

Appendix A: Test Results

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Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Conducted Power (dBm)	Total Conducted Power (W)	Gain (dBi)	eirp (dBm)	eirp (W)	Limit Conducted (dBm)	Limit EIRP (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	6.03	0	6.03	0.00401	1.23	7.26	0.00532	30	36	Pass
NVNT	BLE 1M	2440	Ant1	5.84	0	5.84	0.00384	1.23	7.07	0.00509	30	36	Pass
NVNT	BLE 1M	2480	Ant1	5.9	0	5.9	0.00389	1.23	7.13	0.00516	30	36	Pass
NVNT	BLE 2M	2404	Ant1	5.81	0	5.81	0.00381	1.23	7.04	0.00506	30	36	Pass
NVNT	BLE 2M	2440	Ant1	5.64	0	5.64	0.00366	1.23	6.87	0.00486	30	36	Pass
NVNT	BLE 2M	2478	Ant1	5.69	0	5.69	0.00371	1.23	6.92	0.00492	30	36	Pass

-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.7232	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.7129	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.6964	0.5	Pass
NVNT	BLE 2M	2404	Ant1	1.15	0.5	Pass
NVNT	BLE 2M	2440	Ant1	1.164	0.5	Pass
NVNT	BLE 2M	2478	Ant1	1.176	0.5	Pass



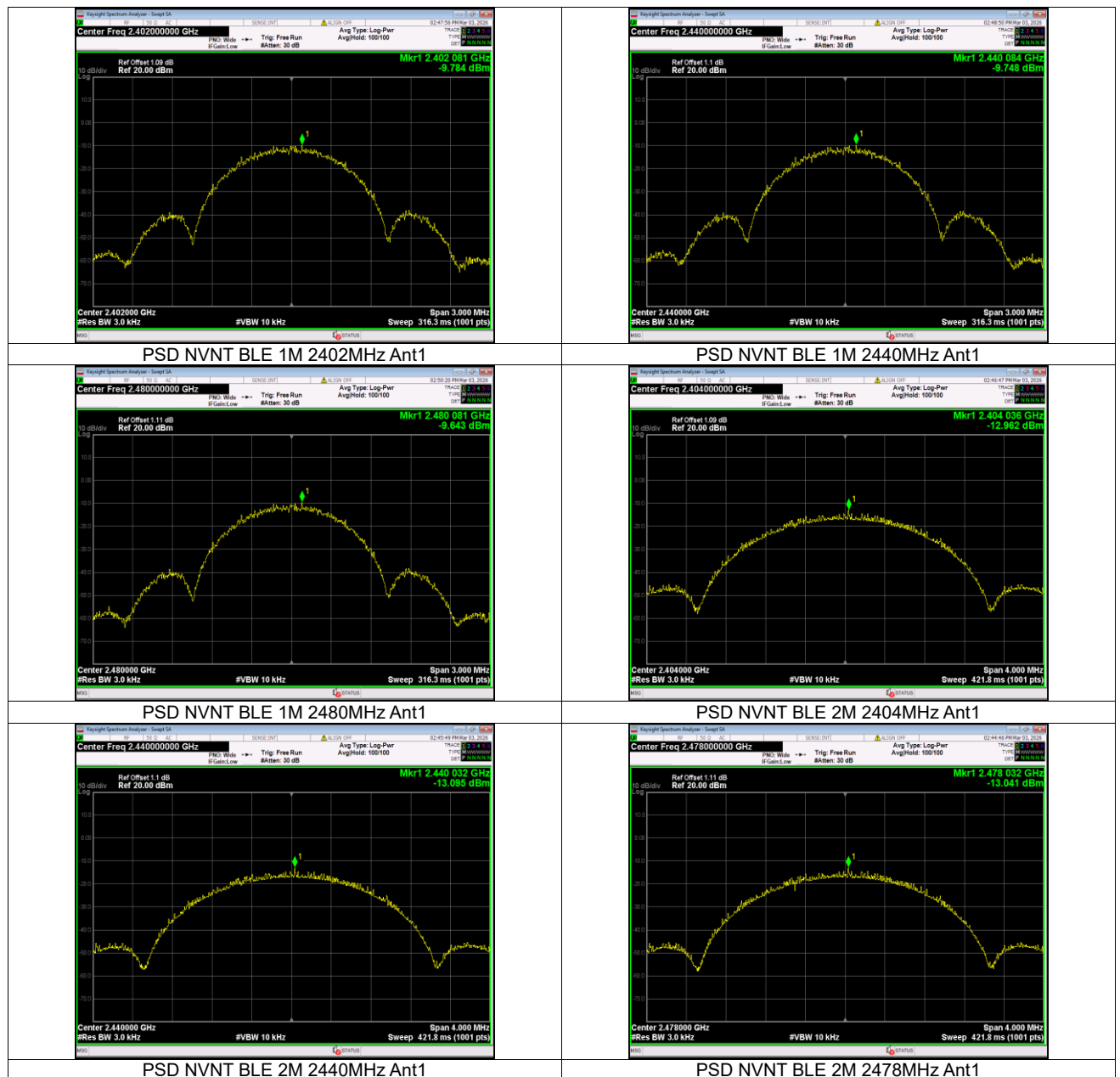
Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.0607
NVNT	BLE 1M	2440	Ant1	1.0617
NVNT	BLE 1M	2480	Ant1	1.0607
NVNT	BLE 2M	2404	Ant1	2.0453
NVNT	BLE 2M	2440	Ant1	2.0546
NVNT	BLE 2M	2478	Ant1	2.0524



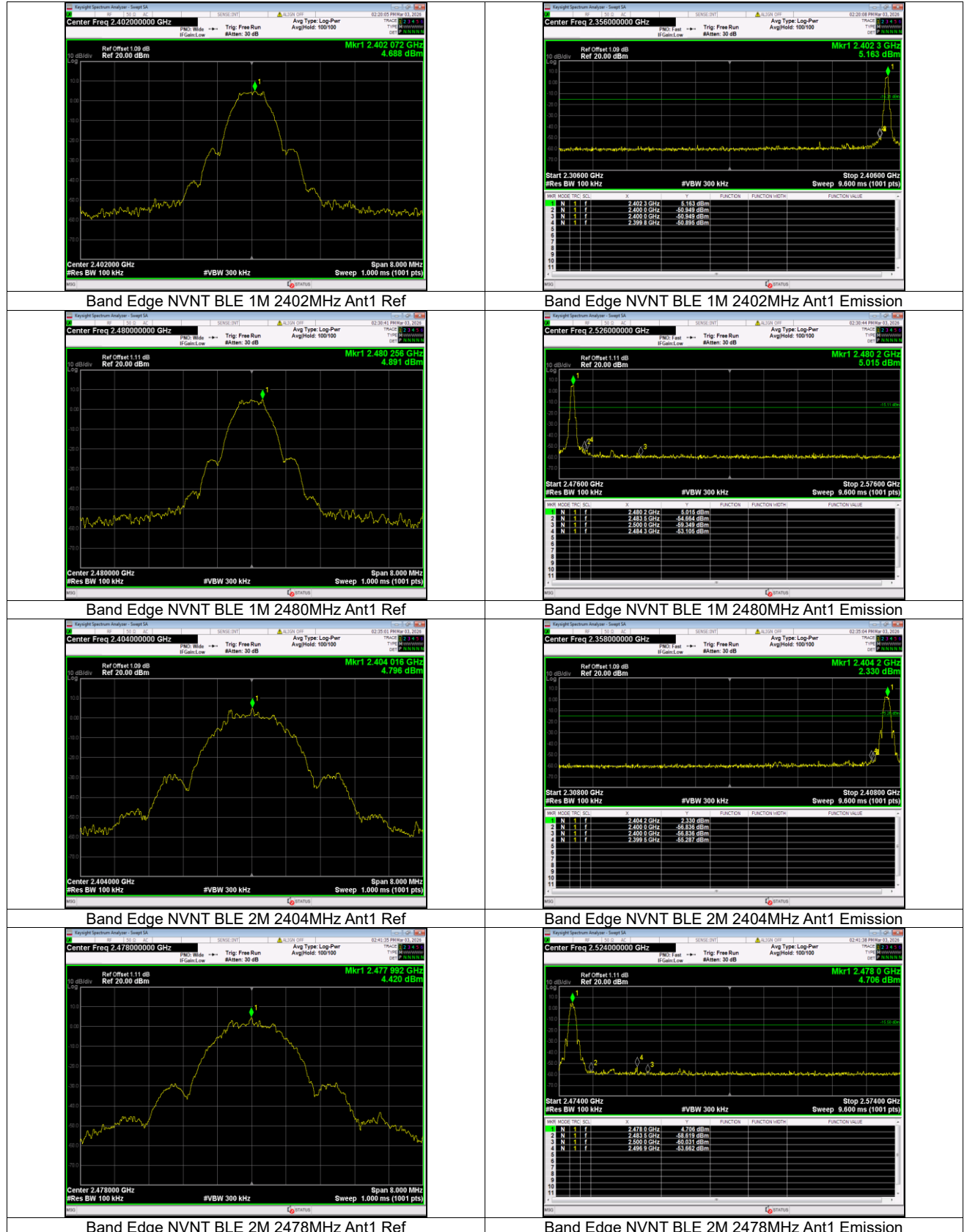
Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	Ant1	-9.78	0	-9.78	8	Pass
NVNT	BLE 1M	2440	Ant1	-9.75	0	-9.75	8	Pass
NVNT	BLE 1M	2480	Ant1	-9.64	0	-9.64	8	Pass
NVNT	BLE 2M	2404	Ant1	-12.96	0	-12.96	8	Pass
NVNT	BLE 2M	2440	Ant1	-13.1	0	-13.1	8	Pass
NVNT	BLE 2M	2478	Ant1	-13.04	0	-13.04	8	Pass



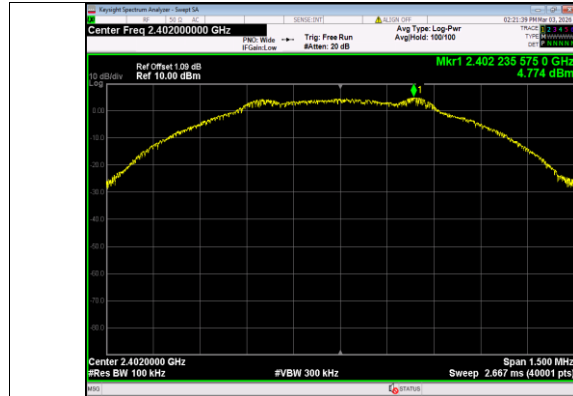
Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-55.58	-20	Pass
NVNT	BLE 1M	2480	Ant1	-57.99	-20	Pass
NVNT	BLE 2M	2404	Ant1	-60.08	-20	Pass
NVNT	BLE 2M	2478	Ant1	-58.08	-20	Pass

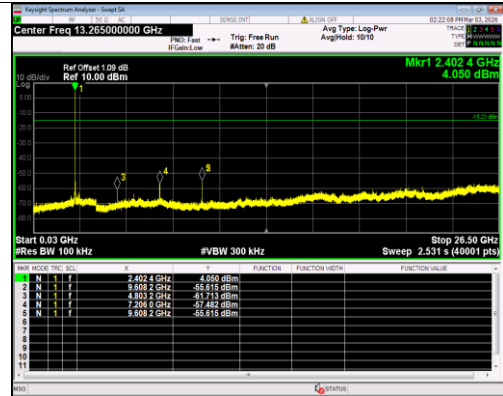


Conducted RF Spurious Emission

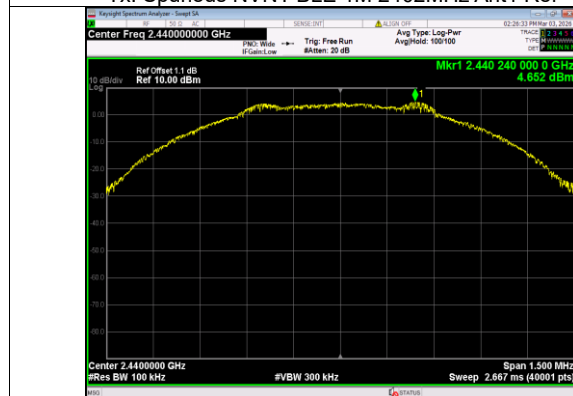
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-60.38	-20	Pass
NVNT	BLE 1M	2440	Ant1	-60.67	-20	Pass
NVNT	BLE 1M	2480	Ant1	-52.14	-20	Pass
NVNT	BLE 2M	2404	Ant1	-59.63	-20	Pass
NVNT	BLE 2M	2440	Ant1	-49.55	-20	Pass
NVNT	BLE 2M	2478	Ant1	-61.29	-20	Pass



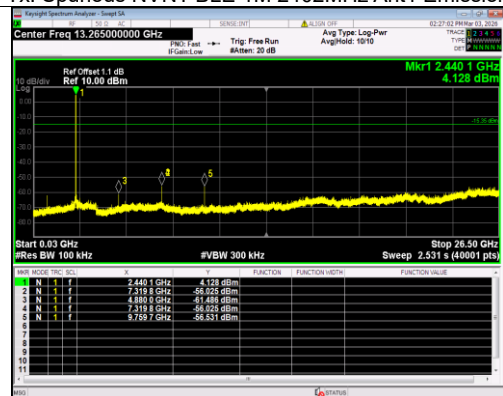
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



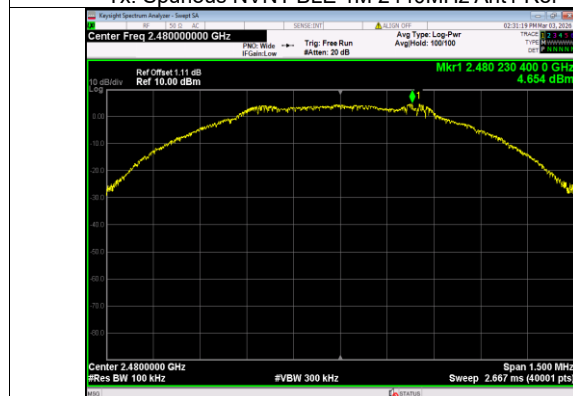
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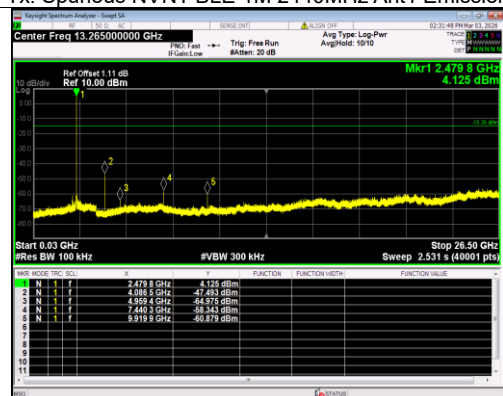
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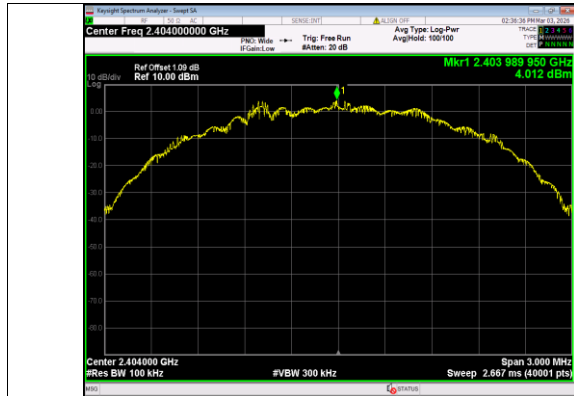
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



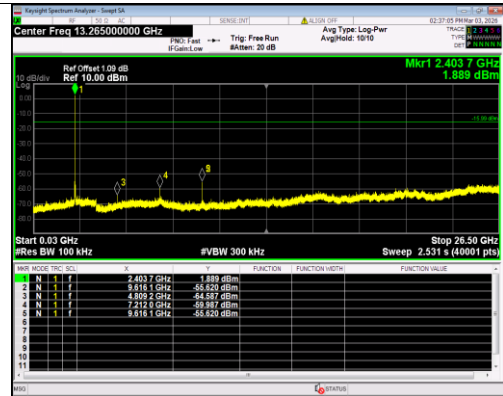
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission



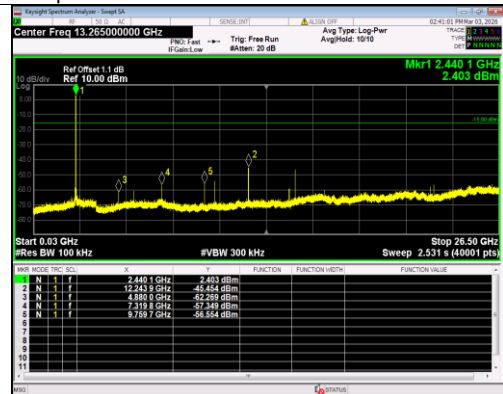
Tx. Spurious NVNT BLE 2M 2404MHz Ant1 Ref



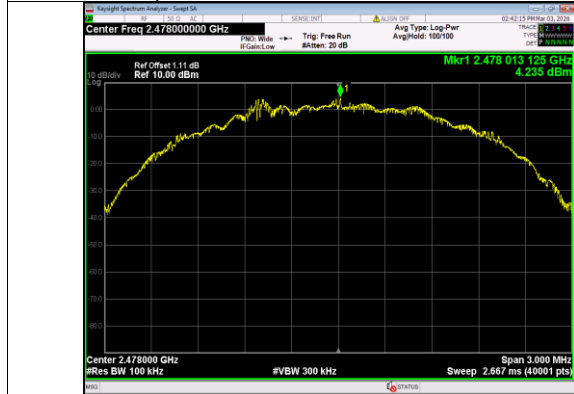
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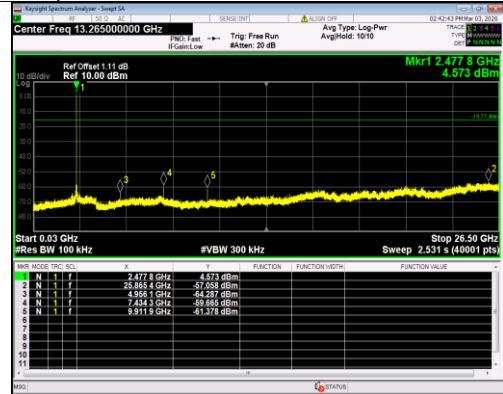
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Ref



Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Emission



Tx. Spurious NVNT BLE 2M 2478MHz Ant1 Ref

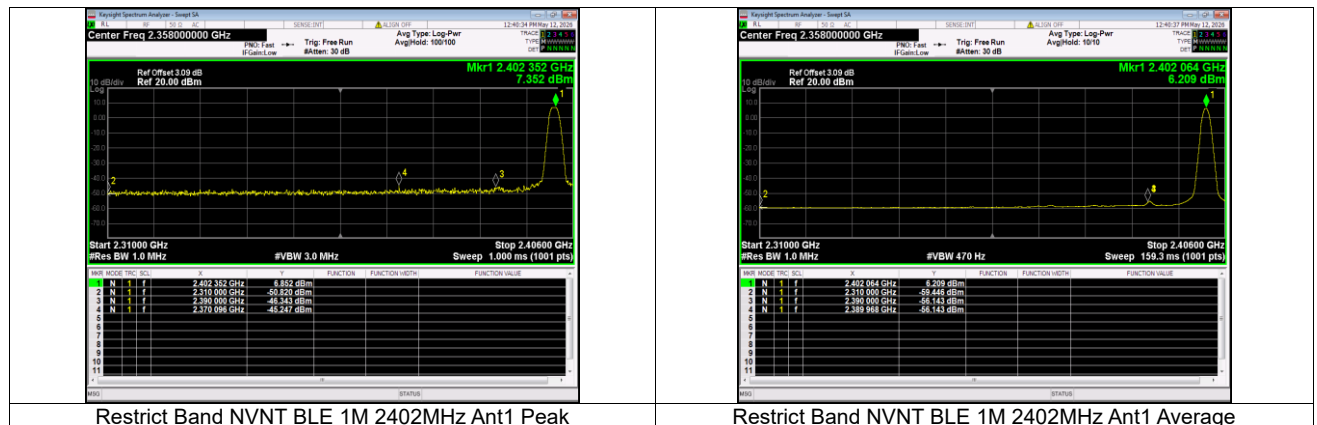


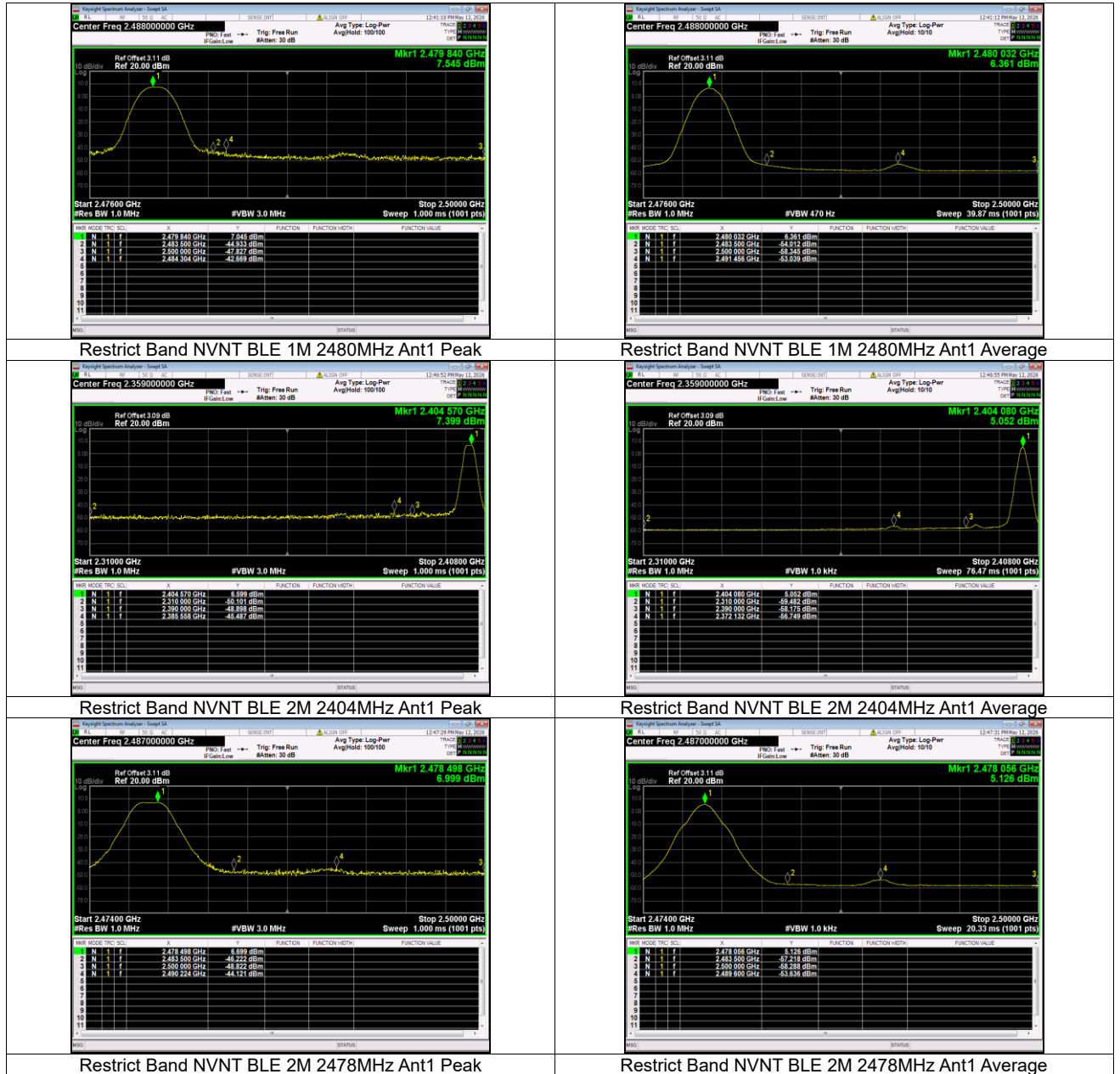
Tx. Spurious NVNT BLE 2M 2478MHz Ant1 Emission

Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	BLE 1M	2402	Ant1	2310	-50.82	44.44	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2310	-59.44	35.82	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2370.096	-45.24	50.02	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2389.968	-56.14	39.12	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2390	-46.51	48.75	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2390	-55.96	39.3	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-44.93	50.33	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-54.01	41.25	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2484.304	-42.66	52.6	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2491.456	-53.03	42.23	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2500	-47.82	47.44	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2500	-58.34	36.92	Average	54	Pass
NVNT	BLE 2M	2404	Ant1	2310	-50.1	45.16	Peak	74	Pass
NVNT	BLE 2M	2404	Ant1	2310	-59.48	35.78	Average	54	Pass
NVNT	BLE 2M	2404	Ant1	2385.558	-45.48	49.78	Peak	74	Pass
NVNT	BLE 2M	2404	Ant1	2372.132	-56.74	38.52	Average	54	Pass
NVNT	BLE 2M	2404	Ant1	2390	-48.1	47.16	Peak	74	Pass
NVNT	BLE 2M	2404	Ant1	2390	-58.09	37.17	Average	54	Pass
NVNT	BLE 2M	2478	Ant1	2483.5	-45.03	50.23	Peak	74	Pass
NVNT	BLE 2M	2478	Ant1	2483.5	-57.4	37.86	Average	54	Pass
NVNT	BLE 2M	2478	Ant1	2490.224	-44.12	51.14	Peak	74	Pass
NVNT	BLE 2M	2478	Ant1	2489.6	-53.63	41.63	Average	54	Pass
NVNT	BLE 2M	2478	Ant1	2500	-48.82	46.44	Peak	74	Pass
NVNT	BLE 2M	2478	Ant1	2500	-58.28	36.98	Average	54	Pass

Note: This gain (2dBi) has already been compensated into the offset parameter of the test data.





Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2440	Ant1	85.12	0.7	0.47
NVNT	BLE 2M	2440	Ant1	85.92	0.66	0.93

