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Precisely Right.

Test Report No.:	**17020201.fcc01**		*Page 1 of 43*
Client:	**Sensative AB** Mobilvagen 10 SE-223 62 Lund, Sweden		
Test Item:	**Digital Transmission System (DTS)** **ZigBee**		
Identification , model(s):	**1201000** **1202000** **1204000**	*Serial Number:*	**13 (conducted tests) and 15 (radiated tests)**
Project No.:	**17020201**	*Date of Receipt:*	**March 10,2017**
Testing Location:	**TÜV Rheinland Nederland B.V.** Eiberkamp 10 9351VT Leek		
Test Specification:	FCC 47 CFR Part 15, Subpart C, Section 15.247 (10-1-15 Edition) RSS-Gen (Issue 4, November 2014) and RSS-247 (Issue 2, February 2017) ANSI C63.10-2013		

Test Result:	*The test item **passed** the test specification(s).*		
Testing Laboratory:	**TÜV Rheinland Nederland B.V.** Eiberkamp 10 9351 VT Leek		
Tested by:	*Reviewed by:*		
2017-03-17 R. van der Meer / Inspector		2017-03-17 E. van der Wal / Reviewer	
Date Name/Position Signature		*Date Name/Position Signature*	

Other Aspects:-.

Abbreviations:

P(ass)	=	***passed***
F(ail)	=	***failed***
N/A	=	***not applicable***
N/T	=	***not tested***

TEST SUMMARY

5.1.1 CONDUCTED MEASUREMENTS AT ANTENNA PORT
RESULT: PASS

5.1.2 6DB AND 99% BANDWIDTH
RESULT: PASS

5.1.3 PEAK POWER SPECTRAL DENSITY
RESULT: PASS

5.1.4 OUT OF BAND CONDUCTED EMISSIONS
RESULT: Pass

5.1.5 RADIATED SPURIOUS EMISSIONS OF TRANSMITTER
RESULT: PASS

5.1.6 RADIATED SPURIOUS EMISSIONS OF TRANSMITTER IN RESTRICTED BANDS
RESULT: PASS

5.2.1 AC POWER LINE CONDUCTED EMISSION OF TRANSMITTER
RESULT: Not applicable

Contents

1. General Remarks

1.1 Complementary Materials

There is no attachment to this test report.

2. Test Sites

2.1 Test Facilities

The Federal Communications Commission and Industry Canada has reviewed the technical characteristics of the test facilities at TÜV Rheinland Nederland B.V., located in Leek, 9351VT Eiberkamp 10, The Netherlands, and has found these test facilities to be in compliance with the requirements of 47 CFR Part 15, section 2.948.

The description of the test facilities has been filed at the Office of the Federal Communications Commission under registration number 90828. The facility has been added to the list of laboratories performing these test services for the public on a fee basis.

The description of the test facilities has been filed to Industry Canada under registration number 2932G-2. The facility has been added to the list of laboratories performing these test services for the public on a fee basis.

Normal test conditions:

Temperature (*) : +15°C to +35°C
Relative humidity(*) : 20 % to 75 %
Supply voltage : 3 Vdc EUT is battery operated only, new batteries used during testing.

When it was impracticable to carry out the tests under these conditions, a note to this effect stating the ambient temperature and relative humidity during the tests are stated separately.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Kind of Equipment	Manufacturer	Model Name	Inventory number	Calibration date (mm/yyyy)	Calibration due date (mm/yyyy)
For Antenna Port Conducted Emissions					
Temperature-Humiditymeter	Extech	SD500	A00446	04/2016	04/2017
Spectrum Analyzer	Rohde & Schwarz	FSV	A01744	07/2016	07/2017
RF Cable	Huber + Suhner	Sucoflex 102	A00344	05/2016	05/2017
For Radiated Emissions					
Measurement Receiver	Rohde & Schwarz	ESCI	A00314	03/2016	03/2017
RF Cable S-AR	Gigalink	APG0500	A00447	01/2017	01/2018
Controller	Maturo	SCU/088/ 8090811	A00450	N/A	N/A
Controller	EMCS	DOC202	A00257	N/A	N/A
Test facility	Comtest	FCC listed: 90828 IC: 2932G-2	A00235	04/2014	04/2017
Spectrum Analyzer	Rohde & Schwarz	FSV	A00337	06/2016	06/2017
Antenna mast	EMCS	AP-4702C	A00258	N/A	N/A
Temperature-Humiditymeter	Extech	SD500	A00444	04/2016	04/2017
Guidehorn 1-18 GHz	EMCO	3115	A00009	04/2016	04/2017
Guidehorn 18-40 GHz	EMCO	RA42-K-F-4B-C	A00012	04/2016	04/2017
Biconilog Testantenna	Teseq	CBL 6111D	A00466	06/2016	06/2017
2.4 GHz bandreject filter	BSC	XN-1783	A00065	N/A	N/A
Bandpass filter 4-10 GHz	Reactel	7AS-7G-6G-511	A00131	N/A	N/A
Bandpass filter 10-26 GHz	Reactel	9HS-10G/26.5G-S11	A00151	N/A	N/A
Preamplifier 0.5 - 18 GHz	Miteq	AMF-5D-005180-28-13p	A00247	N/A	N/A
Filterbox	EMCS	RFS06S	A00255	02/2017	02/2018

Conformance of the used measurement and test equipment with the requirements of ISO/IEC 17025:2005 has been confirmed before testing. NA= Not Applicable

2.3 Measurement Uncertainty

Table 2: Emission Measurement Uncertainty

Measurement Type	Frequency	Uncertainty
Antenna Port Conducted Emission	< 6GHz	2.5 dB
	> 6GHz	2.7 to 4.2 dB
Radiated Emission		
	30MHz - 1GHz	5.22
	> 1GHz	5.22

3. General Product Information

3.1 Product Function and Intended Use

The brand Sensitive model 1202000, hereafter referred to as EUT, is a ZigBee transceiver used to transmit data within a ZigBee network. ZigBee uses Offset Quadrature Phase-shift Keying (OQPSK) and Direct Sequence Spread Spectrum (DSSS) for modulating radio-signals in physical layer based on 802.15.4 protocols. The tested sample is representative for models 1201000 and 1204000 which are basicly the same but have fewer sensors installed.

The 802.15.4 (ZigBee) channel allocation consists of 16 channels numbered 11 to 26, starting at 2.405 GHz and ending at 2.480 GHz. Bandwidth is 2 MHz per channel.

All radiated testing was performed using the normal sample with integrated antenna, the conducted tests were performed on a specially prepared sample with SMA connector.

The content of this report and measurement results have not been changed other than the way of presenting the data.

3.2 System Details

Details and an overview of the system and all of its components, as it has been tested, may be found below.

EUT	:	Digital Transmission System, ZigBee
Manufacturer	:	Sensative AB
Brand	:	Sensative
Model(s)	:	1202000
Hardware version	:	MCA 12 01 000/1 (R1B)
Software version	:	Silabs SDK, EmberZnet Pro 5.8.1.0 GA
Serial Number	:	13 (conducted tests) and 15 (radiated tests)
Voltage input rating	:	3.0 Vdc
Voltage output rating	:	--
Current input rating	:	--
Antenna	:	Internal, integrated on the PCB
Antenna Gain	:	1.6 dBi
Operating frequency	:	2405 MHz-2480 MHz.
Modulation	:	OQPSK
Data-rate	:	250 kbps
Remarks	:	n.a.

Table 3: Interfaces present on the EUT

There are no interface ports present on the EUT.

3.3 Countermeasures to achieve EMC Compliance

No additional measures were employed to achieve compliance.

4. Test Set-up and Operation Modes

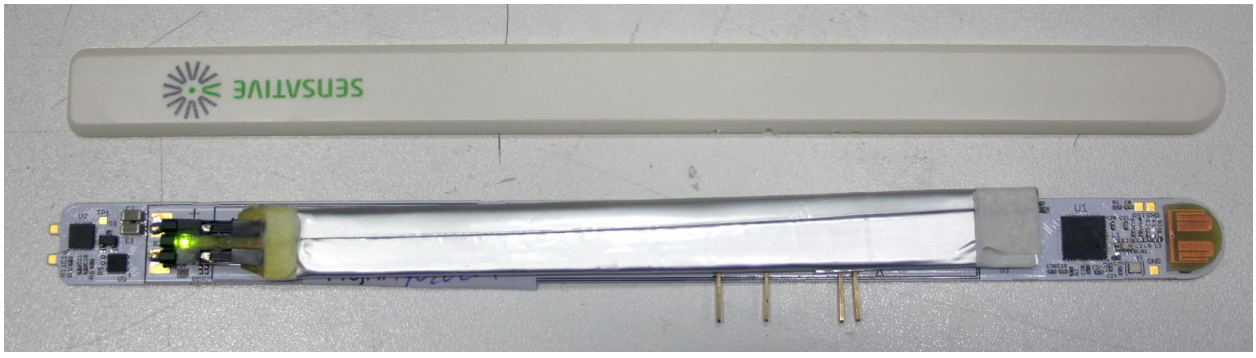
4.1 Test Methodology

The test methodology used is based on the requirements of RSS-GEN, RSS-247, 47 CFR Part 15, Sections 15.31, 15.33, 15.35, 15.205, 15.207, 15.209, 15.247.

The test methods, which have been used, are based on ANSI C63.10-2013**.**

For details, see under each test item.

For antenna port conducted tests the EUT was powered through the programming cable (AUX2), for radiated tests 3.0Vdc batteries (new) were used.



Photograph of the battery as placed in the EUT

4.2 Operation Modes

Testing was performed at the lowest operating frequency (2405 MHz), at the operating frequency in the middle of the specified frequency band (2440 MHz) and at the highest operating frequency (2480 MHz). These operation modes were selected after review of the capabilities and characteristics of the EUT. The test software as mentioned in section 4.4 enabled the settings of these modes.

The EUT has been tested in the modes as described in table below

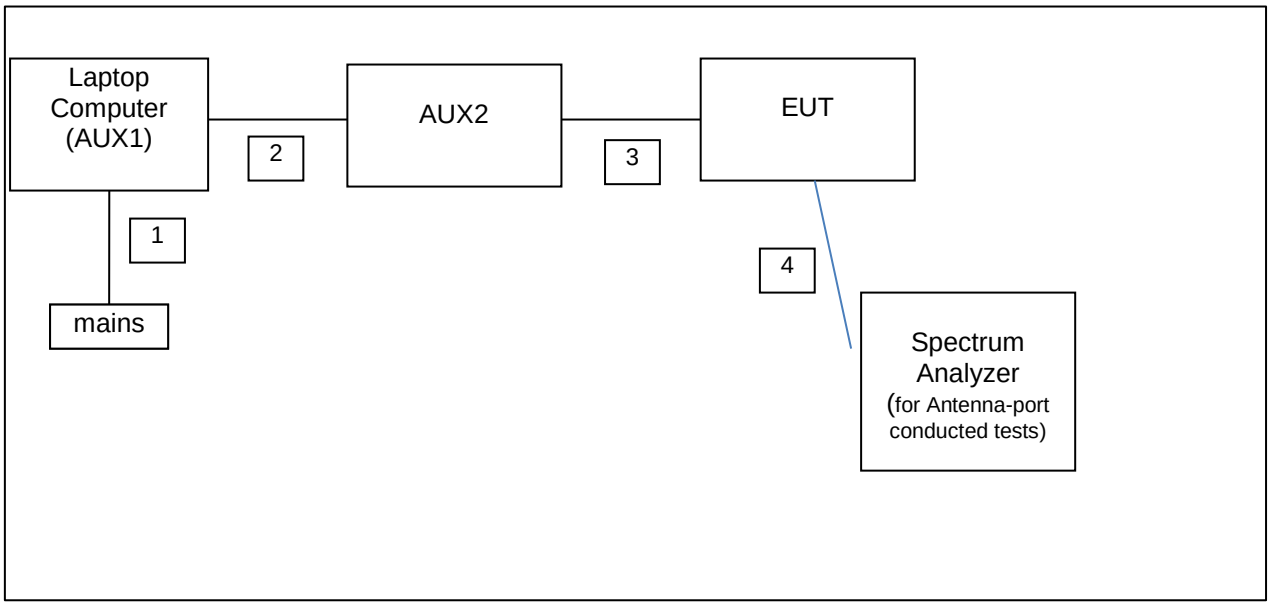
Operation Mode	EUT Status	Frequency (MHz)	TX power (dBm)
Transmit (Tx)	On	2405	8
Transmit (Tx)	On	2440	8
Transmit (Tx)	On	2480	8

4.3 Physical Configuration for Testing

For programming purposes only the EUT was connected to the usb port of a laptop computer. The laptop computer was used to configure the EUT to continuously transmit at a specified output power and channel as specified in the test data. See section 4.5 for Auxiliary details.

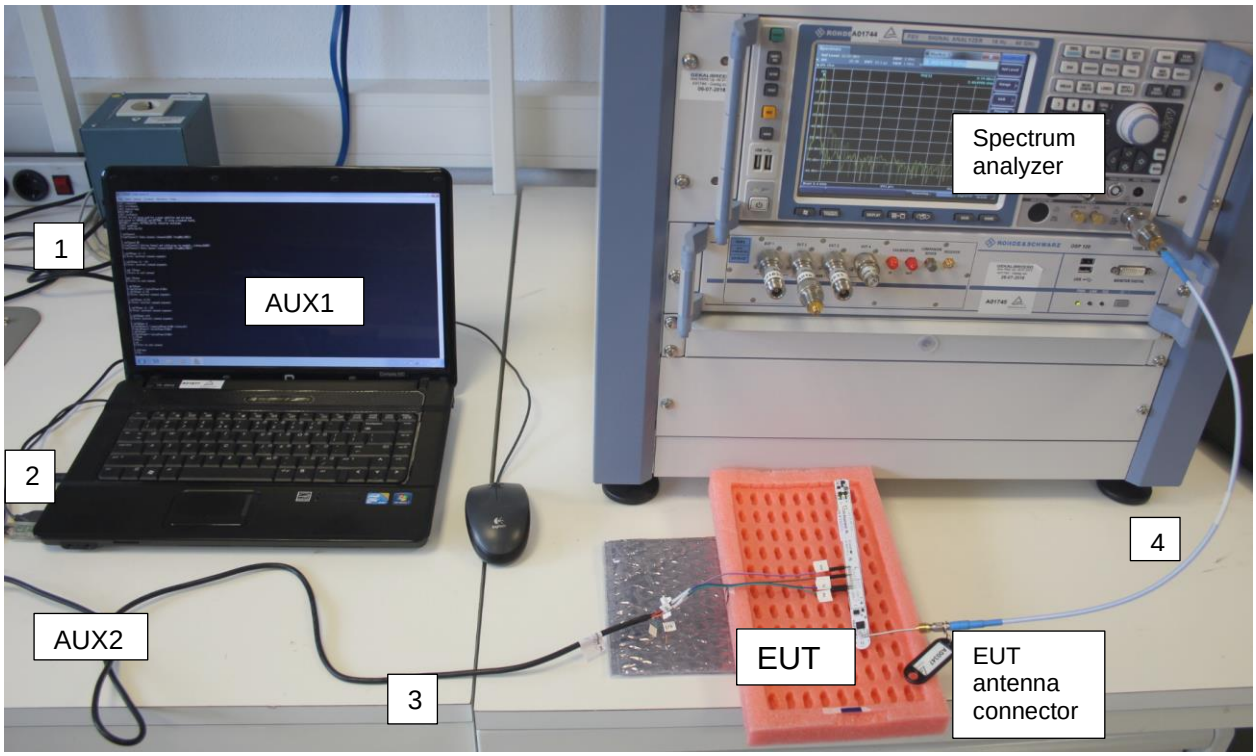
The justification and manipulation of cables and equipment in order to simulate a worst-case behavior of the test setup has been carried out as prescribed in ANSI C63.10-2013.

Figure 1a: Test Setup Diagram – antenna port conducted tests and programming.



No.	Port	From	To	Remarks
1.	Mains	Mains	Laptop (AUX1)	Through a AC/DC power supply
2.	Data com.	Laptop USB	AUX2	--
3.	Data com.	AUX2	EUT	--
4.	Antenna port	EUT	Spectrum analyzer	Conducted tests

Figure 2b: Test Setup Photos – conducted tests and programming.



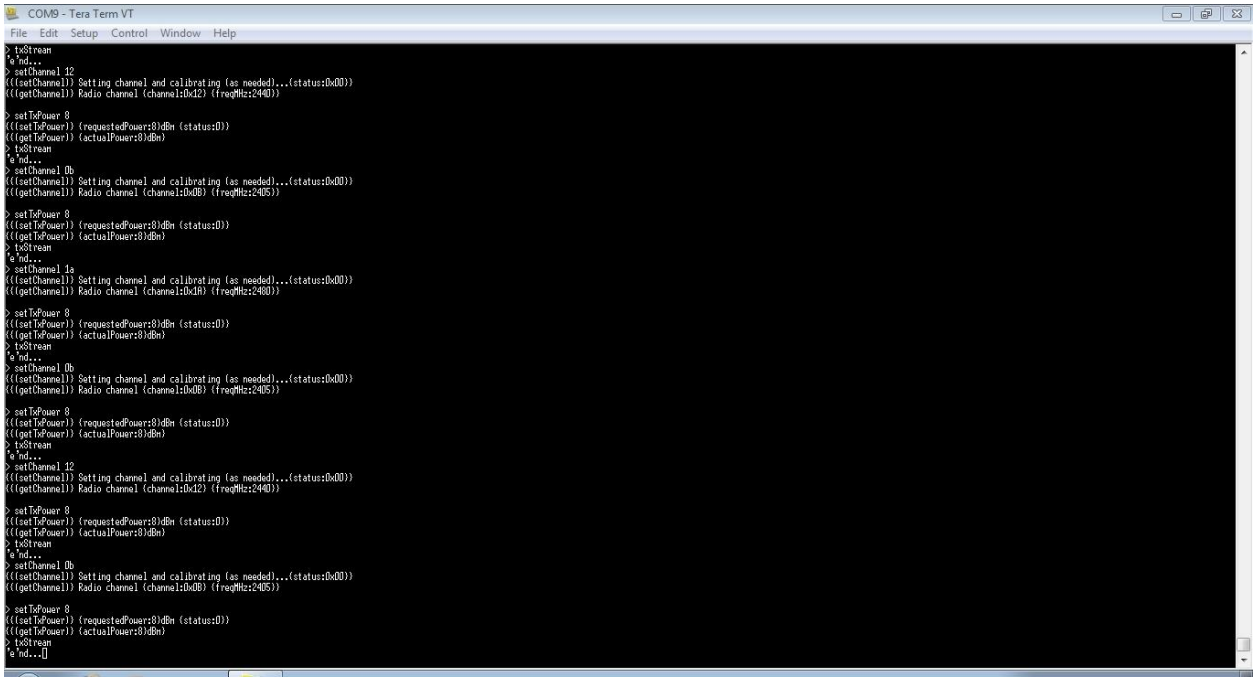
4.4 Test Software

A continuous transmit mode could be initiated by using test software as supplied by the applicant. The test software was used to define various different operational modes of the EUT for the purpose of compliance testing. The version of the test software, as supplied by the applicant and used during all tests is:

Test software : Tera Term VT version 4.90 [SVN#6338]

This software was running on a laptop computer (AUX1). It was used to enable the test operation modes listed in section 4.2 as appropriate.

Code for frequency setting: 2405 MHz 0B*hex*, 2440 MHz 12*hex* and 2480 MHz 1A*hex*.



Screenshot of the software (and settings) as used on AUX1

4.5 Special Accessories and Auxiliary Equipment

The product has been tested together with the following additional accessories:

The auxiliary items were not used during testing, but instead are only used to make the required settings for testing. For setting the transmit frequency, enable modulation etc.

1. AUX1
   Product: Laptop Computer
   Brand: HP
   Model: Compaq 610
   Serial Number: CNU94710WB
   Remark: host for test software, Inventory A01877

2. AUX2
   Product: programming cable, USB
   Brand: -
   Model: -
   Serial Number: --
   Remark: property applicant

5. Test Results

5.1 Conducted Measurements at Antenna Port

5.1.1 Conducted Output Power

RESULT: PASS

Date of testing: March 15, 2017

Requirements:

FCC 15.247(b)(3)

For systems using digital modulation in the 2400-2483.5 MHz band, the maximum peak output power is 1W (+30dBm).
RSS-247 section 5.4(4): the e.i.r.p. shall not exceed 4 W (+36 dBm).

Test procedure:

The Peak Conducted Output Power was measured using the method according to section 11.9.1.1 in ANSI C63.10-2013.

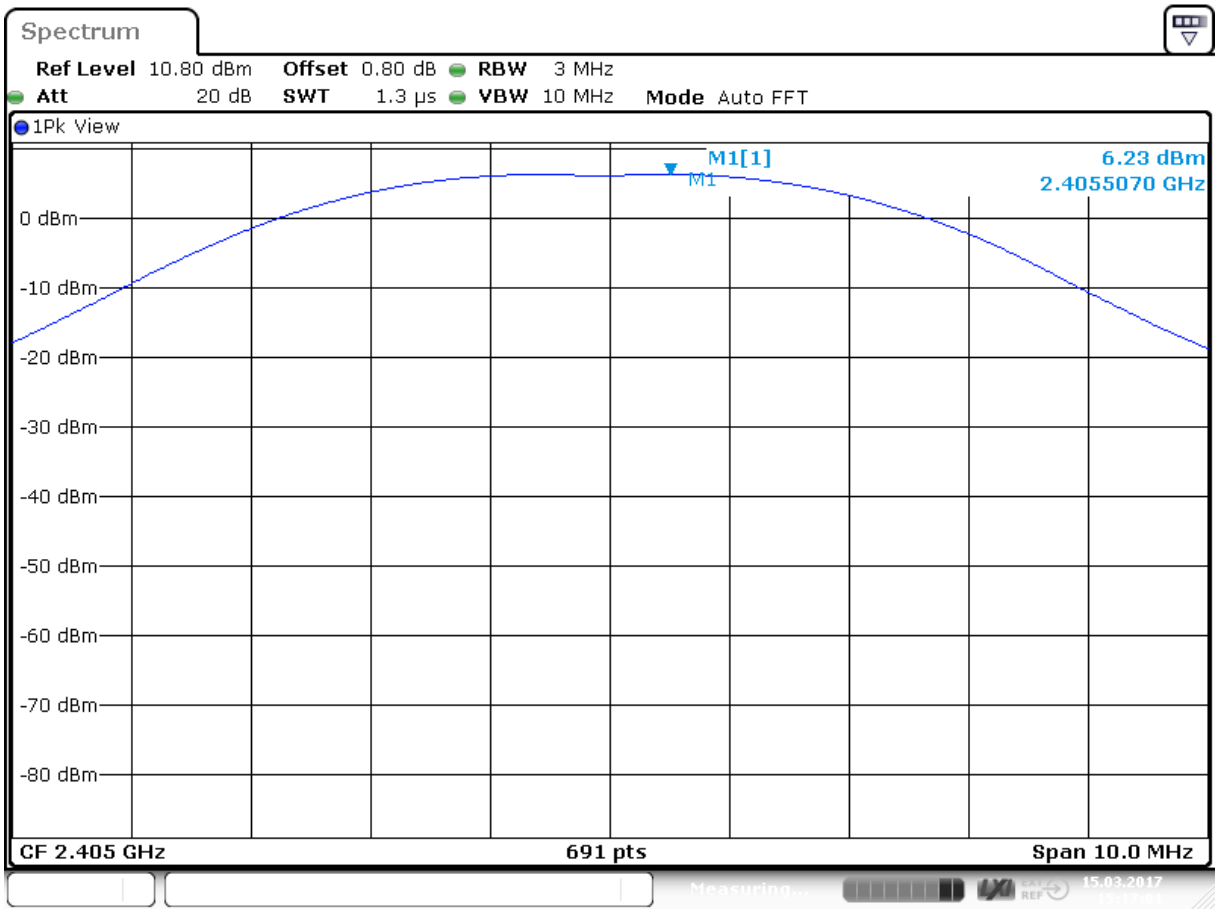
The maximum peak output power (conducted) was measured at the antenna connector with a spectrum analyzer. The final measurement takes into account the loss generated by all the involved cables.

Notes: mW = 10 ^ (dBm/10)
dBm = 10 x log(mW)

plots : Peak power plots,
Figures 1a, 1b and 1c show plots of the Peak Power outputs, correction factors (= 0.8 dB Cableloss) included in the reading.

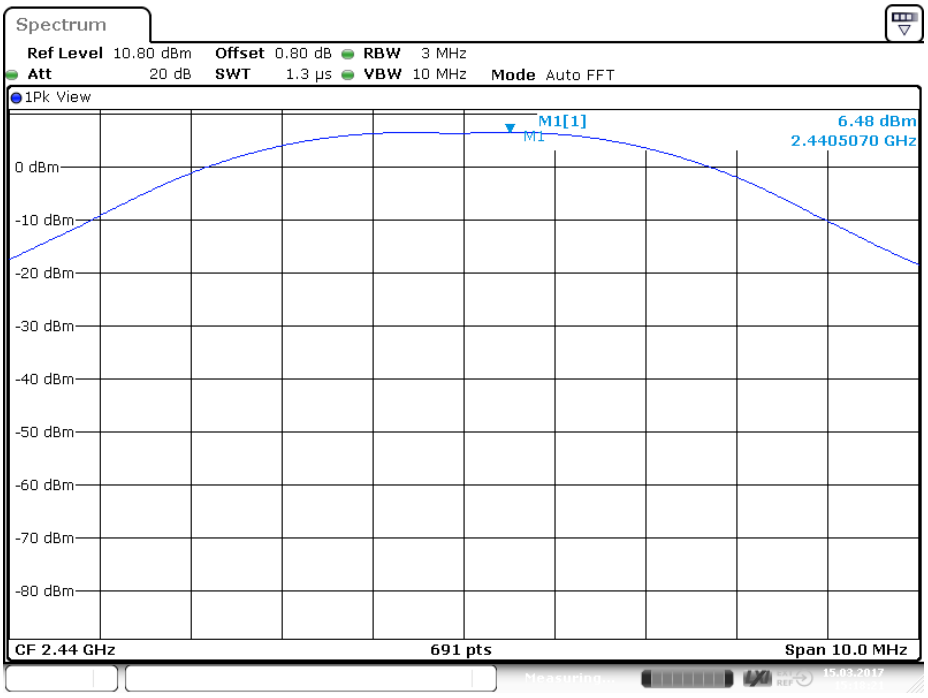
Conducted Output Power

Frequency [MHz]	Output Power [dBm]	Limit [dBm]	Verdict [Pass/Fail]	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Plot number
2405	6.23 (4.2 mW)	+30	Pass	+1.6	7.83	6.1	1A
2440	6.48 (4.4 mW)	+30	Pass	+1.6	8.08	6.4	1B
2480	6.68 (4.7 mW)	+30	Pass	+1.6	8.28	6.7	1C



Date: 15.MAR.2017 15:17:01

Plot A



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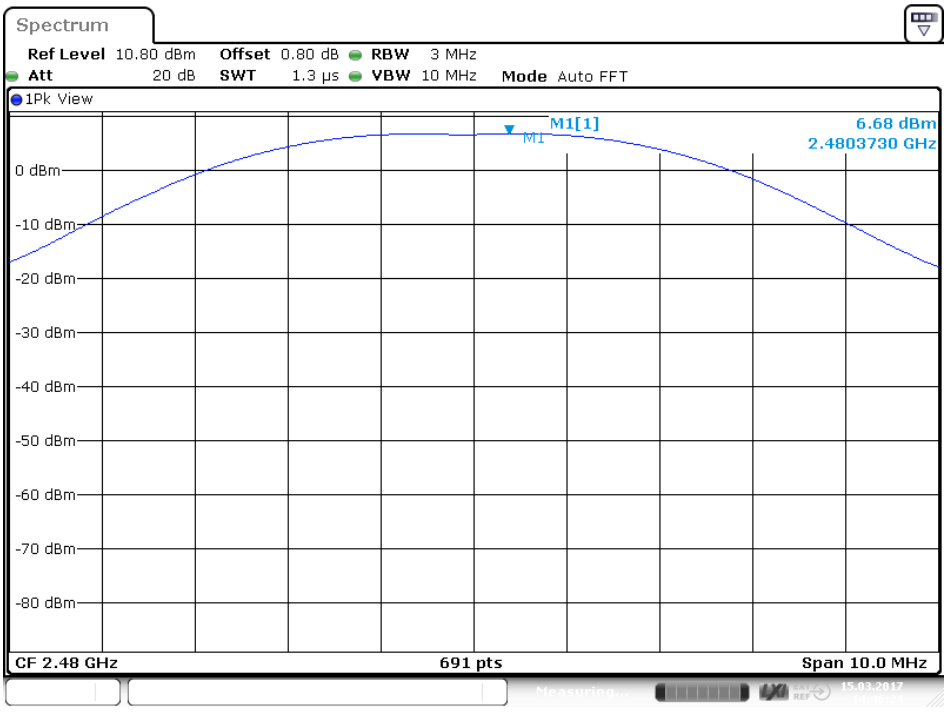
Plot B



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Plot C

5.1.2 6dB and 99% Bandwidth

RESULT: PASS

Date of testing: March 15, 2017

Requirements:

FCC 15.247(a)(2) and RSS-247 Section 5.2(1)
For systems using digital modulation in the 2400-2483.5MHz band, the 6dB bandwidth shall be at least 500kHz.

For 99% Bandwidth: RSS-Gen Section 4.6.1: No requirement is given.

Test procedure 6dB bandwidth:

ANSI C63.10-2013 section 11.8.1 Option 1

A spectrum analyzer was connected to the antenna port of the EUT. The spectrum analyzer resolution bandwidth was set to 100kHz, video bandwidth to 300kHz and the span wide enough to capture the modulated carrier.

For 99% Bandwidth:

RSS-Gen.

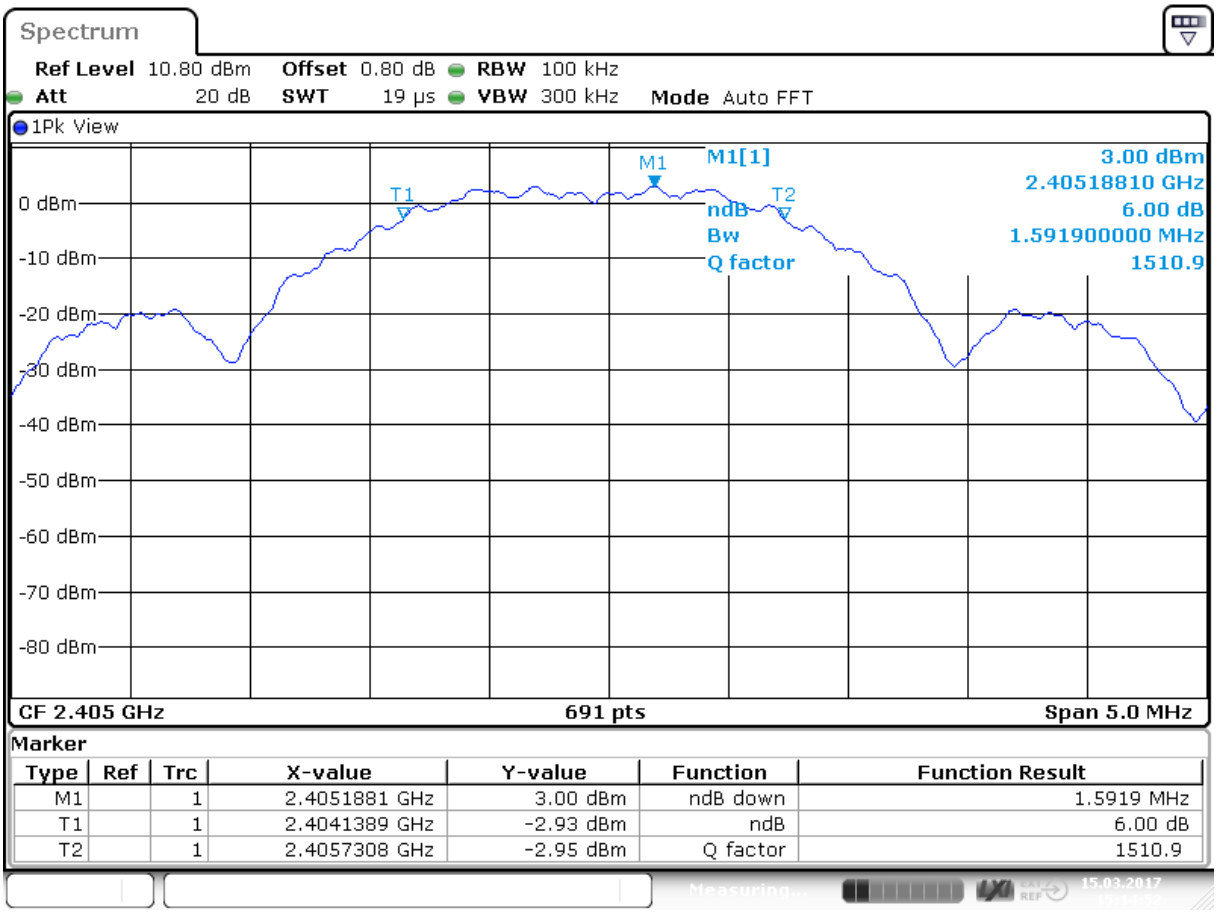
The transmitter shall be operated at its maximum carrier power measured under normal test conditions. The span of the analyzer shall be set to capture all products of the modulation process, including the emission sideskirts. The resolution bandwidth shall be set as close to 1% of the selected span as is possible without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth. Video averaging is not permitted. Where practical, a sampling detector shall be used given that a peak or peak hold may produce a wider bandwidth than actual.

A spectrum analyzer was connected to the antenna port of the EUT. The spectrum analyzer resolution bandwidth was set to 1% of the selected span, Video bandwidth was set to 3 times the resolution bandwidth. The span was set to capture the whole modulation process. The Spectrum analyzers automated function for 99% BW was used.

Plots A1,B1 and C1 shown on the next pages are of the 6 dB bandwidth.
Plots A2,B2 and C2 shown on the next pages are of the 99% bandwidth

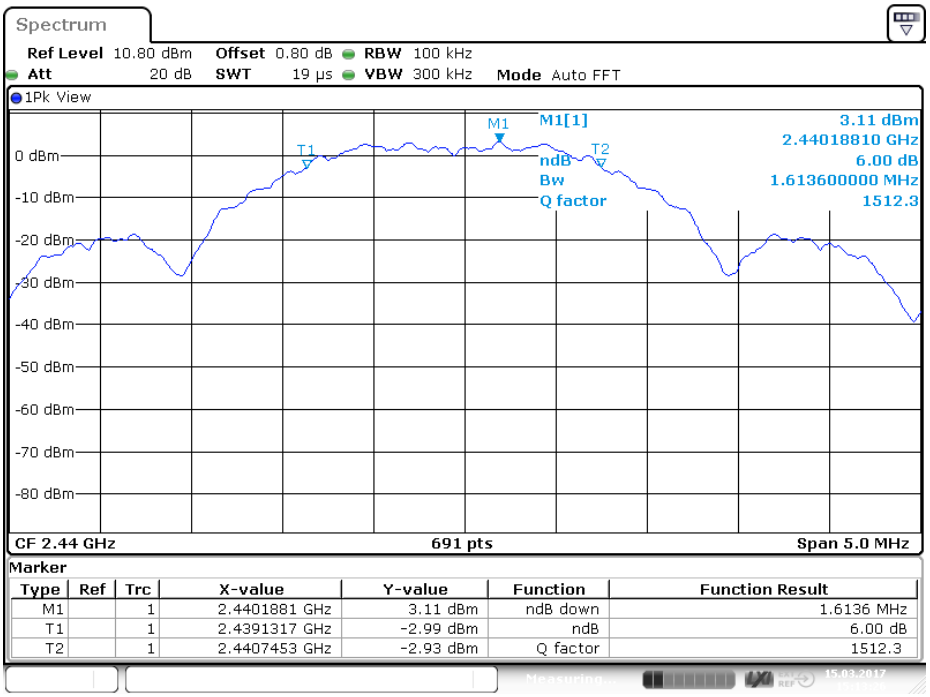
6dB Bandwidth

Operating Frequency [MHz]	99% Bandwidth [kHz]	6dB Bandwidth [kHz]	Limit [kHz]	Verdict [Pass/Fail]	Plot number
2405	2416.79	1591.90	>500	Pass	A1/A2
2440	2438.49	1613.60	>500	Pass	B1/B2
2480	2467.44	1635.30	>500	Pass	C1/C2

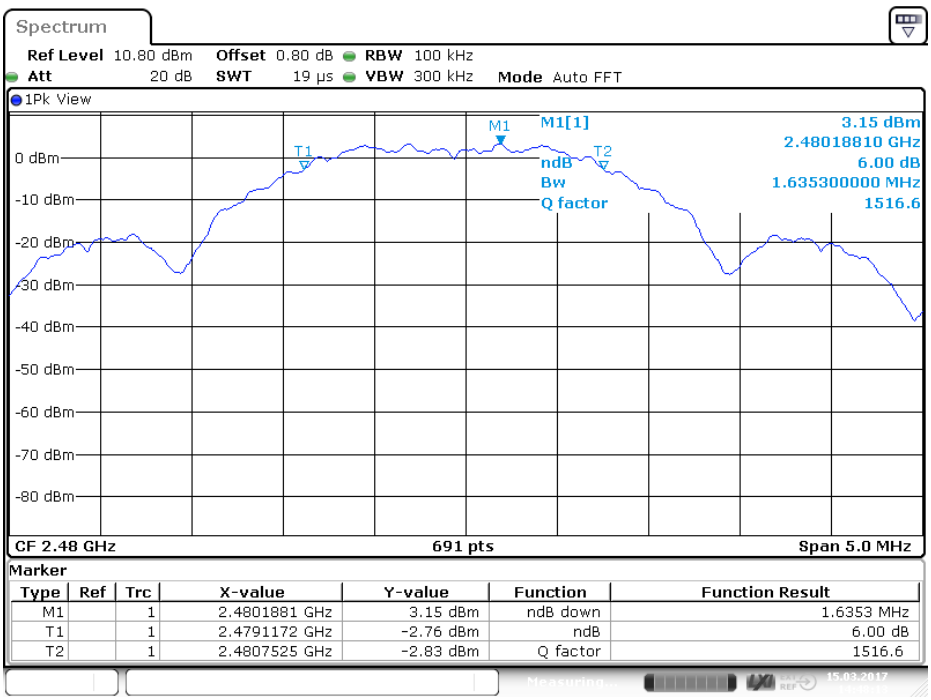


Date: 15.MAR.2017 15:14:52

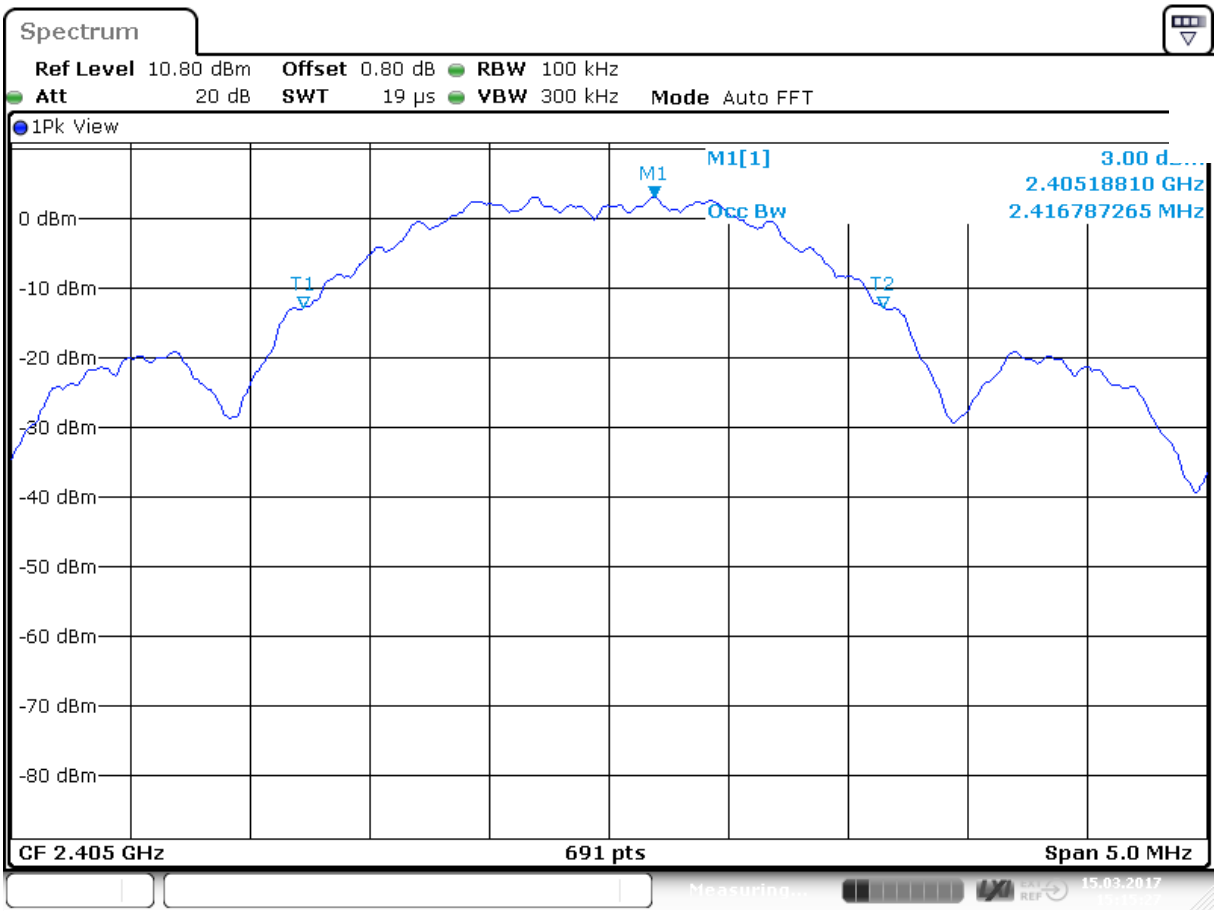
Plot A1



Plot B1

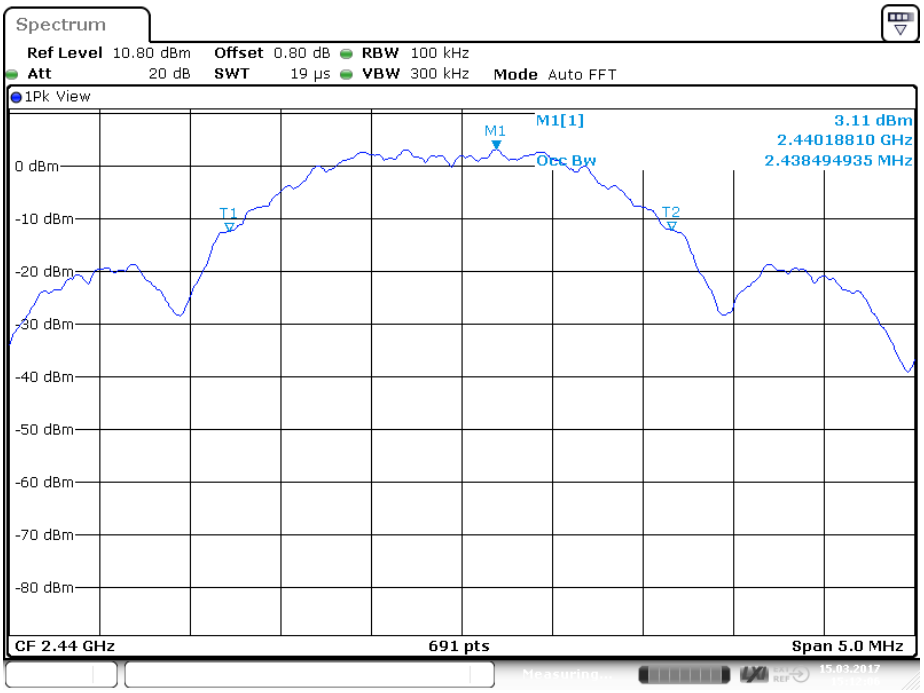


Plot C1



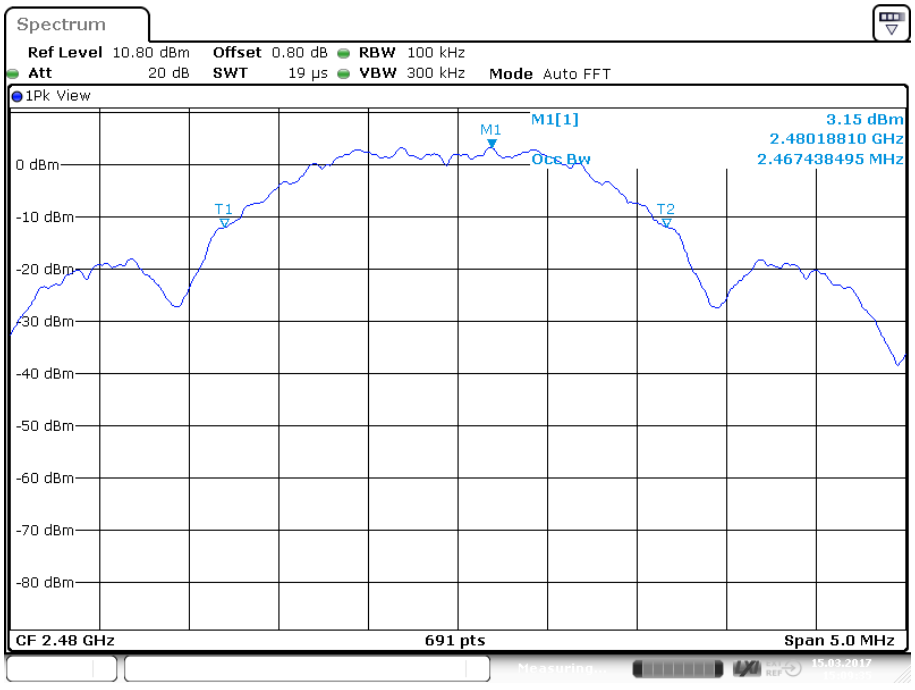
Date: 15.MAR.2017 15:15:27

Plot A2



Date: 15.MAR.2017 15:12:06

Plot B2



Date: 15.MAR.2017 15:09:35

Plot C2

5.1.3 Peak Power Spectral Density

RESULT: PASS

Date of testing: March 15, 2017

Requirements:

FCC 15.247(e) and RSS-247 section 5.2(2)

For digitally modulated systems, the power spectral density (PSD) conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

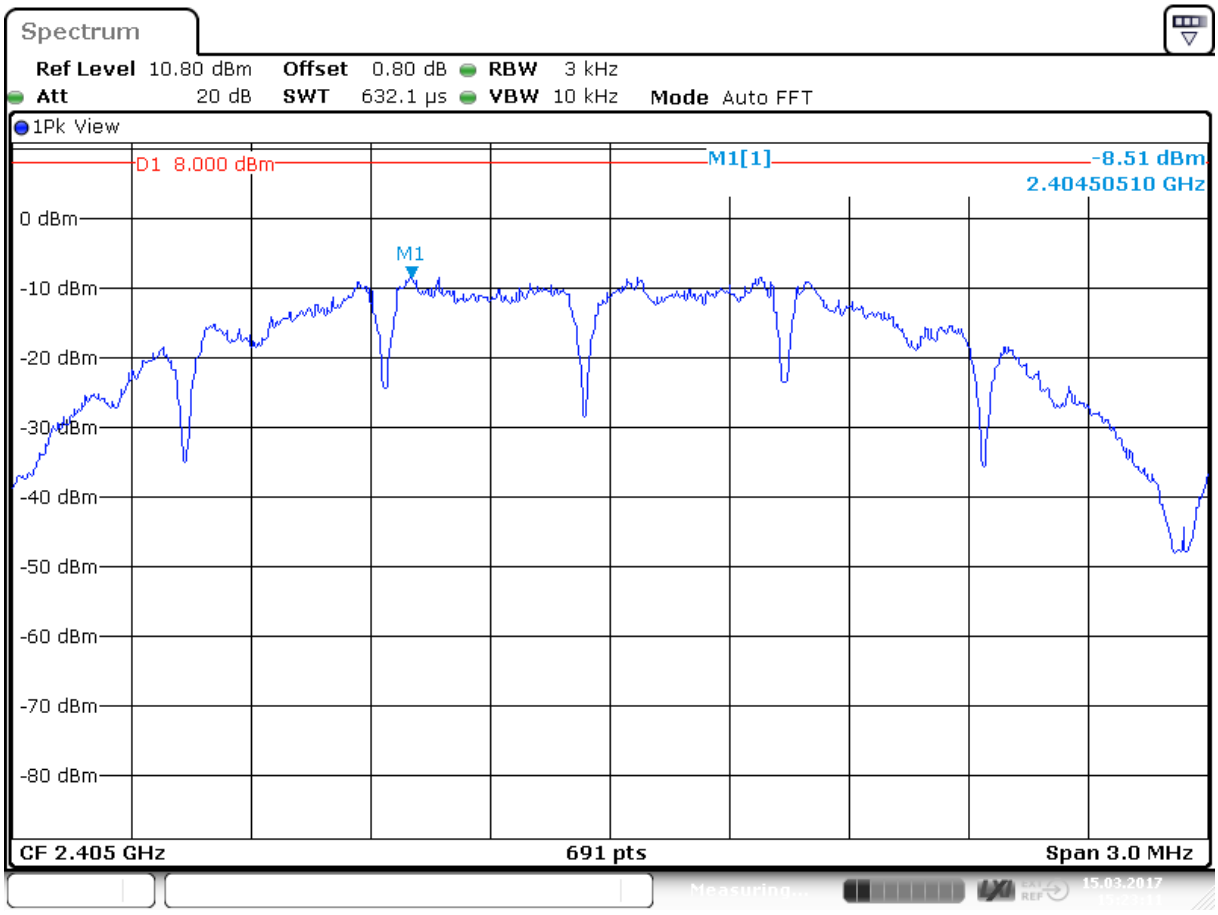
Test procedure:

ANSI C63.10-2013

The section 11.10.2 PKPSD peak PSD procedure was used. A spectrum analyzer was connected to the antenna port of the EUT. The analyzer resolution bandwidth was set to 3kHz and the video bandwidth was set to 10kHz. The sweep time was set to auto couple and the trace was allowed to stabilize before making the final measurement. By using the Peak marker function the maximum amplitude was determined. The final measurement takes into account the loss generated by all the involved cables (0.8 dB).

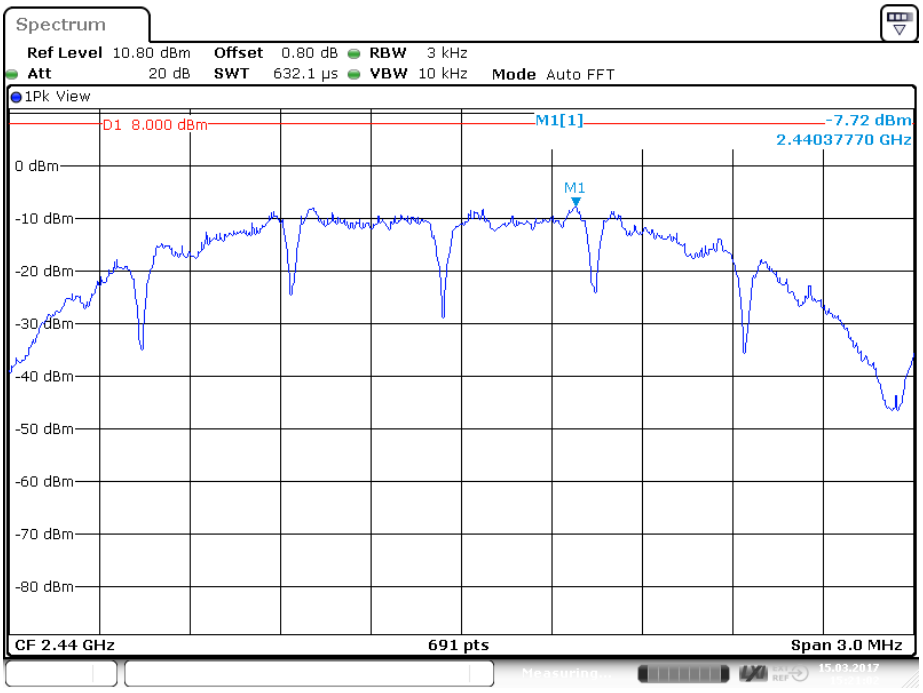
Peak Power Spectral Density

Operating Frequency [MHz]	Max PSD [dBm]	Limit [dBm]	Verdict [Pass/Fail]	Plot
2405	-8.51	8	Pass	A
2440	-7.72	8	Pass	B
2480	-7.54	8	Pass	C



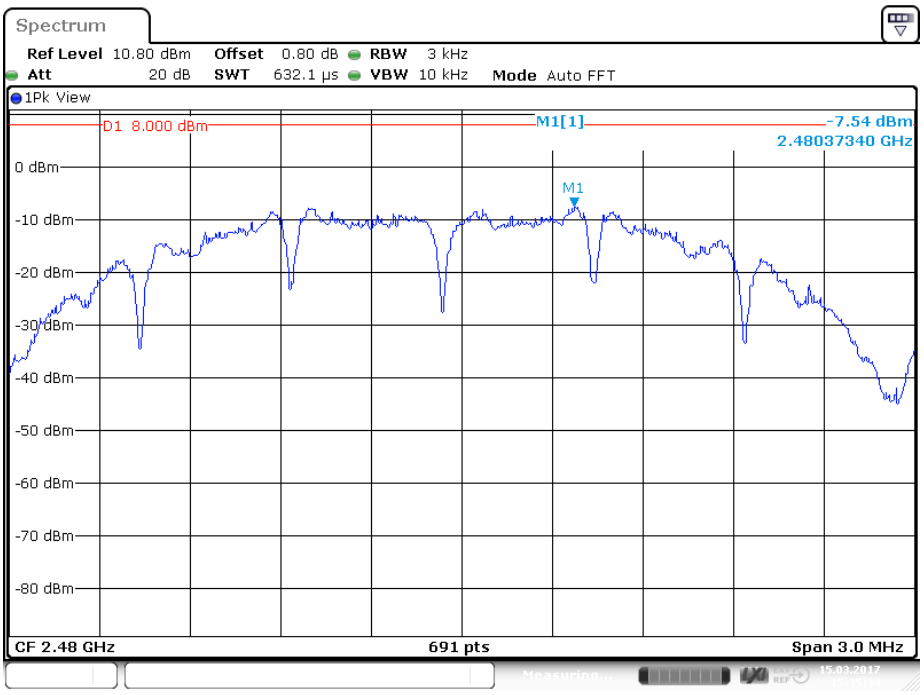
Date: 15.MAR.2017 15:23:11

Plot A



Date: 15.MAR.2017 15:21:02

Plot B



Date: 15.MAR.2017 15:35:35

Plot C

5.1.4 Out of Band Conducted Emissions

RESULT: Pass

Date of testing: March 15, 2017

Requirements:

FCC 15.205, FCC 15.209, FCC 15.247(d) and RSS-247 section 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

Test procedure:

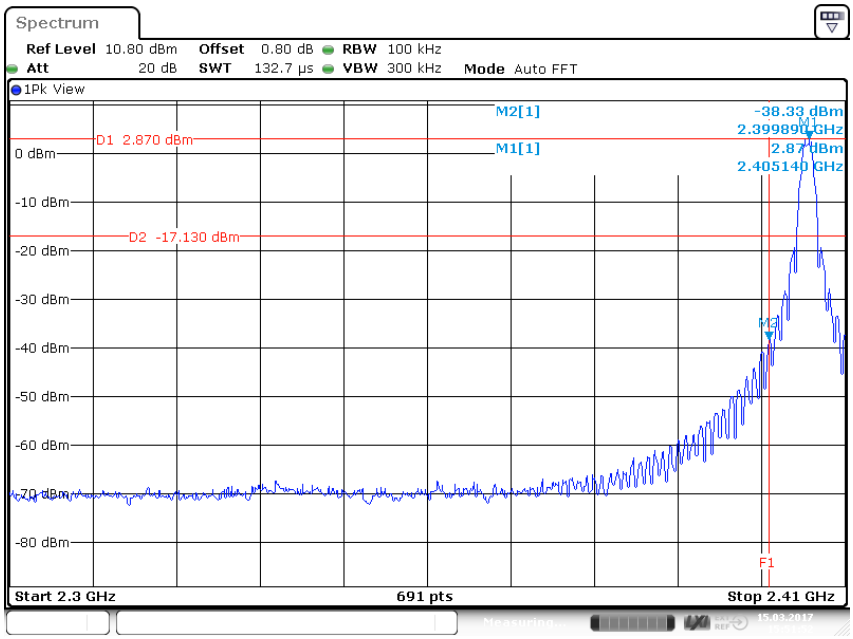
ANSI C63.10-2013
Section 11.13

The marker-delta method, as described in ANSI C63.10 was used.

Measurements were performed using a spectrum analyzer with a suitable span to encompass the peak of the fundamental and using the following settings:
RBW = 100kHz, VBW = 300kHz.

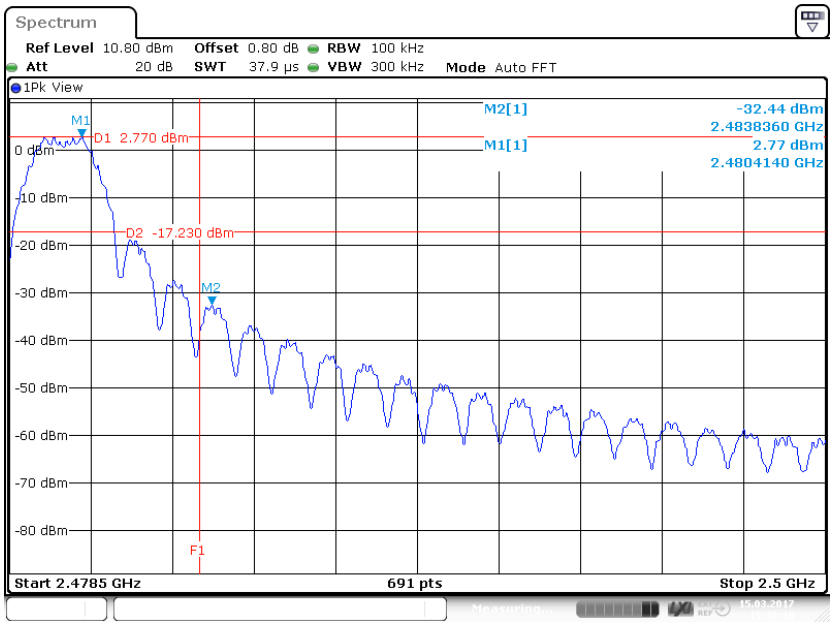
The highest emission amplitudes relative to the appropriate limit were measured and recorded in this report.

Results: All out of band spurious emissions are more than 20 dB below the fundamental.
See the figures on the following pages.



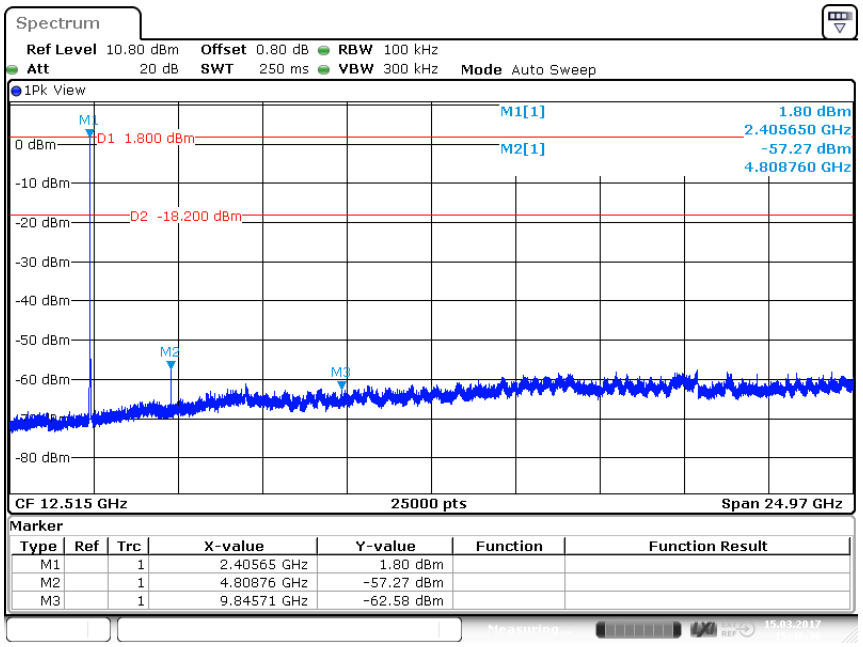
Plot: Band Edge Conducted Emission, Spectral Diagram, 2405 MHz

Plot showing more than 20 dB band edge attenuation.
F1 shows the band edge frequency of 2400 MHz.

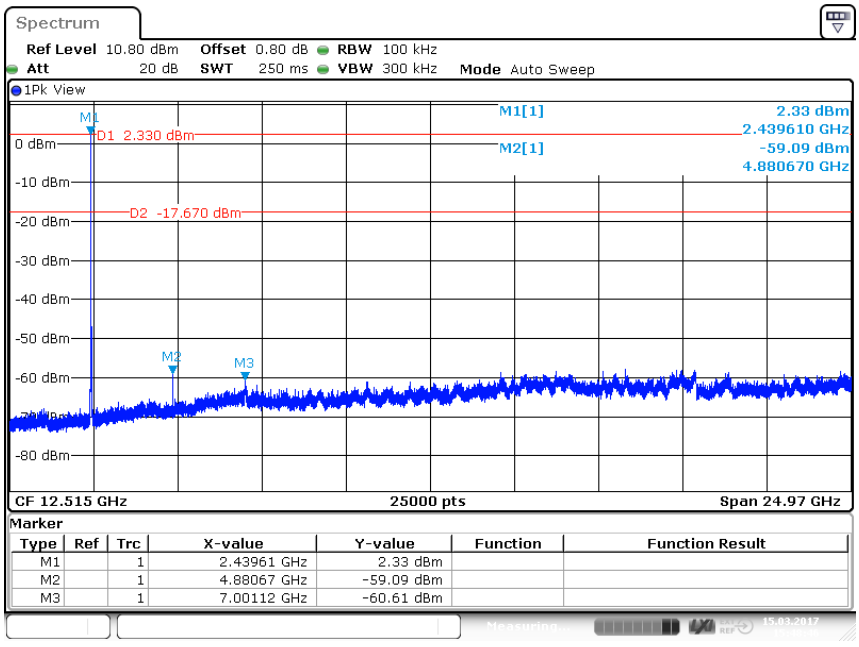


Plot: Band Edge Conducted Emission, Spectral Diagram, 2480 MHz.
Plot showing more than 20 dB band edge attenuation.
F1 shows the band edge frequency of 2483.5 MHz.

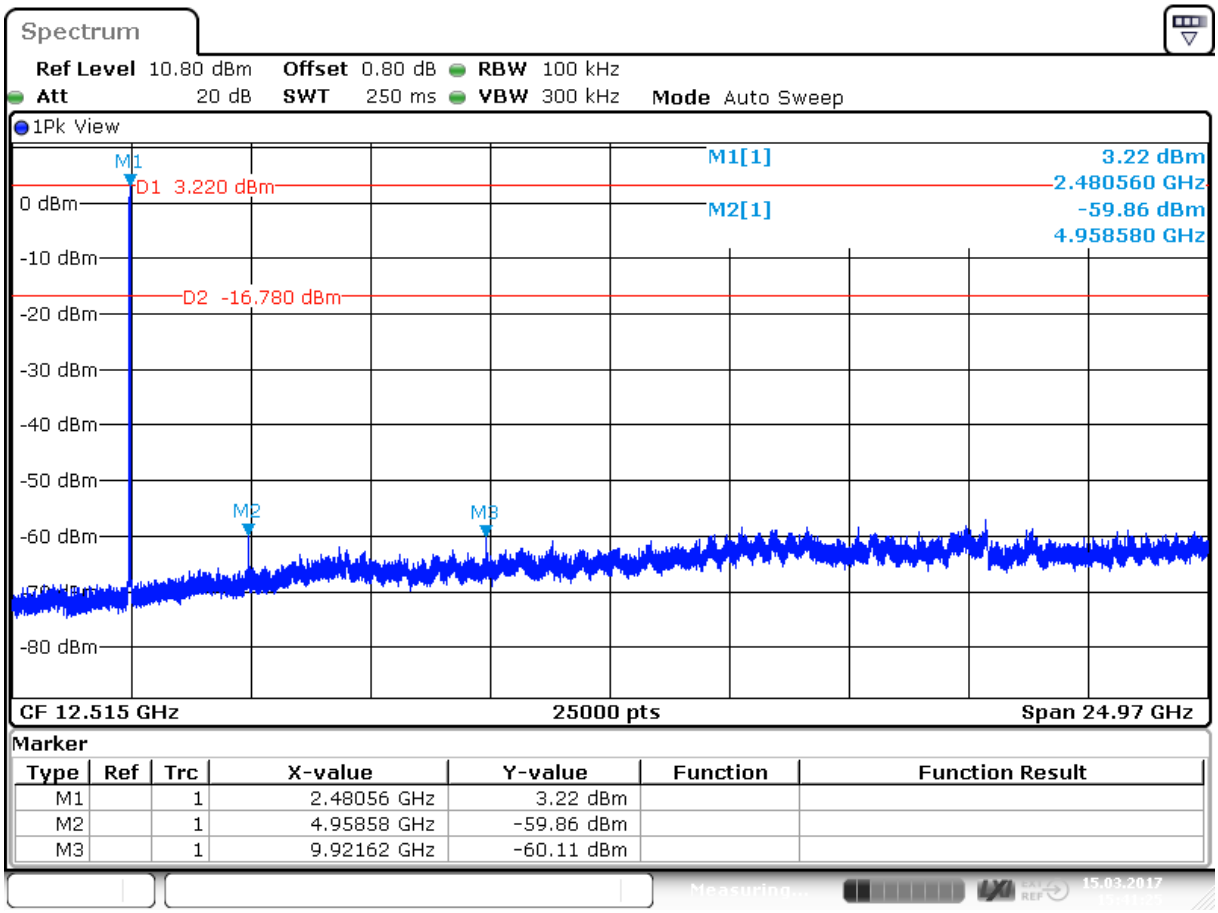
Conducted spurious emissions in the range 30 MHz – 25 GHz



Plot: Conducted spurious emission in the range 30 MHz – 25 GHz, Spectral Diagram, 2405 MHz. Plot showing more than 20 dB band edge attenuation.



Plot: Conducted spurious emission in the range 30 MHz – 25 GHz, Spectral Diagram, 2440 MHz. Plot showing more than 20 dB band edge attenuation.



Date: 15.MAR.2017 15:41:25

Plot: Conducted spurious emission in the range 30 MHz – 25 GHz, Spectral Diagram, 2480 MHz.
Plot showing more than 20 dB band edge attenuation.

5.1.5 Radiated Spurious Emissions of Transmitter

RESULT: PASS

Date of testing: March 16, 2017

Frequency range: 30MHz - 25GHz

Requirements:

FCC 15.209 and FCC 15.247(d) and RSS-Gen

Radiated emissions which fall outside the operation frequency band and outside restricted bands shall either meet the limit specified in FCC 15.209(a) or be attenuated at least 20dB below the power level in the 100kHz bandwidth within the band that contains the highest level of the desired power (the less severe limit applies).
Radiated emissions which fall in the restricted bands, as defined in FCC 15.205(a) and RSS-Gen Table 6, must comply with the radiated emission limits specified in FCC 15.209(a) and RSS-Gen Table 4.

Test procedure:

ANSI C63.10-2013

Before final measurements of radiated emissions were performed, the EUT was scanned to determine its emission spectrum profile. The physical arrangement of the test system, the associated cabling and the EUT orientation (X, Y, Z) were varied in order to ensure that maximum emission amplitudes were attained.

The spectrum was examined from 30MHz to the 10th harmonic of the highest fundamental transmitter frequency (25GHz). Final radiated emission measurements were made at 3m distance.

At each frequency where a spurious emission was found, the EUT was rotated 360° and the antenna was raised and lowered from 1 to 4m in order to determine the emission's maximum level. Measurements were taken using both horizontal and vertical antenna polarizations.

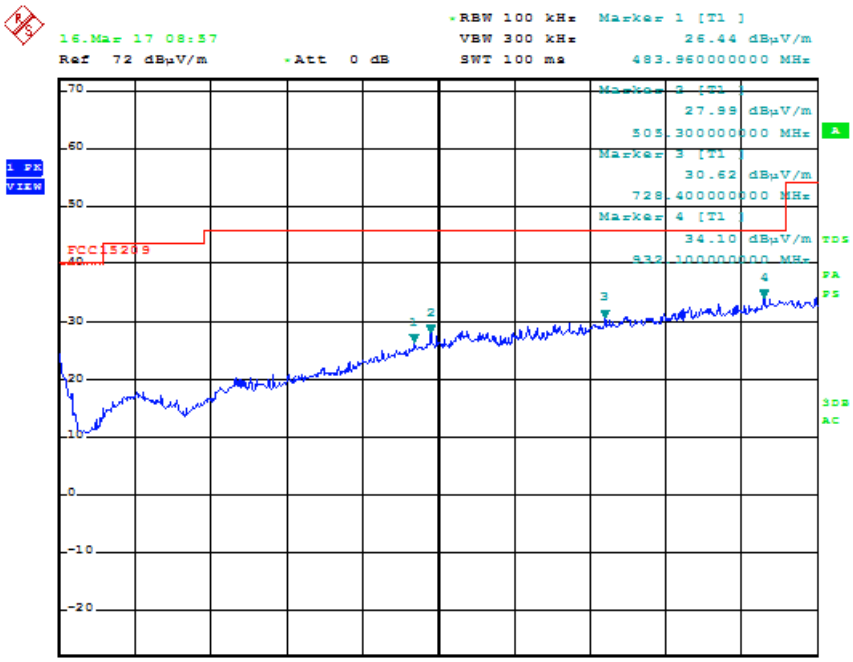
The 6 highest emission amplitudes relative to the appropriate limit were recorded in this report. Field strength values of radiated emissions at frequencies not listed in the tables are more than 20 dB below the applicable limit. The levels are expressed in dBm which are derived from dBm = E(dBµV/m) – 95.2dB. Where Peak (Pk) values where at least 6 dB under the Average (Av) limits, Av value was not tested. Were Average values were tested, Average values were measured using a 10Hz Video Bandwidth.

Radiated Emissions, 30MHz - 1GHz

Frequency [MHz]	EUT Orientation	Antenna Orientation	Level QP [dBµV/m]	Limit QP [dBµV/m]	Verdict [Pass/Fail]
464.56	Horizontal	Vertical	15.8	46.0	Pass
483.96	Vertical	Vertical	16.5	46.0	Pass
505.30	Vertical	Vertical	17.5	46.0	Pass
547.98	z-pos	Horizontal	19.5	46.0	Pass
893.30 noise	z-pos	Horizontal	24.3	46.0	Pass
932.10 noise	Vertical	Vertical	25.0	46.0	Pass

Notes:

- Tested in modes as described in section 4.2, hardly any unwanted emissions observed, the 6 highest values noted.
- Preliminary measurements indicated that the radiated emissions from EUT were not affected by the EUT's operating mode or frequency.
- Quasi Peak detector used with a bandwidth of 120 kHz.



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Plot of the emissions in the range 30 – 1000 MHz (Peak detector values shown)

Radiated Emissions, 1 - 25GHz @ 2405 MHz.

Frequency [MHz]	EUT orientation	Antenna Orientation	Detector	Bandwidth (MHz)	Level [dBm]	Limit [dBm]	Result
1080.36*R	Vertical	Vertical	Pk	1	-56.0	-41.2 (Av) -21.2 (Pk)	Pass
1440.34*R	Vertical	Vertical	Pk	1	-55.5	-41.2 (Av) -21.2 (Pk)	Pass
4809.9*H*R	Vertical	Vertical	Pk	1	-42.2	-21.2 (Pk)	Pass
4809.9*H*R	Vertical	Vertical	Av	1	-56.9	-41.2 (Av)	Pass
9617.3*H	Vertical	Vertical	Pk	1	-38.0	-21.2 (Pk)	Pass
9617.3*H	Vertical	Vertical	Av	1	-50.8	-41.2 (Av)	Pass

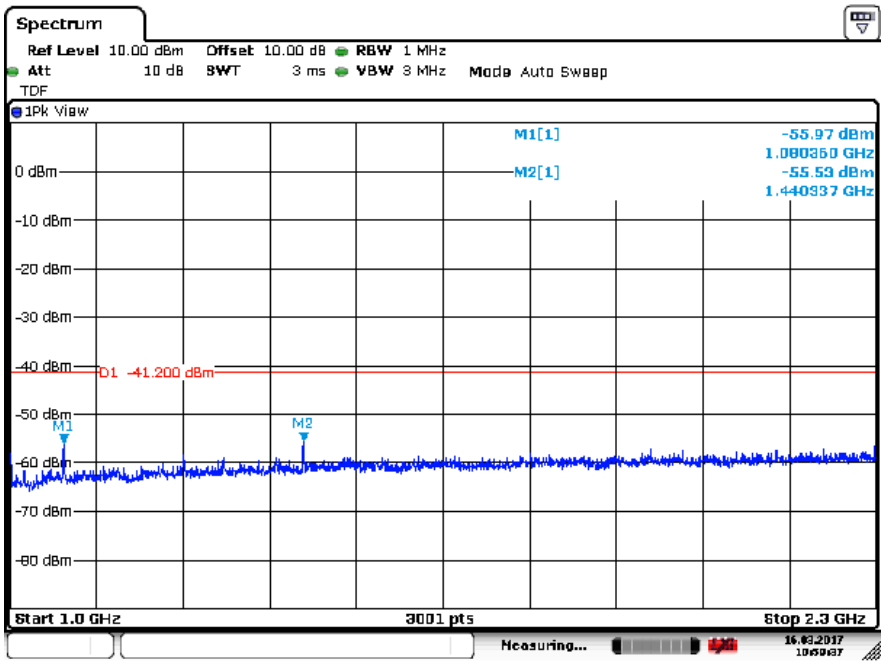
Radiated Emissions, 1 - 25GHz, @ 2440 MHz.

Frequency [MHz]	EUT orientation	Antenna Orientation	Detector	Bandwidth (MHz)	Level [dBm]	Limit [dBm]	Result
1080.36*R	Vertical	Vertical	Pk	1	-55.4	-41.2 (Av) -21.2 (Pk)	Pass
1440.34*R	Vertical	Vertical	Pk	1	-56.4	-41.2 (Av) -21.2 (Pk)	Pass
4879.3*H*R	Z position	Vertical	Pk	1	-41.3	-21.2 (Pk)	Pass
4879.3*H*R	Z position	Vertical	Av	1	-66.7	-41.2 (Av)	Pass
9761.7*H	Z position	Vertical	Pk	1	-41.1	-21.2 (Pk)	Pass
9761.7*H	Z position	Vertical	Av	1	-58.7	-41.2 (Av)	Pass
10579.7	Horizontal	Horizontal	Pk	1	-42.4	-21.2 (Pk)	Pass
10579.7	Horizontal	Horizontal	Av	1	-58.8	-41.2 (Av)	Pass
13700	Vertical	Vertical	Pk	1	-37.2	-21.2 (Pk)	Pass
13700	Vertical	Vertical	Av	1	-52.2	-41.2 (Av)	Pass

Radiated Emissions, 1 - 25GHz, @ 2480 MHz.

Frequency [MHz]	EUT orientation	Antenna Orientation	Detector	Bandwidth (MHz)	Level [dBm]	Limit [dBm]	Result
1080.0*R	Vertical	Vertical	Pk	1	-57.2	-41.2 (Av) -21.2 (Pk)	Pass
1441.2*R	Vertical	Vertical	Pk	1	-56.0	-41.2 (Av) -21.2 (Pk)	Pass
4960*H*R	Vertical	Vertical	Pk	1	-40.3	-21.2 (Pk)	Pass
4960*H*R	Vertical	Vertical	Av	1	-45.0	-41.2 (Av)	Pass
13700	Vertical	Vertical	Pk	1	-36.5	-21.2 (Pk)	Pass
13700	Vertical	Vertical	Av	1	-53.0	-41.2 (Av)	Pass

Notes:
- *R refers to a frequency in a restricted band,
- *H refers to a frequency which is a harmonic of the fundamental.
- No emissions detected above noise floor in the range 14 – 25 GHz.
- a selection of plots are provided on the next pages



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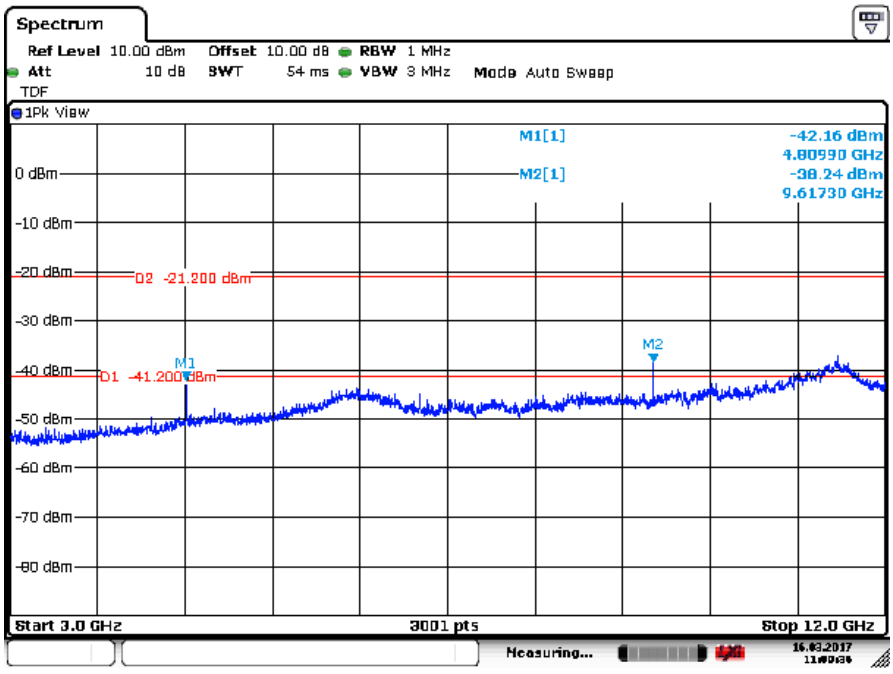
Plot Radiated unwanted emissions in the range 1 – 2.35 GHz at 2405MHz
(Peak values, EUT Vertical, Antenna vertical position shown).



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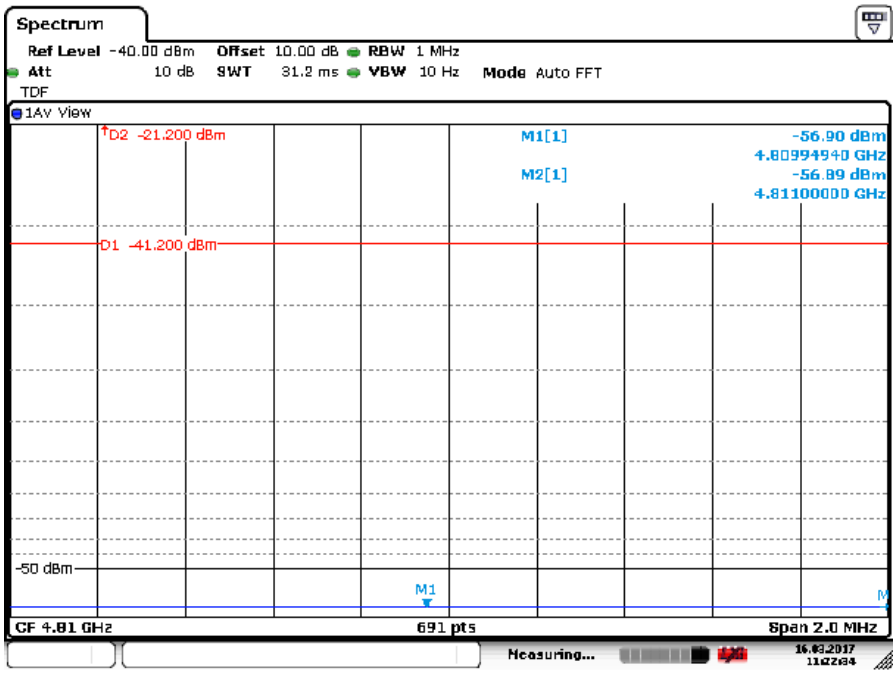
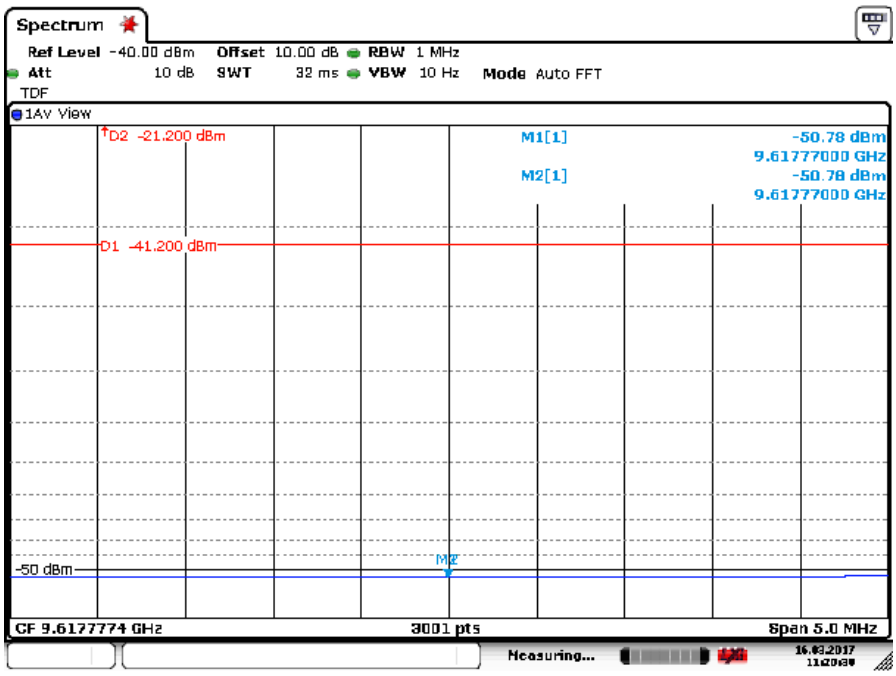
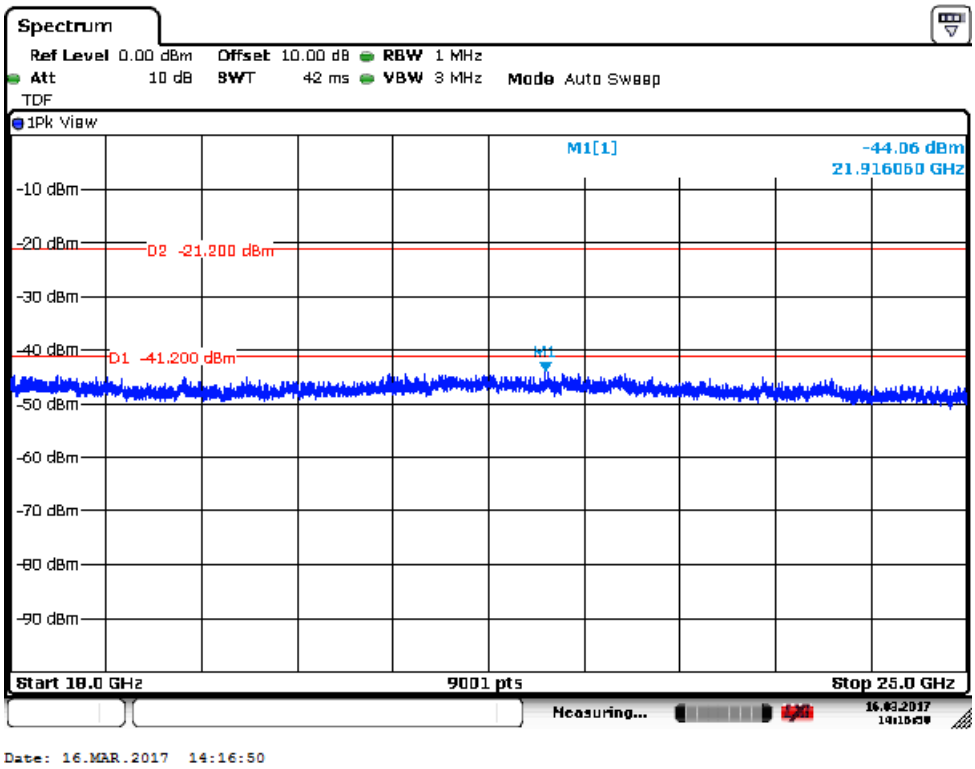
Plot Radiated unwanted emissions in the range 3 – 12 GHz at 2405MHz
(Peak values, EUT Vertical, Antenna vertical position shown).



Plot Radiated unwanted emissions in the range 3 – 12 GHz at 2405MHz
(Average value at 4.8 GHz, EUT Vertical, Antenna vertical position shown)



Plot Radiated unwanted emissions in the range 3 – 12 GHz at 2405MHz
(Average value at 9.6 GHz, EUT Vertical, Antenna vertical position shown)



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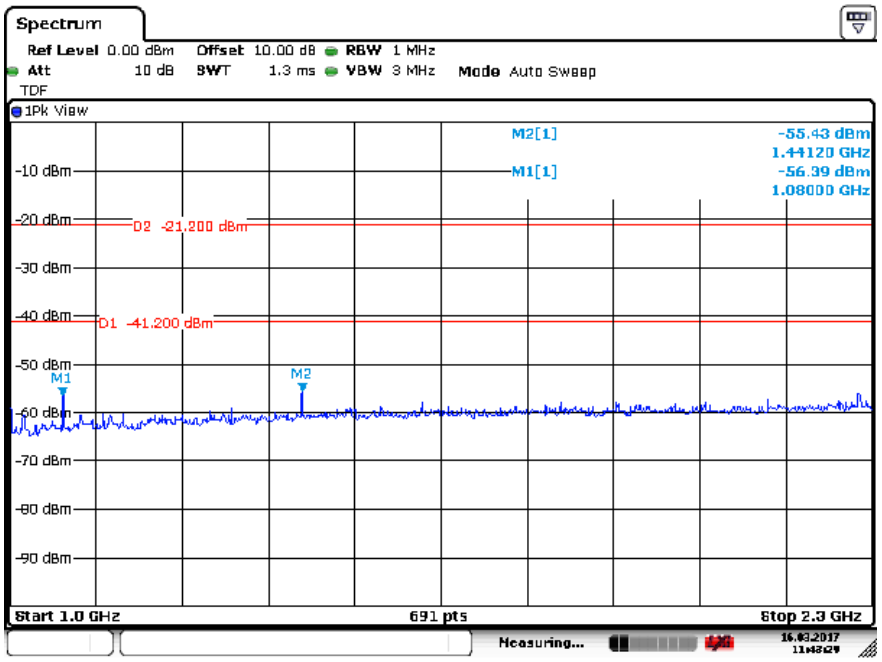
Plot Radiated unwanted emissions in the range 18 – 25 GHz at 2405MHz
(Peak values, Antenna Horizontal position shown)



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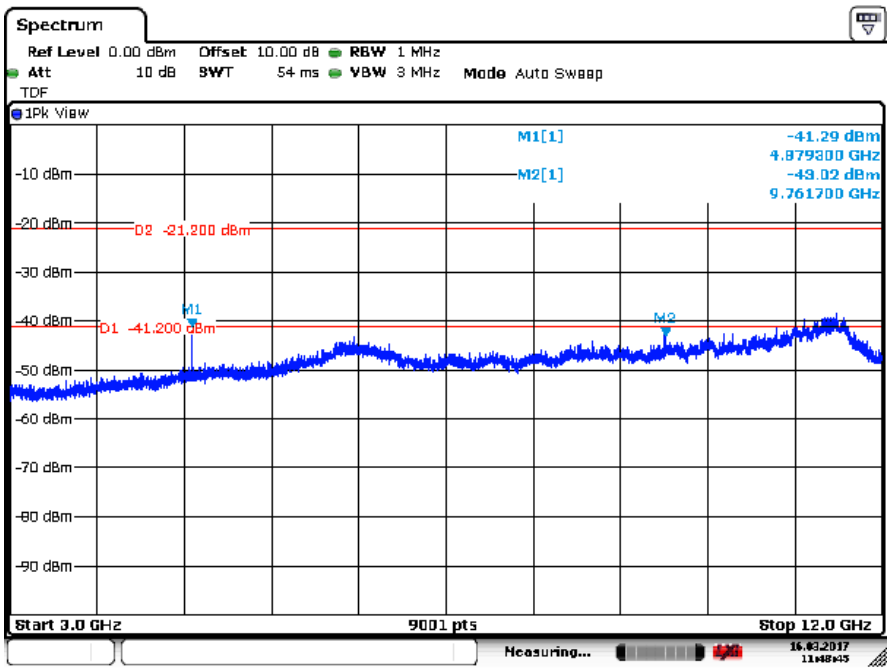
Plot Radiated unwanted emissions in the range 1 – 2.35 GHz at 2440MHz
(Peak values, EUT vertical, Antenna vertical position shown).



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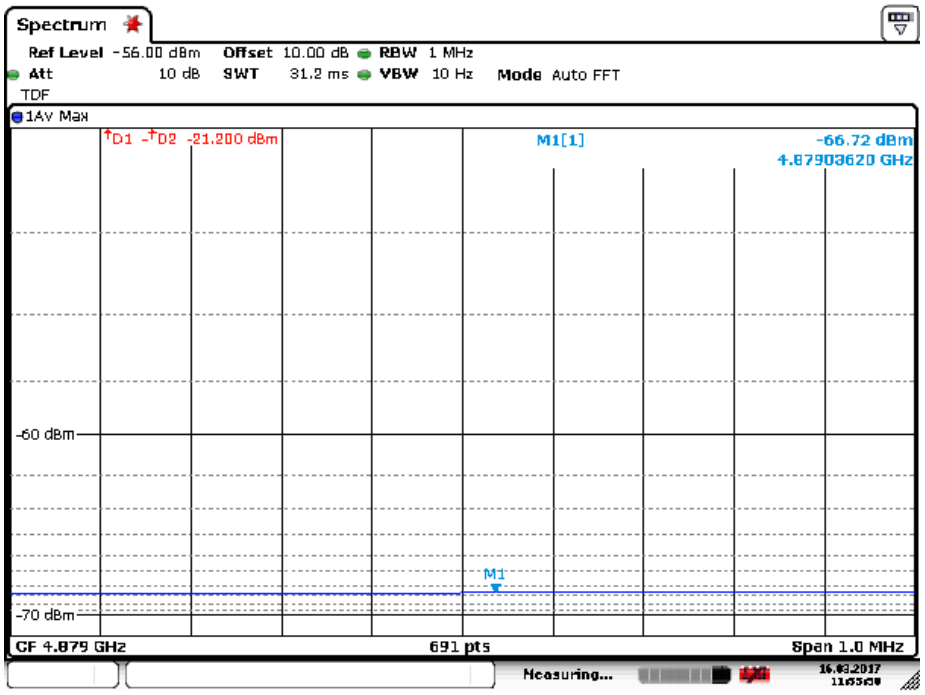
Plot Radiated unwanted emissions in the range 3 – 12 GHz at 2440MHz
(Peak values, EUT vertical, Antenna vertical position shown).



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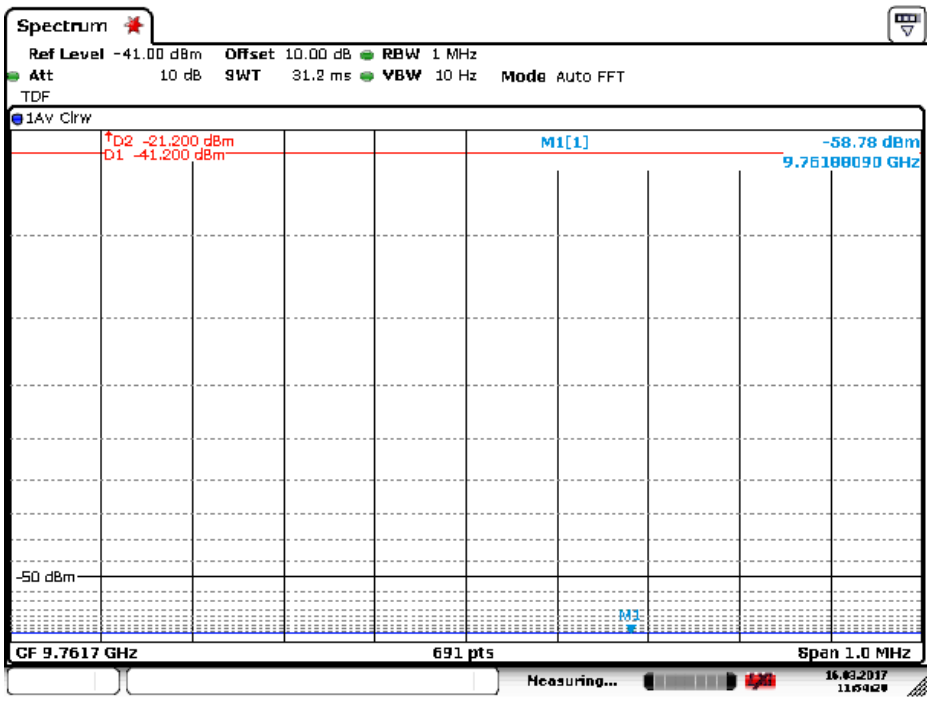
Plot Radiated unwanted emissions in the range 3 – 12 GHz at 2440MHz
(Average value at 4.8 GHz, EUT Z-position, Antenna vertical position shown)



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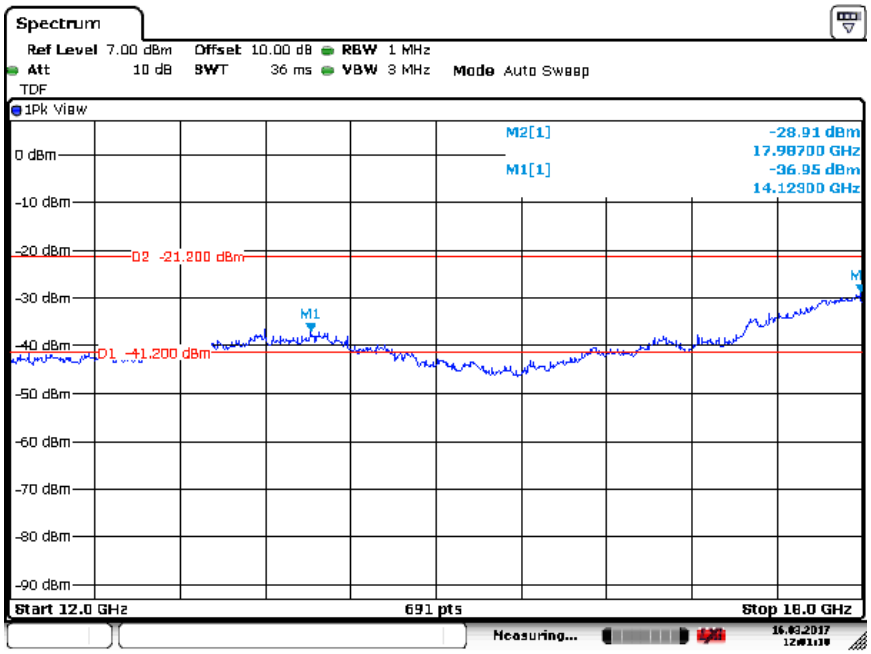
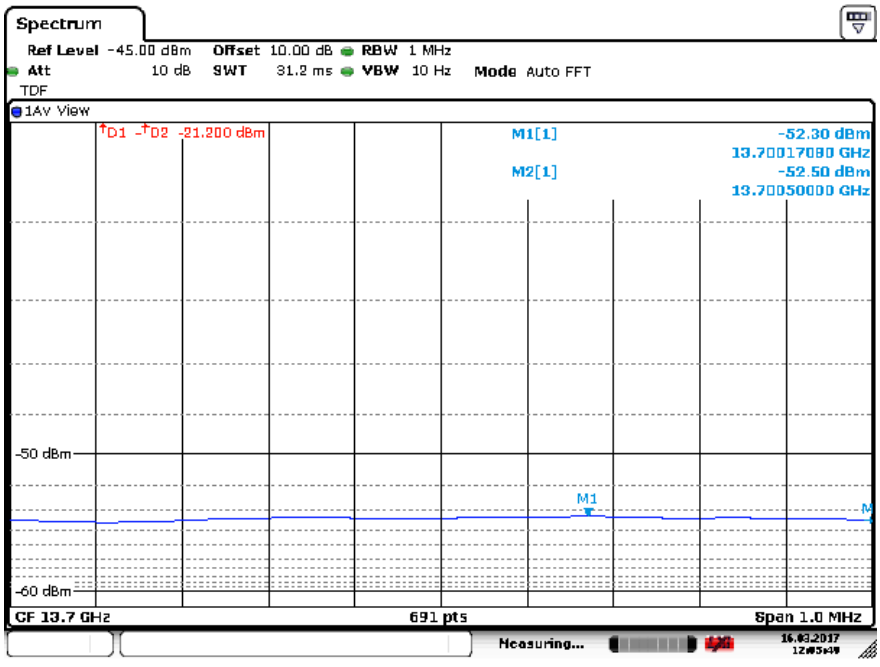
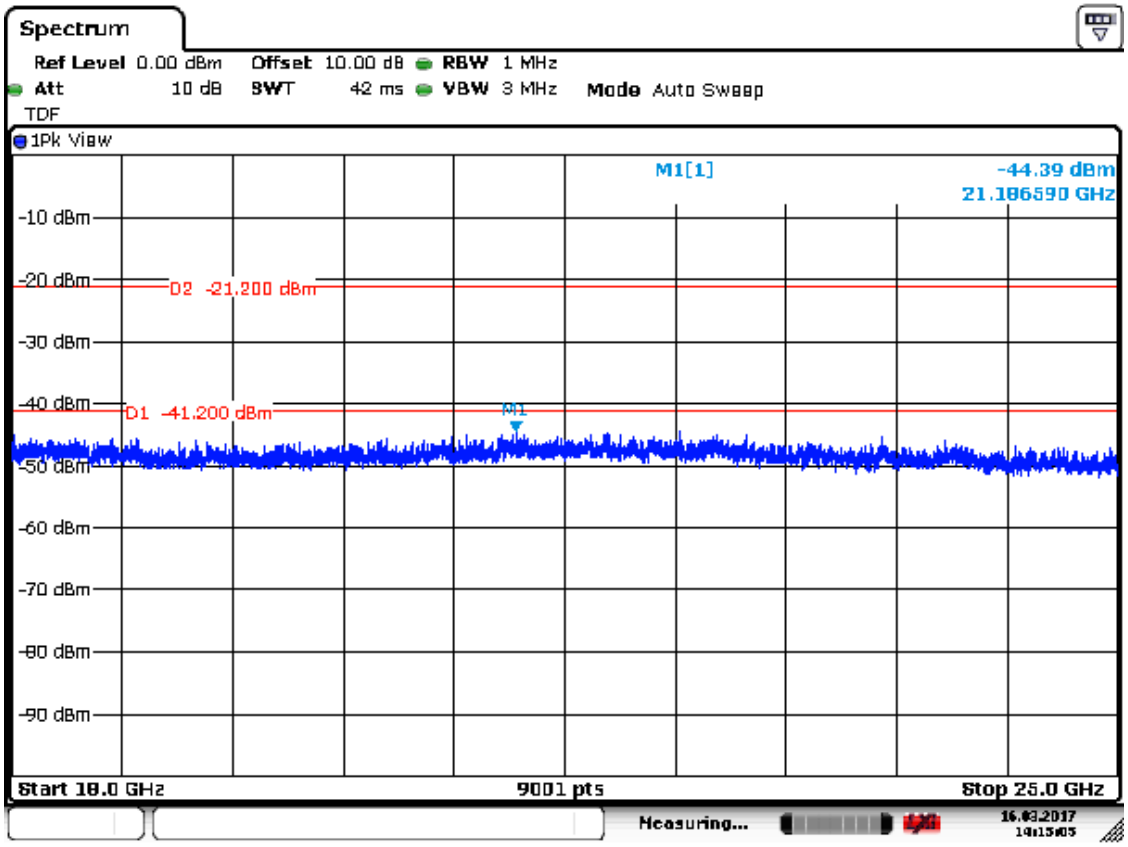
Plot Radiated unwanted emissions in the range 3 – 12 GHz at 2440MHz
(Average value at 9.7 GHz, EUT Z-position, Antenna vertical position shown)



Plot Radiated unwanted emissions in the range 12 – 18 GHz at 2440MHz
(Peak values, EUT Vertical, Antenna Vertical position shown).



Plot Radiated unwanted emissions in the range 12 – 18 GHz at 2440MHz
(Average value at 13.7GHz, EUT Vertical, Antenna Vertical position shown)



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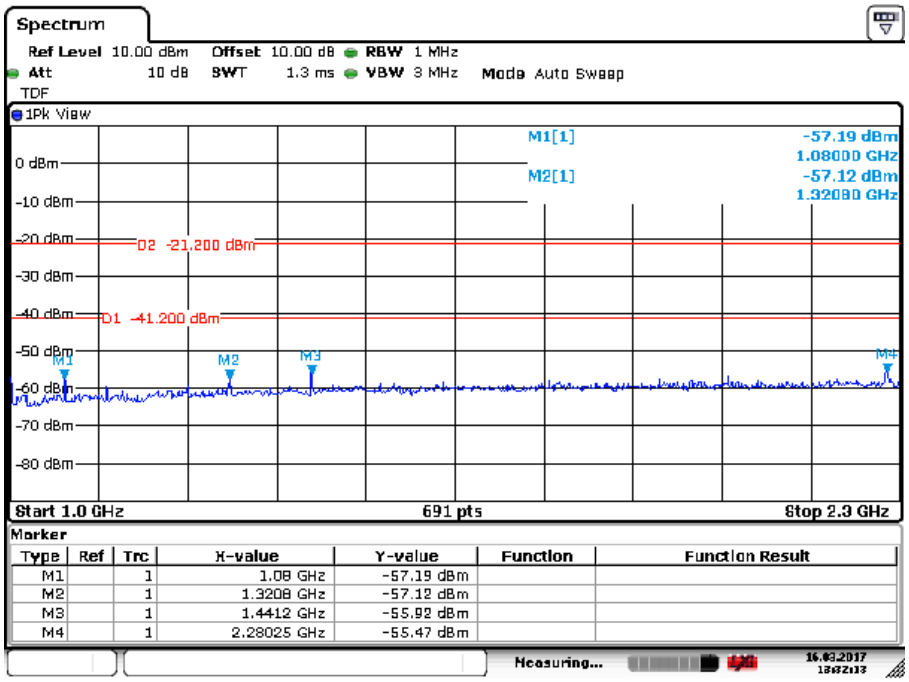
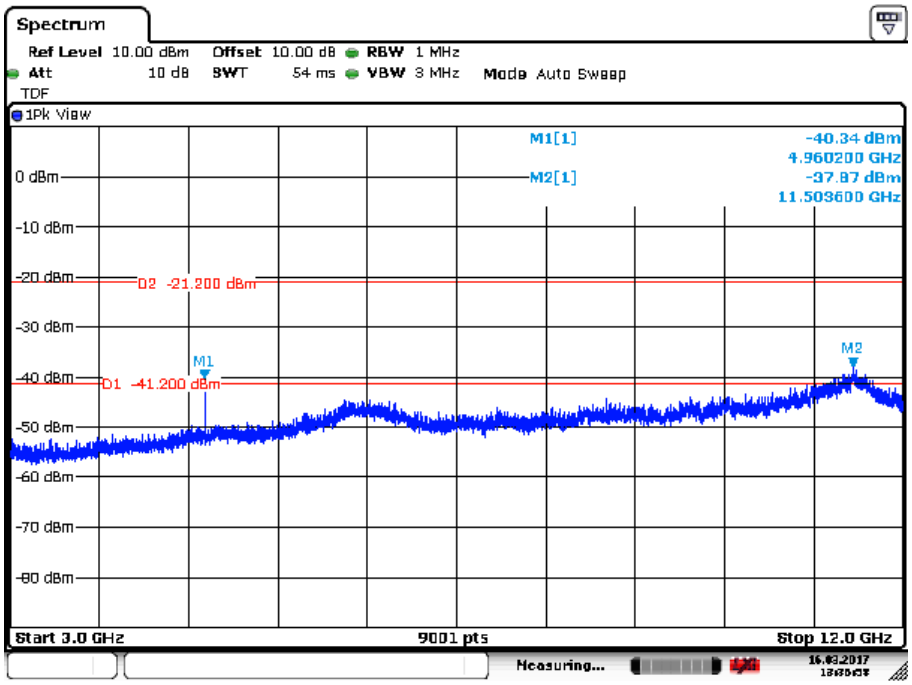
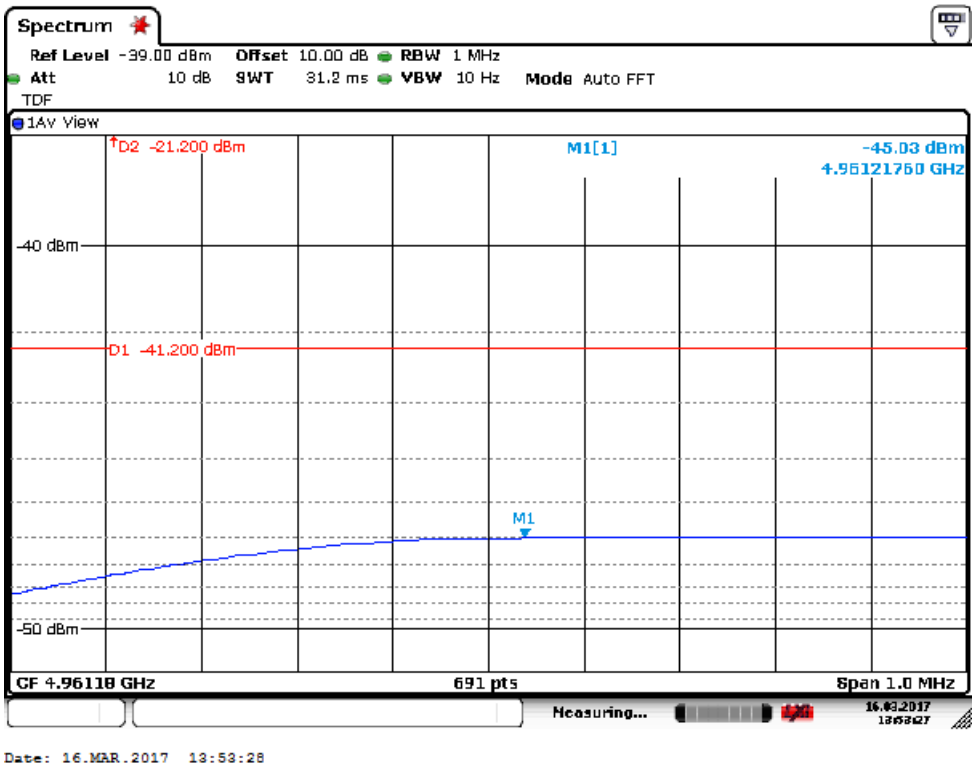
Plot Radiated unwanted emissions in the range 18 – 25 GHz at 2440MHz
(Peak values, EUT vertical, Antenna Horizontal position shown)



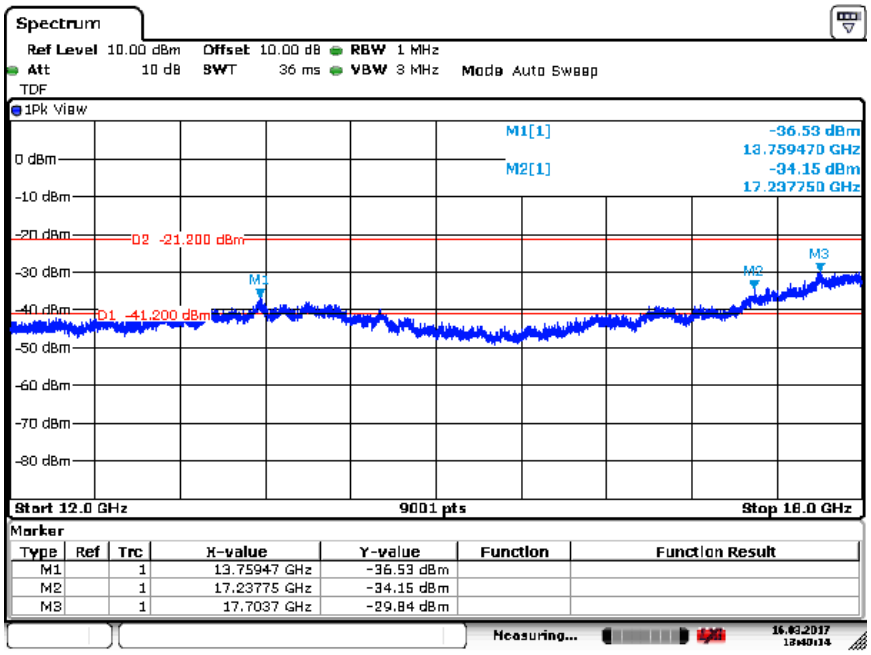
Plot Radiated unwanted emissions in the range 1 – 2.35 GHz at 2480MHz
(Peak values, EUT vertical, Antenna vertical position shown).



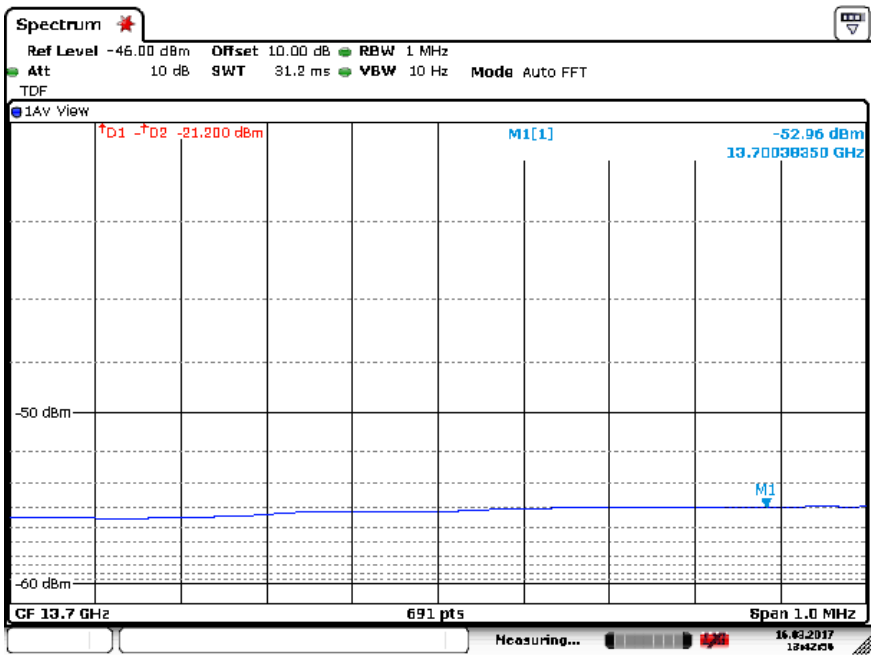
Plot Radiated unwanted emissions in the range 3 – 12 GHz at 2480MHz
(Peak values, EUT vertical, Antenna vertical position shown).



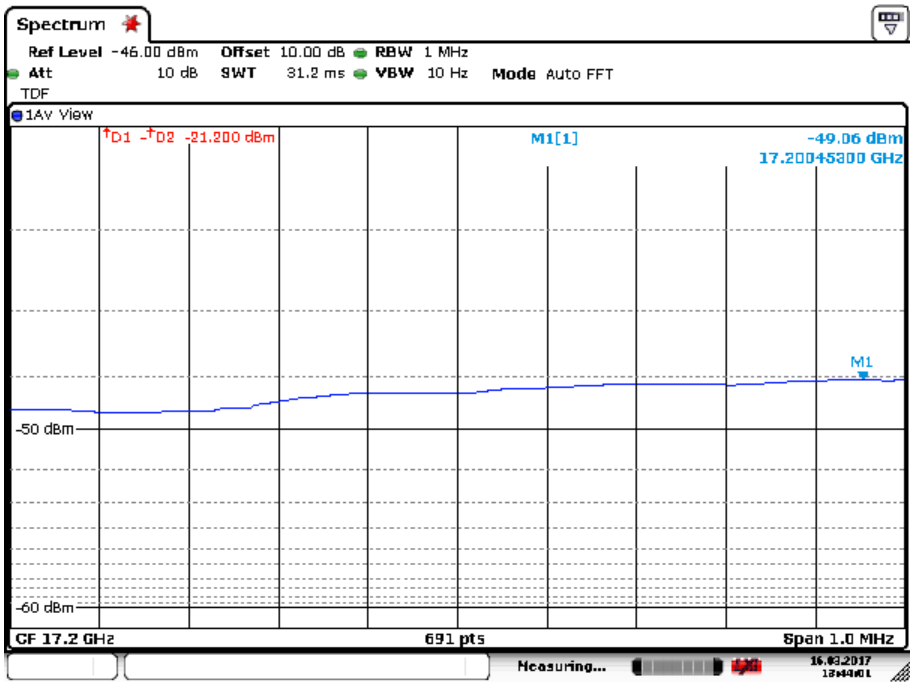
Plot Radiated unwanted emissions in the range 3 – 12 GHz at 2480MHz
(Average value at 4.9 GHz, EUT vertical, Antenna vertical position shown).



Plot Radiated unwanted emissions in the range 12 – 18 GHz at 2480MHz
(Peak values, EUT Antenna Vertical position shown).



Plot Radiated unwanted emissions in the range 12 – 18 GHz at 2480MHz
(Average value at 13.7GHz, EUT Vertical, Antenna Vertical position shown)



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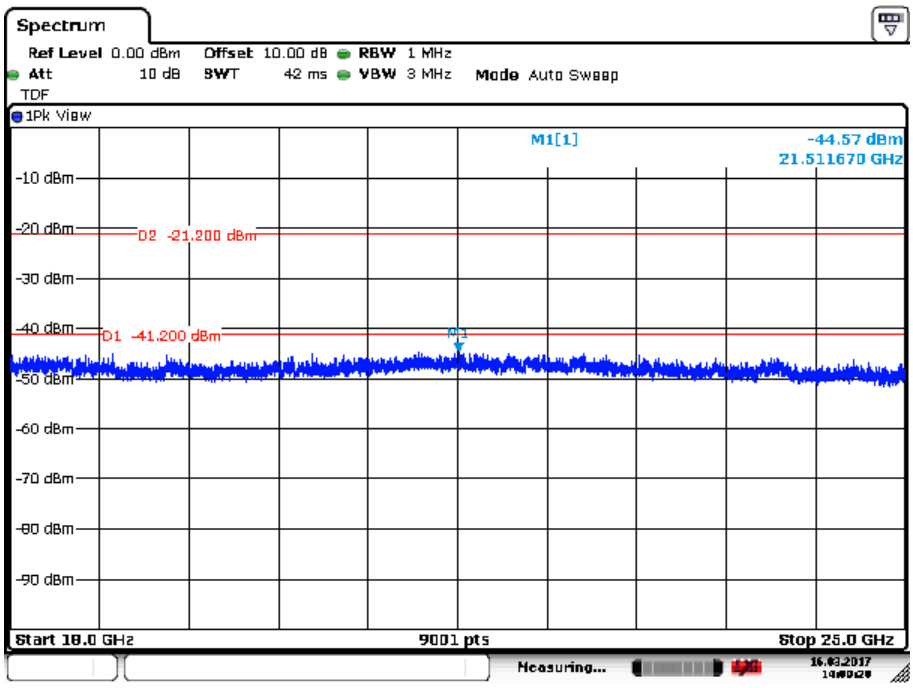
Plot Radiated unwanted emissions in the range 12 – 18 GHz at 2480MHz
(Average value at 17.2 GHz, EUT Vertical, Antenna Vertical position shown)



Date: 16.MAR.2017 14:09:20

Plot Radiated unwanted emissions in the range 18 – 25 GHz at 2480MHz
(Peak values, EUT vertical, Antenna vertical position shown)

5.2 AC Power Line Conducted Measurements

RESULT: Not Applicable.

Date of testing: Not applicable, EUT is battery operated only

End of report