Appendix A

RF Test Data for BT LE (Conducted Measurement)

Product Name: LED Controller

Test Model: DeepLux-C003

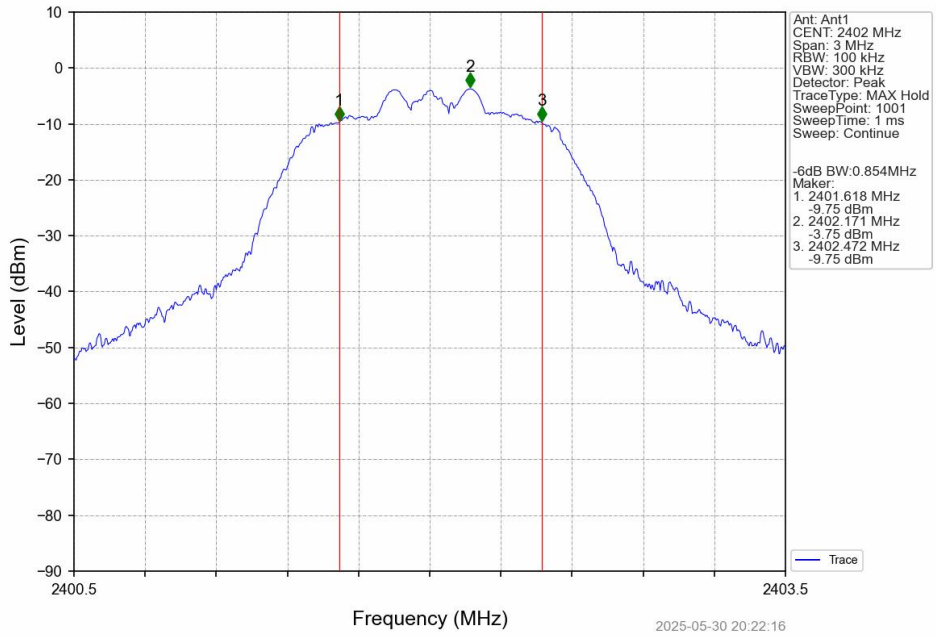
Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng

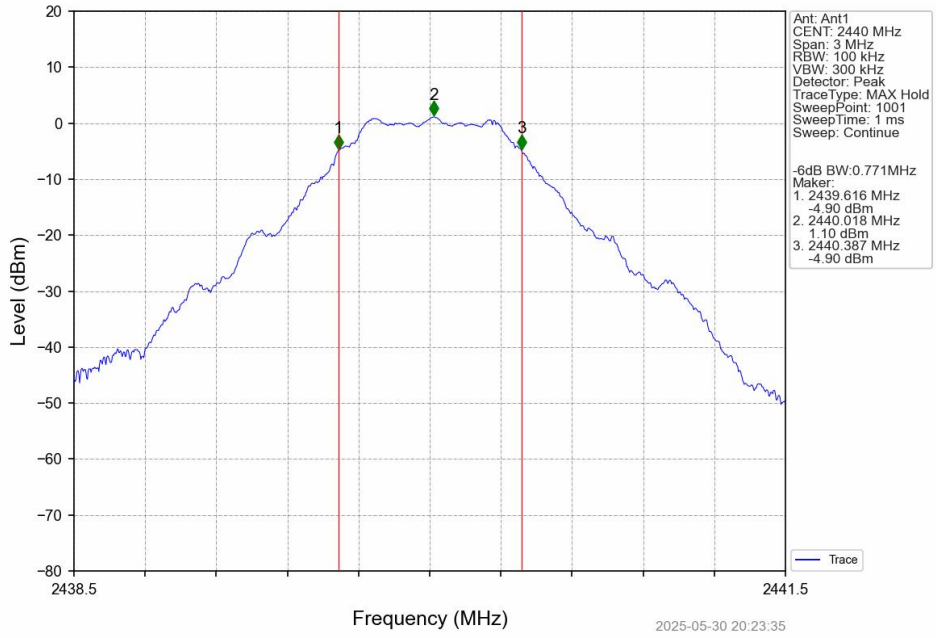
A.1 -6dB Bandwidth

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.854	>=0.5	Pass
		2440	1	0.771	>=0.5	Pass
		2480	1	0.746	>=0.5	Pass

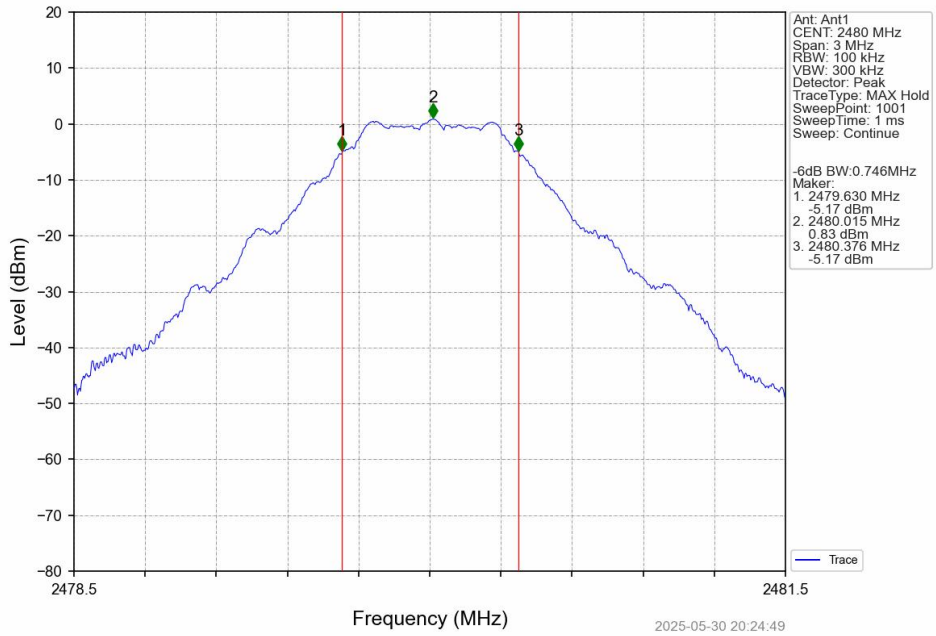
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



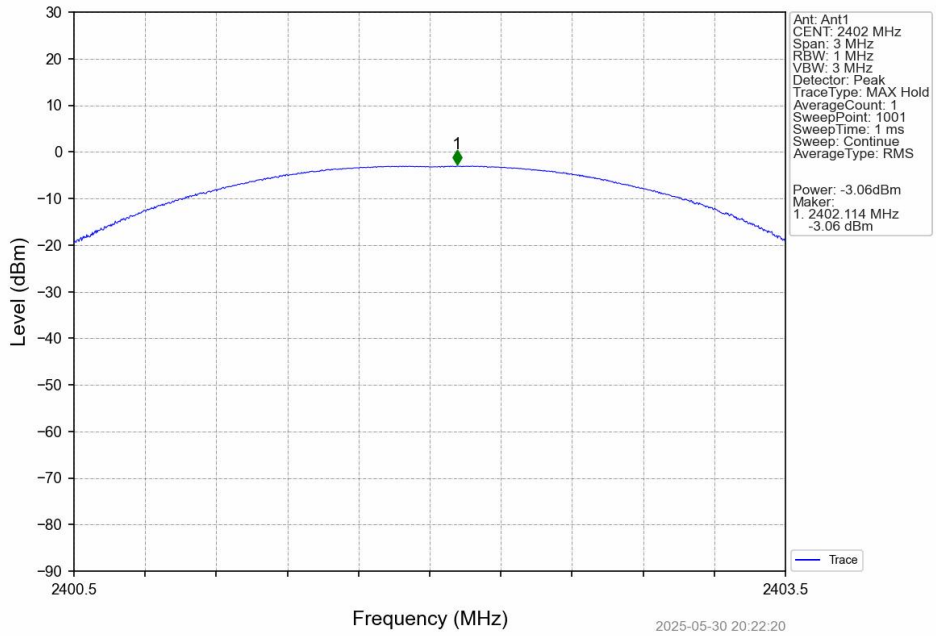
1M_HCH_2480MHz_Ant1_NTNV



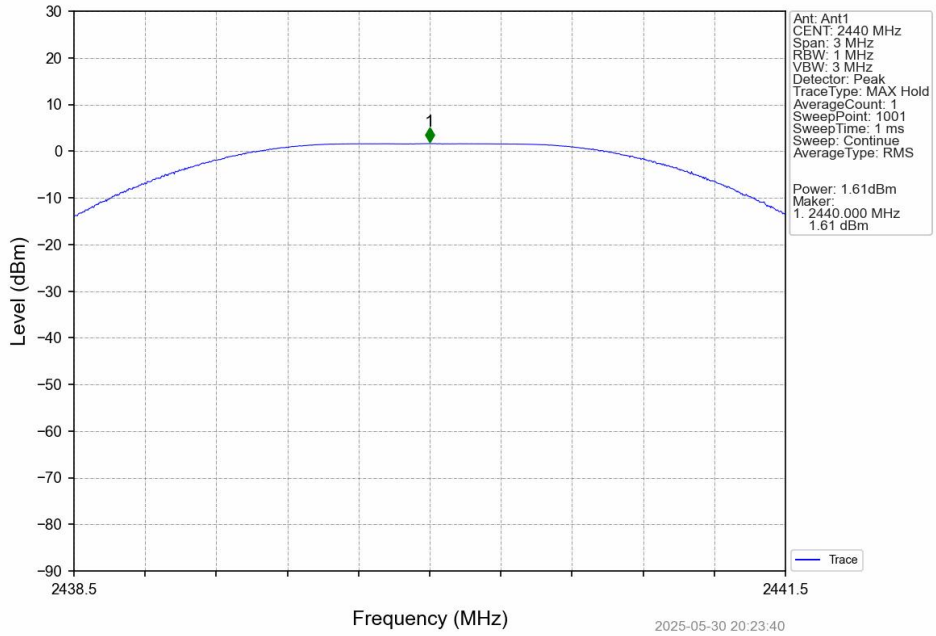
A.2 Maximum Peak Conducted Output Power

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	-3.06	<=30	Pass
		2440	1.61	<=30	Pass
		2480	1.31	<=30	Pass

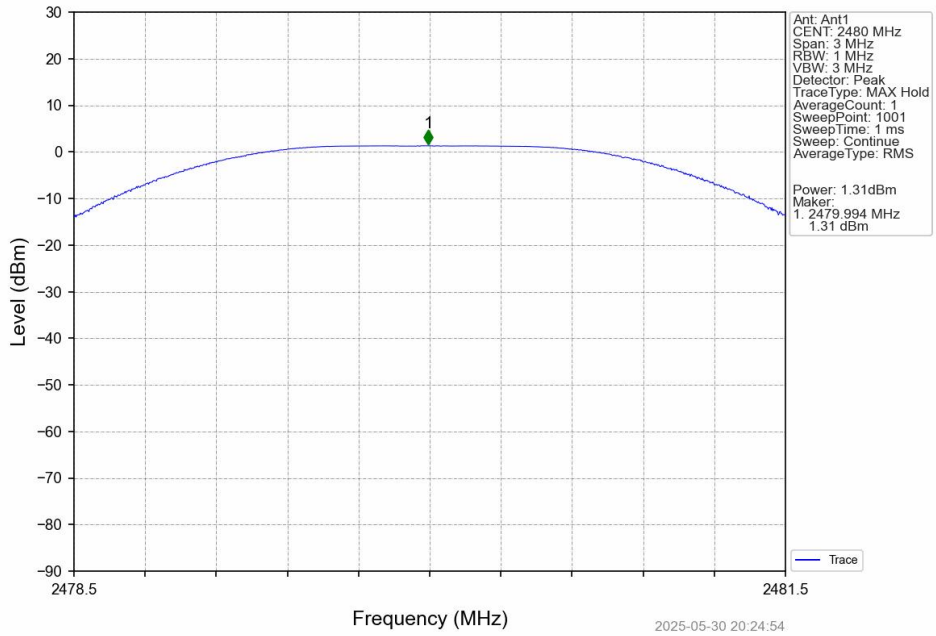
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



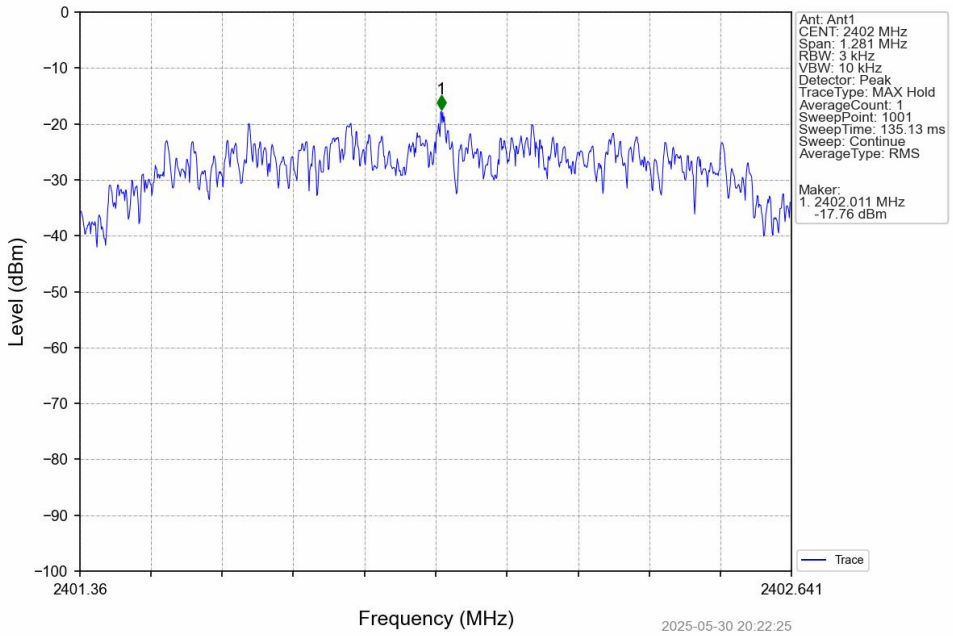
1M_HCH_2480MHz_Ant1_NTNV



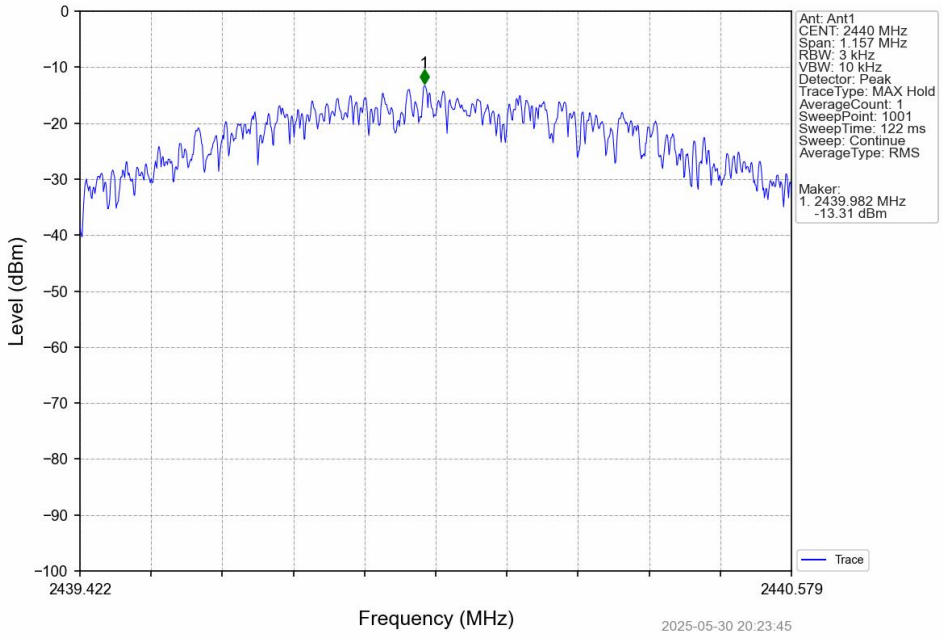
A.3 Maximum Power Spectral Density

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
1M	SISO	2402	-17.76	<=8	Pass
		2440	-13.31	<=8	Pass
		2480	-13.84	<=8	Pass

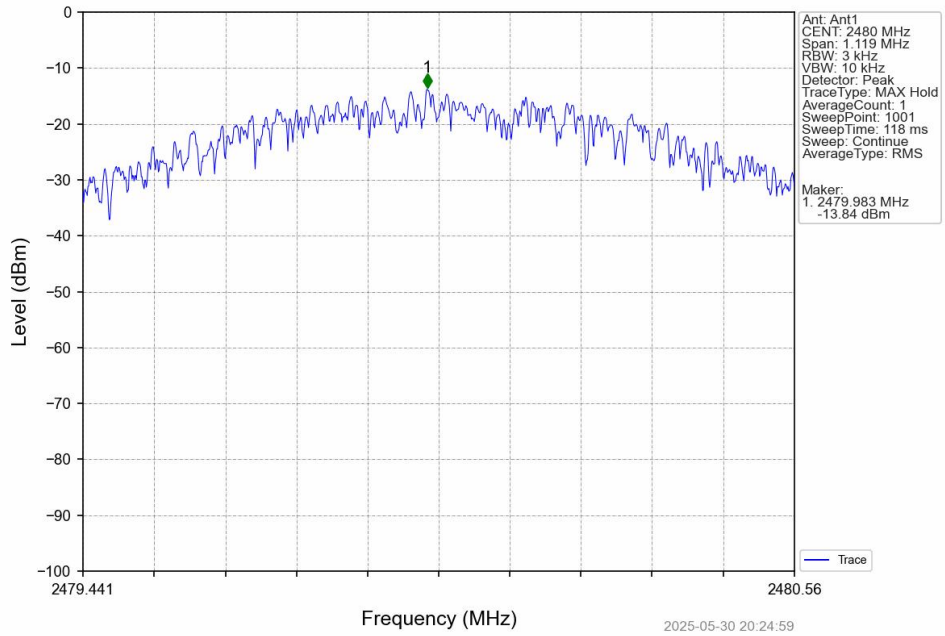
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV

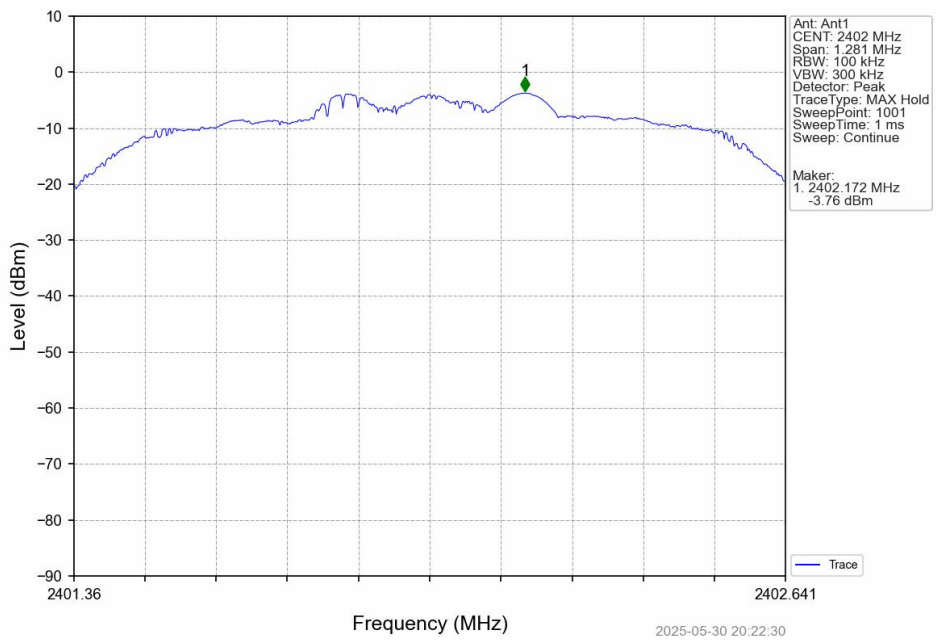


A.4 Band Edge

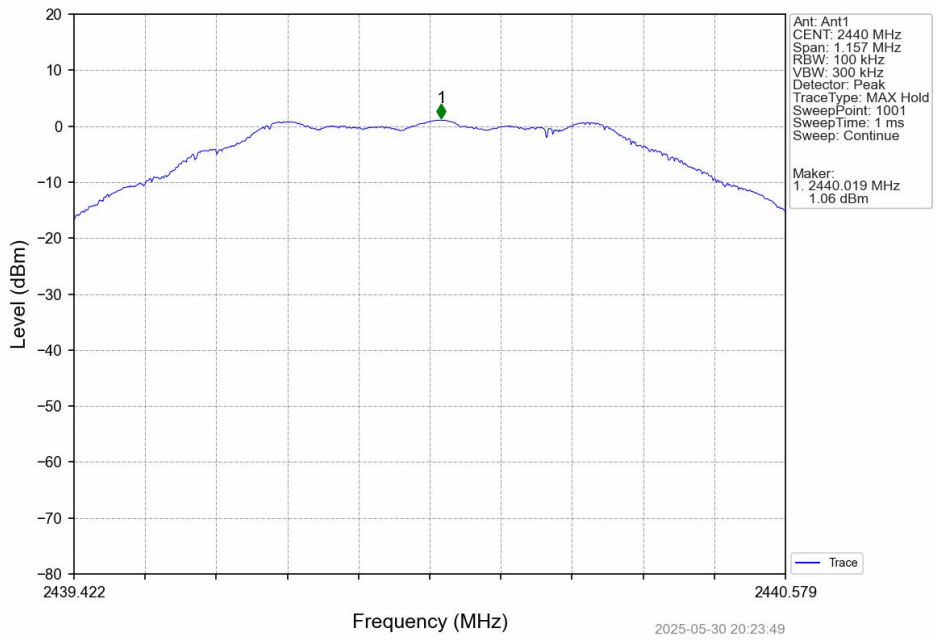
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	-3.76	-23.76	Pass
		2440	1	1.06	-18.94	Pass
		2480	1	0.80	-19.20	Pass
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.						

Ref

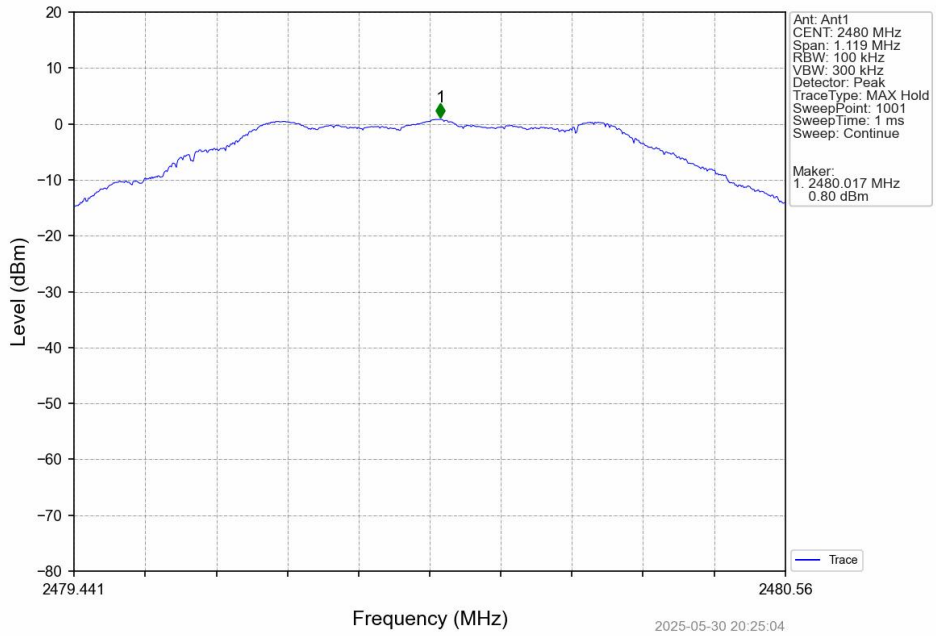
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV

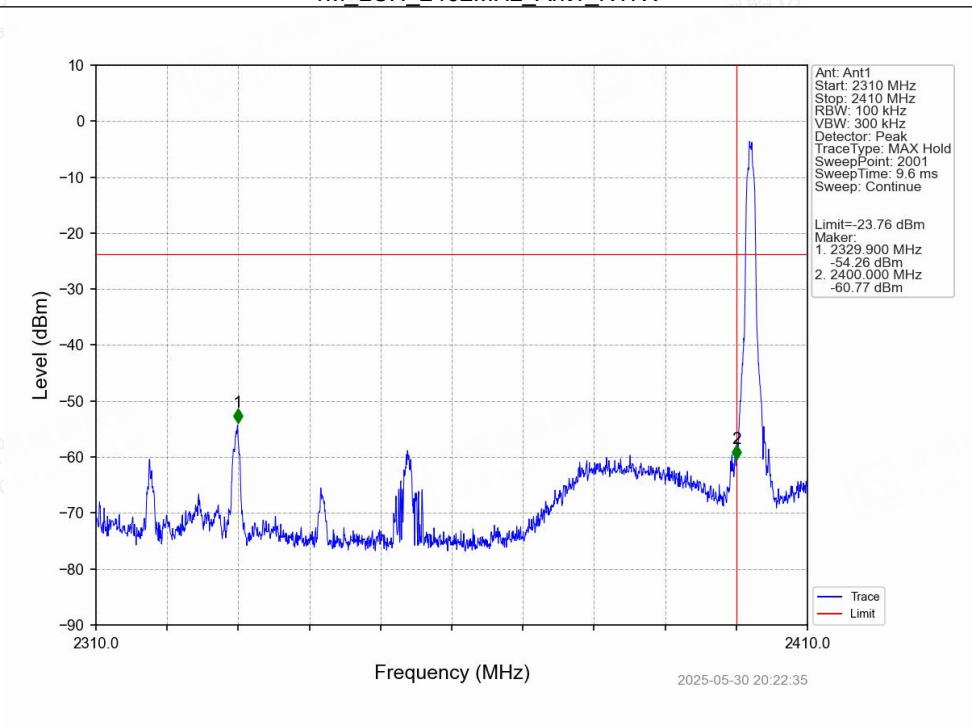


1M_HCH_2480MHz_Ant1_NTNV

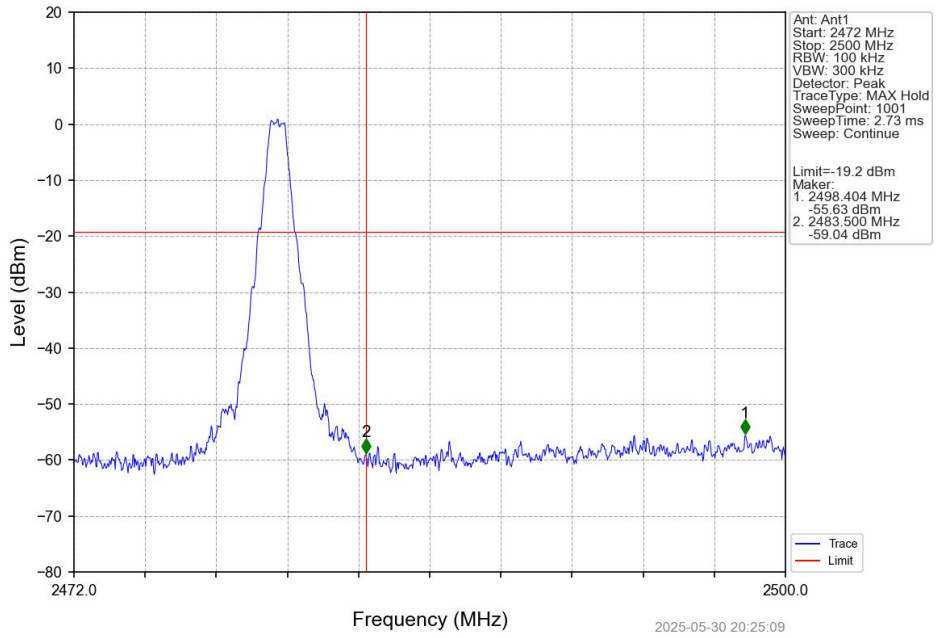


Band Edge

1M_LCH_2402MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV

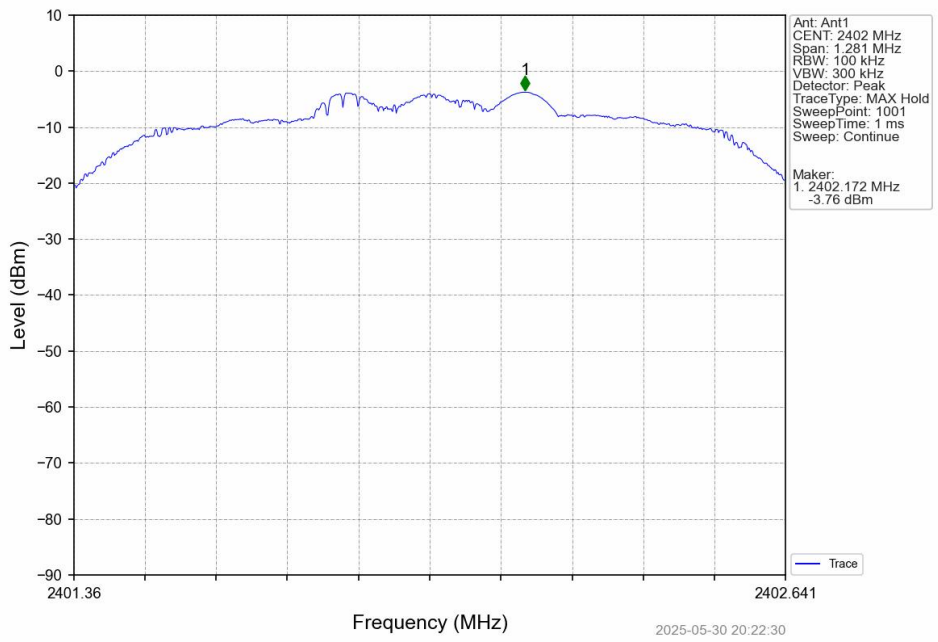


A.5 Conducted RF Spurious Emission

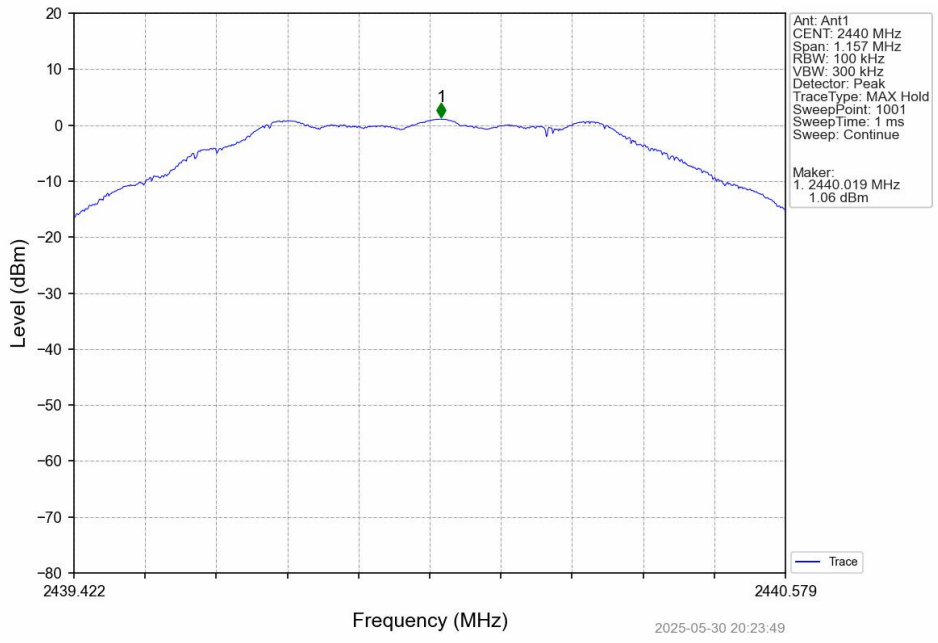
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
1M	SISO	2402	1	-3.76
		2440	1	1.06
		2480	1	0.80
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.				

Ref

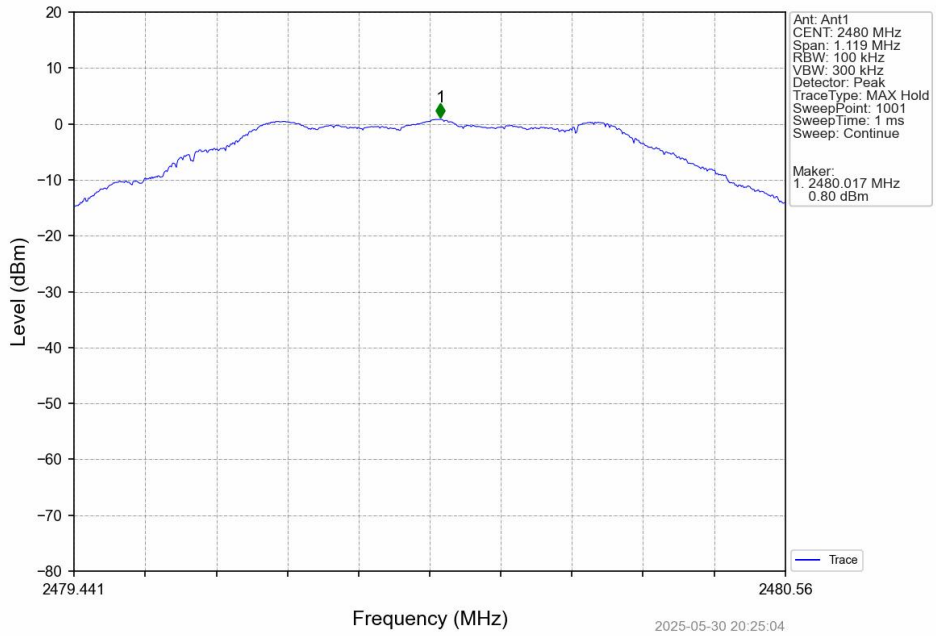
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV

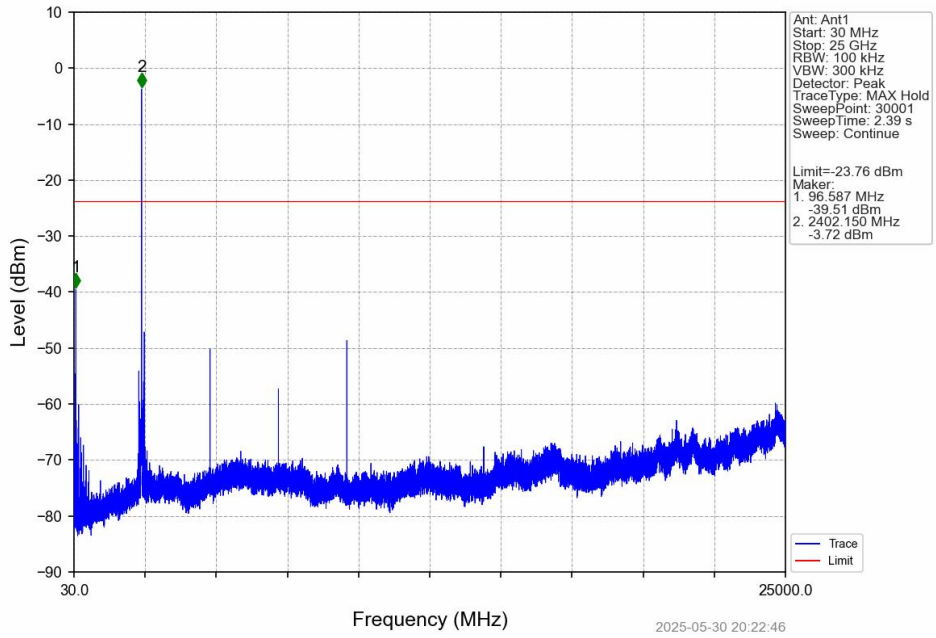

Ant: Ant1
CENT: 2440 MHz
Span: 1.157 MHz
RBW: 100 kHz
VBW: 300 kHz
Detector: Peak
TraceType: MAX Hold
SweepPoint: 1001
SweepTime: 1 ms
Sweep: Continue
Maker:
1. 2440.019 MHz
1.06 dBm
Level (dBm)
Frequency (MHz)
2439.422
2440.579
Trace
2025-05-30 20:23:49

1M_HCH_2480MHz_Ant1_NTNV

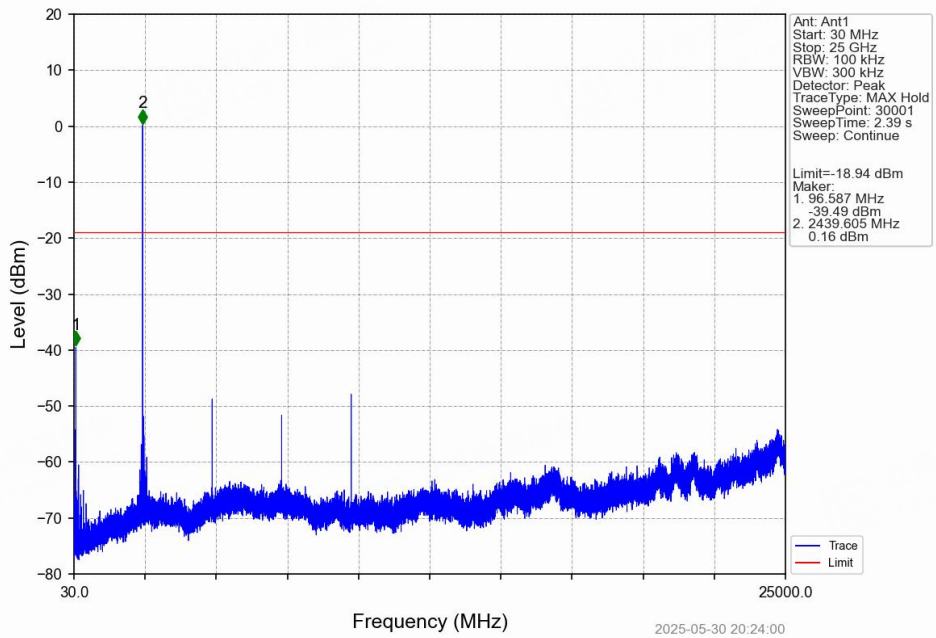


CSE

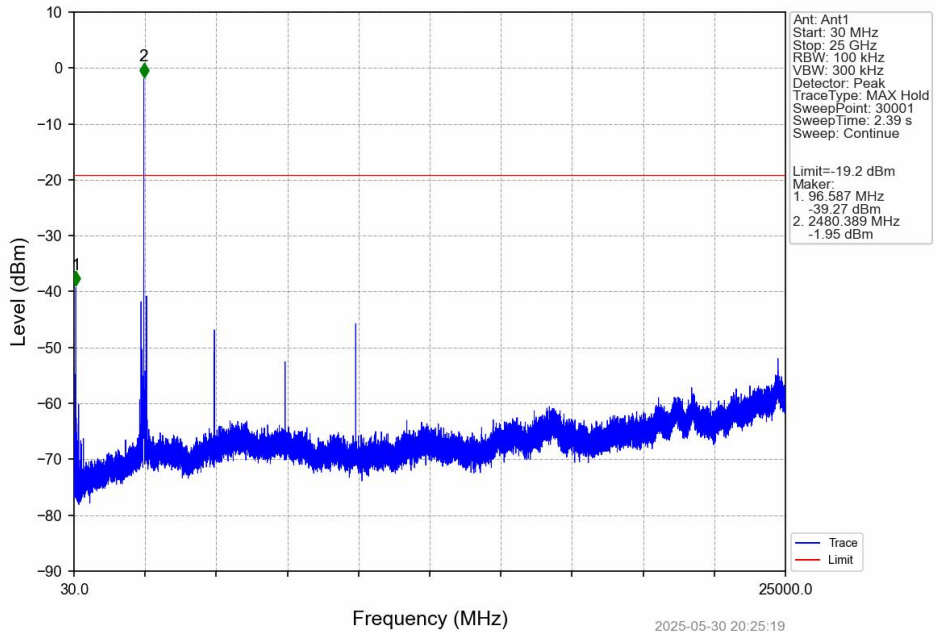
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV

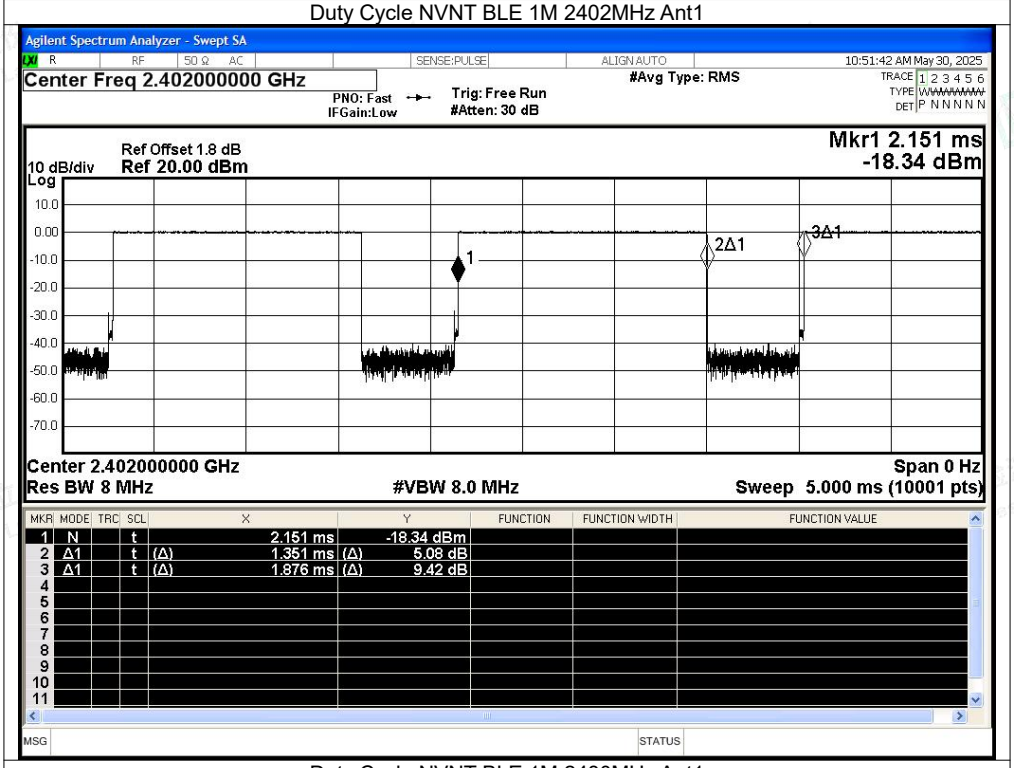


A.6 Duty Cycle

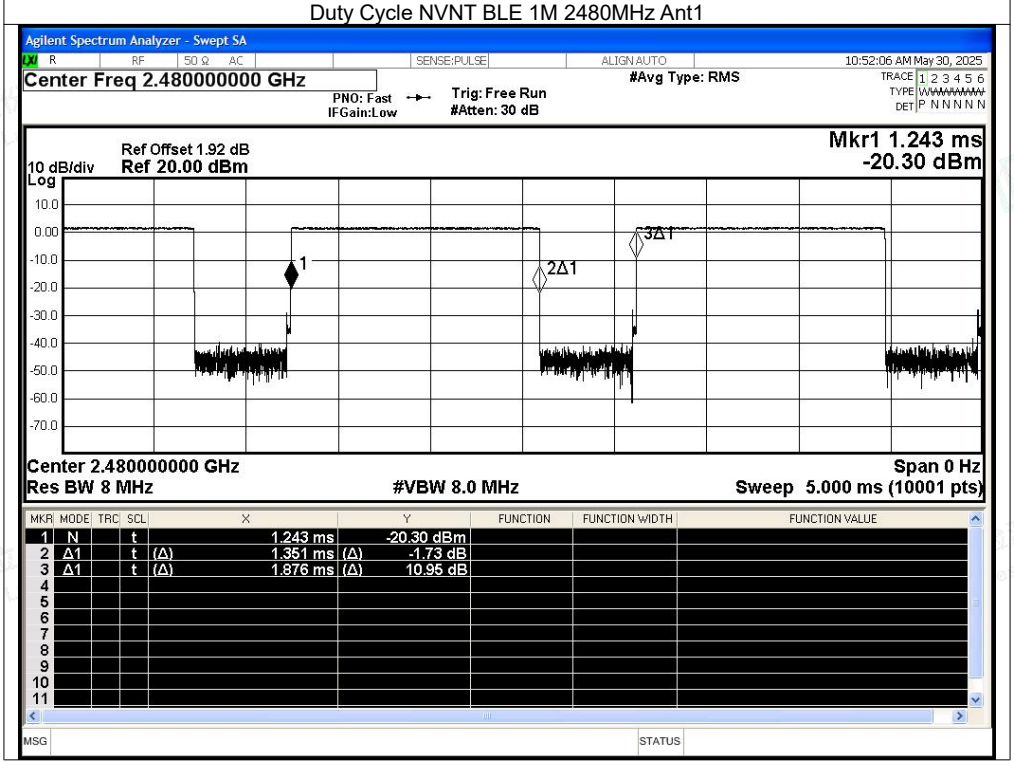
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	72.01	1.43	0.74
NVNT	BLE 1M	2480	Ant1	72.03	1.42	0.74

Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1



Duty Cycle NVNT BLE 1M 2480MHz Ant1

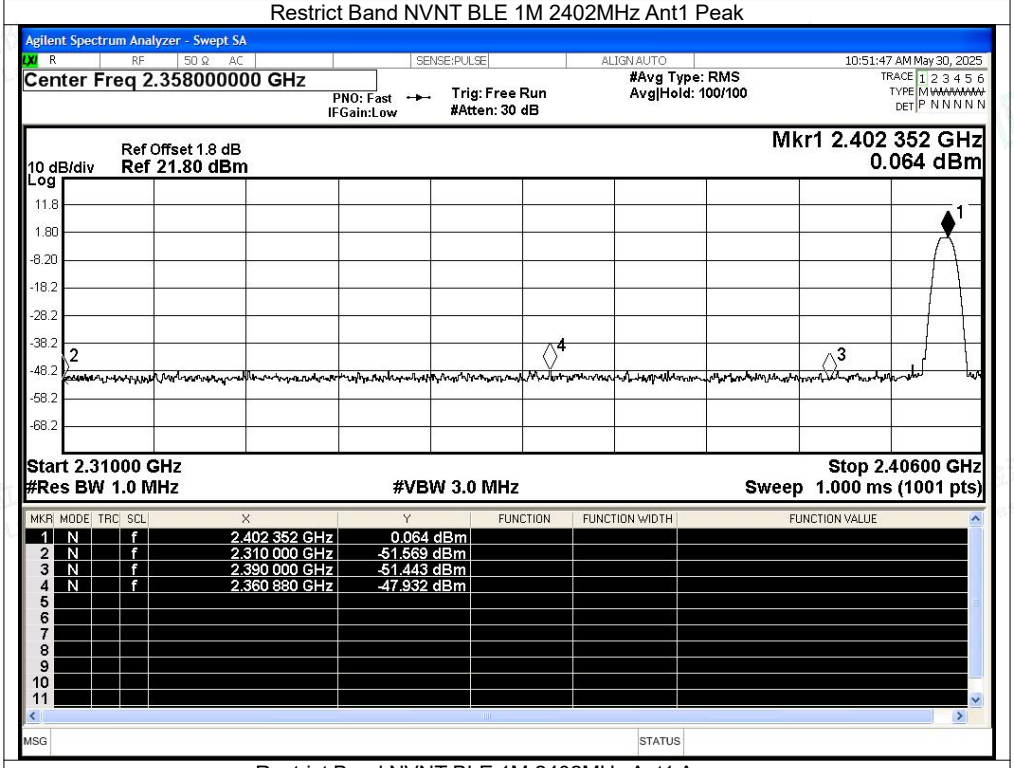


A.7 Restrict Band

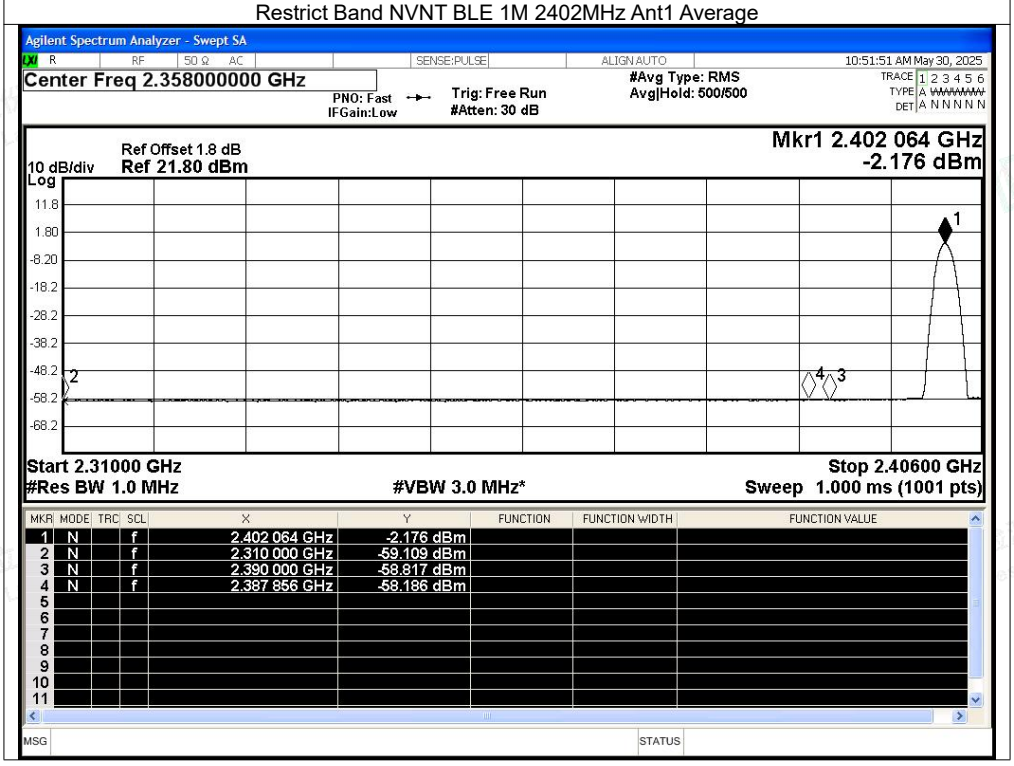
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	BLE 1M	2402	Ant1	2310	-51.57	2	-	45.69	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2310	-59.11	2	1.43	39.58	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2360.88	-47.93	2	-	49.33	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2387.856	-58.19	2	1.43	40.5	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2390	-51.44	2	-	45.82	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2390	-58.82	2	1.43	39.87	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-45.42	2	-	51.84	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-57.59	2	1.42	41.09	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.752	-42.68	2	-	54.58	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.584	-57.21	2	1.42	41.47	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2500	-49.68	2	-	47.58	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2500	-58.4	2	1.42	40.28	Average	54	Pass

Test Graphs

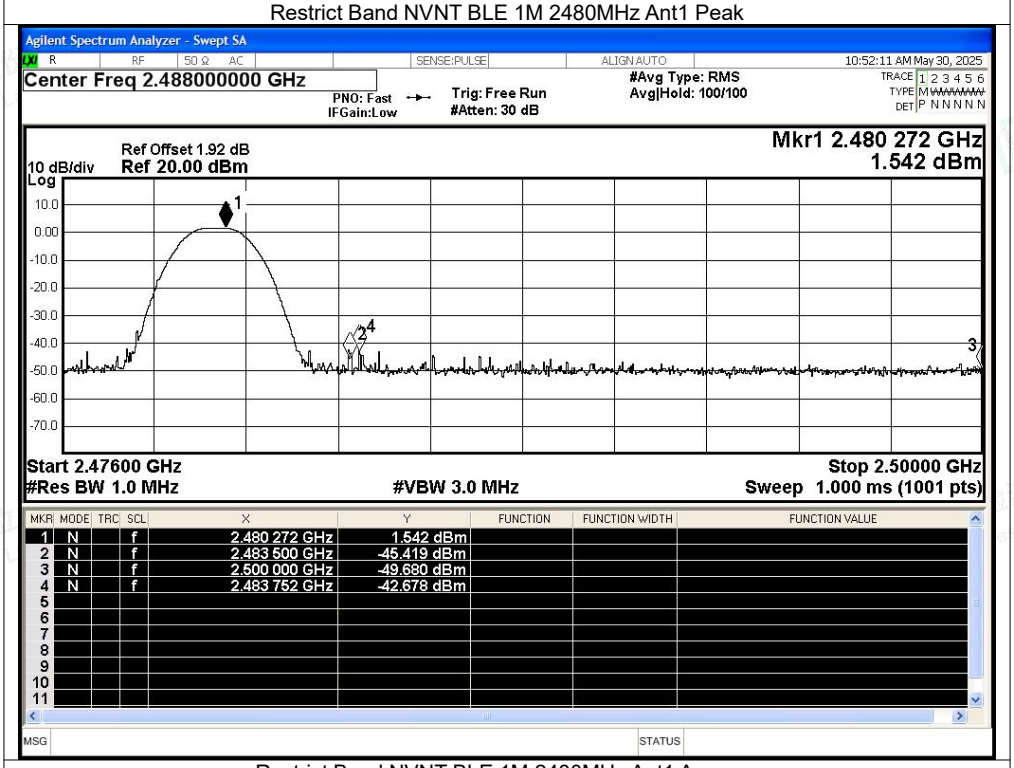
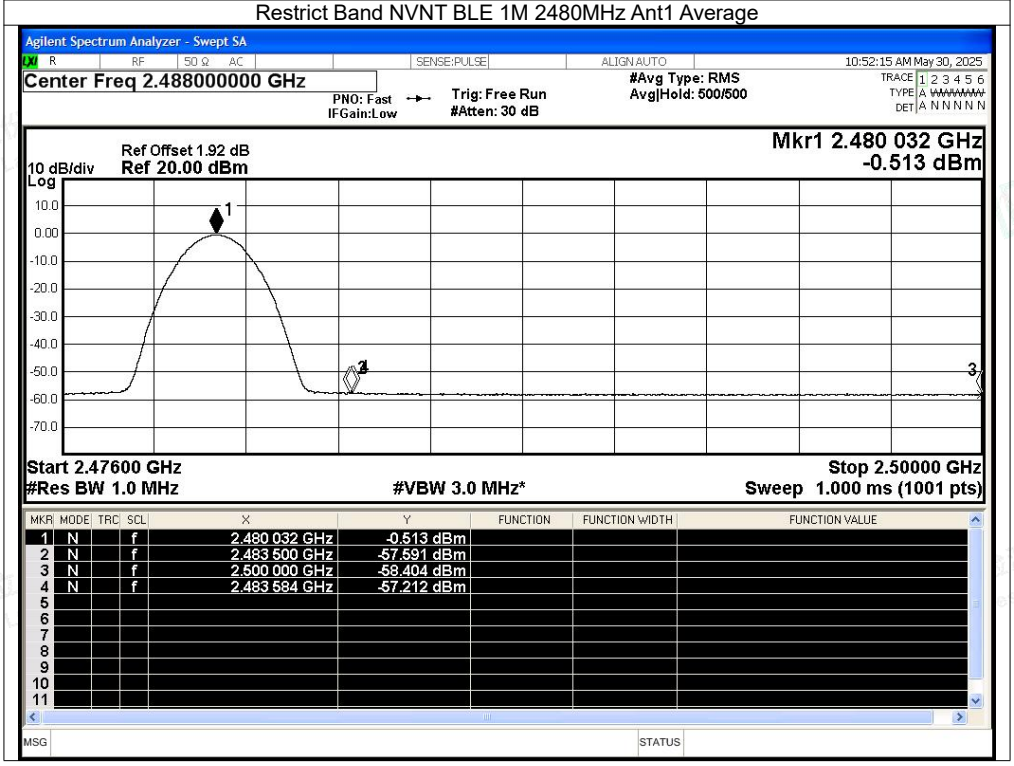
Restrict Band NVNT BLE 1M 2402MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2402MHz Ant1 Average



Restrict Band NVNT BLE 1M 2480MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2480MHz Ant1 Average