



TEST REPORT

Report Number: 102155638MIN-001
Project Number: G102155638

Testing performed on the
Model: 93047
FCC ID: POM93047

to
47 CFR Part 15. 247:2015
47 CFR, Part 15:2015, §15.107 and §15.109, Class B

For
IntriCon Corporation

Test Performed by:
Intertek Testing Services NA, Inc.
7250 Hudson Blvd., Suite 100
Oakdale, MN 55128 USA

Test Authorized by:
IntriCon Corporation
1260 Red Fox Road
Arden Hills, MN 55112-6944, USA

Prepared by: Uri Spector
Uri Spector

Reviewed by: Simon Khazon Date of issue: July 22, 2015
Simon Khazon

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1.0 GENERAL DESCRIPTION

Model:	93047
Type of EUT:	Charging Linkstream with Power Amplifier
Intertek Sample ID:	MIN1507101025-004
FCC ID:	POM93047
Related Submittal(s) Grants:	None
Company:	IntriCon Corporation
Customer:	Mr. Vijay Sundermurthy
Address:	1260 Red Fox Road Arden Hills, MN 55112-6944, USA
Phone:	(651) 604-9534
Fax:	(612) 636-8944
e-mail:	VSundermurthy@intricon.com
Test Standards:	☒ 47 CFR, Part 15:2015, §15.247 ☐ RSS-247, Issue 1, 2015 ☐ RSS-Gen, Issue 4, 2014 ☒ 47 CFR, Part 15:2015, §15.107 and §15.109, Class B ☐ ICES-003, Issue 5:2012 ☐ Other
Type of radio:	☒ Stand -alone ☐ Module ☐ Hybrid
Date Sample Submitted:	July 9, 2015
Test Work Started:	July 9, 2015
Test Work Completed:	July 20, 2015
Test Sample Conditions:	☐ Damaged ☐ Poor (Usable) ☒ Good



1.1 Product Description; Test Facility

Product Description:	Transmitter
Transmitter Type:	☐ FHSS ☒ Digital Modulation ☐ WiFi ☐ Blue Tooth
Operating Frequency Range(s):	Range 1. From 2402 to 2481MHz
Number of Channels:	80
Modulation:	FSK
Antenna(s) Info:	Integral Gain 2.0dBi
Antenna Installation:	☐ User ☒ Professional ☐ Factory
Transmitter power configuration:	☐ Internal battery ☒ External power source ☒ 120VAC ☐ 230VAC ☐ 400VAC ☐ VDC ☐ Other: 0.15 Amp. ☐ 50Hz ☒ 60Hz
Special Test Arrangement:	None
Test Facility Accreditation:	A2LA (Certificate No. 1427.01)
Test Methodology:	Measurements performed according to the procedures in ANSI C63.10-2013 and FCC 558074 D01 DTS Measurement Guidance

1.2 EUT Configuration

The equipment under test was operated during the measurement under the following conditions:

- ☐ - Standby
- ☒ - Continuous transmissions (modulated signal)
- ☒ - Continuous transmissions (un-modulated signal)
- ☐ - Continuous receiving
- ☐ - Test program (customer specific)
- ☒ - See below

Operating modes of the EUT:

No.	Description
1	Test was performed at low channel 2402MHz, middle channel 2441MHz, and upper channel 2481MHz.
2	Standby mode for digital portion
3	EUT was powered at AC adapter (travel charger) manufacturing by Tenwei, model TS21-500500U

Cables:

No.	Type	Length	Designation	Note
1	Audio cable	6ft	Non shielded, audio connector	

Support equipment/Services:

No.	Item	Description
1	None	

1.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

☒ Normal

Temperature:	+15 to +35 ° C
Humidity:	20-75 %
Atmospheric pressure:	86-106 kPa

☐ Extreme

☐ Temperature:	-20 to +50 ° C
☐ Supply voltage:	85% to +115%



1.4 Measurement uncertainty

The expanded uncertainty ($k = 2$) for radiated measurements has been determined to be:

± 4 dB at 10m and ± 5.4 dB at 3m

The expanded uncertainty ($k = 2$) for conducted measurements at antenna terminal has been determined to be:

± 1.0 dB

The expanded uncertainty ($k = 2$) for line conducted measurements has been determined to be:

± 2.6 dB

1.5 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured emissions reading on the EMI Receiver.

The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CF - AG$$

Where: FS = Field Strength in dB(μ V/m)

RA = Receiver Amplitude in dB(μ V)

CF = Cable Attenuation Factor in dB

AF = Antenna Factor in dB(m^{-1})

AG = Amplifier Gain in dB

Assume a receiver reading of 48.1 dB(μ V) is obtained. The antenna factor of 7.4 dB(m^{-1}) and cable factor of 1.6 dB is added and amplifier gain of 16.0 dB is subtracted giving field strength of 41.1 dB(μ V/m).

$$RA = 48.1 \text{ dB}(\mu V)$$

$$AF = 7.4 \text{ dB}(m^{-1})$$

$$CF = 1.6 \text{ dB}$$

$$AG = 16.0 \text{ dB}$$

$$FS = RA + AF + CF - AG$$

$$FS = 48.1 + 7.4 + 1.6 - 16.0$$

$$FS = 41.1 \text{ dB}(\mu V/m)$$

General notes:



2.0 TEST SUMMARY

Referring to the performance criteria and the operating mode during the tests specified in this report, the equipment complies with the requirements according to the following standards.

TEST SPECIFICATION	TEST PARAMETERS	RESULT
15.247(a) / RSS-247 5.2	6dB modulated DTS bandwidth	Pass
15.247(b), (c) / RSS-247 5.4	Maximum peak output power	Pass
15.247(e) / RSS-247 5.2	Power spectral density	Pass
15.247(d) / RSS-247 5.5	Antenna conducted spurious emissions	Pass
15.247(d) / RSS-247 5.5	Radiated spurious emissions	Pass
15.247(i) / RSS- Gen 5.5	RF Exposure Compliance	Pass
15.207 / RSS-Gen 7.2.2	Transmitter Power Line conducted emissions	Pass
15.109 / ICES-003	Receiver/digital device radiated emissions	Pass
15.107 / ICES-003	Digital device conducted emissions	Pass

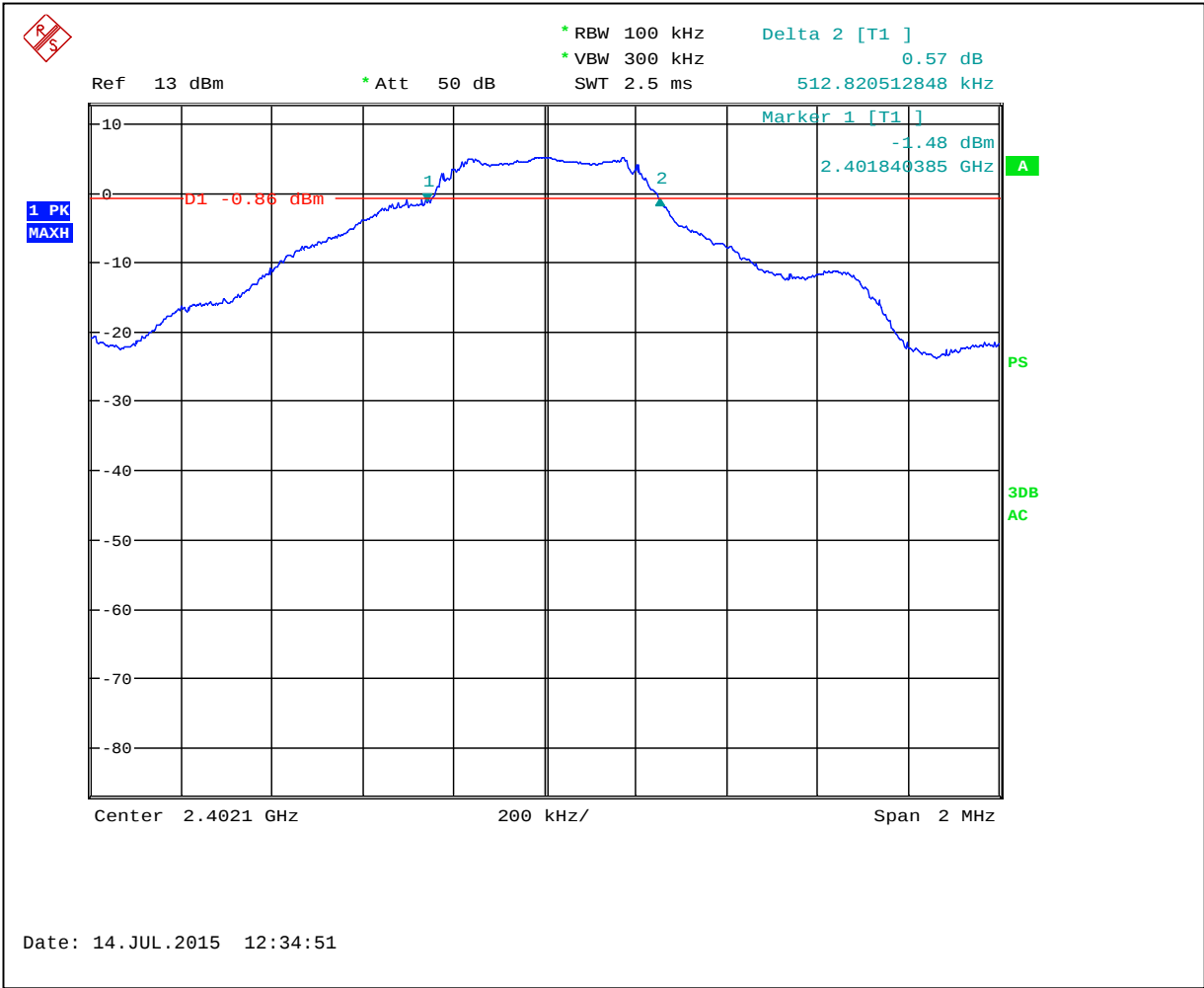


3.0 TEST CONDITIONS AND RESULTS

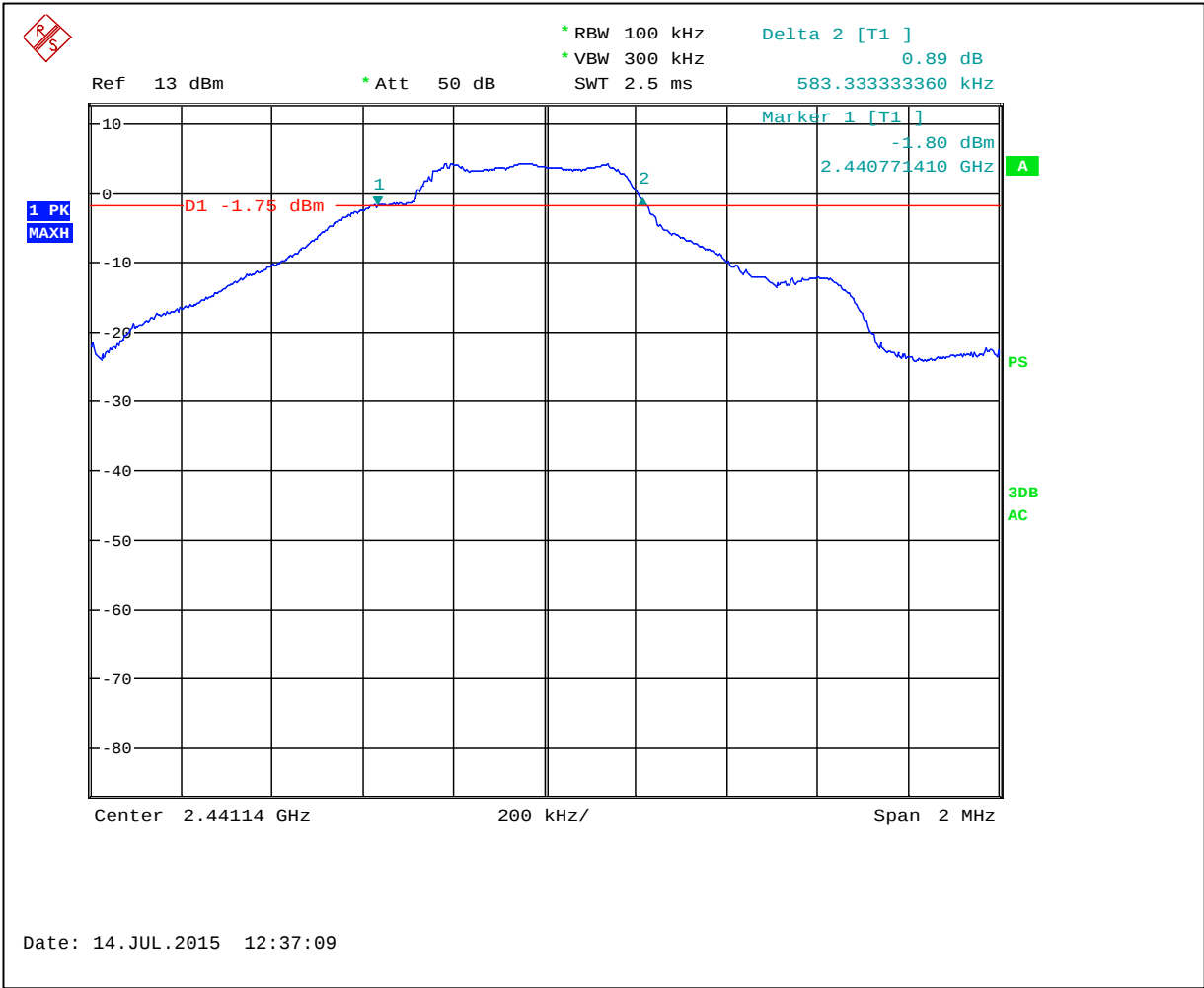
3.1 6dB modulated DTS bandwidth

Low Frequency Channel kHz	Middle Frequency Channel kHz	Upper Frequency Channel kHz	Minimum Bandwidth kHz	Result
512.8	583.3	522.4	500	Pass
RBW:	☒ 100kHz			
VBW:	☒ 300kHz			

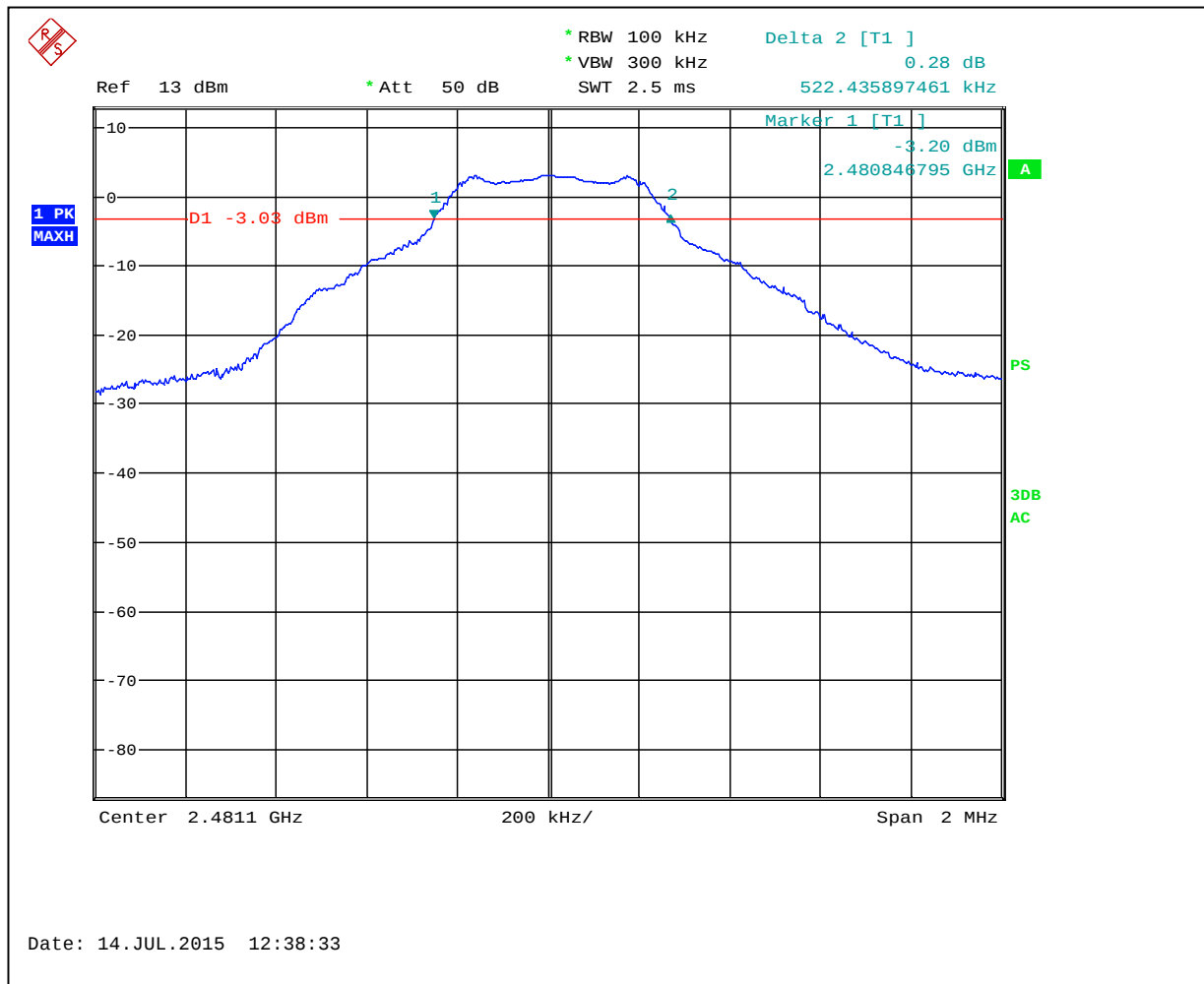
Notes: Graphs 3.1.1 to 3.1.3 show the 6dB bandwidth



Graph 3.1.1



Graph 3.1.2



Graph 3.1.3



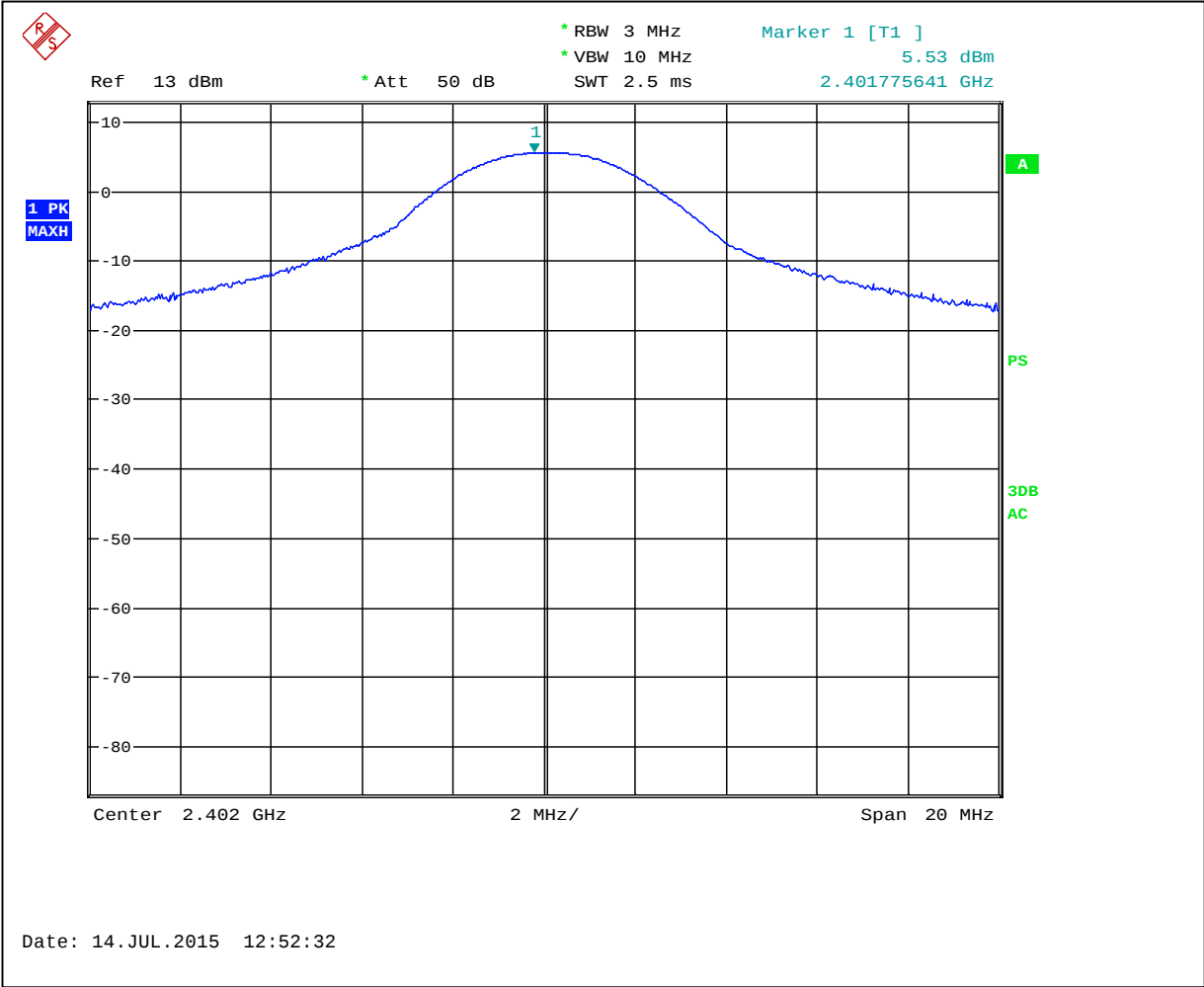
3.2 Maximum peak output power

Test result: Pass

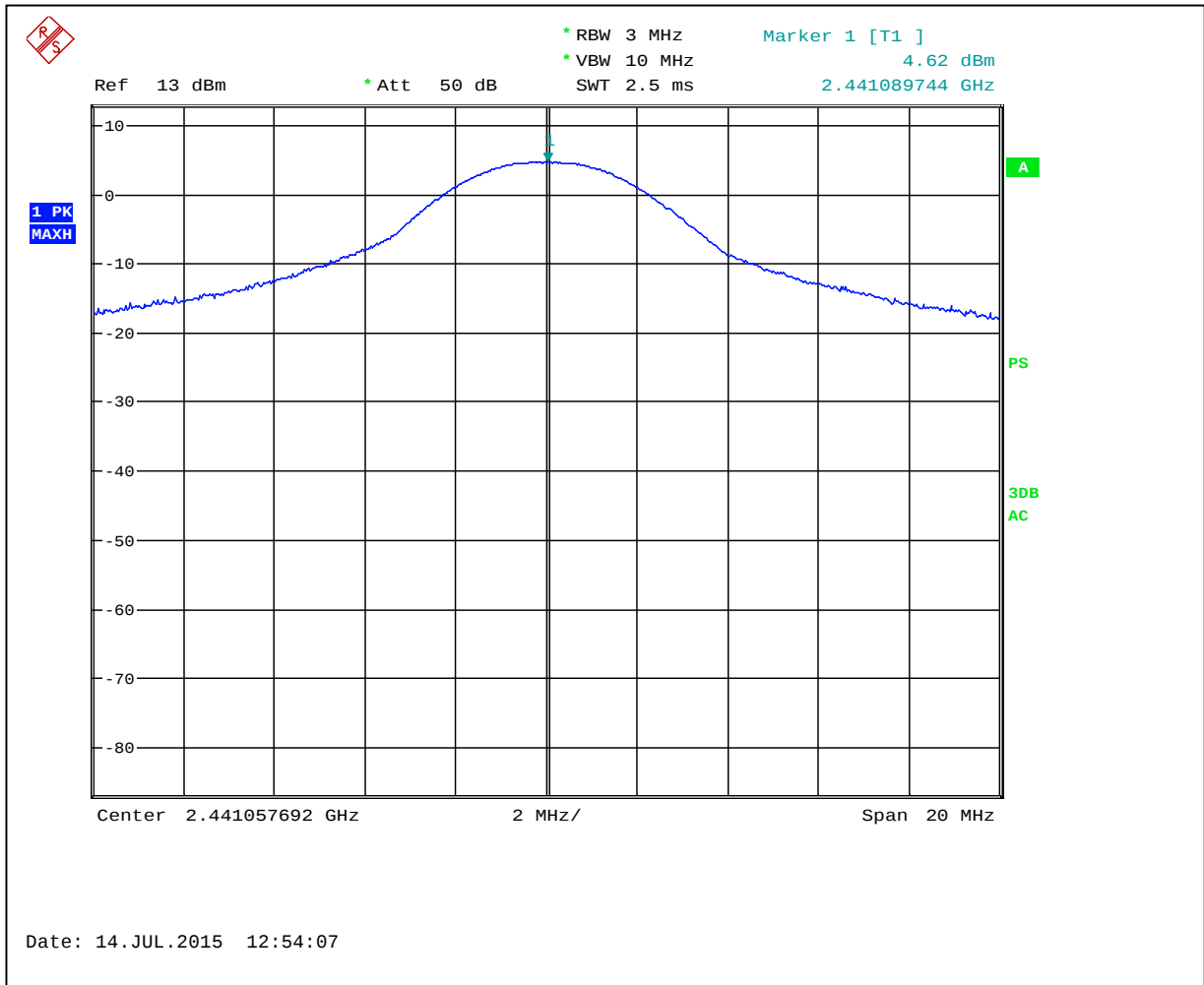
Max. Margin: 24.17dB below the limits

Power Output:	Conducted					
Frequency Range:	☐ 902-928MHz ☒ 2400-2483.5MHz ☐ 5725-5850MHz					
Low Frequency MHz	Measured power dBm	Attenuation dB	Power at Antenna dBm	Limit dBm	Limit Reduction dB	Margin dB
2402	5.53	0.3	5.83	30	0	-24.17
Middle Frequency MHz						
2441	4.62	0.3	4.92	30	0	-25.08
Upper Frequency MHz						
2481	3.45	0.3	3.75	30	0	-26.25
RBW:	☐ 1MHz ☒ 3MHz ☐ 10MHz					
VBW:	☐ 1MHz ☐ 3MHz ☒ 10MHz					
Antenna Gain:	☒ < 6dBi ☐ >6dBi and = dBi, Output power reduction = dB					

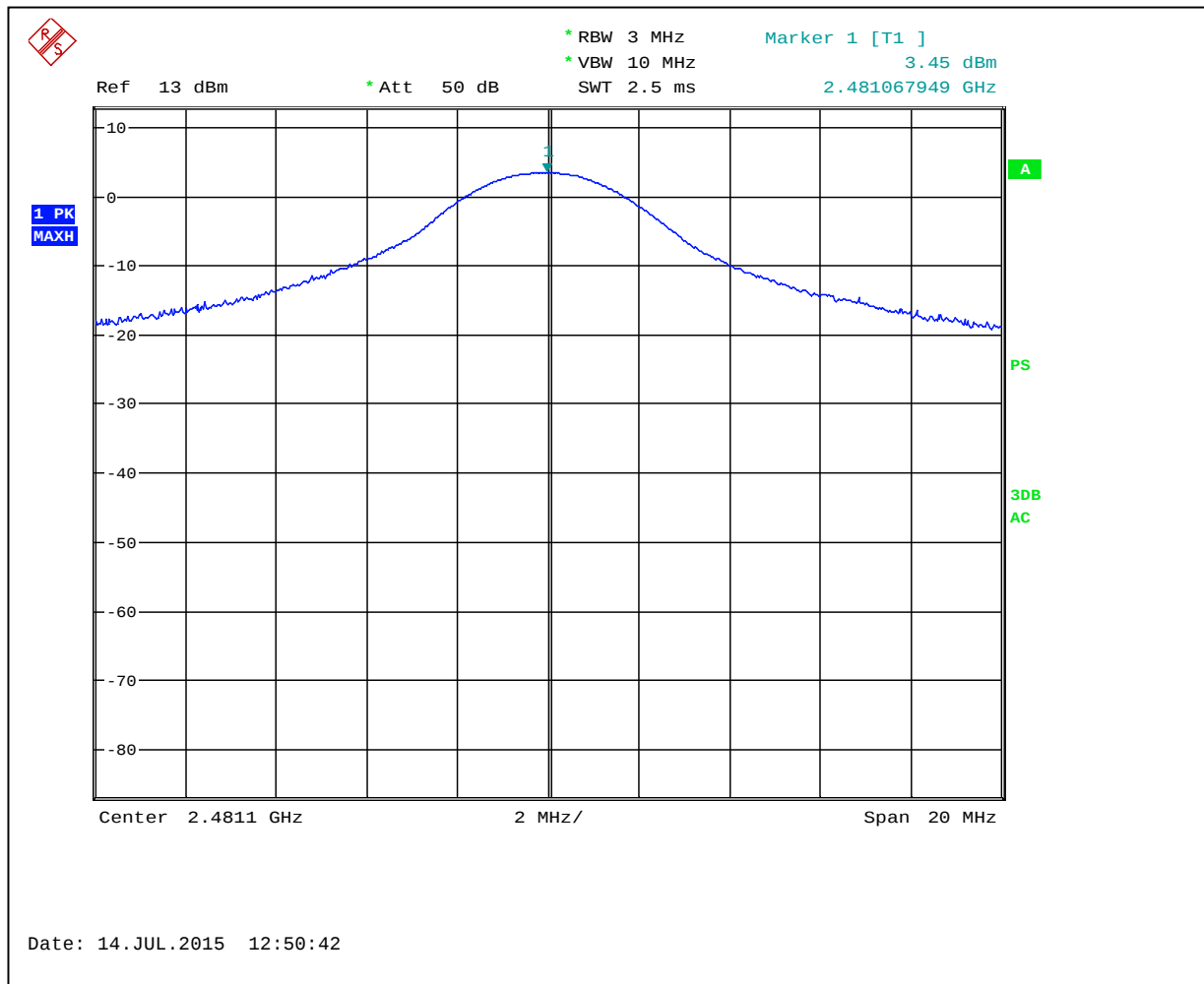
Notes: Graphs 3.2.1 to 3.2.3 show Peak Output Power



Graph 3.2.1



Graph 3.2.2



Graph 3.2.3



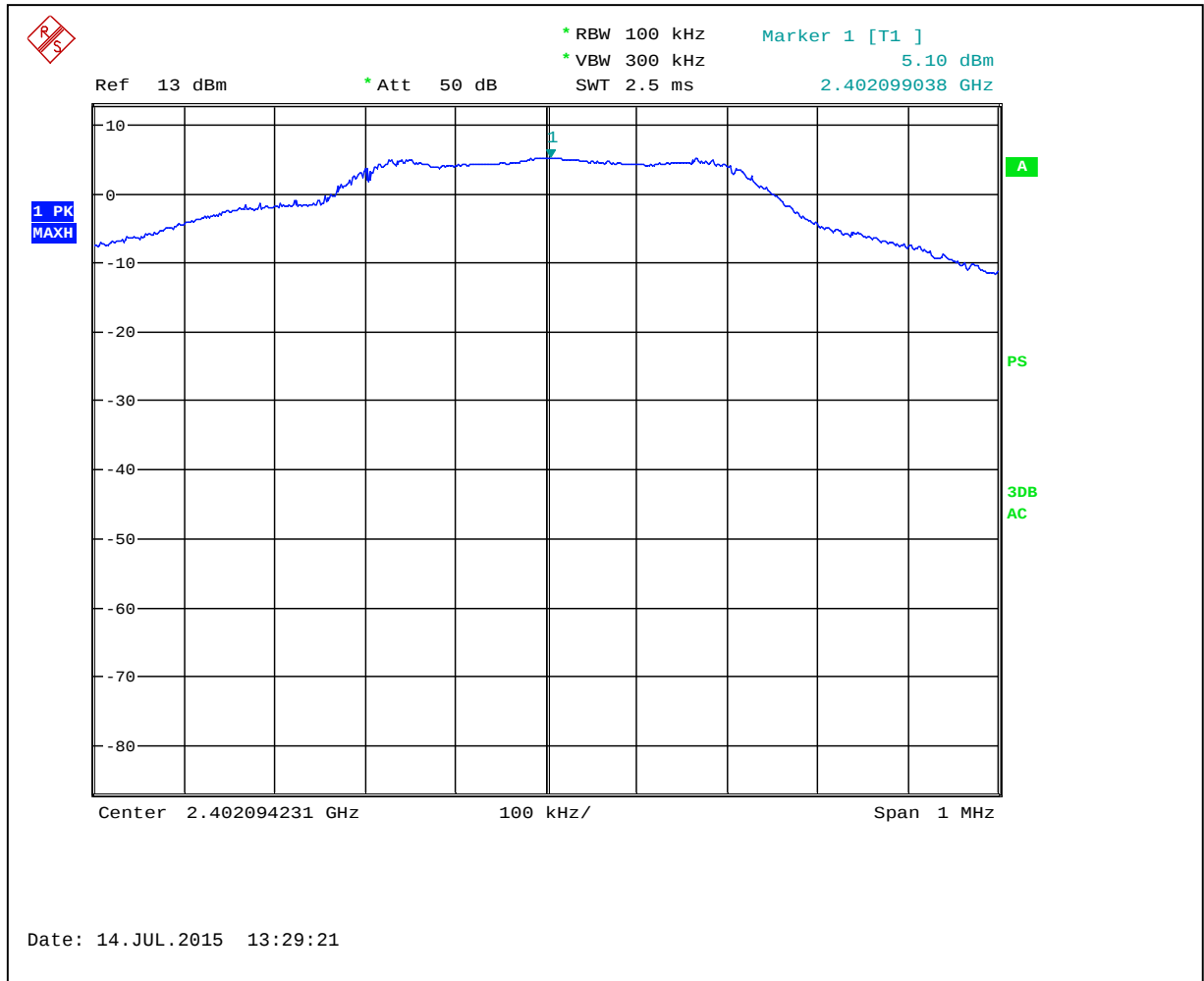
3.3 Power spectral density

Power Output:	☒ Conducted ☐ Radiated			
	Measured Density dBm	Power Density at Antenna dBm	Limit dBm	Margin dB
Low Frequency Channel	5.10	5.40	8	-2.60
Middle Frequency Channel	4.25	4.55	8	-3.45
Upper Frequency Channel	2.96	3.26	8	-4.74
Analyzer Settings:	☒ RBW=50KHz ☒ VBW=300KHz ☒ Span=1MHz ☒ Sweep=Auto			
Antenna Gain:	☒ < 6dBi and = 2dBi ☐ >6dBi and = dBi, limit reduction = dB			

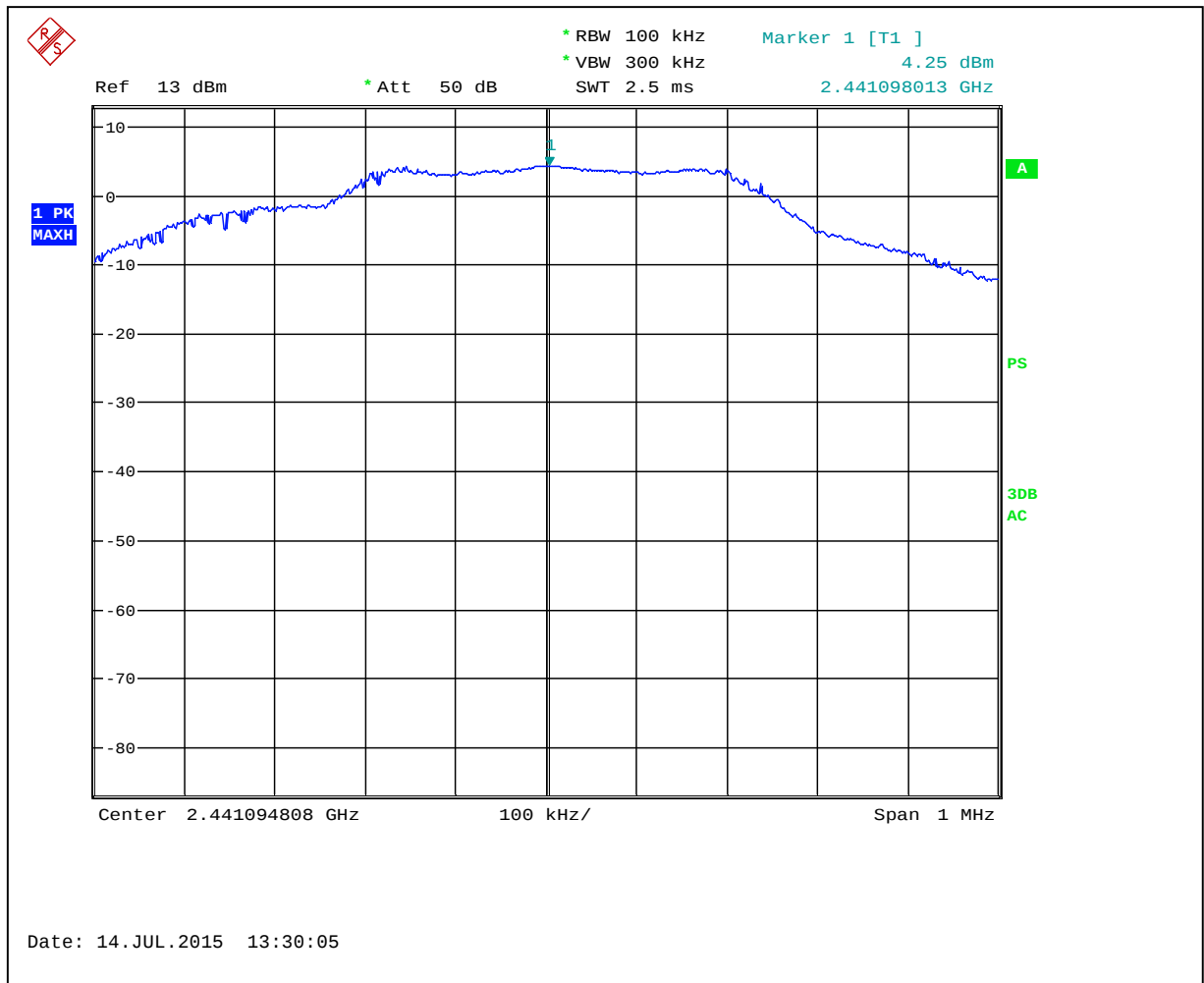
Notes: The Power Spectral Density at Antenna was calculated adding the cable loss of 0.3dB from the measured density value.

or

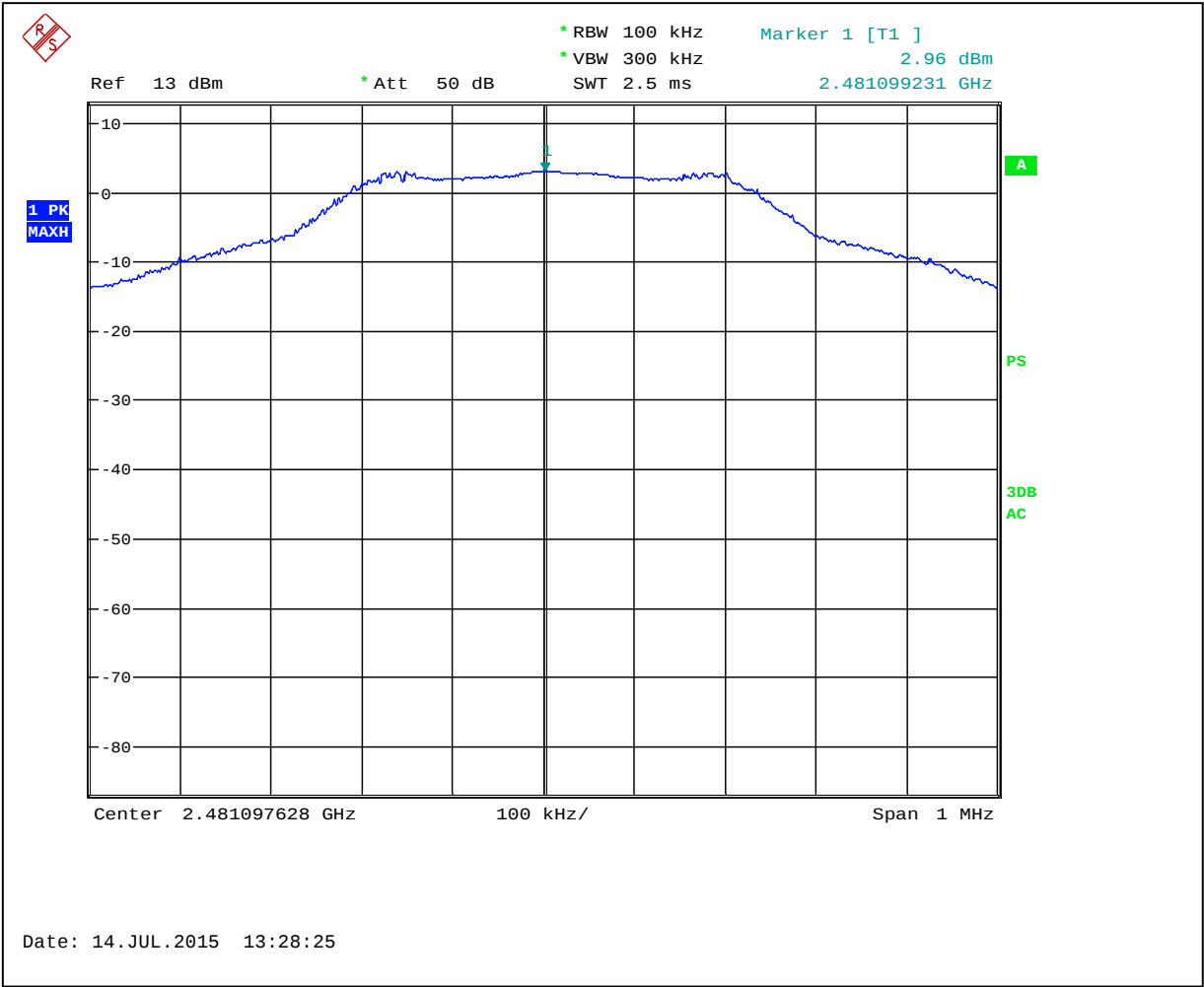
Notes: Graphs 3.3.1 to 3.3.3 show the Power Spectral Density



Graph 3.3.1



Graph 3.3.2



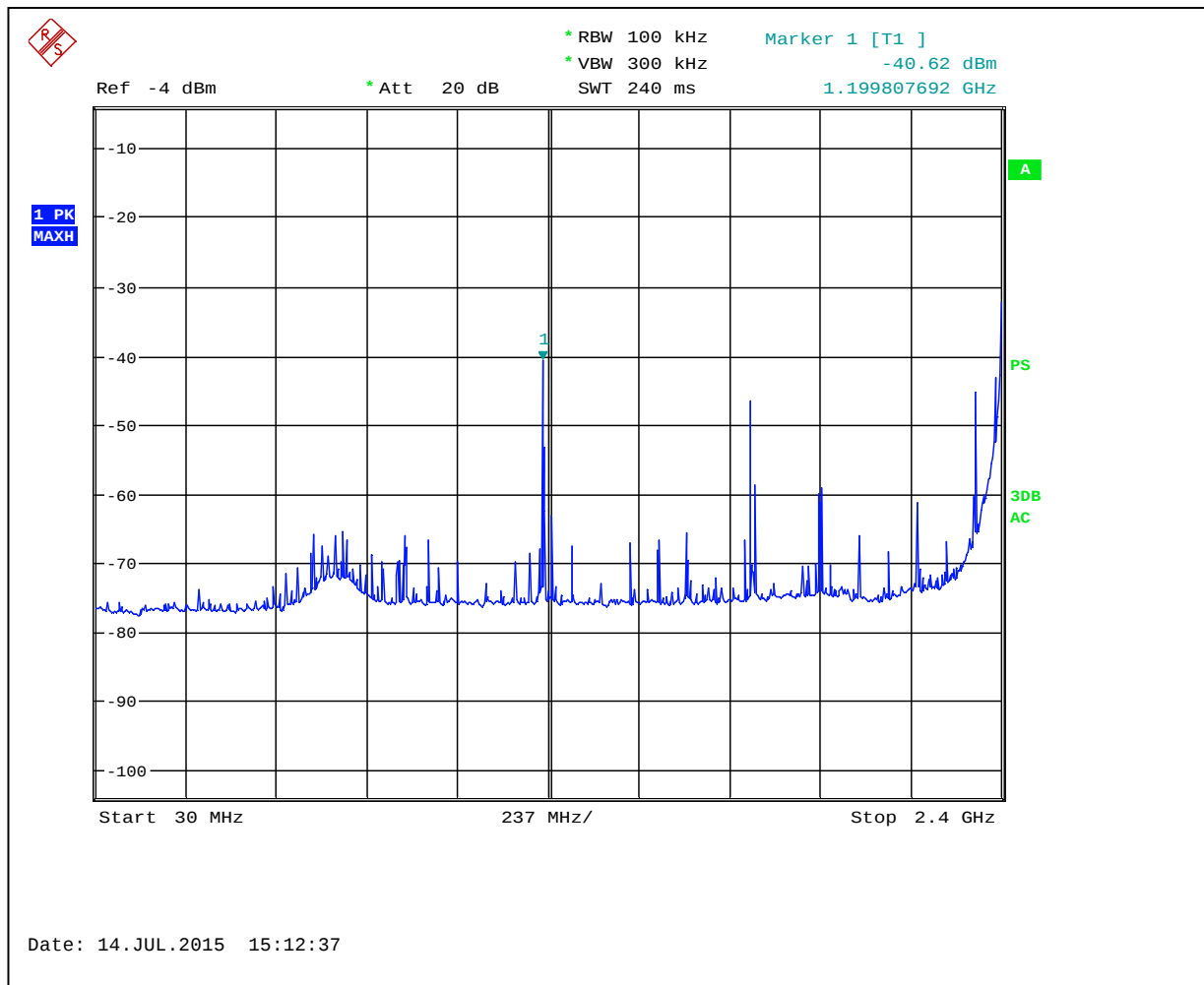
Graph 3.3.3



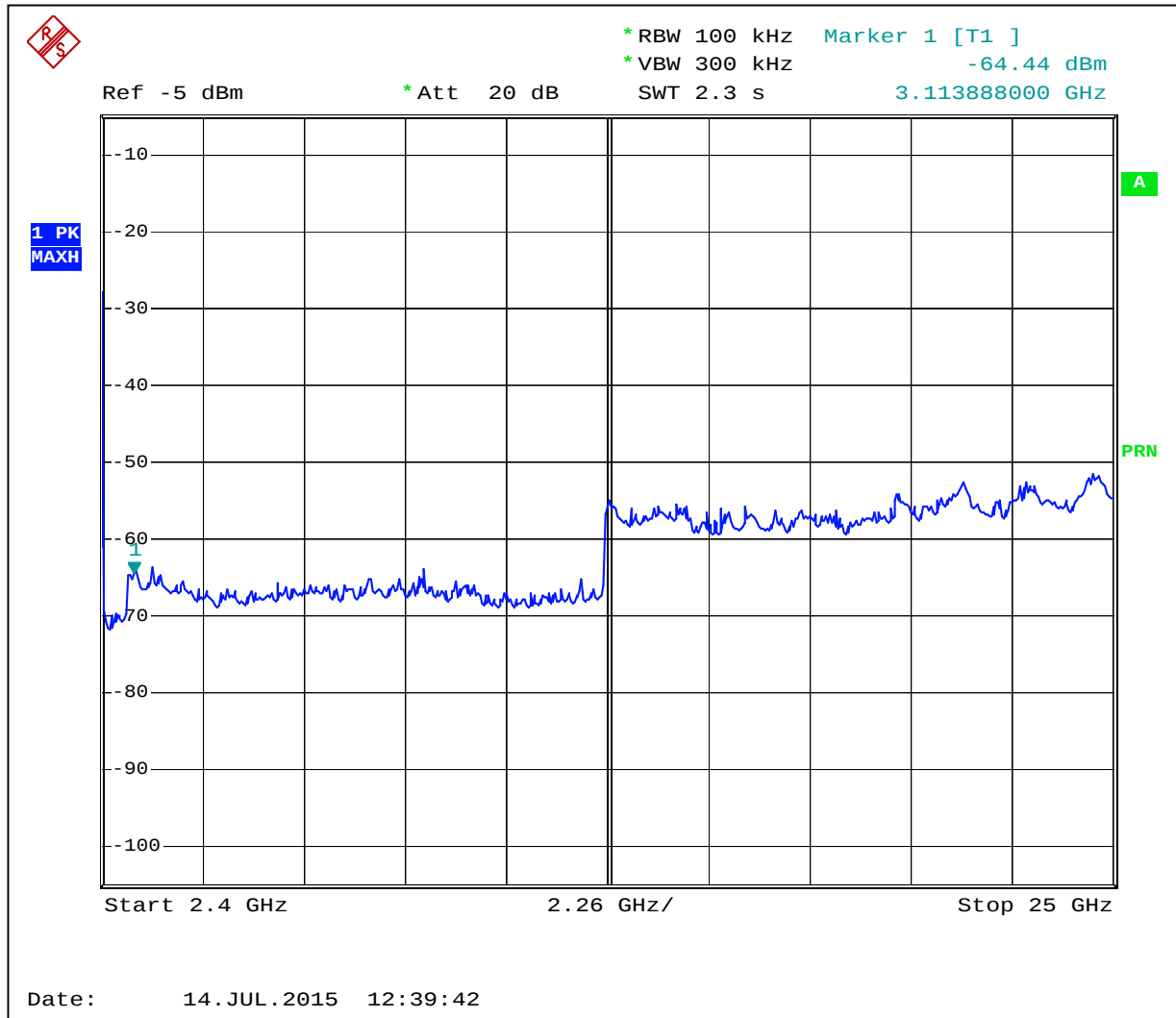
3.4 Antenna conducted spurious emissions

	Minimum Measured Attenuation dB	Minimum Allowed Attenuation dB	Margin dB
Low Frequency Channel	46.15	20	-26.15
Middle Frequency Channel	44.90	20	-24.90
Upper Frequency Channel	43.33	20	-23.33
Analyzer Settings:	☒ RBW=100KHz		
Minimum Allowed Attenuation:	☒ 20dB ☐ 30dB (for digital systems with conducted power measured using RMS averaging over a time interval)		

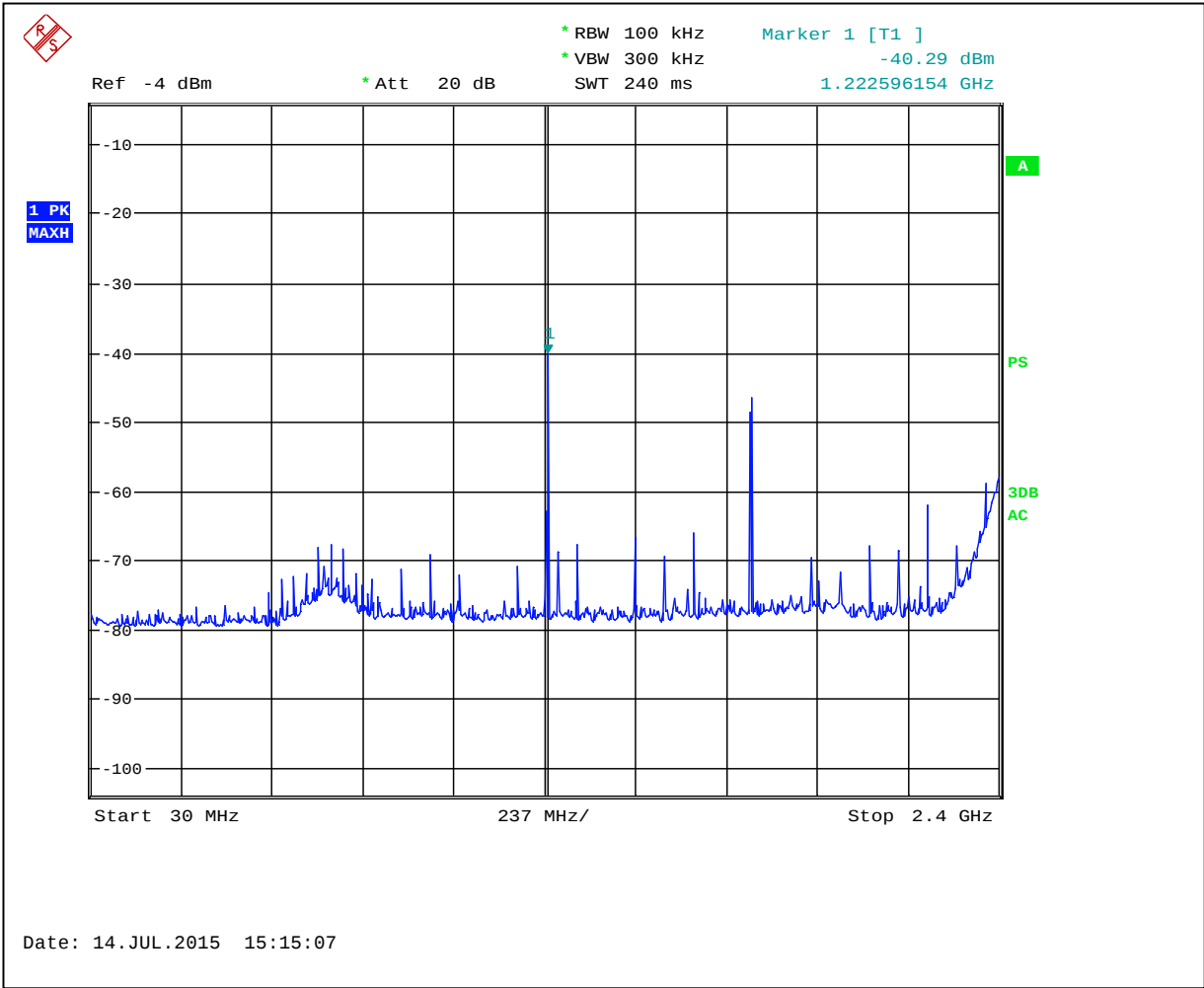
Notes: Test was performed in frequency range from 30MHz to 25GHz
Graphs 3.4.1 to 3.4.2 show the Antenna Conducted Spurious Emissions for low channel
Graphs 3.4.3 to 3.4.4 show the Antenna Conducted Spurious Emissions for middle channel
Graphs 3.4.5 to 3.4.6 show the Antenna Conducted Spurious Emissions for high channel
Graph 3.4.7 shows band edge compliance at 2400MHz
Graph 3.4.8 shows band edge compliance at 2483.5MHz



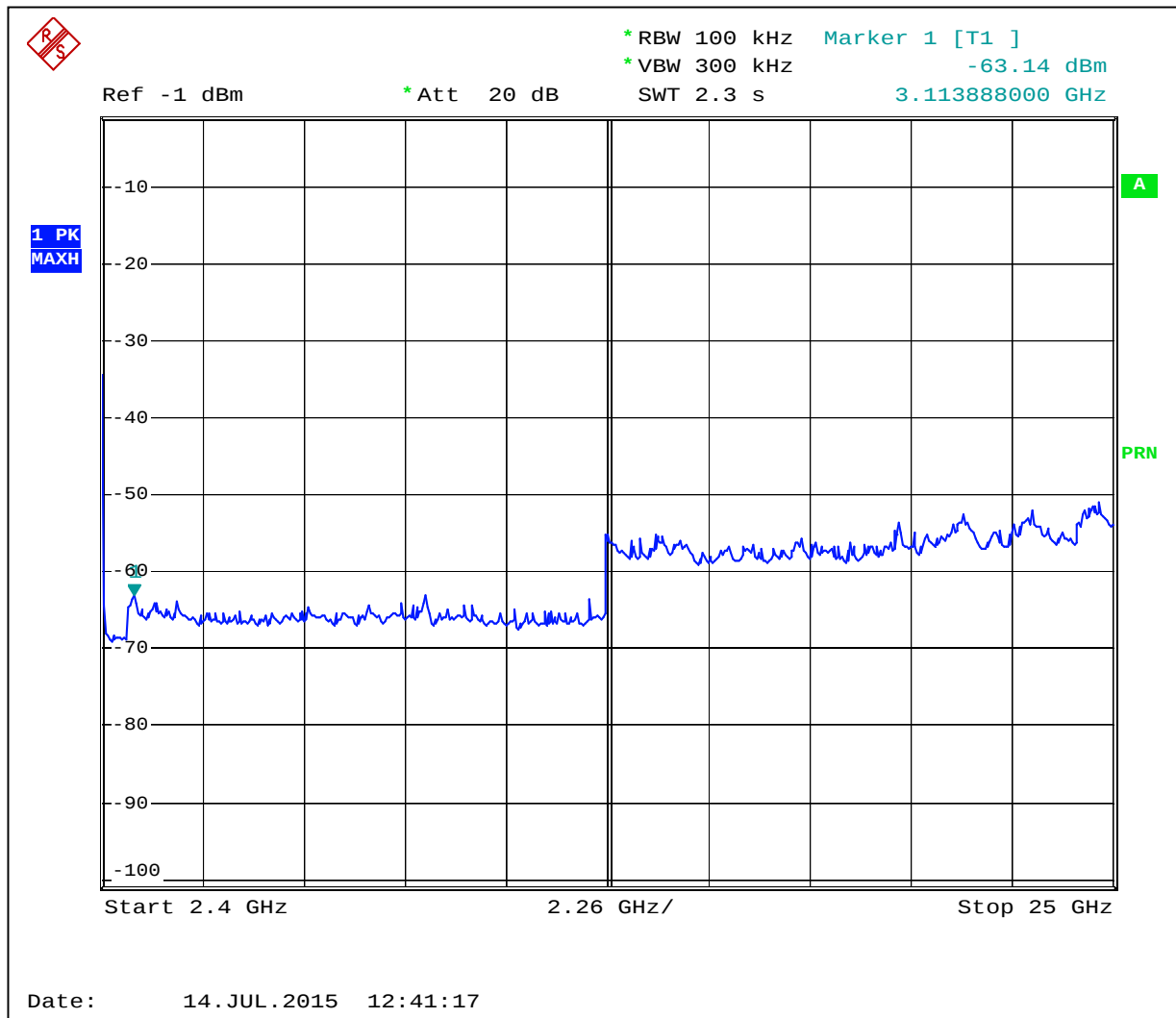
Graph 3.4.1



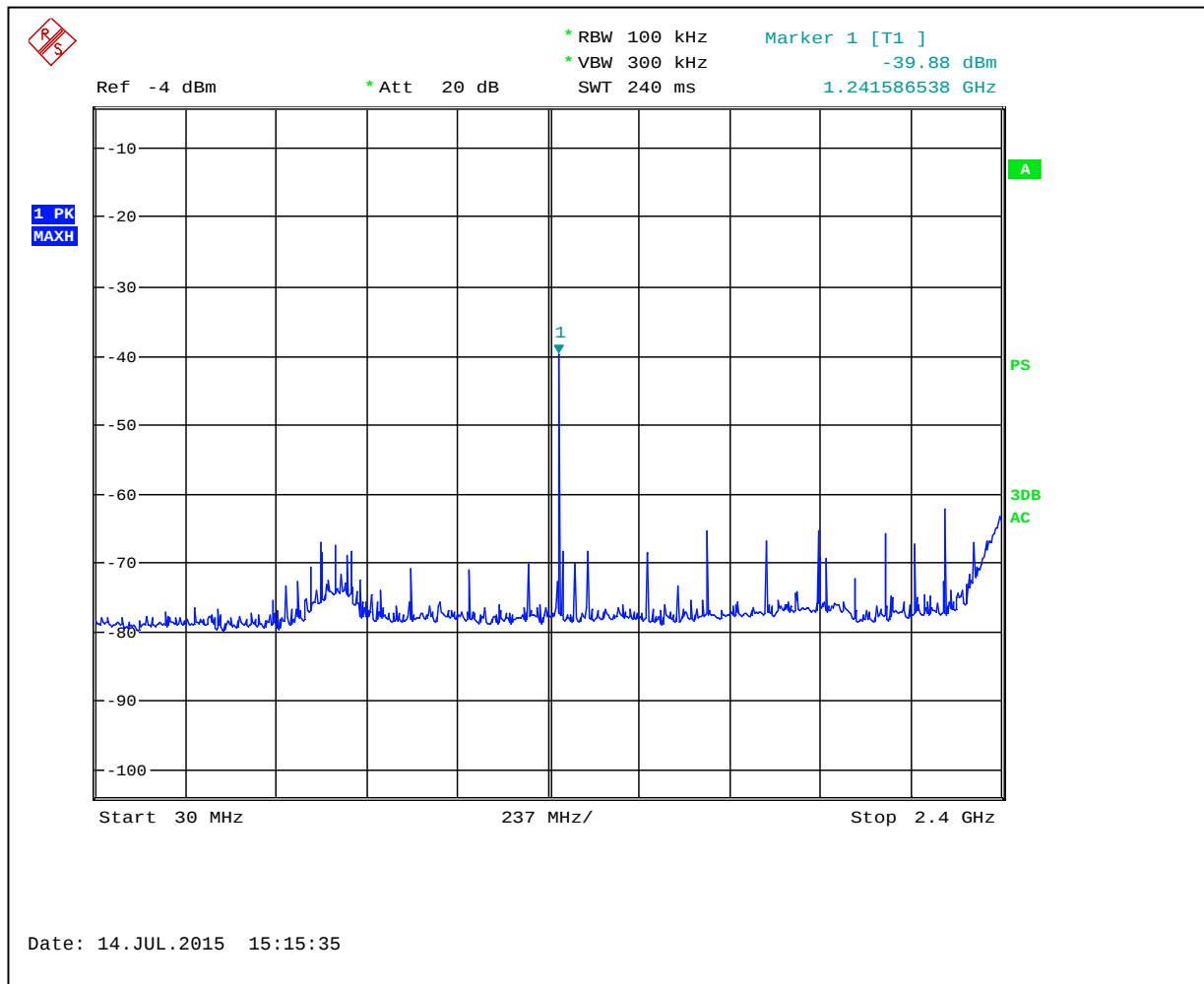
Graph 3.4.2



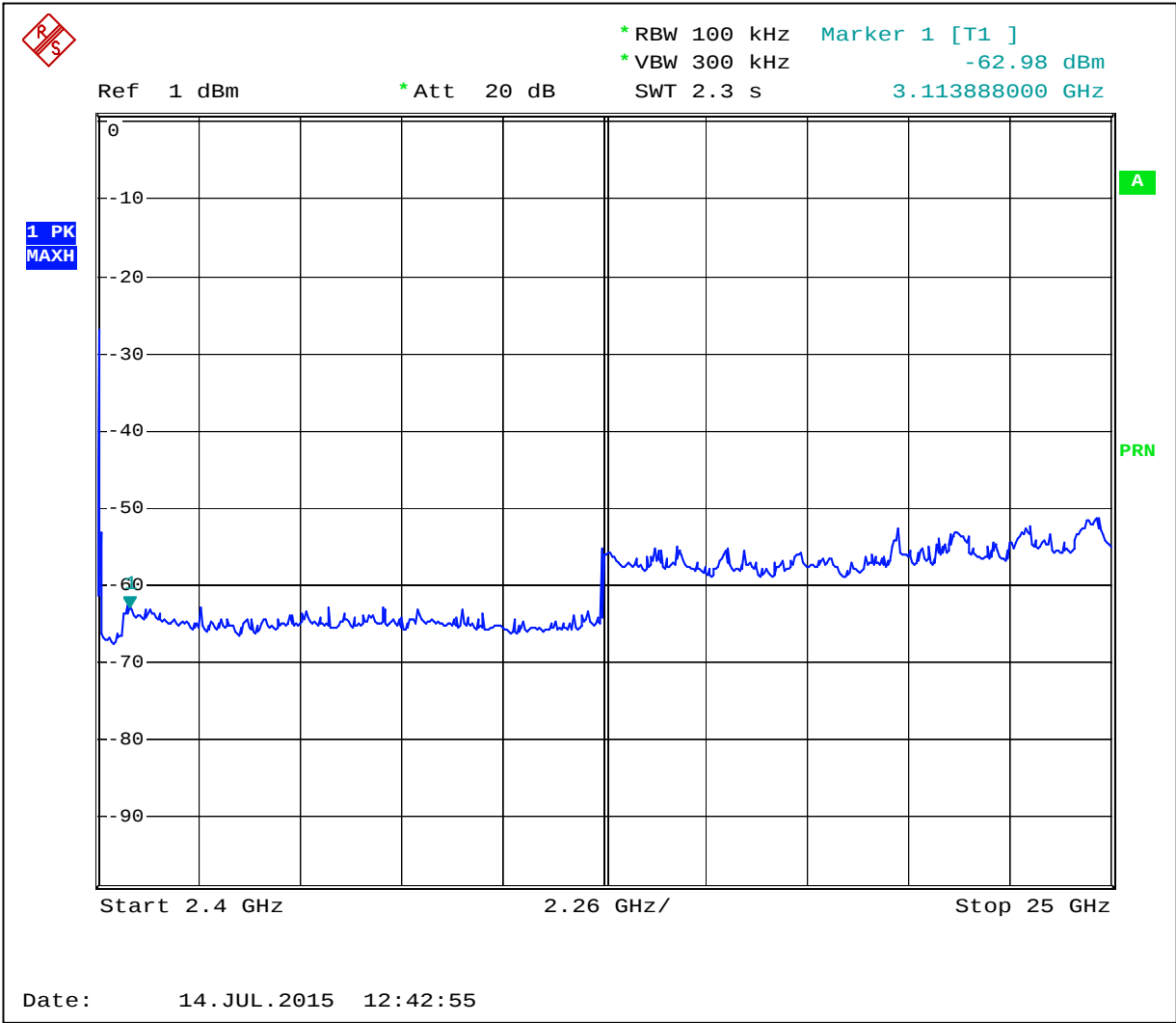
Graph 3.4.3



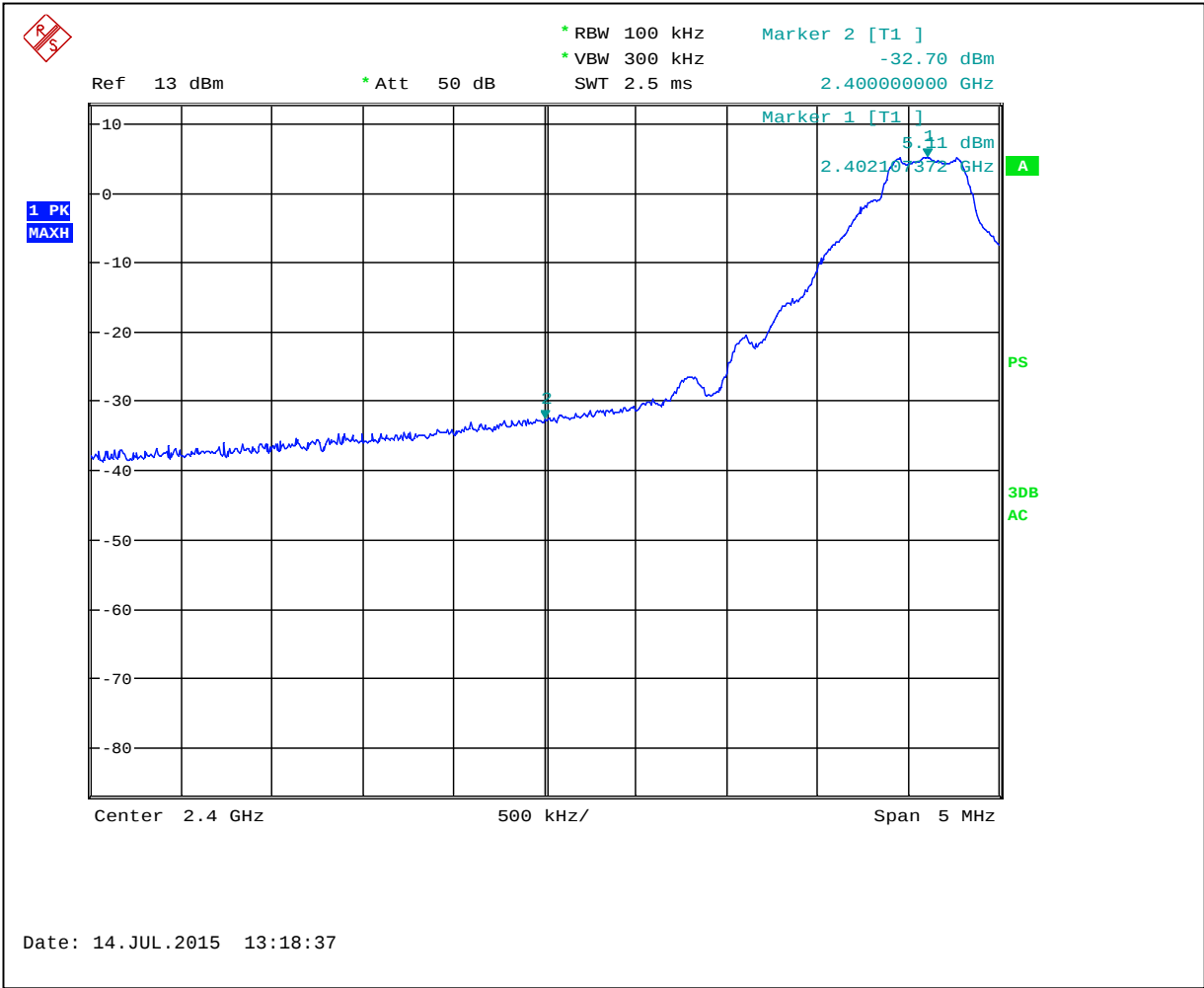
Graph 3.4.4



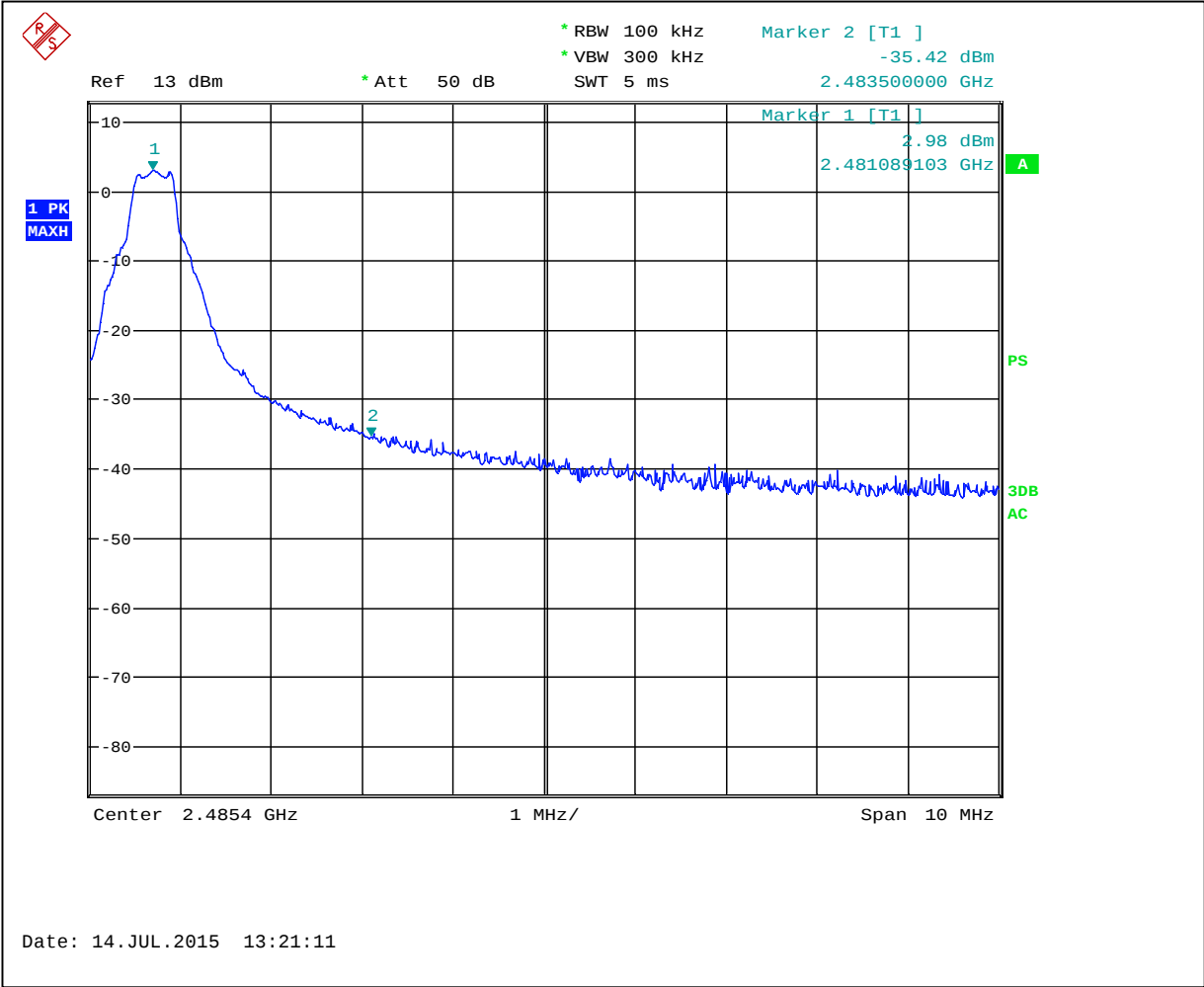
Graph 3.4.5



Graph 3.4.6



Graph 3.4.7



Graph 3.4.8



3.5 Radiated spurious emissions

Test location: ☐ OATS ☒ Anechoic Chamber ☐ Other

Test result: **Pass**

Max. Margin: 0.2dB below the limits

Note: Radiated spurious emission not related with transmitter operation, outside restricted band of operation per FCC 15.205 and fundamental frequencies were excluded from the table.

Date:	July 14, 2015	Result: Pass
Tested by:	Uri Spector	
Standard:	FCC part 15.247(d)	
Test Point:	Enclosure	
Operation mode:	See page 5	
Environmental Conditions:	23°C; 47%(RH); 97.8kPa	
Note:	1GHz-2GHz	

Table 3.5.1

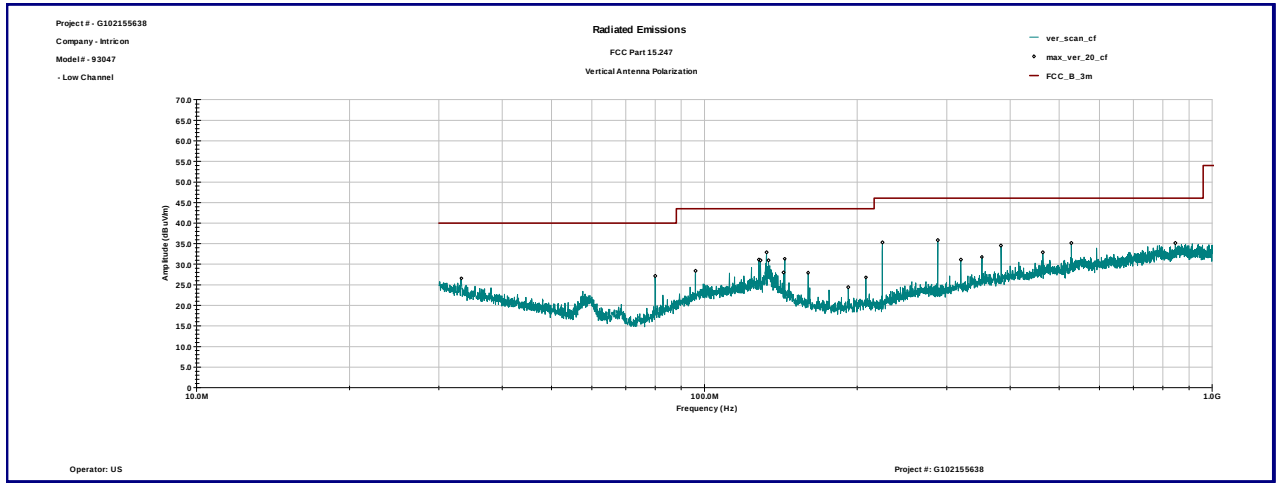
Frequency MHz	Antenna		Ant. CF dB1/m	Cable loss dB	Pre-amp Gain (dB)	Reading dBμV	Total @ 3m dBμV/m	Limit dBμV/m	Margin dB	Comments
	Polarity	Hts(cm)								
Channel 2402MHz										
1201.00	V	100	23.8	3.1	0.0	31.5	58.4	74.0	-15.6	Peak
1201.00	V	100	23.8	3.1	0.0	26.9	53.8	54.0	-0.2	AVG
1201.00	H	141	23.8	3.1	0.0	30.5	57.4	74.0	-16.6	Peak
1201.00	H	141	23.8	3.1	0.0	26.6	53.5	54.0	-0.5	AVG
Channel 2441MHz										
1220.50	V	100	23.9	3.1	0.0	30.9	57.9	74.0	-16.1	Peak
1220.50	V	100	23.9	3.1	0.0	26.6	53.6	54.0	-0.3	AVG
1220.50	H	171	23.9	3.1	0.0	28.1	55.1	74.0	-18.9	Peak
1220.50	H	171	23.9	3.1	0.0	26.1	53.1	54.0	-0.8	AVG



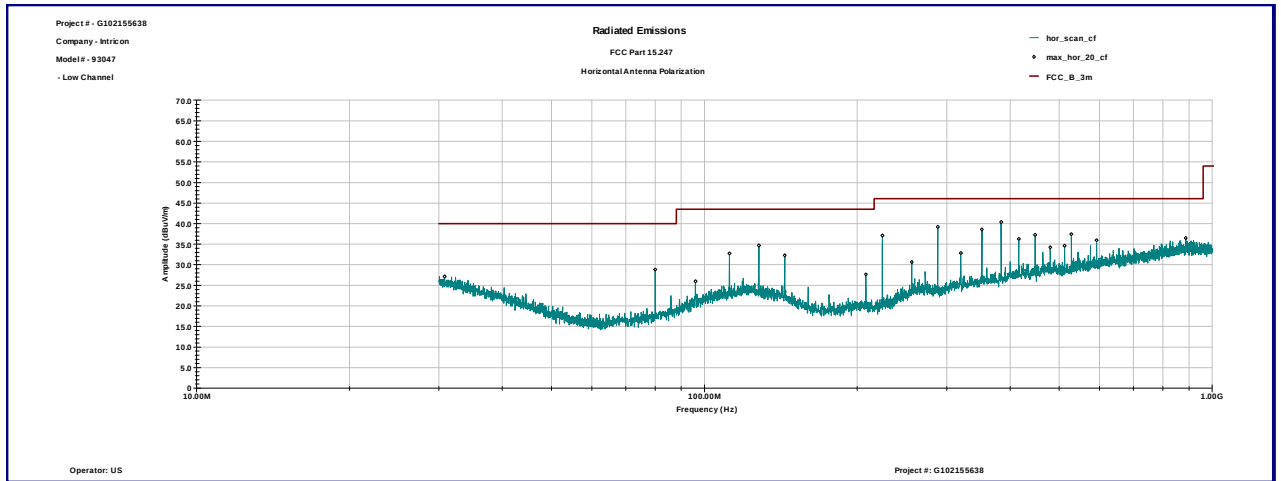
Date:	July 14, 2015	Result: Pass
Tested by:	Uri Spector	
Standard:	FCC part 15.247(d)	
Test Point:	Enclosure	
Operation mode:	See page 5	
Environmental Conditions:	23°C; 47%(RH); 97.8kPa	
Note:	4GHz-25GHz	

Table 3.5.2

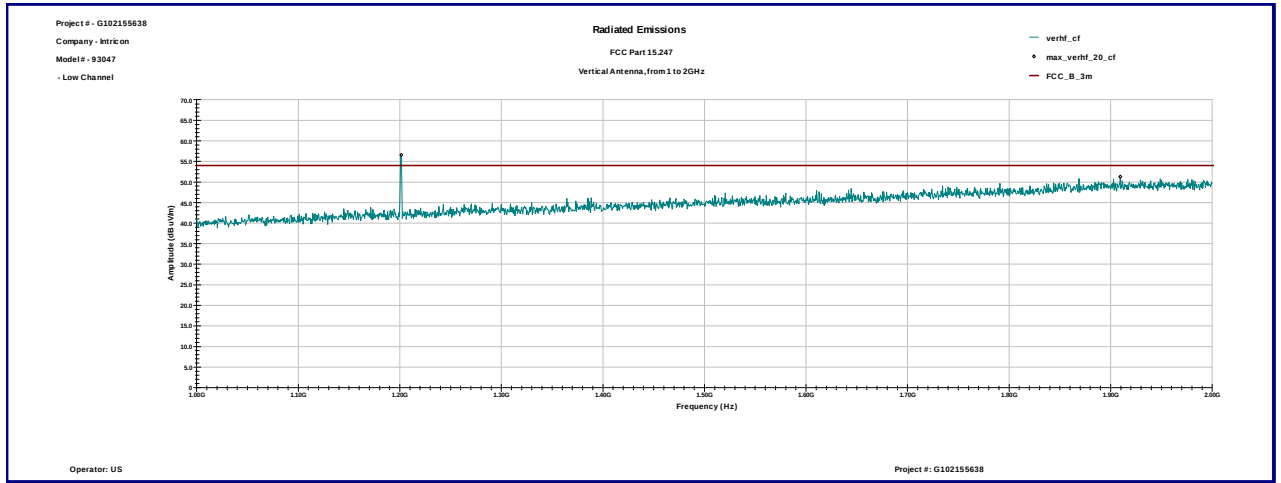
Frequency MHz	Antenna Polarity	Peak Reading dBμV	Total C.F. dB1/m	Pre-Amp. Gain (dB)	Total at 3m dBμV/m	Limit dBμV/m	Margin dB
Channel 2402MHz							
4.8027 GHz	V	48.4	37.3	42.1	43.6	54.0	-10.4
4.8027 GHz	H	47.9	37.2	42.1	43.0	54.0	-11.0
Channel 2441MHz							
4.8848 GHz	V	46.3	37.4	42.1	41.6	54.0	-12.4
4.8848 GHz	H	45.6	37.3	42.1	40.7	54.0	-13.3



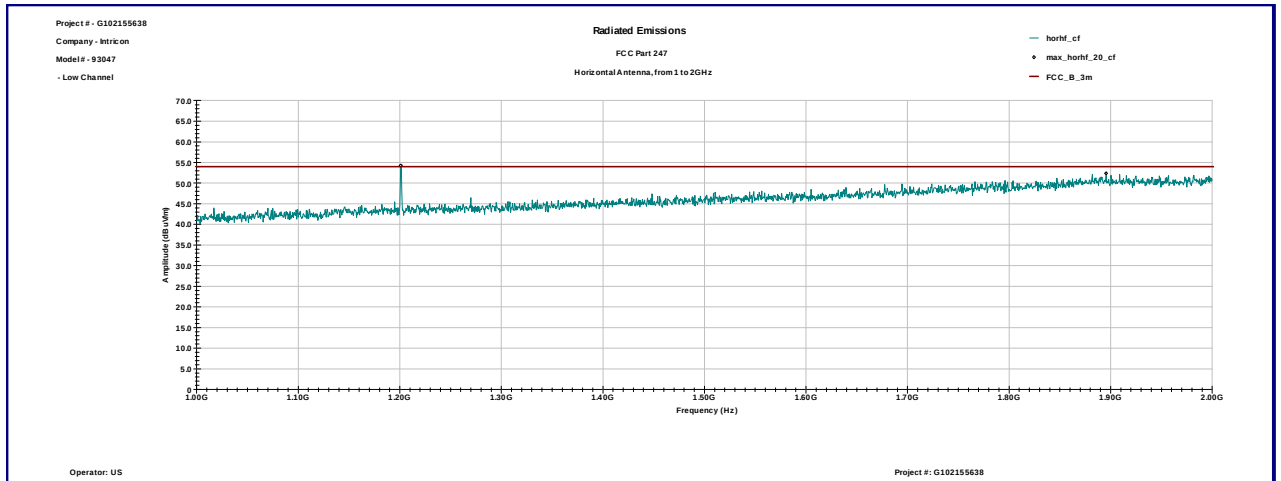
Graph 3.5.1



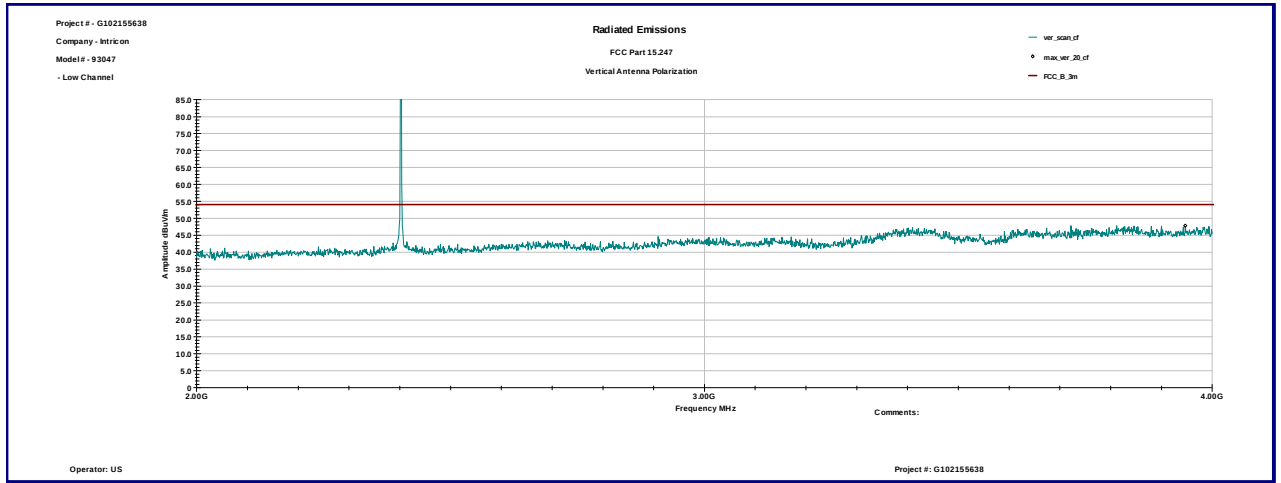
Graph 3.5.2



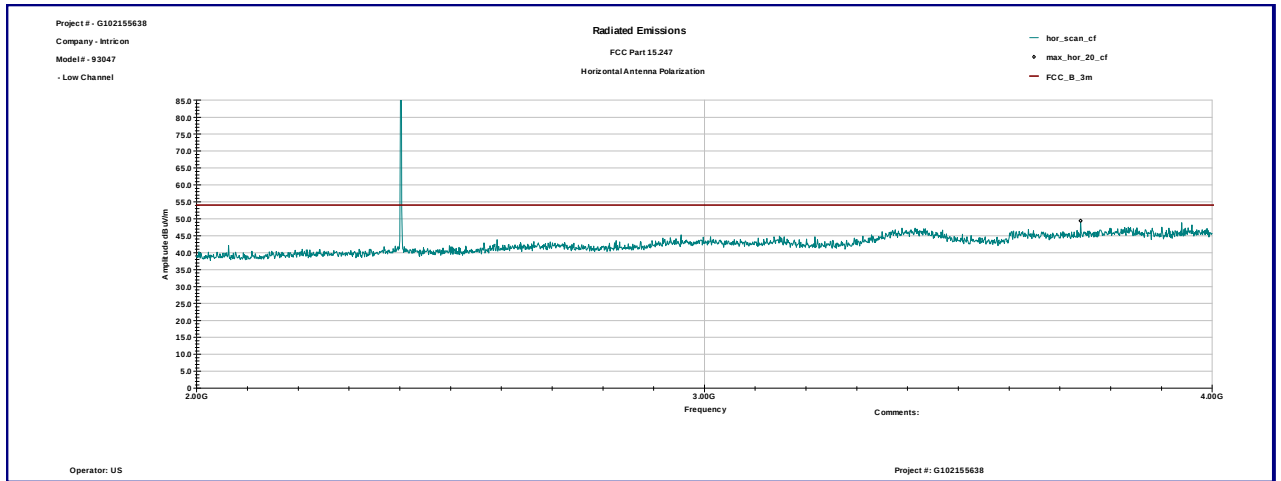
Graph 3.5.3



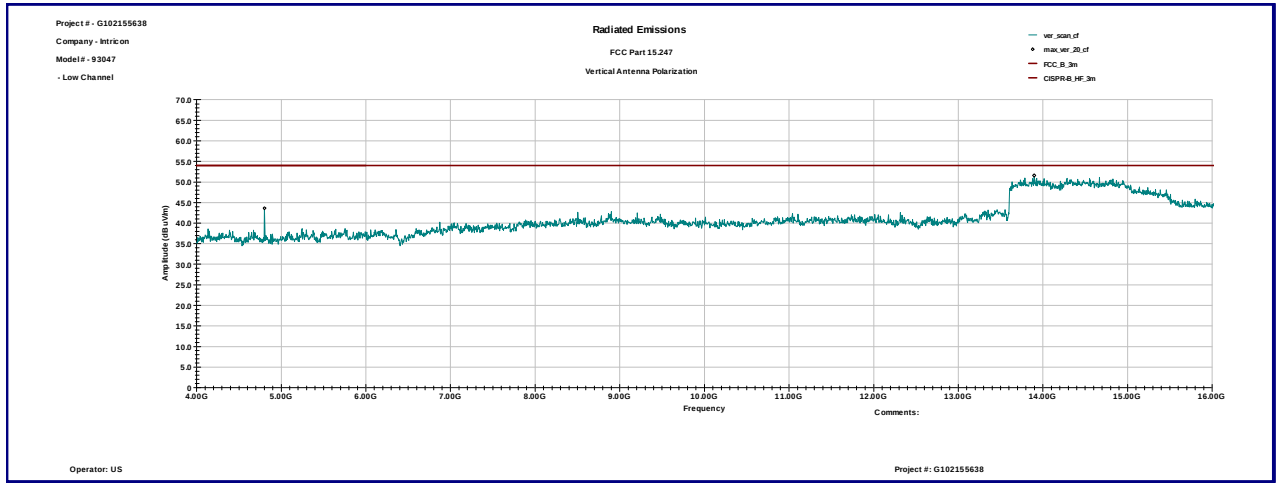
Graph 3.5.4



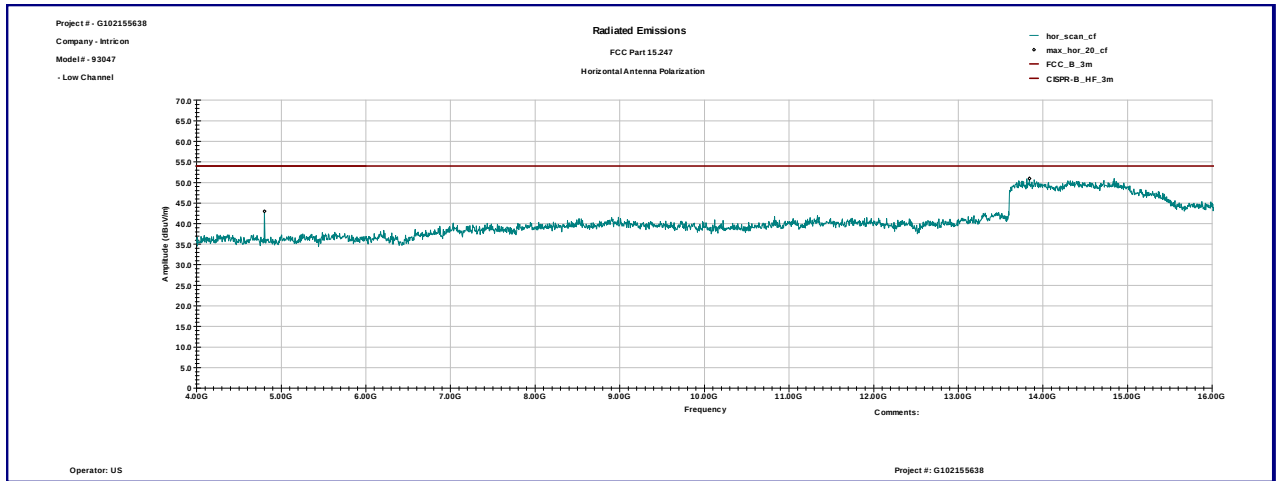
Graph 3.5.5



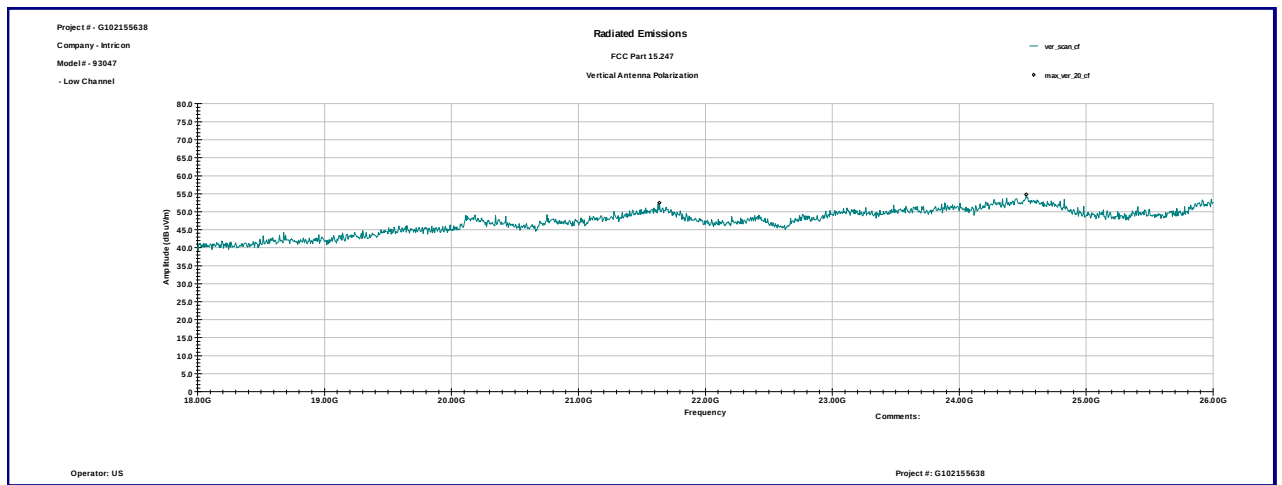
Graph 3.5.6



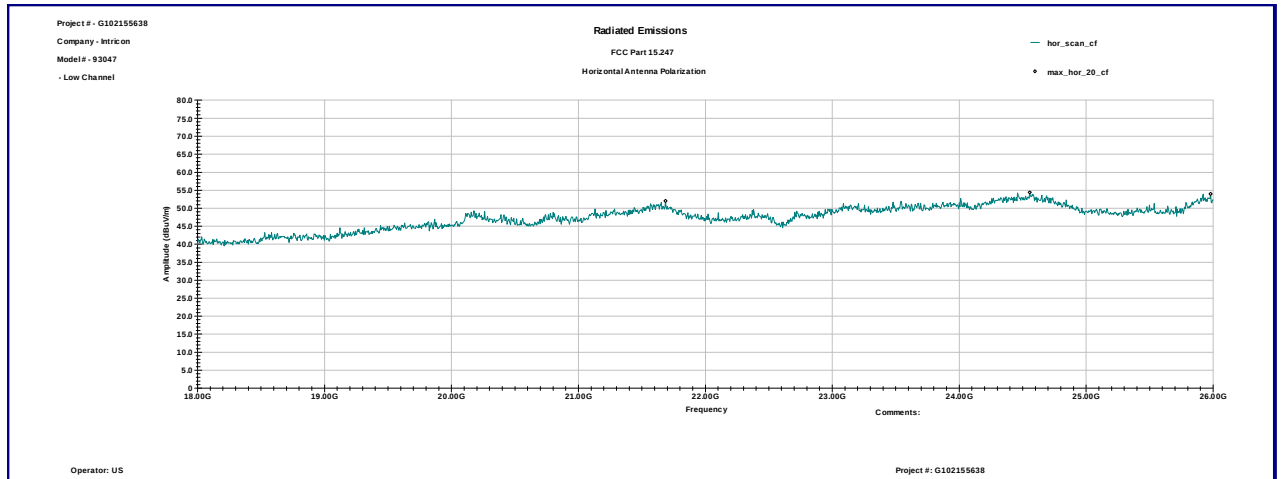
Graph 3.5.7



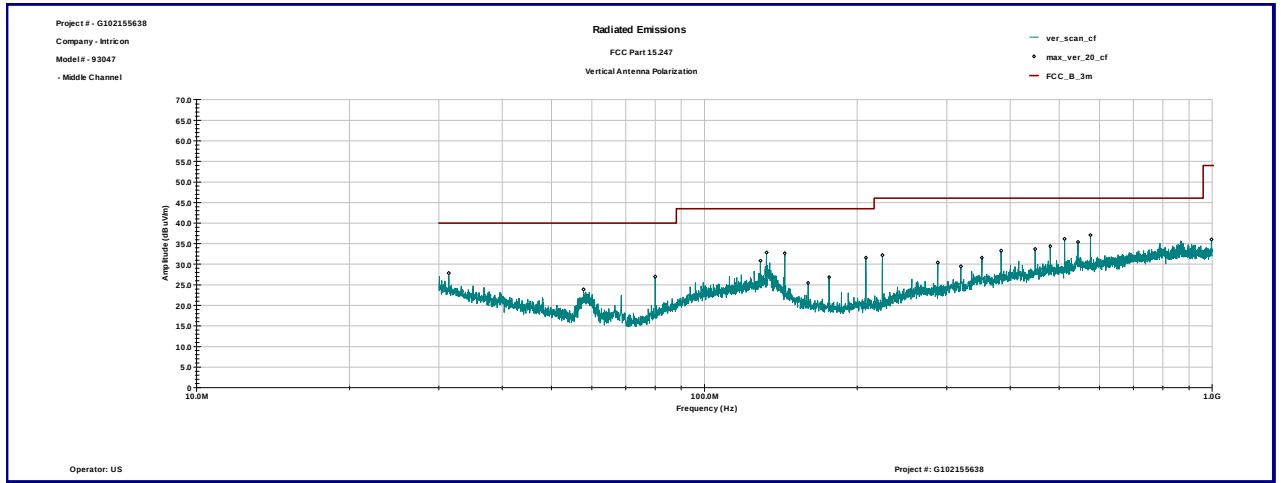
Graph 3.5.8



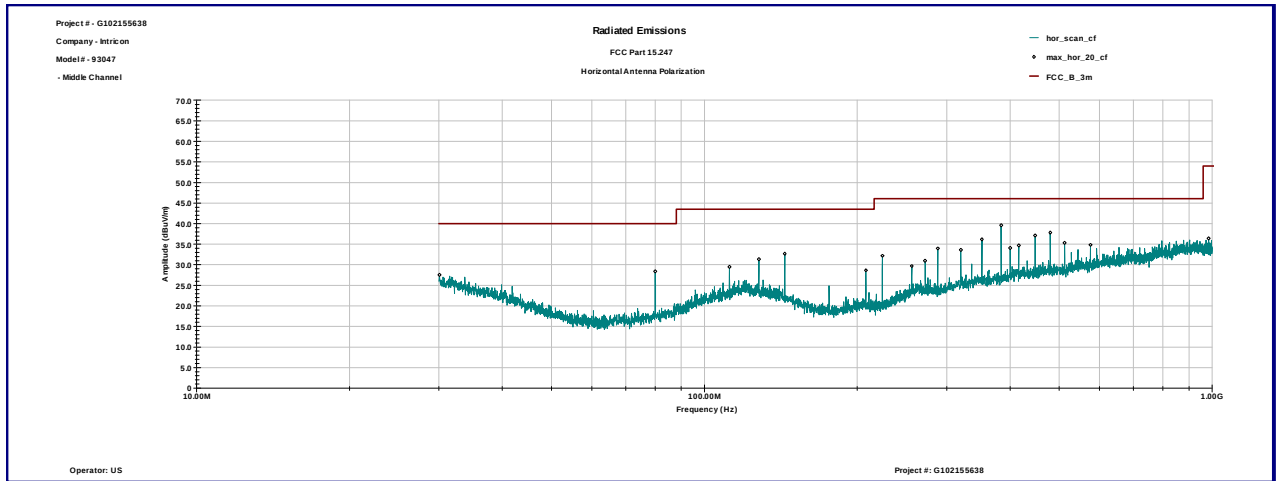
Graph 3.5.9



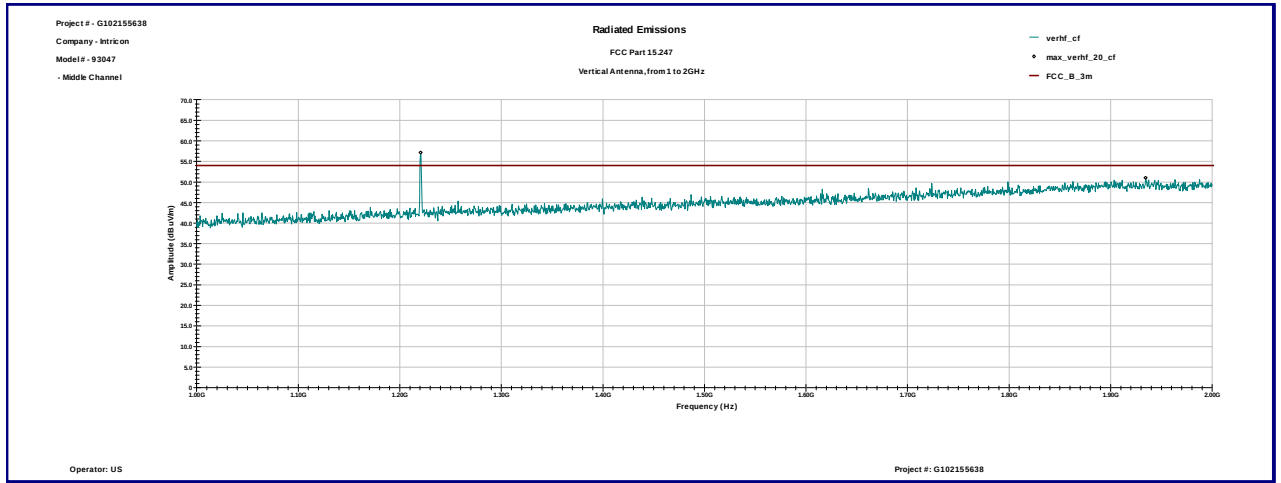
Graph 3.5.10



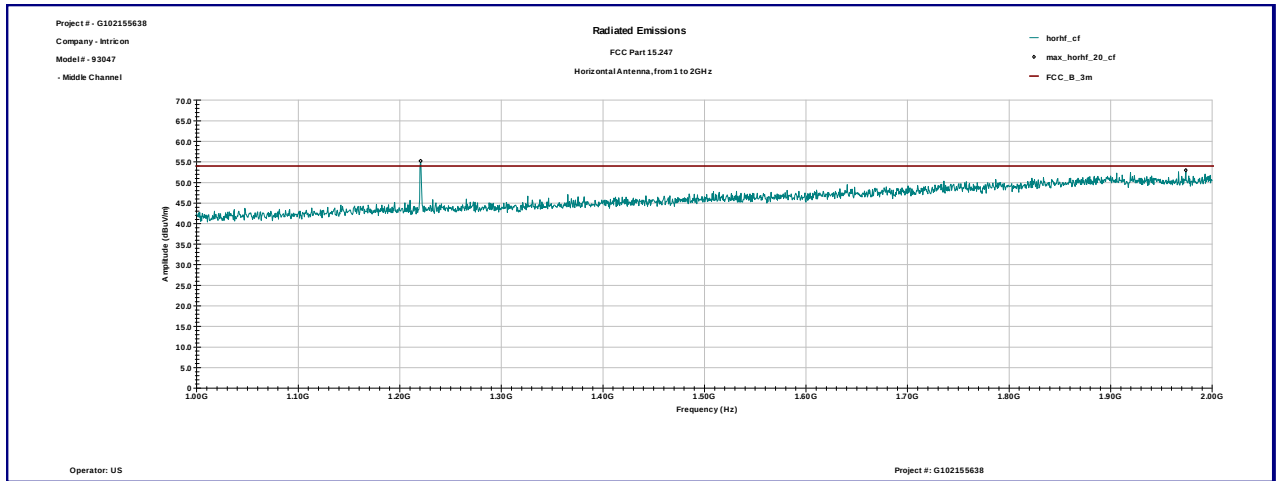
Graph 3.5.11



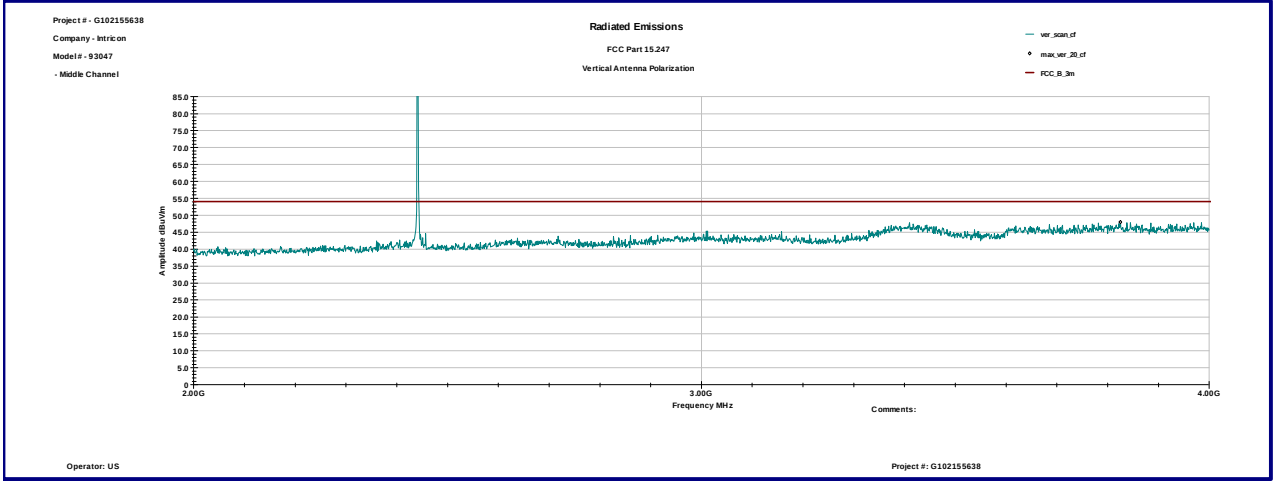
Graph 3.5.12



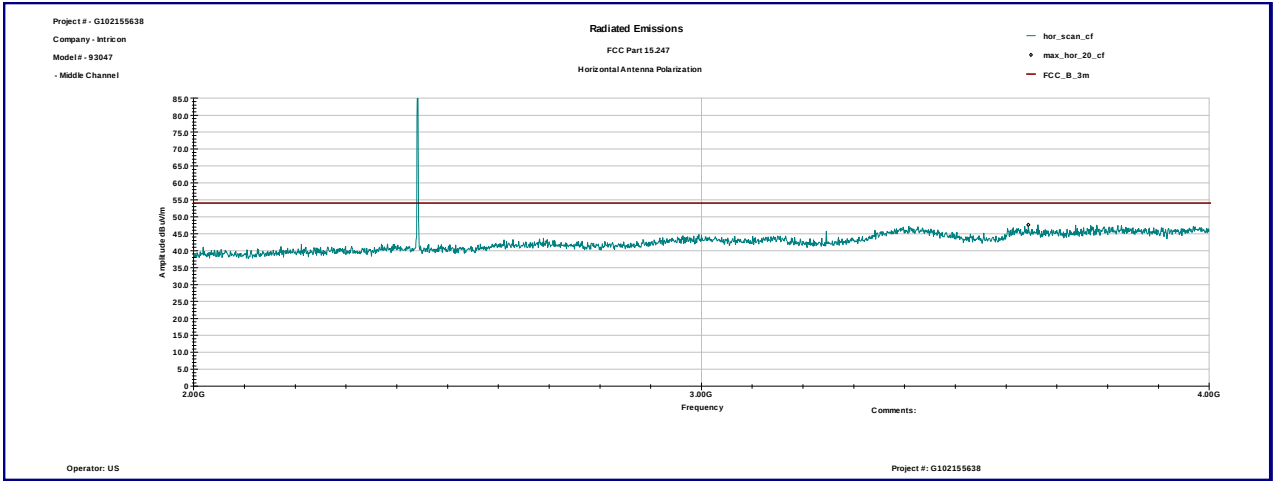
Graph 3.5.13



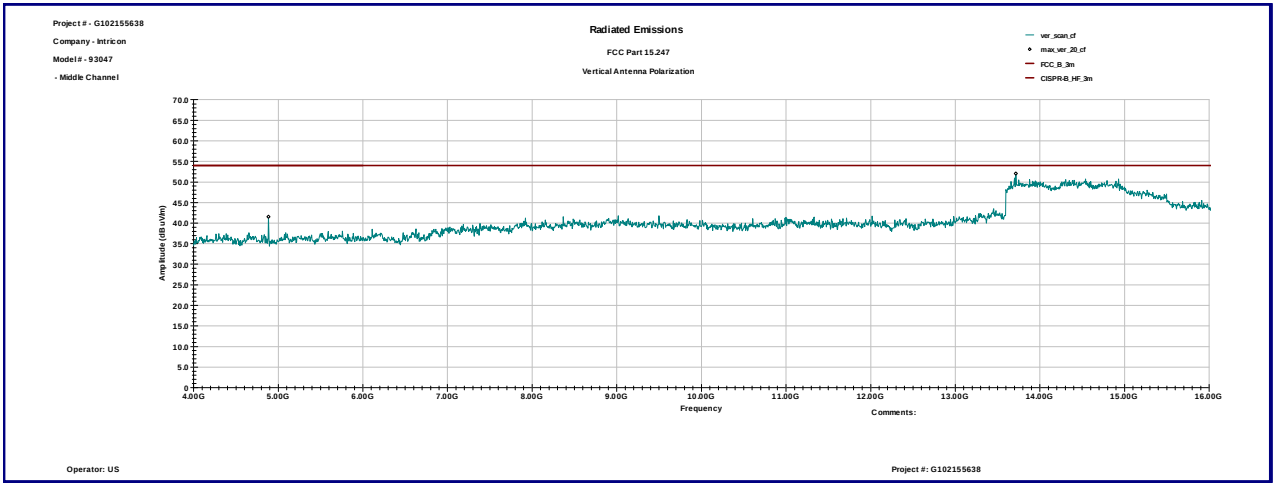
Graph 3.5.14



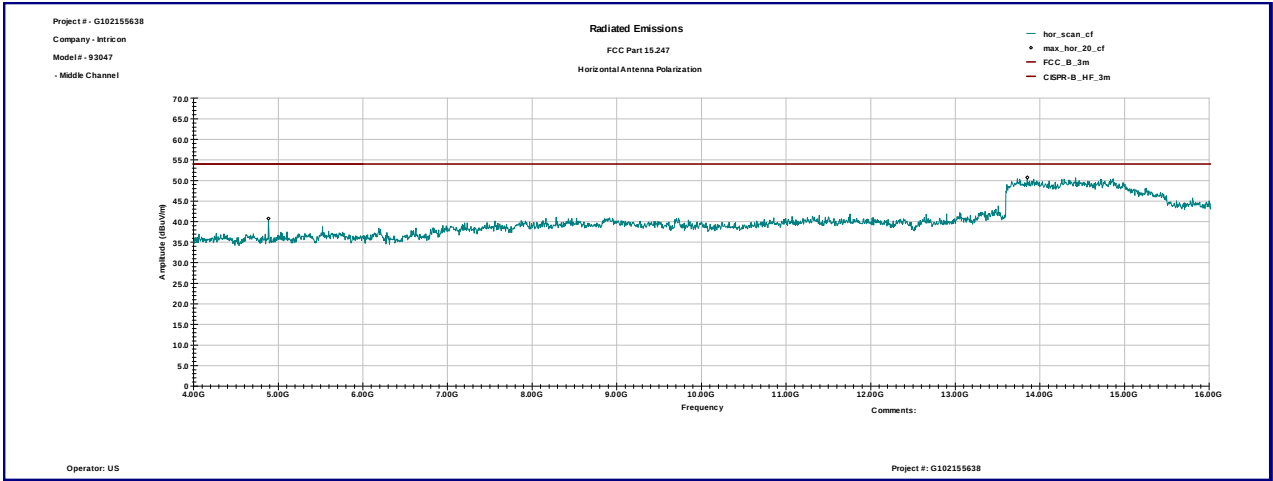
Graph 3.5.15



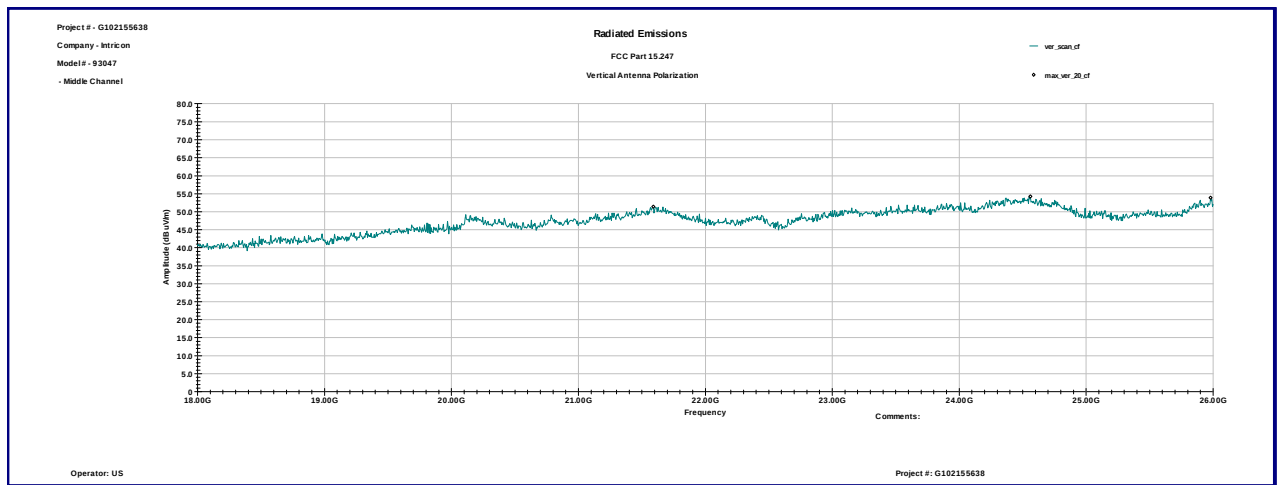
Graph 3.5.16



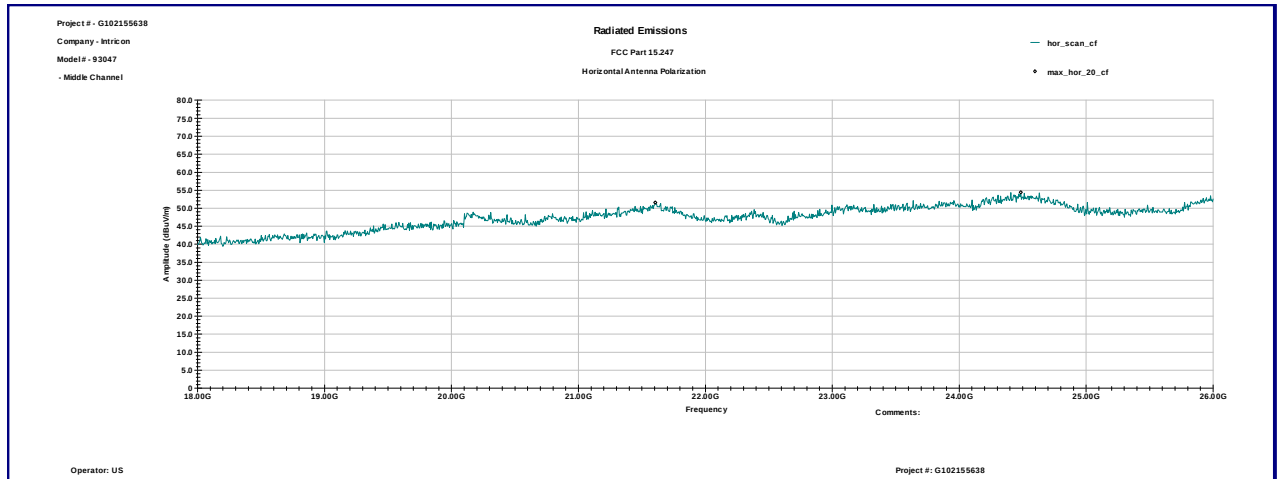
Graph 3.5.17



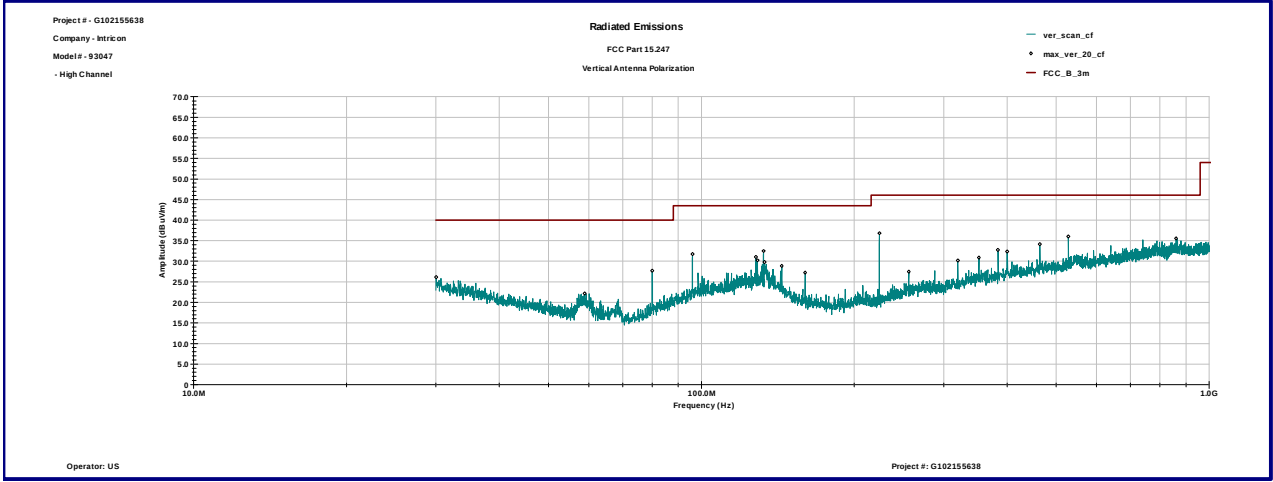
Graph 3.5.18



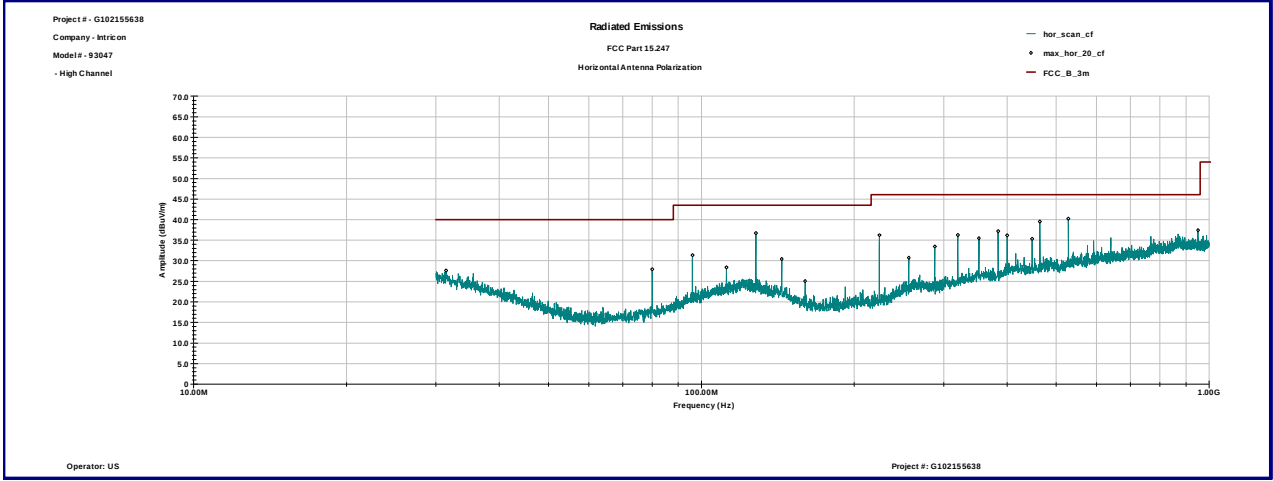
Graph 3.5.19



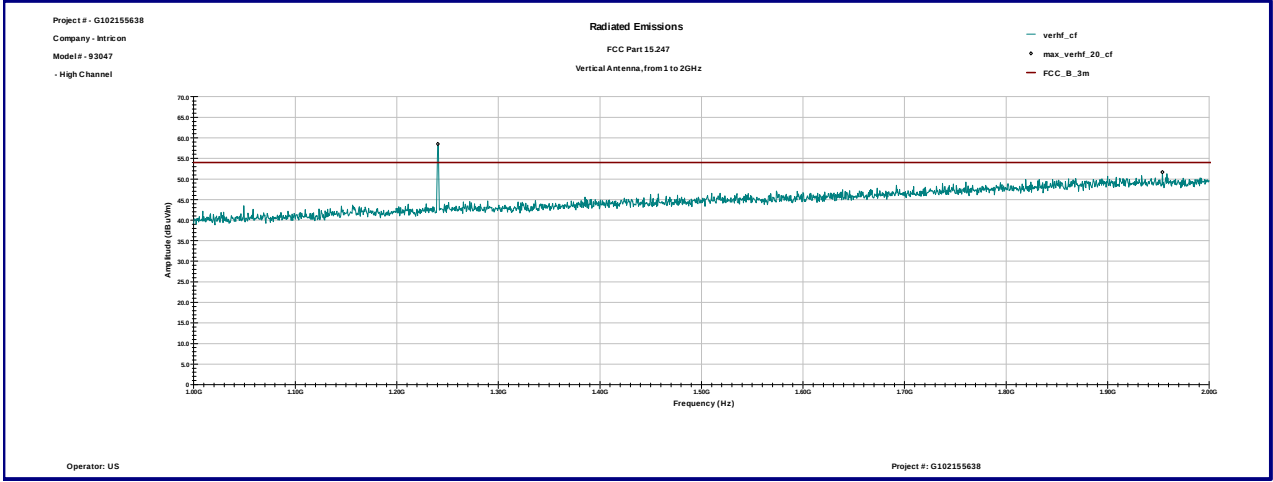
Graph 3.5.20



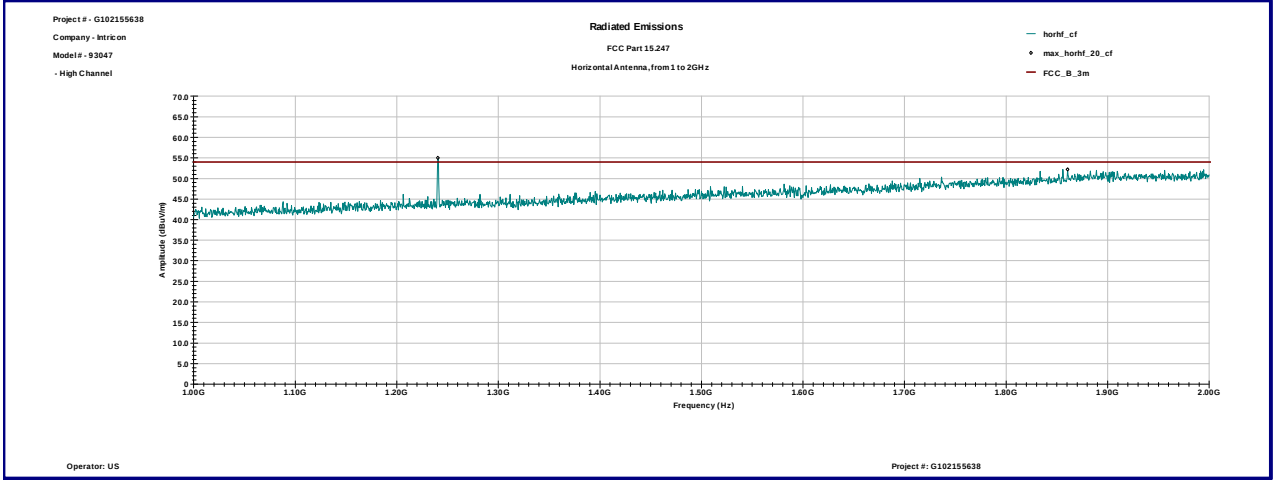
Graph 3.5.21



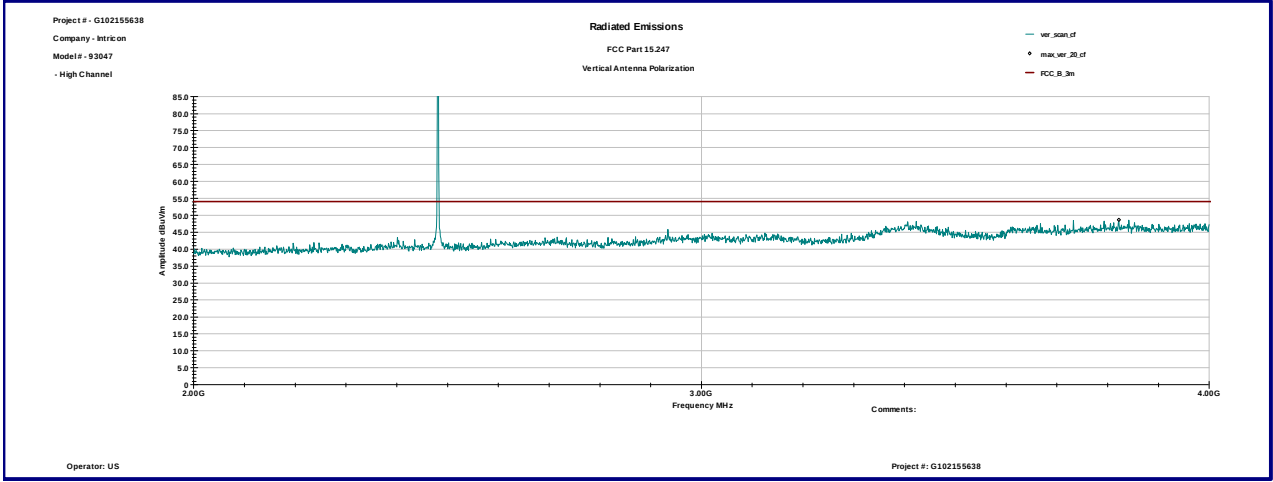
Graph 3.5.22



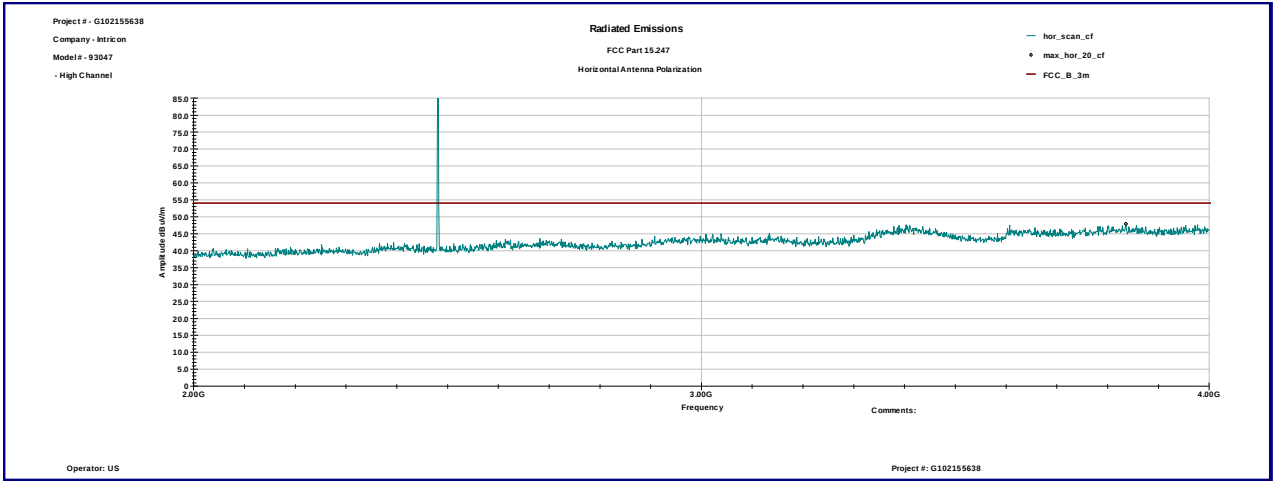
Graph 3.5.23



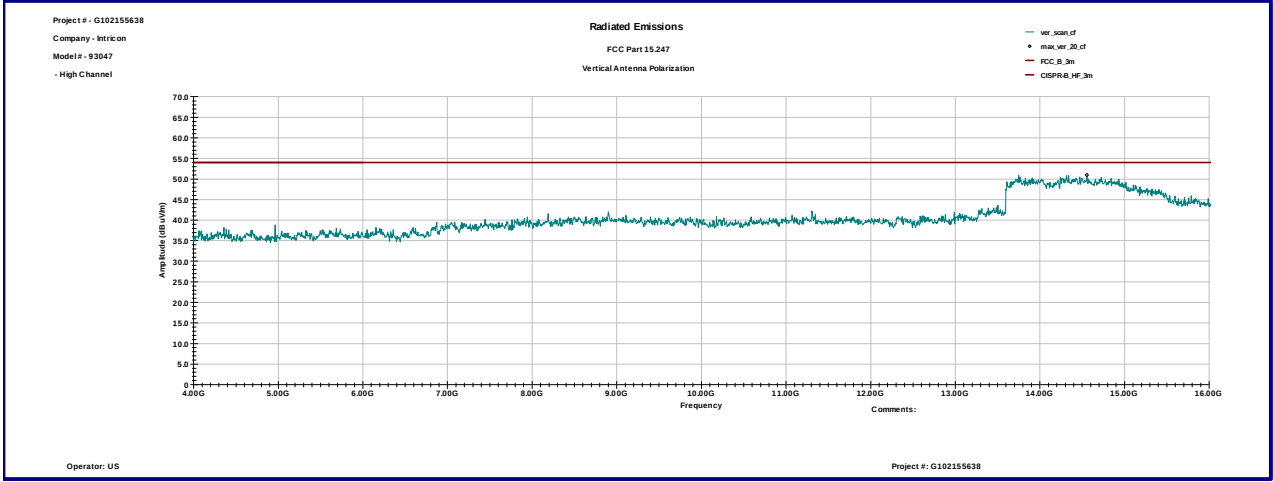
Graph 3.5.24



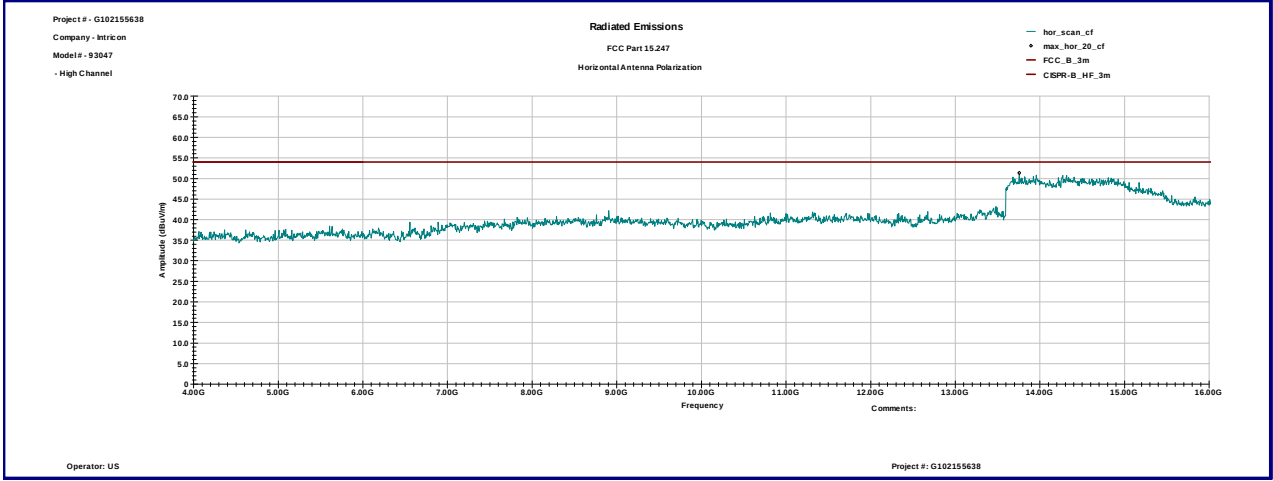
Graph 3.5.25



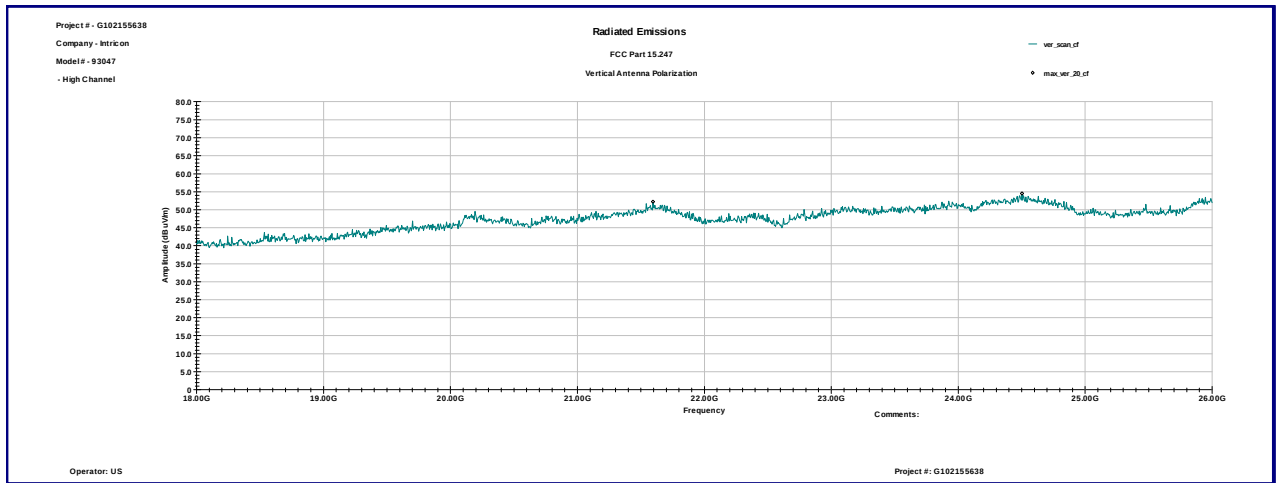
Graph 3.5.26



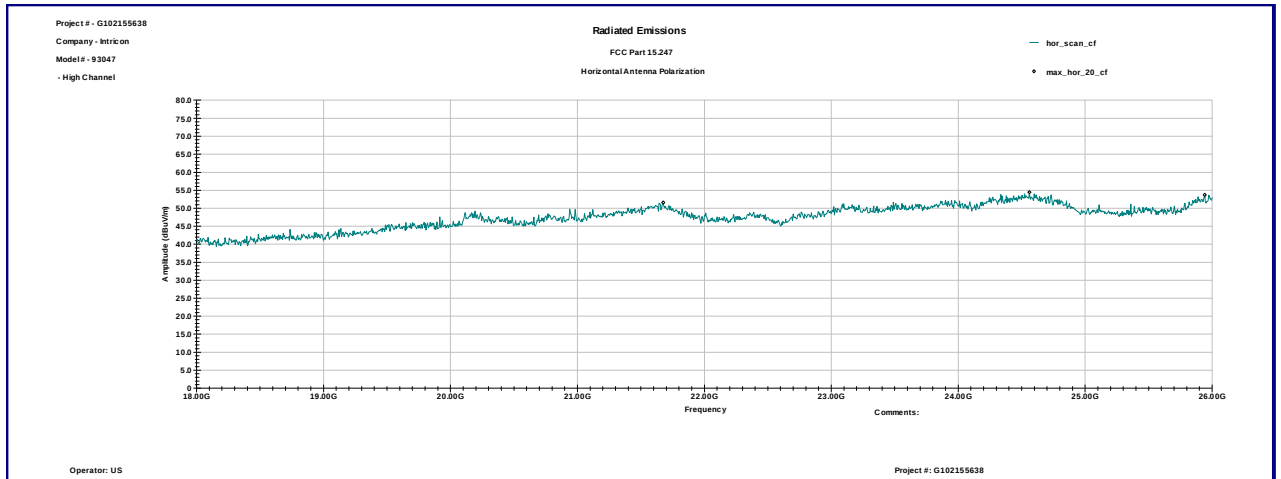
Graph 3.5.27



Graph 3.5.28



Graph 3.5.29



Graph 3.5.30



3.5.1 Band-edge measurements

Date:	July 14, 2015	Result: Pass
Tested by:	Uri Spector	
Standard:	FCC part 15.247(d)	
Test Point:	Enclosure	
Operation mode:	See page 5	
Environmental Conditions:	23°C; 47%(RH); 97.8kPa	
Note:	None	

Table 3.5.3

Frequency MHz	Antenna		Ant. CF dB1/m	Cable loss dB	Pre-amp Gain (dB)	Reading dBμV	Total @ 3m dBμV/m	Limit dBμV/m	Margin dB	Comments
	Polarity	Hts(cm)								
Bandedge Compliance										
2390.00	V	100	28.3	2.9	0.0	39.2	70.4	74.0	-3.6	Peak
2390.00	V	100	28.3	2.9	0.0	3.8	35.0	54.0	-19.0	AVG
2390.00	H	127	28.3	2.9	0.0	27.9	59.1	74.0	-14.9	Peak
2390.00	H	100	28.3	2.9	0.0	2.4	33.6	54.0	-20.4	AVG

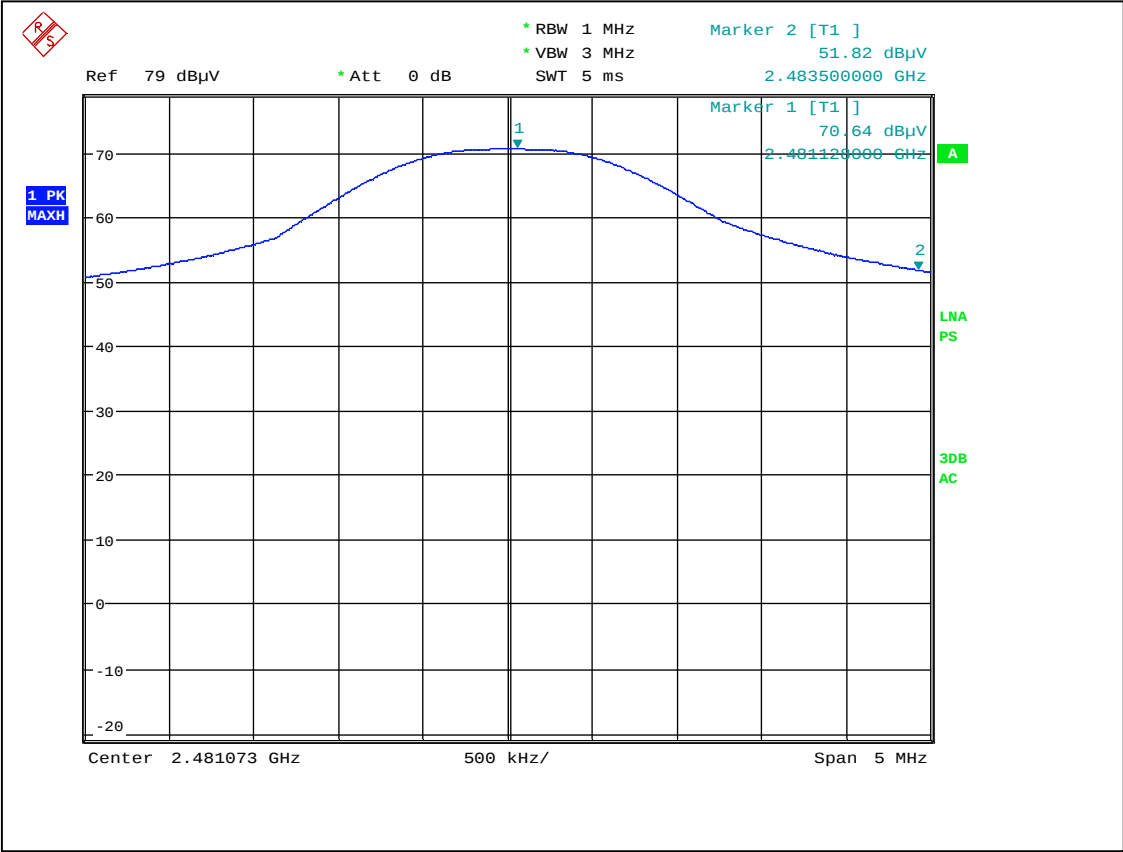
Table 3.5.4

Frequency MHz	Antenna		Ant. CF dB1/m	Cable loss dB	Pre-amp Gain (dB)	Reading dBμV	Marker-Delta Factor dB	Total @ 3m dBμV/m	Limit dBμV/m	Margin dB	Comments
	Polarity	Hts(cm)									
With Marker-Delta Procedure											
2483.50	V	100	28.6	2.9	0.0	70.6	45.3	56.8	74.0	-17.2	Peak
2483.50	V	100	28.6	2.9	0.0	63.0	45.3	49.2	54.0	-4.8	AVG
2483.50	H	100	28.6	2.9	0.0	62.1	43.4	50.2	74.0	-23.8	Peak
2483.50	H	100	28.6	2.9	0.0	56.1	43.4	44.2	54.0	-9.8	AVG

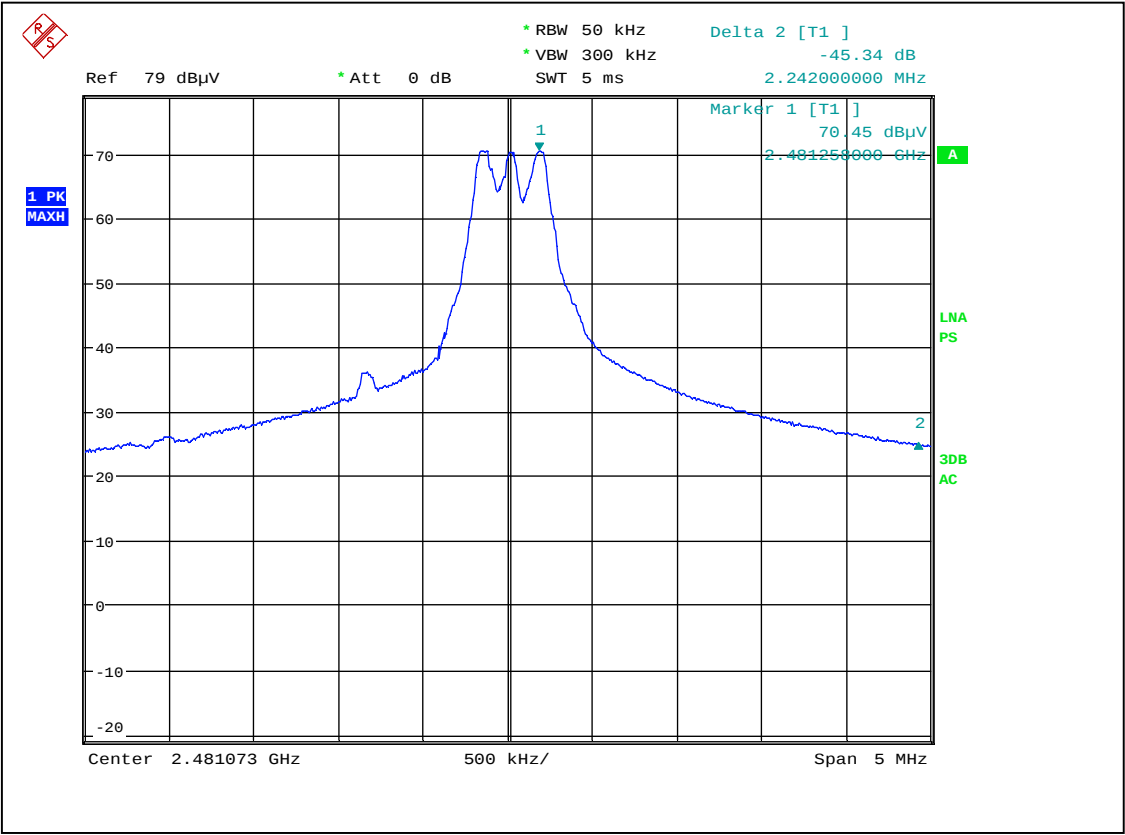
Note: Band-edge measurements in the restricted band that ends at 2390MHz were measured using the conventional manner (See Table 3.5.3). Band-edge measurements in the restricted band that begins at 2483.5MHz were measured using the Marker-Delta Procedure (See Table 3.5.4).

Marker-delta procedure measurements were performed according to procedure described in ANSI C63.10.

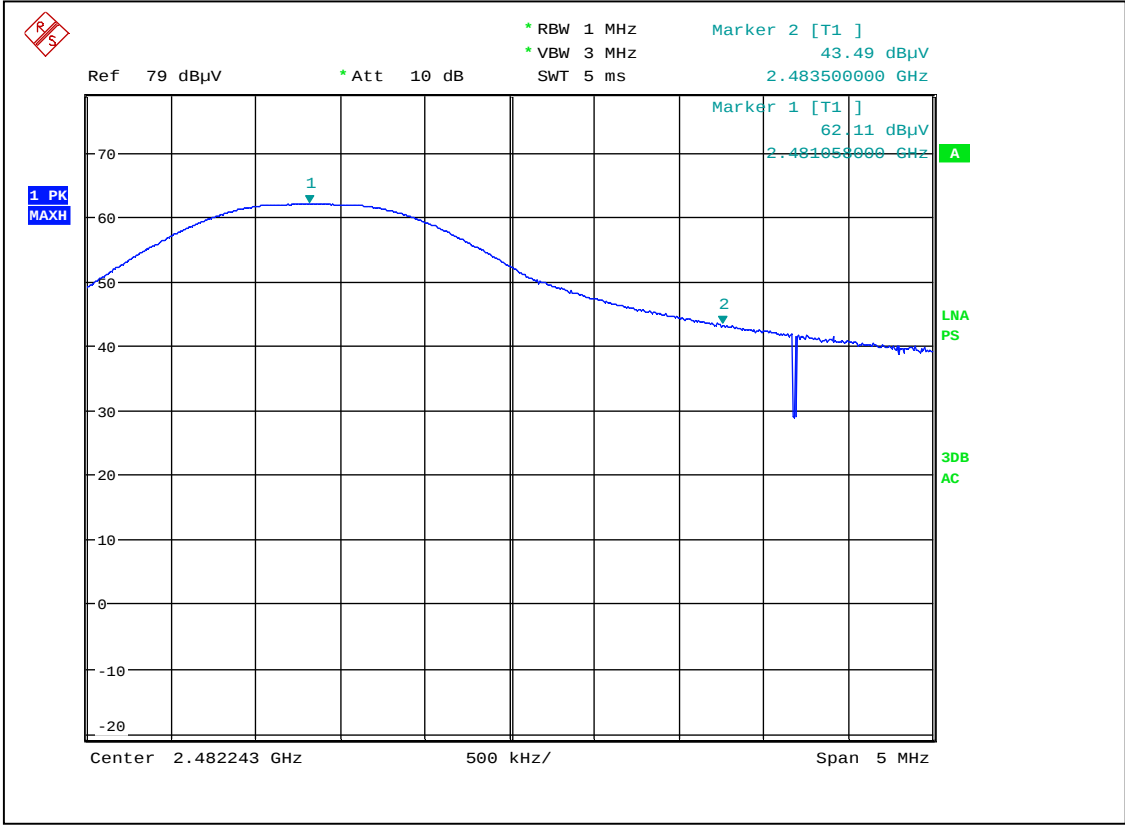
Graphs 3.5.31 and 3.5.32 show Marker-delta measurement for Vertical antenna polarity.
Graphs 3.5.33 and 3.5.34 show Marker-delta measurement for Horizontal antenna polarity.



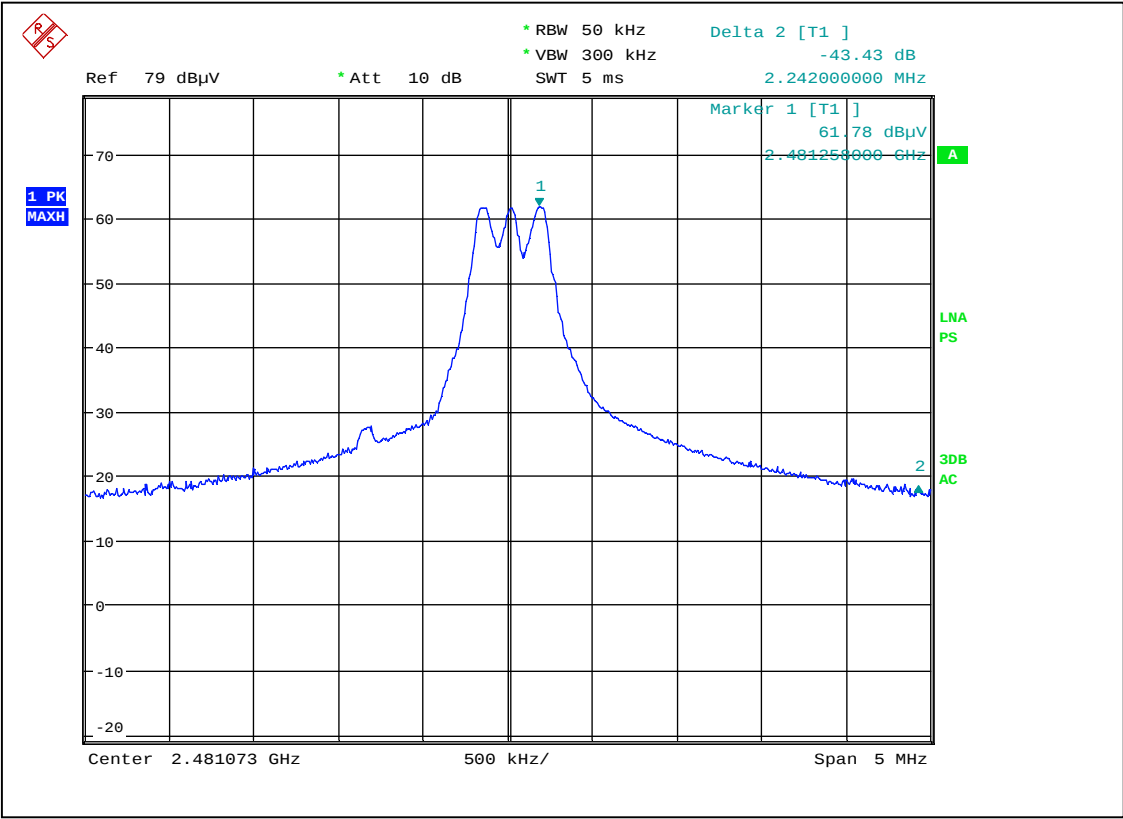
Graph 3.5.31



Graph 3.5.32



Graph 3.5.33



Graph 3.5.34



3.6 RF Exposure Compliance

The maximum measured power, P is 5.53dBm

The antenna gain, G is 2.0dBi

The maximum EIRP power = P + G

EIRP = 5.53+ 2.0 = 7.53dBm, or 5.66mW or 0.00566W

The limits for Maximum Permissible Exposure (MPE) for transmitter operating at 2.4Hz, MPE is $1\text{mW}/\text{cm}^2$, or $10\text{W}/\text{m}^2$

The Power Density, S is related to EIRP with the equation:

$S = \text{EIRP} / 4\pi D^2$, where D is the safe separation distance and = 0.2m, or 20cm

$S = 5.66 / 4\pi 20^2$,

$S = 0.001126\text{mW}/\text{cm}^2$, or below the Maximum Permissible Exposure (MPE)



3.7 Transmitter power line conducted emissions

Test location: ☐ OATS ☒ Anechoic Chamber ☐ Other

Test result: **Pass**

Frequency range: 0.15MHz-30MHz

Max. Emissions margin: 18.4dB below the limits

Notes:



Date:	July 10, 2015	Result: Pass
Tested by:	Ivaylo Nadarliyski	
Standard:	FCC part 15.207	
Test Point:	Power Line	
Operation mode:	See page 5	
Environmental Conditions:	24°C; 45%(RH); 97.8kPa	
Note:	None	

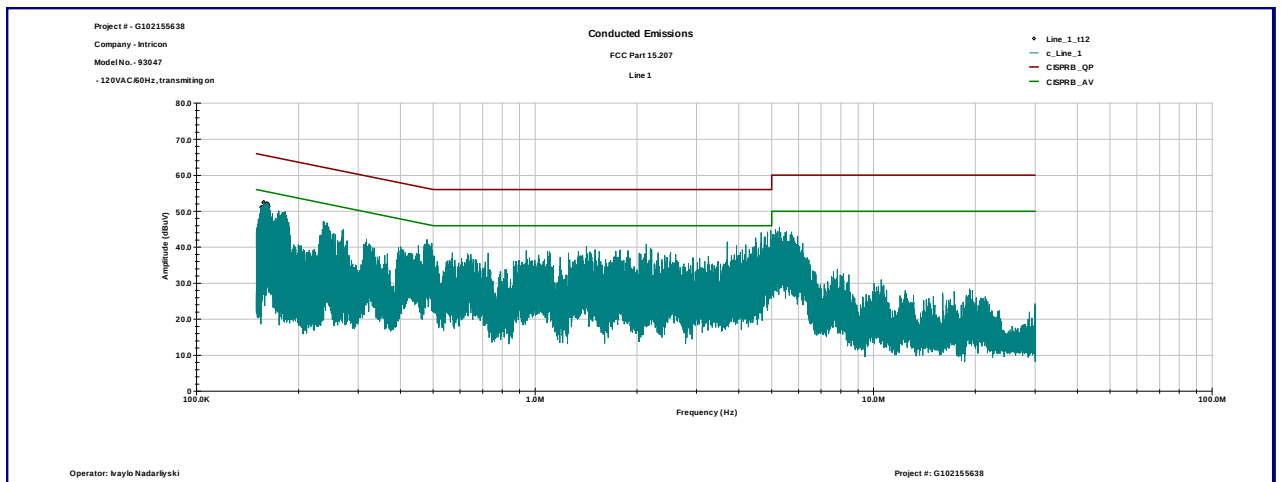
Table 3.7.1

Line 1

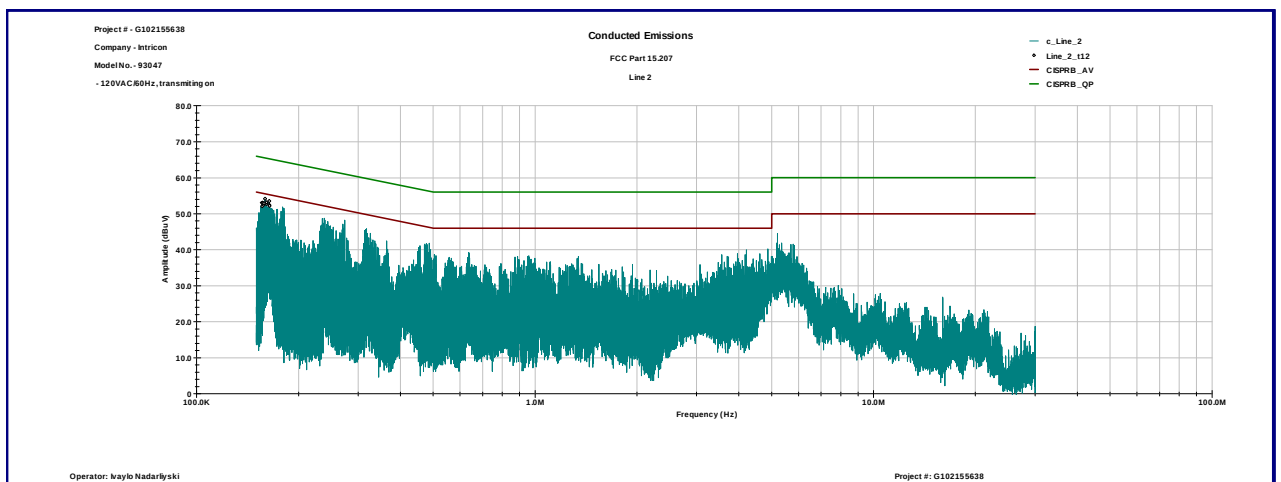
Frequency	QP dBμV	AVG dBμV	QP Limit dBμV	AVG Limit dBμV	QP Margin dB	AVG Margin dB
162.3 KHz	46.4	29.6	65.4	55.4	-19.0	-25.8
181.19 KHz	43.2	24.2	64.4	54.4	-21.3	-30.3
239.63 KHz	40.5	23.4	62.1	52.1	-21.6	-28.7
473.4 KHz	35.6	22.5	56.5	46.5	-20.9	-24.0
2.1624 MHz	29.9	18.3	56.0	46.0	-26.1	-27.7
4.6059 MHz	33.4	21.3	56.0	46.0	-22.6	-24.7

Line 2

Frequency	QP dBμV	AVG dBμV	QP Limit dBμV	AVG Limit dBμV	QP Margin dB	AVG Margin dB
158.98 KHz	47.1	28.1	65.5	55.5	-18.4	-27.5
245.09 KHz	40.5	20.7	61.9	51.9	-21.4	-31.2
316.13 KHz	37.3	17.6	59.8	49.8	-22.5	-32.2
489.42 KHz	33.7	16.5	56.2	46.2	-22.5	-29.7
1.3095 MHz	27.1	15.6	56.0	46.0	-28.9	-30.5
5.2899 MHz	34.0	25.8	60.0	50.0	-26.0	-24.2



Graph 3.7.1



Graph 3.7.2



3.8 Receiver/digital device radiated emissions

Test location: ☐ OATS ☒ Anechoic Chamber

Test distance: ☐ 10 meters ☒ 3 meters

Test result: **Pass**

Frequency range: 30MHz-13000MHz

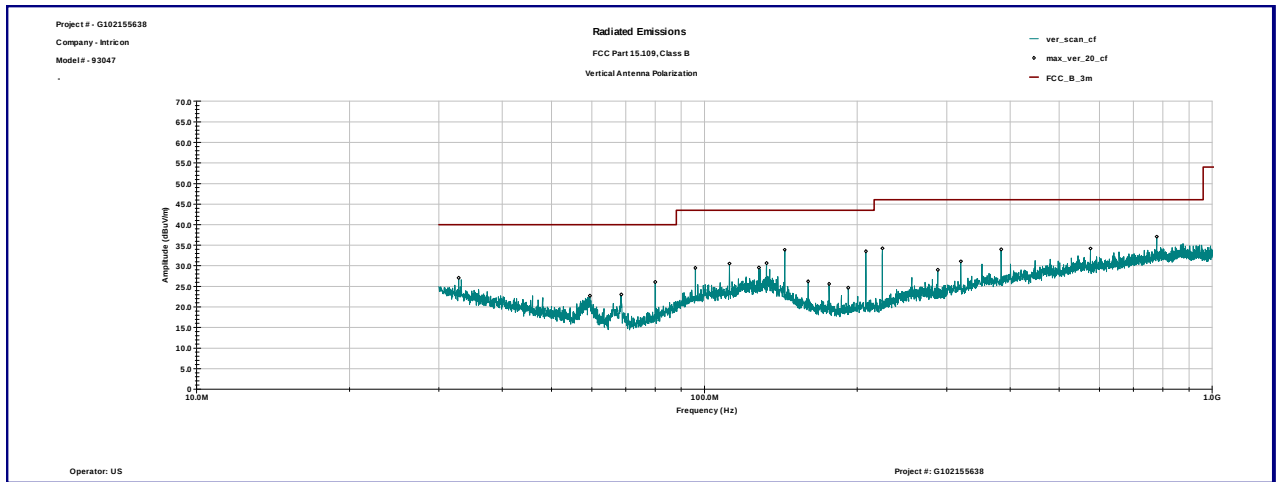
Max. Emissions margin: 8.7dB below the limits

Notes: None

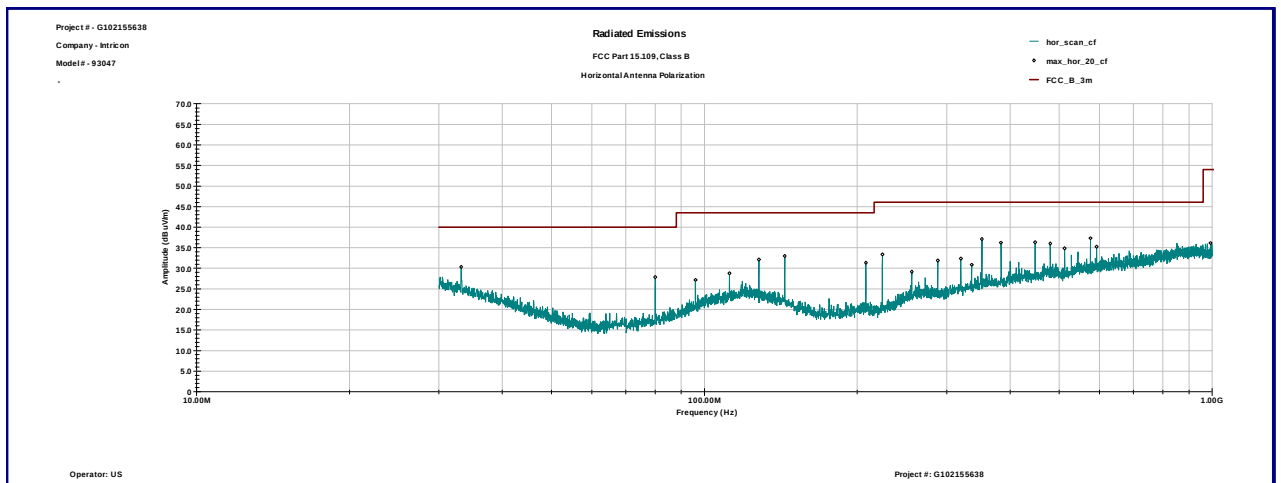
Date:	July 15, 2015	Result: Pass
Tested by:	Uri Spector	
Standard:	FCC Part 15.109, Class B	
Test Point:	Enclosure	
Operation mode:	See page 5	
Environmental Conditions:	24°C; 44%(RH); 97.8kPa	
Note:	None	

Table 3.8.1

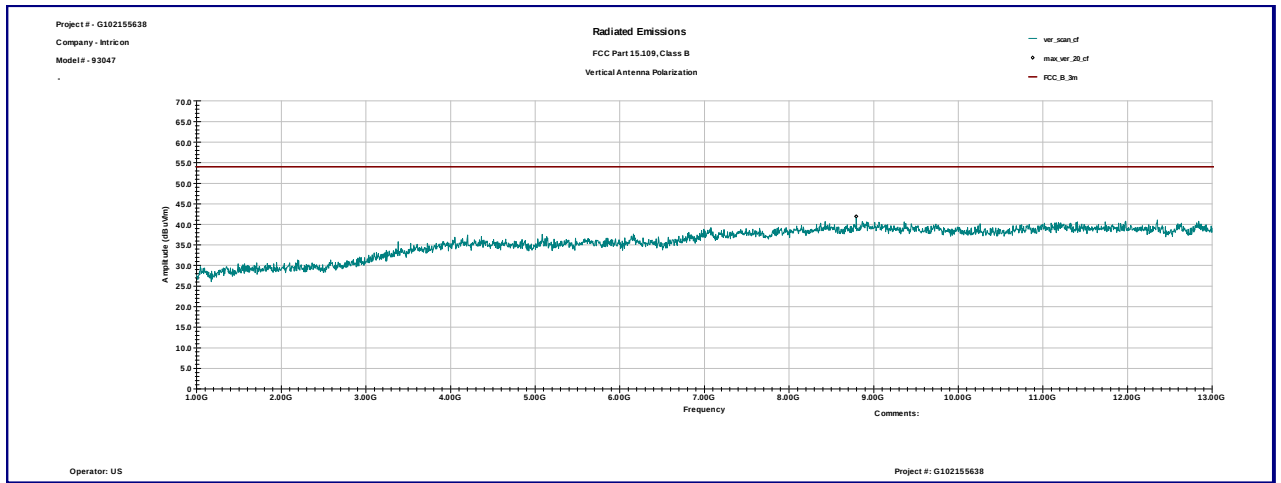
Frequency	Ant. Polarity	Peak Reading dBμV	Total C.F. dB1/m	Total at 3m dBμV/m	Limit dBμV/m	Margin dB
32.805 MHz	V	10.4	16.6	27.0	40.0	-13.0
80.004 MHz	V	17.7	8.4	26.1	40.0	-13.9
112.01 MHz	V	16.9	13.6	30.5	43.5	-13.0
128.06 MHz	V	15.3	14.3	29.6	43.5	-13.9
132.53 MHz	V	16.5	14.2	30.6	43.5	-12.9
143.91 MHz	V	21.3	12.6	33.9	43.5	-9.6
208.05 MHz	V	21.6	11.9	33.5	43.5	-10.0
224.12 MHz	V	22.2	12.1	34.3	46.0	-11.8
384.16 MHz	V	16.8	17.2	34.0	46.0	-12.0
576.03 MHz	V	13.4	20.8	34.2	46.0	-11.8
777.9 MHz	V	14.6	22.5	37.1	46.0	-9.0
33.186 MHz	H	12.0	18.3	30.3	40.0	-9.7
80.004 MHz	H	19.5	8.4	27.8	40.0	-12.2
128.06 MHz	H	18.6	13.5	32.1	43.5	-11.4
143.91 MHz	H	20.3	12.7	33.0	43.5	-10.6
208.05 MHz	H	19.6	11.8	31.4	43.5	-12.2
224.12 MHz	H	21.5	11.9	33.4	46.0	-12.7
351.95 MHz	H	20.2	16.9	37.1	46.0	-8.9
383.81 MHz	H	18.8	17.4	36.2	46.0	-9.8
447.88 MHz	H	17.4	18.9	36.3	46.0	-9.7
480.09 MHz	H	16.5	19.5	36.0	46.0	-10.0
512.3 MHz	H	15.2	19.7	34.9	46.0	-11.2
576.03 MHz	H	16.4	20.9	37.3	46.0	-8.7
592.3 MHz	H	14.0	21.2	35.3	46.0	-10.8



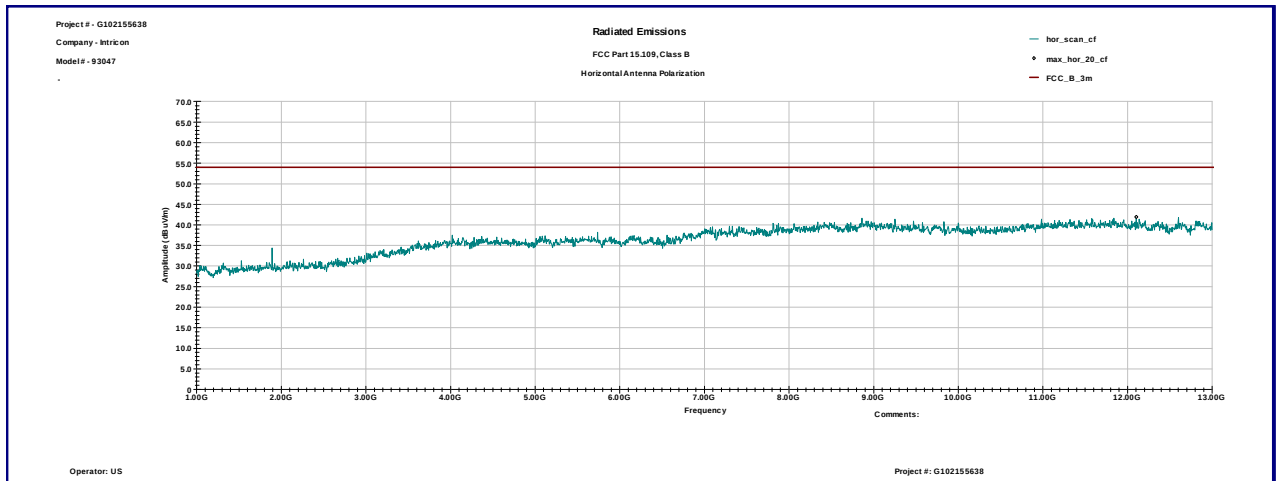
Graph 3.8.1



Graph 3.8.2



Graph 3.8.3



Graph 3.8.4



3.9 Digital device conducted emissions

Test location: ☐ OATS ☒ Anechoic Chamber ☐ Other

Test result: **Pass**

Frequency range: 0.15MHz-30MHz

Max. Emissions margin: 18.4dB below the limits

Notes: None

Date:	July 10, 2015	Result: Pass
Tested by:	Ivaylo Nadarliyski	
Standard:	FCC Part 15.107, Class B	
Test Point:	Line 1 and Line 2	
Operation mode:	See page 5	
Environmental Conditions:	24°C; 45%(RH); 97.8kPa	
Note:	None	

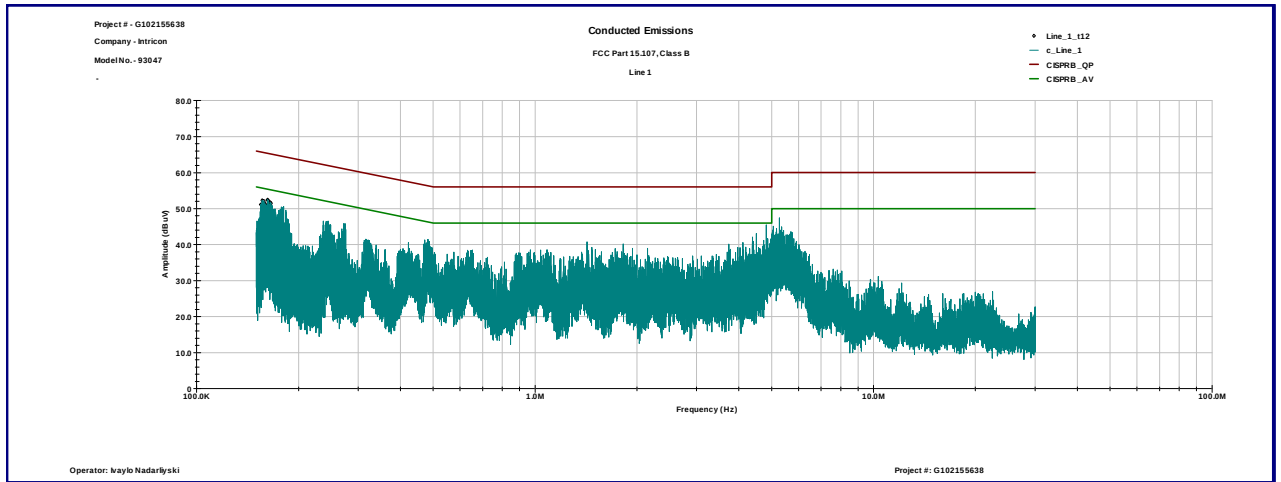
Table 3.9.1

Line 1

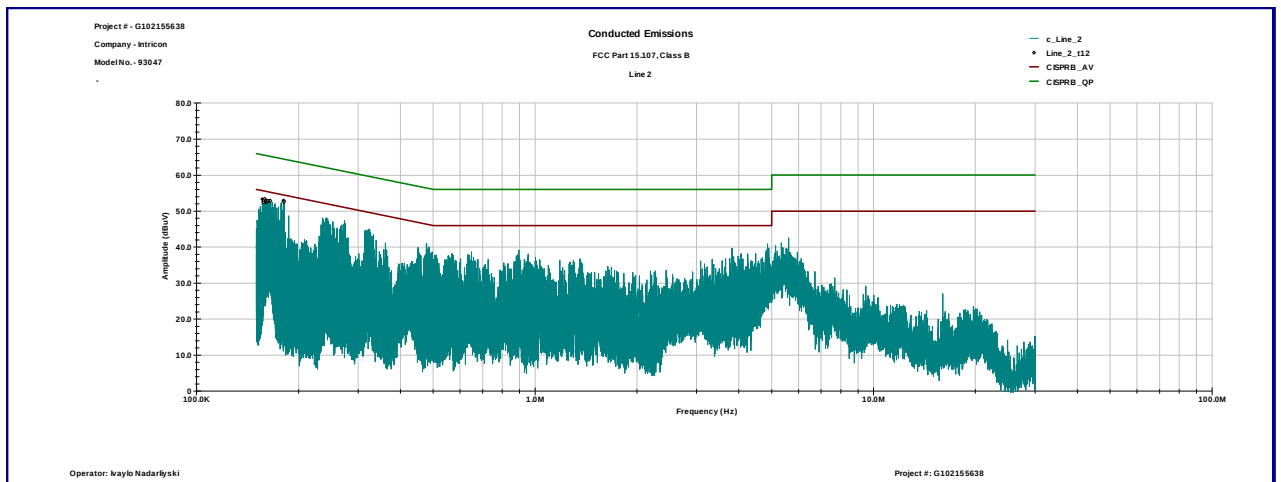
Frequency	QP dBμV	AVG dBμV	QP Limit dBμV	AVG Limit dBμV	QP Margin dB	AVG Margin dB
157.45 KHz	45.8	27.2	65.6	55.6	-19.8	-28.4
239.18 KHz	40.4	23.1	62.1	52.1	-21.8	-29.1
270.97 KHz	36.4	20.5	61.1	51.1	-24.7	-30.6
493.34 KHz	32.6	20.0	56.1	46.1	-23.5	-26.1
1.8288 MHz	30.4	19.1	56.0	46.0	-25.6	-27.0
5.3724 MHz	37.7	26.9	60.0	50.0	-22.3	-23.1

Line 2

Frequency	QP dBμV	AVG dBμV	QP Limit dBμV	AVG Limit dBμV	QP Margin dB	AVG Margin dB
159.47 KHz	47.1	28.3	65.5	55.5	-18.4	-27.2
180.42 KHz	41.7	22.4	64.5	54.5	-22.8	-32.1
242.78 KHz	41.1	20.9	62.0	52.0	-20.9	-31.1
316.99 KHz	36.7	17.6	59.8	49.8	-23.1	-32.2
895.29 KHz	29.9	14.6	56.0	46.0	-26.2	-31.4
4.9882 MHz	31.4	23.3	56.0	46.0	-24.6	-22.7



Graph 3.9.1



Graph 3.9.2



4.0 TEST EQUIPMENT

DESCRIPTION	MANUFACTURER	MODEL	SERIAL NO.	INTERTEK ID	CAL DUE	USED
Spectrum Analyzer	R & S	FSP 40	100024	12559	01/07/2016	☒
Spectrum Analyzer	R & S	ESU	100398	25283	01/26/2016	☒
Bicono-Log Antenna	Teseq	CBL6112D	32859	25289	09/10/2015	☒
Horn Antenna	EMCO	3115	6579	15580	07/29/2015	☒
Waveguide Horn Antenna	EMCO	3116	9904-2423	9705	11/24/2015	☒
LISN	Solar Electronics	9252-50-R-24-BNC	068545	MIN-0060	02/24/2016	☒
Pre-Amplifier	MITEQ	AMF-5D-00501800-28-13P	1122951	13475	11/19/2015	☒
Pre-Amplifier	MITEQ	AMF-6F-16002600-25-10P	1222383	MIN-0065	11/19/2015	☒
High Pass Filter	Reactel	7HS-4G-S12	0223	015274	VBV	☒
System	Quantum Change	TILE! Instrument Control	Ver. 3.4.K.29	15259	VBV	☒



5.0 Revision History

REVISION LEVEL	DATE	REPORT NUMBER	PREPARED	REVIEWED	NOTES
0	07-22-2015	102155638MIN-001	US	SK	Original Issue