

RF REPORT

On Behalf of FCC ID: 2ATYV-BLE-MODULE-A Scangrip A/S FCC ID: 2ATYV-BLE-MODULE-A

BLE-MODULE-A

Model No.: 310.084

Prepared for Address	 Scangrip A/S Rytterhaven 9, DK-5700 Svendborg, Denmark
Prepared By Address	 Shenzhen Alpha Product Testing Co., Ltd Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China
	Report Number:A2303118-C01-R01Date of Receipt:November 17, 2022

•	A2303110-001-101
:	November 17, 2022
:	November 17, 2022 to March 28, 2023
:	March 28, 2023
:	V0
	:

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TEST REPORT DECLARATION

Applicant	:	Scangrip A/S			
Address	:	Rytterhaven	9, C	K-5700 Svendborg, Denmark	
Manufacturer	:	Scangrip A/S			
Address	:	Rytterhaven	9, C	K-5700 Svendborg, Denmark	
EUT Description	:	BLE-MODUL	E-A	۱.	
((A)	Model No.	:	310.084	
((B)	Trademark	:	Scangrip A/S	

Measurement Standard Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.247

The device described above is tested by Shenzhen Alpha Product Testing Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Shenzhen Alpha Product Testing Co., Ltd. is assumed full responsibility for the accuracy and completeness of test. Also, this report shows that the EUT is technically compliant with above listed standard(s) requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen Alpha Product Testing Co., Ltd.

Tested by (name + signature):	Yannis Wen Project Engineer
Approved by (name + signature) :	Reak Yang Project Manager

Date of issue : March 28, 2023

Vannis wen Dr. K

Revision History

Revision	Issue Date	Revisions	Revised By
V0	March 28, 2023	Initial released Issue	Yannis Wen

1 General Information

1.1 Description of Device (EUT)

Product Name	:	BLE-MODULE-A	
Trademark	:	Scangrip A/S	
Model Number	:	310.084	
Operation Frequency	:	2402MHz to 2480MHz	
Number of Channels	:	40	
Modulation Type	:	GFSK	
Data rate	:	1Mbps, 2Mbps	
Power rating	:	4dBm	
Antenna Type	:	PCB Antenna	
Antenna Gain	:	1.95dBi	

1.2 Test Lab information

Shenzhen Alpha Product Testing Co., Ltd Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

June 21, 2018 File on Federal Communication Commission Registration Number: 293961 Designation Number: CN1236

July 15, 2019 Certificated by IC Registration Number: CN0085

2 Summary of test

2.1 Test Standard description:

The tests were performed according to following standards:

47 CFR Part 15.247: Operation within the bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz **KDB558074 D01 15.247 Meas Guidance v05r02:** GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES

2.2 Summary of test

Item	Requirement	Method	Result
Antenna requirement	Part 15.203		Pass
Conducted Emission at AC power line	47 CFR 15.207(a)	ANSI C63.10-2013 section 6.2	Pass
Occupied Bandwidth	47 CFR 15.247(a)(2)	ANSI C63.10-2013, section 11.8	Pass
Maximum Conducted Output Power	47 CFR 15.247(b)(3)	ANSI C63.10-2013, section 11.9.1	Pass
Power Spectral Density	47 CFR 15.247(e)	ANSI C63.10-2013, section 11.10	Pass
Emissions in non-restricted frequency bands	47 CFR 15.247(d)	ANSI C63.10-2013 section 11.11	Pass
Band edge emissions (Radiated)	47 CFR 15.247(d)	ANSI C63.10-2013 section 6.6.4	Pass
Emissions in restricted frequency bands (below 1GHz)	47 CFR 15.247(d)	ANSI C63.10-2013 section 6.6.4	Pass
Emissions in restricted frequency bands (above 1GHz)	47 CFR 15.247(d)	ANSI C63.10-2013 section 6.6.4	Pass

2.3 Test Mode Description

Tested mode and channel				
Mode	Channel	Frequency (MHz)		
	Low : CH0	2402		
GFSK(1Mbps)	Middle: CH19	2440		
	High: CH39	2480		
	Low : CH0	2402		
GFSK(2Mbps)	Middle: CH19	2440		
	High: CH39	2480		

	Frequency list								
СН	Frequency (MHz)	СН	Frequency (MHz)	СН	Frequency (MHz)	СН	Frequency (MHz)	СН	Frequency (MHz)
CH0	2402	CH8	2418	CH16	2434	CH24	2450	CH32	2466
CH1	2404	CH9	2420	CH17	2436	CH25	2452	CH33	2468
CH2	2406	CH10	2422	CH18	2438	CH26	2454	CH34	2470
CH3	2408	CH11	2424	CH19	2440	CH27	2456	CH35	2472
CH4	2410	CH12	2426	CH20	2442	CH28	2458	CH36	2474
CH5	2412	CH13	2428	CH21	2444	CH29	2460	CH37	2476
CH6	2414	CH14	2430	CH22	2446	CH30	2462	CH38	2478
CH7	2416	CH15	2432	CH23	2448	CH31	2464	CH39	2480

Software Information							
Test Item	Software Name	Manufacturer	Version				
RE	EZ-EMC	farad	Alpha-3A1				
CE	EZ-EMC	farad	Alpha-3A1				
RF-CE	MTS 8310	MWRFtest	2.0.0.0				

Setting output power (Max)							
GFSK(1Mbps) GFSK(2Mbps) / /							
4dBm	4dBm	/	/				

2.4 Test Equipment

Equipment	Manufacture	Model No.	Firmware version	Serial No.	Last cal.	Cal Interval
9*6*6 anechoic chamber	CHENYU	9*6*6	/	N/A	2022.05.17	3Year
Spectrum analyzer	ROHDE&SCHWARZ	FSV40-N	2.3	102137	2022.08.22	1Year
Spectrum analyzer	Agilent	N9020A	A.14.16	MY499100060	2022.08.22	1Year
Receiver	ROHDE&SCHWARZ	ESR	2.28 SP1	1316.3003K03- 102082-Wa	2022.08.22	1Year
Receiver	R&S	ESCI	4.42 SP1	101165	2022.08.22	1Year
Bilog Antenna	Schwarzbeck	VULB 9168	/	VULB 9168#627	2021.08.30	2Year
Horn Antenna	SCHWARZBECK	BBHA 9120 D	/	2106	2021.08.30	2Year
Active Loop Antenna	SCHWARZBECK	FMZB 1519B	/ 00059		2021.08.30	2Year
RF Cable	Resenberger	Resenberger Cable 1		RE1	2022.08.22	1Year
RF Cable	Resenberger	Cable 2	/ RE2		2022.08.22	1Year
RF Cable	Resenberger	Cable 3	/	CE1	2022.08.22	1Year
Pre-amplifier	HP	HP8347A	/	2834A00455	2022.08.22	1Year
Pre-amplifier	Agilent	8449B	/	3008A02664	2022.08.22	1Year
L.I.S.N.#1	Schwarzbeck	NSLK8126	/	8126-466	2022.08.22	1Year
L.I.S.N.#2	ROHDE&SCHWARZ	ENV216	/	101043	2022.08.23	1 Year
Horn Antenna	SCHWARZBECK	BBHA9170	/	00946	2021.08.30	2 Year
Preamplifier	SKET	LNPA_1840 -50	/	SK2018101801	2022.08.22	1 Year
Power Meter	Agilent	E9300A	/	MY41496628	2022.08.22	1 Year
Power Sensor	DARE	RPR3006W	/	15100041SNO91	2022.08.22	1 Year
Temp. & Humid. Chamber	Weihuang	WHTH- / 1000-40- 880		100631	2022.08.22	1 Year
Switching Mode Power Supply	JUNKE	JK12010S	/	20140927-6	2022.08.22	1 Year
Adjustable attenuator	MWRFtest	N/A	/	N/A	N/A	N/A
10dB Attenuator	Mini-Circuits	DC-6G	/	N/A	N/A	N/A

Software Information							
Test Item	Software Name	Manufacturer	Version				
RE	EZ-EMC	farad	Alpha-3A1				
CE	EZ-EMC	farad	Alpha-3A1				
RF-CE	MTS 8310	MWRFtest	2.0.0.0				

2.5 Measurement Uncertainty

Item	Uncertainty
Uncertainty for Power point Conducted Emissions Test	1.63dB
Uncertainty for Radiation Emission test in 3m chamber (below 30MHz)	3.5dB
Uncertainty for Radiation Emission test in 3m chamber	3.74dB(Polarize: V)
(30MHz to 1GHz)	3.76dB(Polarize: H)
Uncertainty for Radiation Emission test in 3m chamber	3.77dB(Polarize: V)
(1GHz to 25GHz)	3.80dB(Polarize: H)
Uncertainty for radio frequency	5.06×10 ⁻⁸ GHz
Uncertainty for conducted RF Power	0.40dB
Uncertainty for temperature	0.2 ℃
Uncertainty for humidity	1%
Uncertainty for DC and low frequency voltages	0.06%

3 Evaluation Results (Evaluation)

3.1 Antenna requirement

Test Requirement:	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.
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3.1.1 Conclusion:

The EUT antenna is PCB Antenna with max gain 1.95dBi. It comply with the standard requirement.

4 Radio Spectrum Matter Test Results (RF)

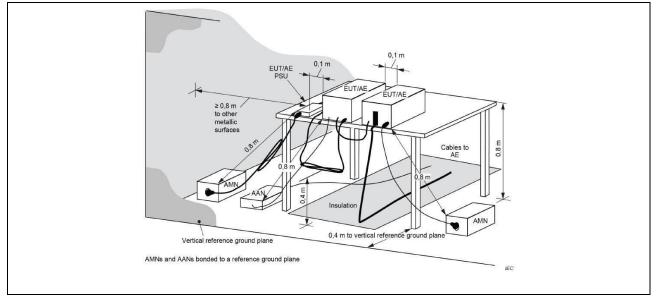
4.1 Conducted Emission at AC power line

Test Requirement:	Except as shown in paragraphs (b)and (c)of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN).						
Test Limit:	Frequency of emission (MHz) Conducted limit (dBµV)						
		Quasi-peak	Average				
	0.15-0.5	66 to 56*	56 to 46*				
	0.5-5	56	46				
	5-30	60	50				
	*Decreases with the logarithm of the frequency.						
Test Method:	Refer to ANSI C63.10-2013 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices						

4.1.1 E.U.T. Operation:

Operating Environment:							
Temperature:	23.8 °C		Humidity:	53.1 %	Atmospheric Pressure:	102 kPa	
Pre test mode: GFSK(1Mbps), GFSK(2Mbps)			SK(2Mbps)				
Final test mode: GFSK(1Mbps)							

4.1.2 Test Setup Diagram:



4.1.3 Test Result:

3

4

5

6

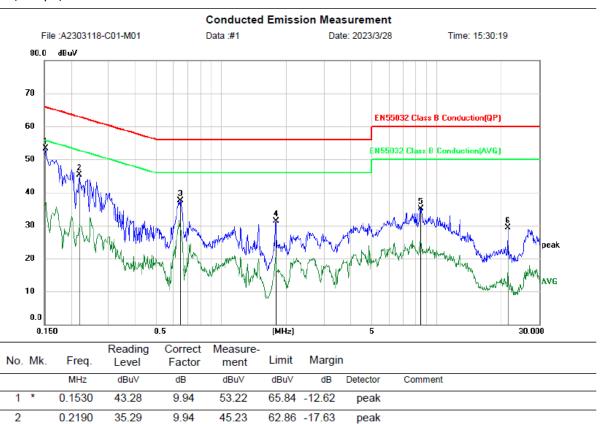
0.6450

1.7940

8.4180

21.4229

GFSK (1Mbps) / Line: Line / CH: L



56.00 -18.57

56.00 -24.63

60.00 -24.92

60.00 -30.68

peak

peak

peak

peak

*:Maximum data	x:Over limit	I:over margin	

27.51

21.48

24.92

18.86

9.92

9.89

10.16

10.46

37.43

31.37

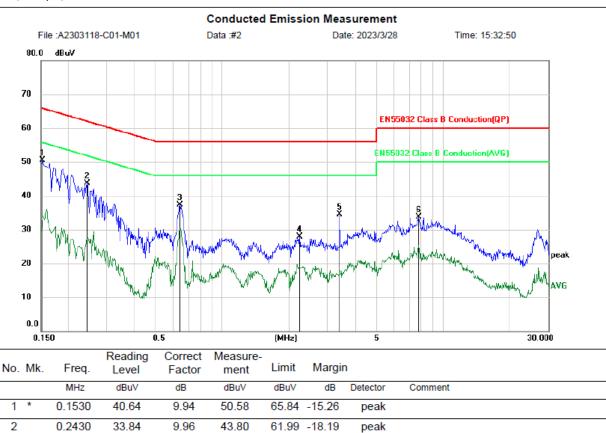
35.08

29.32

(Reference Only

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

GFSK (1Mbps) / Line: Neutral / CH: L



56.00 -18.76

56.00 -28.16

56.00 -21.56

60.00 -26.29

peak

peak

peak

peak

*:Maximum data x:Over limit I:over margin

3

4

5

6

0.6419

2.2440

3.4170

7.7280

27.32

17.95

24.48

23.57

9.92

9.89

9.96

10.14

37.24

27.84

34.44

33.71

(Reference Only

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

Note: All modes have been tested, and only worst data was listed in this report.

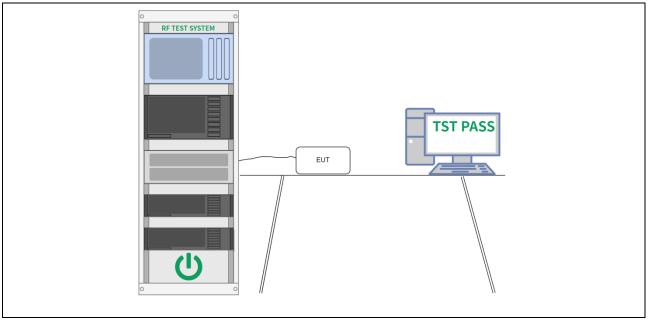
4.2 Occupied Bandwidth

Test Requirement:	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 Limit:	Section (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:	DTS bandwidth
Procedure:	 a) Set RBW = 100 kHz. b) Set the VBW >= [3 x RBW]. c) Detector = peak. d) Trace mode = max hold. e) Sweep = auto couple. f) Allow the trace to stabilize. g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

4.2.1 E.U.T. Operation:

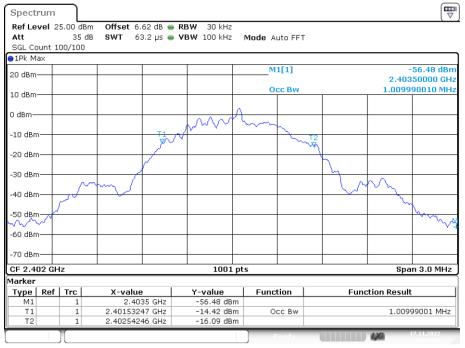
Operating Environment:								
Temperature:	23.8 °C		Humidity:	53.1 %	Atmospheric Pressure:	102 kPa		
Pre test mode: GFSK			1Mbps), GF	SK(2Mbps)				
Final test mode: GFSK(1Mbps), GFSK(2Mbps)			SK(2Mbps)					

4.2.2 Test Setup Diagram:



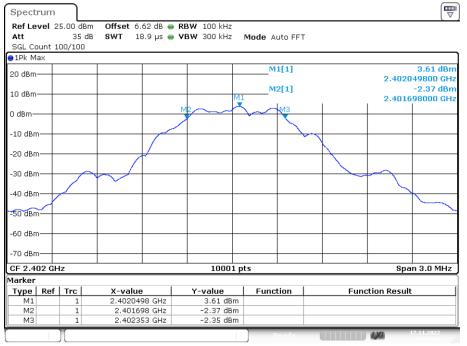
4.2.3 Test I	Result:						
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant 1	1.01	0.656	0.5	Pass
NVNT	BLE 1M	2440	Ant 1	1.007	0.645	0.5	Pass
NVNT	BLE 1M	2480	Ant 1	1.007	0.65	0.5	Pass

OBW NVNT BLE 1M 2402MHz Ant1



Date: 17.NOV.2022 09:59:00

-6dB Bandwidth NVNT BLE 1M 2402MHz Ant1



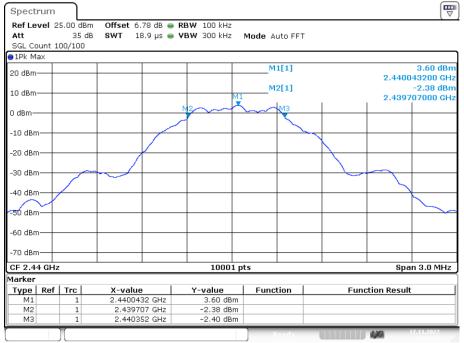
Date: 17.NOV.2022 09:59:08

OBW NVNT BLE 1M 2440MHz Ant1

Spectru	ım									
Ref Leve	el 2	5.00 d	Bm Offset 6.	78 dB 😑 R	BW 30 kHz					
Att		35		3.2 µs 👄 🎗	BW 100 kHz	Mode A	uto FFT			
SGL Cou		00/100)							
⊖1Pk Max										
20 dBm—						M	1[1]			54.48 dBm
						_	_			50000 GHz
10 dBm—	+					0	CC BW		1.0069	93007 MHz
						~				
0 dBm	+				0.0-0	А		-		
				-	M^{N}	m	h.			
-10 dBm—	+			11 m				2		
-20 dBm-				5			~~			
-20 uBm—								h		
-30 dBm-								h		
-50 abiii		(man /						hA -	
-40 dBm-	_	\rightarrow	<u> </u>					$+$ \vee	1 2	
		کتر						V	~	h
-50 dBm-	nΡ				+					
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~										m ra
-60 dBm-	+				+					
70 10										
-70 dBm—										
CF 2.44	GHz				1001	pts			Spa	n 3.0 MHz
Marker										
	Ref	Trc	X-value		Y-value	Func	tion	Fund	ction Result	:
M1		1		15 GHz	-54.48 dB					
T1		1	2.439535		-14.24 dB		cc Bw		1.0069	93007 MHz
T2	_	1	2.440542	46 GHZ	-15.04 dB	m				
		I					te a d y		4,40	17.11.2022
		<u> </u>								

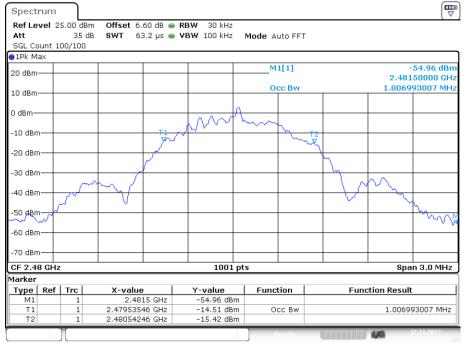
Date: 17.NOV.2022 10:00:34

#### -6dB Bandwidth NVNT BLE 1M 2440MHz Ant1



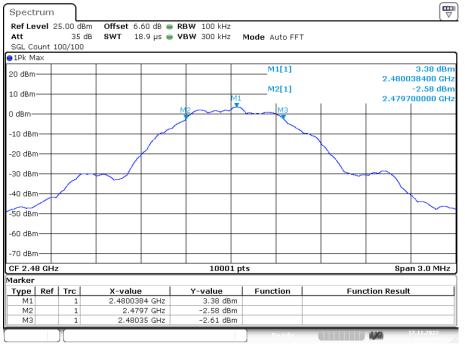
Date: 17.NOV.2022 10:00:42

#### OBW NVNT BLE 1M 2480MHz Ant1



Date: 17.NOV.2022 10:01:59

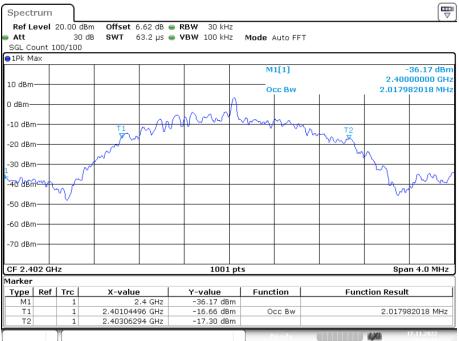
### -6dB Bandwidth NVNT BLE 1M 2480MHz Ant1



Date: 17.NOV.2022 10:02:08

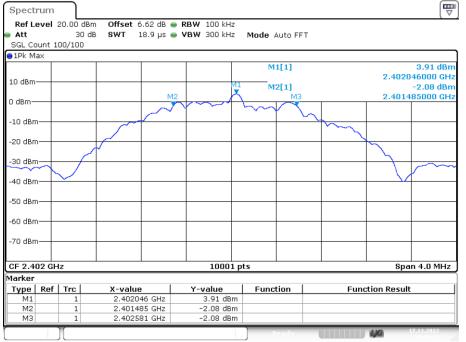
Condition	Mode	Frequency	Antenna	99%	-6 dB	Limit -6 dB	Verdict
		(MHz)		OBW	Bandwidth	Bandwidth (MHz)	
				(MHz)	(MHz)		
NVNT	BLE	2402	Ant 1	2.018	1.096	0.5	Pass
	2M						
NVNT	BLE	2440	Ant 1	2.014	1.088	0.5	Pass
	2M						
NVNT	BLE	2480	Ant 1	2.018	0.96	0.5	Pass
	2M						

## OBW NVNT BLE 2M 2402MHz Ant1

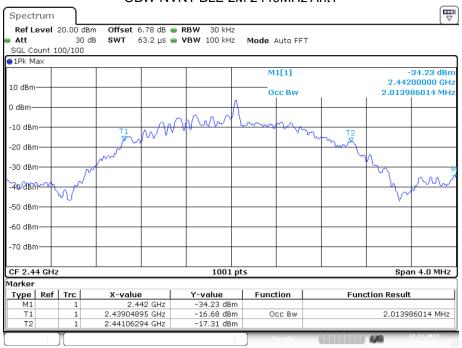


Date: 17.NOV.2022 10:08:18

#### -6dB Bandwidth NVNT BLE 2M 2402MHz Ant1



Date: 17.NOV.2022 10:08:27



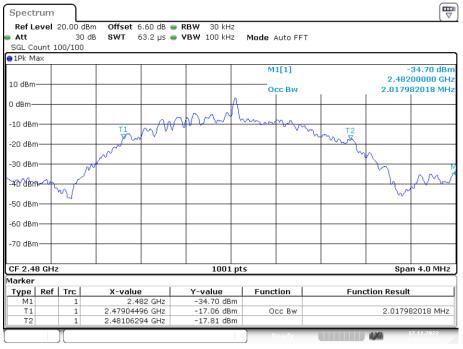
### OBW NVNT BLE 2M 2440MHz Ant1

Date: 17.NOV.2022 10:09:56

### -6dB Bandwidth NVNT BLE 2M 2440MHz Ant1



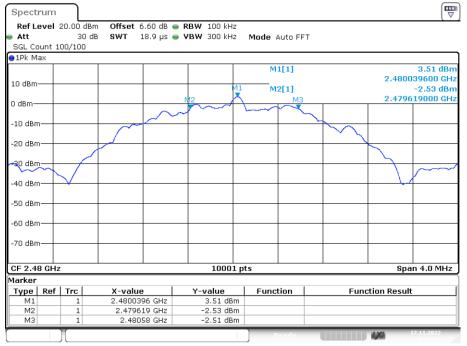
Date: 17.NOV.2022 10:10:05



#### OBW NVNT BLE 2M 2480MHz Ant1

Date: 17.NOV.2022 10:11:15

### -6dB Bandwidth NVNT BLE 2M 2480MHz Ant1



Date: 17.NOV.2022 10:11:25

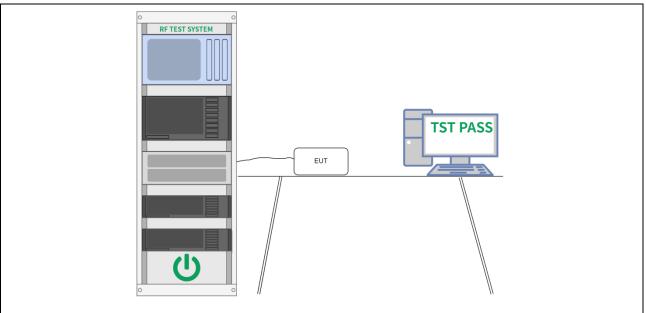
# 4.3 Maximum Conducted Output Power

Test Requirement:	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 Limit:	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:	Maximum peak conducted output power
Procedure:	ANSI C63.10-2013, section 11.9.1 Maximum peak conducted output power

## 4.3.1 E.U.T. Operation:

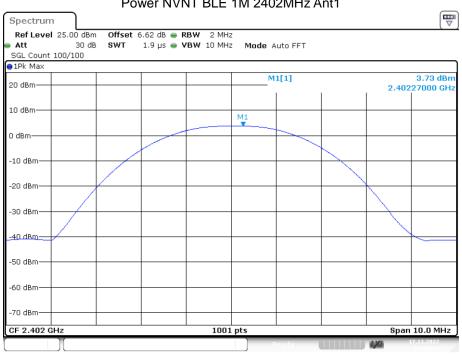
Operating Environment:										
Temperature:23.8 °CHumidity:53.1 %Atmospheric Pressure:102 kPa										
Pre test mode:		GFSK(	1Mbps), GF	SK(2Mbps)						
Final test mode		GFSK(	1Mbps), GF	SK(2Mbps)						

## 4.3.2 Test Setup Diagram:



#### 4.3.3 Test Result:

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	3.73	30	Pass
NVNT	BLE 1M	2440	Ant1	3.65	30	Pass
NVNT	BLE 1M	2480	Ant1	3.42	30	Pass



### Power NVNT BLE 1M 2402MHz Ant1

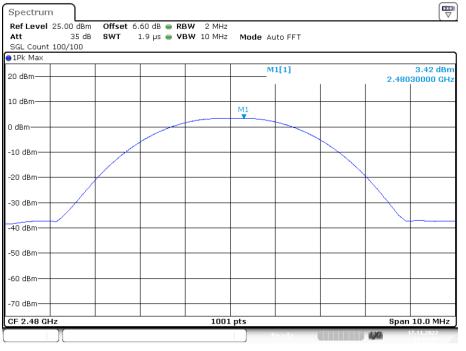
Date: 17.NOV.2022 09:58:53

#### Power NVNT BLE 1M 2440MHz Ant1



Date: 17.NOV.2022 10:00:26

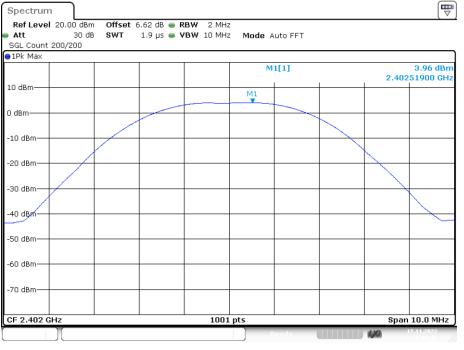
### Power NVNT BLE 1M 2480MHz Ant1



Date: 17.NOV.2022 10:01:51

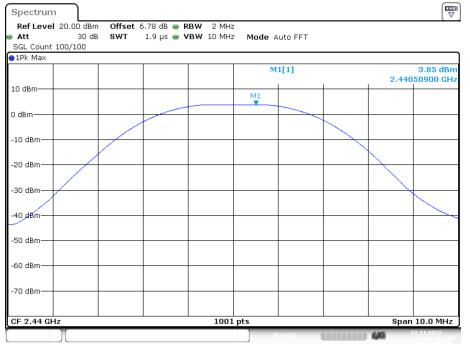
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 2M	2402	Ant1	3.96	30	Pass
NVNT	BLE 2M	2440	Ant1	3.85	30	Pass
NVNT	BLE 2M	2480	Ant1	3.56	30	Pass

### Power NVNT BLE 2M 2402MHz Ant1



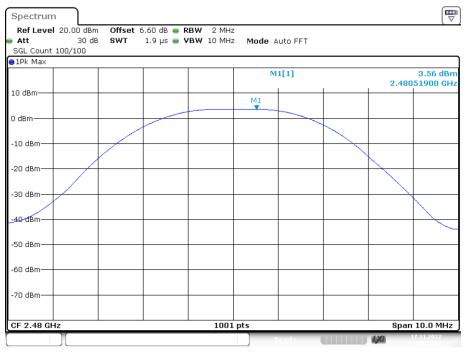
Date: 17.NOV.2022 10:08:11

### Power NVNT BLE 2M 2440MHz Ant1



Date: 17.NOV.2022 10:09:48





Date: 17.NOV.2022 10:11:07

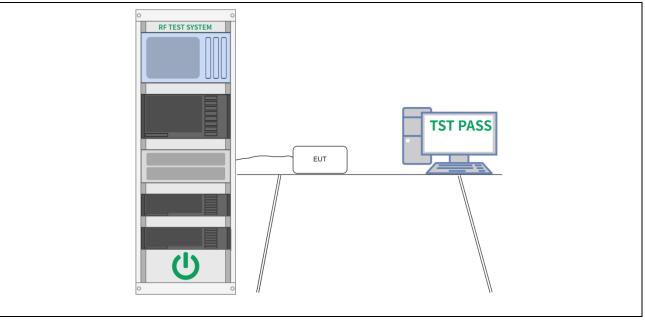
# 4.4 Power Spectral Density

Test Requirement:	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 Limit:	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:	Maximum power spectral density level in the fundamental emission
Procedure:	ANSI C63.10-2013, section 11.10 Maximum power spectral density level in the fundamental emission

## 4.4.1 E.U.T. Operation:

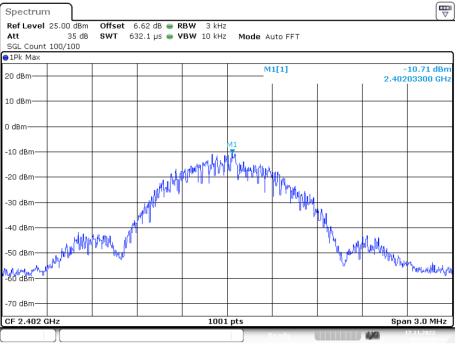
Operating Environment:										
Temperature:23.8 °CHumidity:53.1 %Atmospheric Pressure:102 kPa										
Pre test mode:	Pre test mode: GFS			SK(2Mbps)						
Final test mode: GFS		GFSK(	1Mbps), GF	SK(2Mbps)						

## 4.4.2 Test Setup Diagram:



#### 4.4.3 Test Result:

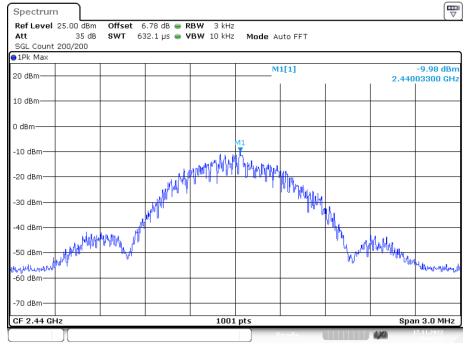
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	-10.71	8	Pass
NVNT	BLE 1M	2440	Ant1	-9.98	8	Pass
NVNT	BLE 1M	2480	Ant1	-9.86	8	Pass



### PSD NVNT BLE 1M 2402MHz Ant1

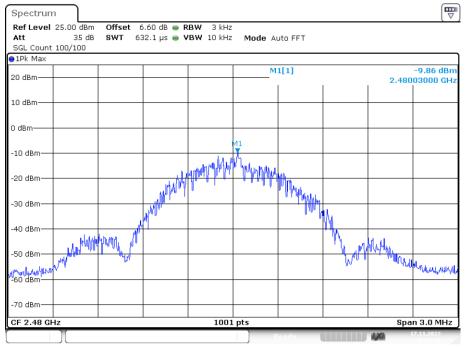
Date: 17.NOV.2022 09:59:15

#### PSD NVNT BLE 1M 2440MHz Ant1



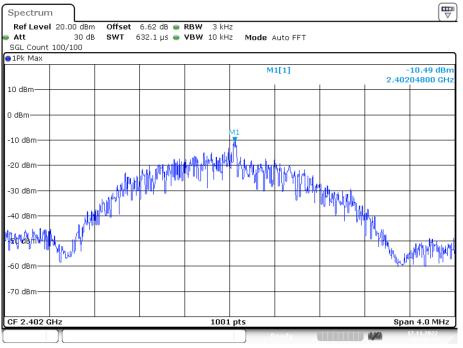
Date: 17.NOV.2022 10:00:51

#### PSD NVNT BLE 1M 2480MHz Ant1



Date: 17.NOV.2022 10:02:16

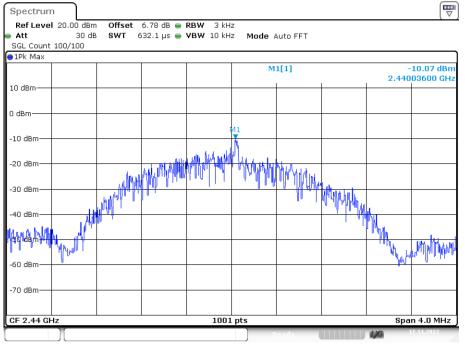
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE 2M	2402	Ant1	-10.49	8	Pass
NVNT	BLE 2M	2440	Ant1	-10.07	8	Pass
NVNT	BLE 2M	2480	Ant1	-10.02	8	Pass



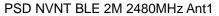
### PSD NVNT BLE 2M 2402MHz Ant1

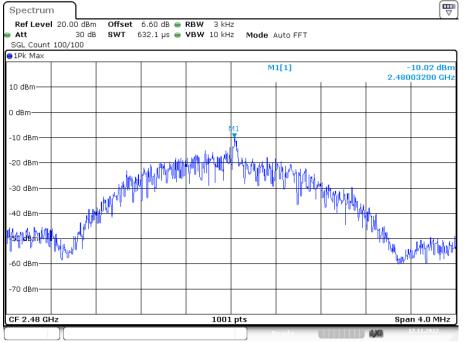
Date: 17.NOV.2022 10:08:34

#### PSD NVNT BLE 2M 2440MHz Ant1



Date: 17.NOV.2022 10:10:14





Date: 17.NOV.2022 10:11:35

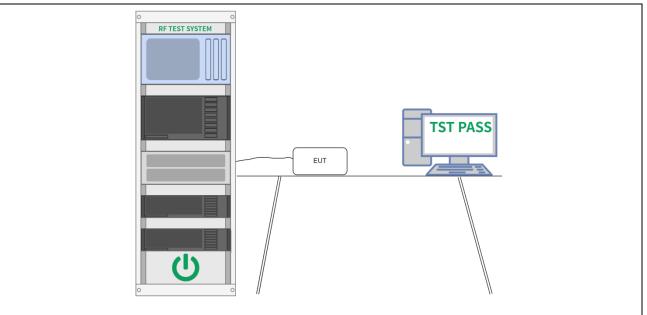
## 4.5 Emissions in non-restricted frequency bands

Test Requirement:	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 Limit:	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:	Emissions in nonrestricted frequency bands
Procedure:	ANSI C63.10-2013 Section 11.11.1, Section 11.11.2, Section 11.11.3

### 4.5.1 E.U.T. Operation:

Operating Envir	Operating Environment:											
Temperature:23.8 °CHumidity:53.1 %Atmospheric Pressure:102 kPa												
Pre test mode:		GFSK(	1Mbps), GF	SK(2Mbps)								
Final test mode: G		GFSK(	1Mbps), GF	SK(2Mbps)								

## 4.5.2 Test Setup Diagram:



#### 4.5.3 Test Result:

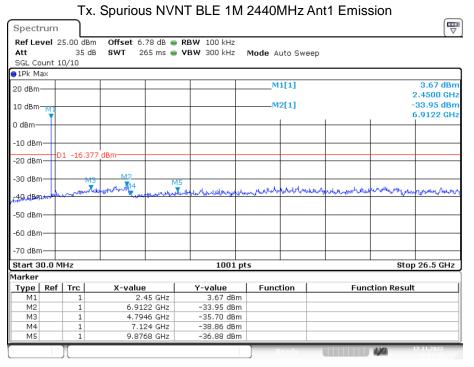
#### **Conducted RF Spurious Emission**

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-37.69	-20	Pass
NVNT	BLE 1M	2440	Ant1	-37.56	-20	Pass
NVNT	BLE 1M	2480	Ant1	-37.47	-20	Pass

#### Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission

Ref Level         25.00 dBm         Offset         6.62 dB         RBW         100 kHz           SGL Count 10/10         SWT         265 ms         VBW         300 kHz         Mode         Auto Sweep           SGL Count 10/10         IPK Max         Max         M1[1]         4.35 dBm           20 dBm         Max         M1[1]         4.35 dBm         2.3970 GHz           10 dBm         Max         M2[1]         -34.04 dBm         6.9651 GHz           0 dBm         M1         M3         M2         M3         M4         M4           -10 dBm         M1         M3         M2         M3         M4         M4         M4         M5         M4         M4         M4         M4         M5         M4         M4 </th <th>Spect</th> <th>rum</th> <th>J</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>[₩</th>	Spect	rum	J								[₩
SGL Count 10/10       Interview of the term of		vel 2									
1Pk Max       20 dBm       M1[1]       4.35 dBm         20 dBm       M2[1]       -34.04 dBm       6.9651 GHz         0 dBm       M2[1]       -34.04 dBm       6.9651 GHz         0 dBm       M2       M2[1]       -34.04 dBm         -10 dBm       M3       M2       M2       M2         -20 dBm       M3       M2       M5       M4       M4         -30 dBm       M3       M2       M5       M4       M4       M4       M5       M4       M4       M4       M5       M4		nunt 1		UB 3WI 2	os ms 🔳	900 KH2	Mode A	uto SW	eep		
20 dBm     4.35 dBm       20 dBm			.0/10								
0 dBm	-						M	1[1]			
0 dBm     0 dBm     0 dBm     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0     0	10 dBm	-M1					M	2[1]			-34.04 dBm
N2     N2     N2     N3     N2     N3     N2       -30 dBm     -30 dBm     -40 dBm		Ť									6.9651 GHz
-20 dBm	-10 dBn										
-30 dBm + + + + + + + + + + + + + + + + + + +	-20 dBn	n-+C	-16.	330 GBM							
-50 dBm -50 dBm -60 dBm -70	-30 dBn	n		11.5	м	5			11.0		N
-60 dBm     -70 dBm	-40.dBn	artelet	has had a production of the	whether a start and the start of	an house and	had all and the resident has been been been been been been been bee	and the second	wwwwww	all'all all all and	when he had a second	MUMANUMANA
Type     Ref     Trc     X-value     Y-value     Function       M1     1     2.397 GHz     4.35 dBm	-50 dBn	n-+									
Start 30.0 MHz         1001 pts         Stop 26.5 GHz           Marker         Type         Ref         Trc         X-value         Y-value         Function         Function Result           M1         1         2.397 GHz         4.35 dBm	-60 dBn	n-+-									
Marker         Trc         X-value         Y-value         Function         Function Result           M1         1         2.397 GHz         4.35 dBm              M2         1         6.9651 GHz         -34.04 dBm	-70 dBn	n									
Marker         Trc         X-value         Y-value         Function         Function Result           M1         1         2.397 GHz         4.35 dBm	Start 3	10.0 N	1Hz			1001	nts				Stop 26.5 GHz
M1         1         2.397 GHz         4.35 dBm           M2         1         6.9651 GHz         -34.04 dBm           M3         1         4.8211 GHz         -35.57 dBm           M4         1         7.3093 GHz         -38.58 dBm           M5         1         9.771 GHz         -37.15 dBm	Marker										
M1         1         2.397 GHz         4.35 dBm           M2         1         6.9651 GHz        34.04 dBm           M3         1         4.8211 GHz        35.57 dBm           M4         1         7.3093 GHz        38.58 dBm           M5         1         9.771 GHz        37.15 dBm			Trc	X-value	.	Y-value	Func	tion		Function F	Result
M3         1         4.8211 GHz         -35.57 dBm           M4         1         7.3093 GHz         -38.58 dBm           M5         1         9.771 GHz         -37.15 dBm	M1		1								
M4         1         7.3093 GHz         -38.58 dBm           M5         1         9.771 GHz         -37.15 dBm											
M5 1 9.771 GHz -37.15 dBm			-								
n	M5		1	9.7	/1 GHz	-37.15 dBn	1				
Ready 995951			][				) R	eady.		44	17.11.2022

Date: 17.NOV.2022 09:59:51



Date: 17.NOV.2022 10:01:15

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## Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission

Spectrum								E
RefLevel 2 Att	5.00 dBn 35 dB		<ul> <li>RBW 100 kHz</li> <li>VBW 300 kHz</li> </ul>	Mode Auto	Sween			
SGL Count 1		5 <b>641</b> 205 m5 (		Mode Auto	2weeb			
●1Pk Max								
20 dBm				M1[1	]			2.49 dBm
								2.4760 GHz
10 dBm M1				M2[1	1			34.12 dBm 5.9122 GHz
0 dBm							· · · · ·	
-10 dBm								
-20 dBm	1 -16.64	6 dBm						
-30 dBm	M	13 M2	M5					
-49.dBm	سوابها لملحط يسجيلونهن	Machine M4	y Twee war	wayshim provident	www.ww	ahor, there will be	holist and the	Khunnohamha
-50 dBm								
-60 dBm								
-70 dBm								
Start 30.0 M	1Hz		1001 p	its			Stop	26.5 GHz
4arker								
Type   Ref	Trc	X-value	Y-value	Function	ו ו	Fund	tion Result	
M1	1	2.476 GHz	2.49 dBm					
M2	1	6.9122 GHz	-34.12 dBm					
M3 M4	1	5.0328 GHz 7.5475 GHz	-35.76 dBm -38.63 dBm					
M4 M5	1	9.9033 GHz	-37.23 dBm					
	)[			Read	y I		4/0	17.11.2022

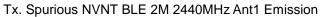
Date: 17.NOV.2022 10:02:54

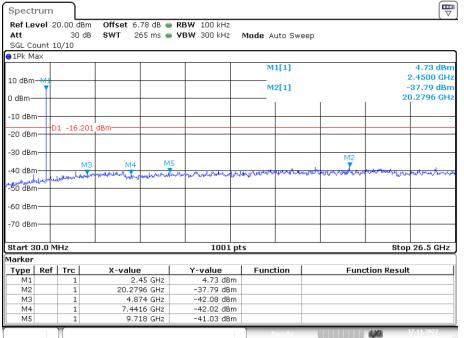
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 2M	2402	Ant1	-42.49	-20	Pass
NVNT	BLE 2M	2440	Ant1	-41.58	-20	Pass
NVNT	BLE 2M	2480	Ant1	-41.69	-20	Pass

Defie			- Offerst 6.6	0 db 0	RBW 100 kHz			
Att	ver 2	0.00 dB 30 c		_		Mada Auto Cur		
SGL Co	unt 1		16 <b>SWI</b> 20	s ms 🔳	VEW JUUKHZ	Mode Auto Sw	eep	
1Pk M		0/10						
TEK IN	<u> </u>		1			M1[1]		0.80 dBn
						milti		2.3970 GH
0 dBm	M1					M2[1]		-38.58 dBn
dBm-	T							16.5738 GH
abiii								
10 dBri	א+							
		1 -16.0	90.dBm					
20 dBri	דרי							
30 dBri								
Jo ubn	'			M5		M2		
40 dBri	ι <del>  </del> -	M	3 M4			LLL NULLPROPERTY IN	untrat 1 and the	who have your her we there we
50 dBn	about the mas	الواراسير والإيلامي	water when the war when the second	all and a start of the start of	and a commence of			
50 dBri	+-י							
50 dBri								
SU UBII	-							
70 dBri	η <del></del>		_					
tart 3	0.0 M	Hz			1001 pt	s		Stop 26.5 GHz
arker								•
Type	Ref	Trc	X-value	1	Y-value	Function	Fund	ction Result
M1		1	2.39	7 GHz	0.80 dBm			
M2		1	16.573		-38.58 dBm			
MЗ		1	4.688		-42.22 dBm			
		1	7.044		-42.68 dBm -40.88 dBm			
M4 M5		1	9.638					

### Tx. Spurious NVNT BLE 2M 2402MHz Ant1 Emission

Date: 17.NOV.2022 10:09:11





Date: 17.NOV.2022 10:10:39

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## Tx. Spurious NVNT BLE 2M 2480MHz Ant1 Emission

Spectrur	n								
Ref Level Att SGL Coun	30			RBW 100 kHz VBW 300 kHz	Mode A	uto Sw	еер		
1Pk Max	. 10/10								
10 dBm	1					1[1] 2[1]			0.29 dBn 2.4760 GH -38.19 dBn
D dBm	/							I	16.8385 GH
-10 dBm—	-D1 -16.4								
-20 dBm—	-10,4	195 dBm							
-30 dBm—		10		15		M2			
-40 dBm—	منابعه بين	13 M4 Langerton Marken Kar			white white the	Darth Cat	and the second	work and a destruction of the	our way and a server
-50 dBm—									
-60 dBm—									
-70 dBm—									
Start 30.0	MHz			1001	pts				Stop 26.5 GHz
1arker									•
Type   Re	ef   Trc	X-value	.	Y-value	Func	tion		Function I	Result
M1	1		76 GHz	0.29 dBi					
M2	1		35 GHz	-38.19 dBr					
M3	1		B1 GHz	-42.07 dBi					
M4 M5	1		59 GHz 58 GHz	-42.98 dBr -41.78 dBr					
	)[					teady	0.00	40	17.11.2022

Date: 17.NOV.2022 10:12:13

# 4.6 Band edge emissions

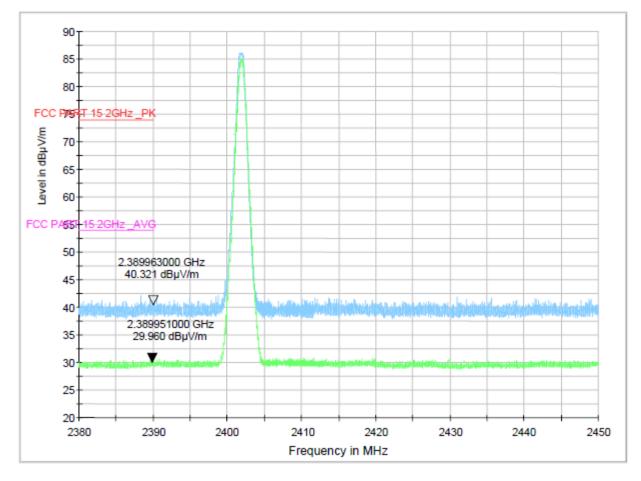
Test Requirement:		ssions which fall in the restrictent nply with the radiated emissior c)).`					
Test Limit:	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)				
	0.009-0.490	2400/F(kHz)	300				
	0.490-1.705	24000/F(kHz)	30				
	1.705-30.0	30	30				
	30-88	100 **	3				
	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.						
Test Method:	Radiated emissions tests						
Procedure:	ANSI C63.10-2013 section 6.6.4						

## 4.6.1 E.U.T. Operation:

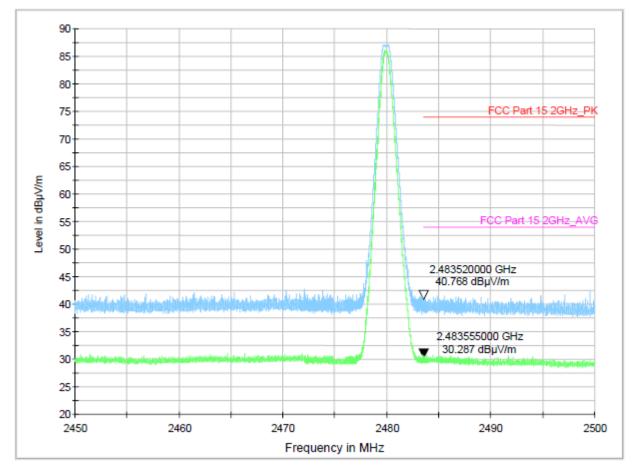
Operating Environment:								
Temperature: 23.8 °C			Humidity:	53.1 %	Atmospheric Pressure:	102 kPa		
Pre test mode:		GFSK(	1Mbps), GF	SK(2Mbps)				
Final test mode: GF		GFSK(	1Mbps), GFS	SK(2Mbps)				

#### 4.6.2 Test Result:

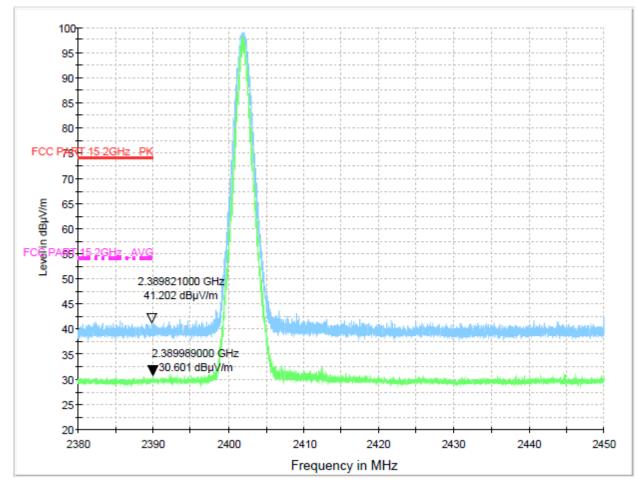
Radiated Method: GFSK(1Mbps)/ CH: L



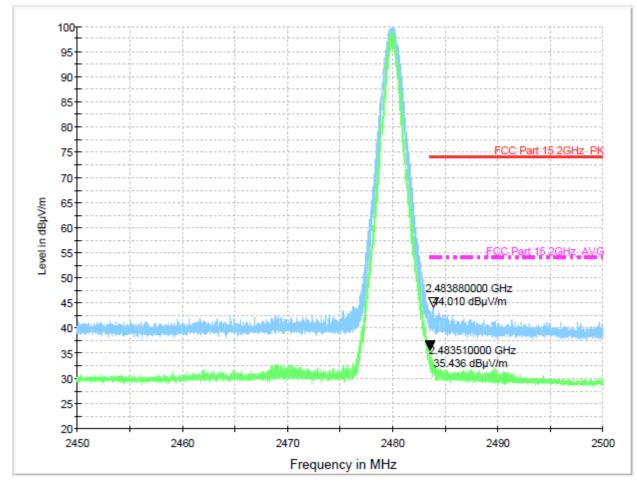












#### Conducted Method: GFSK(1Mbps) / CH: L

Spectrur	n										7
Ref Level			_	RBW 100 kHz							_
Att	35 d	B <b>SWT</b> 113.	8 µs 👄 '	<b>VBW</b> 300 kHz	Mode /	Auto FF	т				
SGL Count	: 100/100										
JIPK Max				1		1[1]				3.73 (	dn.
20 dBm				<u> </u>		1[1]			2 40	205000	
					M	2[1]				-49.40 (	
10 dBm—						2[1]				000000	
0 dBm											
5 abin											
-10 dBm										+	┡
	D1 -16.33	38 dBm									
-20 dBm—	21 10.00										+
											L
-30 dBm—											t
-40 dgm											
M										ма	1
150-Wardwit	and the second	here the state of the second states and the second states and the second states and the second states and the s	A HUNNA	Hantard Jamp Jacob Land		للموربها اليها	Longery.	w-mb-ma	M3 MA	hugh T	4
							×				
-60 dBm—											_
-70 dBm—											_
Start 2.30	6 GHz			1001 pt	s				Stop	2.406 G	Hz
1arker											_
Type   Re	ef   Trc	X-value		Y-value	Func	tion		Fun	ction Resul	t	
M1	1	2.40205		3.73 dBm							_
M2	1	2.4		-49.40 dBm							
M3	1	2.39		-51.27 dBm							
M4	1	2.3108	GHz	-46.92 dBm							_
						oadv			4.365	17.11.2022	

Date: 17.NOV.2022 09:59:27

## GFSK(1Mbps) /CH: H

Spectrum								
Ref Level 2 Att SGL Count 1	35 d		<ul> <li>RBW 100 kHz</li> <li>VBW 300 kHz</li> </ul>	Mode 4	uto FFT			
😑 1 Pk Max								
20 dBm					L[1] 2[1]			3.36 dBm 05000 GHz -50.50 dBm
							2.483	350000 GHz
-10 dBm								
-20 cBm-0	1 -16.62	2 dBm						
-30 dBm								
-40 dBm M2 V90 dBm	M الوريد بدرياوا		utilitan Manustry they days a seque	th <del>ay, medellady</del> h	hter and the second sectors of the second sectors of the second sectors of the second sectors of the second s	anna an ann an ann ann ann ann ann ann	an house	mallander
-60 dBm								
-70 dBm								
Start 2.476	GHz		1001	pts			Stop	2.576 GHz
Marker								
Type   Ref	Trc	X-value	Y-value	Funct	ion	Fund	tion Result	t
M1	1	2.48005 GHz	3.36 dBm					
M2	1	2.4835 GHz	-50.50 dBm					
M3 M4	1	2.5 GHz 2.4942 GHz	-47.95 dBm -47.34 dBm					
				•     R	eady		440	17.11.2022

Date: 17.NOV.2022 10:02:29

## GFSK(2Mbps) / CH: L

Ref Level Att SGL Count :	20.00 dBr 30 dI		e eo do l						
	100/100	B SWT 1		<ul> <li>RBW 100 kHz</li> <li>VBW 300 kHz</li> </ul>		Auto F	FT		
∋1Pk Max									
					M	1[1]			3.98 dB
10 dBm									205000, GH
10 00111					M	2[1]			-29.48 B
0 dBm —								2.40	000000 <b>j</b> GI
									1 1
-10 dBm								-	+ h
r	01 -16.523	dBm							
-20 dBm 🕂									
									M2
-30 dBm									
10 10-									
-40 dBm									
-50 dBm					M4				
	d finan dhe airsin	المرجل المعمدات	Industry and	pawarhana	ma what the	ter of the	. Alexandra and	M3	Julie
-60 dBm	A WARD BY A	10H414-0000-0400-0	Aron Plan Alexandre	Lawards or a discrete of	11 mile subsett 0	-w-w-u-	A	one called a north	~~~~
-70 dBm								_	
Start 2.306	GHz			1001 p	nts			Ston	2.406 GH
larker	diffe			1001				0100	21100 011
Type   Ref	Trc	X-value		Y-value	Func	tion	Eu	nction Resu	l+
M1	1		J5 GHz	3.98 dBm		cion	Fu	ictori kesu	
M2	1		.4 GHz	-29.48 dBm					
M3	1		39 GHz	-55.96 dBm					
M4	1		47 GHz	-52.91 dBm					
	1							1.14	17.11.2022

Date: 17.NOV.2022 10:08:47

## GFSK(2Mbps) / CH: H

Spectrum									
Ref Level Att SGL Count	30			RBW 100 ki VBW 300 ki		Auto F	FT		,
😑 1Pk Max									
					M	1[1]			2.69 dBm
10 dBm									2.48005000 GHz
MI					M	2[1]			-54.25 dBm
0 dBm							1	1	2.48350000 GHz
-10 dBm									
-20 dBm	D1 -16.5	01 dBm							
-20 0011									
-30 dBm									
μη									
-40 dBm									
-50 dBm12M	F								
-60 UBI	. الأسامة م	M3	La dante	and a day the or it	And the state of the second	Auror	asher when	Labor and M	burn herberge
-60 dBm	nan nan An	1911 MUL Build - O.V	and the same of	and the second second	0	010002 0.	ada asa Maril ia Bio	and all the second	
-70 dBm		_							
Start 2.476	GHz			1001	pts				Stop 2.576 GHz
Marker									
Type   Ref	Trc	X-value	e	Y-value	Func	tion		Function F	Result
M1	1	2.480	05 GHz	2.69 dB	m				
M2	1		35 GHz	-54.25 dB					
M3	1		2.5 GHz	-55.27 dB					
M4	1	2.48	59 GHz	-52.85 dB	m				
	][					Ready .		4,00	17.11.2022

Date: 17.NOV.2022 10:11:48

# 4.7 Emissions in restricted frequency bands (below 1GHz)

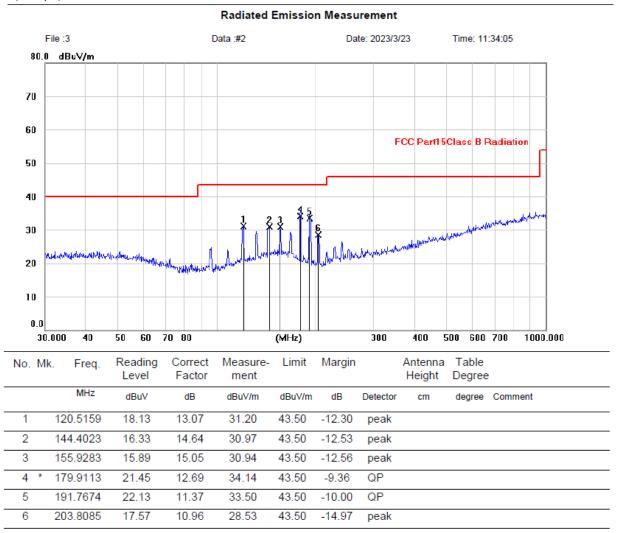
Test Requirement:		issions which fall in the restricte mply with the radiated emission (c)).`						
Test Limit:	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)					
	0.009-0.490	2400/F(kHz)	300					
	0.490-1.705	24000/F(kHz)	30					
	1.705-30.0	30	30					
	30-88	100 **	3					
	88-216	150 **	3					
	216-960	200 **	3					
	Above 960 500 3							
	radiators operating unde 54-72 MHz, 76-88 MHz,	paragraph (g), fundamental en er this section shall not be locat 174-216 MHz or 470-806 MHz s permitted under other section	ed in the frequency bands However, operation within					
Test Method:	Radiated emissions test	S						
Procedure:	ANSI C63.10-2013 sect	ion 6.6.4						

## 4.7.1 E.U.T. Operation:

Operating Envir	Operating Environment:										
Temperature:	23.8 °	С	Humidity:	53.1 %	Atmospheric Pressure:	102 kPa					
Pre test mode: GF		GFSK(	1Mbps), GF	SK(2Mbps)							
Final test mode		GFSK(	1Mbps)								

#### 4.7.2 Test Result:

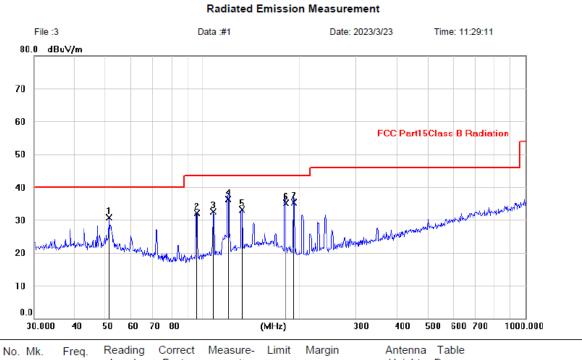
GFSK(1Mbps) / Polarization: Horizontal /CH: L



Note:1. *:Maximum data; x:Over limit; I:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

#### GFSK(1Mbps) / Polarization: Vertical /CH: L



	n. Troq.	Level	Factor	ment		5		Height	Degree	•
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	51.2166	16.85	13.88	30.73	40.00	-9.27	peak			
2	96.0537	21.47	10.54	32.01	43.50	-11.49	peak			
3	107.7365	20.88	11.61	32.49	43.50	-11.01	peak			
4 *	120.2485	23.24	13.05	36.29	43.50	-7.21	QP			
5	132.3907	19.39	13.76	33.15	43.50	-10.35	peak			
6	180.6488	22.46	12.60	35.06	43.50	-8.44	QP			
7	192.0365	23.86	11.35	35.21	43.50	-8.29	QP			

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

# 4.8 Emissions in restricted frequency bands (above 1GHz)

Test Requirement:	-	ssions which fall in the restricten nply with the radiated emission 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
	radiators operating unde 54-72 MHz, 76-88 MHz,	paragraph (g), fundamental en r this section shall not be locat 174-216 MHz or 470-806 MHz s permitted under other section	ed in the frequency bands However, operation within
Test Method:	Radiated emissions tests	3	
Procedure:	ANSI C63.10-2013 secti	on 6.6.4	

## 4.8.1 E.U.T. Operation:

Operating Environment:										
Temperature:	23.8 °	С	Humidity:	53.1 %	Atmospheric Pressure:	102 kPa				
Pre test mode: G		GFSK(	1Mbps), GFS	SK(2Mbps)						
Final test mode	:	GFSK(	1Mbps), GF	SK(2Mbps)						

#### 4.8.2 Test Result:

From 1G-25GHz: GFSK(1Mbps)

	Test Mode: TX Low											
Freq (MHz)	Read Level (dBuV/m)	Polar (H/V)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark			
4804	43.55	V	33.95	10.18	34.26	53.42	74	-20.58	PK			
4804	38.92	V	33.95	10.18	34.26	48.79	54	-5.21	AV			
7206	/	/	/	/	/	/	/	/	/			
9608	/	/	/	/	/	/	/	/	/			
4804	43.16	Н	33.95	10.18	34.26	53.03	74	-20.97	PK			
4804	35.40	Н	33.95	10.18	34.26	45.27	54	-8.73	AV			
7206	/	/	/	/	/	/	/	/	/			
9608	/	/	/	/	/	/	/	/	/			
				Test Mo	ode: TX Mid							
4880	44.34	V	33.93	10.2	34.29	54.18	74	-19.82	PK			
4880	34.73	V	33.93	10.2	34.29	44.57	54	-9.43	AV			
7320	/	/	/	/	/	/	/	/	/			
9760	/	/	/	/	/	/	/	/	/			
4880	44.03	Н	33.93	10.2	34.29	53.87	74	-20.13	PK			
4880	35.22	Н	33.93	10.2	34.29	45.06	54	-8.94	AV			
7320	/	/	/	/	/	/	/	/	/			
9760	/	/	/	/	/	/	/	/	/			
				Test Mc	de: TX High	I						
4960	46.79	V	33.98	10.22	34.25	56.74	74	-17.26	PK			
4960	35.30	V	33.98	10.22	34.25	45.25	54	-8.75	AV			
7440	/	/	/	/	/	/	/	/	/			
9920	/	/	/	/	/	/	/	/	/			
4960	44.32	Н	33.98	10.22	34.25	54.27	74	-19.73	PK			
4960	31.44	Н	33.98	10.22	34.25	41.39	54	-12.61	AV			
7440	/	/	/	/	/	/	/	/	/			
9920	/	/	/	/	/	/	/	/	/			
Note:												

Result = Read level + Antenna factor + cable loss-Amp factor
 All the other emissions not reported were too low to read and deemed to comply with FCC limit.

From 1G	-25GHz: GF	SK(2Mb	ps)							
				Test Mo	ode: TX Low	,				
Freq (MHz)	Read Level (dBuV/m)	Polar (H/V)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	
4804	41.27	V	33.95	10.18	34.26	51.14	74	-22.86	PK	
4804	38.33	V	33.95	10.18	34.26	48.20	54	-5.80	AV	
7206	/	/	/	/	/	/	/	/	/	
9608	/	/	/	/	/	/	/	/	/	
4804	45.56	Н	33.95	10.18	34.26	55.43	74	-18.57	PK	
4804	37.23	Н	33.95	10.18	34.26	47.10	54	-6.90	AV	
7206	/	/	/	/	/	/	/	/	/	
9608	/	/	/	/	/	/	/	/	/	
Test Mode: TX Mid										
4880	41.74	V	33.93	10.2	34.29	51.58	74	-22.42	PK	
4880	33.32	V	33.93	10.2	34.29	43.16	54	-10.84	AV	
7320	/	/	/	/	/	/	/	/	/	
9760	/	/	/	/	/	/	/	/	/	
4880	43.27	Н	33.93	10.2	34.29	53.11	74	-20.89	PK	
4880	33.65	Н	33.93	10.2	34.29	43.49	54	-10.51	AV	
7320	/	/	/	/	/	/	/	/	/	
9760	/	/	/	/	/	/	/	/	/	
				Test Mo	de: TX High	ı				
4960	46.70	V	33.98	10.22	34.25	56.65	74	-17.35	PK	
4960	36.09	V	33.98	10.22	34.25	46.04	54	-7.96	AV	
7440	/	/	/	/	/	/	/	/	/	
9920	/	/	/	/	/	/	/	/	/	
4960	42.01	Н	33.98	10.22	34.25	51.96	74	-22.04	PK	
4960	33.83	Н	33.98	10.22	34.25	43.78	54	-10.22	AV	
7440	/	/	/	/	/	/	/	/	/	
9920	/	/	/	/	/	/	/	/	/	
Note:										

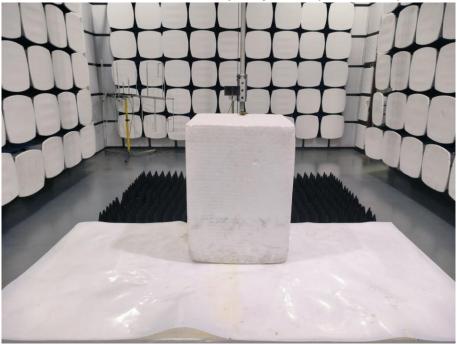
Result = Read level + Antenna factor + cable loss-Amp factor
 All the other emissions not reported were too low to read and deemed to comply with FCC limit.

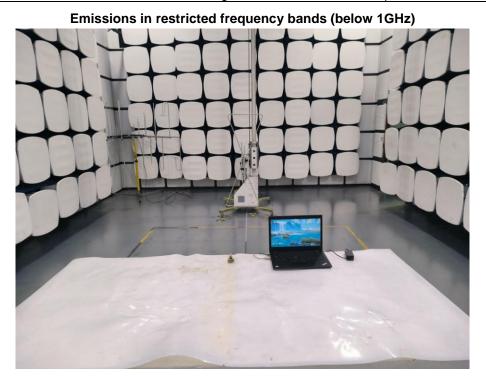
# 5 Test Setup Photos



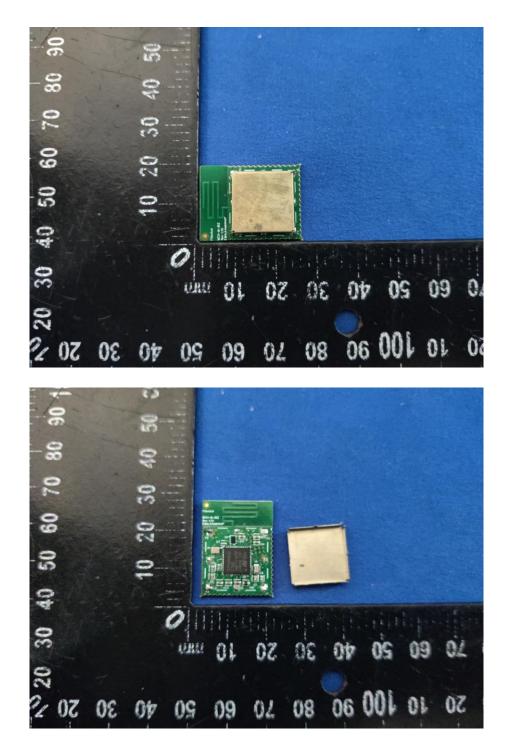
Conducted Emission at AC power line

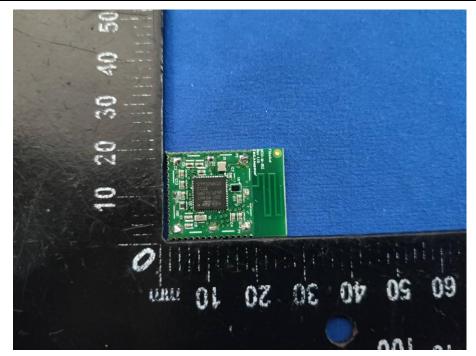
Band edge emissions Emissions in restricted frequency bands (above 1GHz)

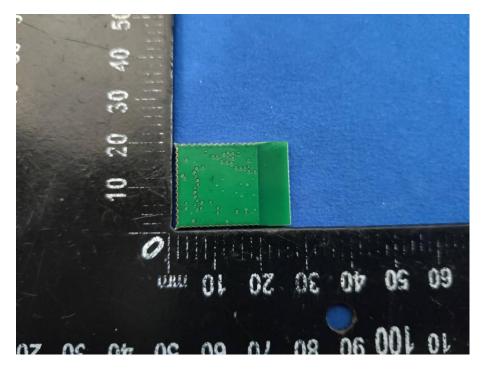




# 6 EUT Constructional Details (EUT Photos)







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