

TEST REPORT

Ref. n.	FCCTR_187783-3	Issue Date:	17/09/2026	Pages:	48
Test object	Type test according to Standards 47 CFR FCC Part 15 Subpart C §15.249				
Applicant	Datamars SA Via Industria 16 - 6184 Lamone - Switzerland				
Trade mark					
Manufacturer	Datamars SA				
Product	Active collar TAG				
Tested model	COLLARTAG-1				
FCC Identification number	NDX-COLLARTAG				
Date of test samples receipt	12/05/2026				
No. of tested samples	1 – Sampled by the Manufacturer				
Test date	From 12/05/2026 to 27/05/2026				
Testing site	PRSLAB S.r.l. Unipersonale - Via Campagna 92 - 22020 Faloppio - Como - Italy				
FCC designation number	IT0012				
Test results	PASS				
Verifications carried out by	Daniele Aosani Laboratory Engineer				
Approved by	Luana Parisi Reviewer				

The test results reported in this test report shall refer only to the samples tested.

The sample has been provided by the customer and the results apply to the sample as received.

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PRS refuses any responsibility about information provided by the customer contained in this test report.

Any not Accredited test methods are clearly identified in the test report.

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0. RELEASE CONTROL RECORD

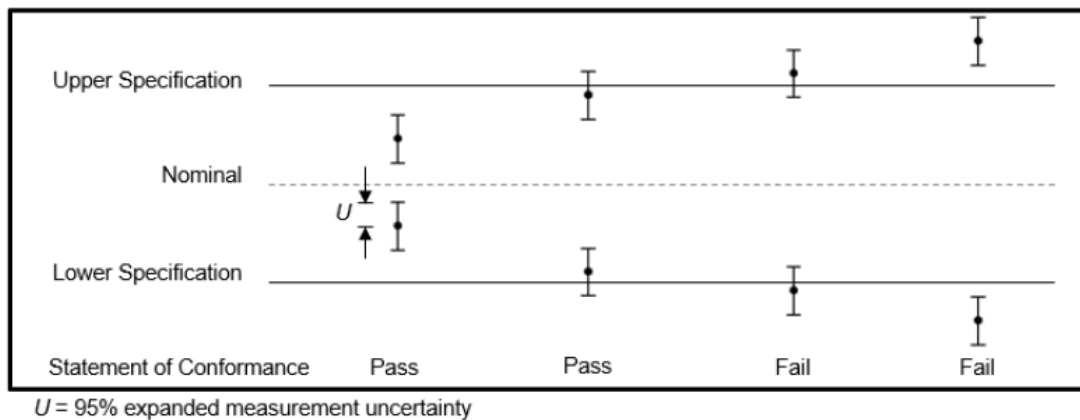
TEST REPORT NUMBER	REASON OF CHANGE	DATE OF ISSUE
FCCTR_187783-0	Original release	23/06/2026
FCCTR_187783-1	Correct antenna gain	09/07/2026
FCCTR_187783-2	Corrected references to ANSI C63.10 in the tests	10/09/2026
FCCTR_187783-3	Added table value on page 44	17/09/2026

This document is valid in last revision that deletes and replaces the previous one

1. DECISION RULE

PRS LAB specifies that, if the decision rules of conformity of the test results are not indicated in detail in the standard/s object of tests, it takes as a decision rule for the declaration of conformity the simple binary system ($w = 0$) stated in the ILAC-G8-09:2019 document.

The decision rule is applicable for all parts of standard



Statements of conformity are reported as:

- Pass: the measured value is below the acceptance limit, $AL=TL$.
- Fail: the measured value is above the acceptance limit, $AL=TL$.

Definitions

- Guard Band (w): interval between a tolerance limit and a corresponding acceptance limit where length $w=|TL-AL|$.
- Tolerance Limit (TL) (Specification Limit): specified upper or lower bound of permissible values of a property.
- Acceptance Limit (AL): specified upper or lower bound of permissible measured quantity values.

2. INFORMATION PROVIDED BY CUSTOMER

- None

3. GENERAL REMARKS

- EUT was provided with external serial port used to set radio channels, this cable is not present in the final EUT.

4. TECHNICAL INFORMATION OF EQUIPMENT UNDER TEST (EUT)

4.1 EUT Identification

DESCRIPTION	Active collar TAG
MODEL NAME	COLLARTAG-1
FCC ID	NDX-COLLARTAG
NODE ID	17435
PRS LAB INTERNAL REFERENCE	BC 128/2026 1/14
TRADEMARK	Tru-Test™ DATAMARS
MANUFACTURER	Datamars SA
COUNTRY OF MANUFACTURER	Switzerland
SINGLE UNIT OR SYSTEM	Single
POWER SOURCE	Internal battery model LS14500 manufactured by SAFT
POWER SUPPLY NOMINAL VOLTAGE	3.6Vdc
MAX ABSORBED CURRENT OR MAX POWER	NA
OPERATING TEMPERATURE	-10°C ÷ +55°C
FIRMWARE VERSION (Information provided by Customer)	2.6.8
HARDWARE VERSION (Information provided by Customer)	V1.1.1 (HW21)
DIMENSIONS	See photographic documentation
EUT STANDING	☐ WALL; ☐ CEILING; ☐ TABLE; ☐ FLOOR; ☐ RACK MOUNTED; ☐ BODY WORN; ☐ HANDELD; ☐ PORTABLE; ☐ MOBILE; ☐ VEHICLE; ☒ LIVESTOCK
HIGHEST INTERNAL FREQUENCY (Information provided by Customer)	☐ <108MHz; ☐ 108MHz<F<500MHz; ☐ 500MHz<F<1GHz; ☒ F>1GHz
ANCILLARY EQUIPMENT	☐ YES; ☒ NO
ENVIROMENT (According to ETSI EN 301 489-1 V2.2.3)	☐ FIXED-USE; ☐ VEHICLE USE; ☒ PORTABLE USE

4.2 Radio module technical data

CHIP MANUFACTURER	 SEMTECH
MODEL NAME	SX1280
ETS CATEGORY	Short Range Device
TYPE OF RADIO DEVICE	TX only
FREQUENCY BAND	2402 ÷ 2480MHz
NUMBER OF CHANNELS	40
CHANNEL BANDWIDTH	1.2MHz
CHANNEL SPACING	2MHz
TYPE OF MODULATION	GFSK
TRANSFER RATE	2 Mbps
ANTENNA TYPE (Information provided by Customer)	PCB Antenna
ANTENNA GAIN (Information provided by Customer)	0dBi

4.3 Ports identification

	PORT	DESCRIPTION	CONNECTION	NOTES
☒	Enclosure port	Plastic	Snap	---
☐	AC mains power port	Port not present	---	---
☒	DC power port	Internal battery		
☐	Wired network port	Port not present	---	---
☐	Signal/control port	Port not present	---	---
☒	Antenna port	☒ Internal; ☐ External	---	---

Note: During the tests all cables must be what provided the manufacturer or the same that used in the real employment of the EUT.

4.4 Modifications incorporated in E.U.T.

The following items are the modifications introduced in the equipment under test:

- None

4.5 Auxiliary equipment

- Laboratory laptop used to set radio channels.

5. OPERATING MODES AND TEST CONDITIONS

In the following table there are the operating conditions adopted during tests identified by an indicator (#) at which has been referred the item "Operating condition of the equipment under test"

OPERATING CONDITION	DESCRIPTION
#1	Continuous transmission, modulated carrier at low channel 2402MHz
#2	Continuous transmission, modulated carrier at mid channel 2440MHz
#3	Continuous transmission, modulated carrier at high channel 2480MHz

Special Test Software: Special software by the Applicant to operate the EUT at each channel frequency continuously. For example, the transmitter will be operated at each of the lowest, middle and highest frequencies individually continuously during testing.

Special Hardware Used: None

Transmitter Test Antenna: The EUT was tested with one antenna mounted in a typical manner for its normal intended use as external antenna equipment.

6. REFERENCE STANDARDS

REFERENCE STANDARD	DESCRIPTION
47 CFR FCC Part 15 Subpart C §15.249	Radio Frequency Devices – Intentional Radiators Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHz, and 24.0-24.25 GHz.
ANSI C63.10:2020	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
ANSI C63.4:2014	American National Standard for Methods of Measuring of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz – 40 GHz

7. UNITS OF MEASUREMENTS

Conducted EMI Data is in dBμV; dB referenced to one microvolt

Radiated EMI Data is in dBμV/m; dB/m referenced to one microvolt per meter

Sample Calculation:

RFS = Radiated Field Strength,

FSM = Field Strength Measured,

A.F. = Receive antenna factor,

Gain = amplification gains and/or cable losses.

$RFS (dB\mu V/m @ 3m) = FSM (dB\mu V) + A.F. (dB/m) - Gain (dB)$

8. SUMMARY OF TEST RESULTS

EUT PORT	DESCRIPTION OF PHENOMENA	BASIC STANDARD	OPERATING CONDITION ¹	RESULTS
Antenna port	Antenna requirement	FCC Part 15 §15.203	---	PASS
	Transmitter Radiated Emissions <1GHz	FCC Part 15 § 15.249 (a) & § 15.209 (a)	#1, #2, #3	PASS
	Transmitter Radiated Emissions >1GHz	FCC Part 15 § 15.249 (a) & § 15.209 (a)	#1, #2, #3	PASS
	Band Edge	FCC Part 15 §15.249(d) & §15.209(a)	#1, #3	PASS
	20dB Bandwidth	FCC Part 15 §15.215(c)	#1, #2, #3	PASS
AC main ²	Conducted emission	Title 47 Part 15 Subpart C § 15.207	Not Applicable ²	

Note: ¹ Ref. Tab. Of Section 5¹

² Port not present, EUT is battery powered

9. TESTS RESULTS

ANTENNA REQUIREMENTS	10
TRANSMITTER RADIATED EMISSIONS < 1GHz	11
TRANSMITTER RADIATED EMISSIONS > 1GHz	22
BAND EDGE	42
20dB CHANNEL BANDWIDTH	45

TEST 1.	ANTENNA REQUIREMENTS
REFERENCE DOCUMENT	According to §15.203 / 15.204 An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sec. 15.211, Sec. 15.213, Sec. 15.217, Sec. 15.219, or Sec. 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Sec. 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded

Antenna Requirements
The EUT has PCB printed antenna and uses a proprietary coupling, ensuring compliance with the requirements.
RESULT: PASS

TEST 2.	TRANSMITTER RADIATED EMISSIONS < 1GHZ
REFERENCE DOCUMENT	According to § 15.249 (d) and § 15.209 (a) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

• TEST LOCATION	Semi-Anechoic Chamber					
• DISTANCE OF MEASUREMENT	3m					
• TYPE OF MEASUREMENT	Radiated					
• TEST EQUIPMENT USED FOR TEST	Instrument	Manufacturer	Model	Serial n°	Calibrated On	Due to
	MXE Emi Receiver	Keysight	N9038A	MY57290150	01/2026	01/2027
	Semi-Anechoic Chamber	Siemens	B83117-D6019-T232	003-005-134/94C	02/2026	02/2027
	Loop antenna	Rohde & Schwarz	HFH 2-Z2	841801/012	01/2025	01/2028
	Bi-log antenna	Chase	CBL6111C	2717	06/2025	06/2028
	Software EMC	Rohde & Schwarz	EMC32-E	V 8.40.0	N.A.	
• TESTED PORT	Enclosure					
• TEST METHOD	ANSI C63.10:2020 section 6.5 and 6.10					
• FREQUENCY RANGE	9kHz – 1GHz					
• LIMITS	Acc. To ref. Std.					
• UNCERTAINTY OF MEASURE	Level of confidence = 95% (k=2) Expanded uncertainty 9kHz – 30MHz = 3.85dB Expanded uncertainty 30MHz – 1GHz = 5.96dB					

TEST CONDITIONS	REQUIRED	MEASURED
Ambient temperature	23°C ± 5°C	23°C
Ambient humidity	25 - 75%rH	39%
Pressure	86 - 106kPa (860mbar - 1060mbar)	1012mbar

OPERATING CONDITION: #1, #2, #3

RESULT: PASS

MEASUREMENT PARAMETER

Frequency Range:	9kHz – 30MHz	30MHz – 1GHz
Resolution bandwidth:	200Hz	100kHz
Video bandwidth:	1kHz	300kHz
Span:	See plots below	See plots below
Sweep time	Auto couple	Auto couple
Detector:	Peak	Peak
Trace-Mode:	Max. hold	Max. hold

TEST DESCRIPTION

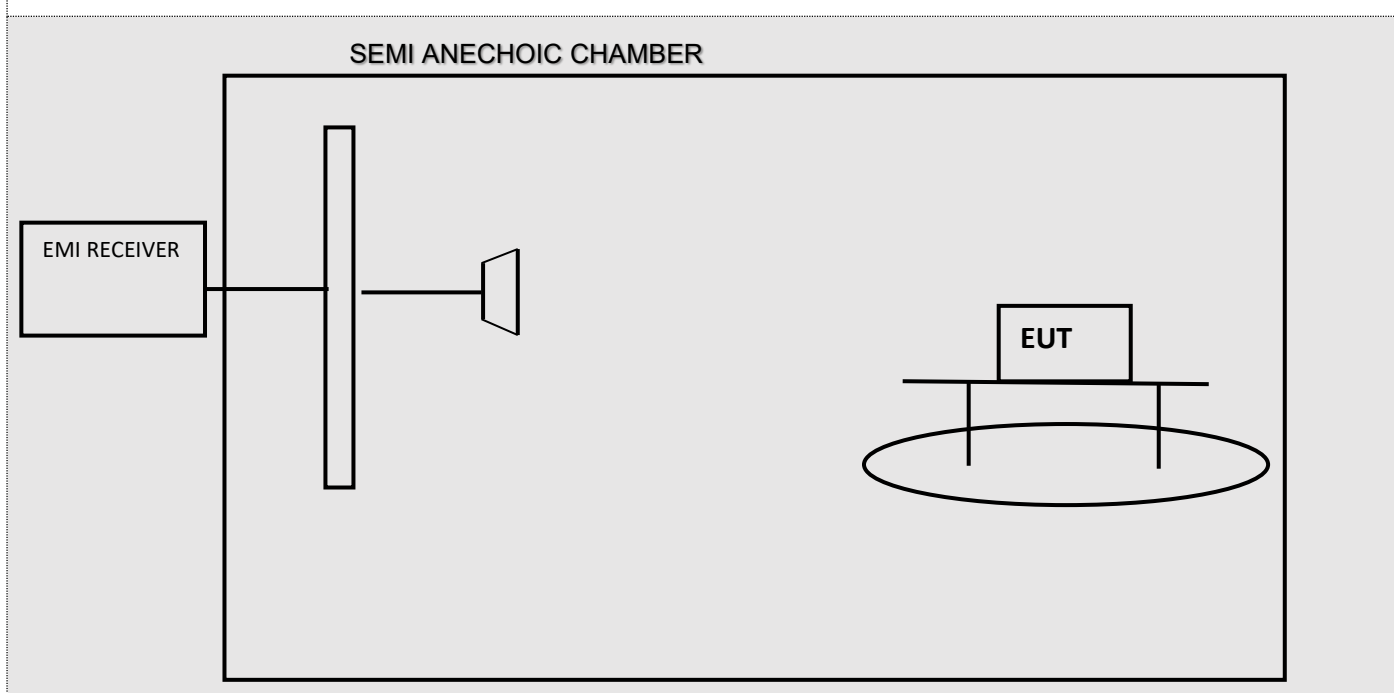
Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously - rotating, remotely - controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency.

The EUT is placed at test table height is 80 cm above the reference ground plane.

Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m~4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3m.

This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

TEST SETUP BLOCK DIAGRAM

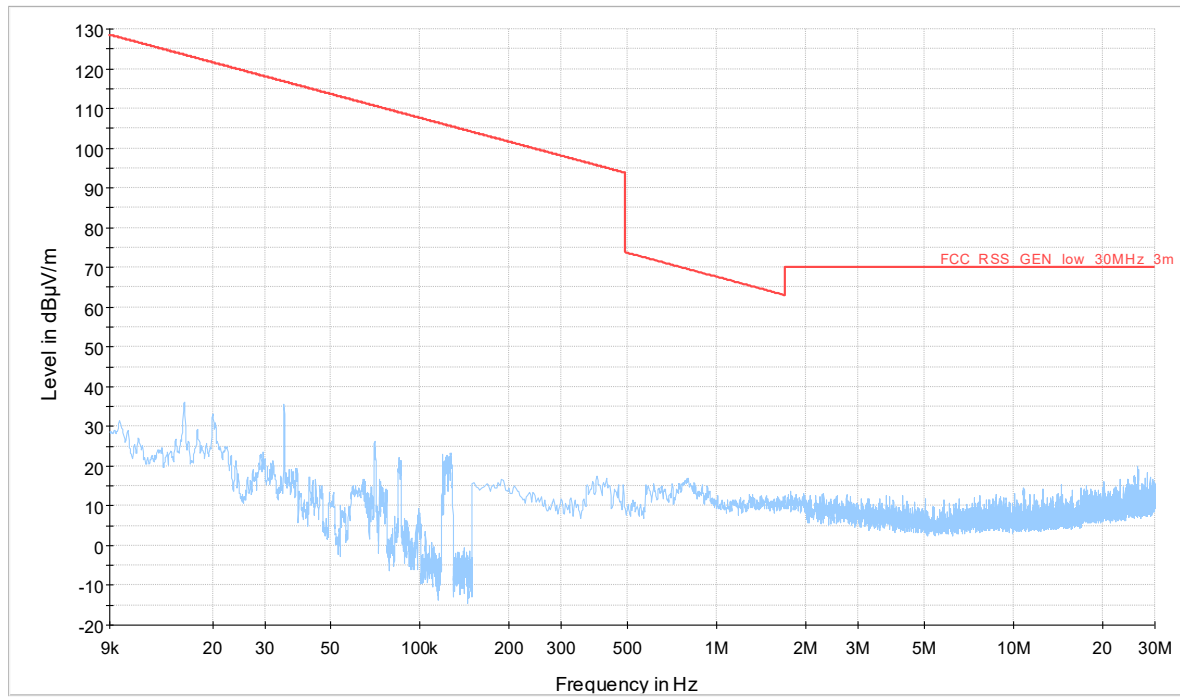


TEST RESULTS

Channel 1 – 2402MHz

RX Antenna Polarization: ---

Frequency Range: 9kHz – 30MHz

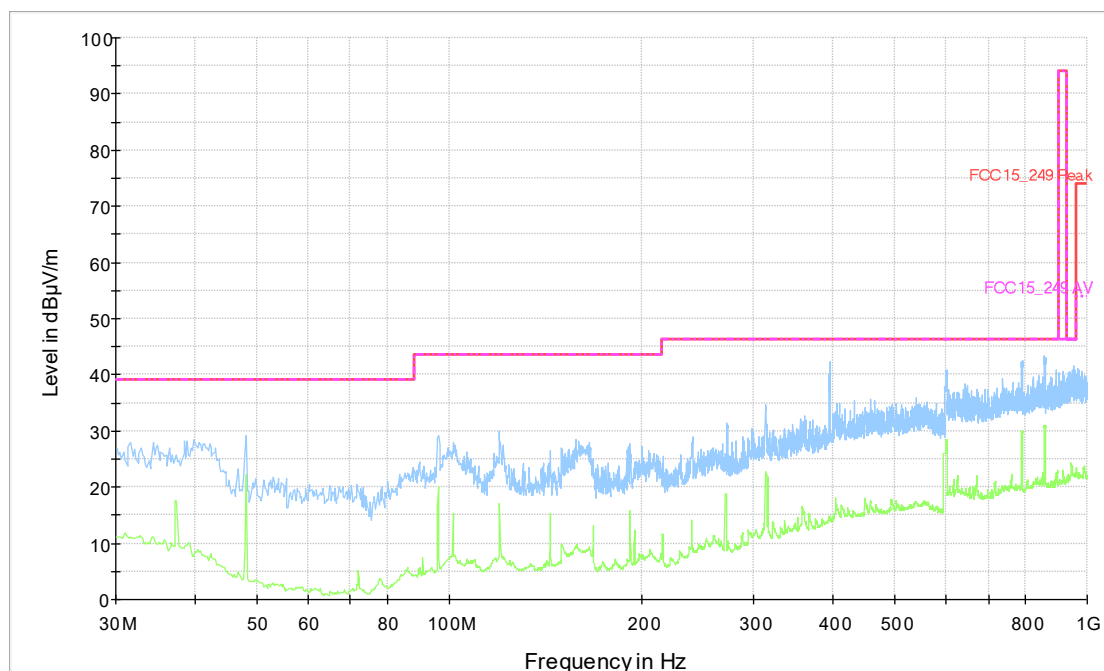


Final Result:

All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

RX Antenna Polarization: Vertical

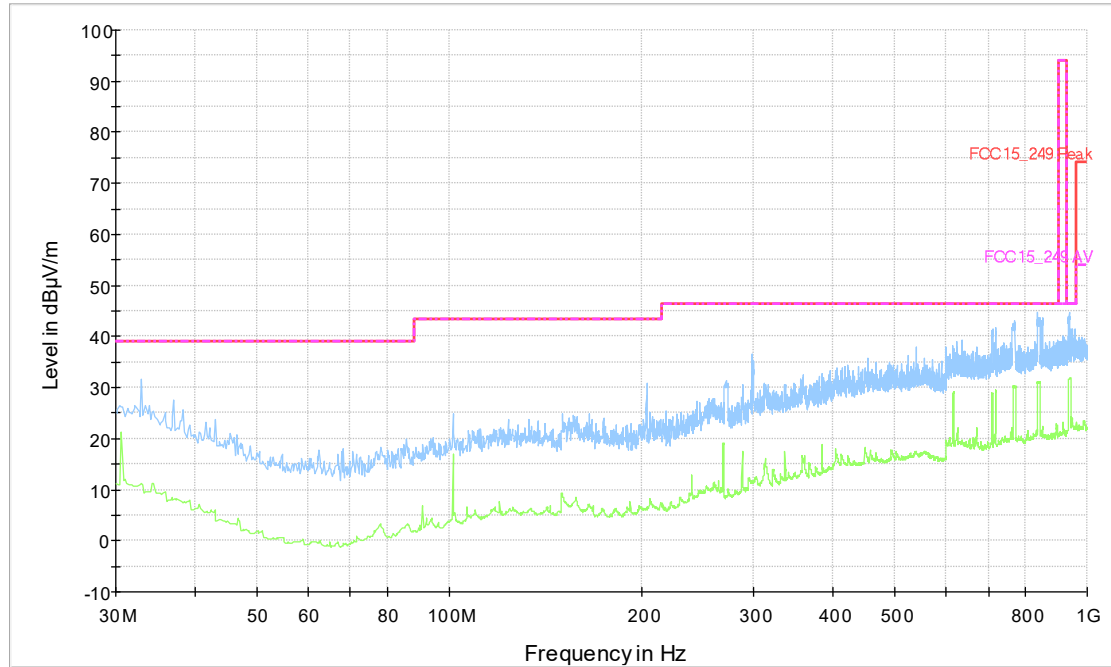
Frequency Range: 30MHz – 1GHz



Final Result:

RX Antenna Polarization: Horizontal

Frequency Range: 30MHz – 1GHz

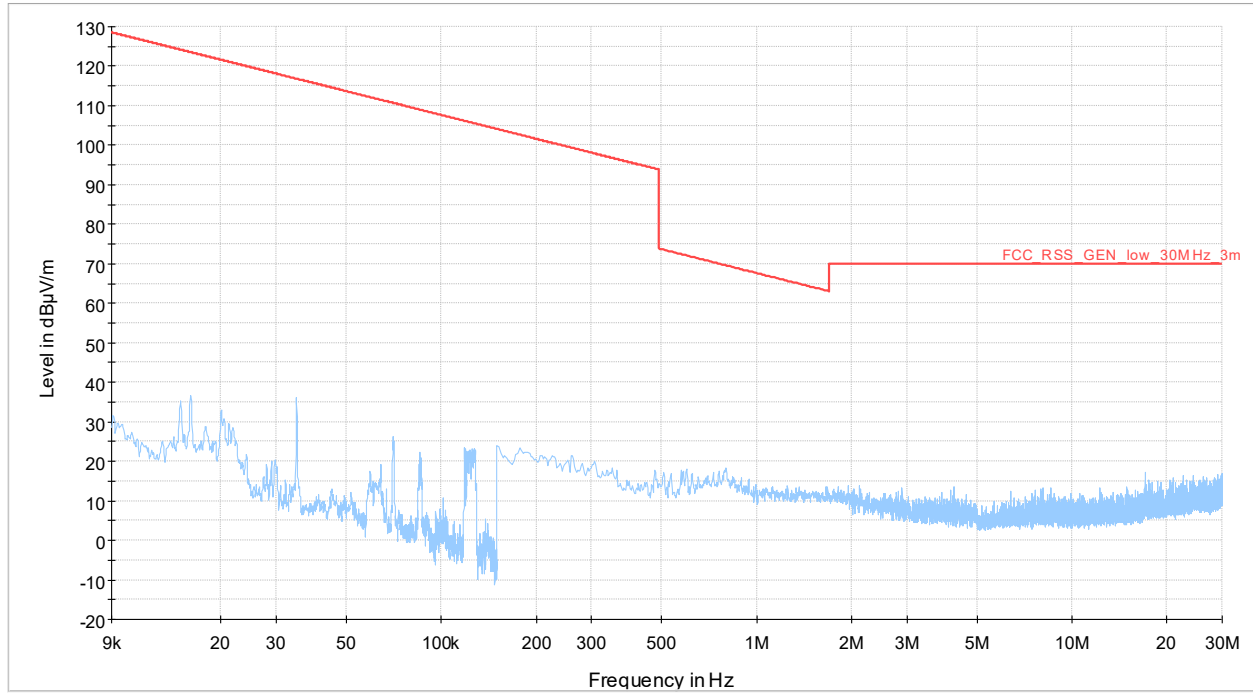


Final Result:

Channel 20 – 2440MHz

RX Antenna Polarization: ---

Frequency Range: 9kHz – 30MHz

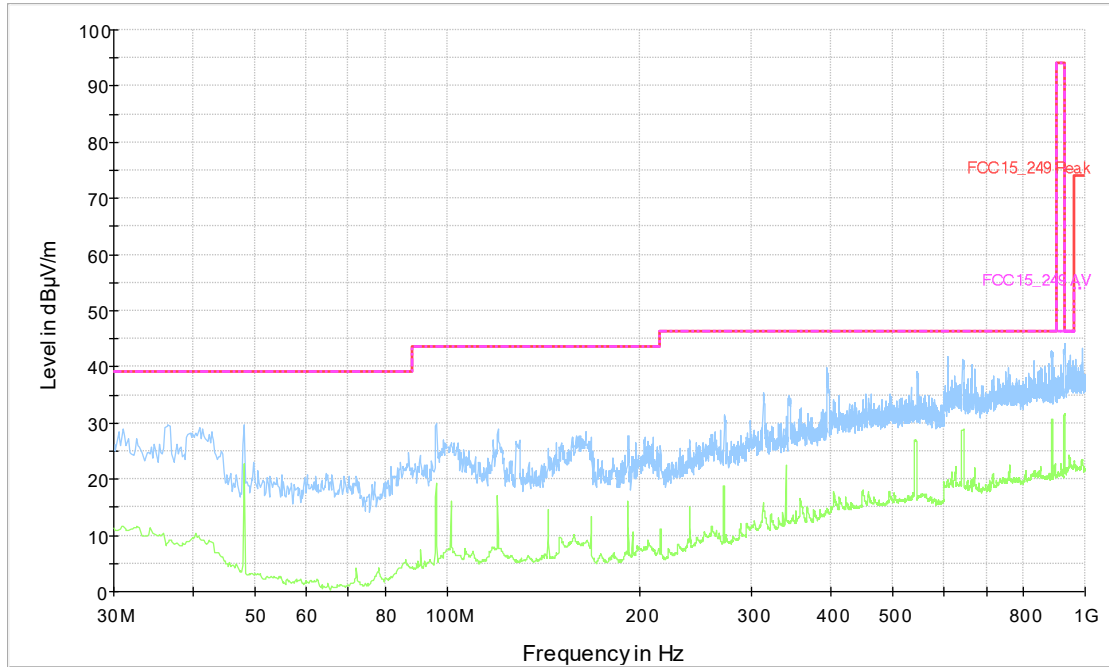


Final Result:

All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

RX Antenna Polarization: Vertical

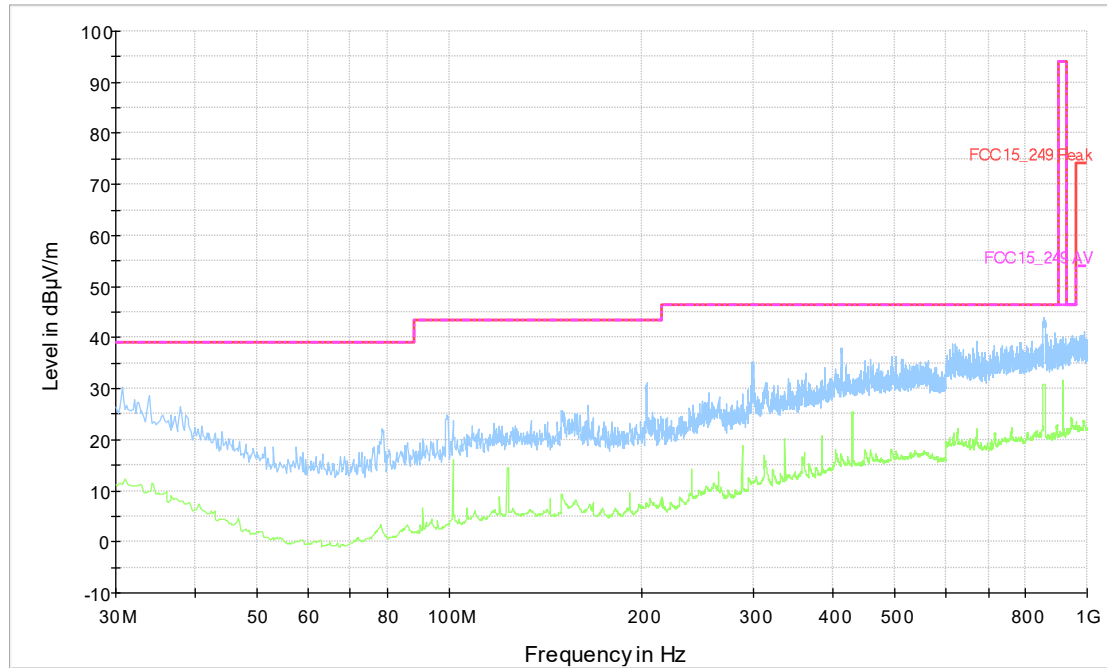
Frequency Range: 30MHz – 1GHz



Final Result:

RX Antenna Polarization: Horizontal

Frequency Range: 30MHz – 1GHz

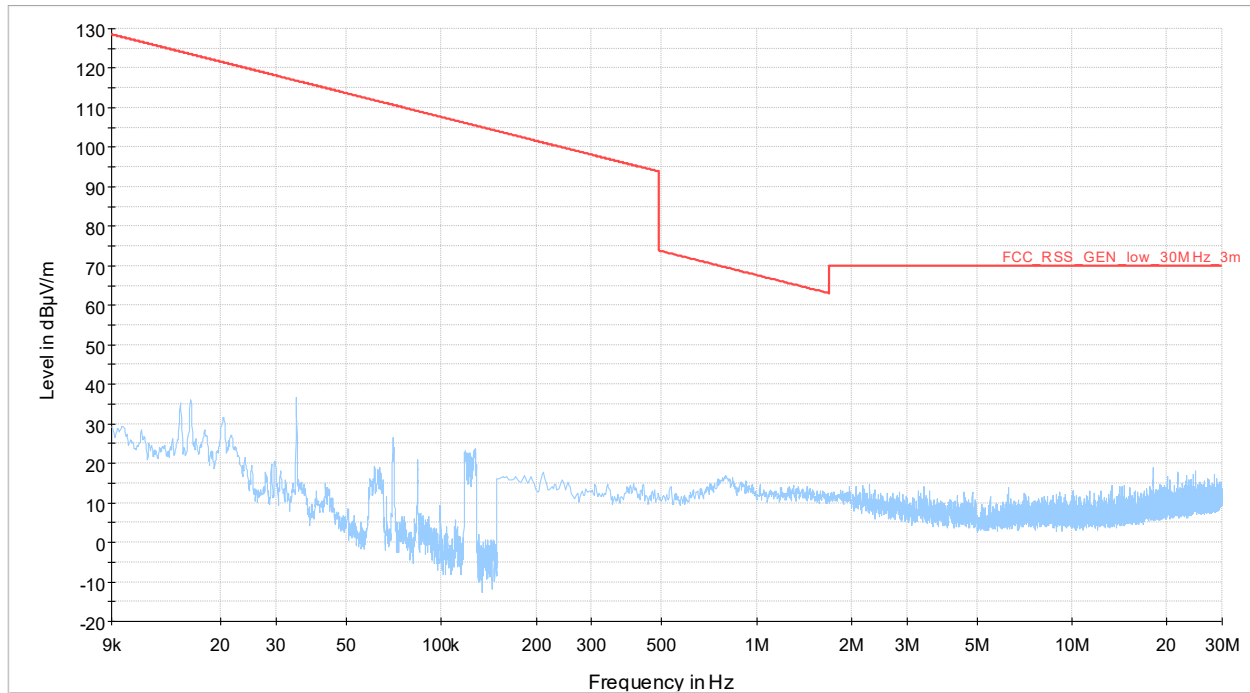


Final Result:

Channel 40 – 2480MHz

RX Antenna Polarization: ---

Frequency Range: 9kHz – 30MHz

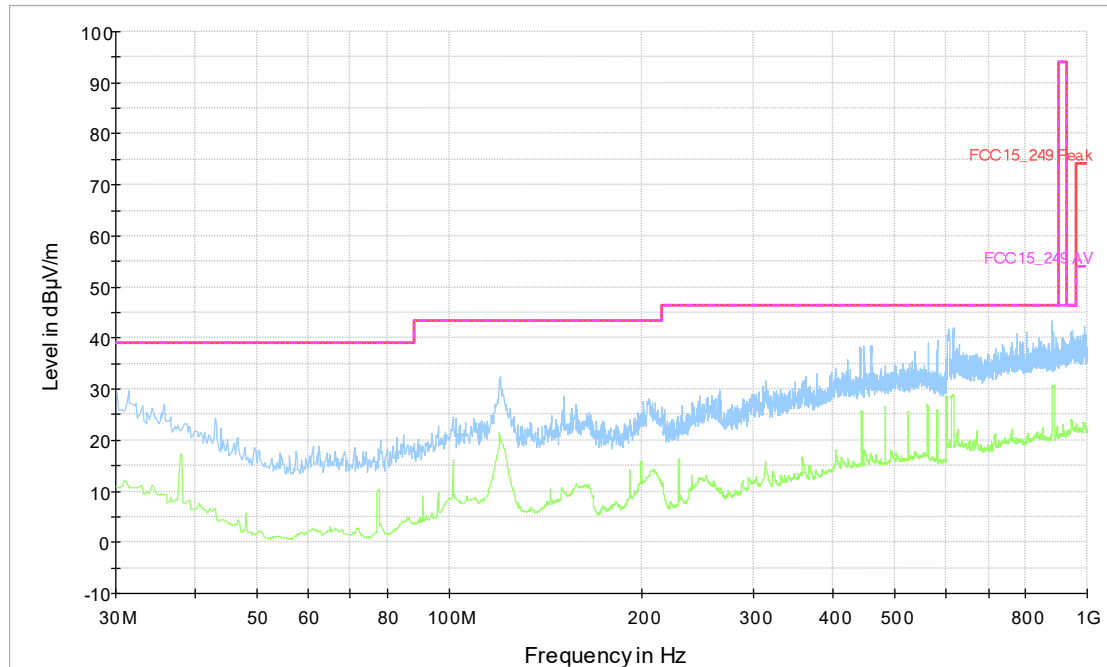


Final Result:

All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

RX Antenna Polarization: Vertical

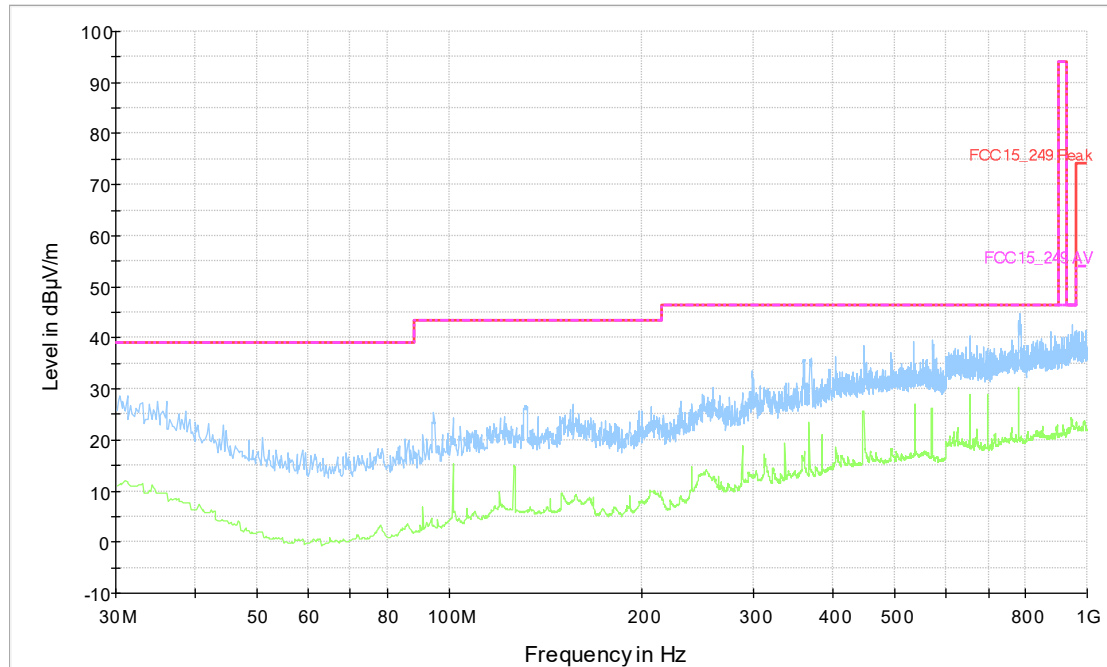
Frequency Range: 30MHz – 1GHz



Final Result:

RX Antenna Polarization: Horizontal

Frequency Range: 30MHz – 1GHz



Final Result:

TEST 3.	TRANSMITTER RADIATED EMISSIONS > 1GHZ
REFERENCE DOCUMENT	According to § 15.249 (d) and § 15.209 (a) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

• TEST SETUP	Acc. To ref. Std.					
• TEST LOCATION	Semi-Anechoic Chamber					
• DISTANCE OF MEASUREMENT	3m					
• TYPE OF MEASUREMENT	Radiated					
• TEST EQUIPMENT USED FOR TEST	Instrument	Manufacturer	Model	Serial n°	Calibrated On	Due to
	MXE Emi Receiver	Keysight	N9038A	MY57290150	01/2026	01/2027
	Semi-Anechoic Chamber	Siemens	B83117-D6019-T232	003-005-134/94C	02/2026	02/2027
	Horn antenna	Electro Metrics	EM-6961	100437	10/2023	10/2026
	Horn antenna + Low Noise Preamplifier	Bonn Elektronik	BLMA 1840-1A	087084B	09/2025	09/2027
	Software EMC	Rohde & Schwarz	EMC32-E	V 8.40.0	N.A.	
• TESTED PORT	Antenna					
• TEST METHOD	ANSI C63.10:2020 section 6.6 and 6.10					
• FREQUENCY RANGE	1GHz – 26GHz					
• LIMITS	Acc. To ref. Std.					
• UNCERTAINTY OF MEASURE	Level of confidence = 95% (k=2)					
	Expanded uncertainty 1GHz – 18GHz = 5.44dB					
	Expanded uncertainty 18GHz – 26GHz = 5.89dB					

TEST CONDITIONS	REQUIRED	MEASURED
Ambient temperature	23°C ± 5°C	24°C
Ambient humidity	25 - 75%rH	45%
Pressure	86 - 106kPa (860mbar - 1060mbar)	1012mbar

OPERATING CONDITION: #1, #2, #3

RESULT: PASS

MEASUREMENT PARAMETER 1GHz - 10GHz

Resolution bandwidth:	1MHz
Video bandwidth:	3MHz
Span:	See plots below
Sweep time	Auto couple
Detector:	Peak
Trace-Mode:	Max. hold

TEST DESCRIPTION

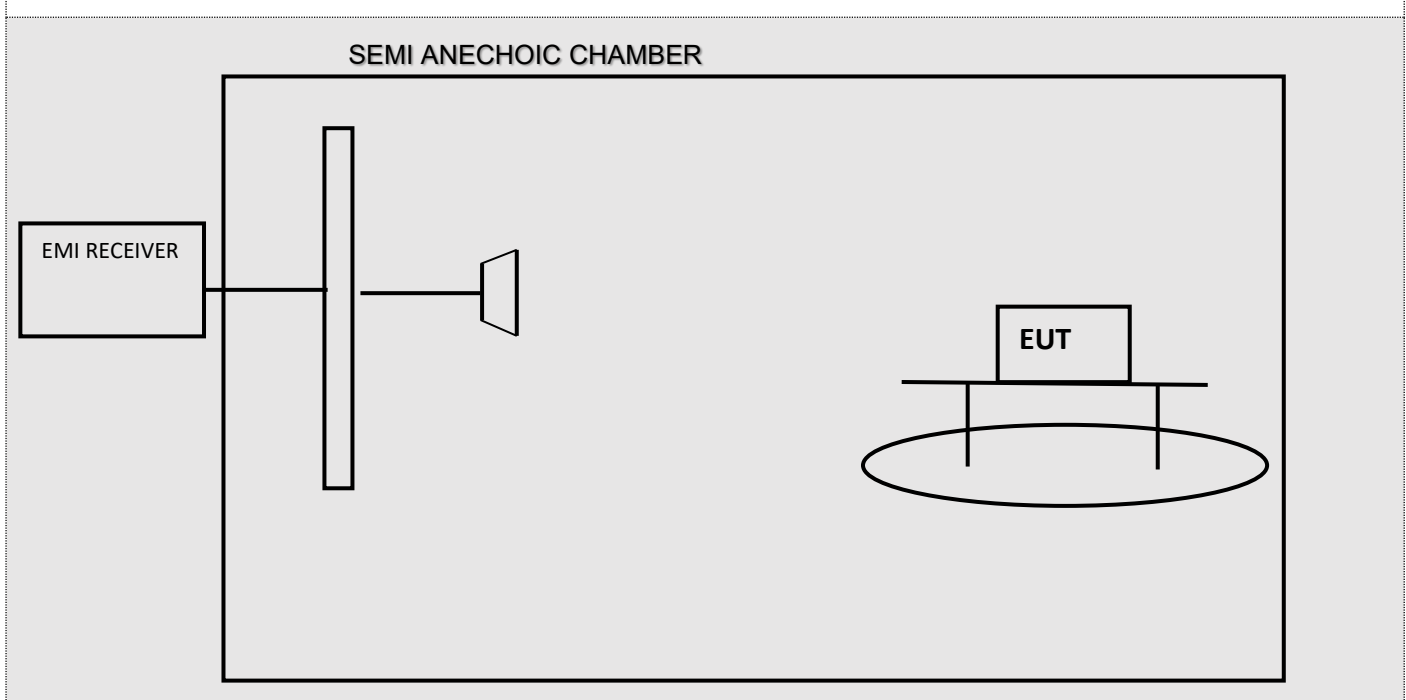
Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously - rotating, remotely - controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency.

The EUT is placed at test table height is 1.5 m

Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m~4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3m.

This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

TEST SETUP BLOCK DIAGRAM

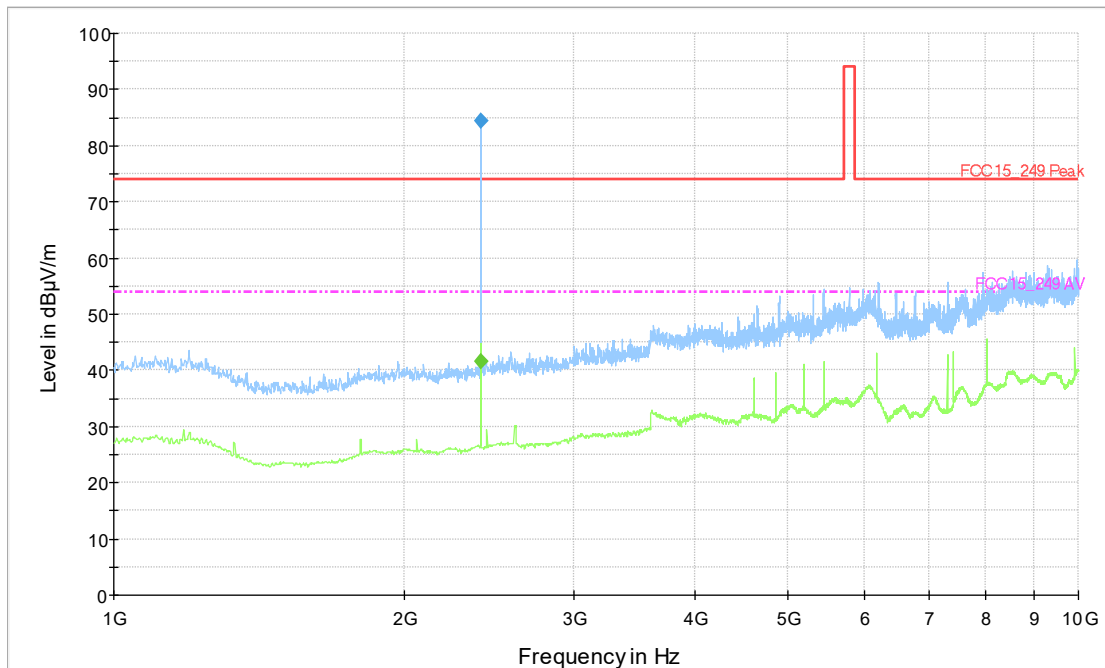


TEST RESULTS

Channel 1 – 2402MHz

RX Antenna Polarization: Vertical

Frequency Range: 1GHz – 10GHz



Final Result:

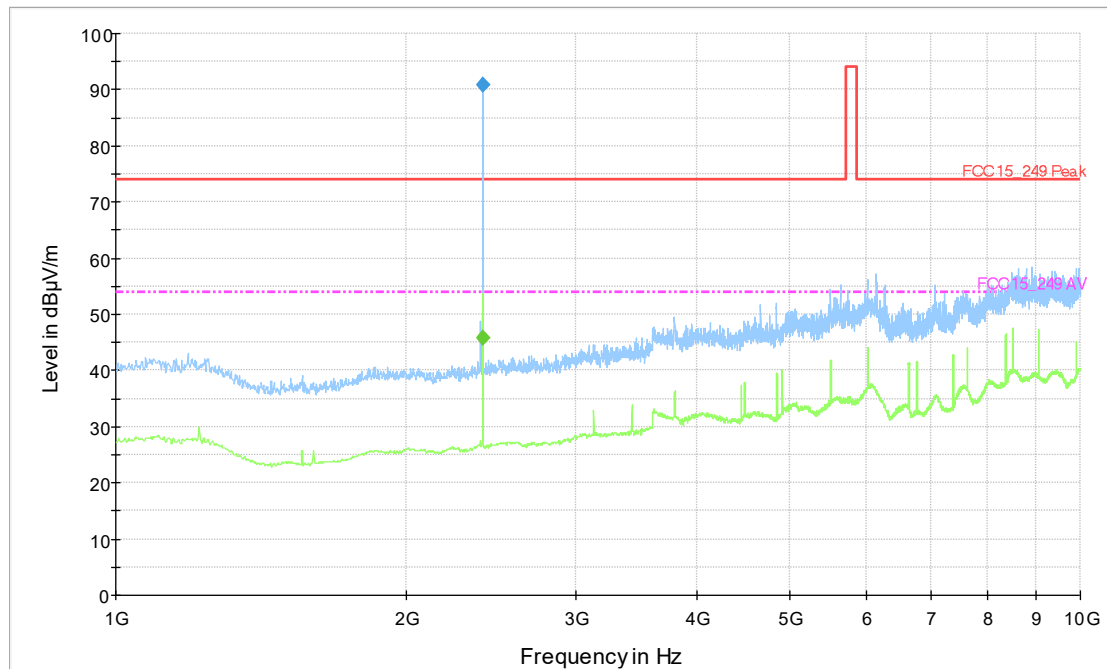
FUNDAMENTAL

Frequency (MHz)	Peak (dBμV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBμV/m)
2401.750000	84.3	179.8	97.0	9.7	94.0

Limit from FCC Part 15.249 (a)

RX Antenna Polarization: Horizontal

Frequency Range: 1GHz – 10GHz



Final Result:

FUNDAMENTAL

Frequency (MHz)	Peak (dBμV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBμV/m)
2401.750000	91.2	179.8	6.0	2.8	94.0

Limit from FCC Part 15.249 (a)

RX Antenna Polarization: Vertical

Frequency Range: 10GHz – 18GHz

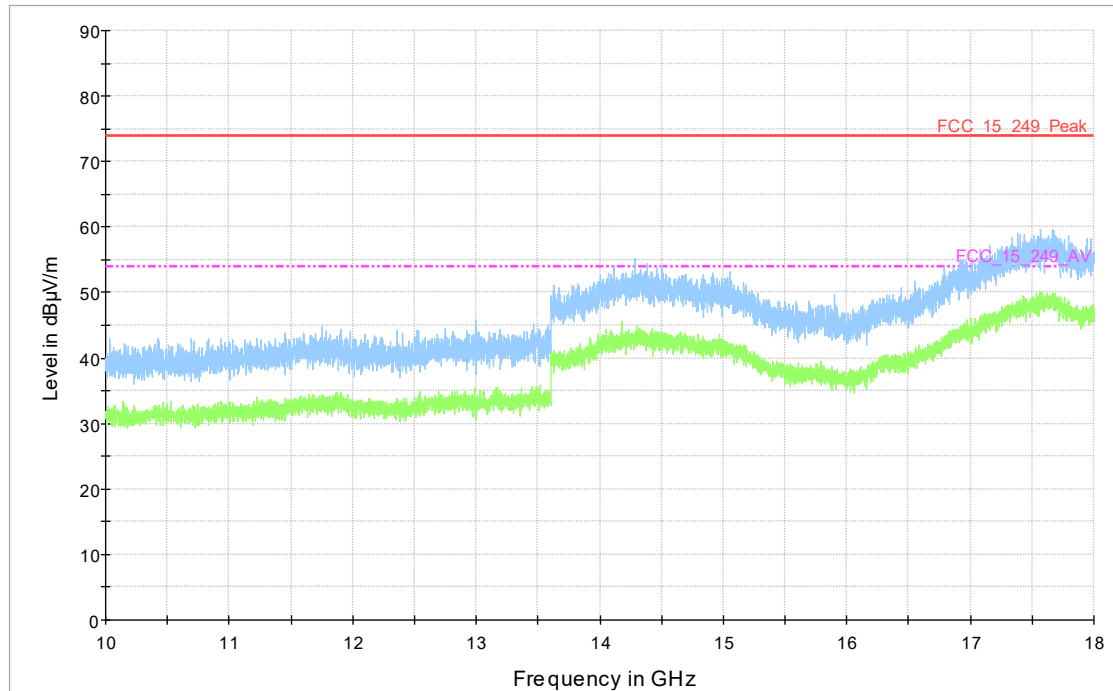


Final Result:

All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

RX Antenna Polarization: Horizontal

Frequency Range: 10GHz – 18GHz

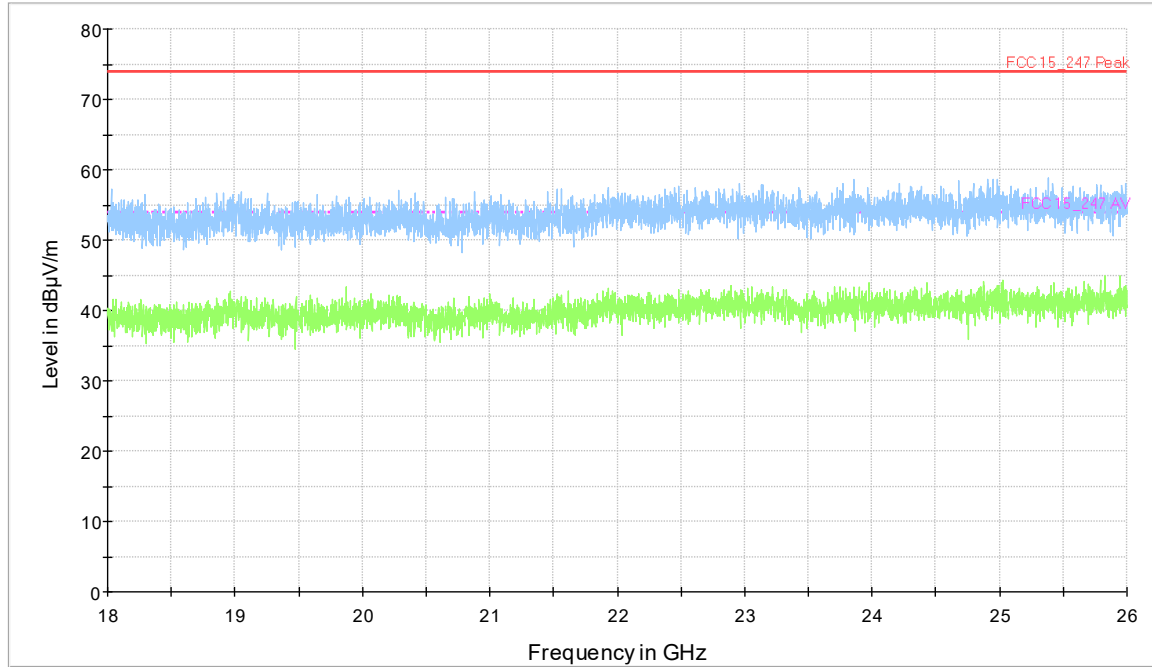


Final Result:

All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

RX Antenna Polarization: Vertical

Frequency Range: 18GHz – 26GHz

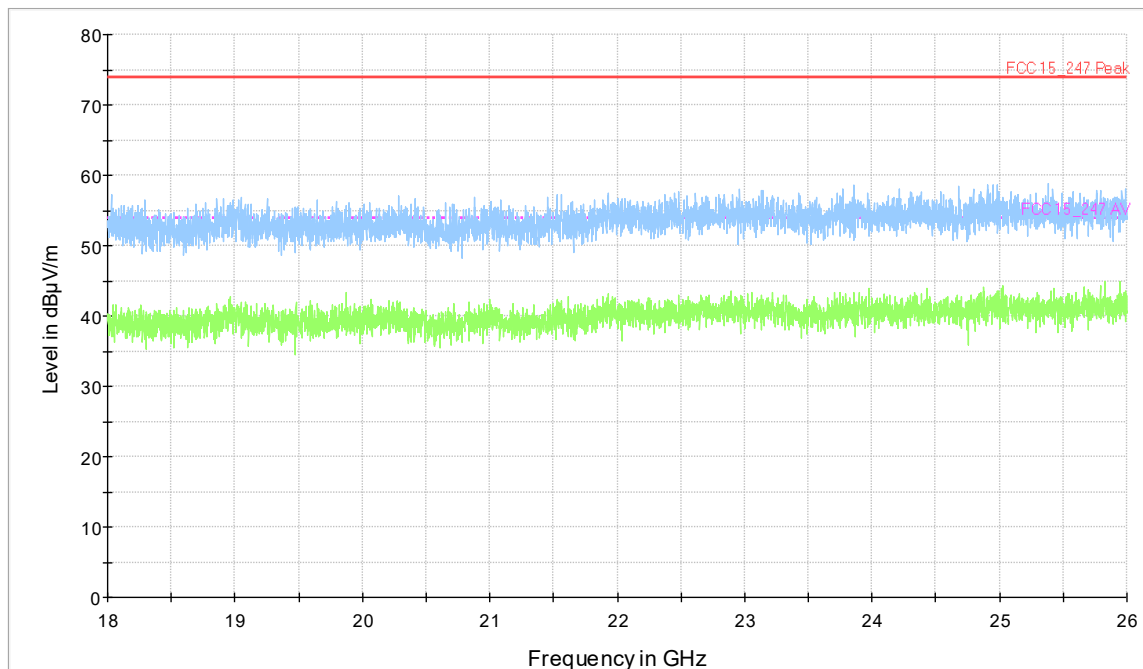


Final Result:

All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

RX Antenna Polarization: Horizontal

Frequency Range: 18GHz – 26GHz



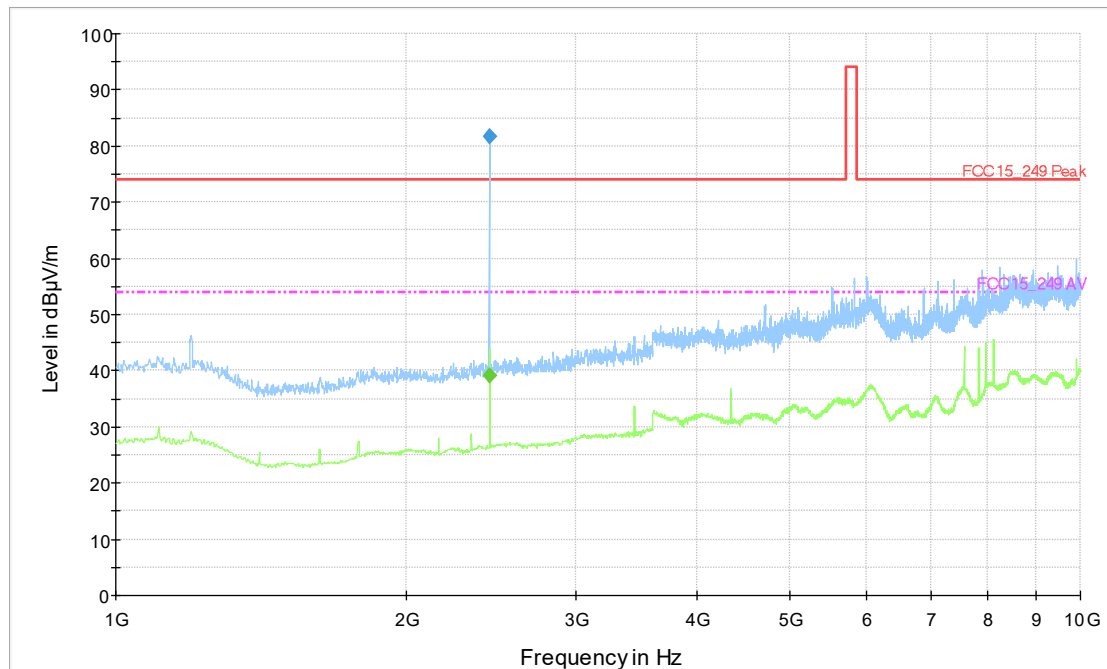
Final Result:

All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

Channel 20 – 2440MHz

RX Antenna Polarization: Vertical

Frequency Range: 1GHz – 10GHz



Final Result:

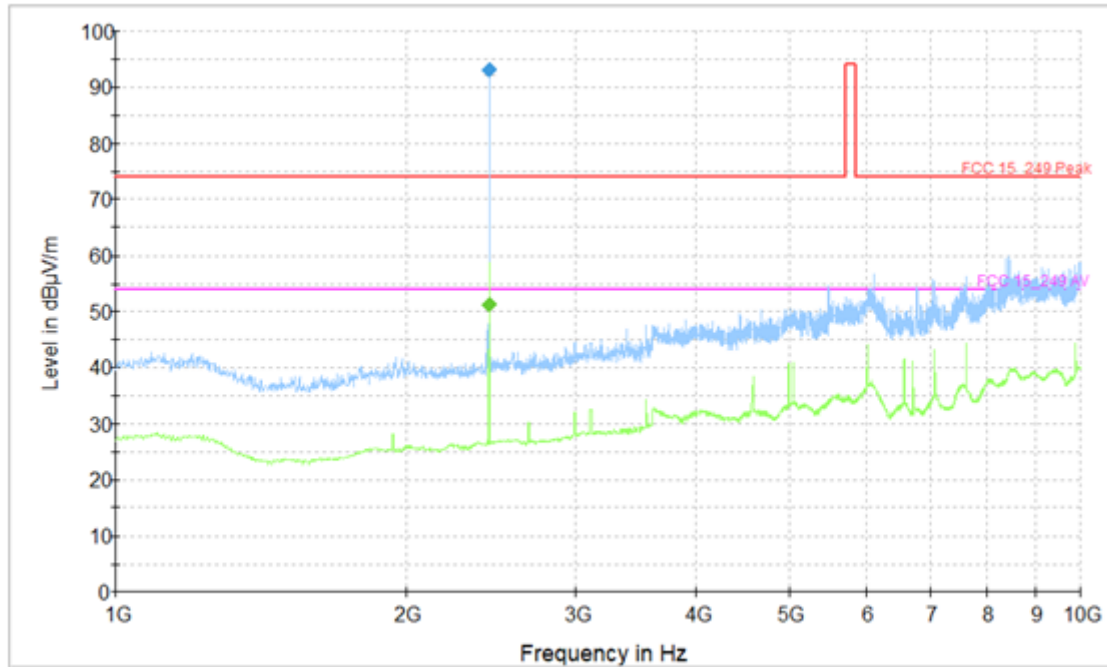
FUNDAMENTAL

Frequency (MHz)	Peak (dBμV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBμV/m)
2440.250000	81.6	233.8	277.0	12.40	94.00

Limit from FCC Part 15.249 (a)

RX Antenna Polarization: Horizontal

Frequency Range: 1GHz – 10GHz



Final Result:

FUNDAMENTAL

Frequency (MHz)	Peak (dBμV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBμV/m)
2439.750000	92.9	330.2	175.0	1.10	94.00

Limit from FCC Part 15.249 (a)

RX Antenna Polarization: Vertical

Frequency Range: 10GHz – 18GHz

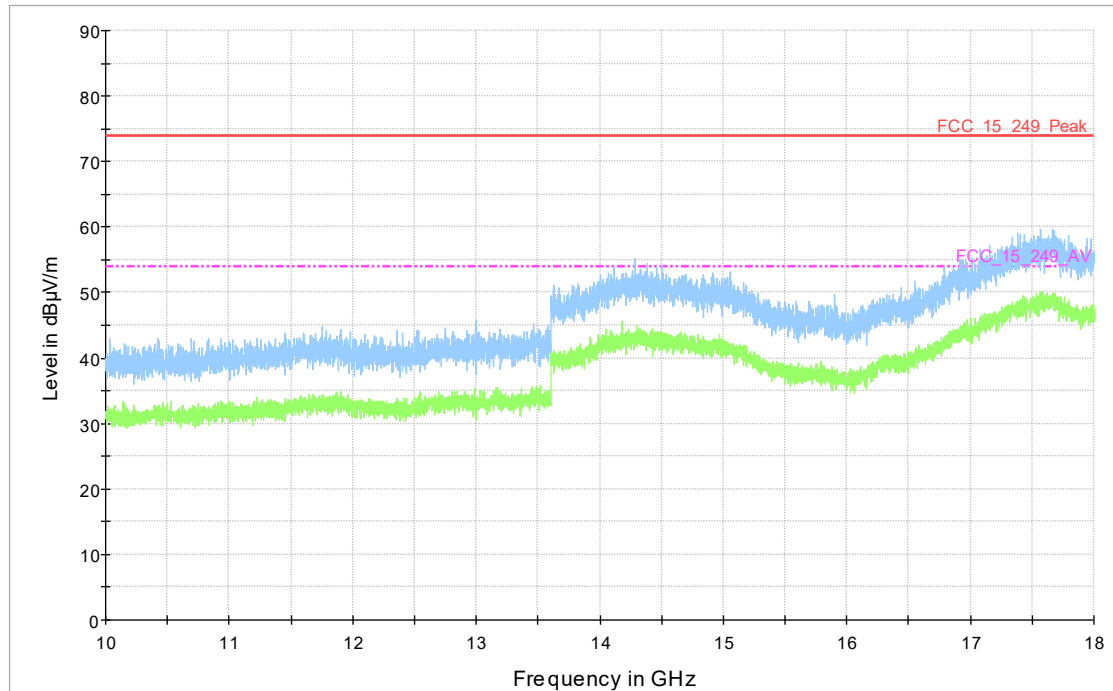


Final Result:

All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

RX Antenna Polarization: Horizontal

Frequency Range: 10GHz – 18GHz

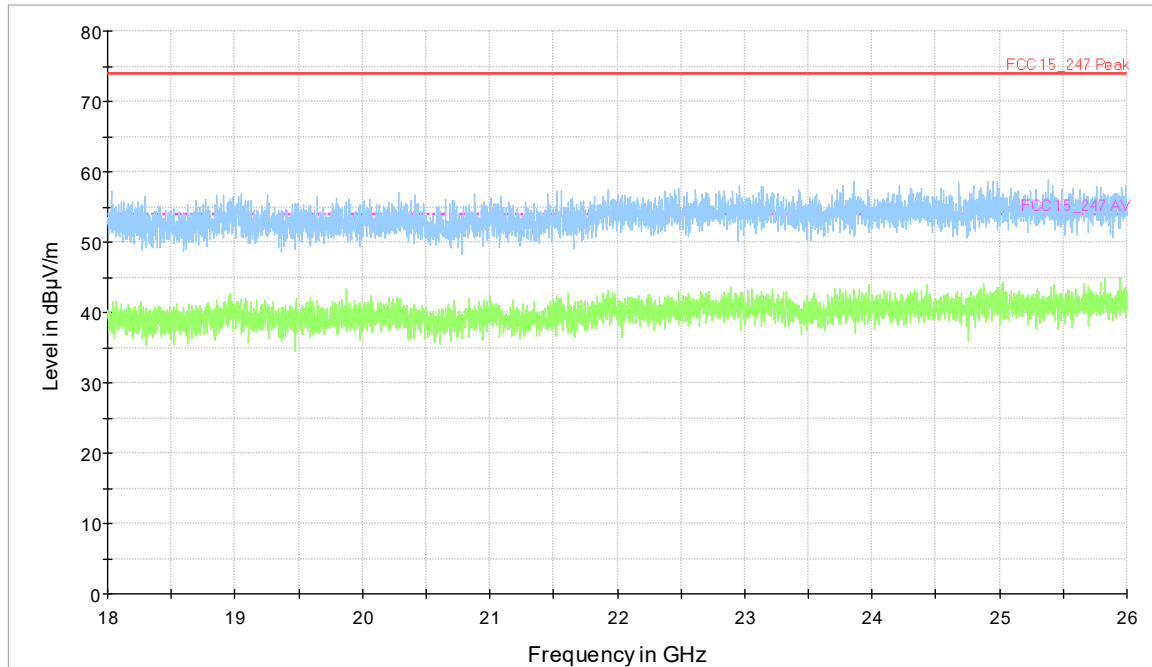


Final Result:

All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

RX Antenna Polarization: Vertical

Frequency Range: 18GHz – 26GHz

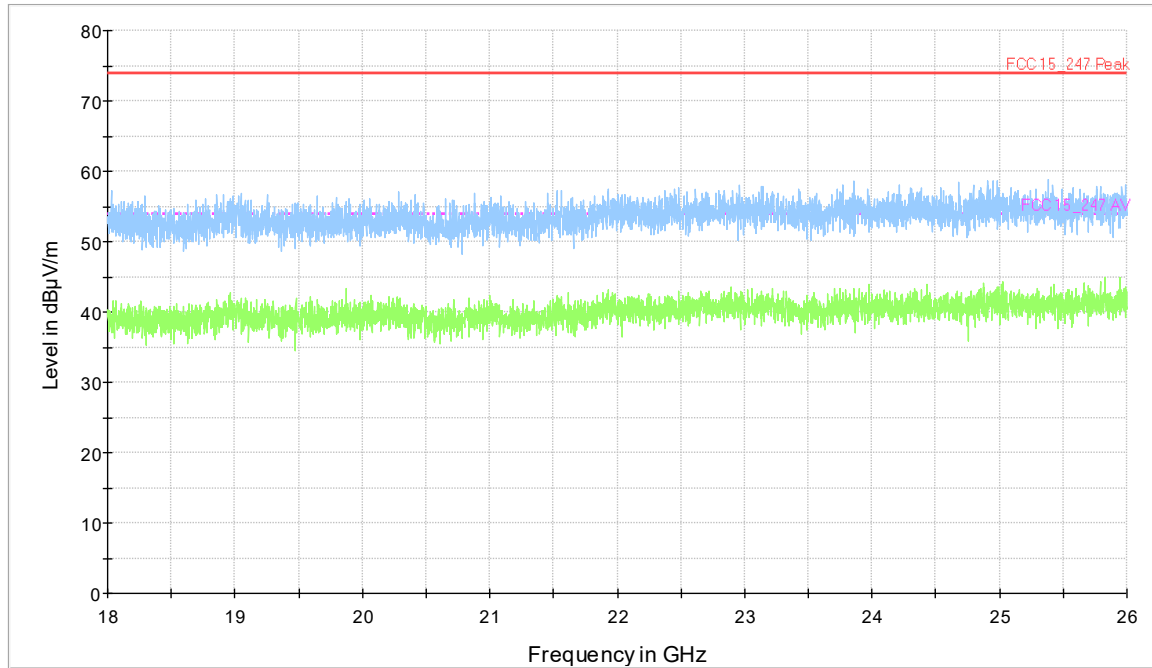


Final Result:

All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

RX Antenna Polarization: Horizontal

Frequency Range: 18GHz – 26GHz



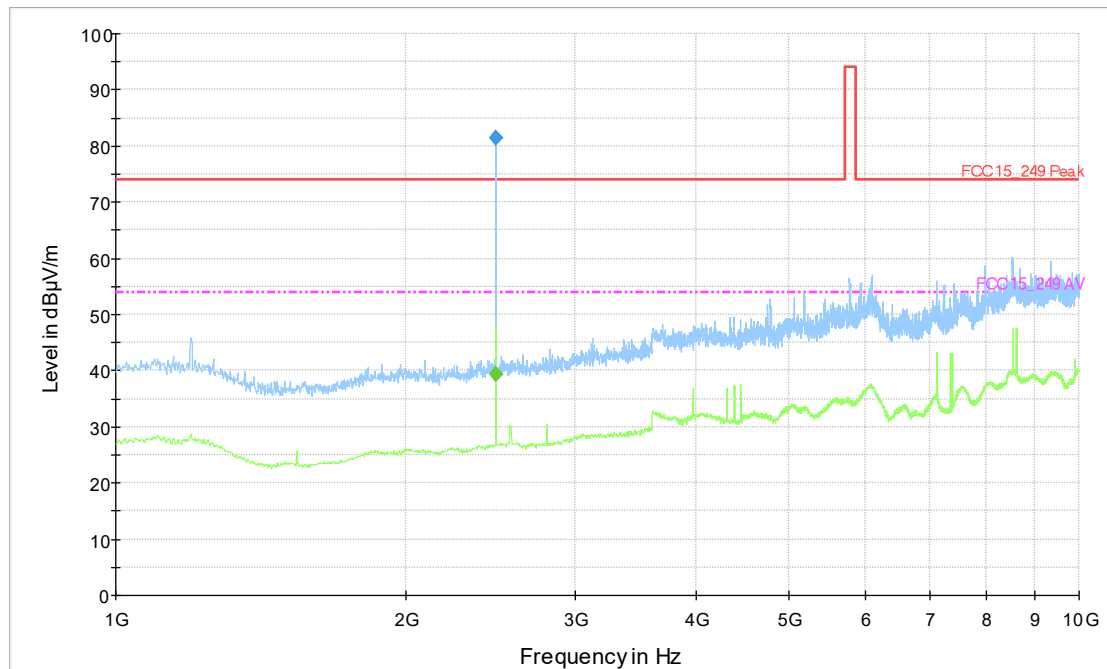
Final Result:

All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

Channel 40 – 2480MHz

RX Antenna Polarization: Vertical

Frequency Range: 1GHz – 10GHz



Final Result:

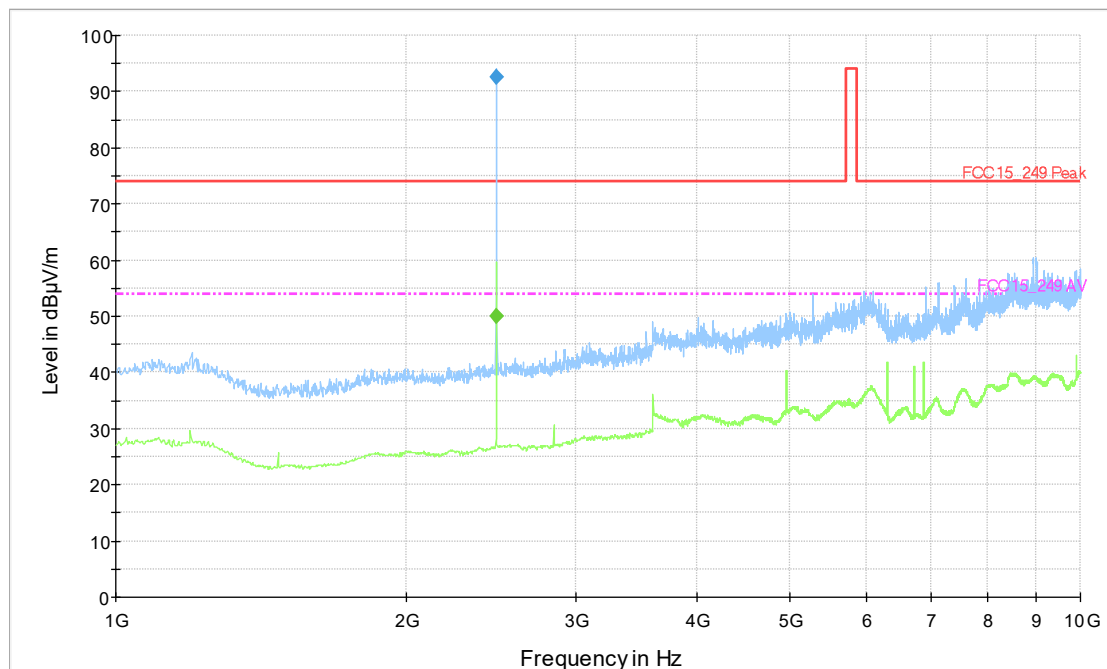
FUNDAMENTAL

Frequency (MHz)	Peak (dBμV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBμV/m)
2480.250000	81.6	99.8	7.0	12.40	94.00

Limit from FCC Part 15.249 (a)

RX Antenna Polarization: Horizontal

Frequency Range: 1GHz – 10GHz



Final Result:

FUNDAMENTAL

Frequency (MHz)	Peak (dBμV/m)	Height (cm)	Azimuth (deg)	Margin (dB)	Limit (dBμV/m)
2480.000000	92.5	104.7	177.0	1.50	94.00

Limit from FCC Part 15.249 (a)

RX Antenna Polarization: Vertical

Frequency Range: 10GHz – 18GHz

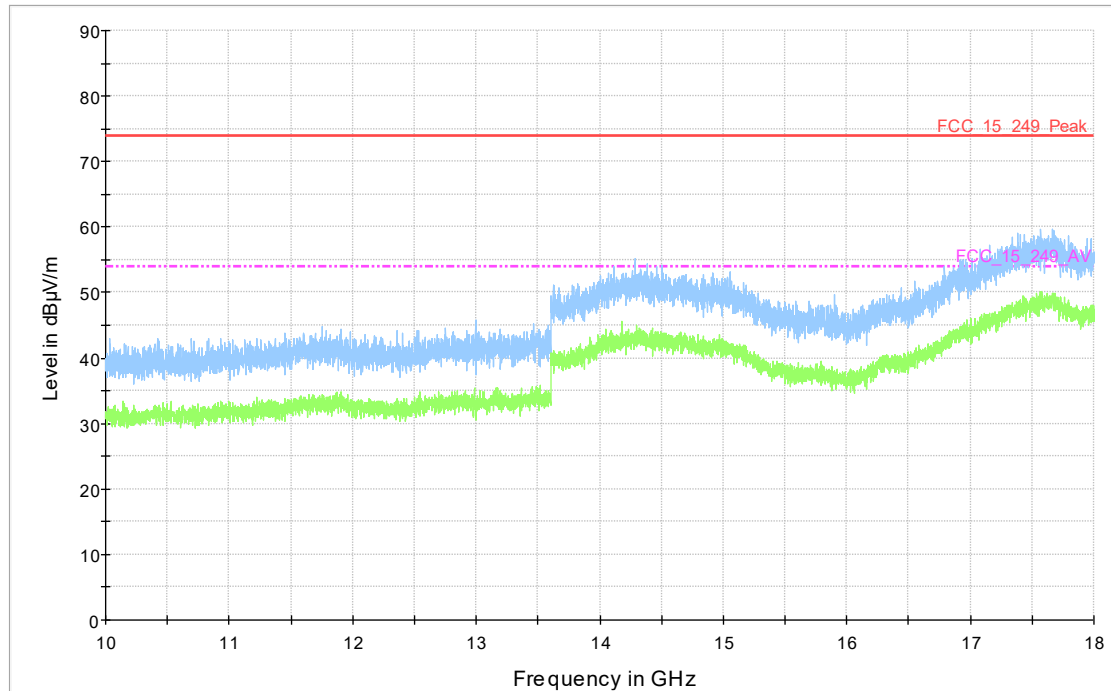


Final Result:

All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

RX Antenna Polarization: Horizontal

Frequency Range: 10GHz – 18GHz

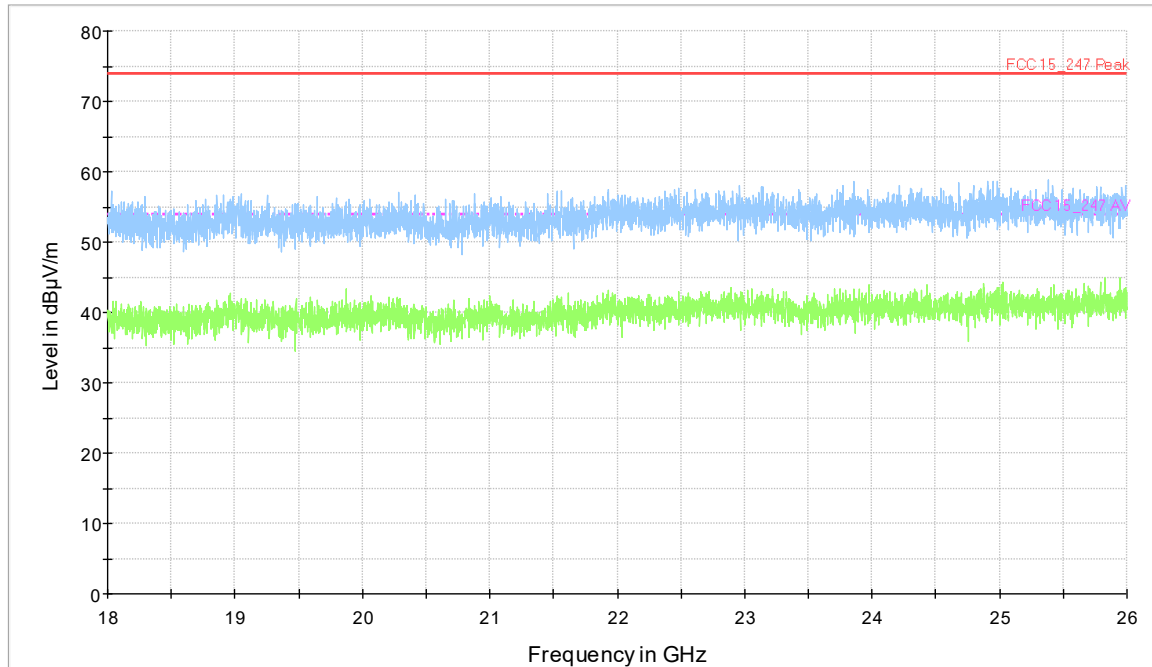


Final Result:

All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

RX Antenna Polarization: Vertical

Frequency Range: 18GHz – 26GHz

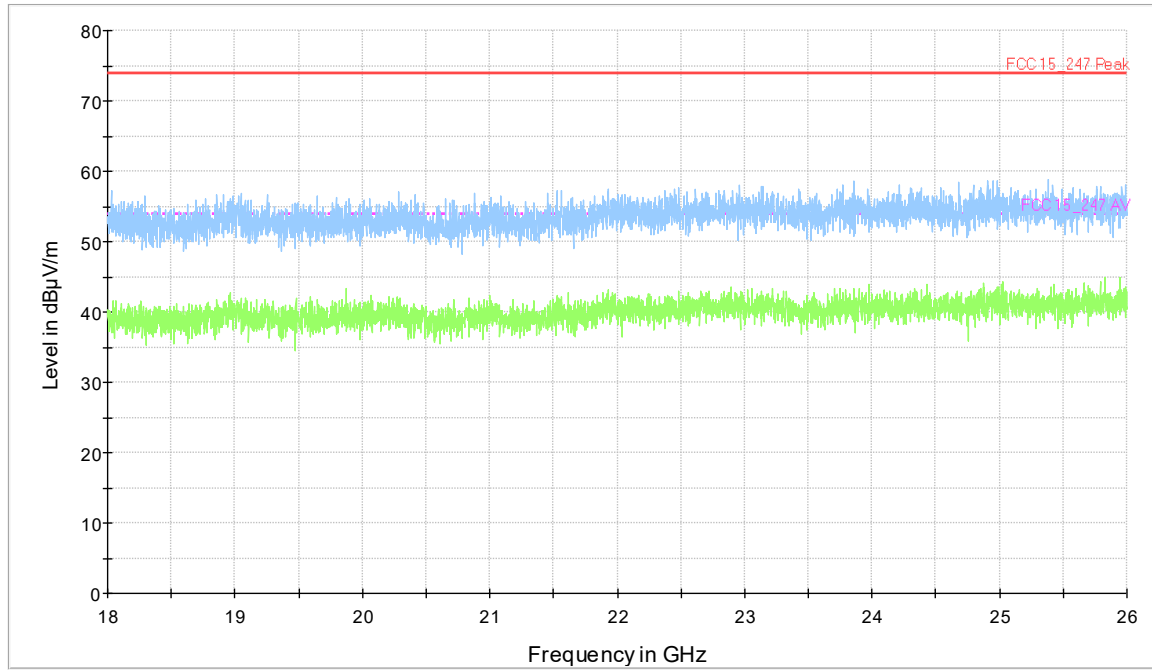


Final Result:

All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

RX Antenna Polarization: Horizontal

Frequency Range: 18GHz – 26GHz



Final Result:

All emissions are below 10dB from the limit, for this reason no further assessments were carried out on the individual points

TEST 4.	BAND EDGE
REFERENCE DOCUMENT	According to §15,249(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.

• TEST SETUP	Acc. To ref. Std.					
• TEST LOCATION	Semi-Anechoic Chamber					
• DISTANCE OF MEASUREMENT	3m					
• TYPE OF MEASUREMENT	Radiated					
• TEST EQUIPMENT USED FOR TEST	Instrument	Manufacturer	Model	Serial n°	Calibrated On	Due to
	MXE Emi Receiver	Keysight	N9038A	MY57290150	01/2026	01/2027
	Semi-Anechoic Chamber	Siemens	B83117-D6019-T232	003-005-134/94C	02/2026	02/2027
	Horn antenna	Electro Metrics	EM-6961	100437	10/2023	10/2026
	Horn antenna + Low Noise Preamplifier	Bonn Elektronik	BLMA 1840-1A	087084B	09/2025	09/2027
	Software EMC	Rohde & Schwarz	EMC32-E	V 8.40.0	N.A.	
• TESTED PORT	Antenna					
• TEST METHOD	ANSI C63.10:2020 section 6.6 and 6.10					
• FREQUENCY RANGE	1GHz – 26GHz					
• LIMITS	Acc. To ref. Std.					

• TEST LOCATION	Radio test area					
• TYPE OF MEASUREMENT	Conducted					
• TEST EQUIPMENT USED FOR TEST	Instrument	Manufacturer	Model	Serial n°	Calibrated On	Due to
	Emi Receiver	Rohde & Schwarz	ESU 40	100111	05/2025	05/2026
• TESTED PORT	Antenna					
• TEST METHOD	ANSI C63.10:2020 section 6.10					
• FREQUENCY RANGE	Carrier					

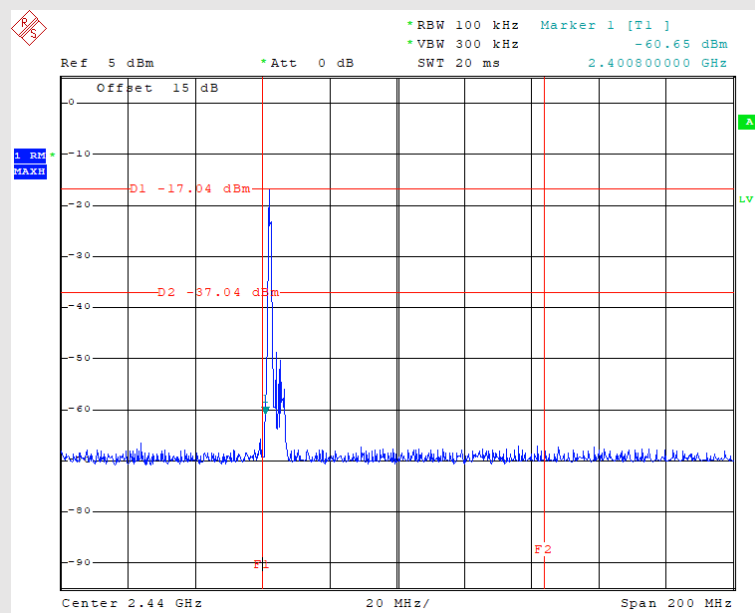
TEST CONDITIONS	REQUIRED	MEASURED
Ambient temperature	23°C ± 5°C	24°C
Ambient humidity	25 - 75%rH	45%
Pressure	86 - 106kPa (860mbar - 1060mbar)	1012mbar

OPERATING CONDITION: #1, #3

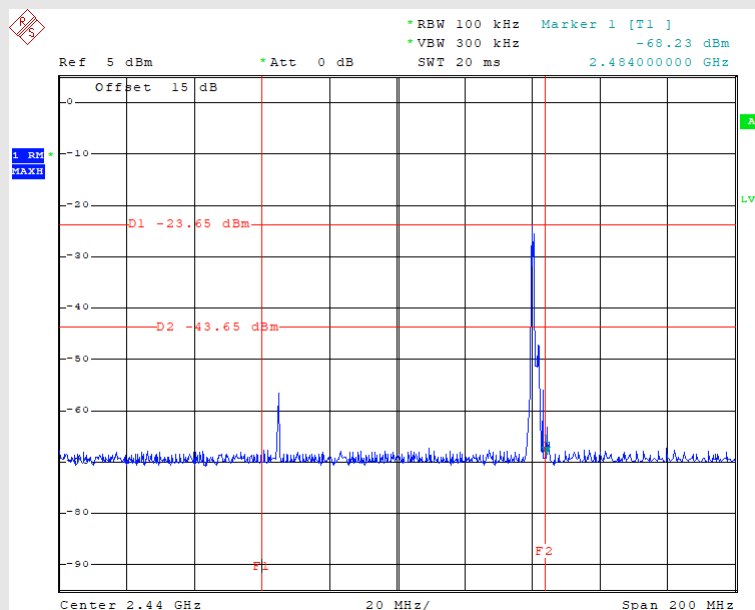
RESULT: PASS

TEST RESULTS

Band Edge
Channel 1



Band Edge
Channel 40



TEST RESULTS

From radiated measurement in TEST 3

TX Frequency: 2402MHz		Vertical polarization	
Frequency (MHz)	Level (dBμV/m)	Limits / Detector (dBμV/m)	Verdict
2390	39.7	74.0 – PK	PASS
2390	26.5	54.0 – AV	PASS
2400	41.3	74.0 – PK	PASS
2400	26.4	54.0 – AV	PASS

TX Frequency: 2402MHz		Horizontal polarization	
Frequency (MHz)	Level (dBμV/m)	Limits / Detector (dBμV/m)	Verdict
2390	38.0	74.0 – PK	PASS
2390	26.5	54.0 – AV	PASS
2400	49.9	74.0 – PK	PASS
2400	27.1	54.0 – AV	PASS

TX Frequency: 2480MHz		Vertical polarization	
Frequency (MHz)	Level (dBμV/m)	Limits / Detector (dBμV/m)	Verdict
2483.5	39.2	74.0 – PK	PASS
2483.5	26.8	54.0 – AV	PASS

TX Frequency: 2480MHz		Horizontal polarization	
Frequency (MHz)	Level (dBμV/m)	Limits / Detector (dBμV/m)	Verdict
2483.5	49.1	74.0 – PK	PASS
2483.5	27.1	54.0 – AV	PASS

TEST 5.	20dB CHANNEL BANDWIDTH
REFERENCE DOCUMENT	According to §15,215(c) Intentional radiators operating under the alternative provisions to the general emission limits, as contained in § 15.217 through § 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates.

• TEST LOCATION	Radio test area					
• TYPE OF MEASUREMENT	Radiated					
• TEST EQUIPMENT USED FOR TEST	Instrument	Manufacturer	Model	Serial n°	Calibrated On	Due to
	Emi Receiver	Rohde & Schwarz	ESU 40	100111	05/2025	05/2026
• TESTED PORT	Antenna					
• TEST METHOD	ANSI C63.10:2020 section 6.9.2					
• FREQUENCY RANGE	Carrier					

TEST CONDITIONS	REQUIRED	MEASURED
Ambient temperature	23°C ± 5°C	24°C
Ambient humidity	25 - 75%rH	45%
Pressure	85 - 106kPa (860mbar - 1060mbar)	1012mbar

OPERATING CONDITION: #1, #2, #3

RESULT: PASS

MEASUREMENT PARAMETER – 20dB Bandwidth

Resolution bandwidth	100kHz
Video bandwidth	300kHz
Span	5MHz
Sweep time	1s
Detector	Peak
Trace-Mode	Max. hold

TEST DESCRIPTION

The EUT should be transmitting at its maximum data rate.

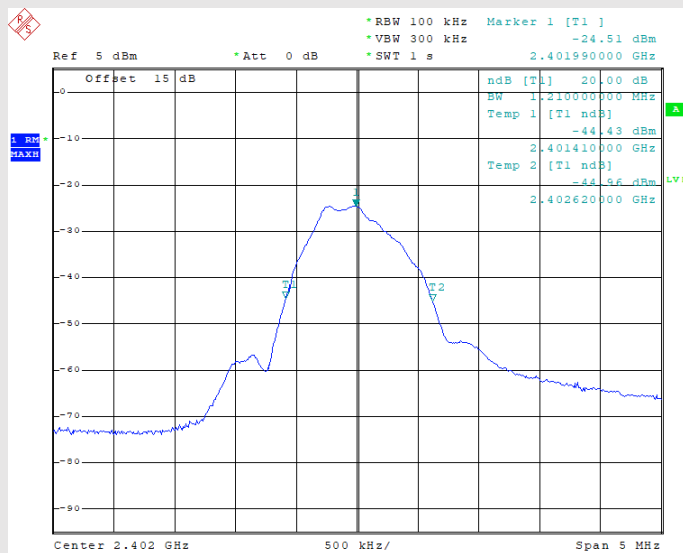
Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 20 dB down one side of the emission. Reset the marker-delta function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 20 dB bandwidth of the emission. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation. The limit is specified in one of the subparagraphs of this Section. Submit this plot(s).

MEASUREMENT RESULT

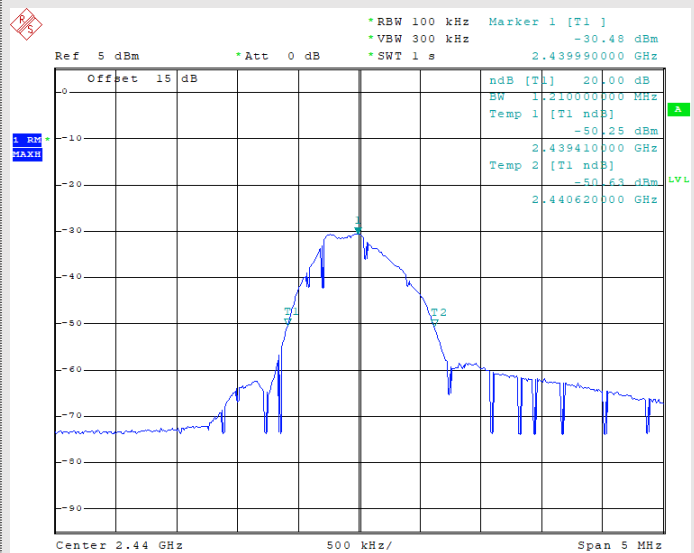
Channel	Frequency (MHz)	20dB Bandwidth (kHz)	Limits (kHz)	Verdict
1	2402	1210	>500	PASS
20	2440	1210	>500	PASS
40	2480	1220	>500	PASS

20dB Bandwidth

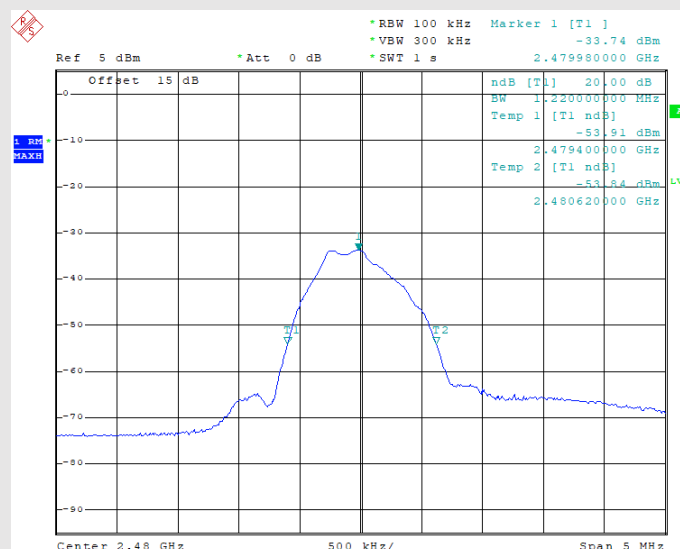
Channel 1



Channel 20



Channel 40



END OF TEST REPORT