

RF TEST REPORT

FCC ID: 2BWSO-STARTAGX5

Product Name: Smart Tracker
Brand Name: N/A
Model Name: StarTag X5
Family Model: Y09W, Y09, Y29, Y16, Y05, FotoPulse WT-01, Y17, Smart Tag, Y02, Y10
Report No.: N26090108207E

Prepared for

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Prepared by

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1 Revision History

Revision History			
Report No.	Version	Description	Issued Date
N26090108207E	Rev.01	Initial issue of report	15, Sep. 2026

2 Test Summary

FCC Rule	Test Item	Method	Tested By	Result
47 CFR Part 15.203/15.247 (b)(4)	Antenna requirement	---	Abel Chen	Pass
47 CFR 15.207	Conducted Emission at AC power line	ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024, section 6.2	---	N/A
47 CFR 15.247(a)(2)	6dB Bandwidth	ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024, section 11.8.1 KDB 558074 D01 15.247 Meas Guidance v05r02	Leo Wang	Pass
47 CFR 15.247(b)(3)	Maximum Conducted Output Power	ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024 section 11.9.1.1 KDB 558074 D01 15.247 Meas Guidance v05r02	Leo Wang	Pass
47 CFR 15.247(e)	Power Spectral Density	ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024, section 11.10.2 KDB 558074 D01 15.247 Meas Guidance v05r02	Leo Wang	Pass
47 CFR 15.247(d)	Emissions in non-restricted frequency bands	ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024 section 11.11 KDB 558074 D01 15.247 Meas Guidance v05r02	Leo Wang	Pass
47 CFR 15.247(d), 15.209, 15.205	Band edge emissions (Radiated)	ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024 section 6.10.4 KDB 558074 D01 15.247 Meas Guidance v05r02	Harry Huang	Pass
47 CFR 15.247(d), 15.209, 15.205	Emissions in frequency bands (below 30MHz)	ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024 section 6.4 KDB 558074 D01 15.247 Meas Guidance v05r02	Pass Qiu	Pass
47 CFR 15.247(d), 15.209, 15.205	Emissions in frequency bands (30M - 1GHz)	ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024 section 6.5.4 KDB 558074 D01 15.247 Meas Guidance v05r02	Pass Qiu	Pass
47 CFR 15.247(d), 15.209, 15.205	Emissions in frequency bands (1G - 18GHz)	ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024 section 6.6 KDB 558074 D01 15.247 Meas Guidance v05r02	Harry Huang	Pass
47 CFR 15.247(d), 15.209, 15.205	Emissions in frequency bands (above 18GHz)	ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024 section 6.6 KDB 558074 D01 15.247 Meas Guidance v05r02	Harry Huang	Pass

Remark:

1. "N/A" denotes test is not applicable in this Test Report.

2. All test items were verified and recorded according to the standards and without any deviation during the test.

3 Test Result Certification

CLIENT INFORMATION

Applicant:	Shenzhen Lanyi Digital Technology Co., Ltd.
Address of Applicant:	9th Floor, Building 4, Huidongsheng Industrial Park, Guangqiao Avenue, Yutang Street, Guangming District, Shenzhen, China
Manufacturer:	Shenzhen Lanyi Digital Technology Co., Ltd.
Address of Manufacturer:	9th Floor, Building 4, Huidongsheng Industrial Park, Guangqiao Avenue, Yutang Street, Guangming District, Shenzhen, China

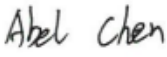
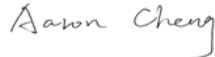
EUT INFORMATION

Product Name:	Smart Tracker
Brand Name:	N/A
Model Name:	StarTag X5
Sample Number:	S2609070279-1#
Applicable Standards	47 CFR Part 15.247
Measurement Procedures	ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024 KDB 558074 D01 15.247 Meas Guidance v05r02

This device described above has been tested by Shenzhen NTEK Testing Technology Co., Ltd., and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test:	09, Sep. 2026 to 15, Sep. 2026
Issue Date:	15, Sep. 2026

Prepared By:		Reviewed by:		Approved By:	
	Abel Chen (Project Engineer)		Aaron Cheng (Supervisor)		Estelle Chen (Manager)

4 Facilities and Accreditations

4.1 Facilities

All measurement facilities used to collect the measurement data are located at
Building 1/2/11/12, No. 24 Xinfu East Road, Xiangshan Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, China.
The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 16-1-4.

4.2 Laboratory Accreditations And Listings

Site Description	
CNAS-Lab.	: Registration Code L5516
A2LA-Lab.	: Certificate Number 4298.01
FCC-Accredited	: Test Firms Registration Number: 463705 Designation Number: CN1184
ISED Wireless Device Testing Laboratories	: The ISED Company Number is 9270A CAB identifier:CN0074

4.3 Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where the expanded uncertainty U is obtained by multiplying the standard uncertainty by a coverage factor $k=2$, corresponding to a confidence level of approximately 95%.

Item	Uncertainty
Power Spectral Density, conducted	0.91dB
Radiated Spurious Emissions(1GHz ~ 18GHz)	4.9dB
Radiated Spurious Emissions(9kHz ~ 30MHz)	5.26dB
Radiated Spurious Emissions(30MHz ~ 1GHz)	5.1dB
Radiated Spurious Emissions(18GHz ~ 40GHz)	5.76dB
RF power, conducted	1.34dB
Spurious emissions, conducted	2.71dB
Occupied Bandwidth	1.00%
Radio Frequency	0.2ppm
Time	5%
Temperature	1°C
Humidity	5%

5 General Description of EUT

5.1 Details of E.U.T.

Product Name	Smart Tracker
Brand Name	N/A
Model Name	StarTag X5
Family Model	Y09W, Y09, Y29, Y16, Y05, FotoPulse WT-01, Y17, Smart Tag, Y02, Y10
Model Difference	All models are identical except model's color. Full tests performed on model StarTag X5(white).
Note 1: The above information was declared by manufacturer.	

5.2 EUT Feature And Specification

Operation Frequency	2402MHz to 2480MHz			
Modulation	GFSK			
Number of Channels	40			
Power Supply	☒ DC supply: DC 3V, 210mAh from battery			
	☐ Adapter supply:			
Hardware Version	V1.0			
Firmware Version	V3.0.3			
Software Version	V3.0.3			
Frequency and Channel list:				
Channel		Frequency(MHz)	Channel	Frequency(MHz)
0		2402	19	2440
1		2404	20	2442
...		...	...	...
17		2436	38	2478
18		2438	39	2480

Note 1: The above information was declared by manufacturer.

Note 2: $F_k = 2.402 + k \times 2 \text{ MHz}$ ($k=0,1,\dots,39$)

5.3 Antenna Specifications

Antenna system	SISO
Antenna Type	Chip Antenna
Antenna Gain	1.24dBi

Note: 1. The above information was declared by manufacturer.

2. The antenna gain provided by customer is used to calculate the EIRP result. NTEK is not responsible for the accuracy of antenna gain parameter.

5.4 Deviation from Standards

None

5.5 Abnormalities from Standard Condition

None

6 Description of Test Modes and Operation Configuration of EUT

6.1 Description of Test Modes

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.
- b. AC power line Conducted Emission was tested under maximum output power.
- c. The measurements are performed at the highest, middle, lowest available channels.
- d. The measurements are performed at all Bit Rate of Transmitter, the worst data was reported

The following summary table is showing all test modes to demonstrate in compliance with the standard

No	Title	Description
TM1	TX mode	Keep the EUT in continuously transmitting mode with GFSK modulation at lowest, middle and highest channel.

6.2 Operation Configuration of EUT

Test Software	RF_Test.exe			
RF Power Setting as following:				
Mode	Occupied Bandwidth	Channel	Frequency(MHz)	Power Setting Value
GFSK	1MHz	0	2402	Default
GFSK	1MHz	19	2440	Default
GFSK	1MHz	39	2480	Default
GFSK	2MHz	0	2402	Default
GFSK	2MHz	19	2440	Default
GFSK	2MHz	39	2480	Default

Note: The above information was declared by manufacturer.

7 Setup Of Equipment Under Test

7.1 Block Diagram Configuration Of Test System

For Radiated Test Cases

AE-1
EUT

For RF Conducted Test Cases

Measurement
Instrument

C-2

AE-1
EUT

C-1

AE-2
PC

Note: 1. The temporary antenna connector is soldered on the PCB board in order to perform conducted tests.

2. EUT built-in battery-powered, the battery is fully-charged.

7.2 Support Equipment

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Description	Manufacturer	Model No.	Serial No.
AE-1	Smart Tracker	Shenzhen Lanyi Digital Technology Co., Ltd.	StarTag X5	N/A
AE-2	Laptop	DELL	Dell XPS 13	N/A
Item	Cable Type	Shielded Type	Ferrite Core	Length (cm)
C-1	USB cable	NO	NO	100cm
C-2	RF cable	YES	NO	10cm

8 Equipment List

Conducted measurements at antenna port					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Power meter	WCS	SMU-3002-CH4	N/A	2026-09-01	2027-08-31
Power meter	WCS	SMU-3002-CH3	N/A	2026-09-01	2027-08-31
Power meter	WCS	SMU-3002-CH2	N/A	2026-09-01	2027-08-31
Power meter	WCS	SMU-3002-CH1	N/A	2026-09-01	2027-08-31
Spread spectrum device	WCS	WCS-X07	N/A	2026-09-01	2027-08-31
Spread spectrum device	WCS	WCS-X07	N/A	2026-09-01	2027-08-31
Spread spectrum device	WCS	Z800A	N/A	/	/
Spectrum Analyzer	Keysight	N9020B	MY60112710	2025-12-25	2026-12-24
Vector Signal Generator	Keysight	N5182B	MY57301482	2026-04-08	2027-04-07
Analog Signal Generator	Keysight	N5183B	MY57280984	2026-04-27	2027-04-26
USB RF Power Sensor	DARE	RPR3006 W	15I00041SNO84	2026-04-08	2027-04-07
Wideband Radio Communication Tester	R&S	CMW500	148500	2026-04-27	2027-04-26

Radiated spurious emissions					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Low Noise Amplifier	EMC Solutions	TRLA-180400G50	25102901	2026-04-08	2027-04-07
Wideband Radio Communication Tester	R&S	CMW500	153336	2026-04-08	2027-04-07
Spectrum Analyzer	Keysight	N9020B	MY60112710	2025-12-25	2026-12-24
Semi Anechoic Chamber	N/A	966	N/A	2024-05-20	2027-05-19
Spectrum Analyzer	Keysight	N9020A	MY53280244	2026-04-15	2027-04-14
Broadband Horn Antenna	SCHWARZBECK	BBHA 9120 D	2816	2024-05-18	2027-05-17
AMPLIFIER	Sonoma	310N	186604	2026-04-08	2027-04-07
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	803	2024-05-12	2027-05-11
Active Loop Antenna	SCHWARZBECK	FMZB 1519 B	055	2024-05-17	2027-05-16
Spectrum Analyzer	R&S	FSV40	101417	2026-04-08	2027-04-07
Low Noise Amplifier	B&Z	BZ-P540-550850-452727	16476-11729	2026-04-16	2027-04-15

Pre-Amplifier	EMC	EMC0518 35SE	980246	2026-04-08	2027-04-07
Universal Radio Communication Tester	R&S	CMU200	117858	2026-04-08	2027-04-07
Universal Radio Communication Tester	R&S	CMU200	105747	2026-04-08	2027-04-07
Broadband Horn Antenna	EM	EM-AH- 10180	2011071402	2024-05-12	2027-05-11

Measurement Software

Manufacturer	Software Name	Software Version	Description
MWRFTtest	MTS 8310 2.4GHz/5GHz	2.0	RF Conducted Test
Farad	EZ-EMC_RE	AIT-03A	Radiated Test

9 Evaluation Results (Evaluation)

9.1 Antenna requirement

Test Requirement:	Refer to 47 CFR Part 15.203, 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.
Test Method:	---

10.1.3 Test Data:

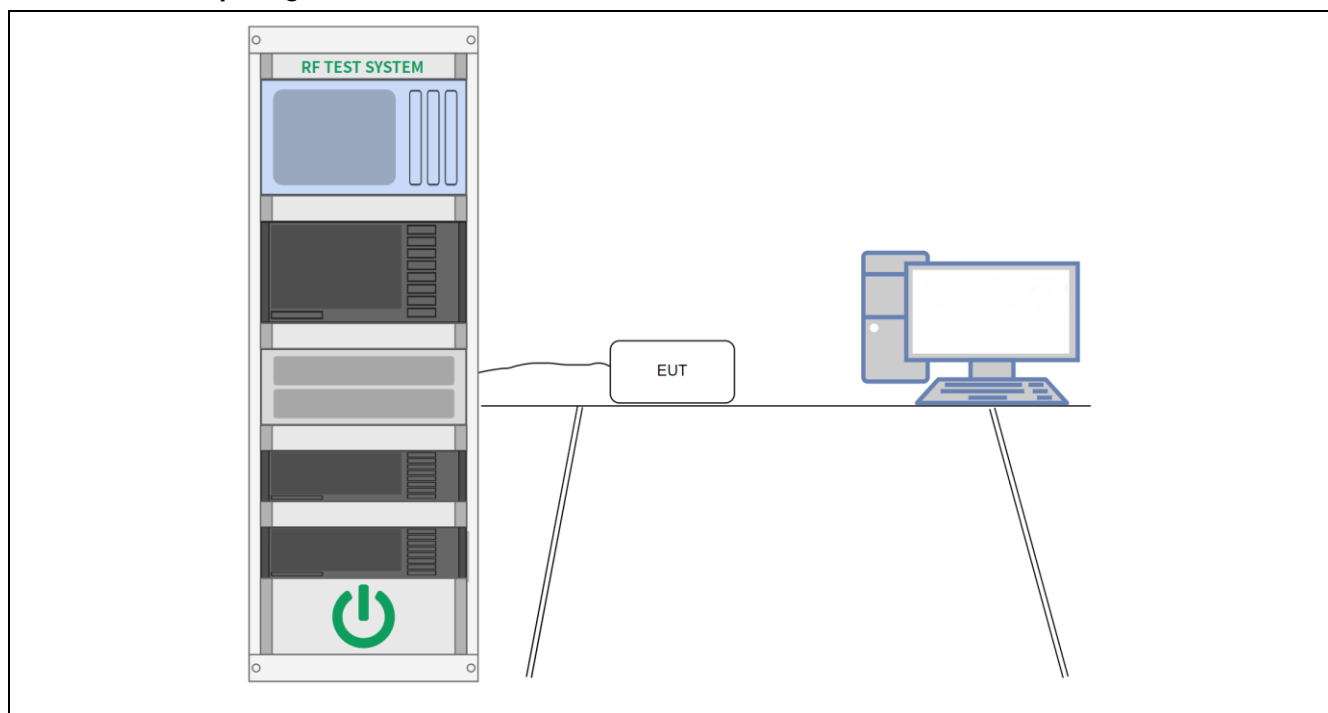
Not Applicable

This device do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines.

10.2 Duty cycle

Test Requirement:	Reporting purposes only
Test Limit:	---
Test Method:	ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024, section 11.6 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer. Use the following spectrum analyzer settings: a) Set the center frequency of the instrument to the center frequency of the transmission. b) Set RBW $\geq$ OBW if possible; otherwise, set RBW to the largest available value. c) Set VBW $\geq$ RBW. Set detector = peak or average.

10.2.1 Test Setup Diagram:



10.2.2 E.U.T. Operation:

Operating Environment:					
Temperature:	24.3 °C	Humidity:	55 %	Atmospheric Pressure:	99.9 mbar
Per-test mode:	TM1				
Final test mode:	TM1				

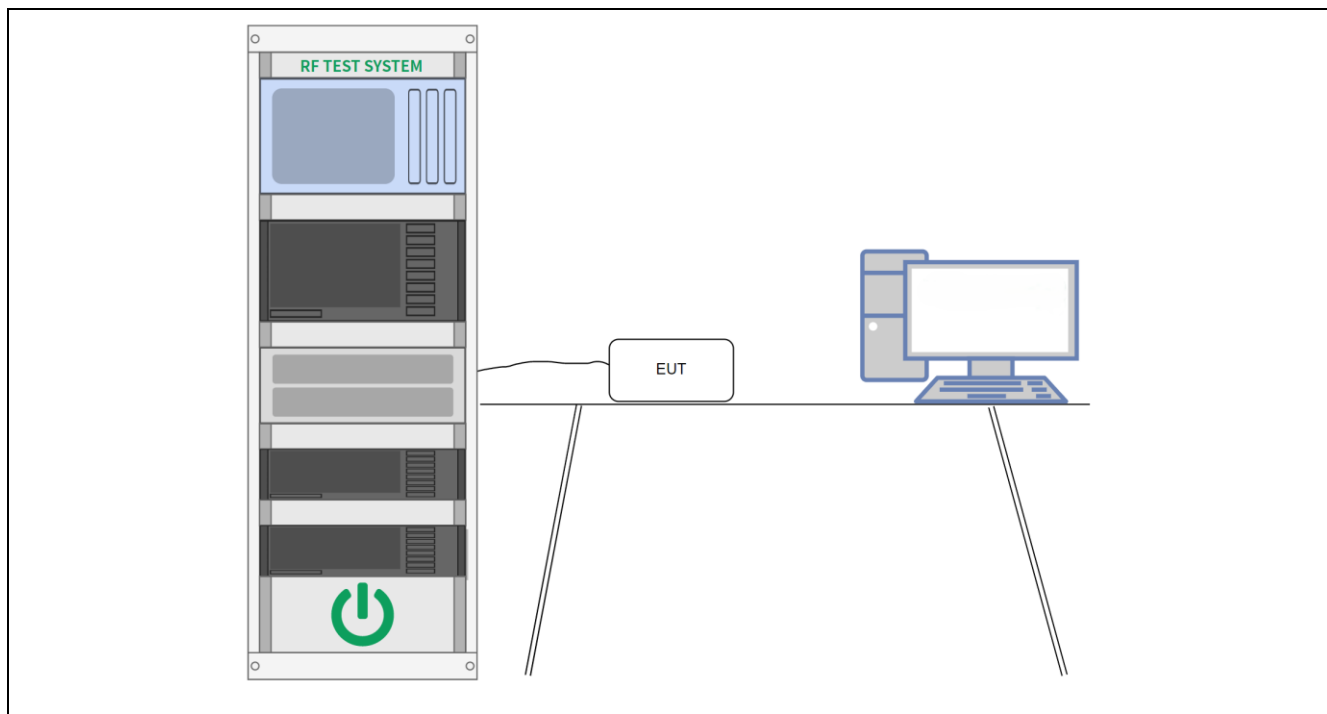
10.2.3 Test Data:

Please Refer to Appendix for Details.

10.3 99% Bandwidth

Test Requirement:	Reporting purposes only
Test Limit:	---
Test Method:	ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024, section 6.9.3.
Procedure:	Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer. Use the following spectrum analyzer settings: a) Span = The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW. b) RBW = 1% to 5% of the OBW. c) VBW $\geq 3 \times$ RBW d) Sweep = auto; e) Detector function = peak f) Trace = max hold g) Use the 99% power bandwidth function of the instrument and report the measured bandwidth. Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

10.3.1 Test Setup Diagram:



10.3.2 E.U.T. Operation:

Operating Environment:					
Temperature:	24.3 °C	Humidity:	55 %	Atmospheric Pressure:	99.9 mbar
Per-test mode:	TM1				
Final test mode:	TM1				

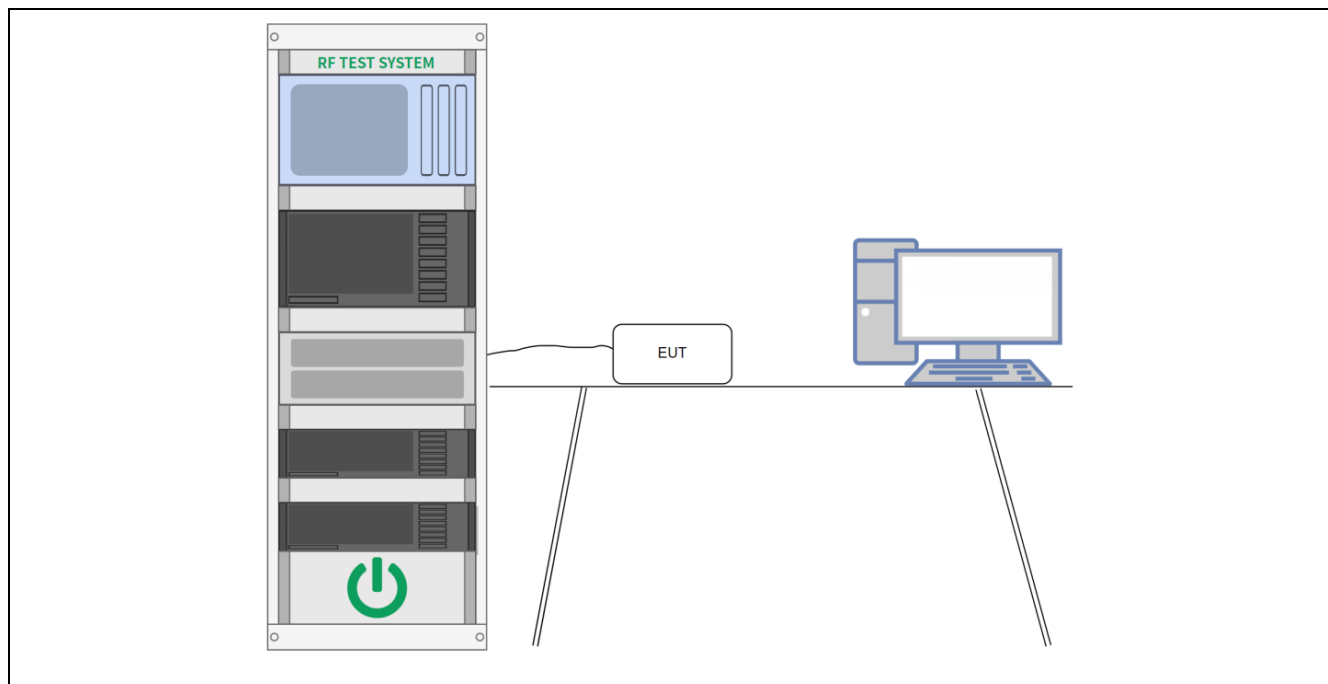
10.3.3 Test Data:

Please Refer to Appendix for Details.

10.4 6dB Bandwidth

Test Requirement:	47 CFR 15.247(a)(2)
Test Limit:	Refer to 47 CFR 15.247(a)(2), Systems using digital modulation techniques may operate in the 902-928 MHz, and 2400-2483.5 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, section 11.8 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	11.8.1 Option 1 The steps for the first option are as follows: a) Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz. b) Set the VBW $\geq [3 \times \text{RBW}]$. c) Detector = peak. d) Trace mode = max-hold. e) Sweep = No faster than coupled (auto) time. f) Allow the trace to stabilize. g) Measure the maximum width of the emission by placing two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “-6 dB down amplitude”. If a marker is below this “-6 dB down amplitude” value, then it shall be as close as possible to this value. 11.8.2 Option 2 The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described in 11.8.1 (i.e., RBW = 100 kHz, VBW $\geq 3 \times \text{RBW}$, and peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB. Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

10.4.1 Test Setup Diagram:



10.4.2 E.U.T. Operation:

Operating Environment:					
Temperature:	24.3 °C	Humidity:	55 %	Atmospheric Pressure:	99.9 mbar
Per-test mode:	TM1				

Final test mode:	TM1
------------------	-----

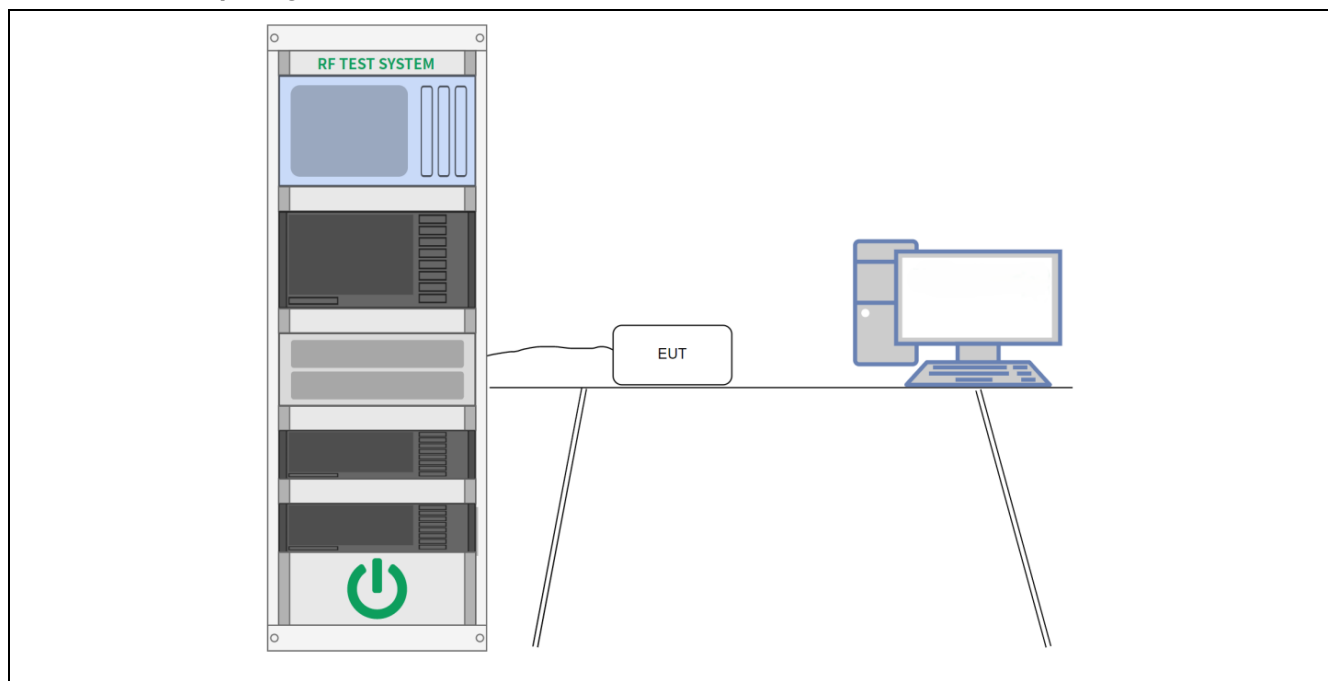
10.4.3 Test Data:

Please Refer to Appendix for Details.

10.5 Maximum Conducted Output Power

Test Requirement:	47 CFR 15.247(b)(3)
Test Limit:	Refer to 47 CFR 15.247(b)(3), For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.
Test Method:	ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024 section 11.9.1 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer. Use the following spectrum analyzer settings: a) Set the RBW $\geq$ DTS bandwidth. b) Set VBW $\geq$ $[3 \times \text{RBW}]$. c) Set span $\geq$ $[3 \times \text{RBW}]$. d) Sweep time = No faster than coupled (auto) time. e) Detector = peak. f) Trace mode = max-hold. g) Allow trace to fully stabilize. h) Use peak marker function to determine the peak amplitude level. Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

10.5.1 Test Setup Diagram:



10.5.2 E.U.T. Operation:

Operating Environment:					
Temperature:	24.3 °C	Humidity:	55 %	Atmospheric Pressure:	99.9 mbar
Per-test mode:	TM1				
Final test mode:	TM1				

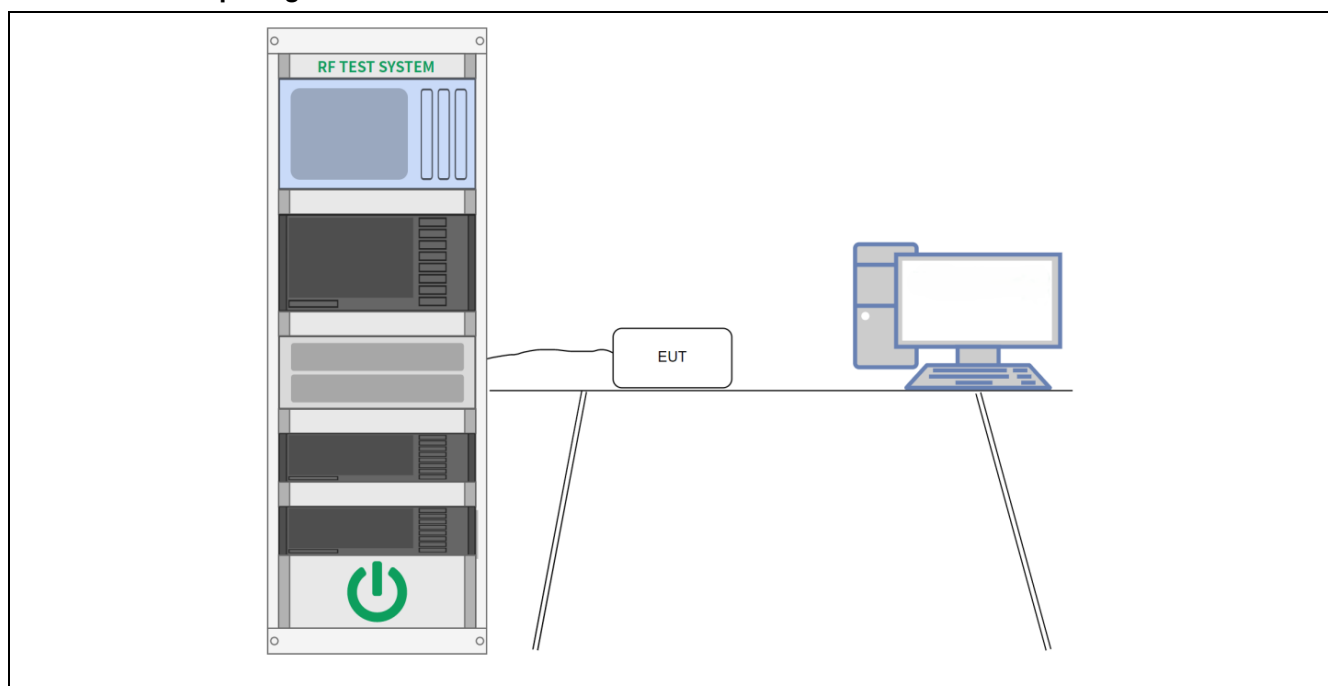
10.5.3 Test Data:

Please Refer to Appendix for Details.

10.6 Power Spectral Density

Test Requirement:	47 CFR 15.247(e)
Test Limit:	Refer to 47 CFR 15.247(e), 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. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, section 11.10 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer. Use the following spectrum analyzer settings: a) Set analyzer center frequency to DTS channel center frequency. b) Set the span >1.5 times the DTS bandwidth. c) Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$. d) Set the VBW $\geq [3 \times \text{RBW}]$. e) Detector = peak. f) Sweep time = No faster than coupled (auto) time. g) Trace mode = max-hold. h) Allow trace to fully stabilize. i) Use the peak marker function to determine the maximum amplitude level within the RBW. j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat. Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

10.6.1 Test Setup Diagram:



10.6.2 E.U.T. Operation:

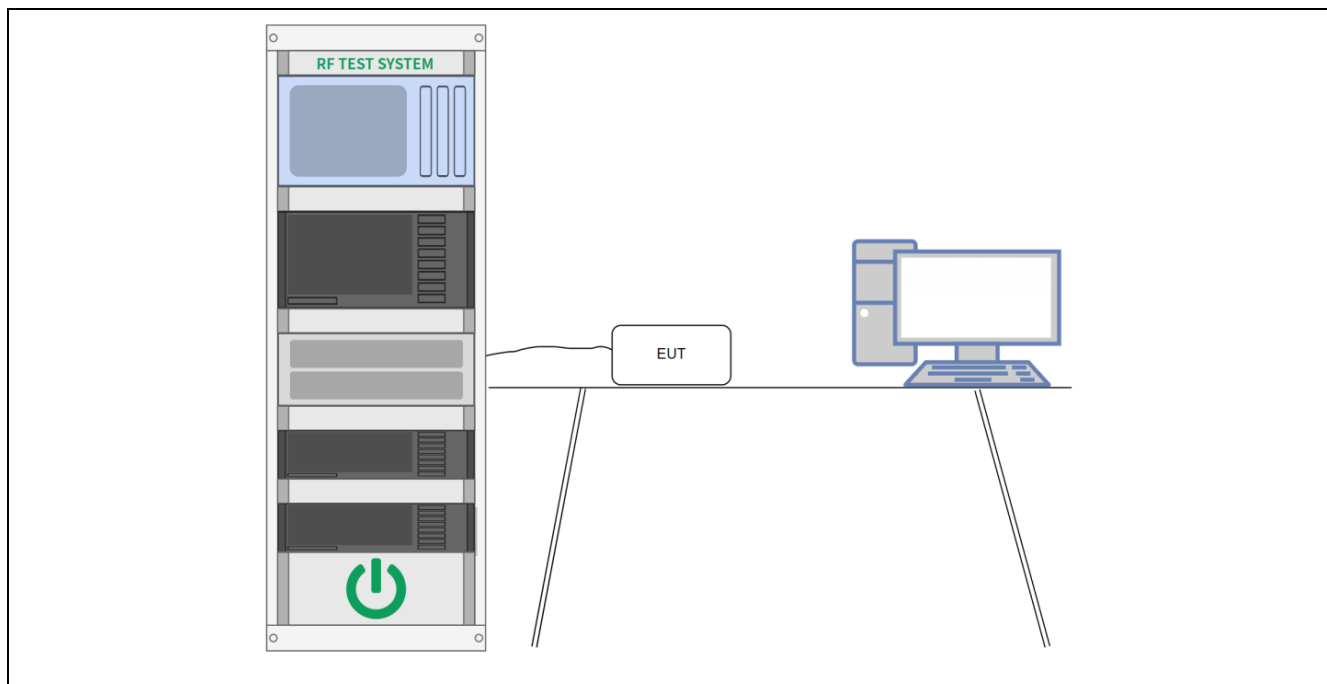
Operating Environment:					
Temperature:	24.3 °C	Humidity:	55 %	Atmospheric Pressure:	99.9 mbar
Per-test mode:	TM1				
Final test mode:	TM1				

10.6.3 Test Data:

Please Refer to Appendix for Details.

10.7 Emissions in non-restricted frequency bands

Test Requirement:	47 CFR 15.247(d)
Test Limit:	Refer to 47 CFR 15.247(d), In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in § 15.209(a) is not required.
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 11.11 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer. Use the following spectrum analyzer settings: Step 1: Reference level measurement Establish a reference level by using the following procedure: - Set instrument center frequency to DTS channel center frequency. - Set the span to ≥ 1.5 times the DTS bandwidth. - Set the RBW = 100 kHz. - Set the VBW $\geq [3 \times \text{RBW}]$. - Detector = peak. - Sweep time = No faster than coupled (auto) time. - Trace mode = max-hold. - Allow trace to fully stabilize. - Use the peak marker function to determine the maximum PSD level. Note that the channel found to contain the maximum PSD level can be used to establish the reference level. Step 2: Emission level measurement Establish an emission level by using the following procedure: - Set the center frequency and span to encompass frequency range to be measured. Note that the frequency range might need to be divided into multiple frequency ranges to retain frequency resolution. NOTE—the number of points can also be increased for large spans to retain frequency resolution - Set the RBW = 100 kHz. - Set the VBW $\geq [3 \times \text{RBW}]$. - Detector = peak. - Sweep time = No faster than coupled (auto) time. - Trace mode = max-hold. - Allow trace to fully stabilize. - Use the peak marker function to determine the maximum amplitude level. Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

10.7.1 Test Setup Diagram:**10.7.2 E.U.T. Operation:**

Operating Environment:					
Temperature:	24.3 °C	Humidity:	55 %	Atmospheric Pressure:	99.9 mbar
Per-test mode:	TM1				
Final test mode:	TM1				

10.7.3 Test Data:

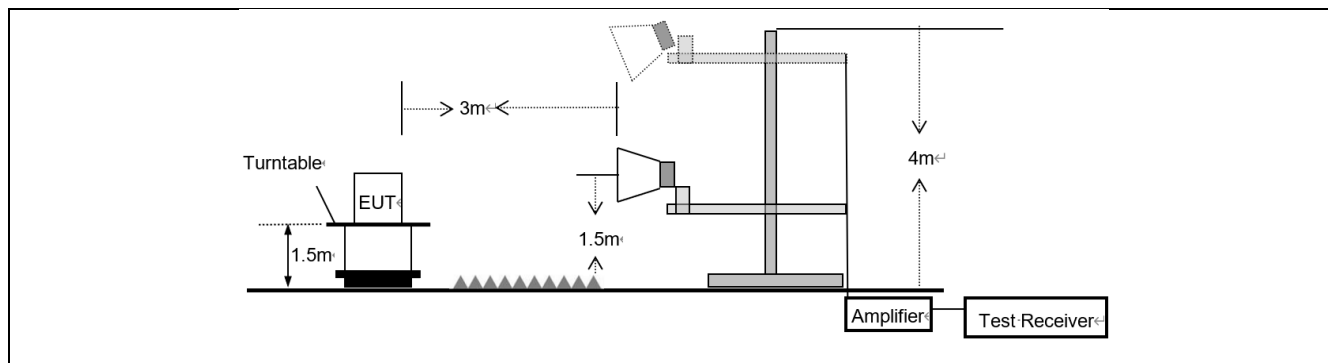
Please Refer to Appendix for Details.

10.8 Band edge emissions (Radiated)

Test Requirement:	Refer to 47 CFR 15.247(d), In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)(see § 15.205(c)).																																																																									
Test Limit:	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)																																																																							
	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 **	3																																																																							
	88-216	150 **	3																																																																							
	216-960	200 **	3																																																																							
	Above 960	500	3																																																																							
	** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241. In the emission table above, the tighter limit applies at the band edges. The emission limits shown in the above table are based on measurements employing a 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.																																																																									
	Table 1 – Restricted frequency bands <table> <tr> <th>MHz</th><th>MHz</th><th>MHz</th><th>GHz</th></tr> <tr> <td>0.090-0.110</td><td>16.42-16.423</td><td>399.9-410</td><td>4.5-5.15</td></tr> <tr> <td>0.495-0.505</td><td>16.69475-16.69525</td><td>608-614</td><td>5.35-5.46</td></tr> <tr> <td>2.1735-2.1905</td><td>16.80425-16.80475</td><td>960-1240</td><td>7.25-7.75</td></tr> <tr> <td>4.125-4.128</td><td>25.5-25.67</td><td>1300-1427</td><td>8.025-8.5</td></tr> <tr> <td>4.17725-4.17775</td><td>37.5-38.25</td><td>1435-1626.5</td><td>9.0-9.2</td></tr> <tr> <td>4.20725-4.20775</td><td>73-74.6</td><td>1645.5-1646.5</td><td>9.3-9.5</td></tr> <tr> <td>6.215-6.218</td><td>74.8-75.2</td><td>1660-1710</td><td>10.6-12.7</td></tr> <tr> <td>6.26775-6.26825</td><td>108-121.94</td><td>1718.8-1722.2</td><td>13.25-13.4</td></tr> <tr> <td>6.31175-6.31225</td><td>123-138</td><td>2200-2300</td><td>14.47-14.5</td></tr> <tr> <td>8.291-8.294</td><td>149.9-150.05</td><td>2310-2390</td><td>15.35-16.2</td></tr> <tr> <td>8.362-8.366</td><td>156.52475-156.52525</td><td>2483.5-2500</td><td>17.7-21.4</td></tr> <tr> <td>8.37625-8.38675</td><td>156.7-156.9</td><td>2690-2900</td><td>22.01-23.12</td></tr> <tr> <td>8.41425-8.41475</td><td>162.0125-167.17</td><td>3260-3267</td><td>23.6-24.0</td></tr> <tr> <td>12.29-12.293</td><td>167.72-173.2</td><td>3332-3339</td><td>31.2-31.8</td></tr> <tr> <td>12.51975-12.52025</td><td>240-285</td><td>3345.8-3358</td><td>36.43-36.5</td></tr> <tr> <td>12.57675-12.57725</td><td>322-335.4</td><td>3600-4400</td><td>Above 38.6</td></tr> <tr> <td>13.36-13.41</td><td></td><td></td><td></td></tr> </table>			MHz	MHz	MHz	GHz	0.090-0.110	16.42-16.423	399.9-410	4.5-5.15	0.495-0.505	16.69475-16.69525	608-614	5.35-5.46	2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75	4.125-4.128	25.5-25.67	1300-1427	8.025-8.5	4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2	4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5	6.215-6.218	74.8-75.2	1660-1710	10.6-12.7	6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4	6.31175-6.31225	123-138	2200-2300	14.47-14.5	8.291-8.294	149.9-150.05	2310-2390	15.35-16.2	8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4	8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12	8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0	12.29-12.293	167.72-173.2	3332-3339	31.2-31.8	12.51975-12.52025	240-285	3345.8-3358	36.43-36.5	12.57675-12.57725	322-335.4	3600-4400	Above 38.6	13.36-13.41		
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Test Method:	ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024 section 6.10 KDB 558074 D01 15.247 Meas Guidance v05r02																																																																									
Procedure:	Radiated band edge measurements at 2390 MHz and 2483.5 MHz were made with the unit transmitting in the low end of the channel range and the high end closest to the restricted bands respectively. The emissions were made on the 966 Semi-Chamber. Use (resolution bandwidth (RBW) = 1 MHz, video bandwidth (VBW) = 3 MHz for peak levels and RBW = 1 MHz and VBW = 10 Hz or 1/T for average levels). a) Use radiated spurious emission test procedure described in clause 10.12. The transmitter output (antenna port) was connected to the antenna. b) Set the PK and AV limit line. c) Record the fundamental emission and emissions out of the band-edge. d) Determine band-edge compliance as required. Where, a) Factor = Antenna Factor + Cable Loss, the value was added to Original																																																																									

Receiver Reading by the software automatically.
b) Level = Reading + Factor.
c) Margin = Level – Limit

10.8.1 Test Setup Diagram:



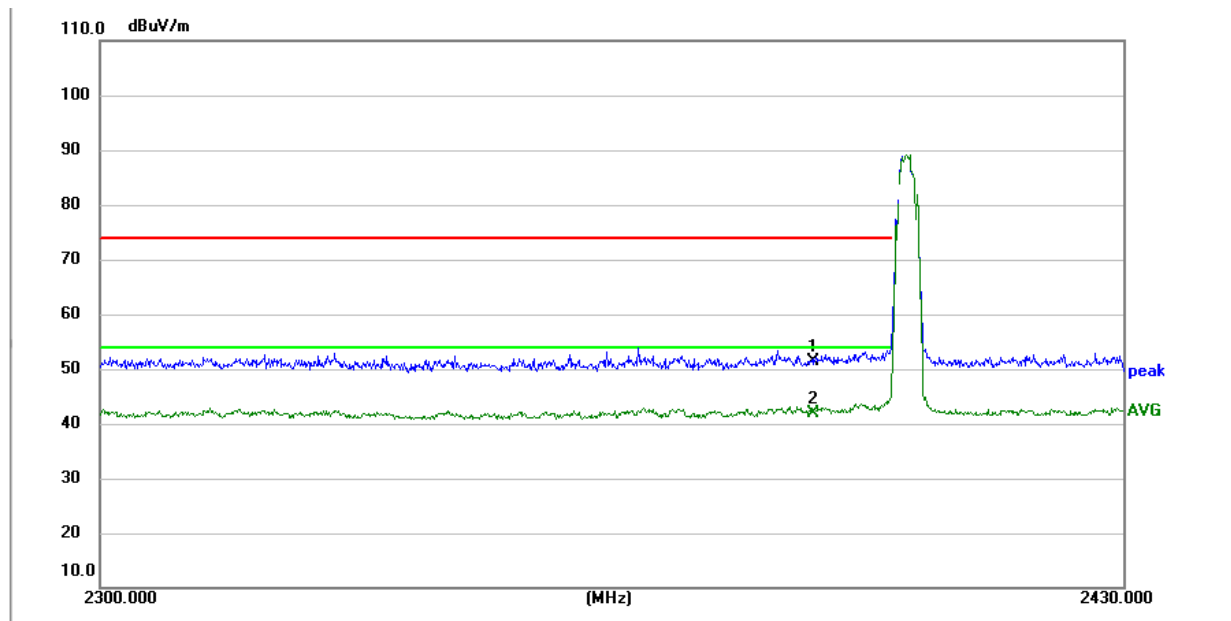
10.8.2 E.U.T. Operation:

Operating Environment:					
Temperature:	24.6 °C	Humidity:	59 %	Atmospheric Pressure:	99.9 mbar
Per-test mode:	TM1				
Final test mode:	TM1				

Note: All the modulation modes have been tested, and the worst case result(BLE 2M) was reported.

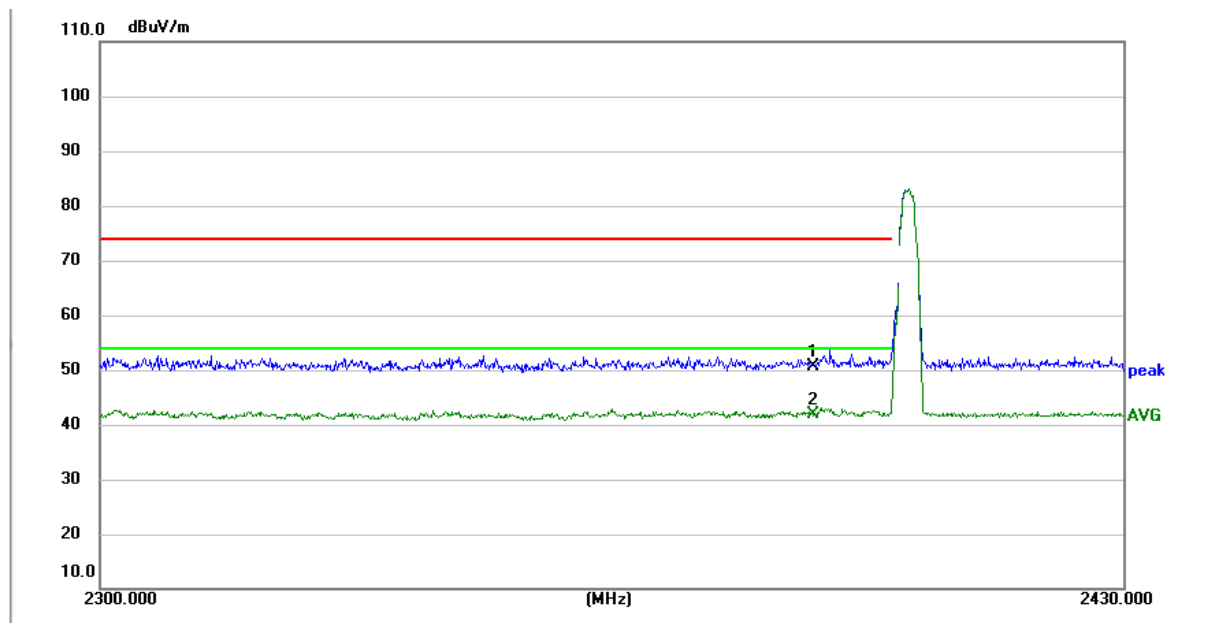
10.8.3 Test Data:

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 2 / CH: L



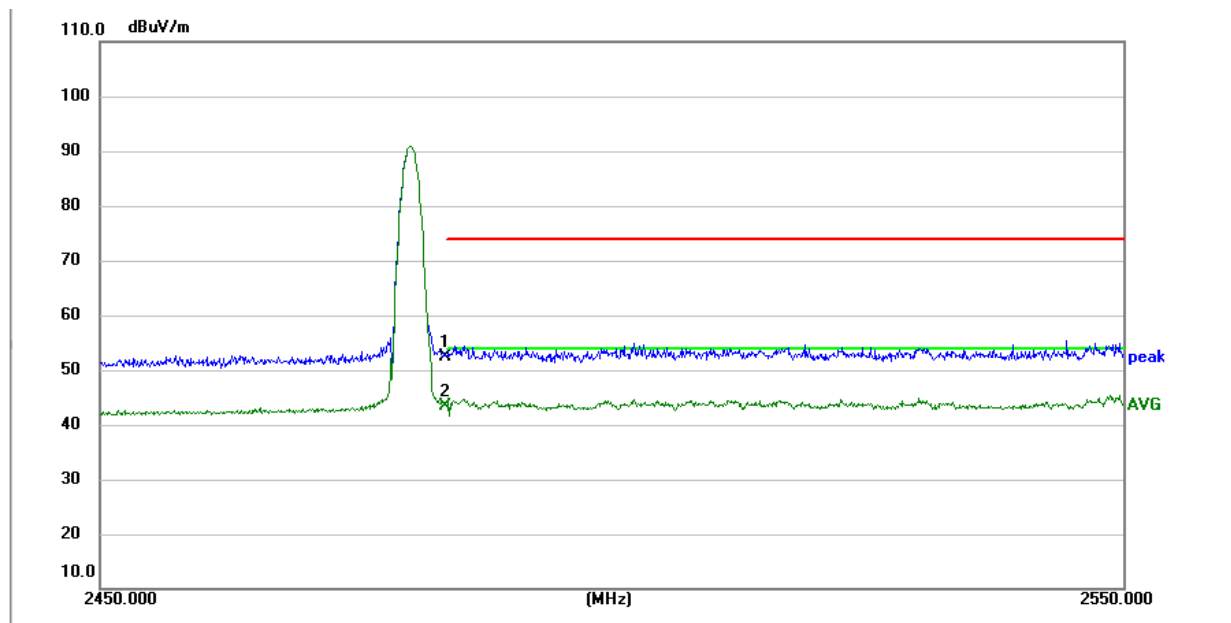
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	2390.000	21.58	29.88	51.46	74.00	-22.54	peak	P	
2 *	2390.000	12.07	29.88	41.95	54.00	-12.05	AVG	P	

TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 2 / CH: L



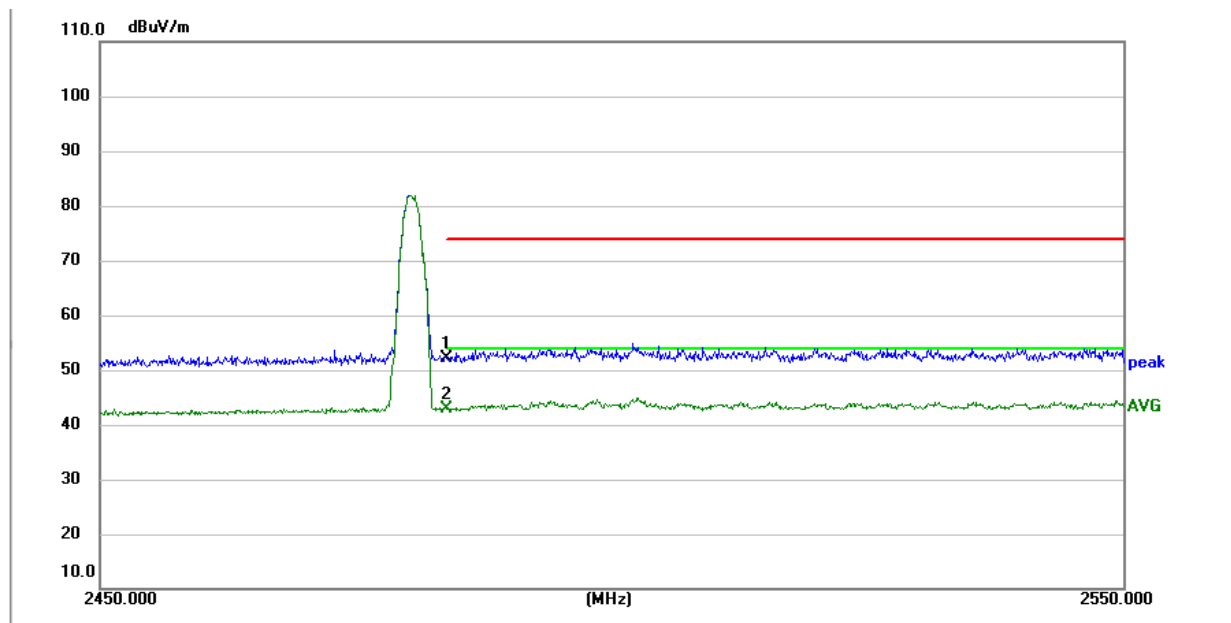
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	2390.000	20.67	29.88	50.55	74.00	-23.45	peak	P	
2 *	2390.000	11.92	29.88	41.80	54.00	-12.20	AVG	P	

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 2 / CH: H



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	2483.500	21.77	30.69	52.46	74.00	-21.54	peak	P	
2 *	2483.500	12.72	30.69	43.41	54.00	-10.59	AVG	P	

TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 2 / CH: H

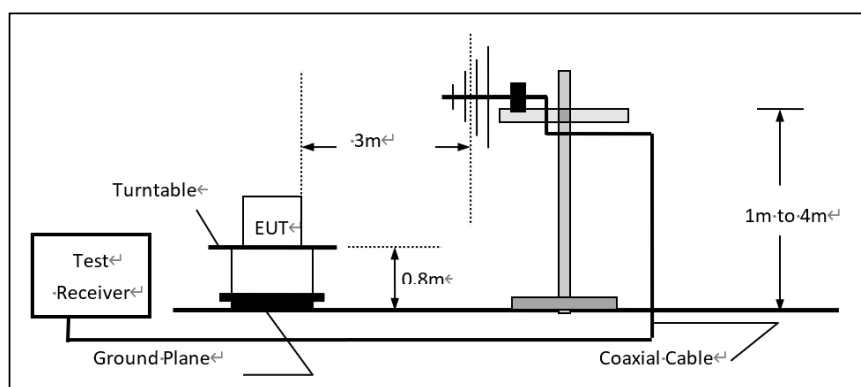
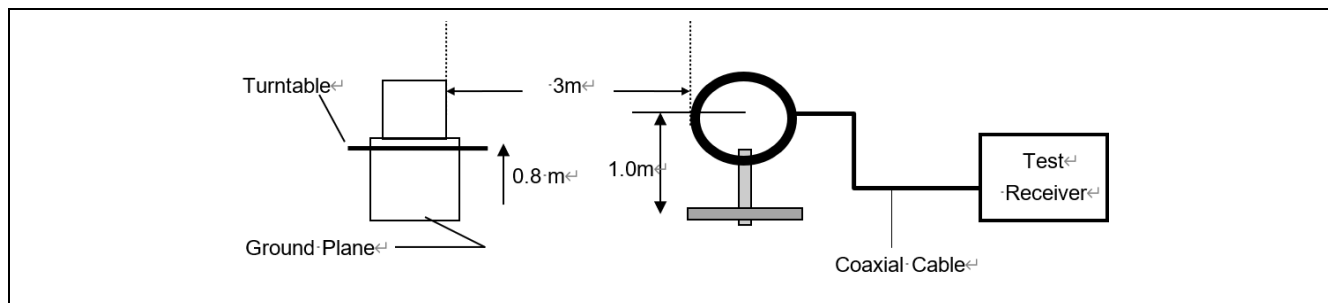


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	2483.500	21.39	30.69	52.08	74.00	-21.92	peak	P	
2 *	2483.500	12.16	30.69	42.85	54.00	-11.15	AVG	P	

10.9 Emissions in frequency bands (below 1GHz)

Test Requirement:	Refer to 47 CFR 15.247(d), In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)(see § 15.205(c)).		
Test Limit:	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
	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 **	3
	88-216	150 **	3
	216-960	200 **	3
	Above 960	500	3
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241. In the emission table above, the tighter limit applies at the band edges. The emission limits shown in the above table are based on measurements employing a 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.			
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.5.4 KDB 558074 D01 15.247 Meas Guidance v05r02		
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.5.4		

10.9.1 Test Setup Diagram:



10.9.2E.U.T. Operation:

Operating Environment:					
Temperature:	24.6 °C	Humidity:	59 %	Atmospheric Pressure:	99.9 mbar
Per-test mode:	TM1				
Final test mode:	TM1				

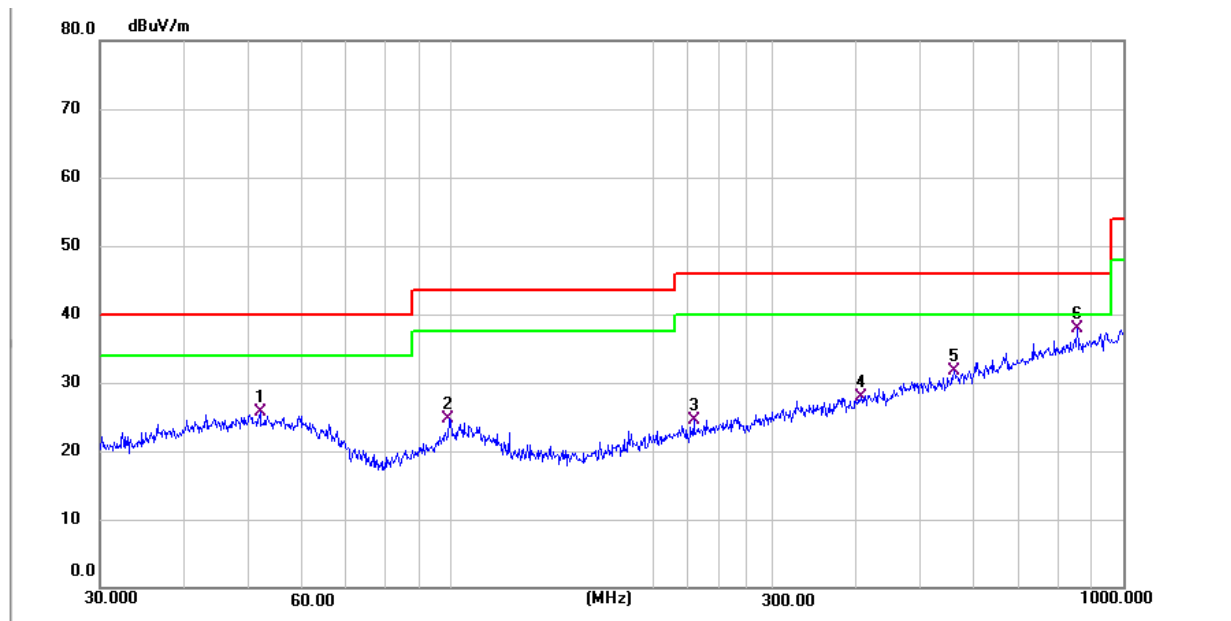
Note:

For 9kHz~30MHz the amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

For 30MHz~1GHz all the modulation modes have been tested, and the worst case result was reported.

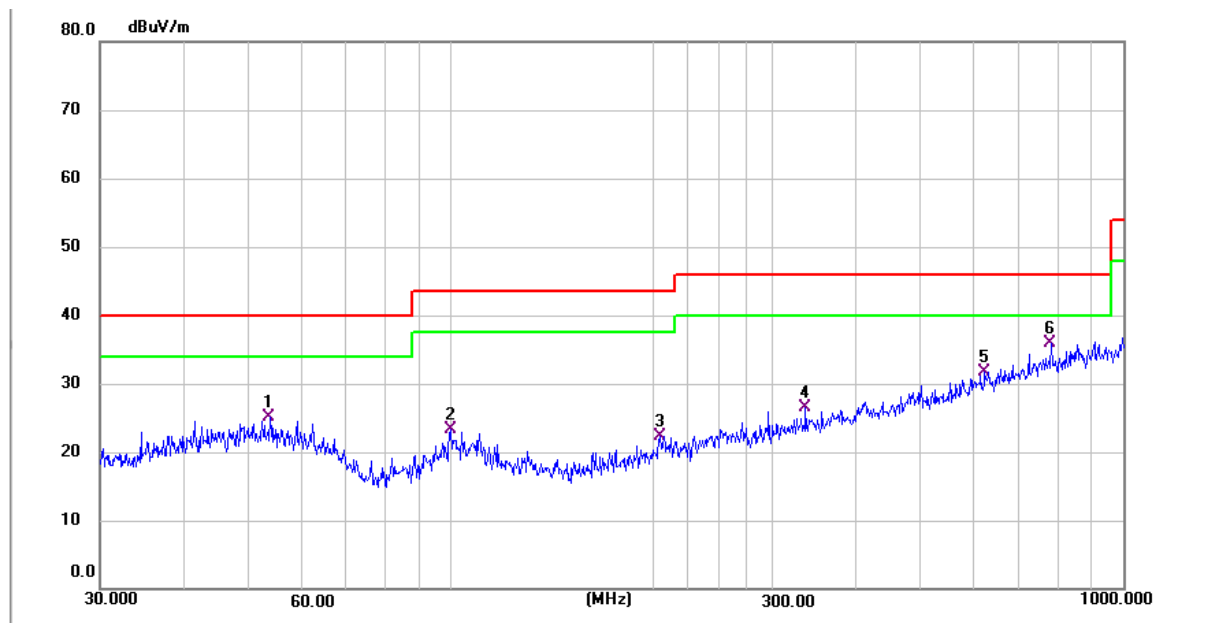
10.9.3 Test Data:

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 2 / CH: M



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	51.8430	5.60	20.19	25.79	40.00	-14.21	QP	P	
2	99.5279	6.51	18.15	24.66	43.50	-18.84	QP	P	
3	229.2930	5.92	18.57	24.49	46.00	-21.51	QP	P	
4	406.0880	5.06	22.80	27.86	46.00	-18.14	QP	P	
5	560.6930	6.30	25.49	31.79	46.00	-14.21	QP	P	
6 *	854.0250	7.84	30.10	37.94	46.00	-8.06	QP	P	

TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 2 / CH: M



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	53.6930	5.24	19.82	25.06	40.00	-14.94	QP	P	
2	99.8780	5.07	18.25	23.32	43.50	-20.18	QP	P	
3	204.2380	4.63	17.67	22.30	43.50	-21.20	QP	P	
4	336.0350	5.18	21.38	26.56	46.00	-19.44	QP	P	
5	622.8900	5.15	26.55	31.70	46.00	-14.30	QP	P	
6 *	782.3449	6.96	29.04	36.00	46.00	-10.00	QP	P	

10.10 Emissions in frequency bands (above 1GHz)

Test Requirement:	Refer to 47 CFR 15.247(d), in addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)(see § 15.205(c)).		
Test Limit:	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
	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 **	3
	88-216	150 **	3
	216-960	200 **	3
	Above 960	500	3
	** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241. In the emission table above, the tighter limit applies at the band edges. The emission limits shown in the above table are based on measurements employing a 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.		
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.5.4 KDB 558074 D01 15.247 Meas Guidance v05r02		
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.5.4		

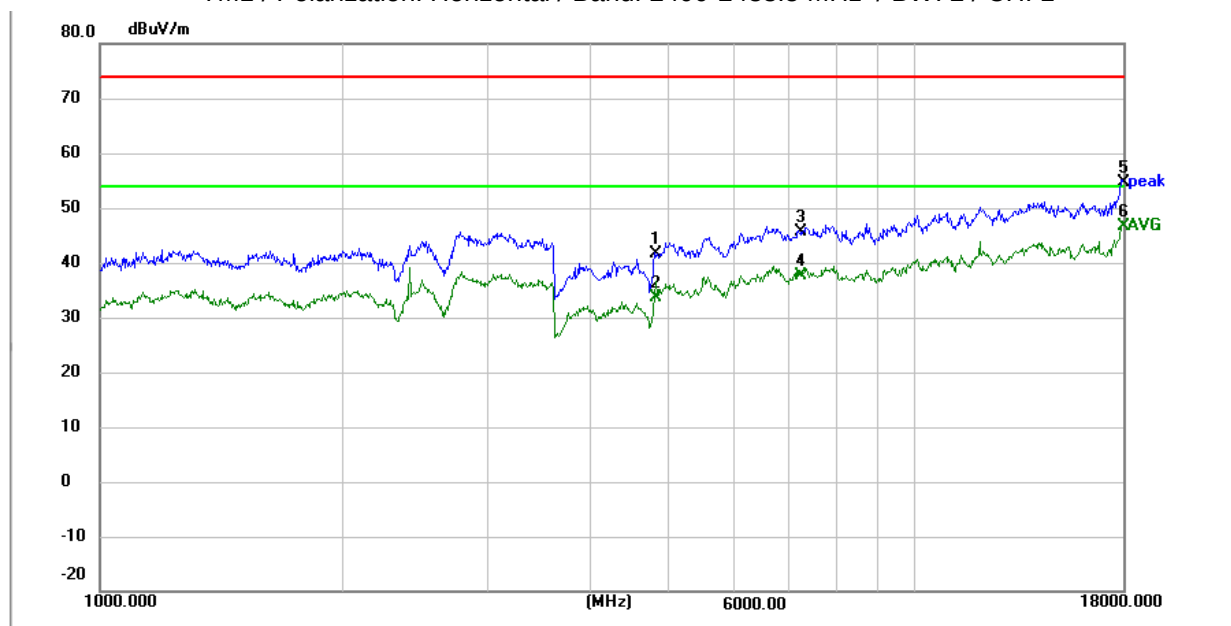
10.10.1 E.U.T. Operation:

Operating Environment:					
Temperature:	24.6 °C	Humidity:	59 %	Atmospheric Pressure:	99.9 mbar
Per-test mode:	TM1				
Final test mode:	TM1				

Note: All the modulation modes have been tested, and the worst case result (2MHz)was reported.

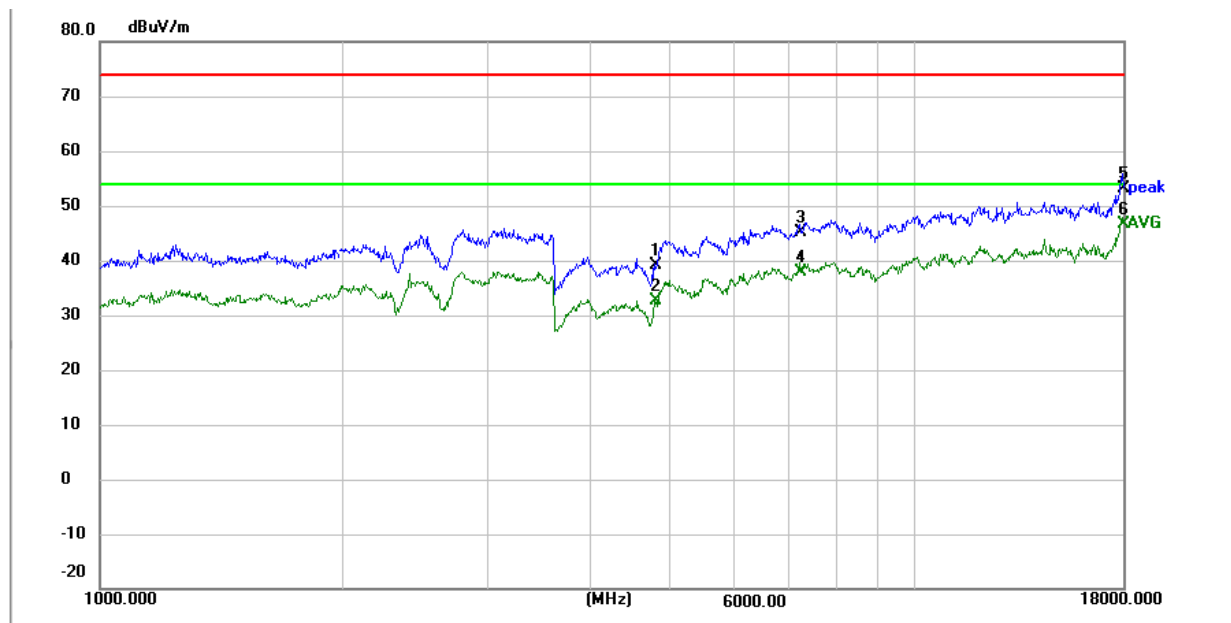
10.10.2 Test Data:

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 2 / CH: L



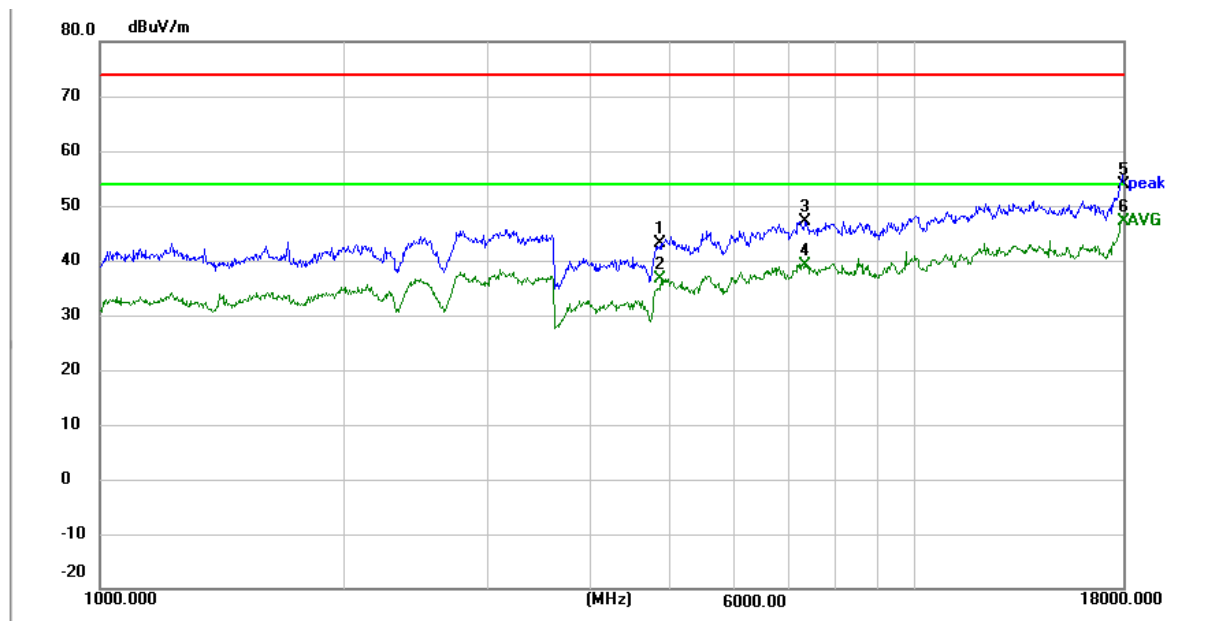
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	4824.000	48.59	-6.95	41.64	74.00	-32.36	peak	P	
2	4824.000	40.70	-6.95	33.75	54.00	-20.25	AVG	P	
3	7236.000	48.32	-2.59	45.73	74.00	-28.27	peak	P	
4	7236.000	40.18	-2.59	37.59	54.00	-16.41	AVG	P	
5	18000.000	40.96	13.61	54.57	74.00	-19.43	peak	P	
6 *	18000.000	33.11	13.61	46.72	54.00	-7.28	AVG	P	

TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 2 / CH: L



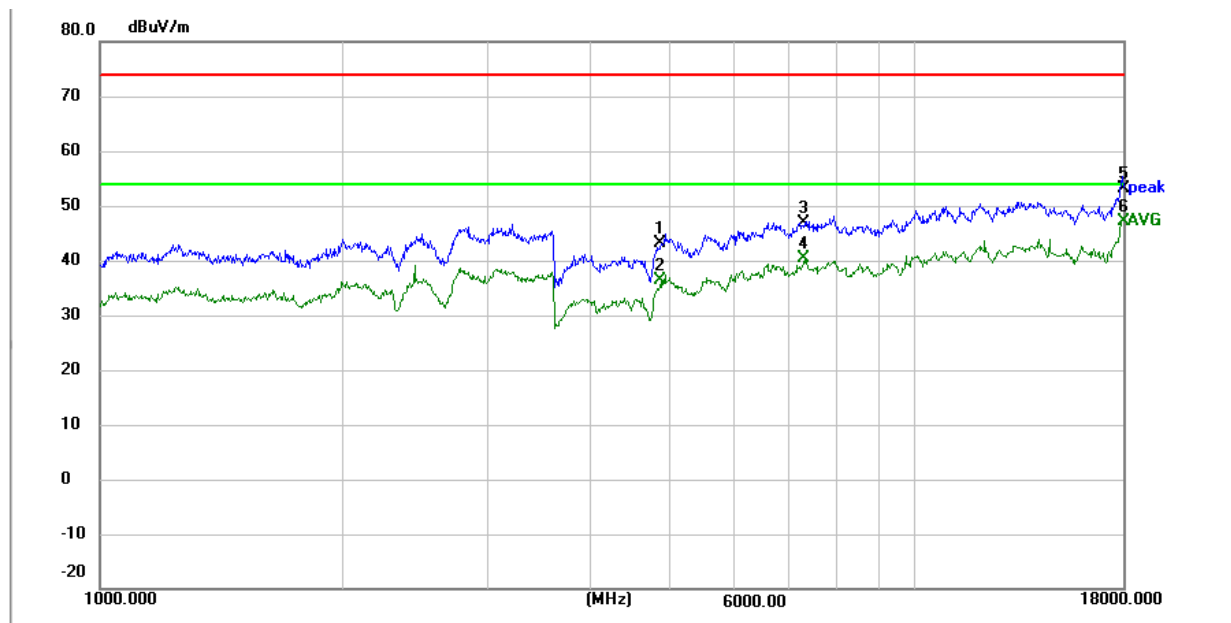
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	4824.000	46.17	-6.95	39.22	74.00	-34.78	peak	P	
2	4824.000	39.47	-6.95	32.52	54.00	-21.48	AVG	P	
3	7236.000	47.76	-2.59	45.17	74.00	-28.83	peak	P	
4	7236.000	40.44	-2.59	37.85	54.00	-16.15	AVG	P	
5	18000.000	39.48	13.61	53.09	74.00	-20.91	peak	P	
6 *	18000.000	32.99	13.61	46.60	54.00	-7.40	AVG	P	

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 2 / CH: M



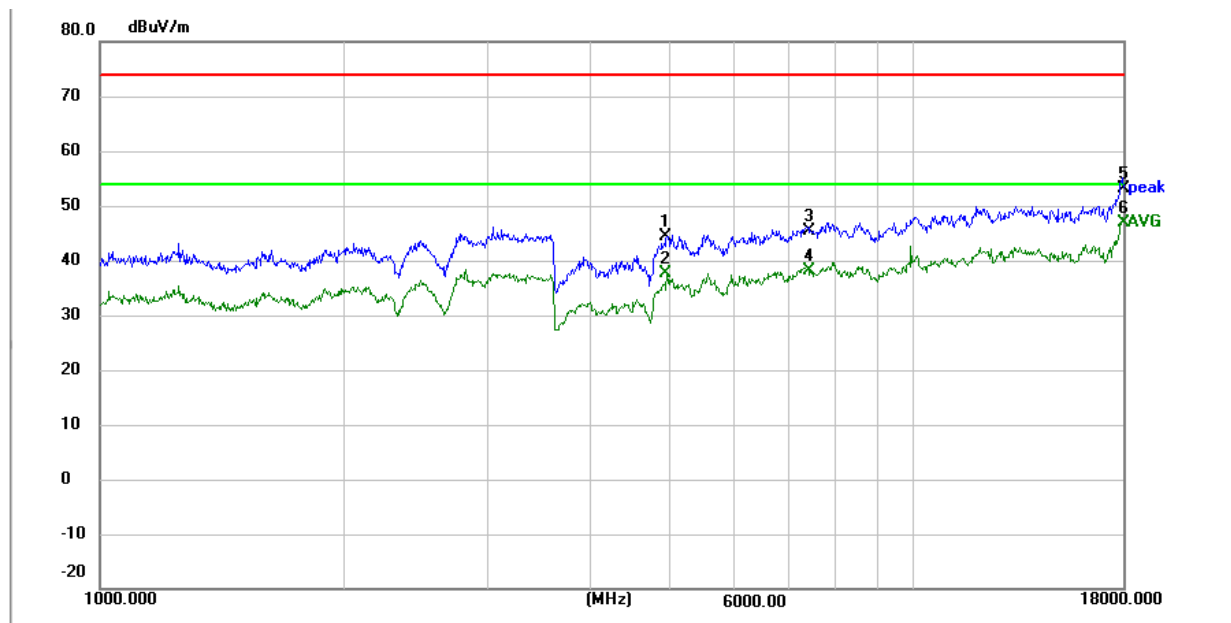
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	4880.000	50.29	-7.23	43.06	74.00	-30.94	peak	P	
2	4880.000	43.86	-7.23	36.63	54.00	-17.37	AVG	P	
3	7320.000	49.24	-2.11	47.13	74.00	-26.87	peak	P	
4	7320.000	41.30	-2.11	39.19	54.00	-14.81	AVG	P	
5	18000.000	40.23	13.61	53.84	74.00	-20.16	peak	P	
6 *	18000.000	33.63	13.61	47.24	54.00	-6.76	AVG	P	

TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 2 / CH: M



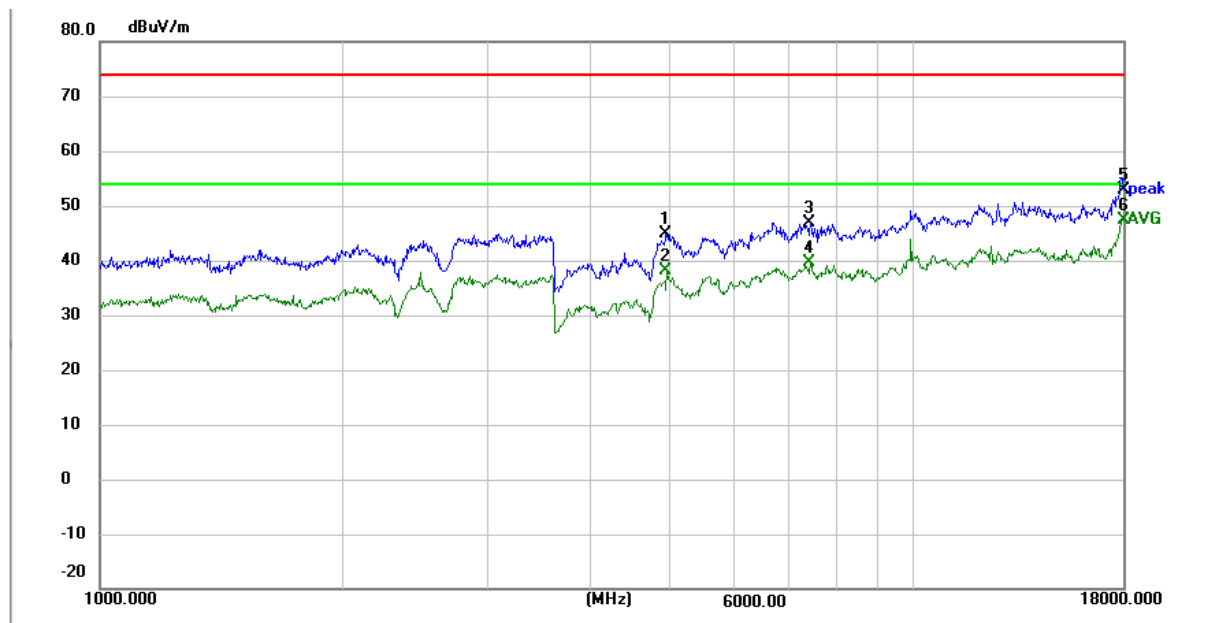
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	4880.000	50.30	-7.23	43.07	74.00	-30.93	peak	P	
2	4880.000	43.50	-7.23	36.27	54.00	-17.73	AVG	P	
3	7320.000	49.02	-2.11	46.91	74.00	-27.09	peak	P	
4	7320.000	42.39	-2.11	40.28	54.00	-13.72	AVG	P	
5	18000.000	39.43	13.61	53.04	74.00	-20.96	peak	P	
6 *	18000.000	33.43	13.61	47.04	54.00	-6.96	AVG	P	

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 2 / CH: H



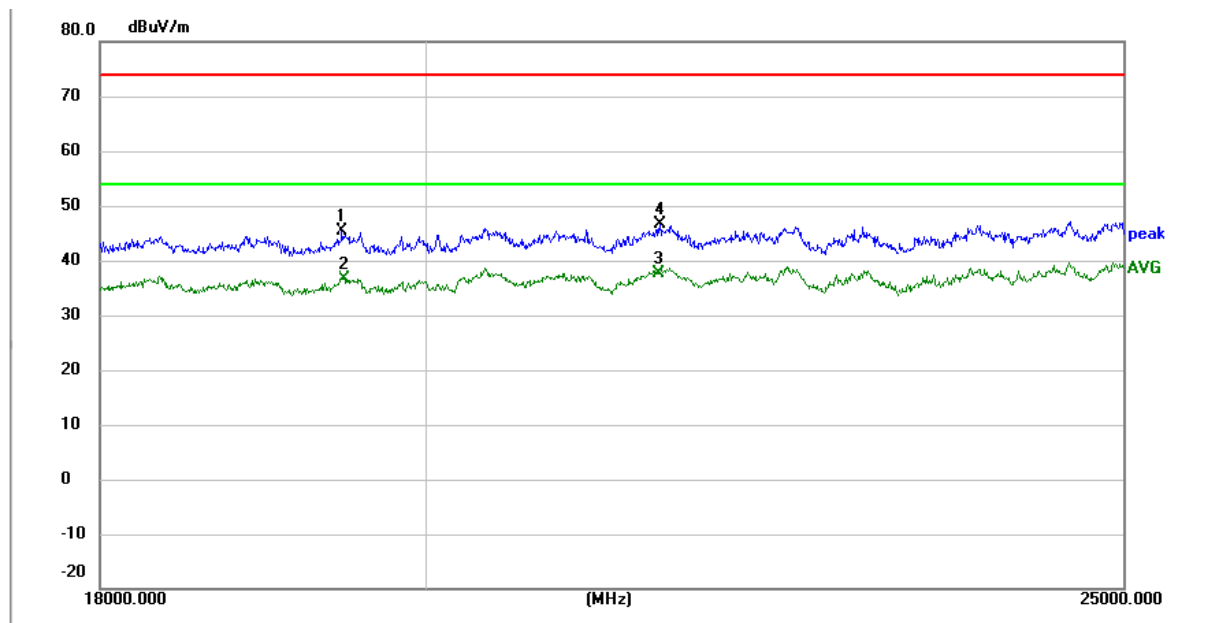
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	4960.000	50.56	-6.07	44.49	74.00	-29.51	peak	P	
2	4960.000	43.70	-6.07	37.63	54.00	-16.37	AVG	P	
3	7440.000	47.90	-2.54	45.36	74.00	-28.64	peak	P	
4	7440.000	40.66	-2.54	38.12	54.00	-15.88	AVG	P	
5	18000.000	39.41	13.61	53.02	74.00	-20.98	peak	P	
6 *	18000.000	33.19	13.61	46.80	54.00	-7.20	AVG	P	

TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 2 / CH: H



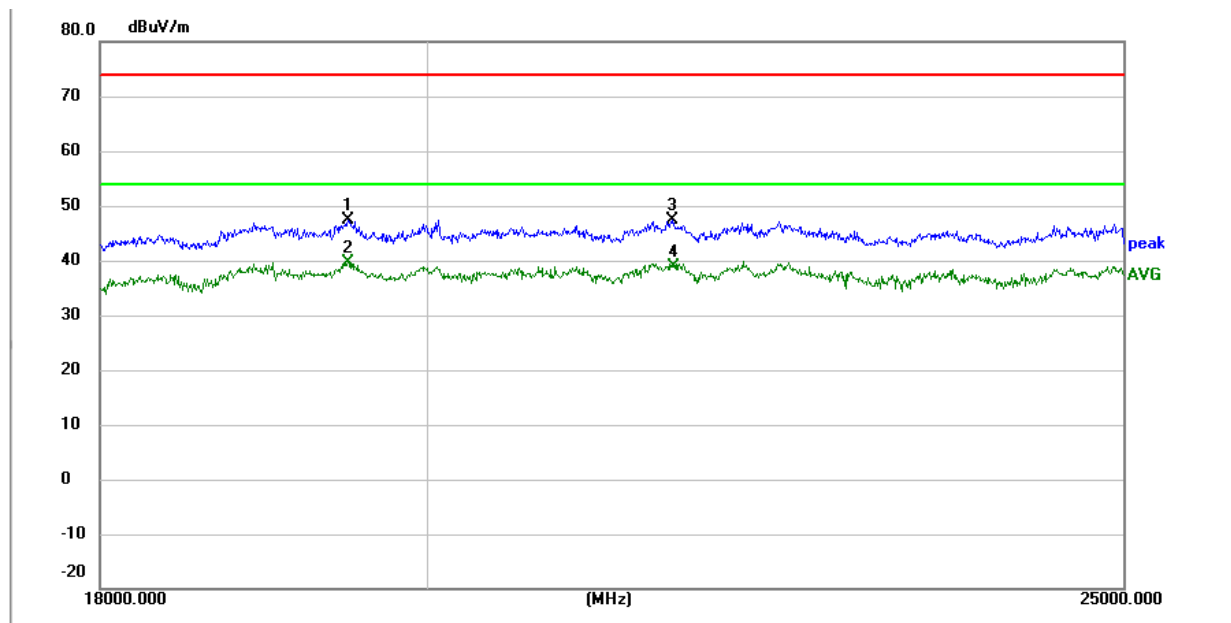
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	4960.000	50.96	-6.07	44.89	74.00	-29.11	peak	P	
2	4960.000	44.10	-6.07	38.03	54.00	-15.97	AVG	P	
3	7440.000	49.46	-2.54	46.92	74.00	-27.08	peak	P	
4	7440.000	42.09	-2.54	39.55	54.00	-14.45	AVG	P	
5	18000.000	39.16	13.61	52.77	74.00	-21.23	peak	P	
6 *	18000.000	33.66	13.61	47.27	54.00	-6.73	AVG	P	

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 1 / CH: L



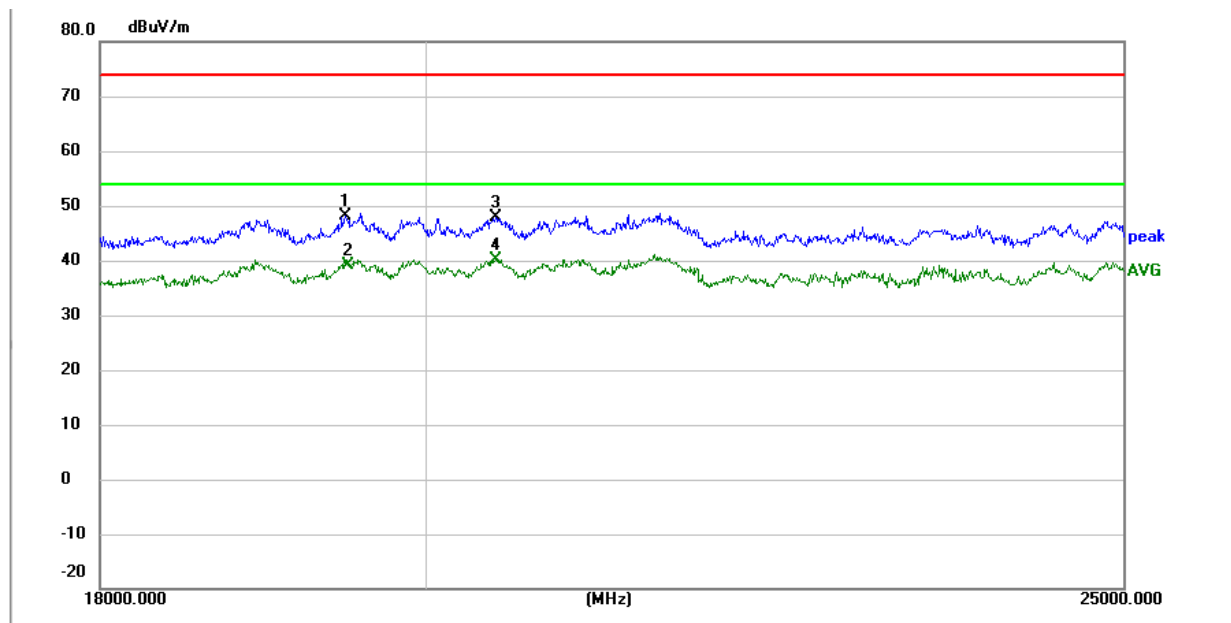
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	19462.825	58.82	-13.53	45.29	74.00	-28.71	peak	P	
2	19470.350	50.13	-13.52	36.61	54.00	-17.39	AVG	P	
3 *	21542.350	49.83	-12.25	37.58	54.00	-16.42	AVG	P	
4	21545.500	58.80	-12.26	46.54	74.00	-27.46	peak	P	

TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 1 / CH: L



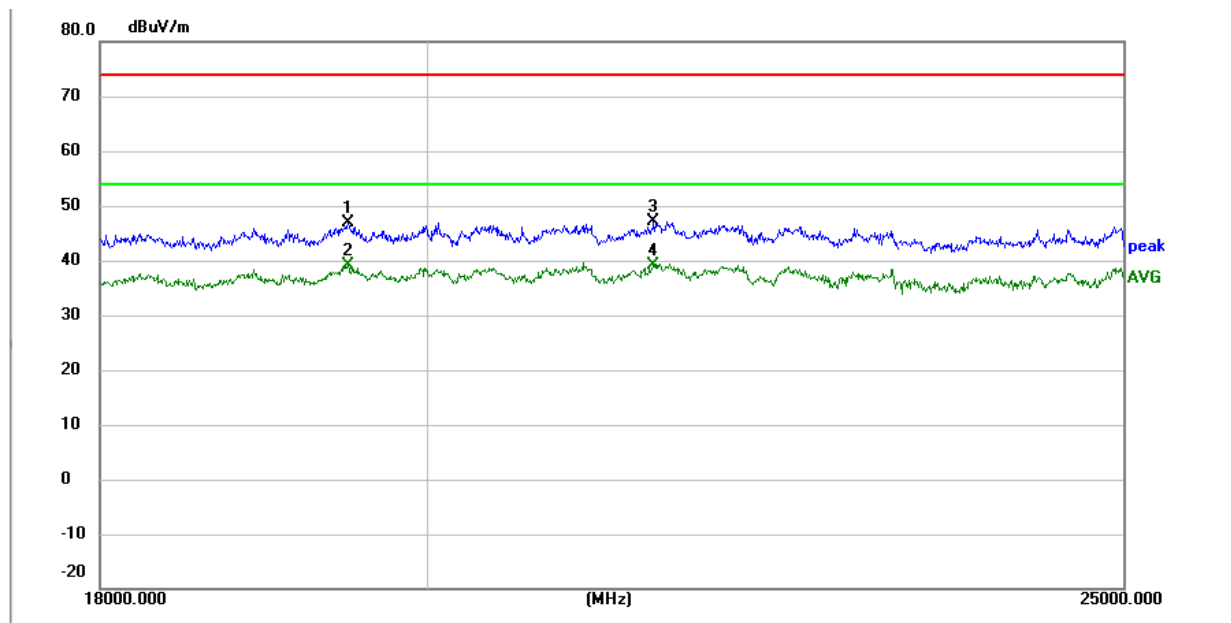
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	19500.625	60.74	-13.48	47.26	74.00	-26.74	peak	P	
2 *	19500.625	53.17	-13.48	39.69	54.00	-14.31	AVG	P	
3	21633.000	59.60	-12.26	47.34	74.00	-26.66	peak	P	
4	21639.650	51.22	-12.26	38.96	54.00	-15.04	AVG	P	

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 1 / CH: M



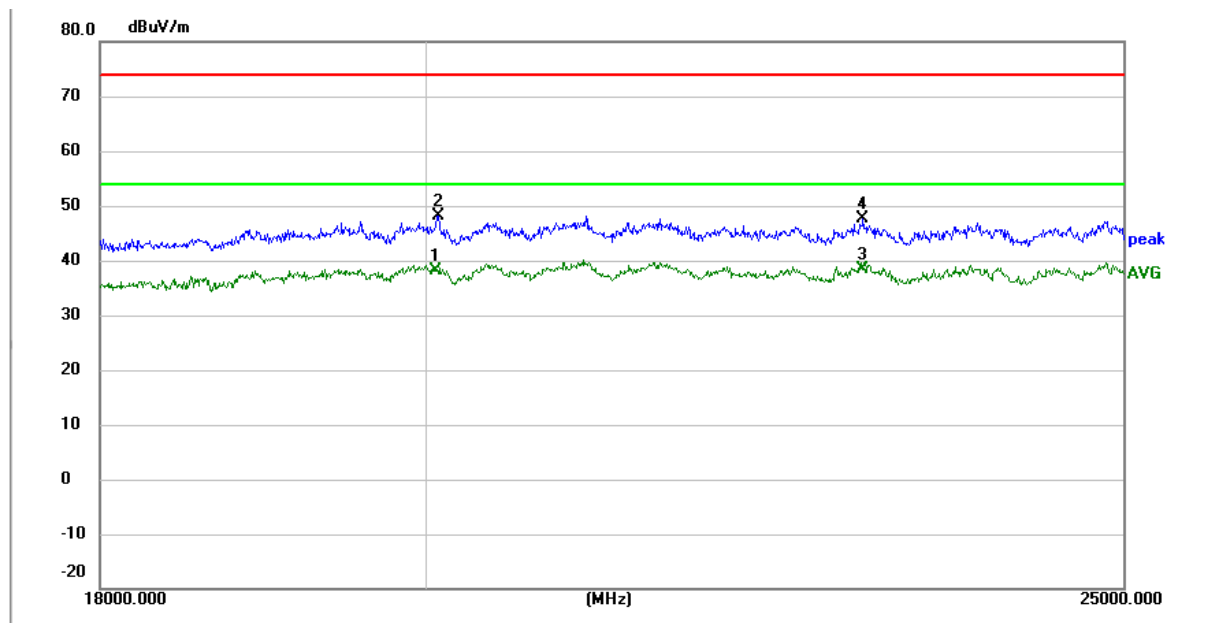
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	19488.550	61.74	-13.50	48.24	74.00	-25.76	peak	P	
2	19496.950	52.59	-13.49	39.10	54.00	-14.90	AVG	P	
3	20443.700	60.06	-12.29	47.77	74.00	-26.23	peak	P	
4 *	20443.700	52.38	-12.29	40.09	54.00	-13.91	AVG	P	

TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 1 / CH: M



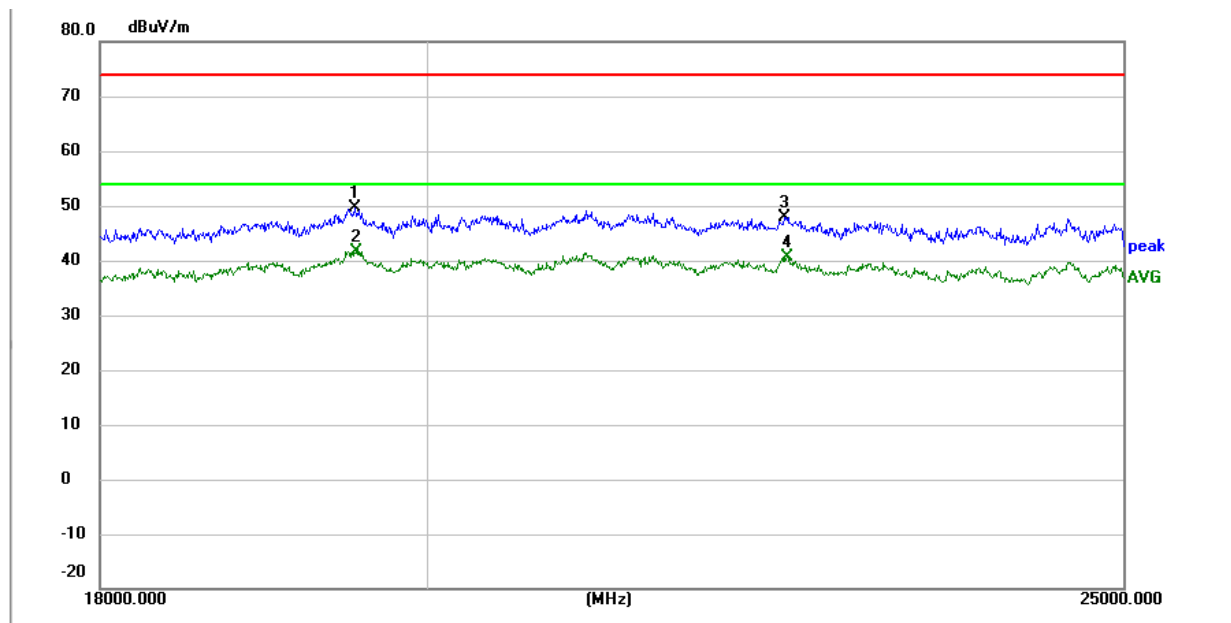
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	19500.625	60.24	-13.48	46.76	74.00	-27.24	peak	P	
2	19500.625	52.67	-13.48	39.19	54.00	-14.81	AVG	P	
3	21504.200	59.42	-12.25	47.17	74.00	-26.83	peak	P	
4 *	21504.200	51.50	-12.25	39.25	54.00	-14.75	AVG	P	

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 1 / CH: H



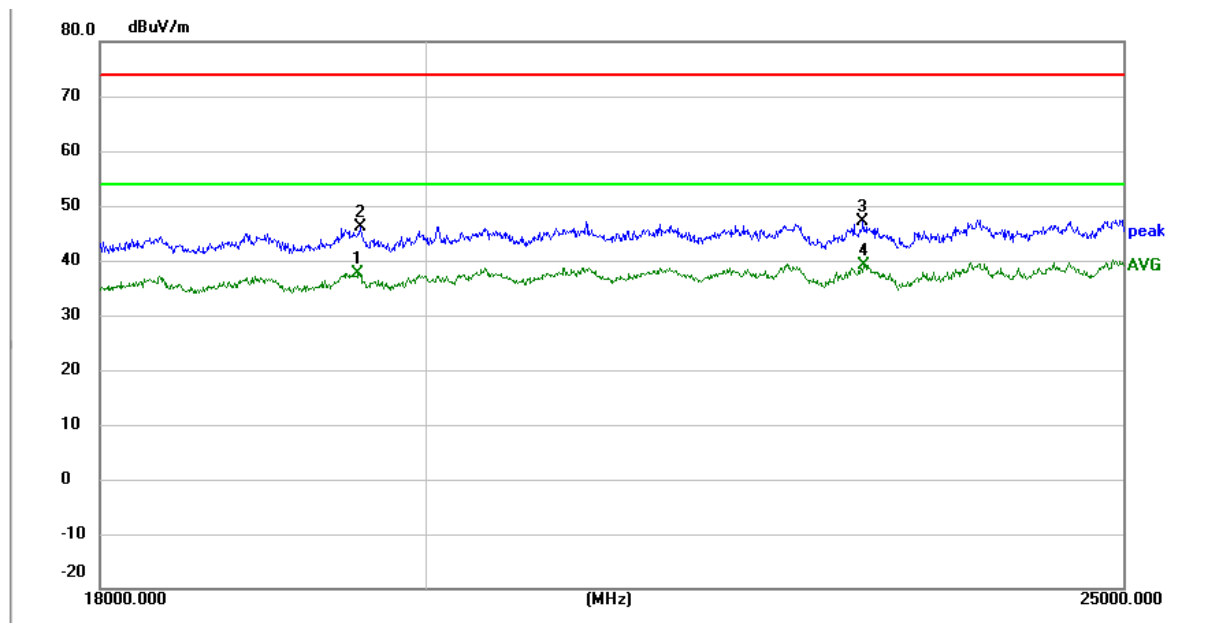
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	20052.575	50.63	-12.55	38.08	54.00	-15.92	AVG	P	
2	20067.800	60.81	-12.57	48.24	74.00	-25.76	peak	P	
3 *	22984.350	50.23	-11.79	38.44	54.00	-15.56	AVG	P	
4	22991.700	59.47	-11.79	47.68	74.00	-26.32	peak	P	

TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 1 / CH: H



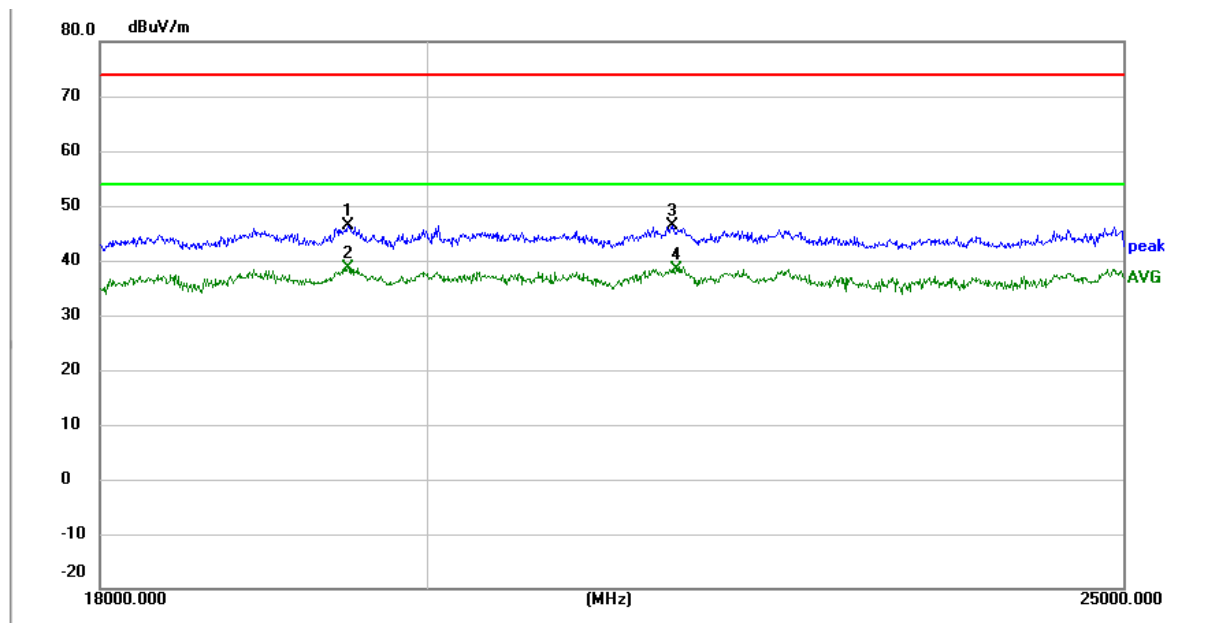
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	19544.725	63.05	-13.38	49.67	74.00	-24.33	peak	P	
2 *	19548.750	55.00	-13.37	41.63	54.00	-12.37	AVG	P	
3	22429.600	59.52	-11.57	47.95	74.00	-26.05	peak	P	
4	22443.250	52.30	-11.56	40.74	54.00	-13.26	AVG	P	

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 2 / CH: L



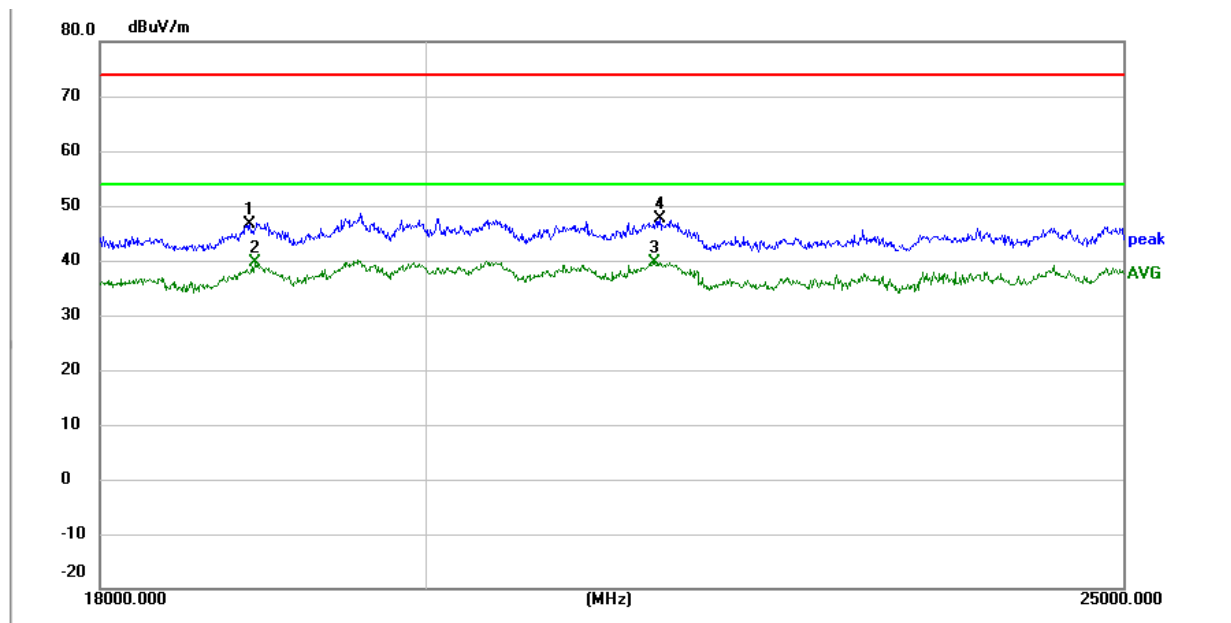
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	19564.500	50.96	-13.33	37.63	54.00	-16.37	AVG	P	
2	19578.850	59.33	-13.30	46.03	74.00	-27.97	peak	P	
3	22991.700	58.97	-11.79	47.18	74.00	-26.82	peak	P	
4 *	22998.700	50.95	-11.79	39.16	54.00	-14.84	AVG	P	

TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 2 / CH: L



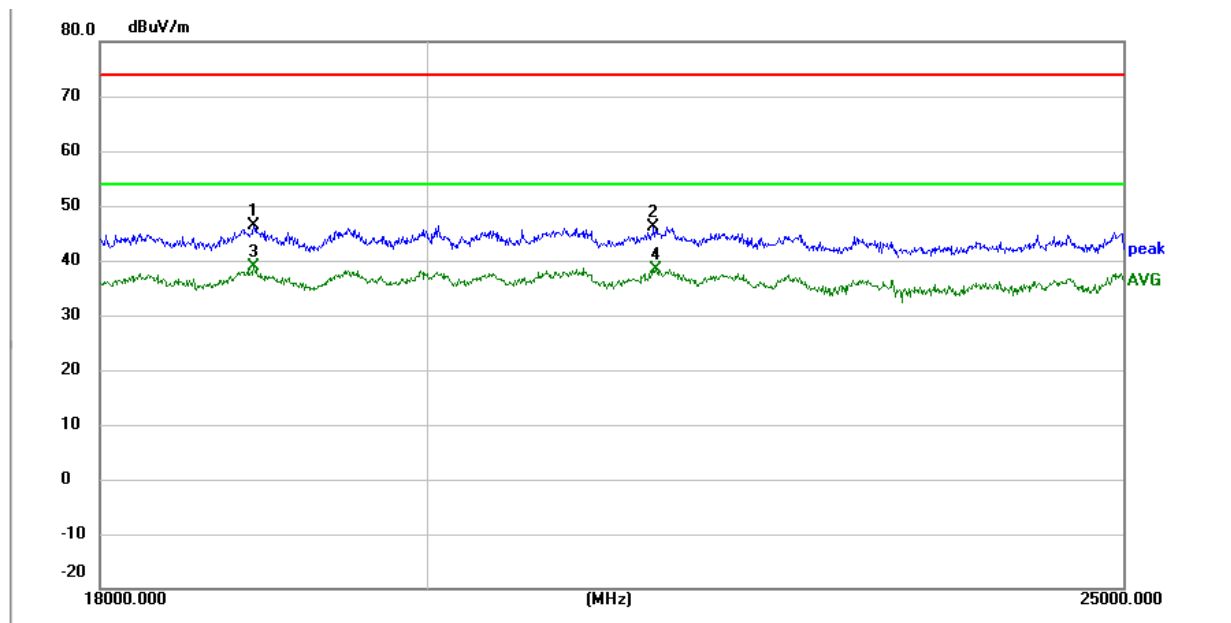
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	19500.625	59.74	-13.48	46.26	74.00	-27.74	peak	P	
2 *	19500.625	52.17	-13.48	38.69	54.00	-15.31	AVG	P	
3	21633.000	58.60	-12.26	46.34	74.00	-27.66	peak	P	
4	21660.300	50.74	-12.27	38.47	54.00	-15.53	AVG	P	

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 2 / CH: M



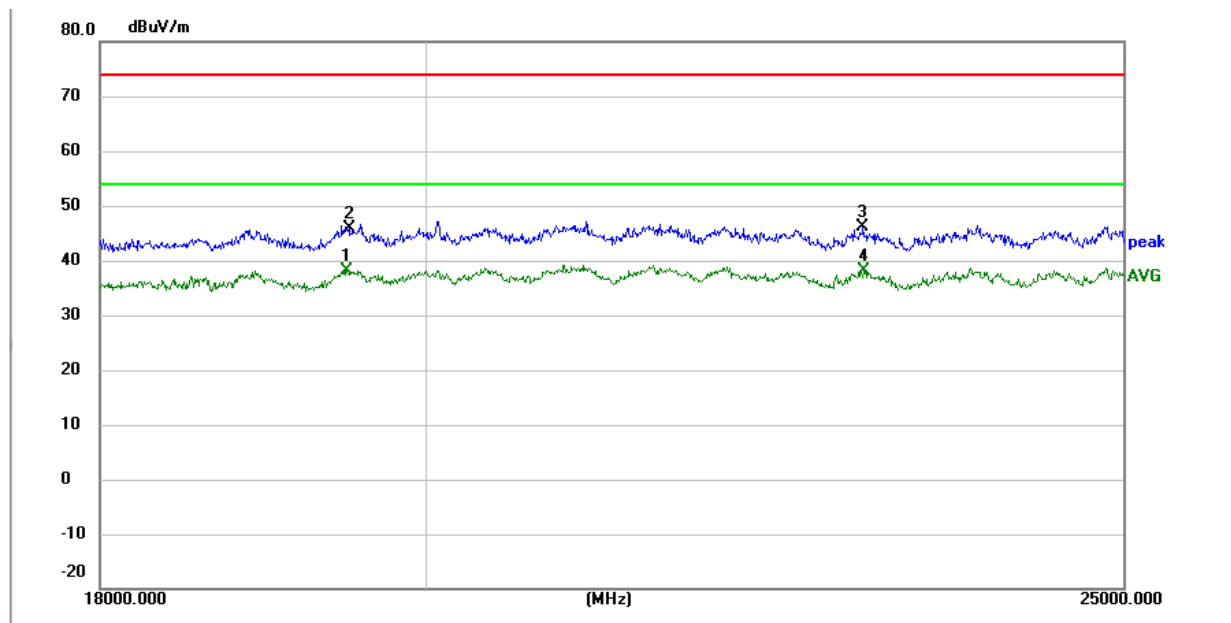
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	18884.625	60.83	-14.29	46.54	74.00	-27.46	peak	P	
2	18915.775	53.74	-14.23	39.51	54.00	-14.49	AVG	P	
3 *	21509.100	51.78	-12.25	39.53	54.00	-14.47	AVG	P	
4	21545.500	59.80	-12.26	47.54	74.00	-26.46	peak	P	

TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 2 / CH: M



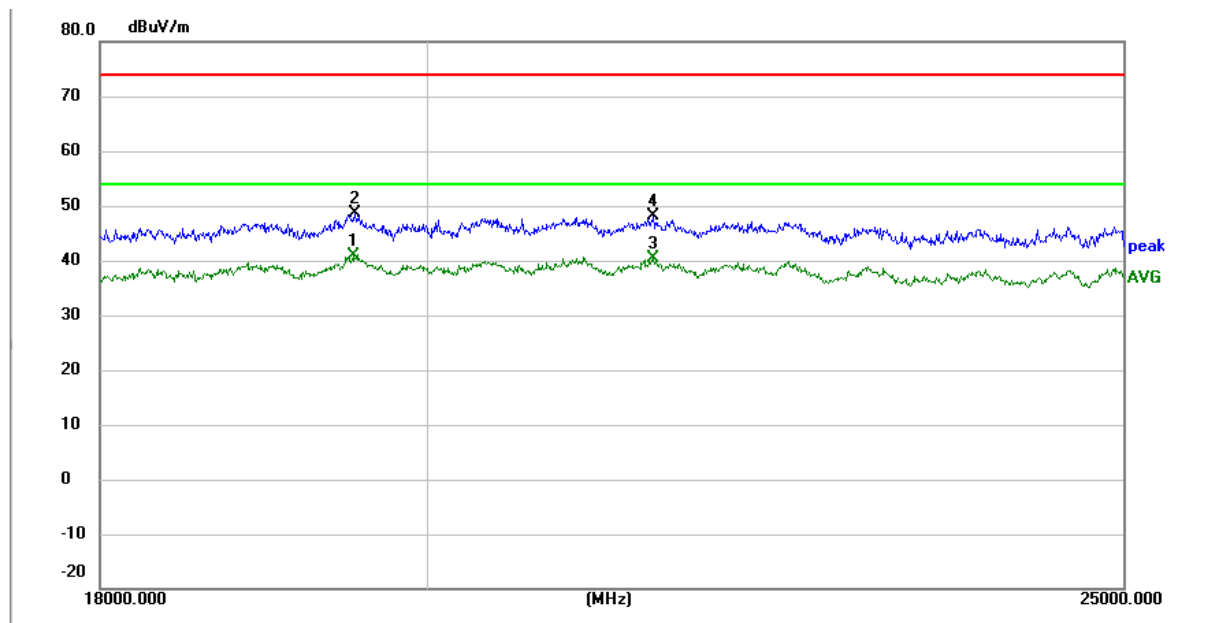
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	18914.025	60.73	-14.24	46.49	74.00	-27.51	peak	P	
2	21504.200	58.42	-12.25	46.17	74.00	-27.83	peak	P	
3 *	18914.025	53.00	-14.24	38.76	54.00	-15.24	AVG	P	
4	21517.325	50.61	-12.24	38.37	54.00	-15.63	AVG	P	

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 2 / CH: H



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	19494.850	51.56	-13.49	38.07	54.00	-15.93	AVG	P	
2	19505.175	59.24	-13.47	45.77	74.00	-28.23	peak	P	
3	22991.700	57.97	-11.79	46.18	74.00	-27.82	peak	P	
4 *	22998.700	49.95	-11.79	38.16	54.00	-15.84	AVG	P	

TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 2 / CH: H



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	19538.075	54.19	-13.39	40.80	54.00	-13.20	AVG	P	
2	19544.725	62.05	-13.38	48.67	74.00	-25.33	peak	P	
3	21500.000	52.70	-12.25	40.45	54.00	-13.55	AVG	P	
4	21504.200	60.42	-12.25	48.17	74.00	-25.83	peak	P	

11 Test Setup Photos

Refer to Appendix - Test Setup Photos

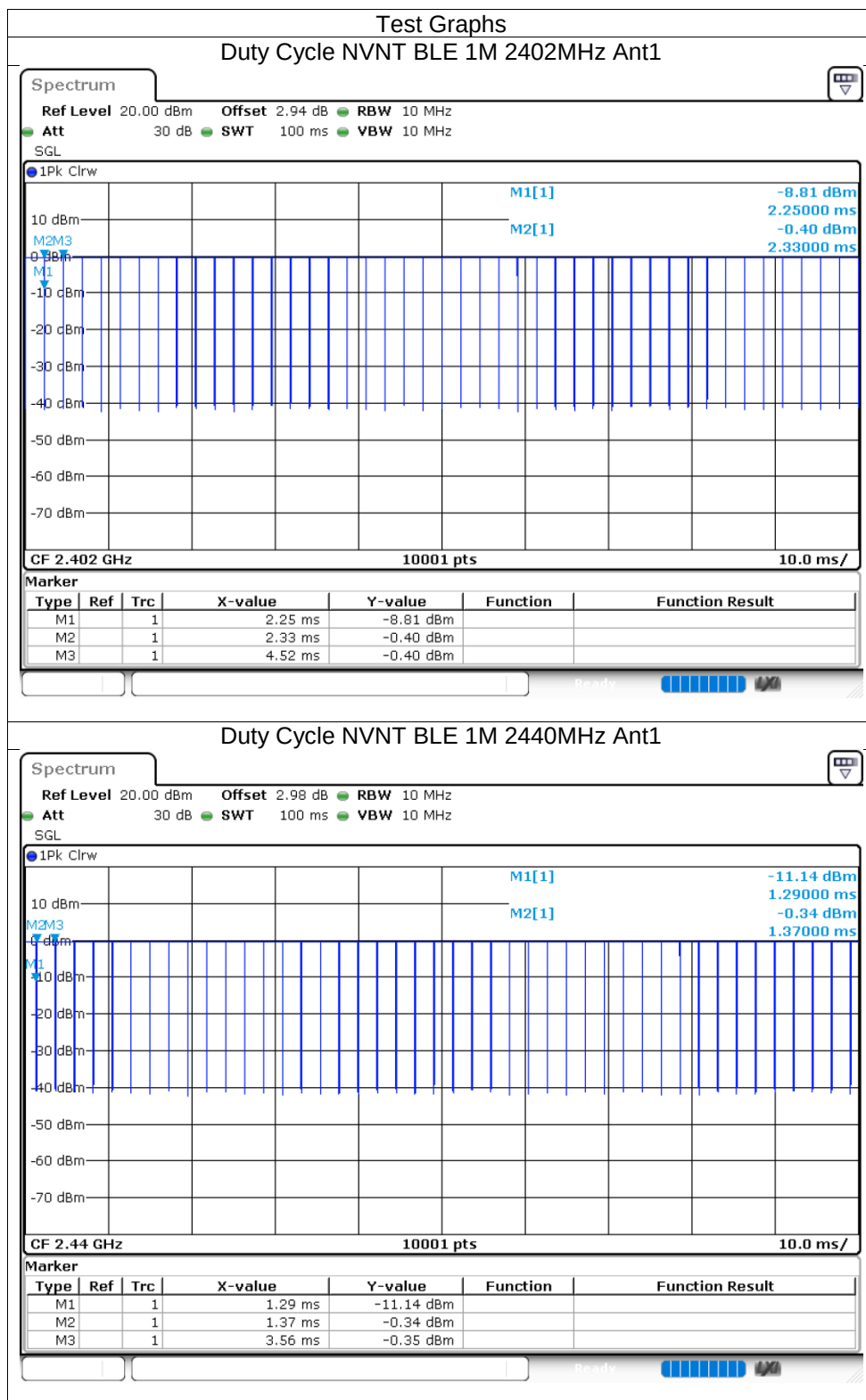
12 EUT Constructional Details (EUT Photos)

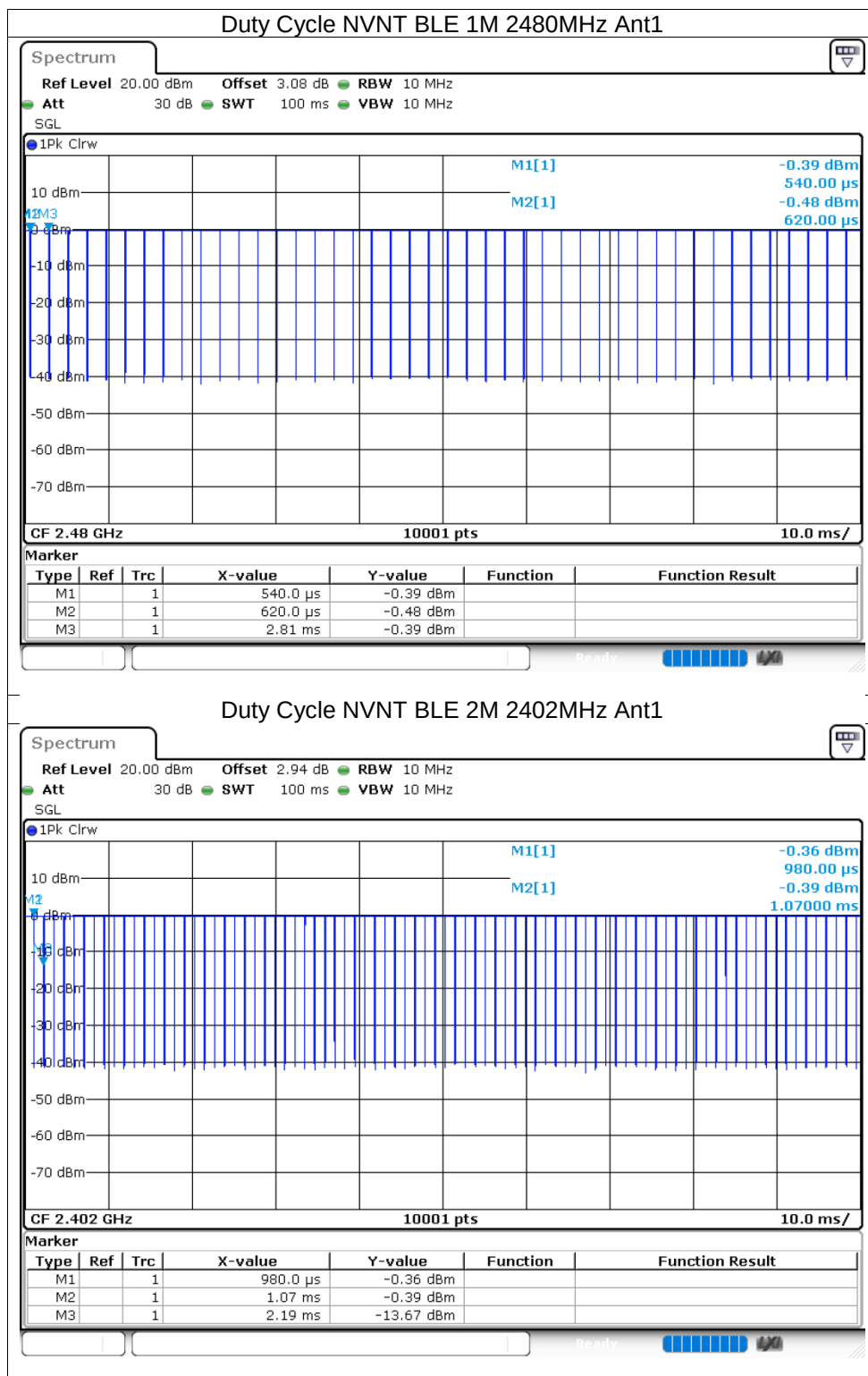
Refer to Appendix - EUT Photos

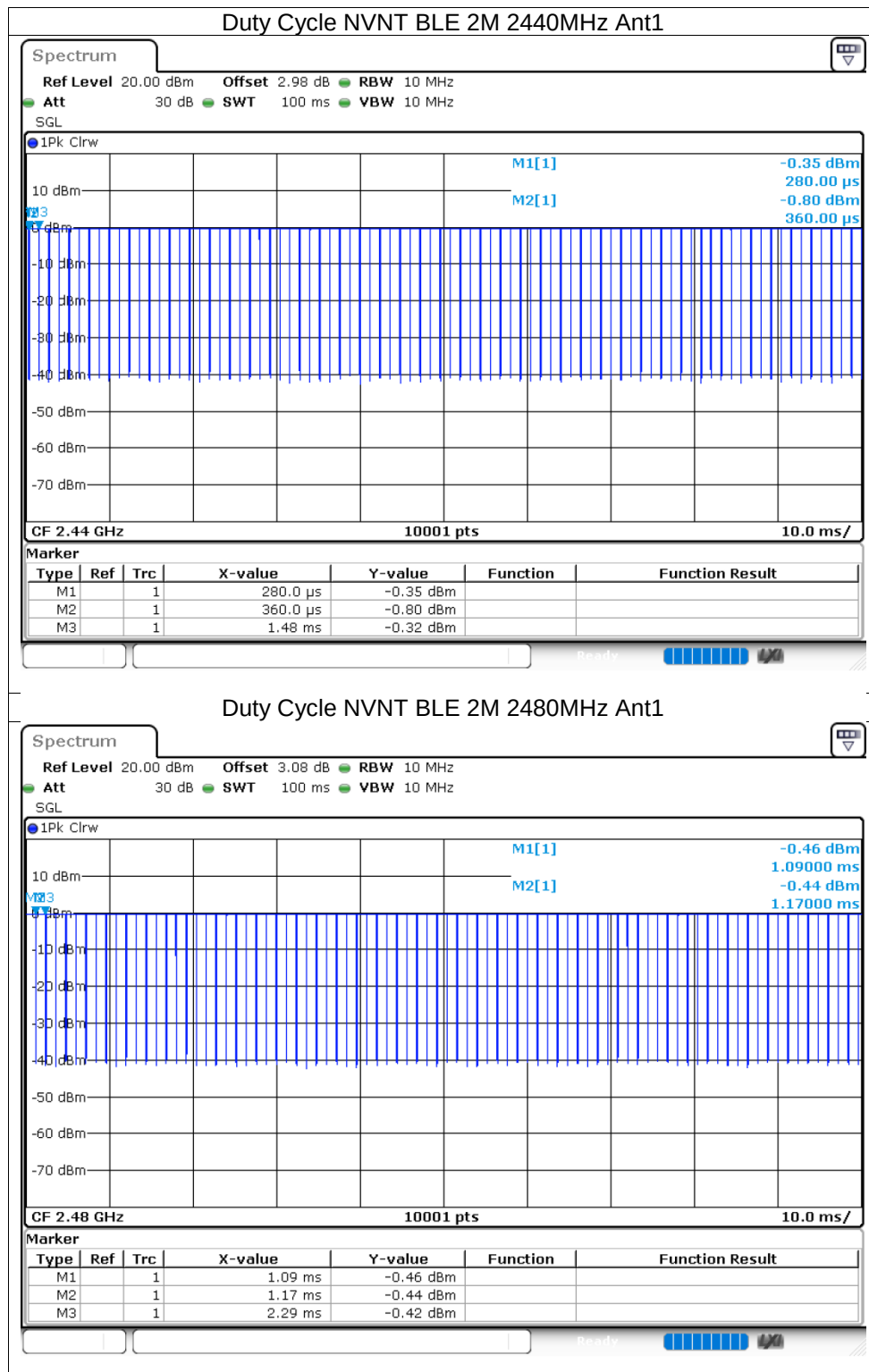
Appendix A

Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	96.79	0.14	0.46
NVNT	BLE 1M	2440	Ant1	96.8	0.14	0.46
NVNT	BLE 1M	2480	Ant1	96.78	0.14	0.46
NVNT	BLE 2M	2402	Ant1	93.97	0.27	0.89
NVNT	BLE 2M	2440	Ant1	93.94	0.27	0.89
NVNT	BLE 2M	2480	Ant1	94	0.27	0.89

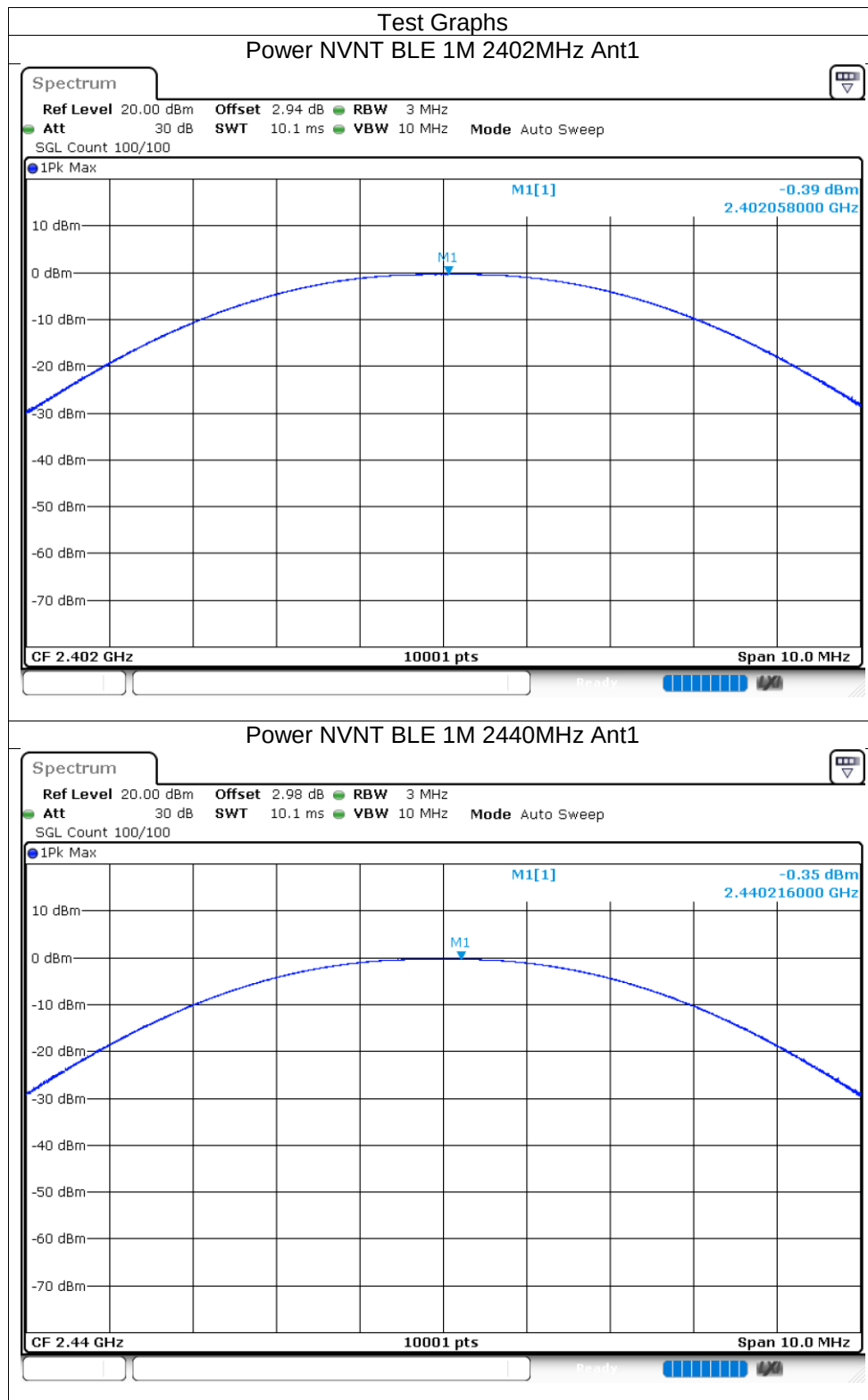


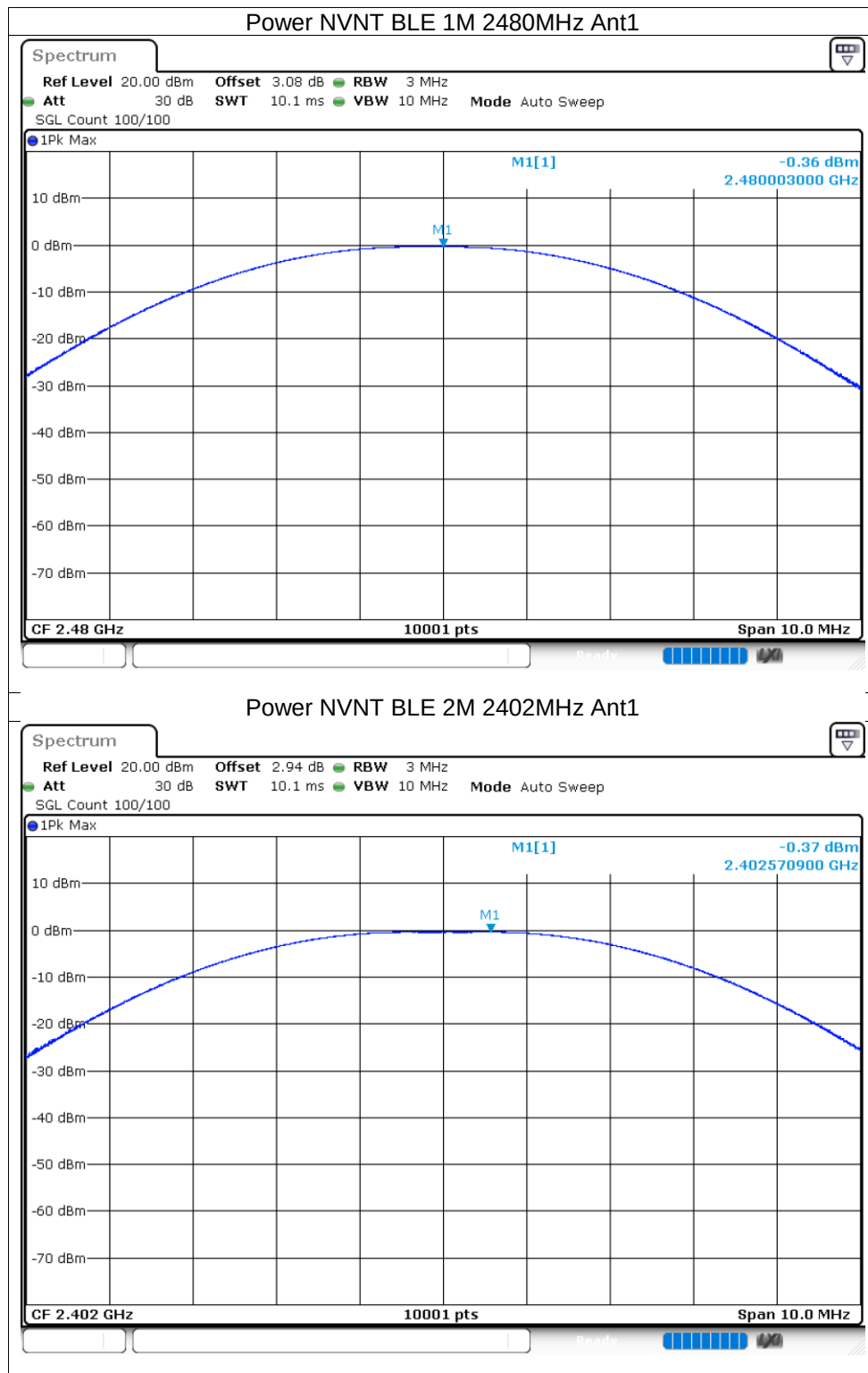


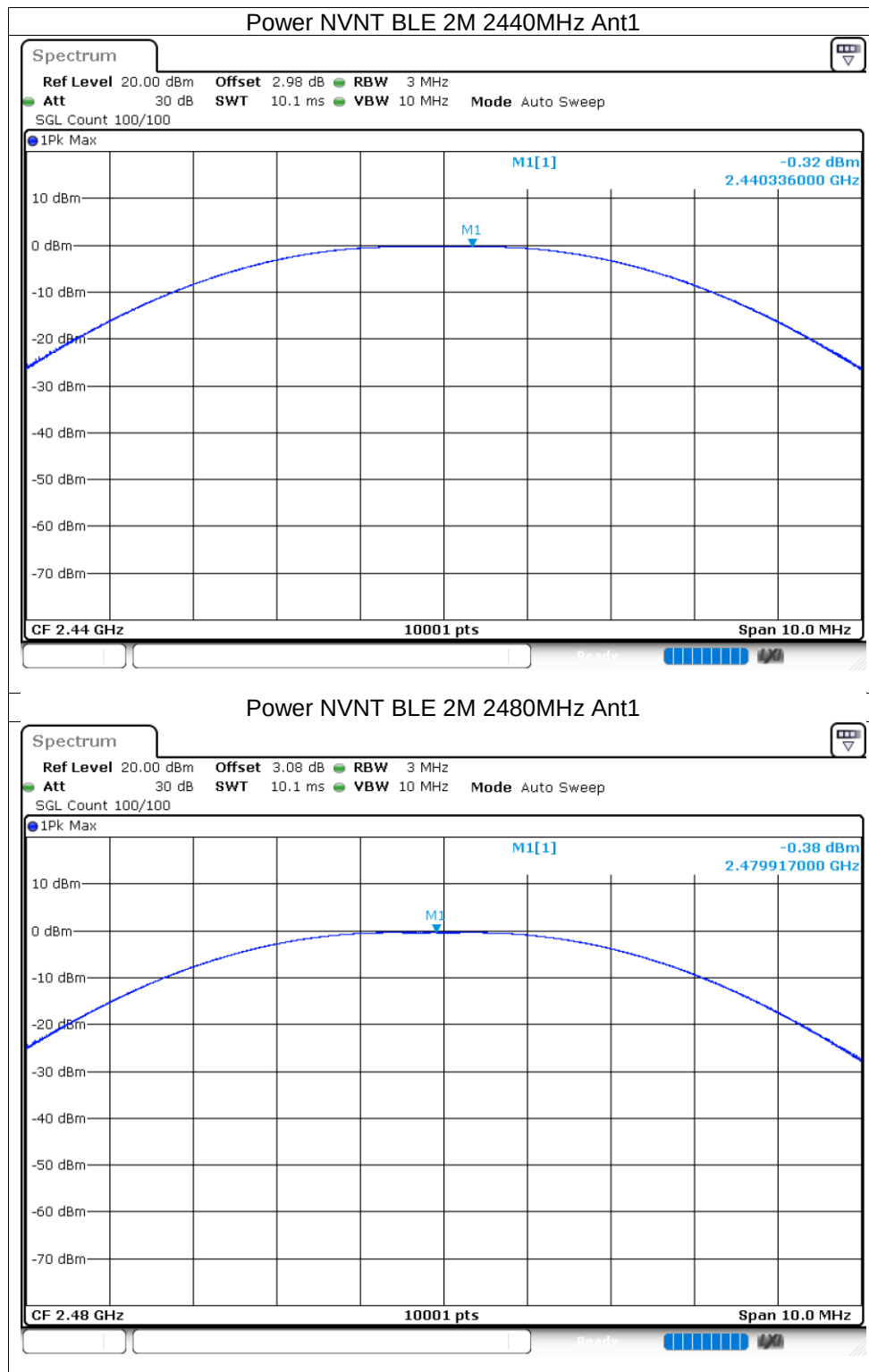


Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	-0.39	30	Pass
NVNT	BLE 1M	2440	Ant1	-0.35	30	Pass
NVNT	BLE 1M	2480	Ant1	-0.36	30	Pass
NVNT	BLE 2M	2402	Ant1	-0.37	30	Pass
NVNT	BLE 2M	2440	Ant1	-0.32	30	Pass
NVNT	BLE 2M	2480	Ant1	-0.38	30	Pass

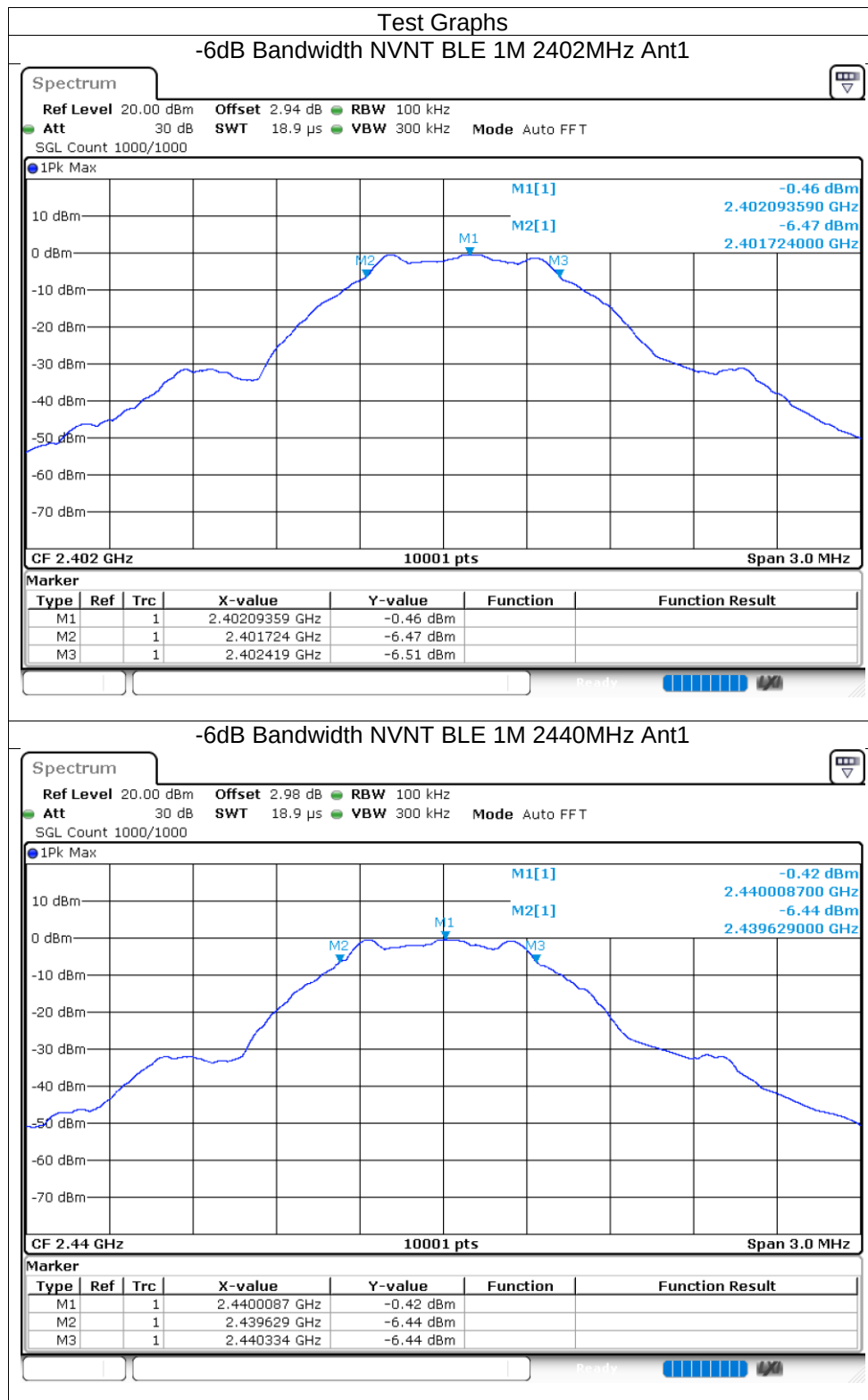


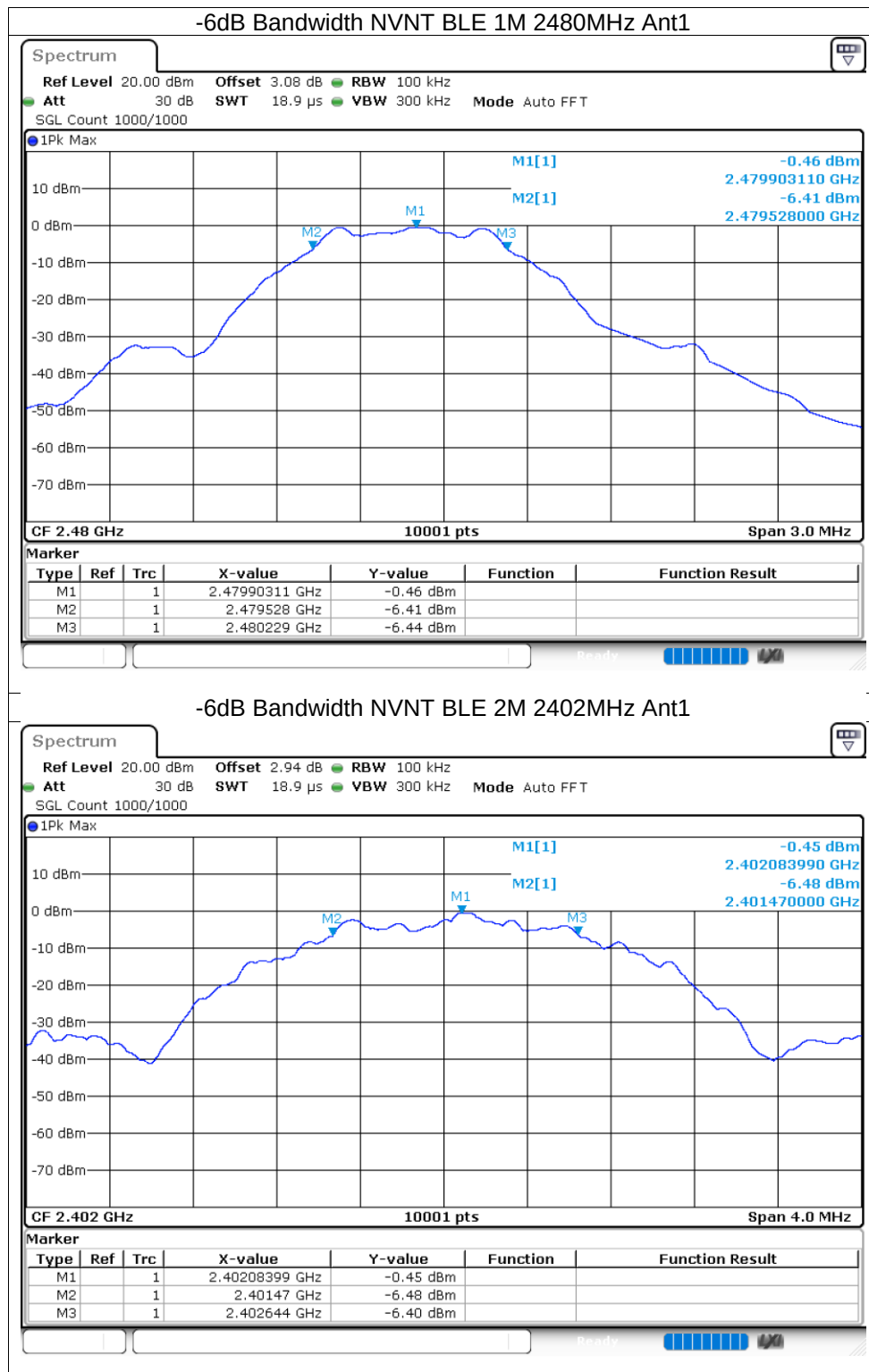


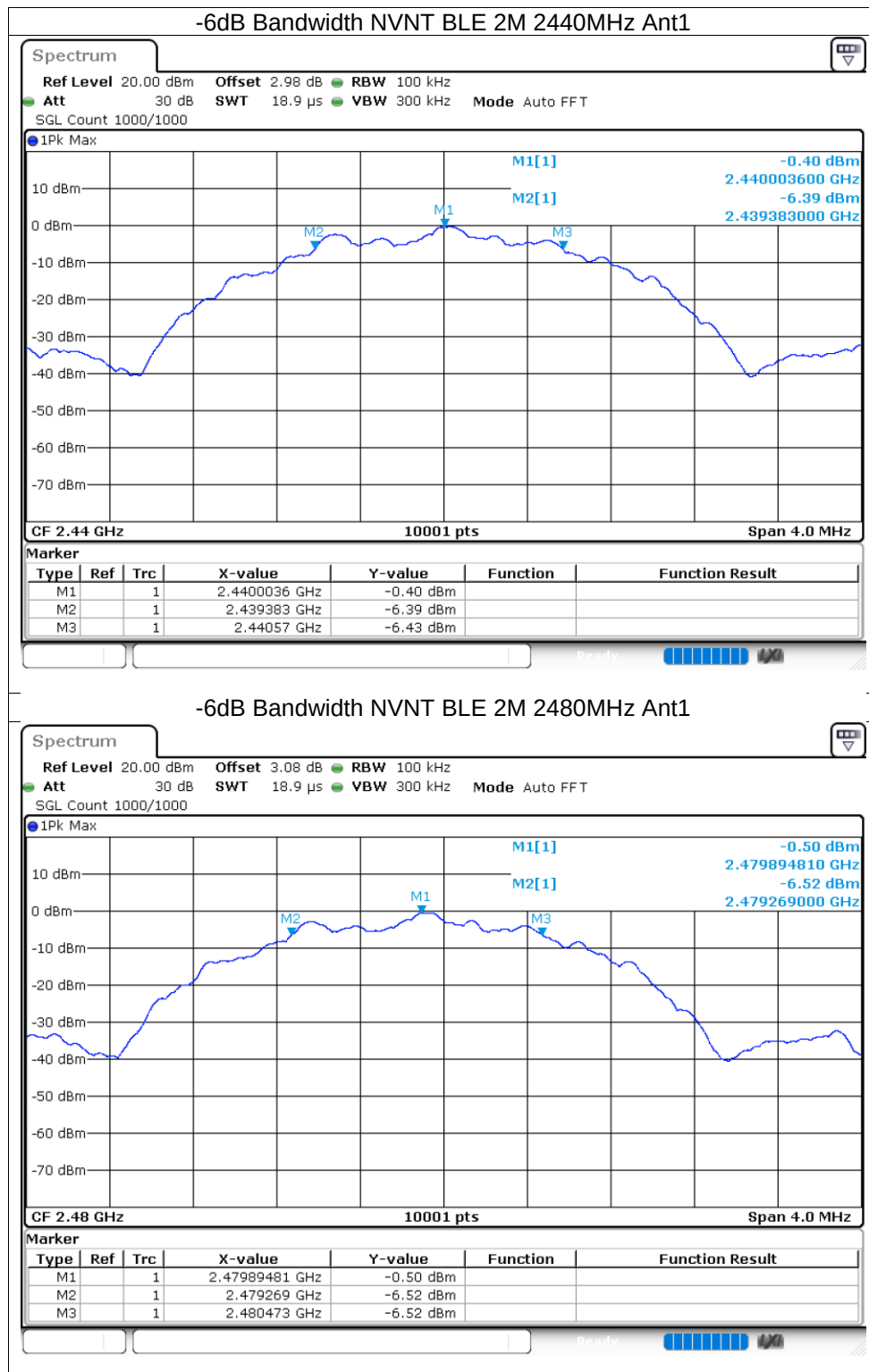


-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.695	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.704	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.701	0.5	Pass
NVNT	BLE 2M	2402	Ant1	1.174	0.5	Pass
NVNT	BLE 2M	2440	Ant1	1.187	0.5	Pass
NVNT	BLE 2M	2480	Ant1	1.204	0.5	Pass

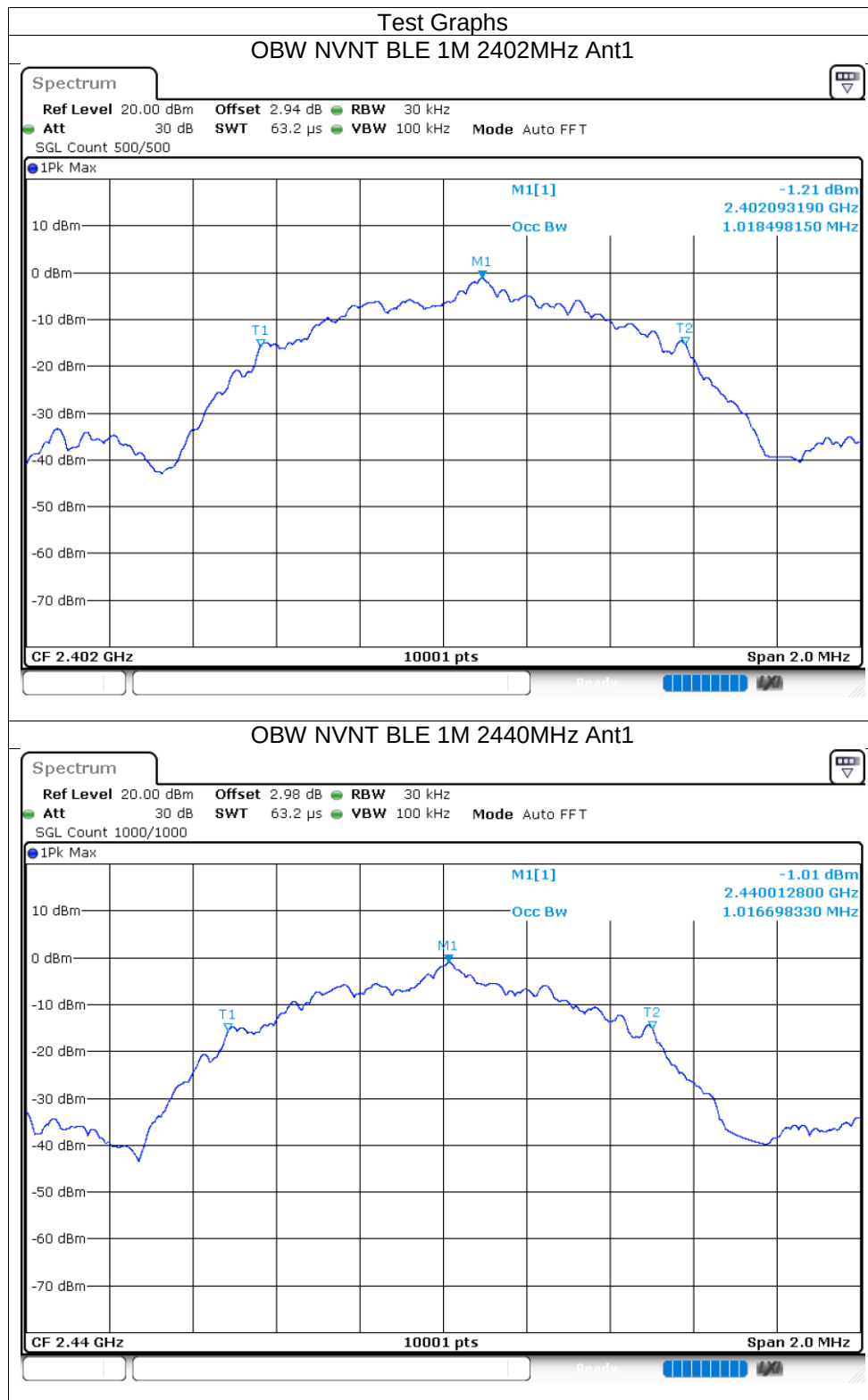


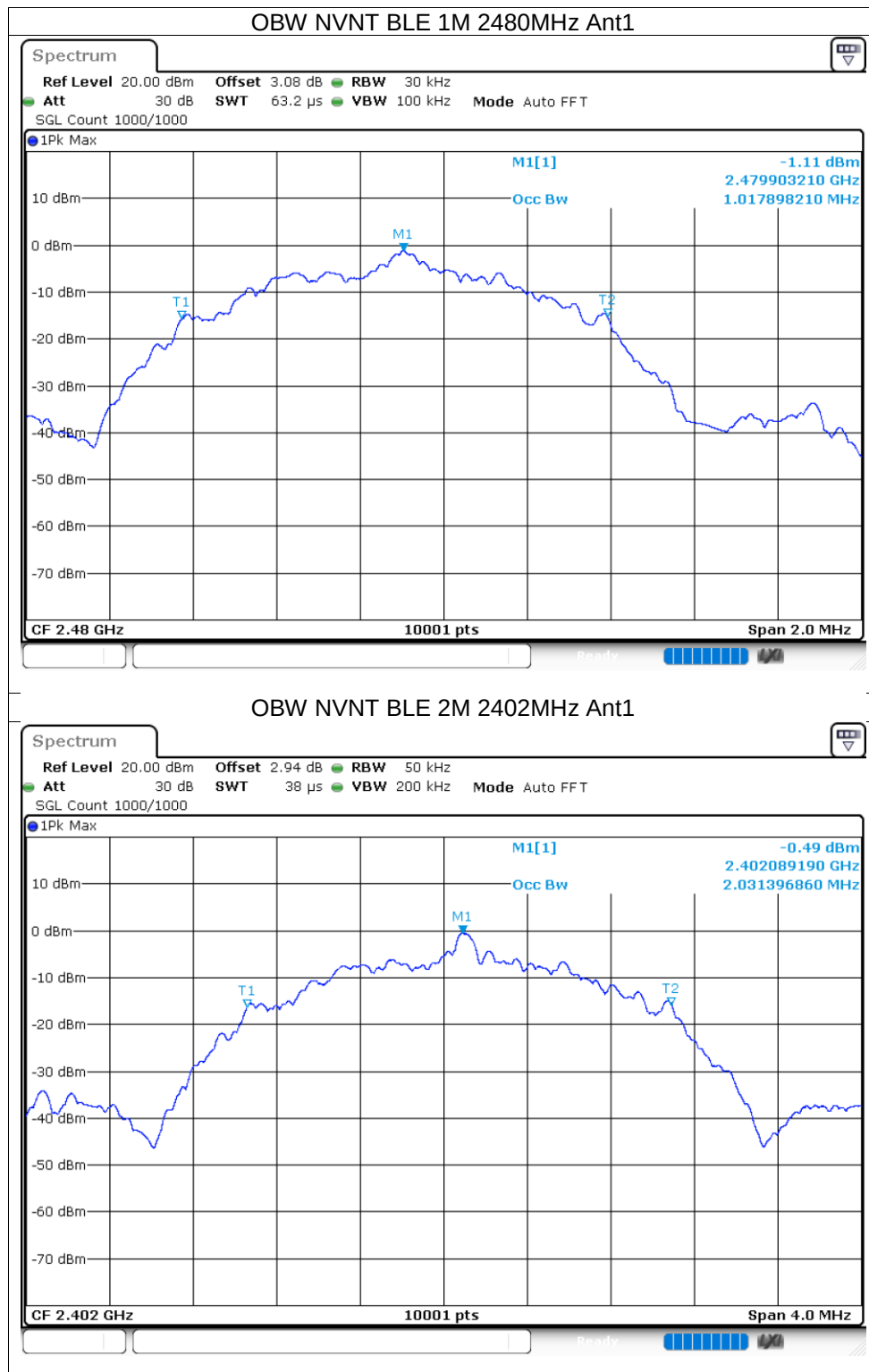


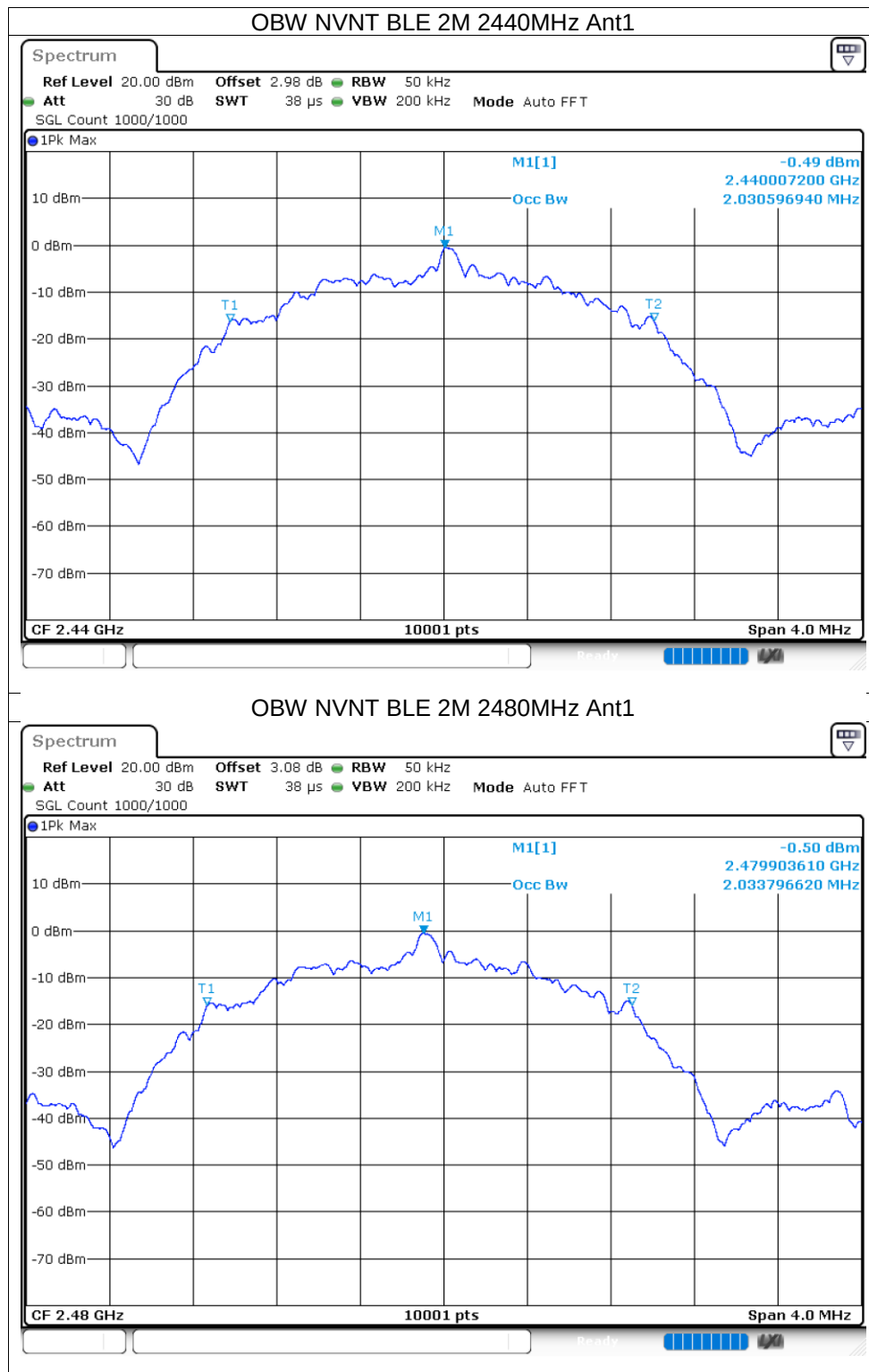


Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.018
NVNT	BLE 1M	2440	Ant1	1.017
NVNT	BLE 1M	2480	Ant1	1.018
NVNT	BLE 2M	2402	Ant1	2.031
NVNT	BLE 2M	2440	Ant1	2.031
NVNT	BLE 2M	2480	Ant1	2.034

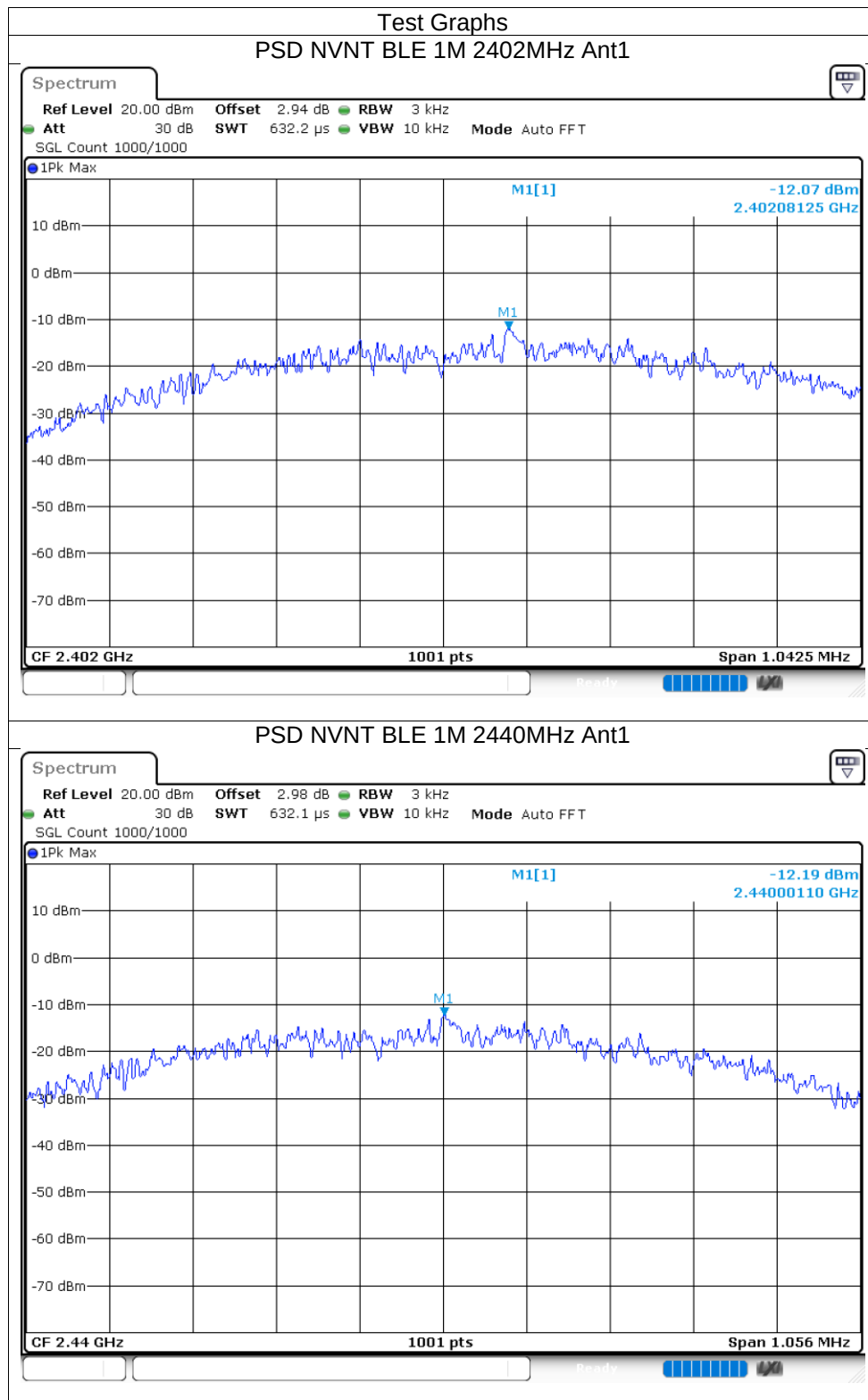


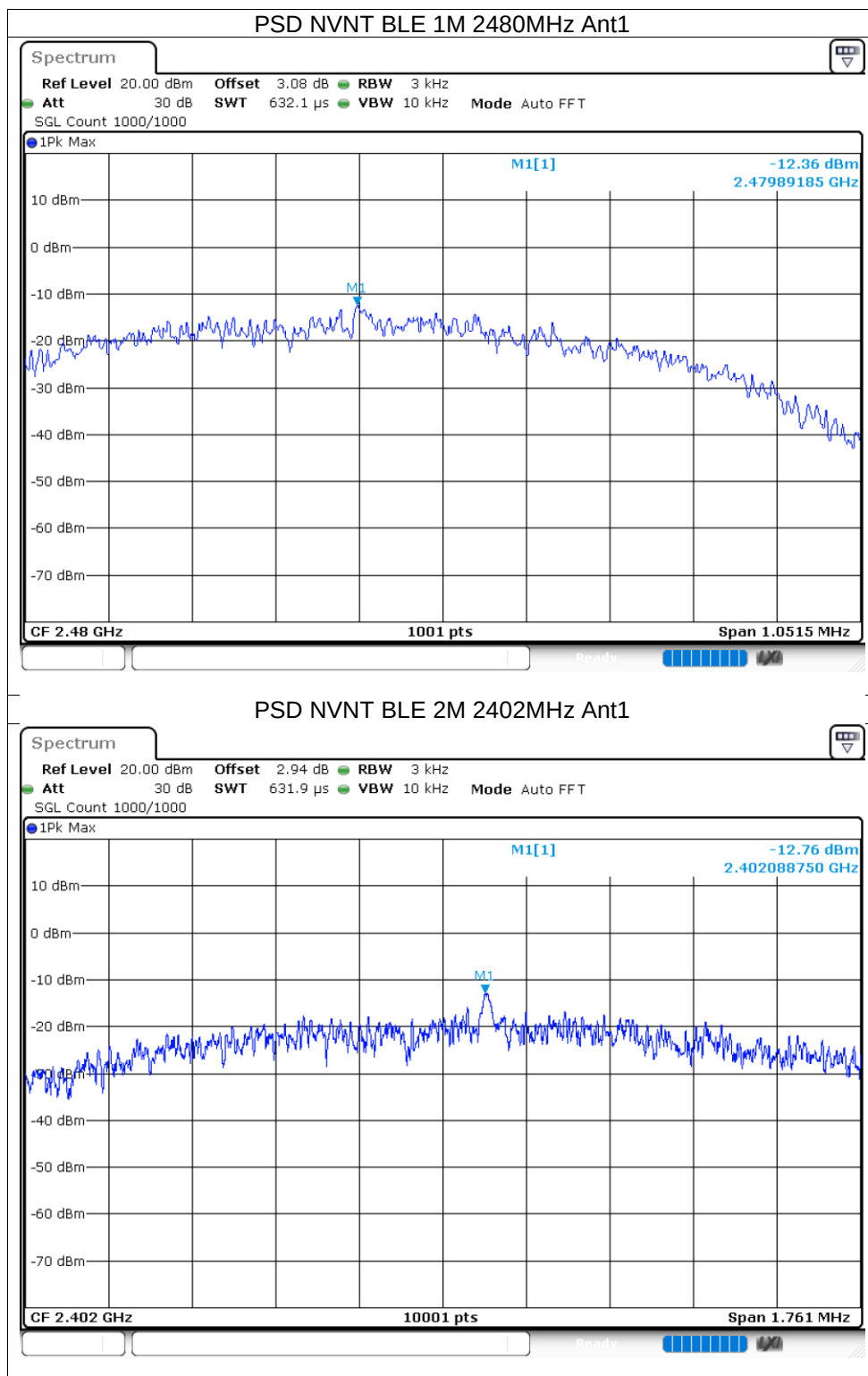


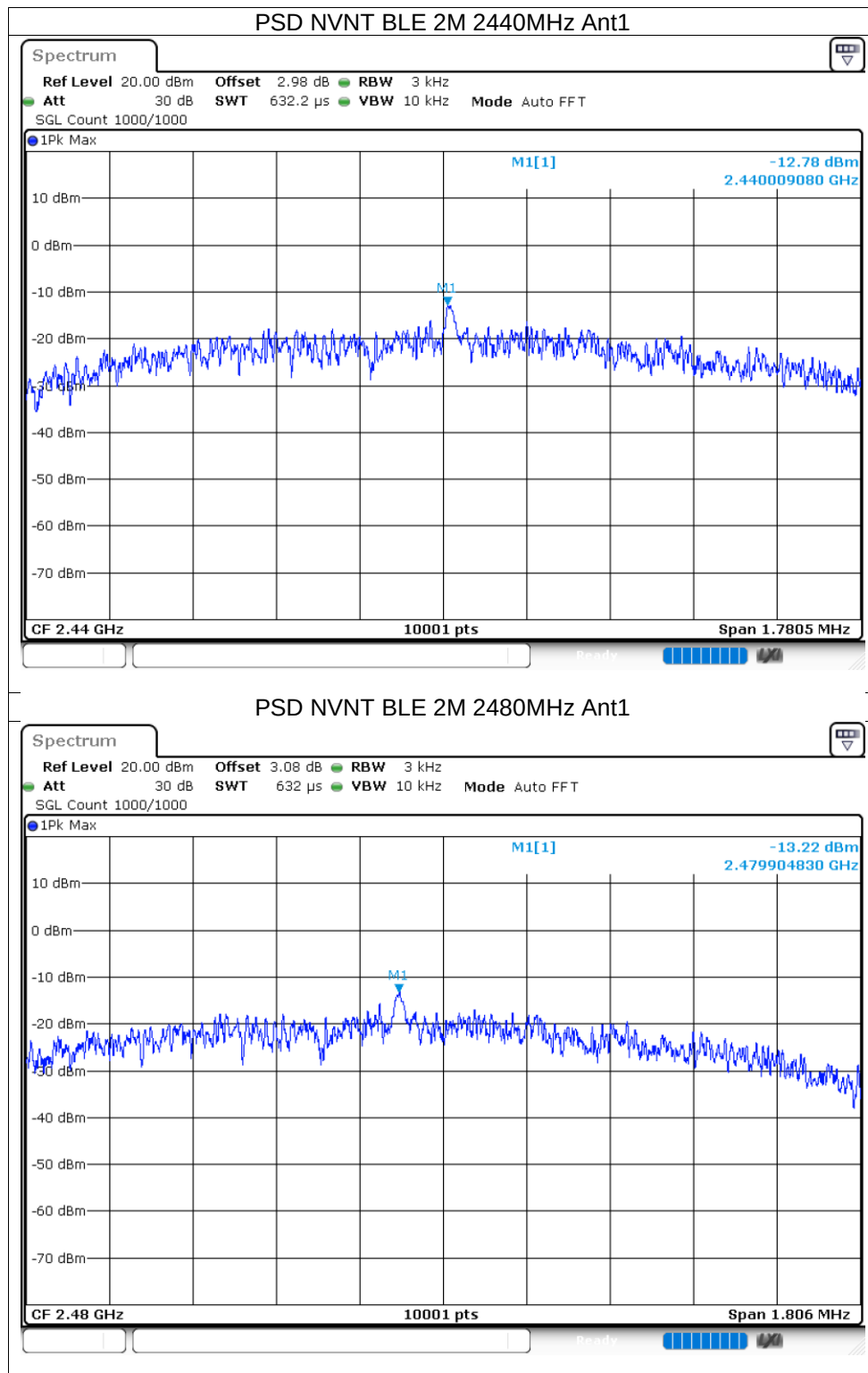


Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-12.07	8	Pass
NVNT	BLE 1M	2440	Ant1	-12.19	8	Pass
NVNT	BLE 1M	2480	Ant1	-12.36	8	Pass
NVNT	BLE 2M	2402	Ant1	-12.76	8	Pass
NVNT	BLE 2M	2440	Ant1	-12.78	8	Pass
NVNT	BLE 2M	2480	Ant1	-13.22	8	Pass

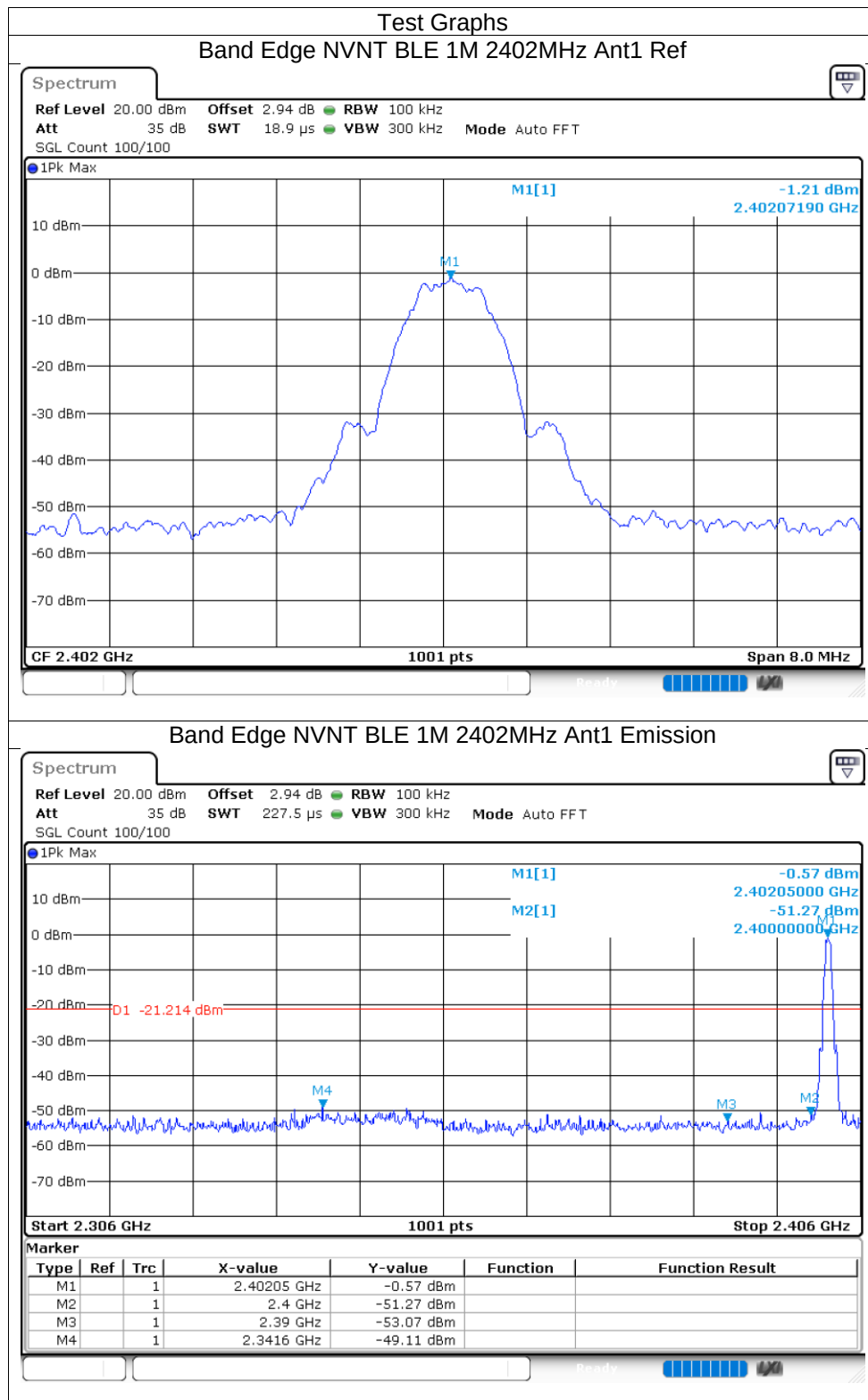


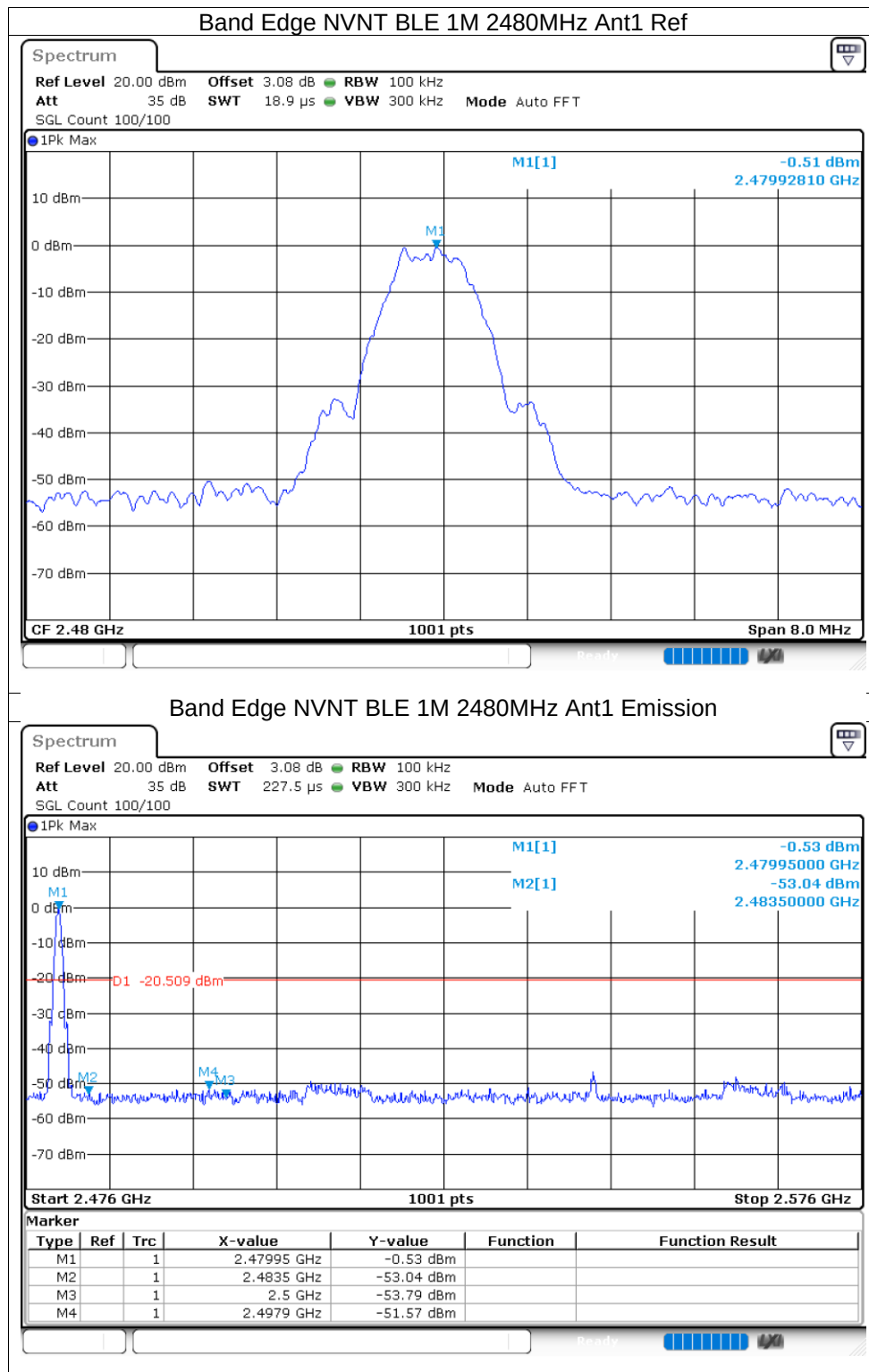


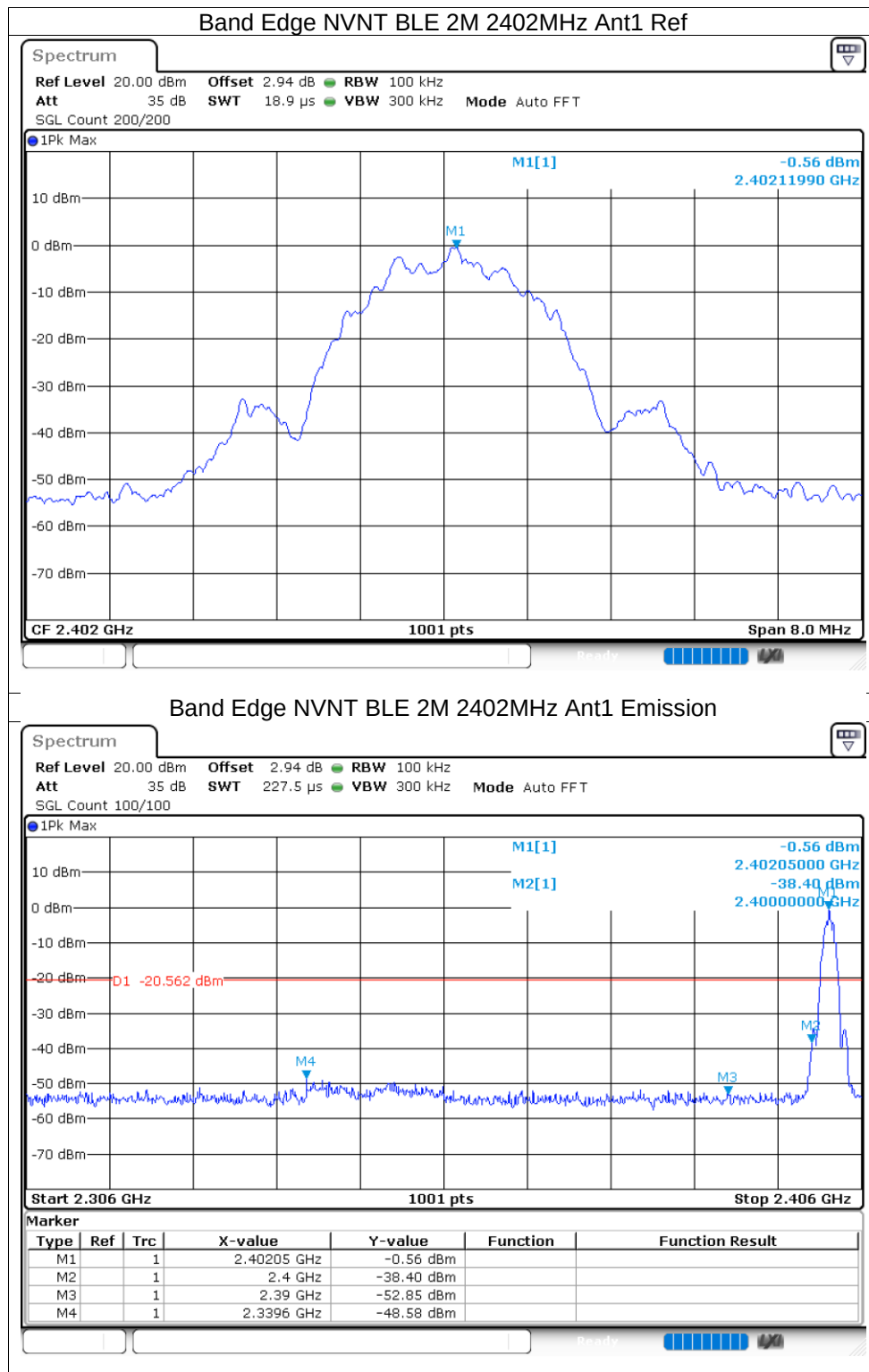


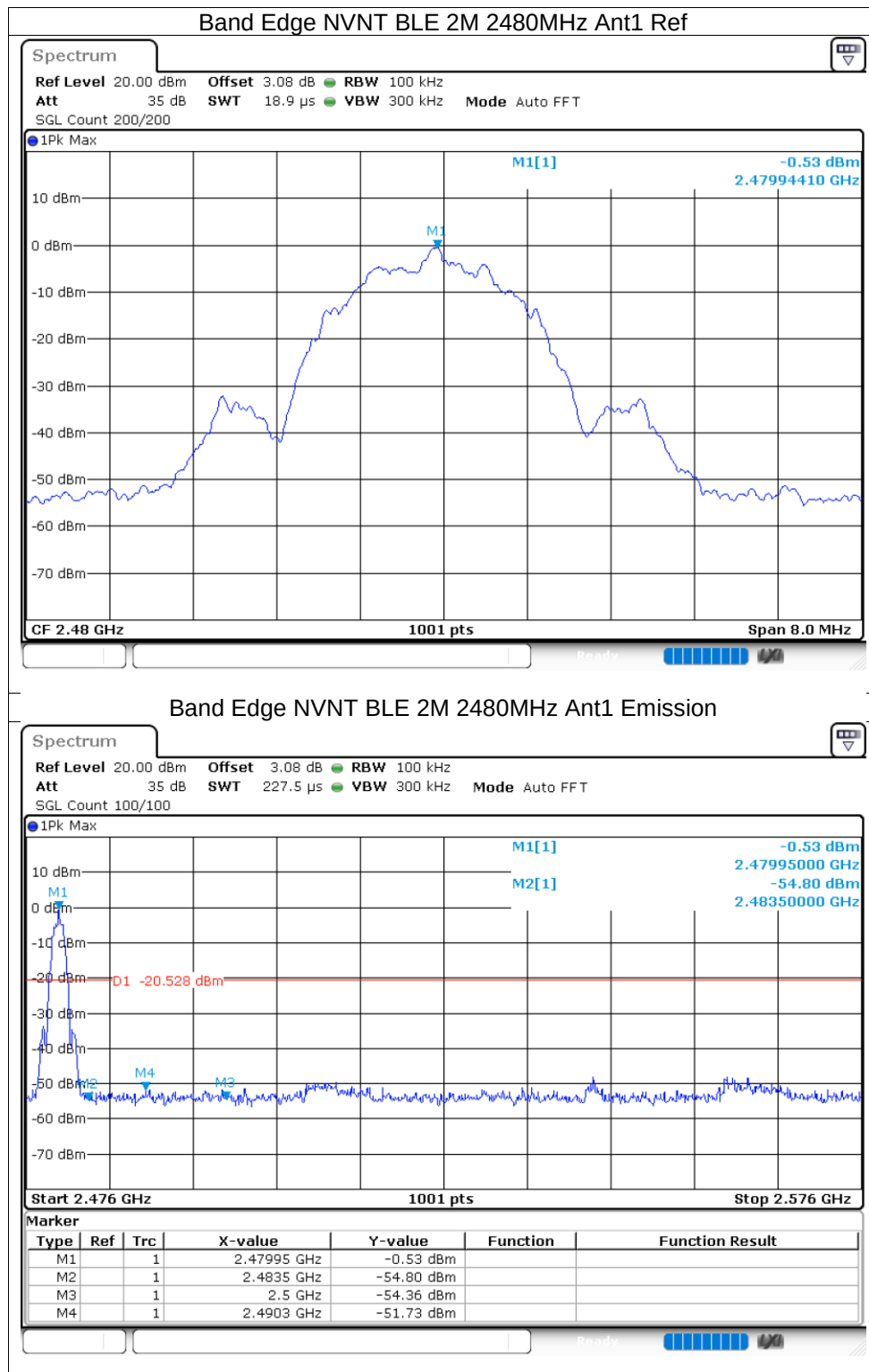
Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-47.9	-20	Pass
NVNT	BLE 1M	2480	Ant1	-51.05	-20	Pass
NVNT	BLE 2M	2402	Ant1	-48.01	-20	Pass
NVNT	BLE 2M	2480	Ant1	-51.2	-20	Pass



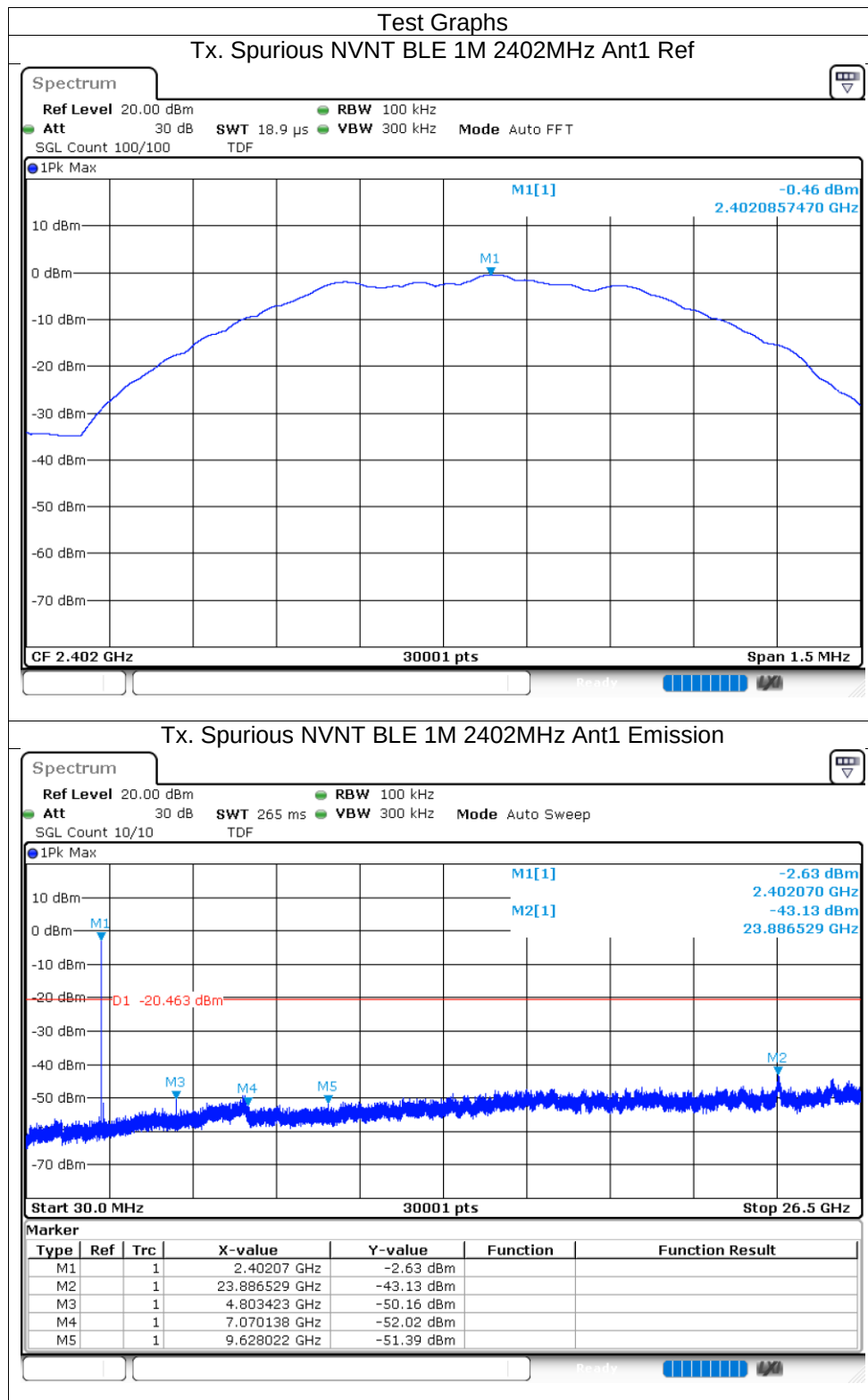


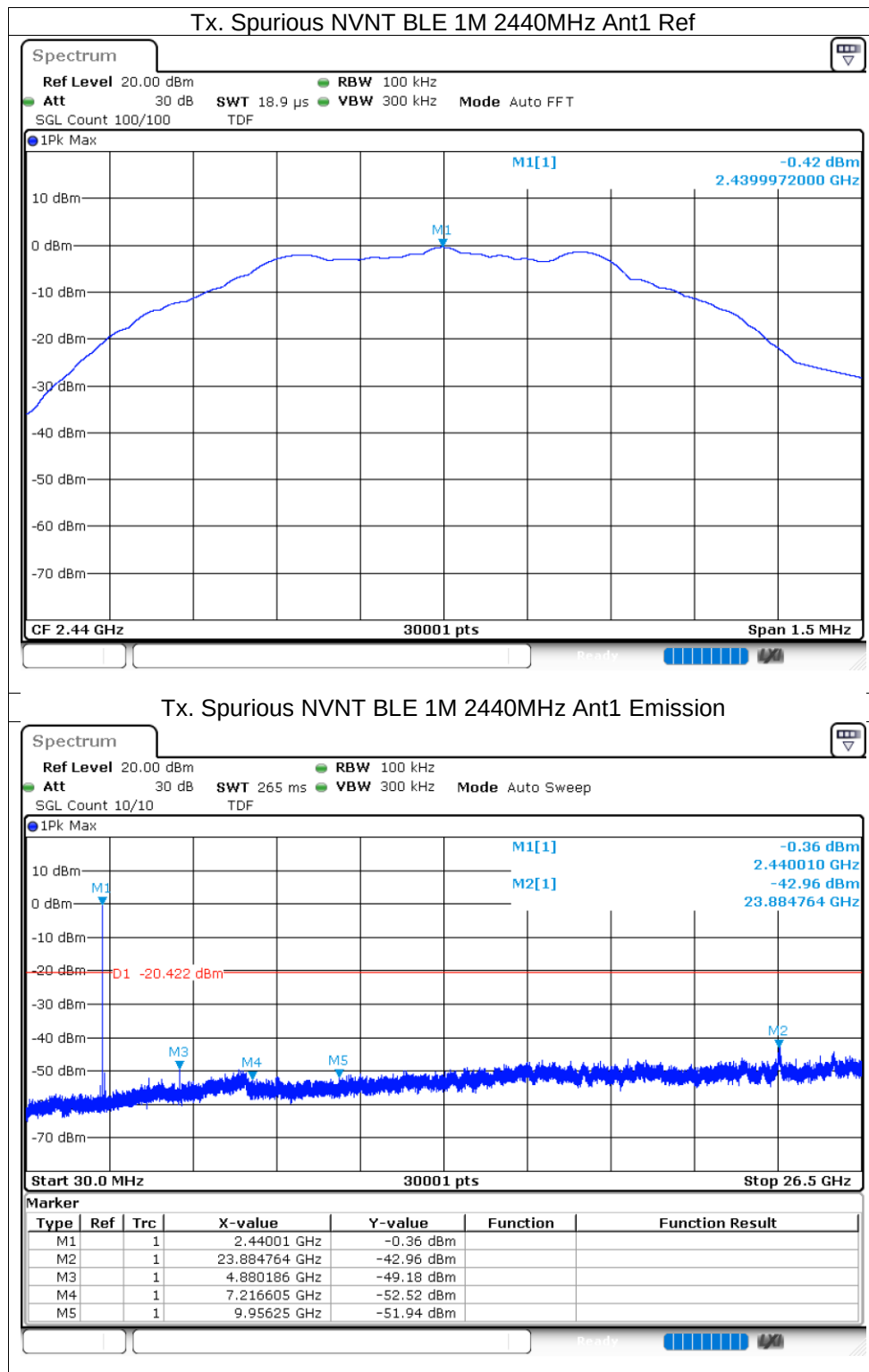


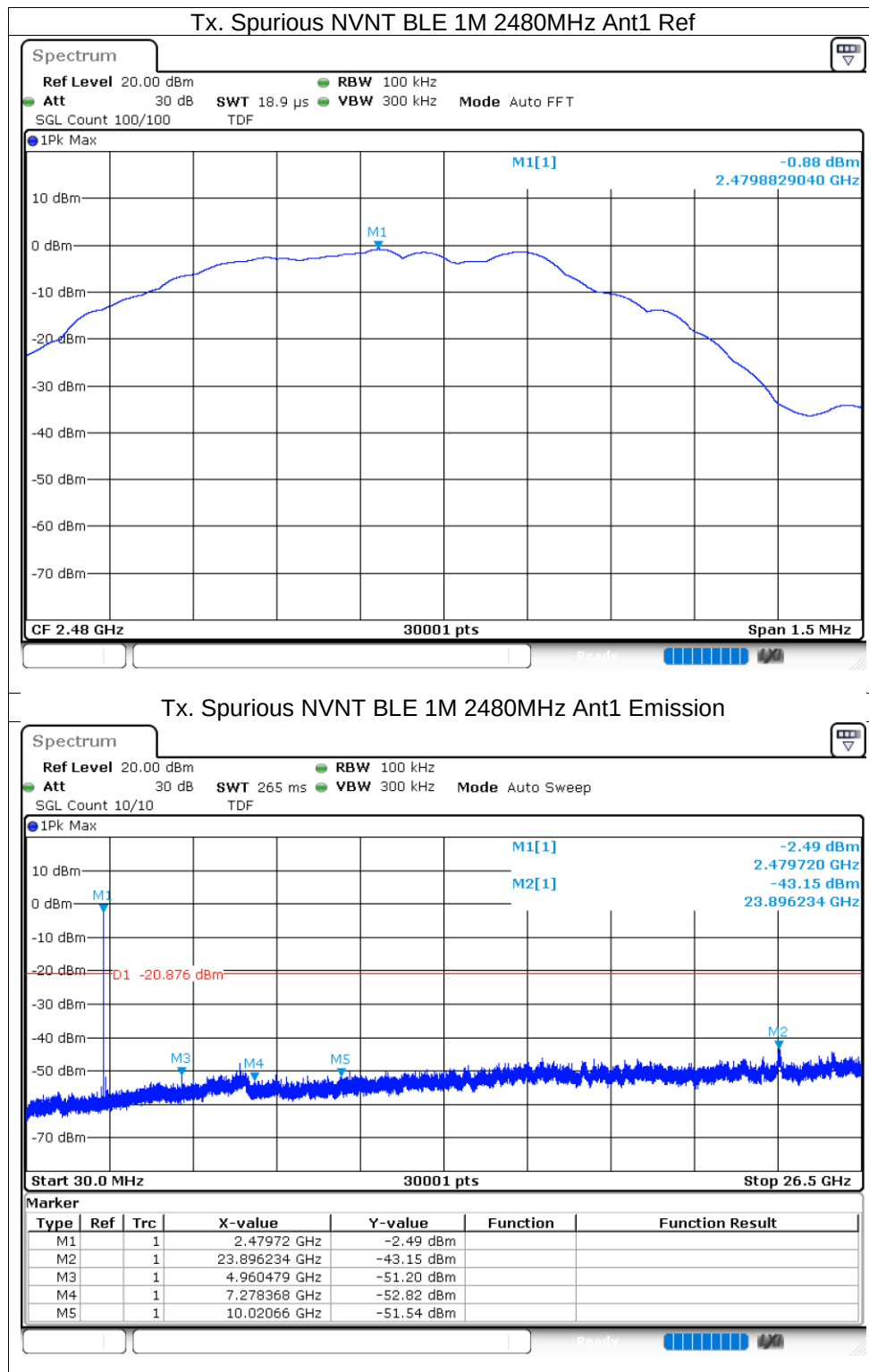


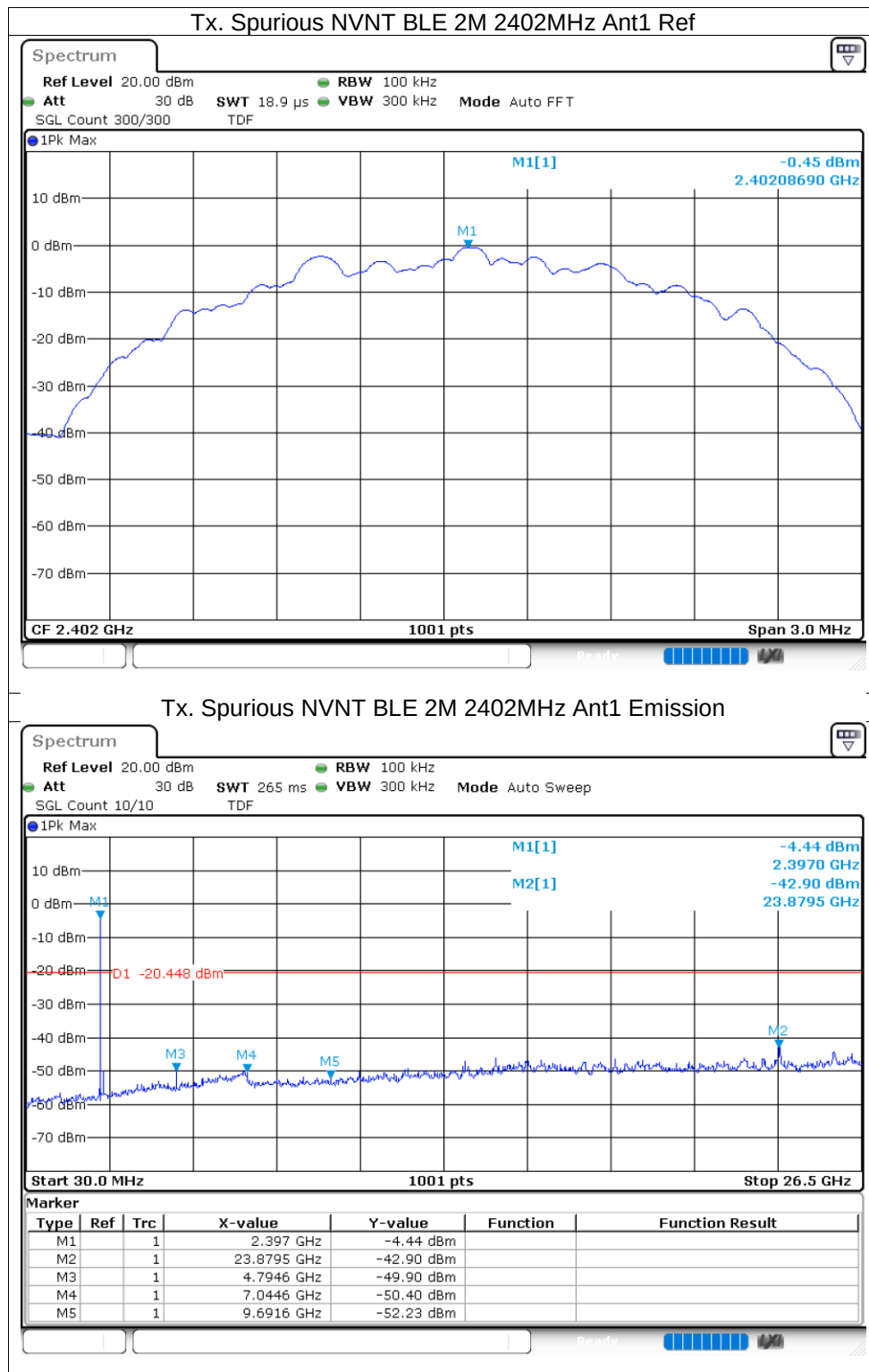
Conducted RF Spurious Emission

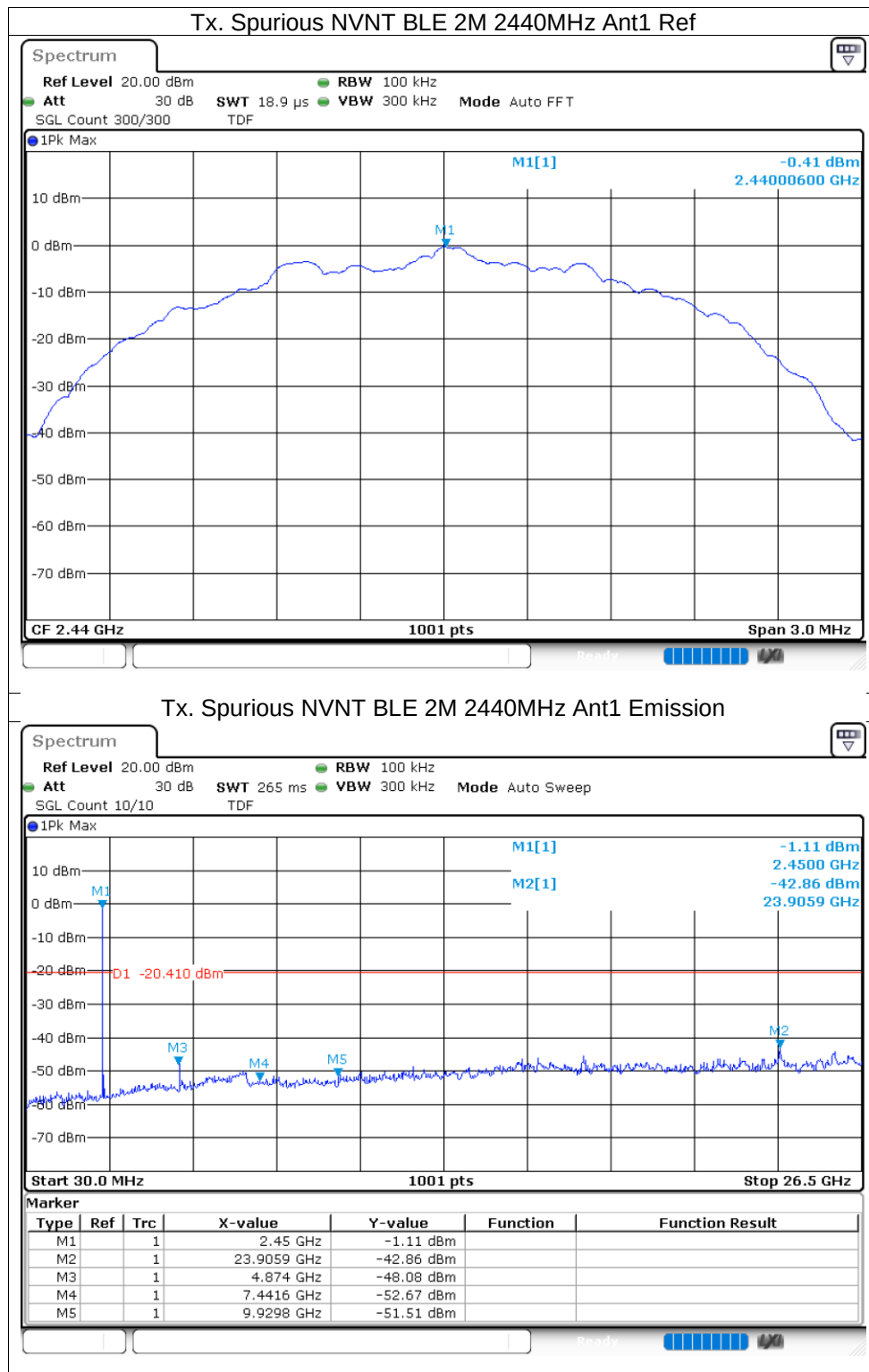
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-42.66	-20	Pass
NVNT	BLE 1M	2440	Ant1	-42.53	-20	Pass
NVNT	BLE 1M	2480	Ant1	-42.27	-20	Pass
NVNT	BLE 2M	2402	Ant1	-42.45	-20	Pass
NVNT	BLE 2M	2440	Ant1	-42.44	-20	Pass
NVNT	BLE 2M	2480	Ant1	-41.93	-20	Pass

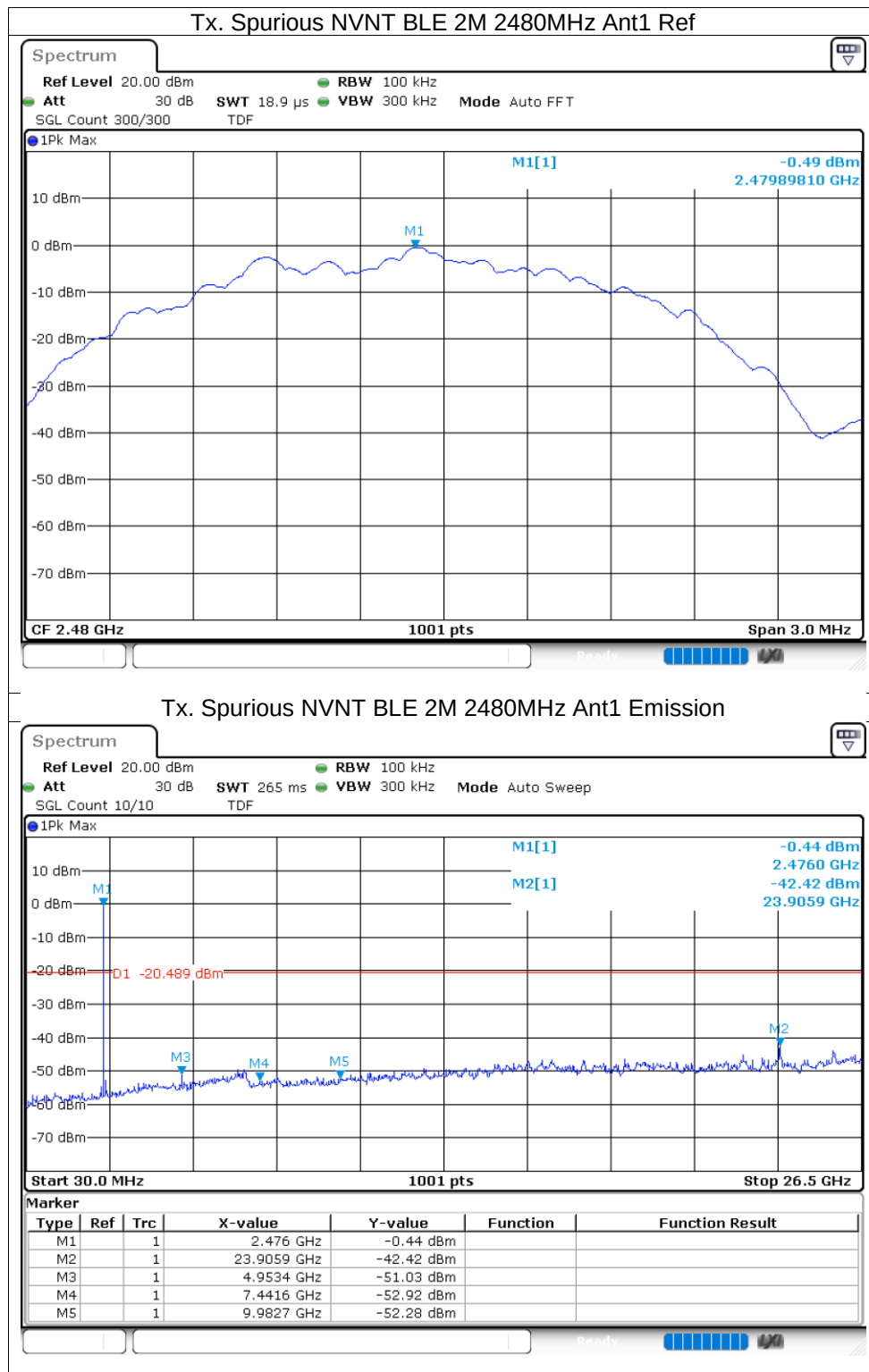












--- End of Report ---