

RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
Product Name:	smart watch
Test Model:	K66
Sample ID:	HC-C-202406-0122-01-01
Environmental Conditions	
Temperature:	24.6℃
Relative Humidity:	52.3%
Test Voltage:	DC 3.8V
Test Engineer:	Jolin Lee
Note: For a more detailed features description, please refer to the report TBR-C-202406-0122-3 The report only show the worst case data.	

Contents

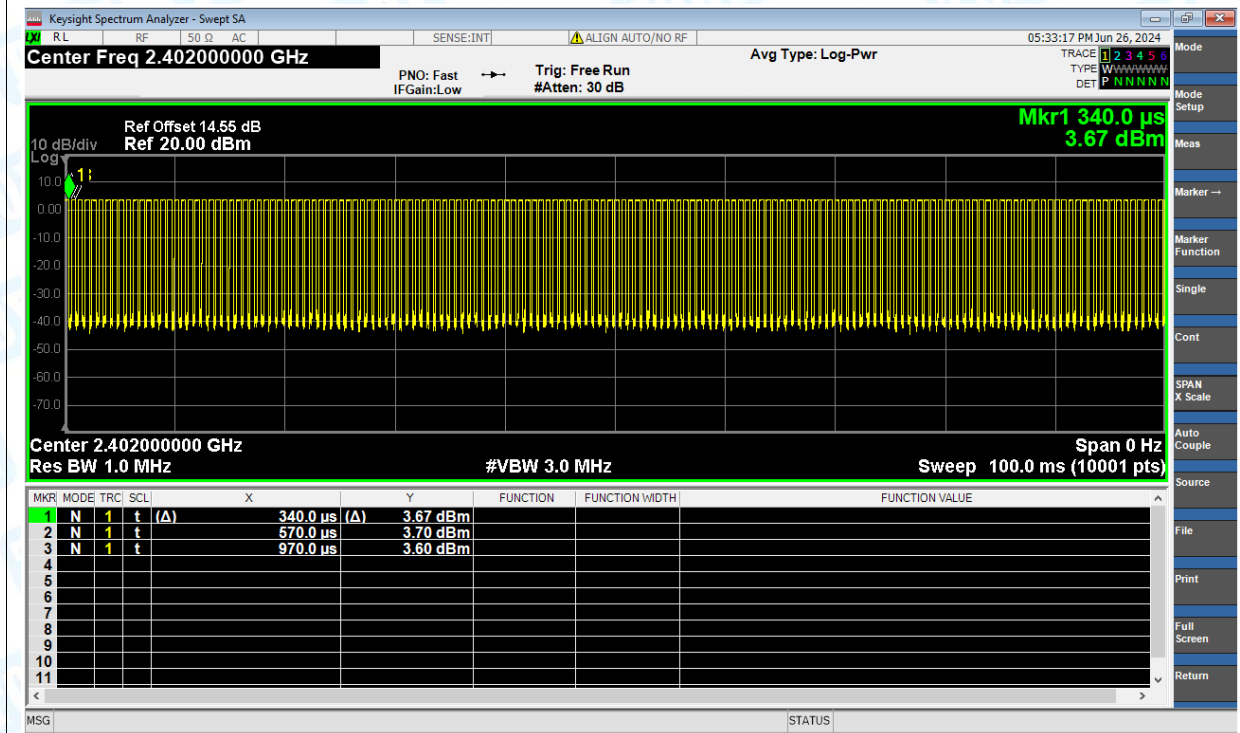
1. Duty Cycle.....	3
2. Maximum Conducted Output Power.....	6
3. -6dB Bandwidth.....	9
4. Occupied Channel Bandwidth.....	12
5. Maximum Power Spectral Density Level.....	15
6. Band Edge.....	18
7. Conducted RF Spurious Emission.....	21
8. Restrict Band.....	25

1. Duty Cycle

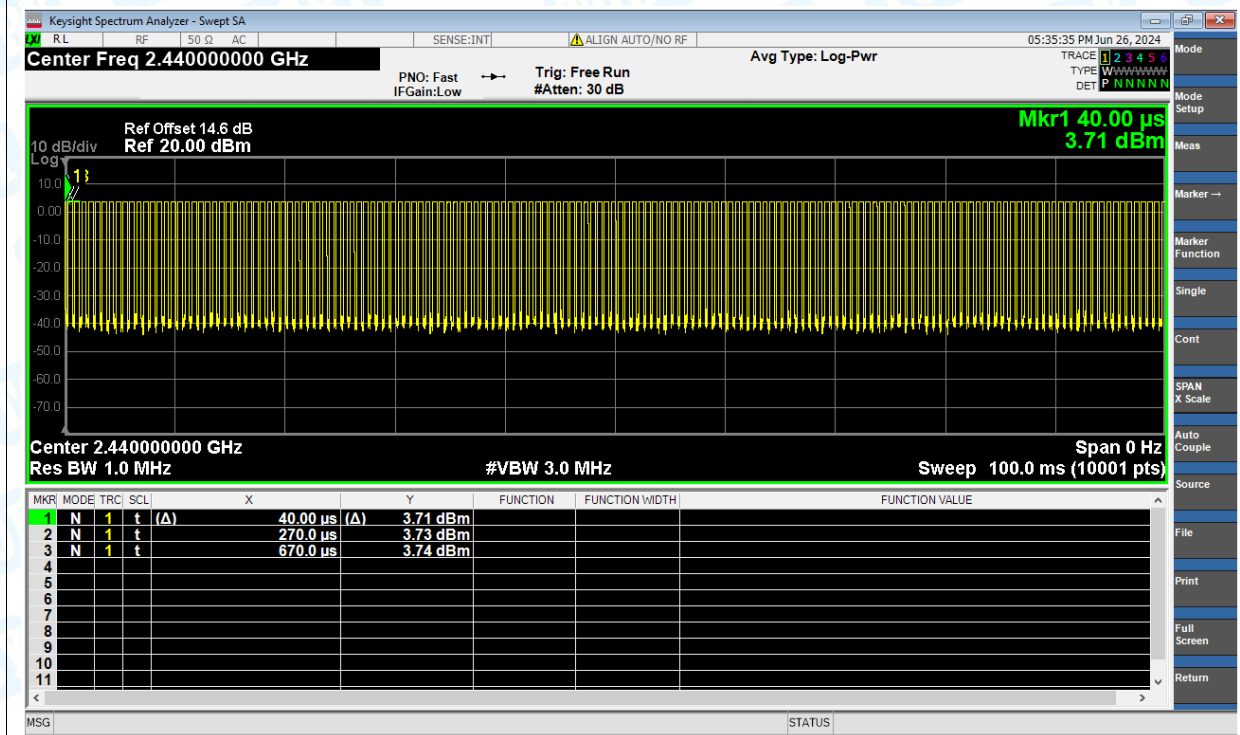
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVHT	BLE 1Mbps	2402	Ant1	63.49	1.97	2.5
NVHT	BLE 1Mbps	2440	Ant1	63.49	1.97	2.5
NVHT	BLE 1Mbps	2480	Ant1	63.49	1.97	2.5

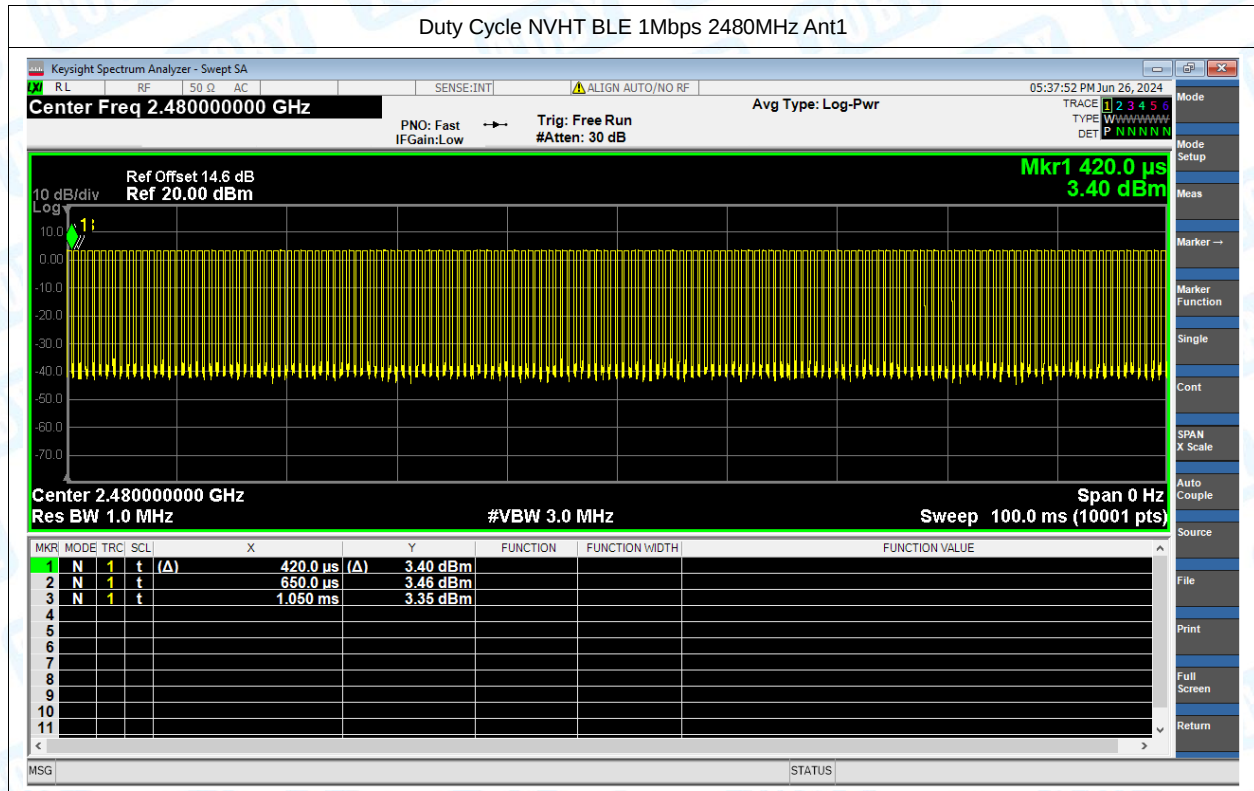
Test Graphs

Duty Cycle NVHT BLE 1Mbps 2402MHz Ant1



Duty Cycle NVHT BLE 1Mbps 2440MHz Ant1



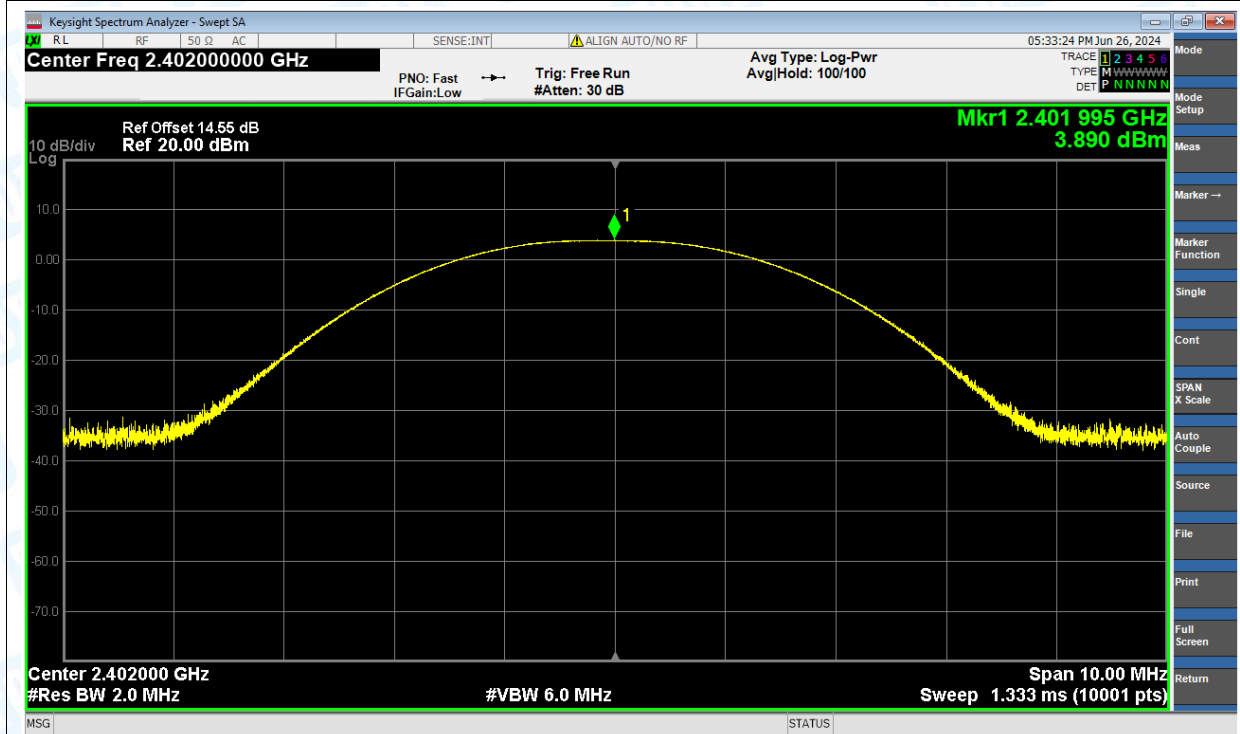


2. Maximum Conducted Output Power

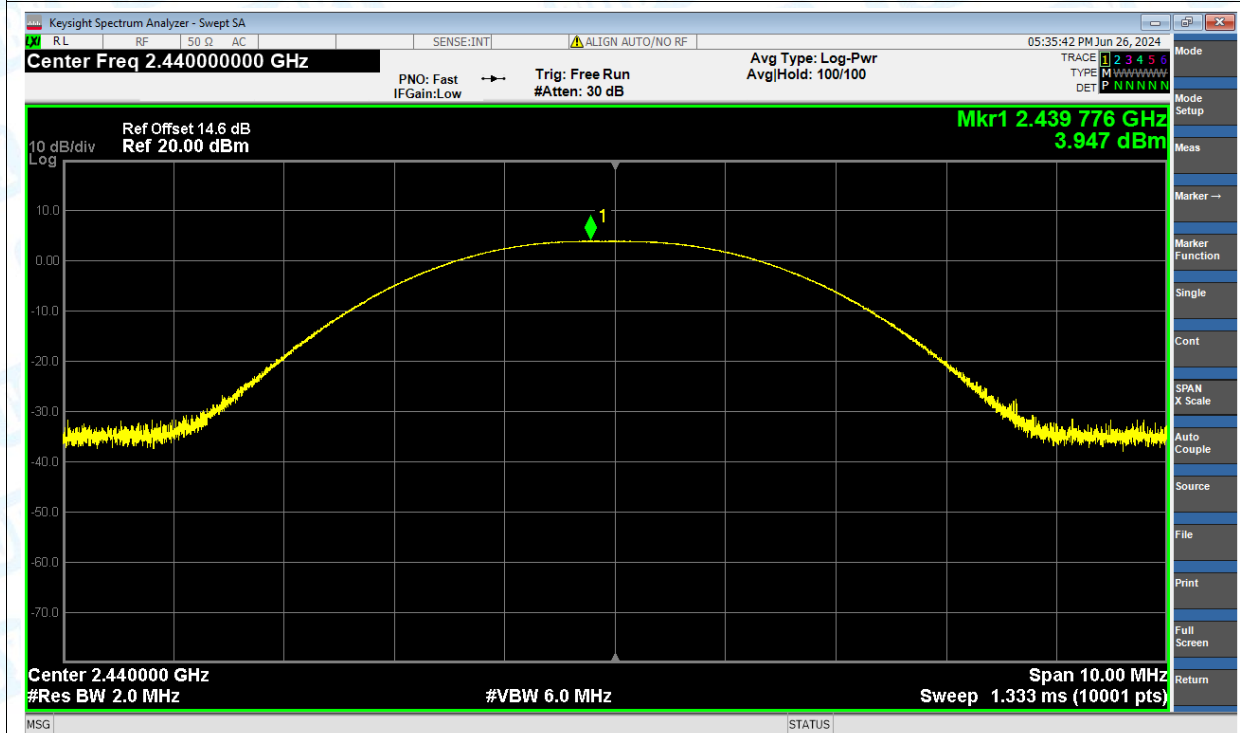
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVHT	BLE 1Mbps	2402	Ant1	3.89	30	Pass
NVHT	BLE 1Mbps	2440	Ant1	3.947	30	Pass
NVHT	BLE 1Mbps	2480	Ant1	3.642	30	Pass

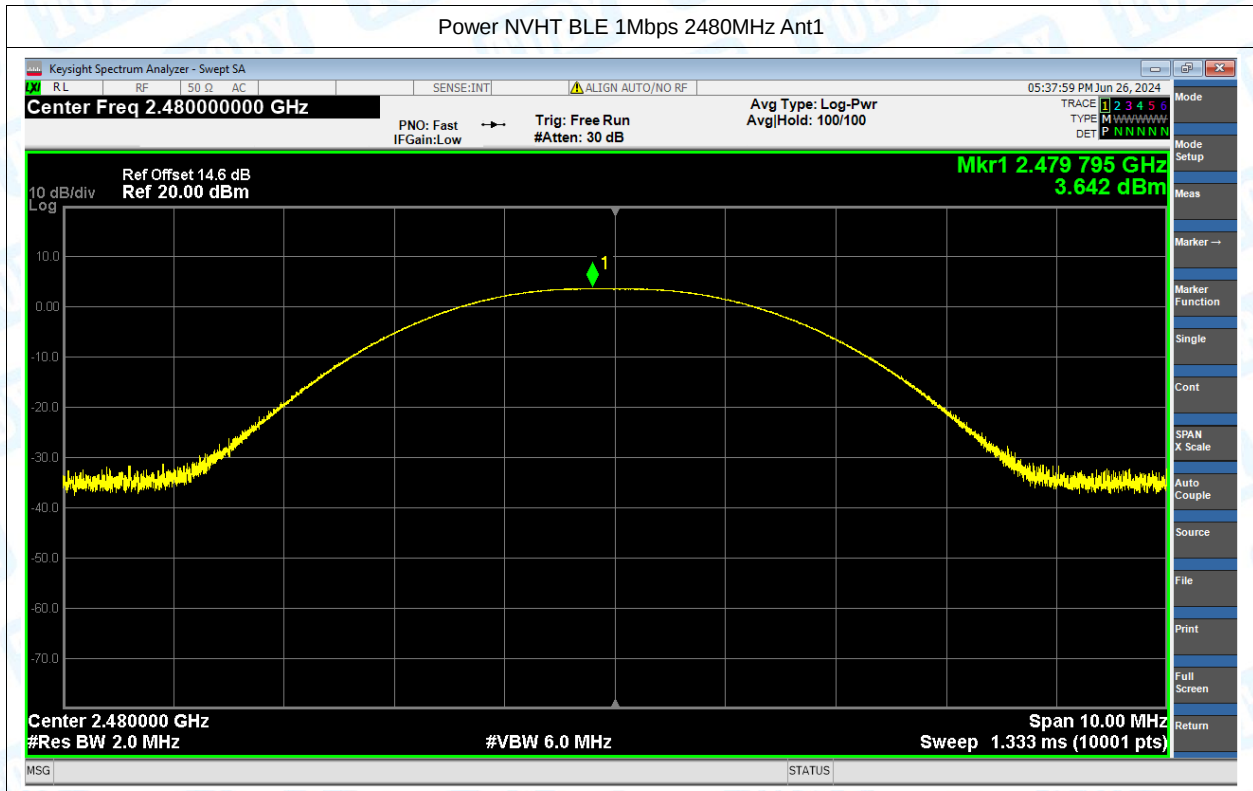
Test Graphs

Power NVHT BLE 1Mbps 2402MHz Ant1



Power NVHT BLE 1Mbps 2440MHz Ant1



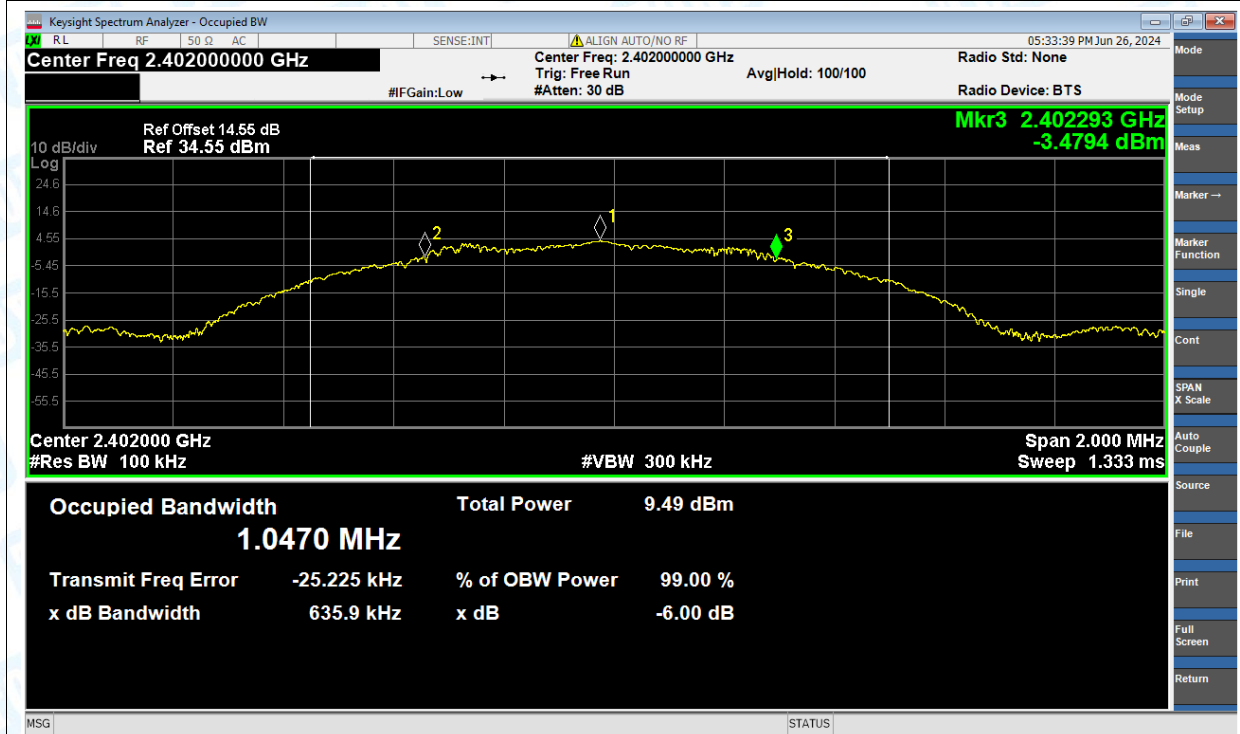


3. -6dB Bandwidth

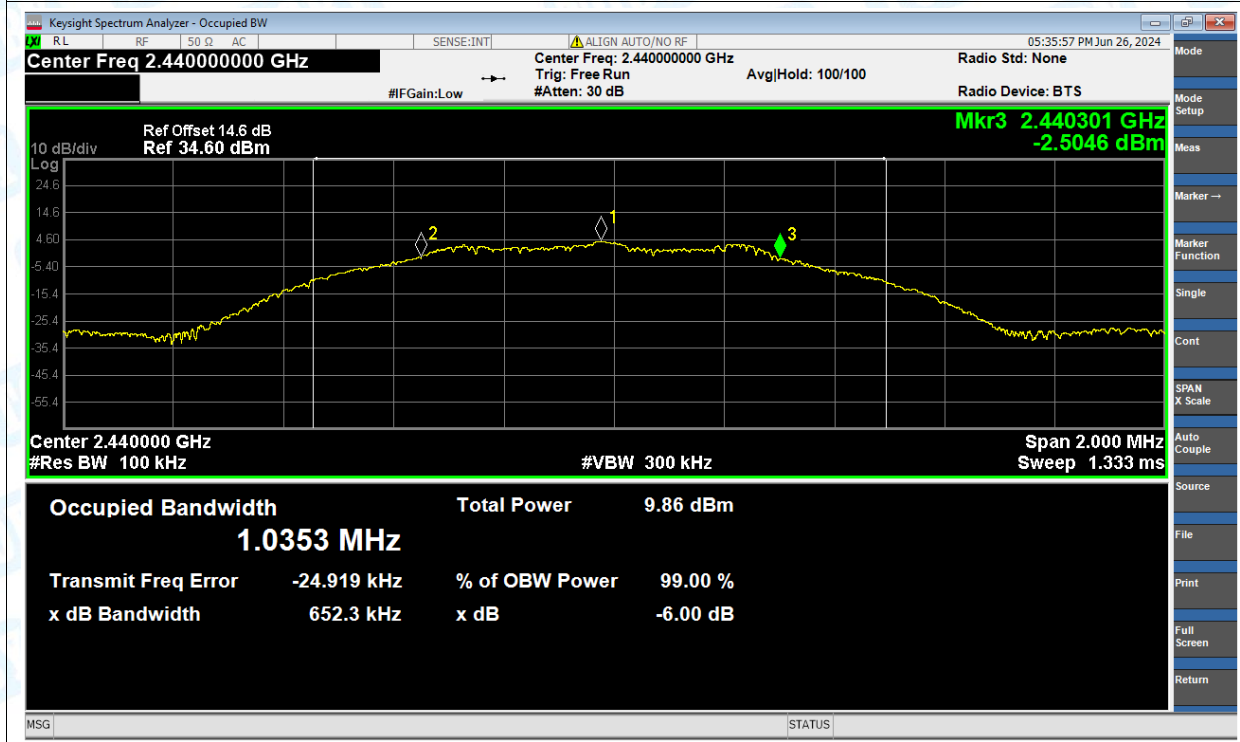
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVHT	BLE 1Mbps	2402	Ant1	0.64	0.5	Pass
NVHT	BLE 1Mbps	2440	Ant1	0.65	0.5	Pass
NVHT	BLE 1Mbps	2480	Ant1	0.64	0.5	Pass

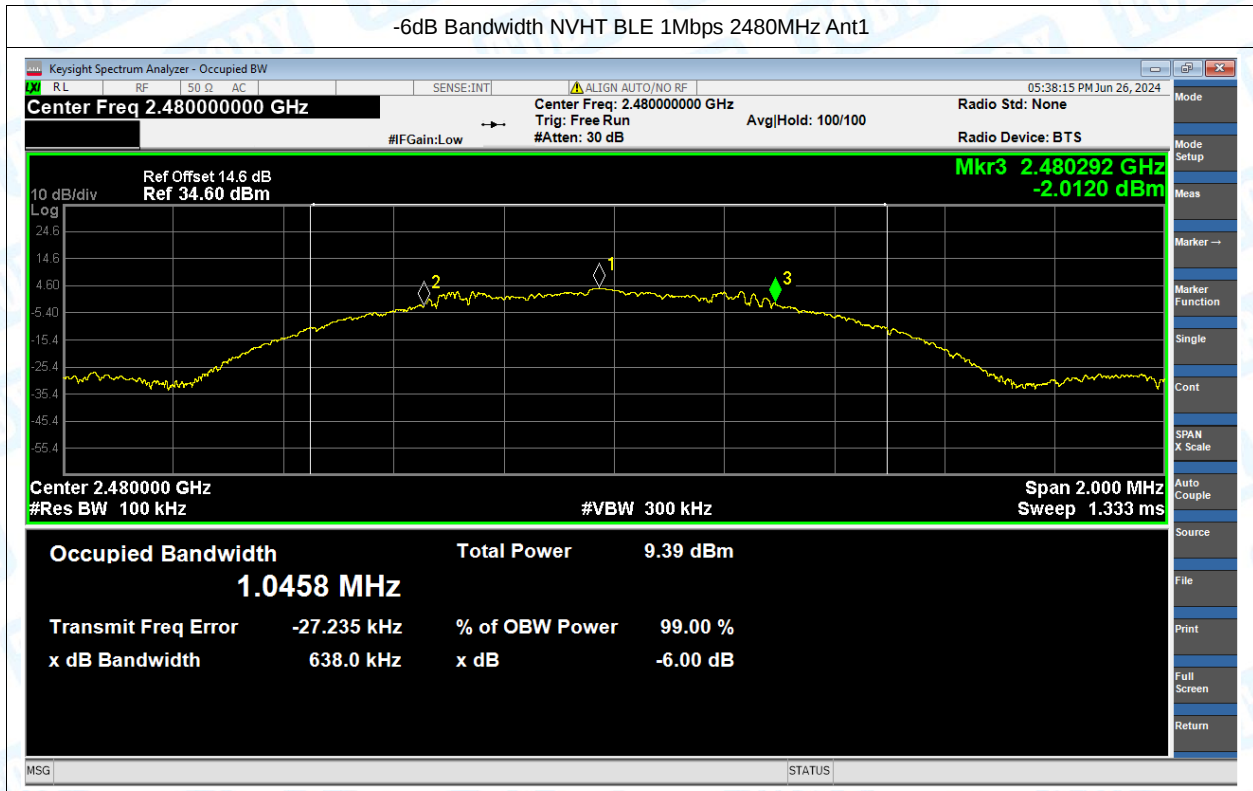
Test Graphs

-6dB Bandwidth NVHT BLE 1Mbps 2402MHz Ant1



-6dB Bandwidth NVHT BLE 1Mbps 2440MHz Ant1



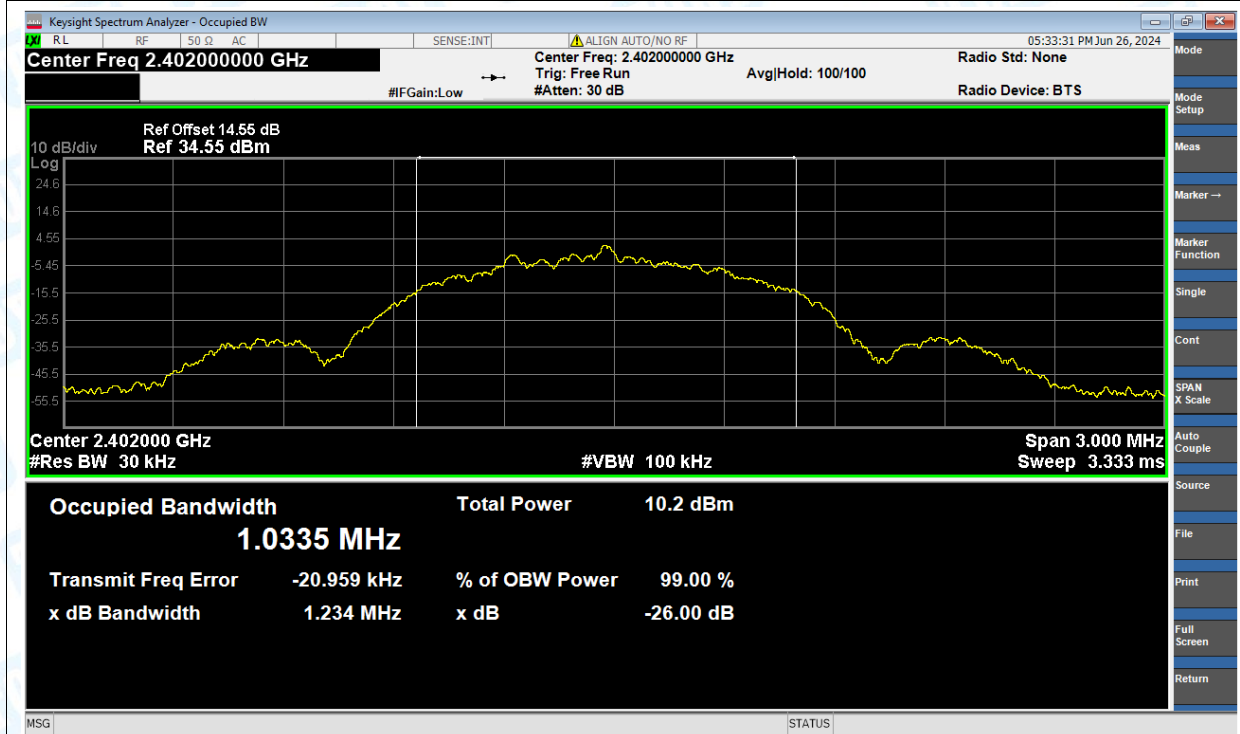


4. Occupied Channel Bandwidth

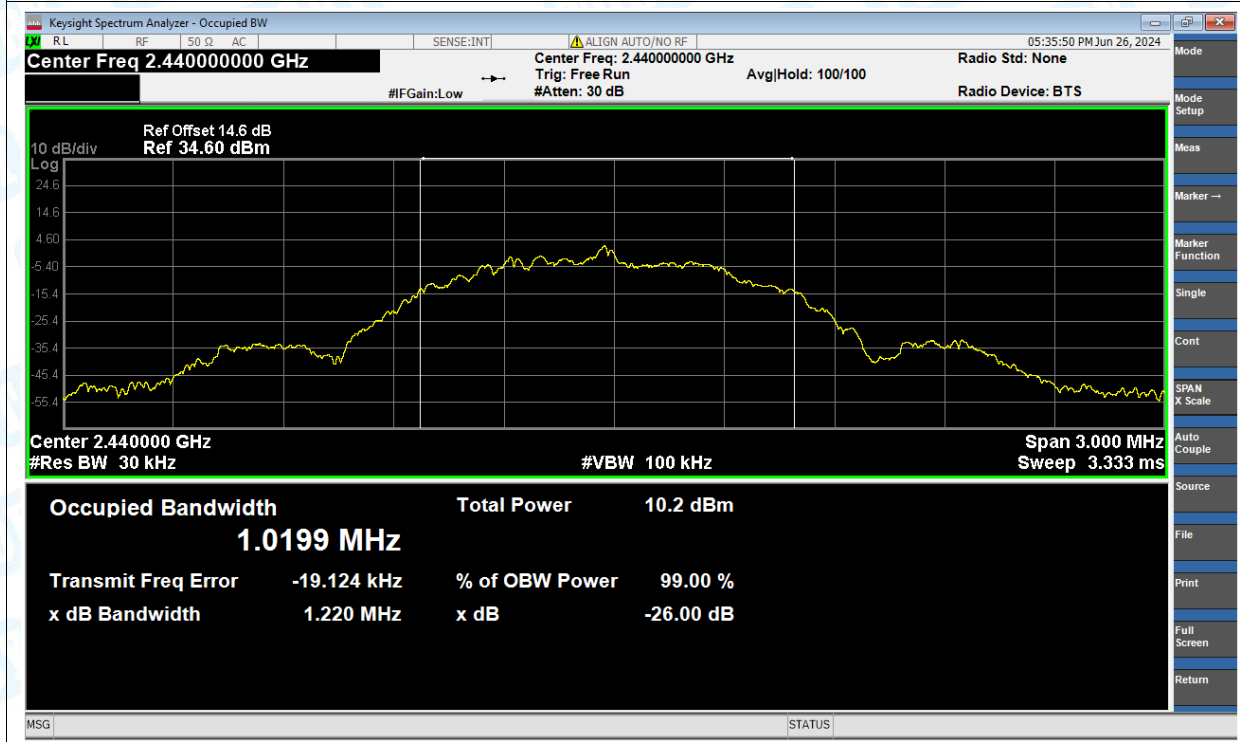
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVHT	BLE 1Mbps	2402	Ant1	1.034
NVHT	BLE 1Mbps	2440	Ant1	1.02
NVHT	BLE 1Mbps	2480	Ant1	1.034

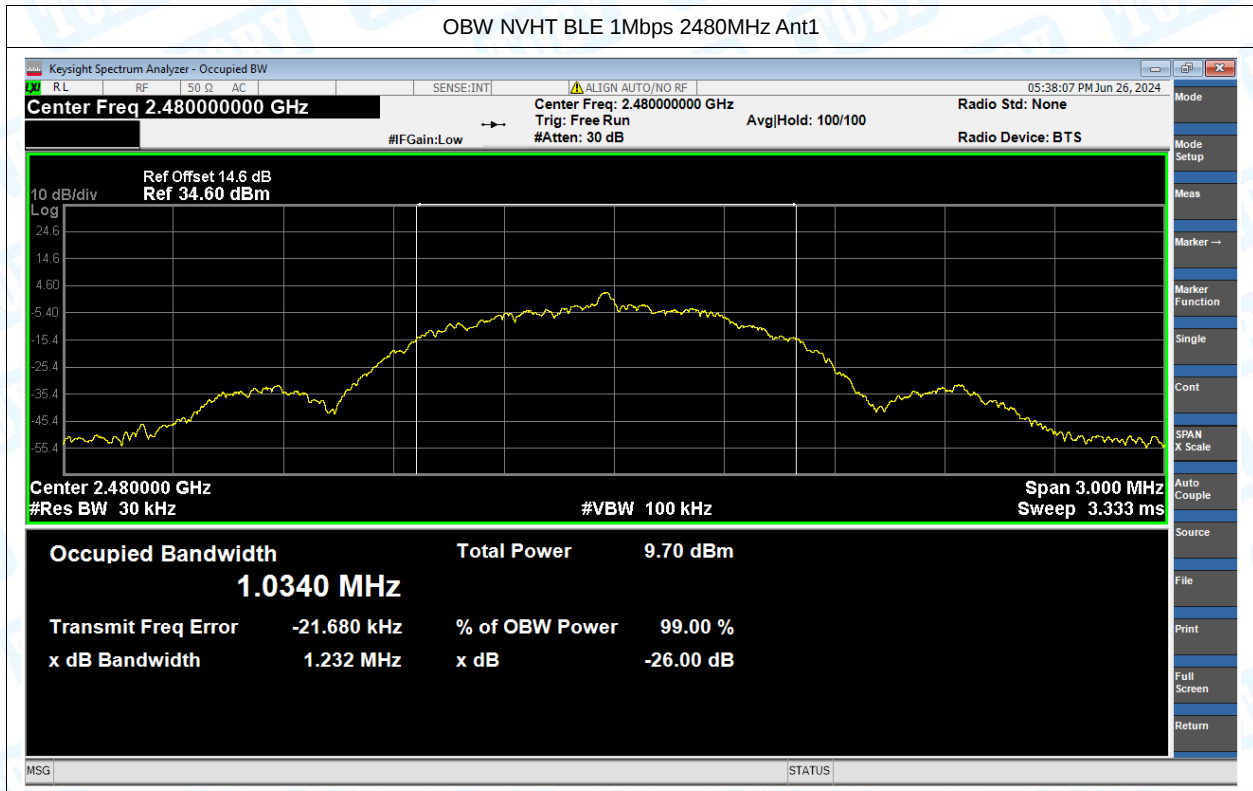
Test Graphs

OBW NVHT BLE 1Mbps 2402MHz Ant1



OBW NVHT BLE 1Mbps 2440MHz Ant1



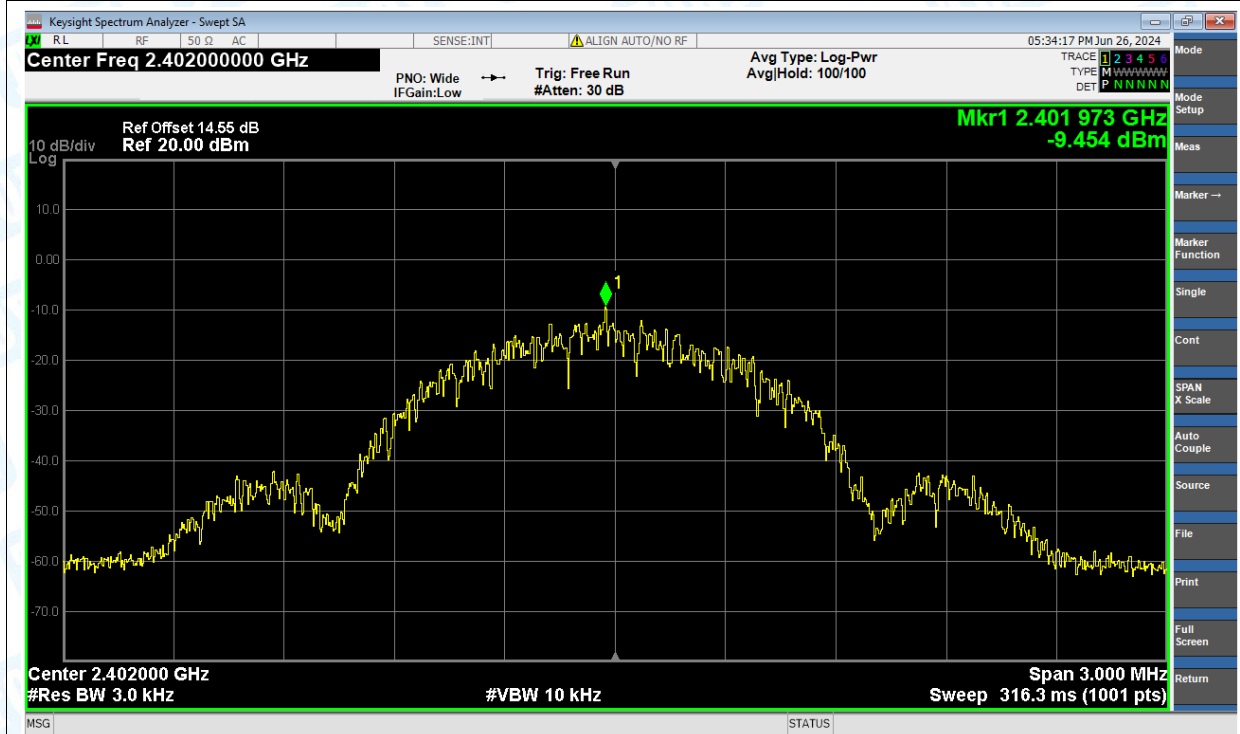


5. Maximum Power Spectral Density Level

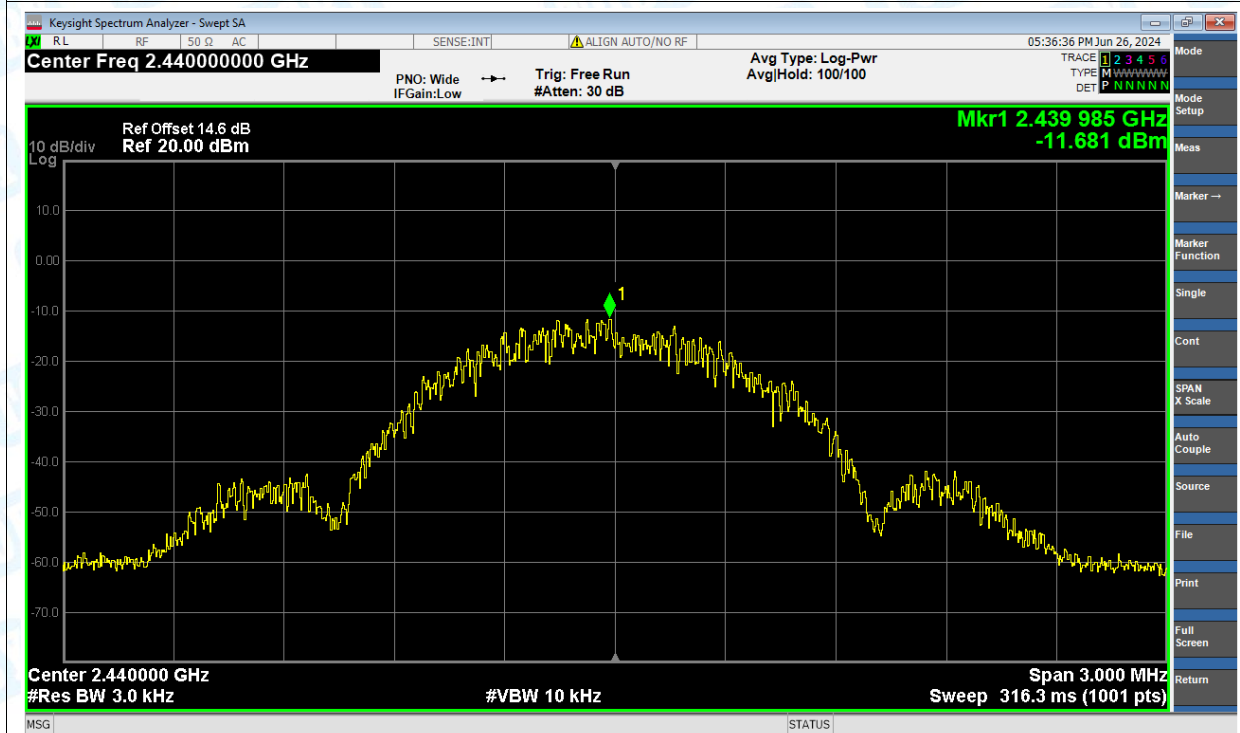
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm/3KHz)	Limit (dBm/3KHz)	Verdict
NVHT	BLE 1Mbps	2402	Ant1	-9.454	8	Pass
NVHT	BLE 1Mbps	2440	Ant1	-11.681	8	Pass
NVHT	BLE 1Mbps	2480	Ant1	-10.443	8	Pass

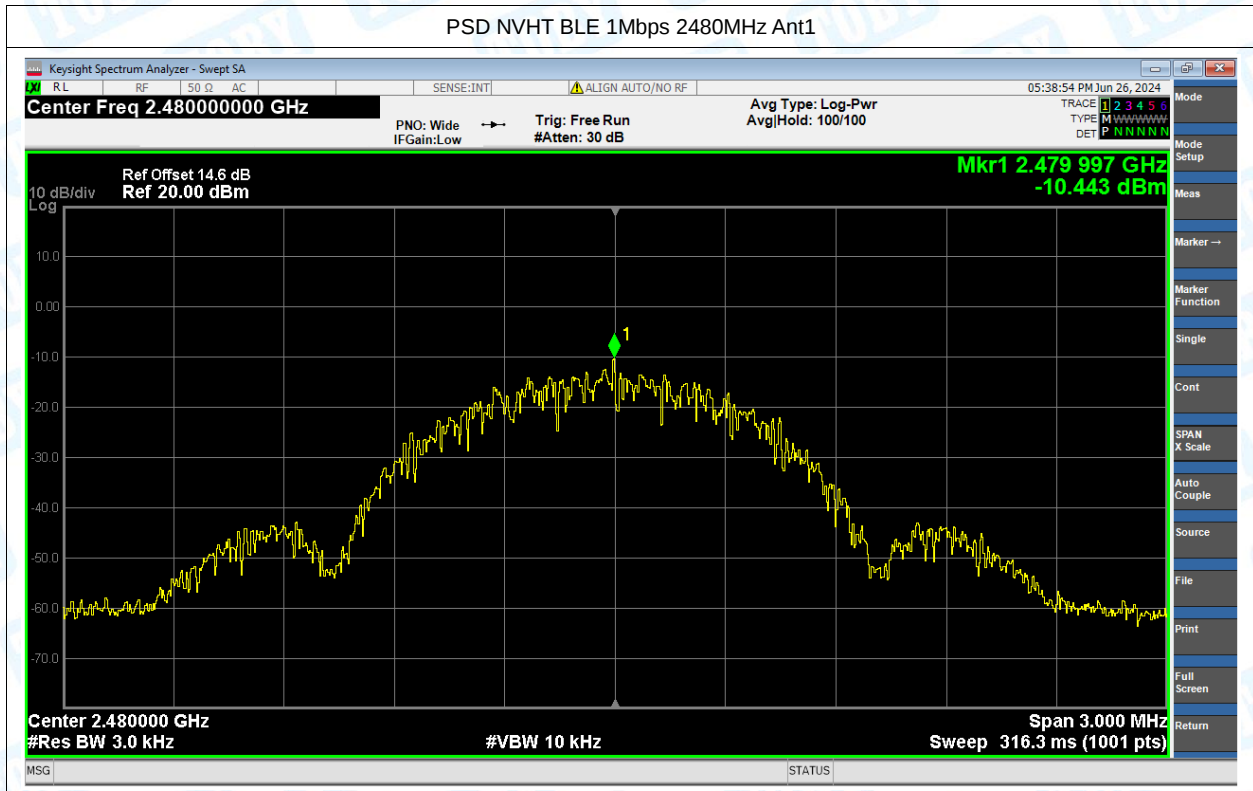
Test Graphs

PSD NVHT BLE 1Mbps 2402MHz Ant1



PSD NVHT BLE 1Mbps 2440MHz Ant1



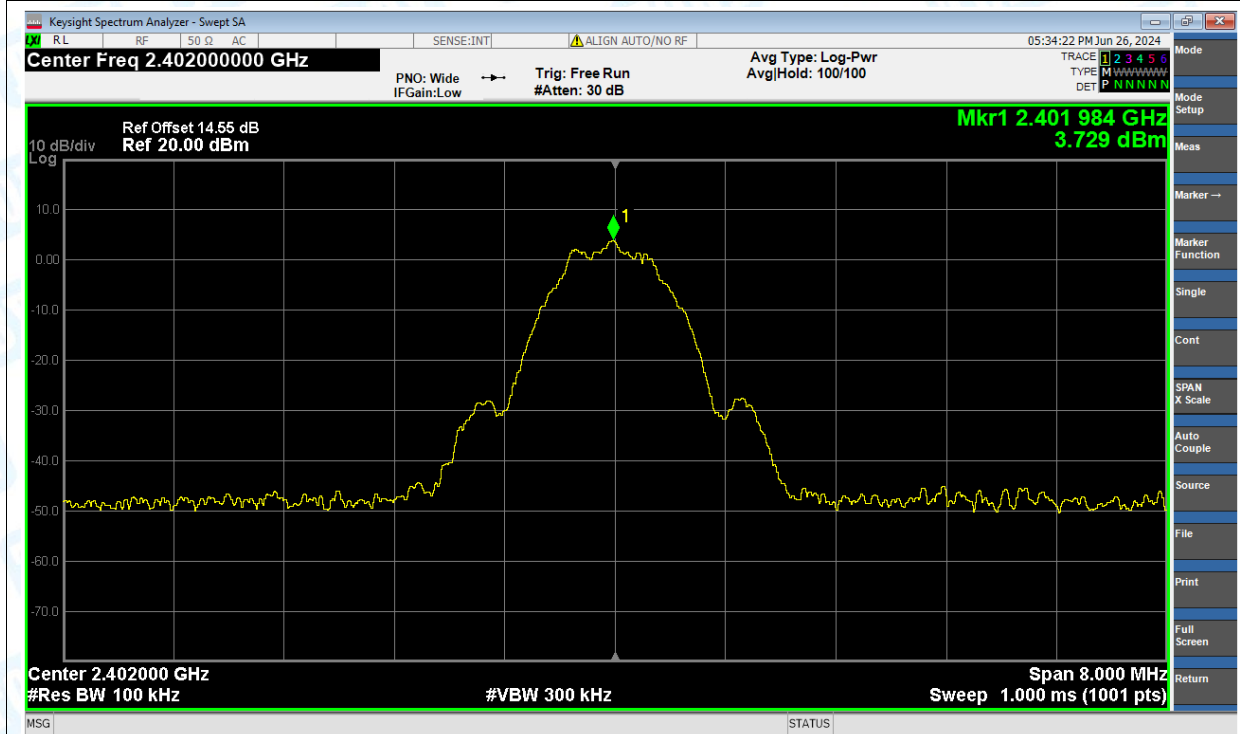


6. Band Edge

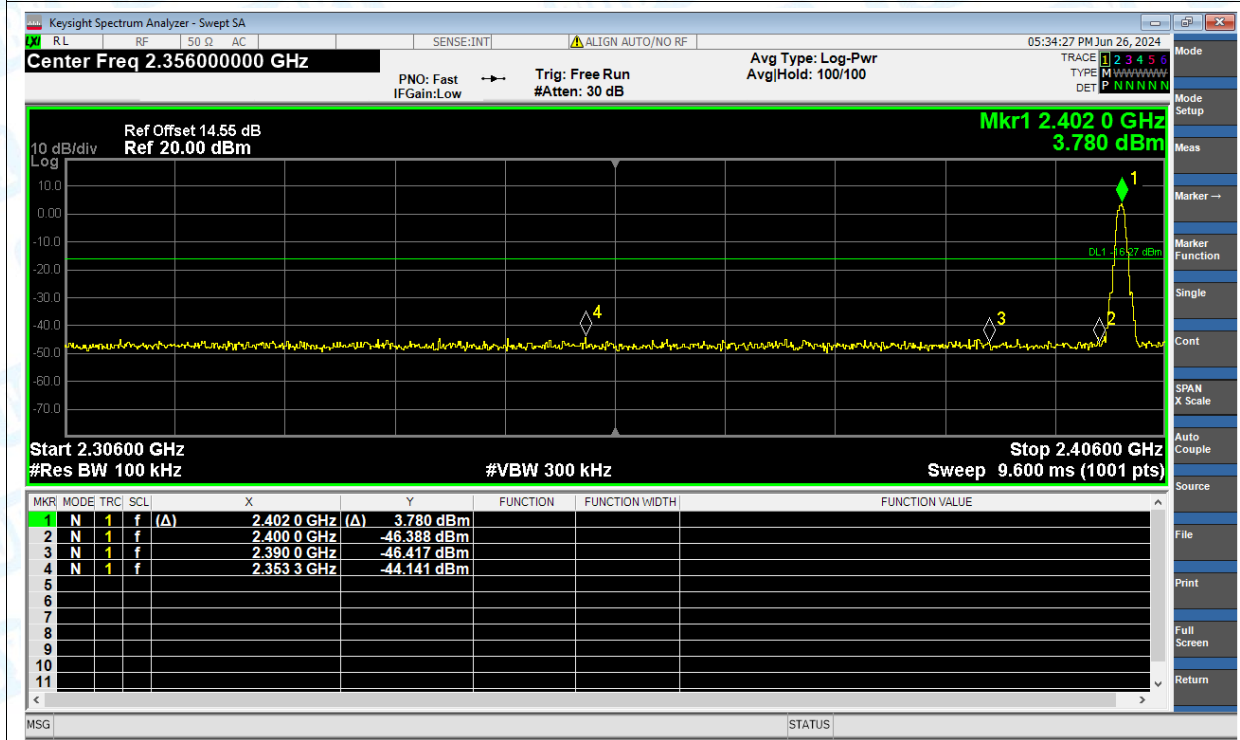
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVHT	BLE 1Mbps	2402	Ant1	-47.87	-20	Pass
NVHT	BLE 1Mbps	2480	Ant1	-47.32	-20	Pass

Test Graphs

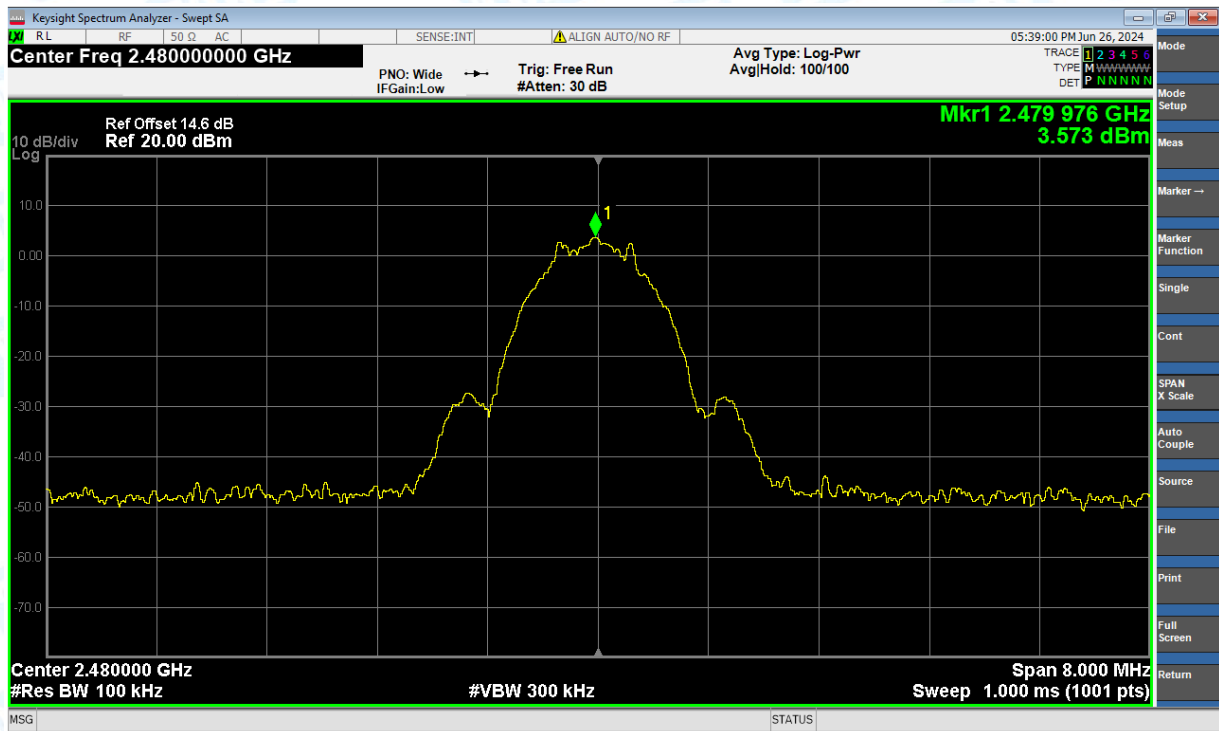
Band Edge NVHT BLE 1Mbps 2402MHz Ant1 Ref



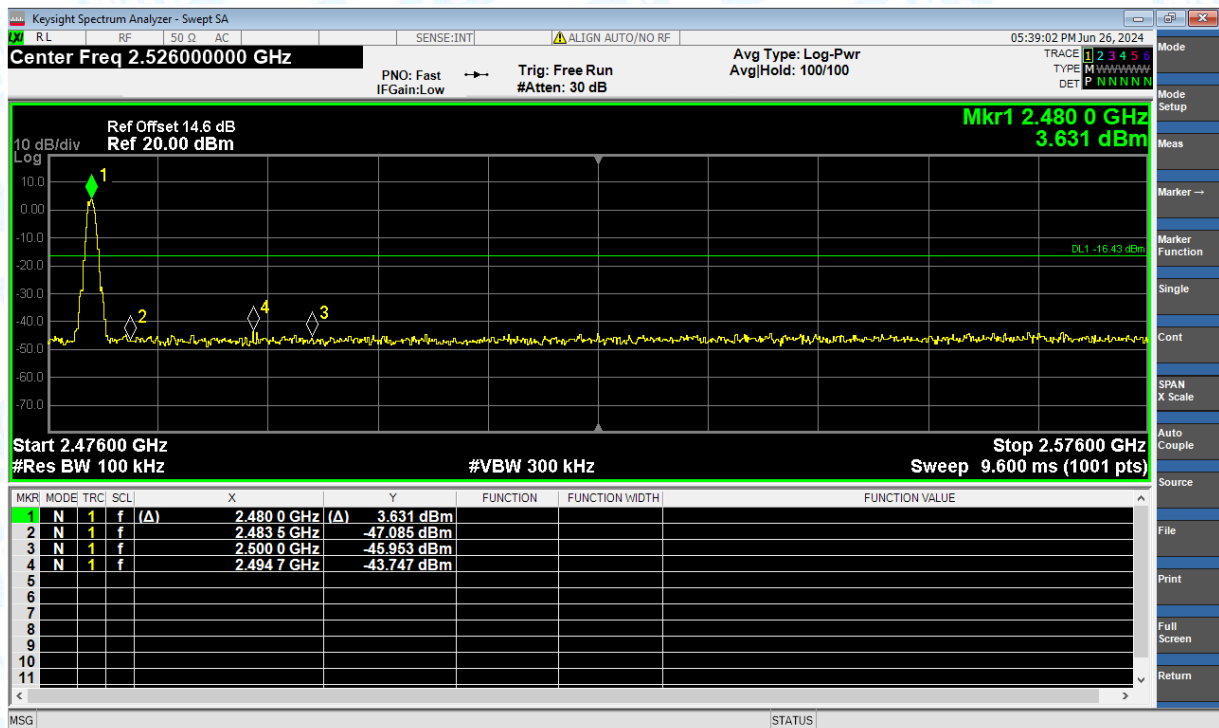
Band Edge NVHT BLE 1Mbps 2402MHz Ant1 Emission



Band Edge NVHT BLE 1Mbps 2480MHz Ant1 Ref



Band Edge NVHT BLE 1Mbps 2480MHz Ant1 Emission

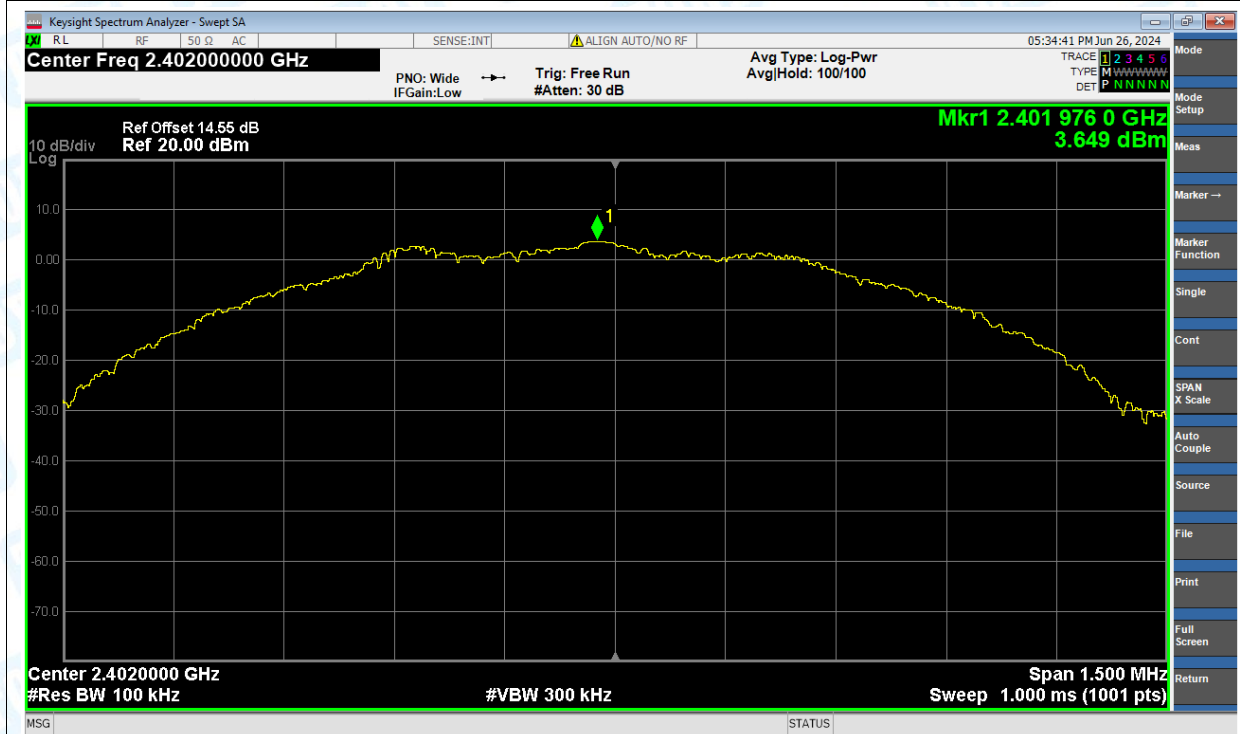


7. Conducted RF Spurious Emission

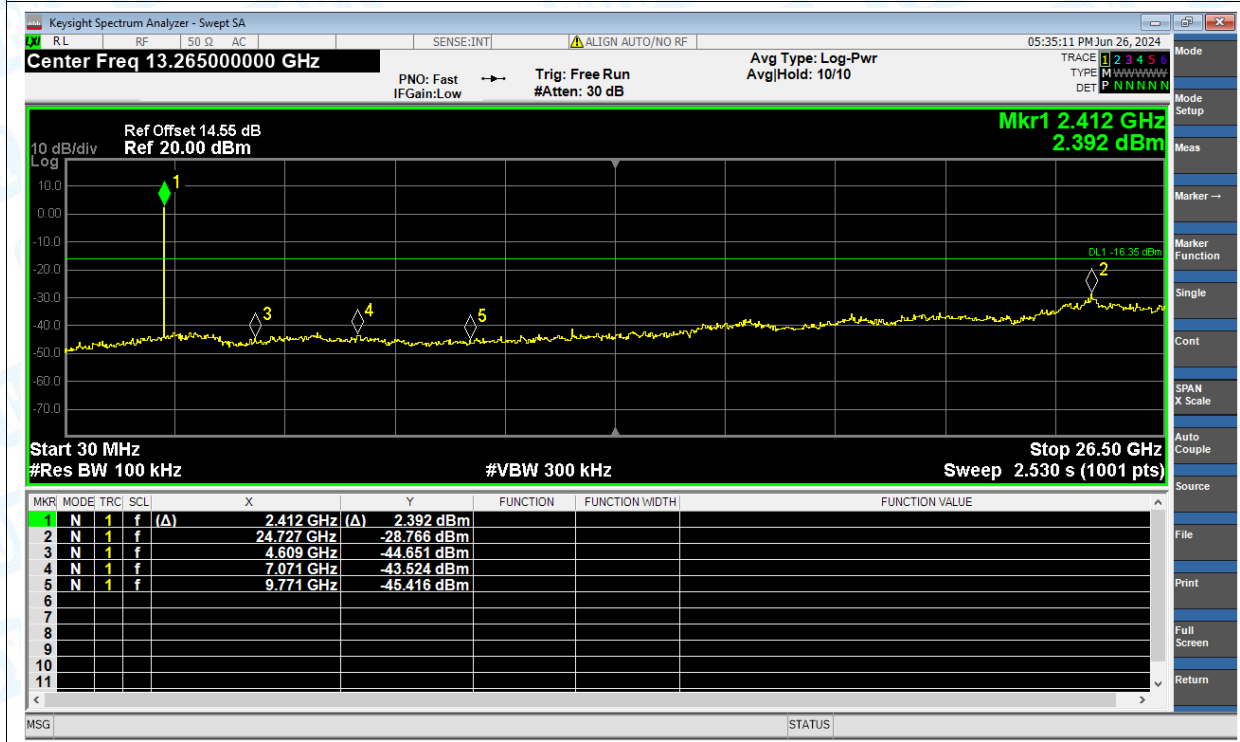
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVHT	BLE 1Mbps	2402	Ant1	-32.42	-20	Pass
NVHT	BLE 1Mbps	2440	Ant1	-34.42	-20	Pass
NVHT	BLE 1Mbps	2480	Ant1	-33.84	-20	Pass

Test Graphs

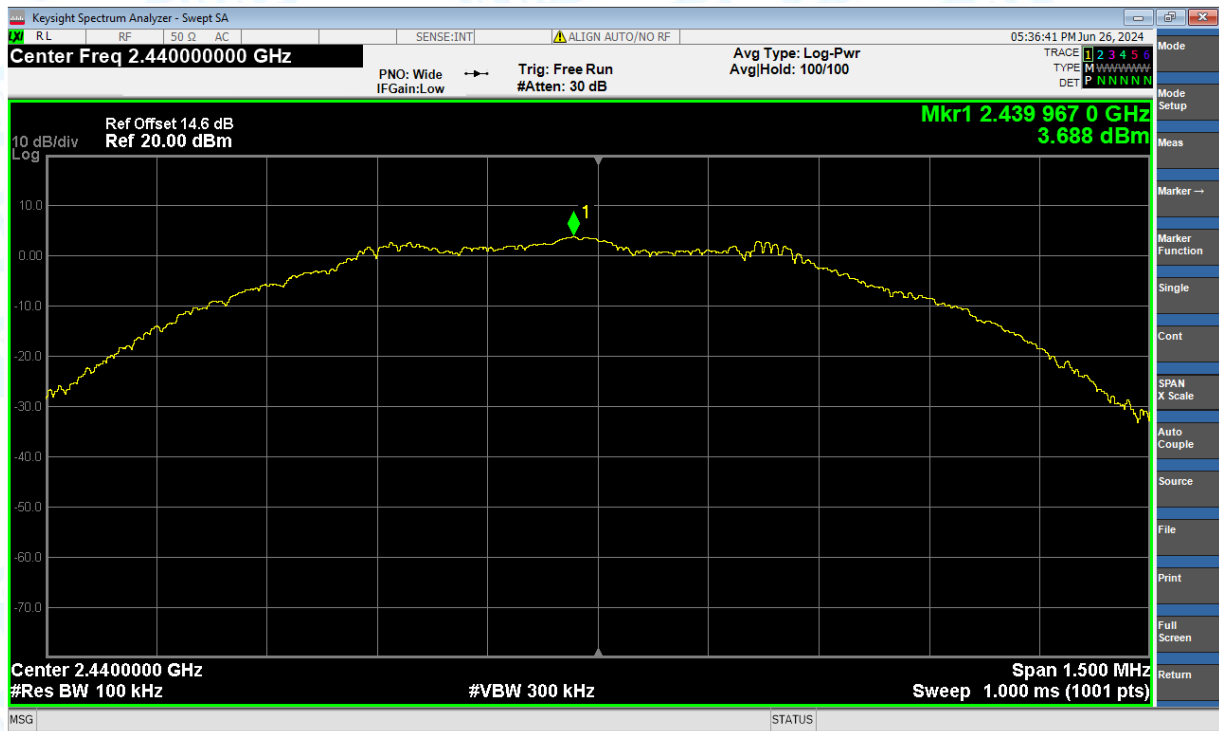
Tx. Spurious NVHT BLE 1Mbps 2402MHz Ant1 Ref



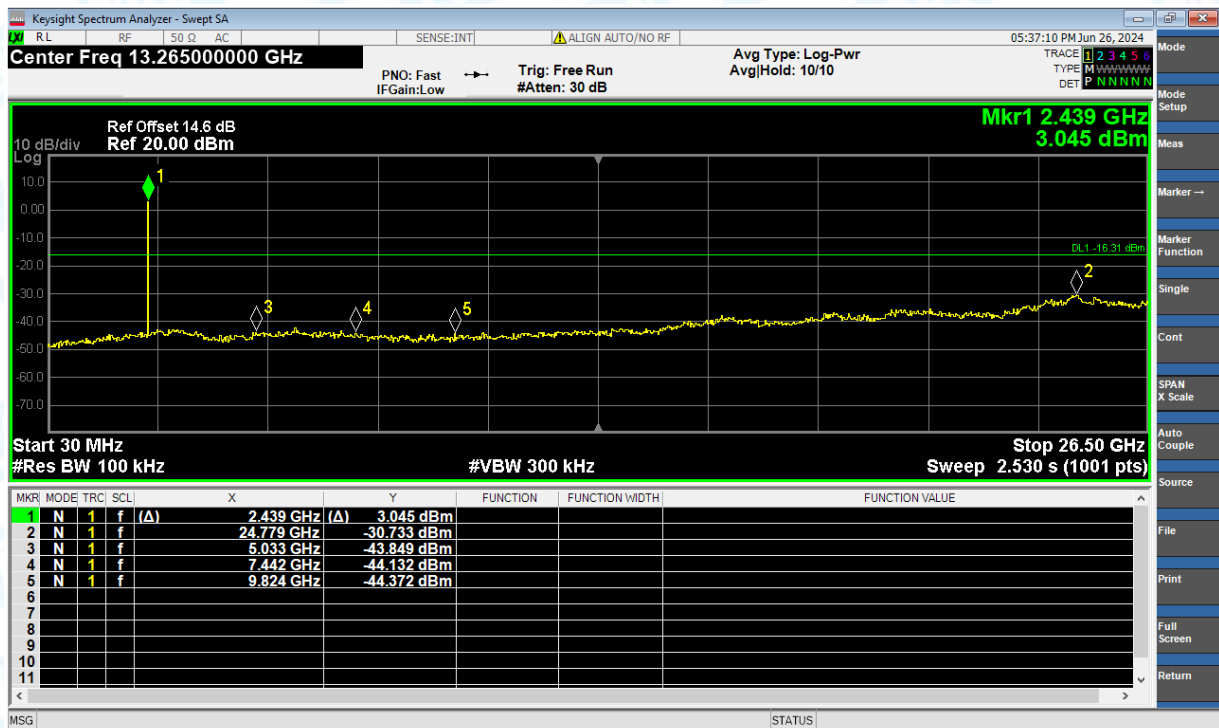
Tx. Spurious NVHT BLE 1Mbps 2402MHz Ant1 Emission



Tx. Spurious NVHT BLE 1Mbps 2440MHz Ant1 Ref



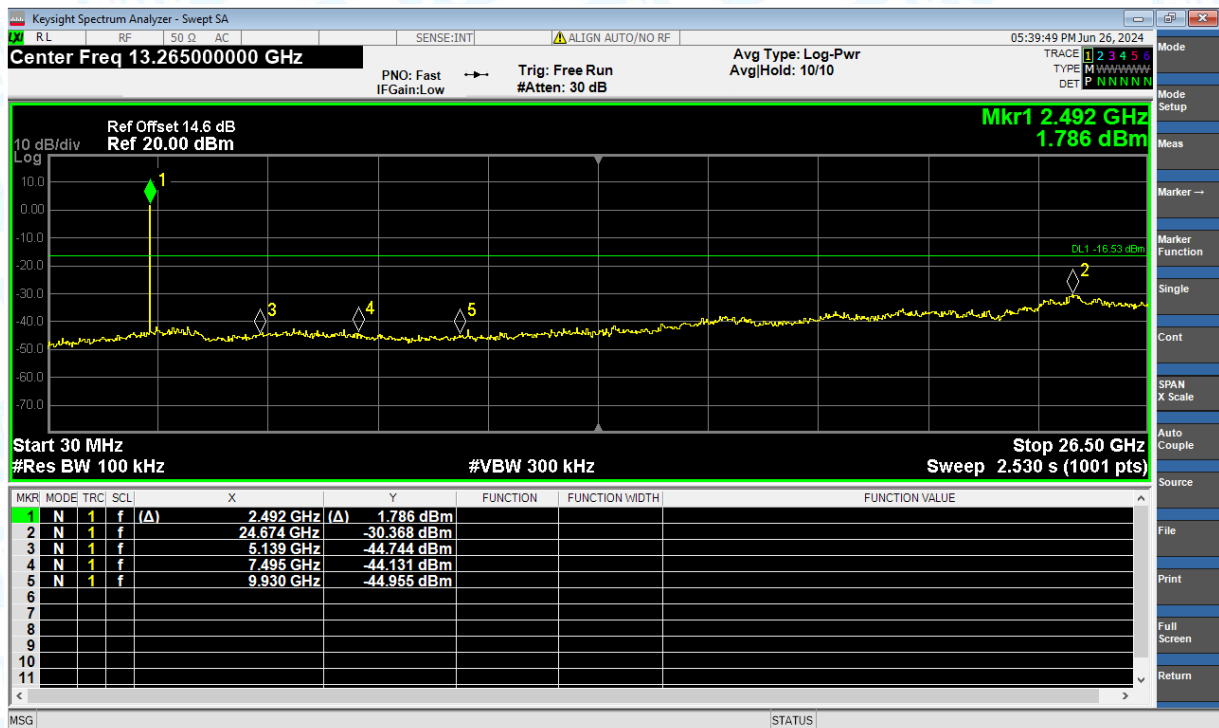
Tx. Spurious NVHT BLE 1Mbps 2440MHz Ant1 Emission



Tx. Spurious NVHT BLE 1Mbps 2480MHz Ant1 Ref



Tx. Spurious NVHT BLE 1Mbps 2480MHz Ant1 Emission

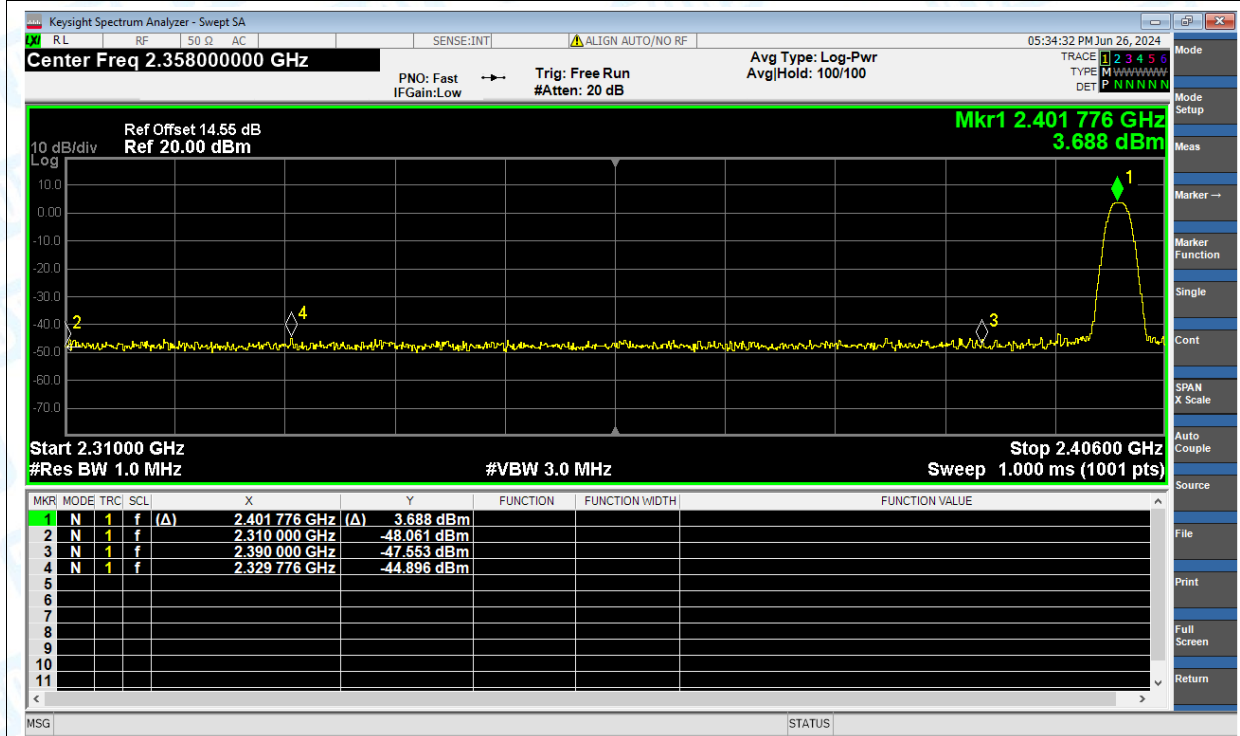


8. Restrict Band

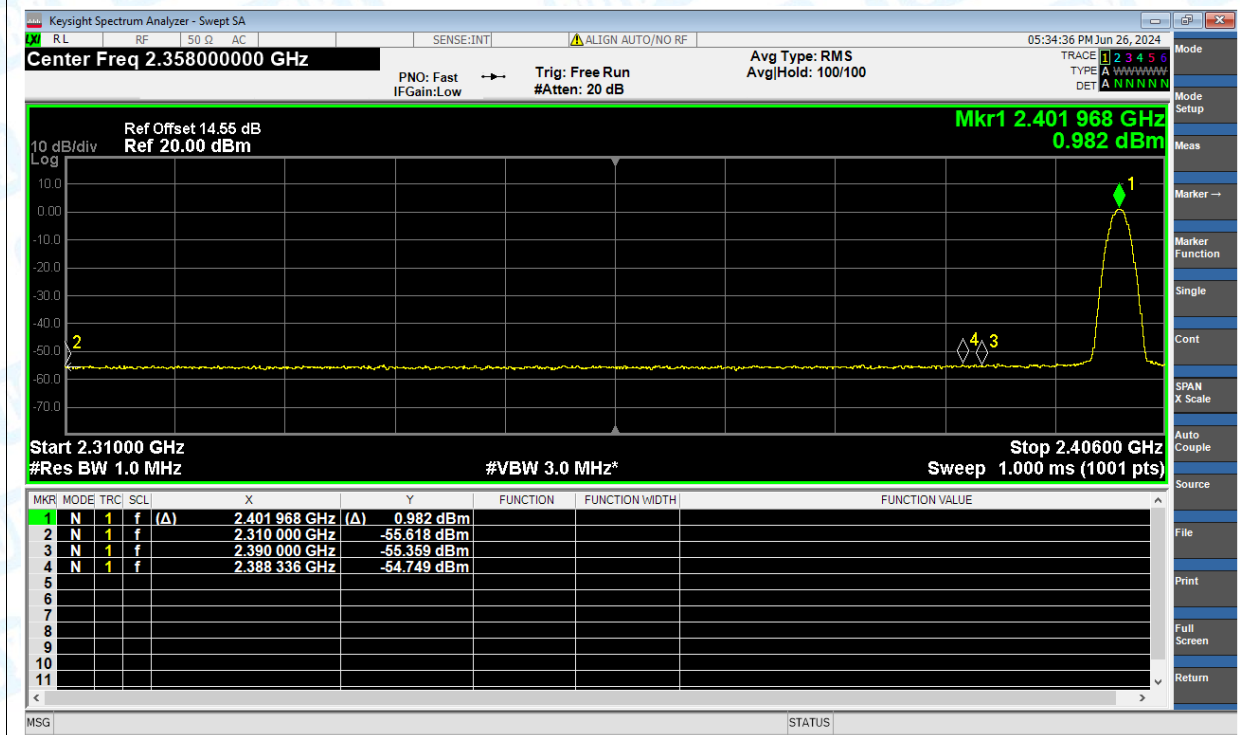
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVHT	BLE 1Mbps	2402	Ant1	2310	-48.06	2	-	49.2	Peak	74	Pass
NVHT	BLE 1Mbps	2402	Ant1	2310	-55.62	2	1.97	43.61	Average	54	Pass
NVHT	BLE 1Mbps	2402	Ant1	2329.776	-44.9	2	-	52.36	Peak	74	Pass
NVHT	BLE 1Mbps	2402	Ant1	2388.336	-54.75	2	1.97	44.48	Average	54	Pass
NVHT	BLE 1Mbps	2402	Ant1	2390	-47.55	2	-	49.71	Peak	74	Pass
NVHT	BLE 1Mbps	2402	Ant1	2390	-55.36	2	1.97	43.87	Average	54	Pass
NVHT	BLE 1Mbps	2480	Ant1	2483.5	-46.62	2	-	50.64	Peak	74	Pass
NVHT	BLE 1Mbps	2480	Ant1	2483.5	-54.74	2	1.97	44.49	Average	54	Pass
NVHT	BLE 1Mbps	2480	Ant1	2485.192	-44.61	2	-	52.65	Peak	74	Pass
NVHT	BLE 1Mbps	2480	Ant1	2485.6	-54.23	2	1.97	45	Average	54	Pass
NVHT	BLE 1Mbps	2480	Ant1	2500	-47.23	2	-	50.03	Peak	74	Pass
NVHT	BLE 1Mbps	2480	Ant1	2500	-55.48	2	1.97	43.75	Average	54	Pass

Test Graphs

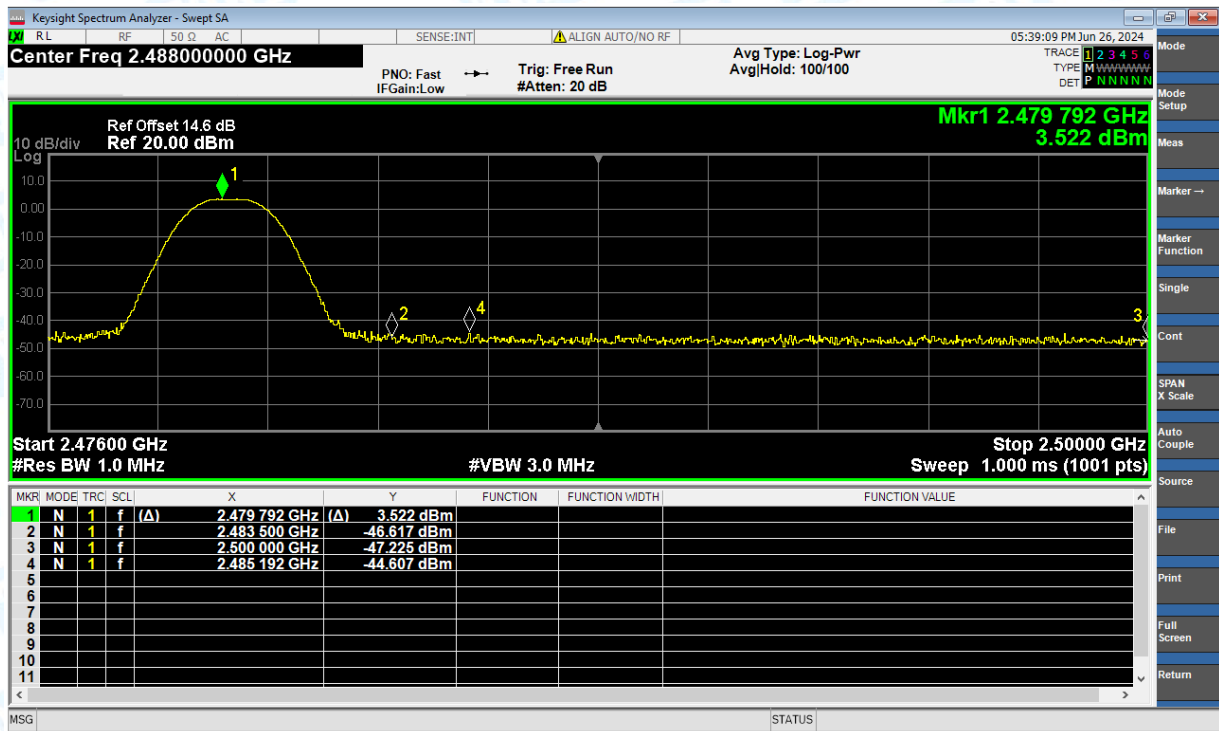
Restrict Band NVHT BLE 1Mbps 2402MHz Ant1 Peak



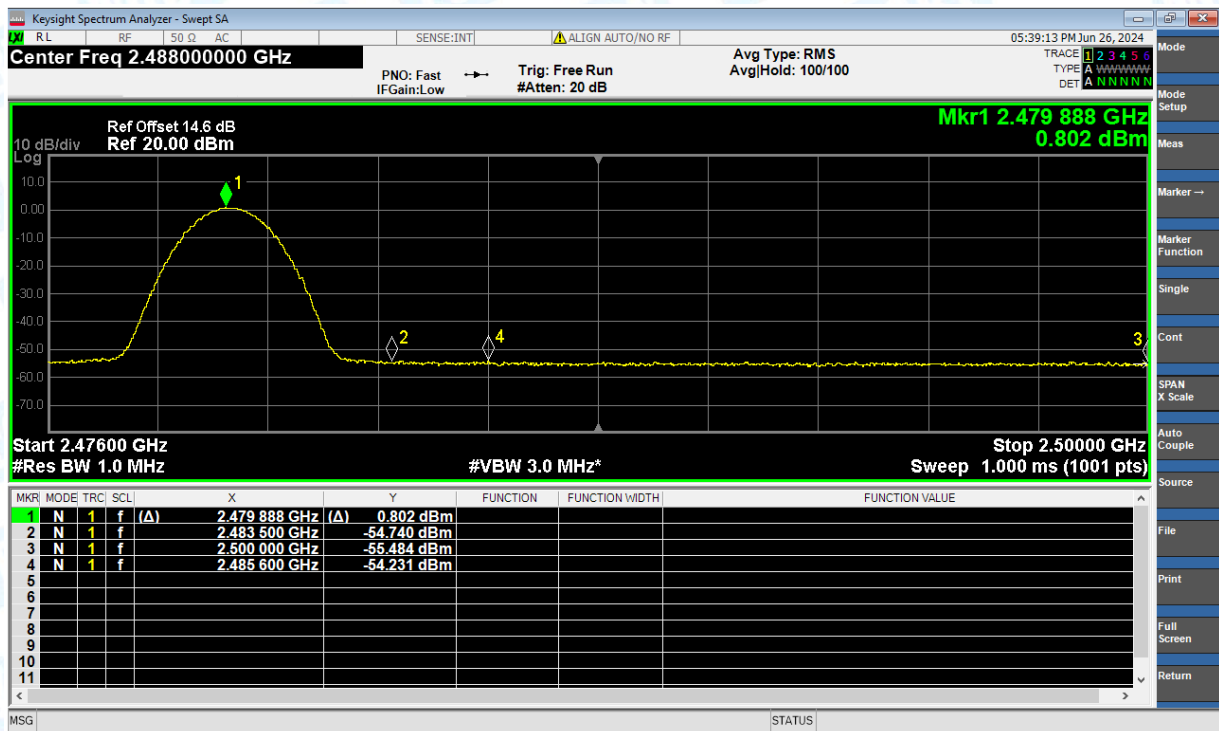
Restrict Band NVHT BLE 1Mbps 2402MHz Ant1 Average



Restrict Band NVHT BLE 1Mbps 2480MHz Ant1 Peak



Restrict Band NVHT BLE 1Mbps 2480MHz Ant1 Average



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