

ISED CABid: ES1909

Test Report No:
NIE: 66344RRF.003

Test Report

USA FCC Part 15.247, 15.209

CANADA RSS-247, RSS-Gen

(*) Identification of item tested	XS4 Original+ Electronic Lock Series including all mechanical variants
(*) Trademark	SALTO
(*) Model and /or type reference	W40M / Type reference: E2131
Other identification of the product	HW version: 1.0 SW version: 0174 (Control FW) + 0186 (STM32WB55RG FUS FW) + 0187 (STM32WB55RG BLE STACK FW) + 0179 (Motor FW) FCC ID: UKCW40M IC: 10088A-W40M
(*) Features	Bluetooth Smart (STM32WB55RG radio solution)
Manufacturer	SALTO SYSTEMS, S.L. Arkotz 9, Polígono Lanbarren 20180 Oiartzun (Gipuzkoa) - Spain
Test method requested, standard	USA FCC Part 15.247 (10-1-20 Edition): Operation within the bands 902 - 928 MHz, 2400 -2483.5 MHz, and 5725 - 5850 MHz. USA FCC Part 15.209 (10-1-20 Edition): Radiated emission limits; general requirements. CANADA RSS-247 Issue 2 (February 2017). CANADA RSS-Gen Issue 5 amendment 1 (March 2019). Guidance for Performing Compliance Measurements on Digital Transmission System, Frequency Hopping Spread Spectrum System, and Hybrid Systems Devices Operating Under Section 15.247 of the FCC Rules. 558074 D01 Meas Guidance v05r02 dated April 2, 2019. ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices.
Summary	IN COMPLIANCE
Approved by (name / position & signature)	Rafael López Martín EMC Consumer & RF Lab. Manager  2021.10.19 17:21:33 +02'00'
Date of issue	2021-10-19
Report template No	FDT08_23 (*) "Data provided by the client"

Index

INDEX	2
COMPETENCES AND GUARANTEES	3
GENERAL CONDITIONS	3
UNCERTAINTY	3
DATA PROVIDED BY THE CLIENT	3
USAGE OF SAMPLES	4
TEST SAMPLE DESCRIPTION	5
IDENTIFICATION OF THE CLIENT	7
TESTING PERIOD AND PLACE	7
DOCUMENT HISTORY	7
ENVIRONMENTAL CONDITIONS	7
REMARKS AND COMMENTS	8
TESTING VERDICTS	9
SUMMARY	9
APPENDIX A: TEST RESULTS. BLUETOOTH LOW ENERGY 5.0 (1M)	10

Competences and guarantees

DEKRA Testing and Certification S.A.U. is a testing laboratory accredited by the National Accreditation Body (ENAC -Entidad Nacional de Acreditación), to perform the tests indicated in the Certificate No. 51/LE 147.

DEKRA Testing and Certification is a FCC-recognized accredited testing laboratory with appropriate scope of accreditation that covers the performed tests in this report.

DEKRA Testing and Certification is an ISED-recognized accredited testing laboratory, CABid: ES1909, with the appropriate scope of accreditation that covers the performed tests in this report.

In order to assure the traceability to other national and international laboratories, DEKRA Testing and Certification S.A.U. has a calibration and maintenance program for its measurement equipment.

DEKRA Testing and Certification S.A.U. guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated on the report and, it is based on the knowledge and technical facilities available at DEKRA Testing and Certification S.A.U. at the time of performance of the test.

DEKRA Testing and Certification S.A.U. is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

IMPORTANT: No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA Testing and Certification S.A.U.

General conditions

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA Testing and Certification S.A.U.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA Testing and Certification S.A.U. and the Accreditation Bodies.

Uncertainty

Uncertainty (factor $k=2$) was calculated according to the DEKRA Testing and Certification S.A.U. internal document PODT000.

Data provided by the client

The following data has been provided by the client:

Identification of item tested	XS4 Original+ Electronic Lock Series including all mechanical variants
Trademark (Brand name)	SALTO
Model name	W40M / Type reference: E2131
Detailed description of product:	The sample consists of a XS4 Original+ Electronic Lock Series with Mifare (ISO14443A & ISO15693 standard based) and Bluetooth Smart (STM32WB55RG radio solution) technology.

DEKRA Testing and Certification S.A.U. declines any responsibility with respect to the information provided by the client and that may affect the validity of results.

Usage of samples

Samples undergoing test have been selected by: The client.

- Sample S/01 is composed of the following elements:

Control N°	Description	Model	Serial N°	Date of reception
66344B_7.1	Electronic lock	W40M	--	2021-09-20

Sample S/01 has undergone the test(s): The RADIATED tests indicated in the Appendix A

- Sample S/02 is composed of the following elements:

Control N°	Description	Model	Serial N°	Date of reception
66344B_58.1	Control circuit	W40M	--	2021-09-22
66344B_59.1	Battery compartment	W40M	--	2021-09-22
66344B_60.1	Motor circuit	W40M	--	2021-09-22

Sample S/02 has undergone the test(s): The CONDUCTED tests indicated in the Appendix A.

Test sample description

Ports..... :	Port name and description	Cable					
		Specified max length [m]	Attached during test	Shielded	Coupled to patient ⁽³⁾		
			[]	[]	[]		
			[]	[]	[]		
			[]	[]	[]		
			[]	[]	[]		
			[]	[]	[]		
Supplementary information to the ports..... :							
Rated power supply	Voltage and Frequency		Reference poles				
			L1	L2	L3	N	PE
	[]	AC:	[]	[]	[]	[]	[]
	[]	AC:	[]	[]	[]	[]	[]
	[X]	DC: 4.5 Vdc (3 x LR03 batteries)					
[]	DC:						
Rated Power							
Clock frequencies..... :	27.12 MHz, 32 MHz, 32.768 KHz						
Other parameters	N/A						
Software version	SW version: 0174 (Control FW) + 0186 (STM32WB55RG FUS FW) + 0187 (STM32WB55RG BLE STACK FW) + 0179 (Motor FW)						
Hardware version	1.0						
Dimensions in cm (W x H x D)	4.0 x 28.2 x 2.0 cm						
Mounting position	[]	Table top equipment					
	[]	Wall/Ceiling mounted equipment					
	[]	Floor standing equipment					
	[]	Hand-held equipment					
	[X]	Other: Door mounting					

Modules/parts.....:	Module/parts of test item	Type	Manufacturer
	STM32WB55RG (SoC) + 2450AT18B100 (Antenna)	BLE	ST + JOHANSON
			
			
			
Accessories (not part of the test item)	Description	Type	Manufacturer
			
			
			
			
			
			
Documents as provided by the applicant.....:	Description	File name	Issue date
	User manual		
	FW Explanation		
			
			

⁽³⁾ Only for Medical Equipment

Identification of the client

SALTO SYSTEMS, S.L.

Arkotz 9, Polígono Lanbarren 20180 Oiartzun (Gipuzkoa) - Spain

Testing period and place

Test Location	DEKRA Testing and Certification S.A.U.
Date (start)	2021-09-21
Date (finish)	2021-10-15

Document history

Report number	Date	Description
66344RRF.003	2021-10-19	First release.

Environmental conditions

In the control chamber, the following limits were not exceeded during the test:

Temperature	Min. = 15 °C Max. = 35 °C
Relative humidity	Min. = 20 % Max. = 75 %

In the semianechoic chamber, the following limits were not exceeded during the test.

Temperature	Min. = 15 °C Max. = 35 °C
Relative humidity	Min. = 20 % Max. = 75 %

In the chamber for conducted measurements, the following limits were not exceeded during the test:

Temperature	Min. = 15 °C Max. = 35 °C
Relative humidity	Min. = 20 % Max. = 75 %

Remarks and comments

The tests have been performed by the technical personnel: José Manuel Jiménez González and Nicolás Salguero Camarena.

Used instrumentation:

Equipment	Model	Vendor	Latest Calibration	Next Calibration
Shielded room	S101	ETS Lindgren	--	--
Semianechoic Absorber Lined Chamber	FACT 3 200 STP	ETS Lindgren	--	--
EMI TEST RECEIVER 9kHz-7GHz	ESR7	ROHDE AND SCHWARZ	2020-12-12	2022-12-12
HORN ANTENNA 1-18GHz	BBHA 9120 D	SCHWARZBECK MESS-ELEKTRONIK	2019-11-18	2022-11-18
HYBRID BILOG ANTENNA 30MHz-6GHz	3142E	ETS LINDGREN	2020-04-30	2023-04-30
PRE-AMPLIFIER G>40dB 1-18 GHz	BLMA 0118-1M	BONN ELEKTRONIK	2021-06-07	2022-06-07
PRE-AMPLIFIER G>40dB 10MHz-6GHz	BLNA 0160-01N	BONN ELEKTRONIK	2021-03-09	2022-03-09
SIGNAL AND SPECTRUM ANALYZER 2Hz-50GHz	FSW50	ROHDE AND SCHWARZ	2020-07-06	2022-07-06
PRE-AMPLIFIER G>30dB 18-40 GHz	BLMA 1840-3G	BONN ELEKTRONIK	2019-11-01	2021-11-01
BROADBAND HORN ANTENNA 18 - 40 GHz	BBHA 9170	SCHWARZBECK MESS-ELEKTRONIK	2020-05-05	2023-05-05
SIGNAL AND SPECTRUM ANALYZER	FSV40	ROHDE AND SCHWARZ	2021-02-26	2023-02-26
ANALOG POWER SUPPLY DC 40 V / 40 A	NGPE 40/40	ROHDE AND SCHWARZ	--	--
OPEN SWITCH UNIT UP TO 7.5GHz	OSP157	ROHDE AND SCHWARZ	2021-08-20	2023-08-20
DIGITAL MULTIMETER	179	FLUKE	2020-10-01	2021-10-01

Testing verdicts

Fail	F
Not applicable	N/A
Not measured	N/M
Pass	P

Summary

1. Bluetooth Low Energy 5.0 (1M).

FCC PART 15 PARAGRAPH/ RSS-247			
Requirement – Test case		Verdict	Remark
FCC 15.247 (a)(2) / RSS-247 5.2. (a)	6 dB Bandwidth	P	
FCC 15.247 (b) / RSS-247 5.4. (d)	Maximum output power and antenna gain	P	
FCC 15.247 (d) / RSS-247 5.5.	Band-edge emissions compliance (Transmitter)	P	
FCC 15.247 (e) / RSS-247 5.2. (b)	Power spectral density	P	
FCC 15.247 (d) / RSS-247 5.5.	Emission limitations radiated (Transmitter)	P	
<u>Supplementary information and remarks:</u>			
None			

Appendix A: Test results. Bluetooth Low Energy 5.0 (1M)

TEST CONDITIONS	12
TEST CASES DETAILS	15
FCC 47 CFR PART 15.247 / RSS-247	15
<i>Occupied Bandwidth</i>	15
<i>RSS-247 5.2 (a) / FCC 15.247 (a) (2) [6dBw] 6 dB Bandwidth</i>	19
<i>FCC 15.247 (b) / RSS-247 5.4. (d) Maximum output power and antenna gain</i>	23
<i>RSS-247 5.5 / FCC 15.247 (d) [Bndedge] Band-edge emissions compliance (Transmitter)</i>	24
<i>FCC 15.247 (e) / RSS-247 5.2. (b) Power spectral density</i>	26
<i>RSS-247 5.5 / FCC 15.247 (d) [RSE] Emission limitations radiated (Transmitter)</i>	28

TEST CONDITIONS

(*): Data provided by the client.

POWER SUPPLY (*):

Vnominal:	4.5 Vdc (3 x LR03 batteries) V
Type of Power Supply:	Batteries

ANTENNA (*):

Type of Antenna:	Integral
Maximum Declared Antenna Gain:	0.5 dBi

TEST FREQUENCIES (*):

Low Channel:	2402 MHz
Middle Channel:	2440 MHz
High Channel:	2480 MHz

CONDUCTED MEASUREMENTS:

The equipment under test was set up in a shielded room and it is connected to the TS8997 using a low loss RF cable. The reading of the spectrum analyser is corrected taking into account the cable loss.



RADIATED MEASUREMENTS:

All radiated tests were performed in a semi-anechoic chamber. The measurement antenna (Bilog antenna for the range between 30 MHz to 1000 MHz and 1 GHz-17 GHz Double ridge horn antenna) is situated at a distance of 3 m and at a distance of 1 m for the frequency range 17 GHz-26 GHz (antenna and 18 GHz-40 GHz horn antenna).

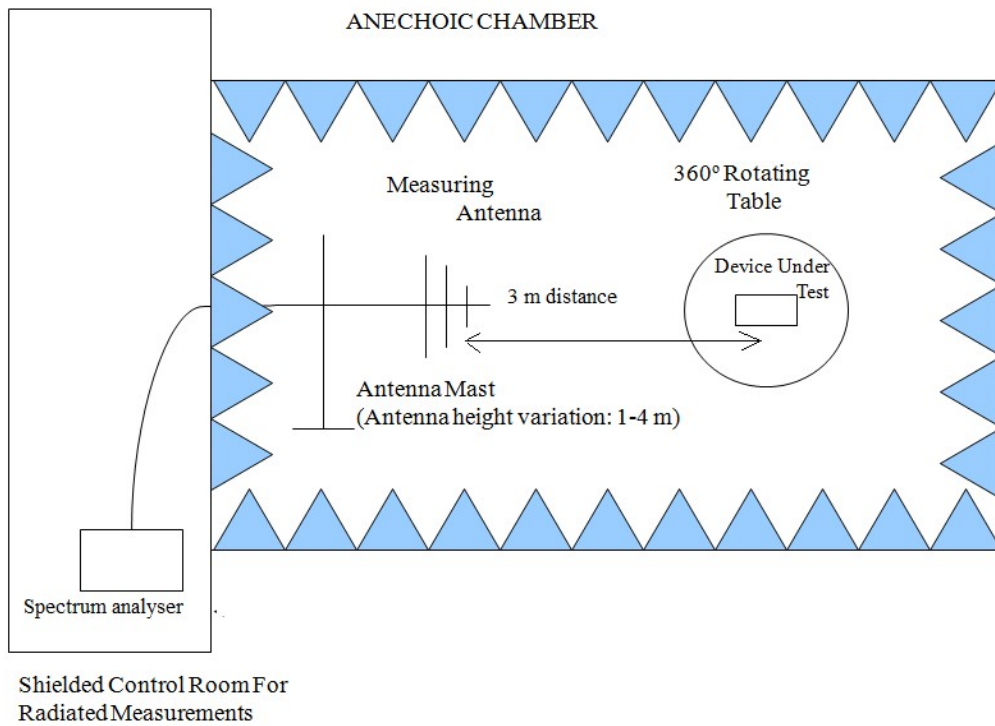
For radiated emissions in the range 17 GHz-26 GHz that is performed at a distance closer than the specified distance, an inverse proportionality factor of 20 dB per decade is used to normalize the measured data for determining compliance.

The equipment under test was set up on a non-conductive platform above the ground plane and the situation and orientation was varied to find the maximum radiated emission. It was also rotated 360° and the antenna height (Bilog antenna and Double ridge horn antenna) was varied from 1 to 4 meters to find the maximum radiated emission.

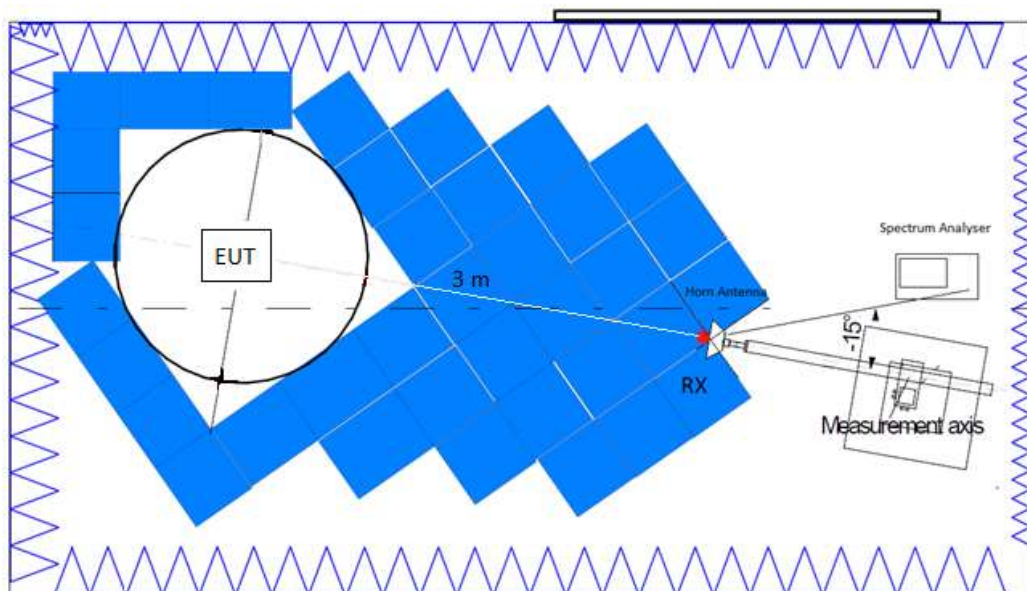
Measurements were made in both horizontal and vertical planes of polarization.

A resolution bandwidth/video bandwidth of 100 kHz / 300 kHz was used for frequencies below 1 GHz and 1 MHz / 3 MHz for frequencies above 1 GHz.

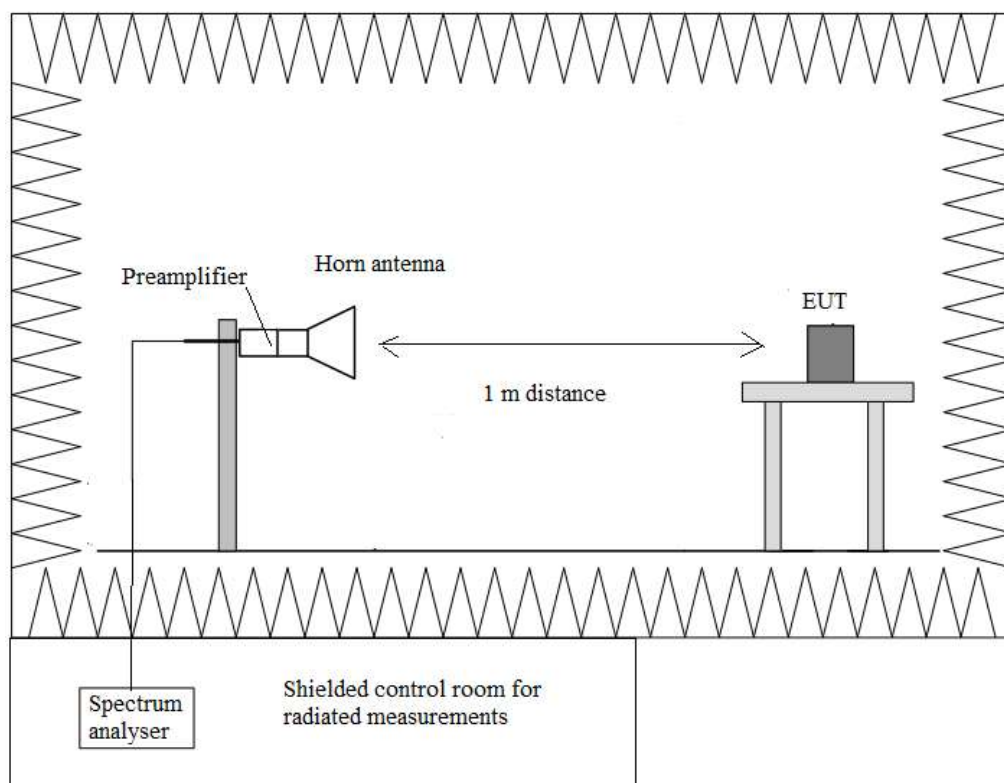
Radiated measurements setup from 30 MHz to 1 GHz:



Radiated measurements setup from 1 GHz to 17 GHz:



Radiated measurements setup $f > 17$ GHz:



TEST CASES DETAILS

FCC 47 CFR Part 15.247 / RSS-247

Occupied Bandwidth

RESULTS:

Modulation: BTLE 5.0 (GFSK 1 Mbit/s)

Freq (MHz)	99% Occ Ch BW (MHz)
2402.00	1.005000
2440.00	1.005000
2480.00	1.005000

Verdict

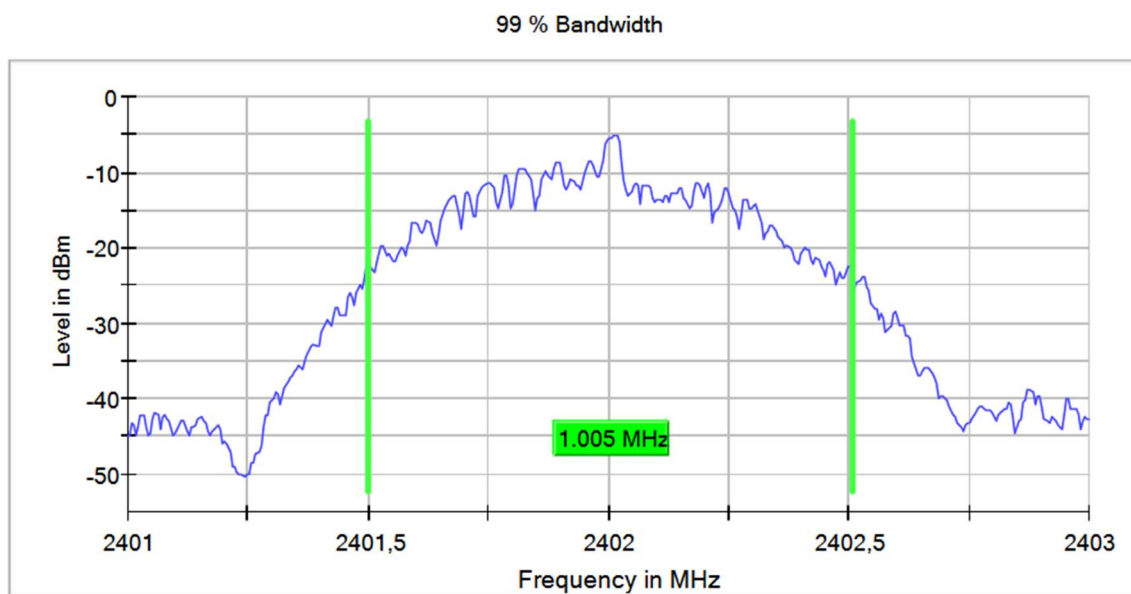
Pass

Uncertainty

Measurement uncertainty (dB) $<\pm 0.50$

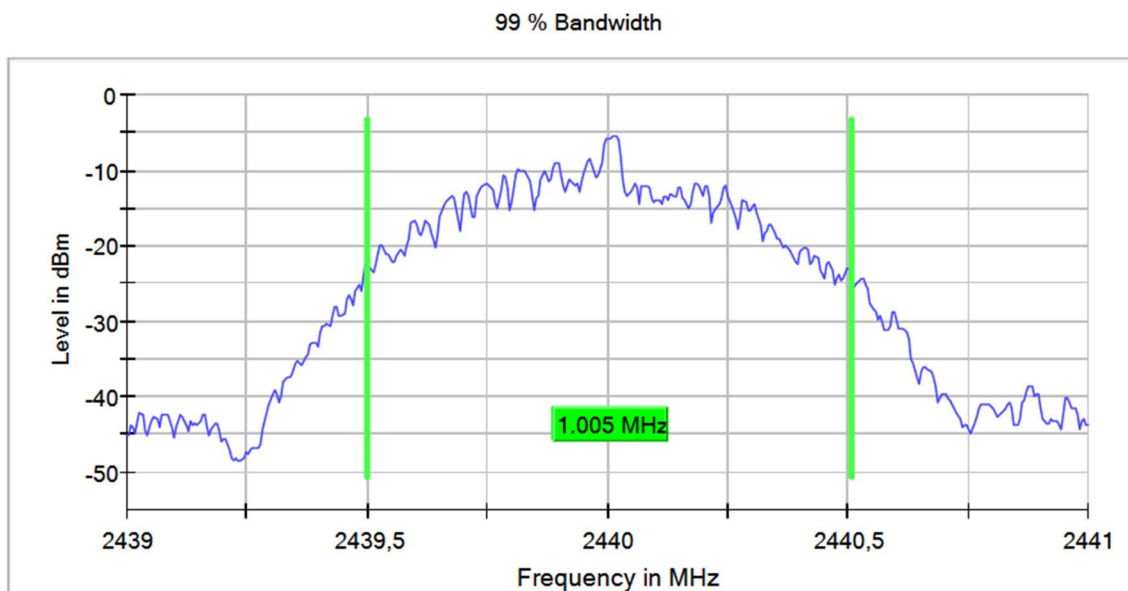
Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency
MHz = 2402.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s)

Images:



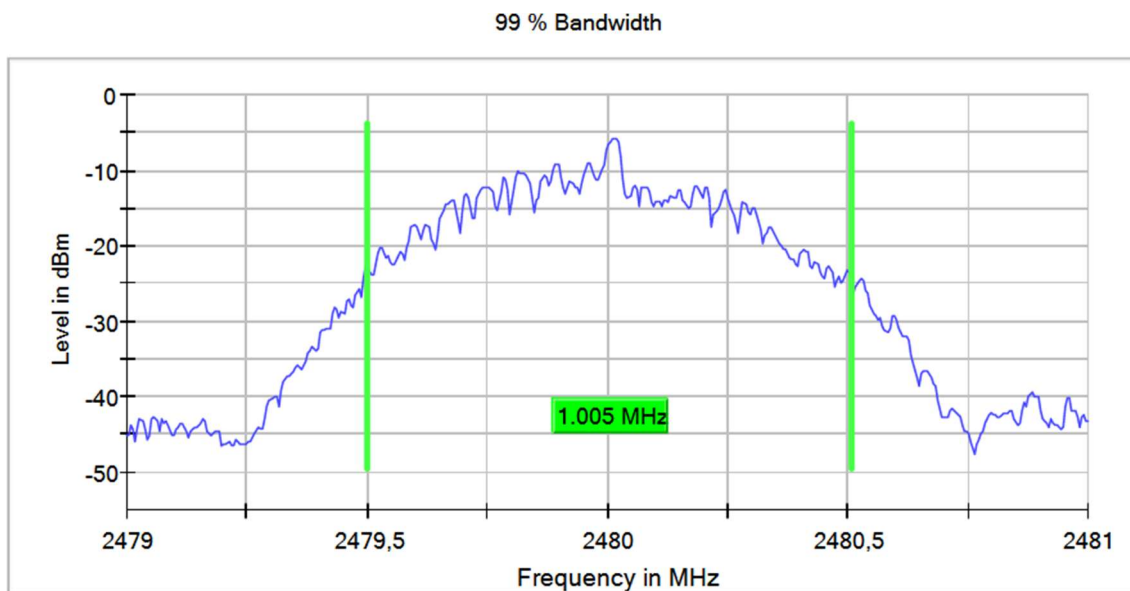
Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency
MHz = 2440.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s)

Images:



Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency MHz = 2480.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s)

Images:



RSS-247 5.2 (a) / FCC 15.247 (a) (2) [6dBw] 6 dB Bandwidth

Limits

The minimum 6 dB bandwidth shall be at least 500 kHz.

Results

Modulation: BTLE 5.0 (GFSK 1 Mbit/s)

Freq (MHz)	6dBw Spectrum bandwidth (MHz)
2402.00	0.693070
2440.00	0.693070
2480.00	0.693070

Verdict

Pass

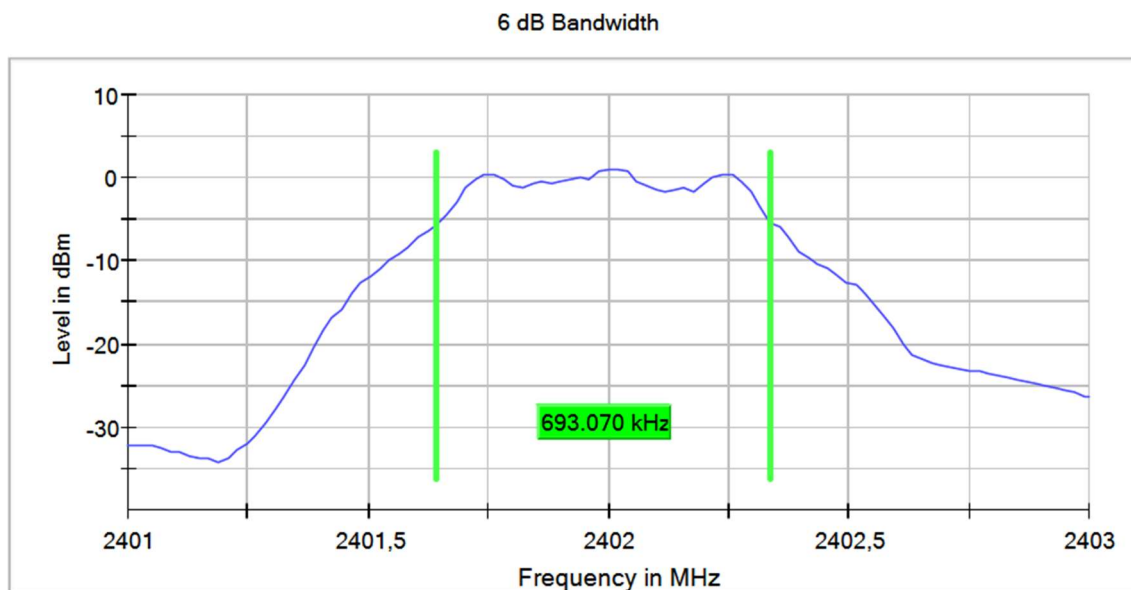
Uncertainty

Measurement uncertainty (dB) <±1.20

Attachments

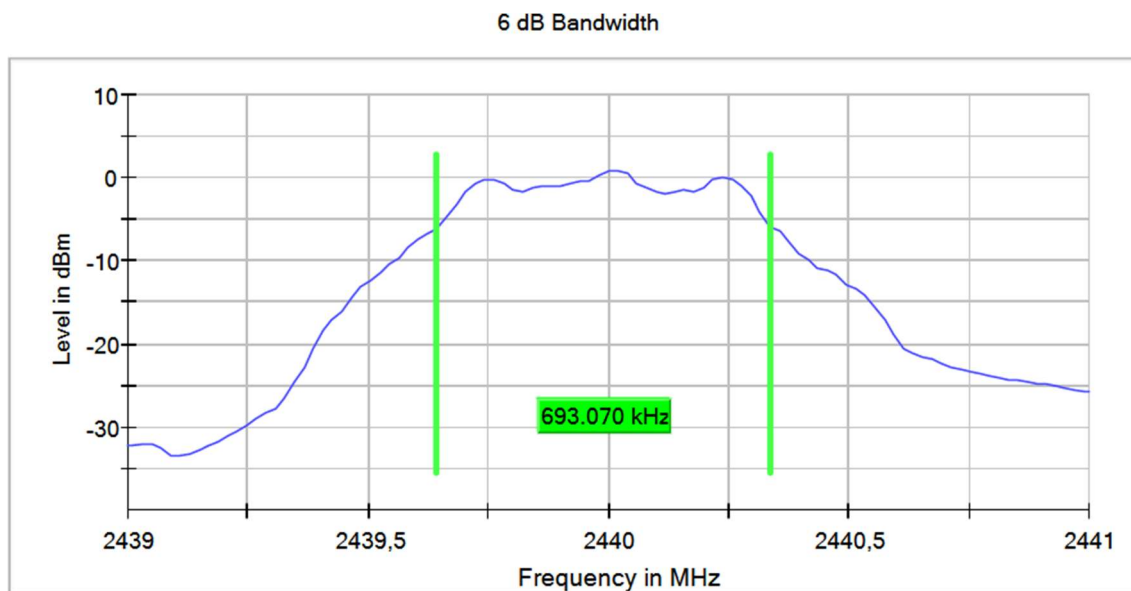
Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency MHz = 2402.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s)

Images:



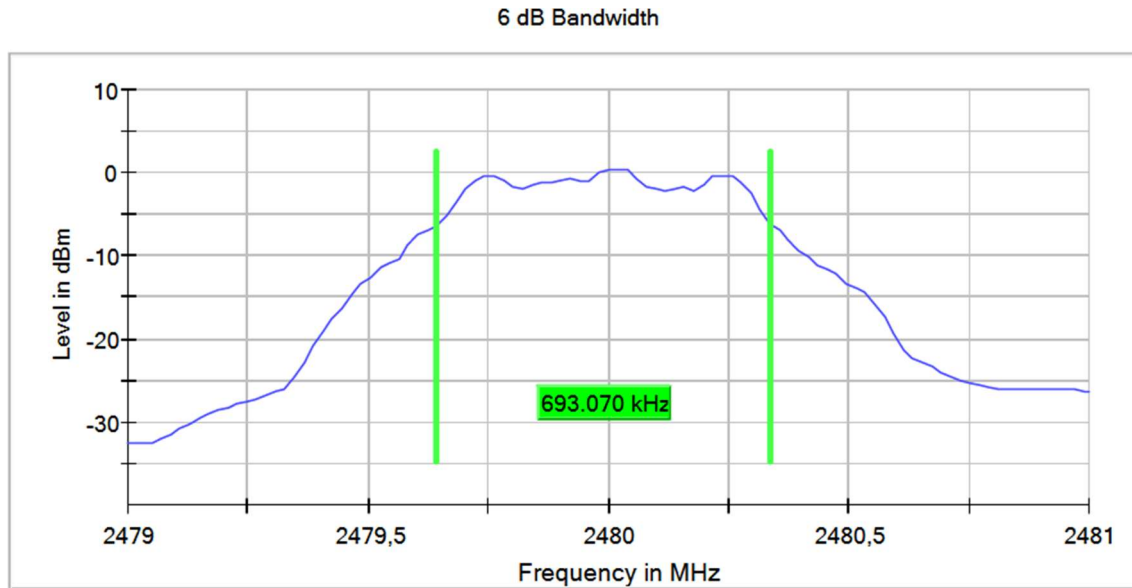
Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency MHz = 2440.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s)

Images:



Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency MHz = 2480.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s)

Images:



FCC 15.247 (b) / RSS-247 5.4. (d) Maximum output power and antenna gain

Limits

For systems using digital modulation in the 2400-2483.5 MHz band: 1 watt (30 dBm).
The e.i.r.p. shall not exceed 4 W (36 dBm) (Canada).

Results

The maximum peak conducted output power level in the fundamental emission was measured using the method according to point 11.9.1.1 "RBW $\geq$ DTS bandwidth" of ANSI C.63.10-2013.

The EIRP power (dBm) is calculated by adding the declared maximum antenna gain to the measured conducted power.

Maximum Declared Antenna Gain: 0.5 dBi

Freq (MHz)	Maximum Conducted Power (dBm)	Maximum EIRP Power (dBm)
2402.00	0.34	0.84
2440.00	-0.02	0.48
2480.00	-0.22	0.28

The maximum directional gain of the antenna is less than 6 dBi and therefore the maximum output power is not required to be reduced from the stated values.

Verdict

Pass

Uncertainty

Measurement uncertainty (dB) $< \pm 1.20$

RSS-247 5.5 / FCC 15.247 (d) [Bndedge] Band-edge emissions compliance (Transmitter)

Limits

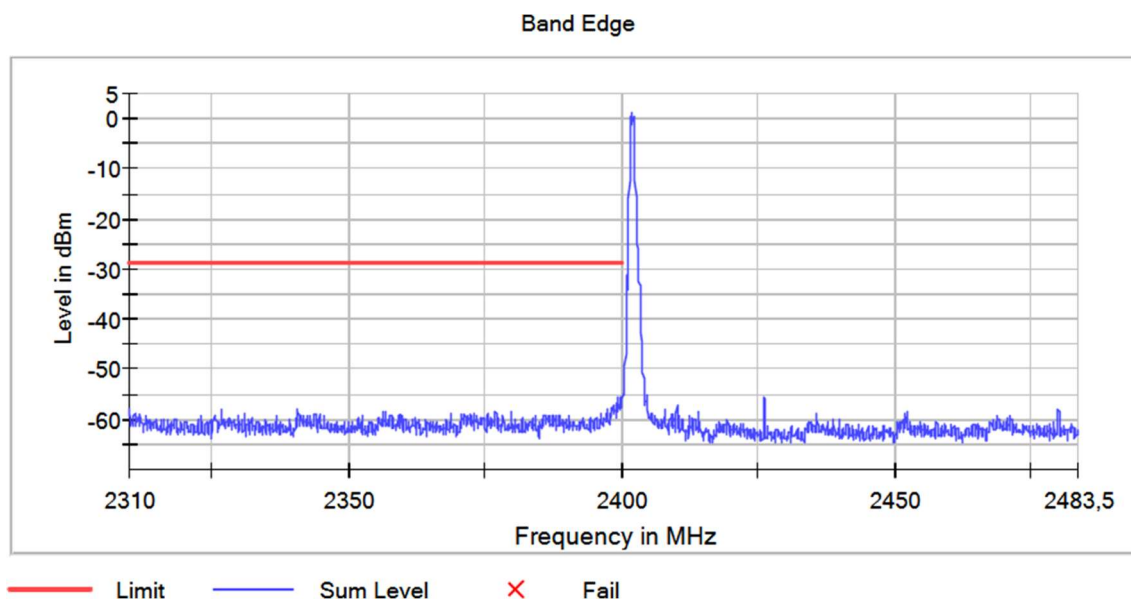
In any 100 kHz bandwidths outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Results

Modulation: BTLE 5.0 (GFSK 1 Mbit/s)

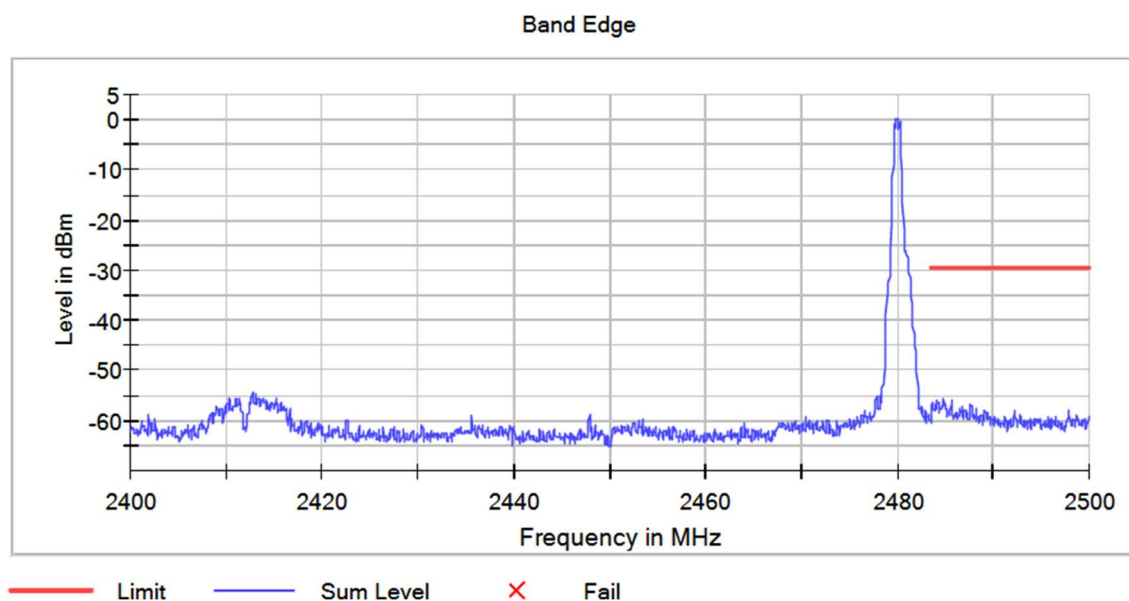
Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency MHz = 2402.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s)

Images:



Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency MHz = 2480.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s),

Images:



Verdict

Pass

Uncertainty

Measurement uncertainty (dB) $< \pm 1.56$

FCC 15.247 (e) / RSS-247 5.2. (b) Power spectral density

SPECIFICATION:

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

RESULTS:

The maximum power spectral density level in the fundamental emission was measured using the method according to point 11.10.2." Method PKPSD (peak PSD)" of ANSI C.63.10-2013.

Freq (MHz)	PSD (dBm)	Limit Max (dBm)
2402.00	-4.96	8.00
2440.00	-5.28	8.00
2480.00	-5.44	8.00

Verdict

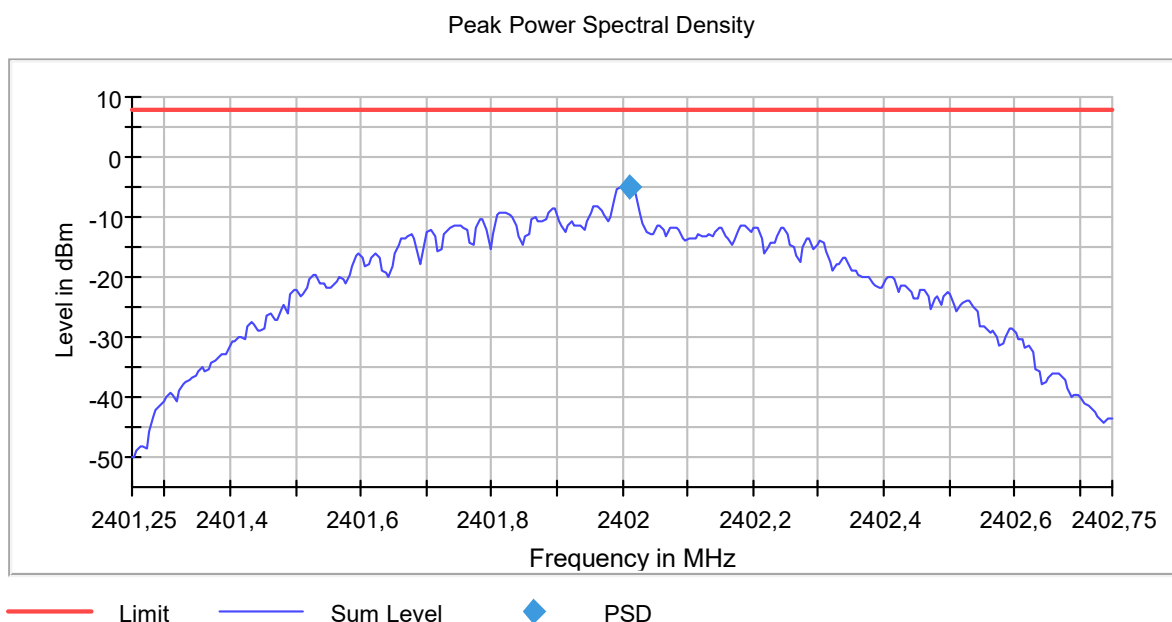
Pass

Uncertainty

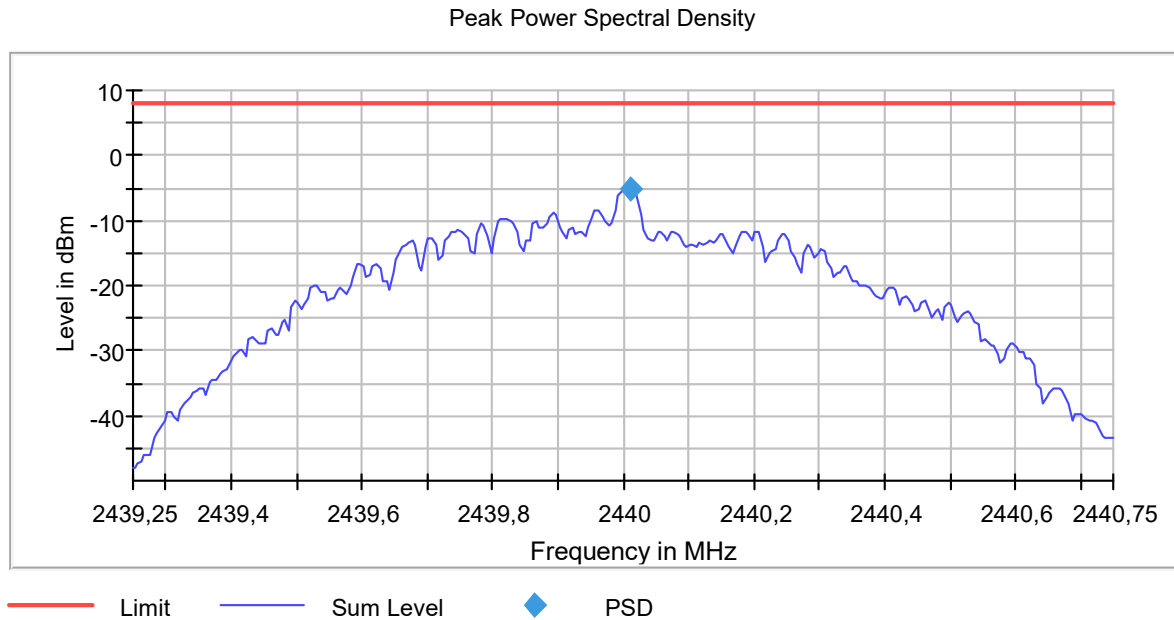
Measurement uncertainty (dB) $< \pm 1.20$

Attachments

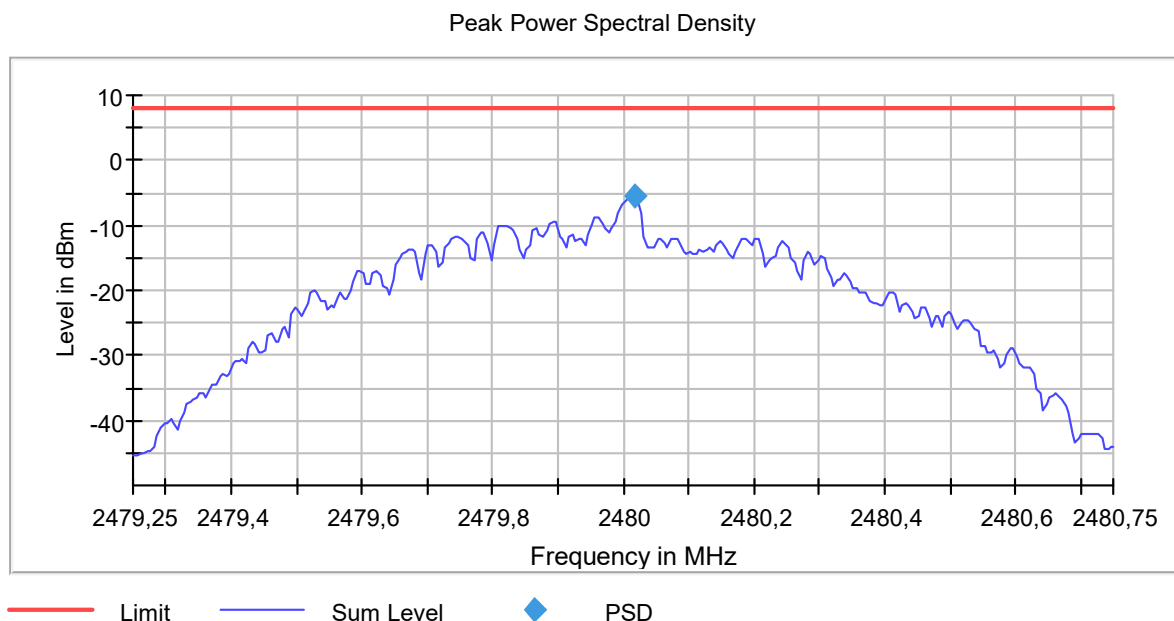
Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency MHz = 2402.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s),



Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency MHz = 2440.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s),



Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency MHz = 2480.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s),



RSS-247 5.5 / FCC 15.247 (d) [RSE] Emission limitations radiated (Transmitter)

Limits

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)/RSS-Gen):

Frequency Range (MHz)	Field strength ($\mu\text{V/m}$)	Field strength ($\text{dB}\mu\text{V/m}$)	Measurement distance (m)
0.009-0.490	2400/F(kHz)	-	300
0.490-1.705	24000/F(kHz)	-	30
1.705 - 30.0	30	-	30
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
960 - 10000	500	54	3

The emission limits shown in the above table are based on measurements employing CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

For average radiated emission measurements above 1000 MHz, there is also a limit corresponding to 20 dB above the indicated values in the table is specified when measuring with peak detector function.

RSS-247: Attenuation below the general field strength limits specified in RSS-Gen is not required.

Results

The situation and orientation were varied to find the maximum radiated emission. It was also rotated 360° and the antenna height was varied from 1 to 4 meters to find the maximum radiated emission.

Measurements were made in both horizontal and vertical planes of polarization.

The field strength is calculated by adding correction factor to the measured level from the spectrum analyzer. This correction factor includes antenna factor, cable loss and pre-amplifiers gain.

Frequency range 30 MHz - 1 GHz:

The spurious frequencies detected do not depend neither on the operating channel nor the modulation mode.

No spurious frequencies detected at less than 20 dB below the limit:

Measurement Uncertainty (dB): ± 5.07

Frequency range 1 - 26 GHz:

The results in the next tables show the maximum measured levels in the 1-26 GHz range including the restricted bands 2.31-2.39 GHz and 2.4835-2.5 GHz.

Spurious frequencies with peak levels above the average limit (54 dB μ V/m at 3 m) are measured with average detector for checking compliance with the average limit.

Freq (MHz)	Freq Range (GHz)	Detector	Unwanted Freq (MHz)	Unwanted Lvl (dBm)	Pol
2402.00	[3, 17]	PK	4803.50	56.26	H
2402.00	[3, 17]	AVG	4803.50	52.80	H
2402.00	[3, 17]	PK	7206.00	52.98	H
2402.00	[3, 17]	PK	9607.50	56.42	V
2402.00	[3, 17]	AVG	9607.50	50.01	V
2402.00	[3, 17]	PK	12008.50	49.49	H
2402.00	[3, 17]	PK	14412.00	52.75	H
2402.00	[3, 17]	PK	16815.00	54.89	H
2402.00	[3, 17]	AVG	16815.00	44.38	H
2440.00	[3, 17]	PK	4879.500000	53.58	V
2440.00	[3, 17]	PK	7319.500000	53.55	H
2440.00	[3, 17]	PK	9759.000000	55.71	V
2440.00	[3, 17]	AVG	9759.000000	48.66	V
2440.00	[3, 17]	PK	12199.000000	52.10	V
2480.00	[3, 17]	PK	4960.000000	51.26	V
2480.00	[3, 17]	PK	7439.500000	54.67	H
2480.00	[3, 17]	AVG	7439.500000	49.73	H
2480.00	[3, 17]	PK	9919.500000	52.44	V
2480.00	[3, 17]	PK	12399.000000	51.82	V

Verdict

Pass

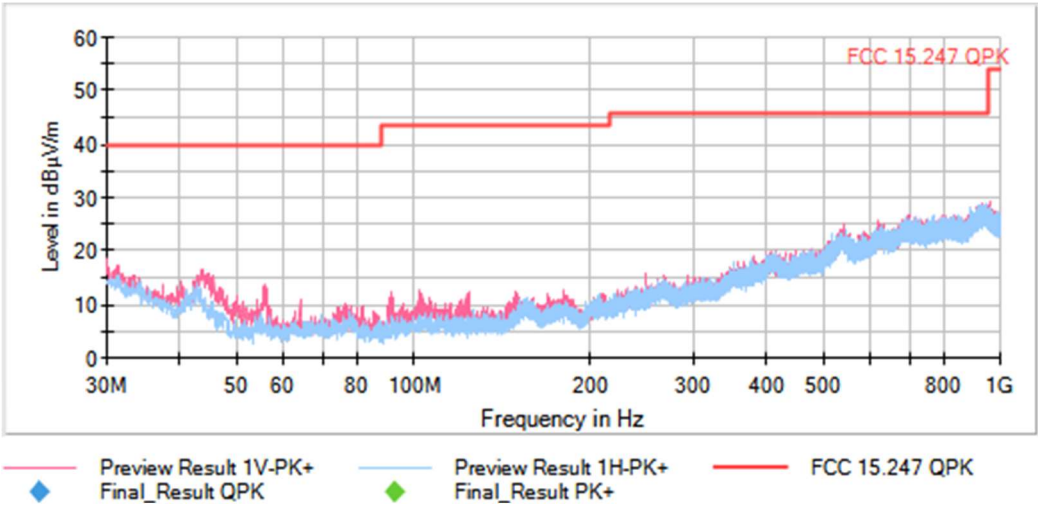
Uncertainty

Measurement uncertainty (dB)	$\leq \pm 5.07$ for $f \geq 30$ MHz up to 1GHz
	$\leq \pm 4.00$ for $f < 1$ GHz up to 3 GHz
	$\leq \pm 4.99$ for $f \geq 3$ GHz up to 17 GHz
	$\leq \pm 5.08$ for $f \geq 17$ GHz up to 26 GHz

Attachments

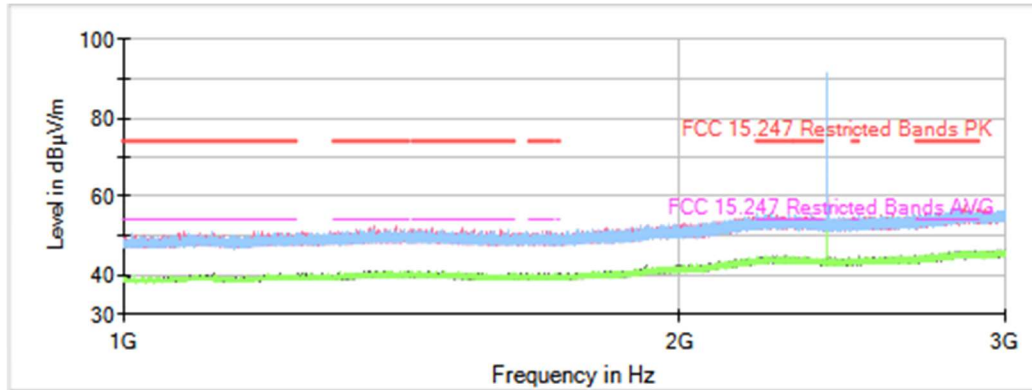
Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency MHz = 2402.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s), Frequency Range GHz = [0.03, 1], Detector used = QP

Images:

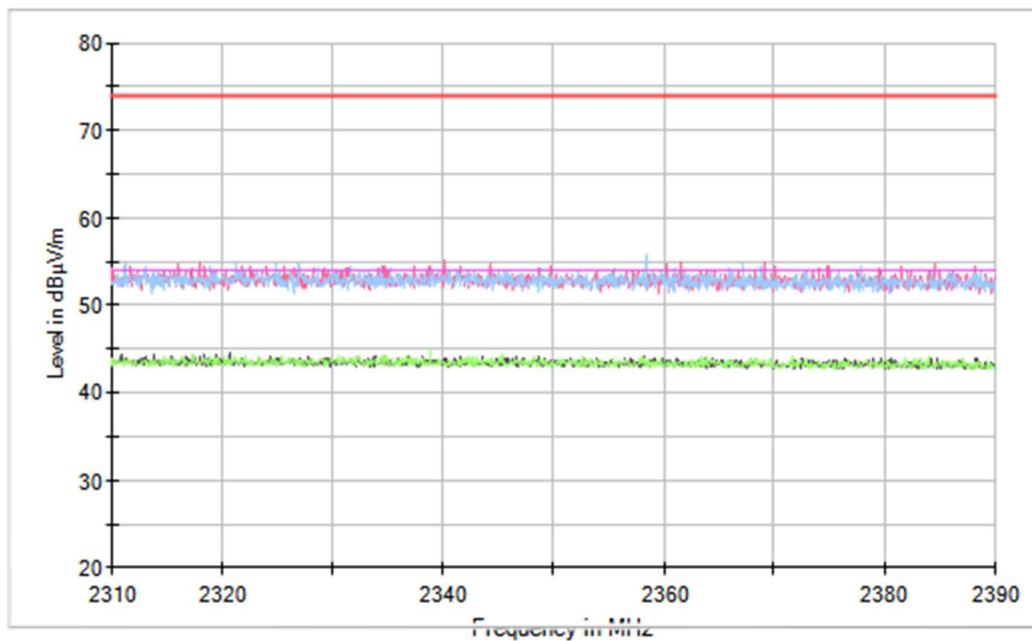


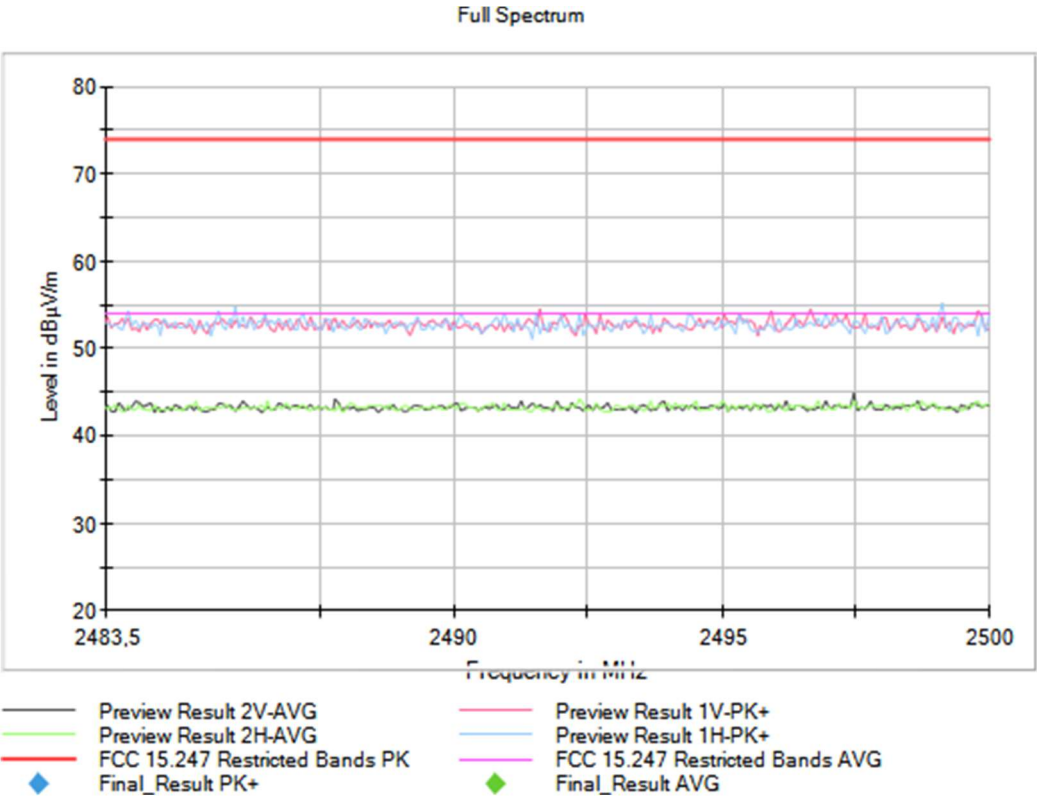
Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency MHz = 2402.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s), Frequency Range GHz = [1, 3], Number of Transmission Chains = 1, Available Number of Channels = 1, Detector used = AVG

Images:



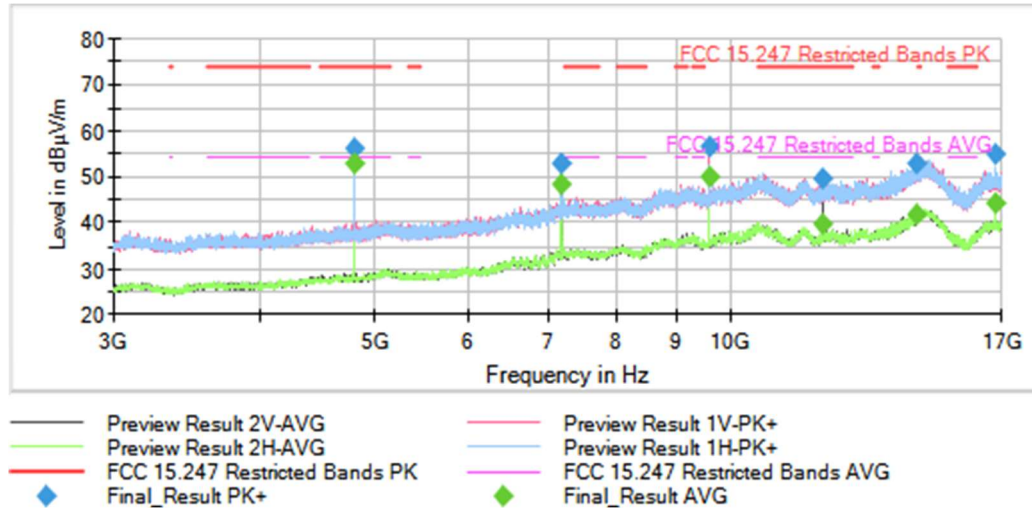
Full Spectrum





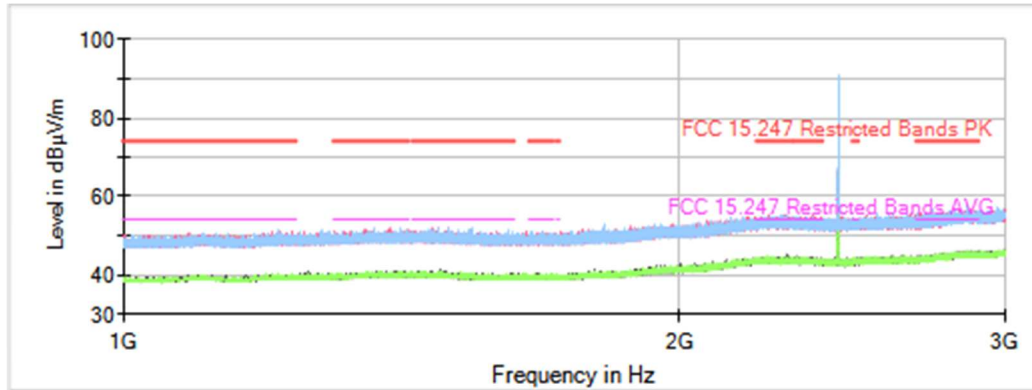
Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency MHz = 2402.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s), Frequency Range GHz = [3, 17], Number of Transmission Chains = 1, Available Number of Channels = 1, Detector used = AVG

Images:

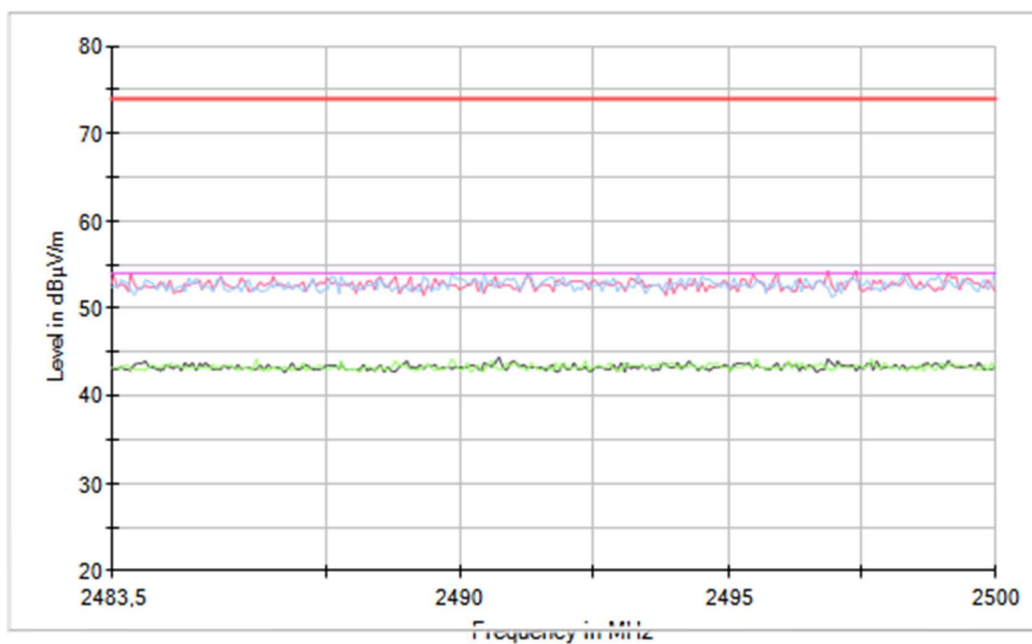


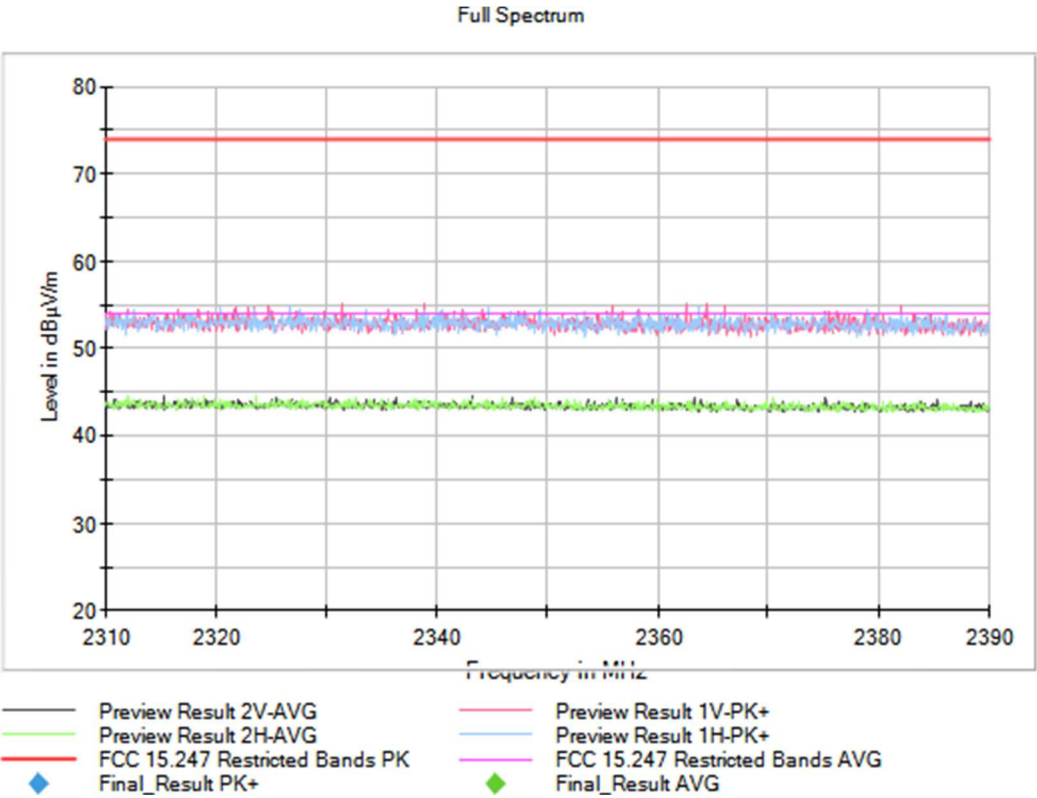
Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency MHz = 2440.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s), Frequency Range GHz = [1, 3], Number of Transmission Chains = 1, Available Number of Channels = 1, Detector used = AVG

Images:



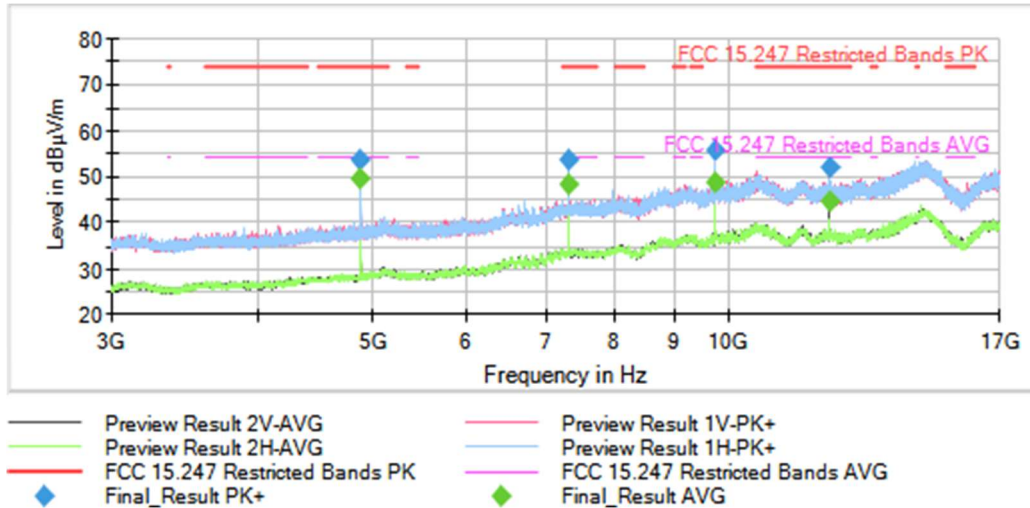
Full Spectrum





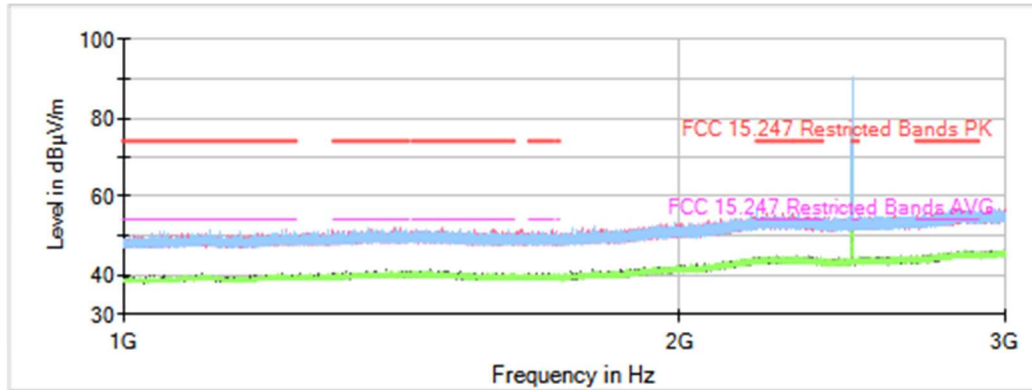
Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency MHz = 2440.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s), Frequency Range GHz = [3, 17], Number of Transmission Chains = 1, Available Number of Channels = 1, Detector used = AVG

Images:

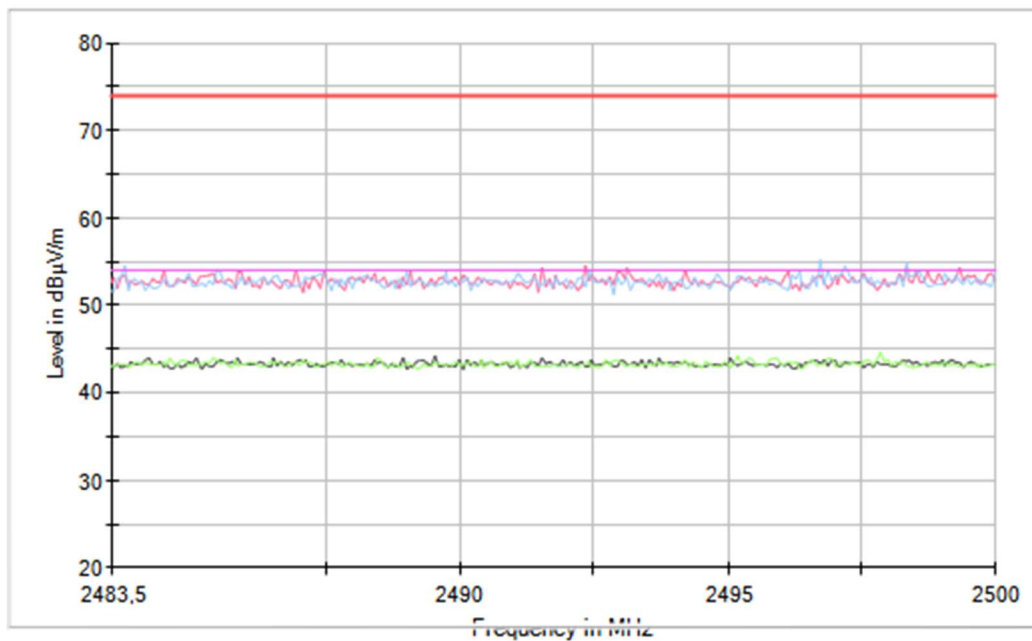


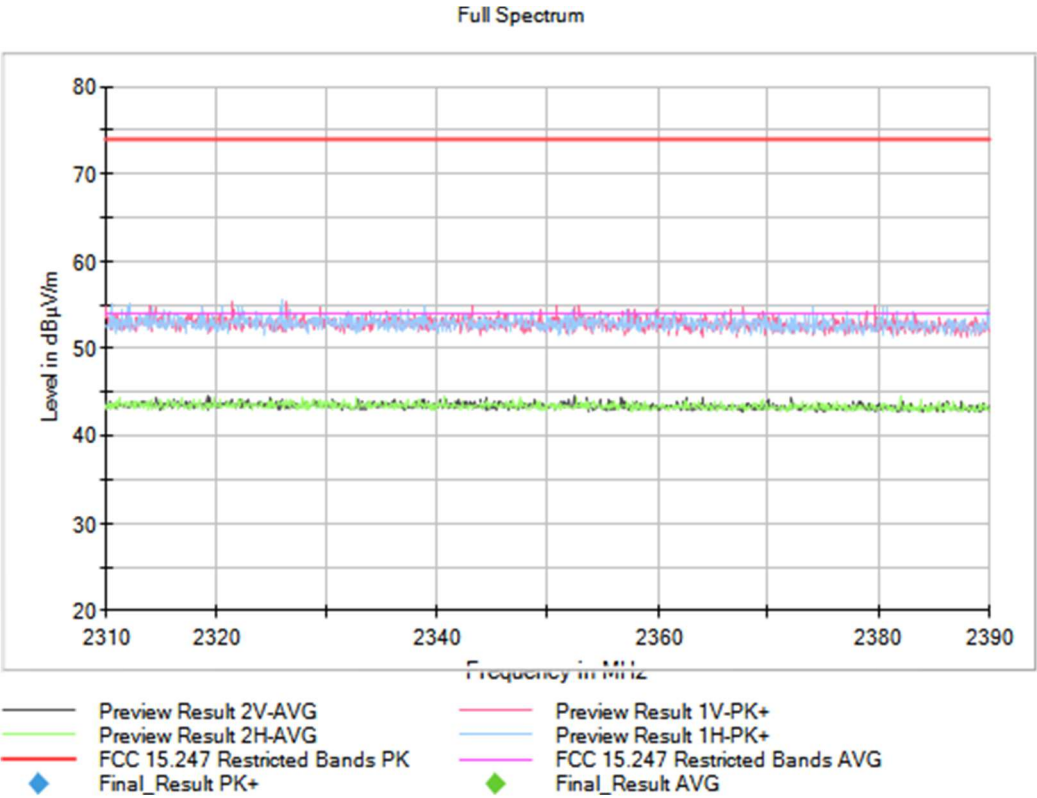
Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency MHz = 2480.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s), Frequency Range GHz = [1, 3], Number of Transmission Chains = 1, Available Number of Channels = 1, Detector used = AVG

Images:



Full Spectrum





Operation Band MHz = [2400, 2483.5], Equipment Type = Digital Transmission System (DTS), Frequency MHz = 2480.00, Modulation = BTLE 5.0 (GFSK 1 Mbit/s), Frequency Range GHz = [3, 17], Number of Transmission Chains = 1, Available Number of Channels = 1, Detector used = AVG

Images:

