

ISED CABid: ES1909

Test Report No:  
76558RRF.002A1

Lab. Company Number: 4621A

## Test Report

### USA FCC Part 15.247, 15.209

### CANADA RSS-247, RSS-Gen

(*) Identification of item tested	HAIP Locator
(*) Trademark	Nokia
(*) Model and /or type reference	LD-7L
Other identification of the product	N/A
(*) Features	Features Supported: Bluetooth LE HW version: 1.5 SW version: 6.1 FCC ID: 2AVO2LD-7L (applicant: Nokia of America Corp) IC: 661AF-LD7L (applicant: Nokia solutions and Networks Canada)
Manufacturer	Scanfil Malmö AB Bronsyxegatan 6B, 213 75 Malmö, Sweden
Test method requested, standard	USA FCC Part 15.247 (10-1-23 Edition): Operation within the bands 902 - 928 MHz, 2400 -2483.5 MHz, and 5725 - 5850 MHz. USA FCC Part 15.209 (10-1-23 Edition): Radiated emission limits; general requirements. CANADA RSS-247 Issue 3 (August 2023). CANADA RSS-Gen Issue 5 amendment 2 (February 2021). 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)	José Manuel Gómez Galván EMC Consumer & RF Lab. Manager
Date of issue	2024-05-15
Report template No	FDT08_24 (*) "Data provided by the client"

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## Acronyms

Acronym ID	Acronym Description
BW	Bandwidth
Detector	Detector used
Ebw	Emission Bandwidth
Equipment	Equipment Type
Freq	Frequency
Freq Rng	Frequency Range
Inband Peak Lvl	Inband Peak Level
Lvl	Level
MP	Measurement Point
Mod	Modulation
Mode	MIMO Mode
Occ Ch BW	Occupied Channel Bandwidth
PSD	Power Spectral Density
Peak Power	Maximum Peak Conducted Output Power
Pol	Polarization
Port	Active Port
Unwanted Freq	Unwanted Emissions Frequency
Unwanted Lvl	Unwanted Emissions Level

## Competences and guarantees

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

DEKRA Testing and Certification S.A.U. is an ISED-recognized accredited testing laboratory, CABid: ES1909, Company Number: 4621A, 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.

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## General conditions

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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

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

The total uncertainty of the measurement system for the radiated emissions of EUT from 30 MHz to 1 GHz is:  
Measurement uncertainty  $\leq \pm 5,35$  dB with factor ( $k = 2$ ).

The total uncertainty of the measurement system for the radiated emissions of EUT from 1 GHz to 17 GHz is:  
Measurement uncertainty  $\leq \pm 4,32$  dB with factor ( $k = 2$ ).

The total uncertainty of the measurement system for the radiated emissions of EUT from 17 GHz to 26 GHz is:  
Measurement uncertainty  $\leq \pm 5,51$  dB with factor ( $k = 2$ ).

The total uncertainty of the measurement system for the conducted testing of EUT is:

RF Peak Output Power: Measurement uncertainty  $\leq \pm 0,80$  dB

RF Average Output Power: Measurement uncertainty  $\leq \pm 0,99$  dB

Power Spectral Density: Measurement uncertainty  $\leq \pm 0,99$  dB

6dB Bandwidth: Measurement uncertainty  $\leq \pm 2,84$  %

Occupied Channel Bandwidth: Measurement uncertainty  $\leq \pm 1,17$  %

Conducted Band-edge spurious emissions: Measurement uncertainty  $\leq \pm 1,76$  dB

## Data provided by the client

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The following data has been provided by the client:

1. Information relating to the description of the sample ("Identification of the item tested", "Trademark", "Model and/or type reference tested").
2. The sample consists of a HAIP Locator LD-7L, it is a part of the Nokia HAIP (High Accuracy Indoor Positioning) system that is used to locate HAIP tags. LD-7L uses 2.4 GHz RF transceiver for locating and configuring HAIP tags and Ethernet to connect to the HAIP network. In addition to locating HAIP tags, LD-7L can be configured as Bluetooth Low Energy broadcaster to provide signals that Bluetooth low energy compatible devices can use for positioning.

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

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Samples undergoing test have been selected by: The client.

Id	Control Number	Description	Model	Serial N°	Date of Reception	Application
S/01	76558B_3.1	NOKIA LOCATOR UNIT WITH TIVA PCBA	--	--	2023-11-30	Element Under Test
S/02	76558B_4.1	NOKIA LOCATOR UNIT WITH TIVA PCBA	--	--	2023-11-30	Element Under Test

Notes referenced to samples during the project:

Id	Type
S/01	Radiated
S/02	Conducted

## Test sample description

Ports..... :	Port name and description	Cable					
		Specified max length [m]	Attached during test	Shielded	Coupled to patient <sup>(3)</sup>		
	Ethernet	.....	[X]	[X]	[ ]		
Supplementary information to the ports..... :	Not provided data						
Rated power supply .....	Voltage and Frequency		Reference poles				
			L1	L2	L3	N	PE
	[ ]	AC: .....	[ ]	[ ]	[ ]	[ ]	[ ]
	[X]	DC: 12V (alternative only, POE Powered)					
Rated Power .....	12W						
Clock frequencies..... :	Not provided data						
Other parameters .....	Not provided data						
Software version .....	6.1						
Hardware version .....	1.5						
Dimensions in cm (W x H x D) .....	diameter 205.6 mm, height 43.95 mm						
Mounting position .....	[ ]	Table top equipment					
	[X]	Wall/Ceiling mounted equipment					
	[ ]	Floor standing equipment					
	[ ]	Hand-held equipment					
	[ ]	Other: .....					
Modules/parts..... :	Module/parts of test item		Type	Manufacturer			
	Not provided data		.....	.....			
Accessories (not part of the test item) .....	Description		Type	Manufacturer			
	Not provided data		.....	.....			
Documents as provided by the applicant..... :	Description		File name	Issue date			
	Not provided data		.....	.....			

<sup>(3)</sup> Only for Medical Equipment

## Identification of the client

Nokia Solutions and Networks Ltd.  
Budapest, Bókay János u. 36-42, 1083 Hungary

## Testing period and place

<b>Test Location</b>	DEKRA Testing and Certification S.A.U.
<b>Date (start)</b>	2024-02-26
<b>Date (finish)</b>	2024-04-03

## Document history

Report number	Date	Description
76558RRF.002	2024-04-08	First release.
76558RRF.002A1	2024-05-15	First modification. In the features section of the cover page, the AoA feature is removed. Minor typos are corrected. This report cancels and replaces report 76558RRF.002

## Environmental conditions

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

<b>Temperature</b>	Min. = 15 °C Max. = 35 °C
<b>Relative humidity</b>	Min. = 20 % Max. = 75 %

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

<b>Temperature</b>	Min. = 15 °C Max. = 35 °C
<b>Relative humidity</b>	Min. = 20 % Max. = 75 %

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

<b>Temperature</b>	Min. = 15 °C Max. = 35 °C
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<b>Relative humidity</b>	Min. = 20 % Max. = 75 %
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## Remarks and comments

The tests have been performed by the technical personnel: Alvaro Borrego Robles, Jia Hao Luo Chen and Ruben Mora Fernandez.

Used instrumentation:

Control No.	Equipment	Model	Manufacturer	Next Calibration
10304	EMI TEST RECEIVER 2Hz-44GHz	ESW44	ROHDE AND SCHWARZ	2026-02-19
05862	EMI TEST RECEIVER 9kHz-7GHz	ESR7	ROHDE AND SCHWARZ	2025-02-15
07040	EXTENSION FOR OPEN SWITCH UNIT UP TO 40GHz	OSP-B157Wx	Rohde&Schwarz	2025-04-19
07763	HORN ANTENNA 1-18GHz	BBHA 9120D	SCHWARZBECK MESS-ELEKTRONIK	2026-01-16
06495	HORN ANTENNA 18-40GHz	BBHA 9170	SCHWARZBECK	2024-03-19
09968	HYBRID BILOG ANTENNA 30MHz-6GHz	3142E	ETS LINDGREN	2026-09-22
07862	PRE-AMPLIFIER G>30dB 18-40GHz	BLMA 1840-3G	BONN ELEKTRONIK	2025-04-02
07769	PREAMPLIFIER 30dB 500MHz-18GHz	BBV 9718 C	SCHWARZBECK	2025-03-13
07039	Rohde&Schwarz	OSP-B157W8	ROHDE & SCHWARZ	2025-05-25
08130	SEMIANECHOIC ABSORBER LINED CHAMBER	P29419	ALBATROSS	--
08134	SHIELDED ROOM	P29419	ALBATROSS PROJECTS GMBH	--
08661	SHIELDED ROOM	-	SIEPEL	--
08835	SIGNAL AND SPECTRUM ANALYZER 2Hz-50GHz	FSW50	ROHDE AND SCHWARZ	2025-02-08
04848	SOFTWARE FOR EMC/RF TESTING	EMC32	ROHDE AND SCHWARZ	--
07549	TEMPERATURE AND HUMIDITY PROBE	HWg-STE	HW GROUP	2024-05-02
07550	TEMPERATURE AND HUMIDITY PROBE	HWg-STE	HW GROUP	2024-05-02
07552	TEMPERATURE AND HUMIDITY PROBE	HWg-STE	HW GROUP	2024-05-02
07798	WMS32	WMS32	ROHDE AND SCHWARZ	--

## Testing verdicts

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

## Summary

### Bluetooth Low Energy (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 (1Mbps)

## INDEX

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## TEST CONDITIONS

(\*): Data provided by the client.

### POWER SUPPLY (\*):

Vnominal: 12V DC / 48V DC (PoE)  
Type of Power Supply: External Power Suply or AC/DC adapter POE 48V

### ANTENNA (\*):

Type of Antenna: Integral Antenna  
Maximum Declared Antenna Gain: 4,01 dBi

### TEST FREQUENCIES (\*):

Modulation	Data rates	Low Channel:	Middle Channel	High Channel
BTLE GFSK	1 Mbit/s	2402 MHz	2441 MHz	2480 MHz

During transmitter test the EUT was controlled by a SW tool provided by the client to operate in a continuous transmit mode on the modulation schemes and test channels as required.

### 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 1.5 m for the frequency range 17 GHz-26 GHz (17 GHz-40 GHz horn antenna).

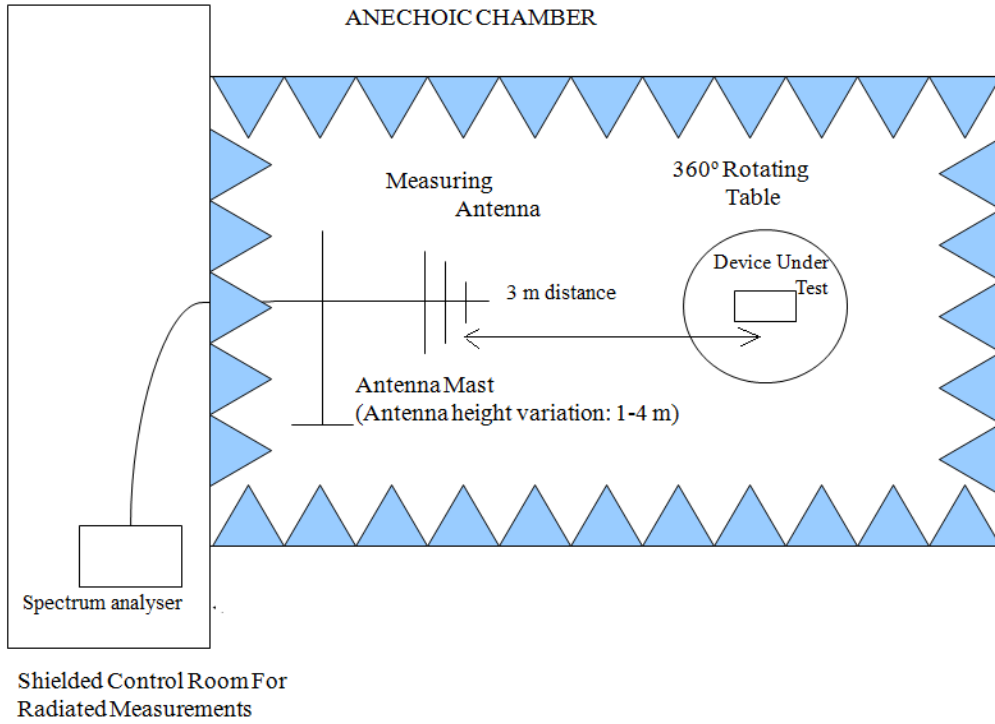
For radiated emissions in the range 17 GHz-26 GHz that is performed at a distance closer than the specified distance, an inverse proportionality factor of 20 dB per decade is used to normalize the measured data for determining compliance.

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.

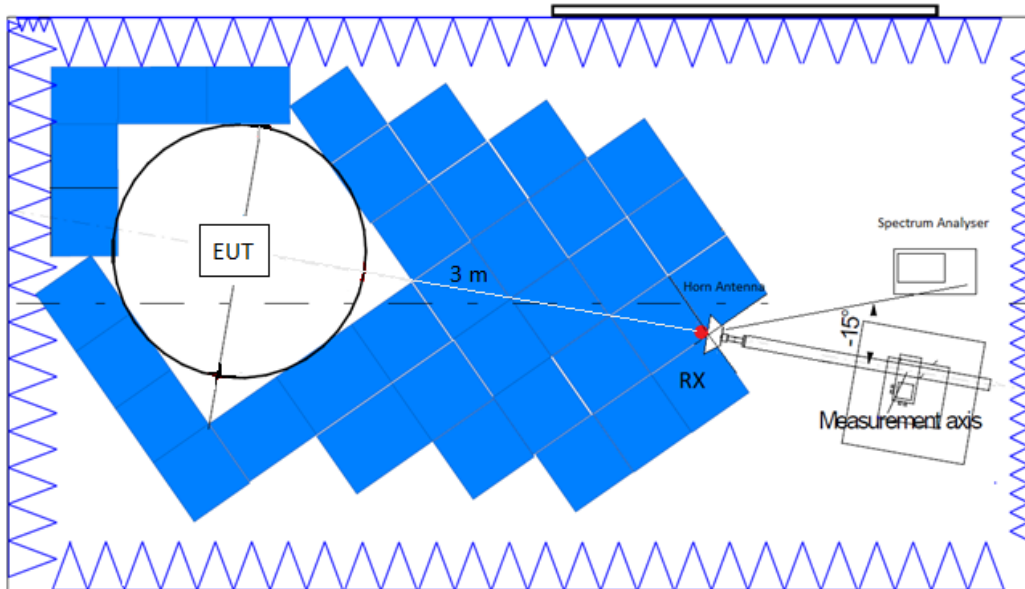
Measurements were made in both horizontal and vertical planes of polarization.

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.

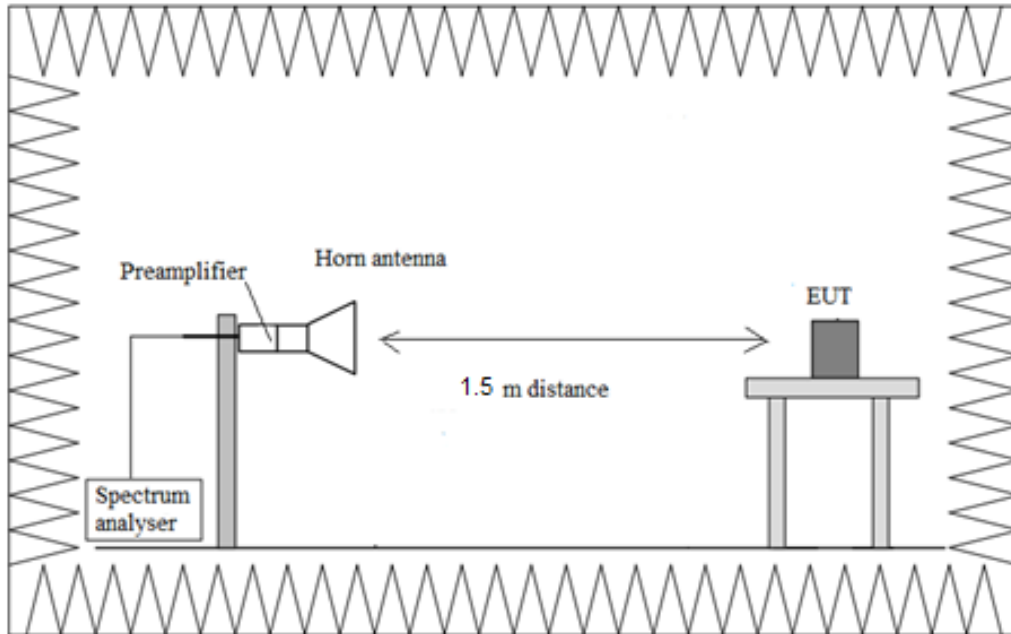
Radiated measurements setup from 30 MHz to 1 GHz:



Radiated measurements setup from 1 GHz to 17 GHz:



Radiated measurements setup  $f > 17$  GHz:





## TEST CASES DETAILS

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### Occupied Channel Bandwidth 99%

Modulation: BTLE (GFSK 1 Mbit/s)

#### **Results**

Freq (MHz)	Occ Ch BW (MHz)
2402.00000	1.070
2440.00000	1.075
2480.00000	1.065

#### **Verdict**

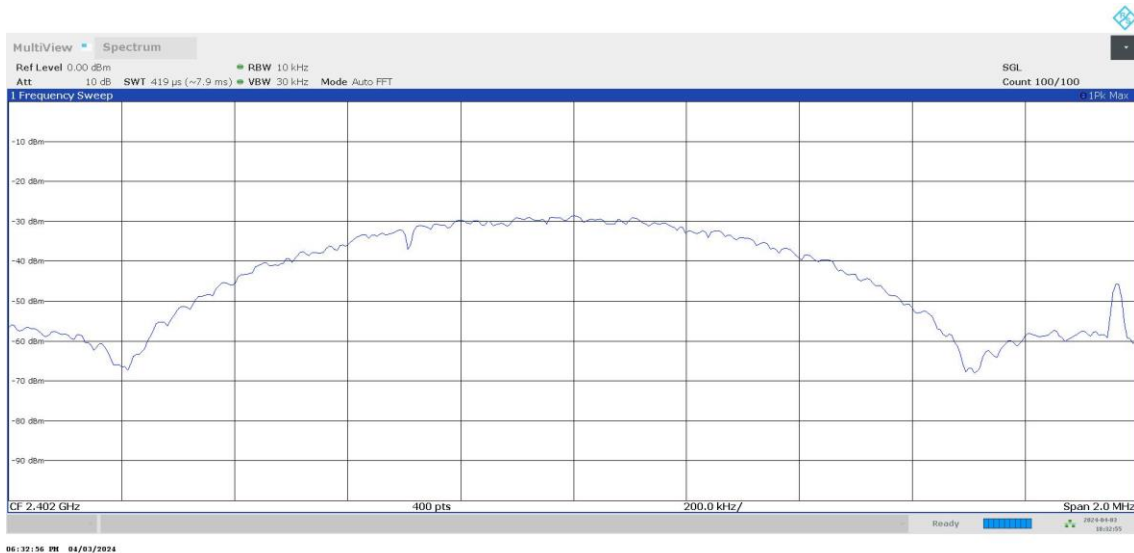
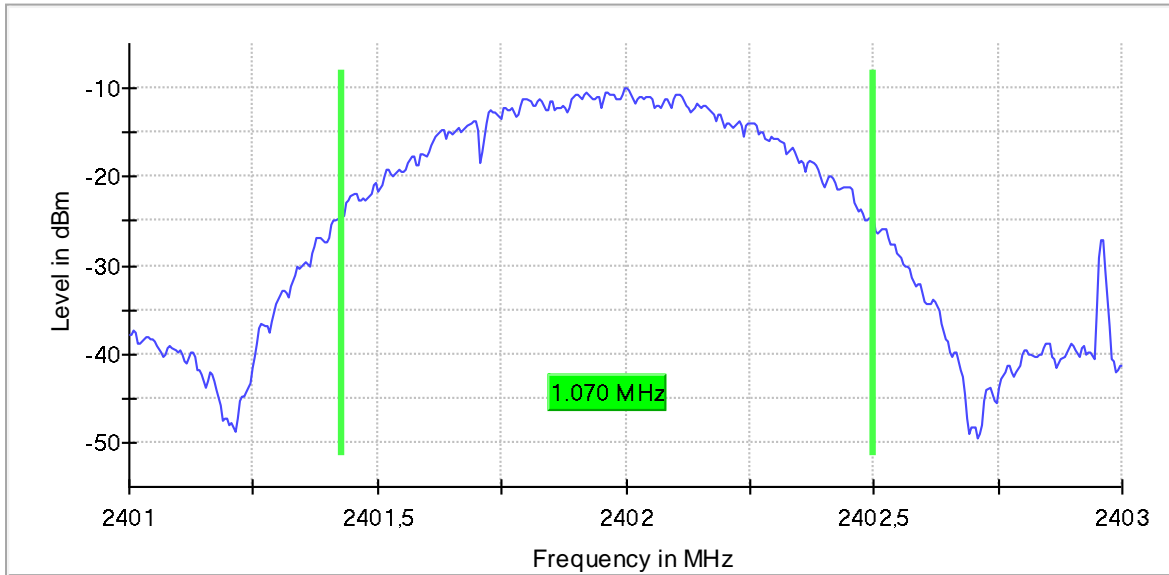
Pass

**Attachments**

Equipment Type = Digital Transmission System (DTS)    Bandwidth MHz = 1  
Modulation = BTLE (GFSK 1 Mbit/s)    Frequency MHz = 2402.00000  
MIMO Mode = SISO    Active Port = 1

**Images:**

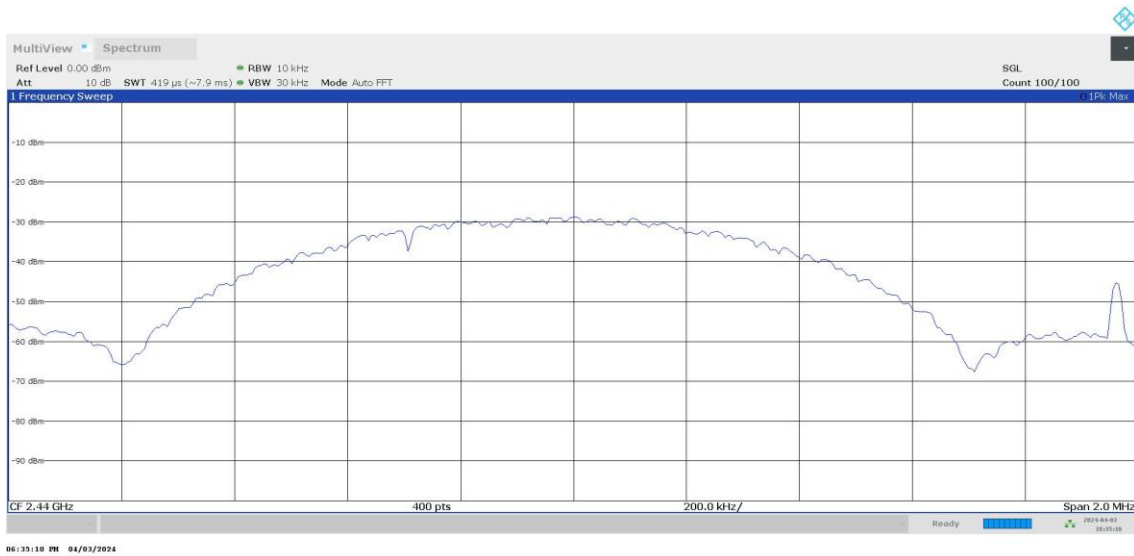
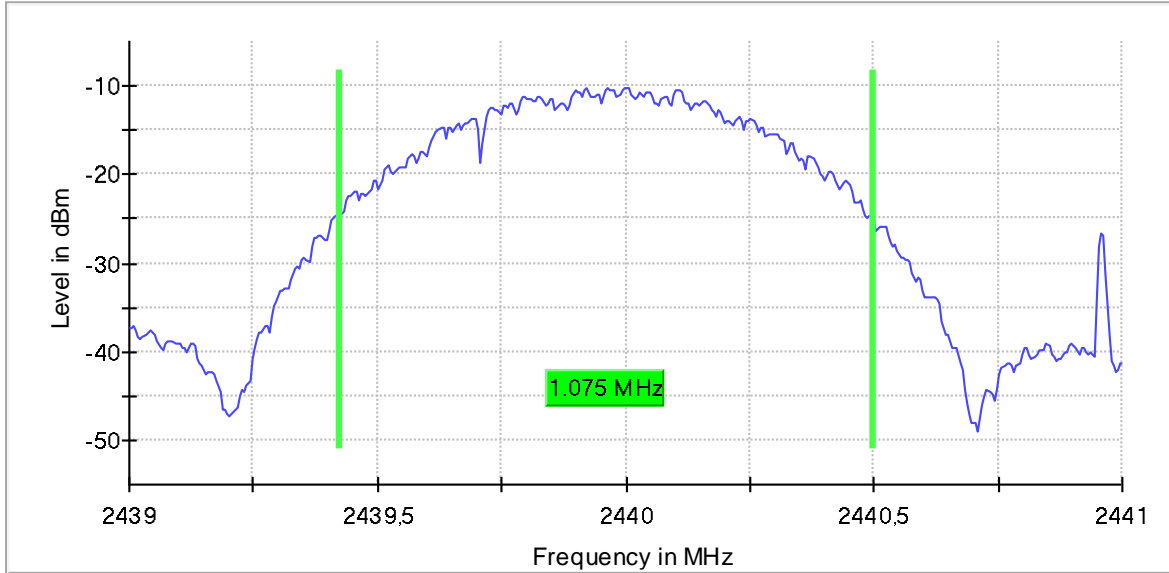
99 % Bandwidth



Equipment Type = Digital Transmission System (DTS)    Bandwidth MHz = 1  
Modulation = BTLE (GFSK 1 Mbit/s)    Frequency MHz = 2440.00000  
MIMO Mode = SISO    Active Port = 1

Images:

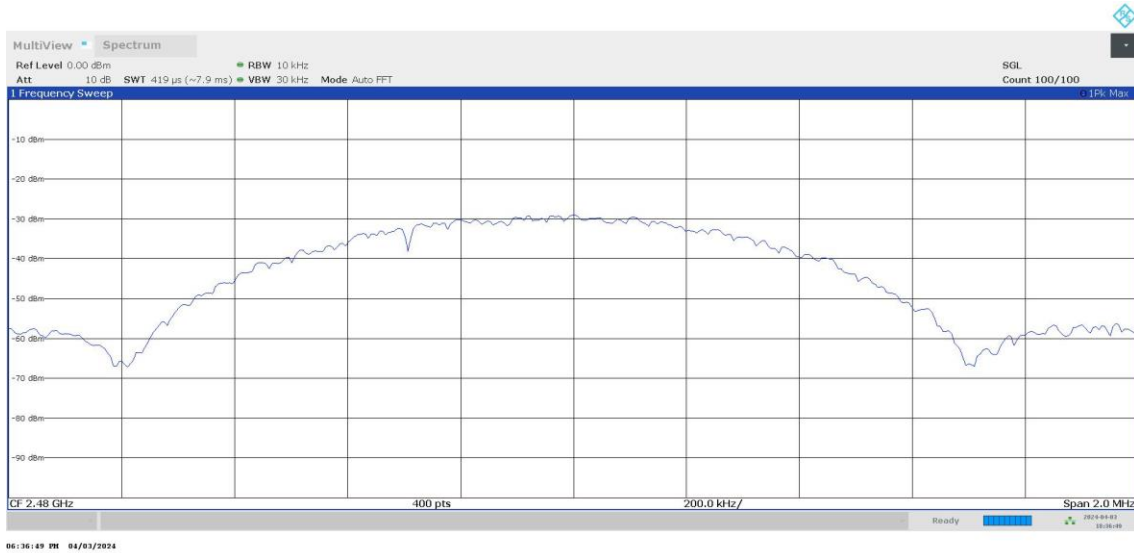
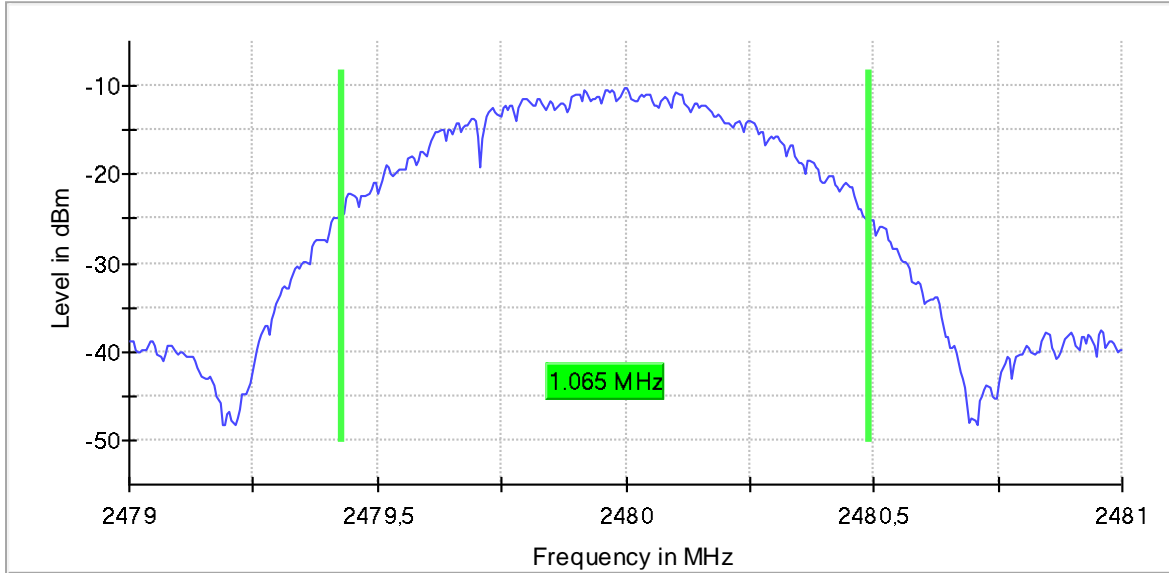
99 % Bandwidth



Equipment Type = Digital Transmission System (DTS) Bandwidth MHz = 1  
Modulation = BTLE (GFSK 1 Mbit/s) Frequency MHz = 2480.00000  
MIMO Mode = SISO Active Port = 1

Images:

99 % Bandwidth



## RSS-247 5.2 (a) / FCC 15.247 (a) (2) 6 dB Bandwidth

### Limits

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

Modulation: BTLE (GFSK 1 Mbit/s)

### Results

Freq (MHz)	Ebw (MHz)
2402.00000	0.772
2440.00000	0.772
2480.00000	0.772

### Verdict

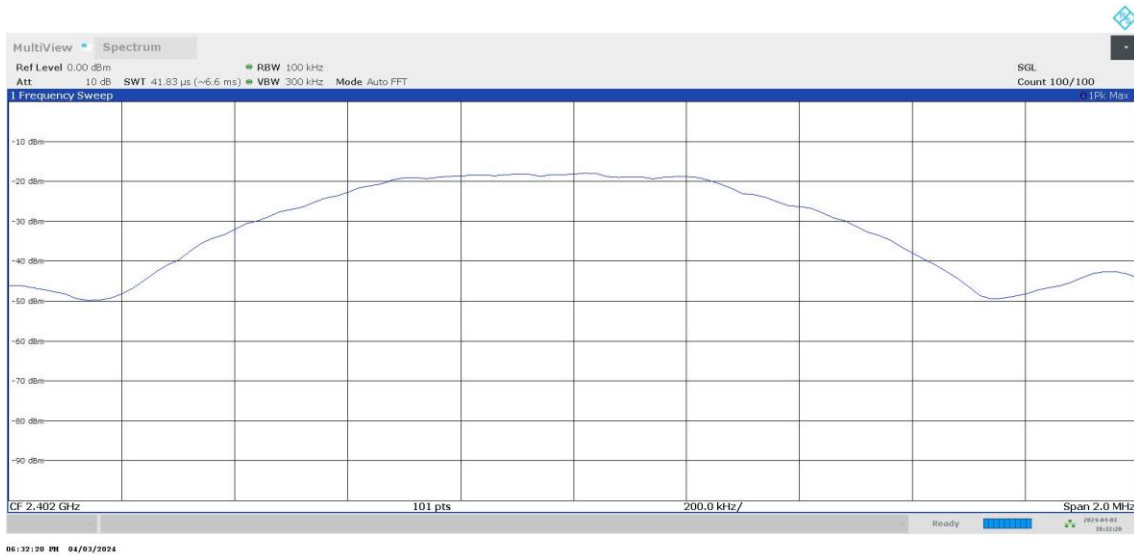
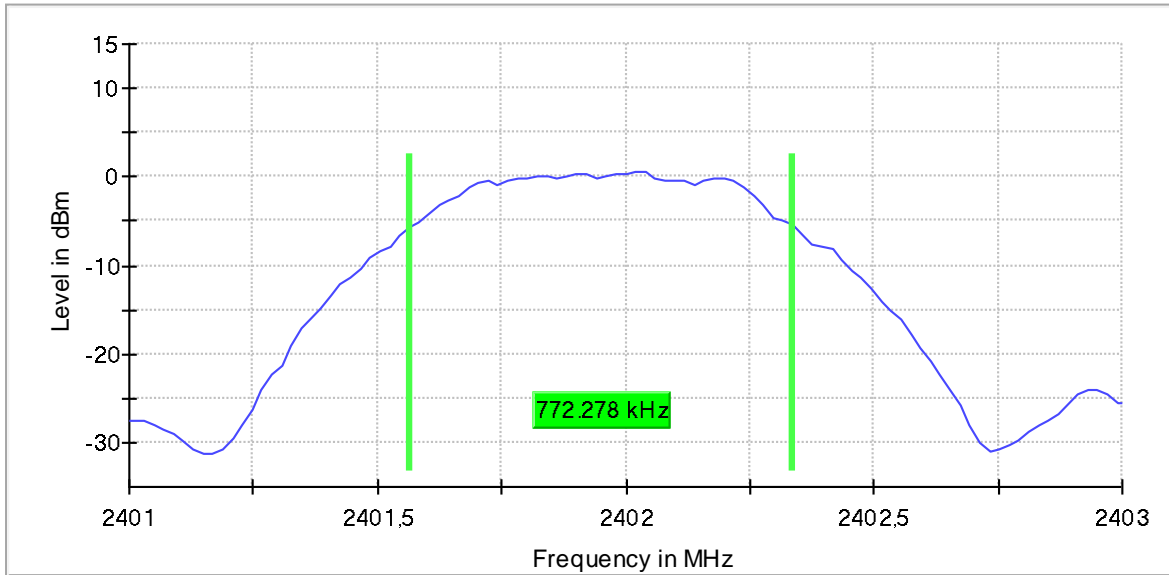
Pass

**Attachments**

Bandwidth MHz = 1                      Modulation = BTLE (GFSK 1 Mbit/s)  
Frequency MHz = 2402.00000      MIMO Mode = SISO  
Active Port = 1

**Images:**

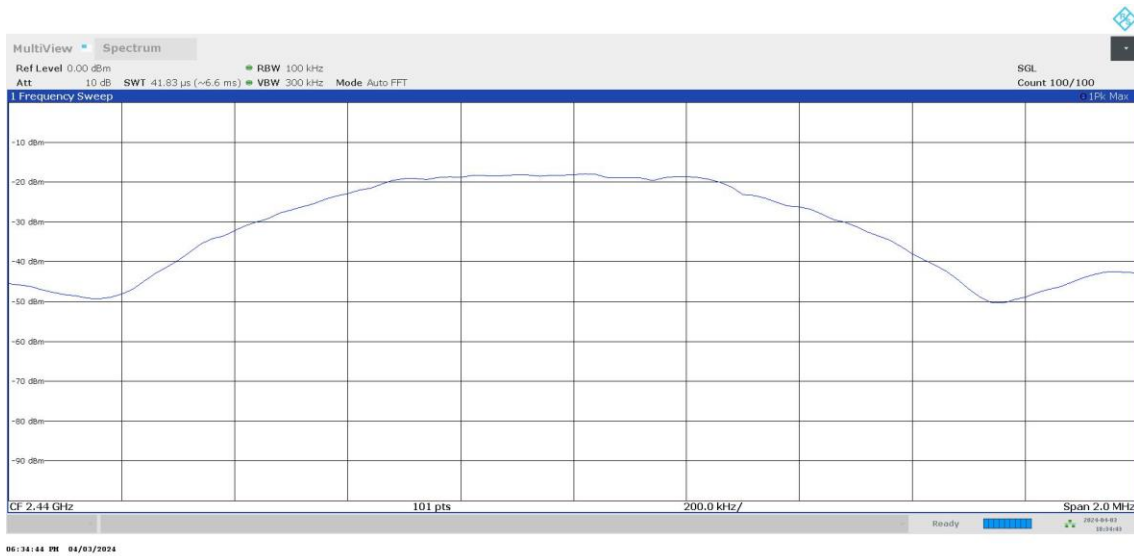
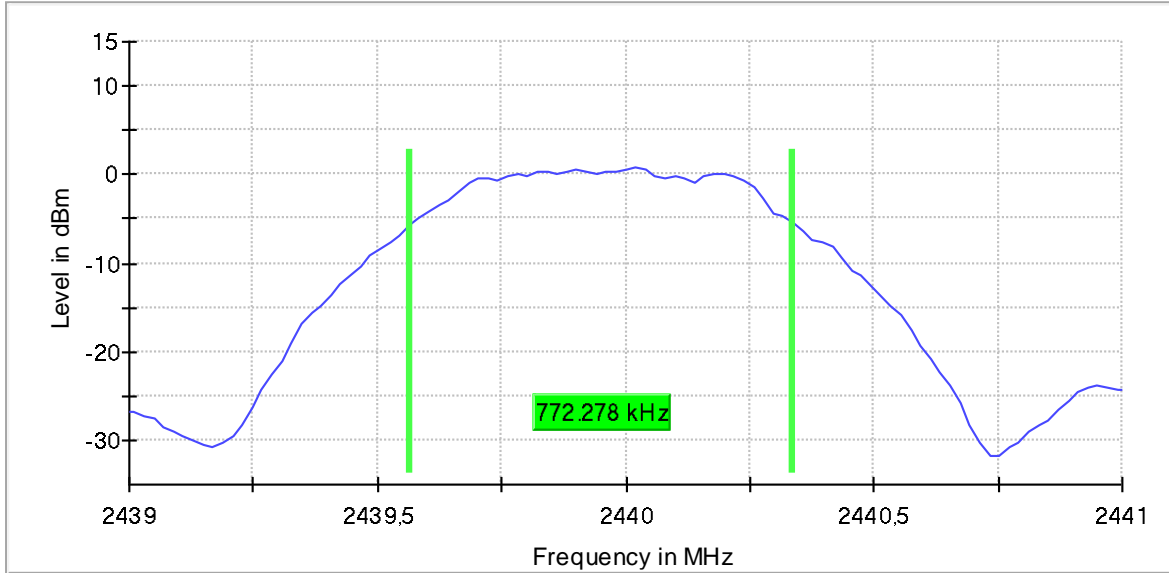
6 dB Bandwidth



Bandwidth MHz = 1                      Modulation = BTLE (GFSK 1 Mbit/s)  
Frequency MHz = 2440.00000      MIMO Mode = SISO  
Active Port = 1

Images:

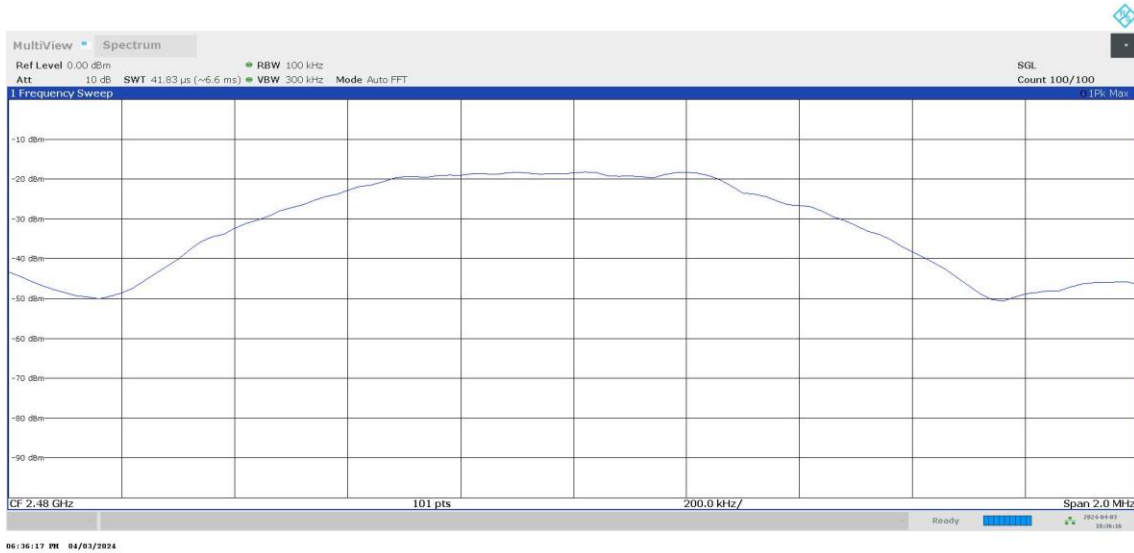
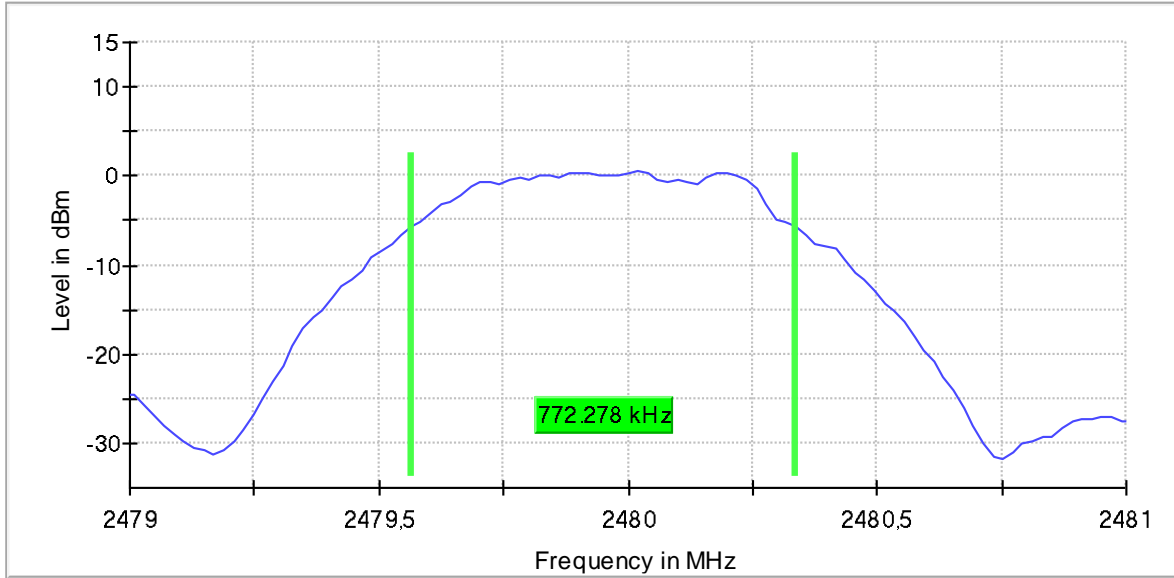
6 dB Bandwidth



Bandwidth MHz = 1                      Modulation = BTLE (GFSK 1 Mbit/s)  
Frequency MHz = 2480.00000      MIMO Mode = SISO  
Active Port = 1

Images:

6 dB Bandwidth





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

### Limits

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.

Modulation: BTLE (GFSK 1 Mbit/s)

### Results

Freq (MHz)	PSD (dBm)
2402.00000	-10.08
2440.00000	-9.89
2480.00000	-10.05

### Verdict

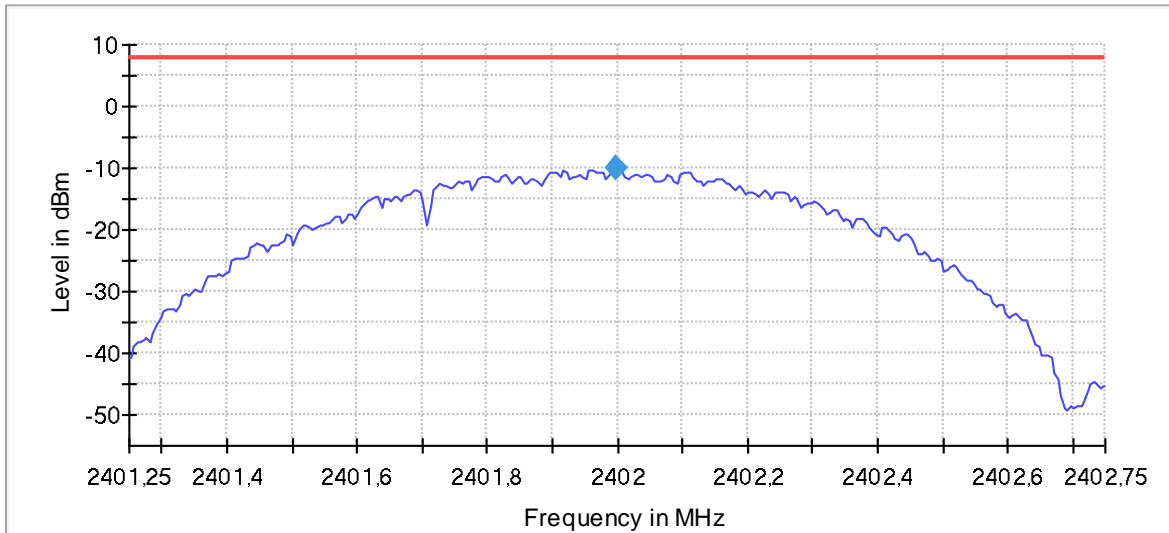
Pass

### Attachments

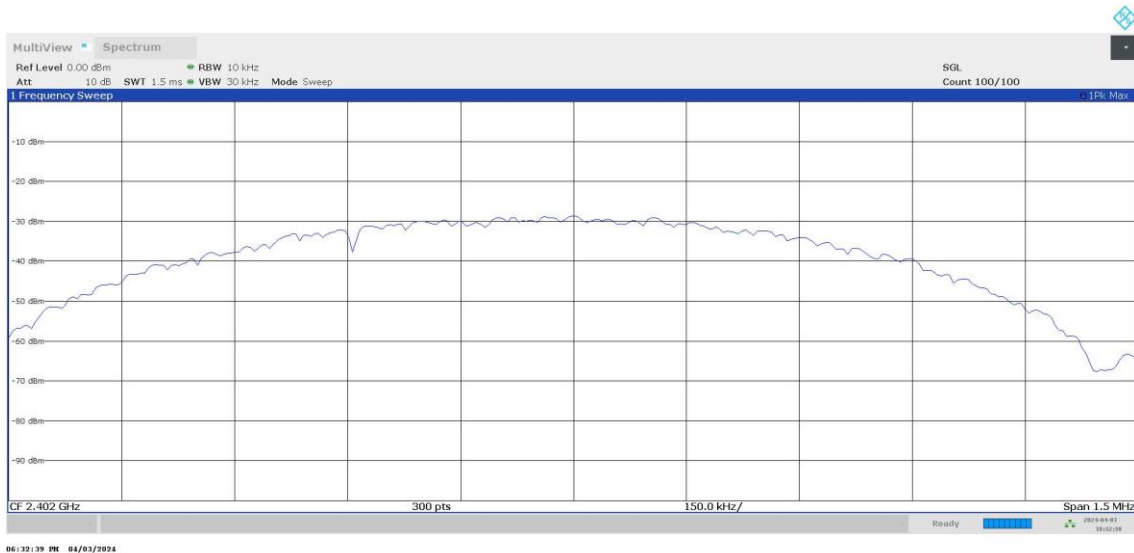
Equipment Type = Digital Transmission System (DTS)    Bandwidth MHz = 1  
Modulation = BTLE (GFSK 1 Mbit/s)    Frequency MHz = 2402.00000  
MIMO Mode = SISO    Active Port = 1

### Images:

Peak Power Spectral Density



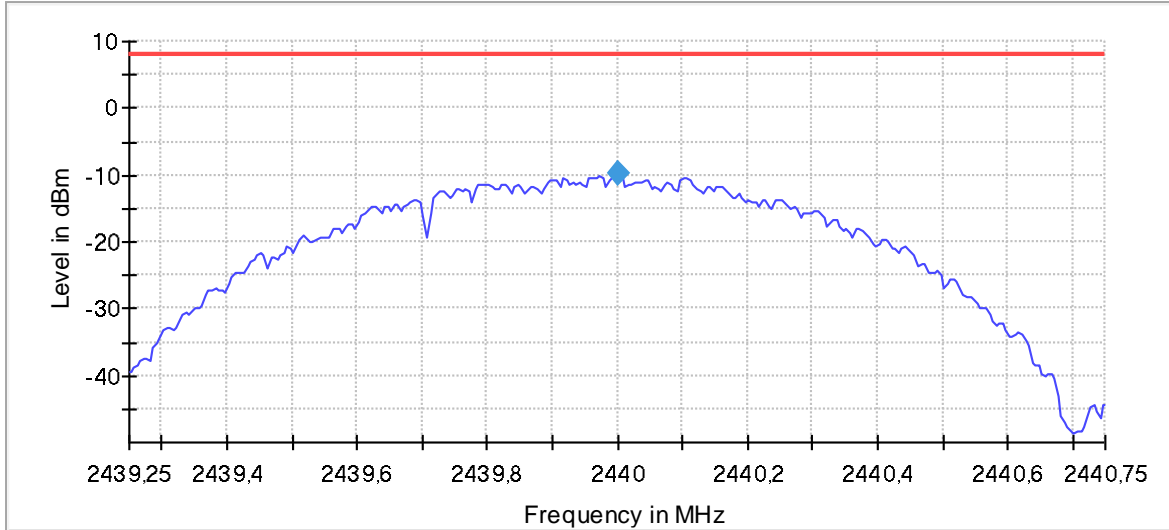
— Limit    — Sum Level    ◆ PSD



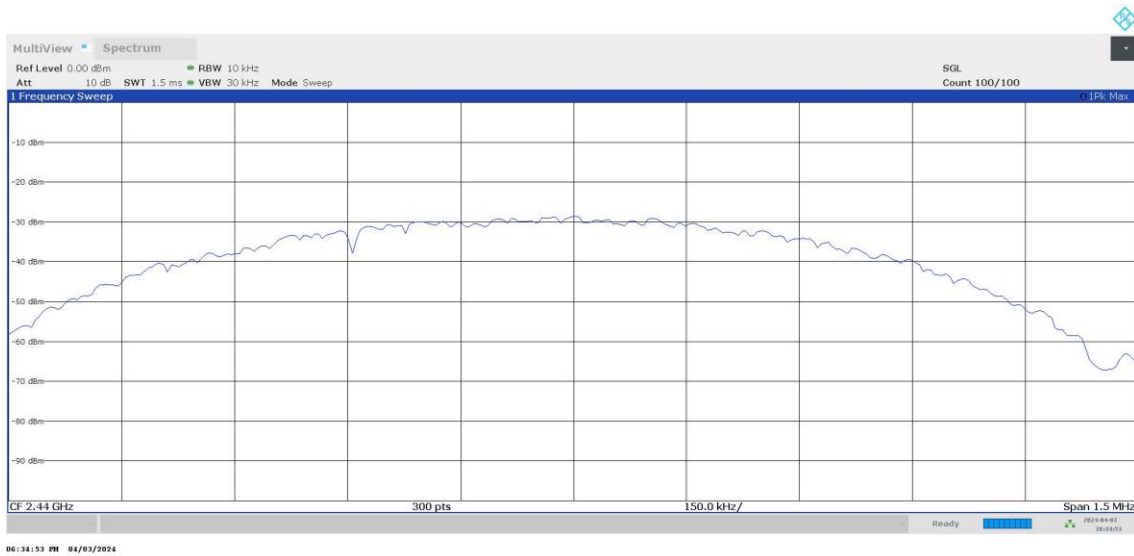
Equipment Type = Digital Transmission System (DTS)    Bandwidth MHz = 1  
 Modulation = BTLE (GFSK 1 Mbit/s)                      Frequency MHz = 2440.00000  
 MIMO Mode = SISO    Active Port = 1

**Images:**

Peak Power Spectral Density



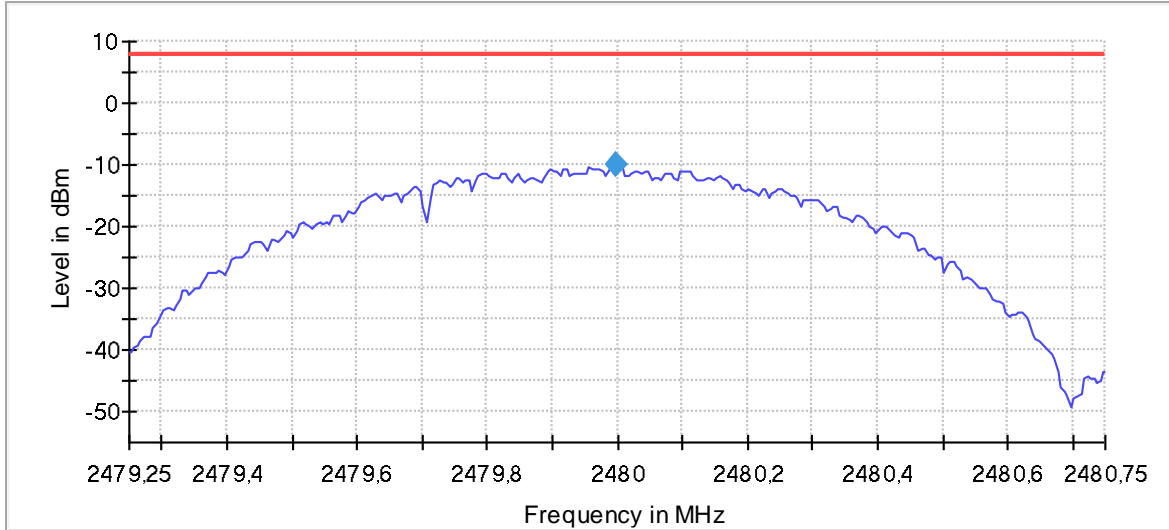
— Limit    — Sum Level    ◆ PSD



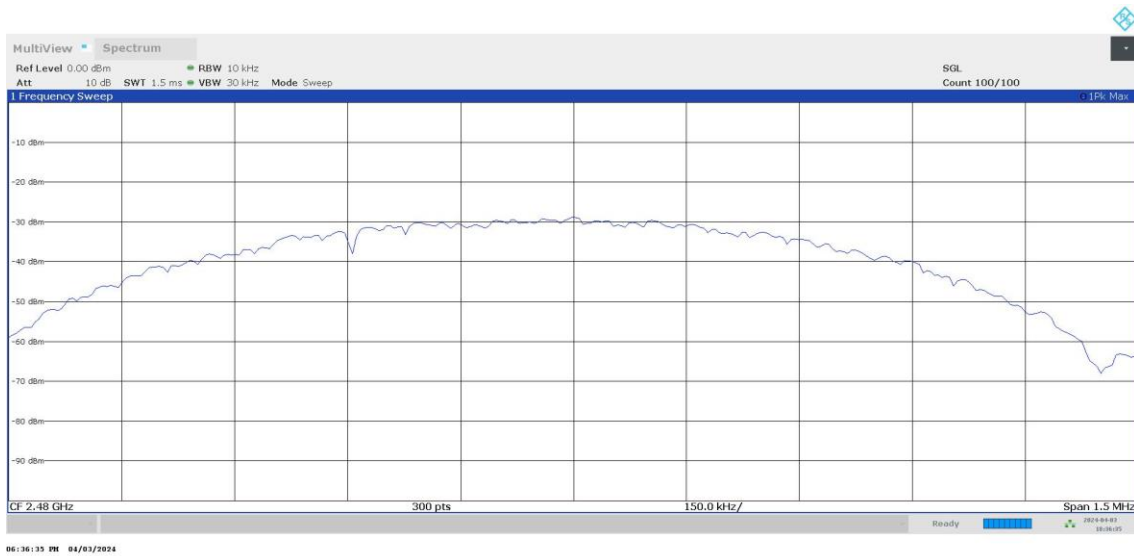
Equipment Type = Digital Transmission System (DTS)    Bandwidth MHz = 1  
 Modulation = BTLE (GFSK 1 Mbit/s)                      Frequency MHz = 2480.00000  
 MIMO Mode = SISO    Active Port = 1

Images:

Peak Power Spectral Density



— Limit    — Sum Level    ◆ PSD



## RSS-247 5.4 (d) / FCC 15.247 (b) (3) Maximum Peak Conducted output power

### 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).

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.

Modulation: BTLE (GFSK 1 Mbit/s)

### Results

Freq (MHz)	Peak Power (dBm)
2402.00000	2.4380
2440.00000	2.5500
2480.00000	2.3390

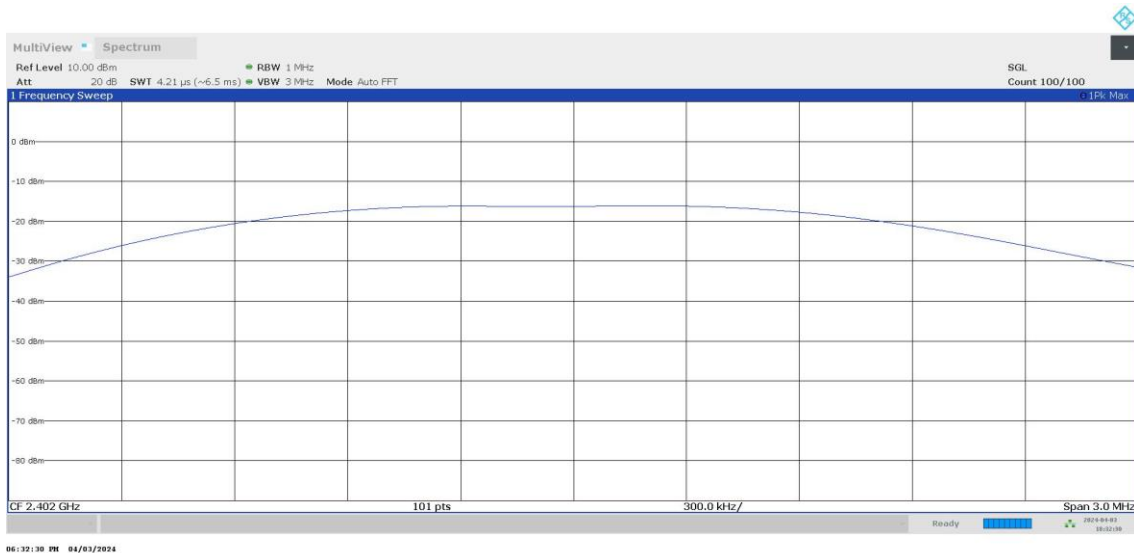
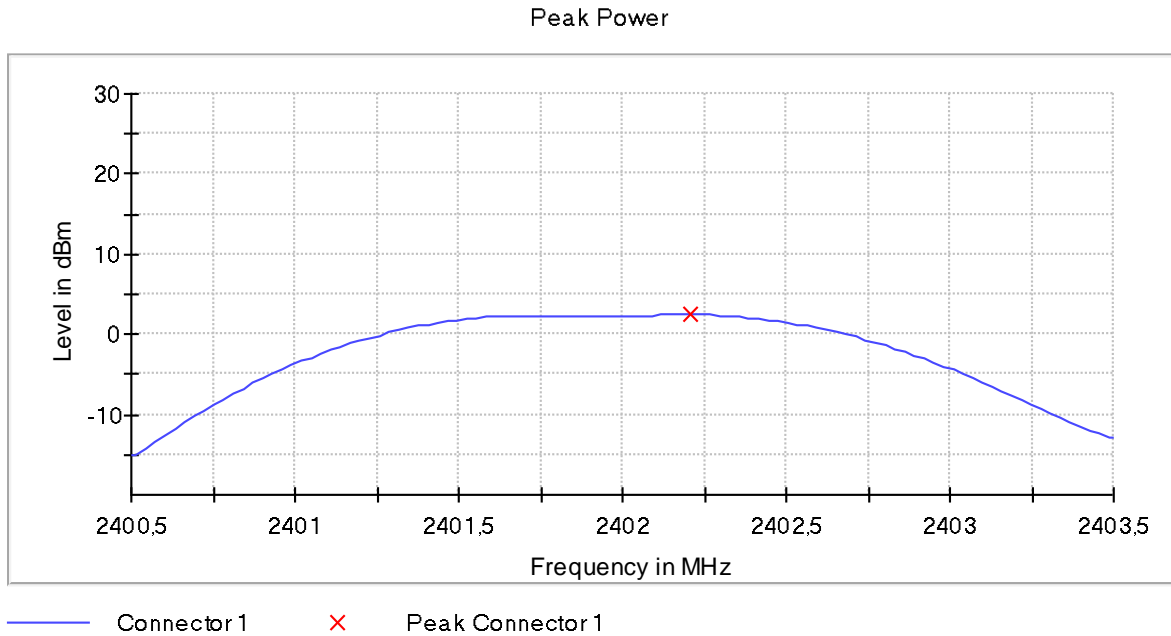
### Verdict

Pass

### Attachments

Equipment Type = Digital Transmission System (DTS)    Bandwidth MHz = 1  
Modulation = BTLE (GFSK 1 Mbit/s)    Frequency MHz = 2402.00000  
MIMO Mode = SISO    Active Port = 1

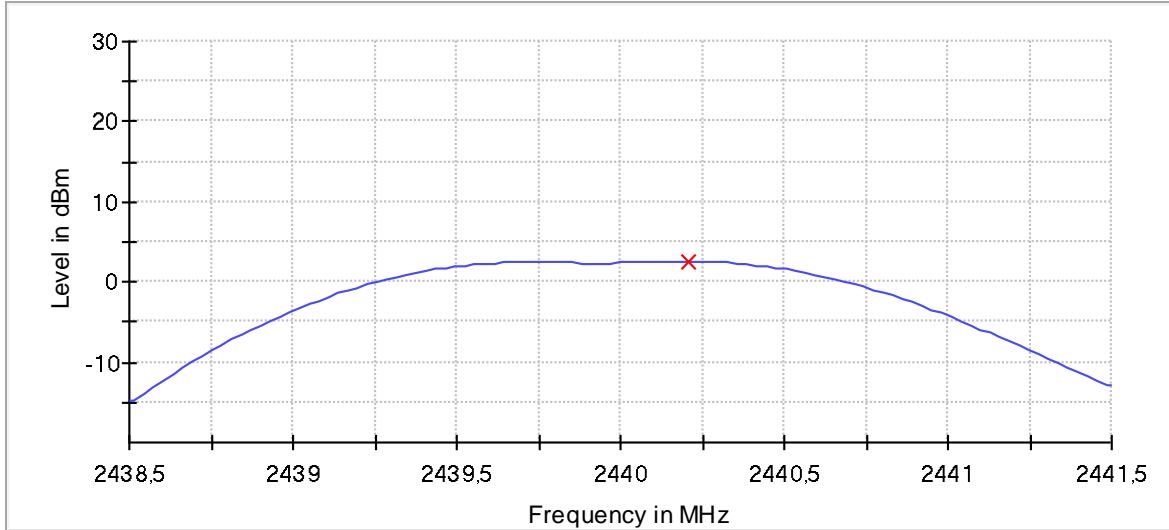
### Images:



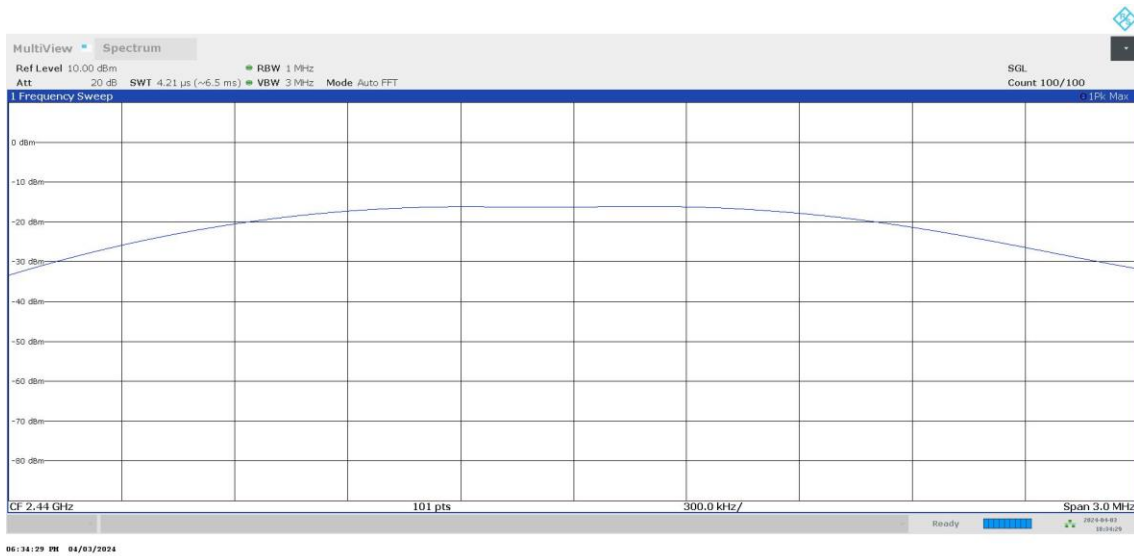
Equipment Type = Digital Transmission System (DTS) Bandwidth MHz = 1  
Modulation = BTLE (GFSK 1 Mbit/s) Frequency MHz = 2440.00000  
MIMO Mode = SISO Active Port = 1

Images:

Peak Power



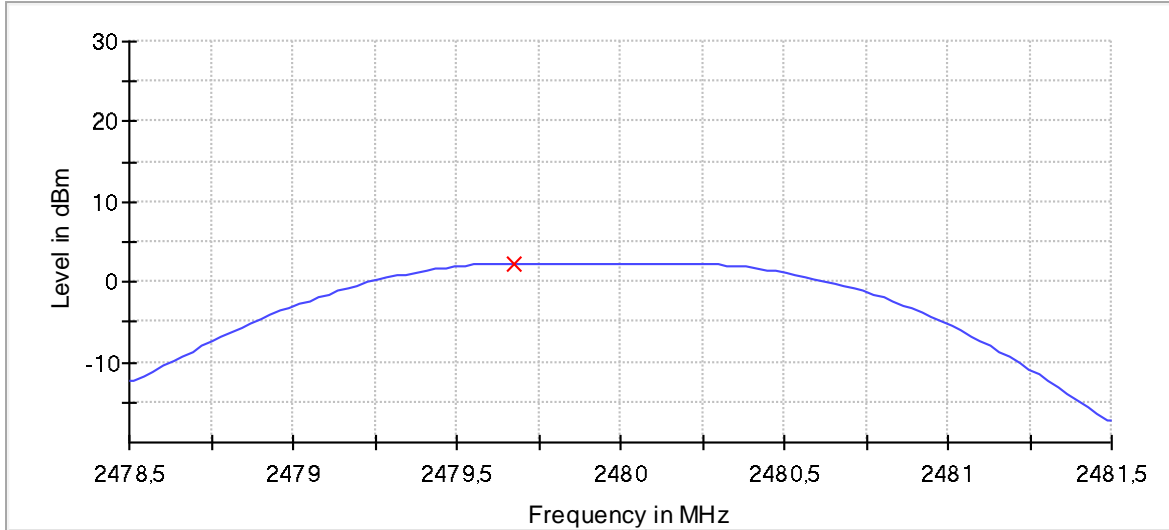
— Connector 1      X Peak Connector 1



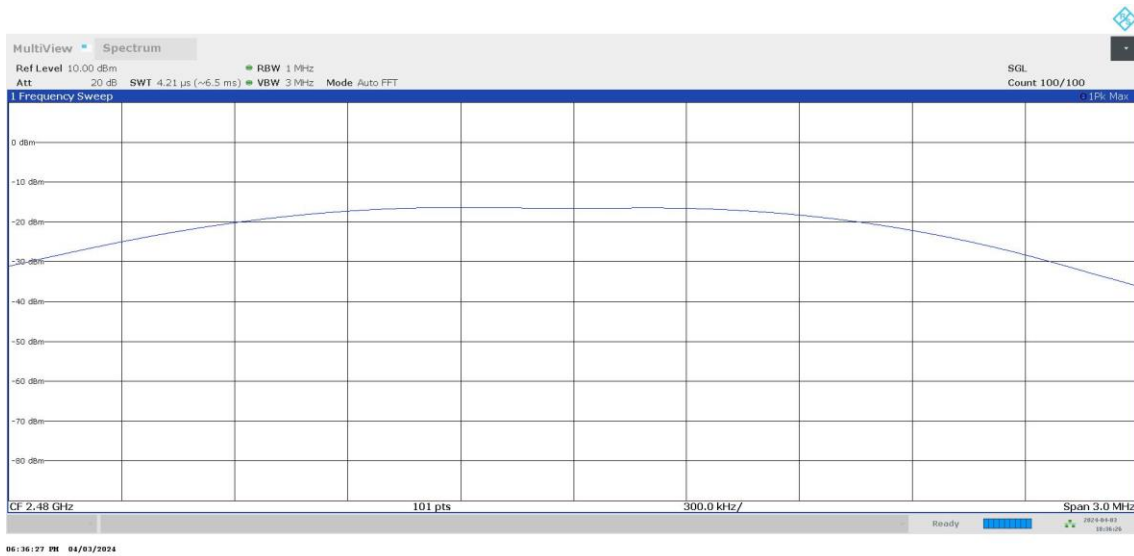
Equipment Type = Digital Transmission System (DTS)    Bandwidth MHz = 1  
 Modulation = BTLE (GFSK 1 Mbit/s)    Frequency MHz = 2480.00000  
 MIMO Mode = SISO    Active Port = 1

Images:

Peak Power



— Connector 1    X Peak Connector 1





## RSS-247 5.5 / FCC 15.247 (d) 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.

Modulation: BTLE (GFSK 1 Mbit/s)

### Results

Freq (MHz)	Freq (MHz)	Lvl (dBm)
2402.00000	2399.275000	-23.4
	2399.225000	-23.6
	2399.325000	-23.8
	2399.175000	-24.1
	2399.375000	-25.0
	2399.425000	-25.6
	2399.125000	-25.6
	2399.925000	-26.3
	2399.475000	-26.6
	2399.975000	-26.6
	2399.875000	-27.0
	2399.075000	-27.3
	2399.525000	-27.6
	2399.825000	-28.4
2399.025000	-29.3	

Freq (MHz)	Freq (MHz)	Lvl (dBm)
2480.00000	2483.525000	-45.8
	2483.925000	-47.5
	2483.975000	-47.5
	2483.575000	-47.9
	2483.625000	-48.2
	2484.025000	-48.2
	2483.725000	-48.9
	2483.675000	-49.0
	2483.775000	-49.2
	2484.375000	-49.2
	2485.225000	-49.3
	2485.175000	-49.4
	2485.125000	-49.5
	2484.325000	-49.6
	2483.875000	-49.7

**Verdict**

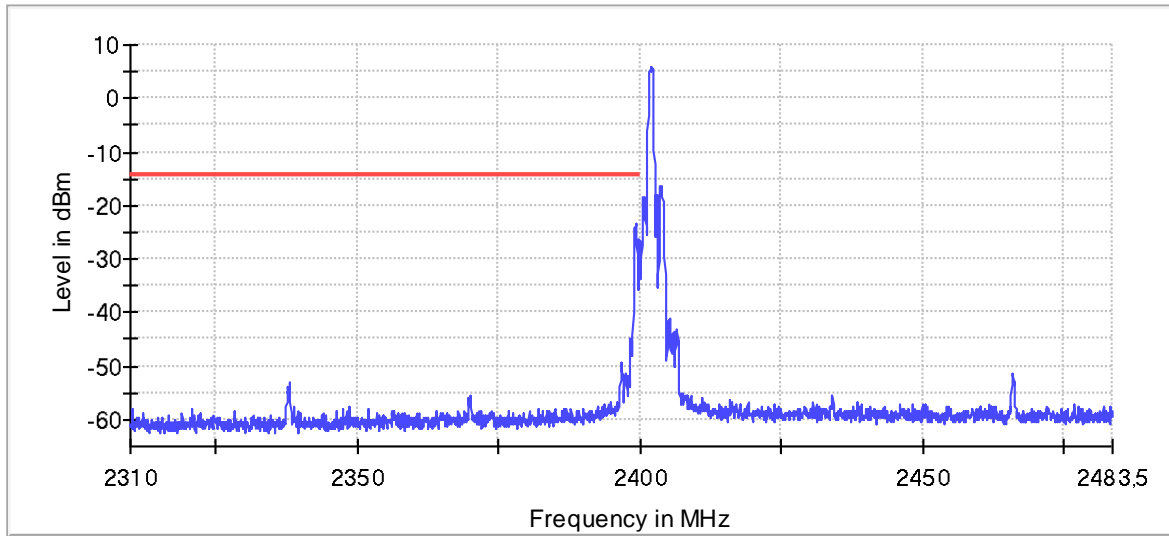
Pass

**Attachments**

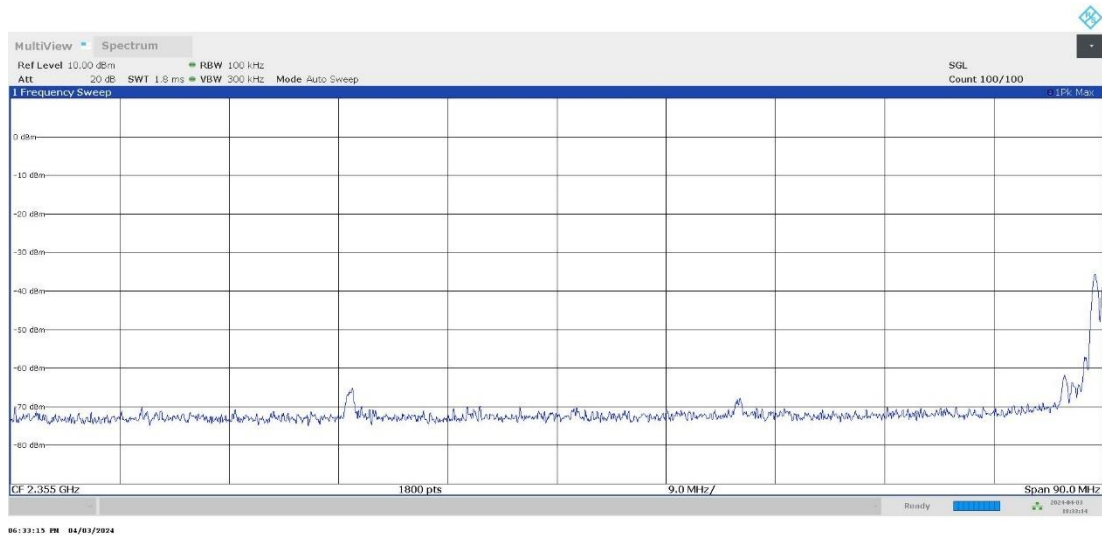
Equipment Type = Digital Transmission System (DTS)    Bandwidth MHz = 1  
 Modulation = BTLE (GFSK 1 Mbit/s)    Frequency MHz = 2402.00000  
 MIMO Mode = SISO    Active Port = 1

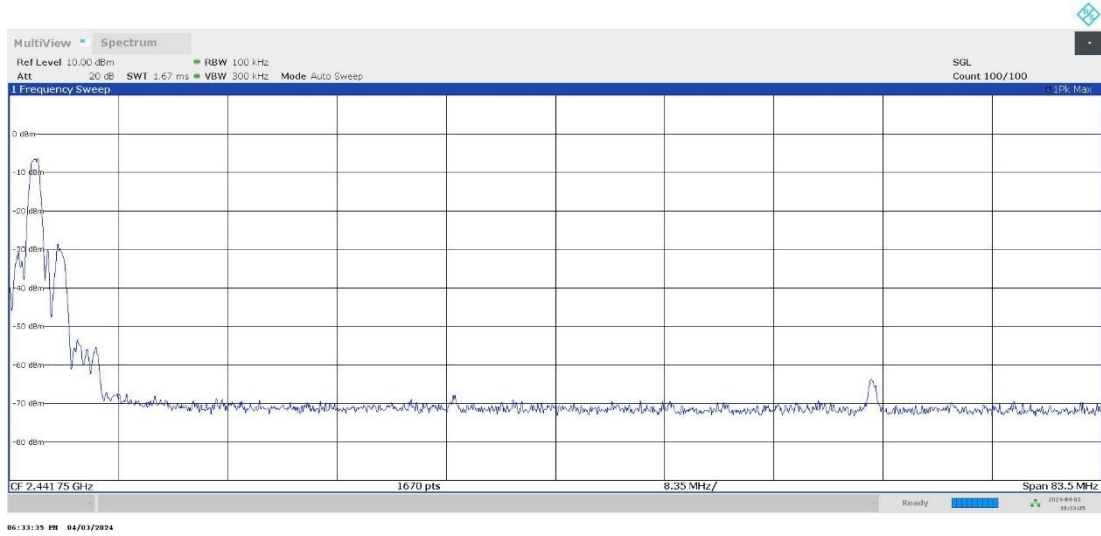
**Images:**

Band Edge



— Limit    — Sum Level    × Fail

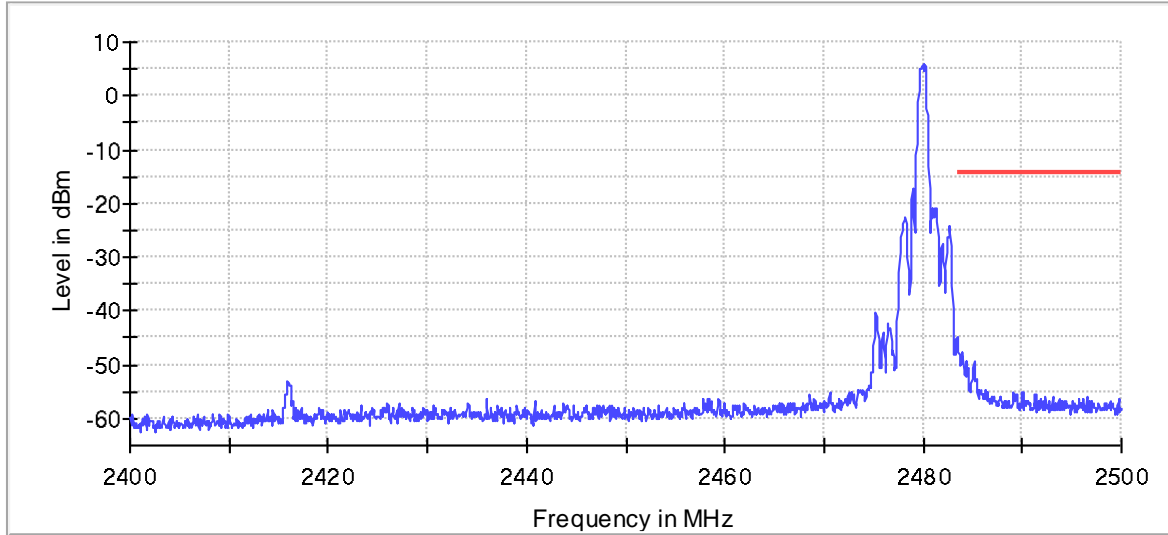




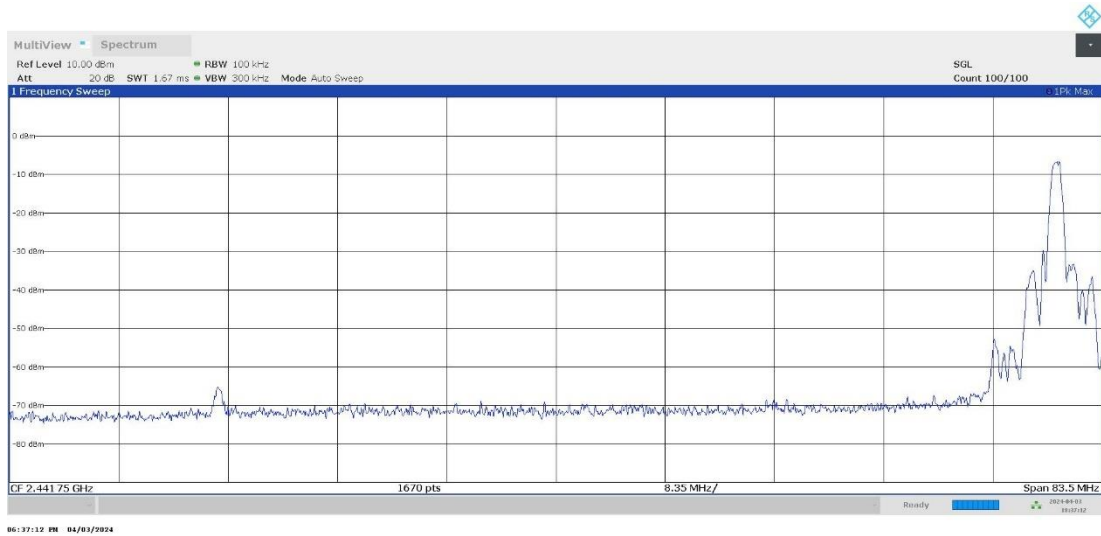
Equipment Type = Digital Transmission System (DTS) Bandwidth MHz = 1  
Modulation = BTLE (GFSK 1 Mbit/s) Frequency MHz = 2480.00000  
MIMO Mode = SISO Active Port = 1

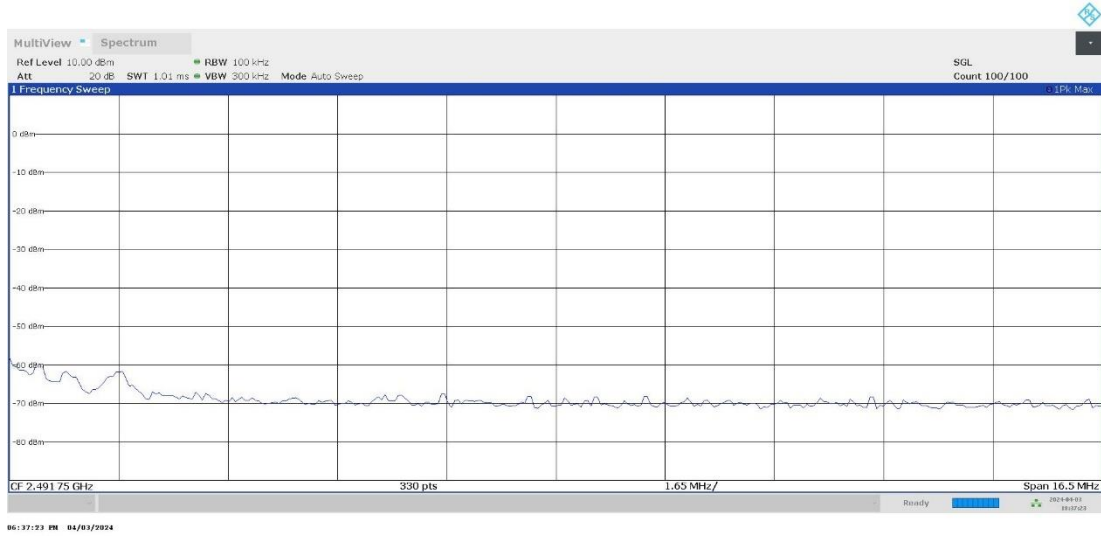
Images:

Band Edge



— Limit — Sum Level × Fail





## 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 (µV/m)	Field strength (dBµV/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
Above 960	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.

Modulation: BTLE (GFSK 1 Mbit/s)

### Results

Freq Rng (GHz)	Equipment	Freq (MHz)	Port	Unwanted Freq (MHz)	Unwanted Lvl (dBµV/m)	PoI	Detector
[0.03, 1]	Digital Transmission System (DTS)	2402.00000	1	199.993	25.02	V	PK
				199.993	22.92	V	QP
				30.340	22.77	V	PK
				30.340	12.88	V	QP
				47.993	22.66	V	PK
				47.993	20.86	V	QP
				479.983	28.74	V	PK
				479.983	24.04	V	QP
				49.837	23.95	V	PK
				49.837	22.45	V	QP
				51.873	21.78	V	PK
				51.873	19.50	V	QP
				54.395	22.91	V	PK
				54.395	19.00	V	QP
				712.443	27.34	V	PK
				712.443	15.84	V	QP
928.851	30.86	V	PK				
928.851	18.36	V	QP				

Freq Rng (GHz)	Equipment	Freq (MHz)	Port	Unwanted Freq (MHz)	Unwanted Lvl (dBµV/m)	PoI	Detector
		2440.00000		199.993	27.20	V	PK
				199.993	25.59	V	QP
				460.001	27.85	V	PK
				460.001	22.00	V	QP
				49.594	23.17	V	PK
				49.594	21.41	V	QP
				50.031	21.34	V	PK
				50.031	19.01	V	QP
				52.116	23.01	V	PK
				52.116	21.06	V	QP
				54.202	24.57	V	PK
				54.202	21.20	V	QP
		930.208		30.21	V	PK	
		930.208		18.60	V	QP	
		199.993		29.98	V	PK	
		199.993		28.88	V	QP	
		31.116		21.69	V	PK	
		31.116		14.09	V	QP	
		479.983		27.14	V	PK	
		479.983		21.24	V	QP	
		50.079		21.89	V	PK	
		50.079		19.47	V	QP	
		56.239		18.61	V	PK	
		56.239		12.34	V	QP	
631.109	31.30	H	PK				
631.109	22.87	H	QP				
942.673	31.14	H	PK				
942.673	18.19	H	QP				
[3, 17]		2402.00000		4803.500	43.10	V	PK
		2440.00000		4881.500	42.23	V	PK
		2480.00000		4957.500	43.31	V	PK

**Verdict**

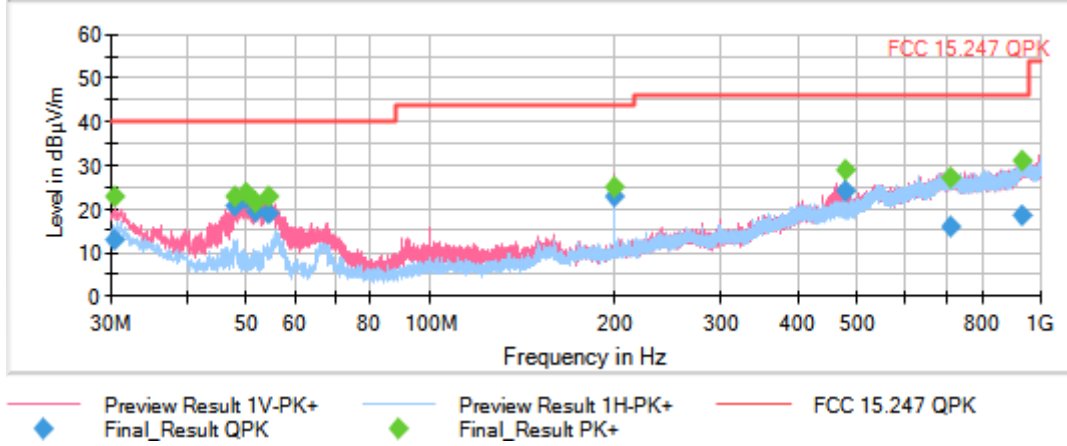
Pass



**Attachments**

Frequency Range GHz = [0.03, 1]      Equipment Type = Digital Transmission System (DTS)  
 Modulation = BTLE (GFSK 1 Mbit/s)      Frequency MHz = 2402.00000  
 MIMO Mode = SISO      Active Port = 1

**Images:**



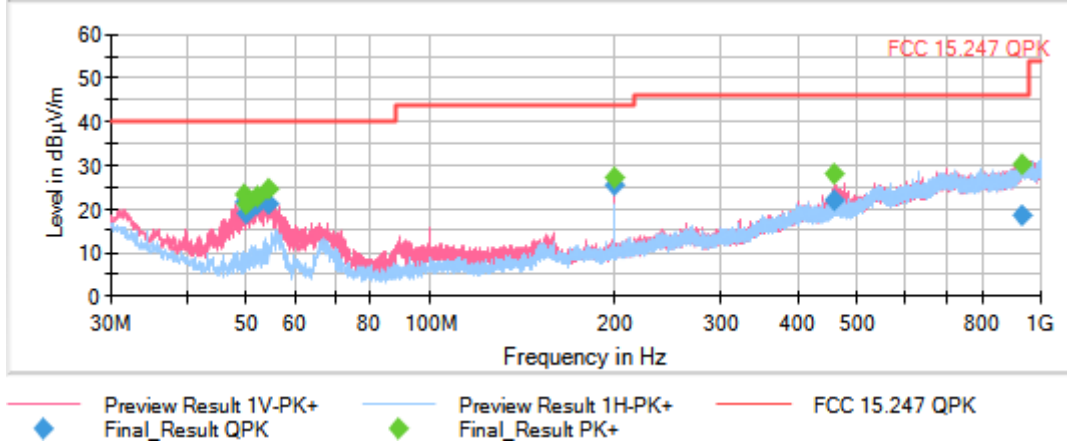
**Tables:**

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESR 7]					
	30 MHz - 1 GHz	48,5 kHz	PK+	100 kHz	1 s	20 dB

Frequency Range GHz = [0.03, 1]      Equipment Type = Digital Transmission System (DTS)  
 Modulation = BTLE (GFSK 1 Mbit/s)      Frequency MHz = 2440.00000  
 MIMO Mode = SISO      Active Port = 1

**Images:**



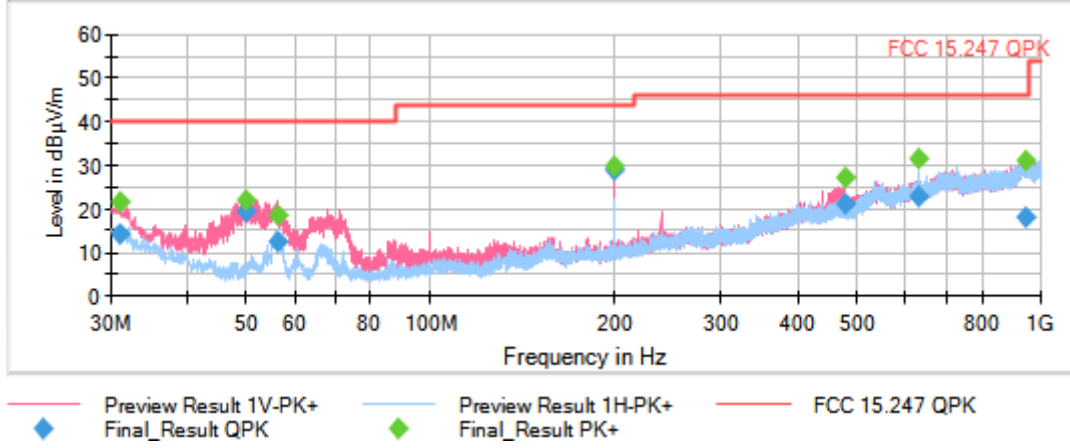
**Tables:**

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESR 7]					
	30 MHz - 1 GHz	48,5 kHz	PK+	100 kHz	1 s	20 dB

Frequency Range GHz = [0.03, 1]      Equipment Type = Digital Transmission System (DTS)  
 Modulation = BTLE (GFSK 1 Mbit/s)      Frequency MHz = 2480.00000  
 MIMO Mode = SISO      Active Port = 1

**Images:**



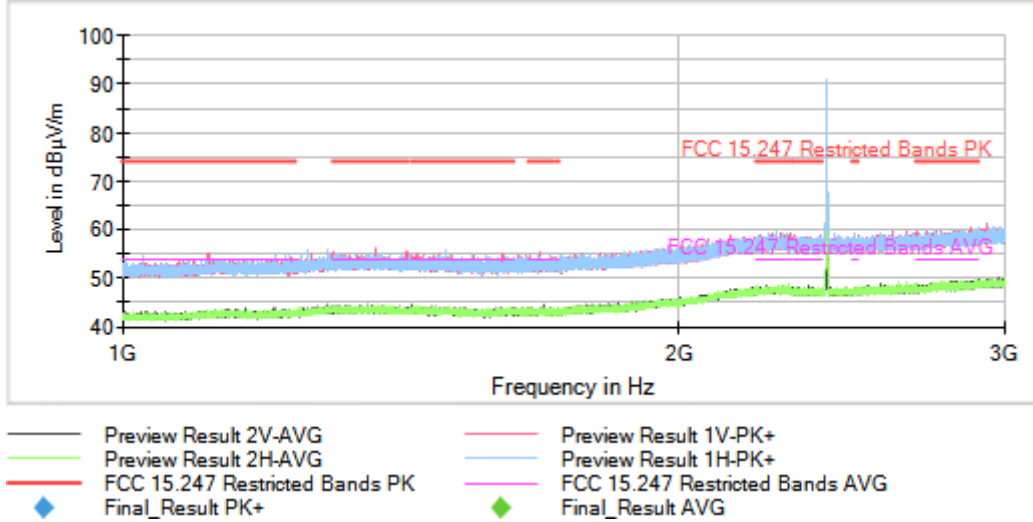
**Tables:**

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESR 7]					
	30 MHz - 1 GHz	48,5 kHz	PK+	100 kHz	1 s	20 dB

Frequency Range GHz = [1, 3]      Equipment Type = Digital Transmission System (DTS)  
 Modulation = BTLE (GFSK 1 Mbit/s)      Frequency MHz = 2402.00000  
 MIMO Mode = SISO      Active Port = 1

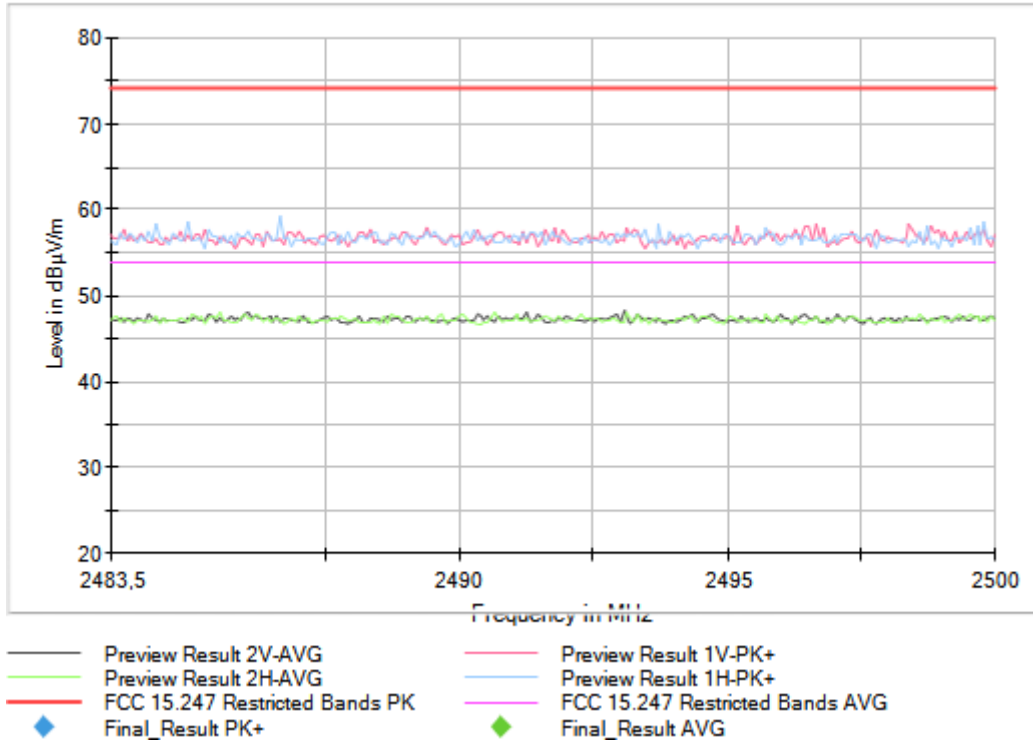
Images:



Full Spectrum



Full Spectrum



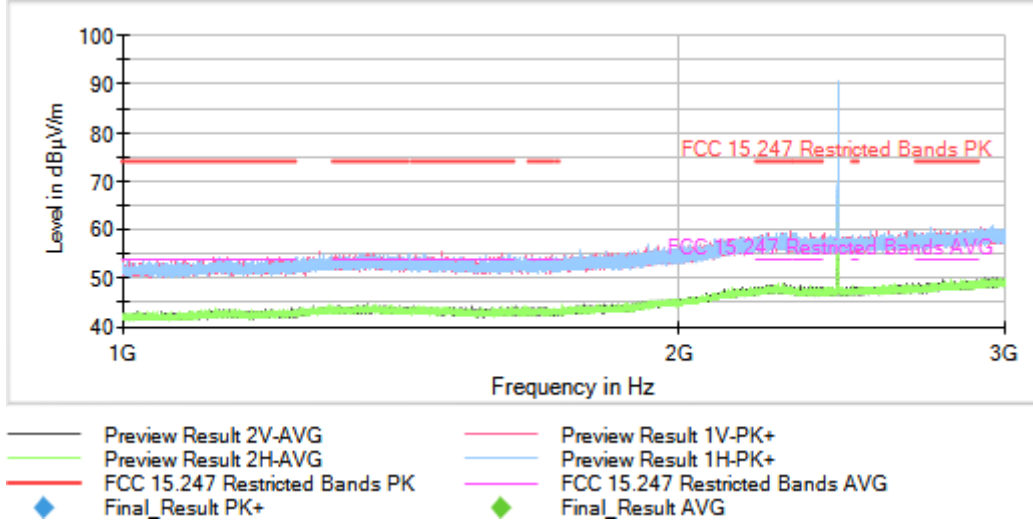
**Tables:**

Spectrum Analyzer Parameters

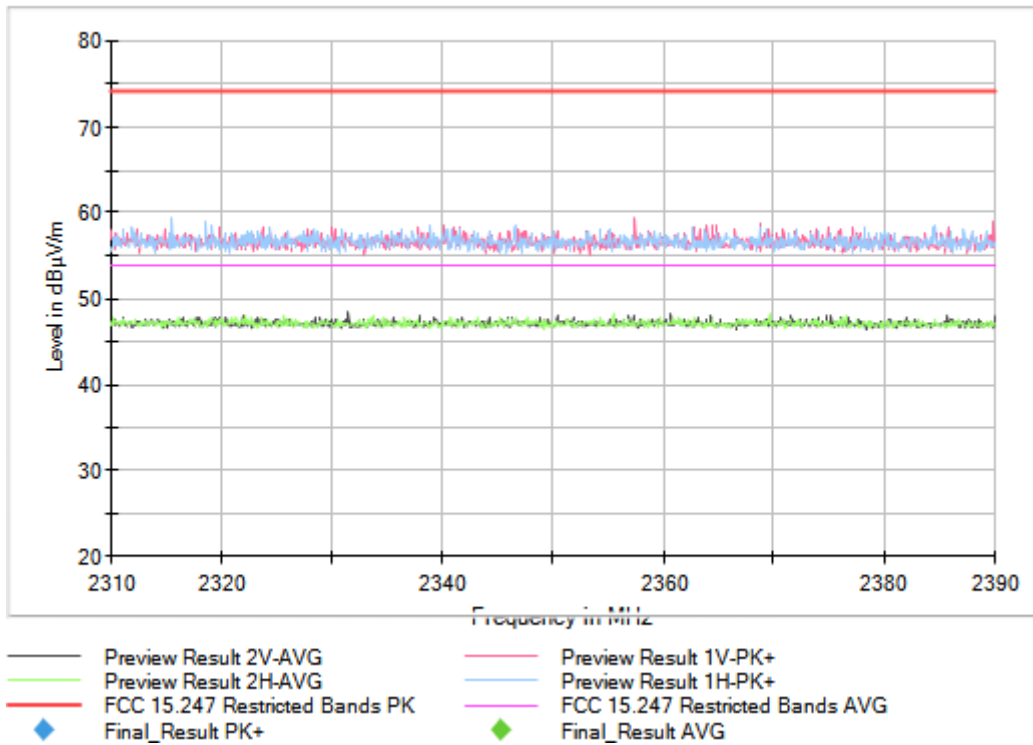
	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 44]					
	1 GHz - 3 GHz	66,667 kHz	PK+ ; AVG	1 MHz	1 s	0 dB

Frequency Range GHz = [1, 3]      Equipment Type = Digital Transmission System (DTS)  
 Modulation = BTLE (GFSK 1 Mbit/s)      Frequency MHz = 2440.00000  
 MIMO Mode = SISO      Active Port = 1

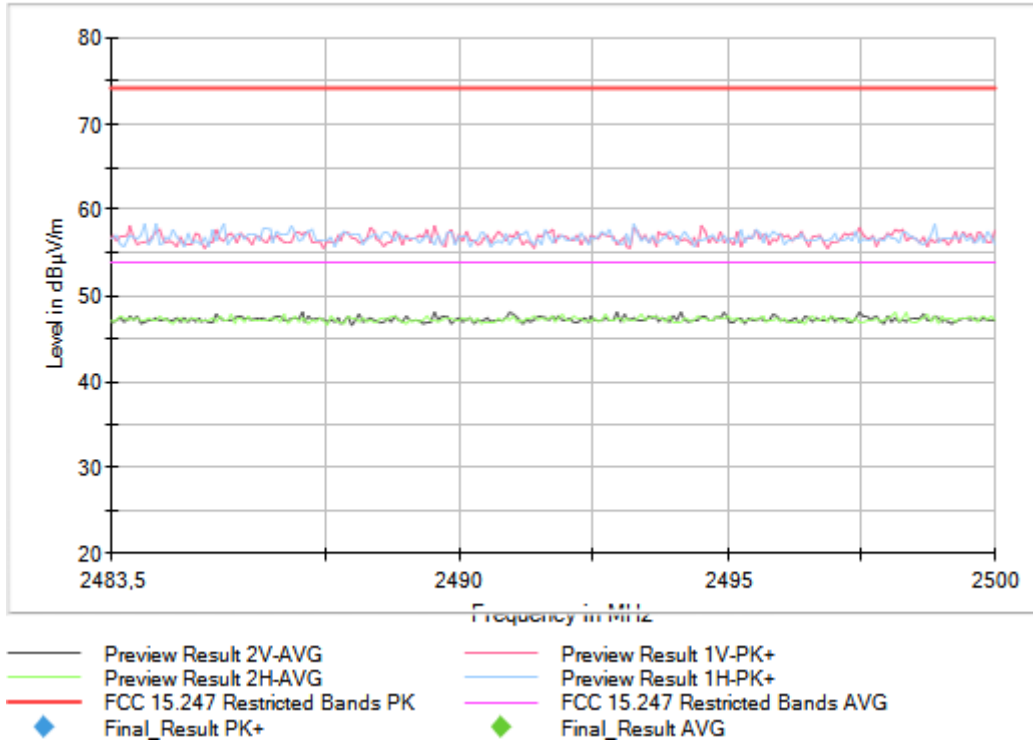
Images:



Full Spectrum



Full Spectrum



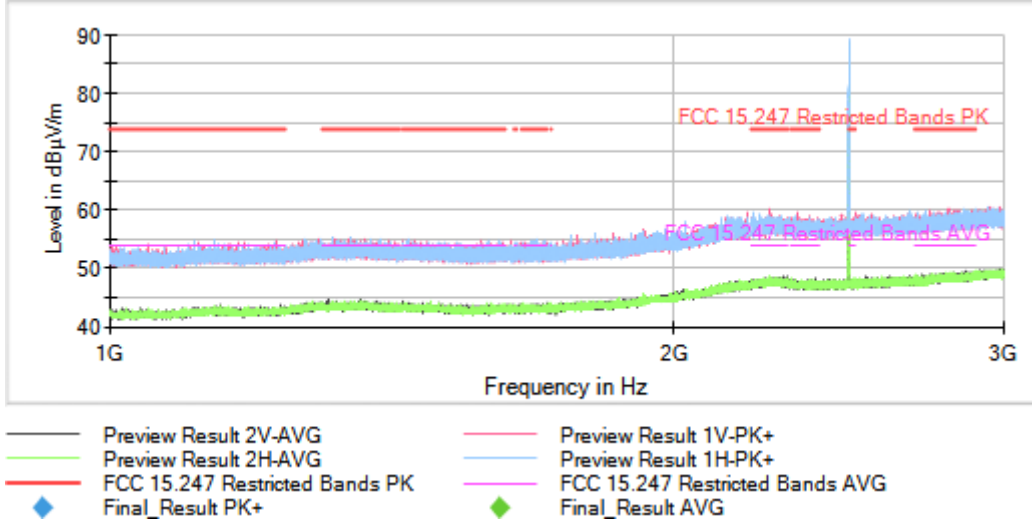
**Tables:**

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 44]					
	1 GHz - 3 GHz	66,667 kHz	PK+ ; AVG	1 MHz	1 s	0 dB

Frequency Range GHz = [1, 3]      Equipment Type = Digital Transmission System (DTS)  
 Modulation = BTLE (GFSK 1 Mbit/s)      Frequency MHz = 2480.00000  
 MIMO Mode = SISO      Active Port = 1

Images:



Full Spectrum





Full Spectrum



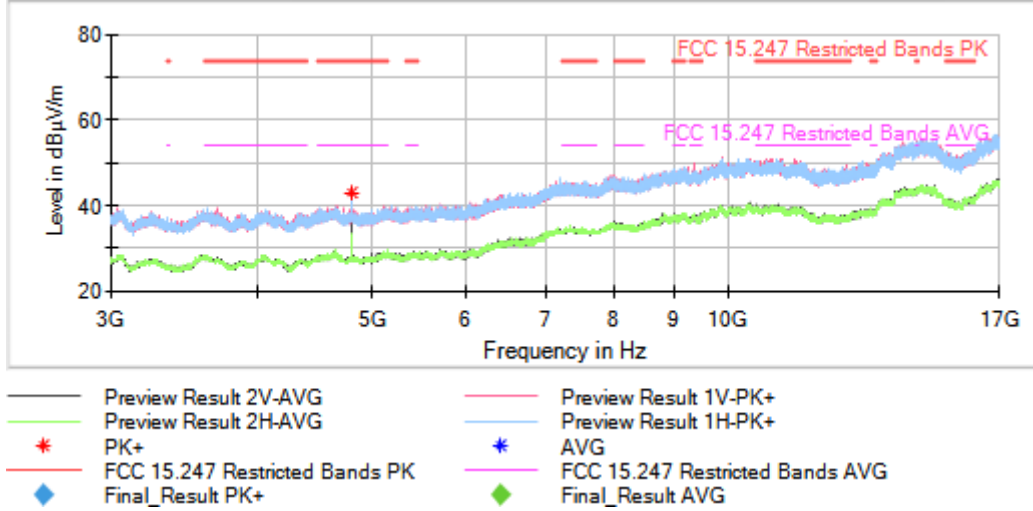
**Tables:**

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 44]					
	1 GHz - 3 GHz	66,667 kHz	PK+ ; AVG	1 MHz	1 s	0 dB

Frequency Range GHz = [3, 17]      Equipment Type = Digital Transmission System (DTS)  
 Modulation = BTLE (GFSK 1 Mbit/s)      Frequency MHz = 2402.00000  
 MIMO Mode = SISO      Active Port = 1

**Images:**



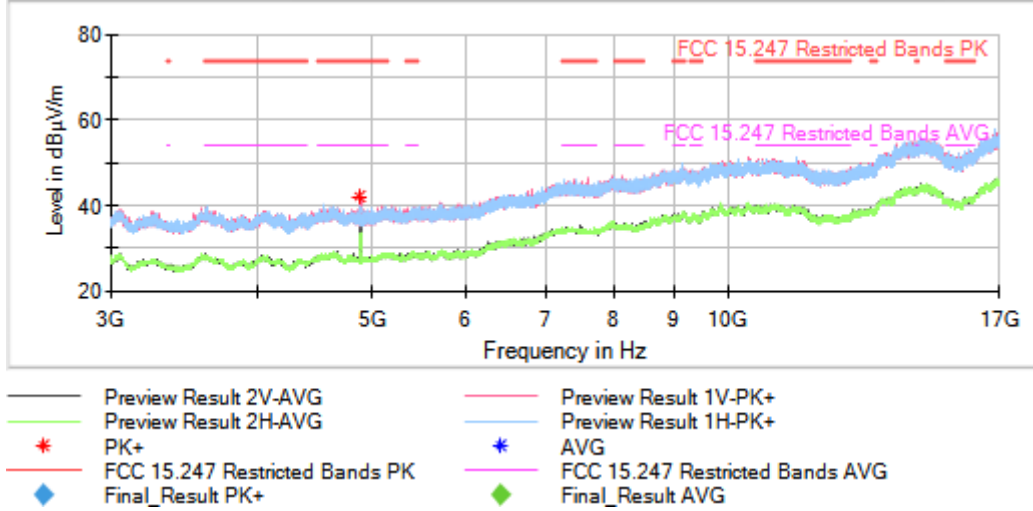
**Tables:**

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 44]					
	3 GHz - 17 GHz	500 kHz	PK+ ; AVG	1 MHz	1 s	0 dB

Frequency Range GHz = [3, 17]      Equipment Type = Digital Transmission System (DTS)  
 Modulation = BTLE (GFSK 1 Mbit/s)      Frequency MHz = 2440.00000  
 MIMO Mode = SISO      Active Port = 1

**Images:**



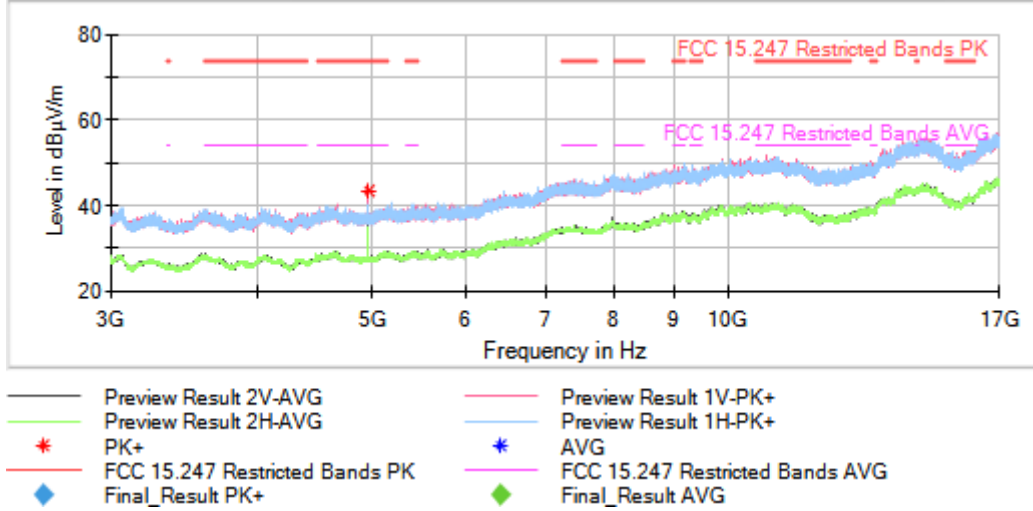
**Tables:**

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 44]					
	3 GHz - 17 GHz	500 kHz	PK+ ; AVG	1 MHz	1 s	0 dB

Frequency Range GHz = [3, 17]      Equipment Type = Digital Transmission System (DTS)  
 Modulation = BTLE (GFSK 1 Mbit/s)      Frequency MHz = 2480.00000  
 MIMO Mode = SISO      Active Port = 1

**Images:**



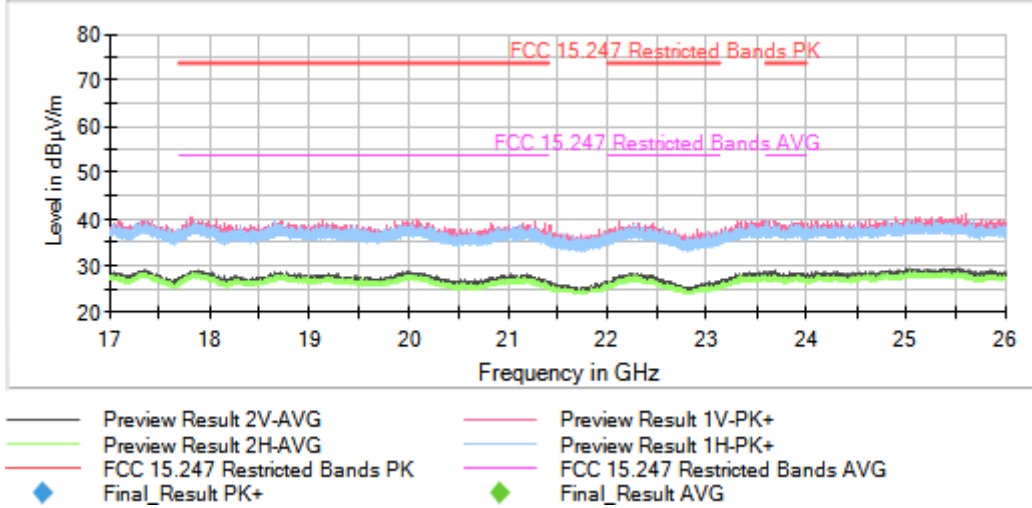
**Tables:**

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 44]					
	3 GHz - 17 GHz	500 kHz	PK+ ; AVG	1 MHz	1 s	0 dB

Frequency Range GHz = [17, 26]      Equipment Type = Digital Transmission System (DTS)  
 Modulation = BTLE (GFSK 1 Mbit/s)      Frequency MHz = 2402.00000  
 MIMO Mode = SISO      Active Port = 1

**Images:**



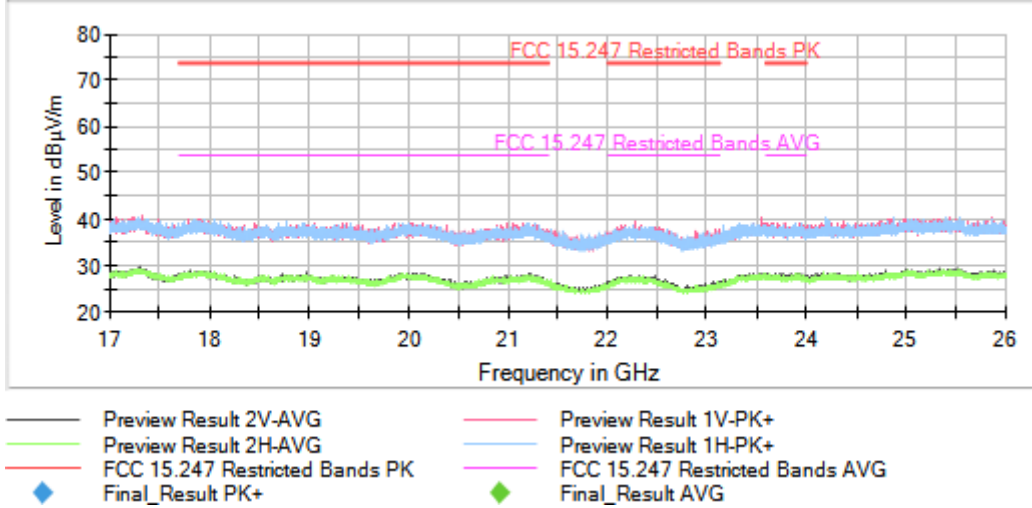
**Tables:**

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 44]					
	17 GHz - 26 GHz	500 kHz	PK+ ; AVG	1 MHz	1 s	0 dB

Frequency Range GHz = [17, 26]      Equipment Type = Digital Transmission System (DTS)  
 Modulation = BTLE (GFSK 1 Mbit/s)      Frequency MHz = 2440.00000  
 MIMO Mode = SISO      Active Port = 1

**Images:**



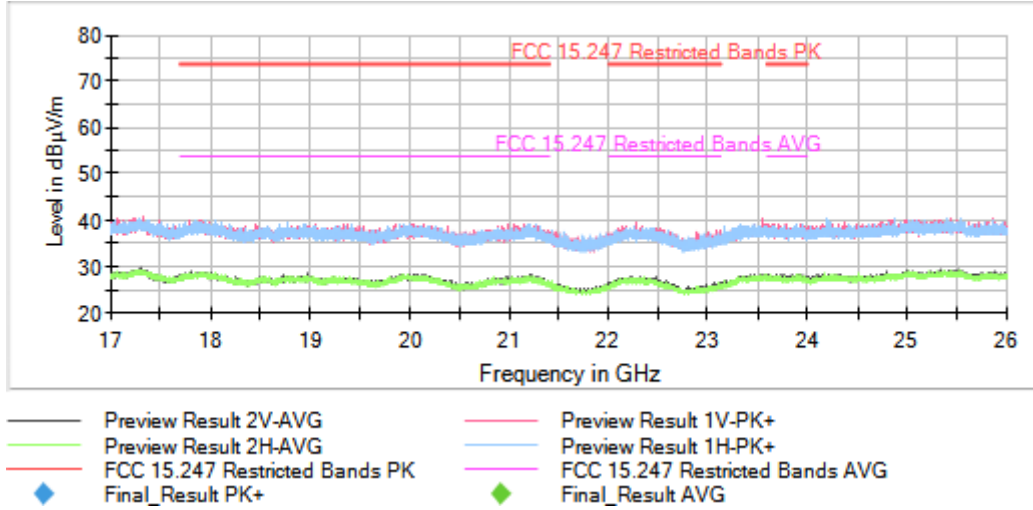
**Tables:**

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 44]					
	17 GHz - 26 GHz	500 kHz	PK+ ; AVG	1 MHz	1 s	0 dB

Frequency Range GHz = [17, 26]      Equipment Type = Digital Transmission System (DTS)  
 Modulation = BTLE (GFSK 1 Mbit/s)      Frequency MHz = 2480.00000  
 MIMO Mode = SISO      Active Port = 1

**Images:**



**Tables:**

Spectrum Analyzer Parameters

	Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
	Receiver: [ESW 44]					
	17 GHz - 26 GHz	500 kHz	PK+ ; AVG	1 MHz	1 s	0 dB