

TEST REPORT

Report Number: 100485400MIN-001

Project Number: G100485400

Testing performed on the
50760X31

FCC ID: Y86-50760X31A

Industry Canada ID: 6766C-50760X31A

to

47 CFR Part 15. 247:2010

RSS- 210, Issue 8, 2010

RSS-Gen, Issue 3, 2010

47 CFR, Part 15:2010, §15.107 and §15.109, Class B

ICES-003, Issue 4:2004

For

Cooper Power Systems
Cannon Technologies

Test Performed by:
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Test Authorized by:
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Date: October 17, 2011

Reviewed by: Uri Spector
Uri Spector

Date: October 17, 2011

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1.0 GENERAL DESCRIPTION

Model:	50760X31
Type of EUT:	Thermostat Communication Module
FCC ID:	Y86-50760X31A
Industry Canada ID:	6766C-50760X31A
Related Submittal(s) Grants:	None
Company:	Cooper Power Systems Cannon Technologies
Customer:	Mr. Nathan Brandt
Address:	505 Hwy 169 North Minneapolis, MN 55427, USA
Phone:	(763) 543-7770
Fax:	(763) 595-7776
e-mail:	Nathan.Brandt@CooperIndustries.com
Test Standards:	<input checked="" type="checkbox"/> 47 CFR, Part 15:2010, §15.247 <input checked="" type="checkbox"/> RSS-210, Issue 8, 2010 <input checked="" type="checkbox"/> RSS-Gen, Issue 3, 2010 <input checked="" type="checkbox"/> 47 CFR, Part 15:2009, §15.107 and §15.109, Class B <input checked="" type="checkbox"/> ICES-003, Issue 4:2004 <input type="checkbox"/> Other
Type of radio:	<input type="checkbox"/> Stand -alone <input type="checkbox"/> Module <input type="checkbox"/> Hybrid
Date Sample Submitted:	February 23, 2011
Test Work Started:	February 23, 2011
Test Work Completed:	August 8, 2011
Test Sample Conditions:	<input type="checkbox"/> Damaged <input type="checkbox"/> Poor (Usable) <input checked="" type="checkbox"/> Good

1.1 Product Description; Test Facility

Product Description:	2.4 – 2.4835GHz Transceiver
Transmitter Type:	<input type="checkbox"/> FHSS <input checked="" type="checkbox"/> Digital Modulation <input type="checkbox"/> WiFi <input type="checkbox"/> Blue Tooth
Operating Frequency Range(s):	2400-2483.5MHz
Number of Channels:	15
Modulation:	O-QPSK
Emission Designator:	1M86G1D
Duty Cycle:	1% (43ms transmission time, 5s pause)
Antenna(s) Info:	Integral Antenna, Antenna gain: -1.0dBi
Antenna Installation:	<input type="checkbox"/> User <input type="checkbox"/> Professional <input checked="" type="checkbox"/> Factory
Transmitter power configuration:	<input type="checkbox"/> Internal battery <input checked="" type="checkbox"/> External power source <input type="checkbox"/> 120VAC <input type="checkbox"/> 230VAC <input type="checkbox"/> 400VAC <input checked="" type="checkbox"/> 3.3 VDC from host device <div style="background-color: #cccccc; width: 40px; height: 15px; display: inline-block;"></div> Amp. <input type="checkbox"/> 50Hz <input type="checkbox"/> 60Hz
Special Test Arrangement:	None
Test Facility Accreditation:	A2LA (Certificate No. 1427.01)
Test Methodology:	Measurements performed according to the procedures in ANSI C63.10-2009 and FCC DTS Measurement Guide

Notes: During testing the EUT was powered from DC Power Supply

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)
- ☐ -

Operating modes of the EUT:

No.	Description
1	Test was performed at low channel, middle channel, and upper channel
2	

Cables:

No.	Type	Length	Designation	Note
1	2-wire shielded	>3m	DC Power	
2				

Support equipment/Services:

No.	Item	Description
1	TPS-4000 Dual Tracking Power Supply	DC Power Source
2	HP NC 6000	Laptop Computer

General notes: Temporary SMA connector was connected to antenna when taking conducted measurements

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**

<input type="checkbox"/> Temperature:	-20 to +50 ° C
<input type="checkbox"/> 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).

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

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

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

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

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

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

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

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(b), (c) / RSS-210 A8.4	Maximum peak output power	Pass
15.247(a) / RSS-210 A8.2	6dB bandwidth of the digital modulation system	Pass
15.247(e) / RSS-210 A8.2	Power spectral density	Pass
15.247(d) / RSS-210 A8.5	Antenna conducted spurious emissions	Pass
15.247(d) / RSS-210 A8.5	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 Maximum peak output power

Test location: ☐ OATS ☒ Anechoic Chamber ☐ Other

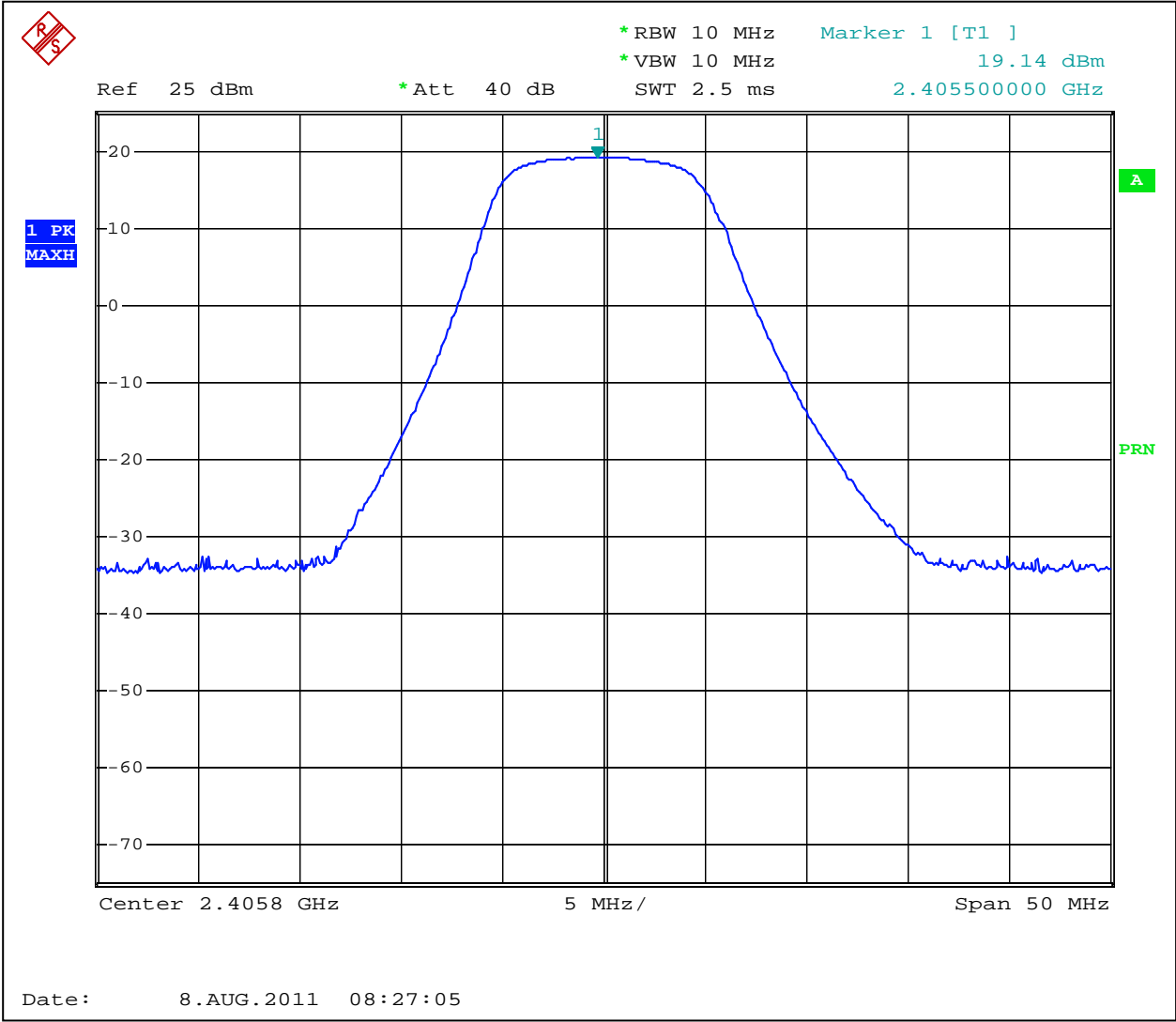
Test result: **Pass**

Maximum peak output power: 19.4dBm

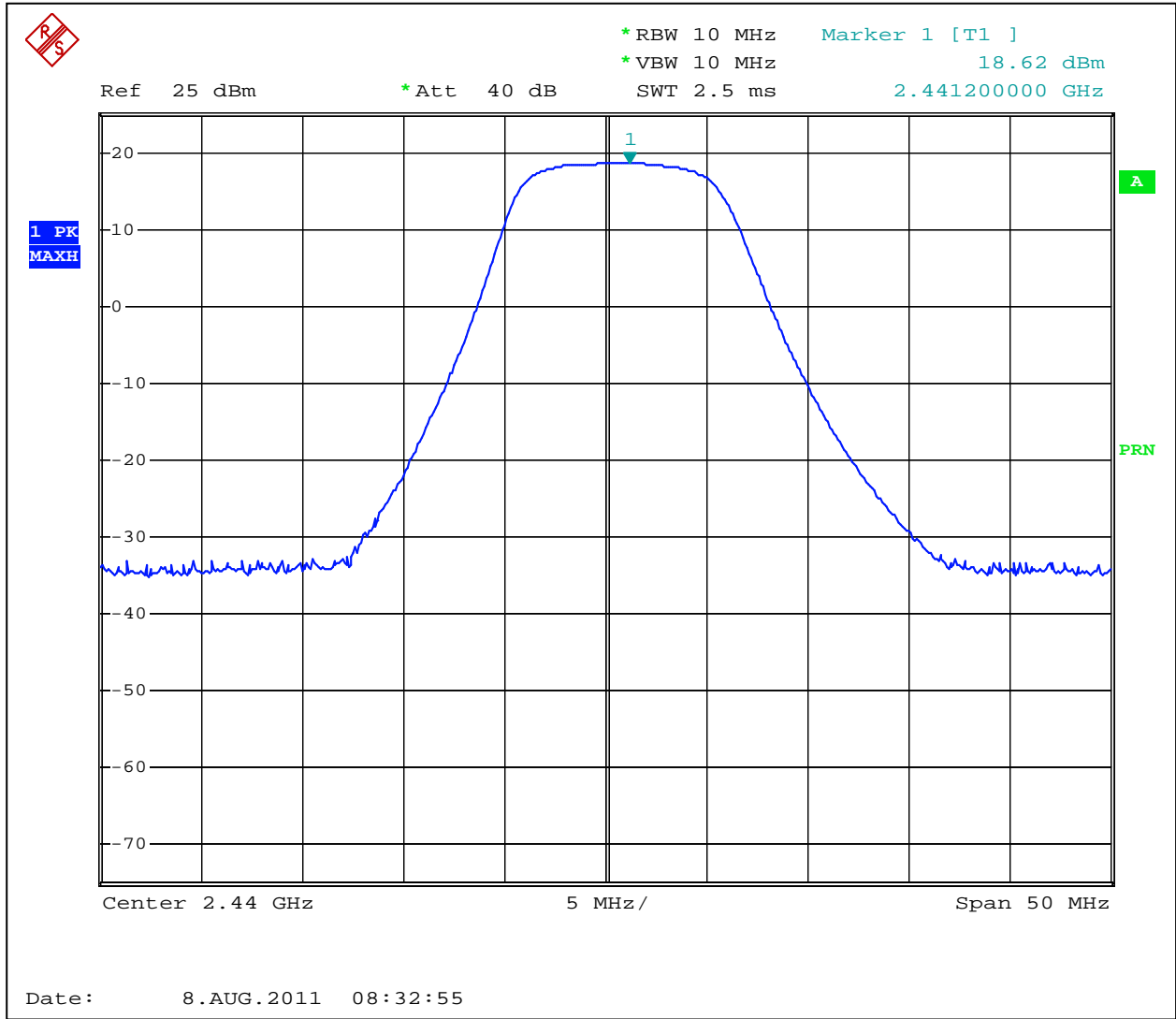
Margin: 10.6dB below the limits

Power Output:	Conducted						
Frequency Range:	<input type="checkbox"/> 902-928MHz <input checked="" type="checkbox"/> 2400-2483.5MHz <input type="checkbox"/> 5725-5850MHz						
Low Frequency MHz	Measured peak power dBm	Attenuation dB	Peak Power at Antenna		Limit dBm	Limit Reduction dB	Margin dB
			dBm	mW			
	19.14	0.25	19.39	86.9	30	0	-10.6
Middle Frequency MHz							
	18.62	0.25	18.87	77.1	30	0	-11.1
Upper Frequency MHz							
	18.07	0.25	18.32	67.9	30	0	-11.7
RBW:	<input type="checkbox"/> 1MHz <input type="checkbox"/> 3MHz <input checked="" type="checkbox"/> 10MHz						
VBW:	<input type="checkbox"/> 1MHz <input type="checkbox"/> 3MHz <input checked="" type="checkbox"/> 10MHz						
Antenna Gain:	<input checked="" type="checkbox"/> < 6dBi <input type="checkbox"/> >6dBi and = <input type="text"/> dBi, Output power reduction = <input type="text"/> dB						

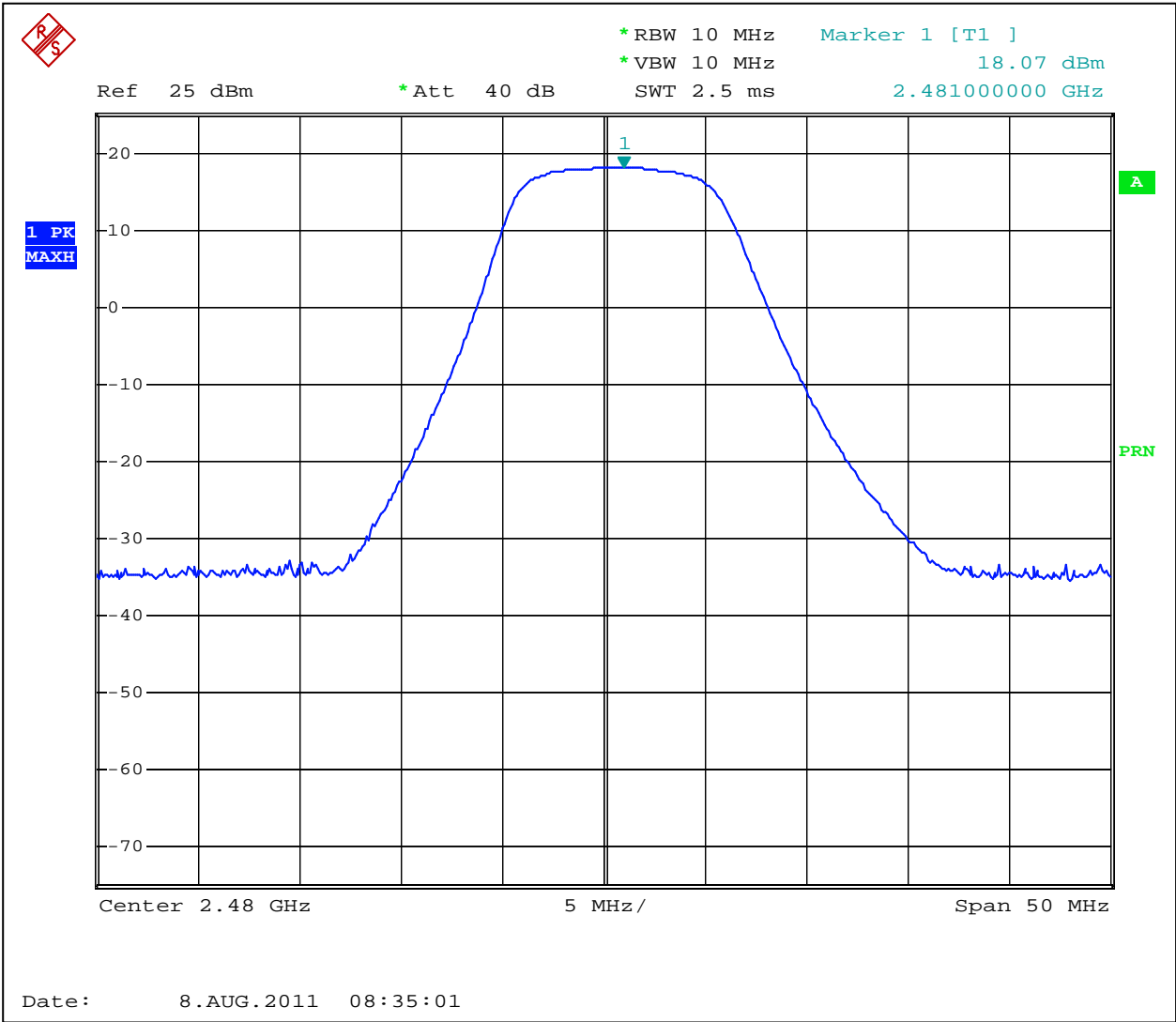
Notes: The maximum peak conducted output power limit is 1 W, or 30dBm
 Graphs 3.1.1 to 3.1.3 show the conducted output power.
 Assuming that the maximum duty cycle is 1% the time-averaged output power is 1mW.



Graph 3.1.1



Graph 3.1.2

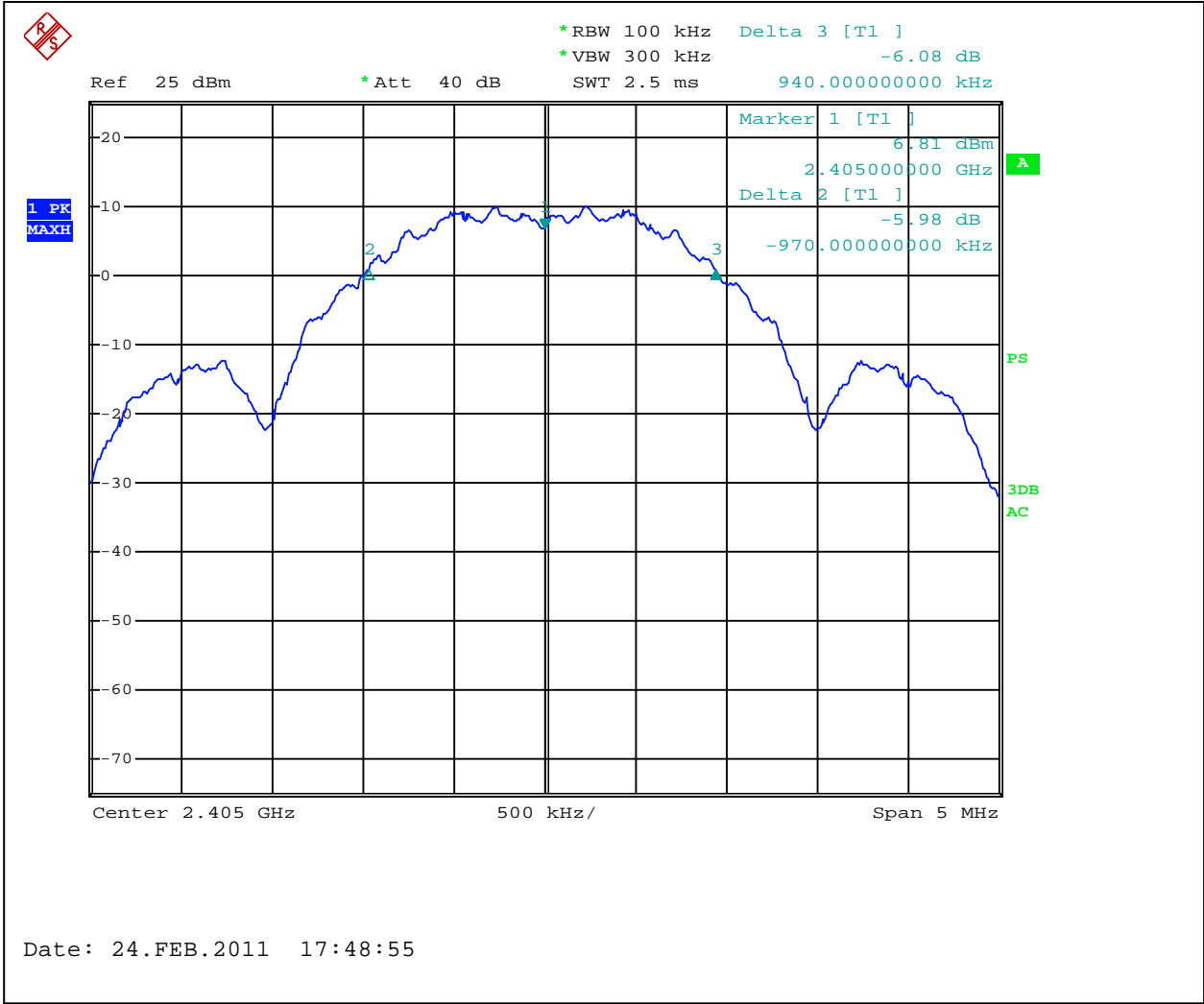


Graph 3.1.3

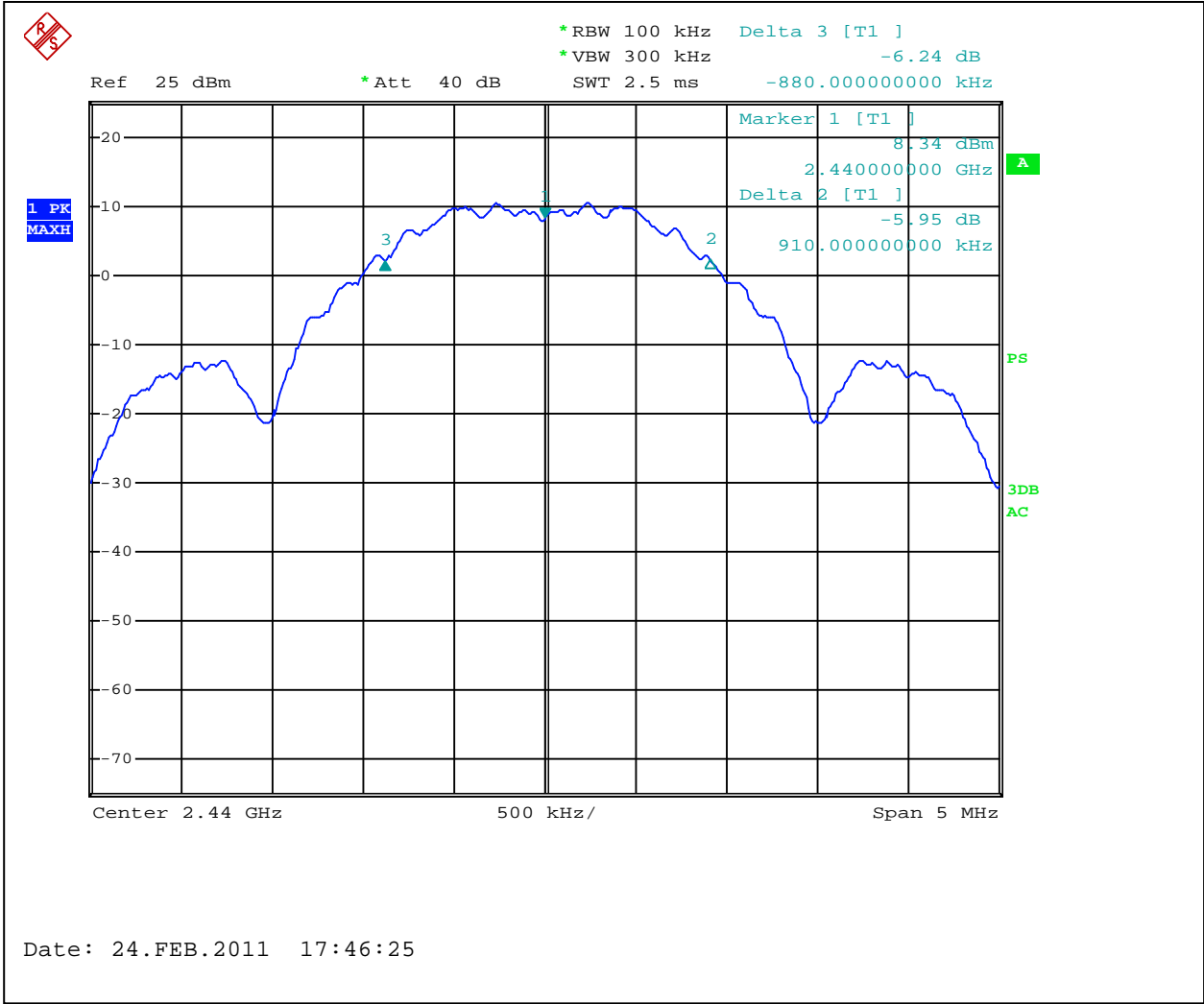
3.2 6dB bandwidth of the digital modulation

Low Frequency Channel kHz	Middle Frequency Channel kHz	Upper Frequency Channel kHz	Minimum Bandwidth kHz	Result
1910	1790	1860	500	Pass
<div> <div>RBW:</div> <div> <input checked="" type="checkbox"/> 100kHz <input type="checkbox"/> other <div></div> kHz </div> </div> <div> <div>VBW:</div> <div> <input type="checkbox"/> 100kHz <input checked="" type="checkbox"/> 300kHz <input type="checkbox"/> other <div></div> kHz </div> </div>				

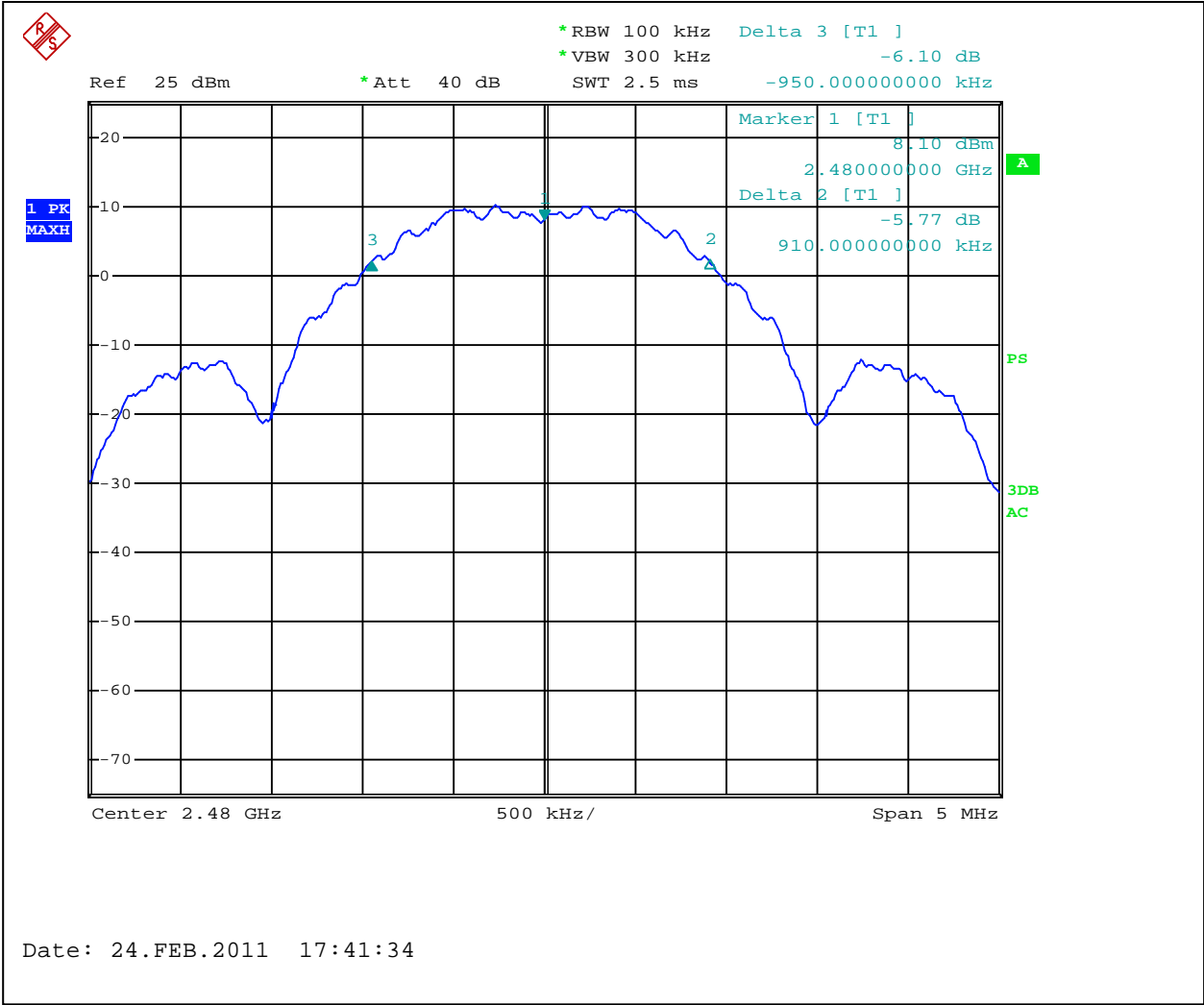
Notes: Graphs 3.2.1 to 3.2.3 show the 6dB bandwidth



Graph 3.2.1



Graph 3.2.2

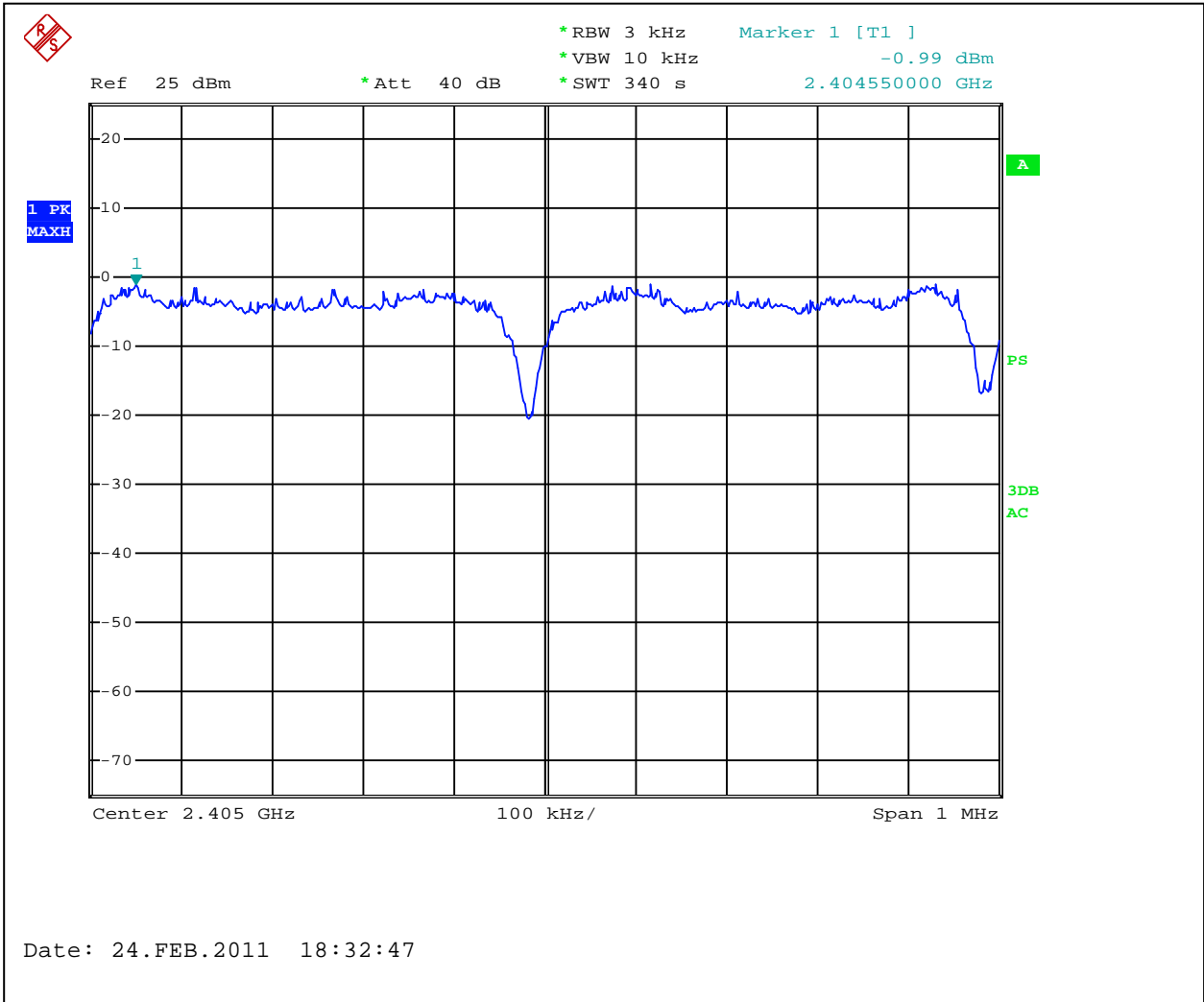


Graph 3.2.3

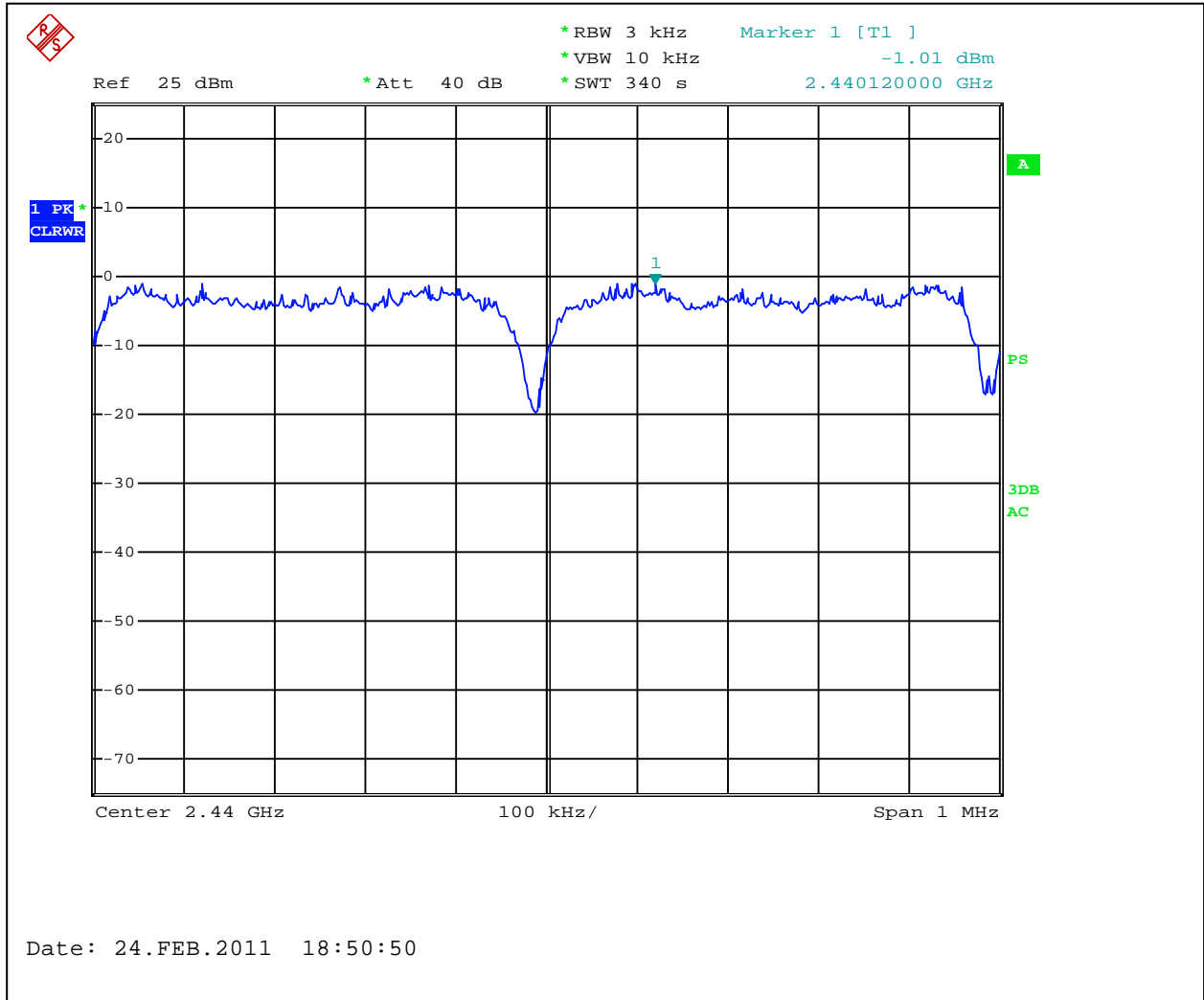
3.3 Power spectral density

Power Output:	<input checked="" type="checkbox"/> Conducted <input type="checkbox"/> Radiated			
	Measured Density dBm	Power Spectral Density dBm	Limit dBm	Margin dB
Low Frequency Channel	-0.99	-0.74	8	-8.74
Middle Frequency Channel	-1.01	-0.76	8	-8.76
Upper Frequency Channel	-1.20	-0.95	8	-8.95
Analyzer Settings:	<input checked="" type="checkbox"/> RBW=3KHz <input checked="" type="checkbox"/> VBW=10KHz <input checked="" type="checkbox"/> Span=1MHz <input checked="" type="checkbox"/> Sweep=340sec			
Antenna Gain:	<input checked="" type="checkbox"/> < 6dBi and = -1.0 dBi <input type="checkbox"/> >6dBi and = <input type="text"/> dBi, limit reduction = <input type="text"/> dB			

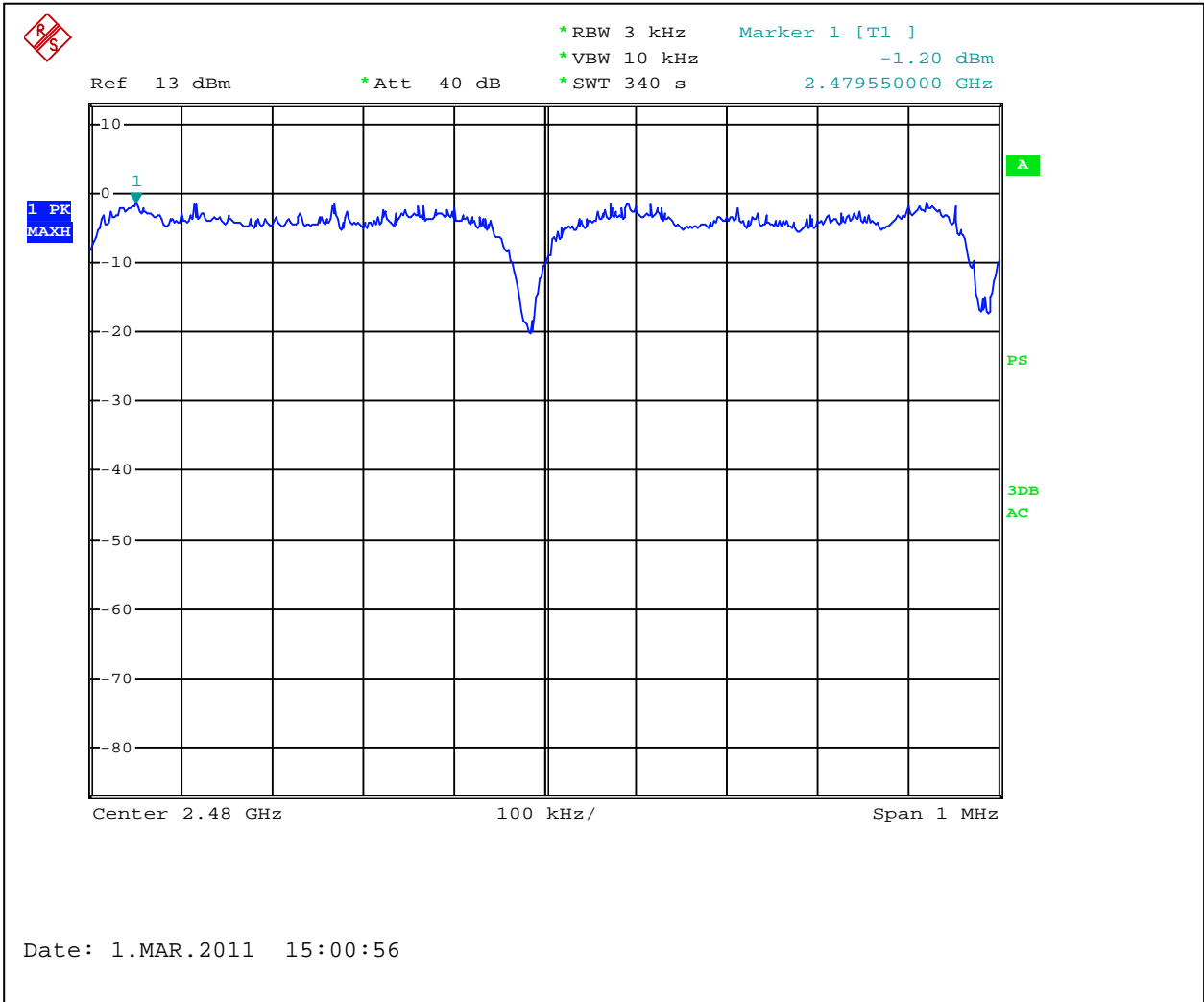
Notes: The Power Spectral Density was calculated adding the cable loss of 0.25 dB from the measured density value.



Graph 3.3.1



Graph 3.3.2

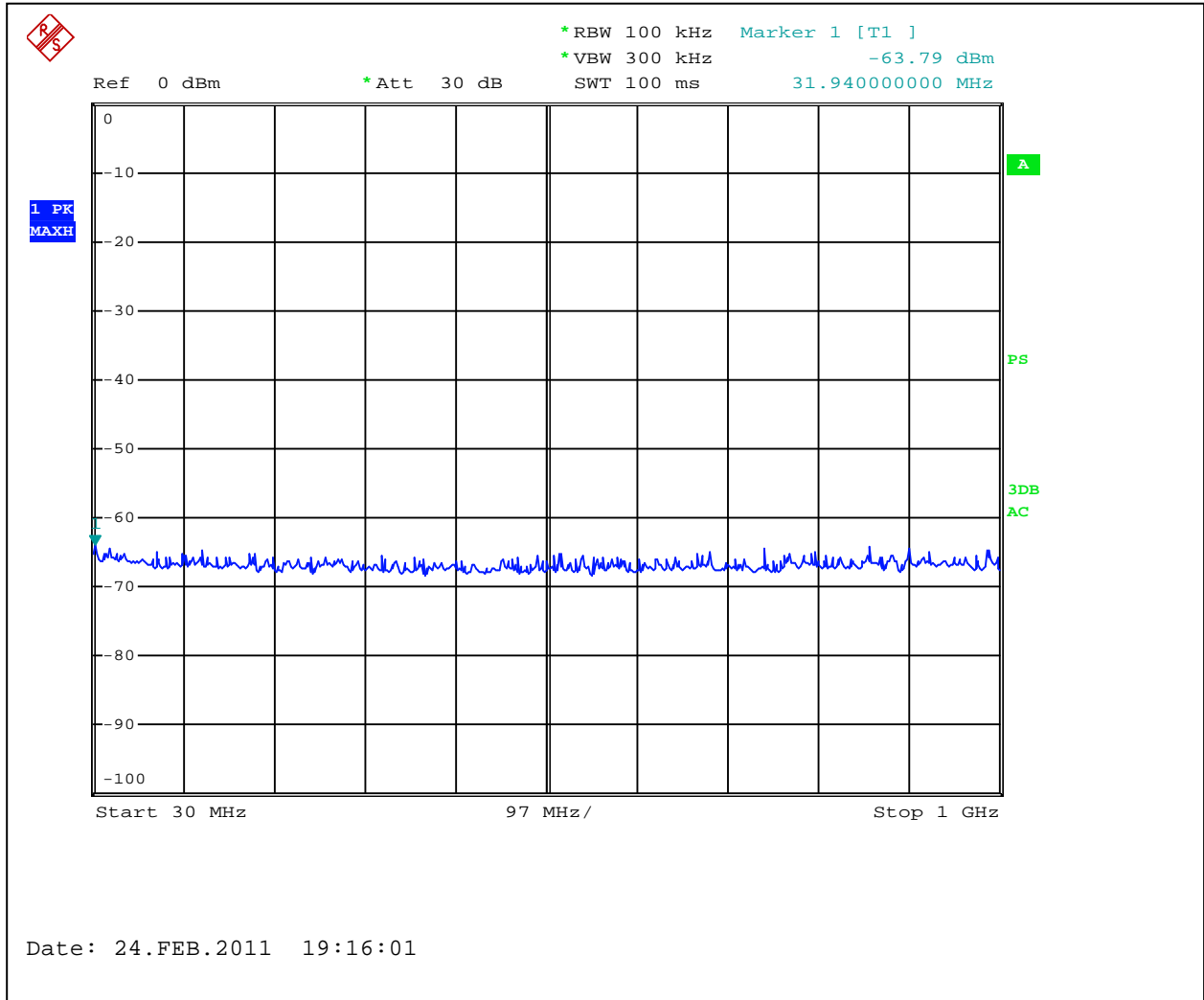


Graph 3.3.3

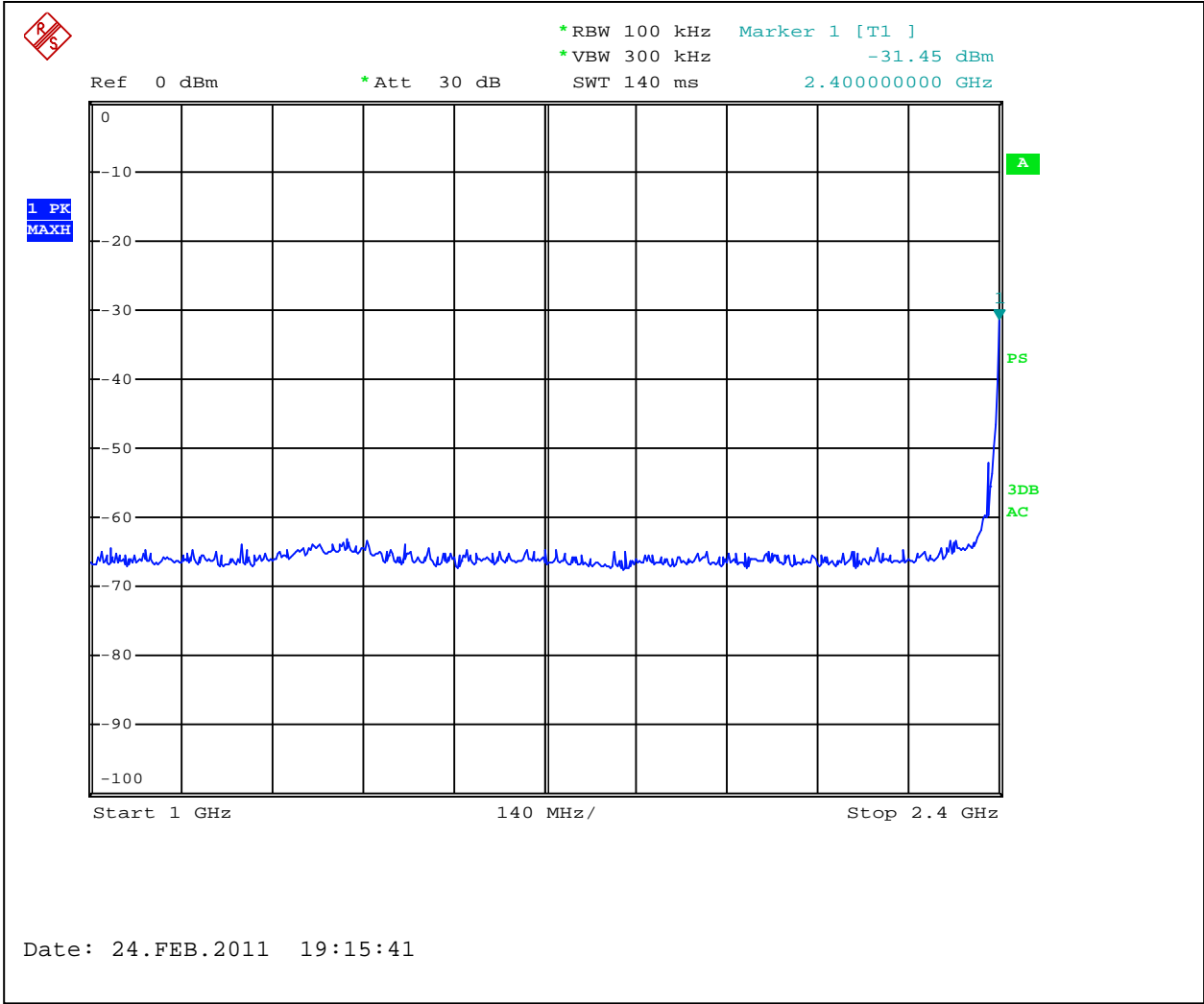
3.4 Antenna conducted spurious emissions

	Minimum Measured Attenuation dB	Minimum Allowed Attenuation dB	Margin dB
Low Frequency Channel	44.76	20	-24.76
Middle Frequency Channel	58.39	20	-38.39
Upper Frequency Channel	57.31	20	-37.31
Analyzer Settings:	<input checked="" type="checkbox"/> RBW=100KHz		
Minimum Allowed Attenuation:	<input checked="" type="checkbox"/> 20dB <input type="checkbox"/> 30dB (for digital systems with conducted power measured using RMS averaging over a time interval)		

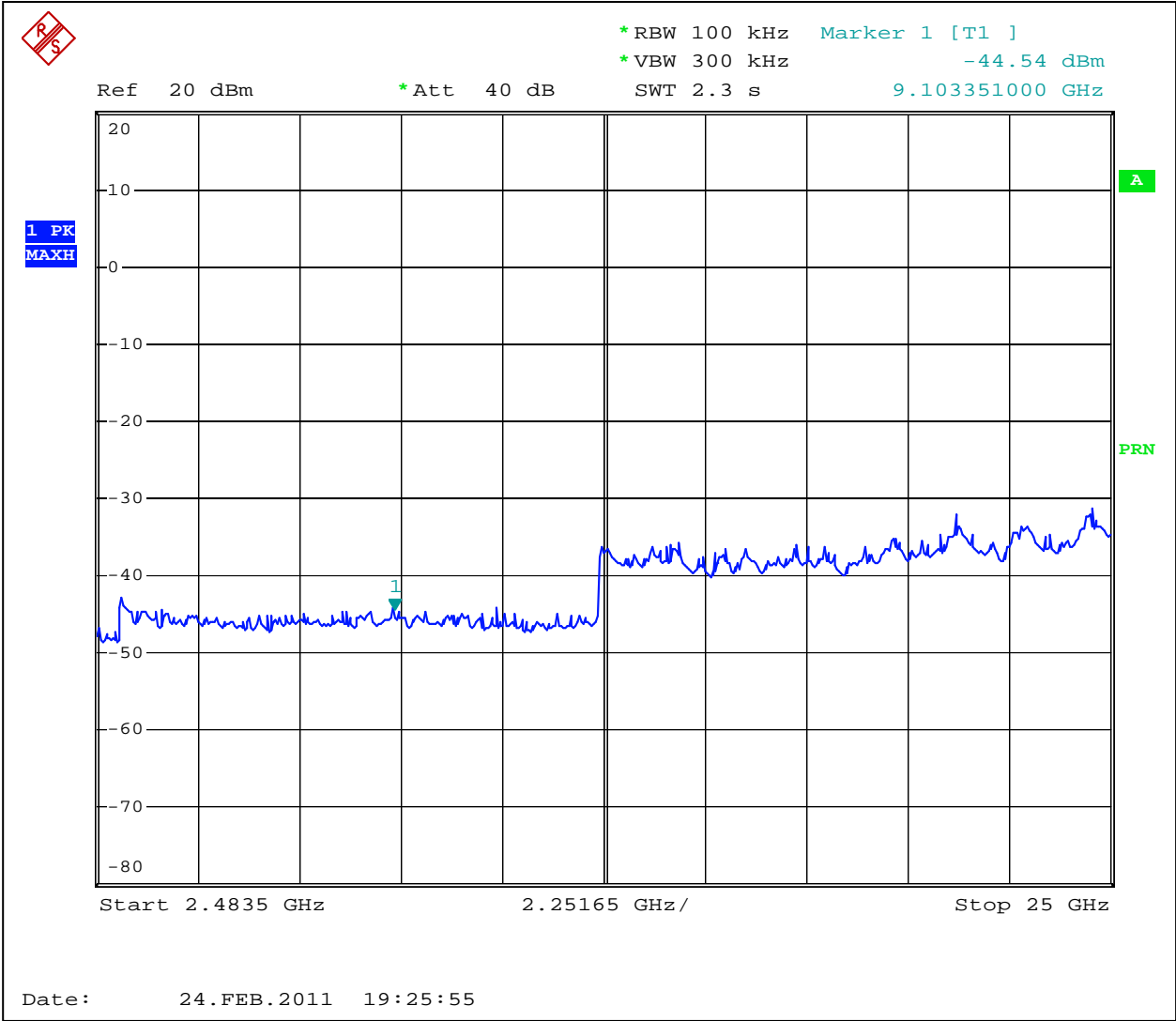
Notes: Test was performed in frequency range from 30MHz to 25GHz
 Graphs 3.4.1 to 3.4.3 show the Antenna Conducted Spurious Emissions for low channel
 Graphs 3.4.4 to 3.4.6 show the Antenna Conducted Spurious Emissions for mid channel
 Graphs 3.4.7 to 3.4.9 show the Antenna Conducted Spurious Emissions for high channel
 Graph 3.4.10 shows band edge compliance at 2400MHz
 Graph 3.4.11 shows band edge compliance at 2483.5MHz



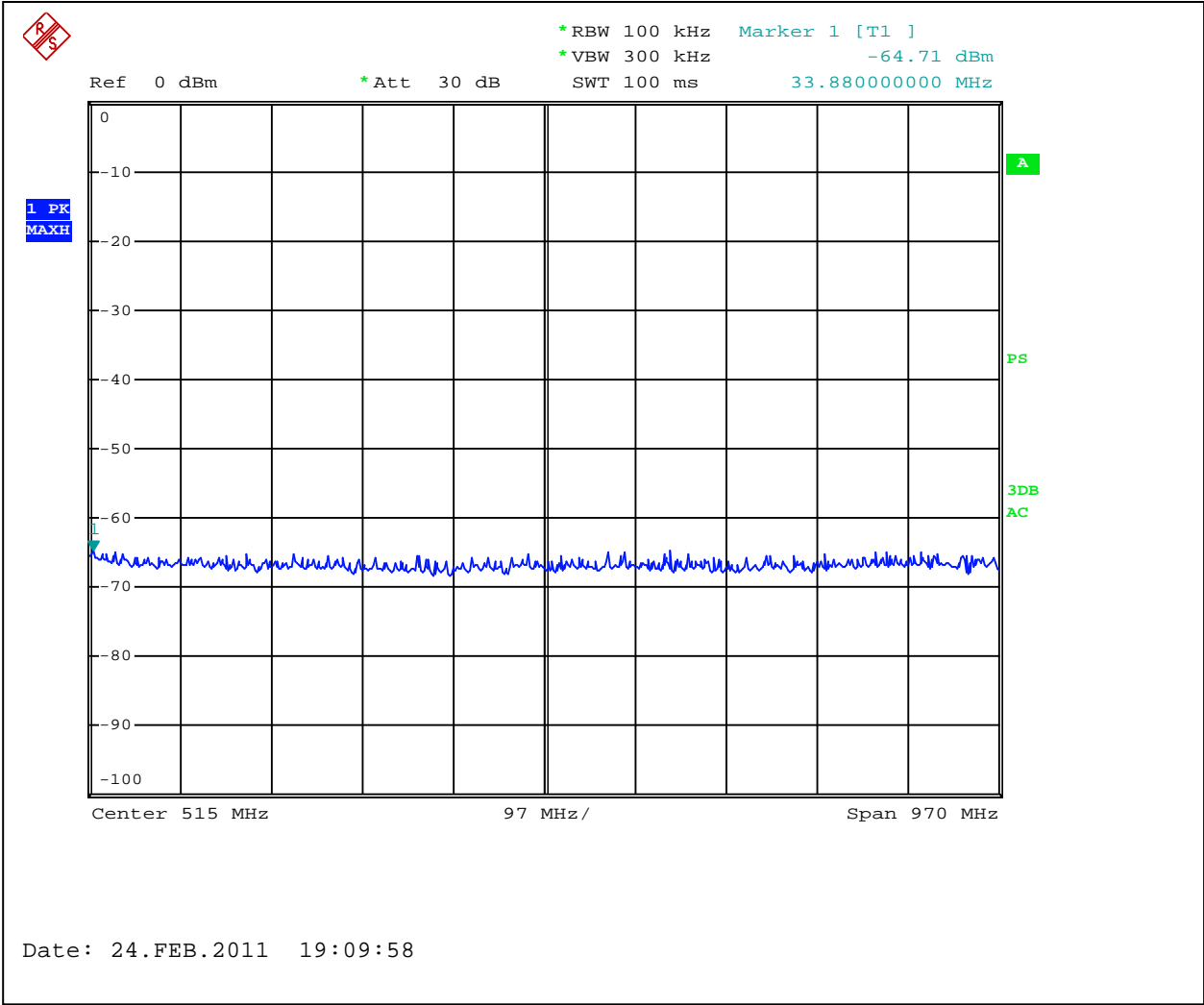
Graph 3.4.1



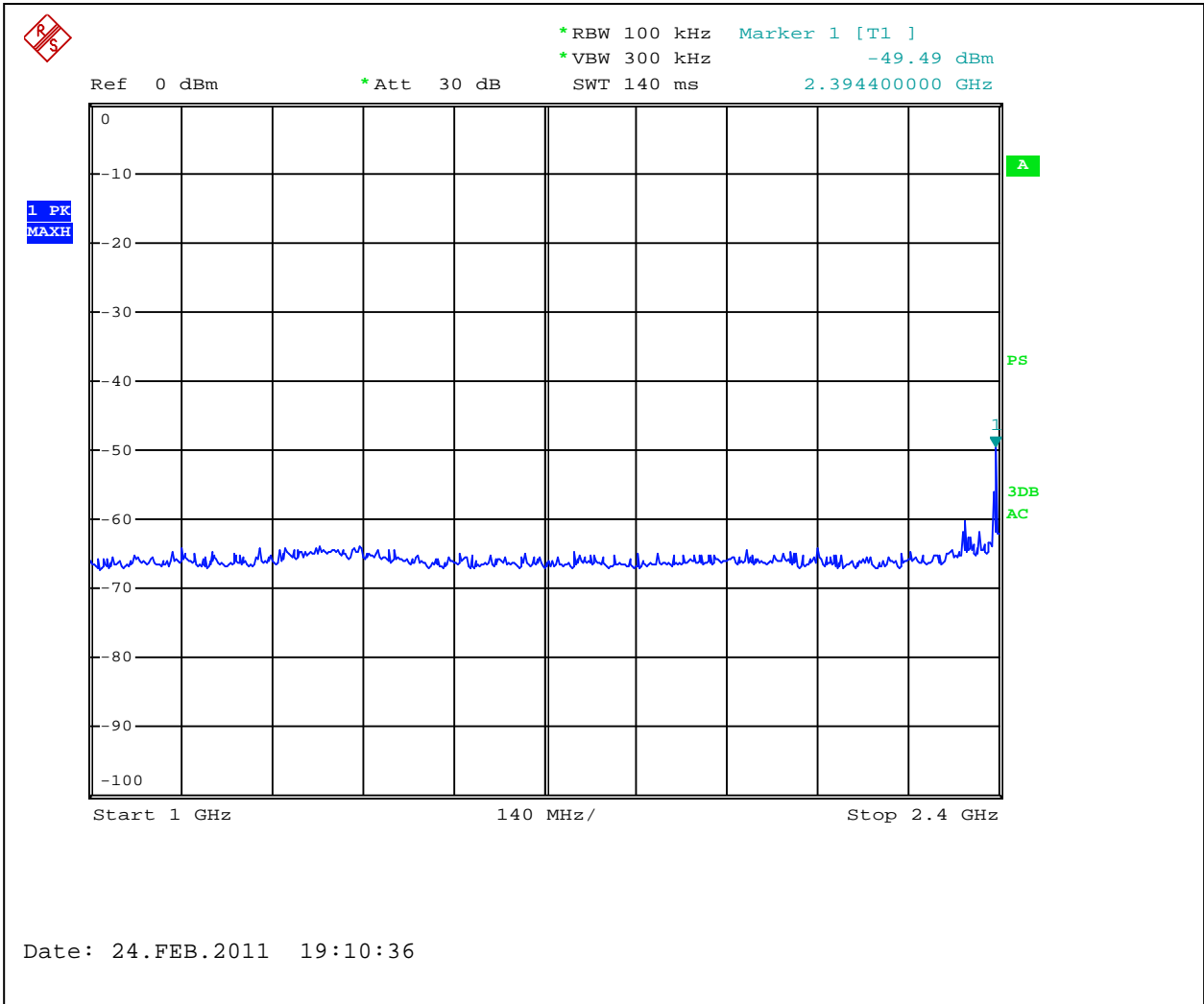
Graph 3.4.2



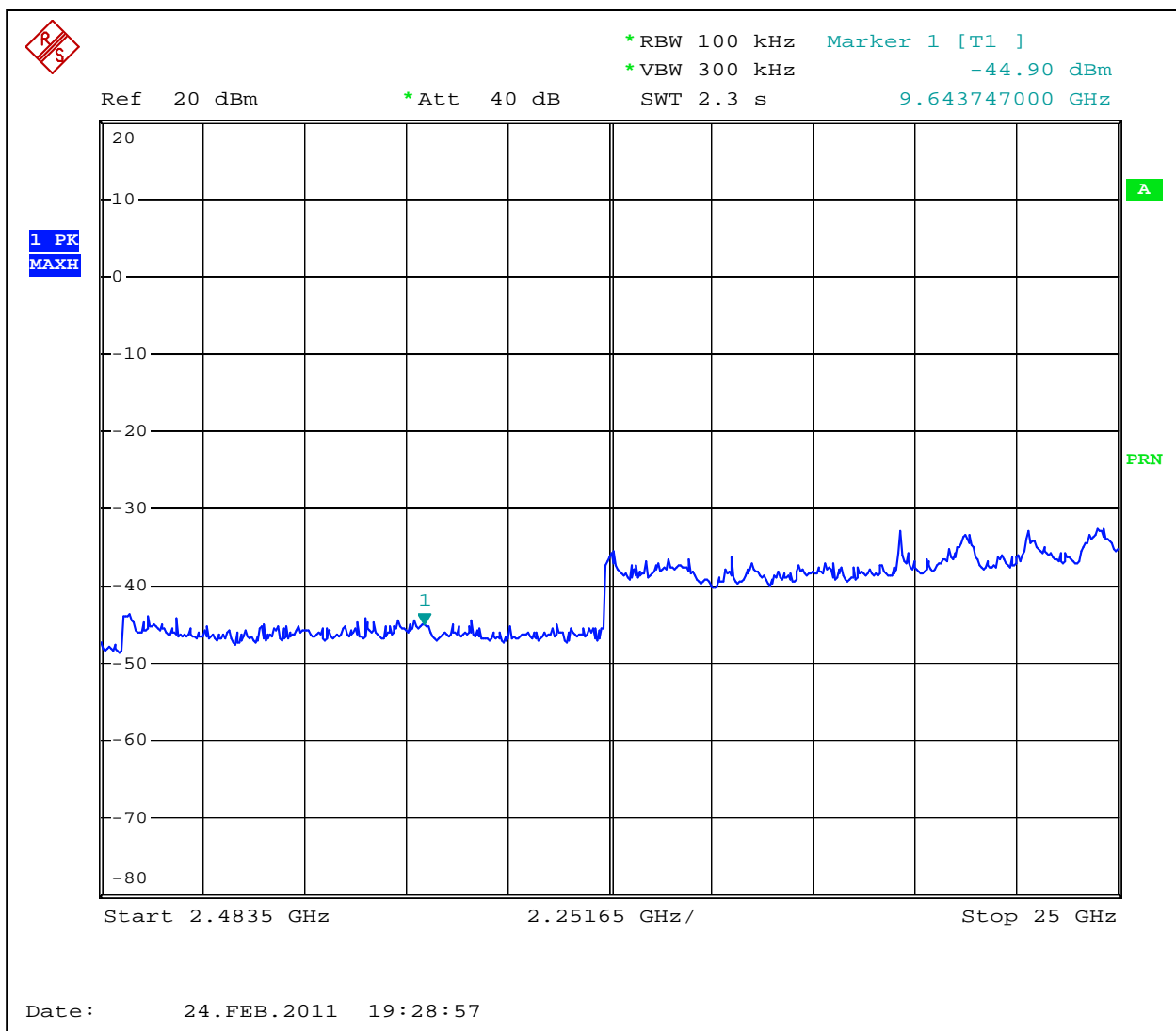
Graph 3.4.3



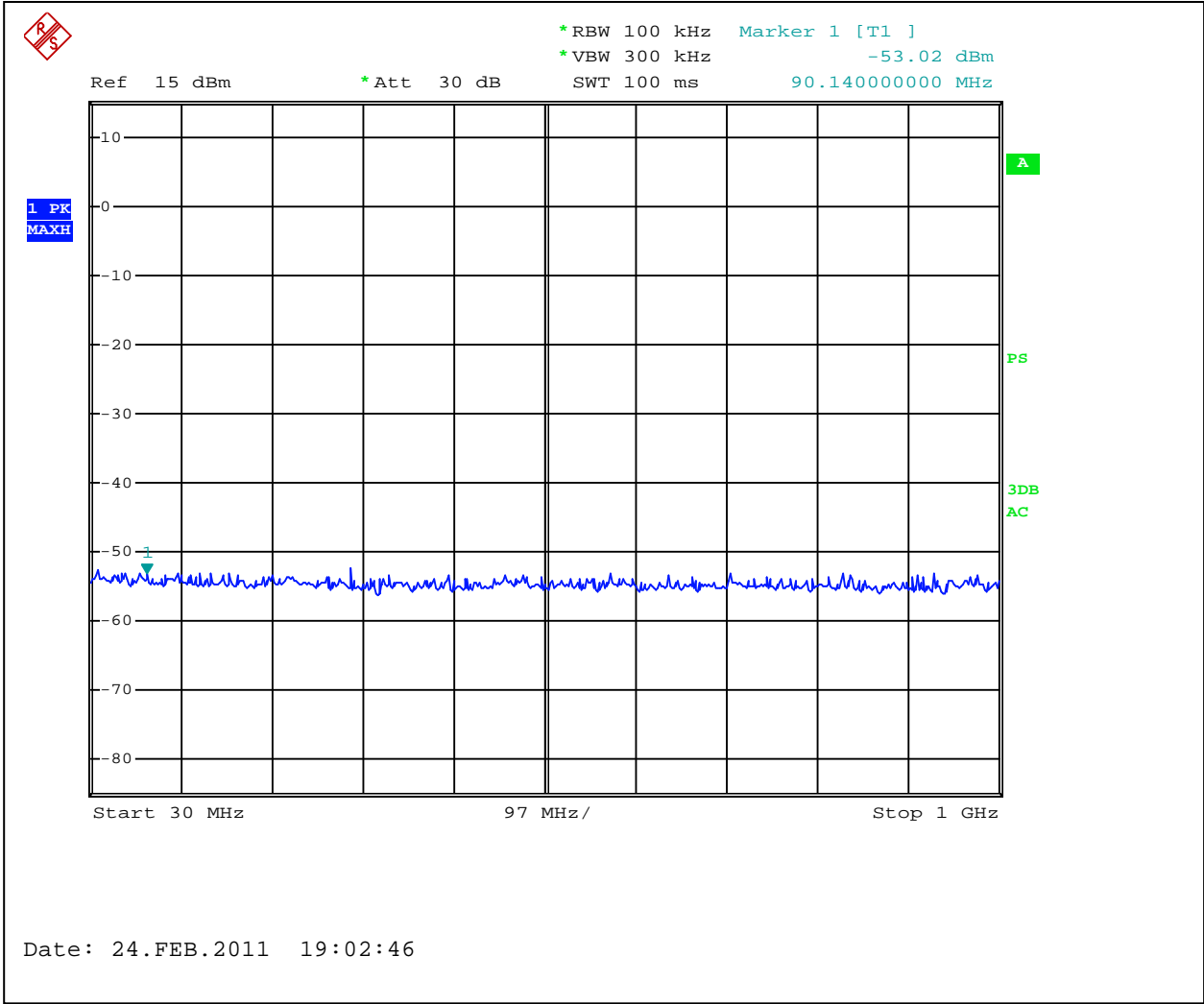
Graph 3.4.4



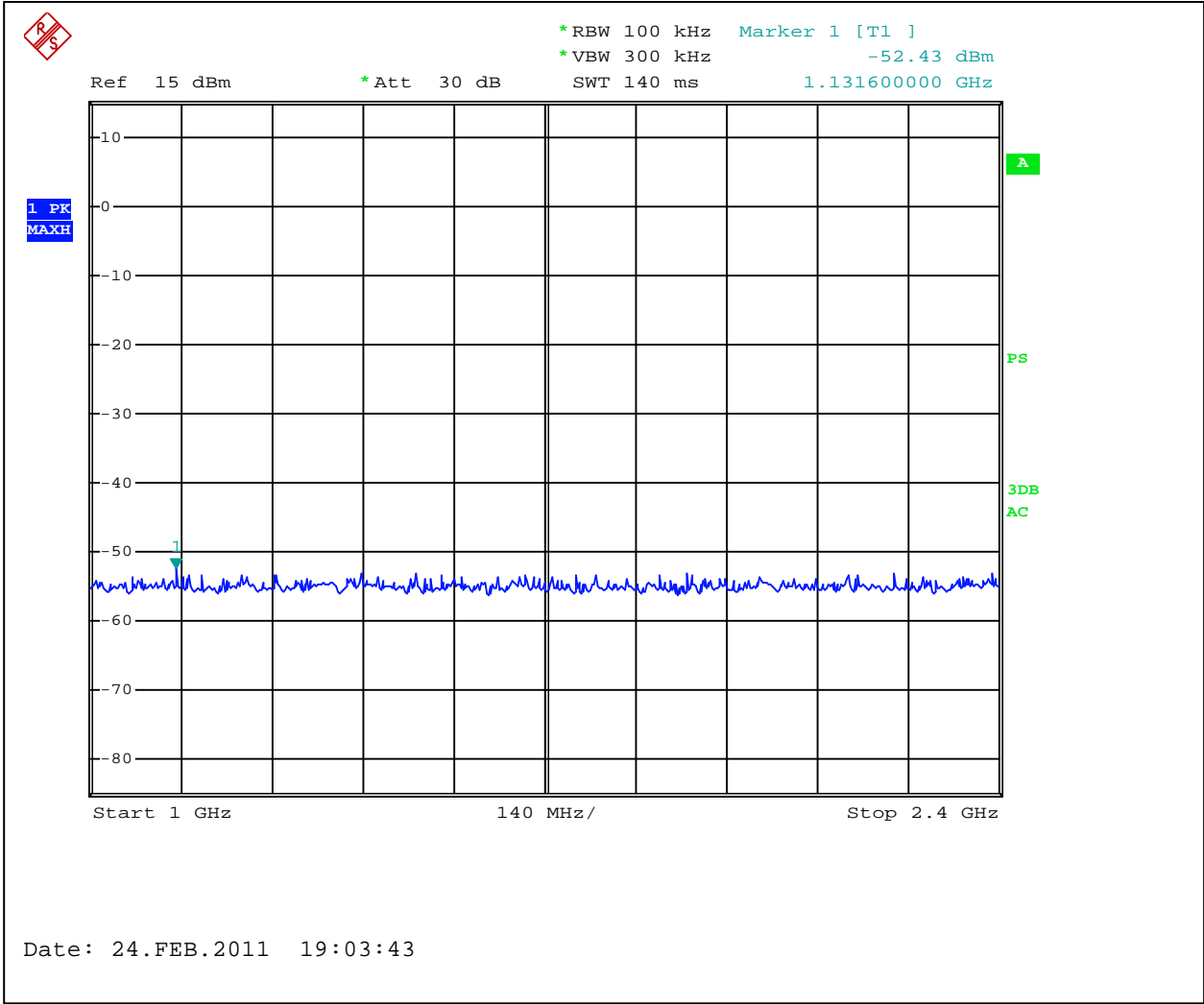
Graph 3.4.5



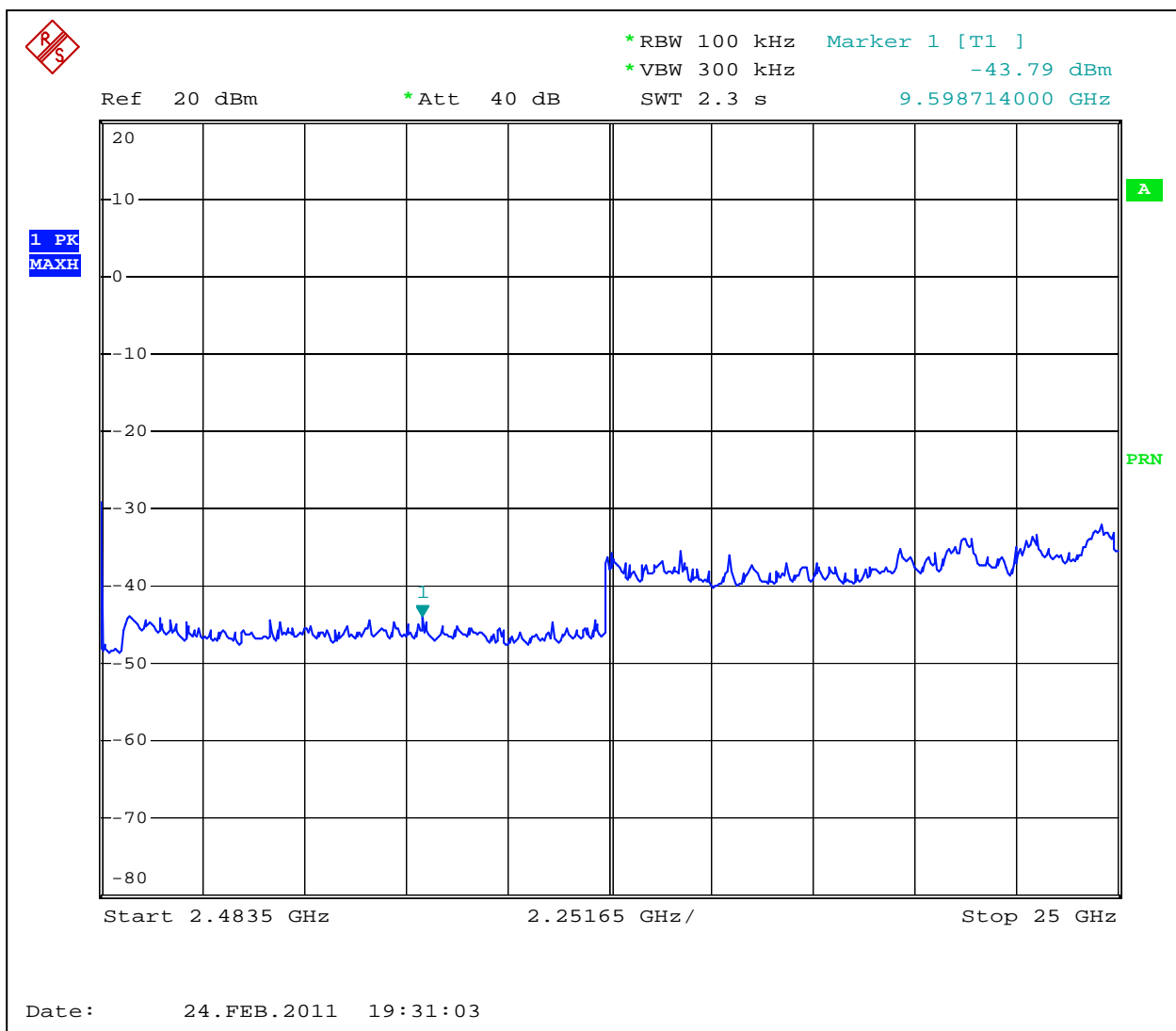
Graph 3.4.6



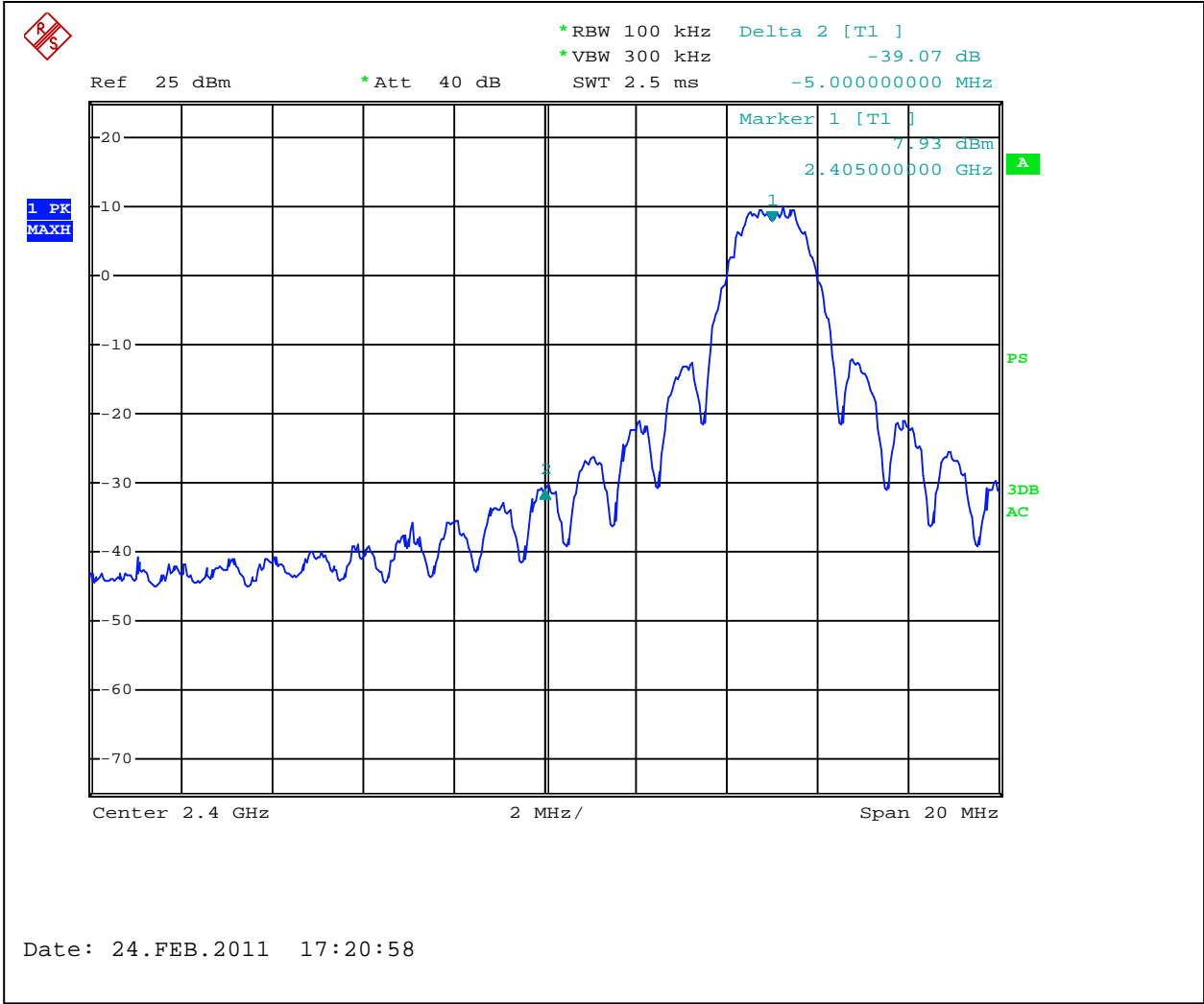
Graph 3.4.7



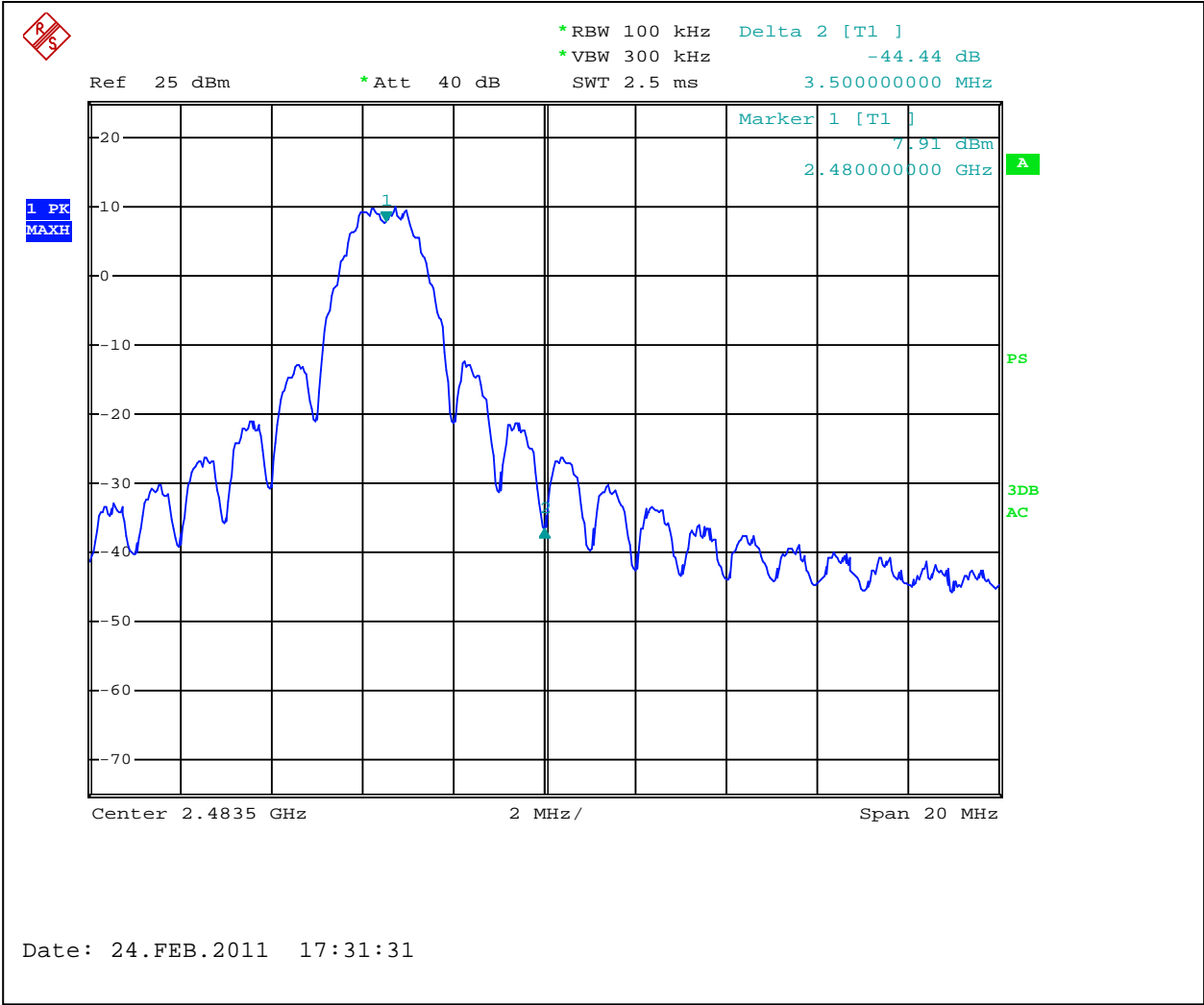
Graph 3.4.8



Graph 3.4.9



Graph 3.4.10



Graph 3.4.11



3.5 Radiated spurious emissions

Test location: ☐ OATS ☒ Anechoic Chamber ☐ Other

Frequency Range: 30MHz to 25GHz (10th Harmonic)

Test result: **Pass**

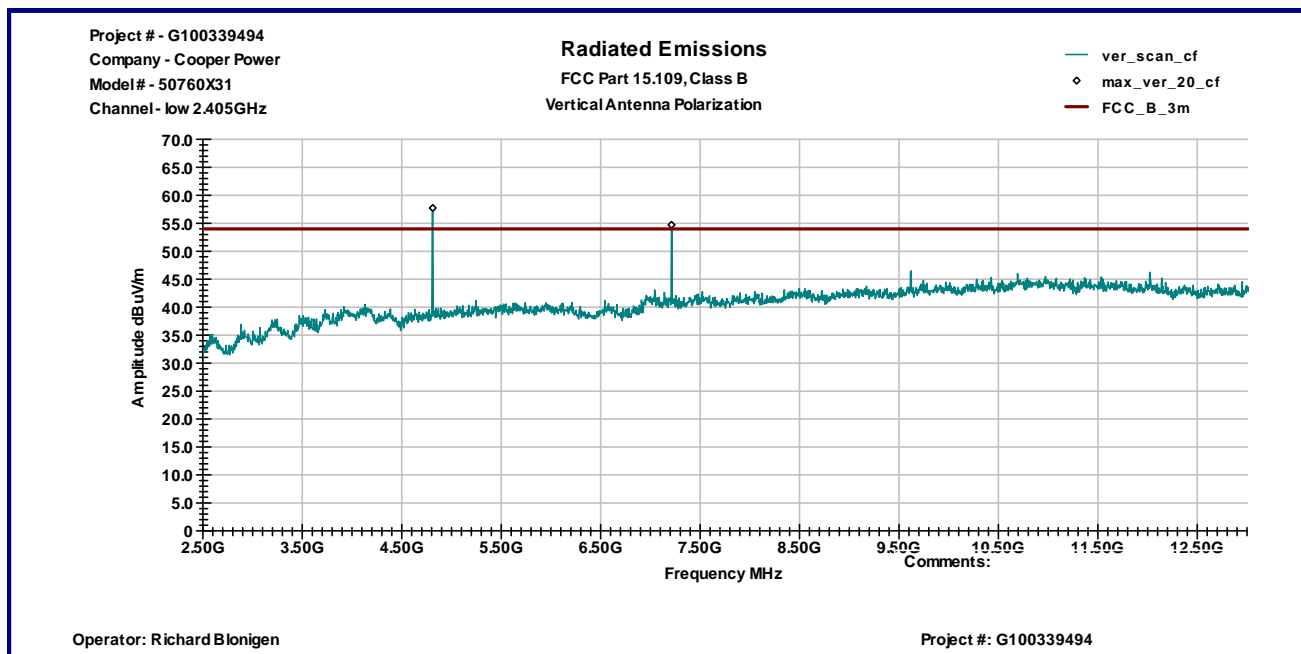
Max. Margin: 0.9 dB below the limits

Notes: No emissions were detected above ambient above 5th harmonic

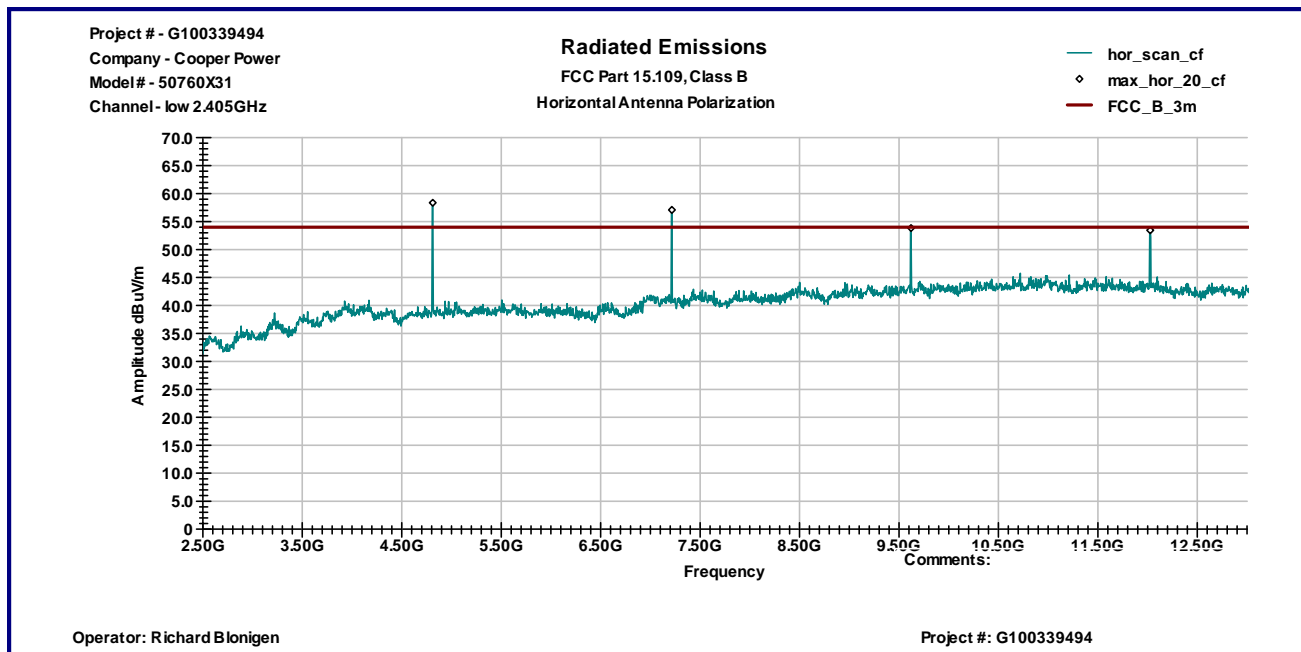
Date:	February 28, 2011	Result: Pass
Standard:	FCC part 15.247(d)	
Tested by:	Richard Blonigen	
Test Point:	Enclosure	
Operation mode:	See Page 5	
Note:	None	

Table 3.5.1

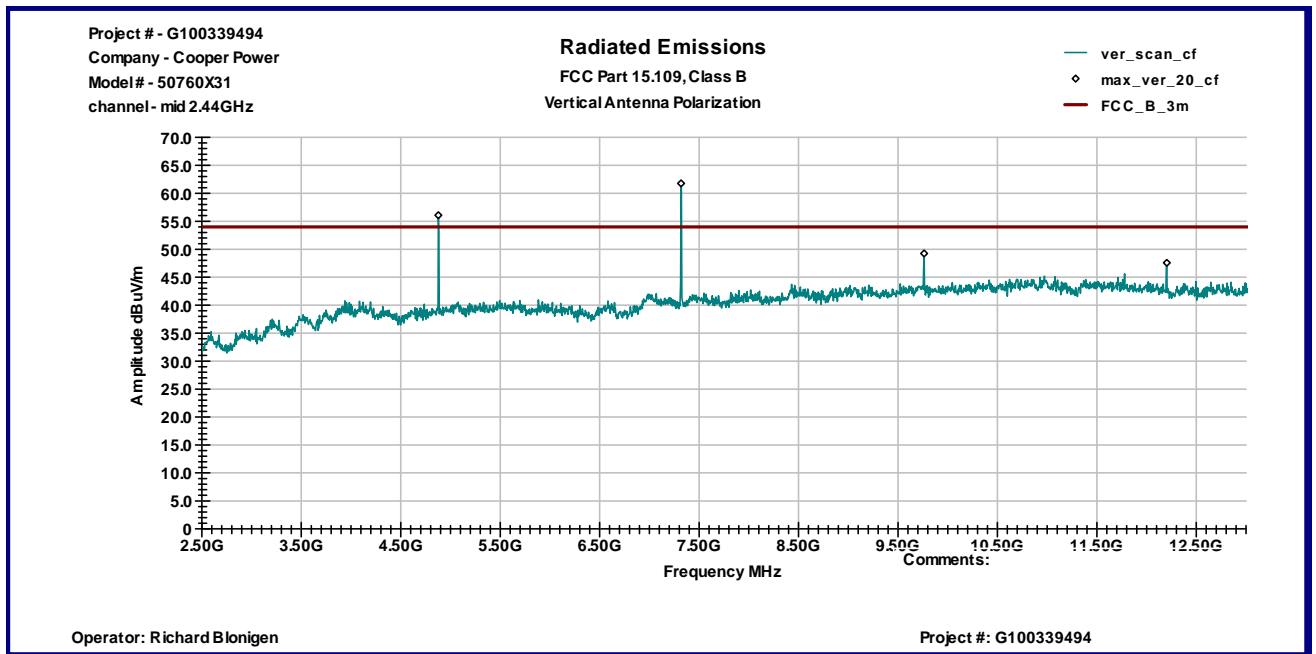
Frequency MHz	Antenna		Ant. CF dB 1/m	Cable loss dB	Pre-amp Gain (dB)	Reading dBµV	Total @ 3m dBµV/m	Limit dBµV/m	Margin dB	Comments
	Polarity	Hts(cm)								
Low Channel 2.405GHz										
4810.00	V	183	32.7	4.9	36.7	46.7	47.7	54.0	-6.3	
7215.00	V	135	35.7	6.2	36.7	38.8	44.0	54.0	-10.0	
9620.00	V	183	38.0	7.0	35.4	36.2	45.8	54.0	-8.2	
4810.00	V	173	32.7	4.9	36.7	47.2	48.2	54.0	-5.8	
7215.00	V	132	35.7	6.2	36.7	41.6	46.8	54.0	-7.2	
9620.00	V	179	38.0	7.0	35.4	35.2	44.8	54.0	-9.2	
12025.00	V	158	39.4	7.4	35.5	32.4	43.6	54.0	-10.3	
14430.00	V	153	41.8	7.6	37.8	32.8	44.4	54.0	-9.6	
Mid Channel 2.44GHz										
4880.00	V	164	32.9	4.9	36.6	45.5	46.7	54.0	-7.3	
7320.00	V	133	36.0	6.2	36.6	45.5	51.1	54.0	-2.9	
9762.00	V	146	38.3	7.0	35.3	29.3	39.2	54.0	-14.8	
12200.00	V	204	39.2	7.5	35.7	27.0	38.0	54.0	-16.0	
4880.00	H	176	32.9	4.9	36.6	45.6	46.8	54.0	-7.2	
7320.00	H	130	36.0	6.2	36.6	47.2	52.8	54.0	-1.2	
9762.00	H	189	38.3	7.0	35.3	36.9	46.8	54.0	-7.2	
12200.00	H	157	39.2	7.5	35.7	33.4	44.4	54.0	-9.6	
High Channel 2.475GHz										
4949.00	V	159	33.0	5.0	36.6	42.5	43.9	54.0	-10.1	
7426.00	V	174	36.2	6.3	36.5	47.1	53.1	54.0	-0.9	
9902.00	V	137	38.5	7.0	35.2	28.2	38.5	54.0	-15.5	
12372.50	V	214	39.1	7.6	35.9	28.0	38.8	54.0	-15.2	
4949.00	H	156	33.0	5.0	36.6	40.3	41.7	54.0	-12.3	
7426.00	H	173	36.2	6.3	36.5	46.9	52.9	54.0	-1.1	
9902.00	H	151	38.5	7.0	35.2	37.4	47.7	54.0	-6.3	
12372.50	H	148	39.1	7.6	35.9	32.5	43.3	54.0	-10.7	



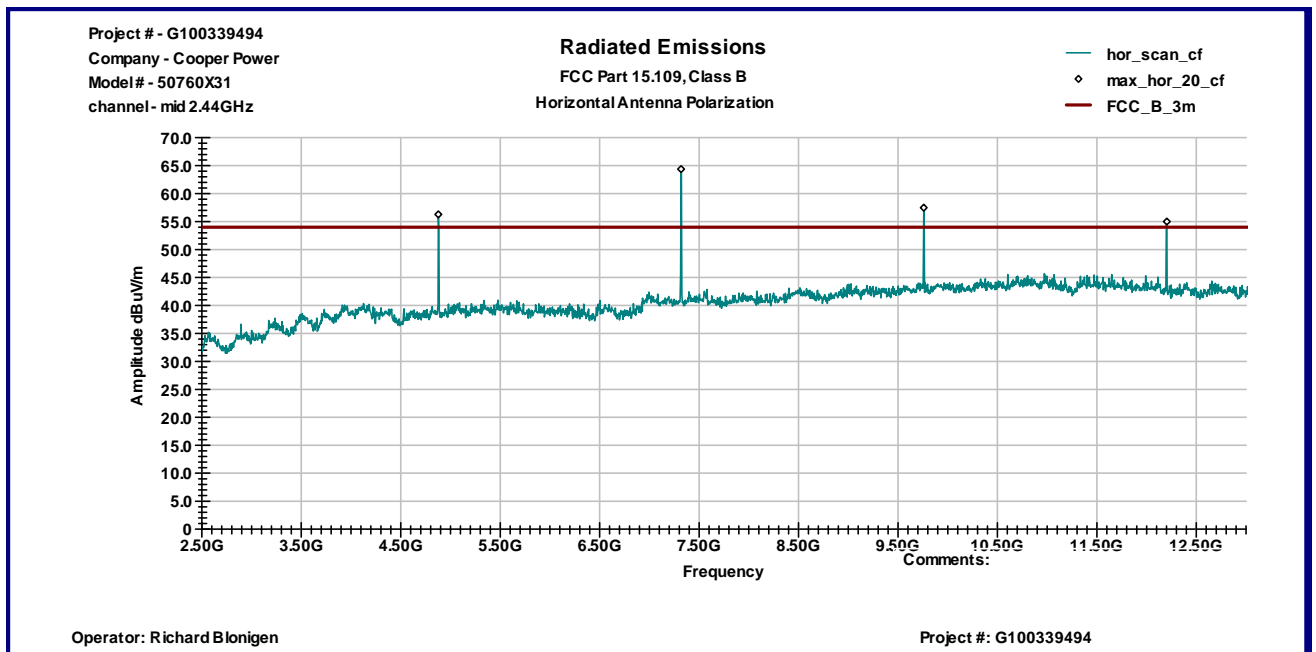
Graph 3.5.1



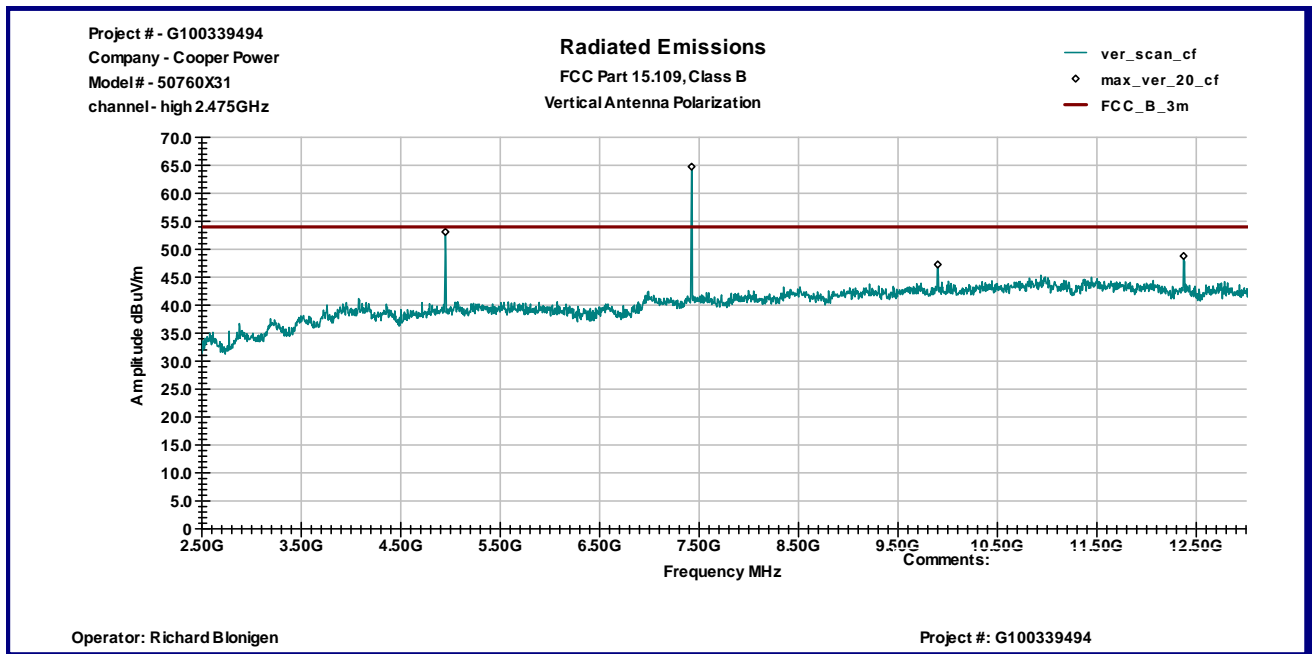
Graph 3.5.2



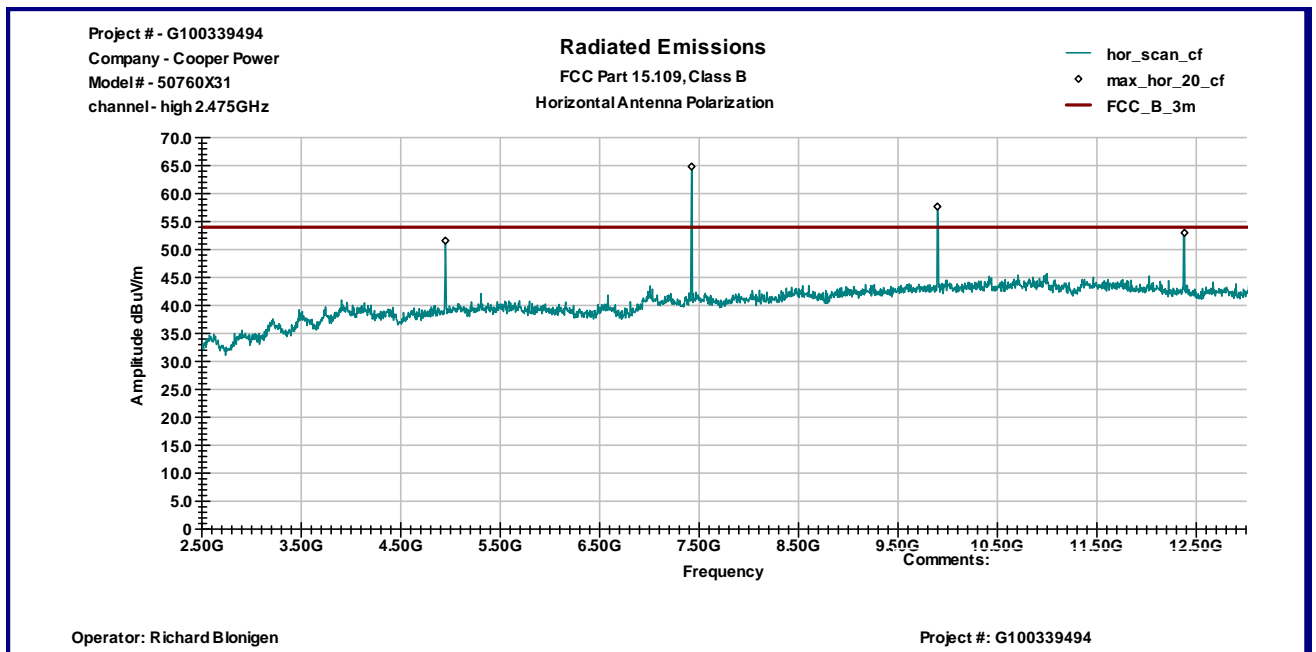
Graph 3.5.3



Graph 3.5.4



Graph 3.5.5



Graph 3.5.6

3.6 RF Exposure Compliance

The maximum measured antenna conducted power, P is 19.4 dBm

The antenna gain, G is -1.0 dBi

The maximum EIRP power = P + G

ERP = 19.4 + (-1.0) = 18.4dBm, or 0.07W

The limits for Maximum Permissible Exposure (MPE) for transmitter operating at 2.4GHz, MPE is 1mW/cm², or 10W/m²

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 = 20cm

$S = 70 / 4\pi 20^2$,

S = 0.014mW/cm², or below the Maximum Permissible Exposure (MPE) of 1mW/cm²



3.7 Transmitter power line conducted emissions

Test location: ☐ OATS ☒ Anechoic Chamber ☐ Other

Test result: **Pass**

Frequency range: 0.15MHz-30MHz

Max. Emissions margin: 17.8dB below the limits

Notes: None

Date:	February 23, 2011	Result: Pass
Standard:	FCC 15.207	
Tested by:	Ivaylo Nadarliyski	
Test Point:	Power Line	
Operation mode:	See Page 5	
Note:	None	

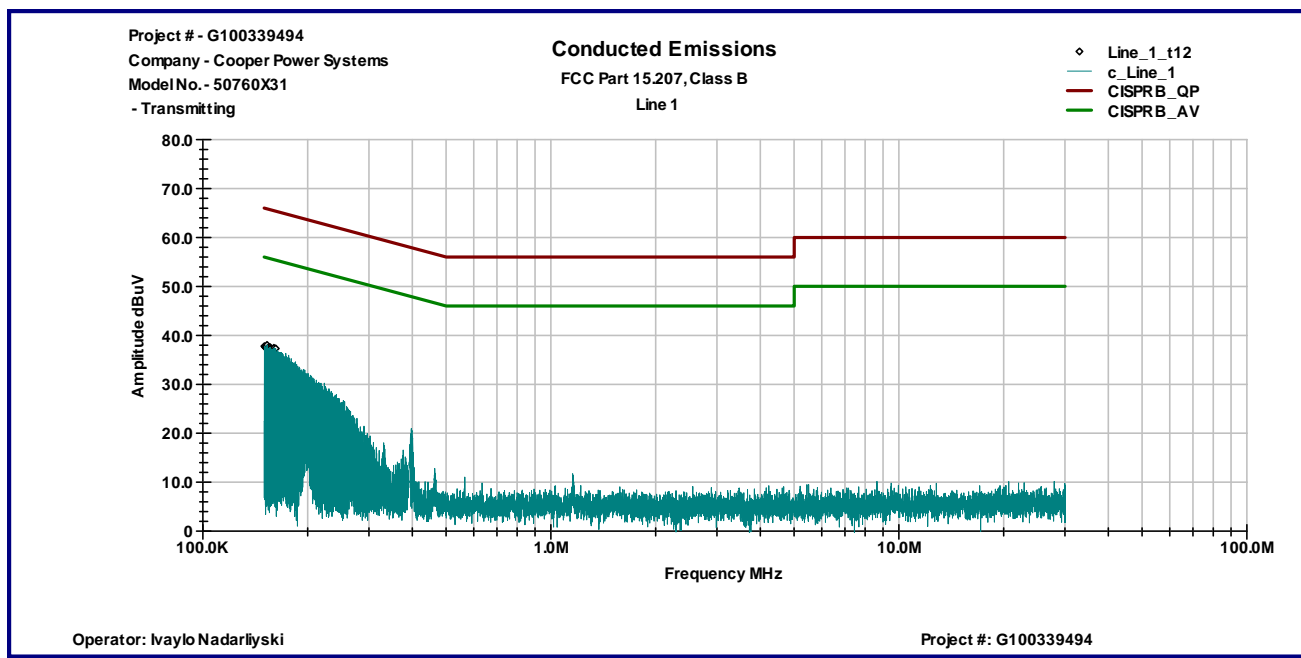
Table 3.7.1

Line 1

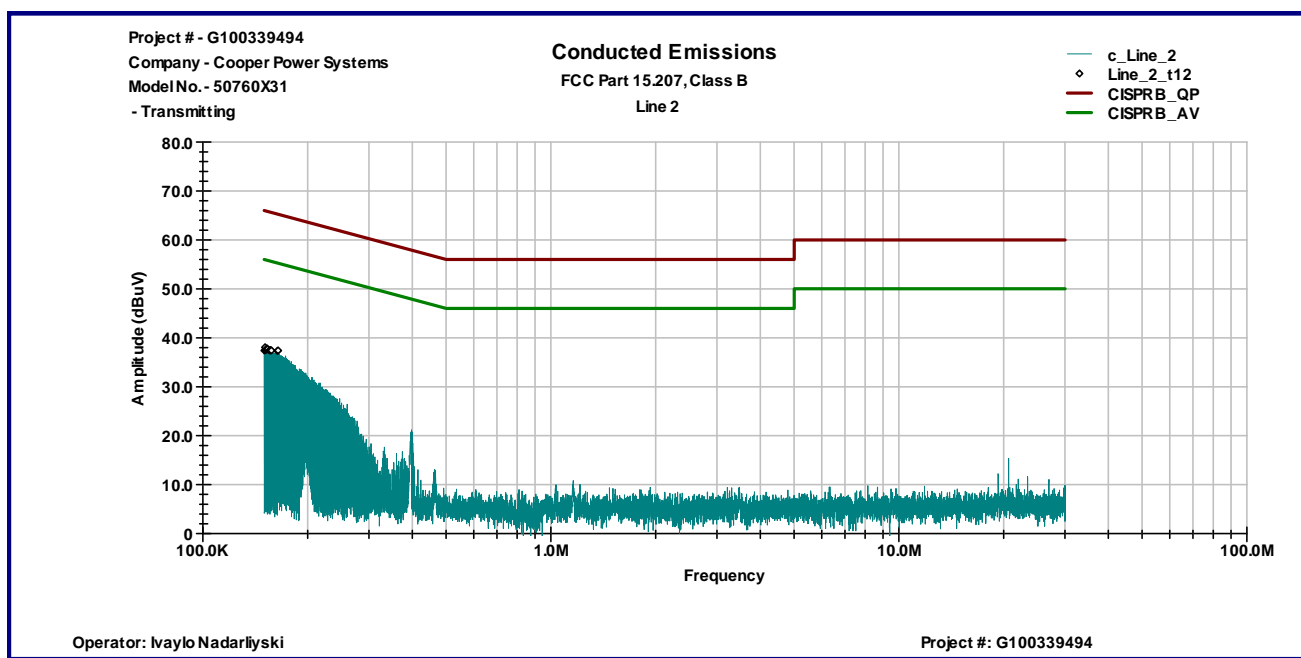
Frequency	Peak dB μ V	QP Limit dB μ V	AVG Limit dB μ V	QP Margin dB	AVG Margin dB
150.31 KHz	37.8	66.0	56.0	-28.2	-18.2
150.93 KHz	37.7	66.0	56.0	-28.3	-18.3
151.55 KHz	37.5	65.9	55.9	-28.4	-18.4
152.25 KHz	37.5	65.9	55.9	-28.4	-18.4
152.87 KHz	38.0	65.8	55.8	-27.8	-17.8
153.5 KHz	37.4	65.8	55.8	-28.4	-18.4
154.19 KHz	37.4	65.8	55.8	-28.4	-18.4
155.52 KHz	37.5	65.7	55.7	-28.2	-18.2
156.14 KHz	37.5	65.7	55.7	-28.1	-18.1
156.76 KHz	37.3	65.6	55.6	-28.4	-18.4
160.02 KHz	37.4	65.5	55.5	-28.0	-18.0
161.96 KHz	37.3	65.4	55.4	-28.1	-18.1

Line 2

Frequency	Peak dB μ V	QP Limit dBmV	AVG Limit dBmV	QP Margin dB	AVG Margin dB
150.23 KHz	37.4	66.0	56.0	-28.6	-18.6
150.85 KHz	38.1	66.0	56.0	-27.9	-17.9
151.48 KHz	37.5	65.9	55.9	-28.4	-18.4
152.17 KHz	37.6	65.9	55.9	-28.3	-18.3
152.8 KHz	37.8	65.9	55.9	-28.0	-18.0
153.42 KHz	37.7	65.8	55.8	-28.2	-18.2
155.36 KHz	37.4	65.7	55.7	-28.3	-18.3
156.06 KHz	37.5	65.7	55.7	-28.2	-18.2
156.68 KHz	37.4	65.6	55.6	-28.2	-18.2
157.38 KHz	37.4	65.6	55.6	-28.2	-18.2
163.83 KHz	37.3	65.3	55.3	-28.0	-18.0
164.53 KHz	37.4	65.2	55.2	-27.8	-17.8



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-12.5GHz

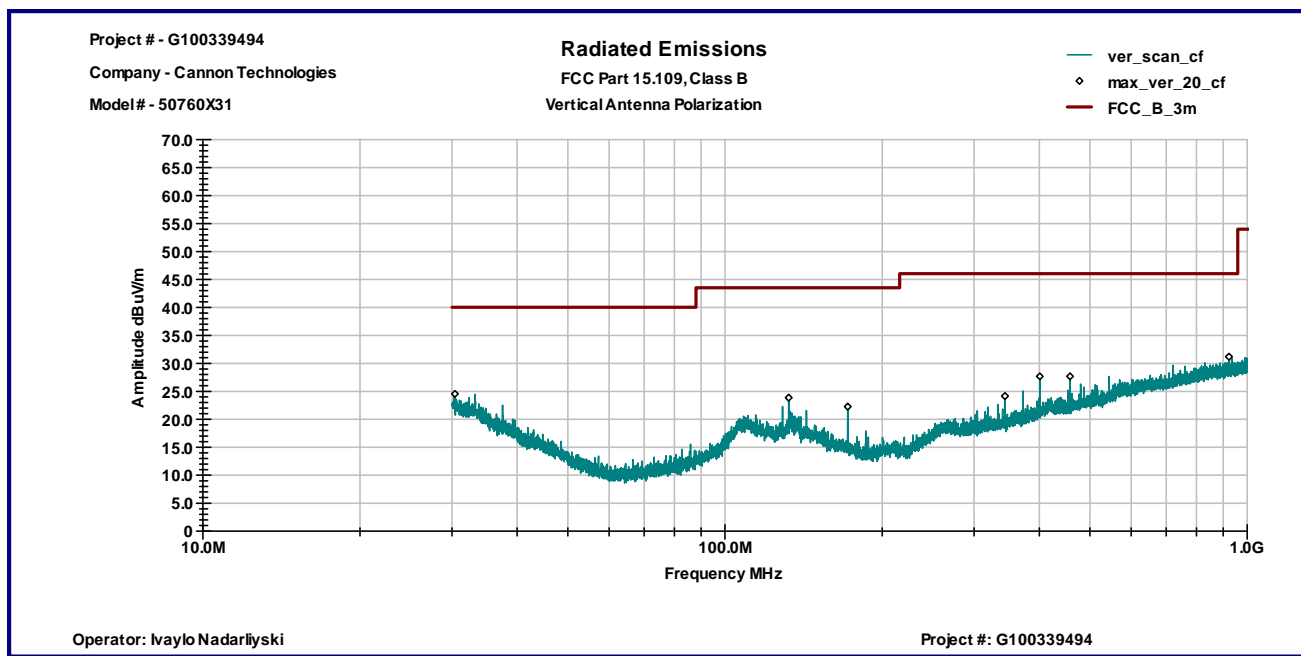
Max. Emissions margin: 14.8 dB below the limits

Notes: The Radiated Emissions test was performed in the Anechoic chamber at 3m measurement distance (see Table 3.11.1 and Graphs 3.11.1 - 3.11.4)

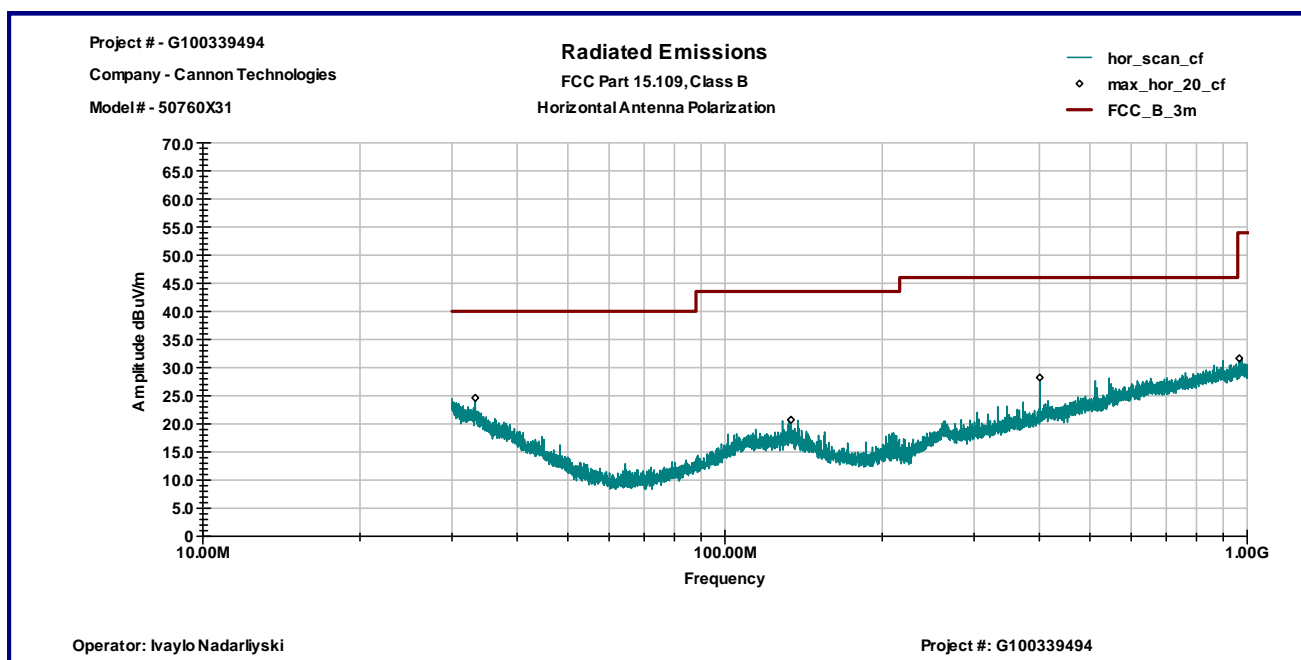
Date:	February 23, 2011	Result: Pass
Standard:	FCC Part 15.109, Class B	
Tested by:	Ivaylo Nadarliyski	
Test Point:	Enclosure	
Operation mode:	Standby	
Note:	None	

Table 3.8.1

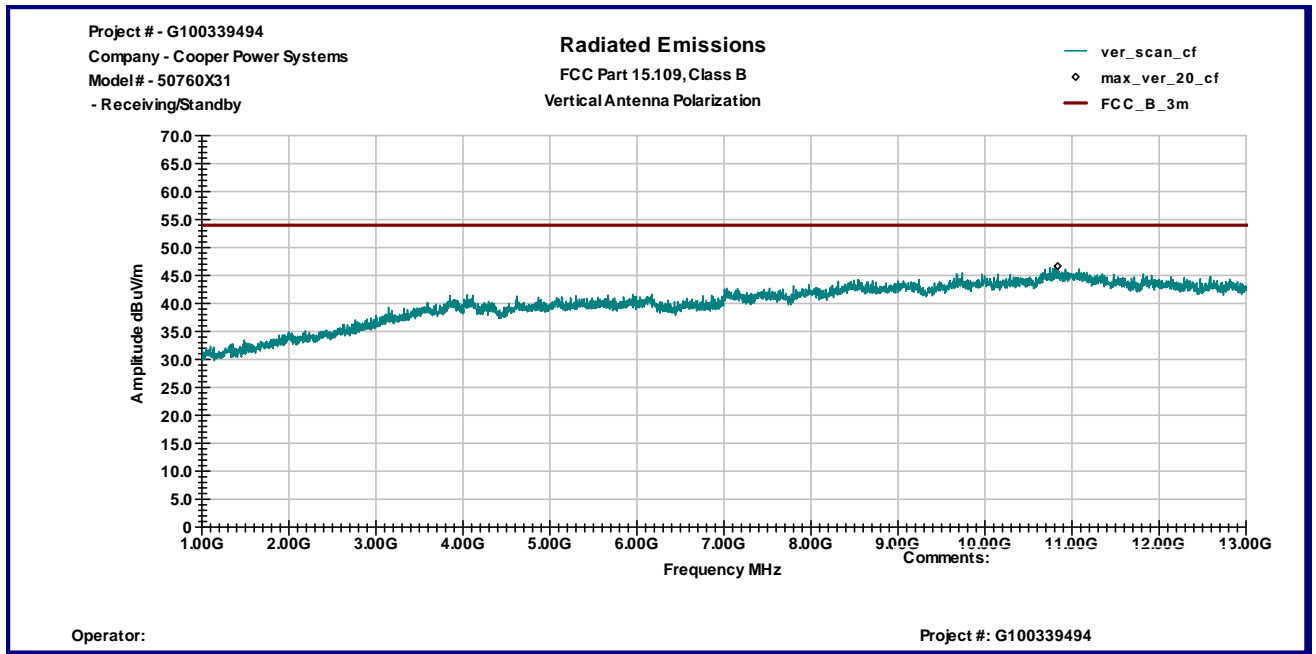
Frequency	Ant. Polarity	Peak Reading dBμV	Ant.Factor dB1/m	Total at 3m dBμV/m	QP Limit dBμV/m	Margin dB
30.391 MHz	V	4.4	20.1	24.5	40.0	-15.5
132.46 MHz	V	10.0	13.8	23.9	43.5	-19.7
171.81 MHz	V	10.8	11.4	22.3	43.5	-21.3
343.73 MHz	V	7.1	17.1	24.1	46.0	-21.9
400.86 MHz	V	8.6	19.0	27.7	46.0	-18.4
458.1 MHz	V	7.8	19.9	27.7	46.0	-18.4
923.13 MHz	V	5.6	25.6	31.2	46.0	-14.8
33.255 MHz	H	6.1	18.5	24.6	40.0	-15.4
133.79 MHz	H	7.0	13.7	20.7	43.5	-22.8
400.86 MHz	H	9.2	19.0	28.2	46.0	-17.8
966.22 MHz	H	5.7	26.0	31.6	54.0	-22.3



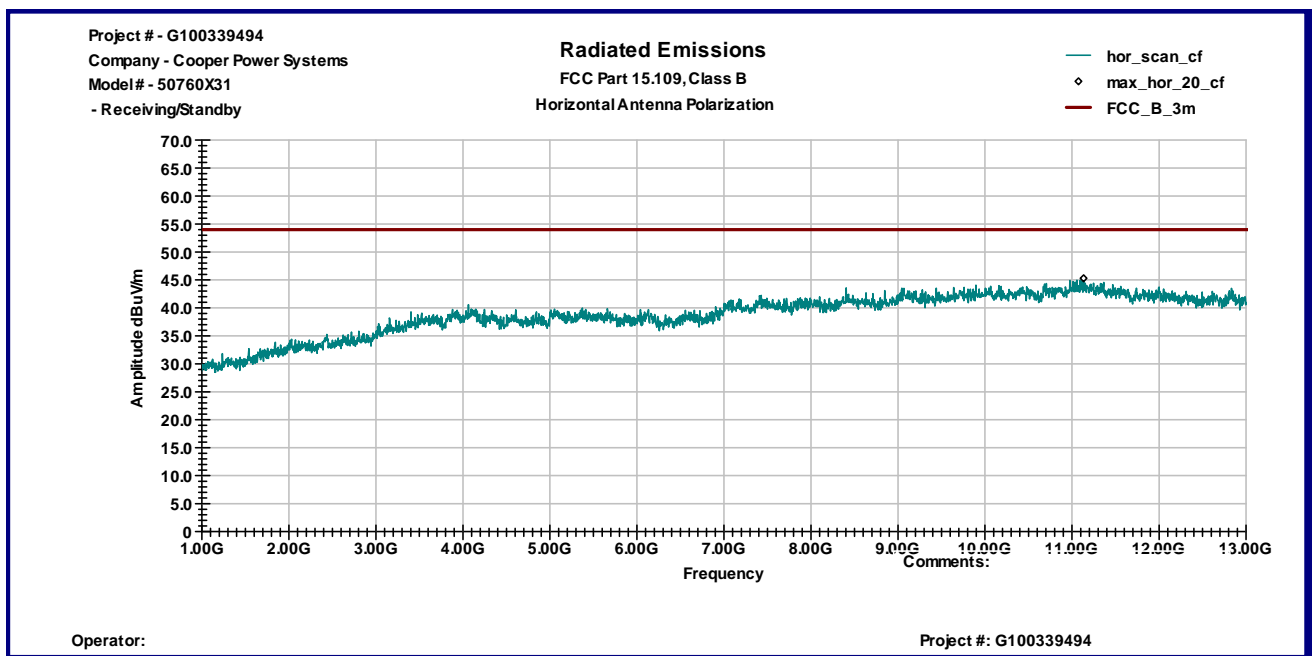
Graph 3.8.1



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: 19.0dB below the limits

Notes: None

Date:	February 23, 2011	Result: Pass
Standard:	FCC 15.107, Class B	
Tested by:	Ivaylo Nadarliyski	
Test Point:	Power Line	
Operation mode:	Standby	
Note:	None	

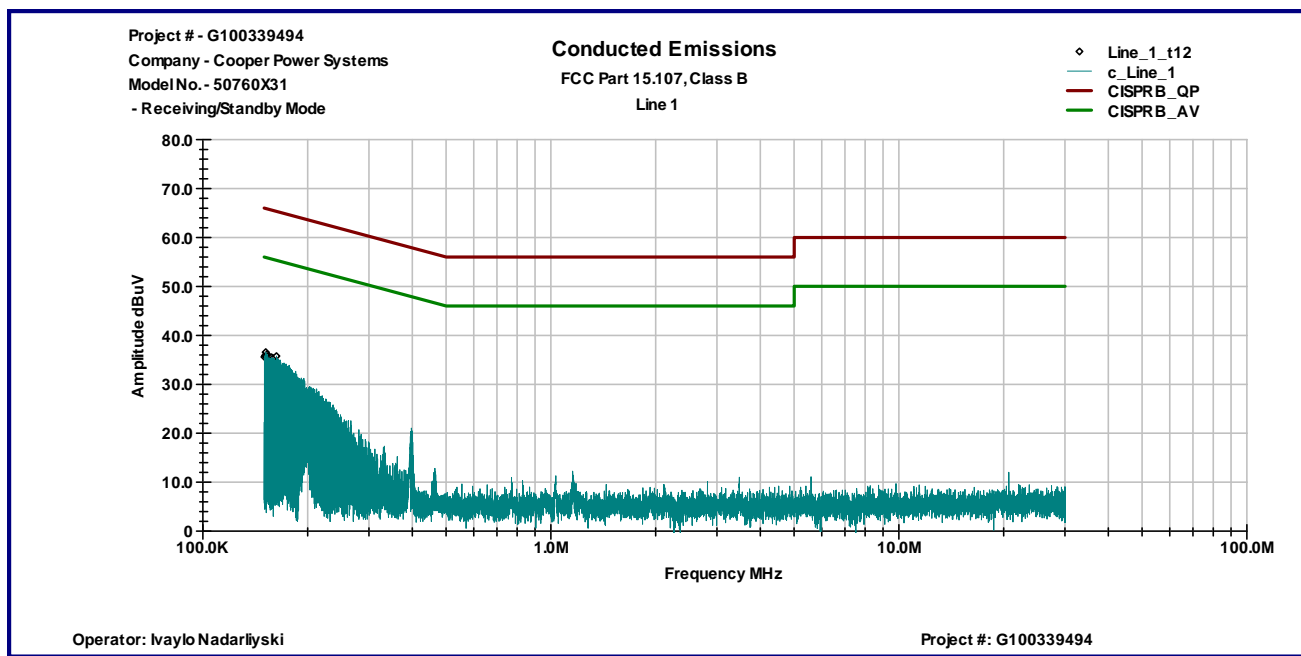
Table 3.9.1

Line 1

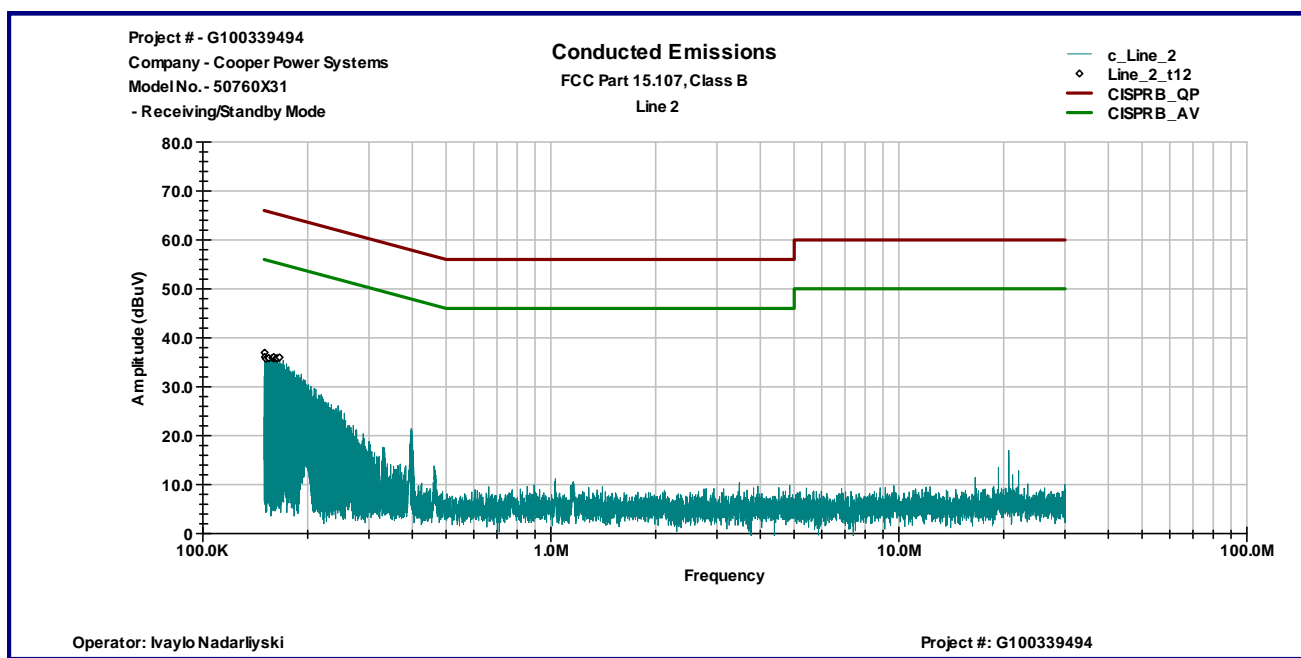
Frequency	Peak dBμV	QP Limit dBμV	AVG Limit dBμV	QP Margin dB	AVG Margin dB
150.31 KHz	35.6	66.0	56.0	-30.4	-20.4
150.93 KHz	35.9	66.0	56.0	-30.1	-20.1
151.63 KHz	36.5	65.9	55.9	-29.4	-19.4
152.25 KHz	35.7	65.9	55.9	-30.2	-20.2
152.95 KHz	36.1	65.8	55.8	-29.7	-19.7
153.57 KHz	35.7	65.8	55.8	-30.1	-20.1
154.89 KHz	35.4	65.7	55.7	-30.3	-20.3
155.52 KHz	35.3	65.7	55.7	-30.4	-20.4
157.46 KHz	35.5	65.6	55.6	-30.1	-20.1
158.78 KHz	35.3	65.5	55.5	-30.3	-20.3
160.1 KHz	35.3	65.5	55.5	-30.2	-20.2
162.66 KHz	35.7	65.3	55.3	-29.6	-19.6

Line 2

Frequency	Peak dBμV	QP Limit dBmV	AVG Limit dBmV	QP Margin dB	AVG Margin dB
150.47 KHz	37.0	66.0	56.0	-29.0	-19.0
150.7 KHz	36.1	66.0	56.0	-29.9	-19.9
151.79 KHz	35.7	65.9	55.9	-30.2	-20.2
154.43 KHz	35.8	65.8	55.8	-29.9	-19.9
154.66 KHz	35.8	65.8	55.8	-29.9	-19.9
158.54 KHz	35.9	65.5	55.5	-29.6	-19.6
159.63 KHz	35.8	65.5	55.5	-29.7	-19.7
159.87 KHz	36.1	65.5	55.5	-29.4	-19.4
162.43 KHz	35.8	65.3	55.3	-29.5	-19.5
163.52 KHz	35.7	65.3	55.3	-29.6	-19.6
163.75 KHz	35.8	65.3	55.3	-29.5	-19.5
166.08 KHz	36.0	65.2	55.2	-29.2	-19.2



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	12/07/2011	<input checked="" type="checkbox"/>
High Pass Filter	Reactel	7HS-4G-S12	0223	015274	VBV	<input checked="" type="checkbox"/>
Spectrum Analyzer	R & S	ESCI	100358	12909	07/12/2011	<input checked="" type="checkbox"/>
Bicono-Log Antenna	Schaffner-Chase	CBL 6112 B	2468	14459	10/18/2011	<input checked="" type="checkbox"/>
Horn Antenna	EMCO	3115	9507-4513	9936	04/13/2011	<input checked="" type="checkbox"/>
Waveguide Horn Antenna	EMCO	3116	9904-2423	9705	11/04/2011	<input checked="" type="checkbox"/>
LISN	Fischer Custom Communications	FCC-LISN-2 MOD.SD	316	9945	03/11/2011	<input checked="" type="checkbox"/>
Pre-Amplifier	MITEQ	AMF-5D-00501800-28-13P	1122951	13475	11/06/2011	<input checked="" type="checkbox"/>
Pre-Amplifier	MITEQ	AMF-6F-16002600-25-10P	1222383	MIN-0065	11/06/2011	<input checked="" type="checkbox"/>
System	TILE! Instrument Control		Ver. 3.4.K.29	15259	VBV	<input checked="" type="checkbox"/>
Power Supply	Topward Electrical Instruments	TPS-4000	962650	009784	VBV	<input checked="" type="checkbox"/>



Test Setup Photos

