

TEST REPORT

Report Number: 102403390MIN-001

Project Number: G102403390

**Testing performed on the model
400**

to

FCC ID: EOA-CM

Industry Canada ID: 6903A-CM

to

47 CFR Part 15.247:2015

RSS- 247, Issue 1, 2015

RSS-Gen, Issue 4, 2014

47 CFR, Part 15:2015, §15.107 and §15.109, Class / ICES-003, Issue 5:2012

For

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1.0 GENERAL DESCRIPTION

Model:	400
Type of EUT:	Companion Microphone
Serial Number:	15977033 and 15977034
FCC ID:	EOA-CM
Industry Canada ID:	6903A-CM
Related Submittal(s) Grants:	None
Company:	Starkey Laboratories, Inc.
Customer:	Mr. Bill Mitchell
Address:	6700 Washington Avenue South Eden Prairie, MN 55344, USA
Phone:	952-918-5683
e-mail:	bill_mitchell@starkey.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:	December 7, 2015
Test Work Started:	December 7, 2015
Test Work Completed:	December 18, 2015
Test Sample Conditions:	☐ Damaged ☐ Poor (Usable) ☒ Good



1.1 Product Description; Test Facility

Product Description:	Transceiver
Transmitter Type:	☐ FHSS ☒ Digital Modulation ☐ WiFi ☐ Blue Tooth
Operating Frequency Range(s):	From 907.492MHz to 922.055MHz
Number of Channels:	43
Modulation:	GMSK
Emissions Designator:	508KF1D
Antenna(s) Info:	The integral antenna (trace of the Printed Circuit Board) Antenna Gain = 1.0 dBi
Antenna Installation:	☐ User ☐ Professional ☒ Factory
Transmitter power configuration:	☒ Internal rechargeable battery
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	Transmitting mode performed at four channels: Dual channel 369/370, Operating Frequencies: 907.492 and 907.795MHz Dual Channel 388/389, Operating Frequencies: 913.256 and 913.560MHz Dual Channel 409/410, Operating Frequencies: 919.628 and 919.931MHz Single Channel 417, Operating Frequency: 922.055MHz
2	Receiving mode for digital portion was performed at three channels: low channel 907MHz, middle channel 913MHz, and upper channel 922MHz.

Cables:

No.	Type	Length	Designation	Note
	None			

Support equipment/Services:

No.	Item	Description
	None	

General notes: For purpose of testing the samples with regular antenna and samples with temporary installed RF Antenna connector were used.
The transceiver modes of operation were pre-set for purpose of testing.
Testing performed with fully charged battery
Internal battery charging mode was not evaluated

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).

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

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

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

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

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

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

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

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.

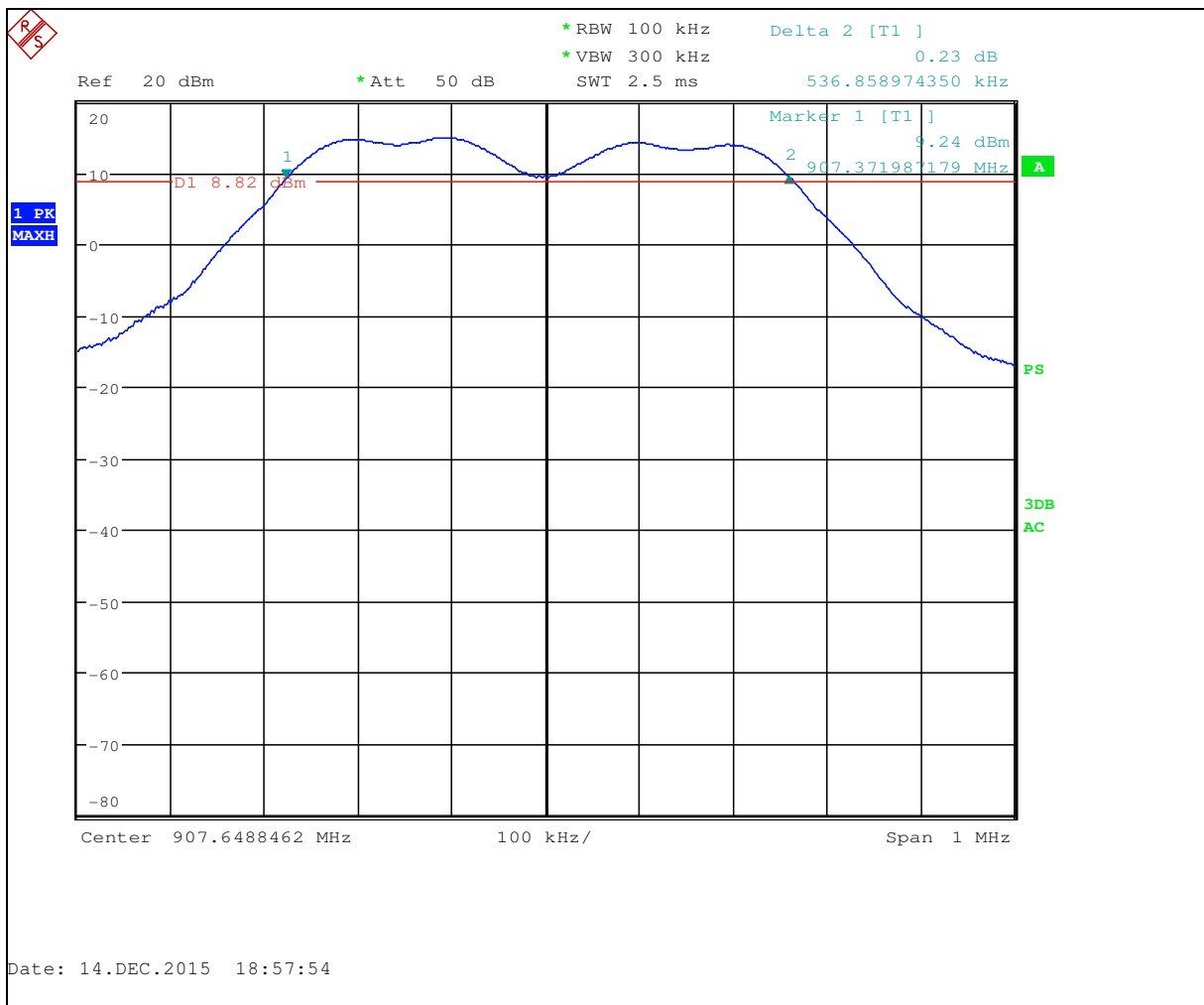
TEST SPECIFICATION	TEST PARAMETERS	RESULT
15.247(a) / RSS-247 5.2	6dB modulated DTS bandwidth	Pass
15.247(b), (c) / RSS-247 5.4	Maximum peak output power	Pass
15.247(e) / RSS-247 5.2	Power spectral density	Pass
15.247(d) / RSS-247 5.5	Antenna conducted spurious emissions	Pass
15.247(d) / RSS-247 5.5	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	N/A
15.109 / ICES-003	Receiver/digital device radiated emissions	Pass
15.107 / ICES-003	Digital device conducted emissions	N/A

3.0 TEST CONDITIONS AND RESULTS

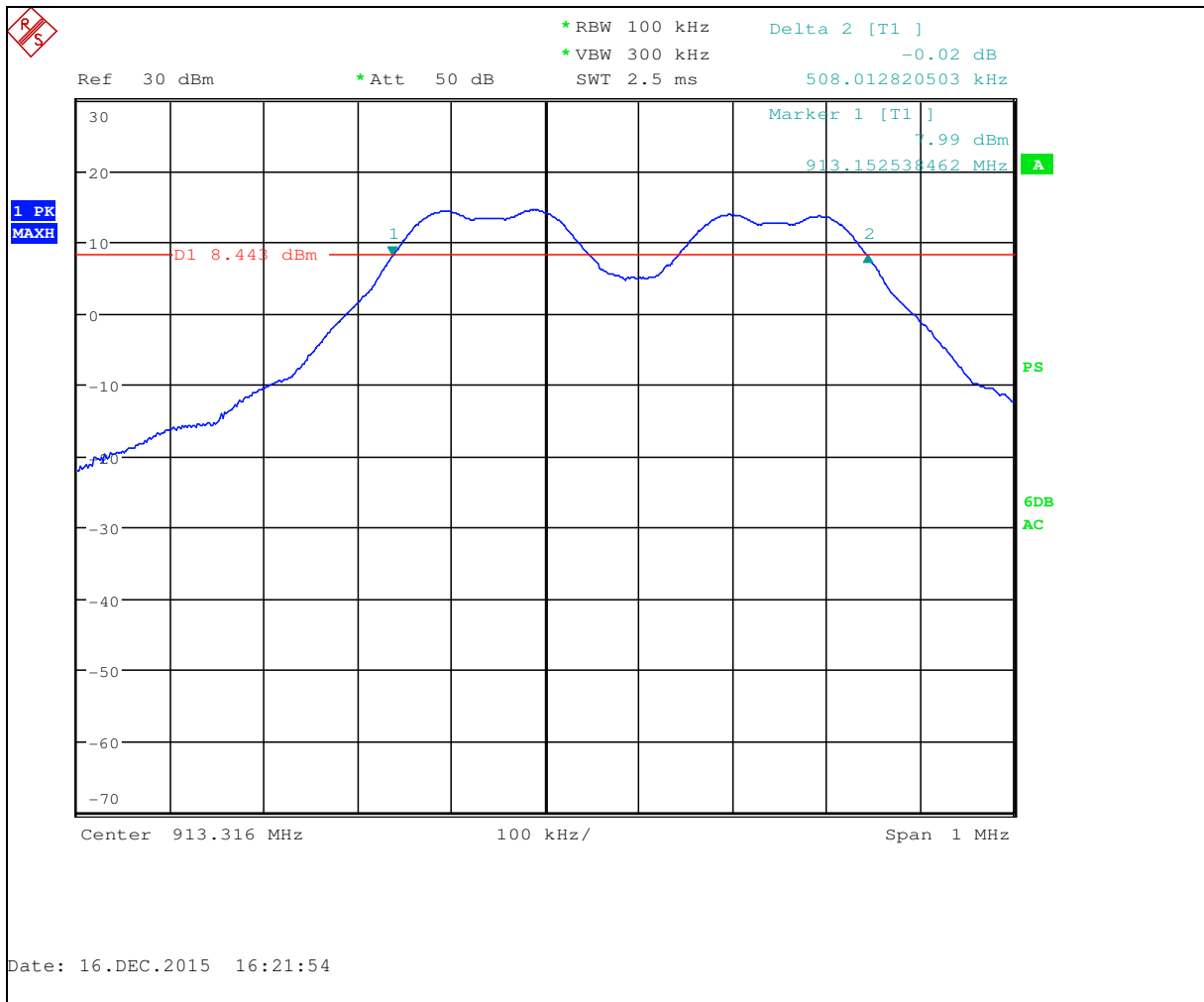
3.1 6dB modulated DTS bandwidth

Frequency 907.371 MHz Channel kHz	Middle Frequency 913.152 MHz Channel kHz	Middle Frequency 919.502 MHz Channel kHz	Upper Frequency 921.791 MHz Channel kHz	Minimum Bandwidth kHz	Result
526.8	508.0	548.1	527.2	500	Pass
RBW: VBW:		☒ 100kHz ☒ 300kHz			

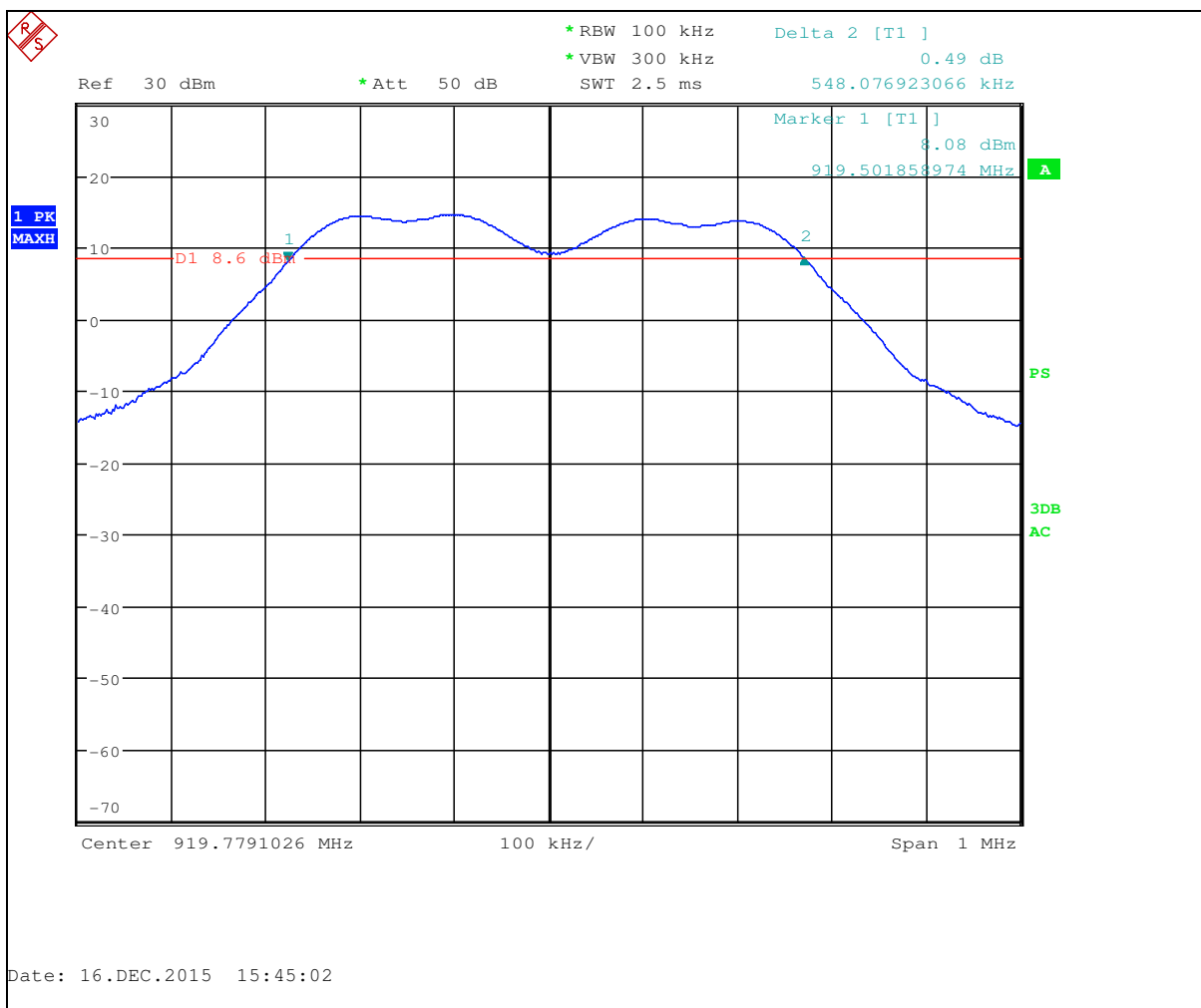
Notes: Graphs 3.1.1 to 3.1.4 show the 6dB bandwidth



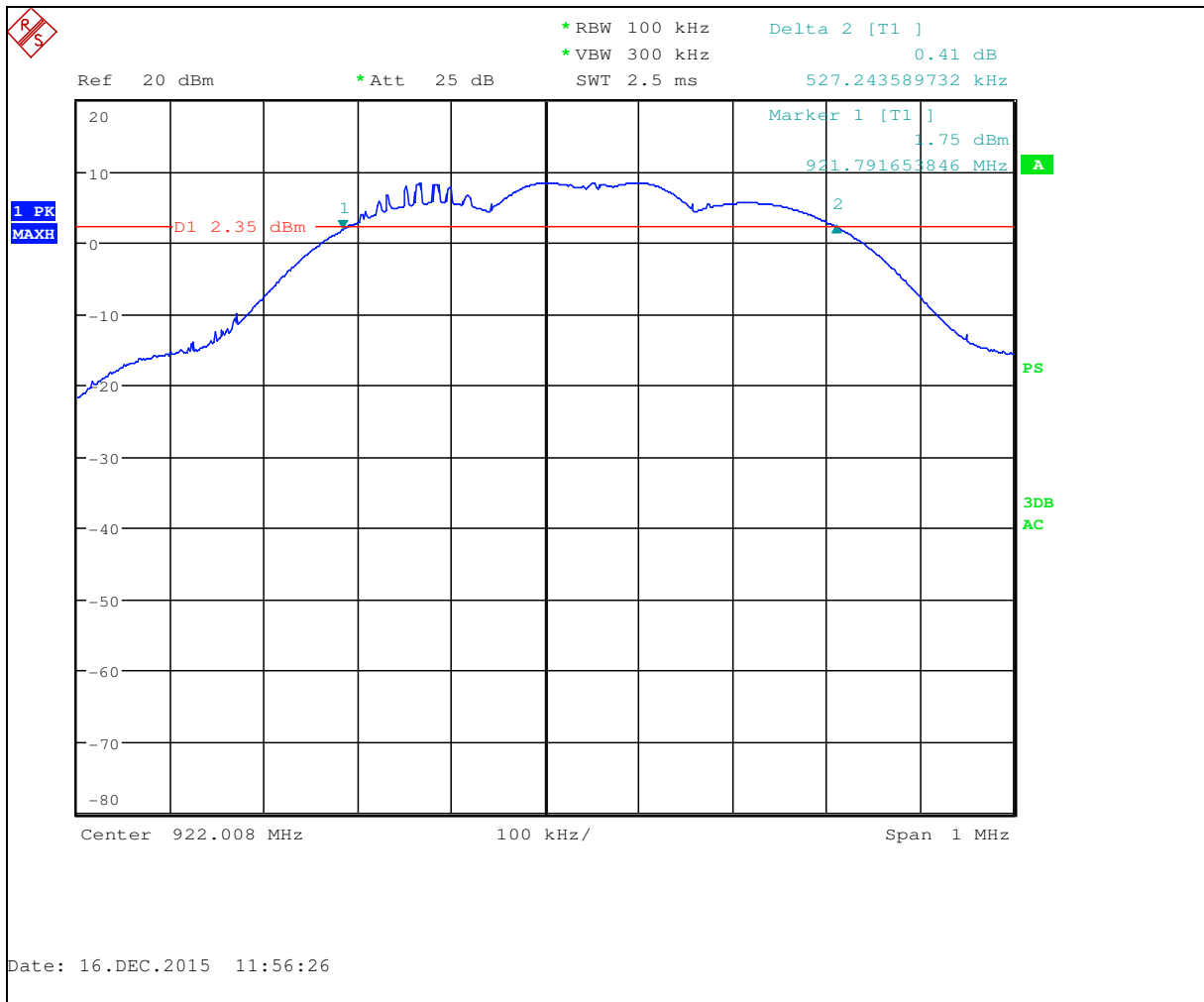
Graph 3.1.1



Graph 3.1.2



Graph 3.1.3



Graph 3.1.4

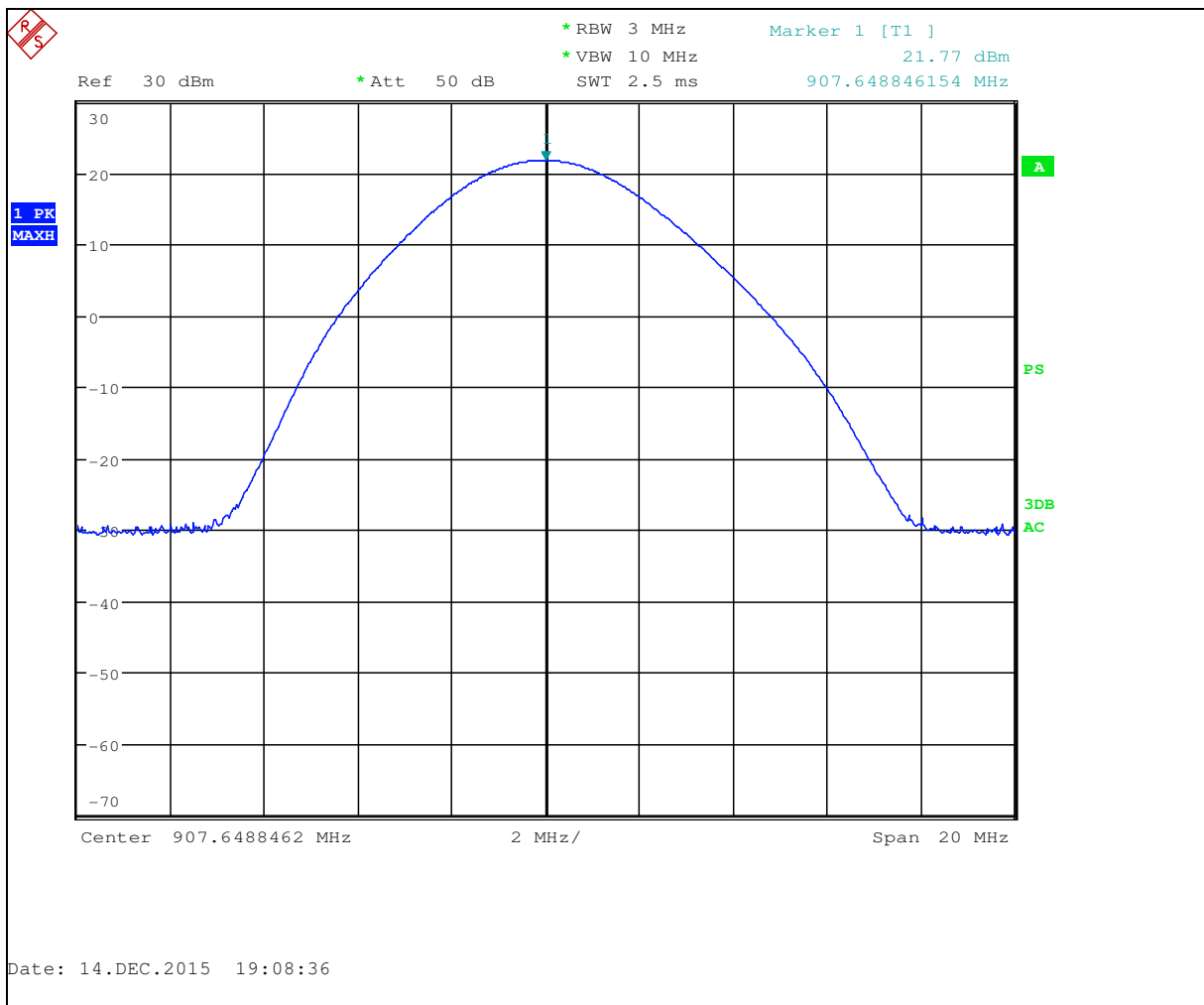
3.2 Maximum peak output power

Test result: Pass

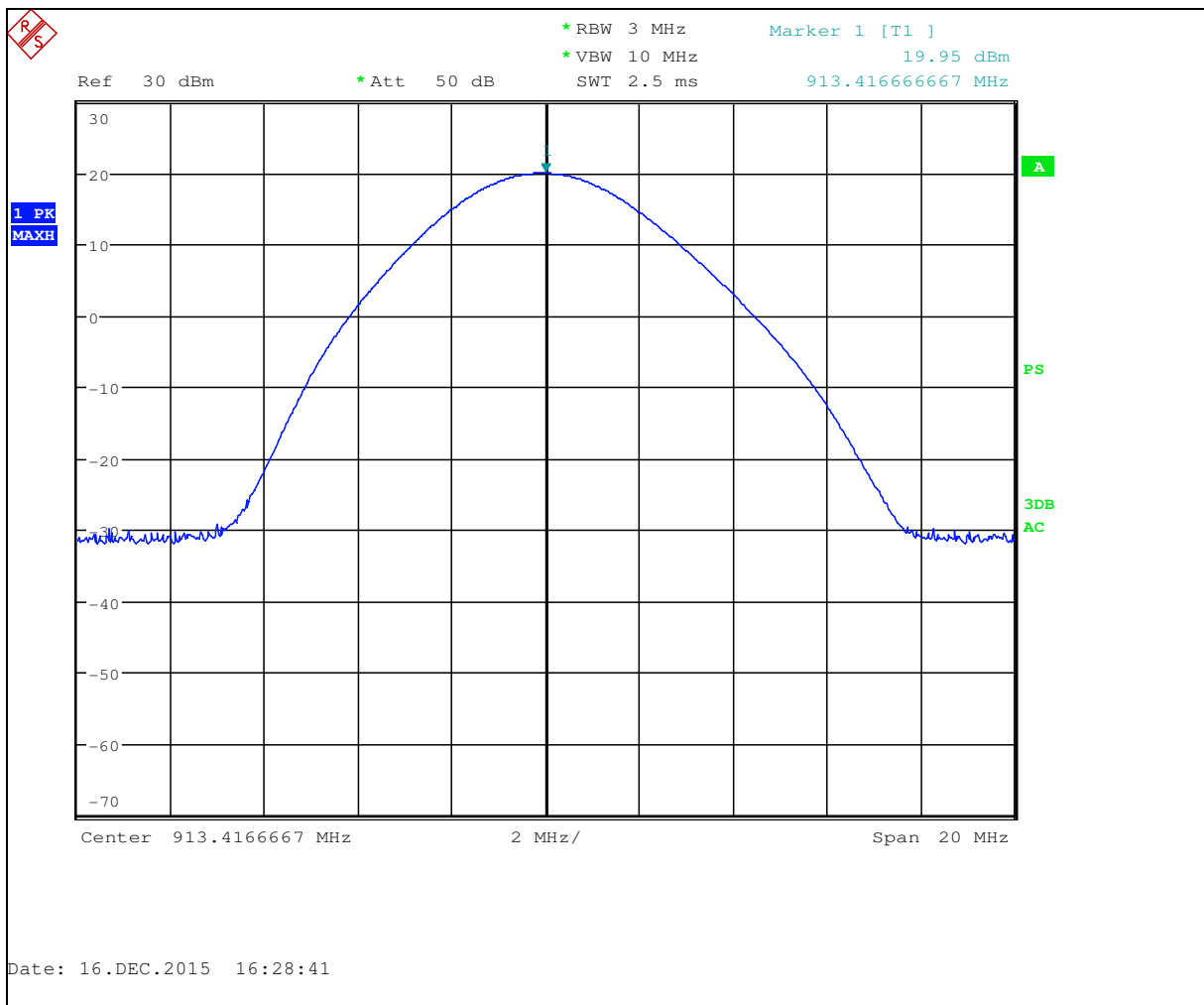
Max. Margin: 24.17dB below the limits

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
907	21.77	0.3	22.07 (161.06mW)	30	0	-7.93
Middle Frequency MHz						
913	19.95	0.3	20.25 (105.93mW)	30	0	-9.75
919	20.00	0.3	20.30 (107.15mW)	30	0	-9.70
Upper Frequency MHz						
922	7.51	0.3	7.81 (6.04mW)	30	0	-22.19
RBW:	☐ 1MHz ☒ 3MHz ☐ 10MHz					
VBW:	☐ 1MHz ☐ 3MHz ☒ 10MHz					
Antenna Gain:	☒ < 6dBi ☐ >6dBi and = dBi, Output power reduction = dB					

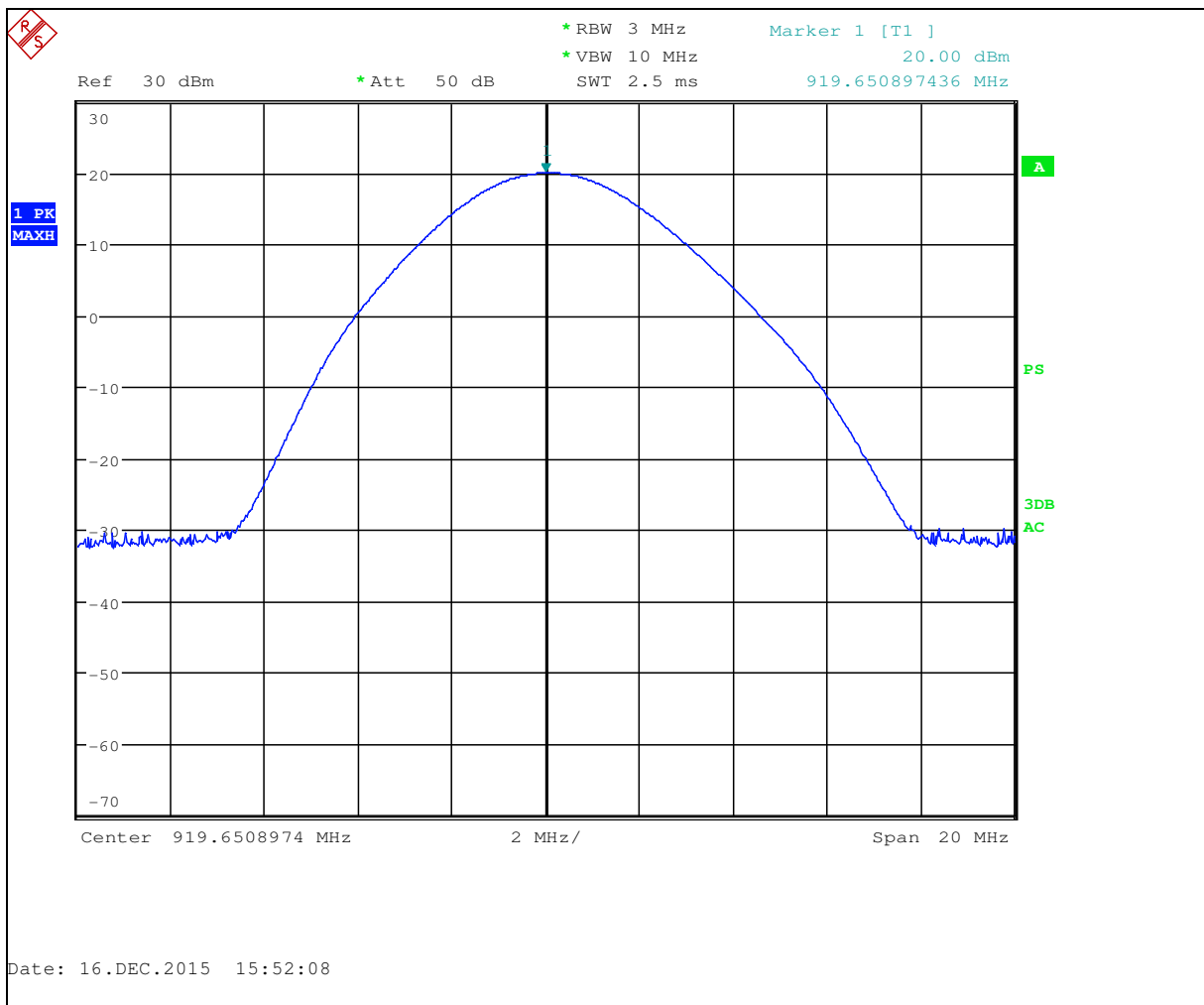
Notes: Graphs 3.2.1 to 3.2.4 show Peak Output Power



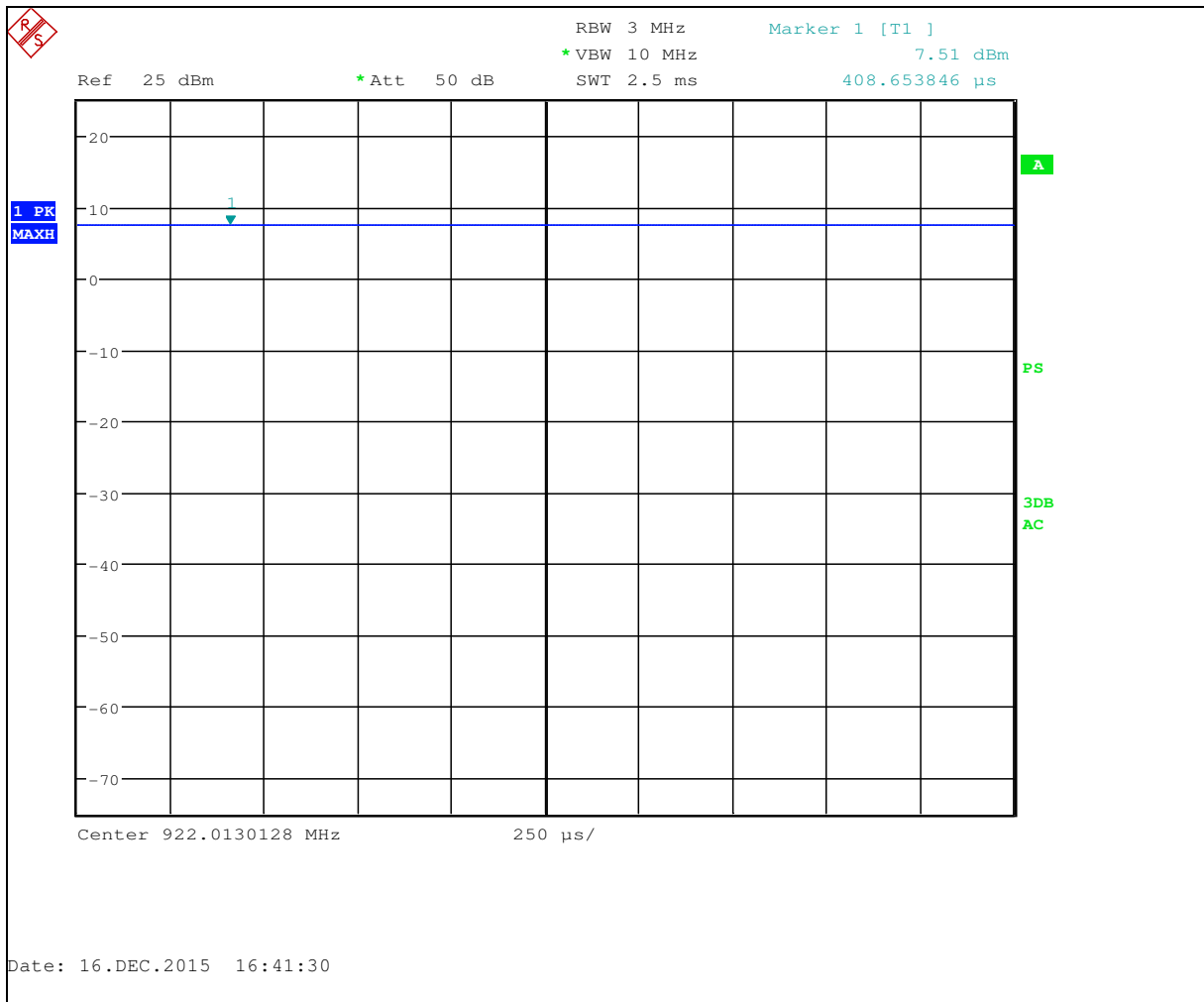
Graph 3.2.1



Graph 3.2.2



Graph 3.2.3

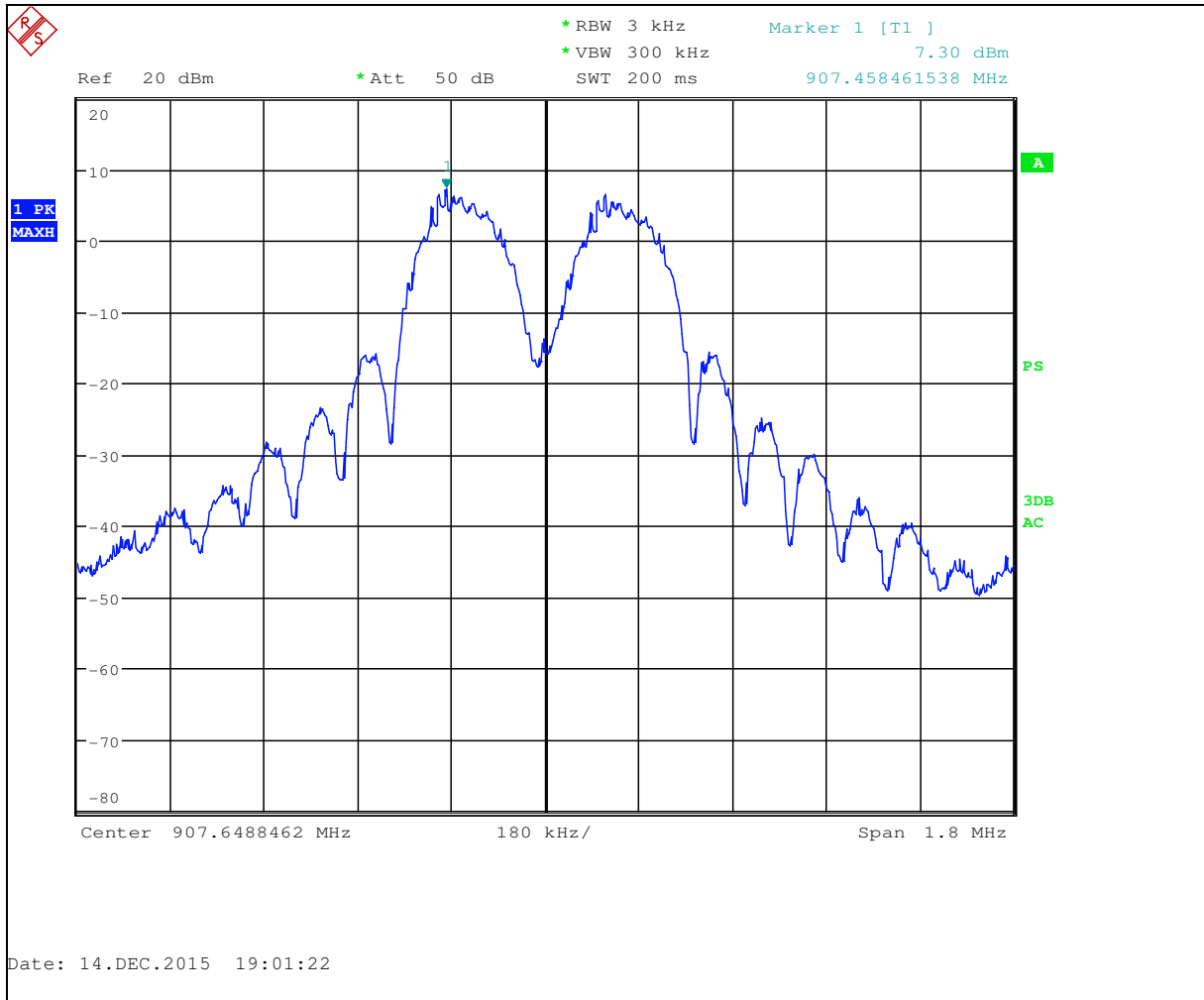


Graph 3.2.4

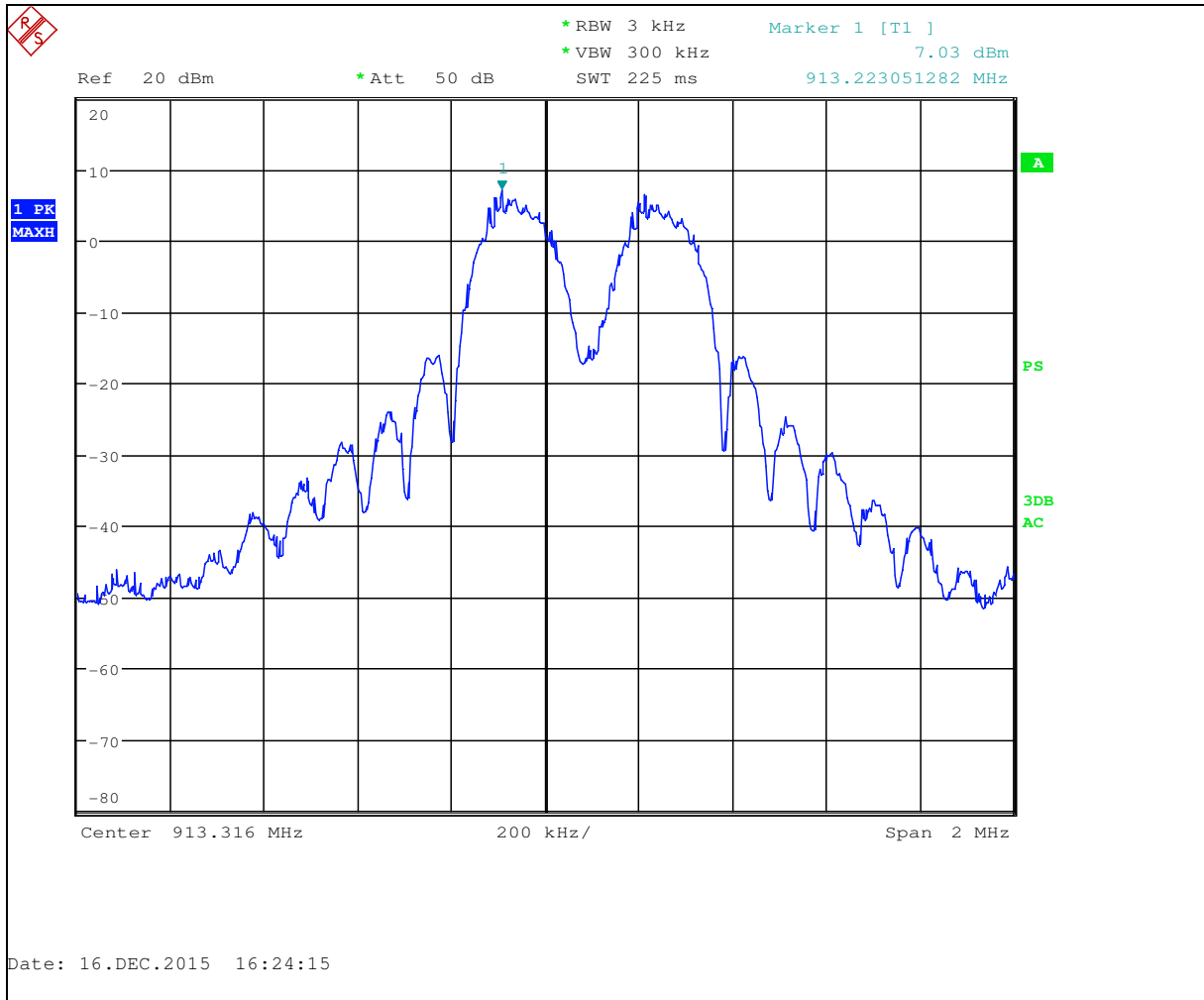
3.3 Power spectral density

Power Output:	☒ Conducted ☐ Radiated			
	Measured Density dBm	Power Density at Antenna dBm	Limit dBm	Margin dB
Low Frequency Channel 907MHz	7.3	7.6	8	-0.4
Middle Frequency Channel 913MHz	7.0	7.3	8	-0.7
Middle Frequency Channel 919MHz	7.0	7.3	8	-0.7
Upper Frequency Channel 922MHz	7.4	7.7	8	-0.3
Analyzer Settings:	☒ RBW=3KHz ☒ VBW=300KHz ☒ Span=2MHz ☒ Sweep=Auto			
Antenna Gain:	☒ < 6dBi and = 2dBi ☐ >6dBi and = dBi, limit reduction = dB			

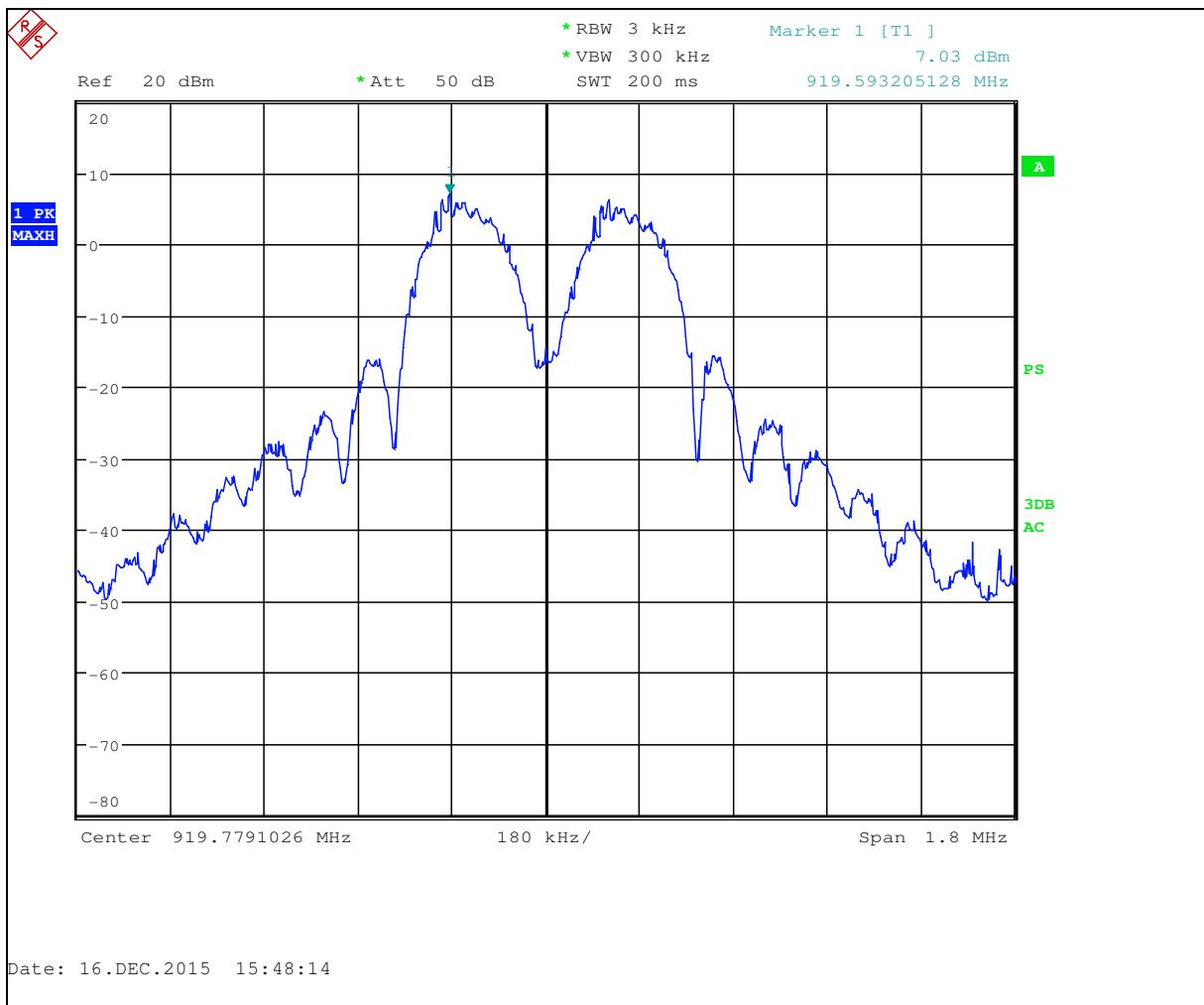
Notes: The Power Spectral Density at Antenna was calculated adding the cable loss of 0.3dB from the measured density value.
Graphs 3.3.1 to 3.3.4 show the Power Spectral Density



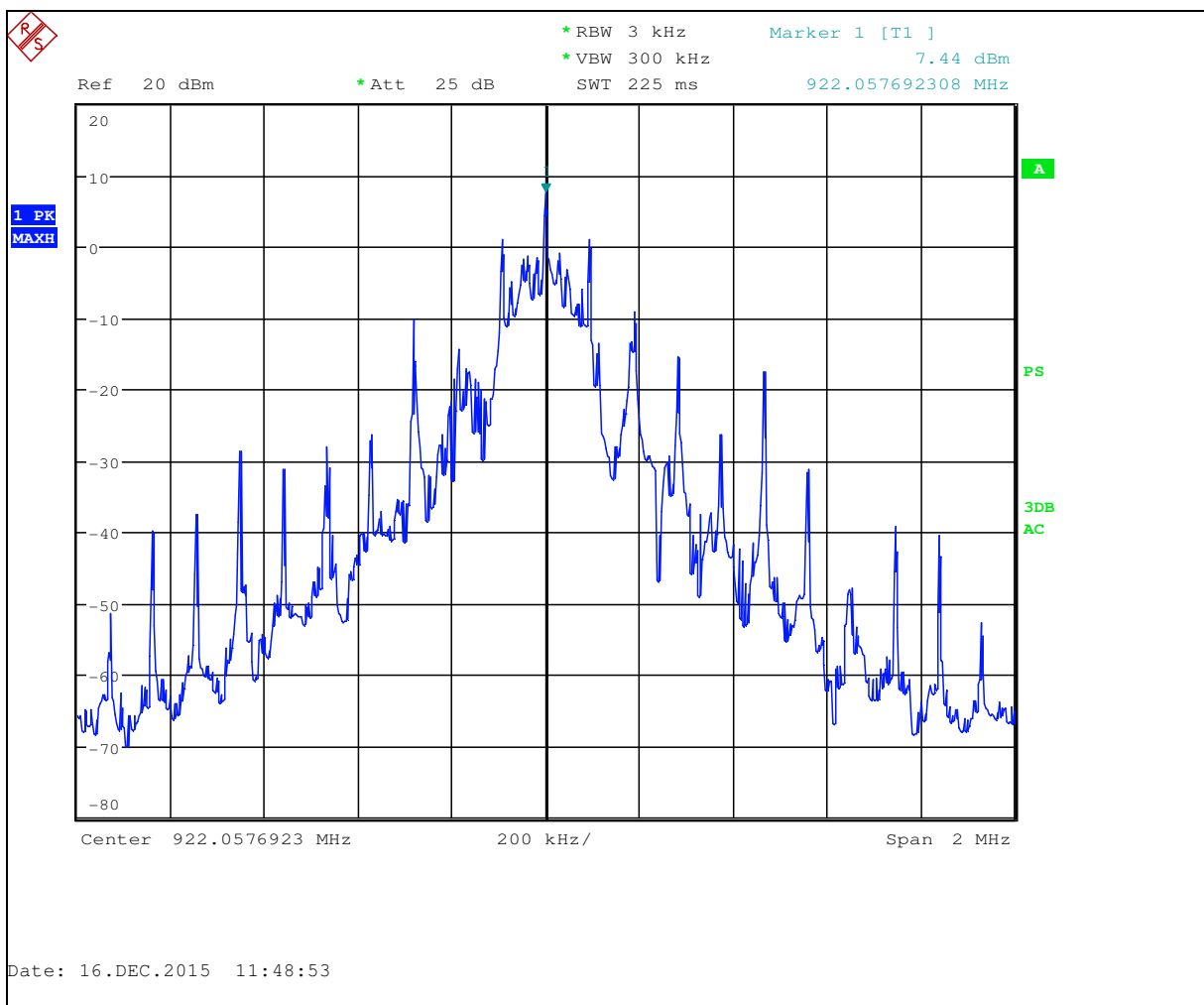
Graph 3.3.1



Graph 3.3.2



Graph 3.3.3

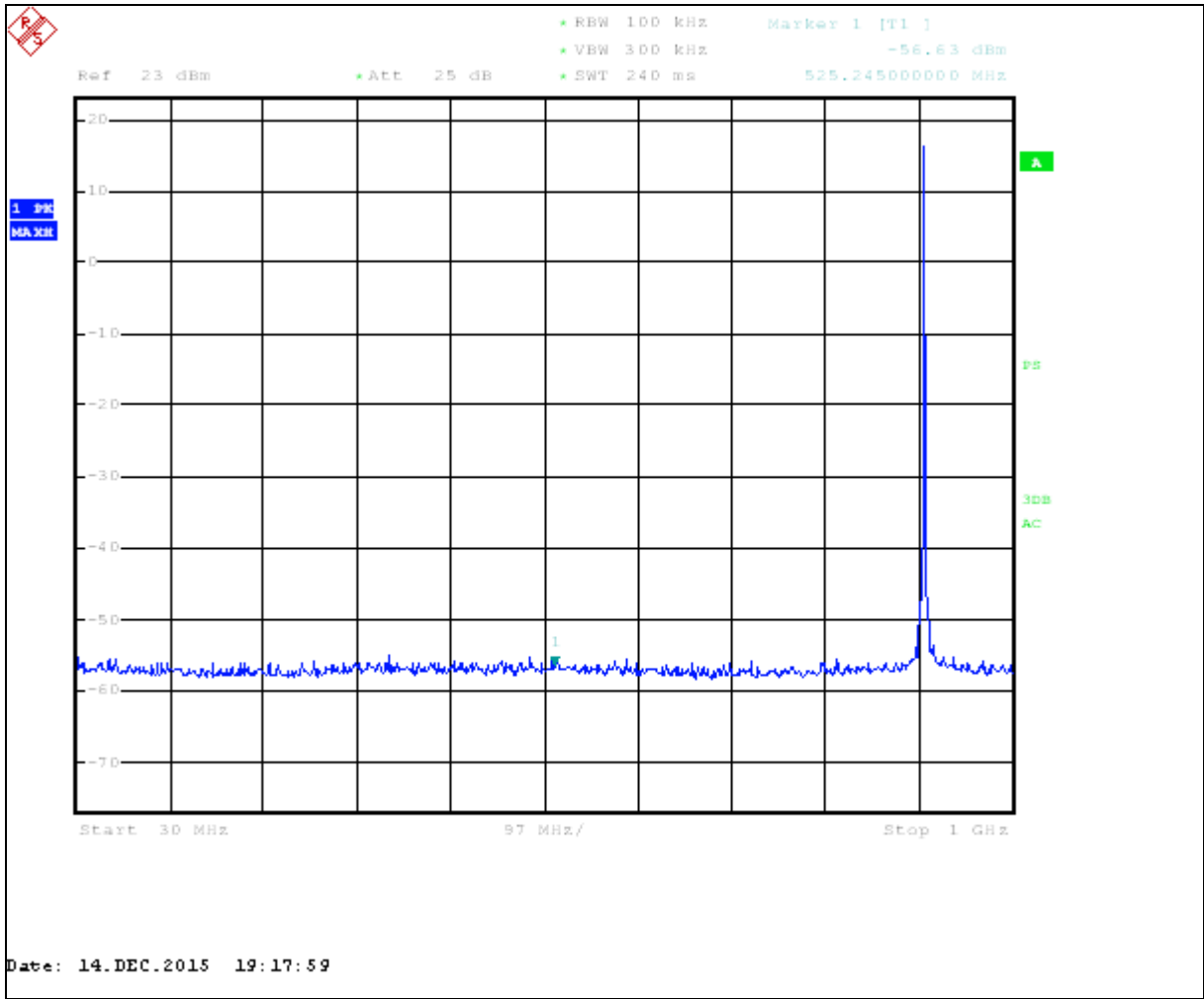


Graph 3.3.4

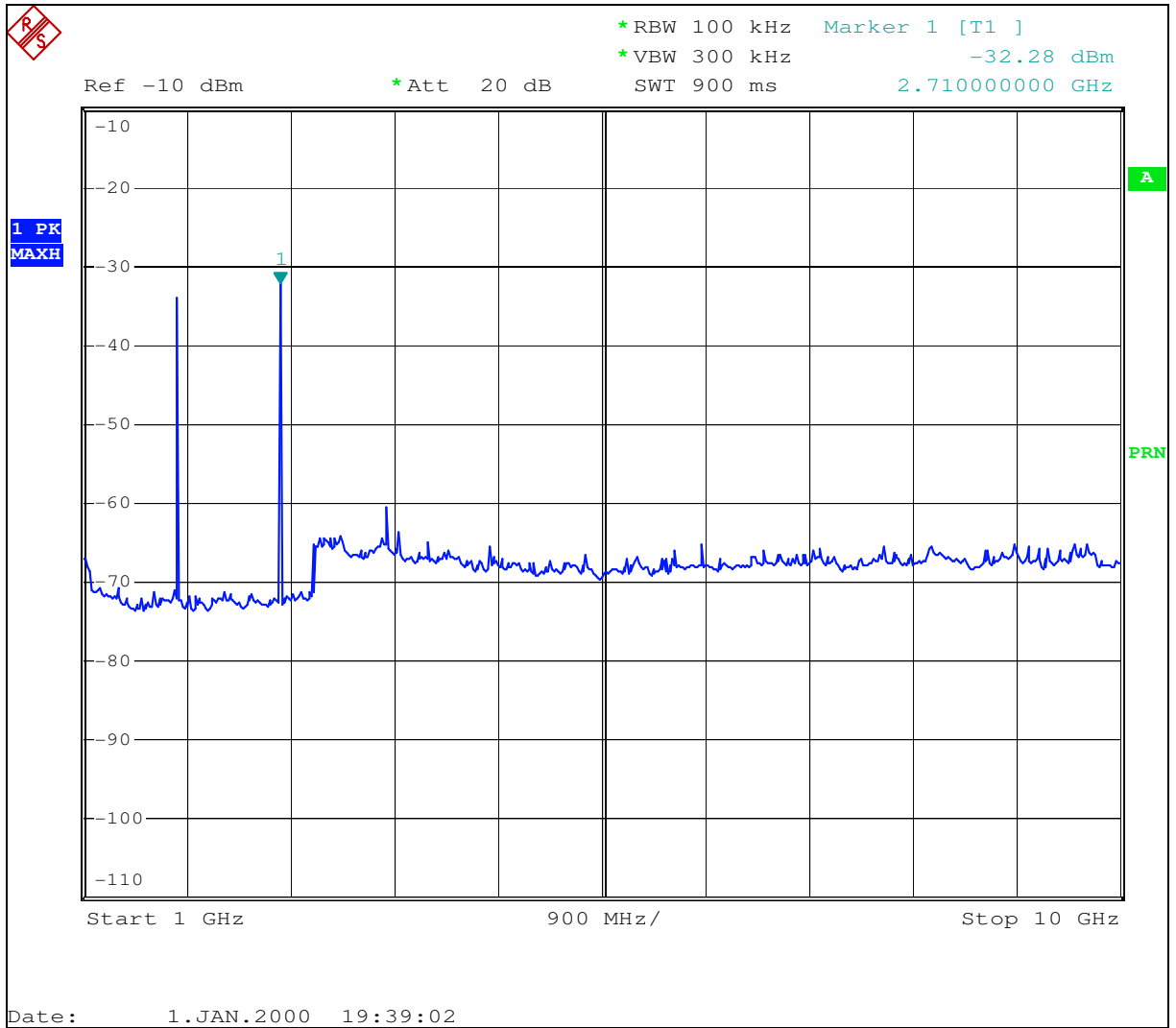
3.4 Antenna conducted spurious emissions

	Minimum Measured Attenuation dB	Minimum Allowed Attenuation dB	Margin dB
Low Frequency Channel 907MHz	32.28	20	-12.28
Middle Frequency Channel 913MHz	32.45	20	-12.45
Middle Frequency Channel 919MHz	31.64	20	-11.64
Upper Frequency Channel 922MHz	40.25	20	-20.25
Analyzer Settings:	☒ RBW=100KHz		
Minimum Allowed Attenuation:	☒ 20dB ☐ 30dB (for digital systems with conducted power measured using RMS averaging over a time interval)		

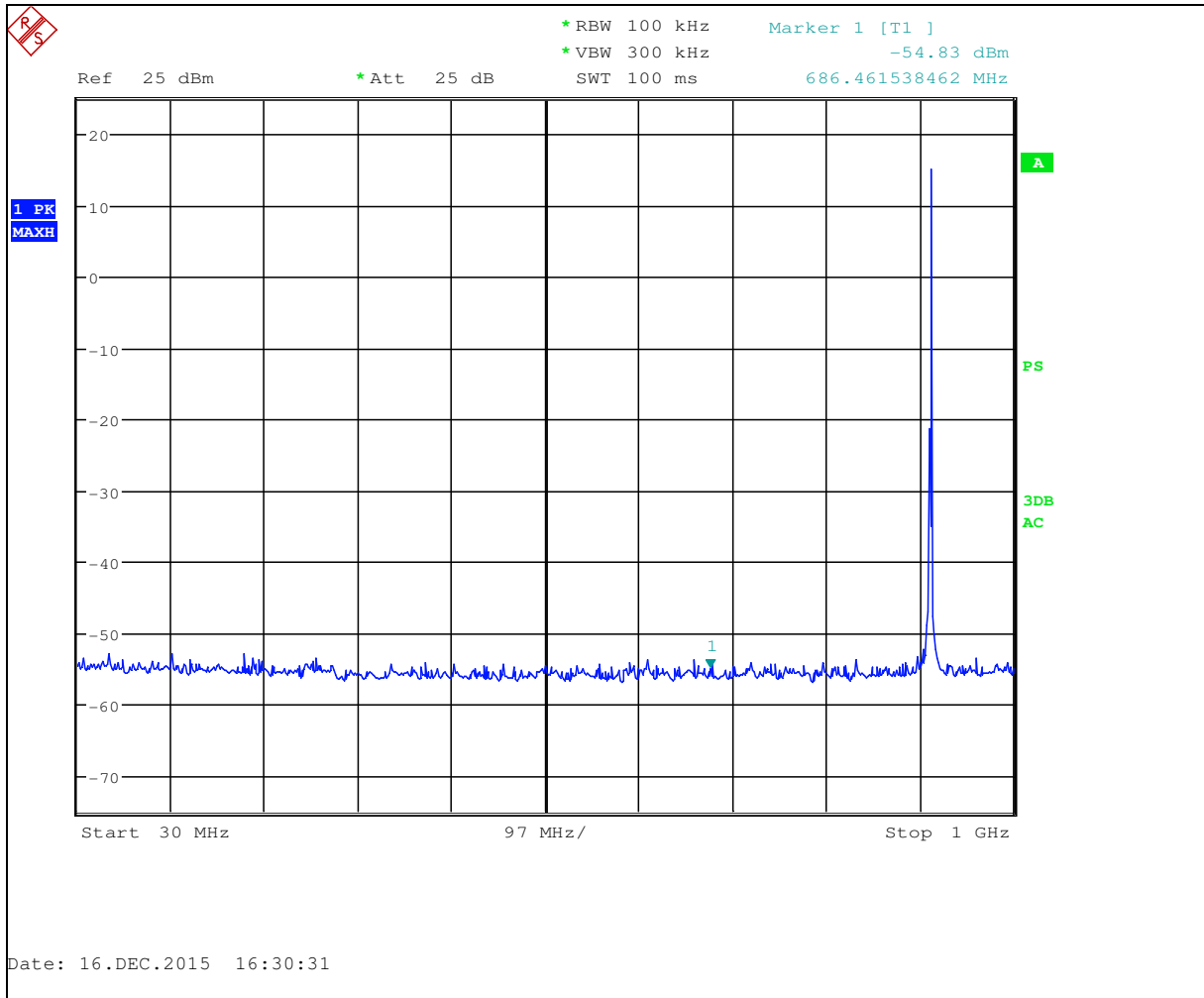
Notes: Test was performed in frequency range from 30MHz to 10GHz
 Graphs 3.4.1 to 3.4.2 show the Antenna Conducted Spurious Emissions for low channel
 Graphs 3.4.3 to 3.4.4 show the Antenna Conducted Spurious Emissions for middle channel
 Graphs 3.4.5 to 3.4.6 show the Antenna Conducted Spurious Emissions for middle channel
 Graphs 3.4.7 to 3.4.8 show the Antenna Conducted Spurious Emissions for high channel
 Graph 3.4.9 shows band edge compliance at 902MHz
 Graph 3.4.10 shows band edge compliance at 928MHz



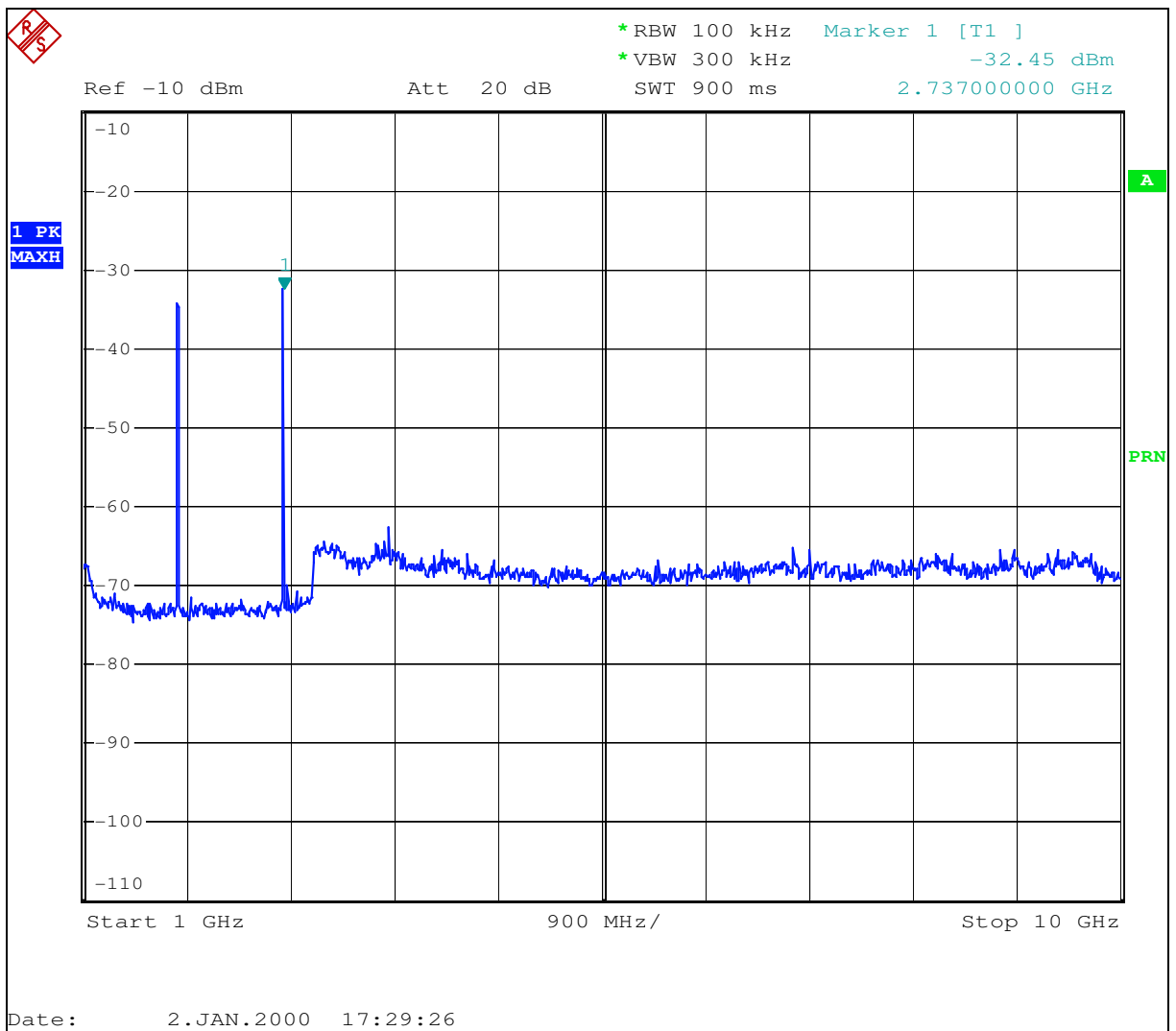
Graph 3.4.1



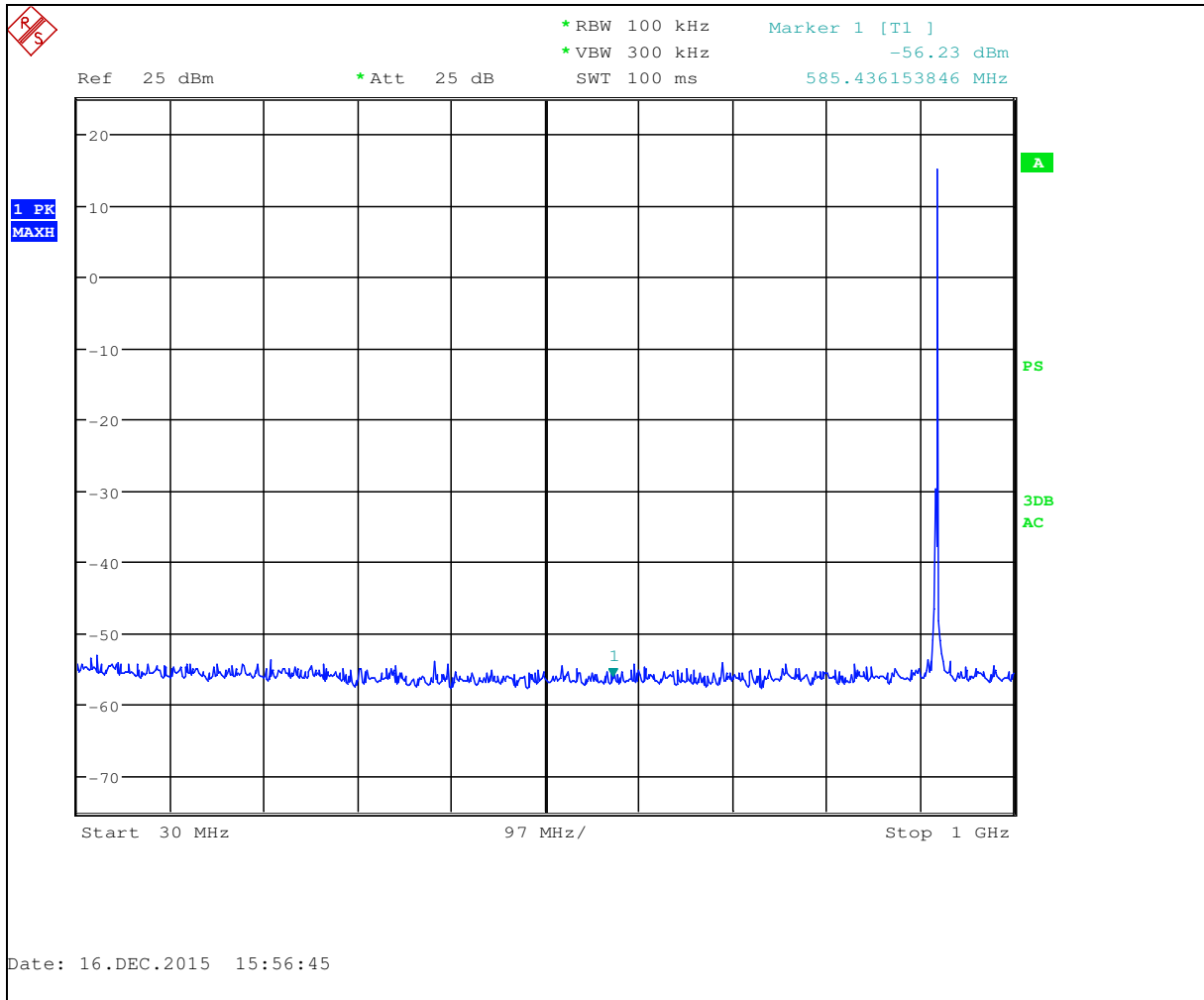
Graph 3.4.2



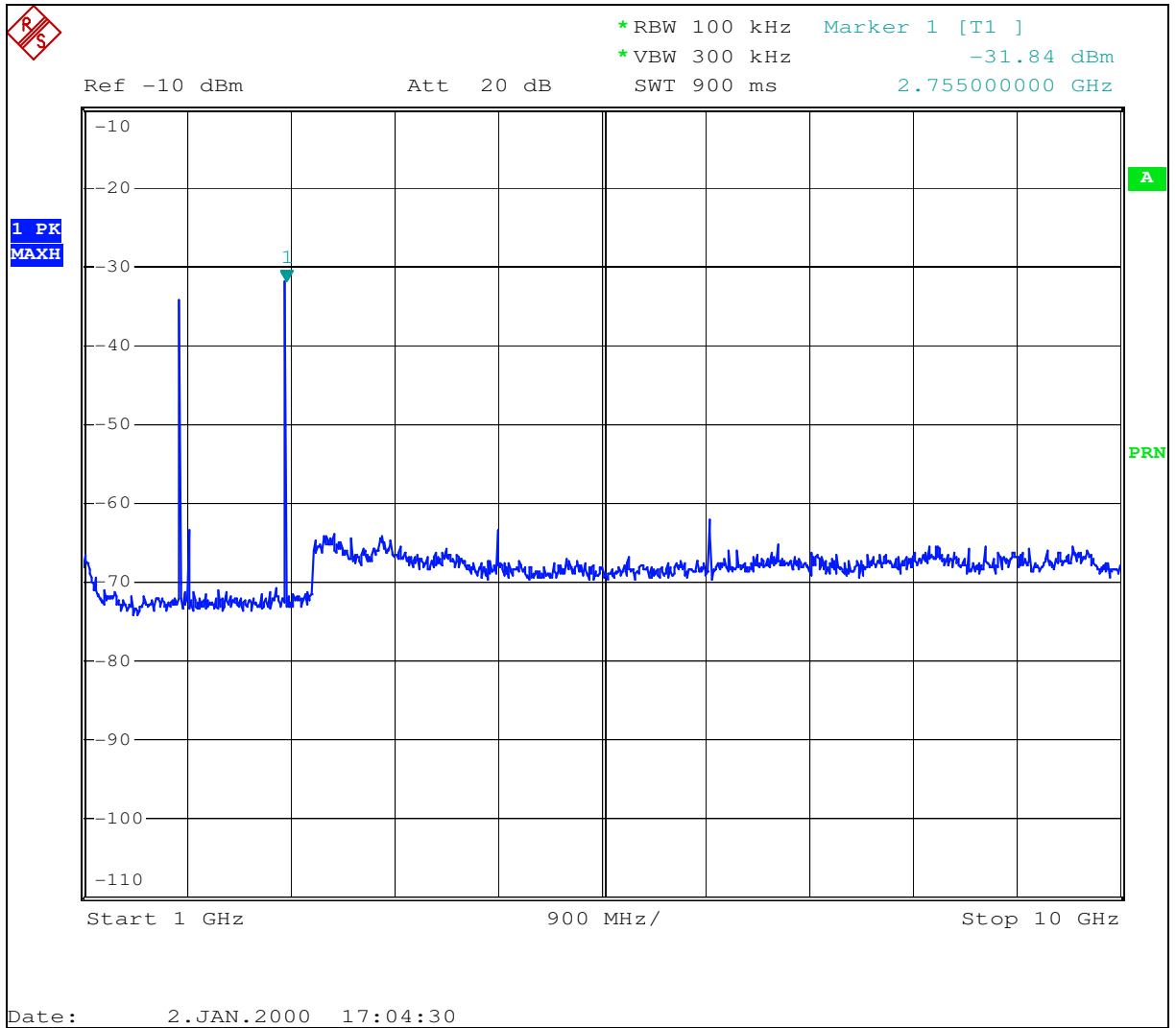
Graph 3.4.3



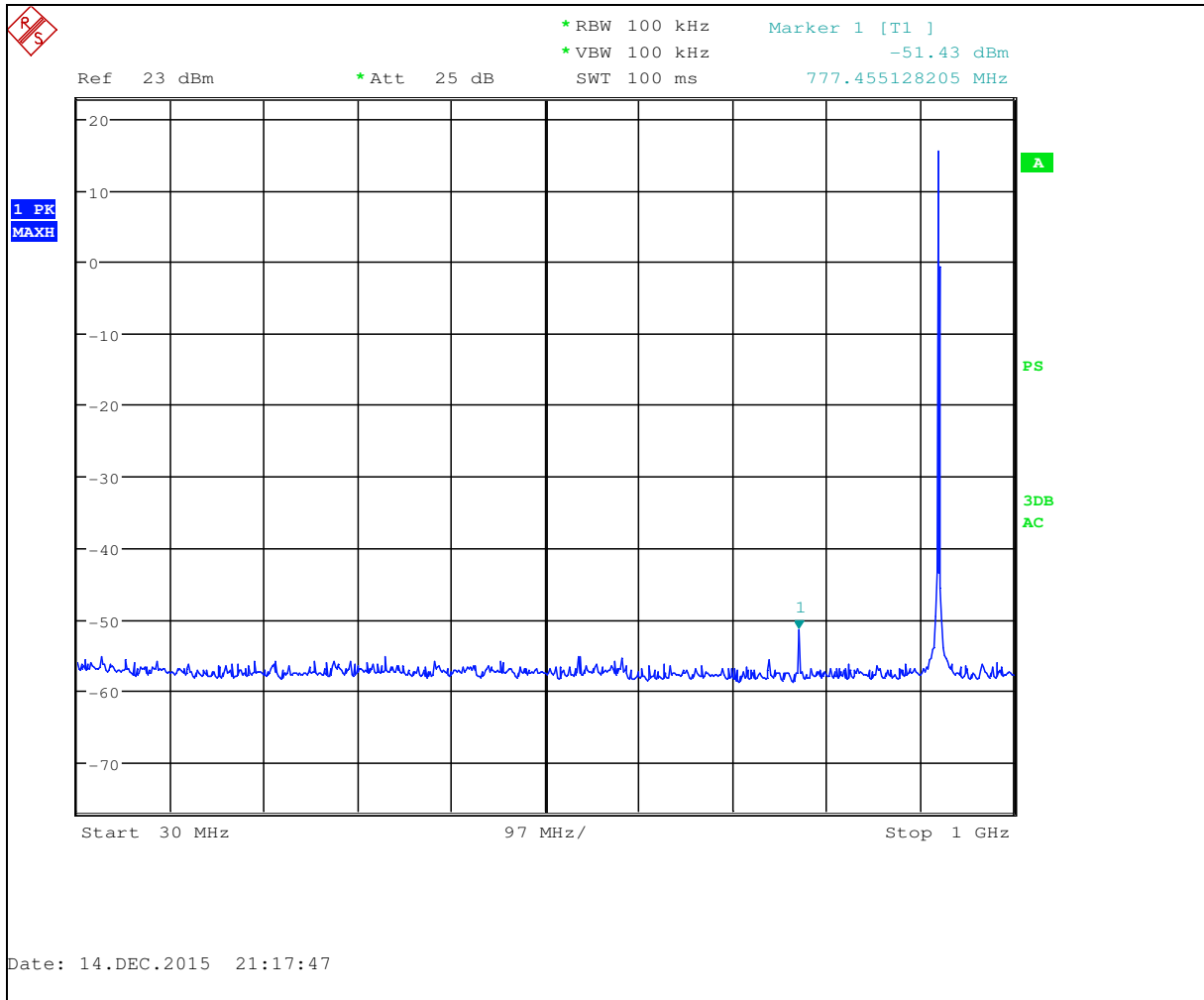
Graph 3.4.4



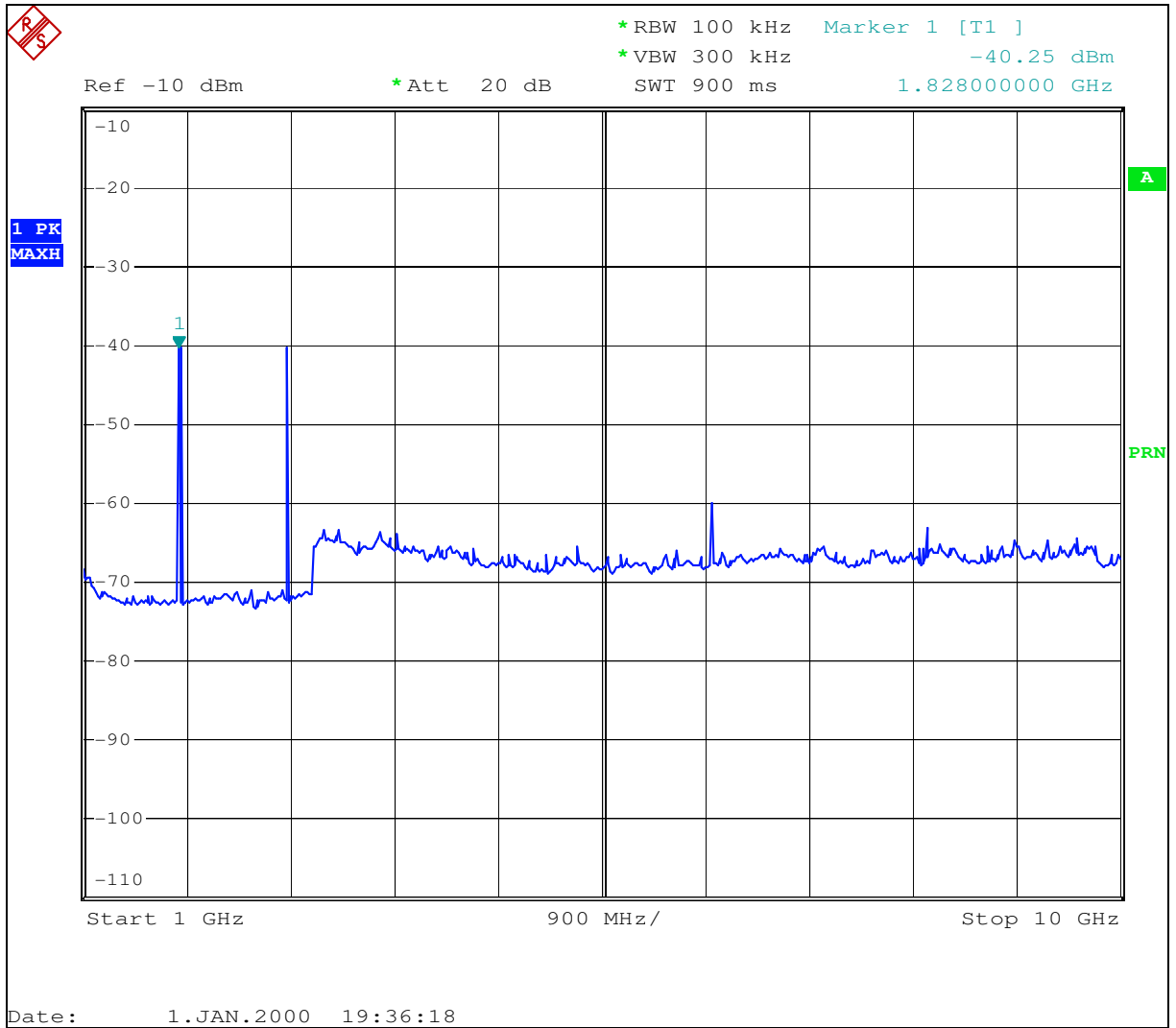
Graph 3.4.5



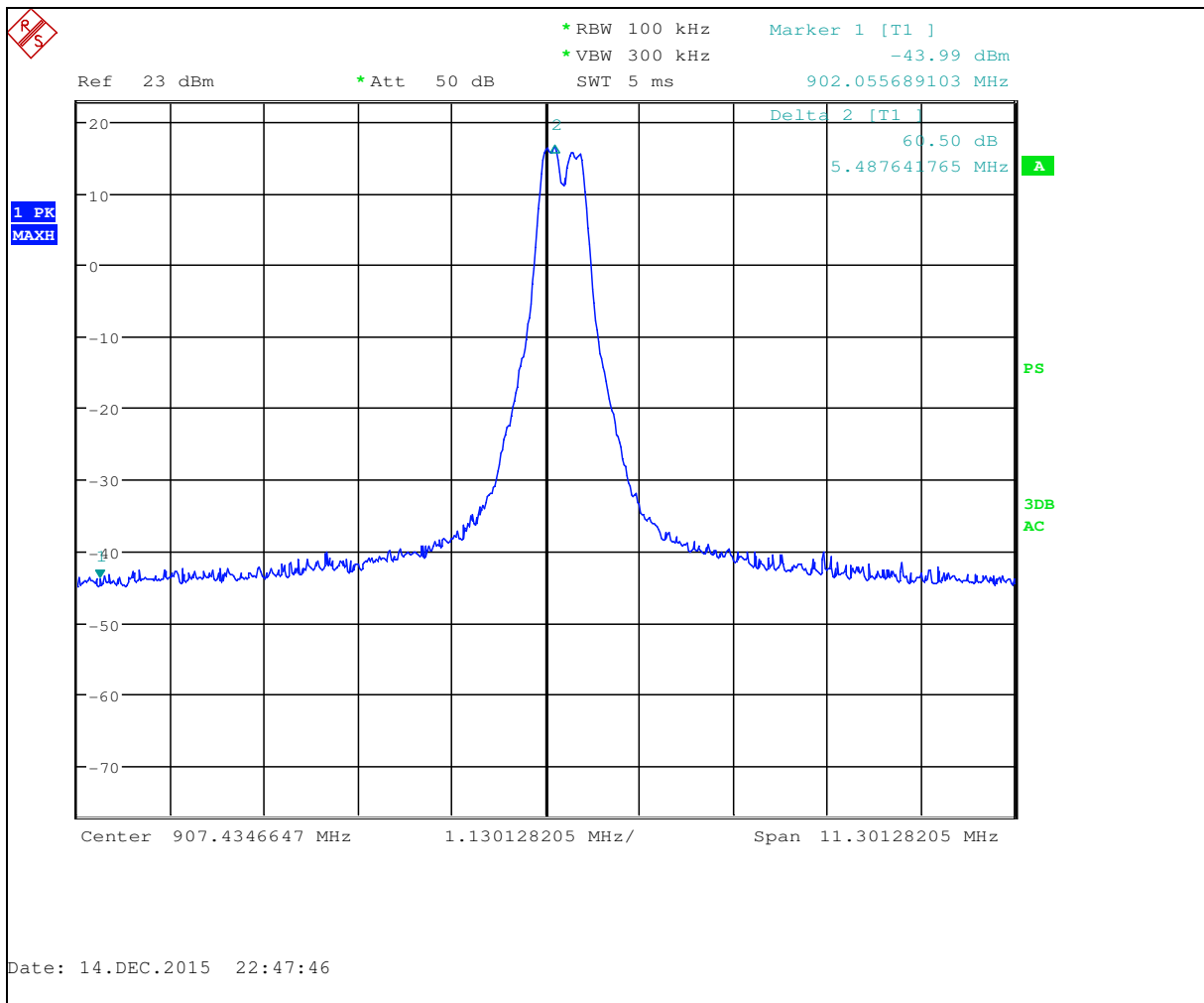
Graph 3.4.6



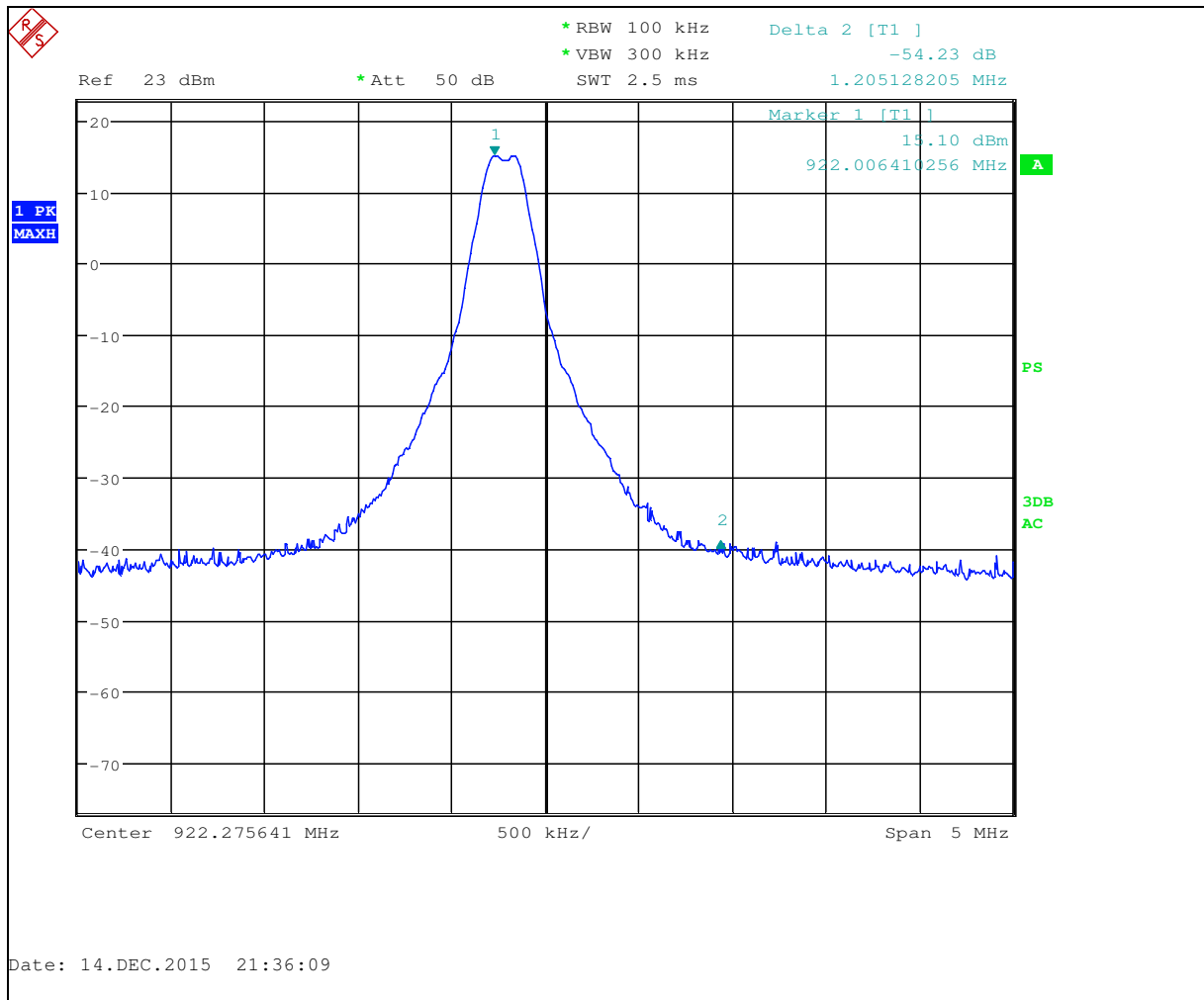
Graph 3.4.7



Graph 3.4.8



Graph 3.4.9



Graph 3.4.10



3.5 Radiated spurious emissions

Test location: ☐ OATS ☒ Anechoic Chamber ☐ Other

Test result: **Pass**

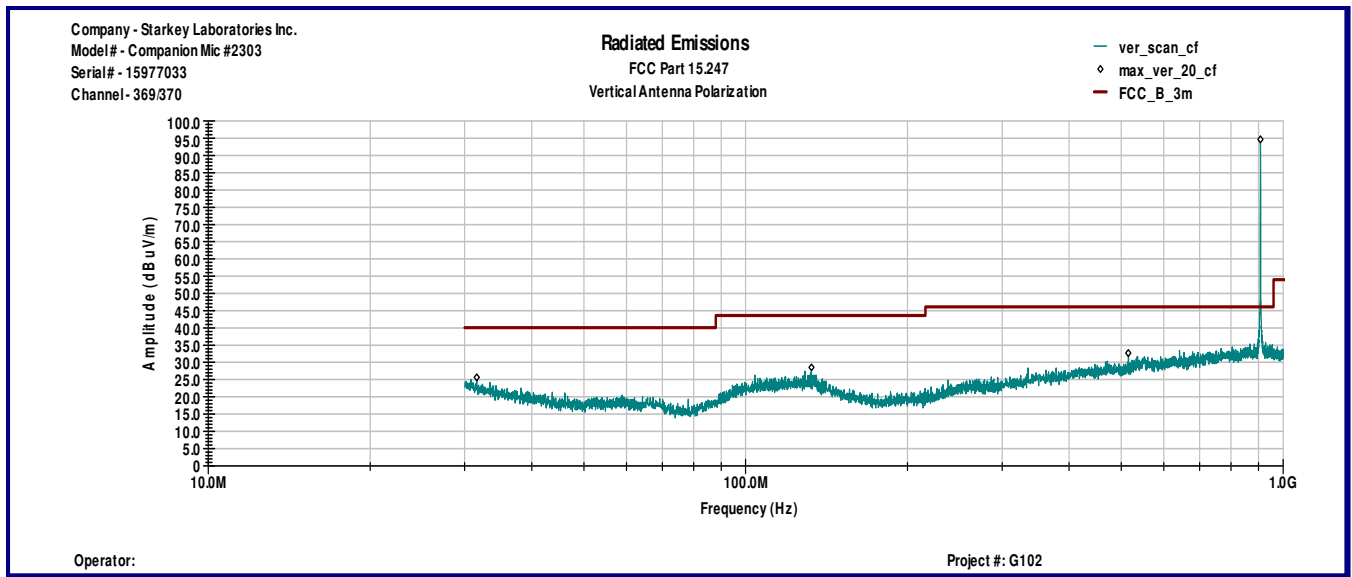
Max. Margin: 0.1dB below the limits

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.

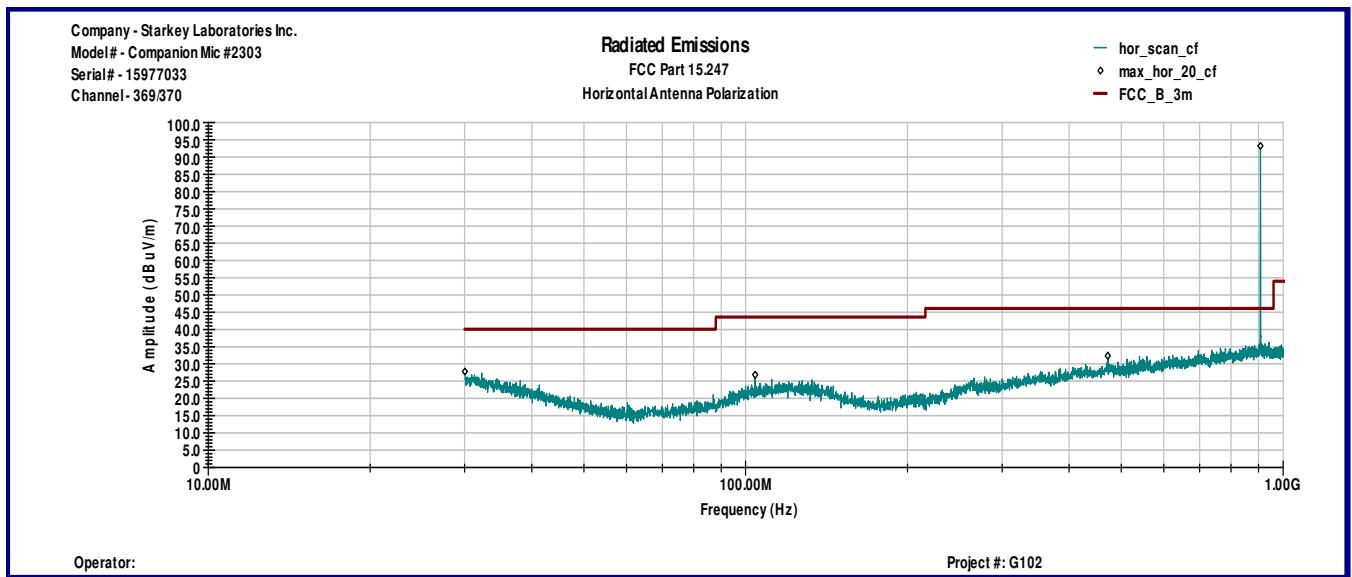
Date:	December 7-13, 2015	Result: Pass
Tested by:	Simon Khazon	
Standard:	FCC part 15.247(d)	
Test Point:	Enclosure	
Operation mode:	See page 5	
Environmental Conditions:	23 °C; 47%(RH); 97.8kPa	
Note:	1GHz-10GHz See next page.	

Table 3.5.1

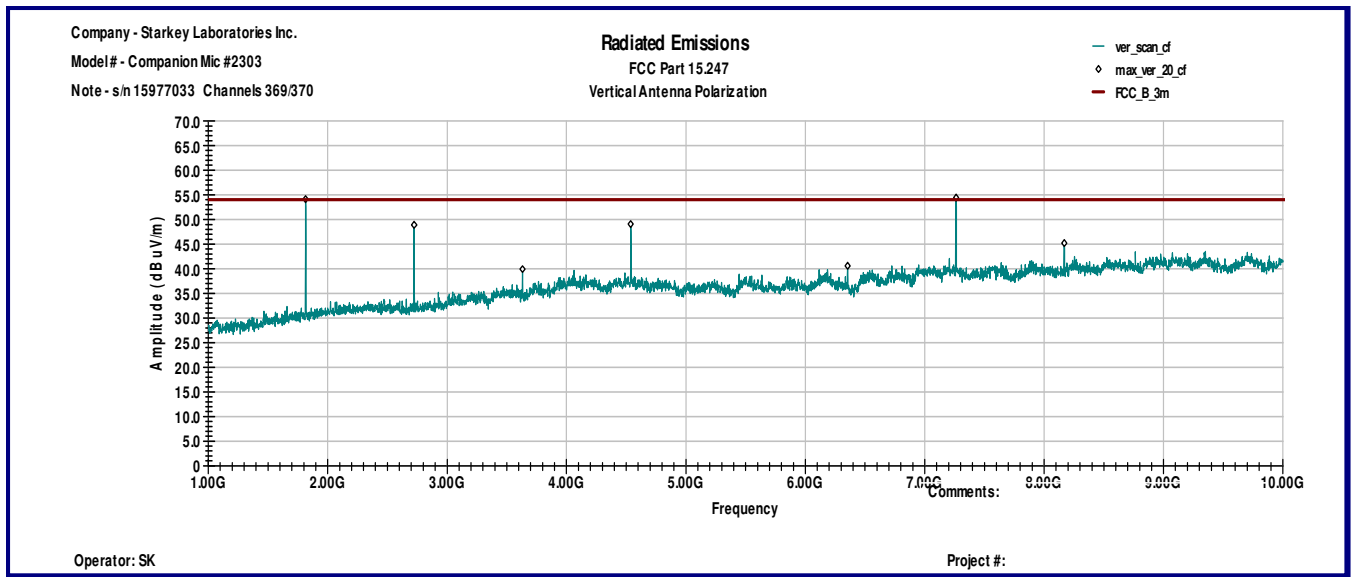
Frequency	Antenna		Ant. CF	Cable loss	Pre-amp	Reading	Total @ 3m	Limit	Margin	Comments
MHz	Polarity	Hts(cm)	dB1/m	dB	Gain (dB)	dBμV	dBμV/m	dBμV/m	dB	
Channels 369/370										
2722.92	V	129	29.1	3.1	43.6	65.4	54.0	74.0	-20.0	Peak
2722.92	H	164	29.1	3.1	43.6	70.2	58.8	74.0	-15.2	Peak
2722.92	V	129	29.1	3.1	43.6	59.7	48.3	54.0	-5.7	Avg
2722.92	H	164	29.1	3.1	43.6	60.5	49.1	54.0	-4.9	Avg
7260.36	V	100	35.8	5.3	40.9	62.1	62.3	74.0	-11.7	Peak
7260.36	V	118	35.8	5.3	40.9	58.1	58.3	74.0	-15.7	Peak
7260.36	V	100	35.8	5.3	40.9	49.7	49.9	54.0	-4.0	Avg
7260.36	V	118	35.8	5.3	40.9	43.9	44.1	54.0	-9.8	Avg
Channels 388/389										
2740.15	V	124	29.2	3.1	43.6	65.1	53.8	74.0	-20.2	Peak
2739.71	H	316	29.2	3.1	43.6	58.5	47.2	74.0	-26.8	Peak
2740.15	V	124	29.2	3.1	43.6	56.5	45.2	54.0	-8.8	Avg
2739.71	H	316	29.2	3.1	43.6	54.4	43.1	54.0	-10.9	Avg
7306.42	V	102	35.9	5.3	40.8	53.8	54.2	74.0	-19.8	Peak
7306.42	H	195	35.9	5.3	40.8	42.1	42.5	74.0	-31.5	Peak
7306.42	V	119	35.9	5.3	40.8	48.5	48.9	54.0	-5.0	Avg
7306.42	H	15	35.9	5.3	40.8	35.7	36.1	54.0	-17.8	Avg
Channels 409/410										
2759.33	V	182	29.2	3.1	43.6	75.0	63.7	74.0	-10.3	Peak
2759.33	H	185	29.2	3.1	43.6	69.7	58.4	74.0	-15.6	Peak
2759.33	V	182	29.2	3.1	43.6	63.9	52.6	54.0	-1.3	Avg
2759.33	H	185	29.2	3.1	43.6	65.1	53.8	54.0	-0.1	Avg
4599.07	V	159	32.6	4.1	41.9	55.3	50.0	74.0	-24.0	Peak
4599.29	H	148	32.6	4.1	41.9	55.6	50.3	74.0	-23.7	Peak
4599.07	V	159	32.6	4.1	41.9	46.7	41.4	54.0	-12.6	Avg
4599.29	H	148	32.6	4.1	41.9	47.8	42.5	54.0	-11.5	Avg
7357.46	V	131	36.0	5.3	40.8	50.6	51.2	74.0	-22.8	Peak
7357.46	H	131	36.0	5.3	40.8	44.0	44.6	74.0	-29.4	Peak
7357.46	V	131	36.0	5.3	40.8	45.2	45.8	54.0	-8.1	Avg
7357.46	H	131	36.0	5.3	40.8	37.2	37.8	54.0	-16.1	Avg
Channels 417										
2729.18	V	100	29.1	3.1	43.6	63.5	52.1	74.0	-21.9	Peak
2729.18	H	200	29.1	3.1	43.6	69.2	57.8	74.0	-16.2	Peak
2729.18	V	100	29.1	3.1	43.6	43.3	31.9	54.0	-22.0	Avg
2729.18	H	200	29.1	3.1	43.6	45.1	33.7	54.0	-20.2	Avg
7277.52	V	119	35.8	5.3	40.9	54.3	54.6	74.0	-19.4	Peak
7277.52	H	126	35.8	5.3	40.9	46.6	46.9	74.0	-27.1	Peak
7277.52	V	119	35.8	5.3	40.9	39.7	40.0	54.0	-14.0	Avg
7277.52	H	126	35.8	5.3	40.9	30.9	31.2	54.0	-22.8	Avg



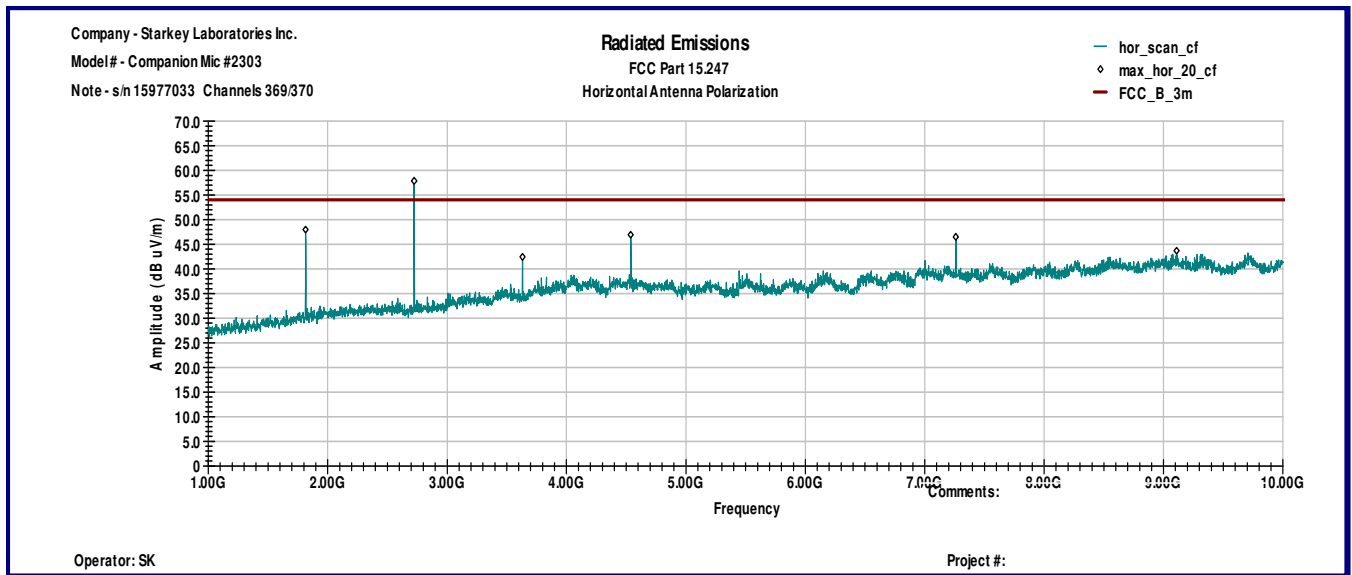
Graph 3.5.1



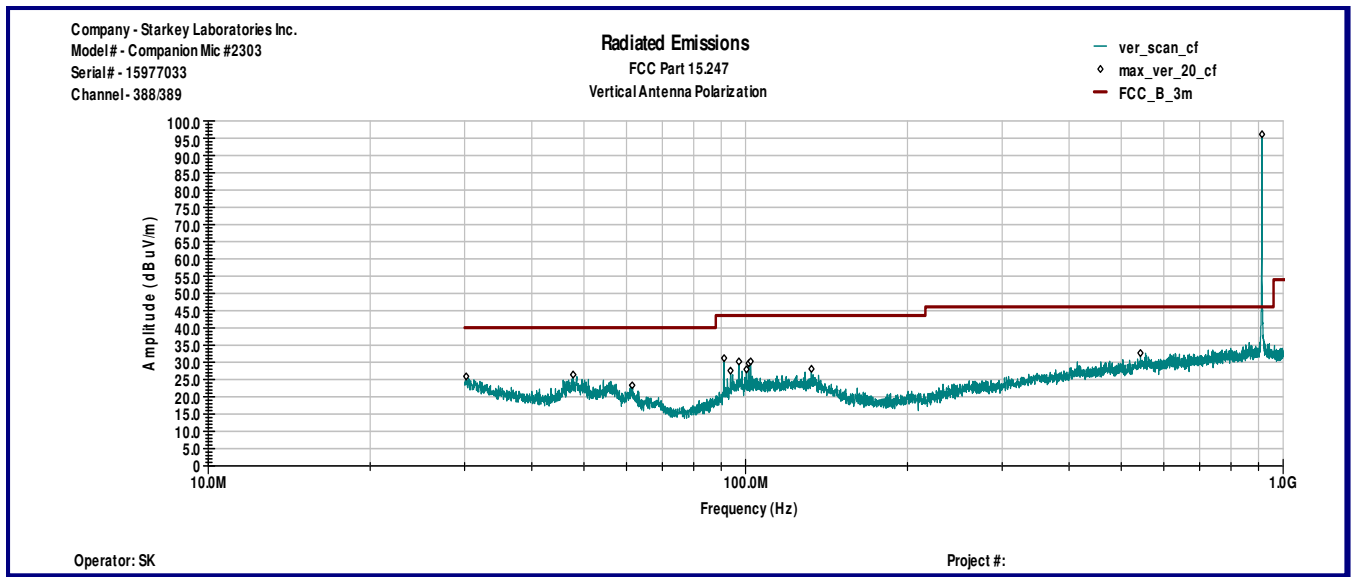
Graph 3.5.2



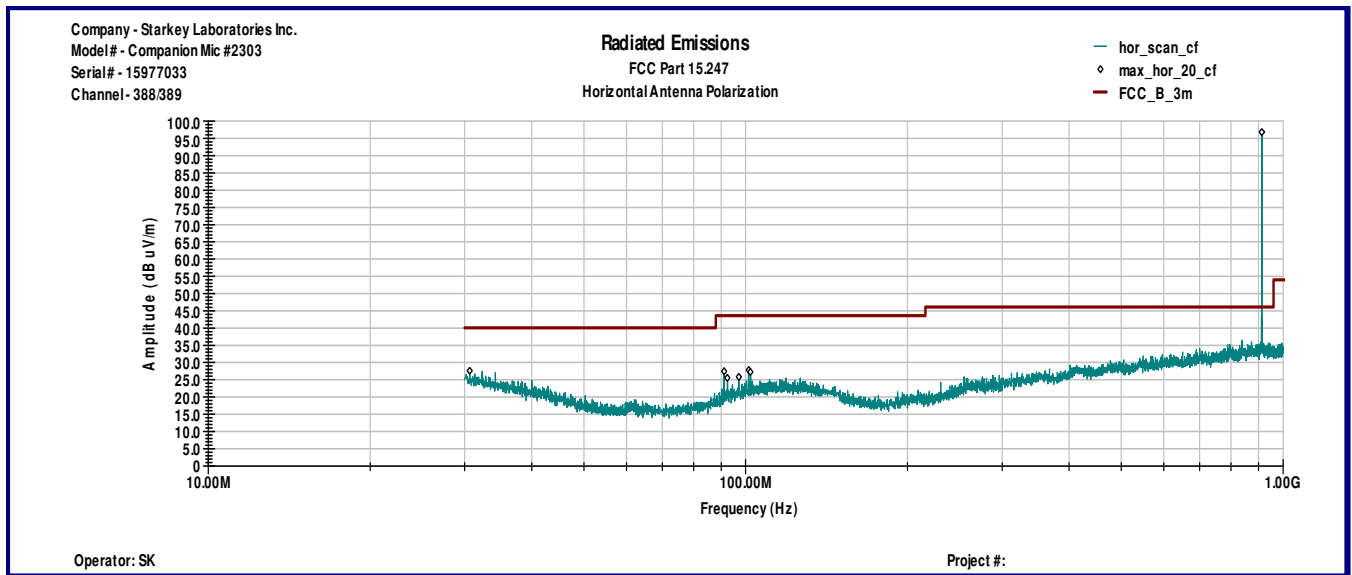
Graph 3.5.3



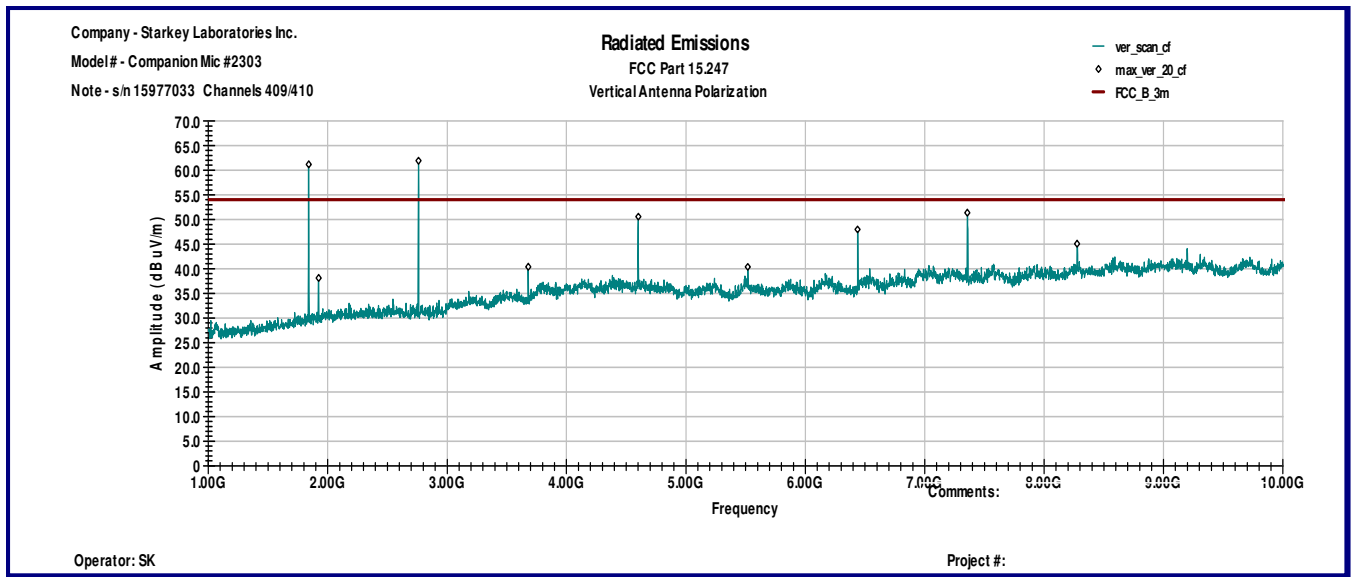
Graph 3.5.4



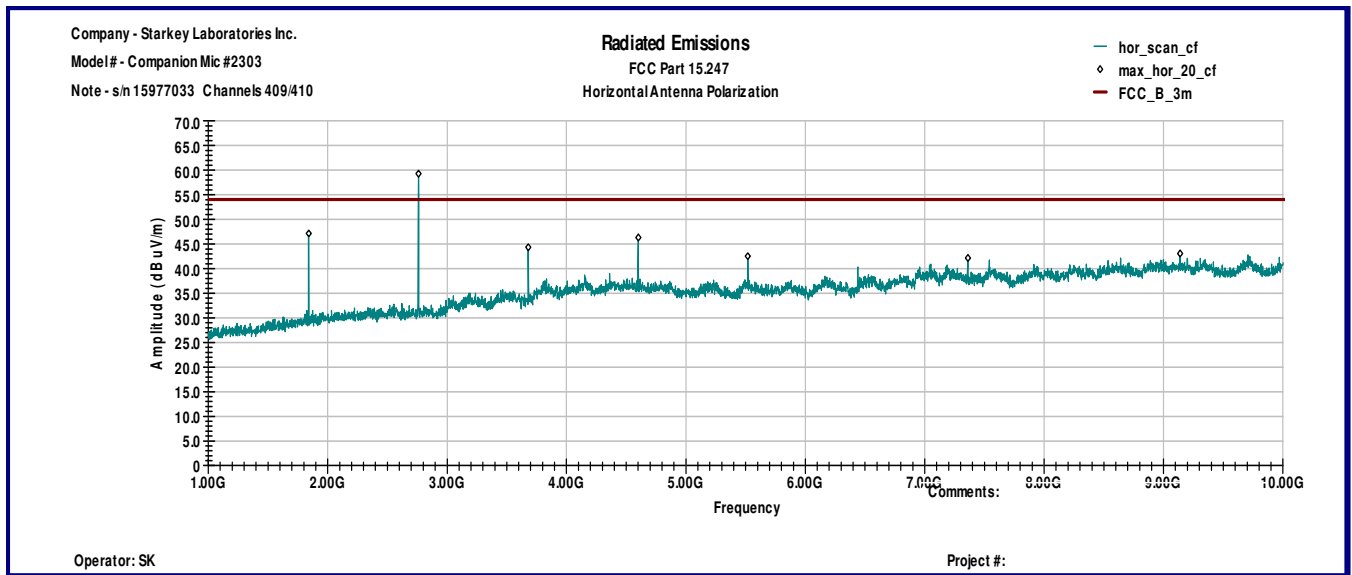
Graph 3.5.5



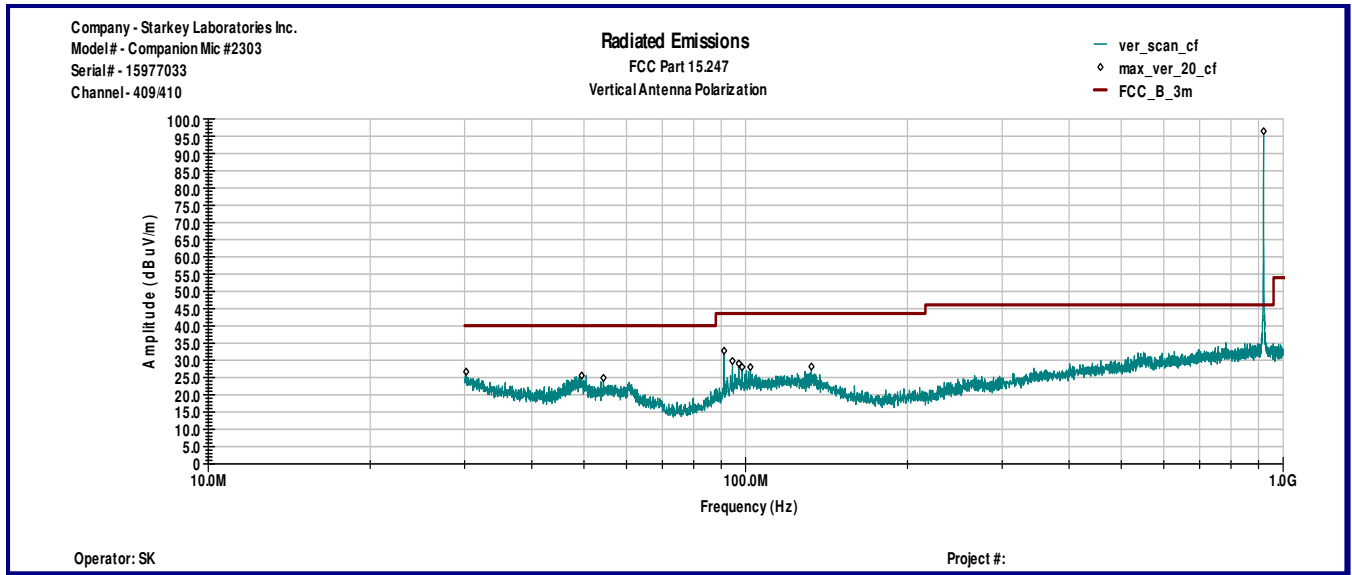
Graph 3.5.6



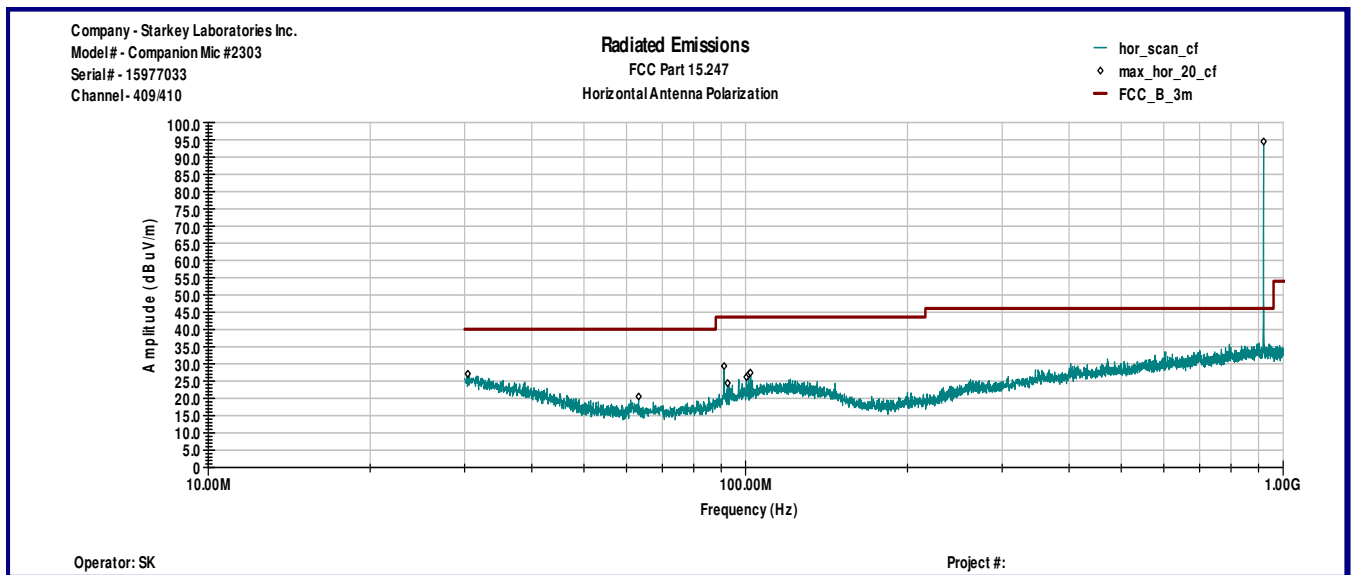
Graph 3.5.7



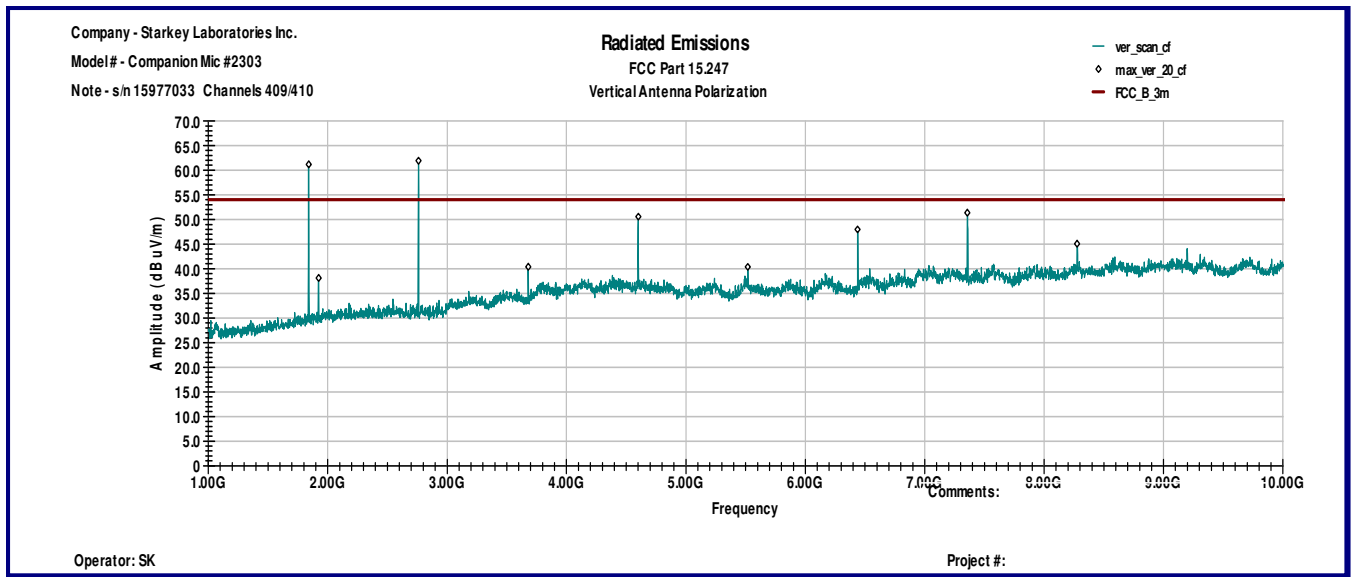
Graph 3.5.8



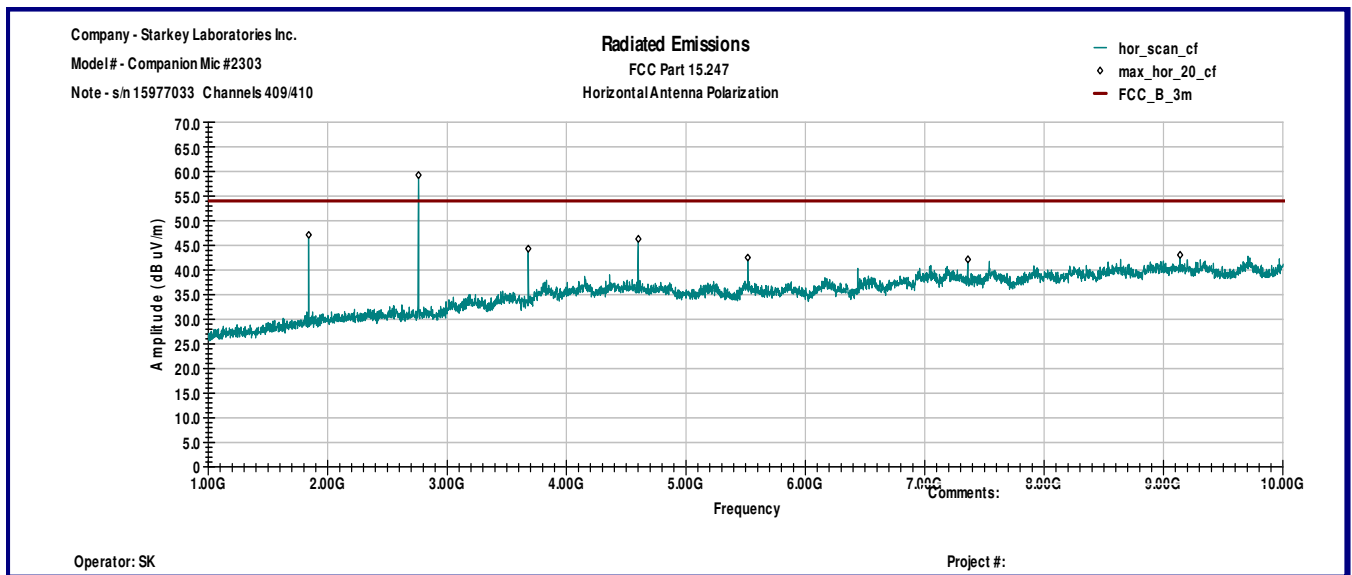
Graph 3.5.9



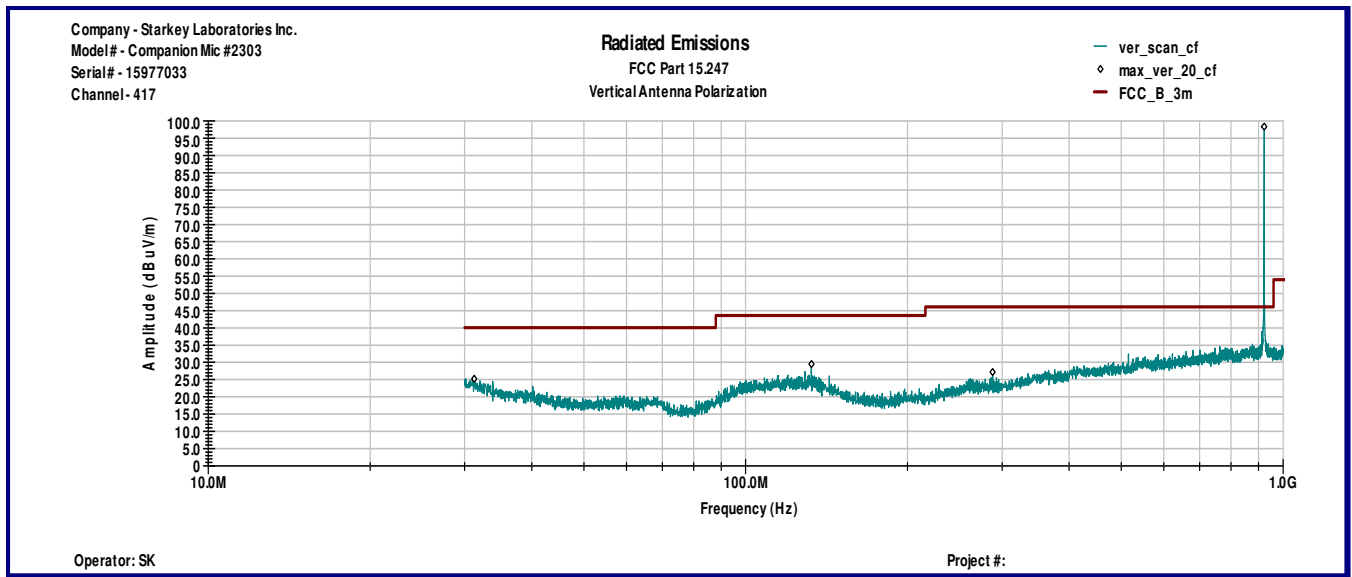
Graph 3.5.10



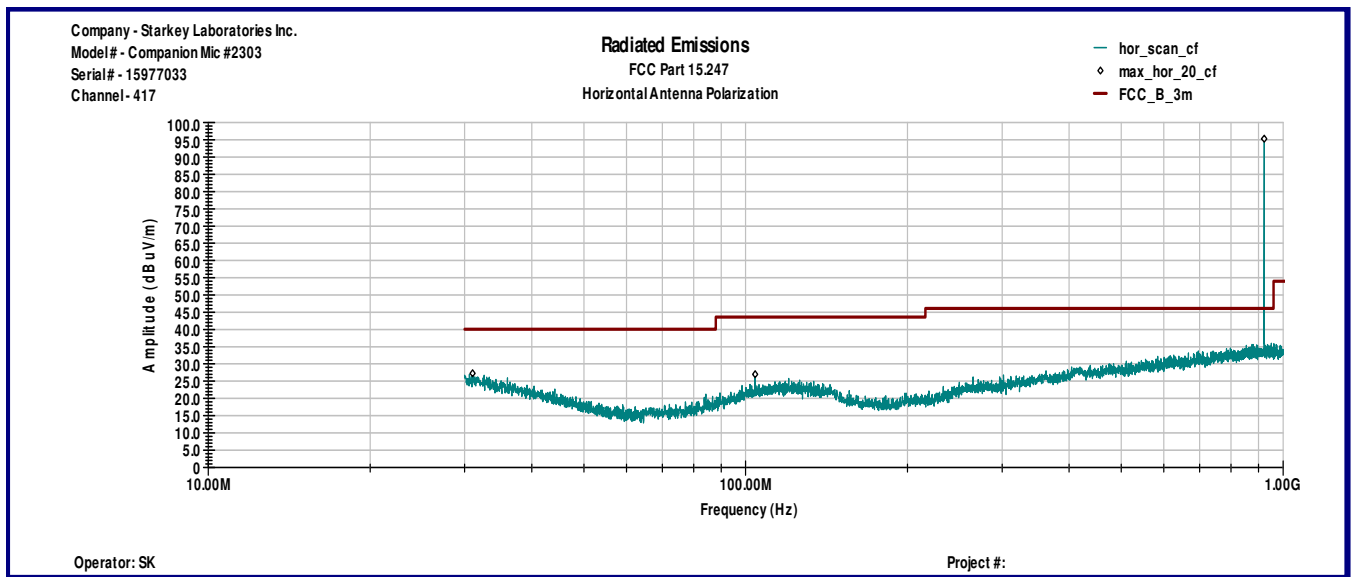
Graph 3.5.11



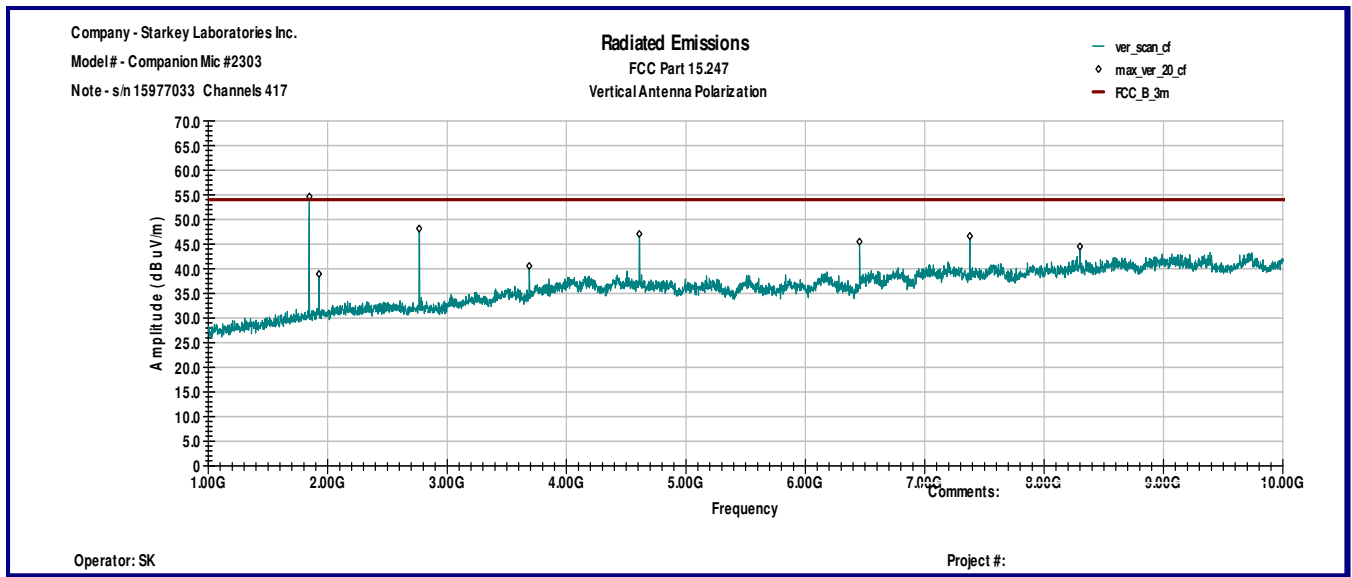
Graph 3.5.12



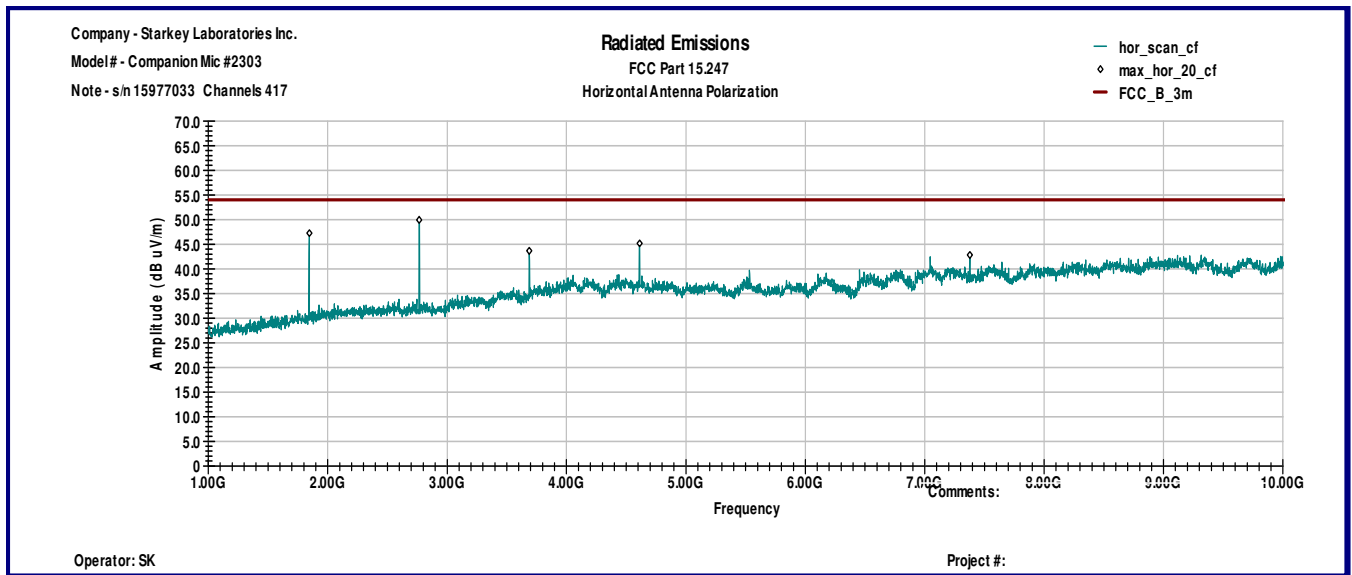
Graph 3.5.13



Graph 3.5.14



Graph 3.5.15



Graph 3.5.16

3.6 RF Exposure Compliance

The maximum measured power, P is 21.77dBm

The antenna gain, G is 1.0dBi

The maximum EIRP power = P + G

EIRP = 21.77+ 1.0 = 22.77dBm, or 189mW or 0.189W

The limits for Maximum Permissible Exposure (MPE) for transmitter operating at 928MHz, MPE is $928/1500 = 0.619\text{mW/cm}^2$

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

$S = 189 / 4\pi 20^2$,

$S = 0.0376\text{mW/cm}^2$, or below the Maximum Permissible Exposure (MPE) of 0.619mW/cm^2



3.7 Transmitter power line conducted emissions

Test location: ☐ OATS ☒ Anechoic Chamber ☐ Other

Test result: N/A

Frequency range: 0.15MHz-30MHz

Max. Emissions margin: dB below the limits

Notes: EUT powered from internal battery.



3.8 Receiver/digital device radiated emissions

Test location: ☐ OATS ☒ Anechoic Chamber

Test distance: ☐ 10 meters ☒ 3 meters

Test result: **Pass**

Frequency range: 30MHz-5000MHz

Max. Emissions margin: 9.9dB below the limits

Notes: None

Date:	December 17-18 2015	Result: Pass
Tested by:	Simon Khazon	
Standard:	FCC Part 15.109, Class B	
Test Point:	Enclosure	
Operation mode:	See page 5	
Environmental Conditions:	24°C; 44%(RH); 97.8kPa	
Note:	Channel 907.492MHz. Frequency range 30MHz - 1.0GHz Operating frequency 907.492MHz and frequency not related with EUT operation were excluded from this table.	

Table 3.8.1

Frequency MHz	Antenna Polarity	Peak Reading dBμV	Total C.F. dB1/m	Total at 3m dBμV/m	Limit dBμV/m	Margin dB
30.187 MHz	V	10.0	18.5	28.4	40.0	-11.6
58.891 MHz	V	18.2	8.1	26.3	40.0	-13.7
65.027 MHz	V	20.4	7.1	27.5	40.0	-12.5
66.449 MHz	V	19.9	7.0	26.9	40.0	-13.1
132.52 MHz	V	14.1	14.2	28.3	43.5	-15.2
400.96 MHz	V	12.7	17.9	30.5	46.0	-15.5
30.327 MHz	H	7.9	20.2	28.1	40.0	-11.9
64.96 MHz	H	17.1	6.9	24.0	40.0	-16.1
66.426 MHz	H	16.3	7.0	23.3	40.0	-16.8
68.592 MHz	H	19.6	7.1	26.7	40.0	-13.3

Date:	December 17-18 2015	Result: Pass
Tested by:	Simon Khazon	
Standard:	FCC Part 15.109, Class B	
Test Point:	Enclosure	
Operation mode:	See page 5	
Environmental Conditions:	24 °C; 44%(RH); 97.8kPa	
Note:	Channel 913.258MHz Frequency range 30MHz - 1.0GHz Operating frequency 913.258MHz and frequency not related with EUT operation were excluded from this table.	

Table 3.8.2

Frequency MHz	Antenna Polarity	Peak Reading dBμV	Total C.F. dB1/m	Total at 3m dBμV/m	Limit dBμV/m	Margin dB
55.992 MHz	V	19.8	8.1	28.0	40.0	-12.0
57.72 MHz	V	19.4	8.1	27.5	40.0	-12.6
128.93 MHz	V	12.8	14.3	27.1	43.5	-16.5
132.43 MHz	V	14.5	14.2	28.7	43.5	-14.8
360.21 MHz	V	10.7	17.0	27.7	46.0	-18.4
363.99 MHz	V	11.2	17.0	28.2	46.0	-17.8
450.38 MHz	V	10.8	18.6	29.5	46.0	-16.6
549.4 MHz	V	11.7	21.3	33.1	46.0	-13.0
665.29 MHz	V	11.8	21.6	33.3	46.0	-12.7
750.49 MHz	V	11.6	22.7	34.3	46.0	-11.7
32.396 MHz	H	9.6	19.0	28.5	40.0	-11.5
58.073 MHz	H	14.2	7.4	21.6	40.0	-18.4

Date:	December 17-18 2015	Result: Pass
Tested by:	Simon Khazon	
Standard:	FCC Part 15.109, Class B	
Test Point:	Enclosure	
Operation mode:	See page 5	
Environmental Conditions:	24°C; 44%(RH); 97.8kPa	
Note:	Channel 922.055MHz. Frequency range 30MHz - 1.0GHz Operating frequency 922.055MHz and frequency not related with EUT operation were excluded from this table.	

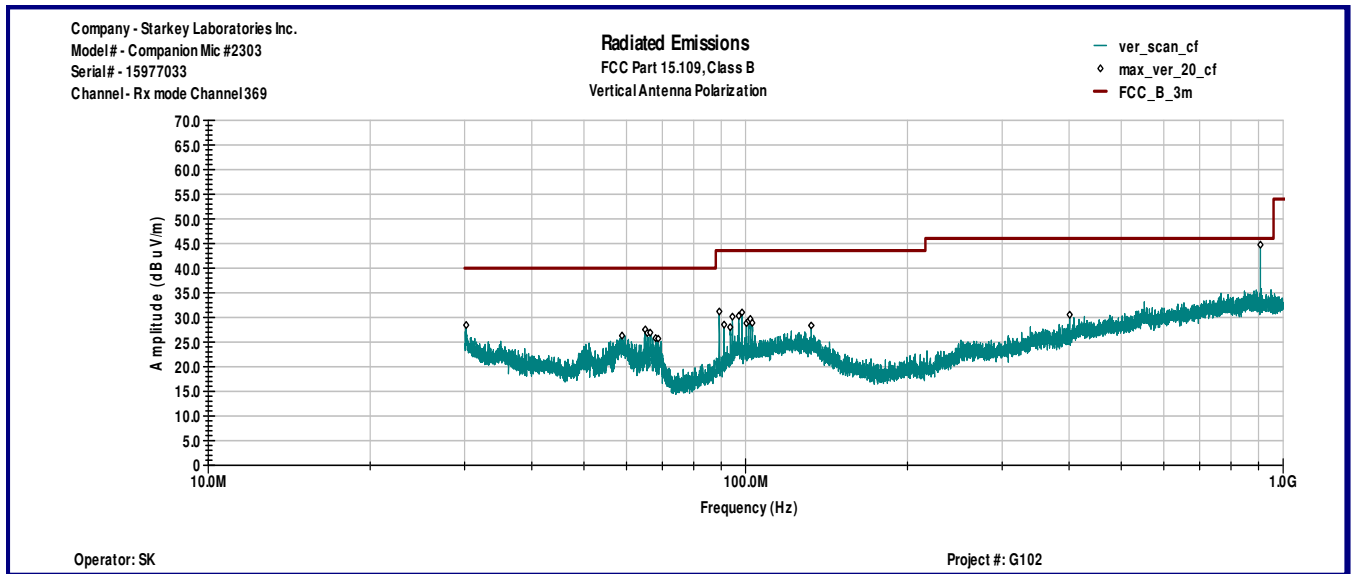
Table 3.8.3

Frequency MHz	Antenna Polarity	Peak Reading dBμV	Total C.F. dB1/m	Total at 3m dBμV/m	Limit dBμV/m	Margin dB
30.082 MHz	V	9.0	18.5	27.5	40.0	-12.5
33.342 MHz	V	10.5	16.1	26.7	40.0	-13.3
49.543 MHz	V	15.7	9.1	24.9	40.0	-15.1
56.005 MHz	V	19.3	8.1	27.4	40.0	-12.6
117.62 MHz	V	14.0	14.4	28.4	43.5	-15.1
132.47 MHz	V	14.1	14.2	28.3	43.5	-15.2
30.97 MHz	H	8.6	19.8	28.4	40.0	-11.6
36.31 MHz	H	11.6	16.7	28.2	40.0	-11.8
59.861 MHz	H	16.9	7.1	24.0	40.0	-16.0
112.92 MHz	H	12.9	13.4	26.3	43.5	-17.2

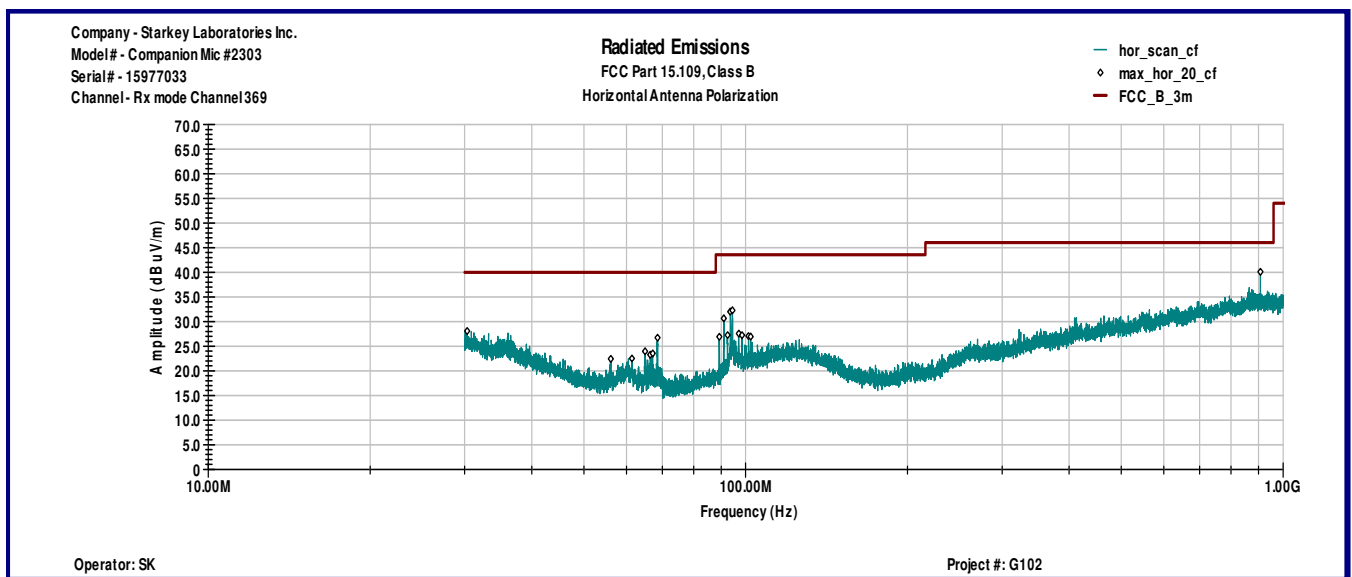
Date:	December 17-18 2015	Result: Pass
Tested by:	Simon Khazon	
Standard:	FCC Part 15.109, Class B	
Test Point:	Enclosure	
Operation mode:	See page 5	
Environmental Conditions:	24 °C; 44%(RH); 97.8kPa	
Note:	Frequency range 1.0-5.0 GHz	

Table 3.8.4

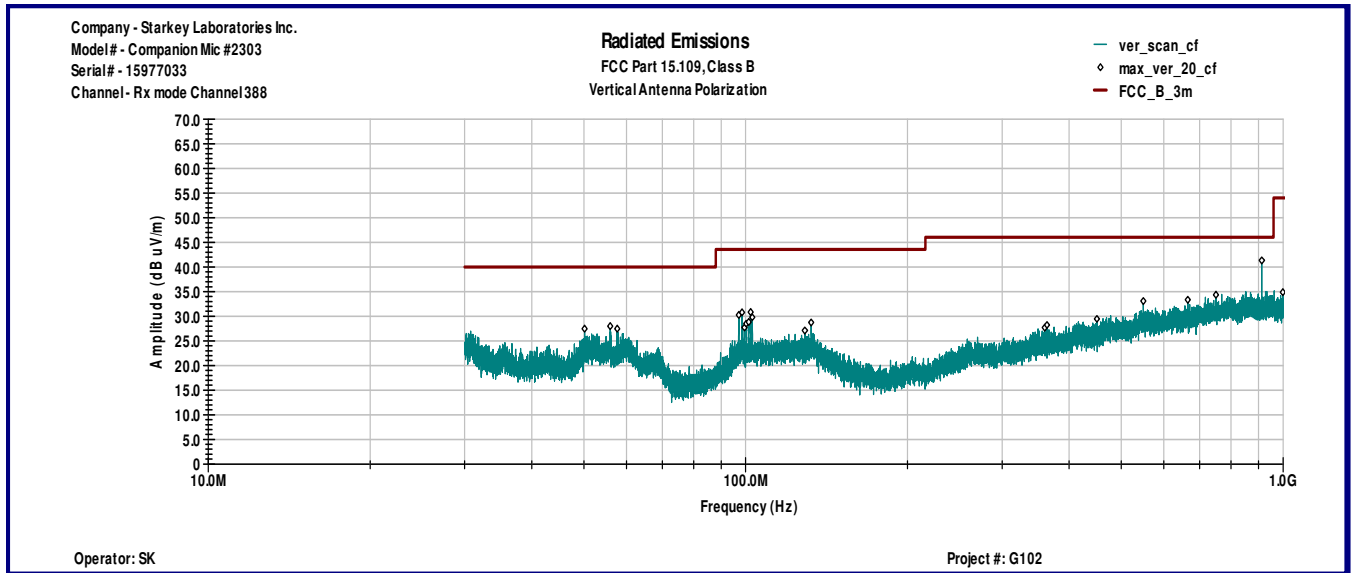
Frequency MHz	Antenna Polarity	Peak Reading dBμV	Total C.F. dB1/m	Pre-Amp. Gain (dB)	Total at 3m dBμV/m	Limit dBμV/m	Margin dB
Channel 369							
3.63 GHz	V	50.4	35.7	43.5	42.6	54.0	-11.4
1.846 GHz	H	54.1	29.3	43.6	39.9	54.0	-14.1
3.63 GHz	H	50.7	35.5	43.5	42.6	54.0	-11.4
Channel 388							
1.828 GHz	V	55.9	29.6	43.6	41.9	54.0	-12.1
2.438 GHz	V	56.3	31.6	43.9	44.1	54.0	-9.9
3.652 GHz	V	49.6	35.8	43.5	41.8	54.0	-12.1
1.828 GHz	H	55.8	29.2	43.6	41.5	54.0	-12.5
3.652 GHz	H	47.7	35.5	43.5	39.8	54.0	-14.2
Channel 417							
1.846 GHz	V	55.7	29.6	43.6	41.8	54.0	-12.2
1.924 GHz	V	50.6	30.0	43.7	37.0	54.0	-17.0
3.686 GHz	V	49.3	35.9	43.5	41.8	54.0	-12.2
1.846 GHz	H	57.0	29.3	43.6	42.7	54.0	-11.3
3.686 GHz	H	46.8	35.7	43.5	39.1	54.0	-14.9



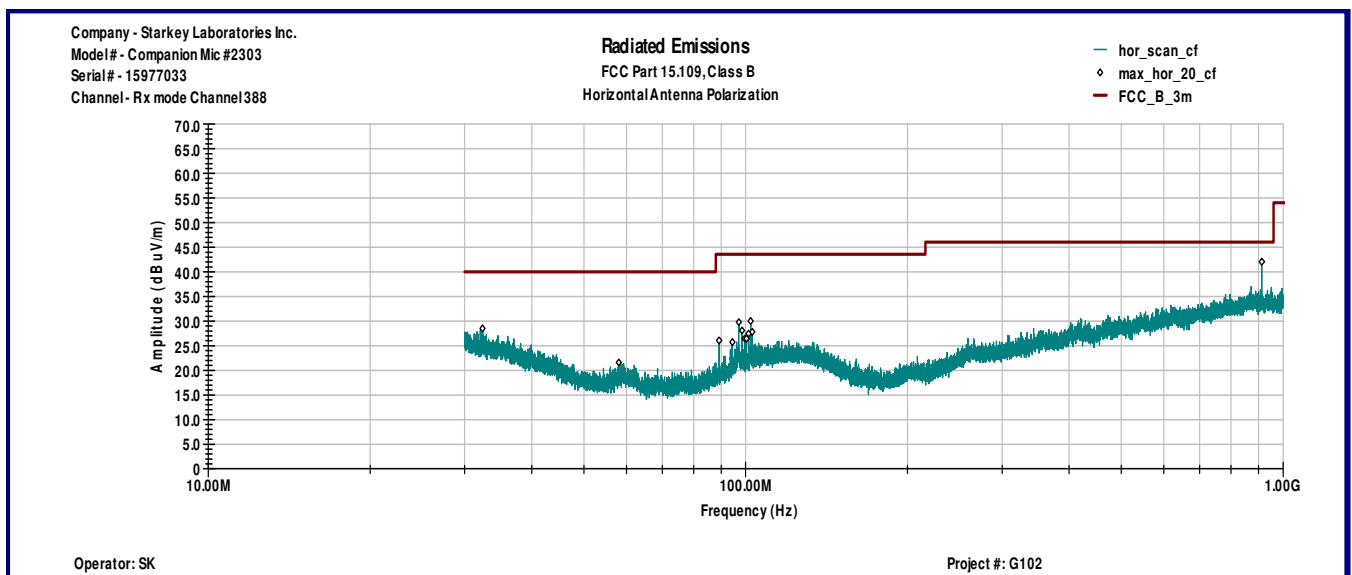
Graph 3.8.1



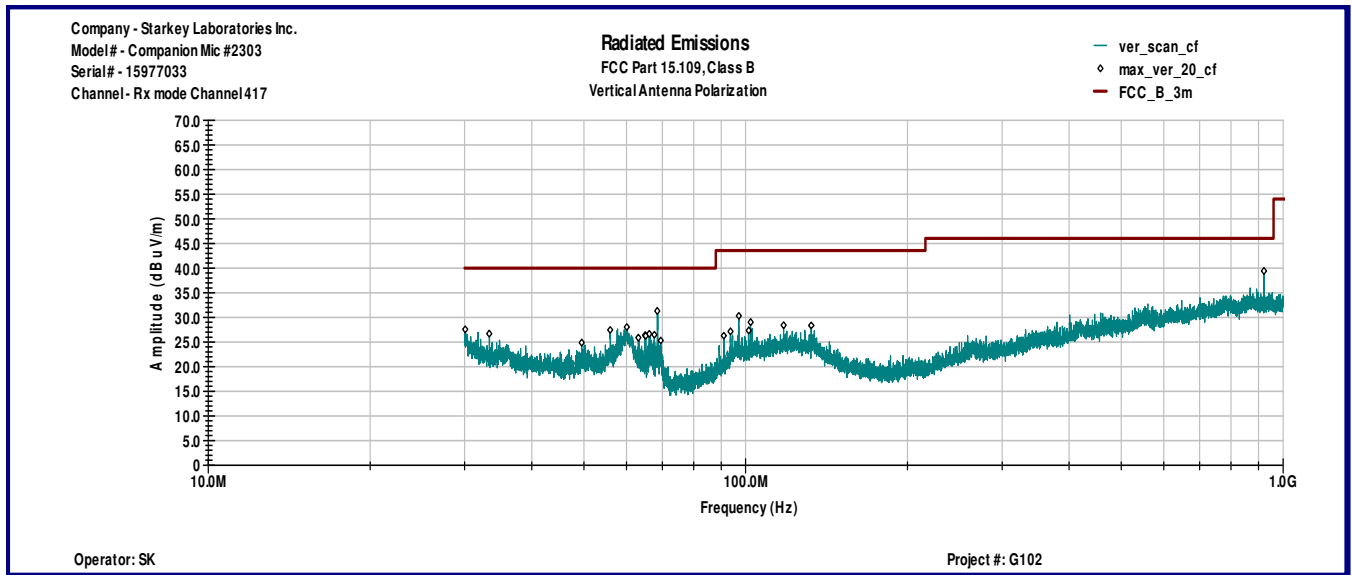
Graph 3.8.2



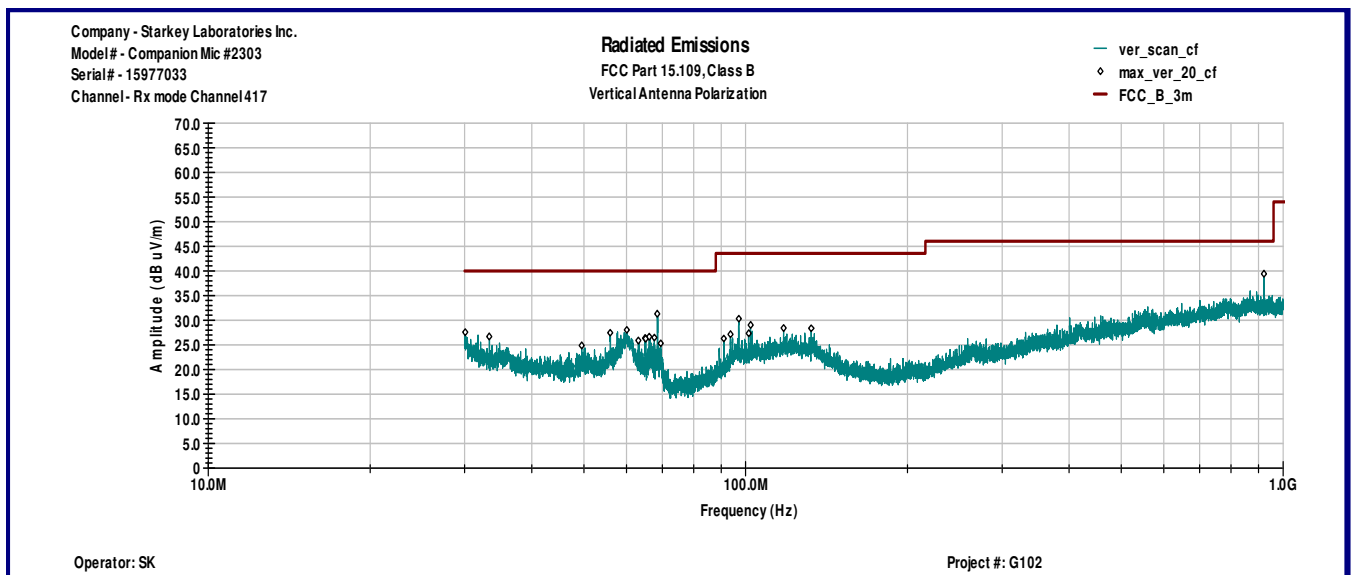
Graph 3.8.3



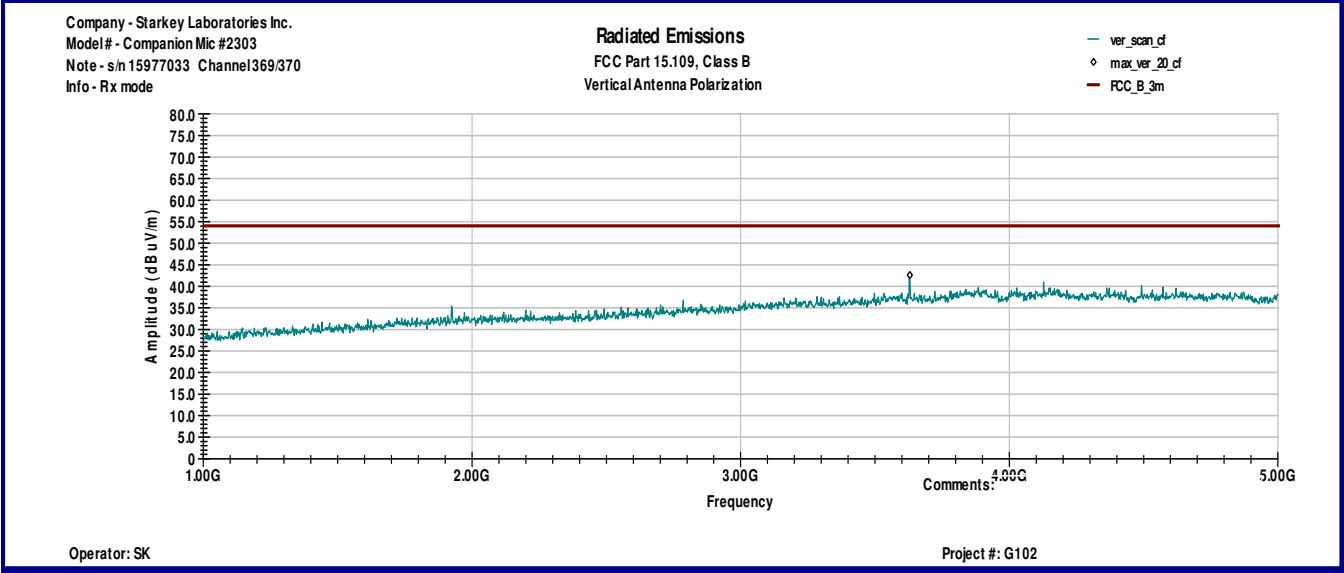
Graph 3.8.4



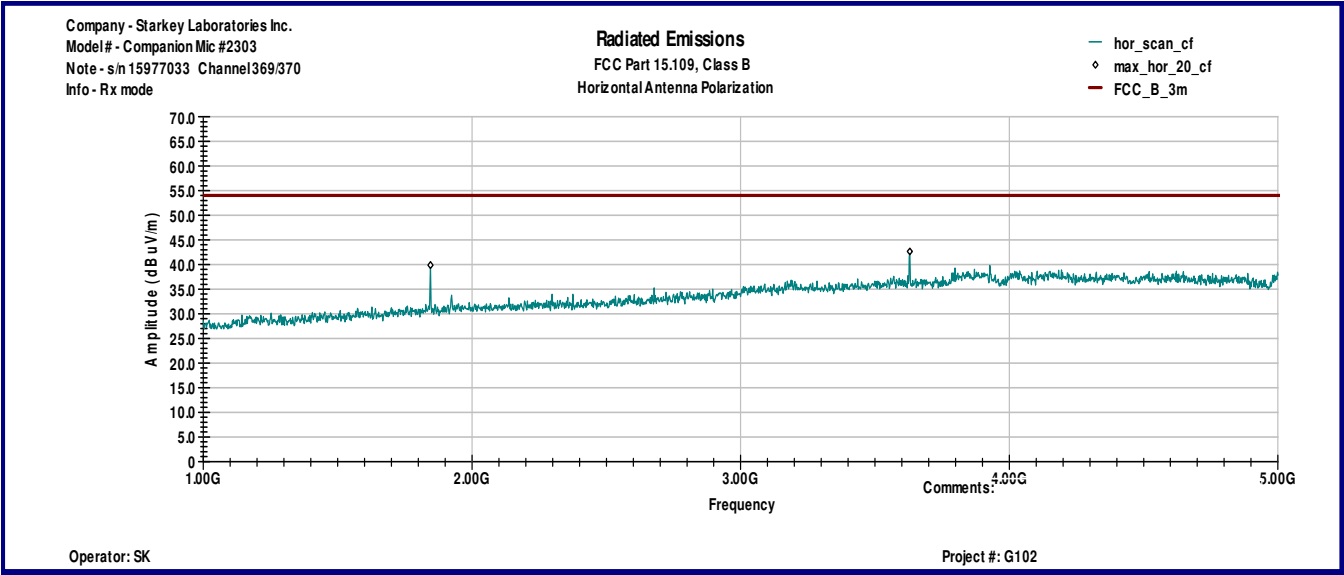
Graph 3.8.5



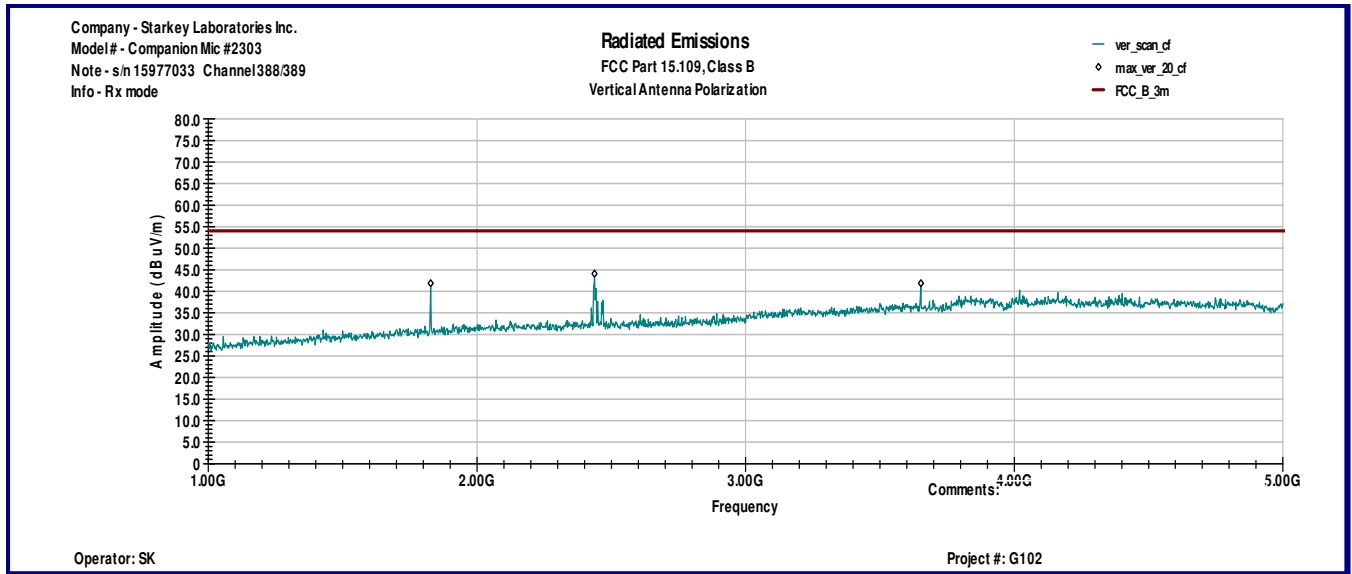
Graph 3.8.6



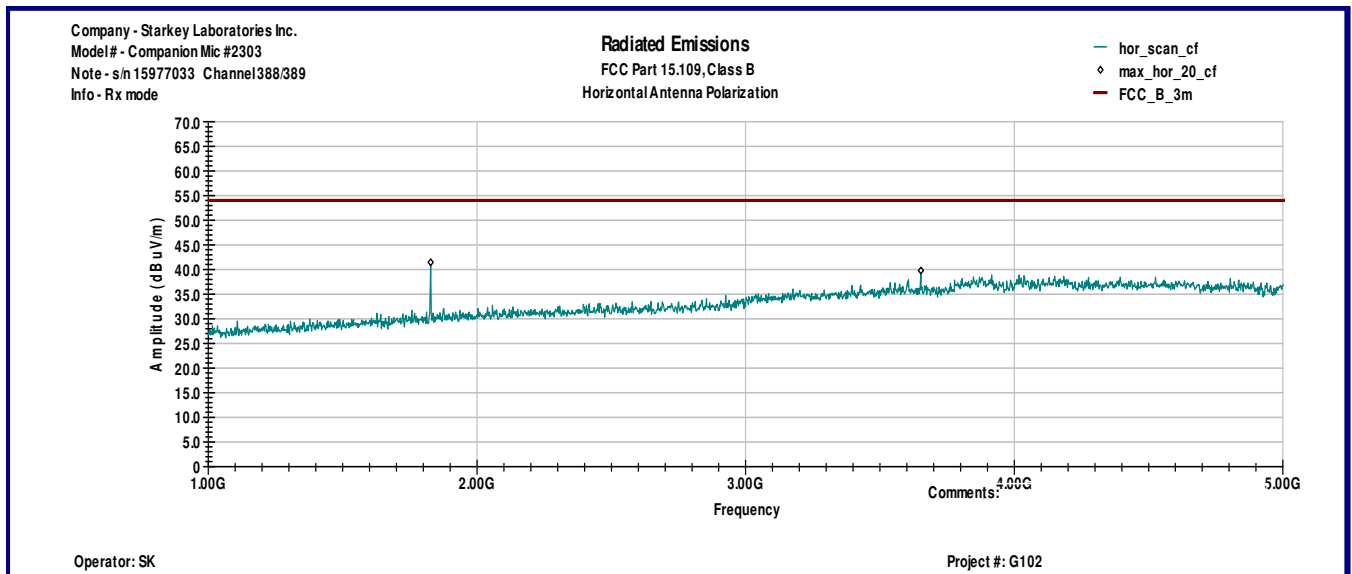
Graph 3.8.7



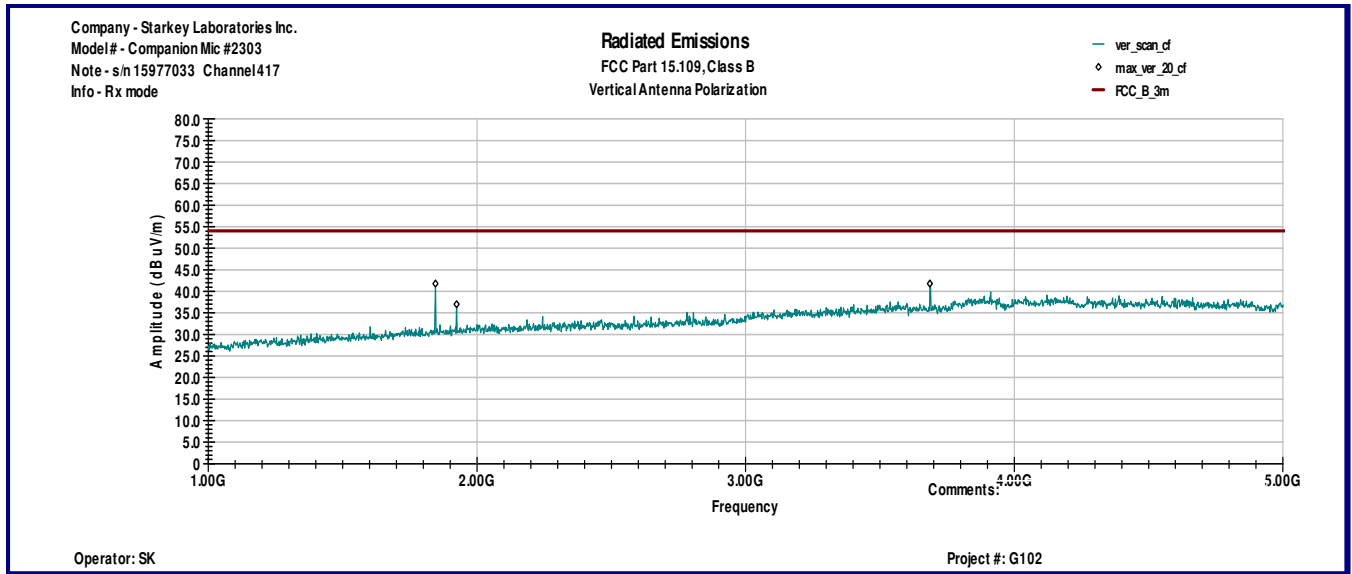
Graph 3.8.8



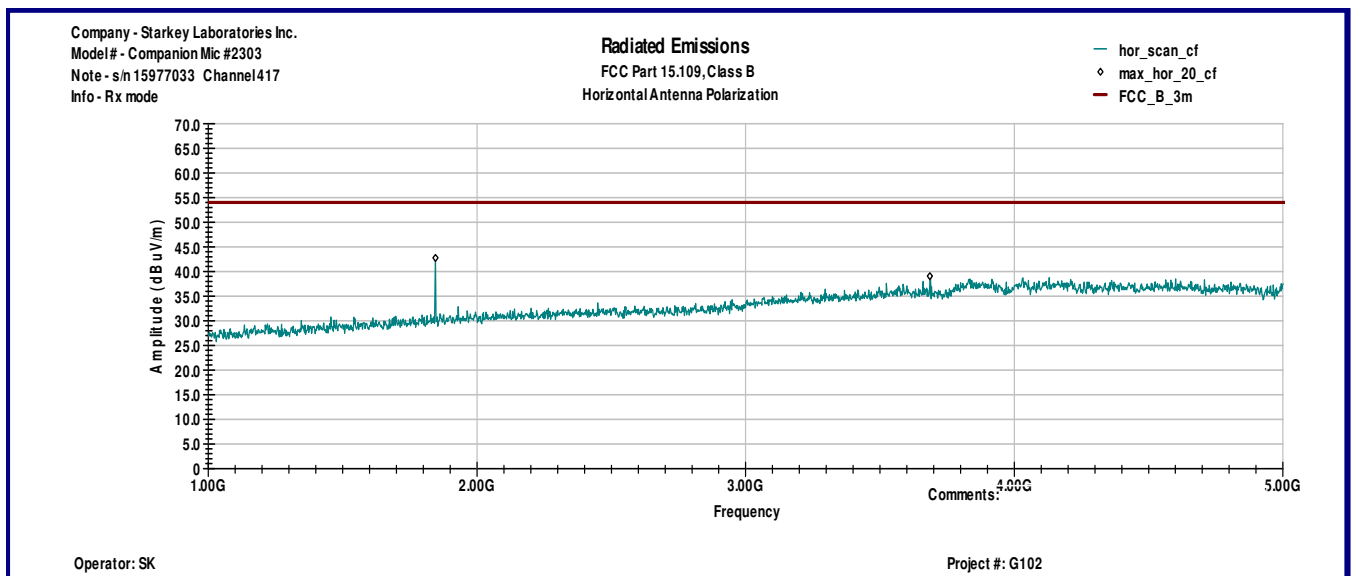
Graph 3.8.9



Graph 3.8.10



Graph 3.8.11



Graph 3.8.12



3.9 Digital device conducted emissions

Test location: ☐ OATS ☒ Anechoic Chamber ☐ Other

Test result: **N/A**

Frequency range: 0.15MHz-30MHz

Max. Emissions margin: dB below the limits

Notes: EUT powered from internal battery.



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	09/24/2016	☒
Horn Antenna	EMCO	3115	6579	15580	08/04/2016	☒
Pre-Amplifier	MITEQ	AMF-5D-00501800-28-13P	1402232	172081	11/19/2016	☒
High Pass Filter	Reactel	7HS-1G-S12	0223	015275	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	12-28-2015	102403390MIN-001	SK	NS	Original Issue