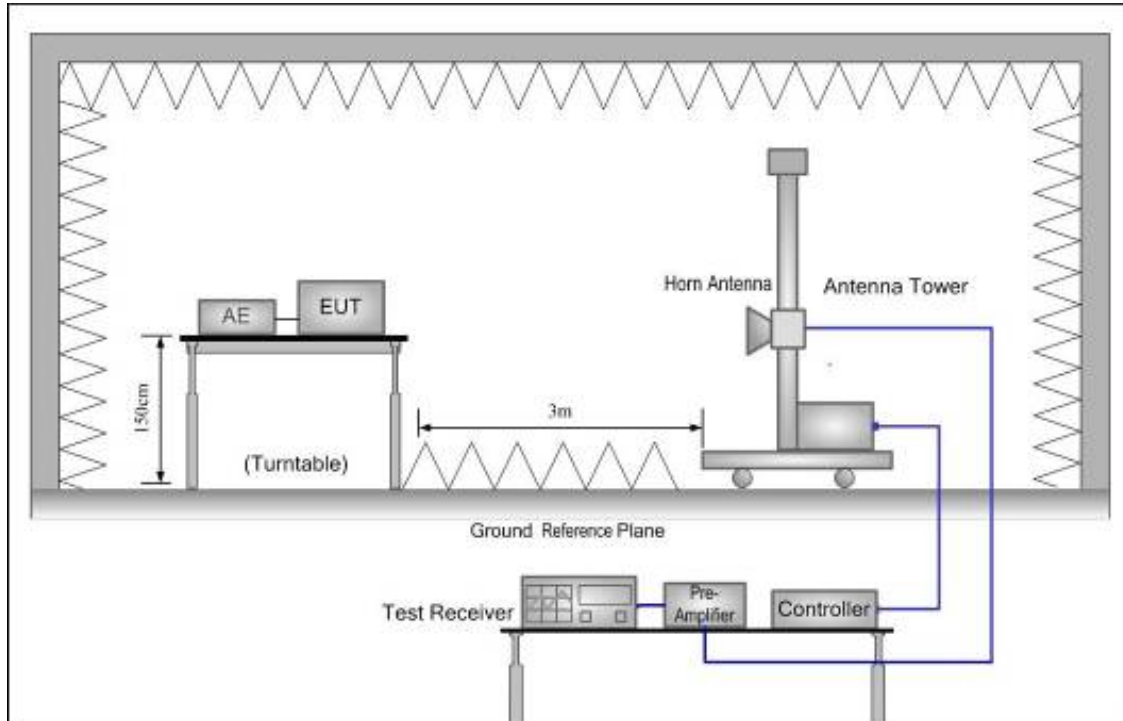


9. BAND EDGE COMPLIANCE

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.

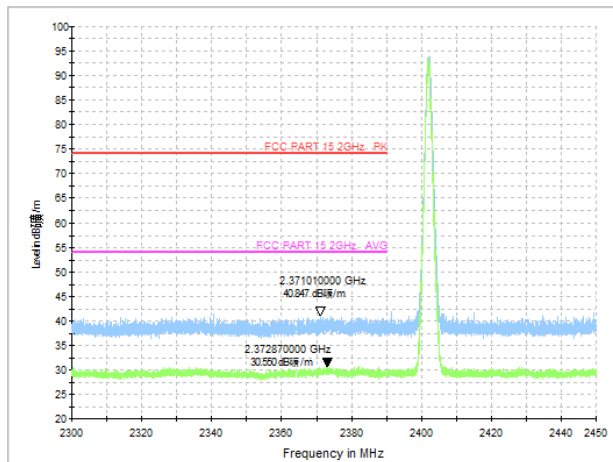
9.3. Test Procedure

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

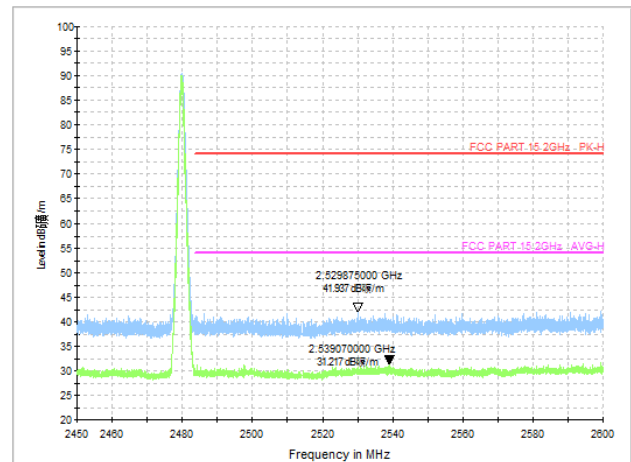
9.4. Test Result

PASS. (See below detailed test data)

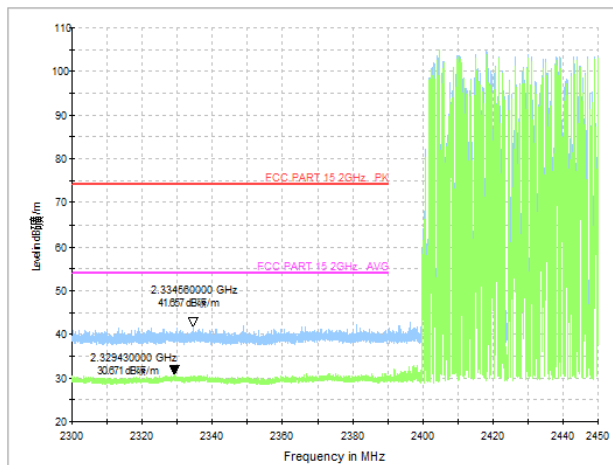
Test Mode: GFSK-Low Hopping-off



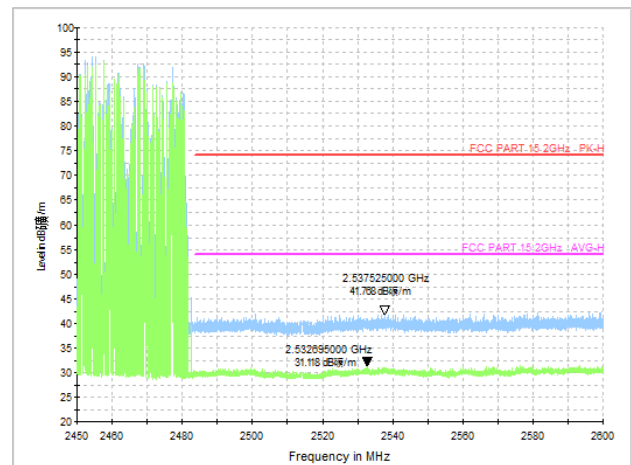
Test Mode: GFSK-High Hopping-off

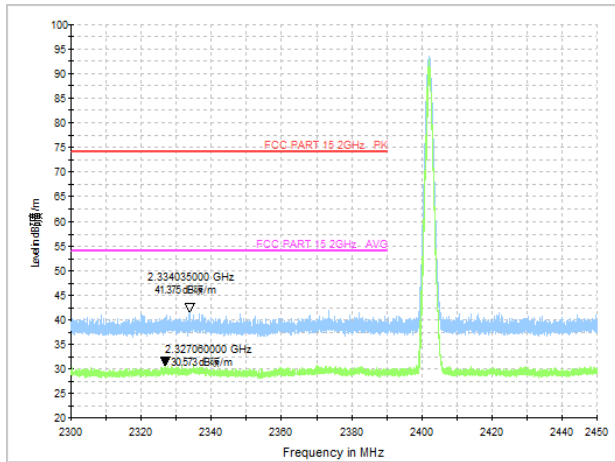
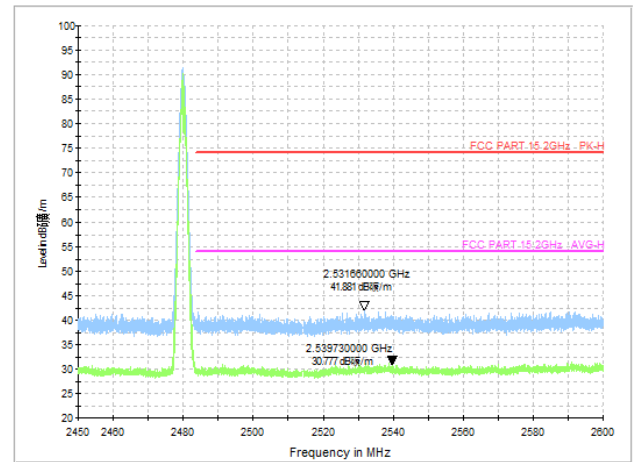
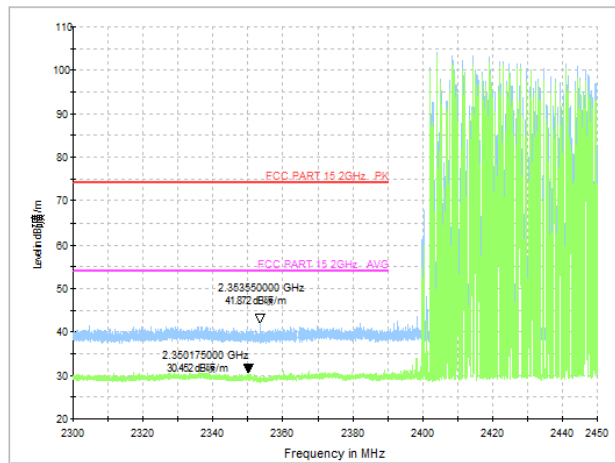
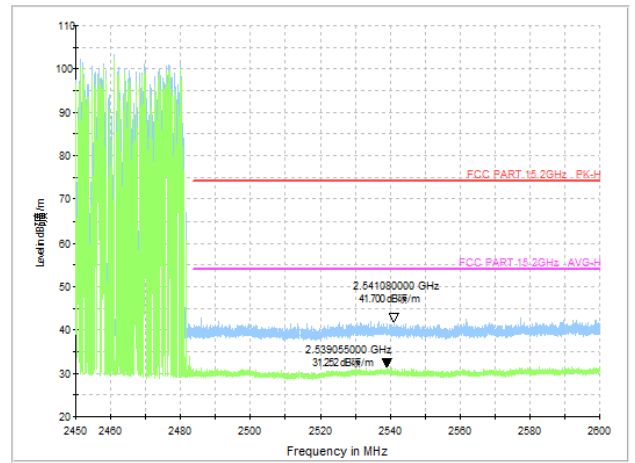


Test Mode: GFSK-Low Hopping-on



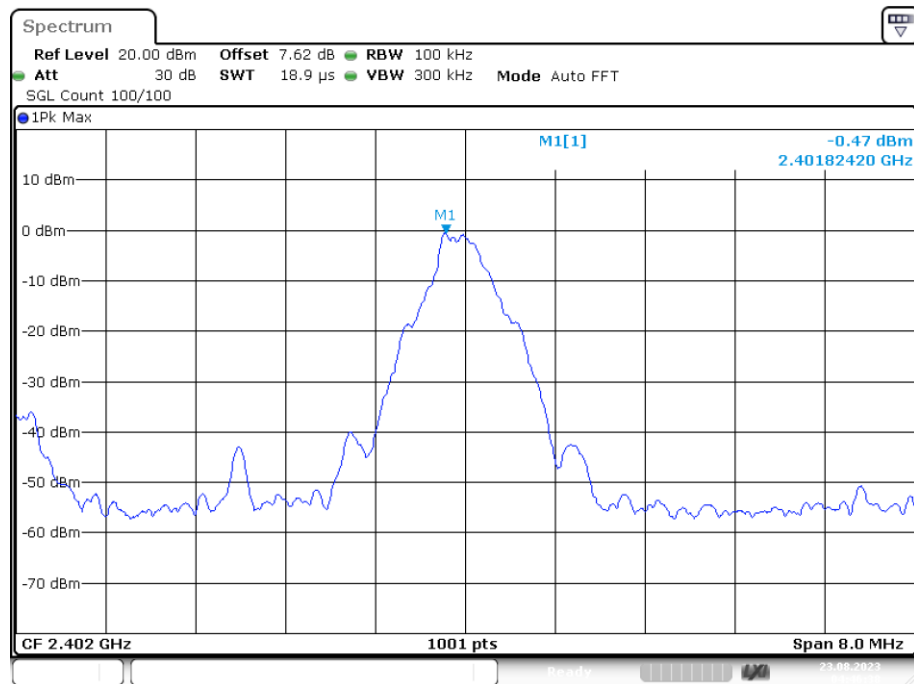
Test Mode: GFSK-High Hopping-on



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

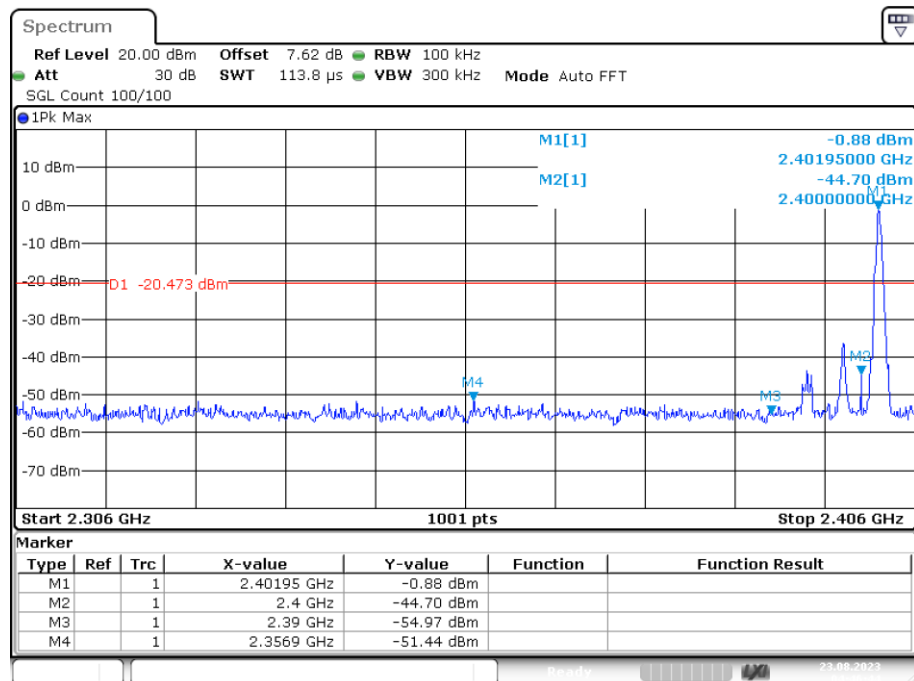
Conducted Method

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



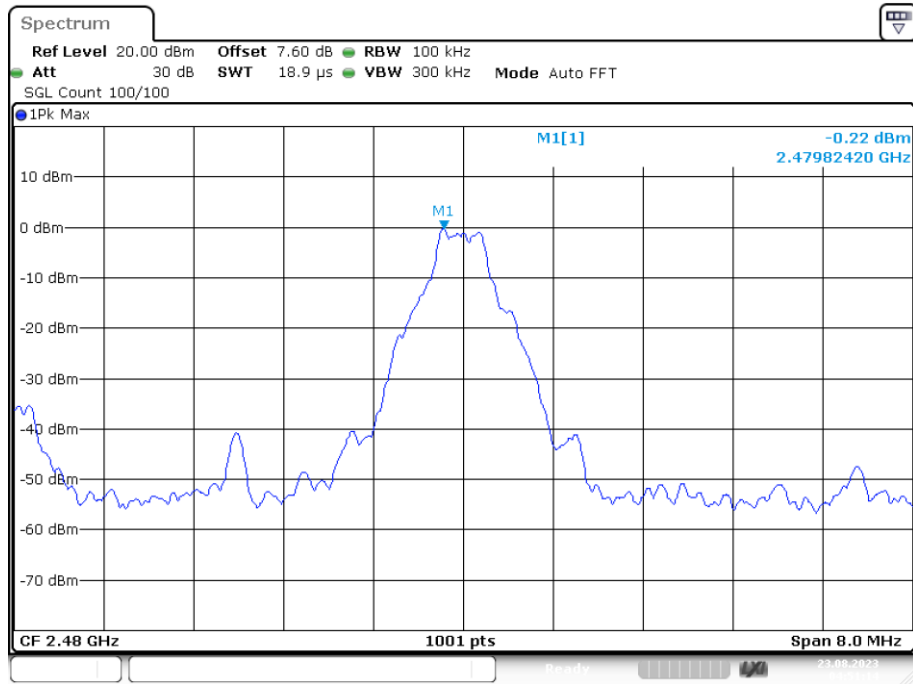
Date: 23.AUG.2023 04:46:39

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



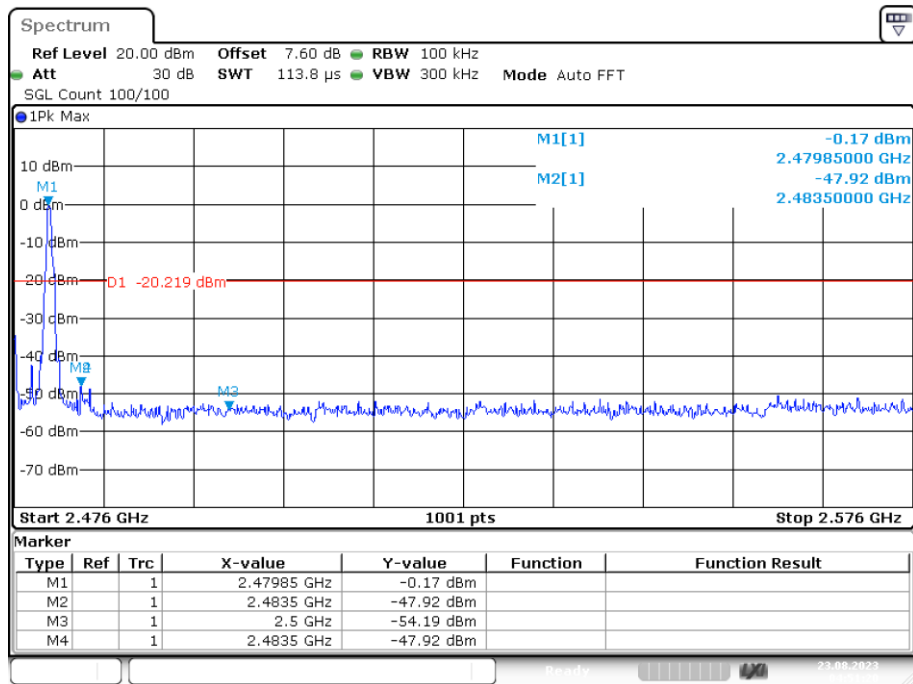
Date: 23.AUG.2023 04:46:44

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



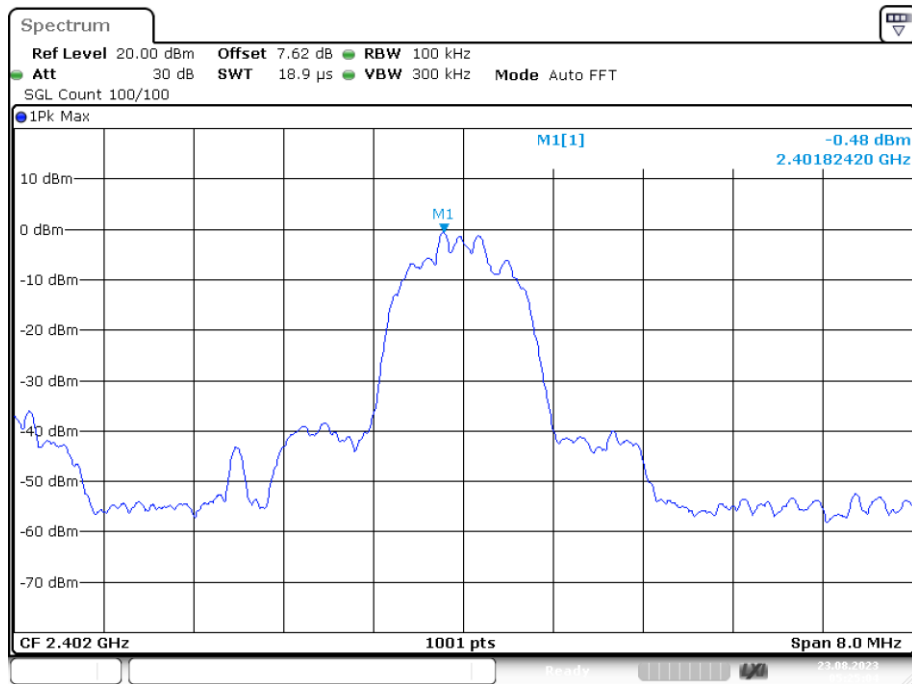
Date: 23.AUG.2023 04:51:15

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



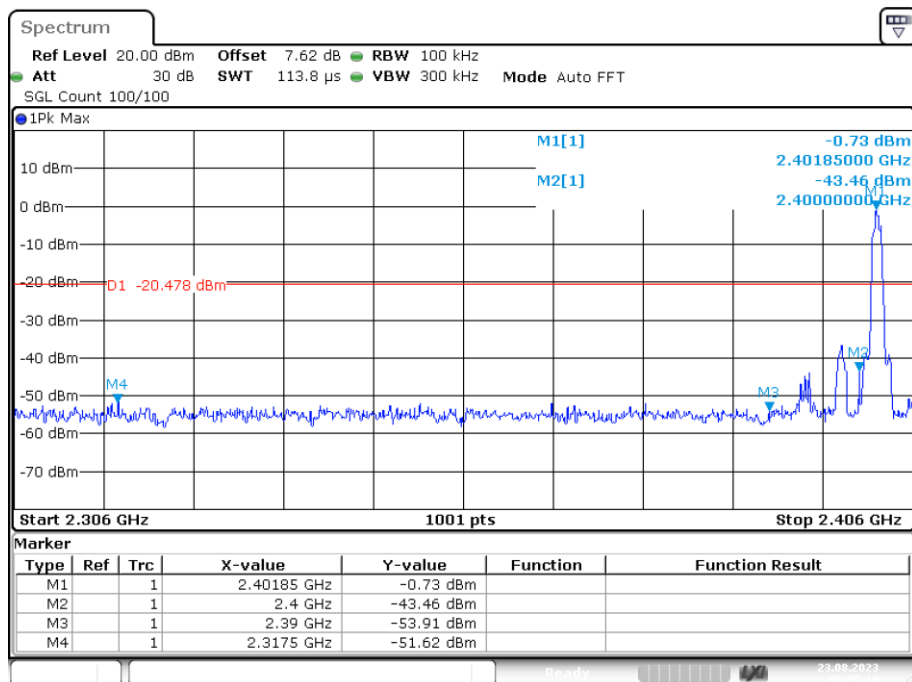
Date: 23.AUG.2023 04:51:20

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



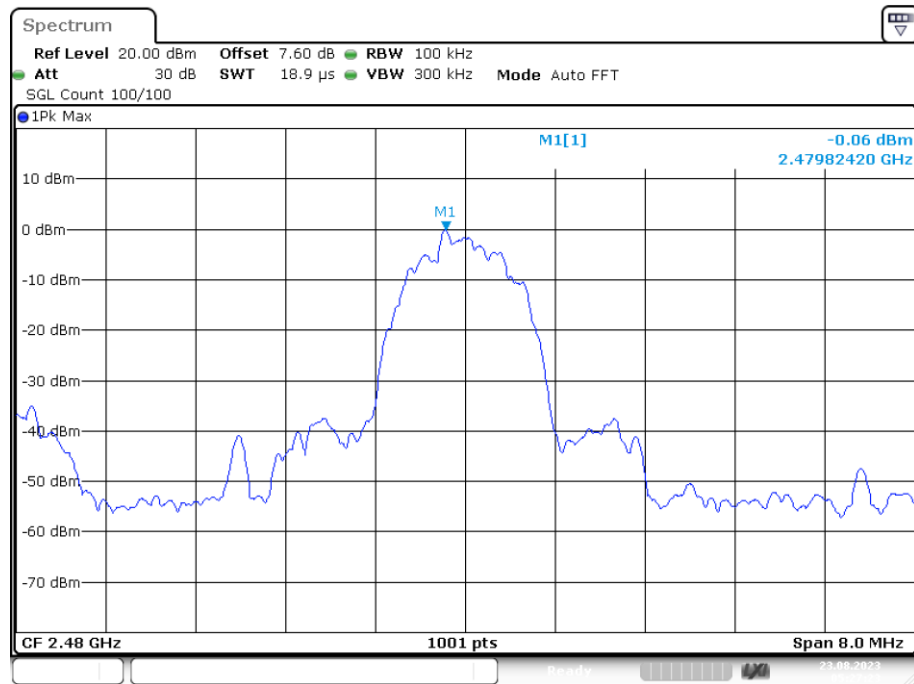
Date: 23.AUG.2023 05:25:04

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



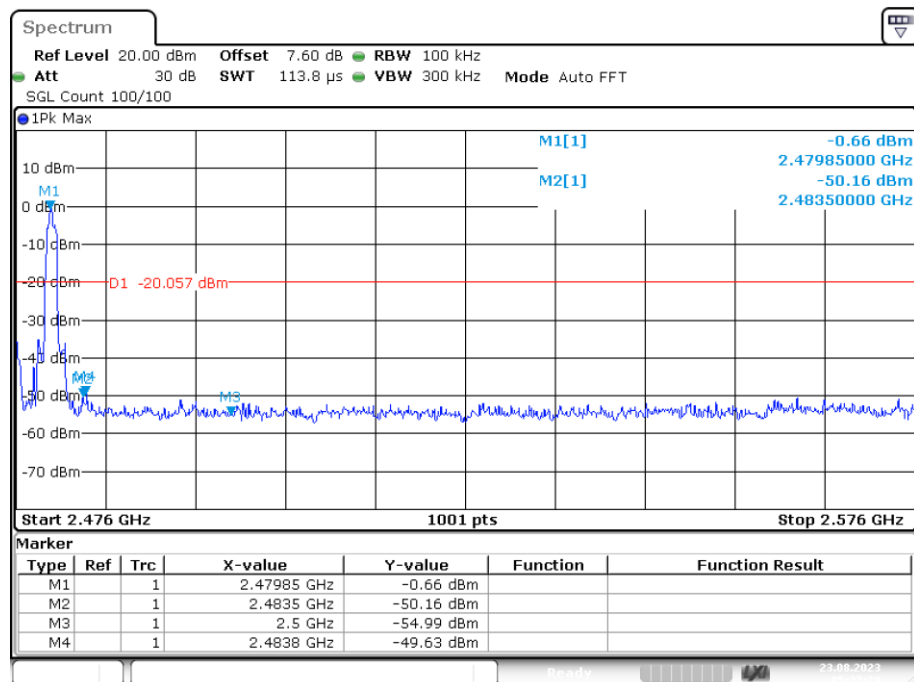
Date: 23.AUG.2023 05:25:10

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



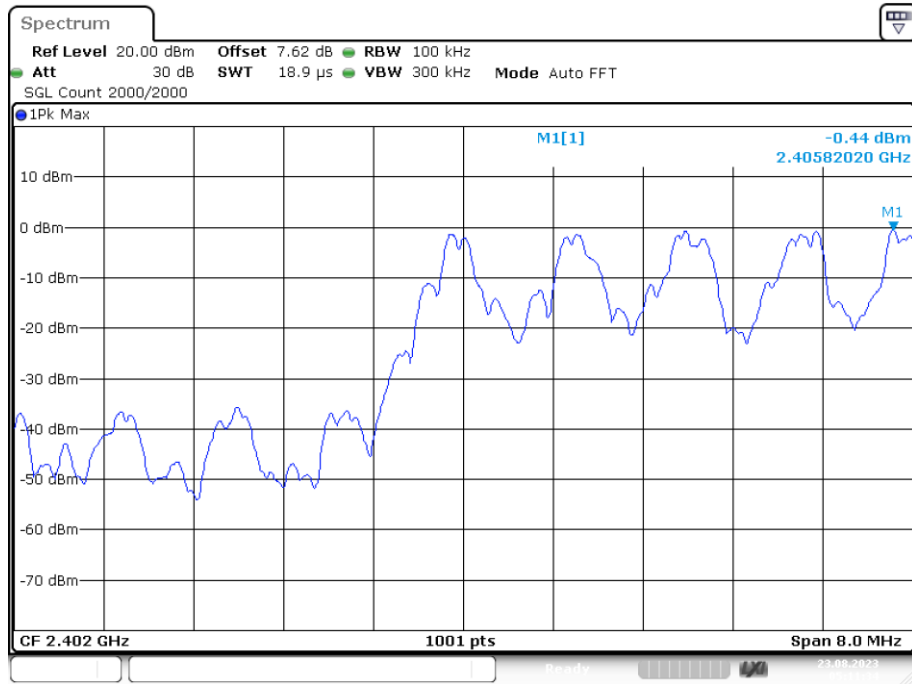
Date: 23.AUG.2023 05:27:23

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



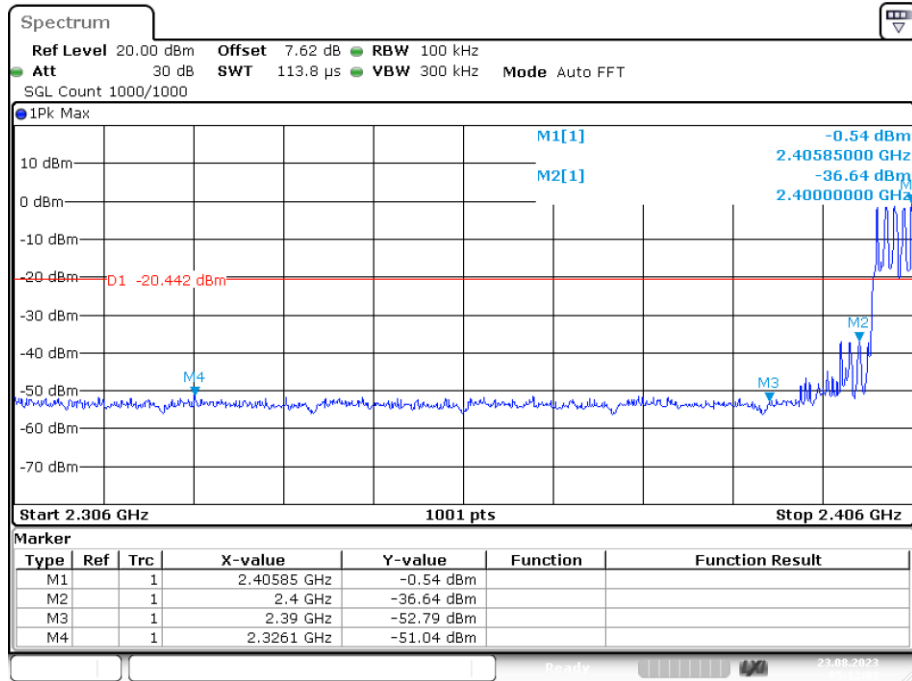
Date: 23.AUG.2023 05:27:28

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



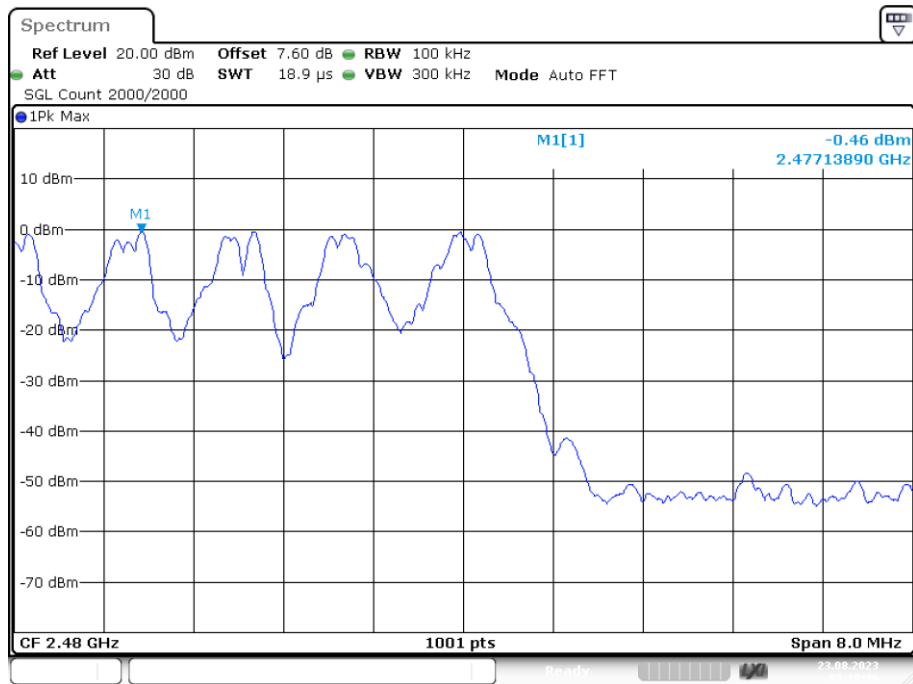
Date: 23.AUG.2023 05:11:34

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



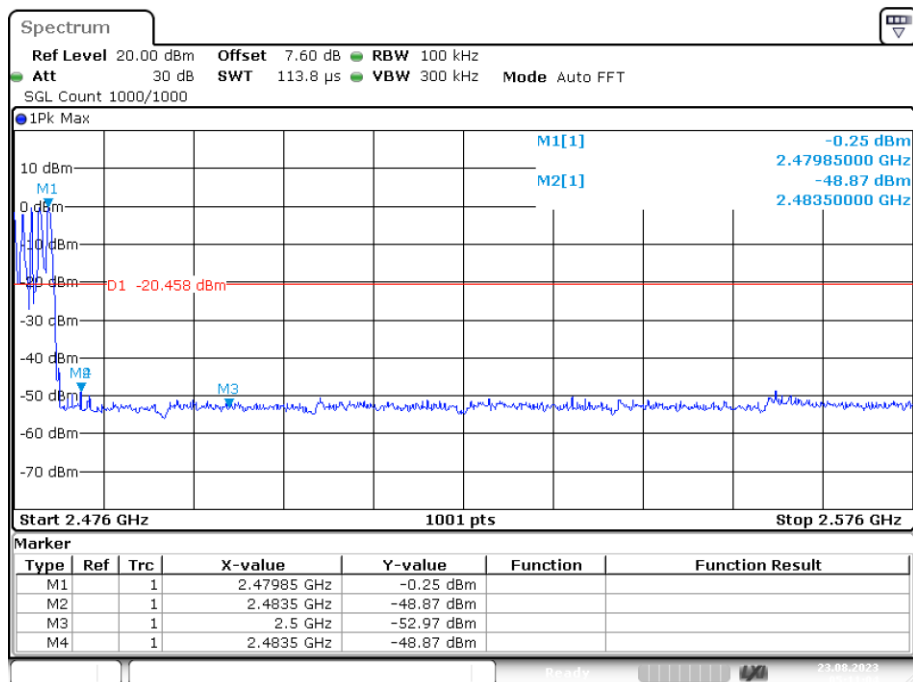
Date: 23.AUG.2023 05:12:03

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



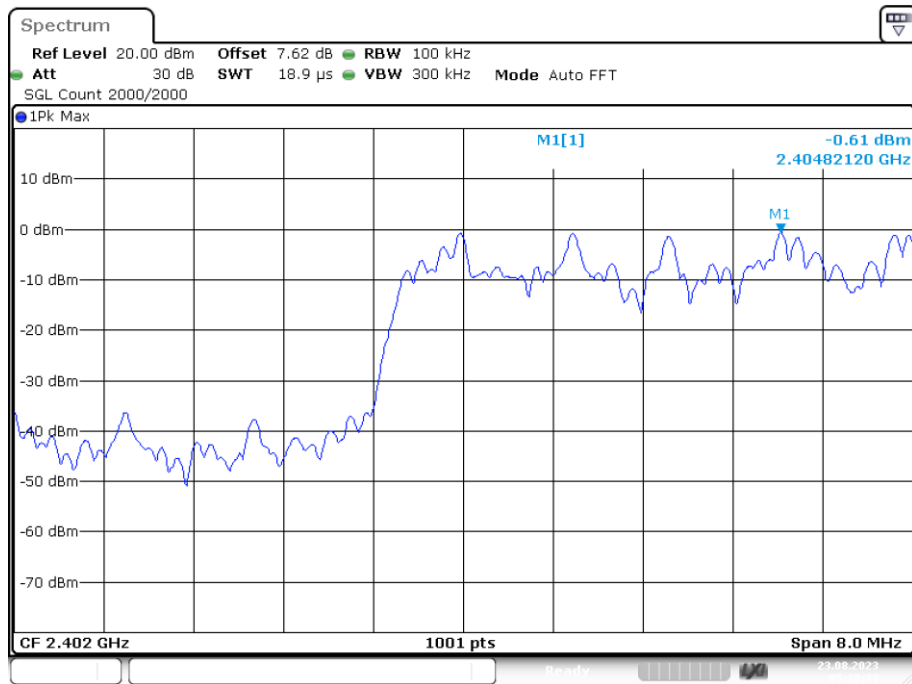
Date: 23.AUG.2023 05:10:36

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



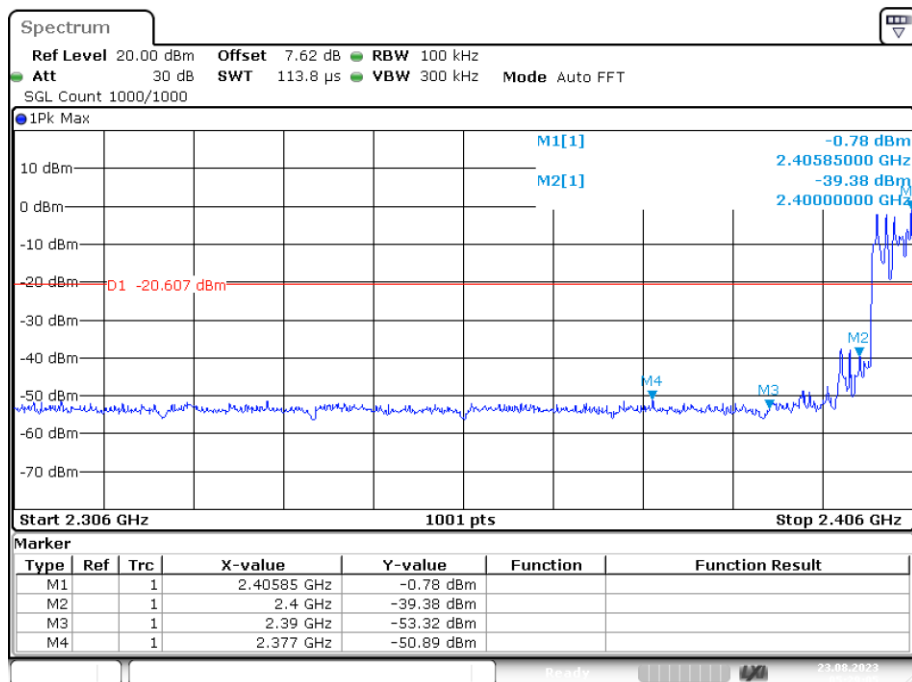
Date: 23.AUG.2023 05:11:05

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



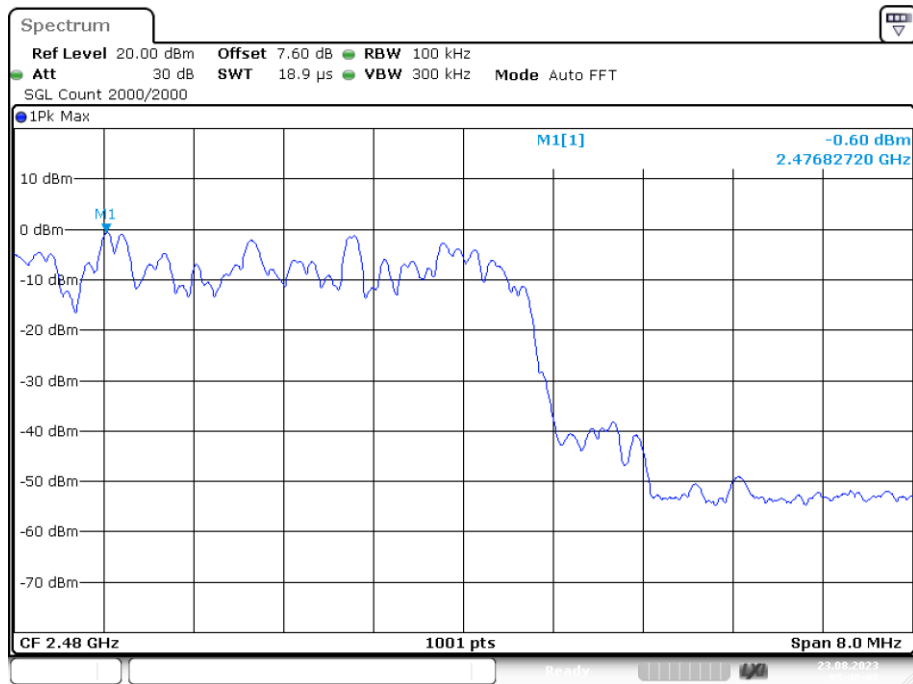
Date: 23.AUG.2023 05:28:33

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



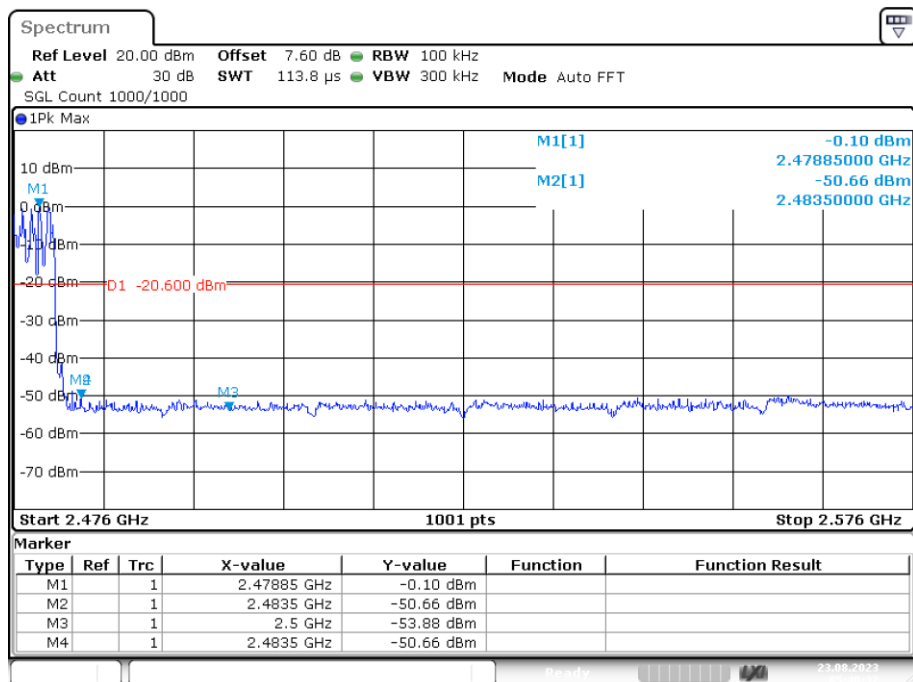
Date: 23.AUG.2023 05:29:04

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



Date: 23.AUG.2023 05:40:08

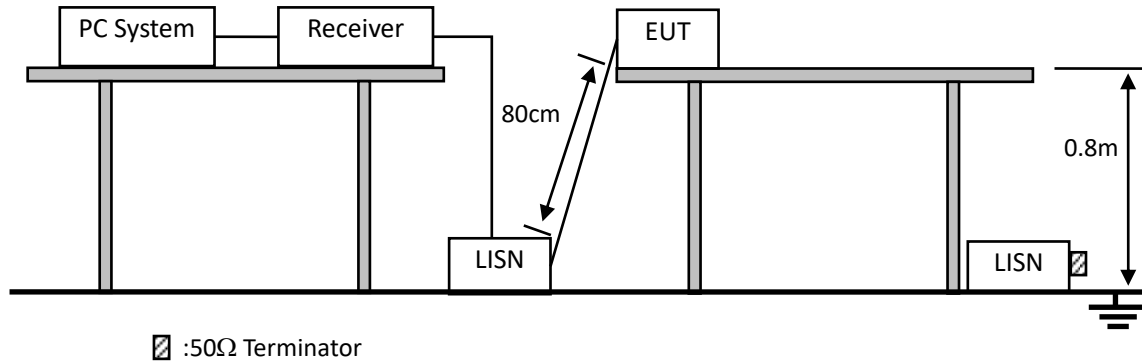
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



Date: 23.AUG.2023 05:40:36

10. POWER LINE CONDUCTED EMISSIONS

10.1. Block Diagram of Test Setup



10.2. Limit

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level 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

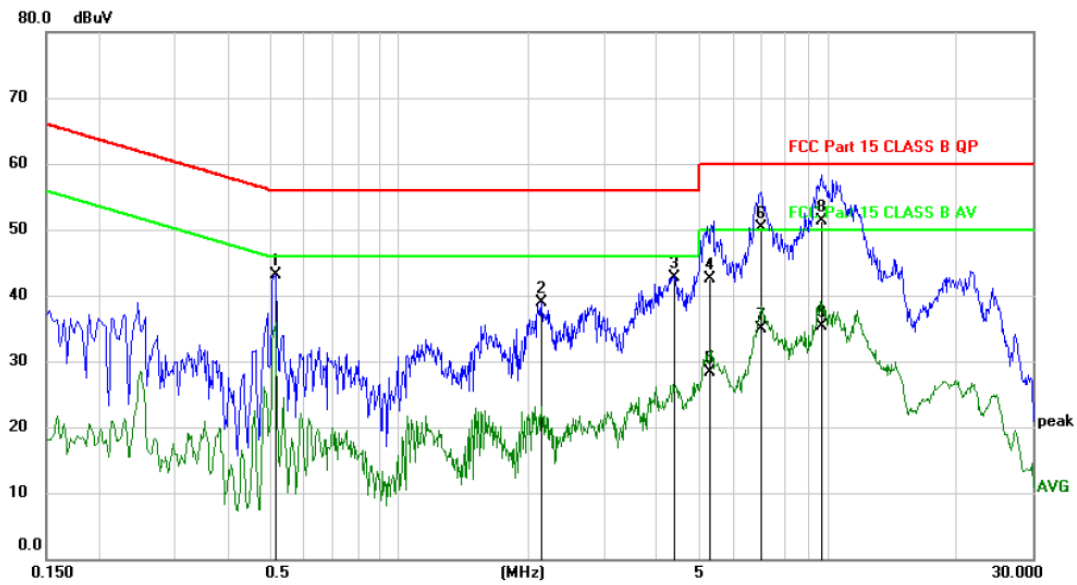
- (1) The EUT was placed on a non-metallic table, 80cm above the ground plane.
- (2) Setup the EUT and simulator as shown in 10.1
- (3) The EUT Power connected to the power mains through a power adapter and a line impedance stabilization network (L.I.S.N1). The other peripheral devices power cord connected 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

Line:

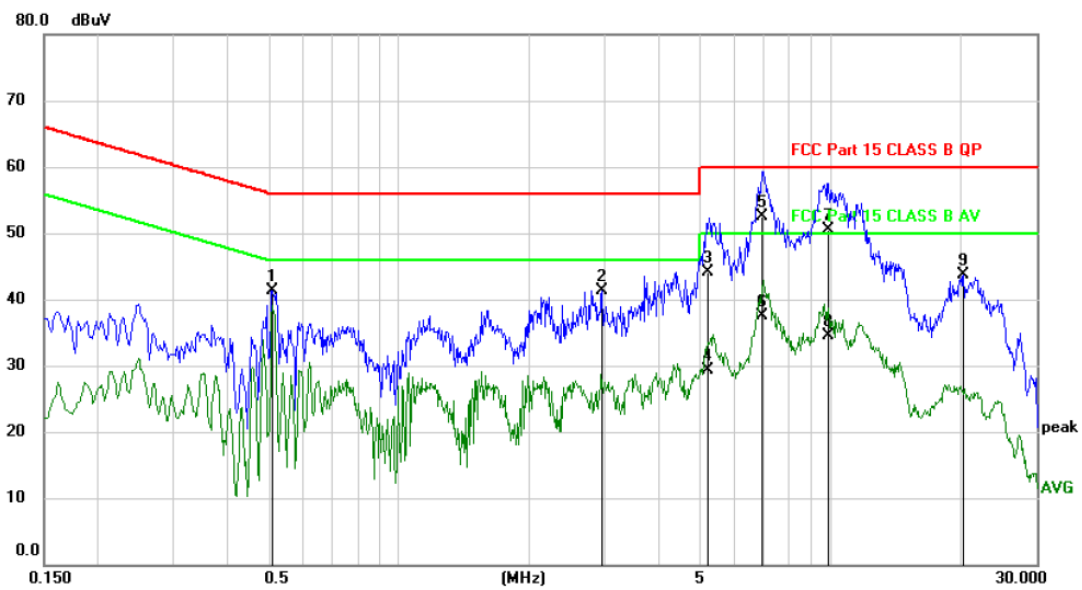


No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin		
		MHz	Level	Factor	ment			Detector	Comment
			dBuV	dB	dBuV	dBuV	dB		
1		0.5160	32.79	10.27	43.06	56.00	-12.94	peak	
2		2.1510	28.43	10.42	38.85	56.00	-17.15	peak	
3		4.3680	32.20	10.60	42.80	56.00	-13.20	peak	
4		5.3185	31.84	10.65	42.49	60.00	-17.51	QP	
5		5.3185	17.71	10.65	28.36	50.00	-21.64	AVG	
6		7.0442	39.59	10.71	50.30	60.00	-9.70	QP	
7		7.0442	24.27	10.71	34.98	50.00	-15.02	AVG	
8	*	9.6598	40.44	10.81	51.25	60.00	-8.75	QP	
9		9.6598	24.52	10.81	35.33	50.00	-14.67	AVG	

*: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

Neutral:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.5100	31.11	10.27	41.38	56.00	-14.62	peak	
2		2.9520	30.86	10.49	41.35	56.00	-14.65	peak	
3		5.1727	33.40	10.65	44.05	60.00	-15.95	QP	
4		5.1727	18.69	10.65	29.34	50.00	-20.66	AVG	
5	*	6.9517	41.86	10.71	52.57	60.00	-7.43	QP	
6		6.9517	26.73	10.71	37.44	50.00	-12.56	AVG	
7		9.8380	39.68	10.81	50.49	60.00	-9.51	QP	
8		9.8380	23.78	10.81	34.59	50.00	-15.41	AVG	
9		20.3100	32.72	11.05	43.77	60.00	-16.23	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

Note: All modes and channels have been tested, only show the test data of the worst Channel in this report.

11. ANTENNA REQUIREMENTS

11.1.Limit

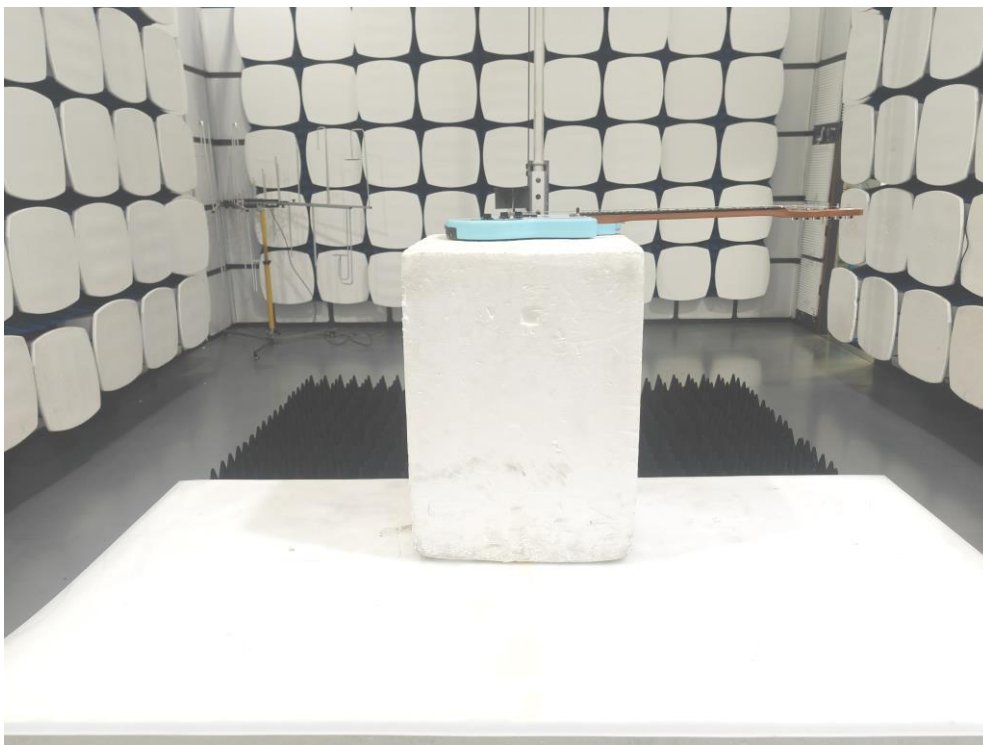
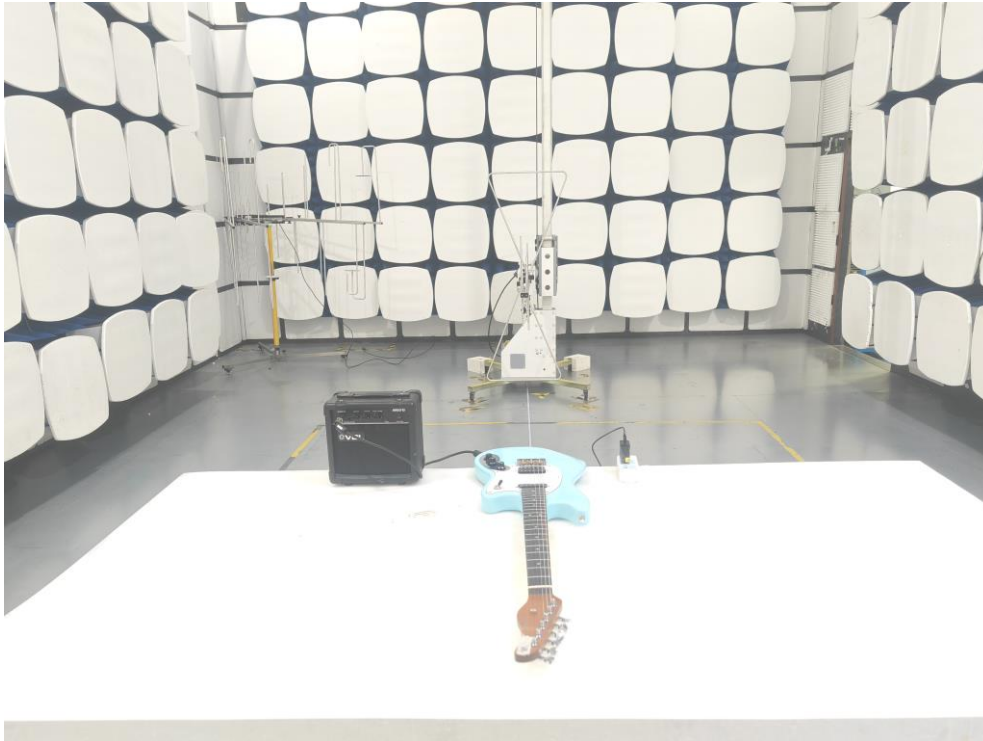
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional 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. Photo of Radiated Emission test



12.2.Photo of Conducted Emission test



13.MODEL LIST

F100	E1000	E1100	E1200	E1010	E1110	E1210	E1020
E1120	E1220	E1030	E1130	E1230	E1040	E1140	E1240
E1050	E1150	E1250	SR1000	SR1100	SR1200	SR1010	SR1110
SR1210	SR1020	SR1120	SR1220	SR1030	SR1130	SR1230	SR1040
SR1140	SR1240	SR1050	SR1150	SR1250	WA1000	WA1100	WA1200
WN1000	WN1100	WN1200	WE1000	WE1100	WE1200	QA1000	QA1100
QA1200	QN1000	QN1100	QN1200	QE1000	QE1100	QE1200	

-----END OF REPORT-----