



Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: SOUNDEXTREME SE18E

Test Model: SEI-SE18E01

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng





B.1 DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.712	2401.624	2402.336	0.5	PASS
		2440	0.688	2439.636	2440.324	0.5	PASS
		2480	0.712	2479.620	2480.332	0.5	PASS



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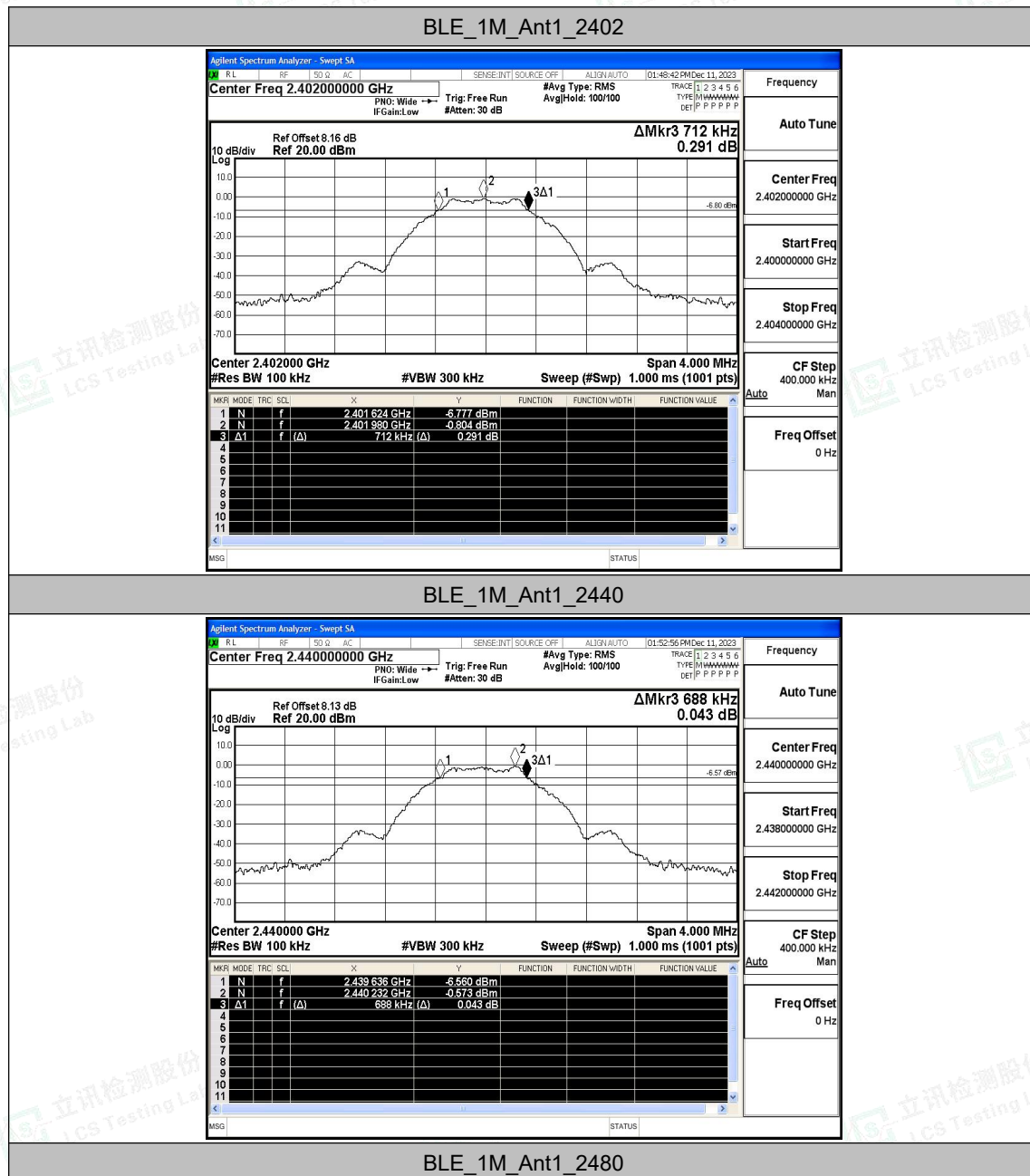
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Test Graphs

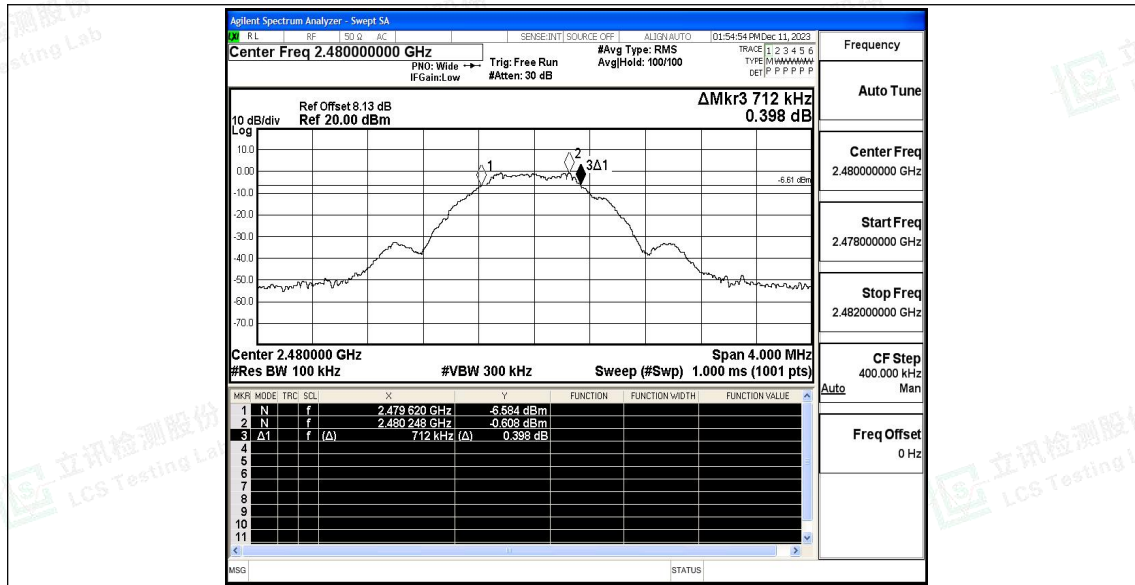


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B.2 Occupied Channel Bandwidth

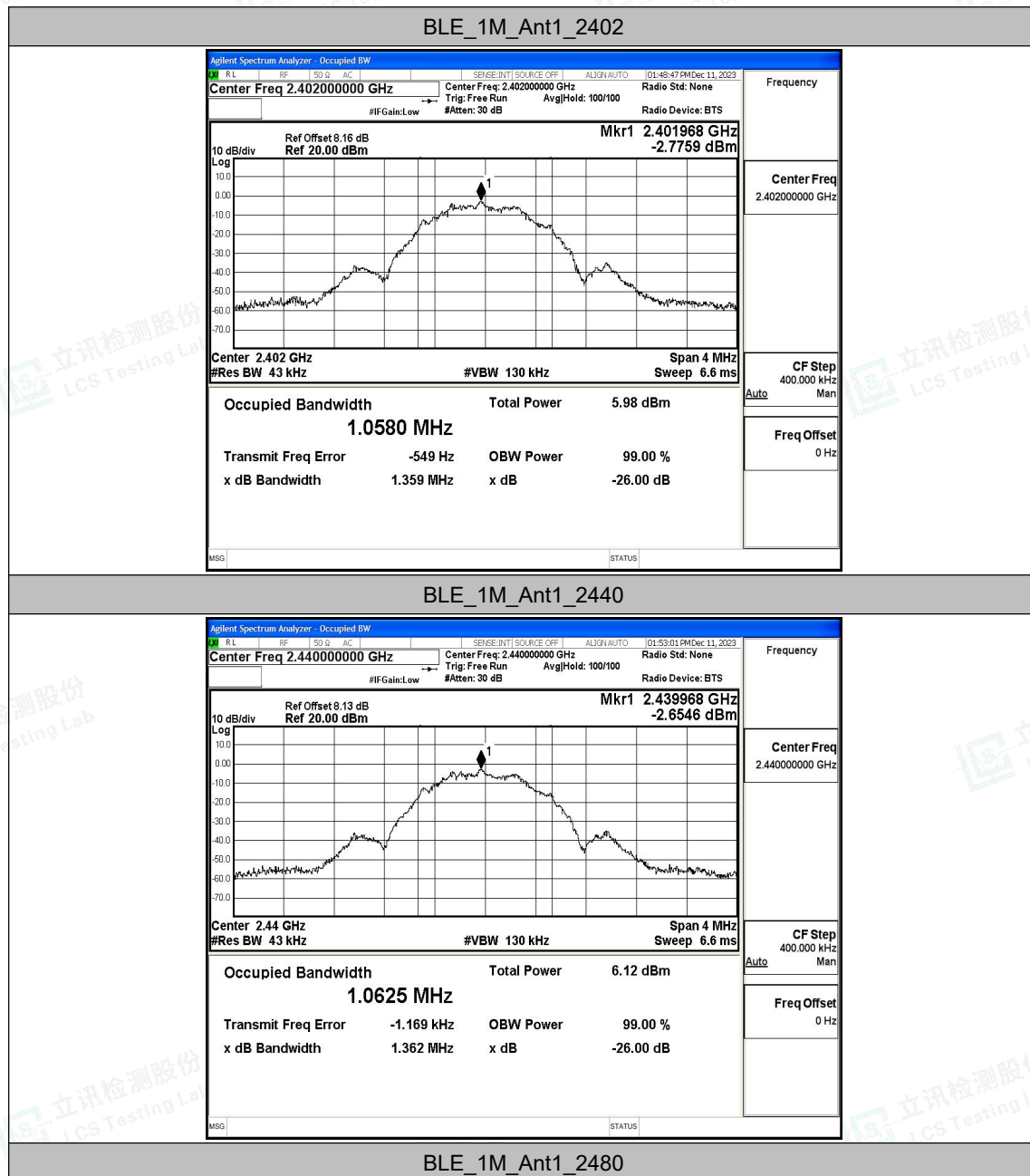
Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0580	2401.4705	2402.5285	---	---
		2440	1.0625	2439.4676	2440.5301	---	---
		2480	1.0587	2479.4695	2480.5282	---	---





Test Graphs

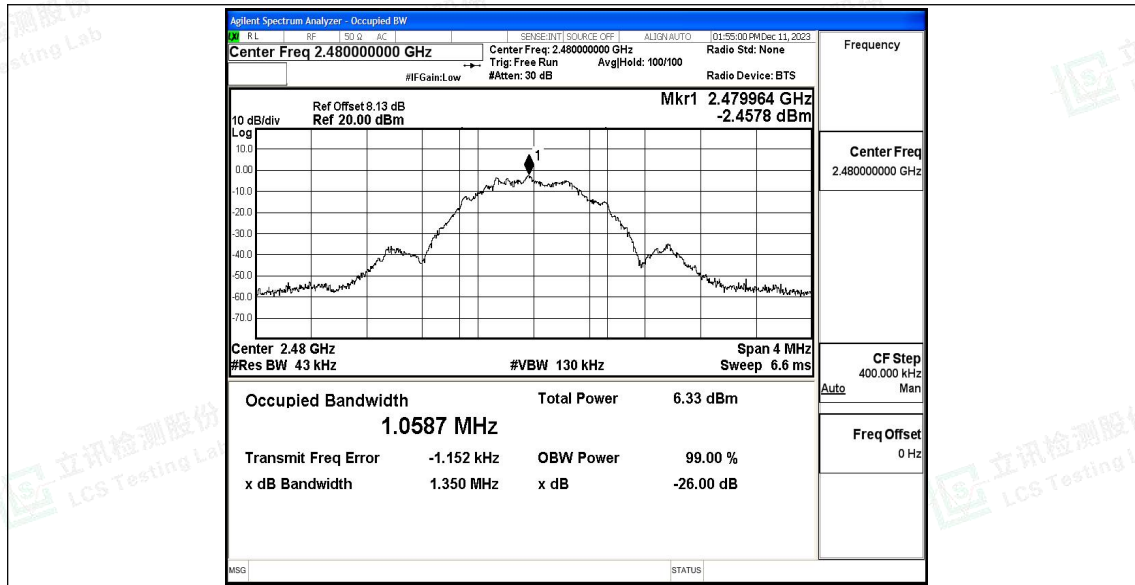


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B.3 Maximum Peak Conducted Output Power

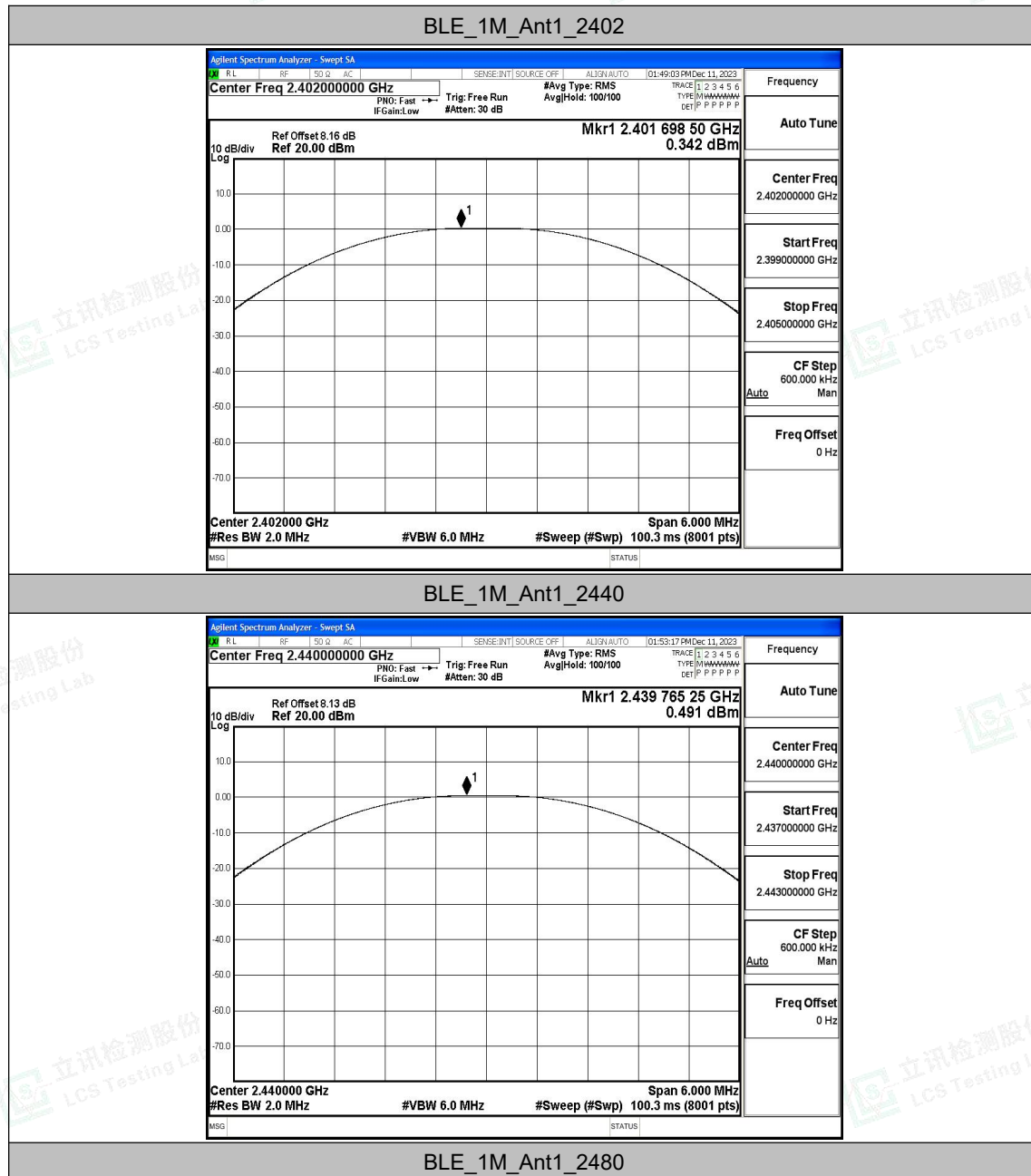
Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.34	≤30	PASS
		2440	0.49	≤30	PASS
		2480	0.58	≤30	PASS





Test Graphs

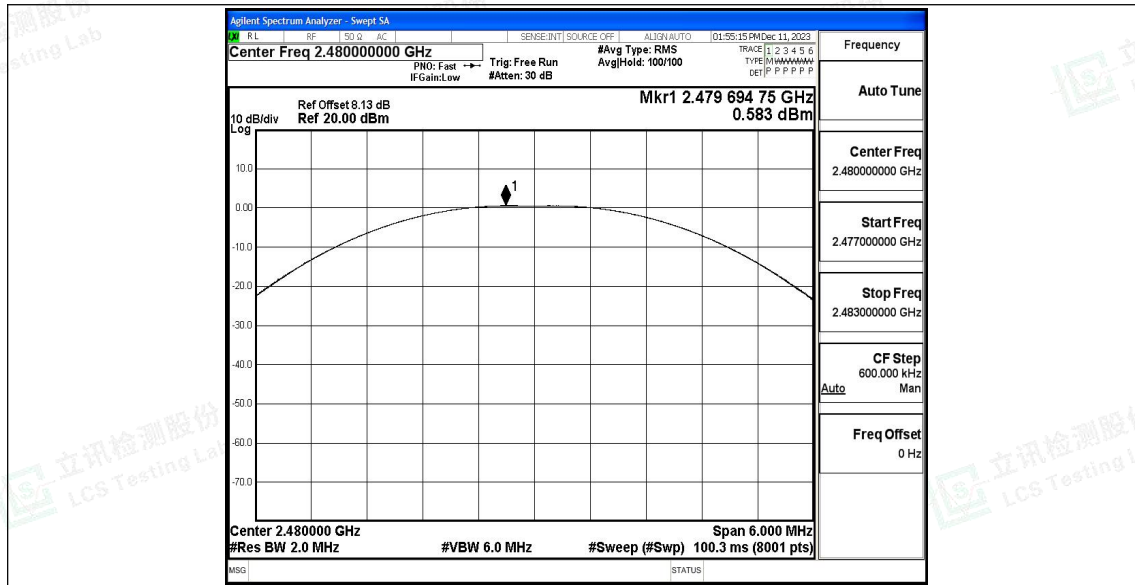


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B.4 Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-14.85	≤8.00	PASS
		2440	-14.65	≤8.00	PASS
		2480	-14.64	≤8.00	PASS



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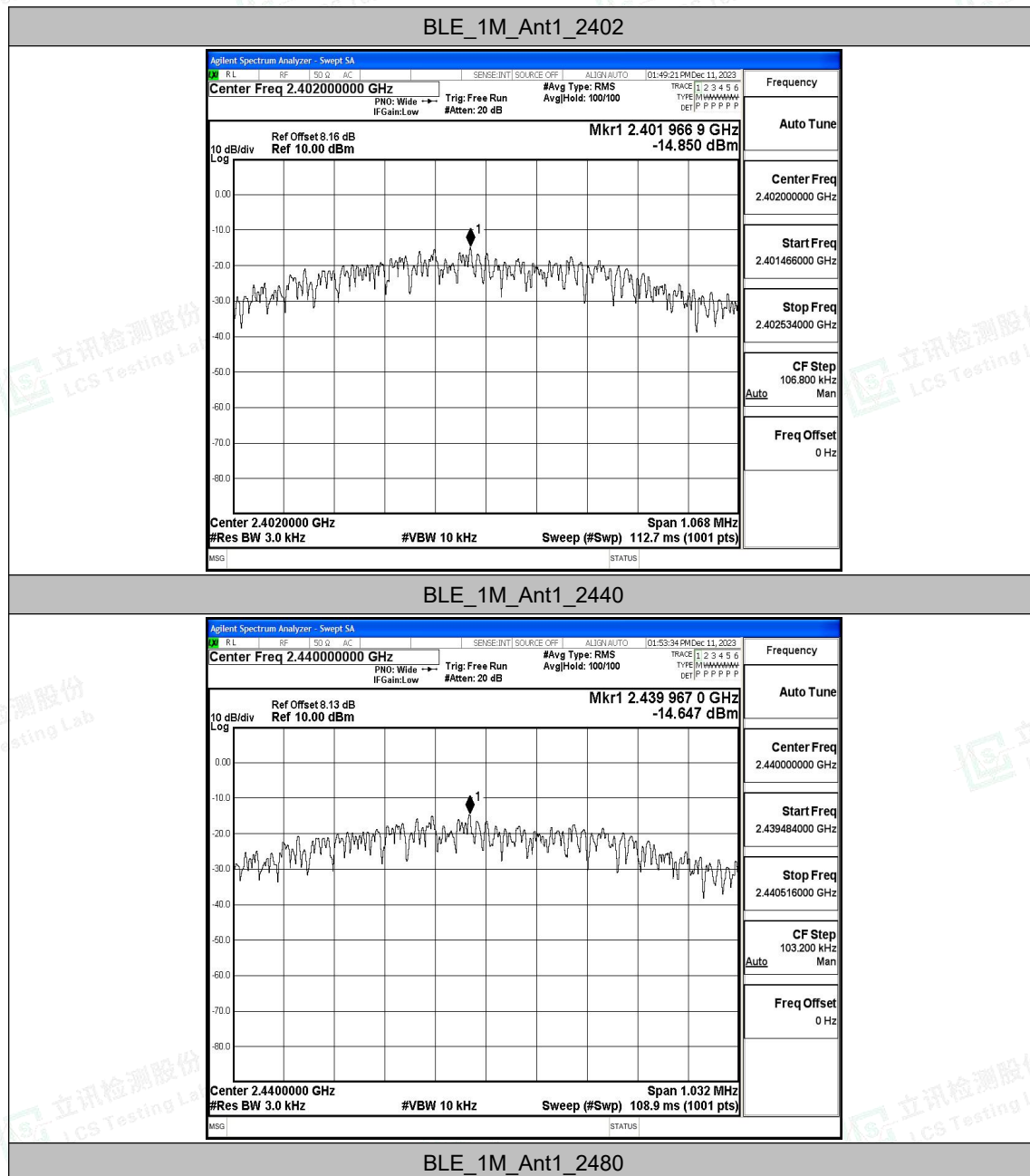
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Test Graphs

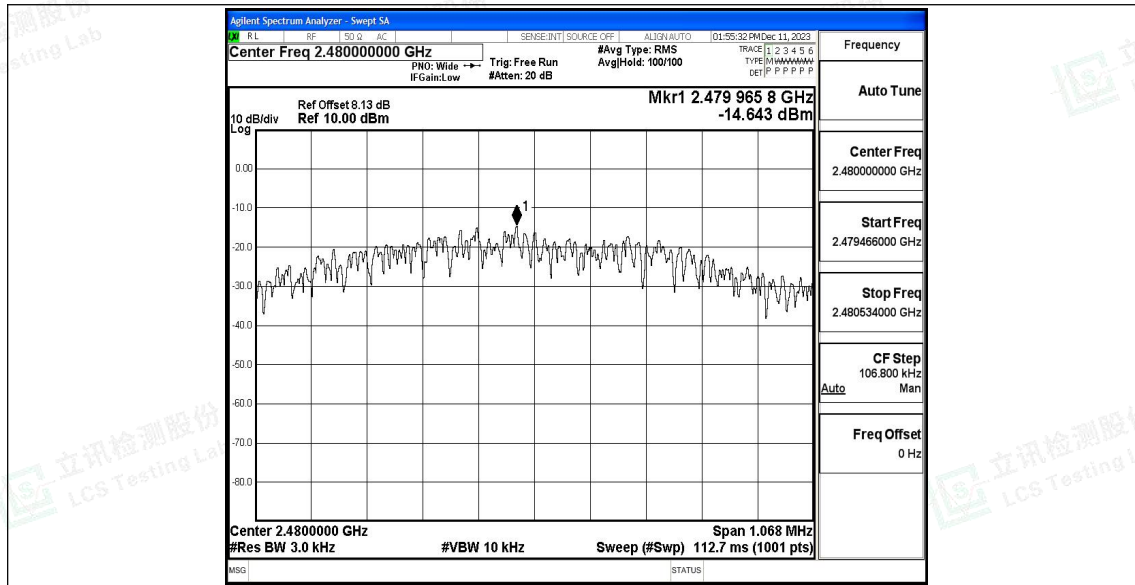


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B.5 Band edge measurements

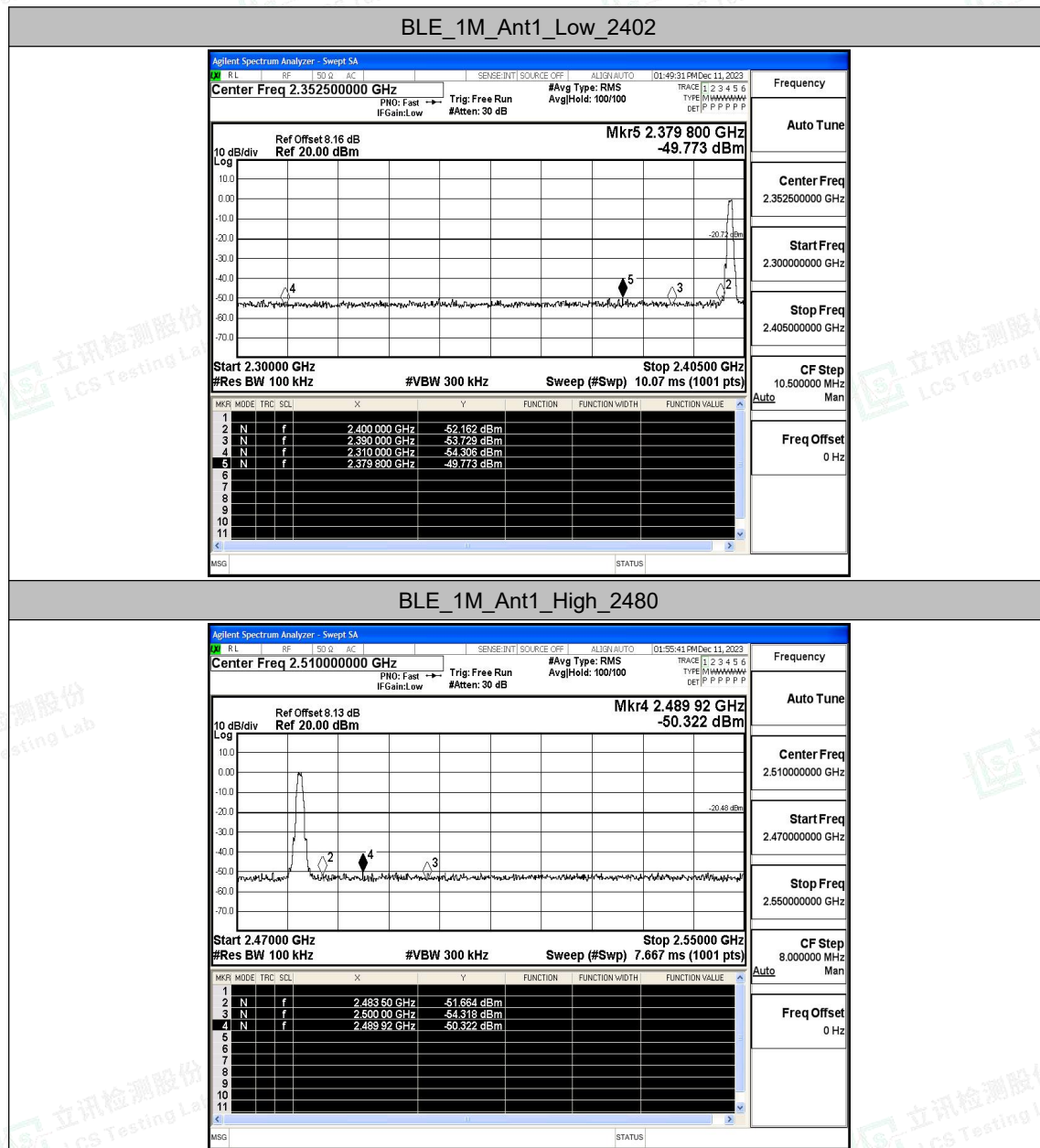
Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.72	-49.77	≤-20.72	PASS
		High	2480	-0.48	-50.32	≤-20.48	PASS





Test Graphs



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B.6 Conducted Spurious Emission

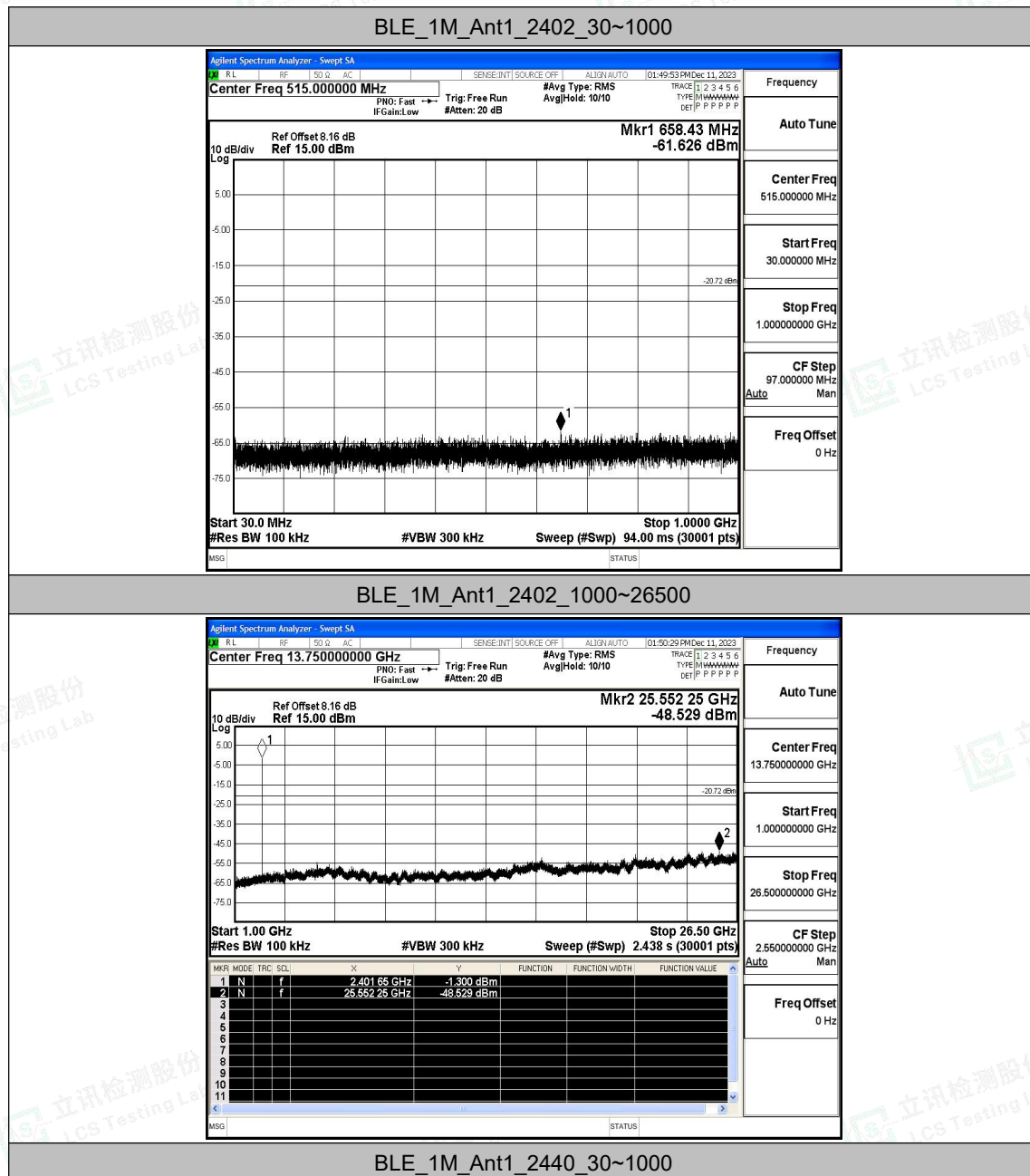
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	30~1000	-0.72	-61.63	≤-20.72	PASS
			1000~26500	-0.72	-48.53	≤-20.72	PASS
		2440	30~1000	-0.59	-61.63	≤-20.59	PASS
			1000~26500	-0.59	-49.05	≤-20.59	PASS
		2480	30~1000	-0.48	-61.76	≤-20.48	PASS
			1000~26500	-0.48	-49.33	≤-20.48	PASS





Test Graphs

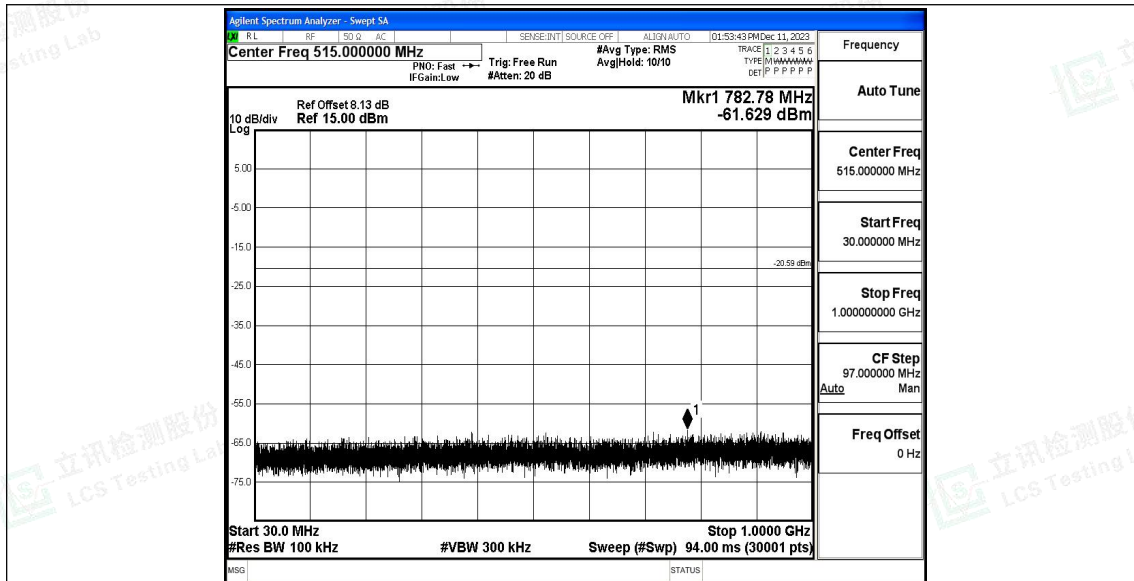


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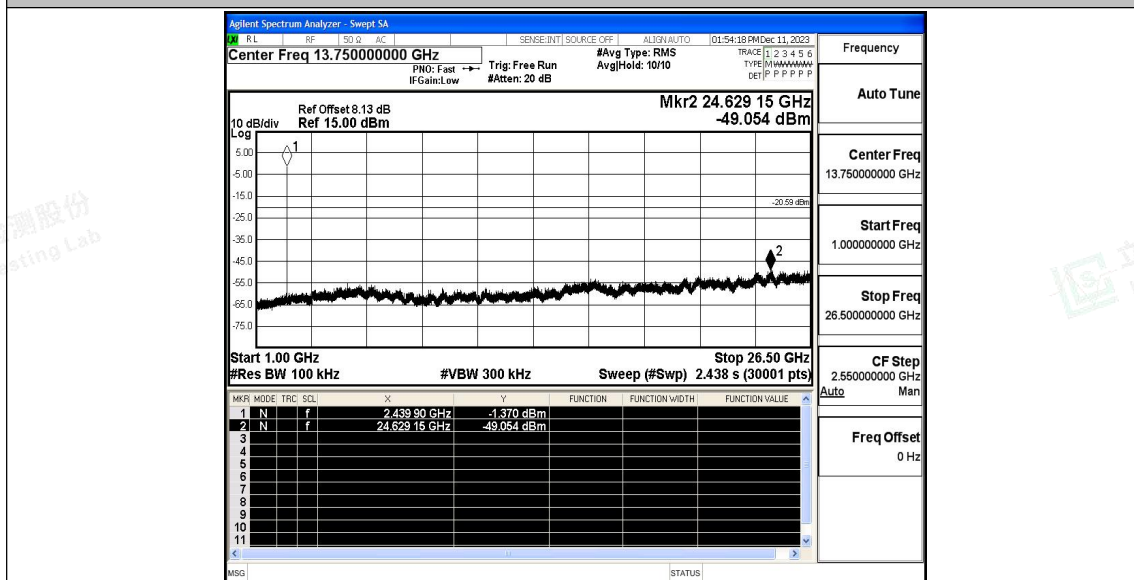
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BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_30~1000

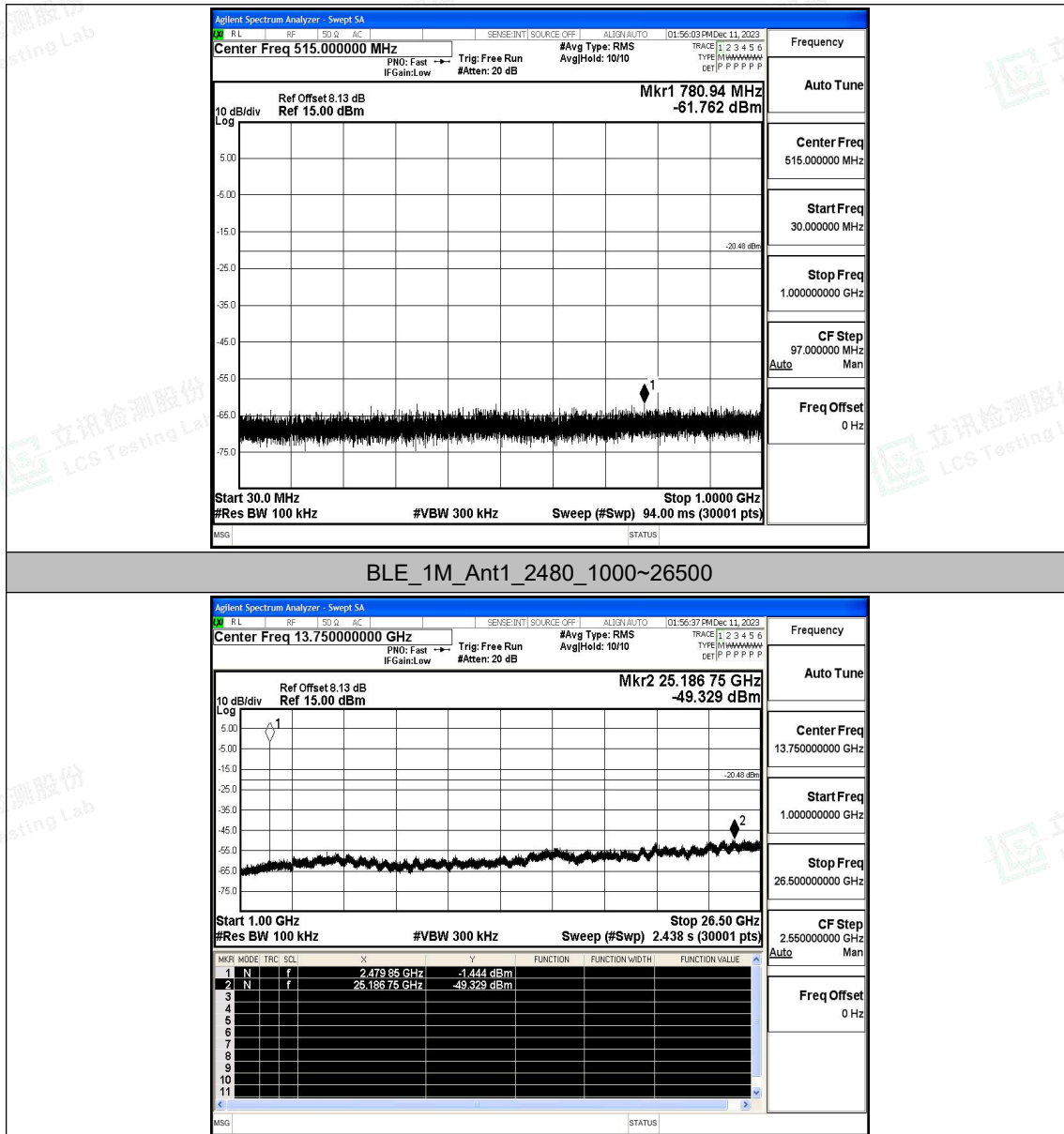


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Reference level measurement

Test Result

TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
BLE_1M	Ant1	2402	2402.23	-0.72
		2440	2440.23	-0.59
		2480	2480.23	-0.48





Test Graphs

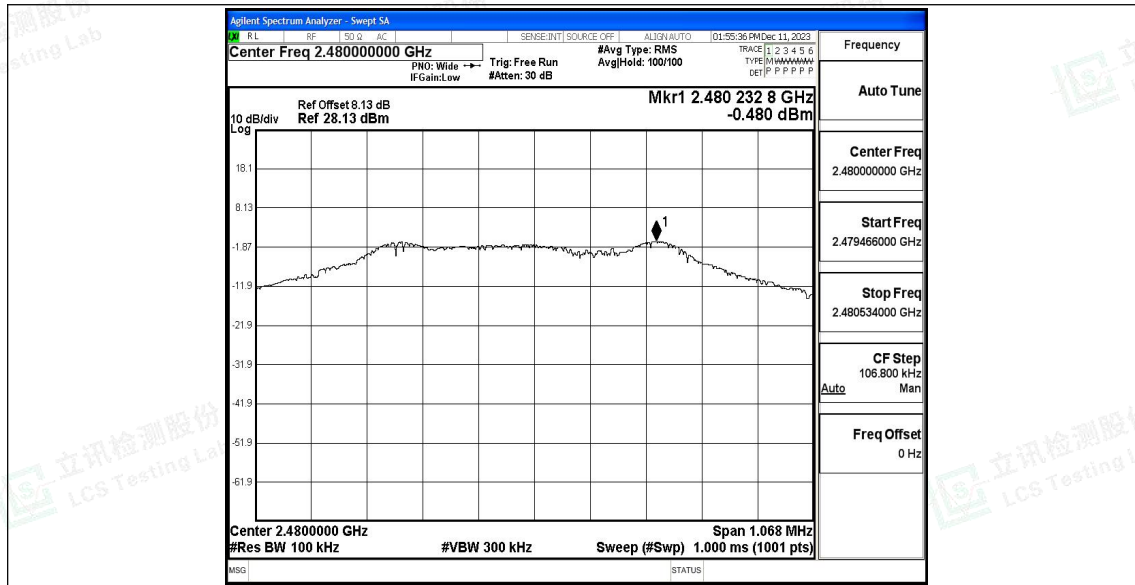


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B.7 Duty Cycle

Test Result

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	85.1	0.7	0.47
NVNT	BLE 1M	2480	Ant1	85.1	0.7	0.47

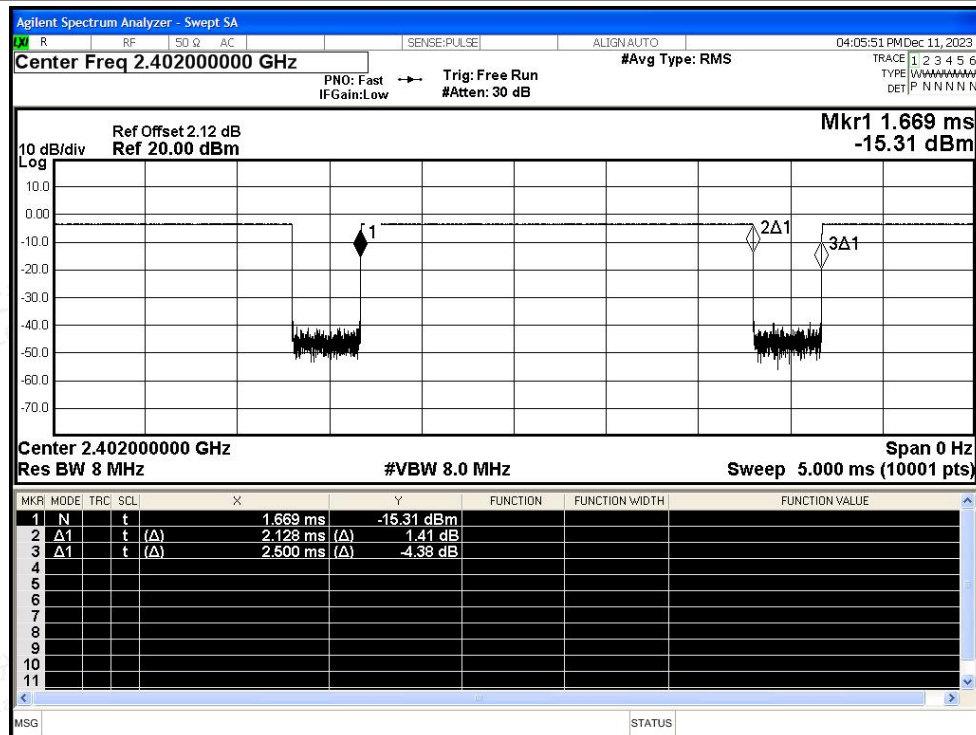




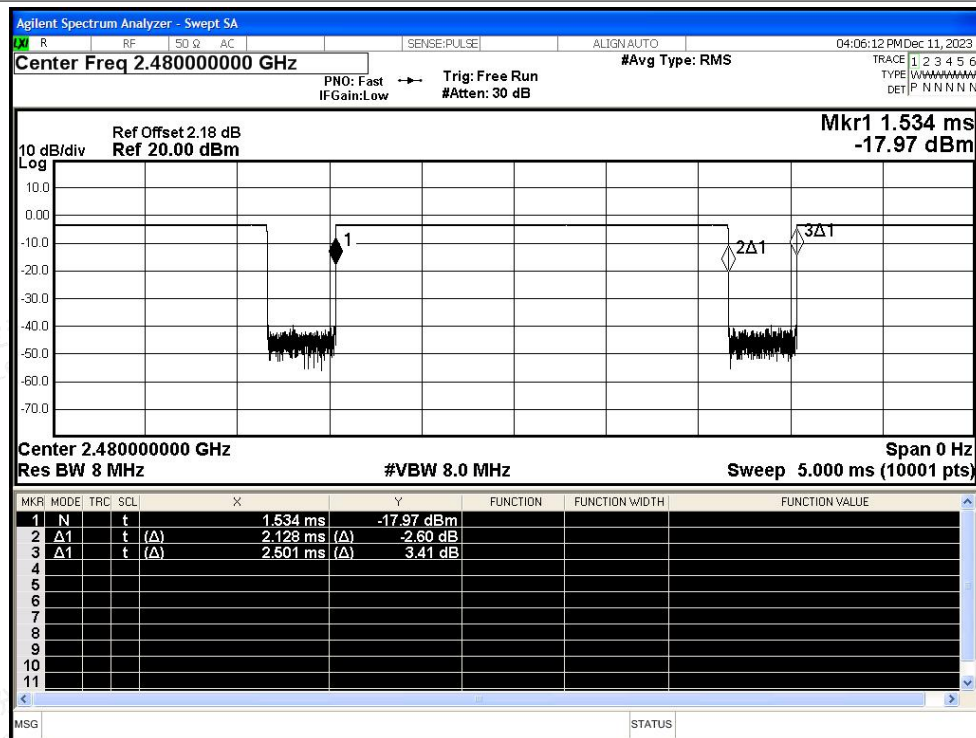
Test Graphs

Test Graphs

Duty Cycle NVNT BLE 1M 2402MHz Ant1



Duty Cycle NVNT BLE 1M 2480MHz Ant1



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B.8 Emissions in Restricted Bands

Test Result

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	-50.15	2	-	47.11	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2310	-58.45	2	0.7	39.51	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2342.544	-47.73	2	-	49.53	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2361.072	-57.74	2	0.7	40.22	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2390	-49.58	2	-	47.68	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2390	-58.6	2	0.7	39.36	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-50.4	2	-	46.86	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-57.23	2	0.7	40.73	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2488.888	-46.12	2	-	51.14	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2494.288	-57.06	2	0.7	40.9	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2500	-49.82	2	-	47.44	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2500	-57.72	2	0.7	40.24	Average	54	Pass



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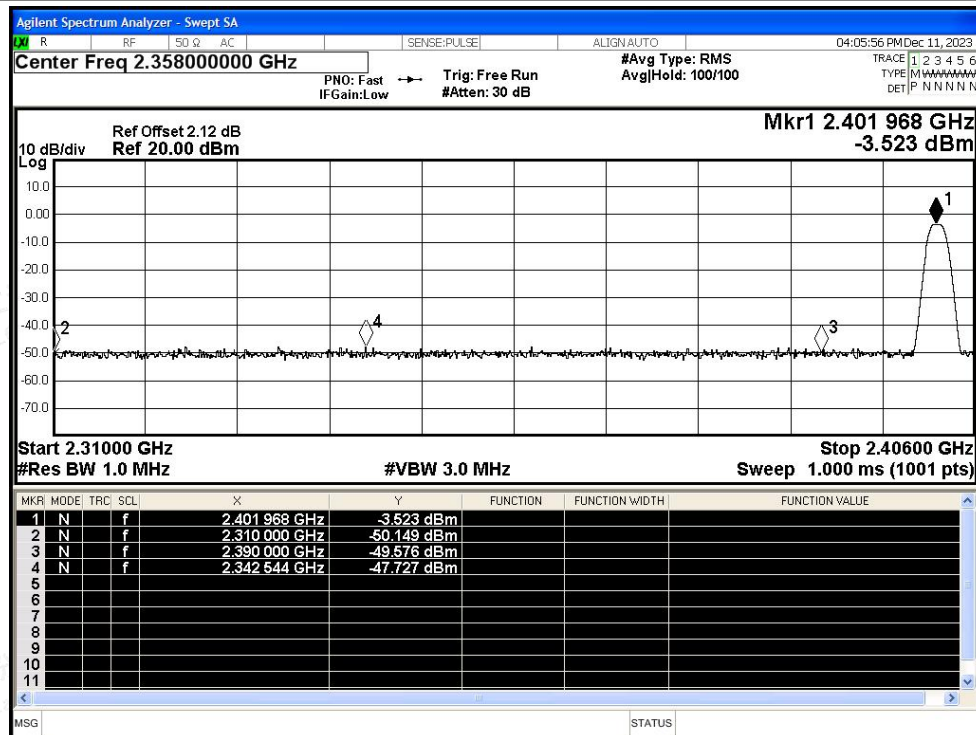
Scan code to check authenticity



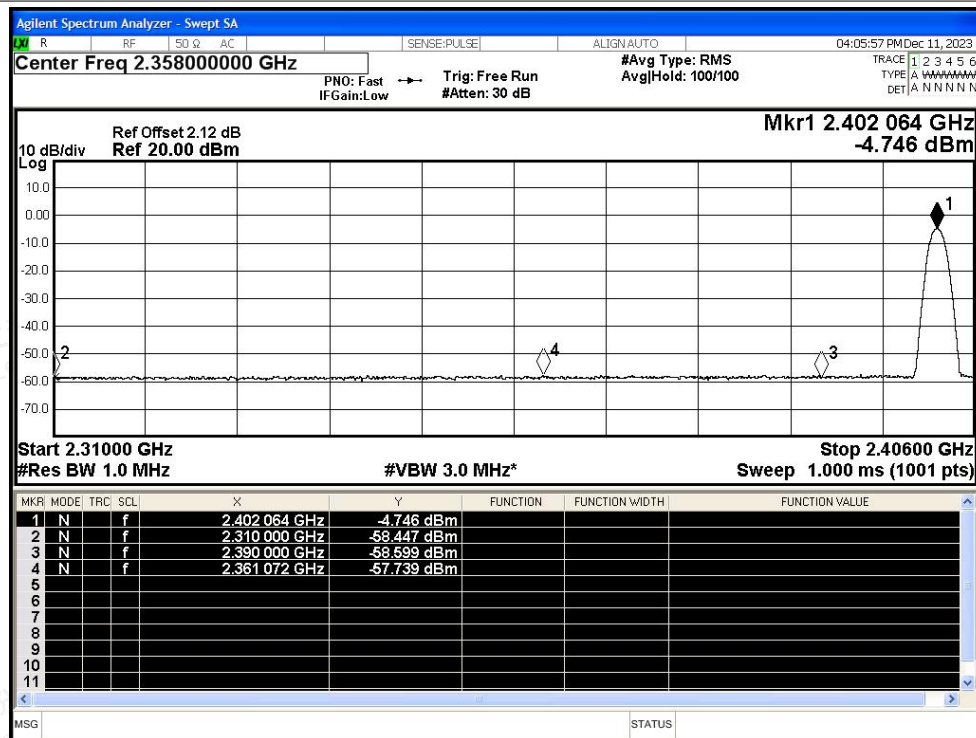
Test Graphs

Test Graphs

Restrict Band NVNT BLE 1M 2402MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2402MHz Ant1 Average



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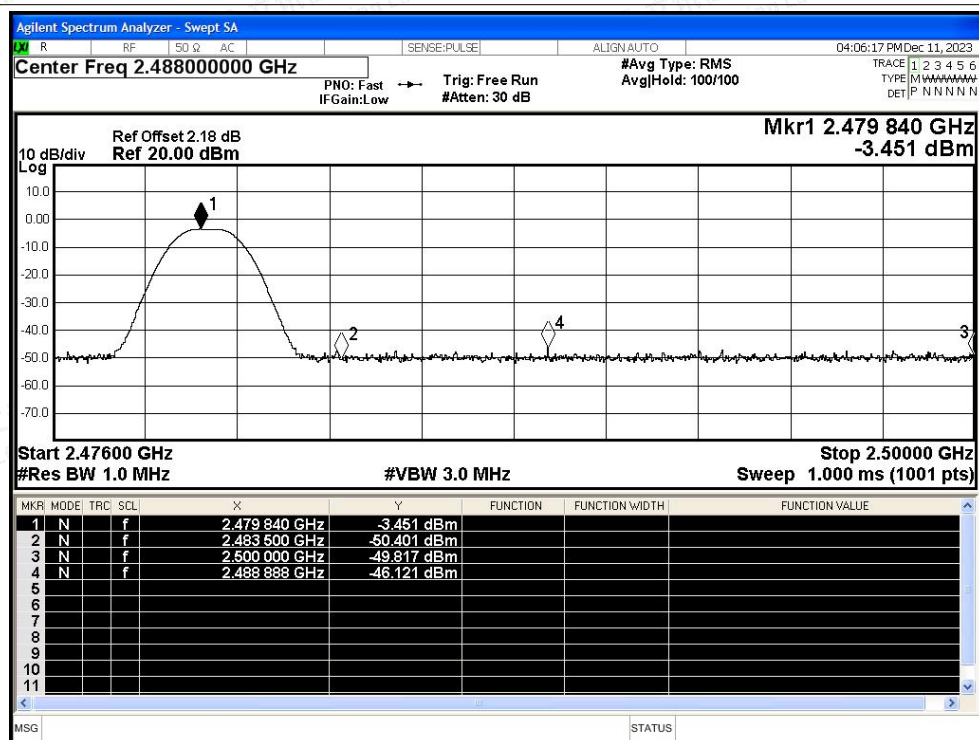
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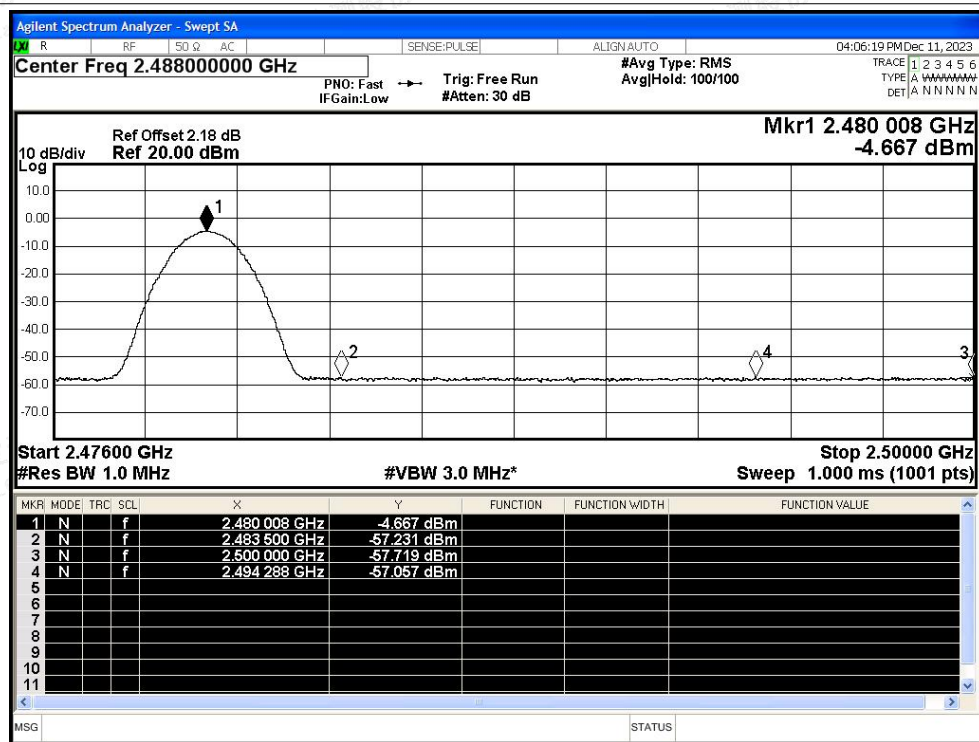
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Restrict Band NVNT BLE 1M 2480MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2480MHz Ant1 Average



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