTIONAL ANTENNA GAIN

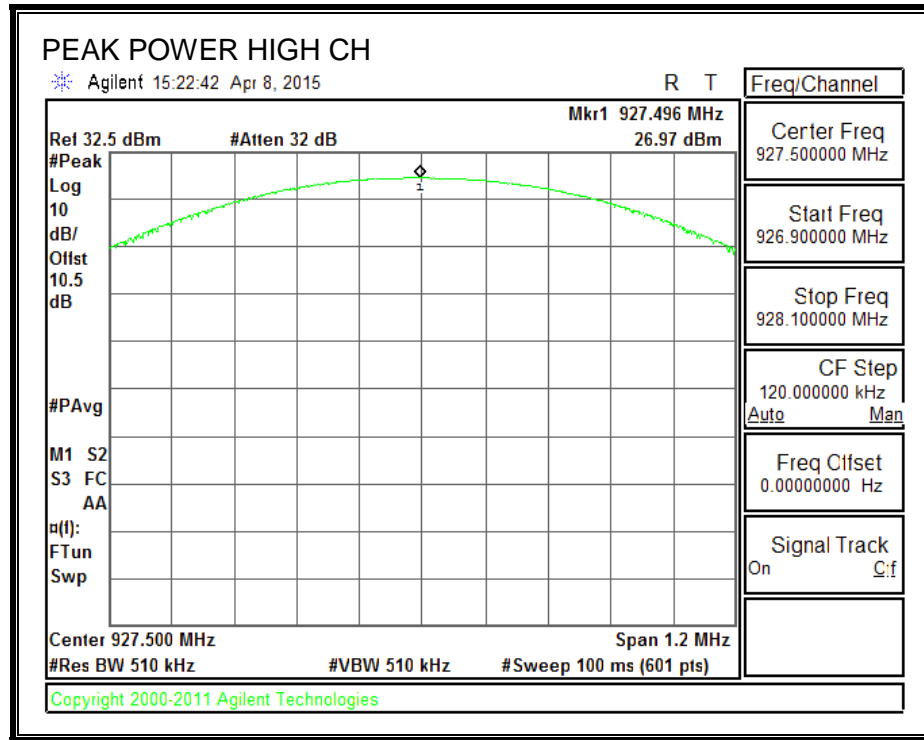
There is only one transmitter output therefore the directional gain is equal to the antenna gain.

RESULTS

Channel	Frequency (MHz)	Output Power (dBm)	Directional Gain (dBi)	Limit (dBm)	Margin (dB)
Low	902.5	26.72	9.00	27	-0.28
Middle	915.0	26.86	9.00	27	-0.14
High	927.5	26.97	9.00	27	-0.03

OUTPUT POWER





8.2.7. AVERAGE POWER

LIMIT

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

Channel	Frequency (MHz)	Average Power (dBm)
Low	902.5	26.23
Middle	915.0	26.46
High	927.5	26.34

The above measurements were taken with the power meter set to “gated measurements”.

8.2.8. CONDUCTED SPURIOUS EMISSIONS

LIMITS

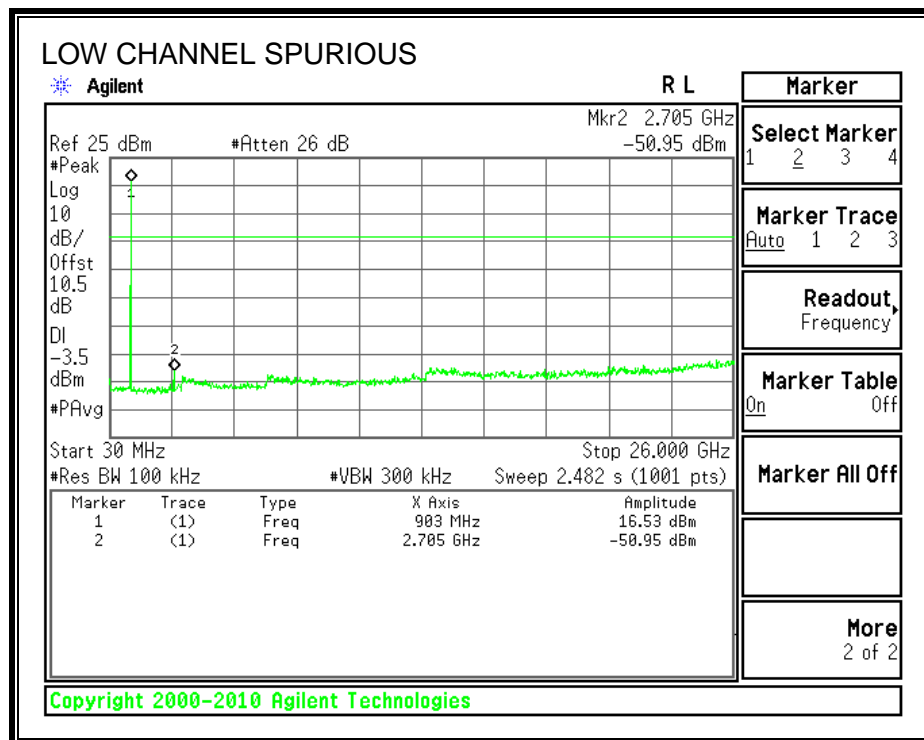
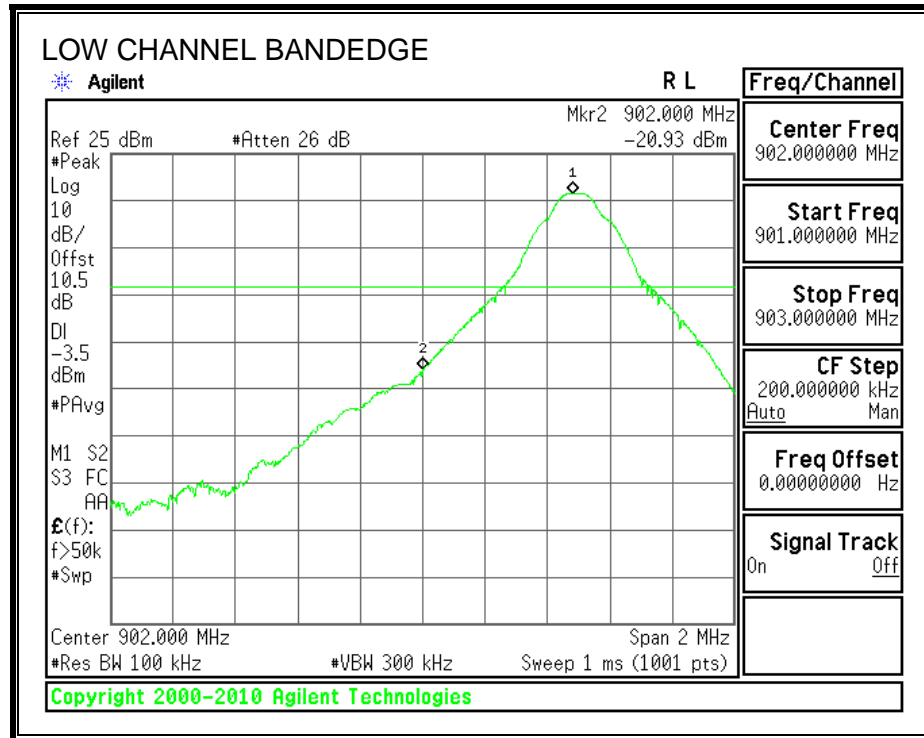
FCC §15.247 (d)

IC RSS-210 A8.5

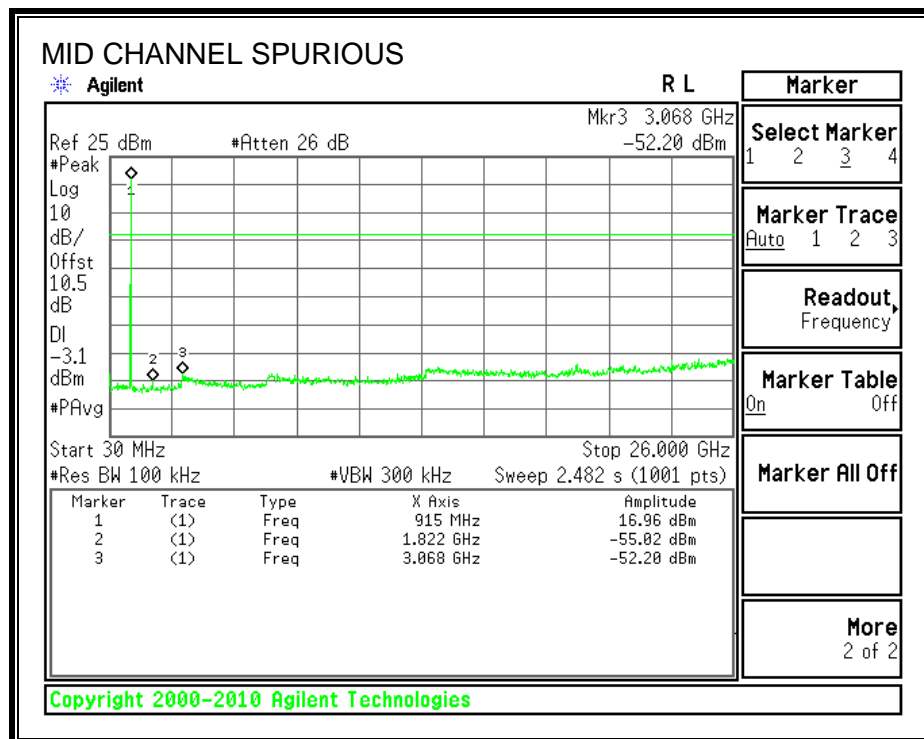
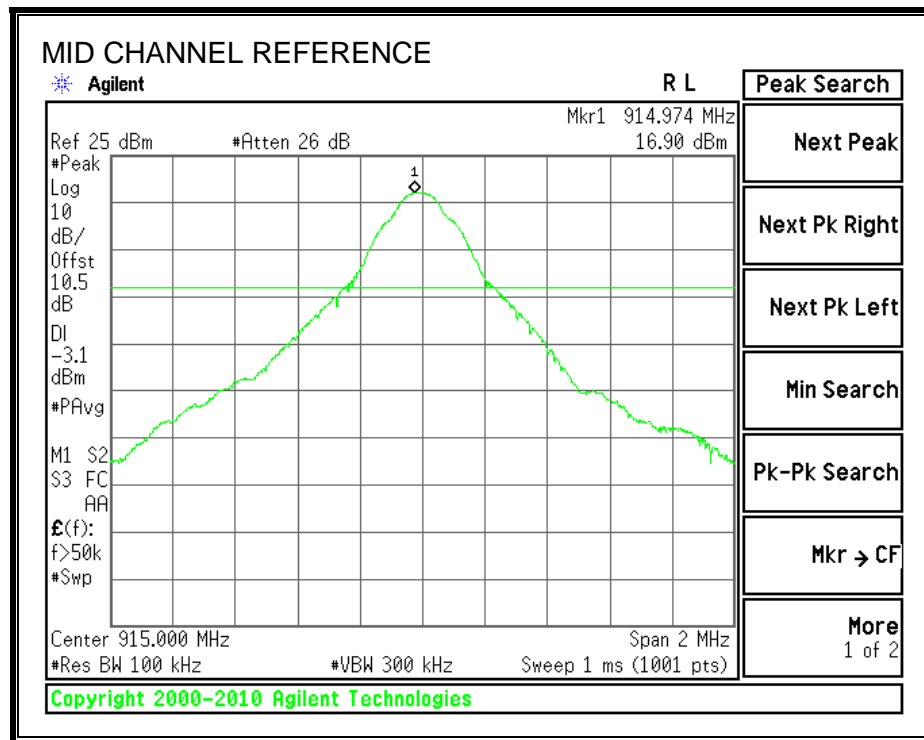
Limit = -20 dBc

RESULTS

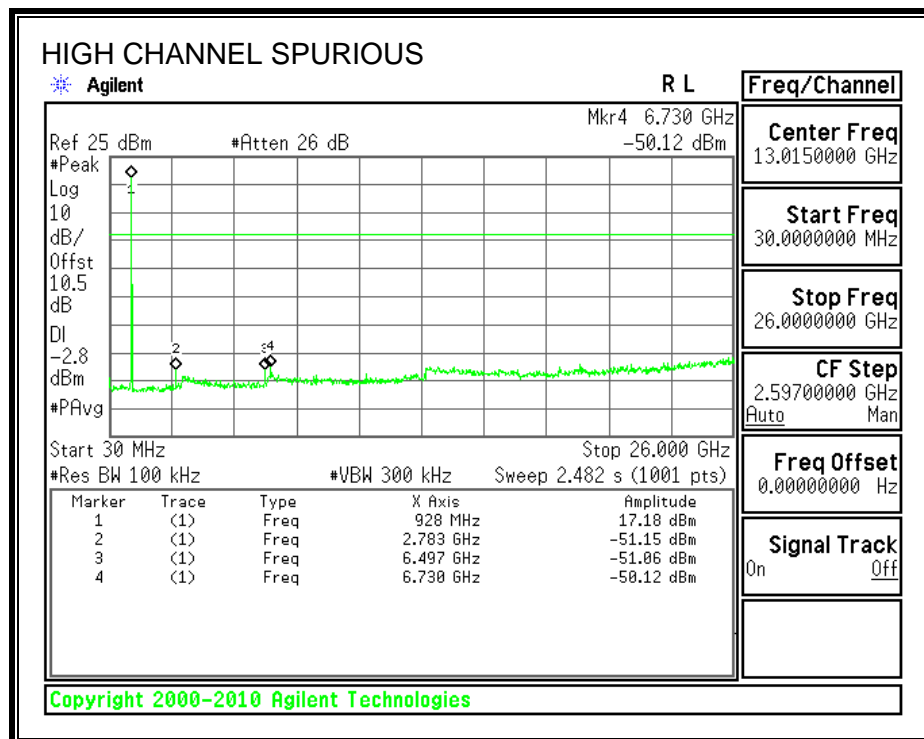
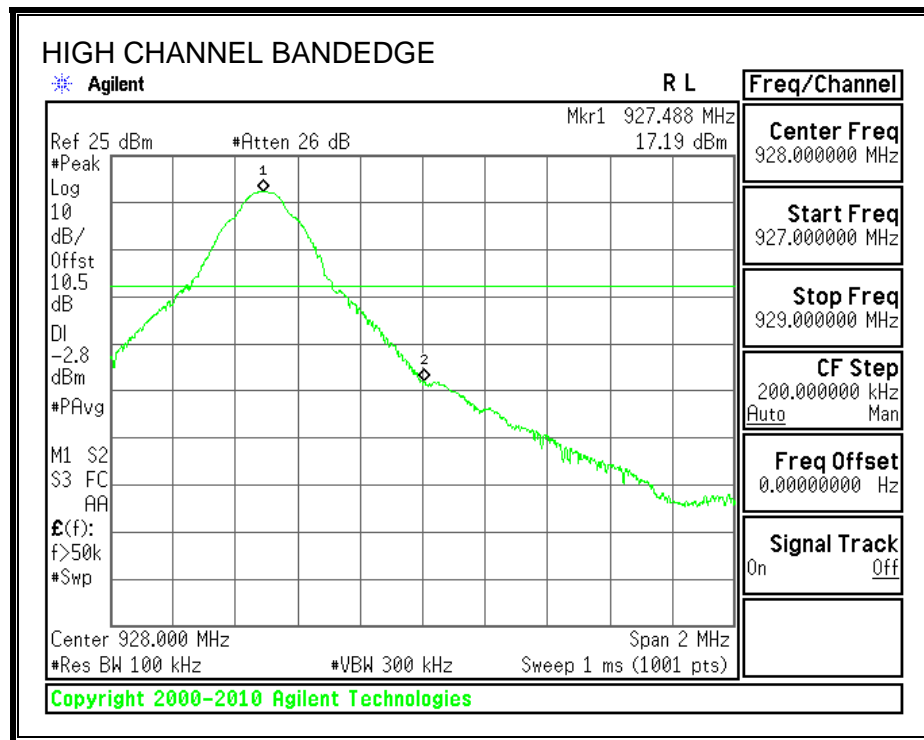
SPURIOUS EMISSIONS, LOW CHANNEL



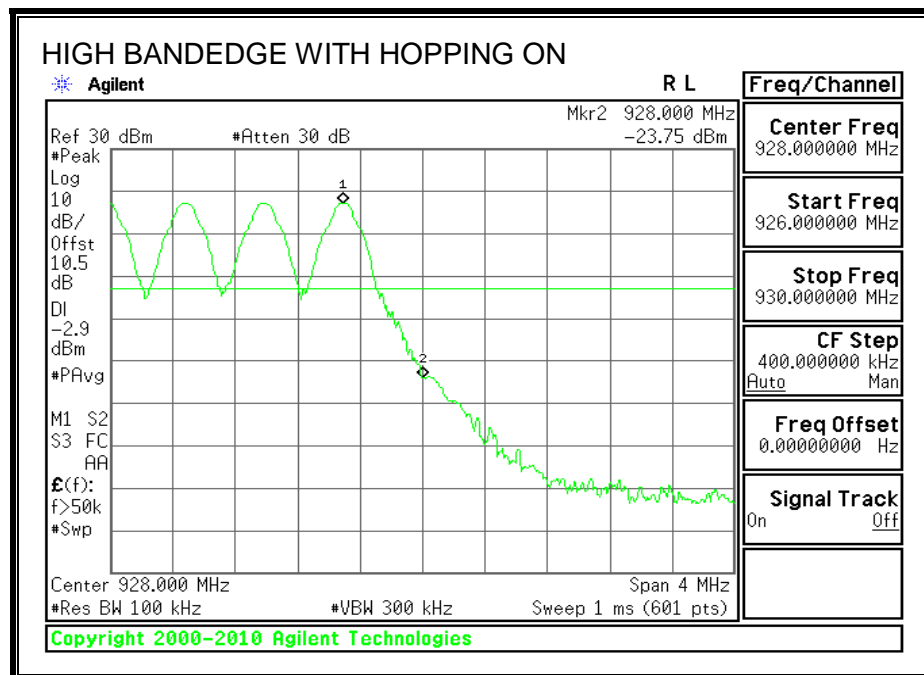
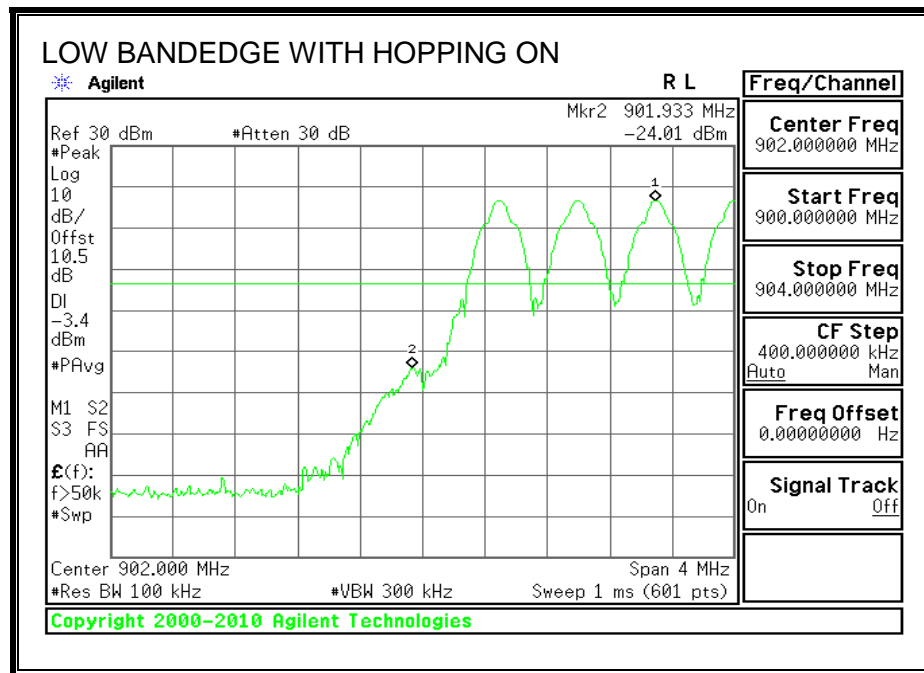
SPURIOUS EMISSIONS, MID CHANNEL



SPURIOUS EMISSIONS, HIGH CHANNEL



SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON



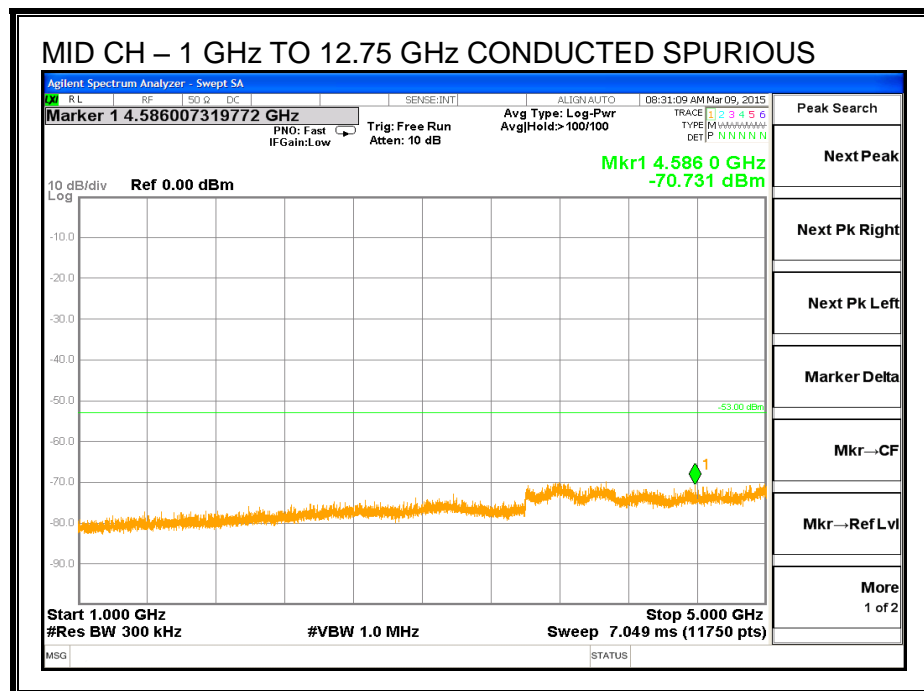
8.2.9. RECEIVER SPURIOUS EMISSIONS

LIMITS

IC RSS-GEN (7.1.3)

Frequency Range (MHz)	Maximum power (dBm) e.r.p (<=1GHz), e.i.r.p (>1GHz)	Measurement bandwidth (kHz)
30 MHz to 1 GHz	-57.00	10
Above 1 GHz to 5 GHz	-53.00	1000

CONDUCTED SPURIOUS EMISSIONS



9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

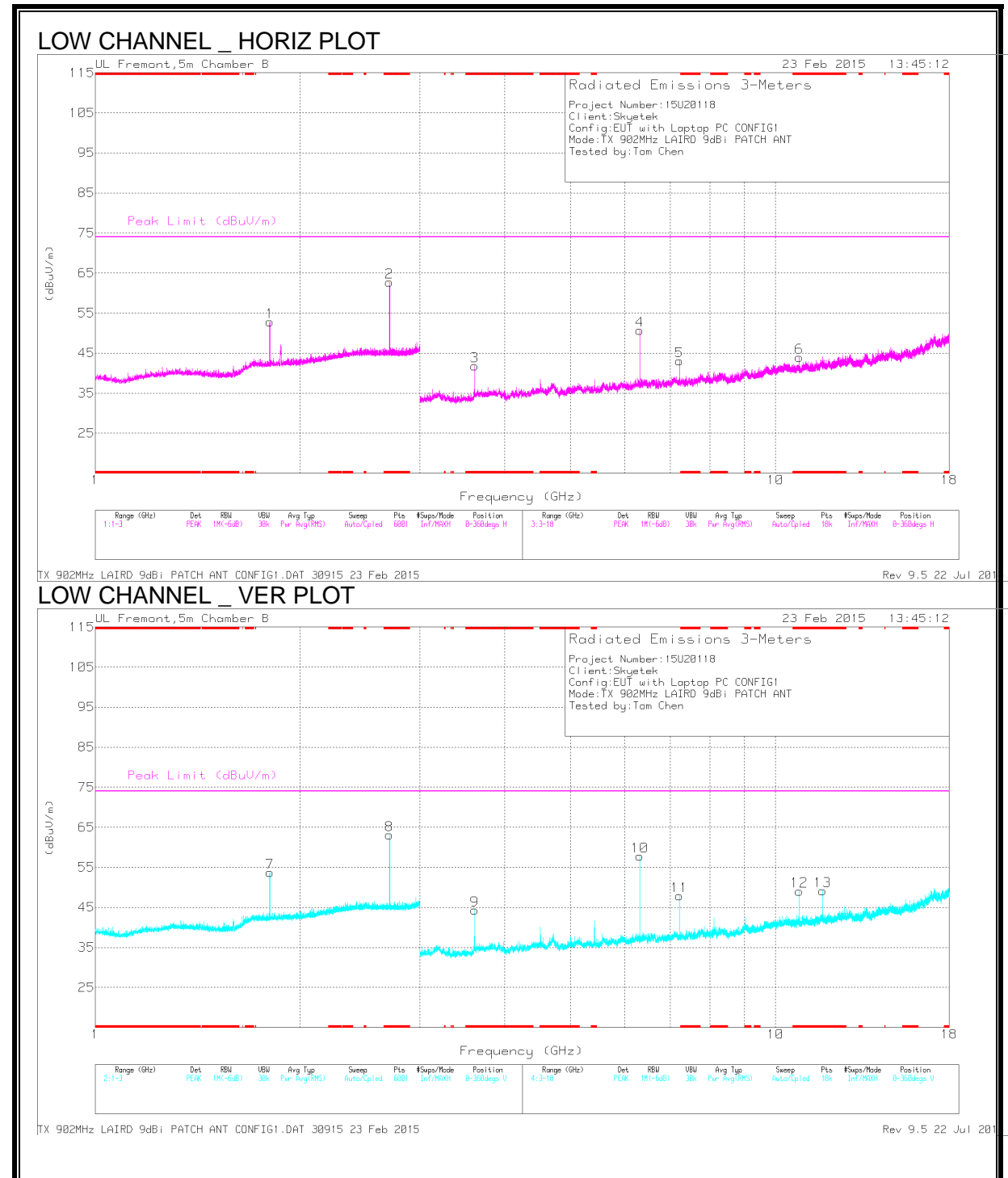
IC RSS-GEN Clause 8.9 (Transmitter)

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

9.2. TRANSMITTER ABOVE 1 GHz

9.2.1. LINEARLY POLARIZED PATCH ANTENNA

CONFIGURATION 1



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	T929 1.5GHz HPF	Ant Gain [dBi]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.707	51.99	PK3	32	-22.3	1	0	0	62.69	-	-	74	-11.31	271	193	H
2	* 2.707	-	-	-	-	-	0	21.36	42.69	54	-11.31	-	-	271	193	H
8	* 2.708	52.45	PK3	32	-22.3	1	0	0	63.15	-	-	74	-10.85	232	195	V
8	* 2.708	-	-	32	-22.3	1	0	21.36	43.15	54	-10.85	54	-	232	195	V
3	* 3.61	39.71	PK3	32.8	-30.7	1	0	0	41.81	-	-	74	-32.19	163	200	H
9	* 3.61	42.28	PK3	32.8	-30.7	1	0	0	44.38	-	-	74	-29.62	284	200	V
6	* 10.83	29.51	PK3	37.2	-22.8	1	0	0	43.91	-	-	74	-30.09	118	199	H
12	* 10.83	34.69	PK3	37.2	-22.8	1	0	0	49.09	-	-	74	-24.91	179	102	V
13	* 11.733	33.53	PK3	37.8	-22.2	1	0	0	49.13	-	-	74	-24.87	143	179	V
1	1.805	44.88	PK	30.2	-23.3	1	0	0	52.78	-	-	-	-	0-360	199	H
7	1.805	45.87	PK	30.2	-23.3	1	0	0	53.77	-	-	-	-	0-360	199	V
4	6.317	44.16	PK	35.3	-28.8	1	0	0	50.66	-	-	-	-	0-360	101	H
10	6.317	51.27	PK	35.3	-28.8	1	0	0	57.77	-	-	-	-	0-360	200	V
5	7.22	35.1	PK	35.4	-27.4	1	0	0	43.1	-	-	-	-	0-360	200	H
11	7.22	39.91	PK	35.4	-27.4	1	0	0	47.91	-	-	-	-	0-360	102	V

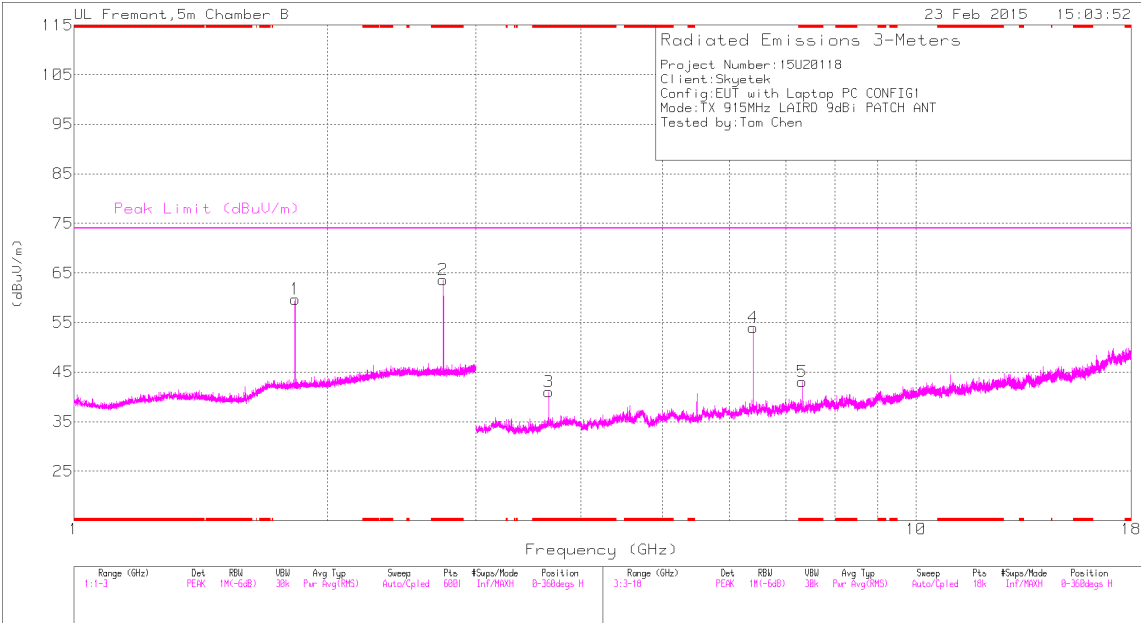
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

PK3 - FHSS Method: Maximized Peak

Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

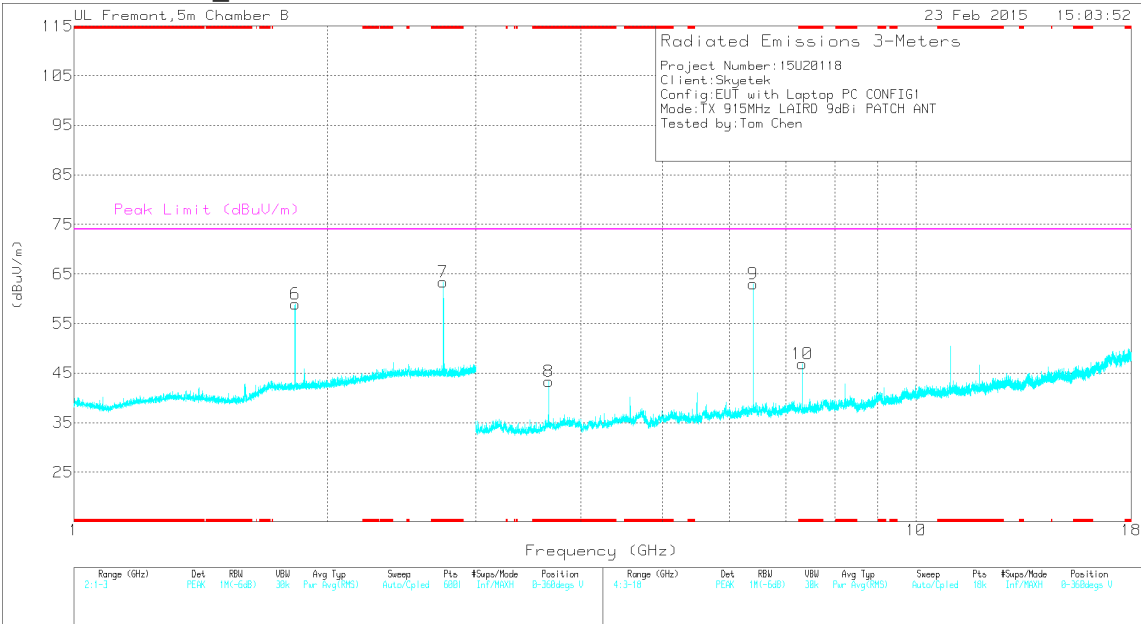
MID CHANNEL _ HORIZ PLOT



TX 915MHz LAIRD 9dBi PATCH ANT CONFIG1.DAT 30915 23 Feb 2015

Rev 9.5 22 Jul 201

MID CHANNEL _ VER PLOT



TX 915MHz LAIRD 9dBi PATCH ANT CONFIG1.DAT 30915 23 Feb 2015

Rev 9.5 22 Jul 201

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filtr /Pad (dB)	T929 1.5GHz HPF	Ant Gain [dBi]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.745	52.91	PK3	32	-22.3	1	0	0	63.61	-	-	74	-10.39	84	242	H
2	* 2.745	-	-	-	-	-	0	21.36	43.61	54	-10.39	-	-	84	242	H
7	* 2.745	52.62	PK3	32	-22.3	1	0	0	63.32	-	-	74	-10.68	231	215	V
7	* 2.745	-	-	-	-	-	0	21.36	43.32	54	-10.68	-	-	231	215	V
3	* 3.66	38.92	PK3	32.9	-30.8	1	0	0	41.02	-	-	74	-32.98	72	200	H
8	* 3.66	41.18	PK3	32.9	-30.8	1	0	0	43.28	-	-	74	-30.72	290	102	V
5	* 7.32	35.81	PK3	35.4	-28.2	1	0	0	43.01	-	-	74	-30.99	306	198	H
10	* 7.32	39.66	PK3	35.4	-28.2	1	0	0	46.86	-	-	74	-27.14	233	199	V
1	1.83	51.75	PK	30.3	-23.3	1	0	0	59.75	-	-	-	-	0-360	101	H
6	1.83	50.96	PK	30.3	-23.3	1	0	0	58.96	-	-	-	-	0-360	199	V
4	6.405	47.8	PK	35.3	-29.1	1	0	0	54	-	-	-	-	0-360	101	H
9	6.405	56.77	PK	35.3	-29.1	1	0	0	62.97	-	-	-	-	0-360	199	V

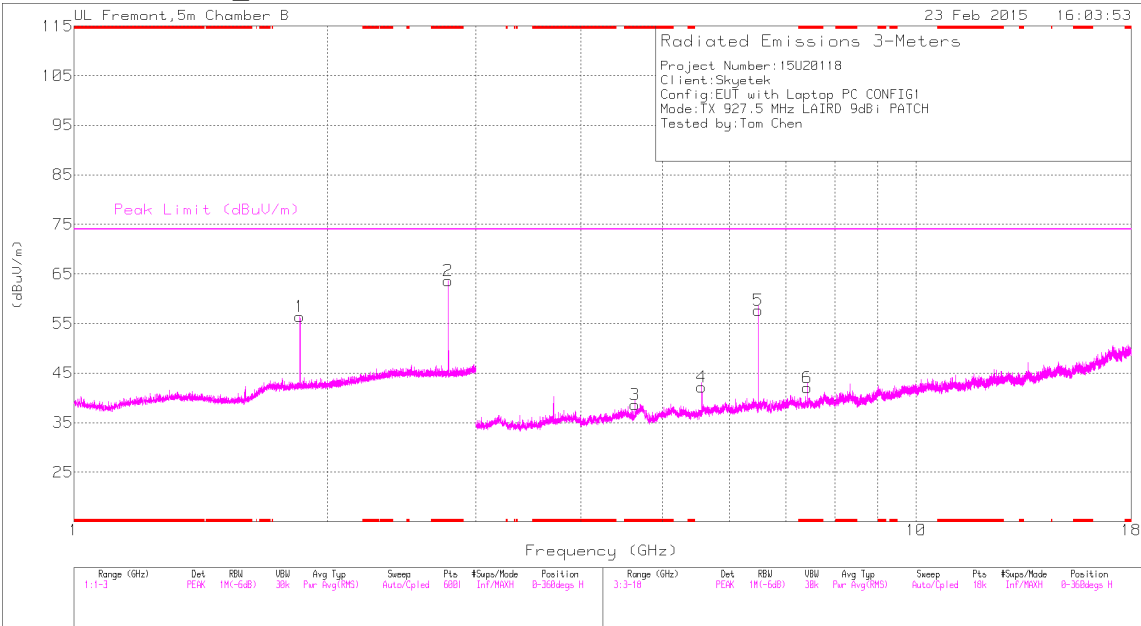
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

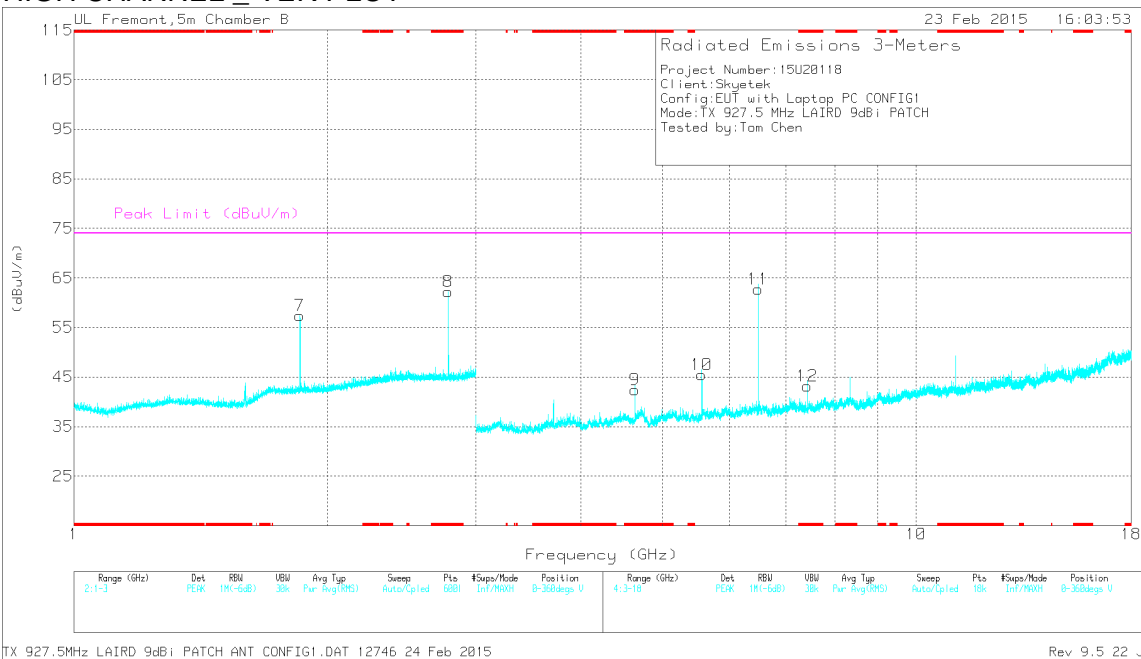
PK3 - FHSS Method: Maximized Peak

Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

HIGH CHANNEL _ HORIZ PLOT



HIGH CHANNEL _ VER PLOT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cb/Ftr /Pad (dB)	T929 1.5GHz HPF	Ant Gain [dBi]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.782	54.83	PK3	32	-22.2	1	0	0	65.63	-	-	74	-8.37	64	165	H
2	* 2.782	-	-	-	-	-	0	21.36	45.63	54	-8.37	-	-	64	165	H
8	* 2.783	53.69	PK3	32	-22.2	1	0	0	64.49	-	-	74	-9.51	263	188	V
8	* 2.783	-	-	-	-	-	0	21.36	44.49	54	-9.51	-	-	263	188	V
3	* 4.637	44.3	PK3	33.9	-30.5	1	0	0	48.7	-	-	74	-25.3	31	198	H
6	* 7.42	33.38	PK3	35.4	-27.3	1	0	0	42.48	-	-	74	-31.52	20	198	H
9	* 4.637	36.95	PK3	33.9	-30.5	1	0	0	41.35	-	-	74	-32.65	218	198	V
12	* 7.42	41.35	PK3	35.4	-27.3	1	0	0	50.45	-	-	74	-23.55	240	198	V
1	1.855	48.44	PK	30.3	-23.3	1	0	0	56.44	-	-	-	-	0-360	199	H
7	1.855	49.39	PK	30.3	-23.3	1	0	0	57.39	-	-	-	-	0-360	199	V
4	5.565	37.42	PK	34.4	-29.7	1	0	0	43.12	-	-	-	-	0-360	199	H
10	5.565	40.81	PK	34.4	-29.7	1	0	0	46.51	-	-	-	-	0-360	199	V
5	6.492	51.2	PK	35.2	-28.7	1	0	0	58.7	-	-	-	-	0-360	199	H
11	6.492	56.21	PK	35.2	-28.7	1	0	0	63.71	-	-	-	-	0-360	199	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

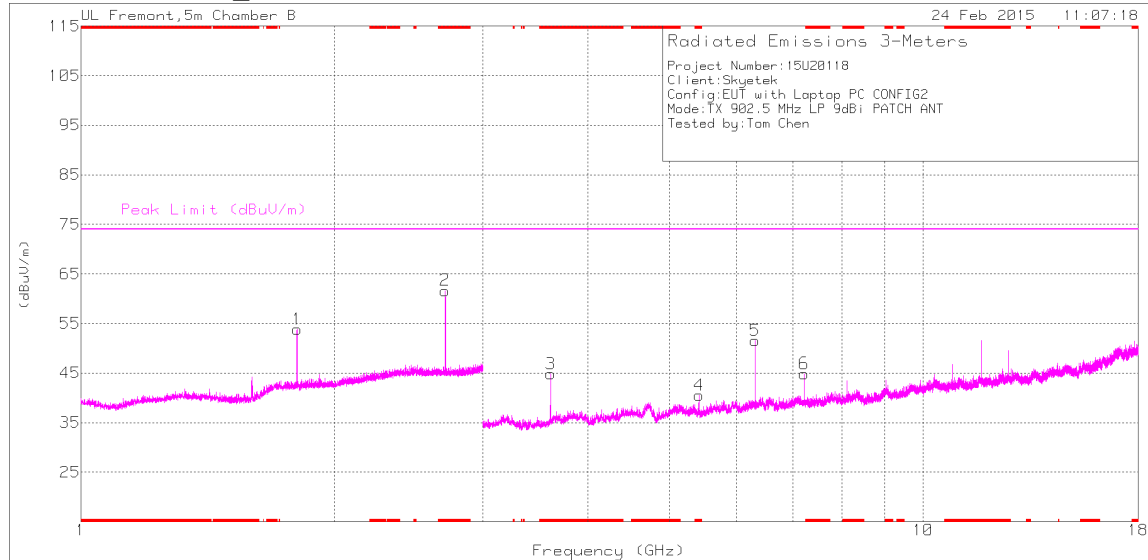
PK - Peak detector

PK3 - FHSS Method: Maximized Peak

Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

CONFIGURATION 2

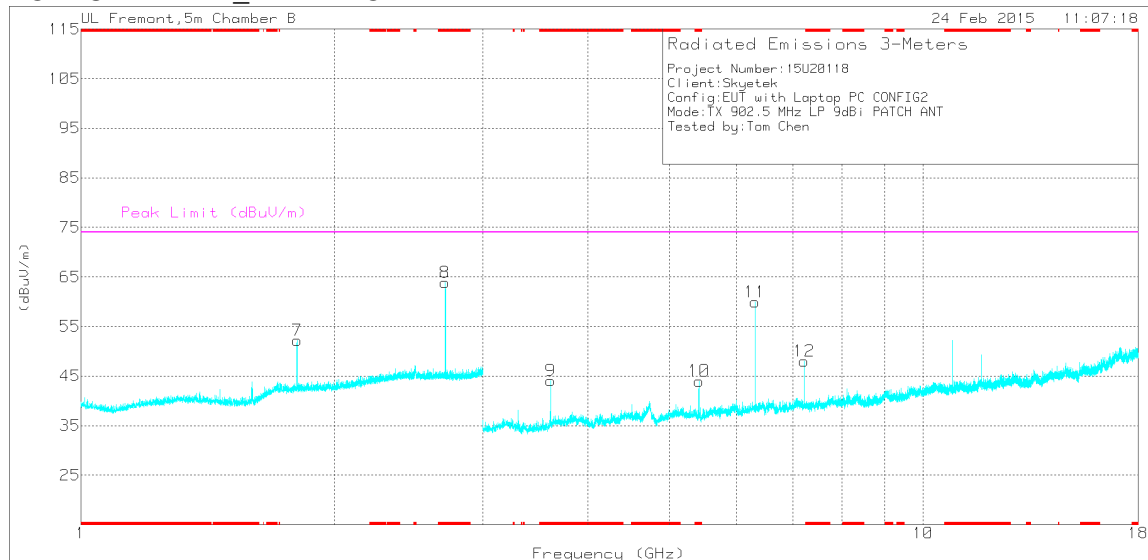
LOW CHANNEL _ HORIZ PLOT



TX 902.5MHz LP 9dBi PATCH ANT CONFIG2.DAT 12746 24 Feb 2015

Rev 9.5 22 Jul 201

LOW CHANNEL _ VER PLOT



TX 902.5MHz LP 9dBi PATCH ANT CONFIG2.DAT 12746 24 Feb 2015

Rev 9.5 22 Jul 201

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	T929 1.5GHz HPF	Ant Gain [dBi]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.707	53.05	PK3	32	-22.3	1	0	0	63.75	-	-	74	-10.25	145	236	H
2	* 2.707	-	-	-	-	-	0	21.36	43.75	54	-10.25	-	-	145	236	H
8	* 2.707	54.6	PK3	32	-22.3	1	0	0	65.3	-	-	74	-8.7	172	204	V
8	* 2.707	-	-	-	-	-	0	21.36	45.3	54	-8.7	54	-8.7	172	204	V
3	* 3.61	45.71	PK3	32.8	-30.7	1	0	0	48.81	-	-	74	-25.19	199	102	H
4	* 5.416	39.74	PK3	34.3	-29.1	1	0	0	45.94	-	-	74	-28.06	199	102	H
9	* 3.61	45.18	PK3	32.8	-30.7	1	0	0	48.28	-	-	74	-25.72	159	199	V
10	* 5.415	43.35	PK3	34.3	-29.1	1	0	0	49.55	-	-	74	-24.45	191	199	V
1	1.805	45.93	PK	30.2	-23.3	1	0	0	53.83	-	-	-	-	0-360	199	H
7	1.805	44.25	PK	30.2	-23.3	1	0	0	52.15	-	-	-	-	0-360	199	V
5	6.317	44.07	PK	35.3	-28.8	1	0	0	51.57	-	-	-	-	0-360	199	H
11	6.317	52.47	PK	35.3	-28.8	1	0	0	59.97	-	-	-	-	0-360	199	V
6	7.22	35.9	PK	35.4	-27.4	1	0	0	44.9	-	-	-	-	0-360	199	H
12	7.22	38.98	PK	35.4	-27.4	1	0	0	47.98	-	-	-	-	0-360	101	V

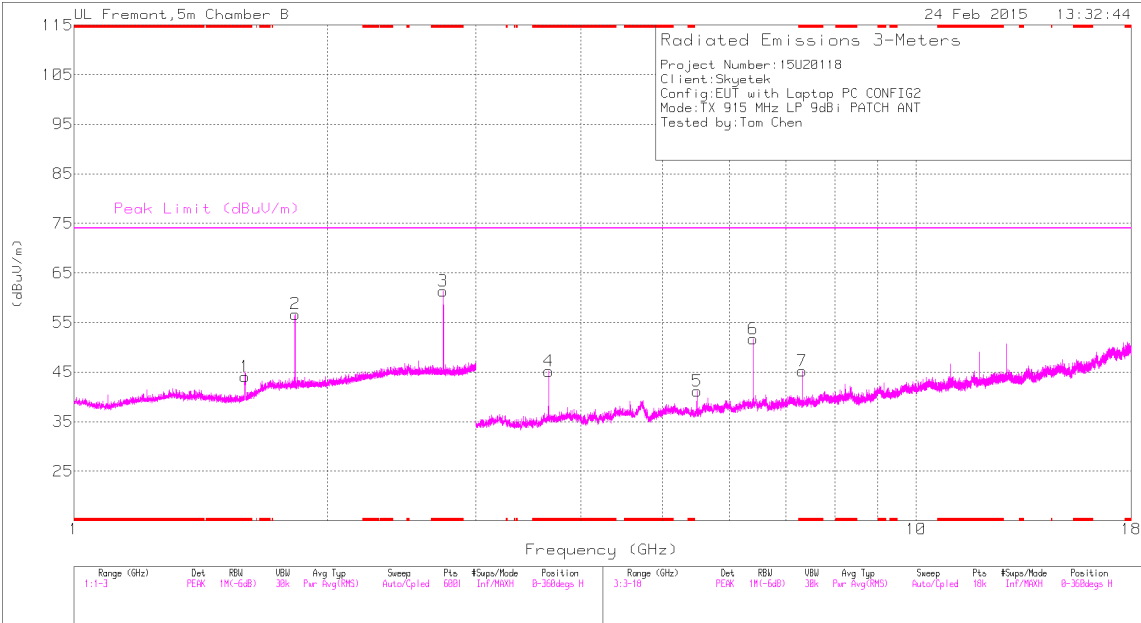
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

PK3 - FHSS Method: Maximized Peak

Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

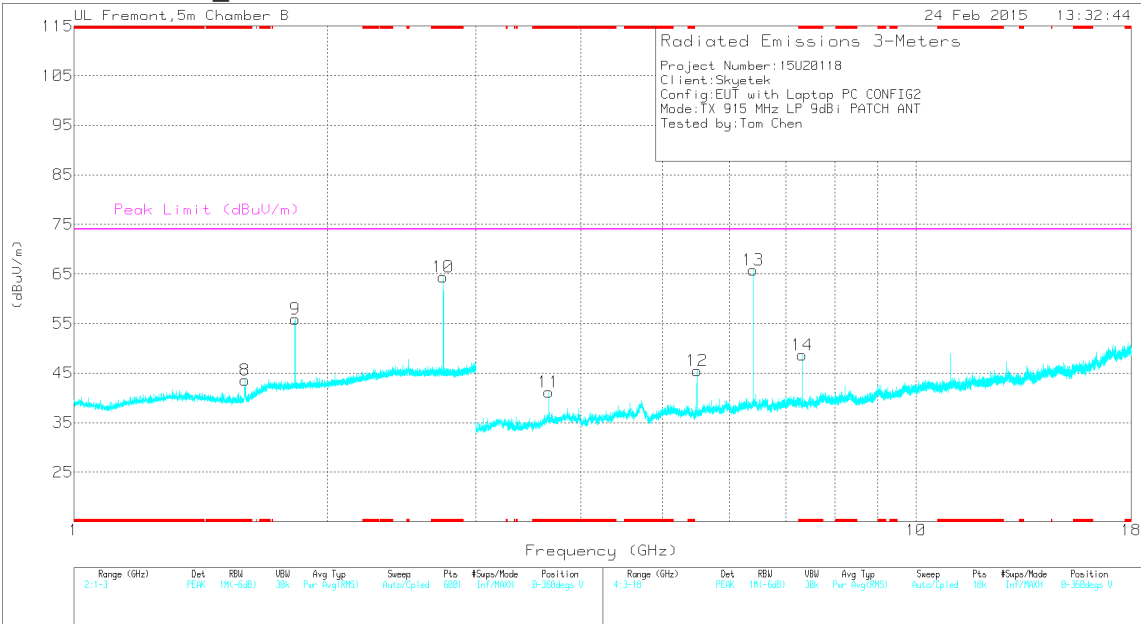
MID CHANNEL _ HORIZ PLOT



TX 915MHz LP 9dB; PATCH ANT CONFIG2.DAT 12746 24 Feb 2015

Rev 9.5 22 Jul 201

MID CHANNEL _ VER PLOT



TX 915MHz LP 9dB; PATCH ANT CONFIG2.DAT 12746 24 Feb 2015

Rev 9.5 22 Jul 201

Trace Markers

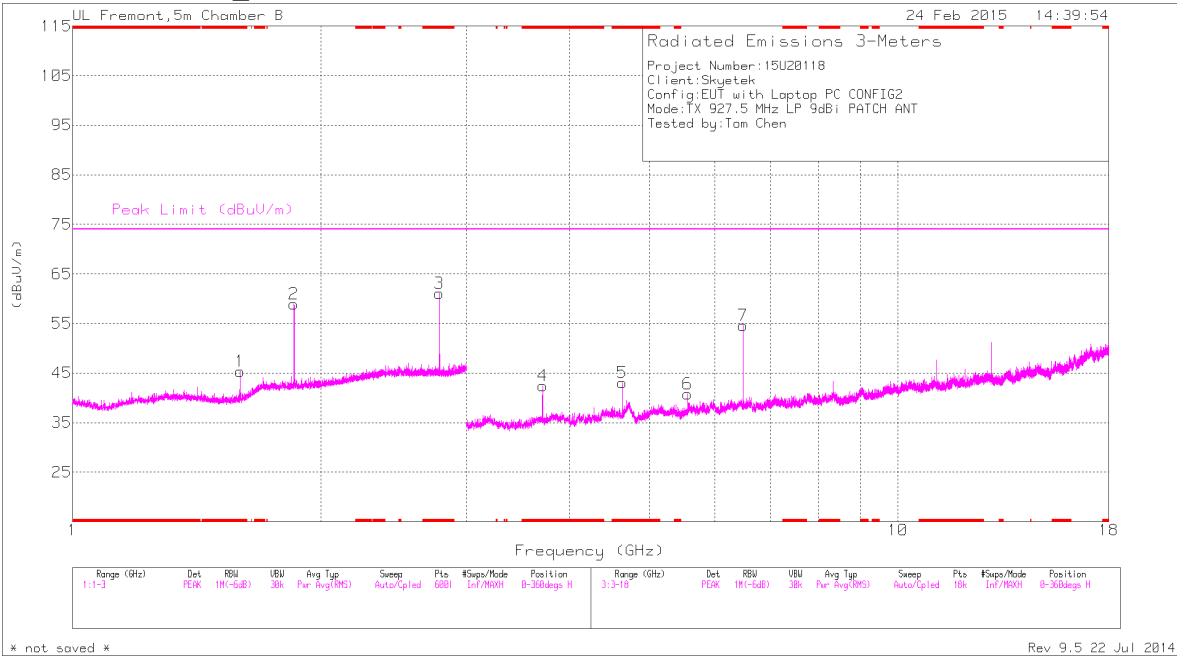
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	T929 1.5GHz HPF	Ant Gain [dBi]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.596	45.15	PK3	27.7	-23.7	1	0	0	50.15	-	-	74	-23.85	320	208	H
3	* 2.745	52.59	PK3	32	-22.3	1	0	0	63.29	-	-	74	-10.71	173	245	H
3	* 2.745	-	-	-	-	-	0	21.36	43.29	54	-10.71	-	-	173	245	H
8	* 1.596	47	PK3	27.7	-23.7	1	0	0	52	-	-	74	-22	141	299	V
10	* 2.745	54.58	PK3	32	-22.3	1	0	0	65.28	-	-	74	-8.72	166	203	V
10	* 2.745	-	-	-	-	-	0	21.36	45.28	54	-8.72	-	-	166	203	V
4	* 3.66	47.16	PK3	32.9	-30.8	1	0	0	50.26	-	-	74	-23.74	170	103	H
7	* 7.32	41.84	PK3	35.4	-28.2	1	0	0	50.04	-	-	74	-23.96	298	199	H
11	* 3.66	44.33	PK3	33	-30.8	1	0	0	47.53	-	-	74	-26.47	162	102	V
14	* 7.32	44.69	PK3	35.4	-28.2	1	0	0	52.89	-	-	74	-21.11	218	198	V
2	1.83	48.71	PK	30.3	-23.3	1	0	0	56.71	-	-	-	-	0-360	200	H
9	1.83	47.94	PK	30.3	-23.3	1	0	0	55.94	-	-	-	-	0-360	200	V
5	5.49	35.74	PK	34.4	-30	1	0	0	41.14	-	-	-	-	0-360	199	H
12	5.49	40.05	PK	34.4	-30	1	0	0	45.45	-	-	-	-	0-360	199	V
6	6.405	44.45	PK	35.3	-29.1	1	0	0	51.65	-	-	-	-	0-360	199	H
13	6.405	58.54	PK	35.3	-29.1	1	0	0	65.74	-	-	-	-	0-360	199	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

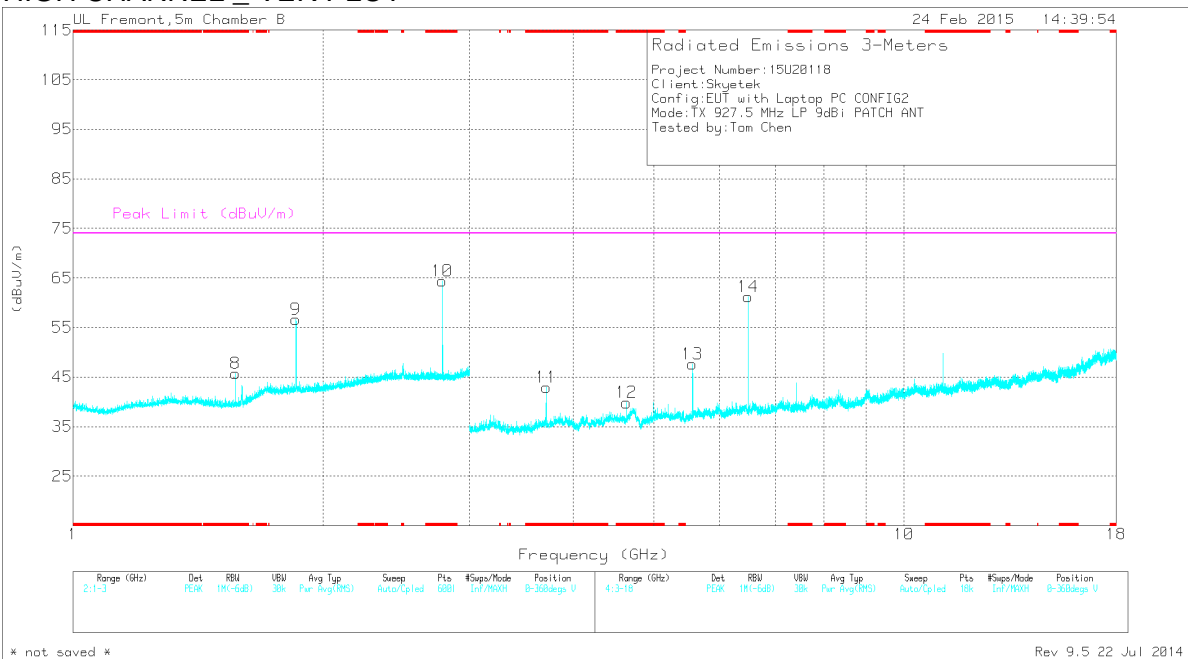
PK - Peak detector

PK3 - FHSS Method: Maximized Peak

HIGH CHANNEL _ HORIZ PLOT



HIGH CHANNEL _ VER PLOT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	T929 1.5GHz HPF	Ant Gain [dBi]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.595	47.11	PK3	27.7	-23.7	1	0	0	52.11	-	-	74	-21.89	227	103	H
3	* 2.783	53.82	PK3	32	-22.2	1	0	0	64.62	-	-	74	-9.38	178	295	H
3	* 2.783	-	-	-	-	-	0	21.36	44.62	54	-9.38	-	-	178	295	H
8	* 1.569	43.24	PK3	27.7	-23.7	1	0	0	48.24	-	-	74	-25.76	143	179	V
10	* 2.783	54.69	PK3	32	-22.2	1	0	0	65.49	-	-	74	-8.51	166	204	V
10	* 2.783	-	-	-	-	-	0	21.36	45.49	54	-8.51	-	-	166	204	V
4	* 3.71	45.79	PK3	33.1	-31.2	1	0	0	48.69	-	-	74	-25.31	352	199	H
5	* 4.637	44.04	PK3	33.9	-30.5	1	0	0	48.44	-	-	74	-25.56	118	199	H
11	* 3.71	44.76	PK3	33.1	-31.2	1	0	0	47.66	-	-	74	-26.34	329	199	V
12	* 4.638	42.42	PK3	33.9	-30.5	1	0	0	46.82	-	-	74	-27.18	179	102	V
2	1.855	50.96	PK	30.3	-23.3	1	0	0	58.96	-	-	-	-	0-360	199	H
9	1.855	48.7	PK	30.3	-23.3	1	0	0	56.7	-	-	-	-	0-360	199	V
6	5.565	35.03	PK	34.4	-29.7	1	0	0	40.73	-	-	-	-	0-360	199	H
13	5.565	41.88	PK	34.4	-29.7	1	0	0	47.58	-	-	-	-	0-360	199	V
7	6.492	47.1	PK	35.2	-28.7	1	0	0	54.6	-	-	-	-	0-360	199	H
14	6.492	53.71	PK	35.2	-28.7	1	0	0	61.21	-	-	-	-	0-360	199	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

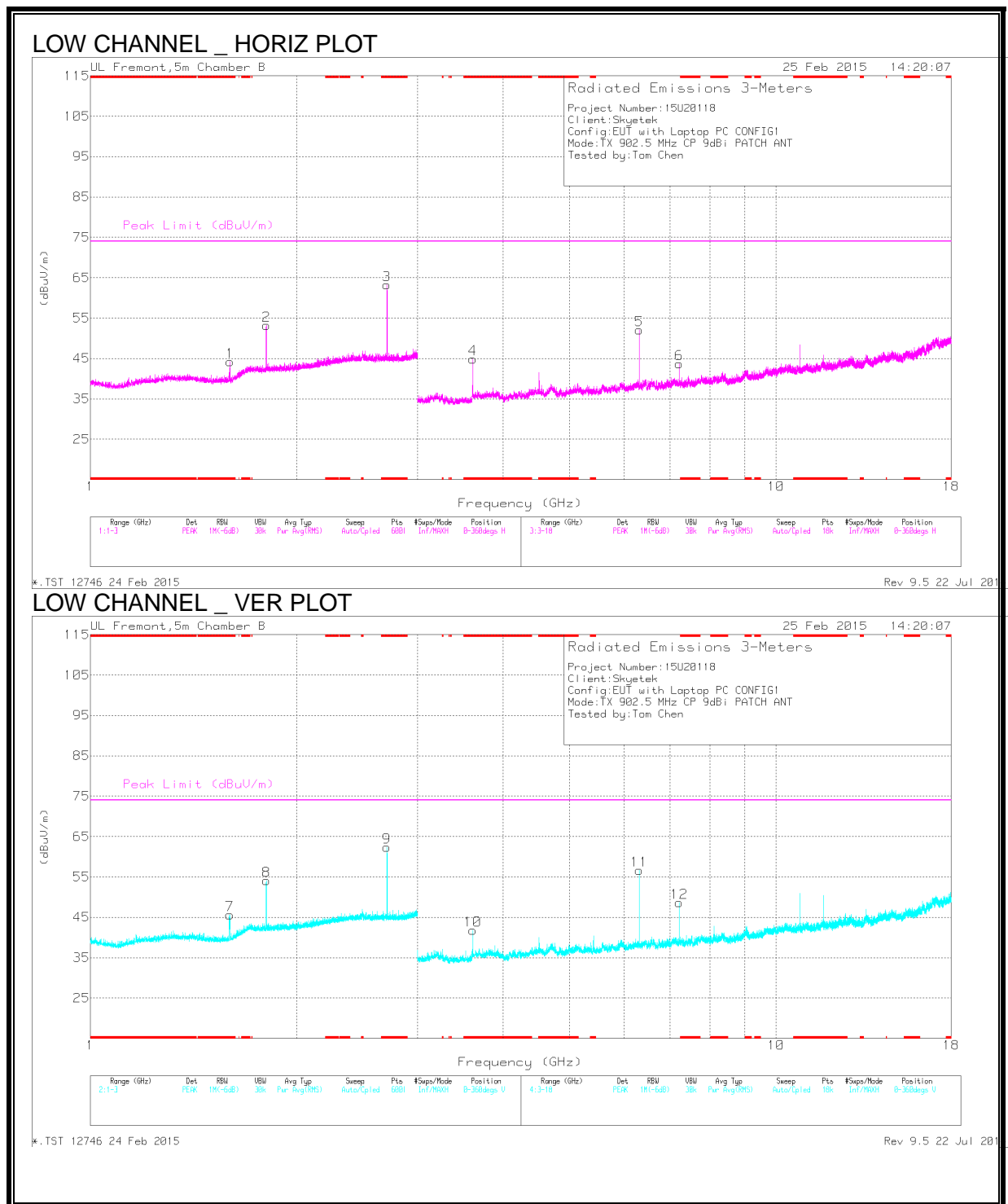
PK - Peak detector

PK3 - FHSS Method: Maximized Peak

Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

9.2.2. CIRCULARLY POLARIZED PATCH ANTENNA

CONFIGURATION 1



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	T929 1.5GHz HPF	Ant Gain [dBi]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.598	48.37	PK3	27.7	-23.7	1	0	0	53.37	-	-	74	-20.63	213	179	H
3	* 2.707	54.17	PK3	32	-22.3	1	0	0	64.87	-	-	74	-9.13	271	193	H
3	* 2.707	-	-	-	-	-	0	21.36	44.87	54	-9.13	-	-	271	193	H
7	* 1.598	46.14	PK3	27.7	-23.7	1	0	0	51.14	-	-	74	-22.86	49	110	V
9	* 2.707	54.01	PK3	32	-22.3	1	0	0	64.71	-	-	74	-9.29	232	195	V
9	* 2.707	-	-	-	-	-	0	21.36	44.71	54	-9.29	-	-	232	195	V
4	* 3.61	46.28	PK3	32.8	-30.7	1	0	0	49.38	-	-	74	-24.62	163	200	H
10	* 3.61	44.33	PK3	32.8	-30.7	1	0	0	47.43	-	-	74	-26.57	284	200	V
2	1.805	45.32	PK	30.2	-23.3	1	0	0	53.22	-	-	-	-	0-360	199	H
8	1.805	46.2	PK	30.2	-23.3	1	0	0	54.1	-	-	-	-	0-360	101	V
5	6.317	44.61	PK	35.3	-28.8	1	0	0	52.11	-	-	-	-	0-360	199	H
11	6.317	49.14	PK	35.3	-28.8	1	0	0	56.64	-	-	-	-	0-360	199	V
6	7.22	34.75	PK	35.4	-27.4	1	0	0	43.75	-	-	-	-	0-360	199	H
12	7.22	39.66	PK	35.4	-27.4	1	0	0	48.66	-	-	-	-	0-360	199	V

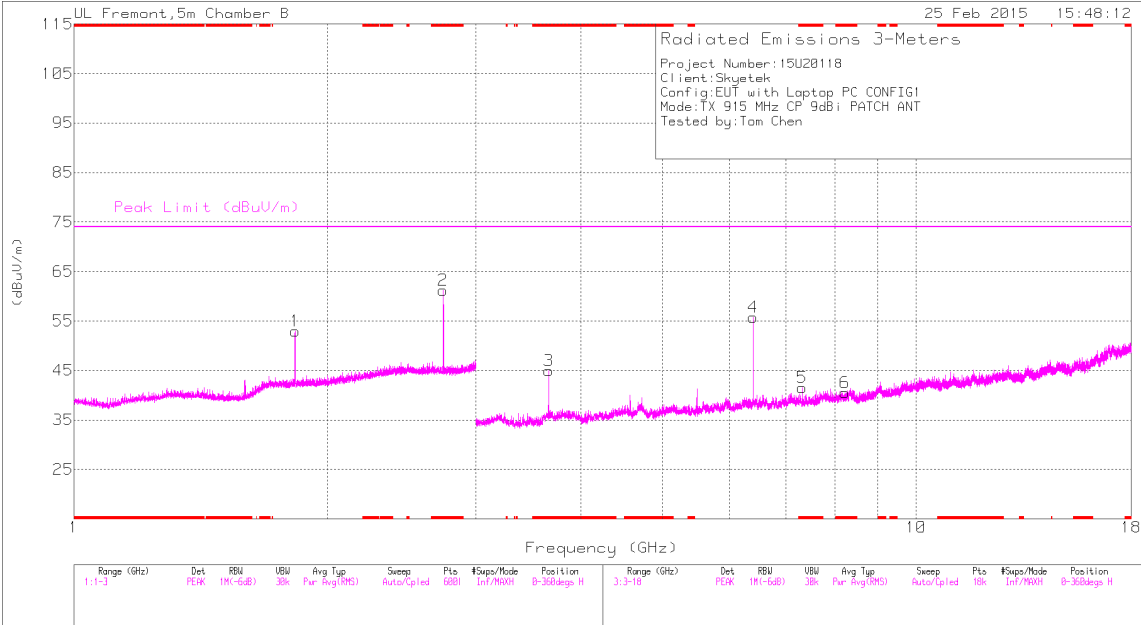
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

PK3 - FHSS Method: Maximized Peak

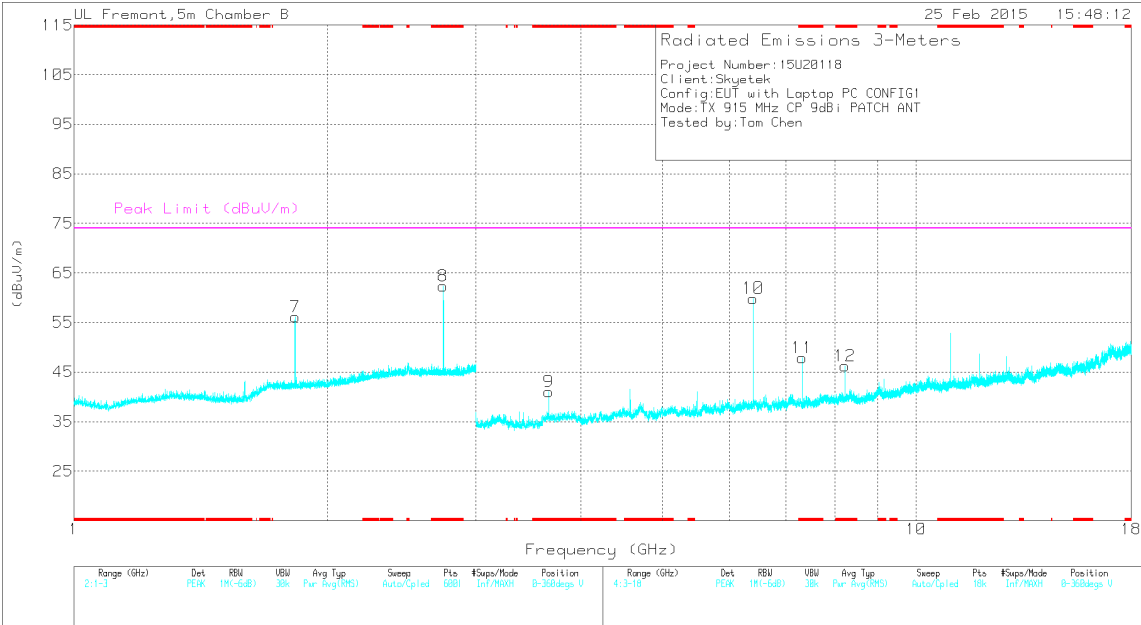
Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

MID CHANNEL _ HORIZ PLOT



Rev 9.5 22 Jul 201

MID CHANNEL _ VER PLOT



Rev 9.5 22 Jul 201

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Ftr/Pad (dB)	T929 1.5GHz HPF	Ant Gain (dBi)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.745	52.9	PK3	32	-22.3	1	0	0	63.6	-	-	74	-10.4	84	242	H
2	-	-	-	-	-	1	0	21.36	43.6	54	-10.4	-	-	84	242	H
8	* 2.745	53.85	PK3	32	-22.3	1	0	0	64.55	-	-	74	-9.45	231	215	V
8	* 2.745	-	-	-	-	-	0	21.36	44.55	54	-9.45	-	-	231	215	V
3	* 3.66	45.71	PK3	32.9	-30.8	1	0	0	48.81	-	-	74	-25.19	72	200	H
5	* 7.32	40.52	PK3	35.4	-28.2	1	0	0	48.72	-	-	74	-25.28	306	198	H
6	* 8.235	39.69	PK3	35.8	-26.8	1	0	0	49.69	-	-	74	-24.31	208	198	H
9	* 3.66	43.54	PK3	32.9	-30.8	1	0	0	46.64	-	-	74	-27.36	290	102	V
11	* 7.319	42.75	PK3	35.4	-28.2	1	0	0	50.95	-	-	74	-23.05	233	199	V
12	* 8.235	42.57	PK3	35.8	-26.8	1	0	0	52.57	-	-	74	-21.43	211	199	V
1	1.83	44.97	PK	30.3	-23.3	1	0	0	52.97	-	-	-	-	0-360	200	H
7	1.83	48.09	PK	30.3	-23.3	1	0	0	56.09	-	-	-	-	0-360	101	V
4	6.405	48.6	PK	35.3	-29.1	1	0	0	55.8	-	-	-	-	0-360	101	H
10	6.405	52.68	PK	35.3	-29.1	1	0	0	59.88	-	-	-	-	0-360	199	V

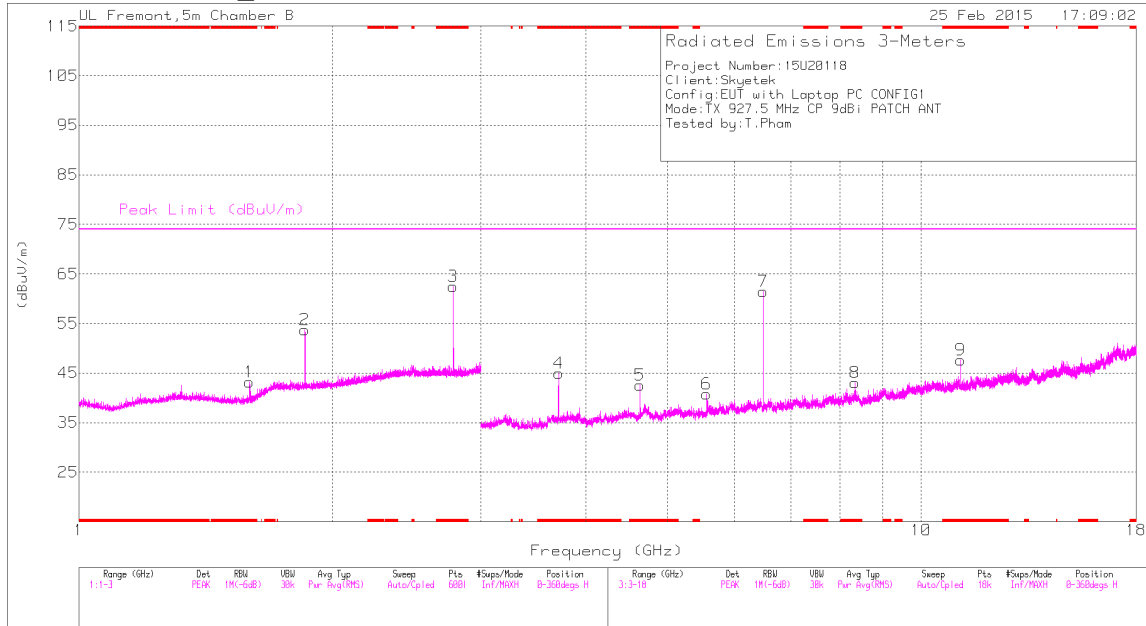
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

PK3 - FHSS Method: Maximized Peak

Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

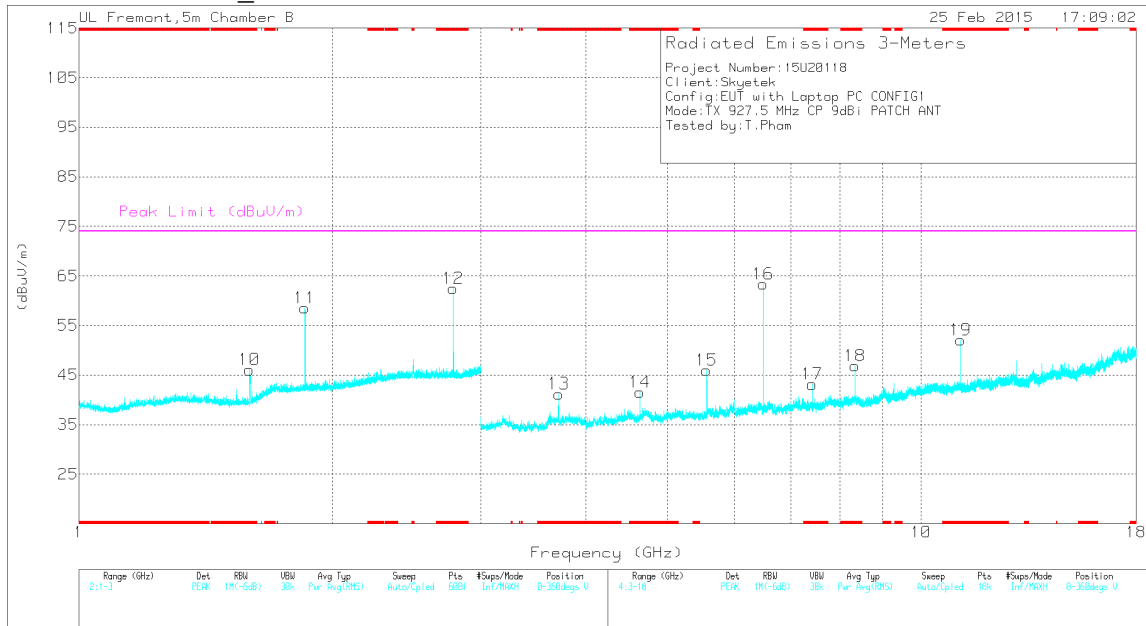
HIGH CHANNEL _ HORIZ PLOT



*.TST 12746 24 Feb 2015

Rev 9.5 22 Jul 201

HIGH CHANNEL _ VER PLOT



*.TST 12746 24 Feb 2015

Rev 9.5 22 Jul 201

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cb/Fitr /Pad (dB)	T929 1.5GHz HPF	Ant Gain [dBi]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.594	49.33	PK3	27.7	-23.7	1	0	0	54.33	-	-	74	-19.67	212	105	H
1	* 1.594	-	-	-	-	-	-	-	50.33	54	-3.67	-	-	212	105	H
3	* 2.782	53.39	PK3	32	-22.2	1	0	0	64.19	-	-	74	-9.81	82	232	H
3	* 2.782	-	-	-	-	-	0	21.36	44.19	54	-9.81	-	-	82	232	H
10	* 1.594	46.42	PK3	27.7	-23.7	1	0	0	51.42	-	-	74	-22.58	1	314	V
12	* 2.782	54.09	PK3	32	-22.2	1	0	0	64.89	-	-	74	-9.11	231	223	V
12	* 2.782	-	-	-	-	-	0	21.36	44.89	54	-9.11	-	-	231	223	V
4	* 3.71	46.34	PK3	33.1	-31.2	1	0	0	49.24	-	-	74	-24.76	71	192	H
5	* 4.637	44.16	PK3	33.9	-30.5	1	0	0	48.56	-	-	74	-25.44	187	202	H
8	* 8.347	38.59	PK3	35.8	-25.1	1	0	0	50.29	-	-	74	-23.71	204	261	H
9	* 11.13	37.19	PK3	37.4	-22.5	1	0	0	53.09	-	-	74	-20.91	212	195	H
13	* 3.71	44.41	PK3	33.1	-31.2	1	0	0	47.31	-	-	74	-26.69	298	112	V
14	* 4.637	42.69	PK3	33.9	-30.5	1	0	0	47.09	-	-	74	-26.91	93	221	V
17	* 7.42	41.95	PK3	35.4	-27.3	1	0	0	51.05	-	-	74	-22.95	200	359	V
18	* 8.348	41.28	PK3	35.8	-25.1	1	0	0	52.98	-	-	74	-21.02	213	237	V
19	* 11.13	40.79	PK3	37.4	-22.5	1	0	0	56.69	-	-	74	-17.31	172	324	V
19	* 11.13	-	-	-	-	-	0	21.36	36.69	54	-17.31	-	-	172	324	V
2	1.855	45.76	PK	30.3	-23.3	1	0	0	53.76	-	-	-	-	0-360	200	H
11	1.855	50.53	PK	30.3	-23.3	1	0	0	58.53	-	-	-	-	0-360	200	V
6	5.565	35.13	PK	34.4	-29.7	1	0	0	40.83	-	-	-	-	0-360	101	H
15	5.565	40.23	PK	34.4	-29.7	1	0	0	45.93	-	-	-	-	0-360	200	V
7	6.492	53.93	PK	35.2	-28.7	1	0	0	61.43	-	-	-	-	0-360	200	H
16	6.492	55.83	PK	35.2	-28.7	1	0	0	63.33	-	-	-	-	0-360	200	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

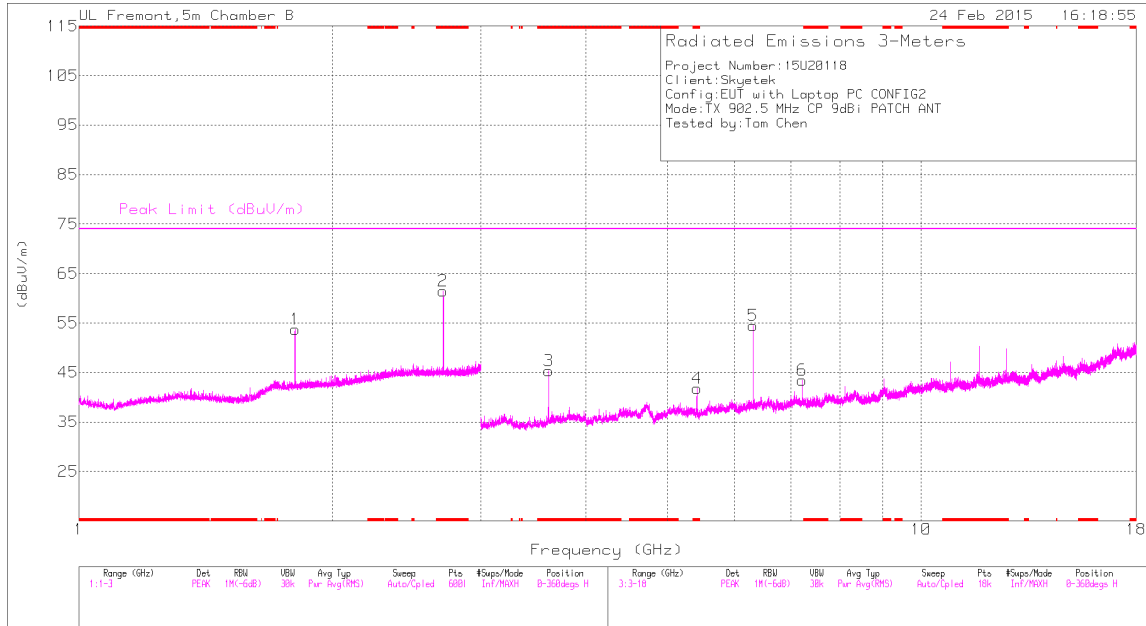
PK - Peak detector

PK3 - FHSS Method: Maximized Peak

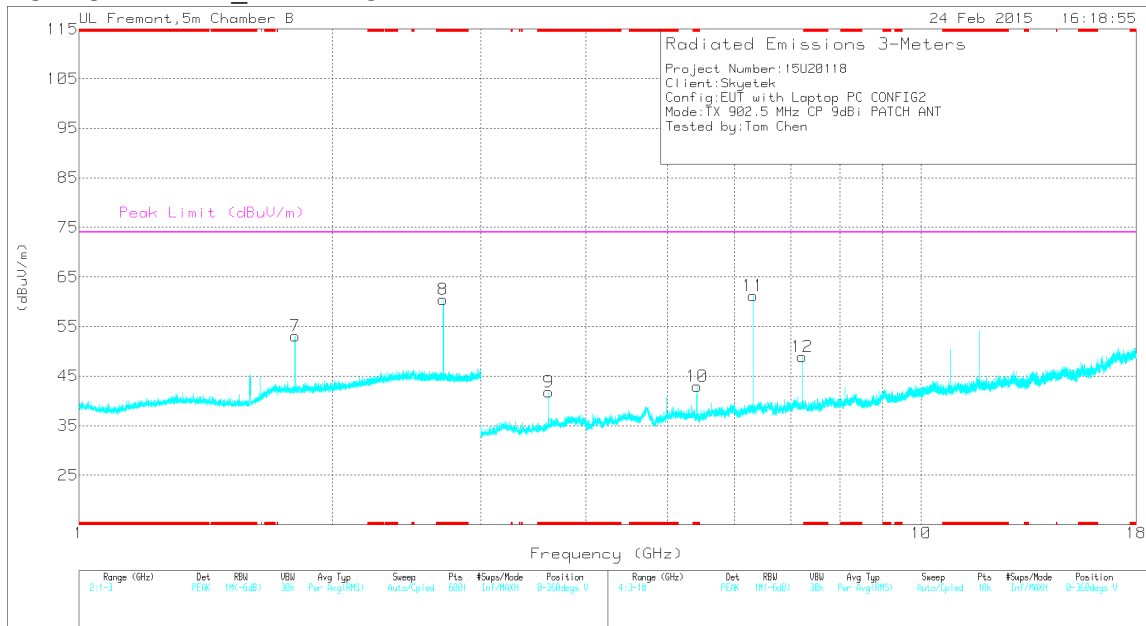
Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

CONFIGURATION 2

LOW CHANNEL _ HORIZ PLOT



LOW CHANNEL _ VER PLOT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Filtr/ Pad (dB)	T929 1.5GHz HPF	Ant Gain [dBi]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.707	59.26	PK3	32	-22.3	1	0	0	69.96	-	-	74	-4.04	199	226	H
2	* 2.707	-	-	-	-	-	0	21.36	49.96	54	-4.04	-	-	199	226	H
8	* 2.707	55.9	PK3	32	-22.3	1	0	0	66.6	-	-	74	-7.4	170	218	V
8	* 2.707	-	-	-	-	-	0	21.36	46.6	54	-7.4	-	-	170	218	V
3	* 3.61	42.56	PK3	32.8	-30.7	1	0	0	45.66	-	-	74	-28.34	1	200	H
4	* 5.415	41.65	PK3	34.3	-29.1	1	0	0	47.85	-	-	74	-26.15	278	200	H
9	* 3.61	45.01	PK3	32.8	-30.7	1	0	0	48.11	-	-	74	-25.89	178	102	V
10	* 5.415	43.7	PK3	34.3	-29.1	1	0	0	49.9	-	-	74	-24.1	199	199	V
1	1.805	45.79	PK	30.2	-23.3	1	0	0	53.69	-	-	-	-	0-360	199	H
7	1.805	45.18	PK	30.2	-23.3	1	0	0	53.08	-	-	-	-	0-360	199	V
5	6.317	46.97	PK	35.3	-28.8	1	0	0	54.47	-	-	-	-	0-360	199	H
11	6.317	53.76	PK	35.3	-28.8	1	0	0	61.26	-	-	-	-	0-360	199	V
6	7.22	34.41	PK	35.4	-27.4	1	0	0	43.41	-	-	-	-	0-360	199	H
12	7.22	39.86	PK	35.4	-27.4	1	0	0	48.86	-	-	-	-	0-360	199	V

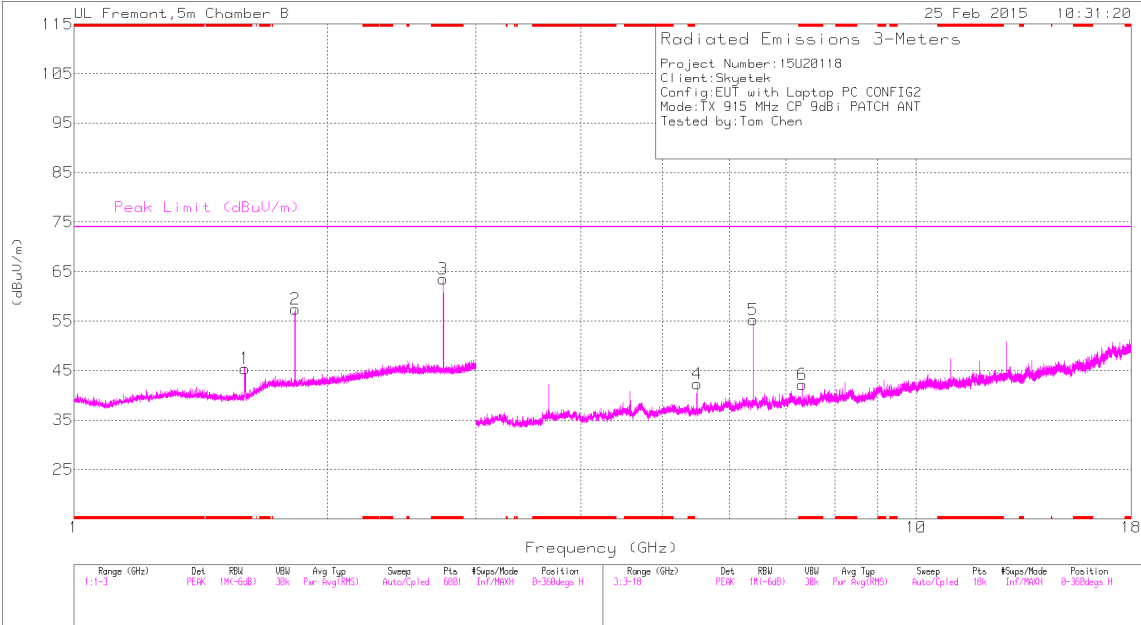
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

PK3 - FHSS Method: Maximized Peak

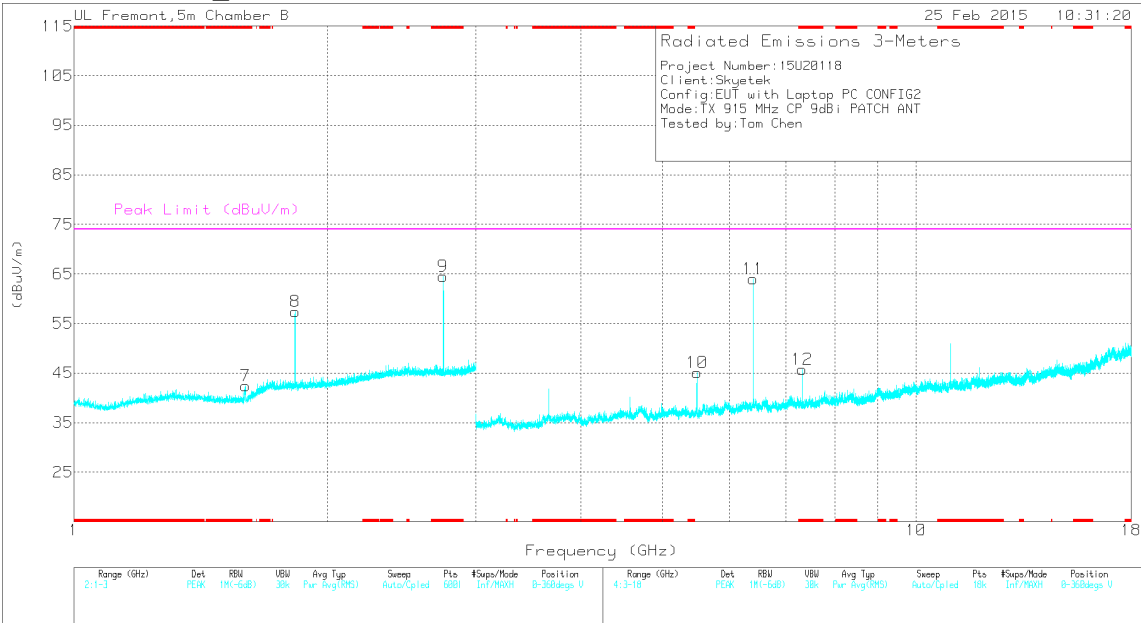
Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

MID CHANNEL _ HORIZ PLOT



Rev 9.5 22 Jul 201

MID CHANNEL _ VER PLOT



Rev 9.5 22 Jul 201

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cb/Ftr /Pad (dB)	T929 1.5GHz HPF	Ant Gain [dBi]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.596	48.42	PK3	27.7	-23.7	1	0	0	53.42	-	-	74	-20.58	320	163	H
3	* 2.745	59.13	PK3	32	-22.3	1	0	0	69.83	-	-	74	-4.17	198	264	H
3	* 2.745	-	-	-	-	-	0	21.36	49.83	54	-4.17	-	-	198	264	H
7	* 1.598	46.42	PK3	27.7	-23.7	1	0	0	51.42	-	-	74	-22.58	0	396	V
9	* 2.745	55.15	PK3	32	-22.3	1	0	0	65.85	-	-	74	-8.15	159	133	V
9	* 2.745	-	-	-	-	-	0	21.36	45.85	54	-8.15	-	-	159	133	V
6	* 7.32	40.16	PK3	35.4	-28.2	1	0	0	48.36	-	-	74	-25.64	229	102	H
12	* 7.32	43.84	PK3	35.4	-28.2	1	0	0	52.04	-	-	74	-21.96	209	199	V
2	1.83	49.38	PK	30.3	-23.3	1	0	0	57.38	-	-	-	-	0-360	199	H
8	1.83	49.45	PK	30.3	-23.3	1	0	0	57.45	-	-	-	-	0-360	199	V
4	5.49	36.85	PK	34.4	-30	1	0	0	42.25	-	-	-	-	0-360	200	H
10	5.49	39.65	PK	34.4	-30	1	0	0	45.05	-	-	-	-	0-360	200	V
5	6.405	48.04	PK	35.3	-29.1	1	0	0	55.24	-	-	-	-	0-360	200	H
11	6.405	56.77	PK	35.3	-29.1	1	0	0	63.97	-	-	-	-	0-360	200	V

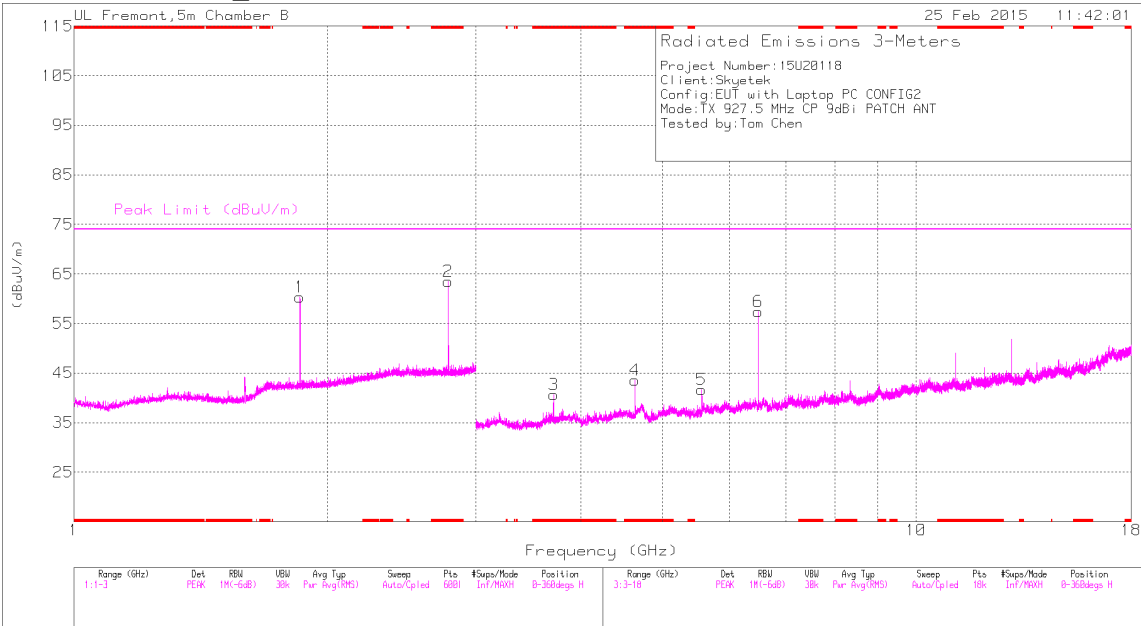
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

PK3 - FHSS Method: Maximized Peak

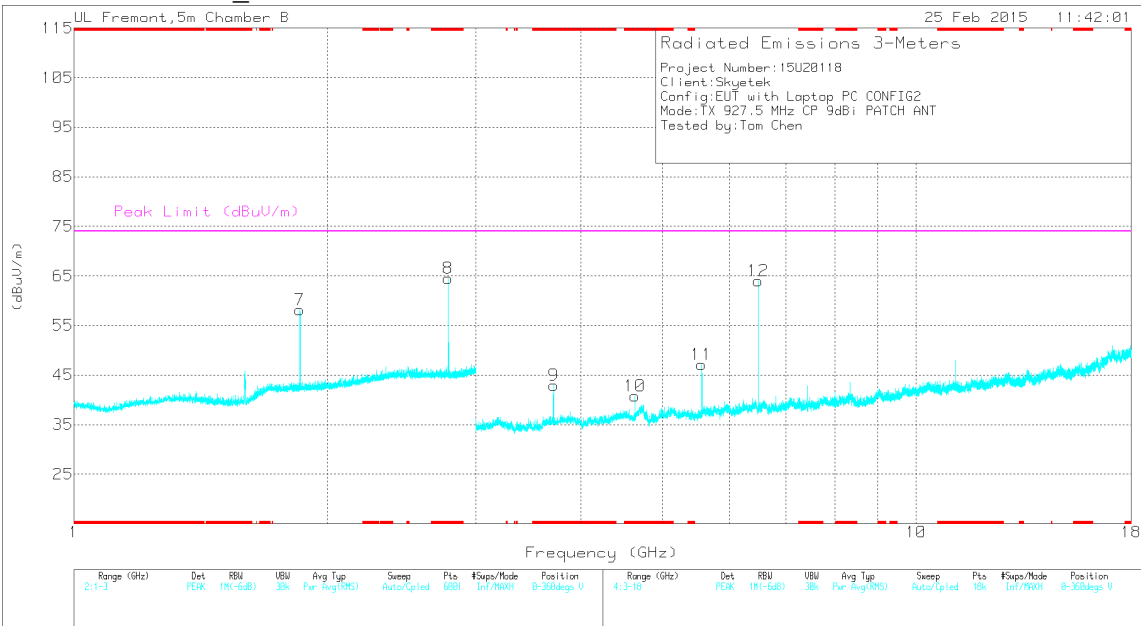
Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

HIGH CHANNEL _ HORIZ PLOT



Rev 9.5 22 Jul 201

HIGH CHANNEL _ VER PLOT



Rev 9.5 22 Jul 201

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	T929 1.5GHz HPF	Ant Gain [dBi]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.783	58.65	PK3	32	-22.2	1	0	0	69.45	-	-	74	-4.55	201	258	H
2	* 2.783	-	-	-	-	-	0	21.36	49.45	54	-4.55	-	-	201	258	H
8	* 2.782	55.35	PK3	32	-22.2	1	0	0	66.15	-	-	74	-7.85	164	171	V
8	* 2.782	-	-	-	-	-	0	0	46.15	54	-7.85	-	-	164	171	V
3	* 3.71	45.19	PK3	33.1	-31.2	1	0	0	48.09	-	-	74	-25.91	181	199	H
4	* 4.637	43.75	PK3	33.9	-30.5	1	0	0	48.15	-	-	74	-25.85	190	102	H
9	* 3.71	46.74	PK3	33.1	-31.2	1	0	0	49.64	-	-	74	-24.36	35	199	V
10	* 4.637	42.6	PK3	33.9	-30.5	1	0	0	47	-	-	74	-27	162	199	V
1	1.855	52.38	PK	30.3	-23.3	1	0	0	60.38	-	-	-	-	0-360	101	H
7	1.855	50.12	PK	30.3	-23.3	1	0	0	58.12	-	-	-	-	0-360	199	V
5	5.565	35.98	PK	34.4	-29.7	1	0	0	41.68	-	-	-	-	0-360	199	H
11	5.565	41.4	PK	34.4	-29.7	1	0	0	47.1	-	-	-	-	0-360	199	V
6	6.492	49.93	PK	35.2	-28.7	1	0	0	57.43	-	-	-	-	0-360	199	H
12	6.492	56.48	PK	35.2	-28.7	1	0	0	63.98	-	-	-	-	0-360	199	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

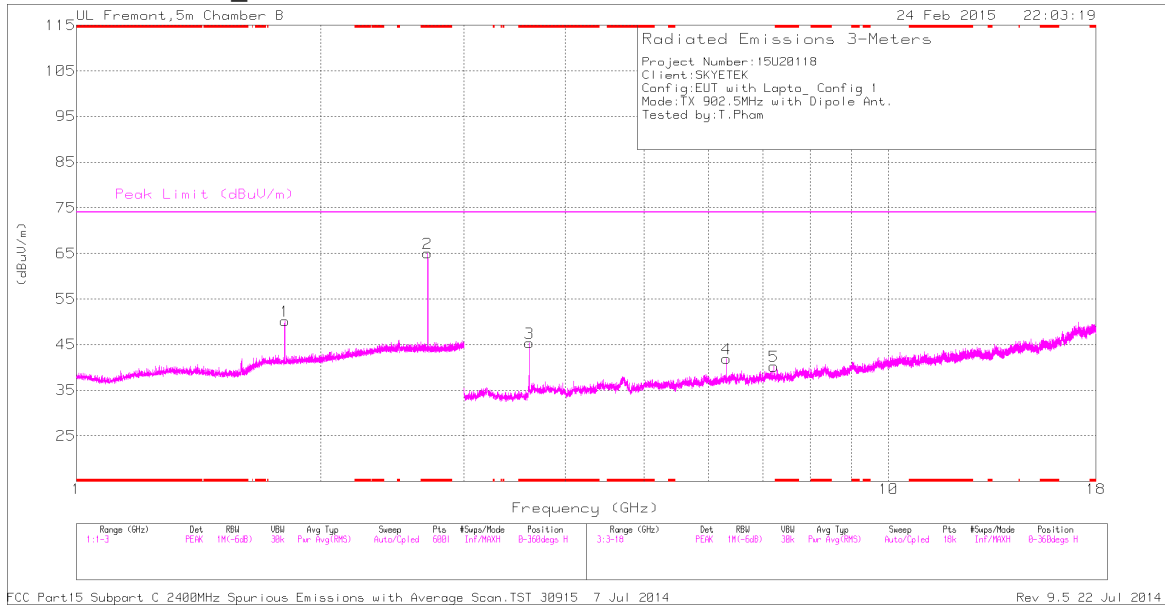
PK - Peak detector

PK3 - FHSS Method: Maximized Peak

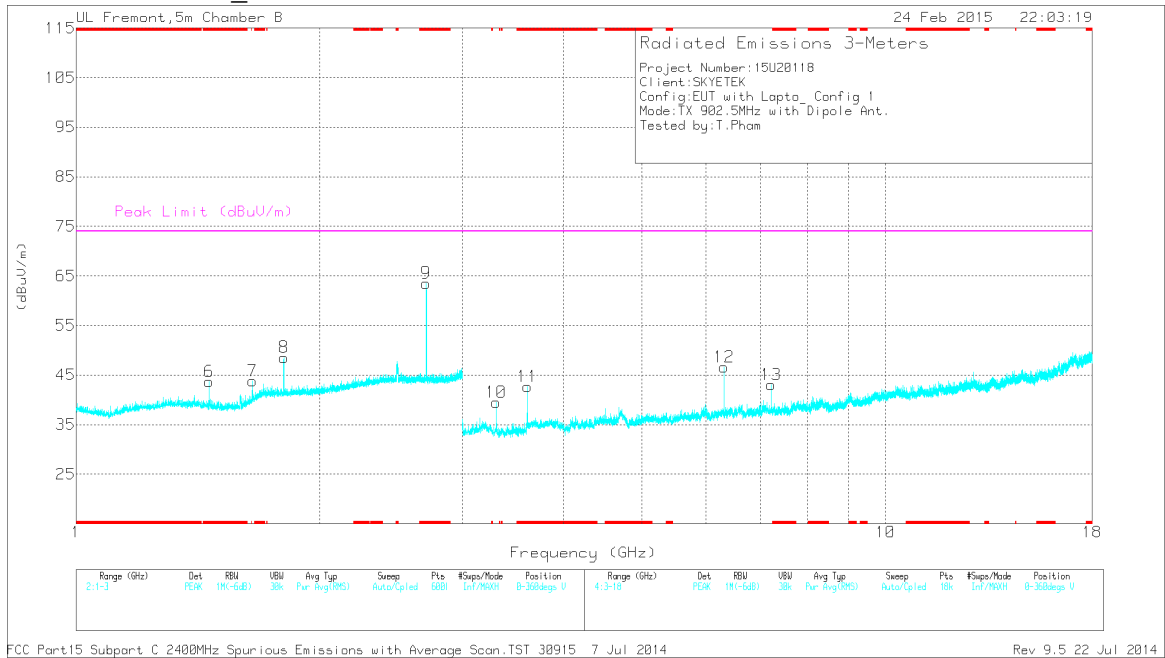
Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

9.2.3. DIPOLE ANTENNA

LOW CHANNEL _ HORIZ PLOT



LOW CHANNEL _ VER PLOT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fitr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.707	57.24	PK3	32	-22.3	0	66.94	-	-	74	-7.06	265	234	H
2	* 2.707	-	-	-	-	21.36	46.94	54	-7.06	-	-	265	234	H
6	* 1.461	43.57	PK3	27.9	-24	0	47.47	-	-	74	-26.53	64	220	V
9	* 2.707	56.92	PK3	32	-22.3	0	66.62	-	-	74	-7.38	314	283	V
9	* 2.707	-	-	-	-	21.36	46.62	54	-7.38	-	-	314	283	V
3	* 3.61	46.66	PK3	32.8	-30.7	0	48.76	-	-	74	-25.24	17	150	H
11	* 3.61	46.85	PK3	32.8	-30.7	0	48.95	-	-	74	-25.05	51	246	V
7	1.651	38.37	PK	29	-23.5	0	43.87	-	-	-	-	0-360	101	V
1	1.805	43.32	PK	30.2	-23.3	0	50.22	-	-	-	-	0-360	100	H
8	1.805	41.68	PK	30.2	-23.3	0	48.58	-	-	-	-	0-360	101	V
10	3.302	37.75	PK	32.5	-30.8	0	39.45	-	-	-	-	0-360	199	V
4	6.317	35.44	PK	35.3	-28.8	0	41.94	-	-	-	-	0-360	199	H
12	6.317	40.09	PK	35.3	-28.8	0	46.59	-	-	-	-	0-360	199	V
5	7.22	32.21	PK	35.4	-27.4	0	40.21	-	-	-	-	0-360	199	H
13	7.22	35.1	PK	35.4	-27.4	0	43.1	-	-	-	-	0-360	199	V

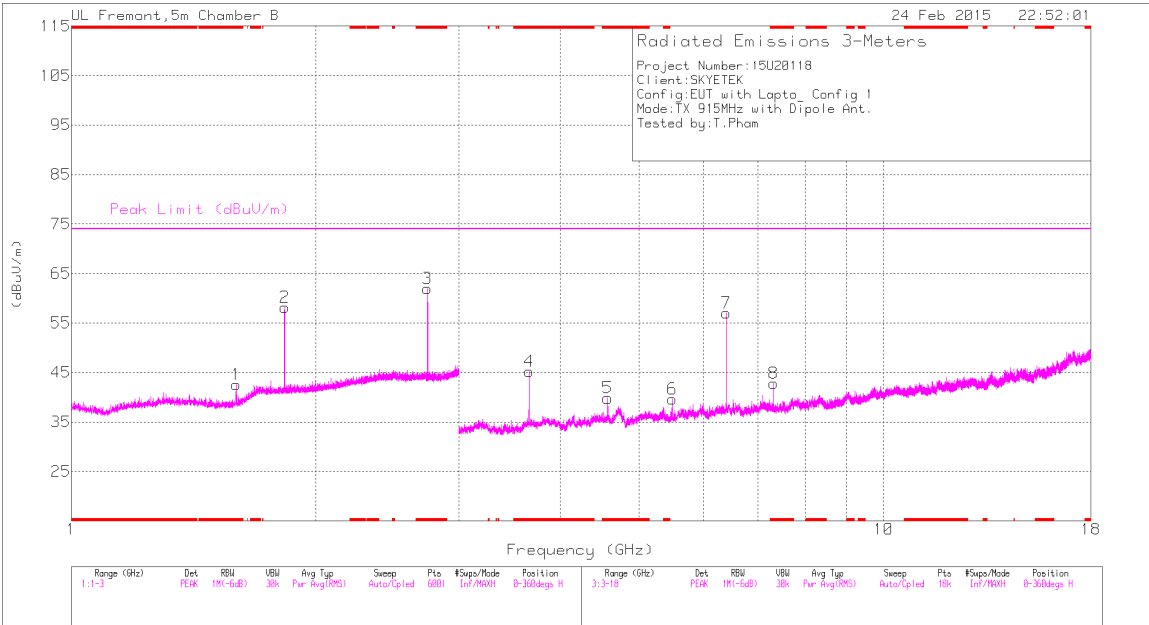
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

PK3 - FHSS Method: Maximized Peak

Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

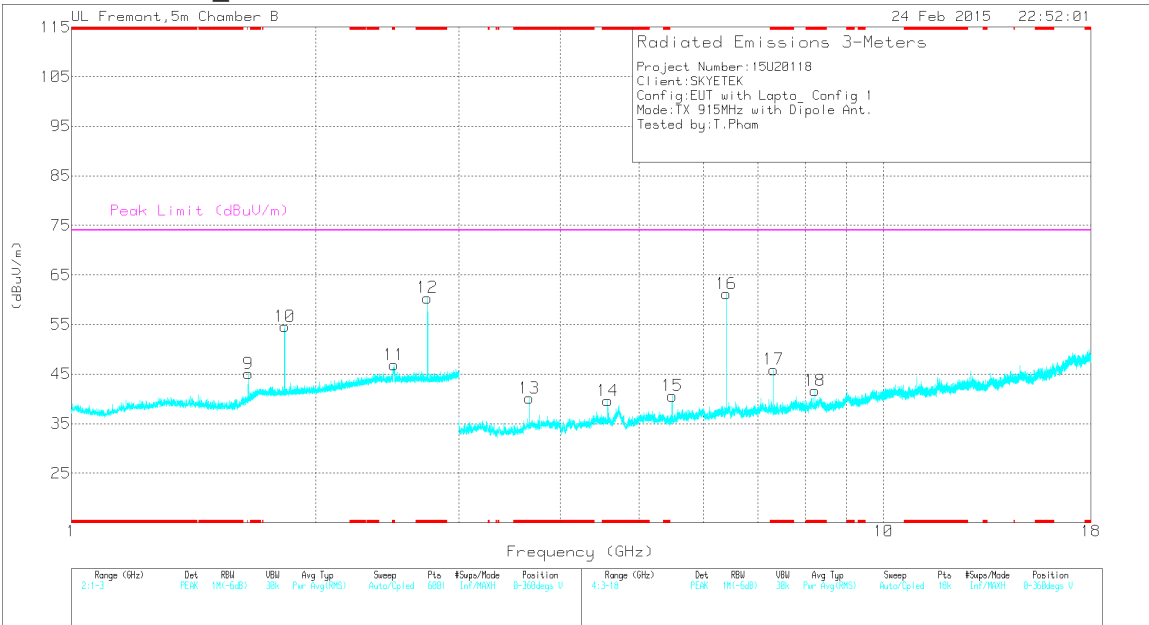
MID CHANNEL _ HORIZ PLOT



FCC Part15 Subpart C 2400MHz Spurious Emissions with Average Scan.TST 30915 7 Jul 2014

Rev 9.5 22 Jul 2014

MID CHANNEL _ VER PLOT



FCC Part15 Subpart C 2400MHz Spurious Emissions with Average Scan.TST 30915 7 Jul 2014

Rev 9.5 22 Jul 2014

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cb/Fitr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.597	46.13	PK3	27.7	-23.7	0	50.13	-	-	74	-23.87	324	146	H
3	* 2.745	54.97	PK3	32	-22.3	0	64.67	-	-	74	-9.33	213	196	H
3	* 2.745	-	-	-	-	21.36	64.67	74	-9.33	-	-	213	196	H
11	* 2.494	44.26	PK3	32.1	-22.4	0	53.96	-	-	74	-20.04	72	133	V
12	* 2.745	55.18	PK3	32	-22.3	0	64.88	-	-	74	-9.12	316	228	V
12	* 2.745	-	-	-	-	21.36	44.88	54	-9.12	-	-	316	228	V
4	* 3.66	47.7	PK3	32.9	-30.8	0	49.8	-	-	74	-24.2	17	154	H
5	* 4.575	51.78	PK3	33.8	-30.6	0	54.98	-	-	74	-19.02	29	119	H
5	* 4.575	-	-	-	-	21.36	34.98	54	-19.02	-	-	29	119	H
8	* 7.32	41.35	PK3	35.4	-28.2	0	48.55	-	-	74	-25.45	65	356	H
13	* 4.575	46.3	PK3	33.8	-30.6	0	49.5	-	-	74	-24.5	50	271	H
14	* 7.32	41.35	PK3	35.4	-28.2	0	48.55	-	-	74	-25.45	71	325	H
17	* 3.66	45.55	PK3	33	-30.8	0	47.75	-	-	74	-26.25	58	183	V
17	* 3.66	45.55				21.36	27.75	-	-	54	-26.25	58	183	V
18	* 2.745	55.18	PK3	32	-22.3	0	64.88	-	-	74	-9.12	316	228	V
18	* 2.745	-	-	-	-	21.36	44.88	-	-	54	-9.12	316	228	V
9	1.651	39.59	PK	29	-23.5	0	45.09	-	-	-	-	0-360	199	V
2	1.83	51.15	PK	30.3	-23.3	0	58.15	-	-	-	-	0-360	101	H
10	1.83	47.6	PK	30.3	-23.3	0	54.6	-	-	-	-	0-360	199	V
6	5.49	35.28	PK	34.4	-30	0	39.68	-	-	-	-	0-360	199	H
15	5.49	36.19	PK	34.4	-30	0	40.59	-	-	-	-	0-360	101	V
7	6.405	50.81	PK	35.3	-29.1	0	57.01	-	-	-	-	0-360	199	H
16	6.405	55.03	PK	35.3	-29.1	0	61.23	-	-	-	-	0-360	199	V

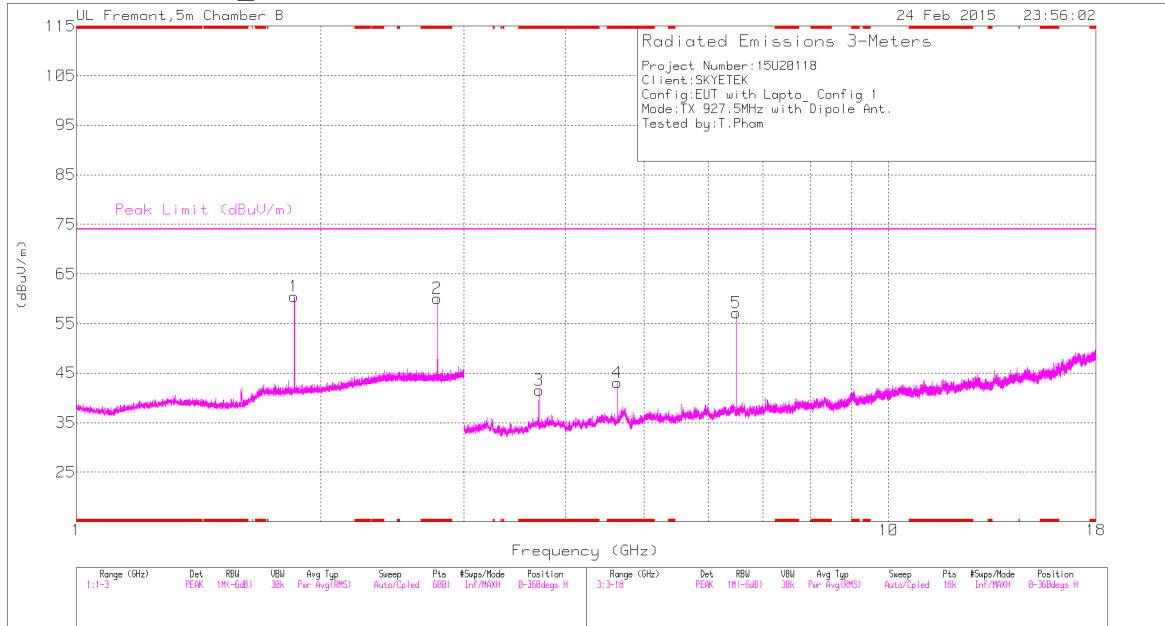
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

PK3 - FHSS Method: Maximized Peak

Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

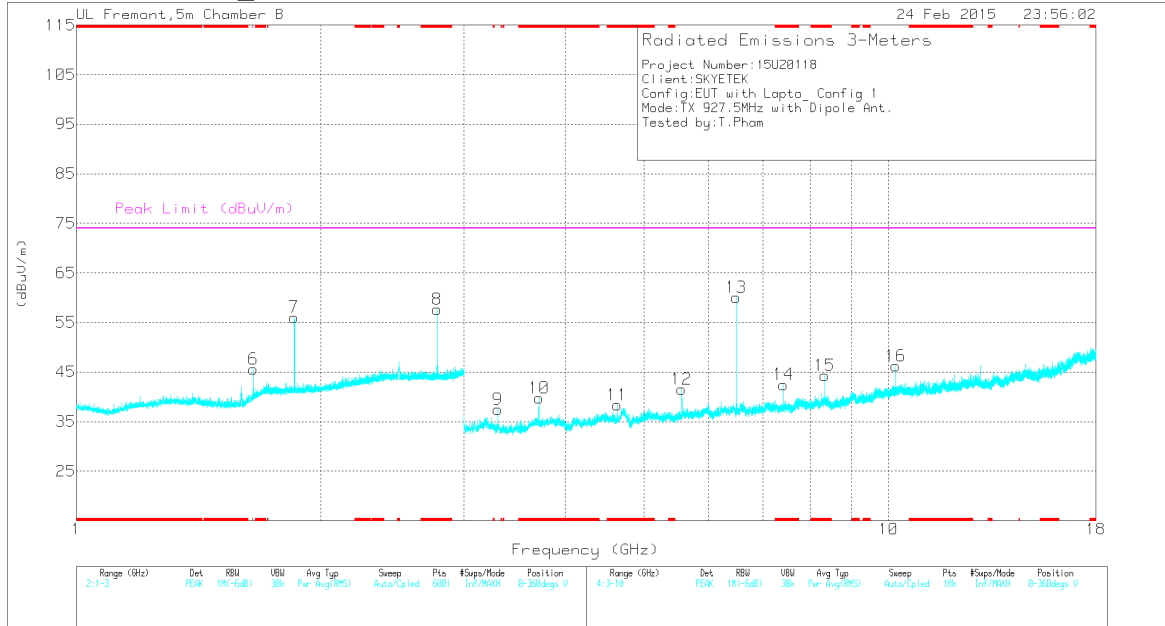
HIGH CHANNEL _ HORIZ PLOT



FCC Part15 Subpart C 2400MHz Spurious Emissions with Average Scan.TST 30915 7 Jul 2014

Rev 9.5 22 Jul 2014

HIGH CHANNEL _ VER PLOT



FCC Part15 Subpart C 2400MHz Spurious Emissions with Average Scan.TST 30915 7 Jul 2014

Rev 9.5 22 Jul 2014

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T712 (dB/m)	Amp/Cbl/Fitr/ Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.783	52.18	PK3	32	-22.2	0	61.98	-	-	74	-12.02	20	241	H
2	* 2.783	-	-	-	-	21.37	41.98	54	-12.02	-	-	20	241	H
8	* 2.783	51.11	PK3	32	-22.2	0	60.91	-	-	74	-13.09	150	237	V
8	* 2.783	-	-	-	-	21.37	40.91	54	-13.09	-	-	150	237	V
3	* 3.71	45.37	PK3	33.1	-31.2	0	47.27	-	-	74	-26.73	219	241	H
4	* 4.638	51.99	PK3	33.9	-30.5	0	55.39	-	-	74	-18.61	197	200	H
4	* 4.638	-	-	-	-	21.37	35.39	54	-18.61	-	-	197	200	H
10	* 3.71	45.82	PK3	33.1	-31.2	0	47.72	-	-	74	-26.28	138	273	V
11	* 4.638	42.61	PK3	33.9	-30.5	0	46.01	-	-	74	-27.99	169	263	V
14	* 7.419	40.33	PK3	35.4	-27.3	0	48.43	-	-	74	-25.57	228	272	V
15	* 8.347	40.65	PK3	35.8	-25.1	0	51.35	-	-	74	-22.65	206	313	V
6	1.651	40.11	PK	29	-23.5	0	45.61	-	-	-	-	0-360	200	V
1	1.855	53.43	PK	30.3	-23.3	0	60.43	-	-	-	-	0-360	101	H
7	1.855	49.07	PK	30.3	-23.3	0	56.07	-	-	-	-	0-360	200	V
9	3.302	35.8	PK	32.5	-30.8	0	37.5	-	-	-	-	0-360	101	V
12	5.565	36.83	PK	34.4	-29.7	0	41.53	-	-	-	-	0-360	199	V
5	6.492	50.68	PK	35.2	-28.7	0	57.18	-	-	-	-	0-360	199	H
13	6.492	53.56	PK	35.2	-28.7	0	60.06	-	-	-	-	0-360	199	V
16	10.202	32.34	PK	37.4	-23.5	0	46.24	-	-	-	-	0-360	199	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

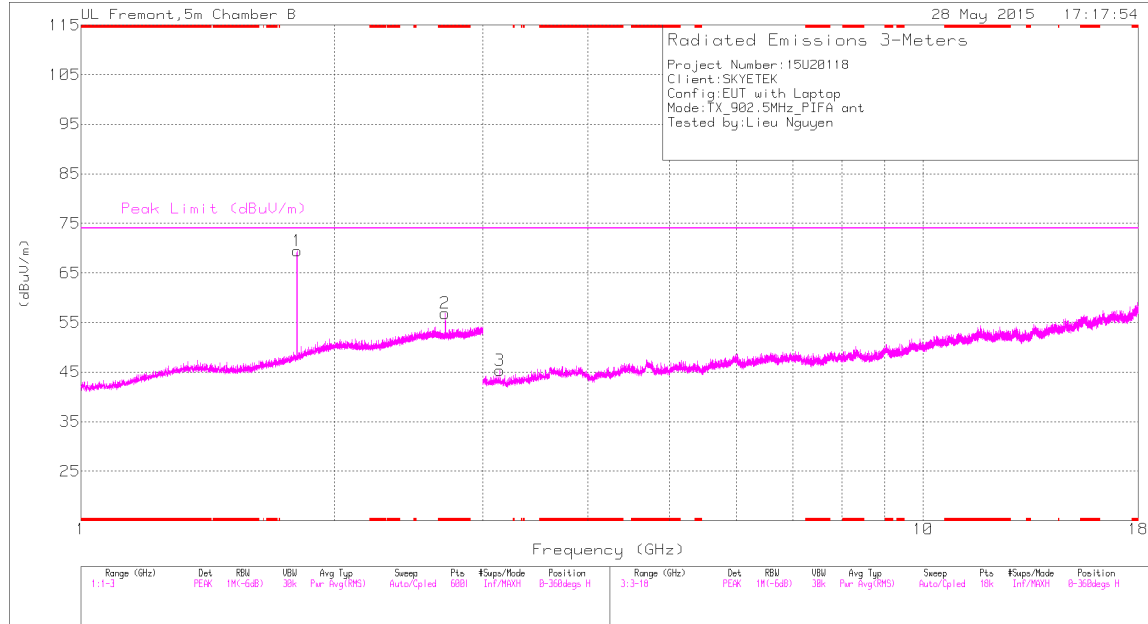
PK - Peak detector

PK3 - FHSS Method: Maximized Peak

Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

9.2.4. PIFA ANTENNA

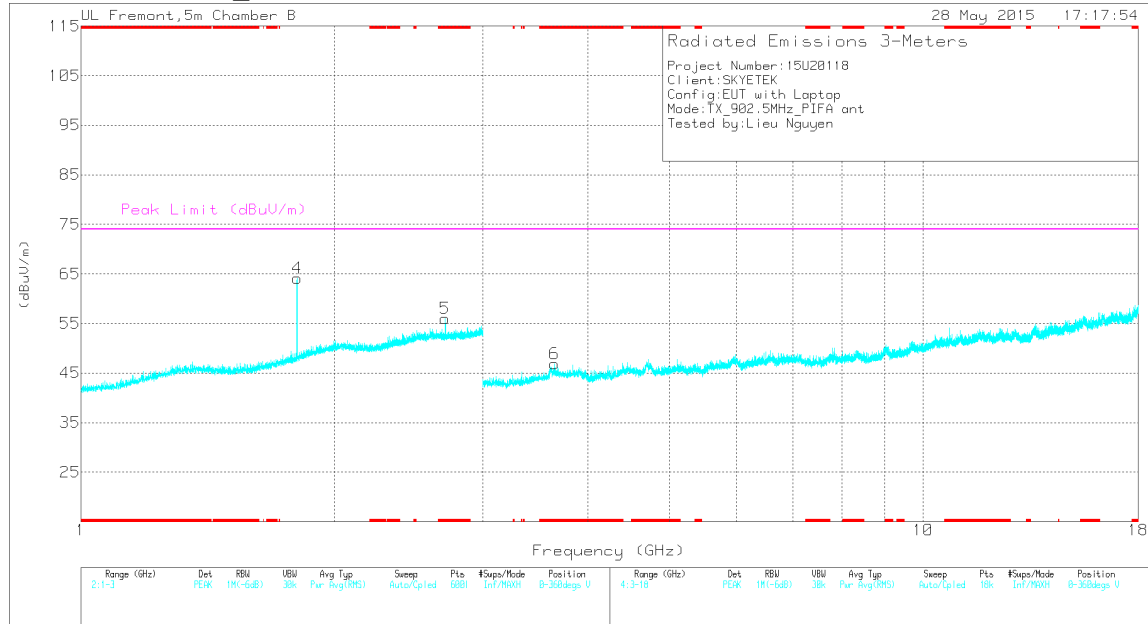
LOW CHANNEL _ HORIZ PLOT



FCC Part15 Subpart C 2400MHz Spurious Emissions with Average Scan.TST 12746 28 May 2015

Rev 9.5 22 Jul 201

LOW CHANNEL _ VER PLOT



FCC Part15 Subpart C 2400MHz Spurious Emissions with Average Scan.TST 12746 28 May 2015

Rev 9.5 22 Jul 201

Trace Markers

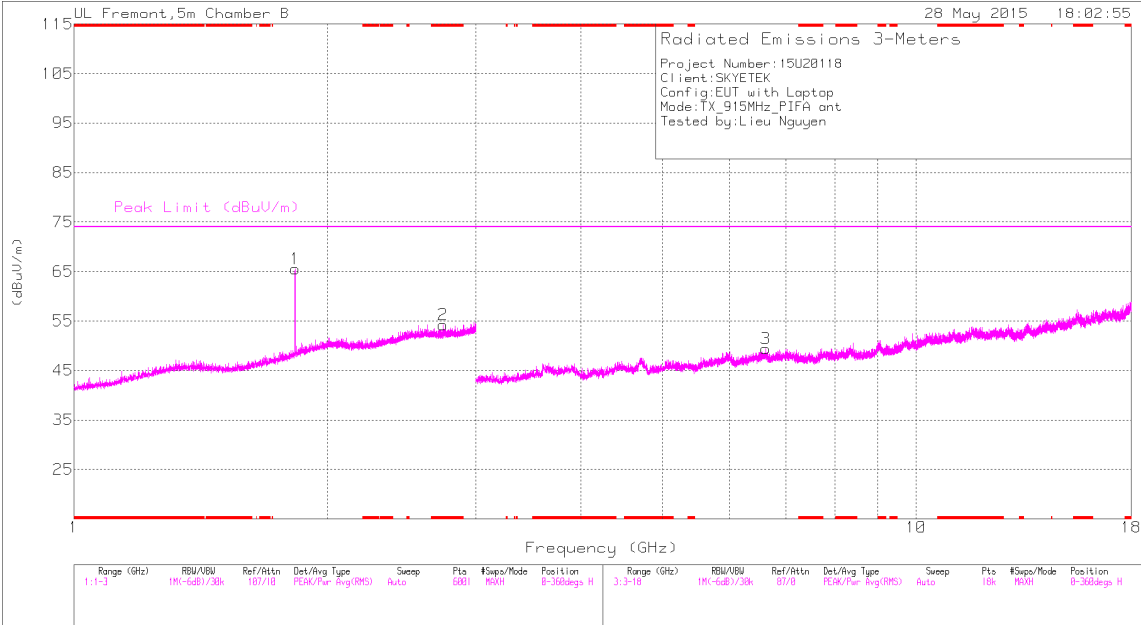
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	DC Corr (dB)	10dB Pad	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.706	37.79	PK3	32.6	-20.8	0	10	59.59	-	-	74	-14.41	91	274	H
2	* 2.706	37.79	AVG	32.6	-20.8	21.36	10	38.23	54	-15.77	-	-	91	274	H
5	* 2.706	38.44	PK3	32.6	-20.8	0	10	60.24	-	-	74	-13.76	189	343	V
5	* 2.706	38.44	AVG	32.6	-20.8	21.36	10	38.88	54	-15.12	-	-	189	343	V
6	* 3.645	40.66	PK3	33.7	-30.7	0	10	53.66	54	-0.34	-	-	281	300	V
1	1.803	36.66	PK3	30.8	-21.1	0	10	56.36	-	-	-	-	229	346	H
4	1.804	36.74	PK3	30.8	-21.1	0	10	56.44	-	-	-	-	185	254	V
3	3.143	40.97	PK3	32.6	-31	0	10	52.57	-	-	-	-	0	241	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

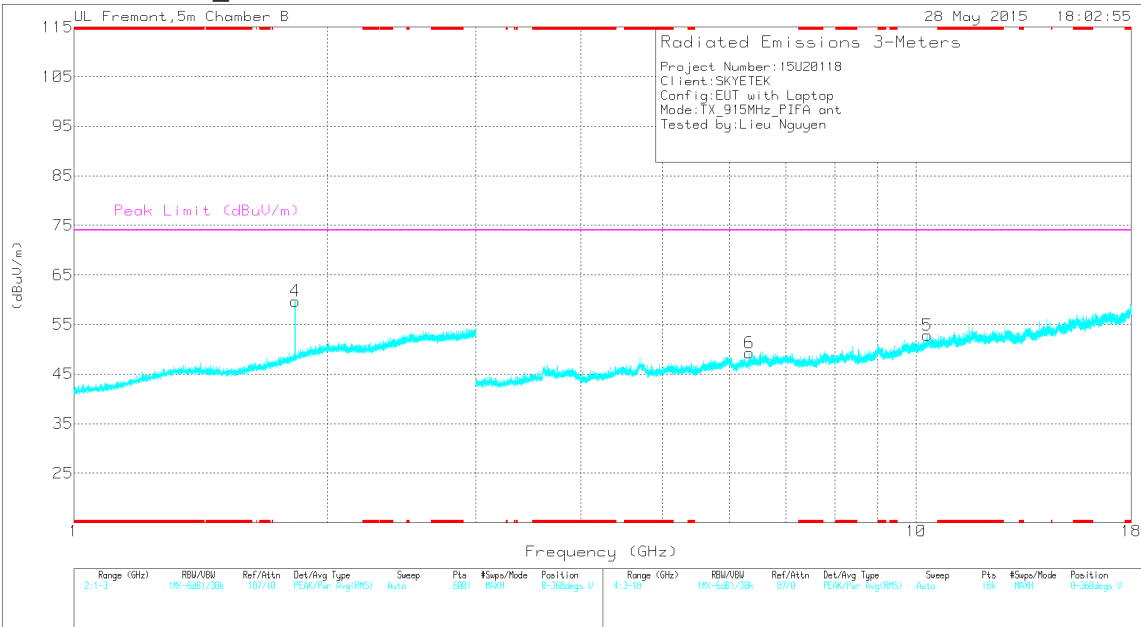
PK3 - FHSS Method: Maximized Peak

Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

MID CHANNEL _ HORIZ PLOT



MID CHANNEL _ VER PLOT



Trace Markers

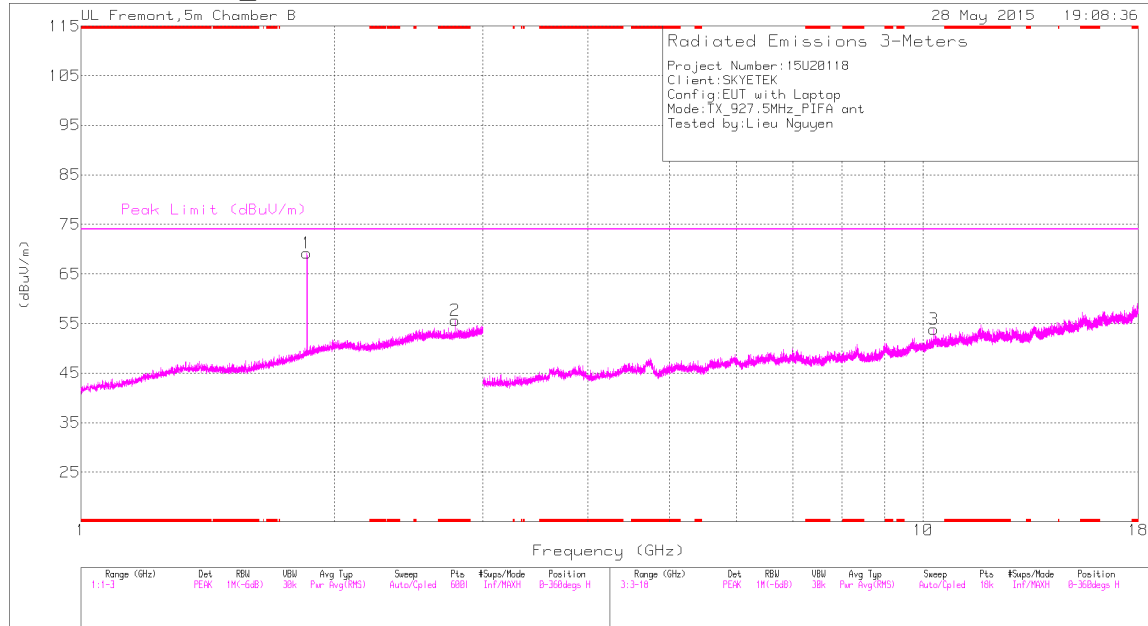
	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	10dB Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/ m)	Margin (dB)	Peak Limit (dBuV/ m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.745	39.9	PK3	32.6	-20.6	10	0	61.9	-	-	74	-12.1	337	262	H
2	* 2.745	39.9	AVG	32.6	-20.6	10	21.36	40.54	54	-13.46	74	-12.1	337	262	H
3	6.624	31.6	PK3	35.9	-28.1	10	0	49.4	-	-	-	-	250	294	H
5	10.31	28.44	PK3	37.4	-23	10	0	52.84	-	-	-	-	76	283	V
1	1.83	49.56	PK3	31.1	-21.1	10	0	69.56			-	-	188	337	H
4	1.83	45.88	PK3	31.1	-21.1	10	0	65.88			-	-	70	304	V
6	6.336	39.1	PK3	35.6	-29	10	0	55.7			-	-	316	303	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK3 - FHSS Method: Maximized Peak

Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

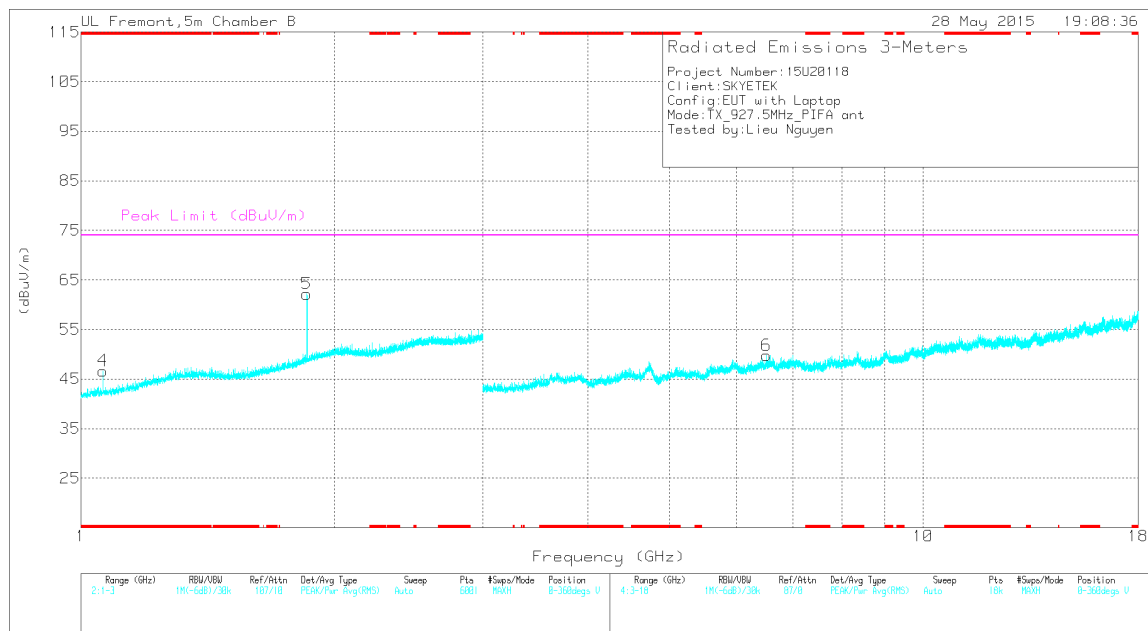
HIGH CHANNEL _ HORIZ PLOT



FCC Part15 Subpart C 2400MHz Spurious Emissions with Average Scan.TST 12746 28 May 2015

Rev 9.5 22 Jul 201

HIGH CHANNEL _ VER PLOT



TX_927.5MHz_PIFA ant_new.DAT 12746 28 May 2015

Rev 9.5 26 May 2015

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	10dB Pad	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.784	38.07	PK3	32.6	-20.4	10	0	60.27	-	-	74	-13.73	64	348	H
2	* 2.784	38.07	PK3	32.6	-20.4	10	21.36	38.91	54	-15.09	74	-13.73	64	348	H
4	* 1.063	35.99	PK3	27.5	-23.1	10	0	50.39	54	-3.61	74	-23.61	352	247	V
1	1.854	36.76	PK3	31.3	-21	10	0	57.06	-	-	-	-	84	370	H
5	1.856	37.15	PK3	31.3	-21	10	0	57.45	-	-	-	-	183	187	V
3	10.296	35.3	PK3	37.4	-23.1	10	0	59.6	-	-	-	-	250	400	H
6	6.512	32.16	PK3	35.9	-28.3	10	0	49.76					156	248	V

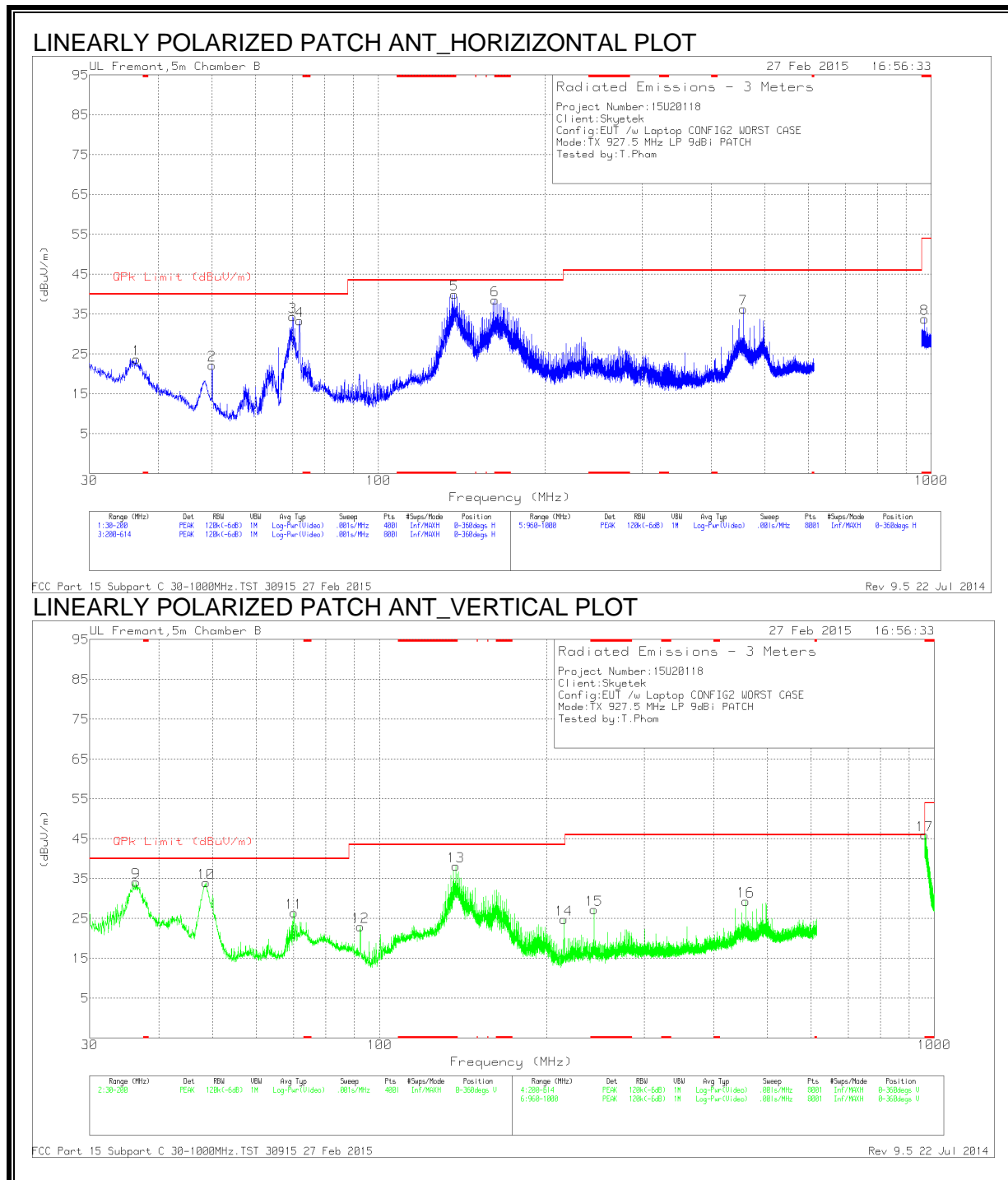
* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK3 - FHSS Method: Maximized Peak

Note: Signals in non-restricted bands are covered by -20 dBc antenna port spurious testing.

9.3. WORST-CASE BELOW 1 GHz

9.3.1. LINEARLY POLARIZED PATCH ANTENNA (WORST-CASE CONFIG)



*Note: the range that is not shown is covered by -20 dBc for conducted and it is non-restricted bands.

Trace Markers

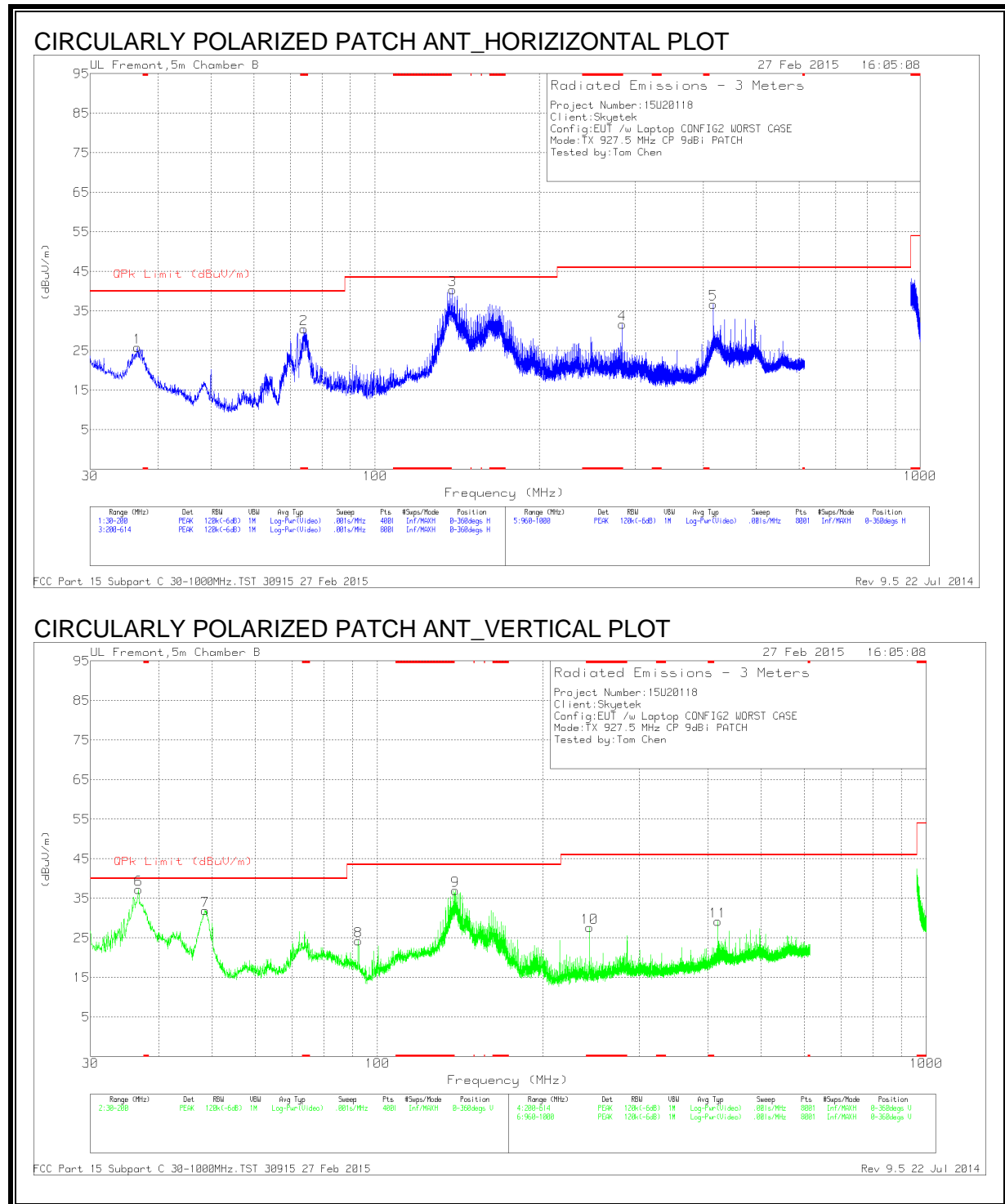
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	T694 BRP (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	* 137.2744	53.34	QP	13.4	-27.6	.5	39.64	43.52	-3.88	280	212	H
6	* 162.4923	51.64	QP	12.1	-27.3	.5	36.94	43.52	-6.58	312	191	H
13	* 137.2696	49.92	QP	13.4	-27.6	.5	36.22	43.52	-7.3	195	114	V
15	* 243.4183	41.63	PK	11.6	-26.5	.5	27.23	46.02	-18.79	0-360	200	V
8	* 971.995	32.62	PK	23	-22.3	.5	33.82	53.97	-20.15	0-360	301	H
17	* 960.195	45	PK	22.9	-22.4	.5	46	53.97	-7.97	0-360	101	V
9	36.2622	42.13	QP	16.6	-28.8	.5	30.43	40	-9.57	258	101	V
1	36.46	35.52	PK	16.5	-28.8	.5	23.72	40	-16.28	0-360	300	H
10	48.5456	49.56	QP	8.7	-28.7	.5	30.06	40	-9.94	14	110	V
2	50.0175	42.46	PK	8	-28.7	.5	22.26	40	-17.74	0-360	400	H
3	70.0105	52.18	QP	8.1	-28.4	.5	32.38	40	-7.62	327	382	H
11	70.0775	46.25	PK	8.1	-28.4	.5	26.45	40	-13.55	0-360	101	V
4	71.99	53.12	PK	8.1	-28.4	.5	33.32	40	-6.68	0-360	101	H
12	92.3475	42.38	PK	8.2	-28.1	.5	22.98	43.52	-20.54	0-360	101	V
14	214.7488	40.44	PK	10.6	-26.8	.5	24.74	43.52	-18.78	0-360	200	V
16	457.4563	37.8	PK	16.9	-25.8	.5	29.4	46.02	-16.62	0-360	200	V
7	457.508	44.72	PK	16.9	-25.8	.5	36.32	46.02	-9.7	0-360	200	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

QP - Quasi-Peak detector

9.3.2. CIRCULARLY POLARIZED PATCH ANTENNA (WORST-CASE CONFIG)



*Note: the range that is not shown is covered by -20 dBc for conducted and it is non-restricted bands.

Trace Markers

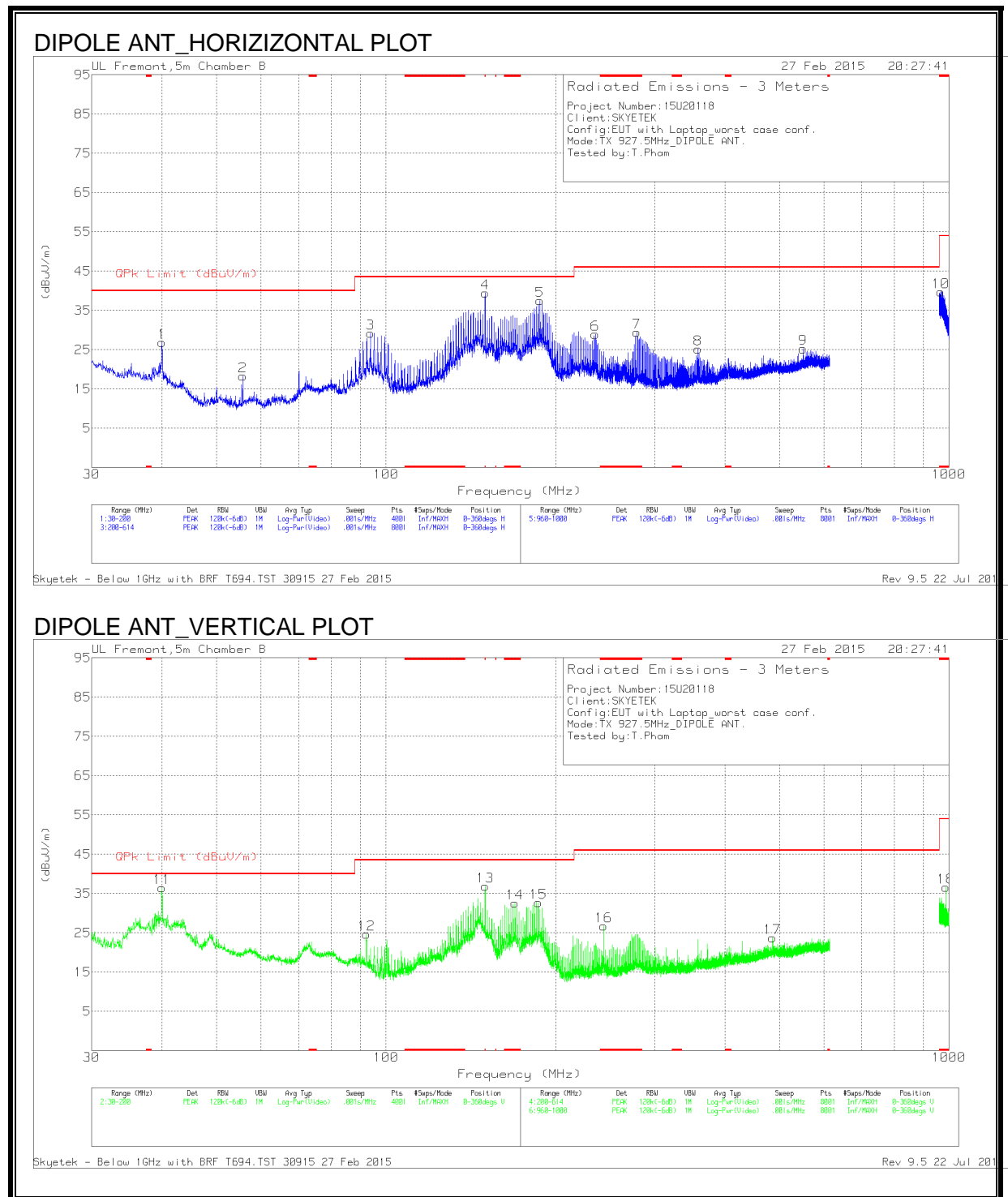
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	T694 BRF (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 73.945	50.36	PK	8	-28.4	.5	30.46	40	-9.54	0-360	200	H
4	* 284.3008	43.96	PK	13.4	-26.2	.5	31.66	46.02	-14.36	0-360	101	H
10	* 243.4183	42.04	PK	11.6	-26.5	.5	27.64	46.02	-18.38	0-360	200	V
1	36.63	37.73	PK	16.4	-28.8	.5	25.83	40	-14.17	0-360	400	H
6	36.8817	43.5	QP	16.2	-28.8	.5	31.4	40	-8.6	244	105	V
7	48.5725	51.41	PK	8.7	-28.7	.5	31.91	40	-8.09	0-360	101	V
8	92.3475	43.69	PK	8.2	-28.1	.5	24.29	43.52	-19.23	0-360	101	V
9	138.6725	50.92	PK	13.2	-27.6	.5	37.02	43.52	-6.5	0-360	101	V
3	138.6674	51.3	QP	13.2	-27.6	.5	37.4	43.52	-6.12	273	301	H
5	417.5053	46.2	PK	16.1	-26	.5	36.8	46.02	-9.22	0-360	200	H
11	417.5053	38.59	PK	16.1	-26	.5	29.19	46.02	-16.83	0-360	200	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

QP - Quasi-Peak detector

9.3.3. DIPOLE ANTENNA (WORST-CASE CONFIG)



*Note: the range that is not shown is covered by -20 dBc for conducted and it is non-restricted bands.

Trace Markers

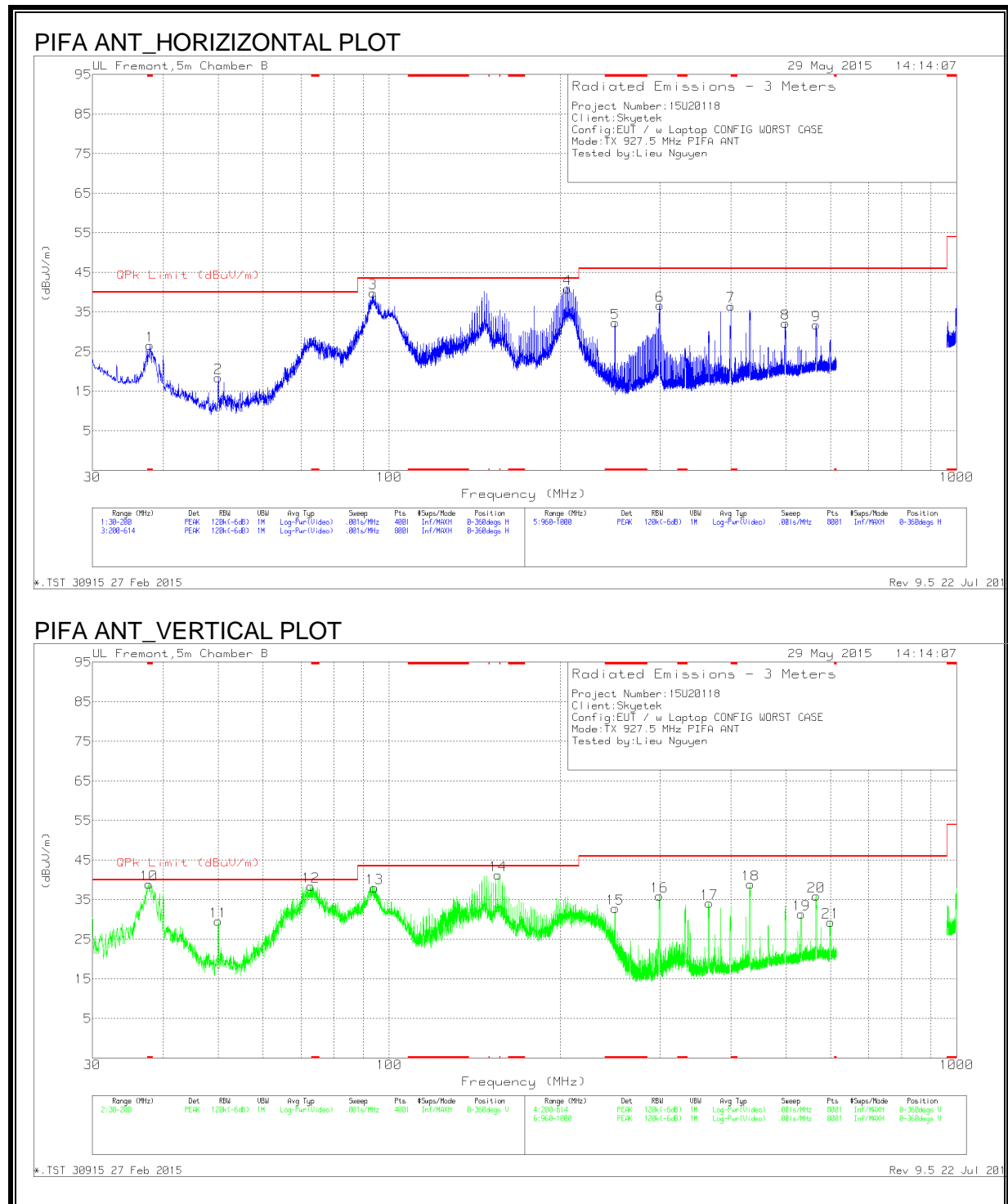
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	T694 BRF (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 149.9966	53.93	QP	12.5	-27.5	.5	39.43	43.52	-4.09	254	151	H
13	* 149.9775	51.33	PK	12.5	-27.5	.5	36.83	43.52	-6.69	0-360	101	V
14	* 169.485	47.64	PK	11.7	-27.3	.5	32.54	43.52	-10.98	0-360	101	V
7	* 278.7635	41.7	PK	13.5	-26.2	.5	29.5	46.02	-16.52	0-360	101	H
16	* 243.4183	41.18	PK	11.6	-26.5	.5	26.78	46.02	-19.24	0-360	200	V
10	* 966.385	38.65	PK	23	-22.4	.5	39.75	53.97	-14.22	0-360	101	H
18	* 986.45	35.24	PK	23.2	-22.3	.5	36.64	53.97	-17.33	0-360	101	V
1	39.9875	41.08	PK	14.1	-28.8	.5	26.88	40	-13.12	0-360	200	H
11	39.9984	49.81	QP	14.1	-28.8	.5	35.61	40	-4.39	258	101	V
2	55.67	39.08	PK	7.3	-28.6	.5	18.28	40	-21.72	0-360	300	H
12	92.3475	44.09	PK	8.2	-28.1	.5	24.69	43.52	-18.83	0-360	101	V
3	93.8775	48.23	PK	8.6	-28.1	.5	29.23	43.52	-14.29	0-360	200	H
15	186.315	48.04	PK	11.3	-27.1	.5	32.74	43.52	-10.78	0-360	101	V
5	187.685	49.5	QP	11.3	-27.1	.5	34.2	43.52	-9.32	248	138	H
6	235.2935	43.61	PK	11.4	-26.6	.5	28.91	46.02	-17.11	0-360	200	H
8	357.941	35.78	PK	14.8	-25.9	.5	25.18	46.02	-20.84	0-360	200	H
17	485.9705	31.31	PK	17.7	-25.8	.5	23.71	46.02	-22.31	0-360	101	V
9	549.9853	31.85	PK	18.5	-25.6	.5	25.25	46.02	-20.77	0-360	200	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

QP - Quasi-Peak detector

9.3.4. PIFA ANTENNA (WORST-CASE CONFIG)



*Note: the range that is not shown is covered by -20 dBc for conducted and it is non-restricted bands.

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	T694 BRf (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 37.905	39.46	PK	15.5	-28.8	.5	26.66	40	-13.34	0-360	400	H
10	*37.3753	53.16	QP	7.9	-28.7	.5	32.86	40	-7.14	131	102	V
5	* 249.9905	46.78	PK	11.6	-26.5	.5	32.38	46.02	-13.64	0-360	101	H
7	* 400.0138	46.54	PK	15.5	-26	.5	36.54	46.02	-9.48	0-360	101	H
15	* 249.9905	47.24	PK	11.6	-26.5	.5	32.84	46.02	-13.18	0-360	101	V
2	49.975	38.69	PK	8	-28.7	.5	18.49	40	-21.51	0-360	400	H
11	50.0175	49.75	PK	8	-28.7	.5	29.55	40	-10.45	0-360	101	V
12	71.8339	56.5	QP	8.1	-28.4	.5	36.7	40	-3.3	131	102	V
3	93.9165	50.27	QP	8.6	-28.1	.5	31.27	43.52	-12.25	131	200	H
13	94.1974	53.78	QP	8.6	-28.1	.5	34.78	43.52	-8.74	131	102	V
14	155.4175	42.54	QP	13.5	-27.9	.5	28.64	43.52	-14.88	131	102	V
4	205.8146	38.5	QP	10.8	-26.9	.5	22.9	43.52	-20.62	131	102	H
16	299.6705	48.09	PK	13.4	-26	.5	35.99	46.02	-10.03	0-360	101	V
6	299.7223	48.82	PK	13.4	-26	.5	36.72	46.02	-9.3	0-360	101	H
17	366.2728	44.48	PK	15.1	-25.9	.5	34.18	46.02	-11.84	0-360	101	V
18	432.875	48.01	PK	16.4	-26	.5	38.91	46.02	-7.11	0-360	101	V
8	499.4773	39.69	PK	17.8	-25.8	.5	32.19	46.02	-13.83	0-360	200	H
19	532.8043	38.37	PK	18.1	-25.6	.5	31.37	46.02	-14.65	0-360	101	V
20	566.0795	42.21	PK	18.8	-25.5	.5	36.01	46.02	-10.01	0-360	101	V
9	566.1313	38.01	PK	18.8	-25.5	.5	31.81	46.02	-14.21	0-360	200	H
21	599.4583	35.6	PK	18.6	-25.3	.5	29.4	46.02	-16.62	0-360	101	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

QP - Quasi-Peak detector

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

IC RSS-Gen 8.8

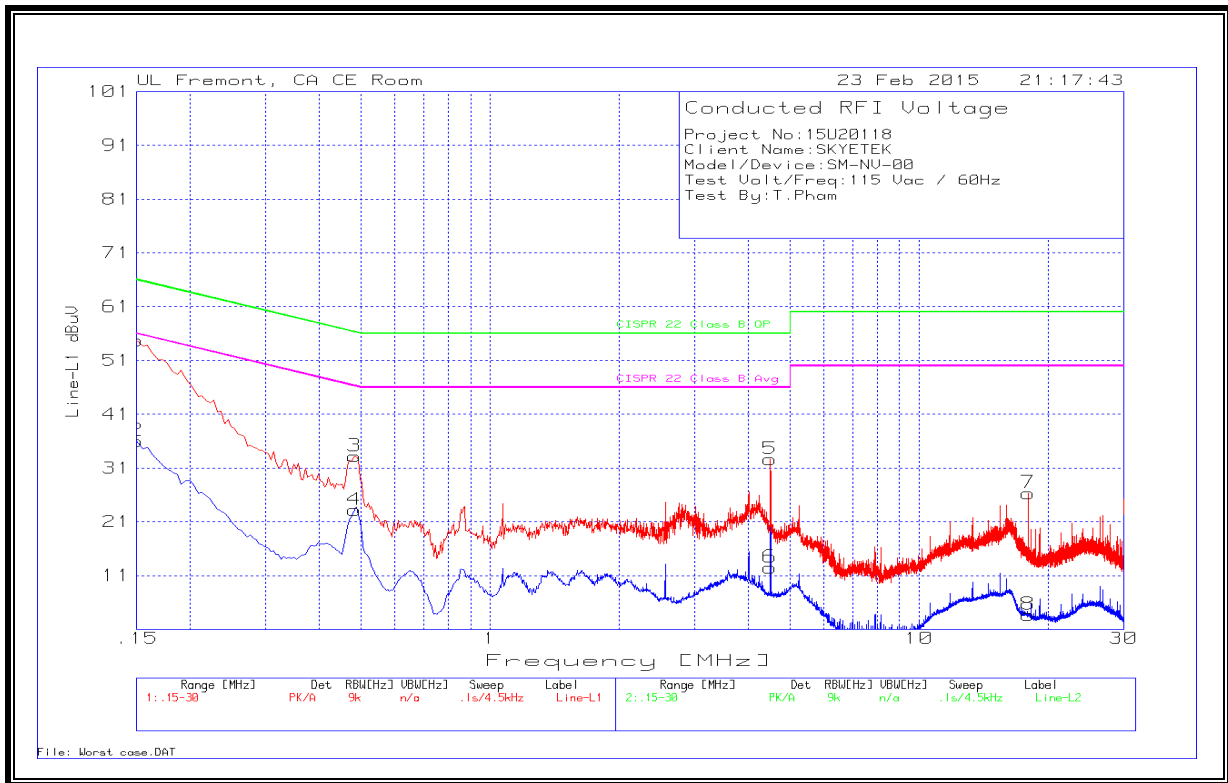
Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 [*]	56 to 46 [*]
0.5-5	56	46
5-30	60	50

^{*} Decreases with the logarithm of the frequency.

RESULTS

6 WORST EMISSIONS

LINE 1 RESULTS



Line-L1 .15 - 30MHz

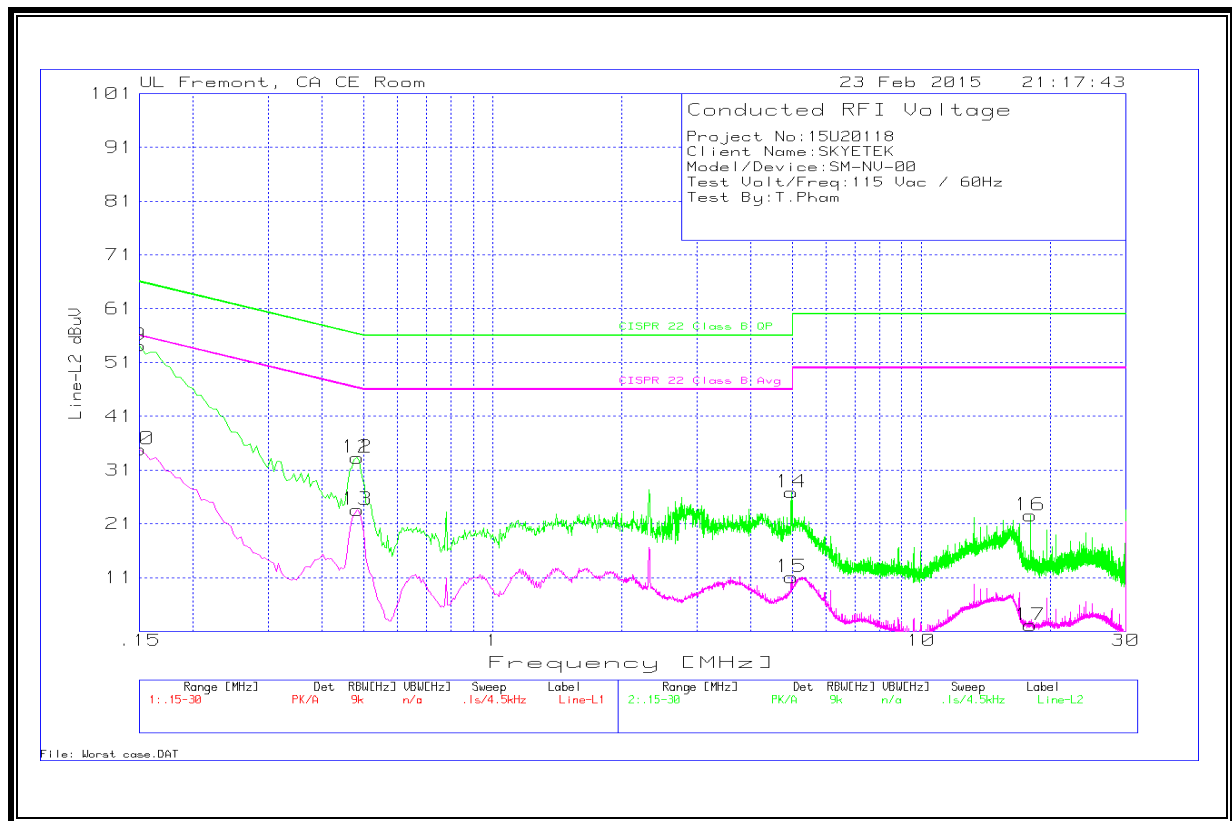
Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1 (dB)	LC Cables 1&3 (dB)	Corrected Reading dBuV	CISPR 22 Class B QP	Margin to Limit (dB)	CISPR 22 Class B Avg	Margin to Limit (dB)
1	.15	53.37	PK	1.4	0	54.77	66	-11.23	-	-
2	.15	34.6	Av	1.4	0	36	-	-	56	-20
3	.483	32.82	PK	.4	0	33.22	56.3	-23.08	-	-
4	.483	22.76	Av	.4	0	23.16	-	-	46.3	-23.14
5	4.488	32.29	PK	.2	.1	32.59	56	-23.41	-	-
6	4.488	12.22	Av	.2	.1	12.52	-	-	46	-33.48
7	17.997	25.83	PK	.3	.2	26.33	60	-33.67	-	-
8	17.997	3.25	Av	.3	.2	3.75	-	-	50	-46.25

PK - Peak detector

Av - average detection

LINE 2 RESULTS



Line-L2 .15 - 30MHz

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2 (dB)	LC Cables 2&3 (dB)	Corrected Reading dBuV	CISPR 22 Class B QP	Margin to Limit (dB)	CISPR 22 Class B Avg	Margin to Limit (dB)
9	.15	52.65	PK	1.5	0	54.15	66	-11.85	-	-
10	.15	33.39	Av	1.5	0	34.89	-	-	56	-21.11
11	.483	32.92	PK	.4	0	33.32	56.3	-22.98	-	-
12	.483	32.92	PK	.4	0	33.32	56.3	-22.98	-	-
13	.483	23.19	Av	.4	0	23.59	-	-	46.3	-22.71
14	4.9875	26.59	PK	.2	.1	26.89	56	-29.11	-	-
15	4.9875	10.83	Av	.2	.1	11.13	-	-	46	-34.87
16	17.988	22.12	PK	.3	.2	22.62	60	-37.38	-	-
17	17.988	1.6	Av	.3	.2	2.1	-	-	50	-47.9

PK - Peak detector

Av - average detection