



Appendix A

RF Test Data for BT LE (Conducted Measurement)

Product Name: Bluetooth Water Time

Test Model: SWV-02

Environmental Conditions

Temperature:	23.5℃
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Lh Li
Supervised by:	Li Huan



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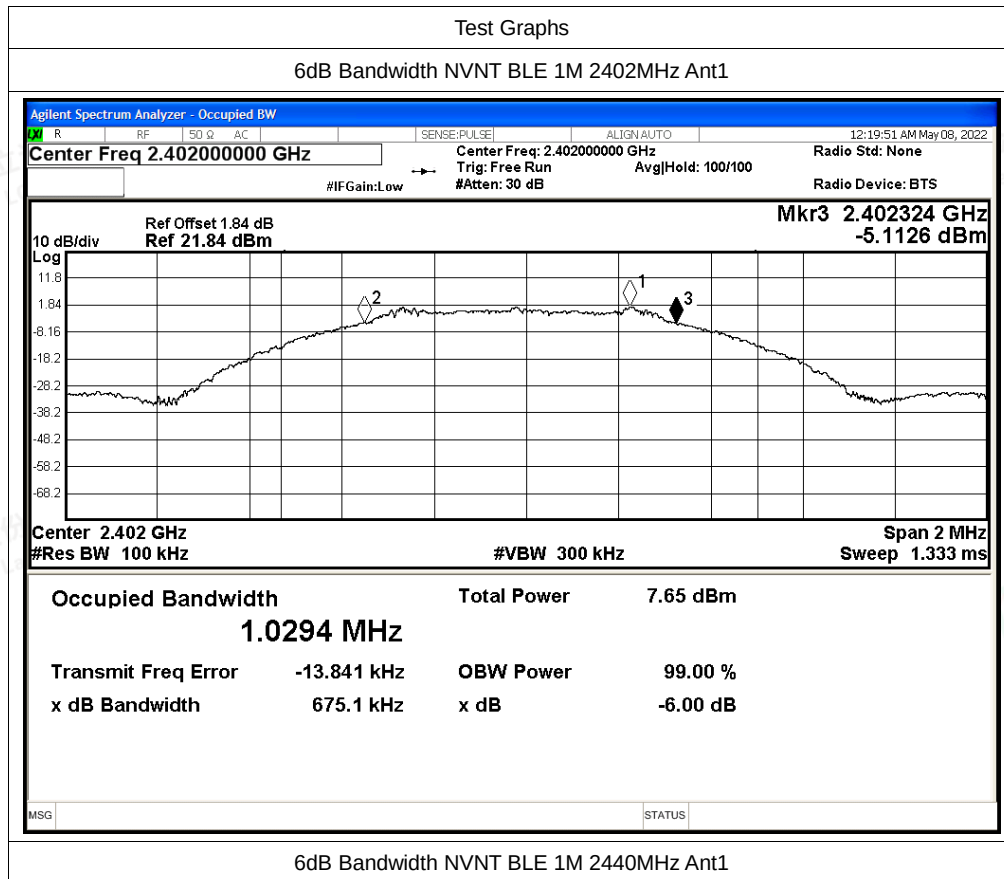
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A.1 6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	6 dB Bandwidth (MHz)	Limit 6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.675	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.676	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.667	0.5	Pass

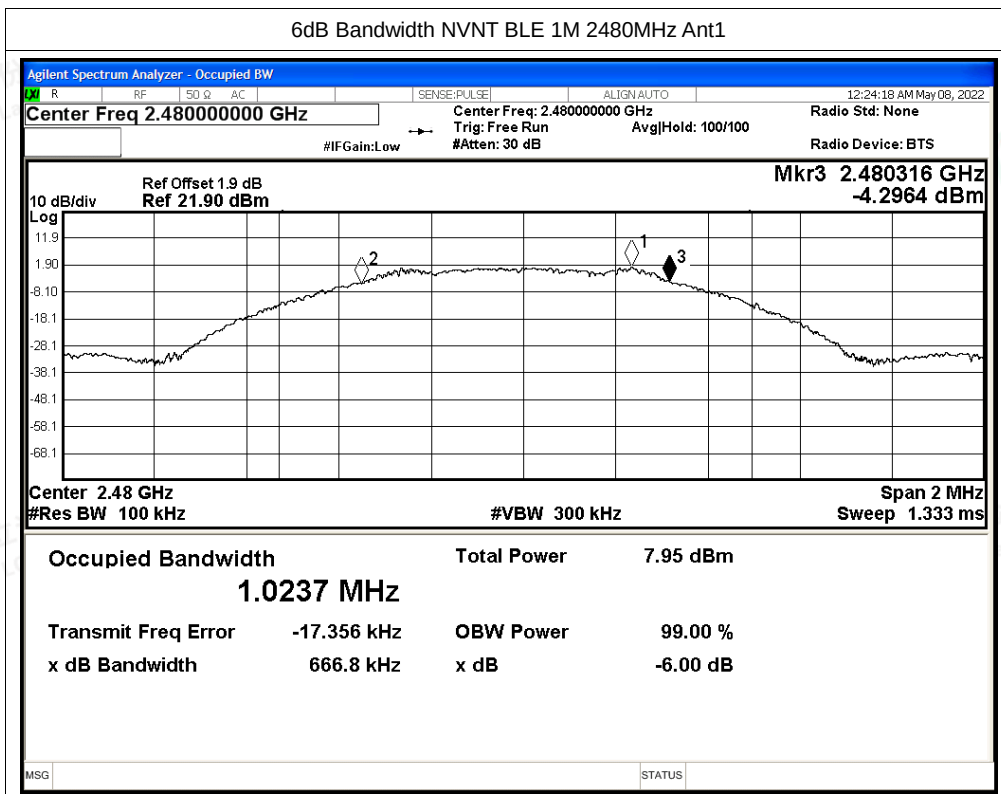
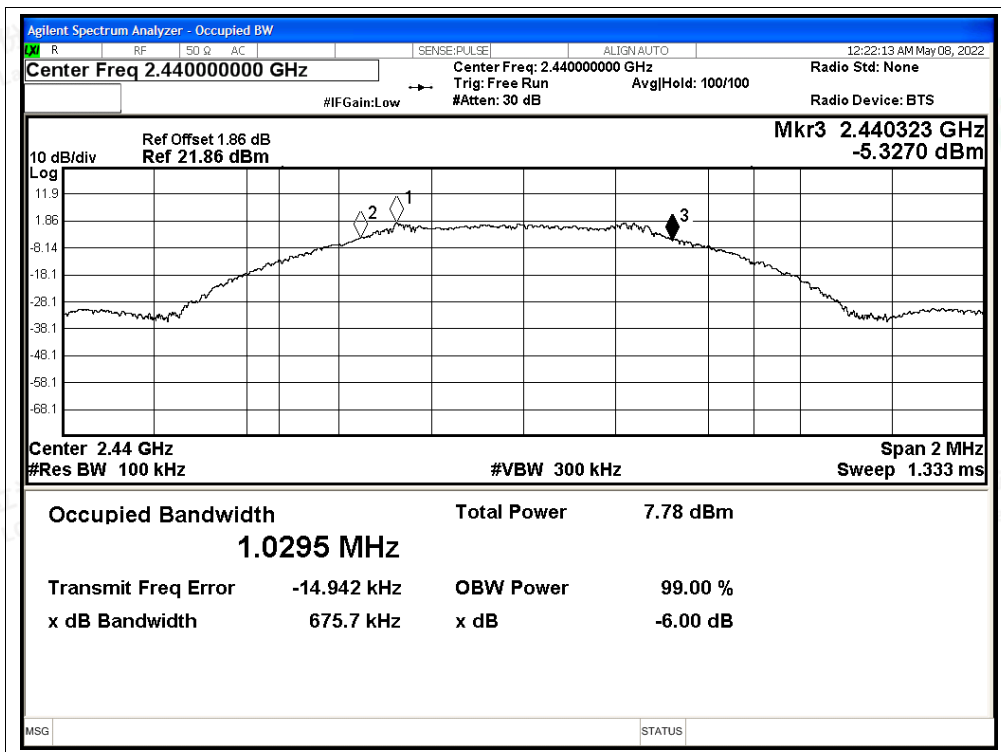


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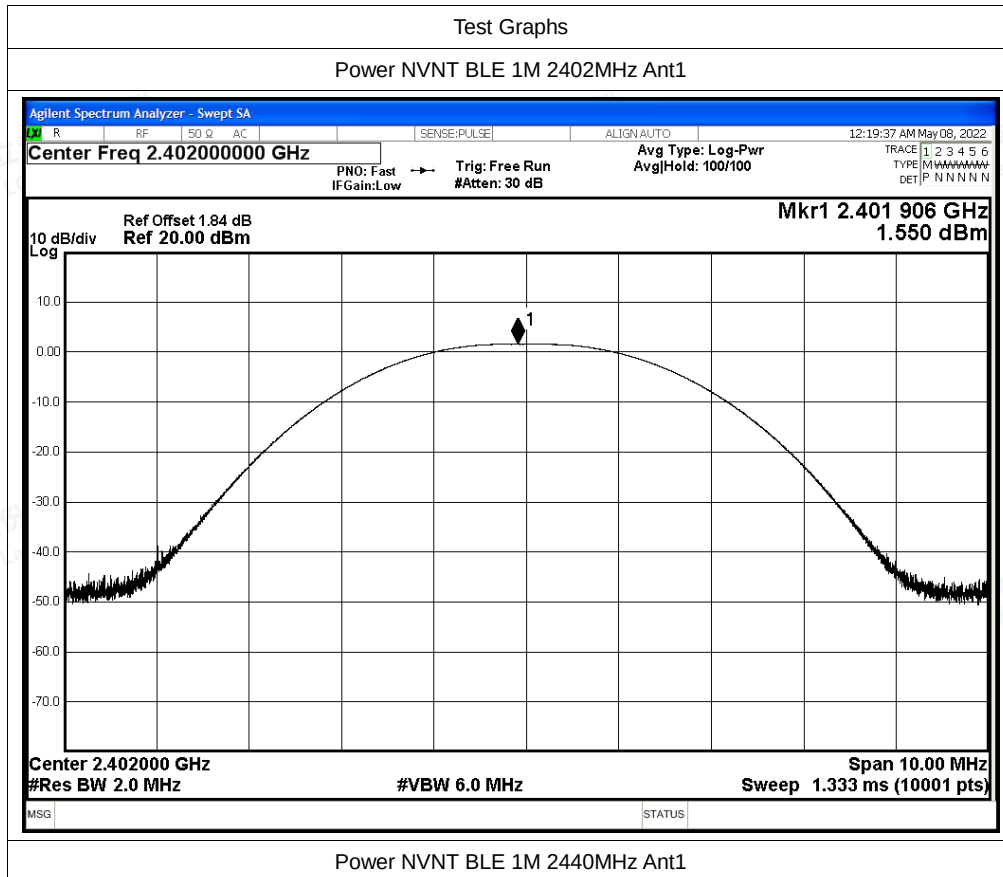
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A.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	1.55	30	Pass
NVNT	BLE 1M	2440	Ant1	1.71	30	Pass
NVNT	BLE 1M	2480	Ant1	1.92	30	Pass

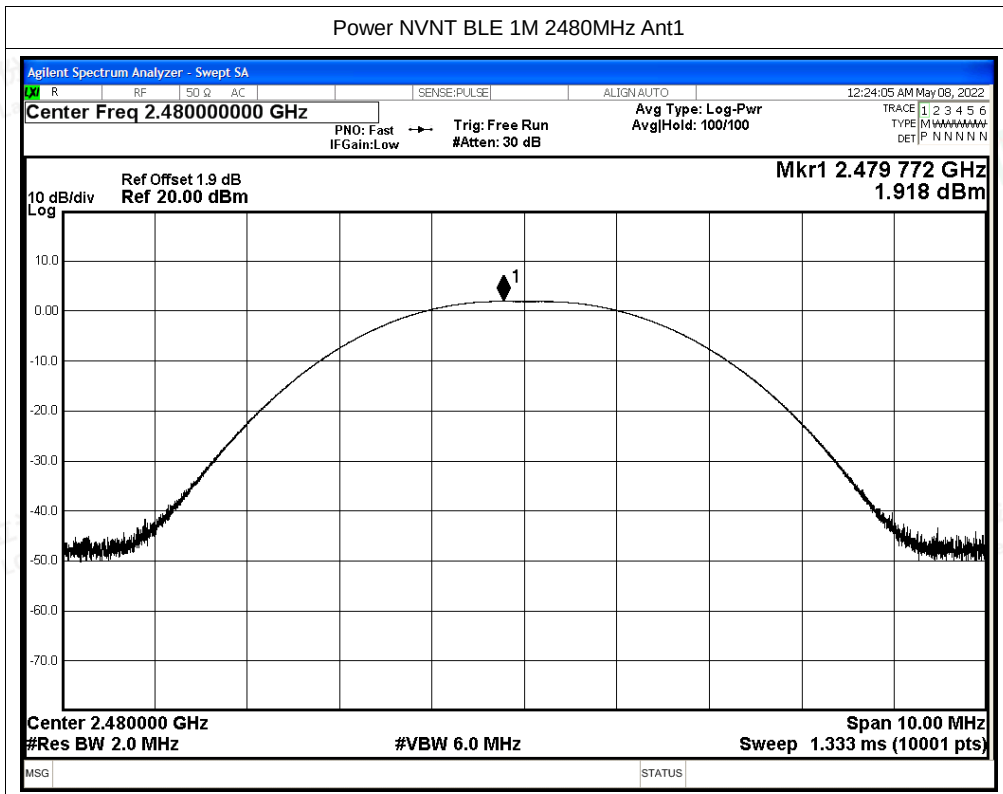
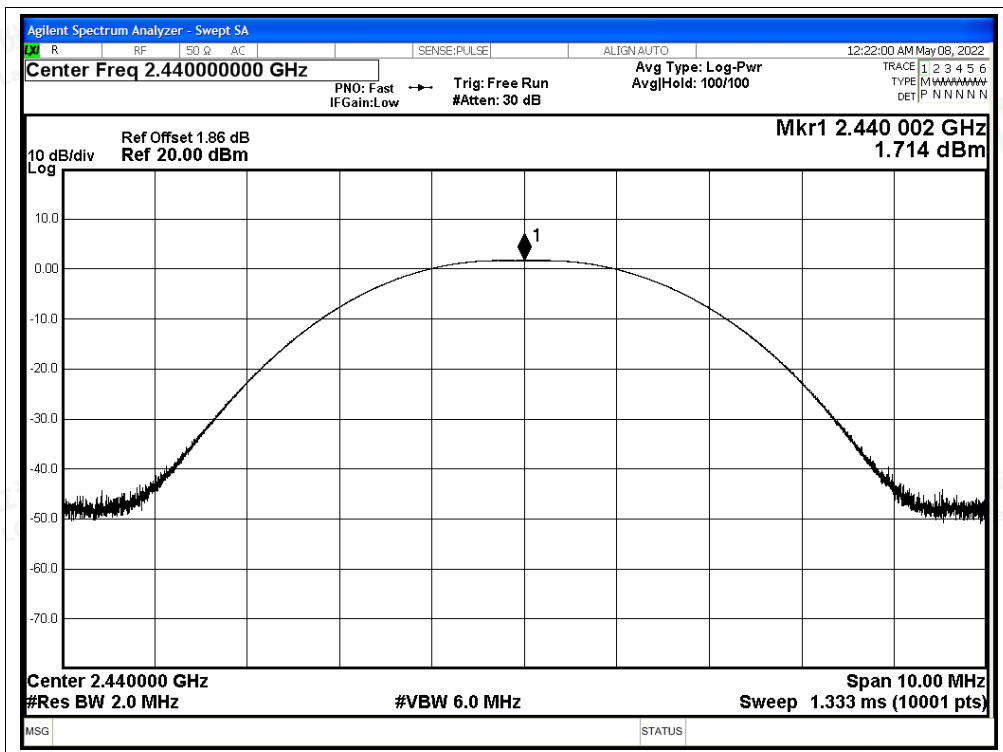


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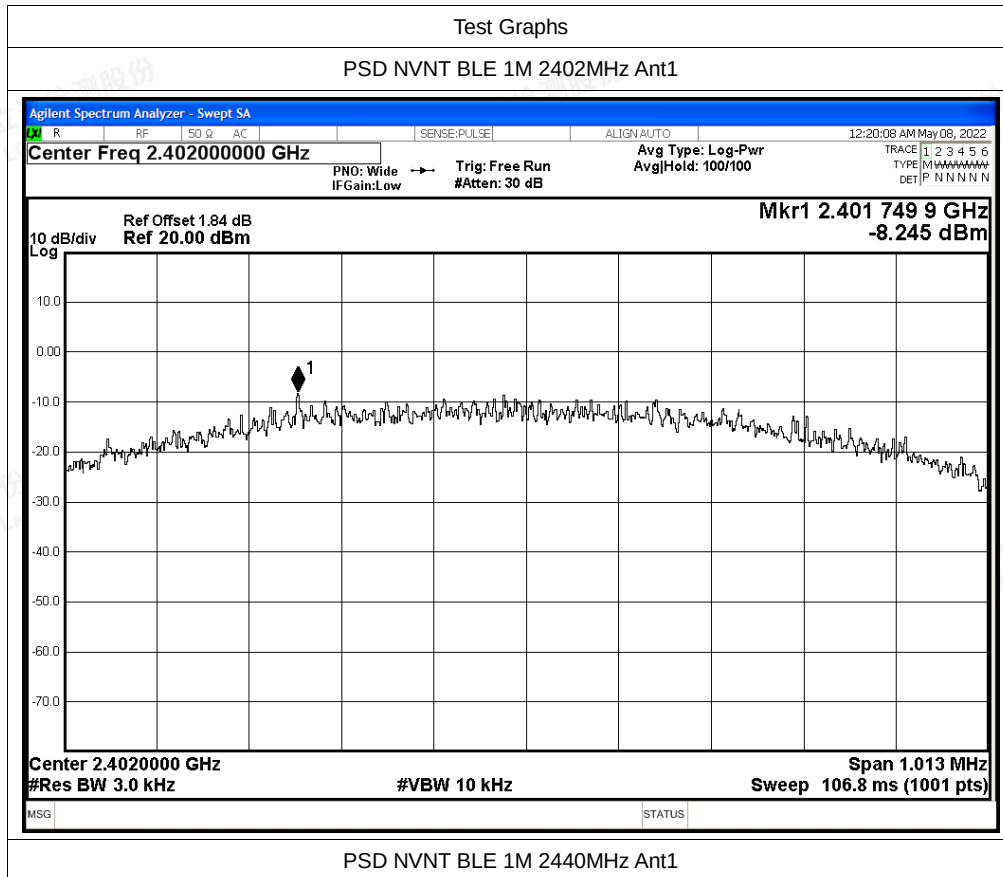
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A.3 Maximum Power Spectral Density

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	-8.24	0	-8.24	8	Pass
NVNT	BLE 1M	2440	Ant1	-7.88	0	-7.88	8	Pass
NVNT	BLE 1M	2480	Ant1	-7.27	0	-7.27	8	Pass

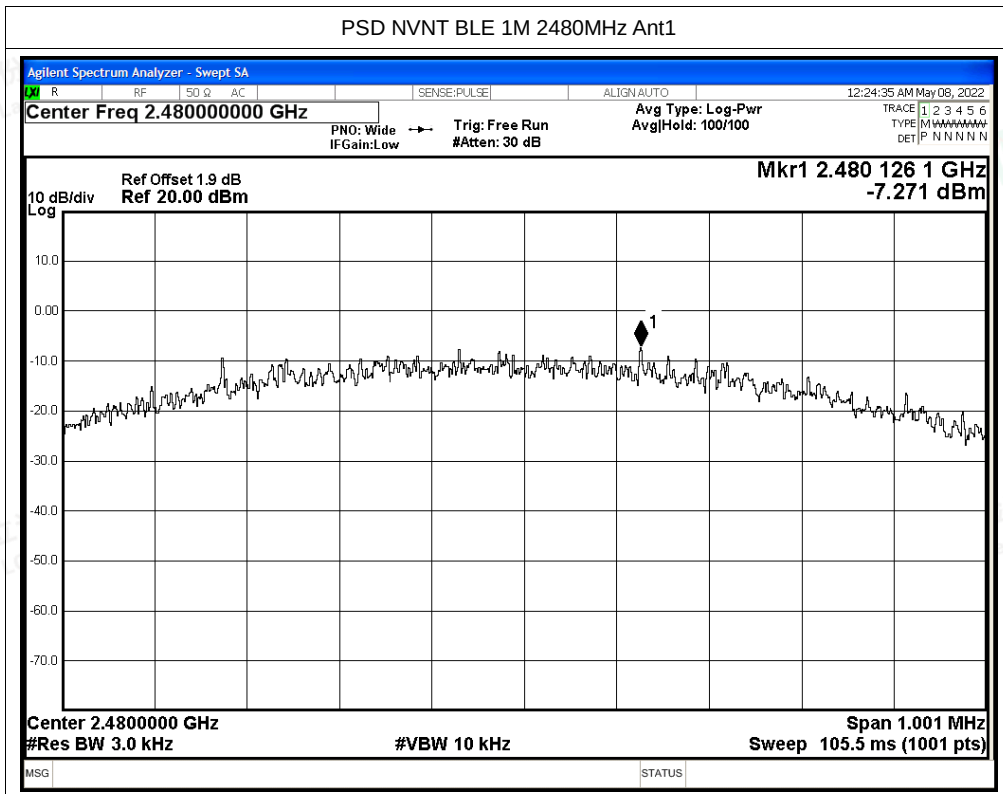
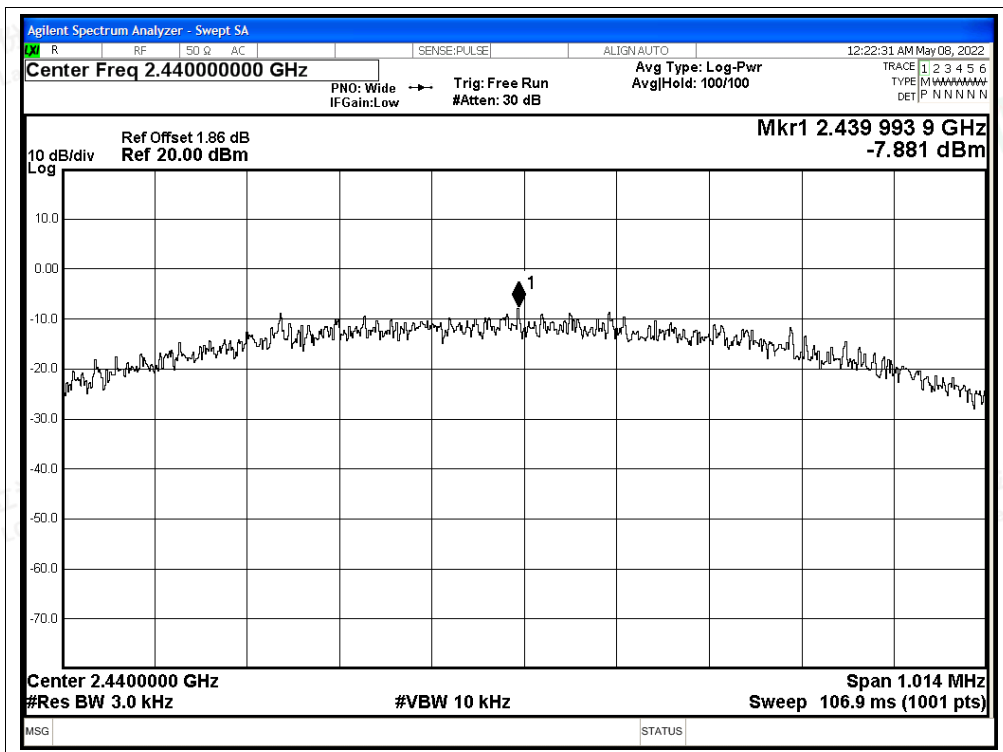


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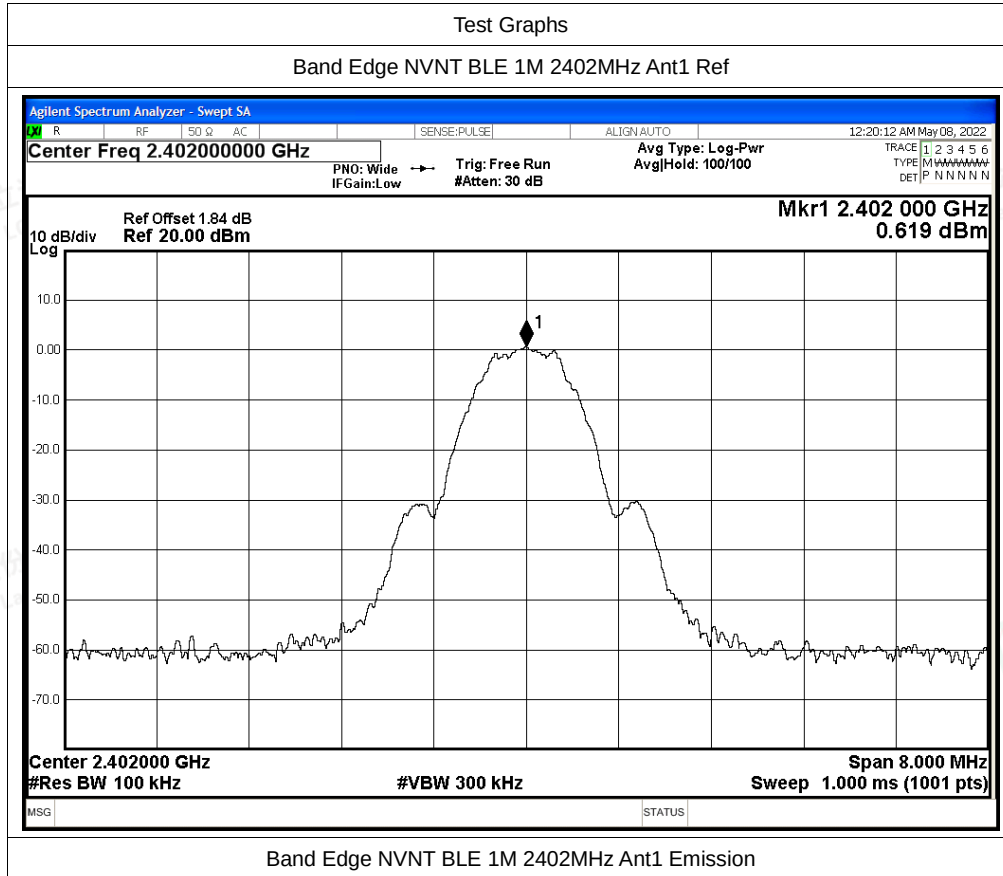
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A.4 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-58	-20	Pass
NVNT	BLE 1M	2480	Ant1	-58.45	-20	Pass

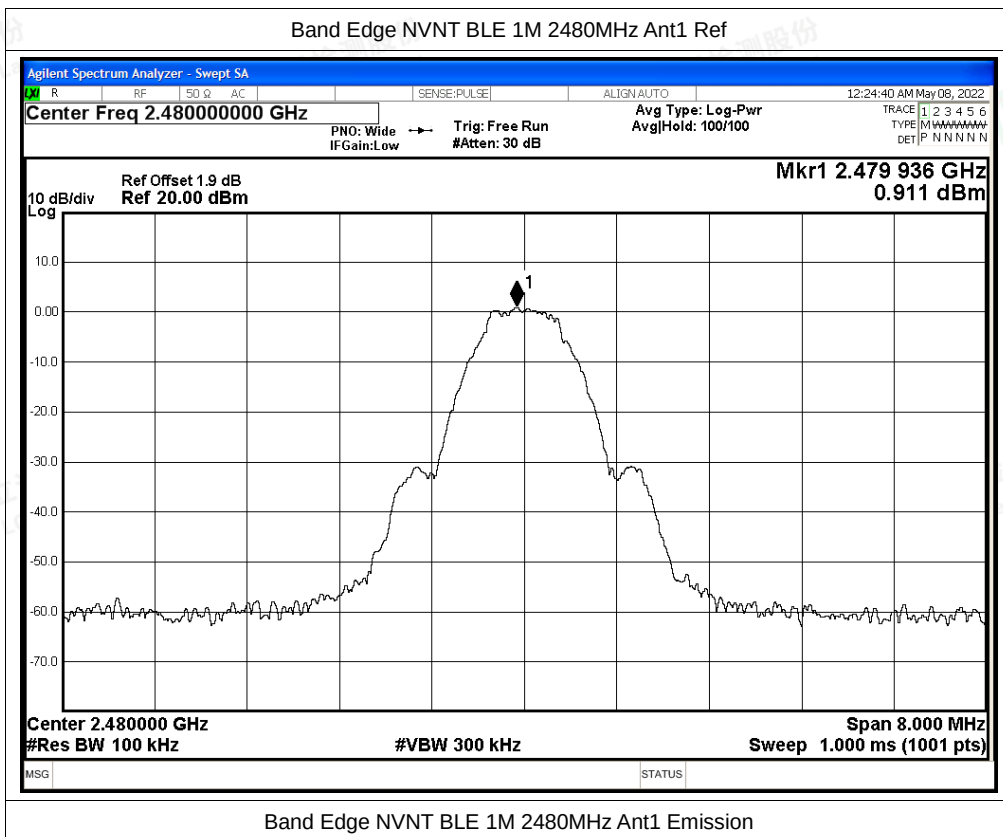
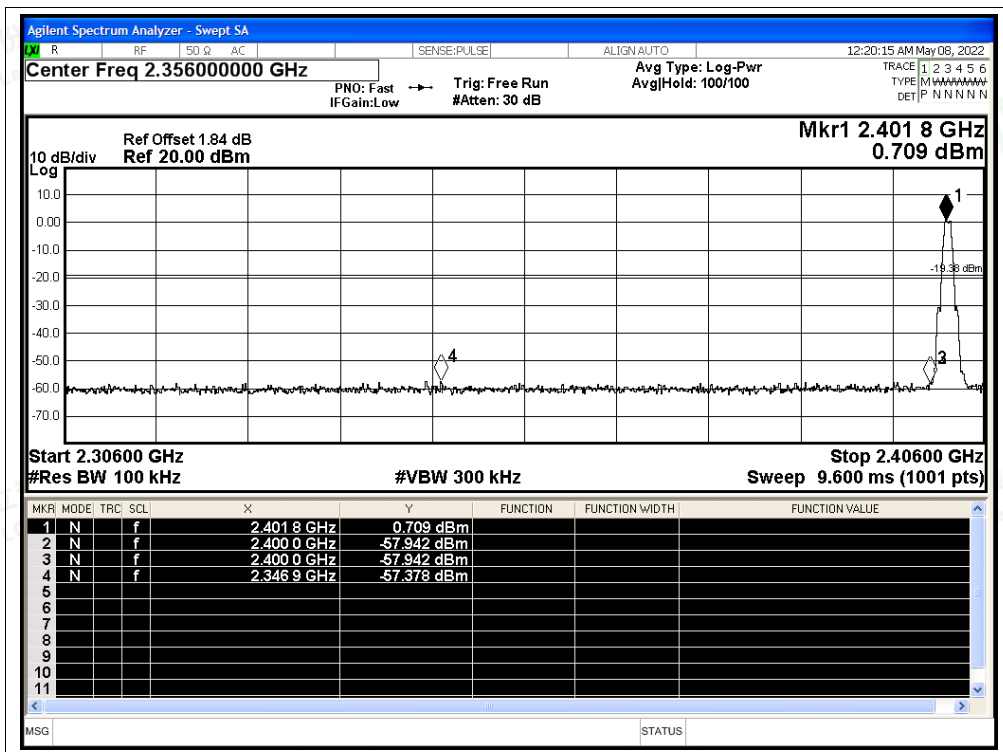


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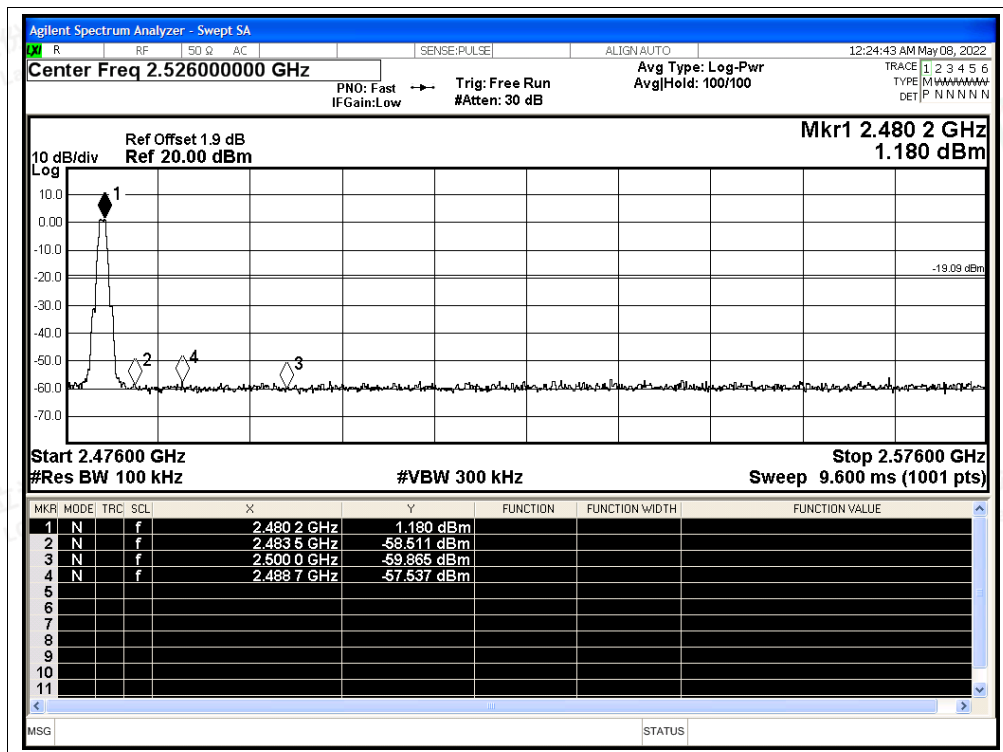


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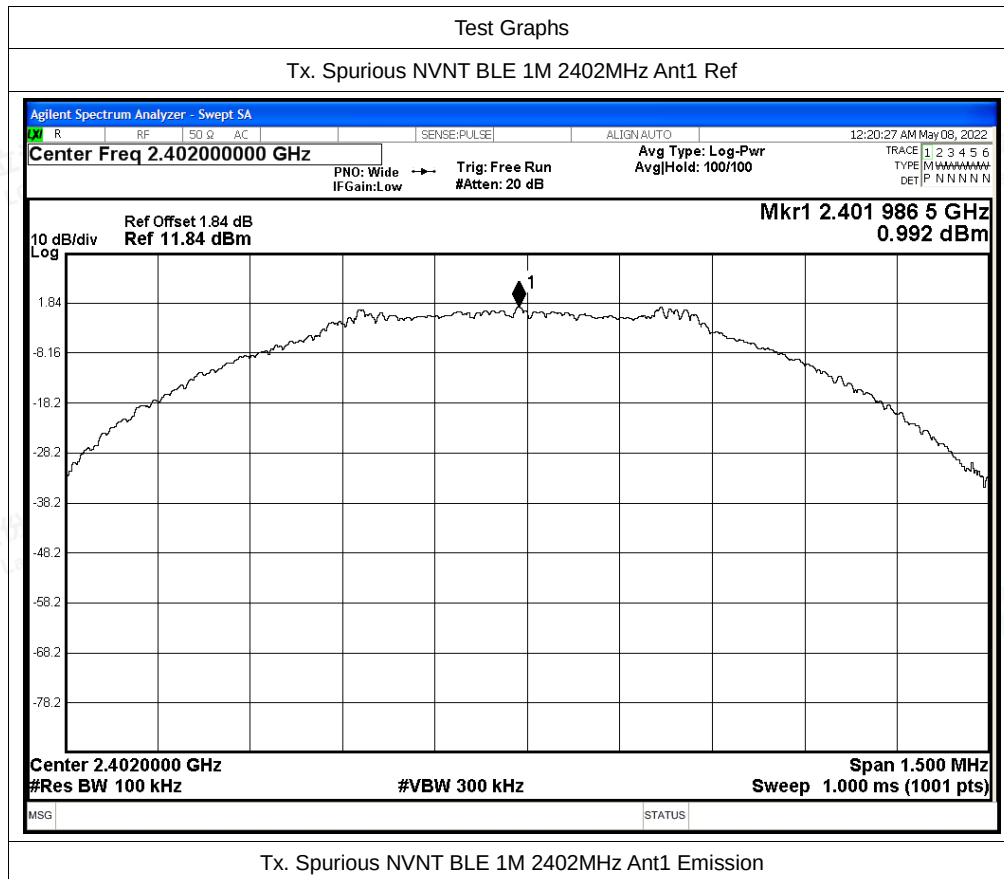
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A.5 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-50.12	-20	Pass
NVNT	BLE 1M	2440	Ant1	-50.78	-20	Pass
NVNT	BLE 1M	2480	Ant1	-51.54	-20	Pass

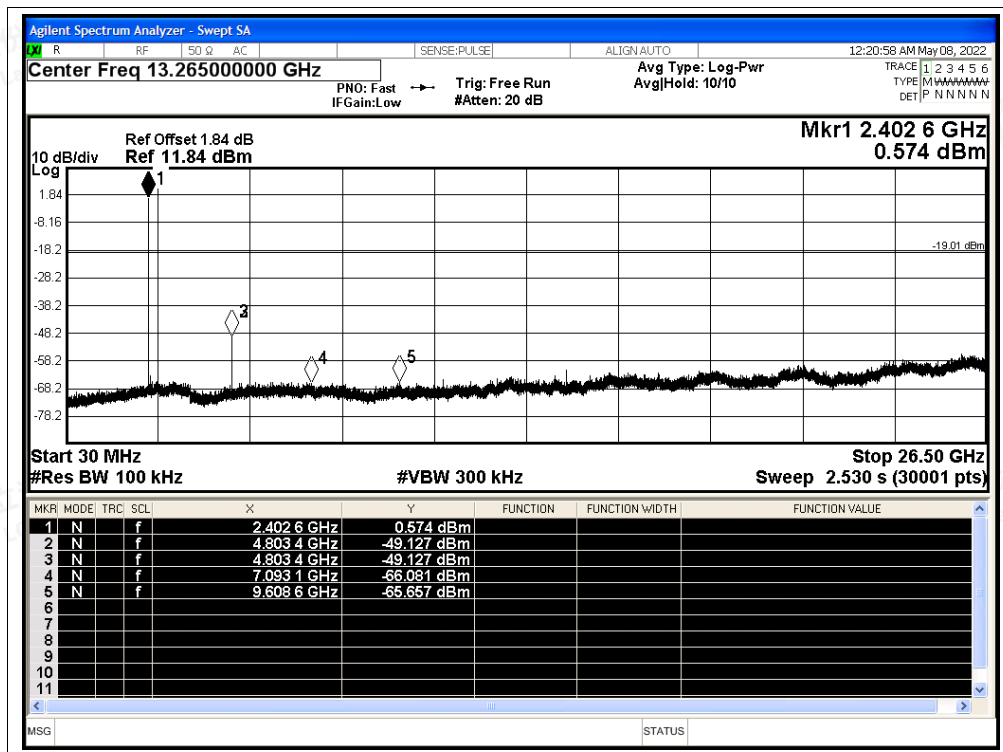


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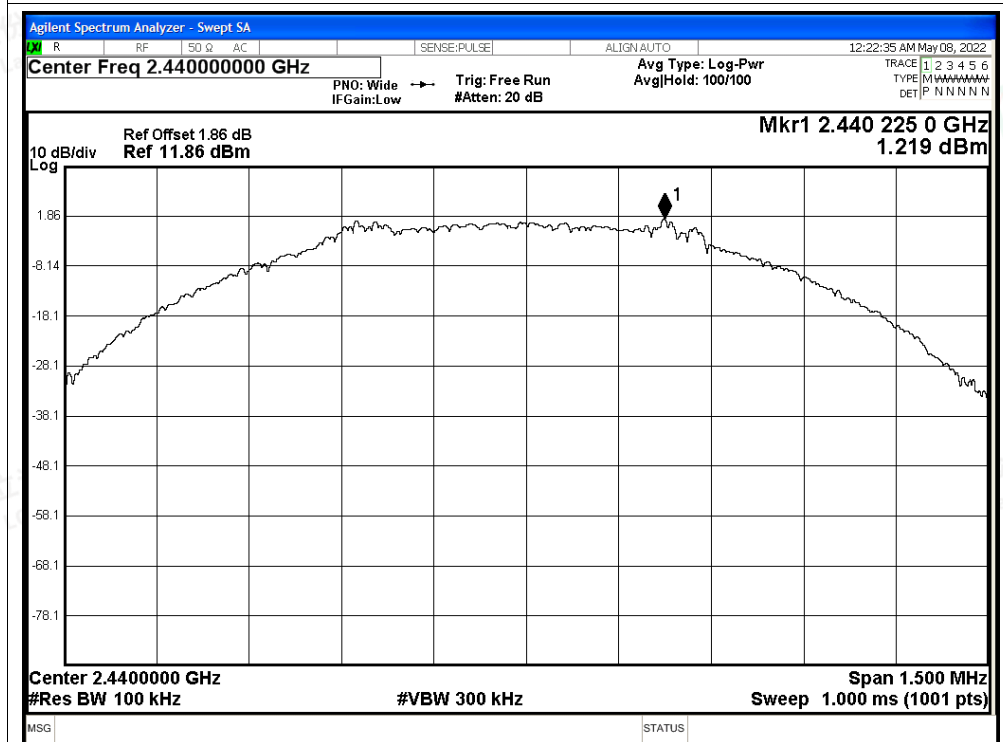
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Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission

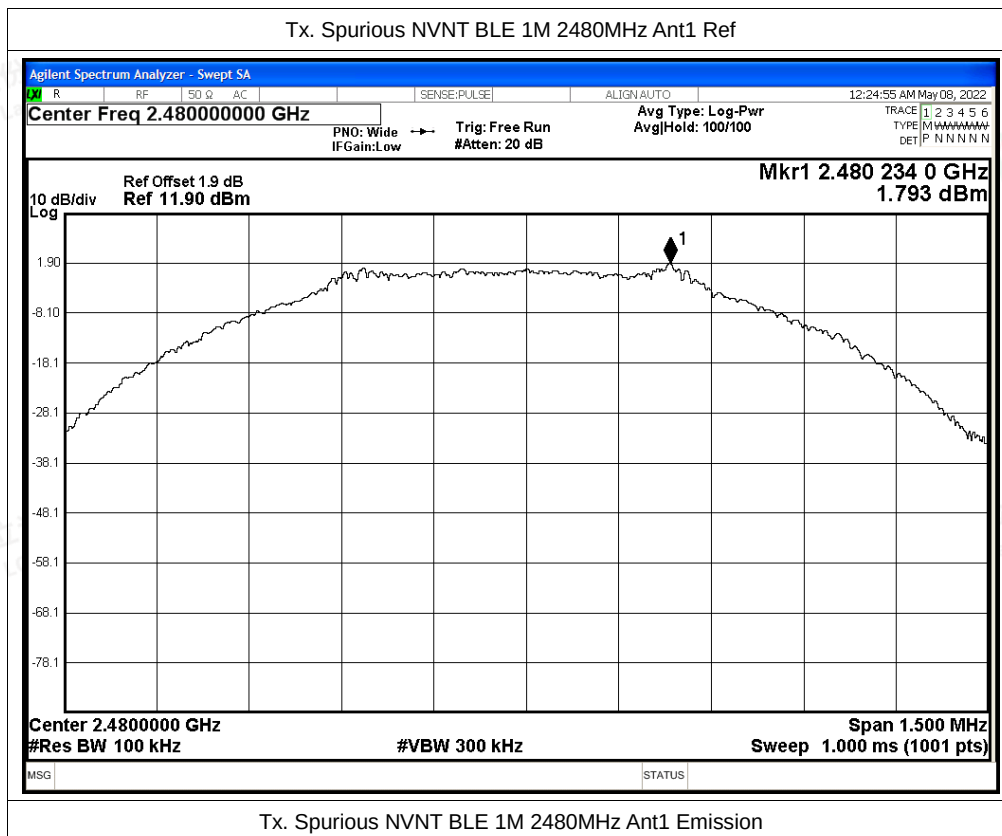
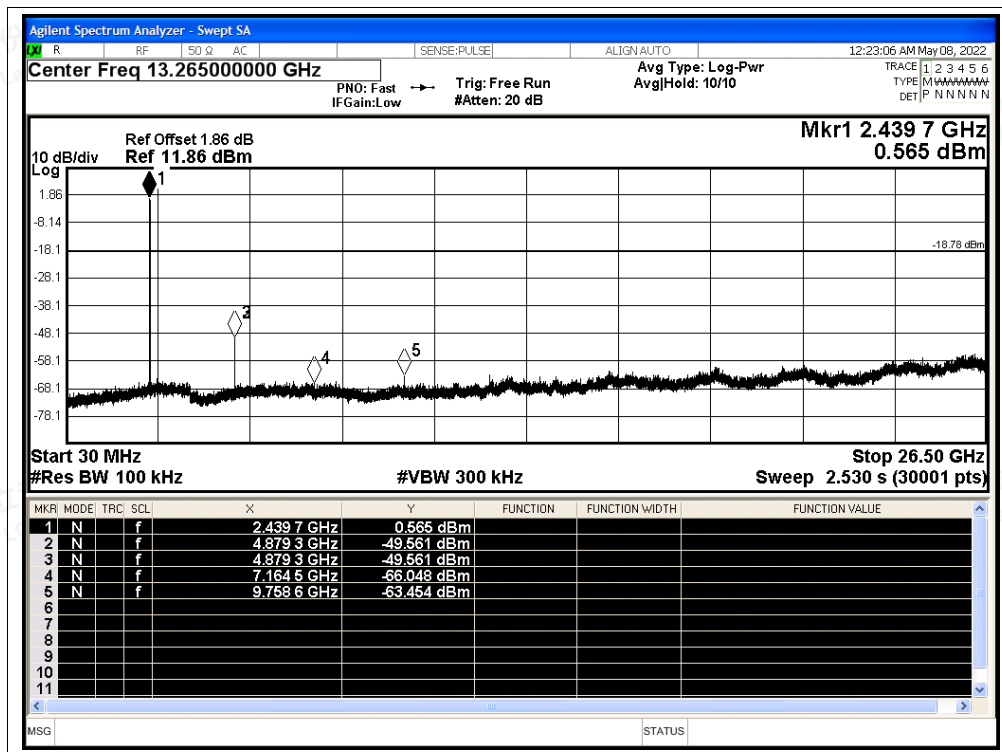


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Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission

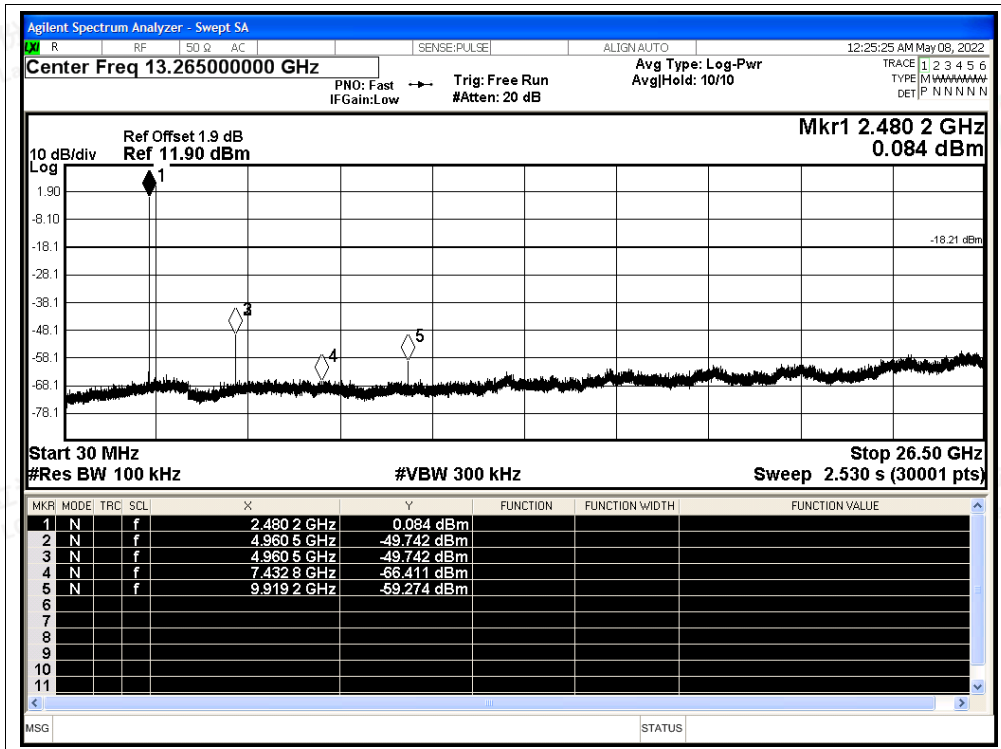


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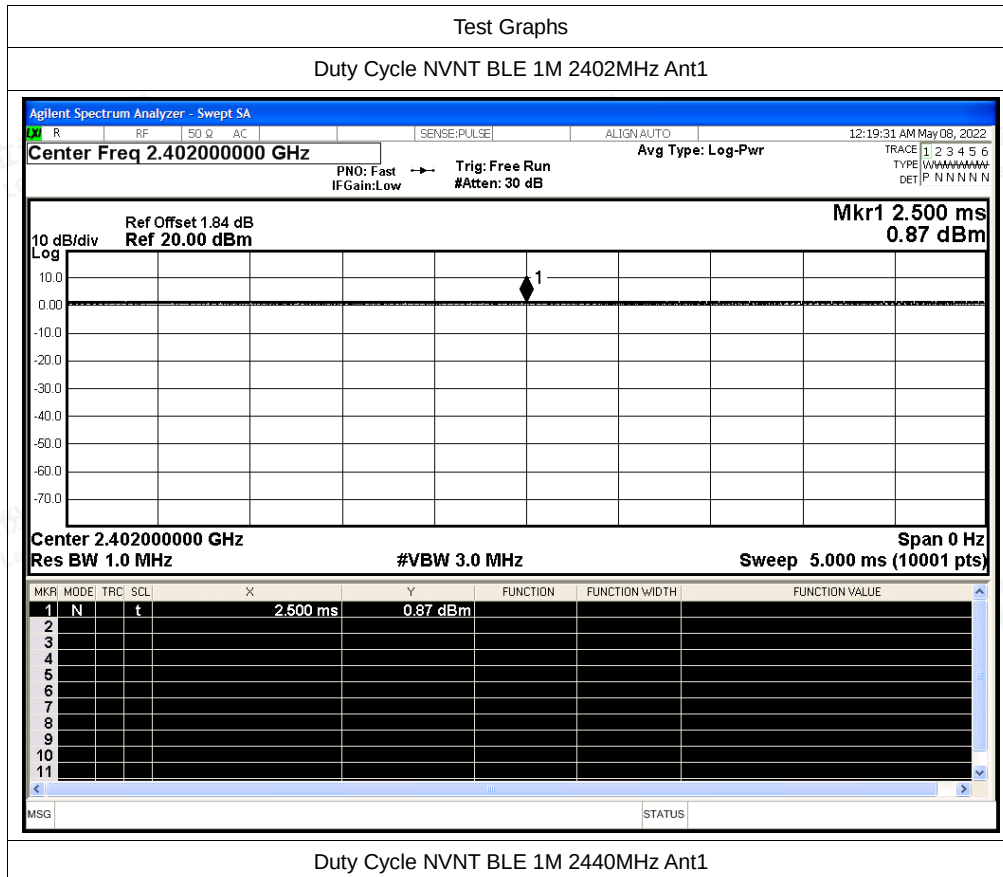
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A.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	100	0	0
NVNT	BLE 1M	2440	Ant1	100	0	0
NVNT	BLE 1M	2480	Ant1	100	0	0

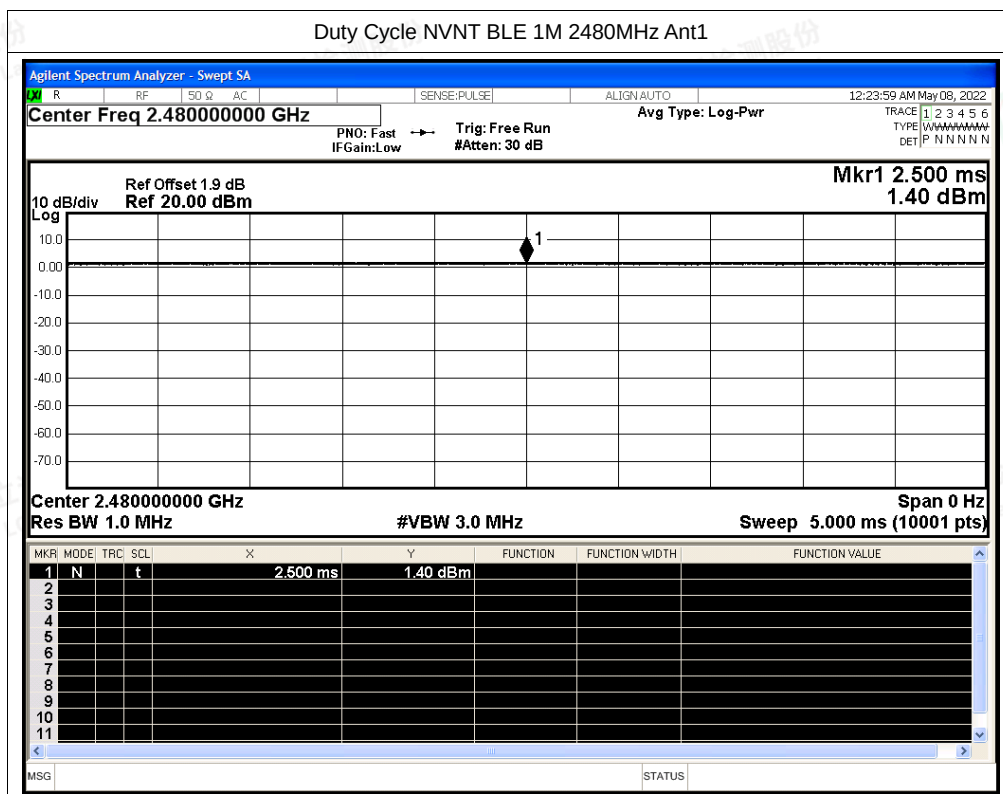
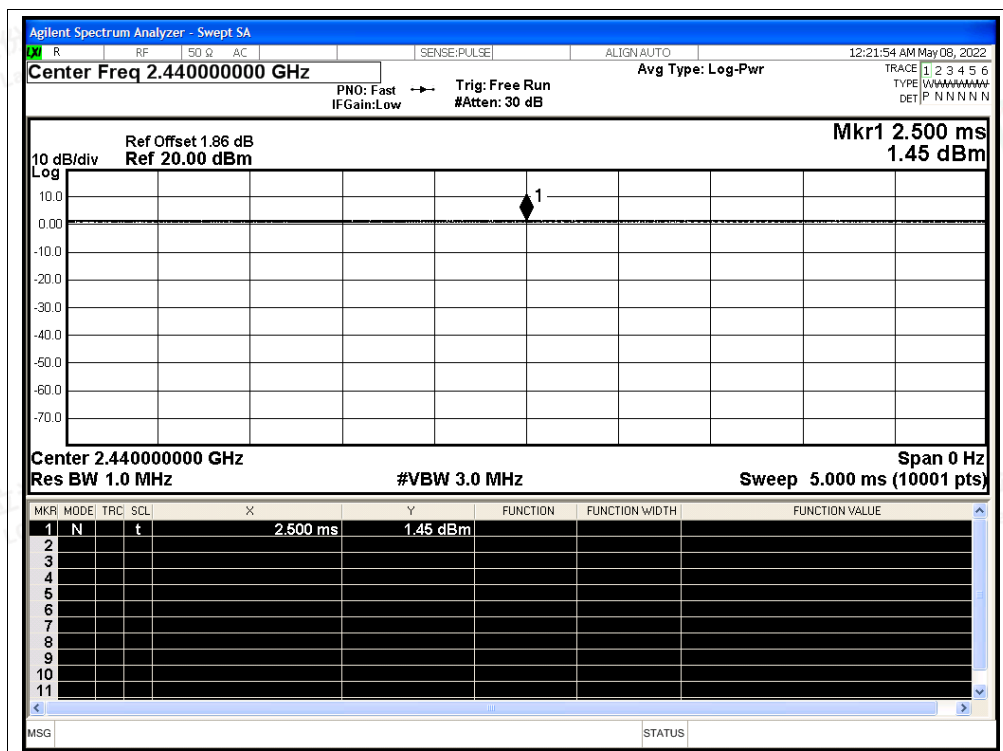


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A.7 Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	BLE 1M	2402	Ant1	2310	-51.46	2	45.8	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2310	-60.14	2	37.12	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2378.544	-48.1	2	49.16	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2366.16	-59.28	2	37.98	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2390	-51.09	2	46.17	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2390	-59.85	2	37.41	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-47.77	2	49.49	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-59.09	2	38.17	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.512	-47.77	2	49.49	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2499.376	-58.95	2	38.31	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2500	-48.24	2	49.02	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2500	-59.75	2	37.51	Average	54	Pass



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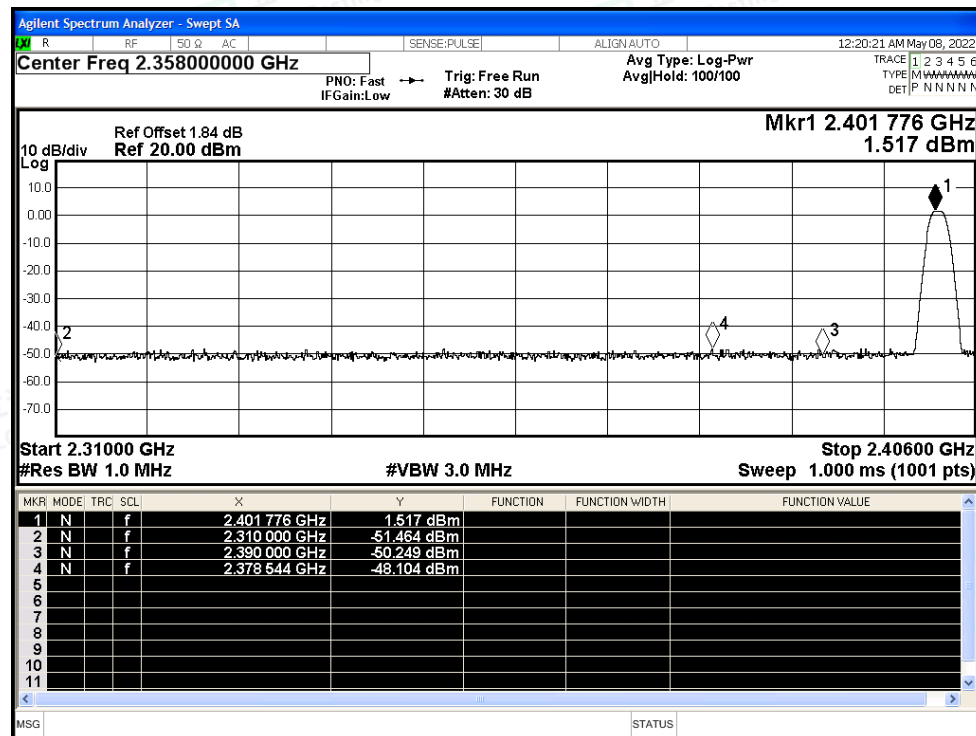
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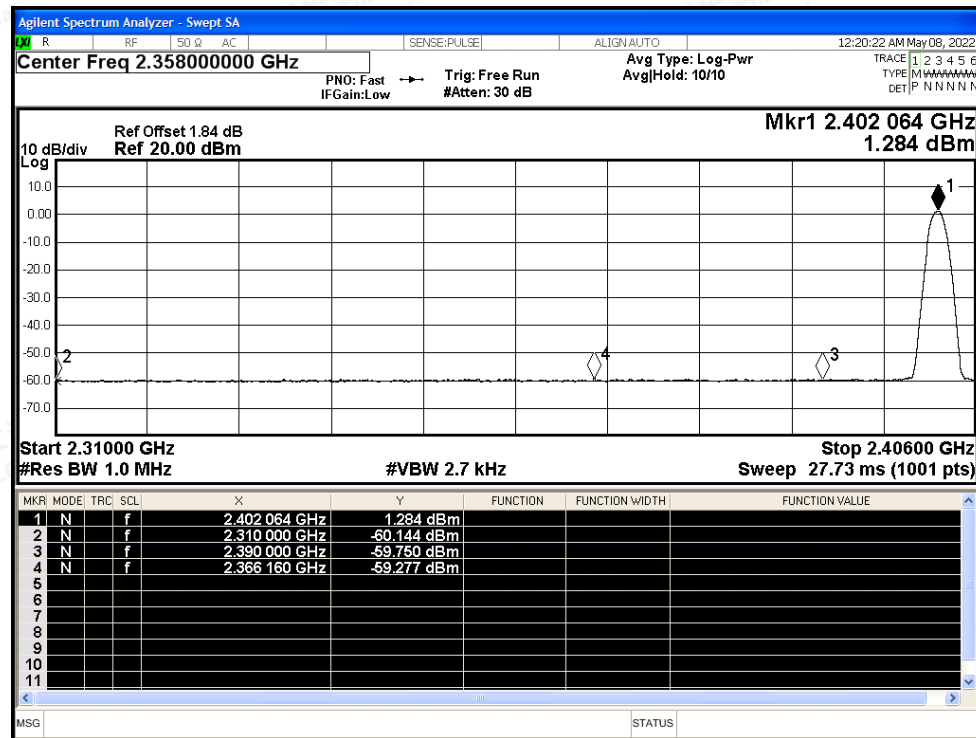


Test Graphs

Restrict Band NVNT BLE 1M 2402MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2402MHz Ant1 Average



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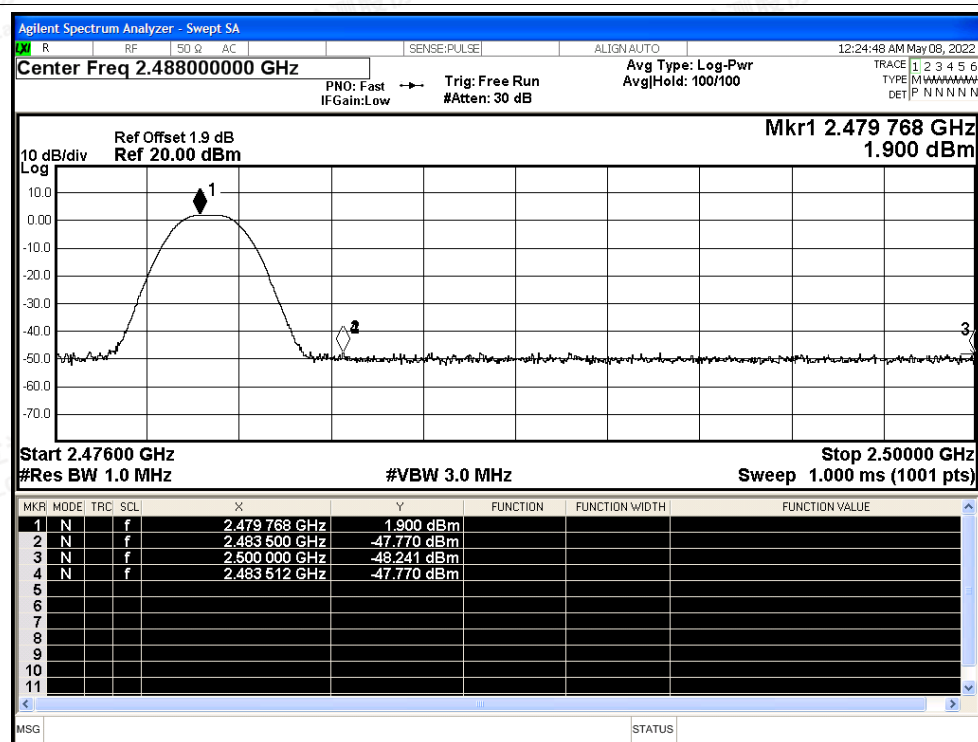
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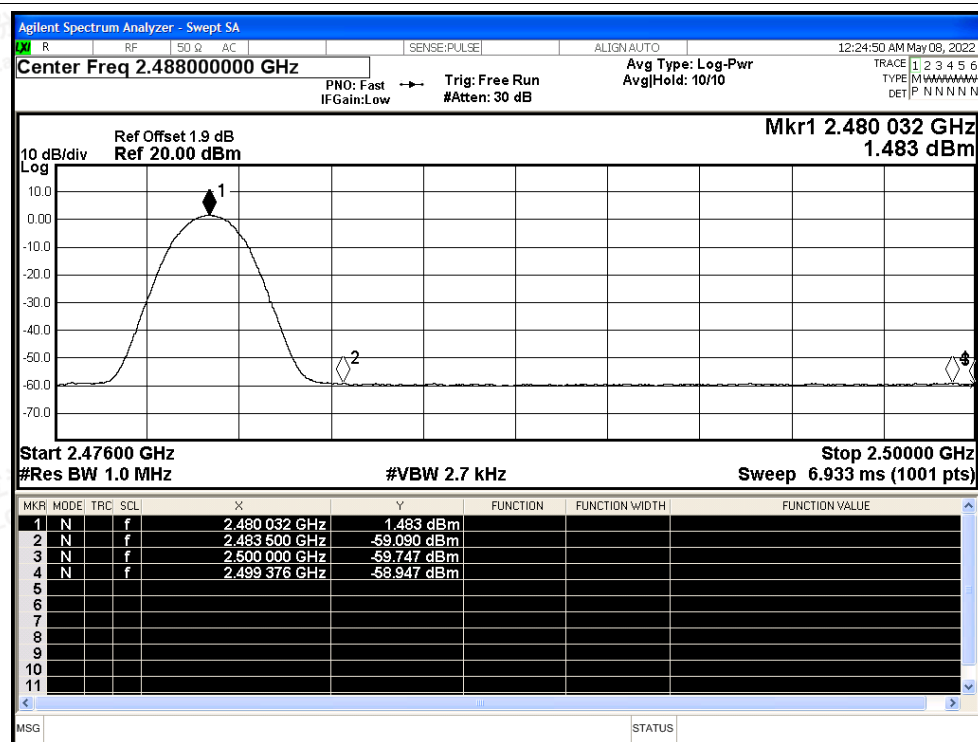
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Restrict Band NVNT BLE 1M 2480MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2480MHz Ant1 Average



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