RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
Product Name:	Window Camera
Test Model:	SF-BC1WD
Sample ID:	HC-C-202605-0052-01-01
Test Standard:	FCC Part 15.247&RSS 247 Issue 4
Environmental Conditions	
Temperature:	23.4℃
Relative Humidity:	48.6%RH
Test Voltage:	DC 5V
Test Engineer:	Lily ZHANG
Note: For a more detailed features description, please refer to the report TBR-C-202605-0052-1 The report only show the worst case data.	

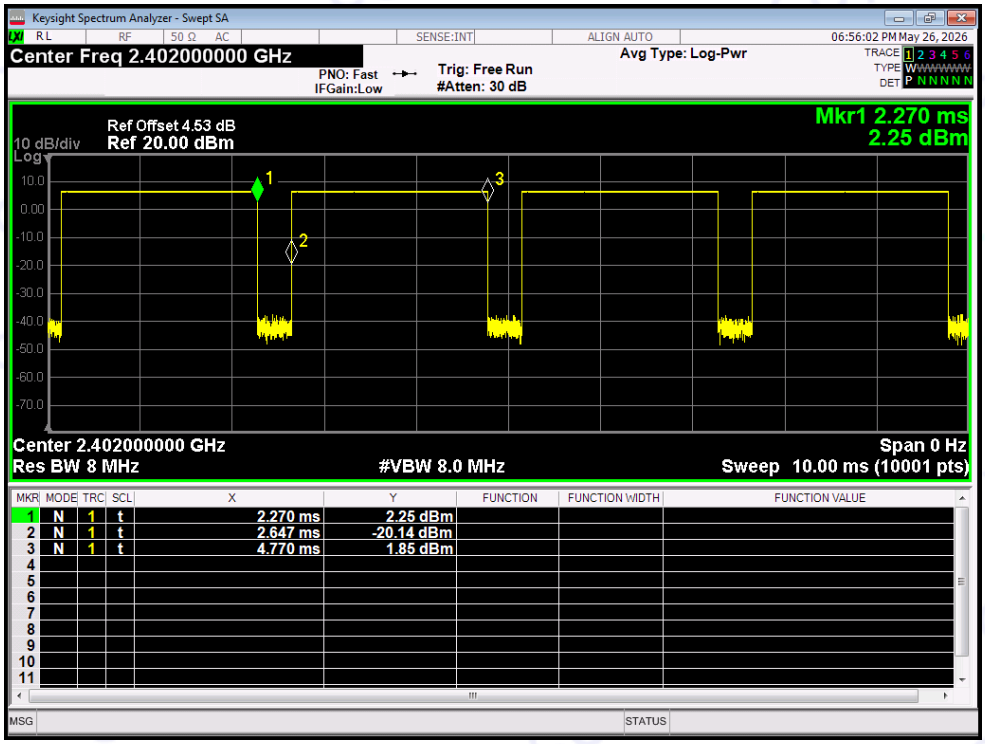
Contents

Duty Cycle

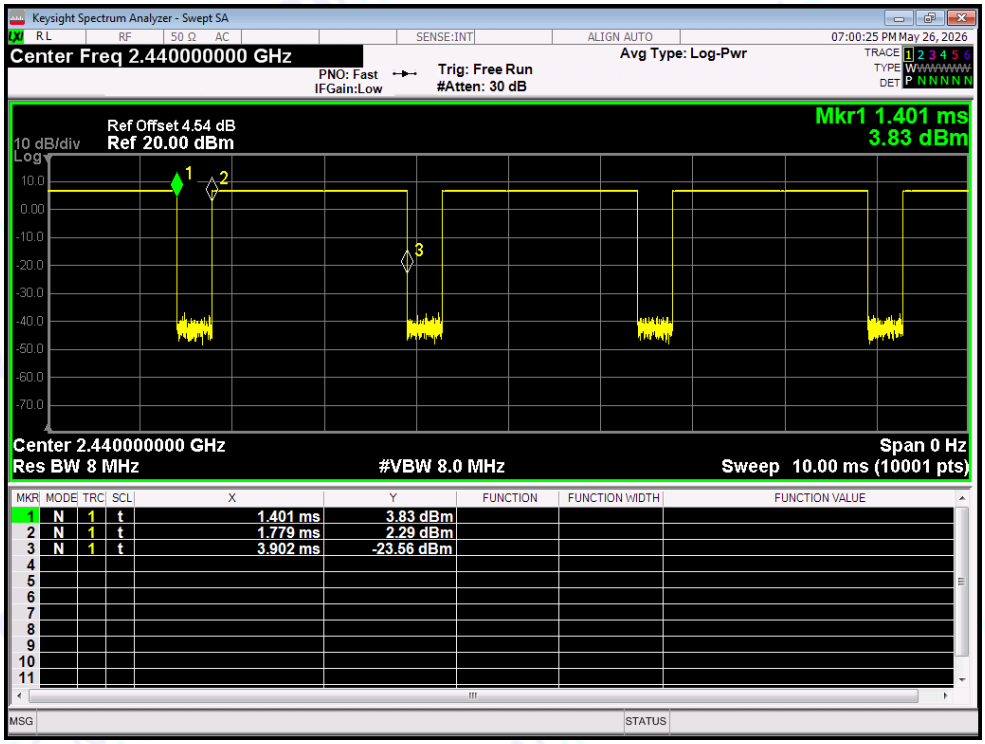
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1Mbps	2402	Ant1	84.92	0.71	0.47
NVNT	BLE 1Mbps	2440	Ant1	84.89	0.71	0.47
NVNT	BLE 1Mbps	2480	Ant1	84.92	0.71	0.47
NVNT	BLE 2Mbps	2402	Ant1	56.85	2.45	0.94
NVNT	BLE 2Mbps	2440	Ant1	56.8	2.46	0.94
NVNT	BLE 2Mbps	2480	Ant1	56.85	2.45	0.94

Test Graphs

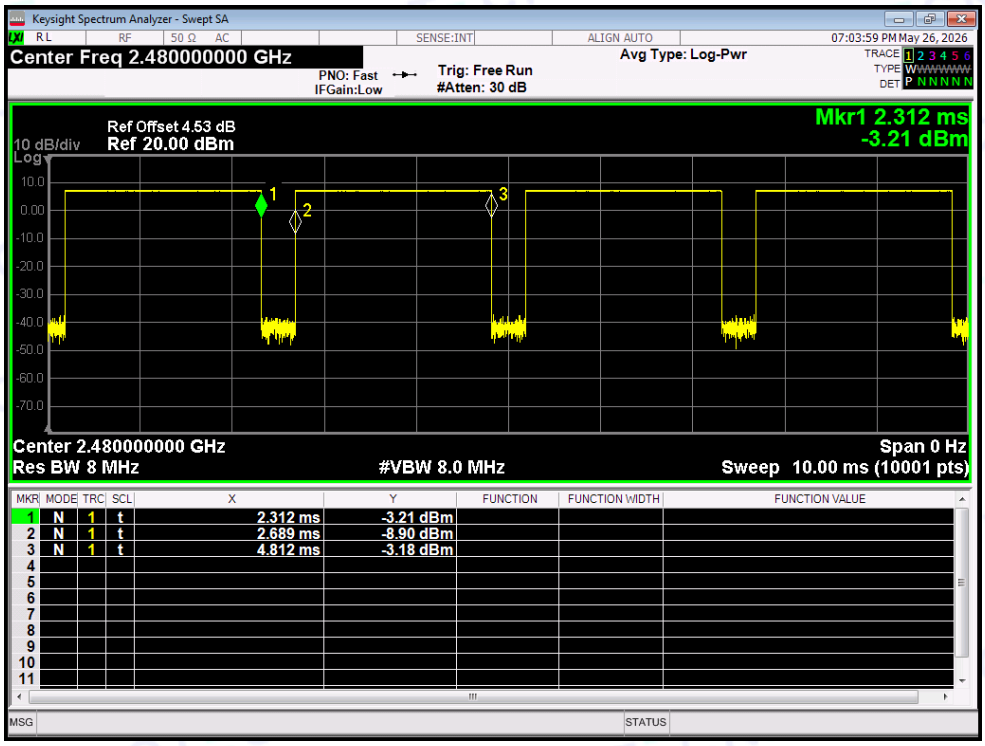
Duty Cycle NVNT BLE 1Mbps 2402MHz Ant1



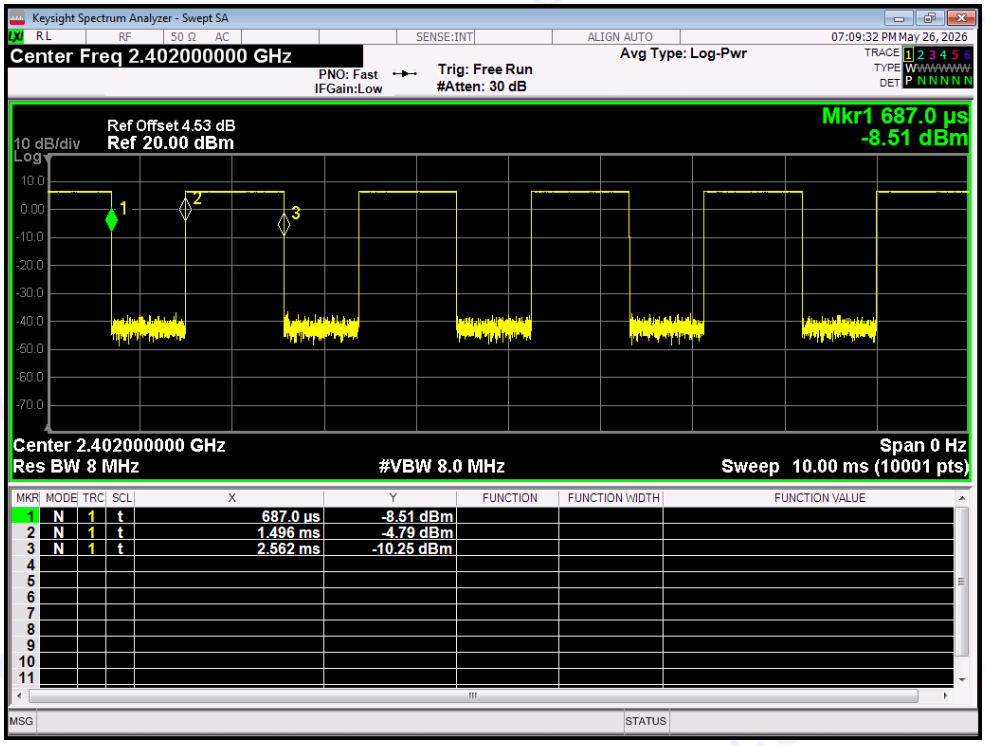
Duty Cycle NVNT BLE 1Mbps 2440MHz Ant1



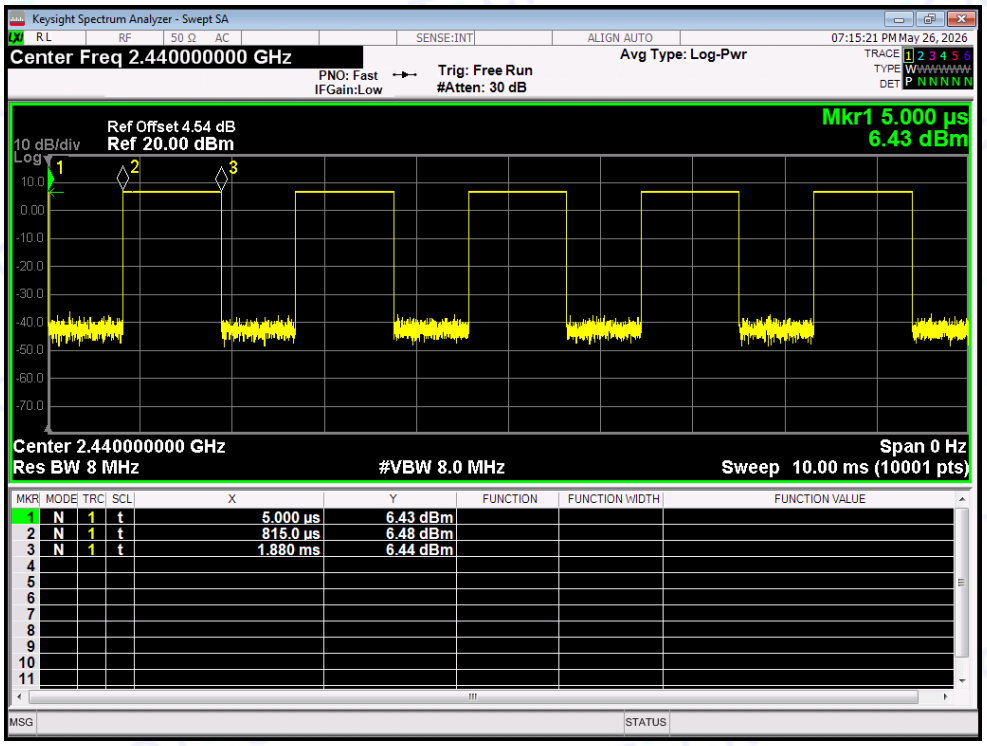
Duty Cycle NVNT BLE 1Mbps 2480MHz Ant1



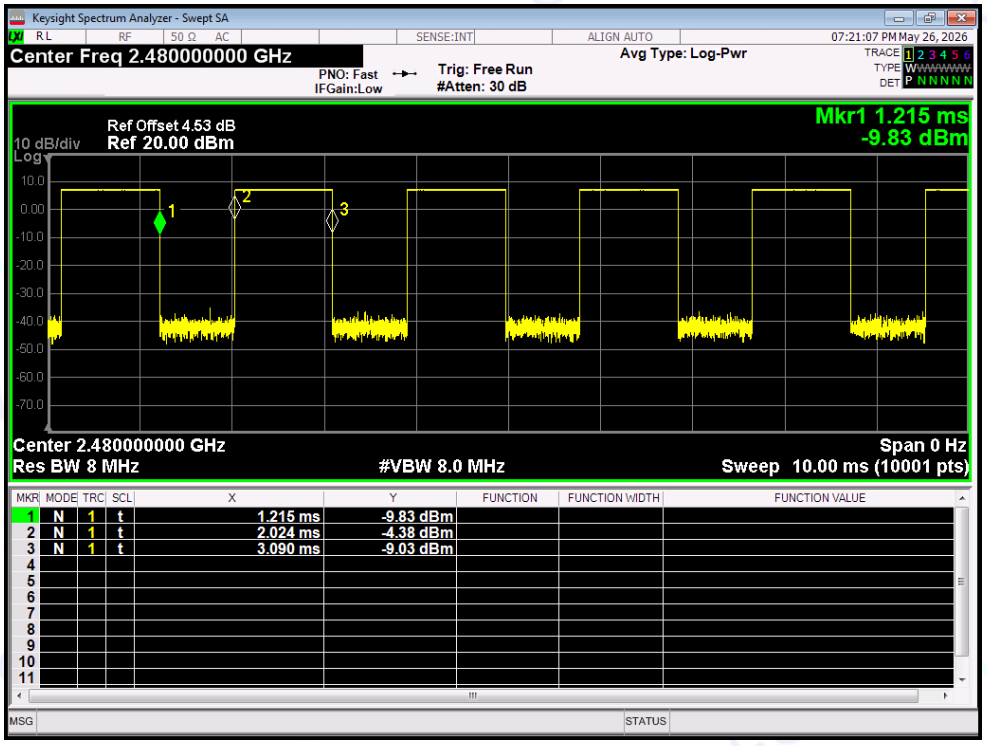
Duty Cycle NVNT BLE 2Mbps 2402MHz Ant1



Duty Cycle NVNT BLE 2Mbps 2440MHz Ant1



Duty Cycle NVNT BLE 2Mbps 2480MHz Ant1

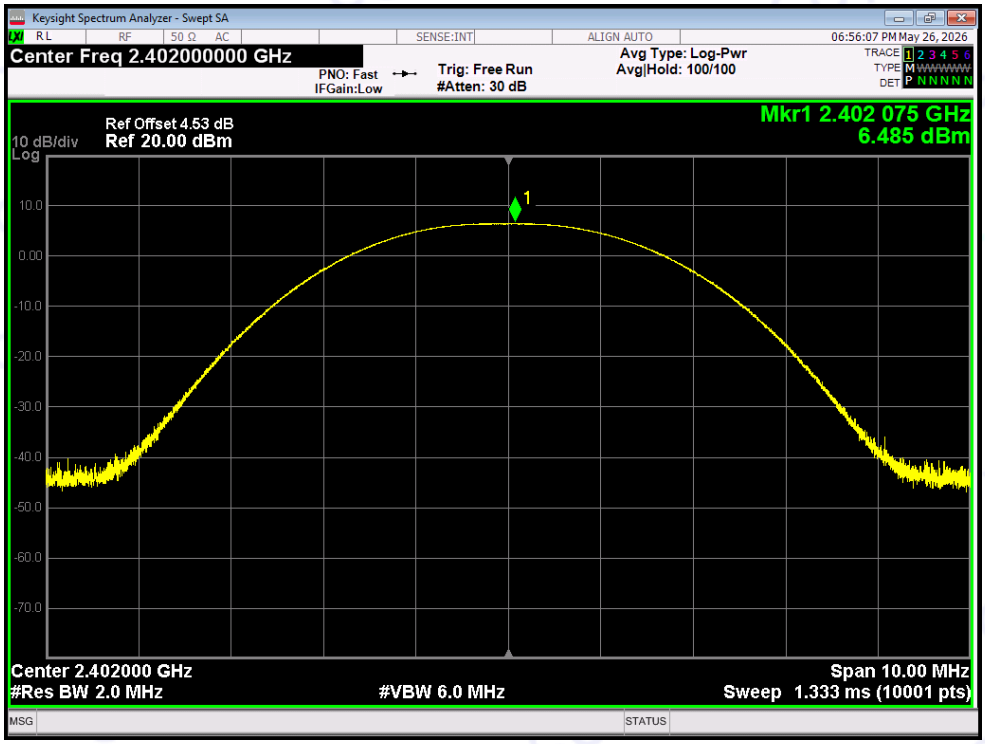


Maximum Conducted Output Power&EIRP

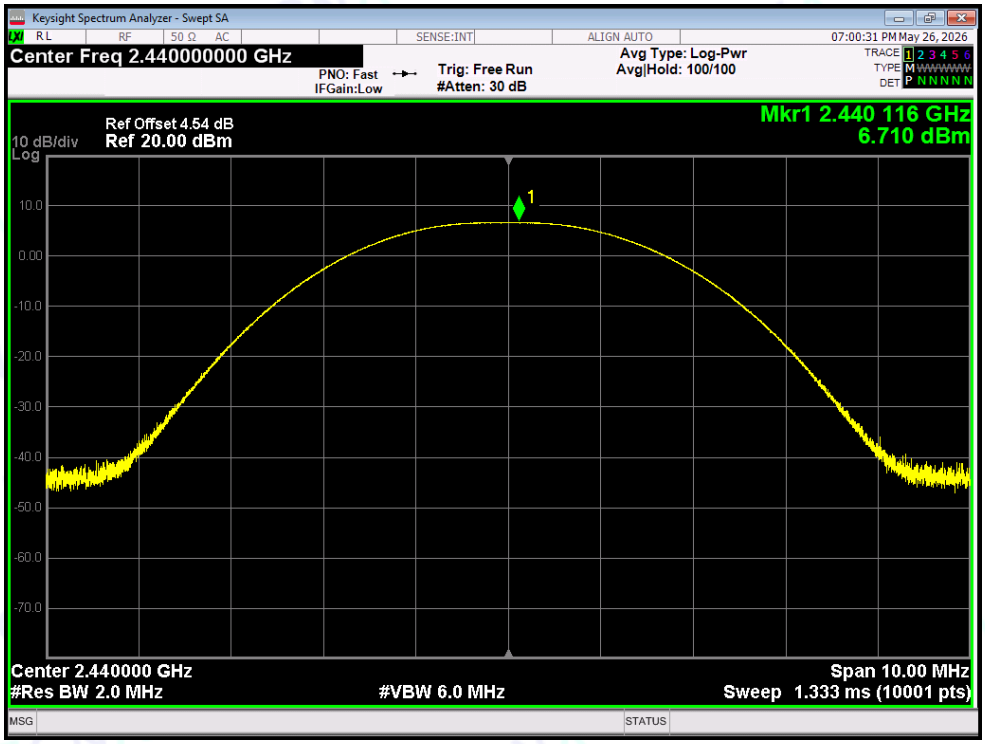
Condition	Mode	Frequency (MHz)	Conducted Power (dBm)	Limit [dBm]	Gain [dBm]	EIRP [dBm]	EIRP Limit[dBm]	Verdict
NVNT	BLE 1Mbps	2402	6.485	≤30	2.65	9.135	≤36	Pass
NVNT	BLE 1Mbps	2440	6.710	≤30	2.65	9.36	≤36	Pass
NVNT	BLE 1Mbps	2480	7.098	≤30	2.65	9.748	≤36	Pass
NVNT	BLE 2Mbps	2402	6.343	≤30	2.65	8.993	≤36	Pass
NVNT	BLE 2Mbps	2440	6.634	≤30	2.65	9.284	≤36	Pass
NVNT	BLE 2Mbps	2480	7.026	≤30	2.65	9.676	≤36	Pass

Test Graphs

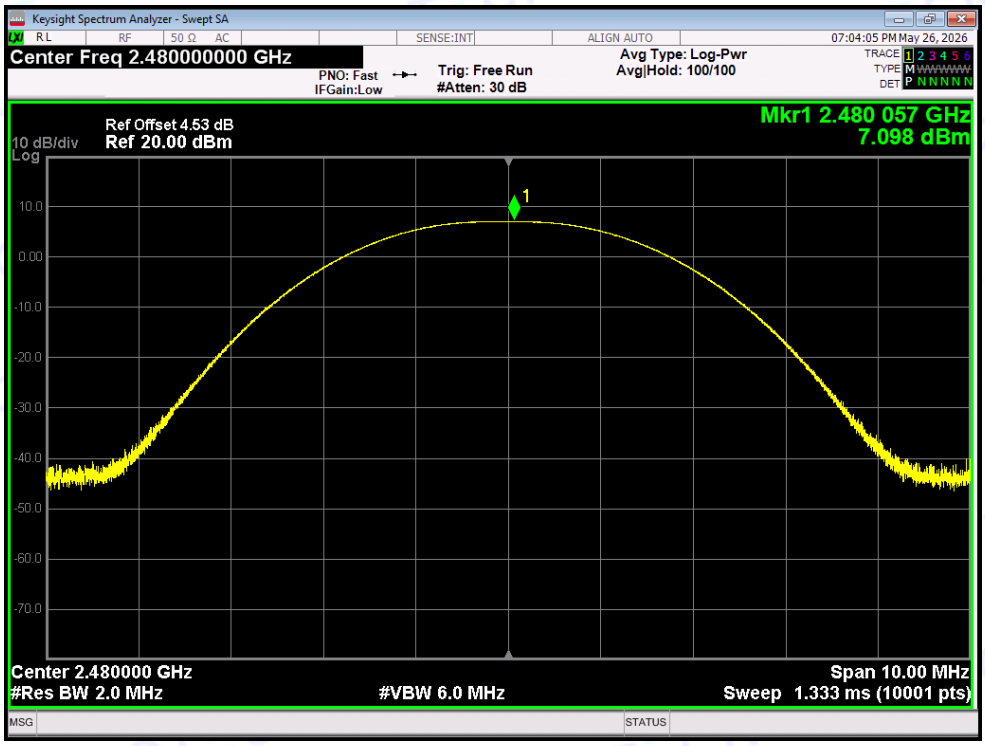
Power NVNT BLE 1Mbps 2402MHz Ant1



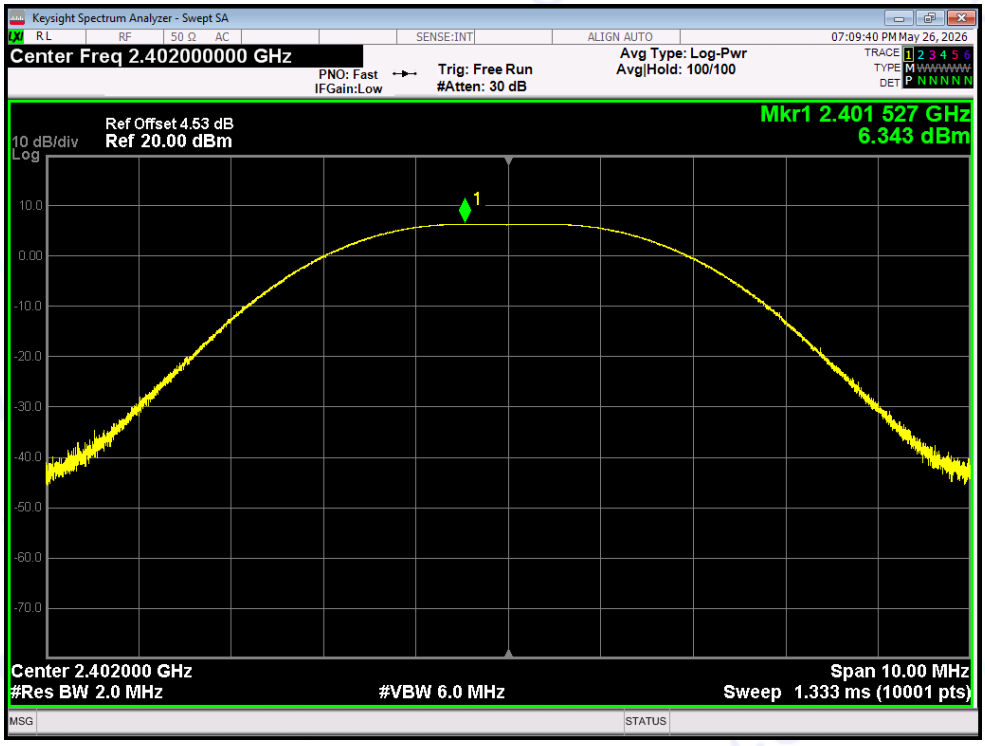
Power NVNT BLE 1Mbps 2440MHz Ant1



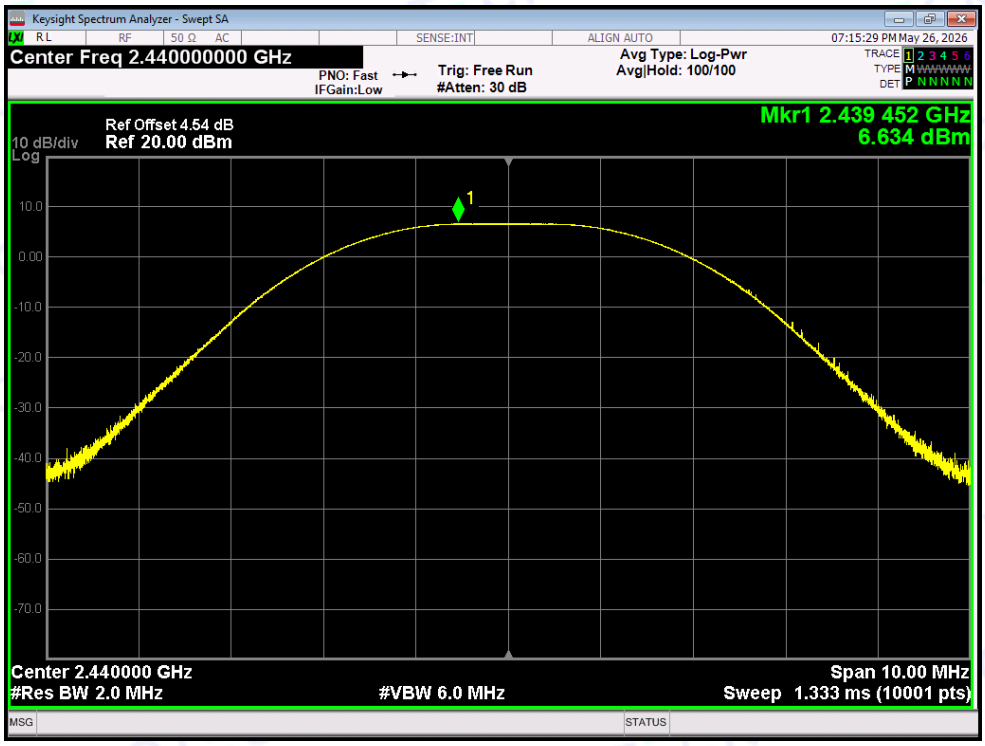
Power NVNT BLE 1Mbps 2480MHz Ant1



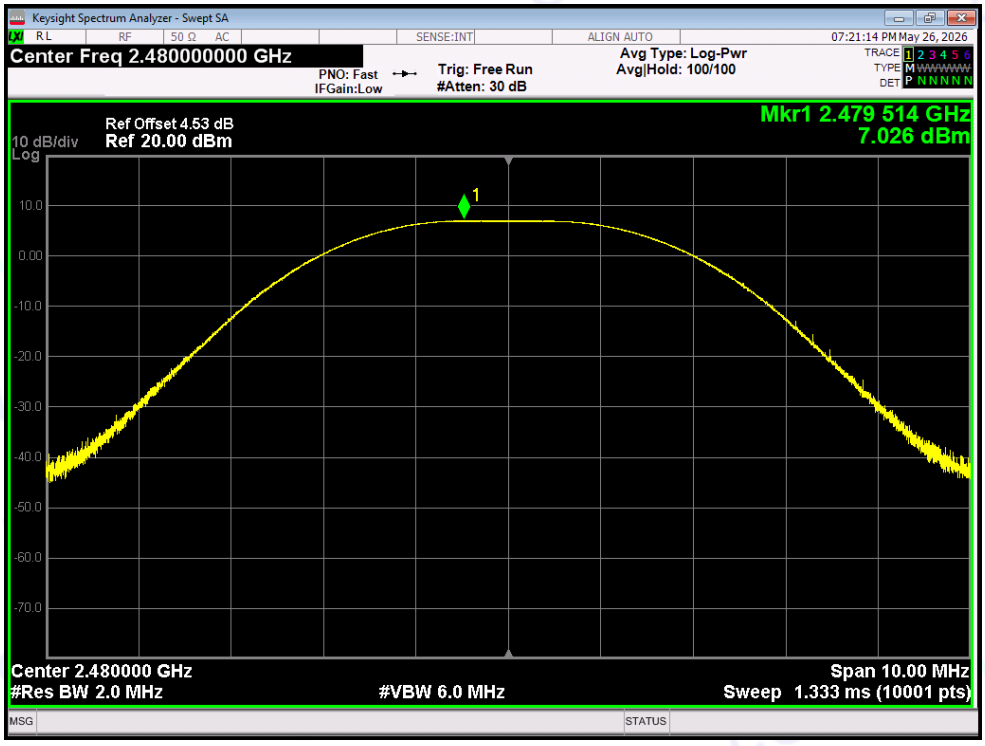
Power NVNT BLE 2Mbps 2402MHz Ant1



Power NVNT BLE 2Mbps 2440MHz Ant1



Power NVNT BLE 2Mbps 2480MHz Ant1

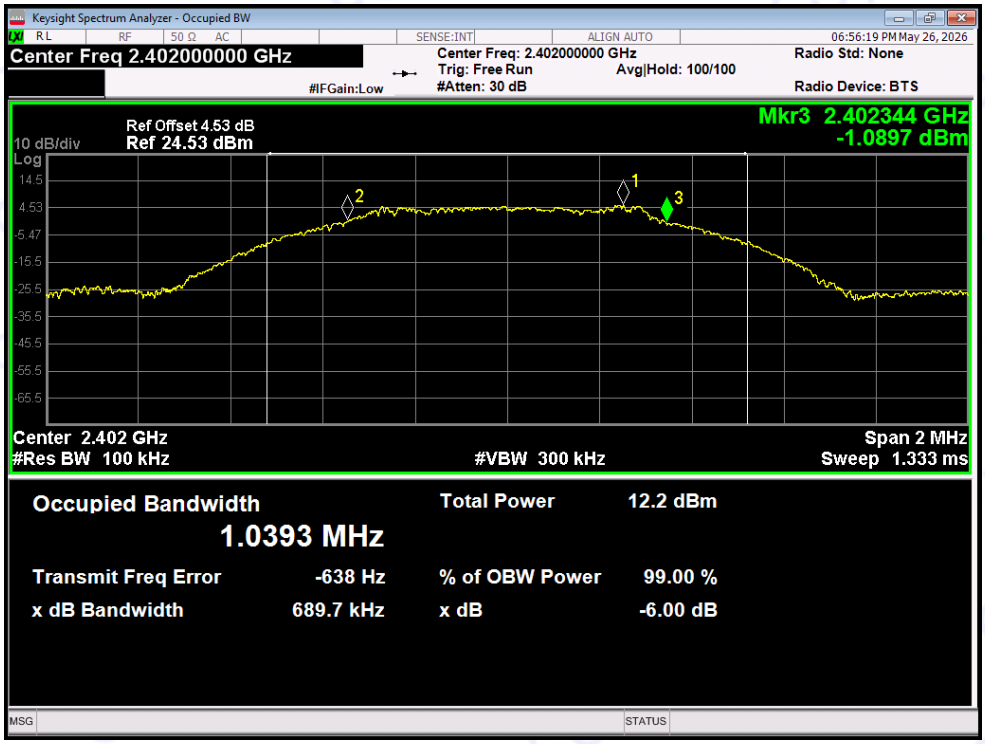


-6dB Bandwidth

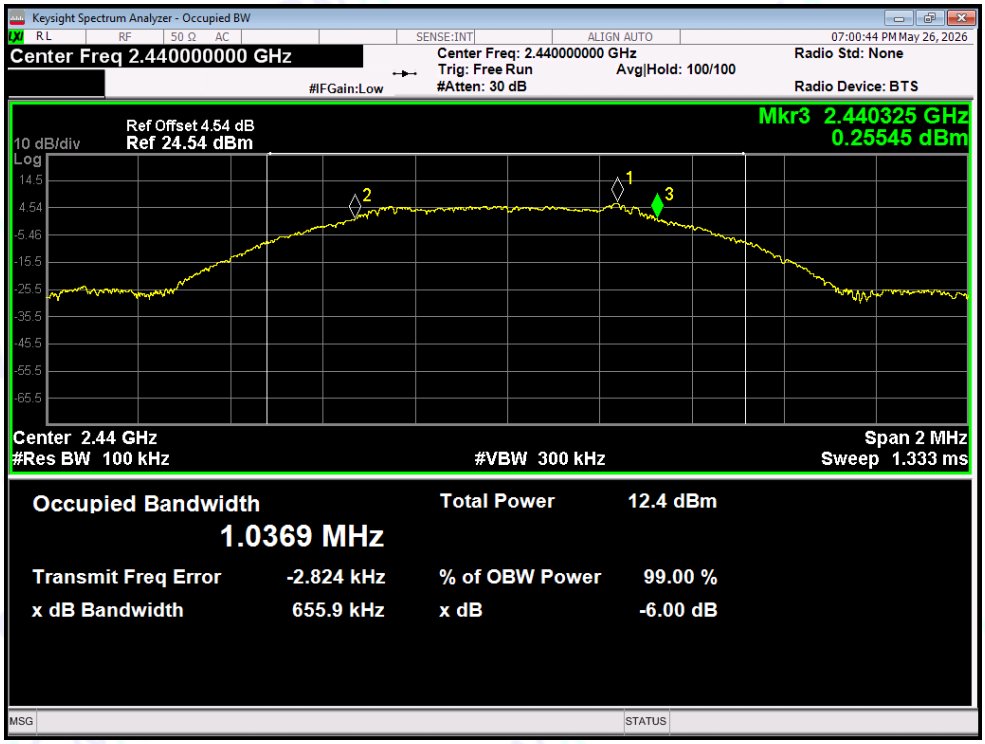
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	0.69	0.5	Pass
NVNT	BLE 1Mbps	2440	Ant1	0.66	0.5	Pass
NVNT	BLE 1Mbps	2480	Ant1	0.67	0.5	Pass
NVNT	BLE 2Mbps	2402	Ant1	1.23	0.5	Pass
NVNT	BLE 2Mbps	2440	Ant1	1.2	0.5	Pass
NVNT	BLE 2Mbps	2480	Ant1	1.24	0.5	Pass

Test Graphs

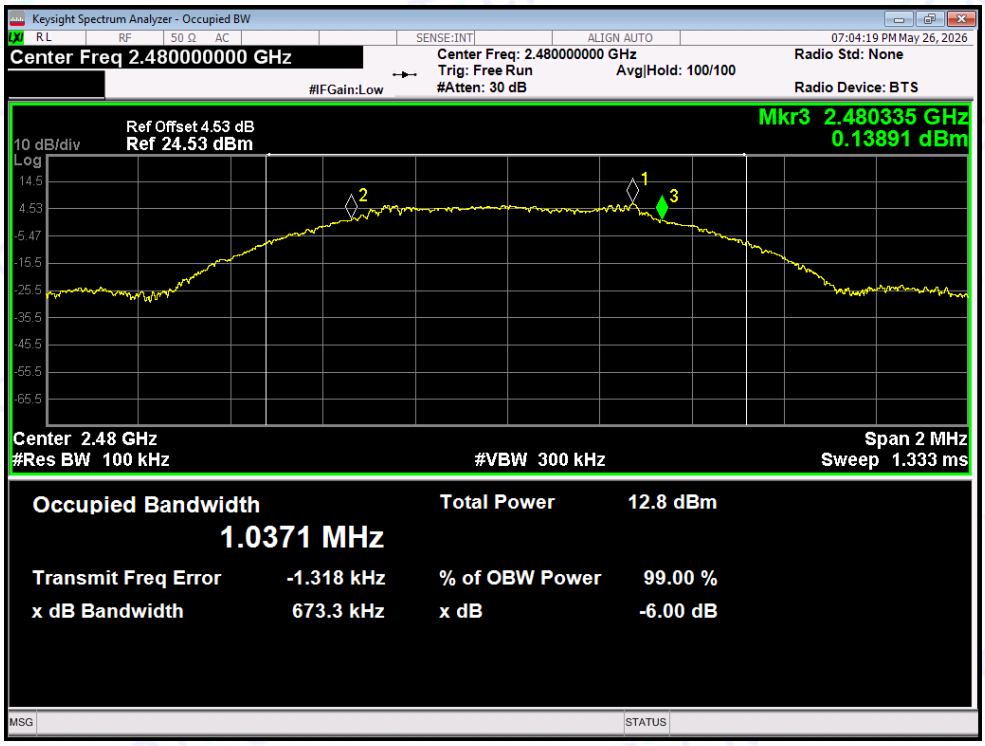
-6dB Bandwidth NVNT BLE 1Mbps 2402MHz Ant1



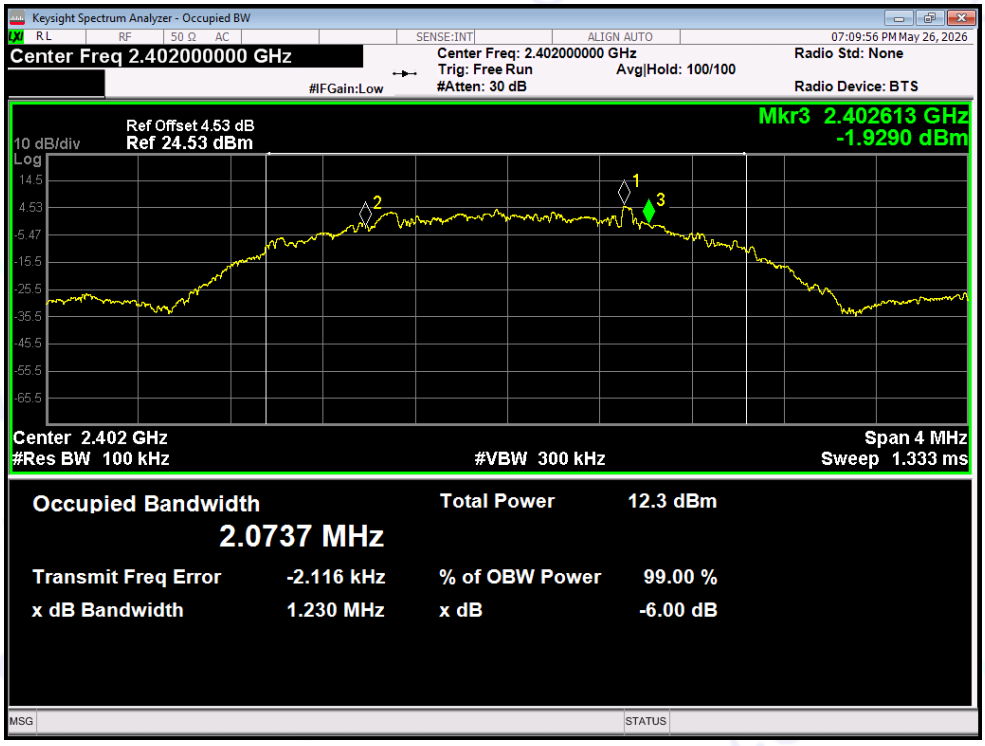
-6dB Bandwidth NVNT BLE 1Mbps 2440MHz Ant1



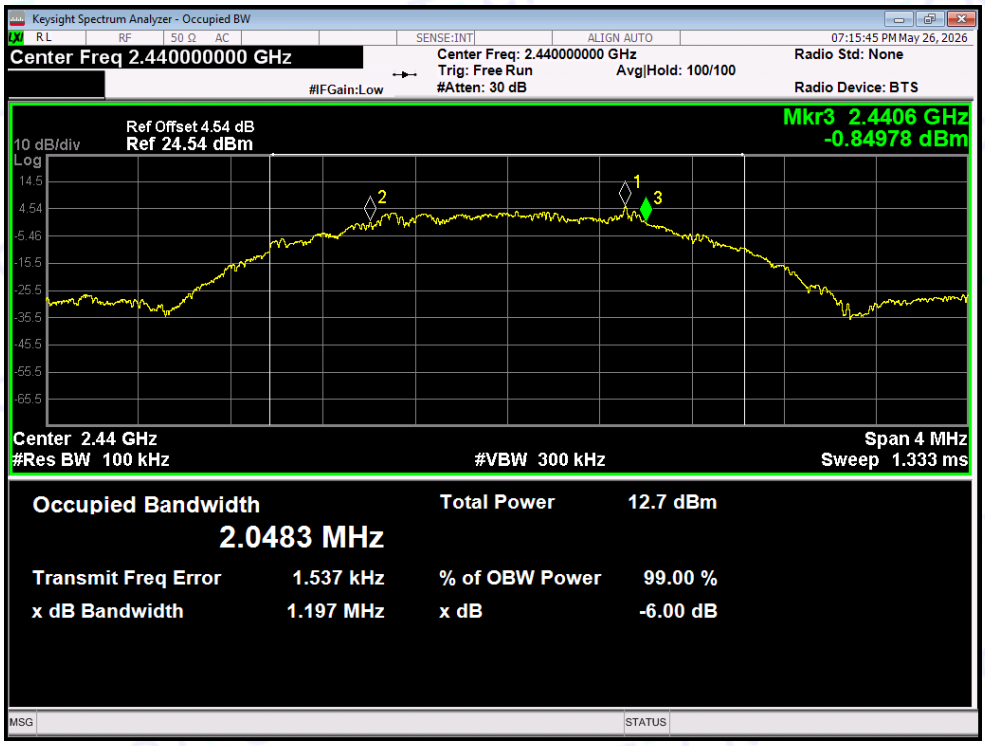
-6dB Bandwidth NVNT BLE 1Mbps 2480MHz Ant1



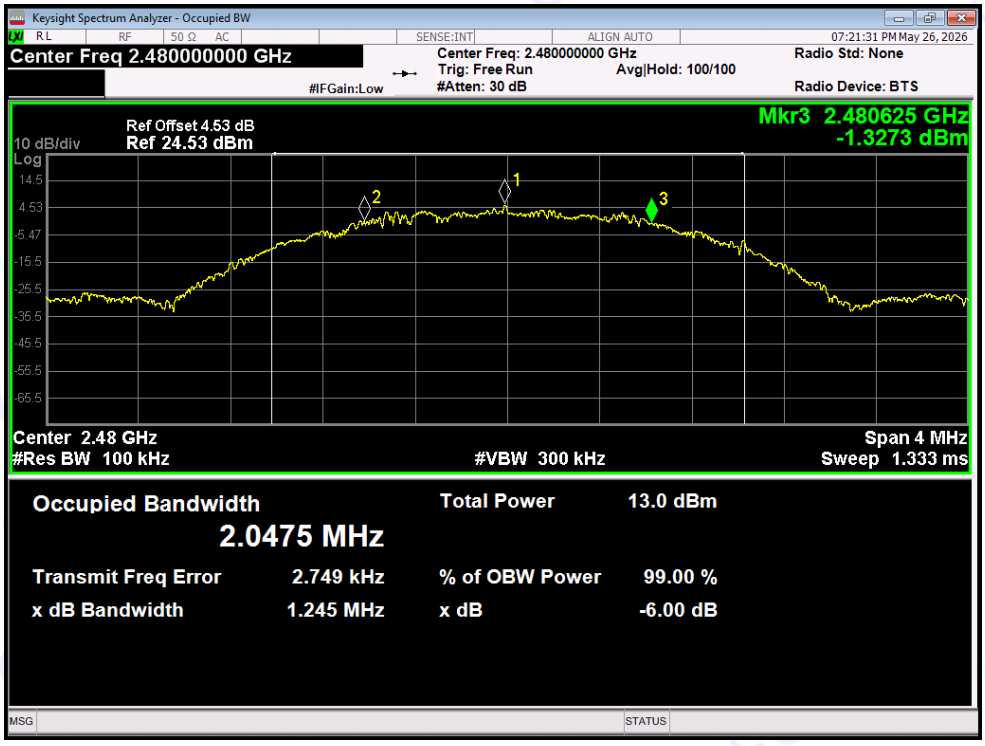
-6dB Bandwidth NVNT BLE 2Mbps 2402MHz Ant1



-6dB Bandwidth NVNT BLE 2Mbps 2440MHz Ant1



-6dB Bandwidth NVNT BLE 2Mbps 2480MHz Ant1

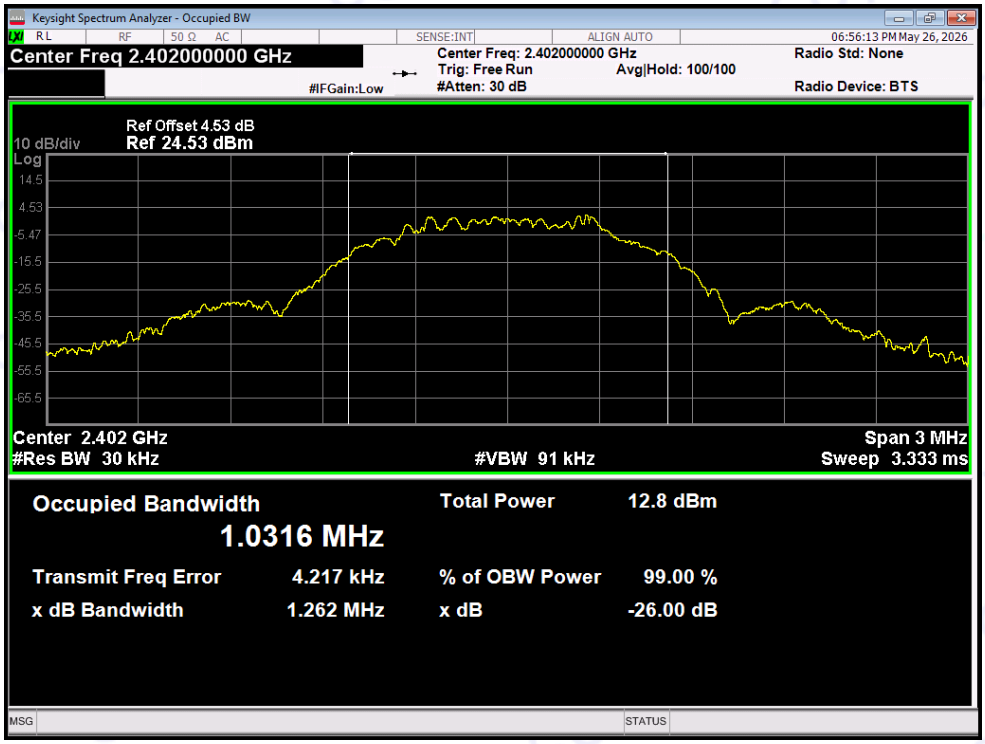


Occupied Channel Bandwidth

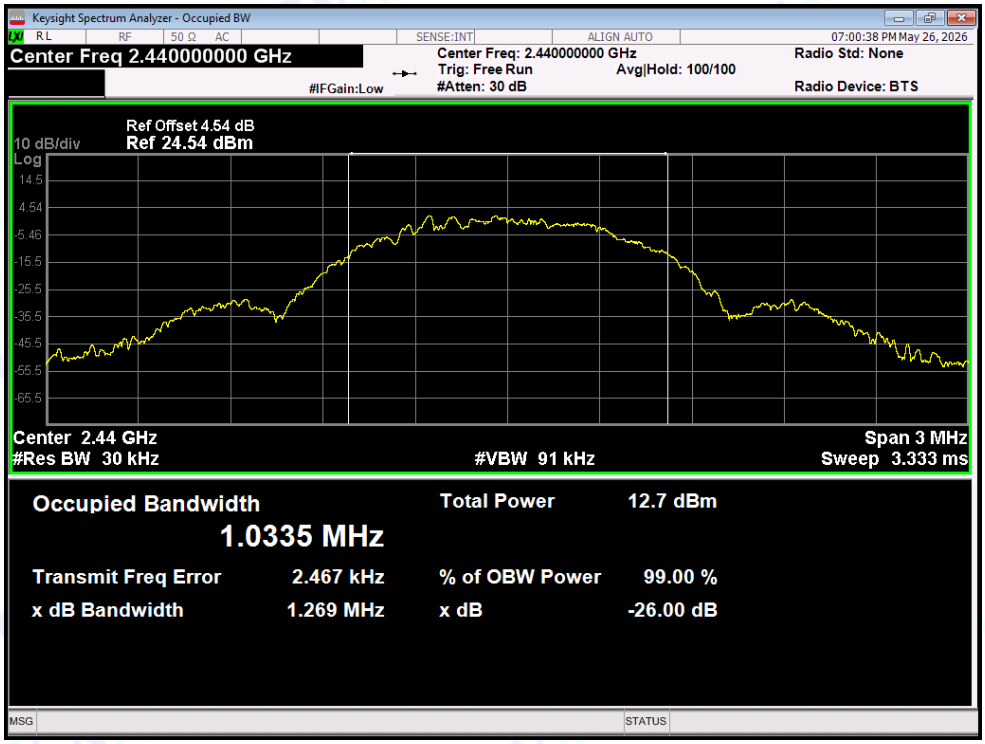
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1Mbps	2402	Ant1	1.032
NVNT	BLE 1Mbps	2440	Ant1	1.033
NVNT	BLE 1Mbps	2480	Ant1	1.032
NVNT	BLE 2Mbps	2402	Ant1	2.065
NVNT	BLE 2Mbps	2440	Ant1	2.057
NVNT	BLE 2Mbps	2480	Ant1	2.053

Test Graphs

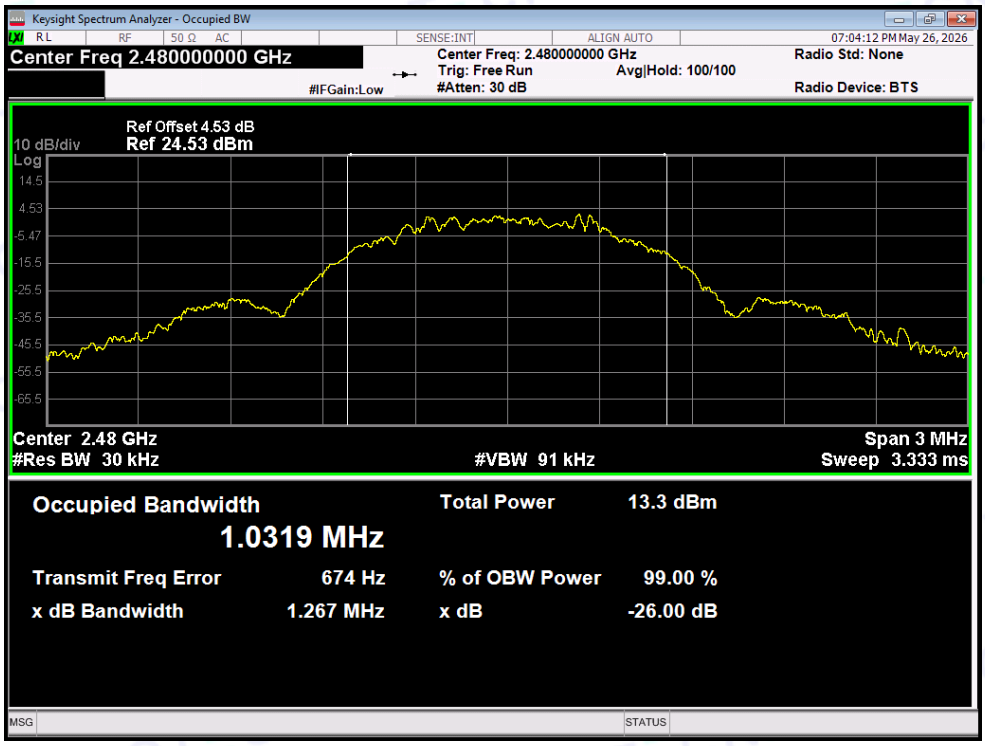
OBW NVNT BLE 1Mbps 2402MHz Ant1



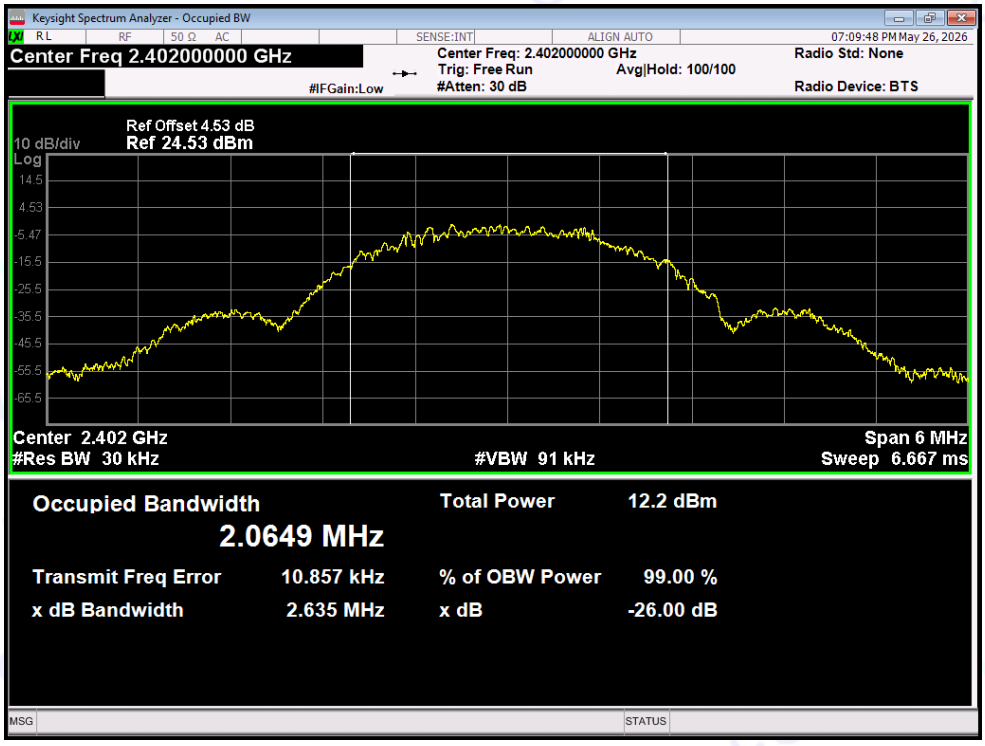
OBW NVNT BLE 1Mbps 2440MHz Ant1



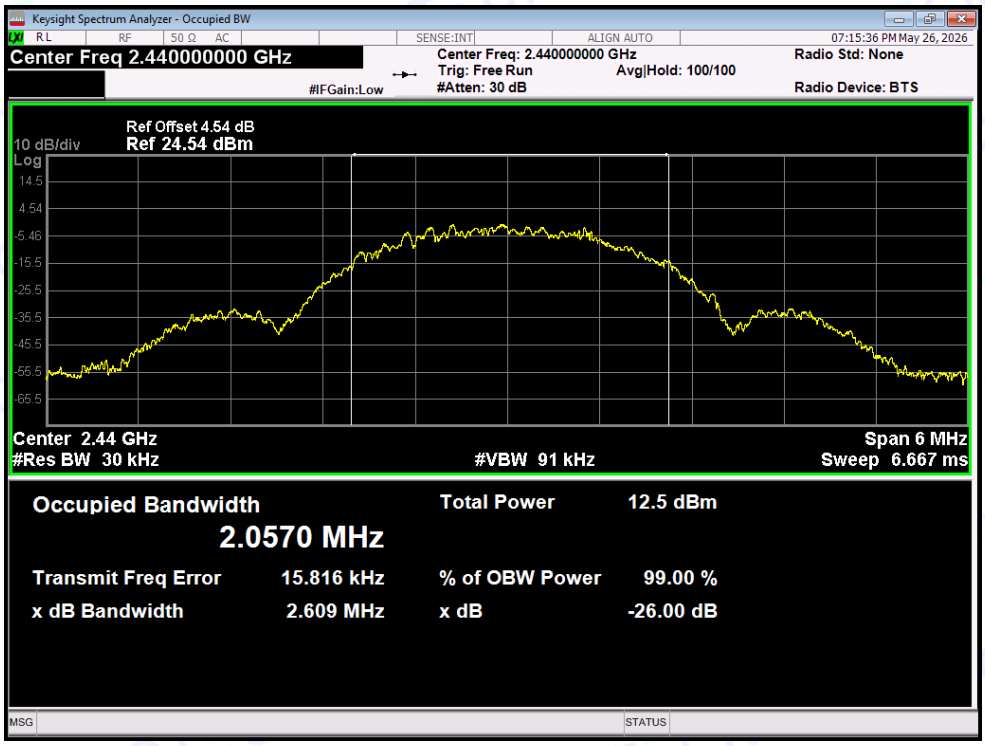
OBW NVNT BLE 1Mbps 2480MHz Ant1



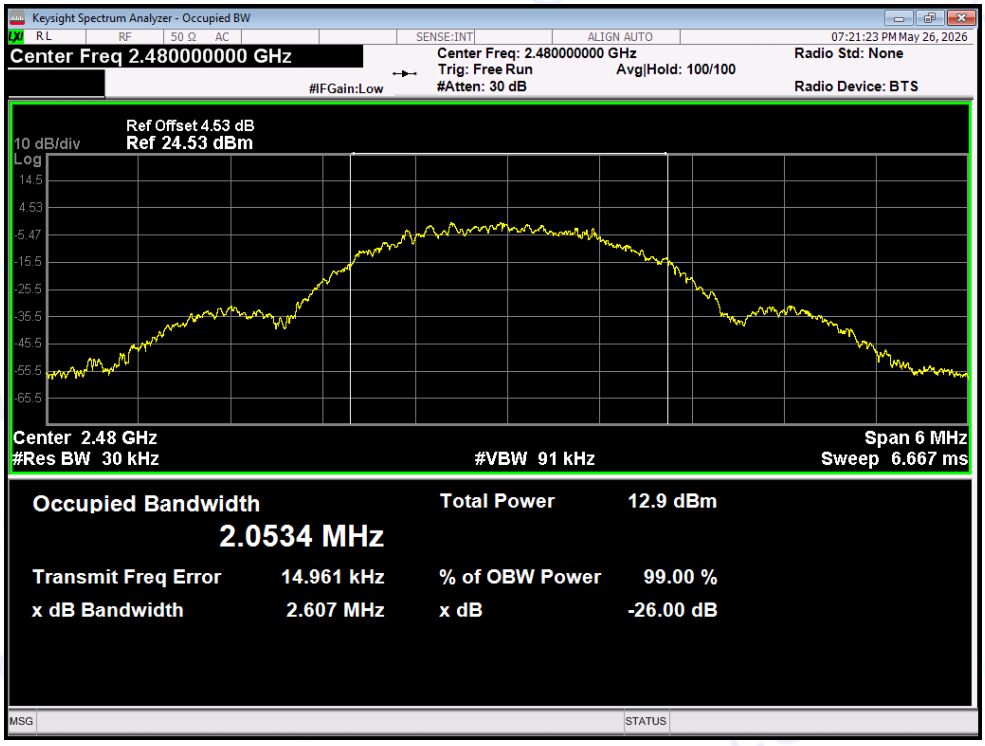
OBW NVNT BLE 2Mbps 2402MHz Ant1



OBW NVNT BLE 2Mbps 2440MHz Ant1



OBW NVNT BLE 2Mbps 2480MHz Ant1

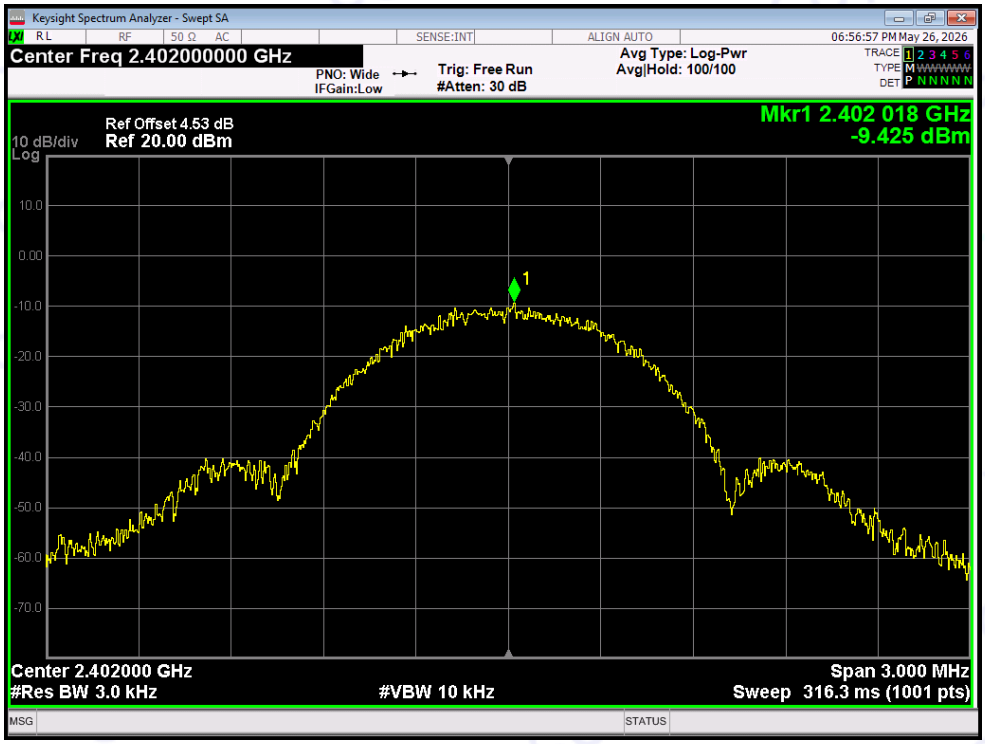


Maximum Power Spectral Density Level

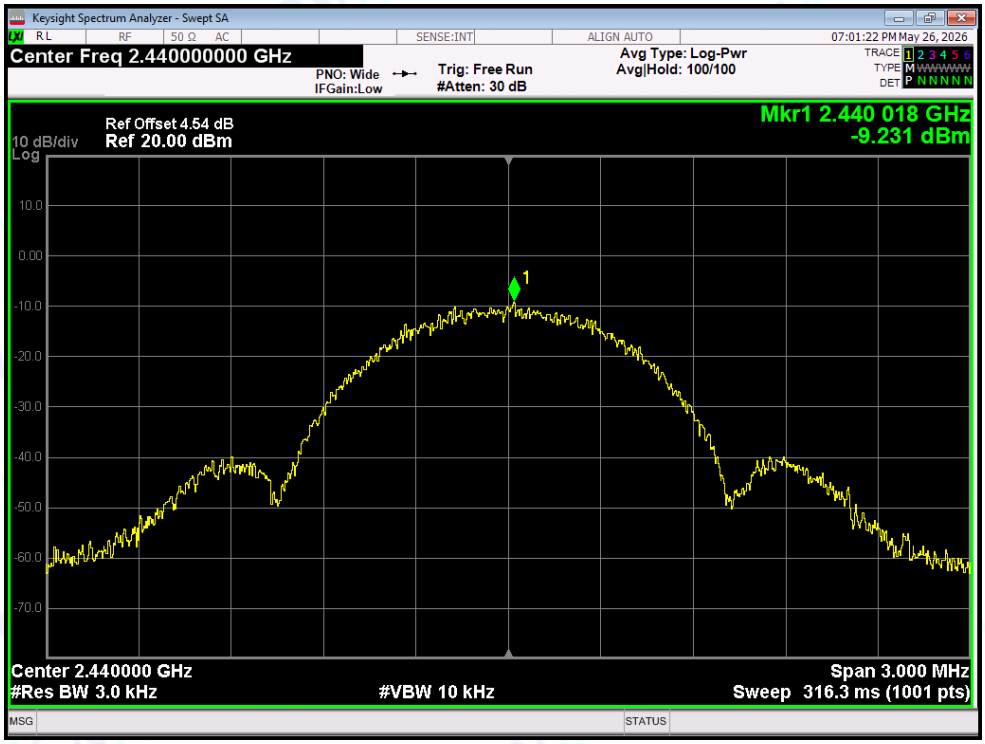
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	-9.425	8	Pass
NVNT	BLE 1Mbps	2440	Ant1	-9.231	8	Pass
NVNT	BLE 1Mbps	2480	Ant1	-8.837	8	Pass
NVNT	BLE 2Mbps	2402	Ant1	-12.918	8	Pass
NVNT	BLE 2Mbps	2440	Ant1	-12.656	8	Pass
NVNT	BLE 2Mbps	2480	Ant1	-12.317	8	Pass

Test Graphs

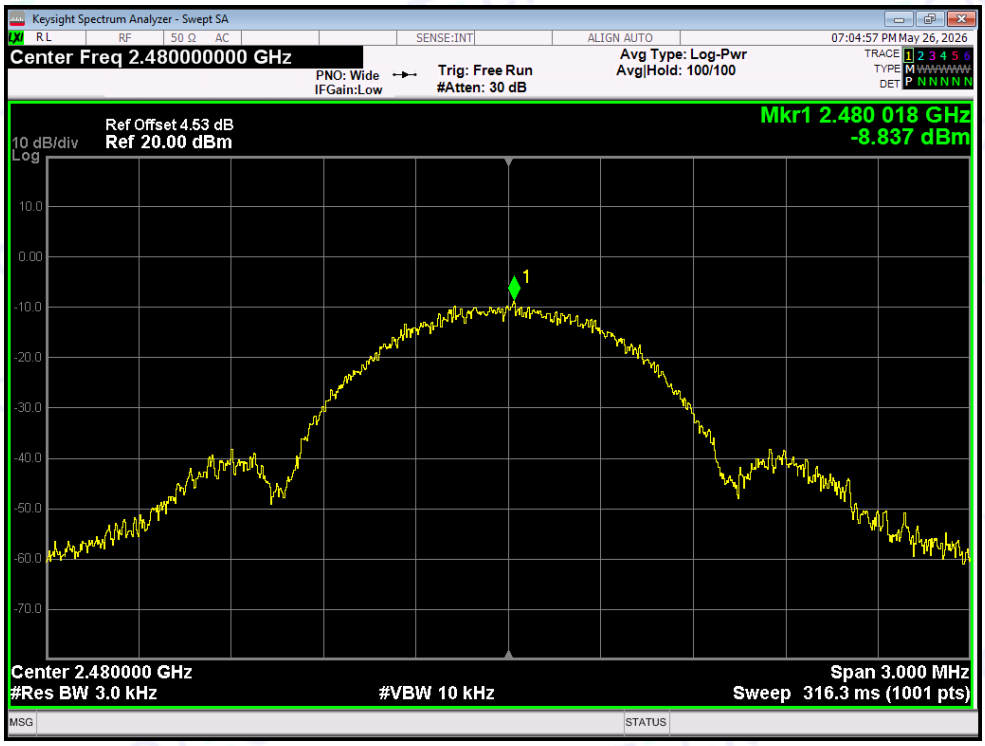
PSD NVNT BLE 1Mbps 2402MHz Ant1



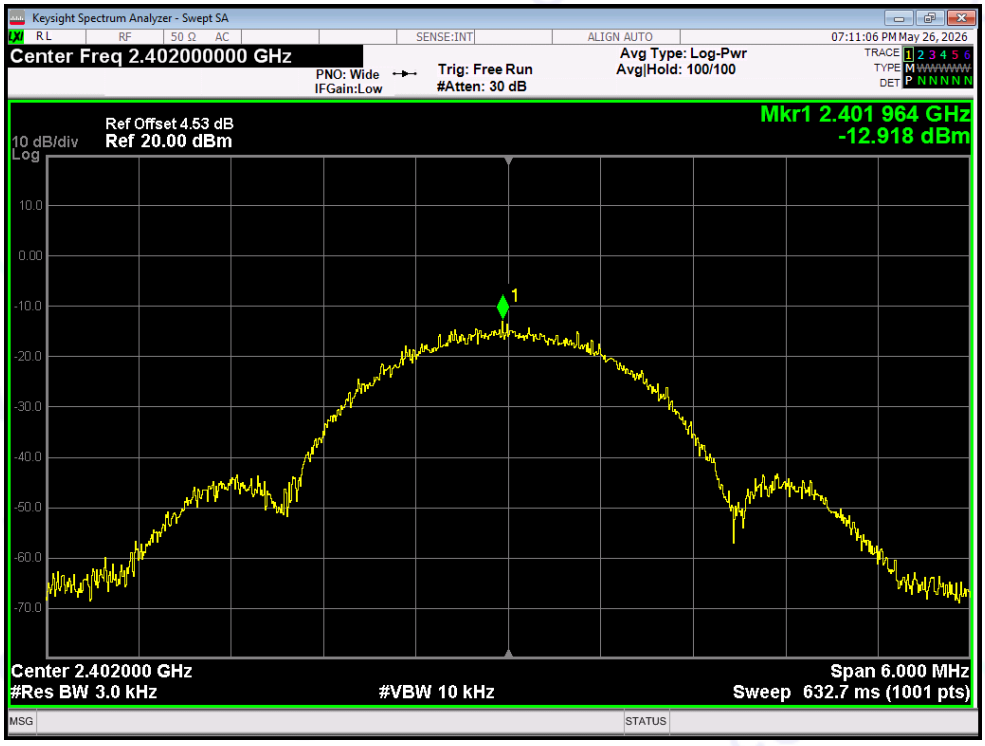
PSD NVNT BLE 1Mbps 2440MHz Ant1



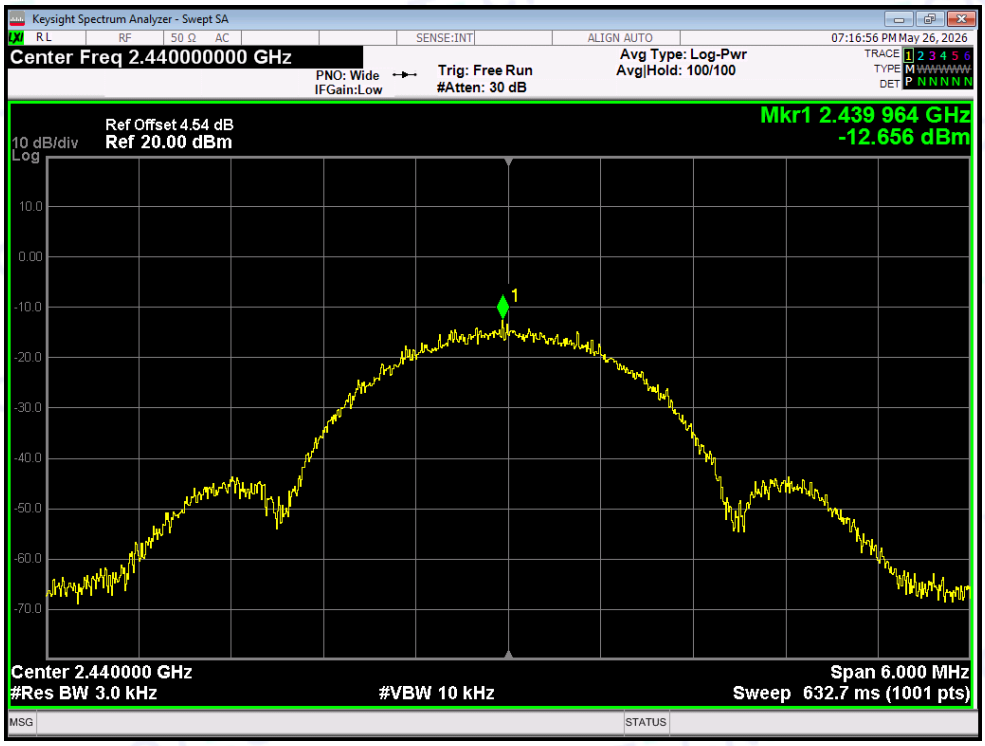
PSD NVNT BLE 1Mbps 2480MHz Ant1



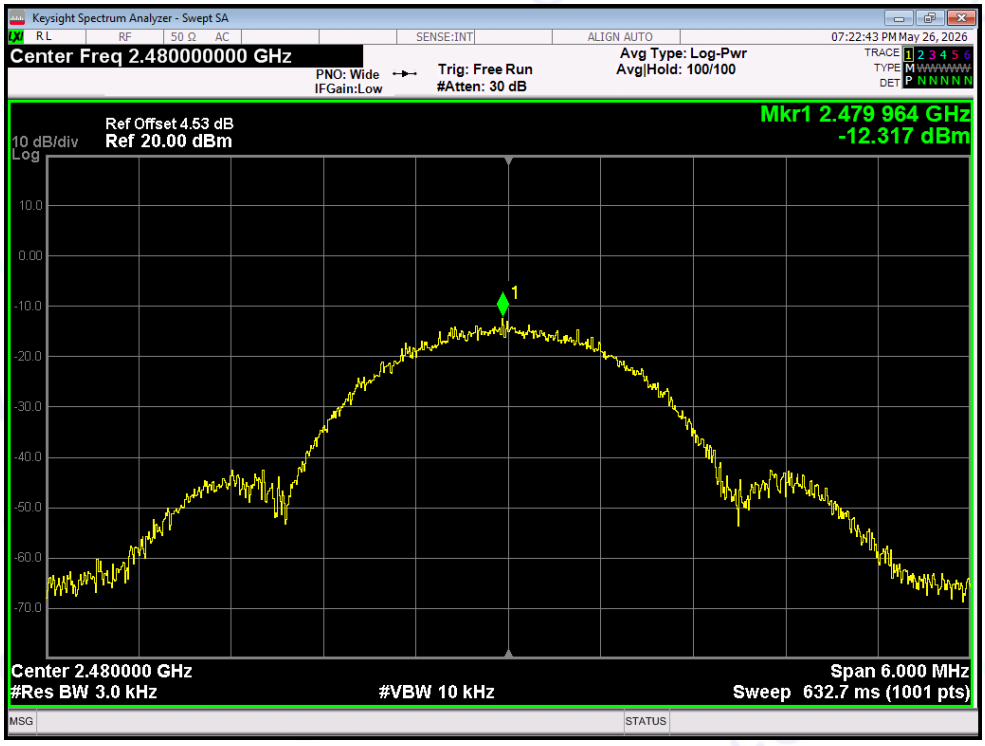
PSD NVNT BLE 2Mbps 2402MHz Ant1



PSD NVNT BLE 2Mbps 2440MHz Ant1



PSD NVNT BLE 2Mbps 2480MHz Ant1

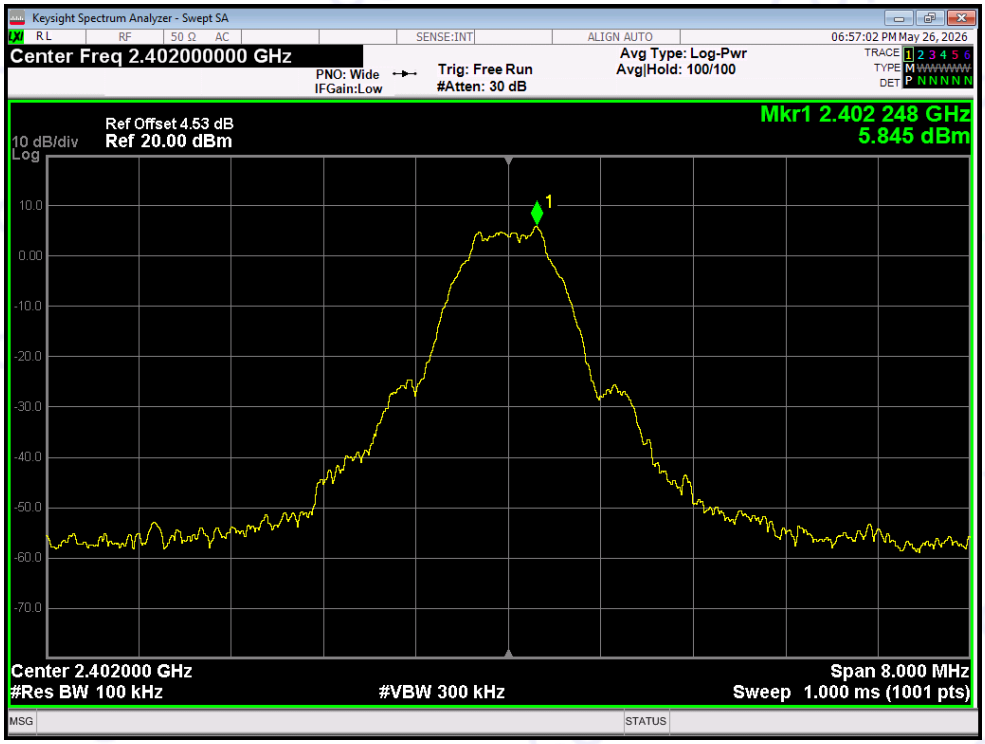


Band Edge

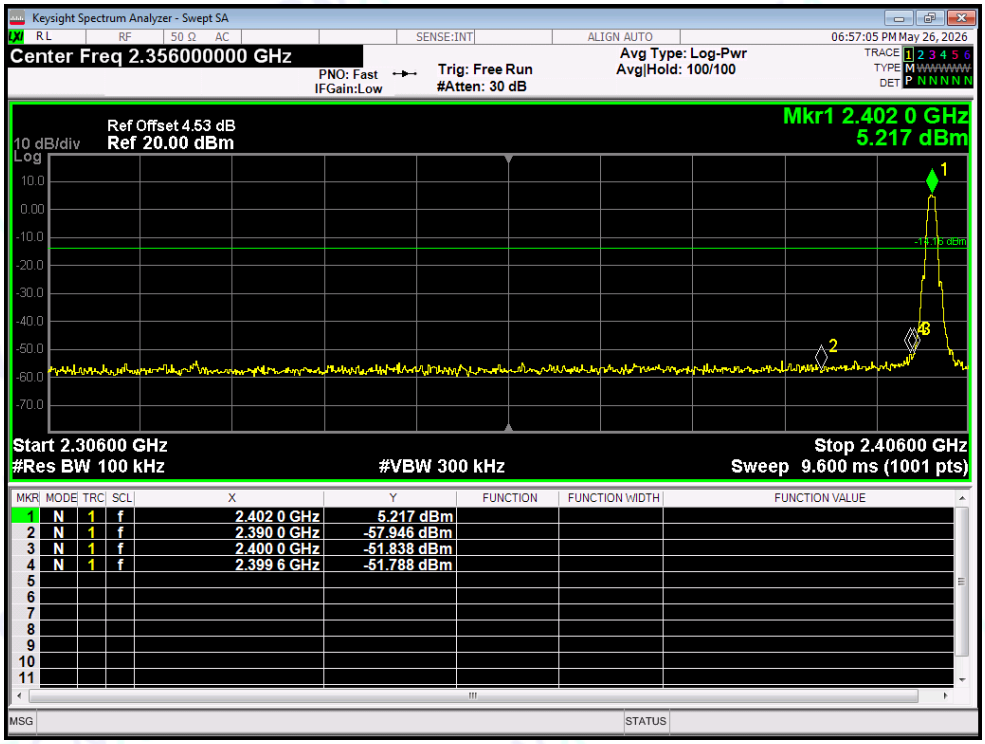
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	-57.64	-20	Pass
NVNT	BLE 1Mbps	2480	Ant1	-59.56	-20	Pass
NVNT	BLE 2Mbps	2402	Ant1	-32.86	-20	Pass
NVNT	BLE 2Mbps	2480	Ant1	-57.66	-20	Pass

Test Graphs

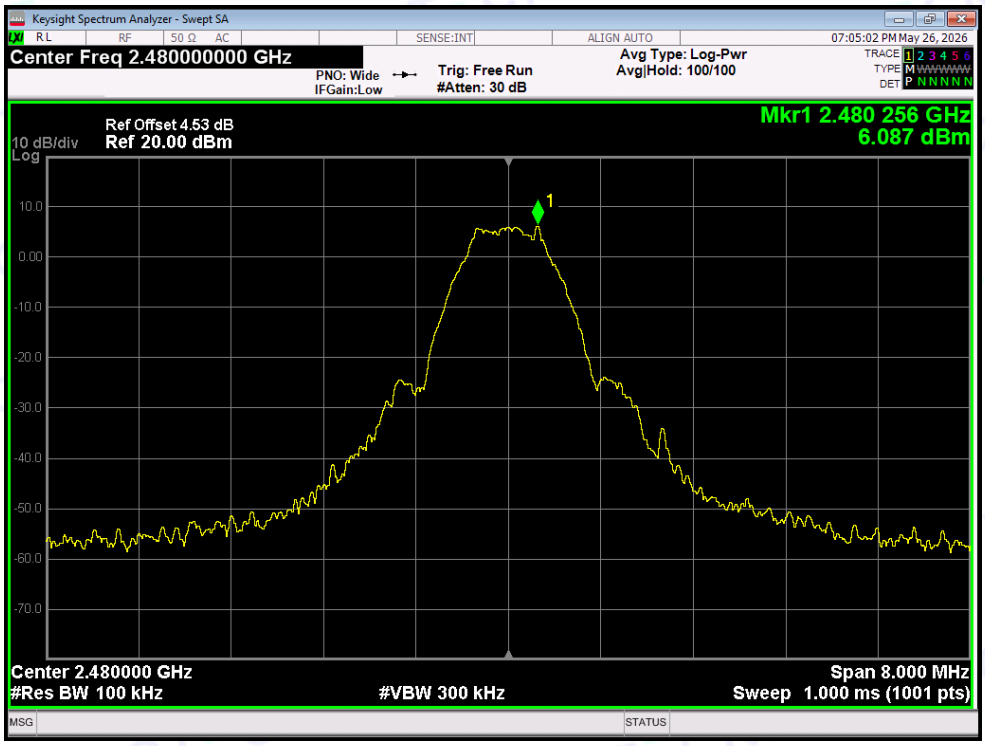
Band Edge NVNT BLE 1Mbps 2402MHz Ant1 Ref



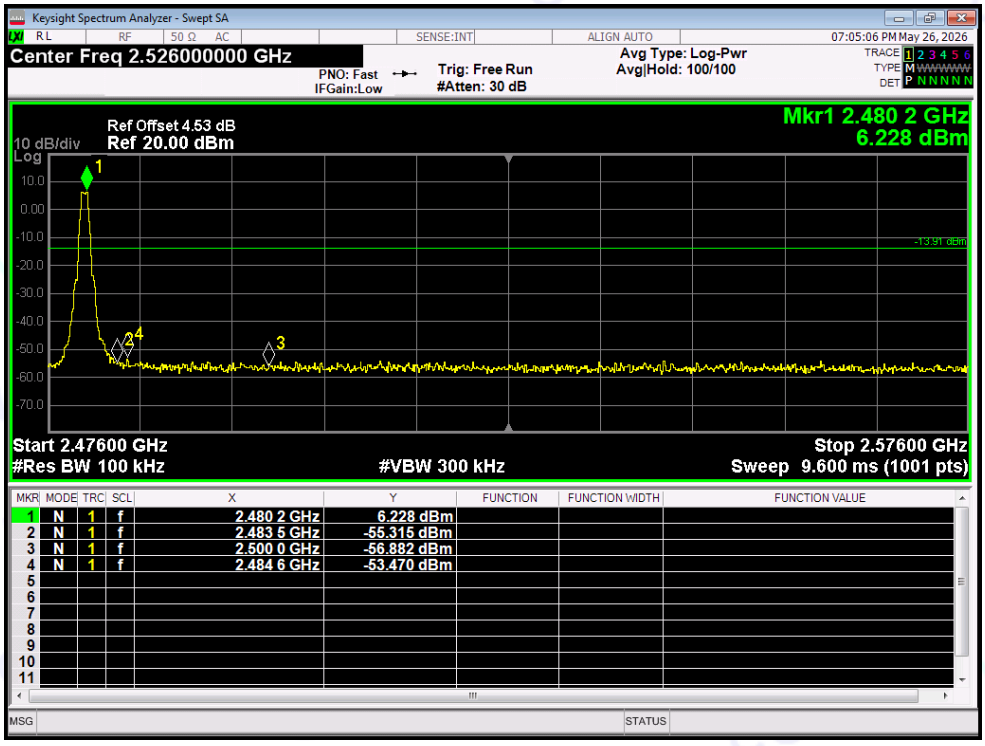
Band Edge NVNT BLE 1Mbps 2402MHz Ant1 Emission



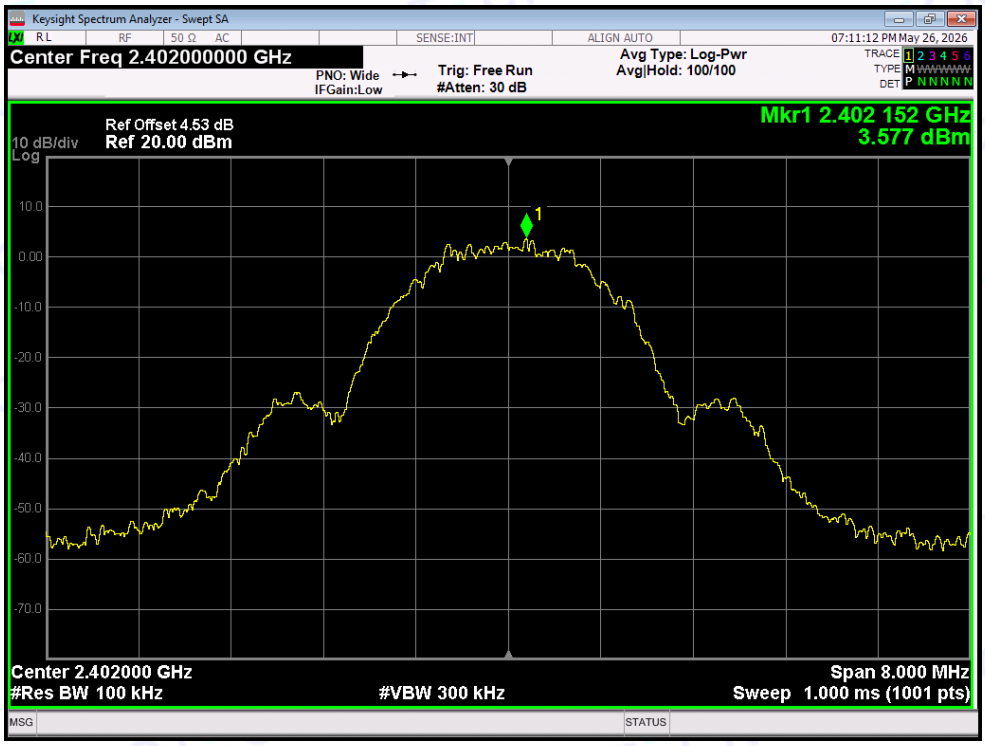
Band Edge NVNT BLE 1Mbps 2480MHz Ant1 Ref



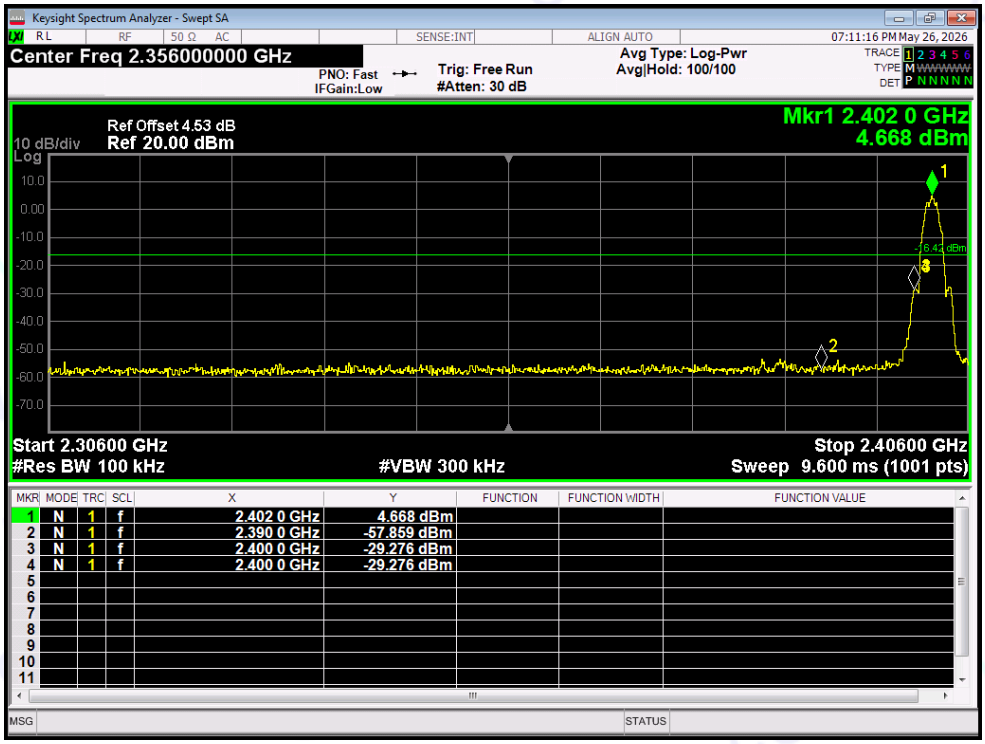
Band Edge NVNT BLE 1Mbps 2480MHz Ant1 Emission



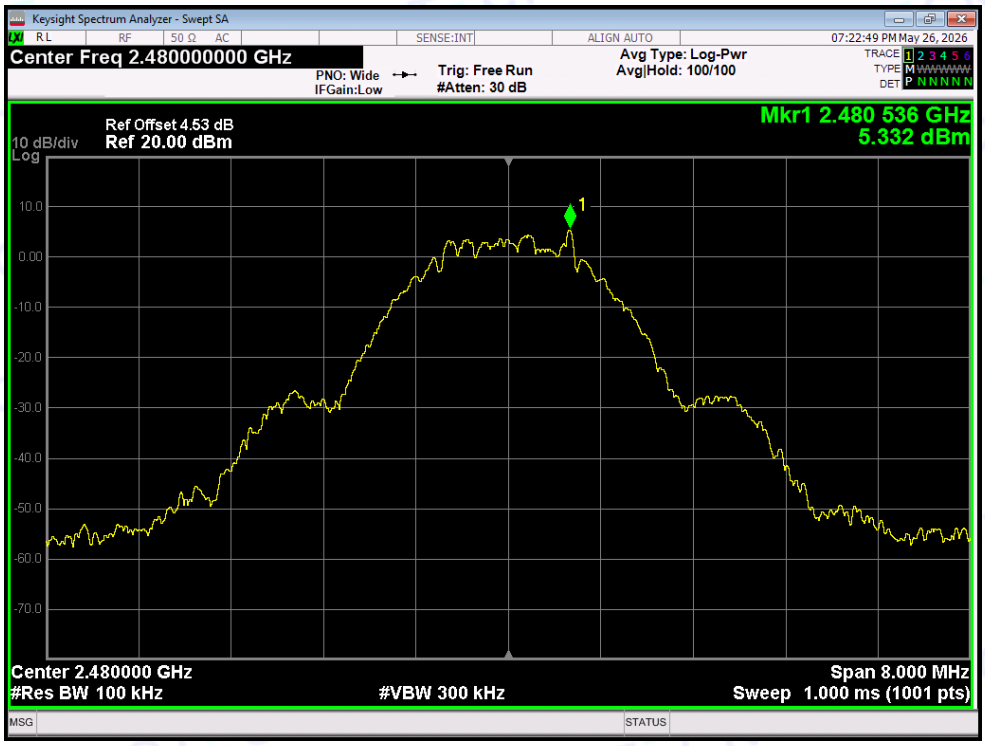
Band Edge NVNT BLE 2Mbps 2402MHz Ant1 Ref



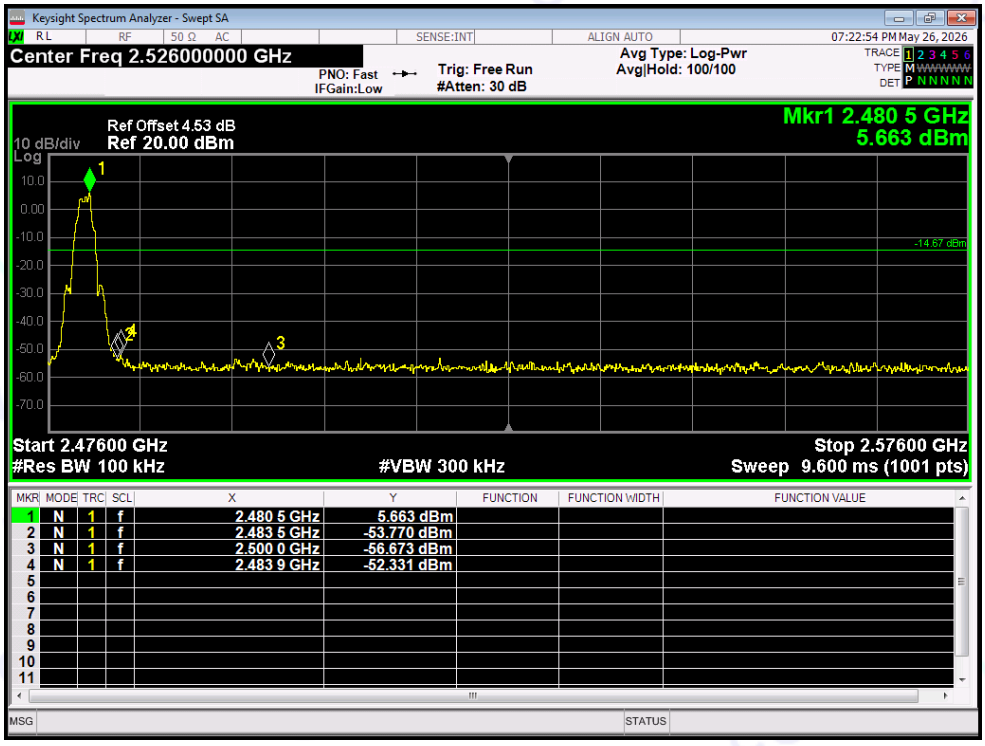
Band Edge NVNT BLE 2Mbps 2402MHz Ant1 Emission



Band Edge NVNT BLE 2Mbps 2480MHz Ant1 Ref



Band Edge NVNT BLE 2Mbps 2480MHz Ant1 Emission

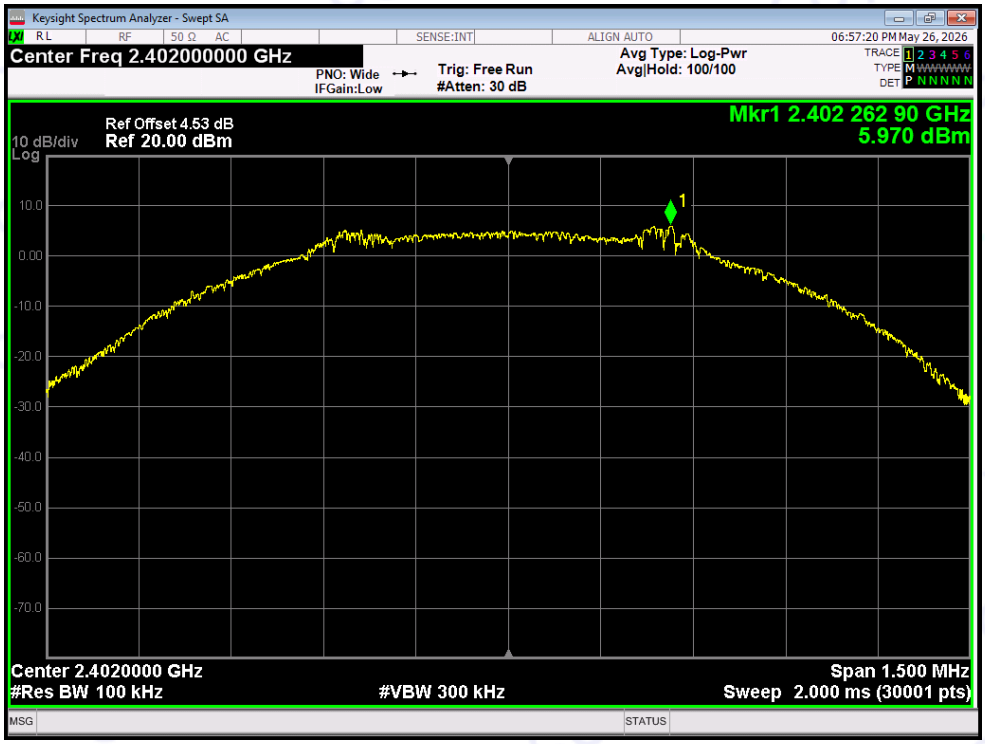


Conducted RF Spurious Emission

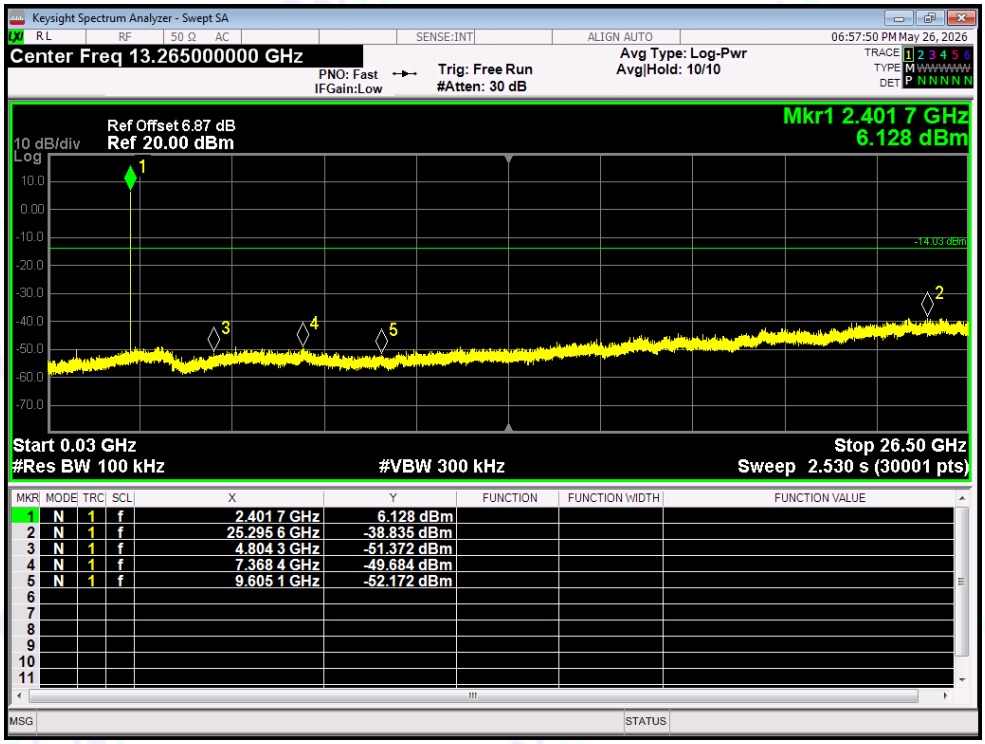
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	-44.8	-20	Pass
NVNT	BLE 1Mbps	2440	Ant1	-45.88	-20	Pass
NVNT	BLE 1Mbps	2480	Ant1	-45.75	-20	Pass
NVNT	BLE 2Mbps	2402	Ant1	-43.99	-20	Pass
NVNT	BLE 2Mbps	2440	Ant1	-43.81	-20	Pass
NVNT	BLE 2Mbps	2480	Ant1	-43.92	-20	Pass

Test Graphs

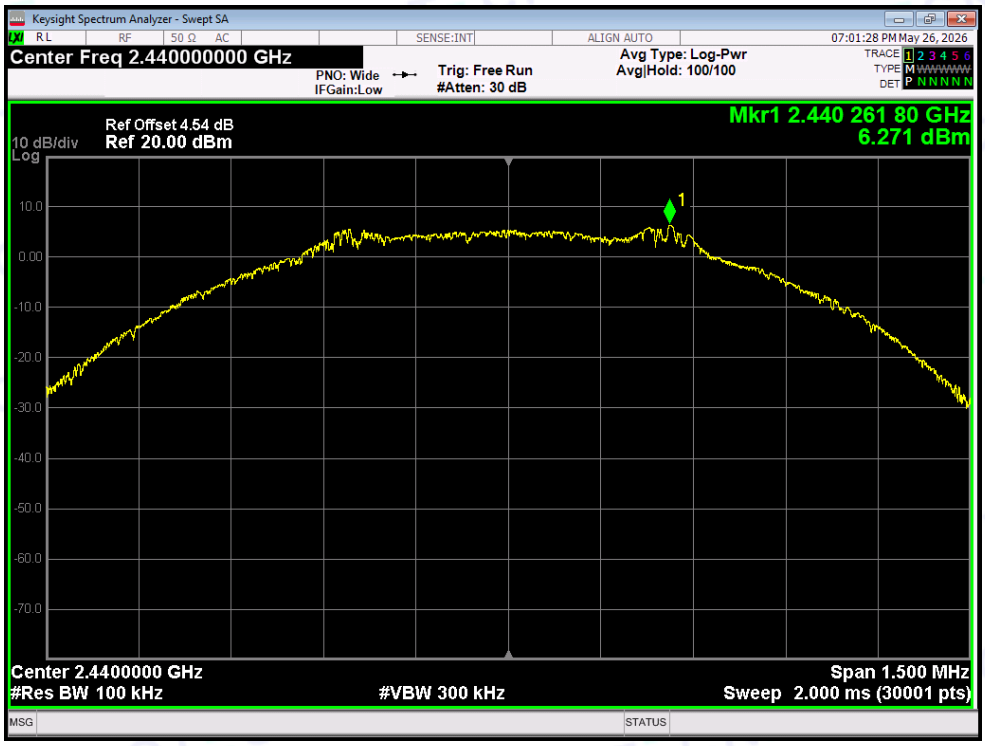
Tx. Spurious NVNT BLE 1Mbps 2402MHz Ant1 Ref



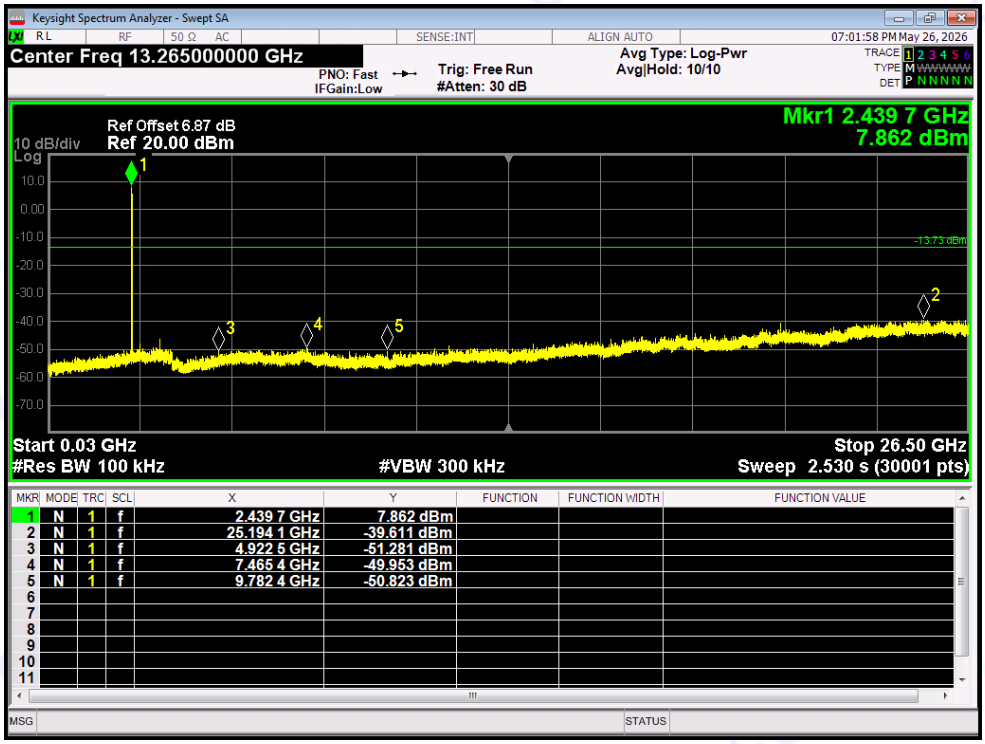
Tx. Spurious NVNT BLE 1Mbps 2402MHz Ant1 Emission



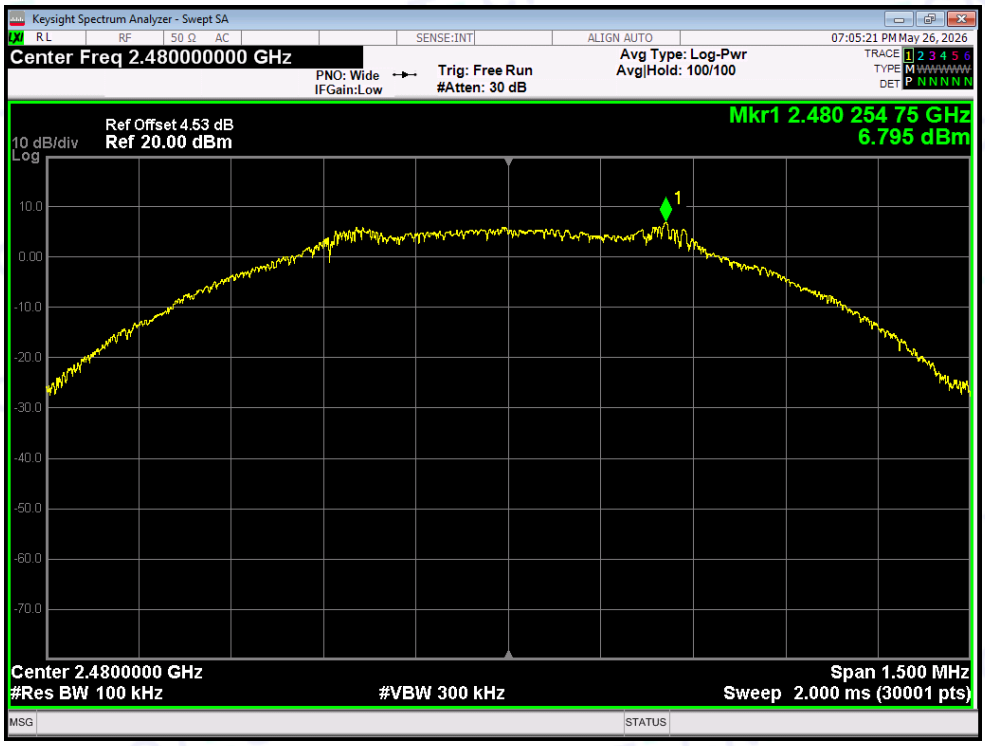
Tx. Spurious NVNT BLE 1Mbps 2440MHz Ant1 Ref



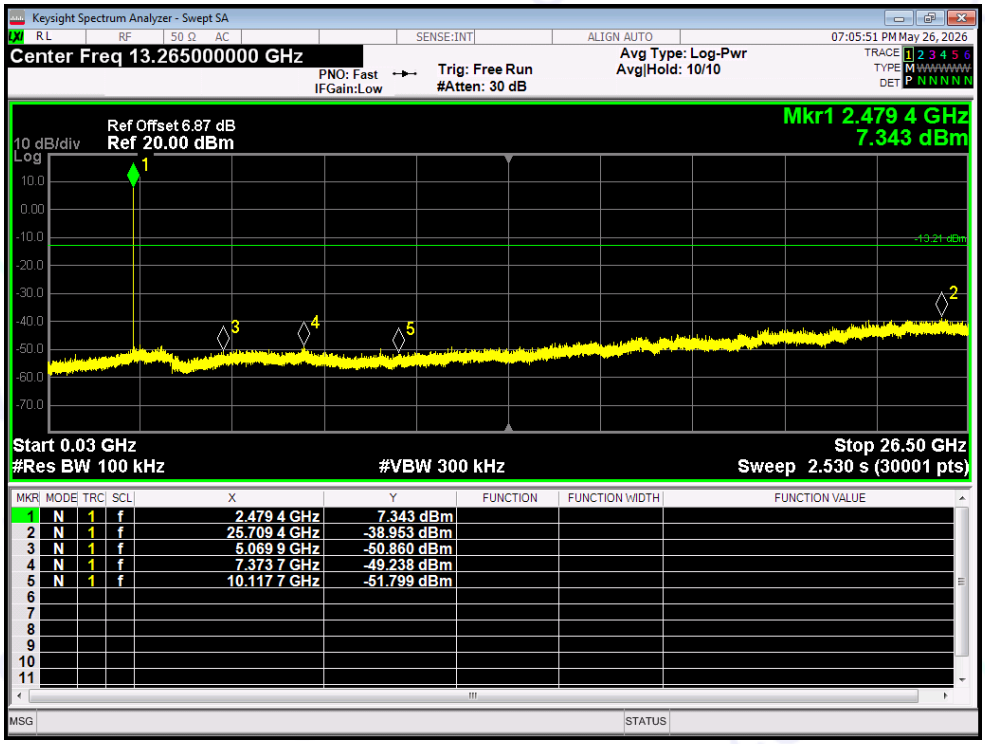
Tx. Spurious NVNT BLE 1Mbps 2440MHz Ant1 Emission



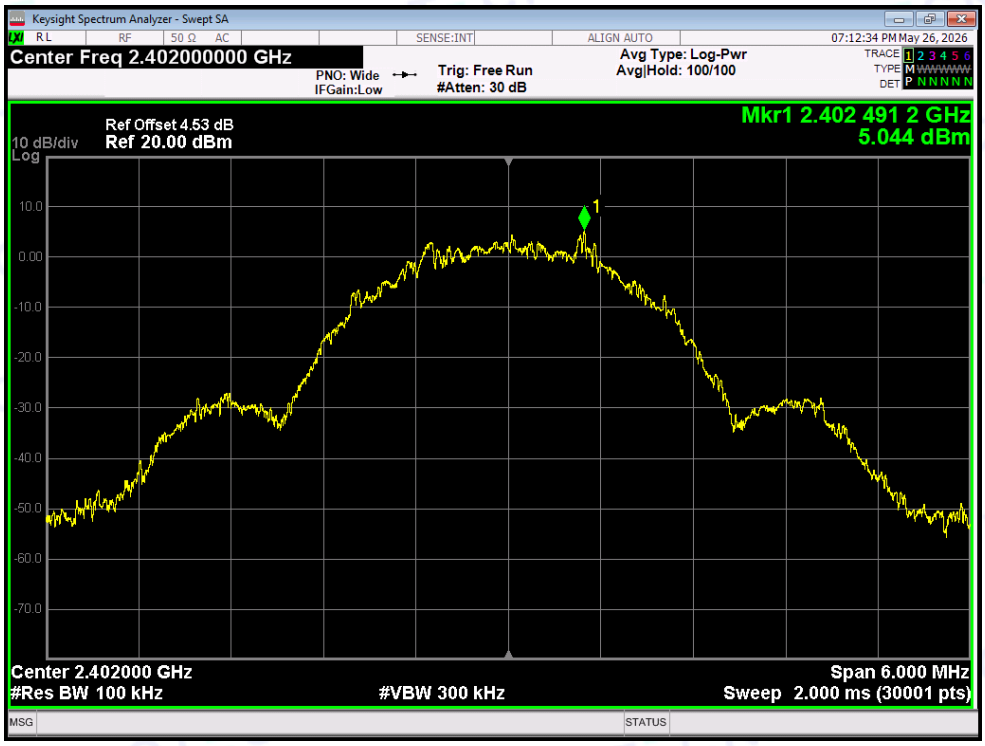
Tx. Spurious NVNT BLE 1Mbps 2480MHz Ant1 Ref



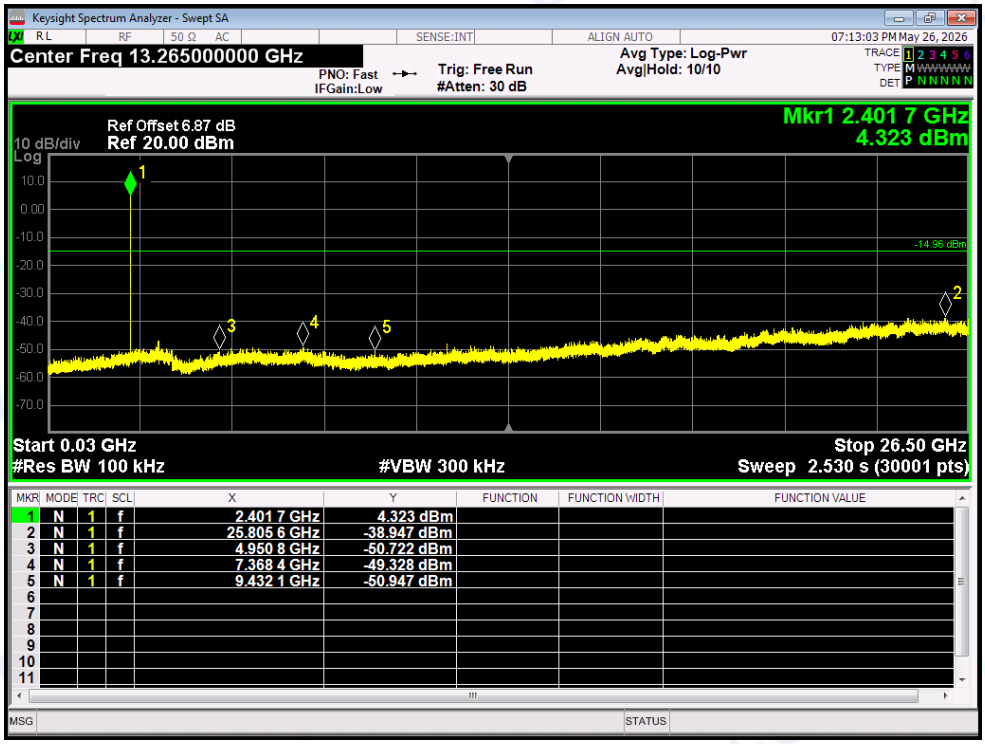
Tx. Spurious NVNT BLE 1Mbps 2480MHz Ant1 Emission



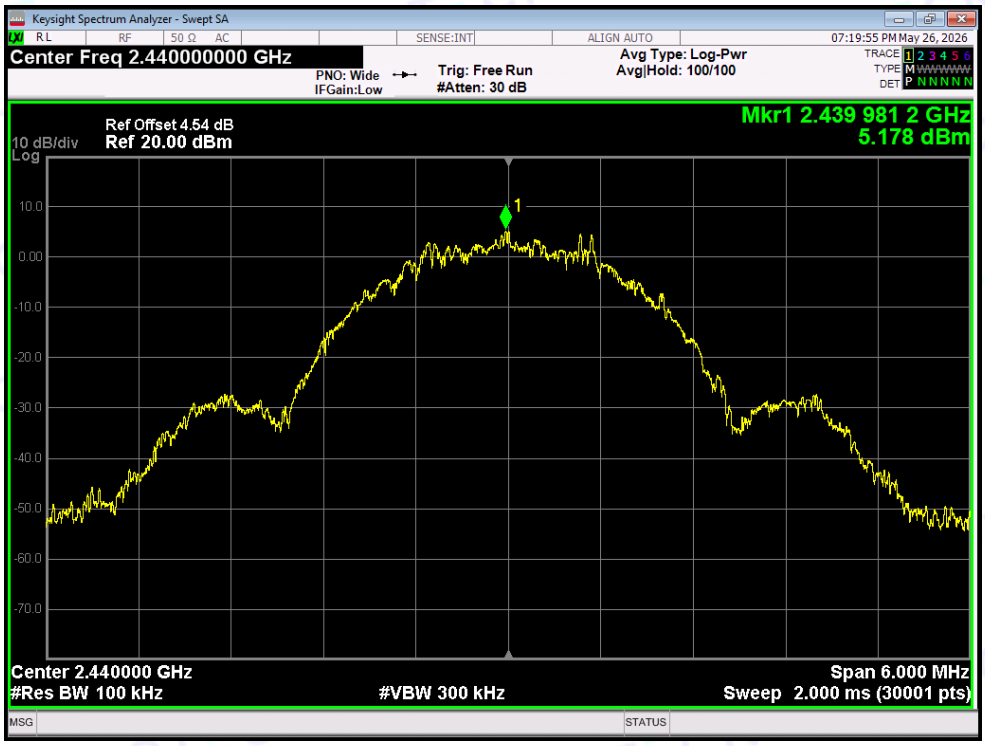
Tx. Spurious NVNT BLE 2Mbps 2402MHz Ant1 Ref



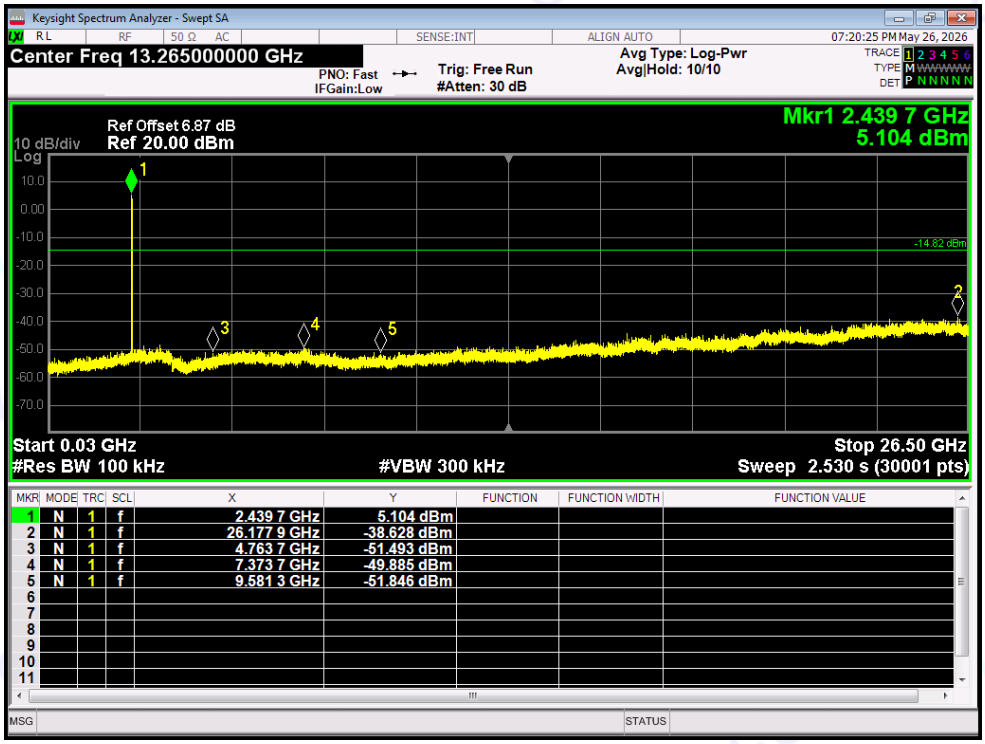
Tx. Spurious NVNT BLE 2Mbps 2402MHz Ant1 Emission



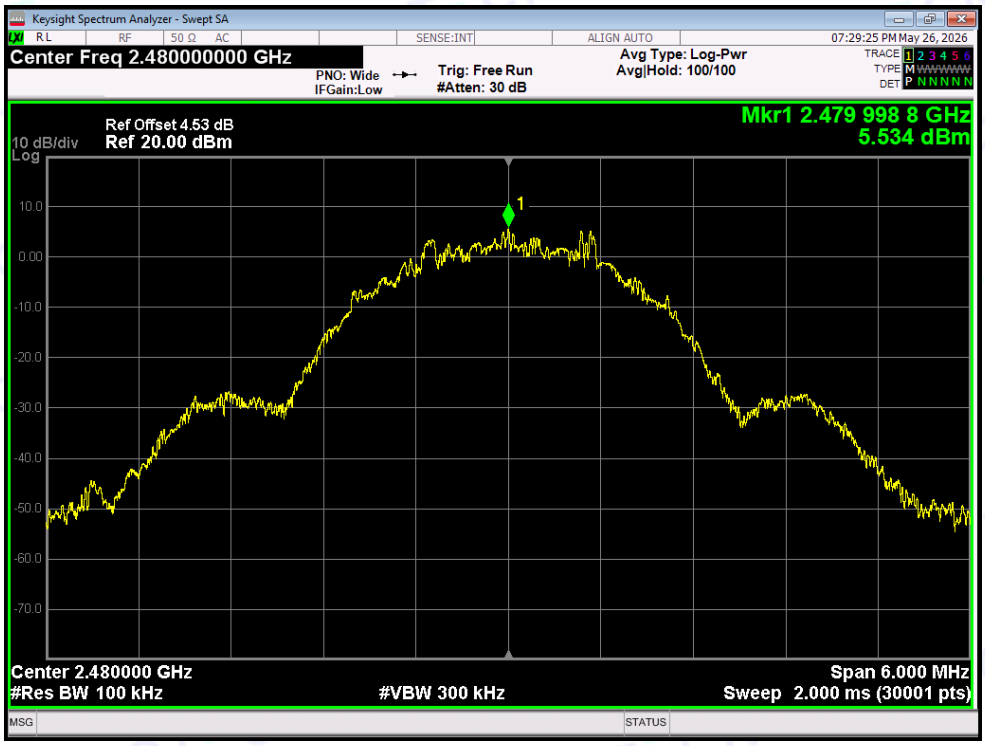
Tx. Spurious NVNT BLE 2Mbps 2440MHz Ant1 Ref



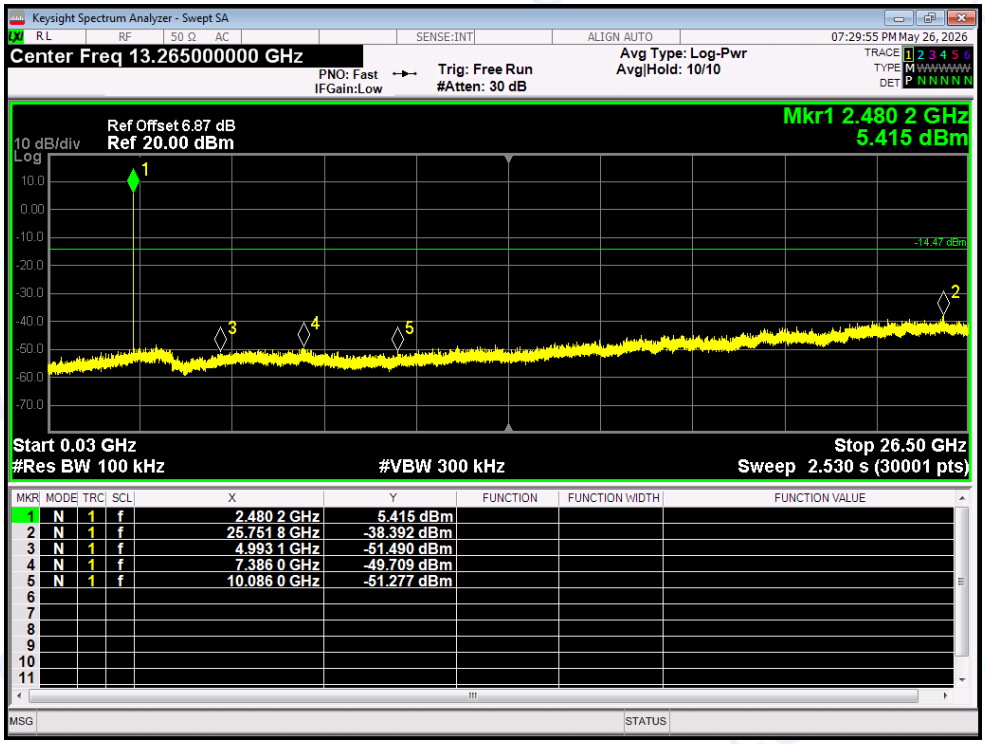
Tx. Spurious NVNT BLE 2Mbps 2440MHz Ant1 Emission



Tx. Spurious NVNT BLE 2Mbps 2480MHz Ant1 Ref



Tx. Spurious NVNT BLE 2Mbps 2480MHz Ant1 Emission



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