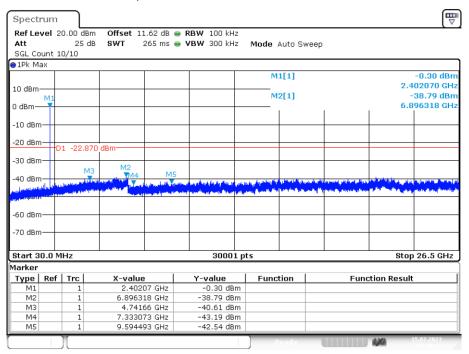


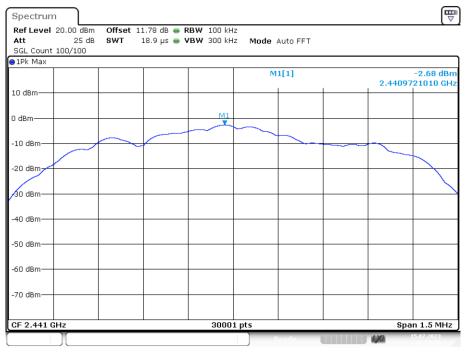
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref

Date: 15.JUL.2023 10:47:49



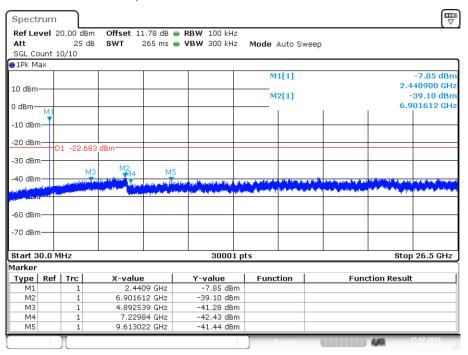
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission

Date: 15.JUL.2023 10:48:02



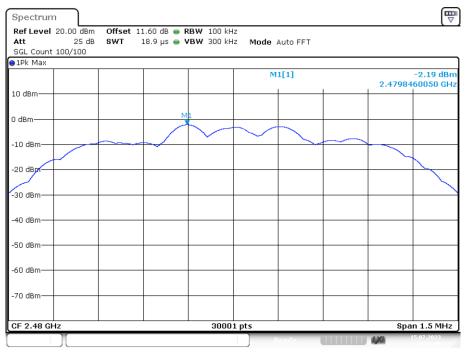
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref

Date: 15.JUL.2023 10:50:35



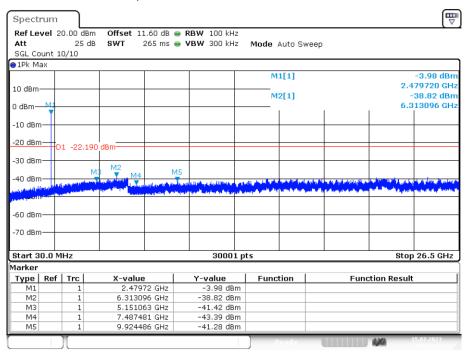
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission

Date: 15.JUL.2023 10:50:49



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref

Date: 15.JUL.2023 10:52:39

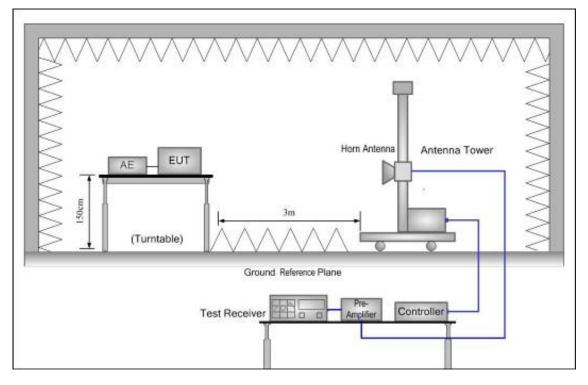


Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

Date: 15.JUL.2023 10:52:53

9. BAND EDGE COMPLIANCE

9.1. Block Diagram of Test Setup



9.2. Limit

All the lower and upper band-edges emissions appearing within restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

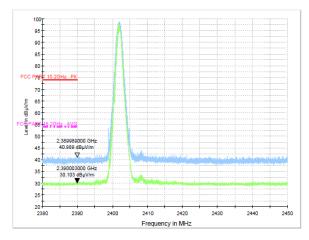
9.3. Test Procedure

All restriction band and non- restriction band have been tested , only worse case is reported.

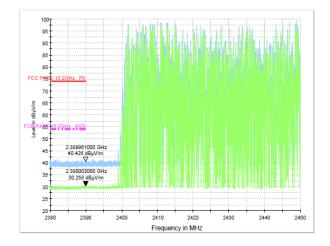
9.4. Test Result

PASS. (See below detailed test data)

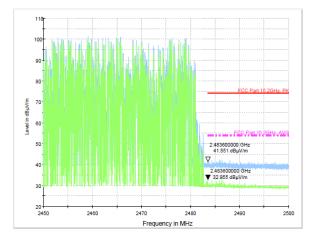
Test Mode: GFSK-Low Hopping-off



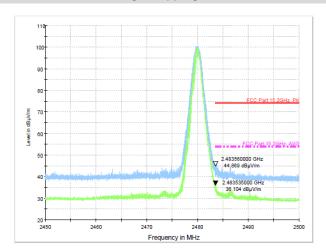
Test Mode: GFSK-Low Hopping-on Polarization: Vertical



Test Mode: GFSK-High Hopping-on Polarization: Horizontal

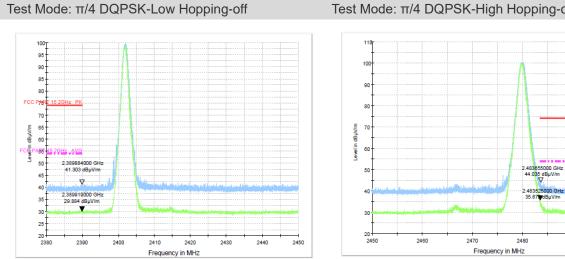


Test Mode: GFSK-High Hopping-off

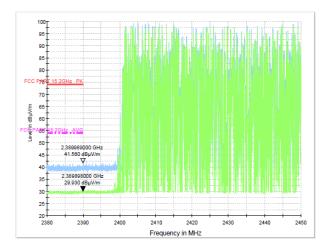


2490

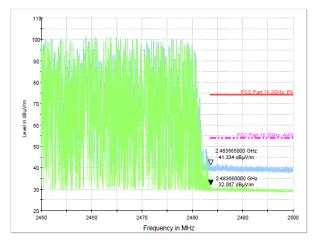
2500



Test Mode: $\pi/4$ DQPSK-Low Hopping-on



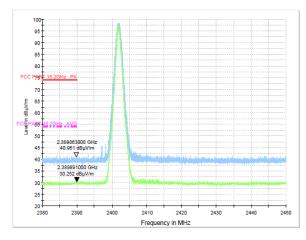
Test Mode: $\pi/4$ DQPSK-High Hopping-on

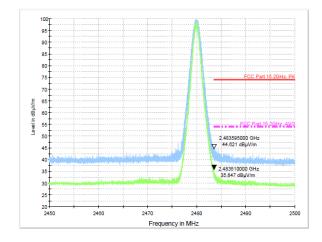


Test Mode: π/4 DQPSK-High Hopping-off

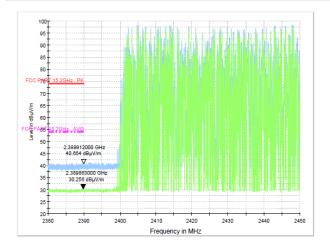
Test Mode: 8DPSK-Low Hopping-off

Test Mode: 8DPSK-High Hopping-off

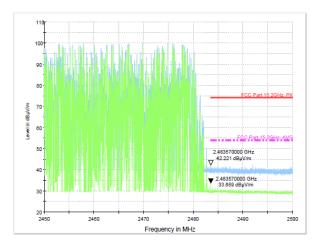




Test Mode: 8DPSK-Low Hopping-on



Test Mode: 8DPSK-High Hopping-on

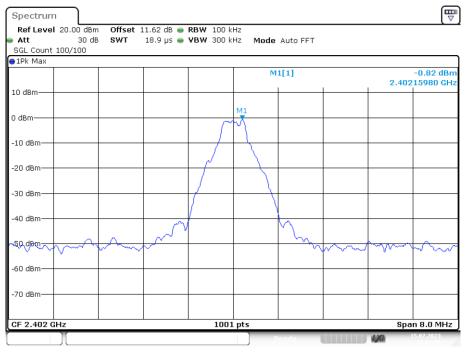


Conducted Method

Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-46.03	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-45.39	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-46.05	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-45.57	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-46.57	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-45.34	-20	Pass

Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref

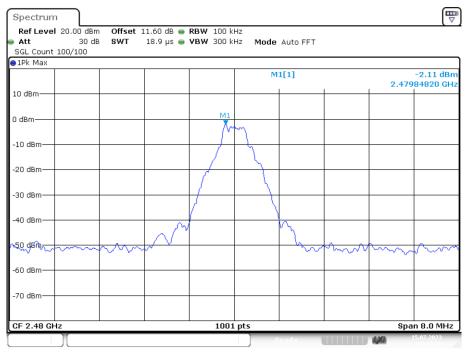


Date: 15.JUL.2023 10:12:57

Spectrum								
Ref Level			62 dB (RBW 100 kHz				
Att	30	dB SWT 11	l3.8 µs (🛢 VBW 300 kHz	Mode Auto	FFT		
SGL Count	100/100							
1Pk Max								
					M1[1]			-0.46 dBn
LO dBm							2.4	0185000 GH
					M2[1]			-50.00 dBn
) dBm —					<u> </u>		2.4	10000000 <mark>4</mark> GH:
								1 6
10 dBm-+								
								1 11
20 dBm	01 -20.8	317 dBm						
20 d0 m								
30 dBm								
40 dBm								
						M4	M3	Ma
Saden and	แลการเราม	Www.Wurwary.	why the mo	othe www. and the work of the to	trans prairies aport	WIN MONTO PIL	trange the photo the state of t	monter total
							· · ·	
60 dBm —								
70 dBm								
Start 2.306	GHz			1001 pt	s		Sto	p 2.406 GHz
larker								
	Trc	X-value		Y-value	Function		Function Res	ult
M1	1	2.4018		-0.46 dBm				
M2	1		4 GHz	-50.00 dBm				
M3 M4	1	2.3	9 GHz	-49.88 dBm -46.85 dBm				
171-4	1	2.370.		-+0.05 UBIII	-			

Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission

Date: 15.JUL.2023 10:13:03



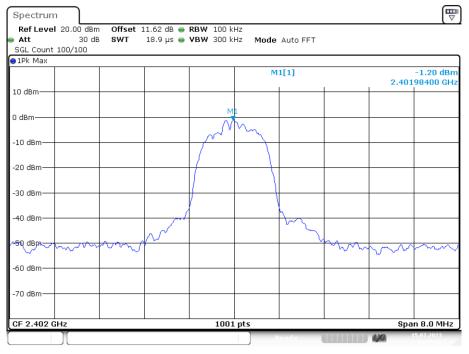
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref

Date: 15.JUL.2023 10:22:36

Spectrum						
Ref Level Att SGL Count	30	dB SWT 113.8	iB 👄 RBW 100 kH: Js 🖶 VBW 300 kH:) FFT	· ·
1Pk Max						
10 dBm				M1[1]		-2.28 dBr 2.48015000 GH
				M2[1]		-52.02 dBr 2.48350000 GH
10 dBm						
20/dBm-	D1 -22.1	L12 dBm				
30 cBm						
40 dBm-	M4	M3 .				
demice	n <mark>ner</mark> pyrestruly	ֈՠֈֈֈՠՠ֎֎ՠֈֈ֍ ՠ ՠ ֈՠ	www.yeuteralinghouter	alle margane all de the	Why on the part of the street we	water and a second a
50 dBm						
70 dBm						
tart 2.476	GHz		1001	ots		Stop 2.576 GHz
arker						
	Trc	X-value	Y-value	Function	F	unction Result
M1	1	2.48015 GH:				
M2 M3	1	2.4835 GH: 2.5 GH:				
M4	1	2.5 GH 2.4887 GH				
	1			Ready		15.07.2023

Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission

Date: 15.JUL.2023 10:22:42



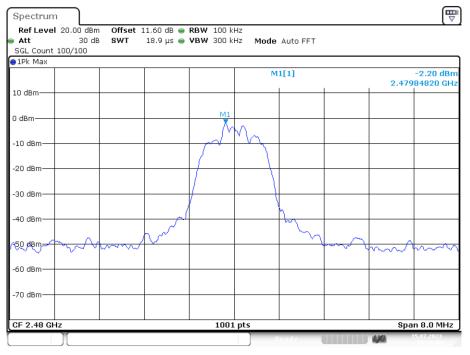
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref

Date: 15.JUL.2023 10:25:19

Spectrum						
Ref Level	20.00 de	3m Offset 11.62 dB	🔵 RBW 100 kHz			
Att	30	dB SWT 113.8 μs	👄 VBW 300 kHz	Mode Auto F	FT	
SGL Count 1	00/100					
)1Pk Max						
				M1[1]		-1.45 dBn
10 dBm						2.40205000 GH
				M2[1]		-51.33 dBn
) dBm						2.40000000
						I I Ā
10 dBm						
-20 dBm	1 -21.20	3 dBm				
-30 dBm —						
-40 dBm				M4		M3 M6
Foud Plan		all and the second second			بالأبل من الأرب	
-our production	Alle Parlet Pro	mplownedwarm, wearsthed	and the second second second	and the second and the second second	at he a descent of the other	anorthe and a second and the second
-60 dBm						
-70 dBm						
Start 2.306	GHz		1001 pt	s		Stop 2.406 GHz
larker						
Type Ref	Trc	X-value	Y-value	Function	Fun	ction Result
M1	1	2.40205 GHz	-1.45 dBm			
M2	1	2.4 GHz	-51.33 dBm			
1111		2.39 GHz	-49.80 dBm			
M3	1	2.39 GHz	-47.26 dBm			

Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission

Date: 15.JUL.2023 10:25:25



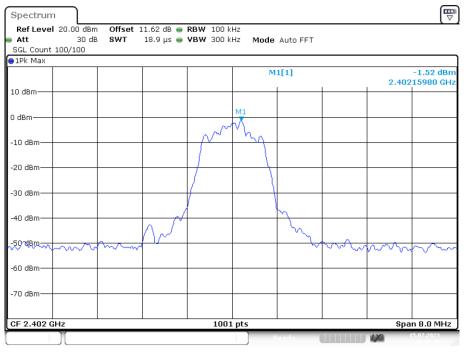
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref

Date: 15.JUL.2023 10:39:49

Spectrum						
Ref Level			🖷 RBW 100 kHz			
Att	30	dB SWT 113.8 μs	😑 VBW 300 kHz	Mode Auto F	FT	
SGL Count 1	.00/100					
1Pk Max						
				M1[1]		-2.15 dBn
LO dBm						2.47985000 GH
				M2[1]		-49.06 dBn
) dam					1	2.48350000 GH
A L						
10 dBm						
20 dBm	1 -22.20)4 dBm				
30 dBm						
40 dBm						
40 aBm M2 M4		M3				
sp qsq 🖓 🖓	Mentrul Market	ᡰᠣᡃᢦ᠁᠇ᢏᢒᢆᡟ᠇ᡶᢔᡰᢧ᠊ᡐᡟᡘᡃᢩᠰᡳᡗᡀᡡᠯᡰᠽᡐᠰ	atte attenation played and	work the the destroy was the	aprending a second second second	ARTHON AND THE CONTRACTOR
60 dBm —						
70 40-0						
70 dBm						
Start 2.476	GHz		1001 pt:	5		Stop 2.576 GHz
larker						
<u> </u>	Trc	X-value	Y-value	Function	Fui	nction Result
M1	1	2.47985 GHz	-2.15 dBm			
M2 M3	1	2.4835 GHz	-49.06 dBm			
M3 M4	1	2.5 GHz 2.4862 GHz	-49.31 dBm -47.77 dBm			
(VIT	1	2.4002 GH2	-+/.// UBIII			

Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission

Date: 15.JUL.2023 10:39:54



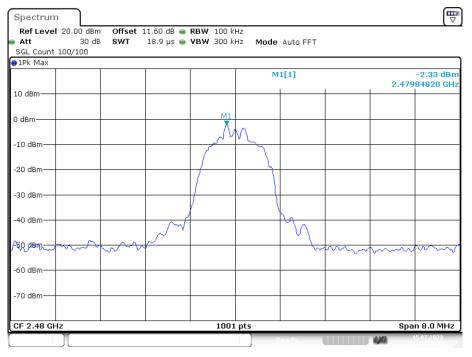
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref

Date: 15.JUL.2023 10:47:30

Spectrum						(E
Ref Level			-			
Att	30	dB SWT 113.8 μs	🔵 VBW 300 kHz	Mode Auto F	FT	
SGL Count 1	.00/100					
)1Pk Max			<u>.</u>			
				M1[1]		-0.85 dBn
LO dBm						2.40185000 GH
				M2[1]		-48.40 dBn
) dBm —					1	2.40000000 GH
						1 1
-10 dBm						
20 dBm— <mark>c</mark>	1 -21.52	23 dBm				
30 dBm						
So abiii						
40 dBm						
		M4				мз Ма
50.dBm.h.	Works	an appropriate of the second s	10mp mountain when the	manterner	Warden and March and a start of the	Mart Front Contract C
					· · · · ·	
-60 dBm						
70 40						
-70 dBm						
Start 2.306	GHz		1001 pt:	5		Stop 2.406 GHz
larker						
	Trc	X-value	Y-value	Function	Fur	nction Result
M1	1	2.40185 GHz	-0.85 dBm			
M2	1	2.4 GHz	-48.40 dBm			
M3 M4	1	2.39 GHz 2.3332 GHz	-49.81 dBm -48.10 dBm			
1414	1	2.3332 GH2	-40.10 UBM		l	

Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission

Date: 15.JUL.2023 10:47:36



Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Ref

Date: 15.JUL.2023 10:52:19

Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Emission

Spectrum									Ū,
Ref Level				RBW 100 kHz					
Att			13.8 µs (VBW 300 kHz	Mode	Auto F	FT		
SGL Count :	100/100	J							
1Pk Max									
					M	1[1]			-2.25 dBn 17985000 GH
10 dBm —						2[1]		2.4	-50.25 dBn
M1					171.	2[1]		2 (18350000 GH
) diam						1	1	1	
10 dBm									
10 0000									
20 dBm									
	01 -22.	326 dBm							
30 dBm									
11 1									
40 d8m-+		M4							
M2		тМЗ		AND LOPPORTUNICARACE DO				and the day	du cha Man - 11.a
SU OBWING	Hours All	and a clarge and a ship	actification and a	and the second of the	ور, ورود (ایت دولو ر	10000	al	and the second second	A BRODWING
60 dBm									
70 dBm		_							
tart 2.476	GHz			1001 pt	5			St	op 2.576 GHz
larker	une			1001 P					op 21010 une
	Trc	X-value	1	Y-value	Funct	tion		Function Res	sult
M1	1	2.4798		-2.25 dBm					
M2	1	2.483	5 GHz	-50.25 dBm					
MЗ	1	2.	5 GHz	-51.03 dBm					
M4	1	2.497	8 GHz	-47.67 dBm					
					-				

Date: 15.JUL.2023 10:52:25

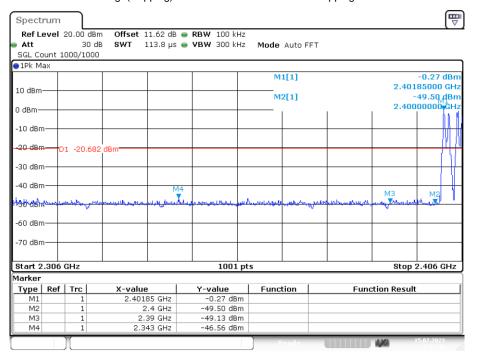
Band Edge(Hopping)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-45.87	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-44.56	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-46.14	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-44.32	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-45.59	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-44.15	-20	Pass



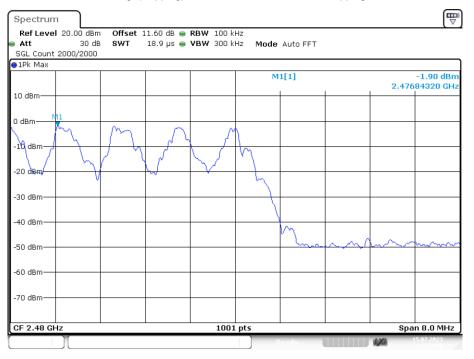
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref

Date: 15.JUL.2023 11:55:12



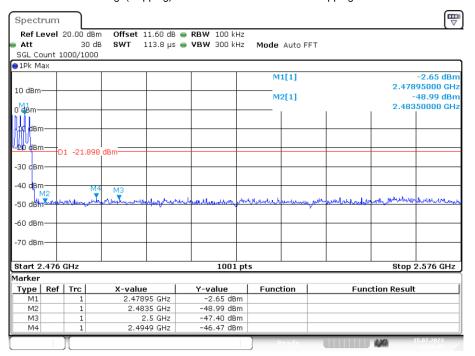
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission

Date: 15.JUL.2023 11:55:41



Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref

Date: 15.JUL.2023 12:10:06



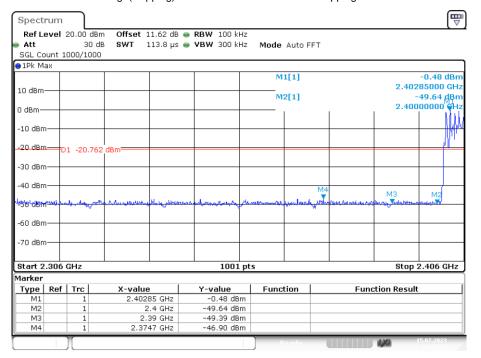
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission

Date: 15.JUL.2023 12:10:35



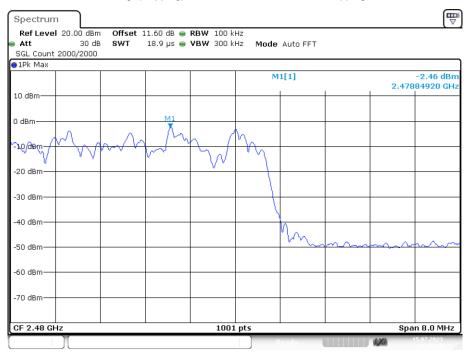
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref

Date: 15.JUL.2023 11:37:22



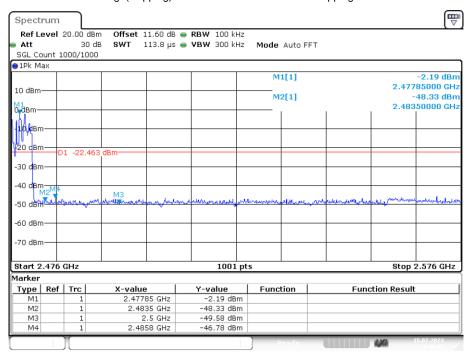
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission

Date: 15.JUL.2023 11:37:51



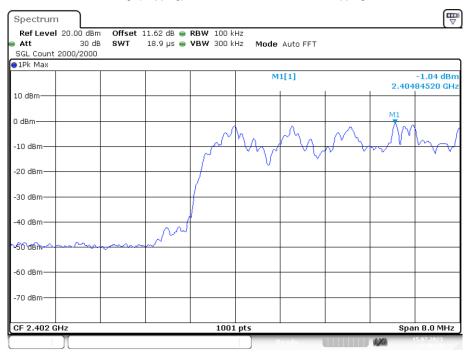
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref

Date: 15.JUL.2023 11:45:40



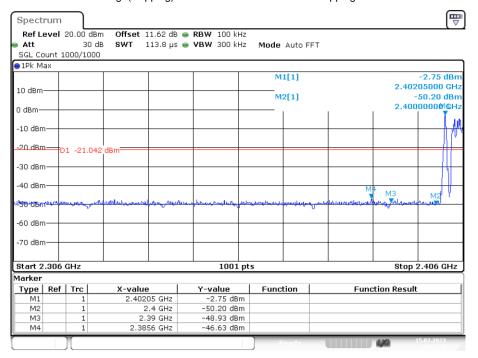
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission

Date: 15.JUL.2023 11:46:09



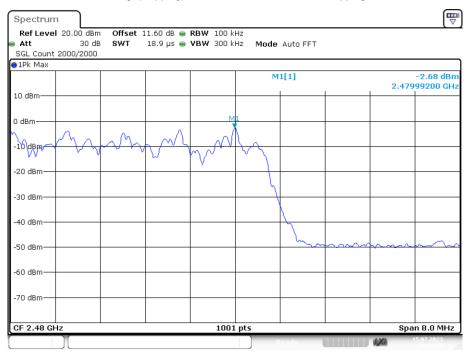
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref

Date: 15.JUL.2023 11:06:59



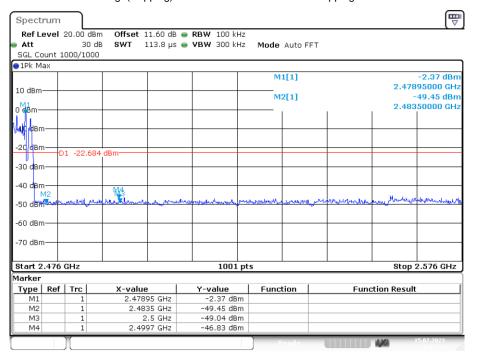
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission

Date: 15.JUL.2023 11:07:28



Band Edge(Hopping) NVNT 3-DH1 2480MHz Ant1 Hopping Ref

Date: 15.JUL.2023 11:21:25

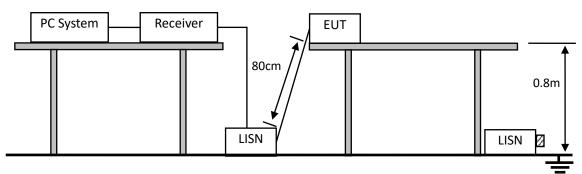


Band Edge(Hopping) NVNT 3-DH1 2480MHz Ant1 Hopping Emission

Date: 15.JUL.2023 11:21:54

10. POWER LINE CONDUCTED EMISSIONS

10.1.Block Diagram of Test Setup



\blacksquare :50 Ω Terminator

10.2.Limit

	Maximum RF Line Voltage				
Frequency	Quasi-Peak Level	Average Level			
	dB(µV)	dB(μV)			
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*			
500kHz ~ 5MHz	56	46			
5MHz ~ 30MHz	60	50			

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

10.3.Test Procedure

(1) The EUT was placed on a non-metallic table, 80cm above the ground plane.

(2) Setup the EUT and simulator as shown in 10.1

(3) The EUT Power connected to the power mains through a power adapter and a line impedance stabilization network (L.I.S.N1). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N2), this provided a 50-ohm coupling impedance for the EUT (Please refer to the block diagram of the test setup and photographs). Both sides of power line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10 :2013on conducted Emission test.

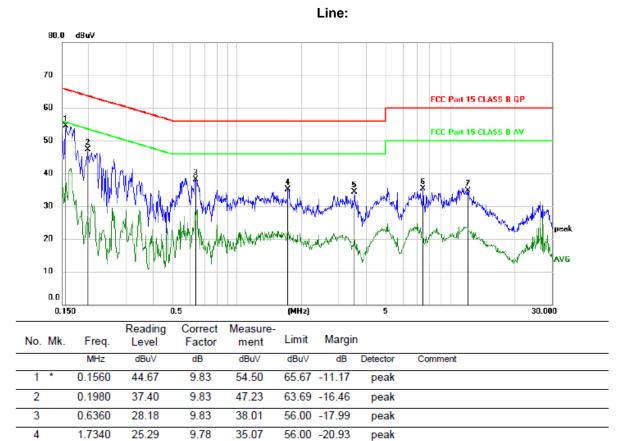
(4) The bandwidth of test receiver is set at 10KHz.

(5) The frequency range from 150 KHz to 30MHz is checked.

10.4.Test Result

PASS. (See below detailed test data)

Note: If peak Result comply with AV limit, QP and AV Result is deemed to comply with AV limit



56.00 -21.66

60.00 -24.73

60.00 -25.29

peak

peak

peak

*:Maximum data x:Over limit !:over margin Reference Only

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

34.34

35.27

34.71

5

6

7

3.5580

7.4820

12.0659

24.51

25.34

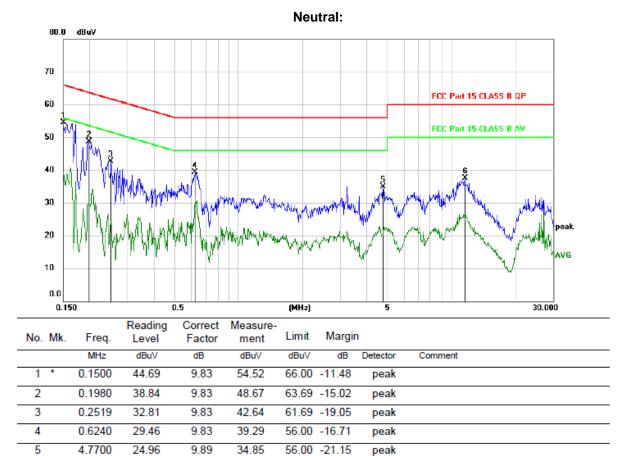
24.65

9.83

9.93

10.06

*:Maximum data x:Over limit !:over margin (Reference Only Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable



*:Maximum data x:Over limit !:over margin (Reference Only Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

60.00 -22.51

peak

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

27.45

10.04

37.49

6

11.6130

(Reference Only

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable Note: All modes and channels have been tested and only the TX 2402MHz mode with the worst data is listed.

11. ANTENNA REQUIREMENTS

11.1.Limit

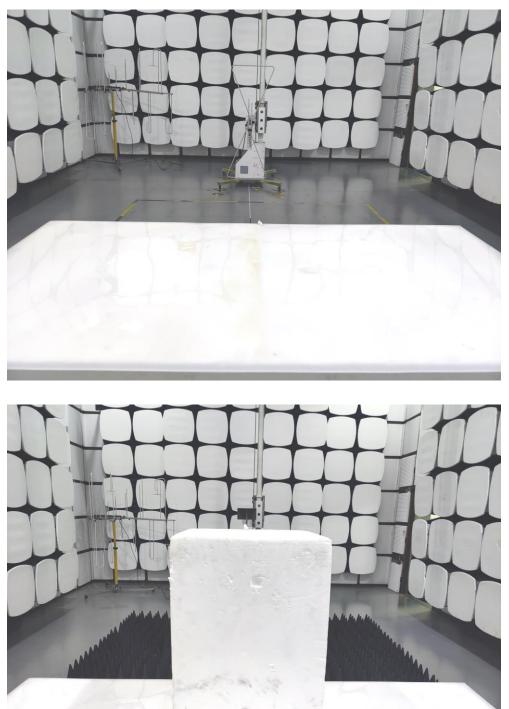
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2.Result

The EUT antenna is Internal Antenna. It complies with the standard requirement.

12. TEST SETUP PHOTO

12.1.Photos of Radiated emission





12.2.Photos of Conducted Emission test

13. PHOTOS OF EUT



















-23 -9

30-







