



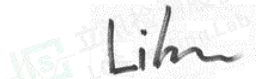
Appendix A

RF Test Data for BT LE (Conducted Measurement)

Product Name: 3 Inch BLE Narrow Flood Recessed Down Light

Test Model: LJD003NFBLWH

Environmental Conditions

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





A.1 DTS Bandwidth

Test Result

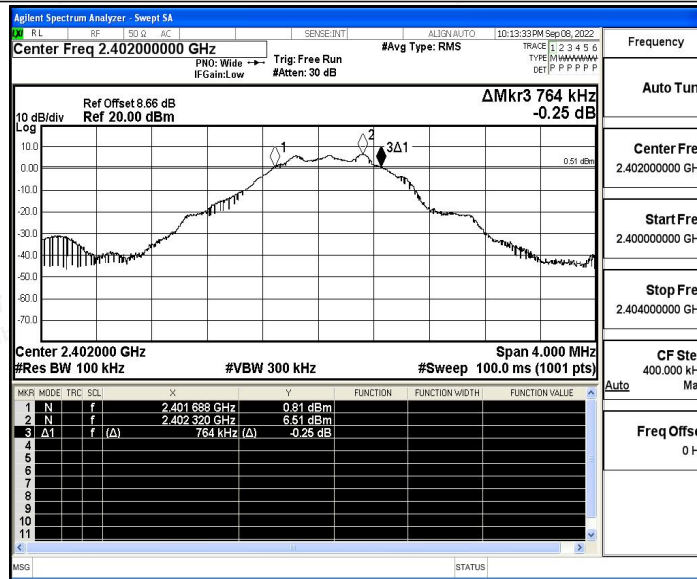
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.764	2401.688	2402.452	0.5	PASS
		2440	0.776	2439.684	2440.460	0.5	PASS
		2480	0.796	2479.676	2480.472	0.5	PASS



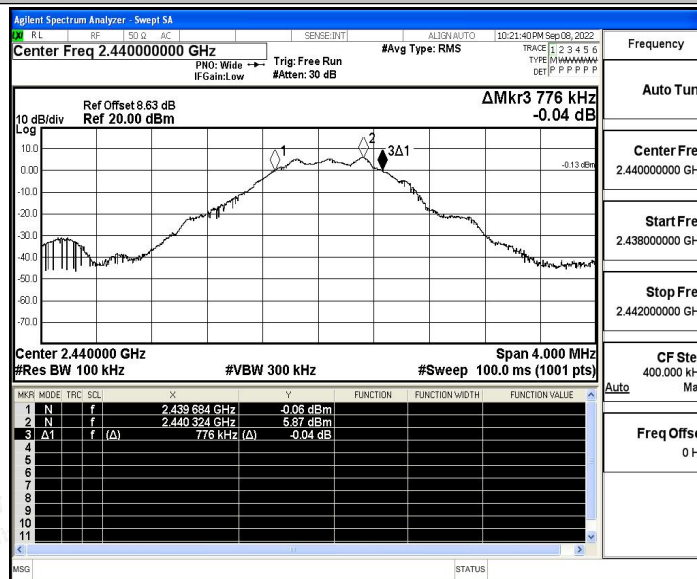


Test Graphs

BLE_1M_Ant1_2402

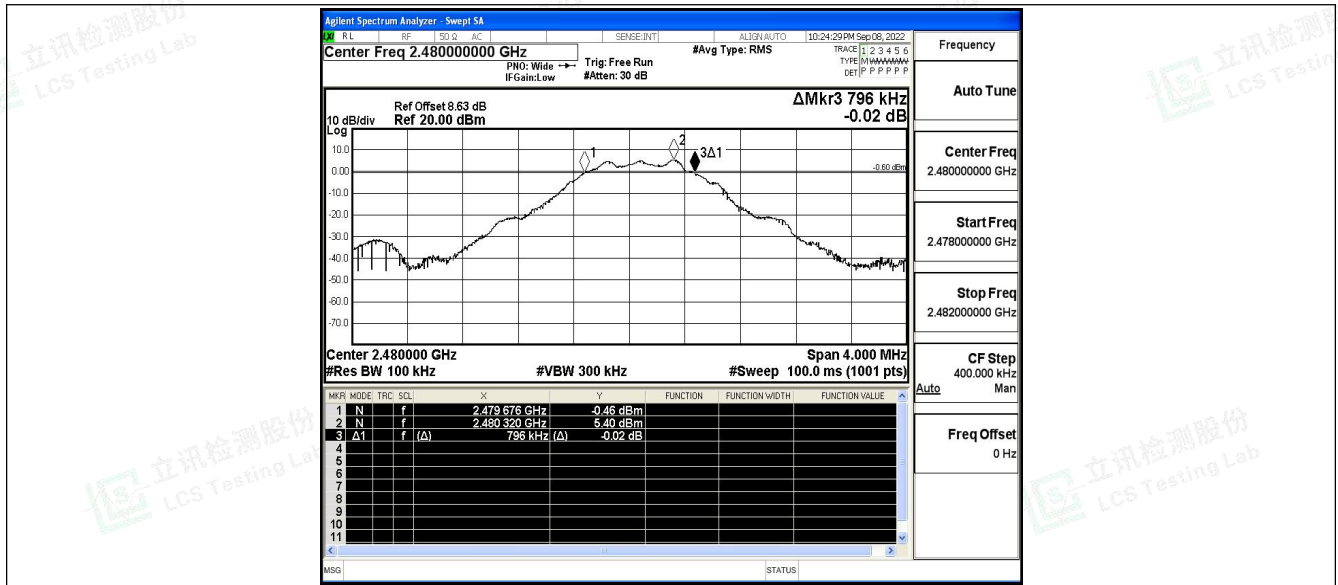


BLE_1M_Ant1_2440



BLE_1M_Ant1_2480







A.2 Maximum peak conducted output power

Test Result

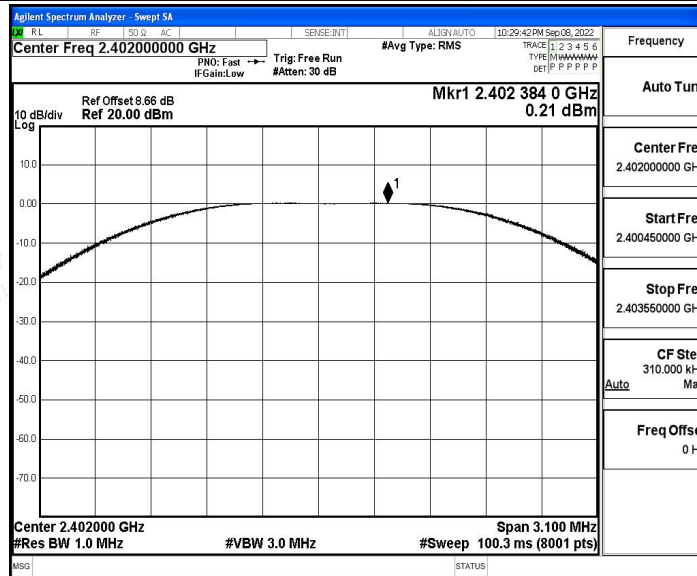
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.21	≤30	PASS
		2440	-0.55	≤30	PASS
		2480	-1.16	≤30	PASS



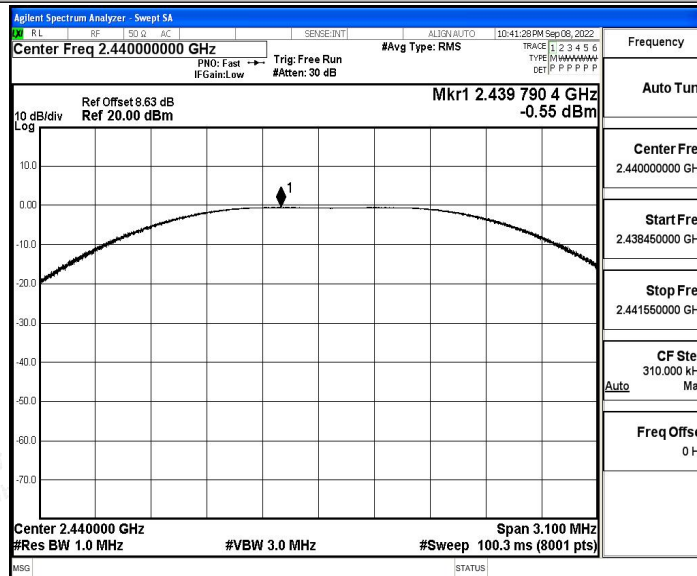


Test Graphs

BLE_1M_Ant1_2402

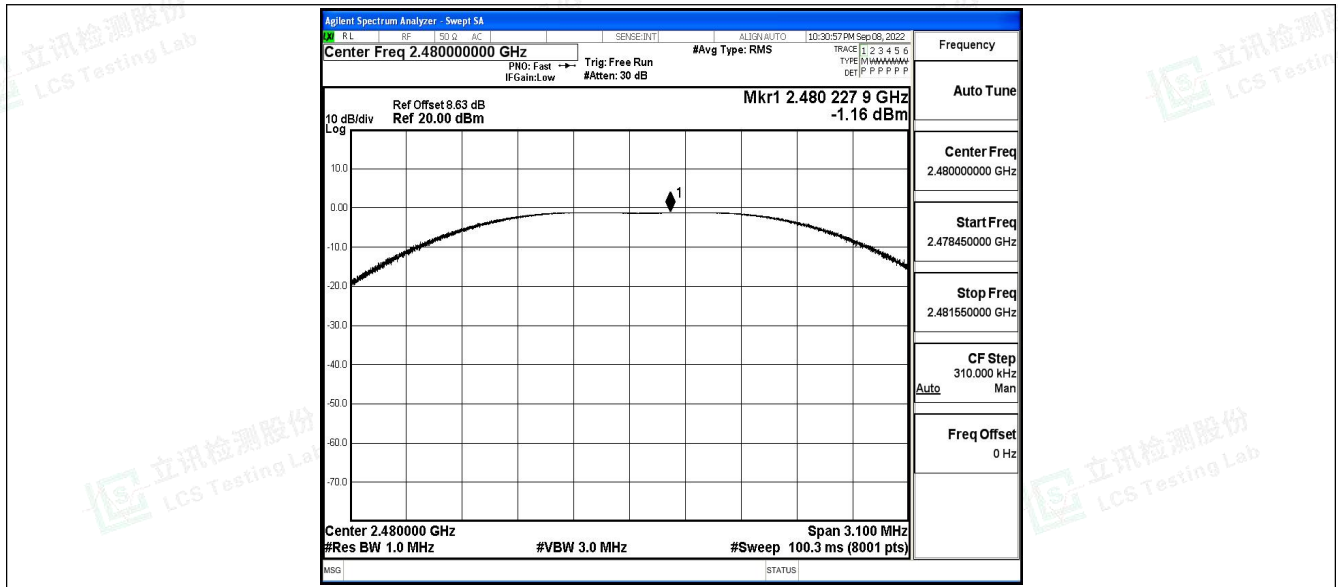


BLE_1M_Ant1_2440



BLE_1M_Ant1_2480







A.3 Maximum power spectral density

Test Result

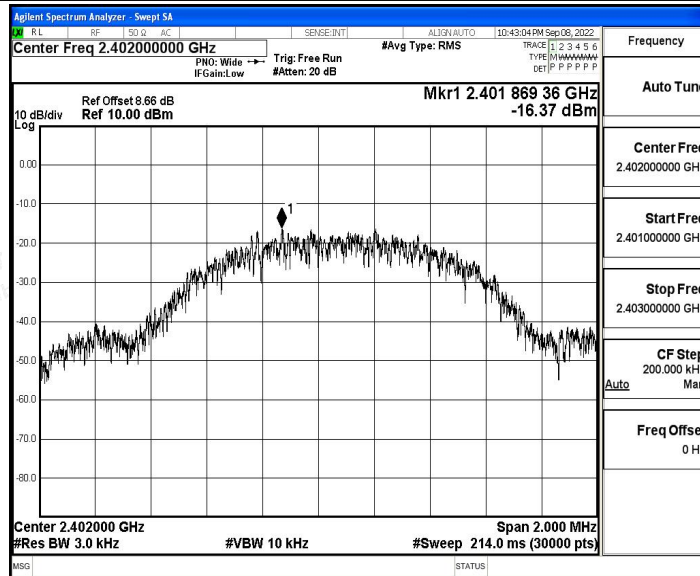
TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-16.37	≤8.00	PASS
		2440	-17.05	≤8.00	PASS
		2480	-18.16	≤8.00	PASS



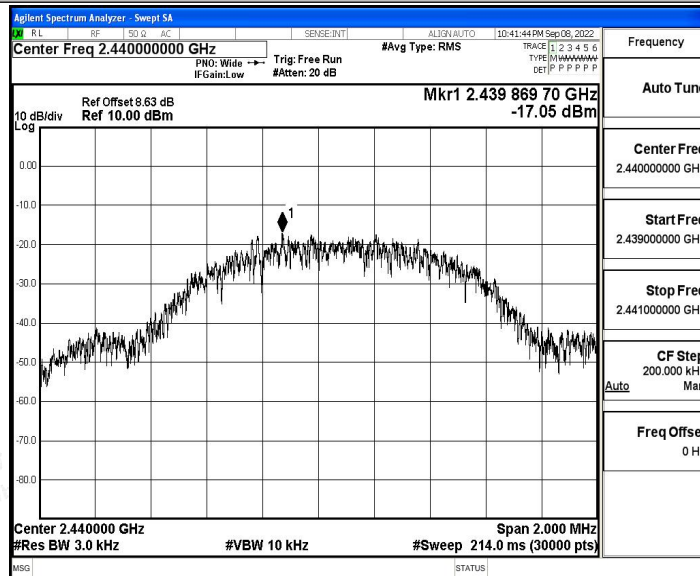


Test Graphs

BLE_1M_Ant1_2402

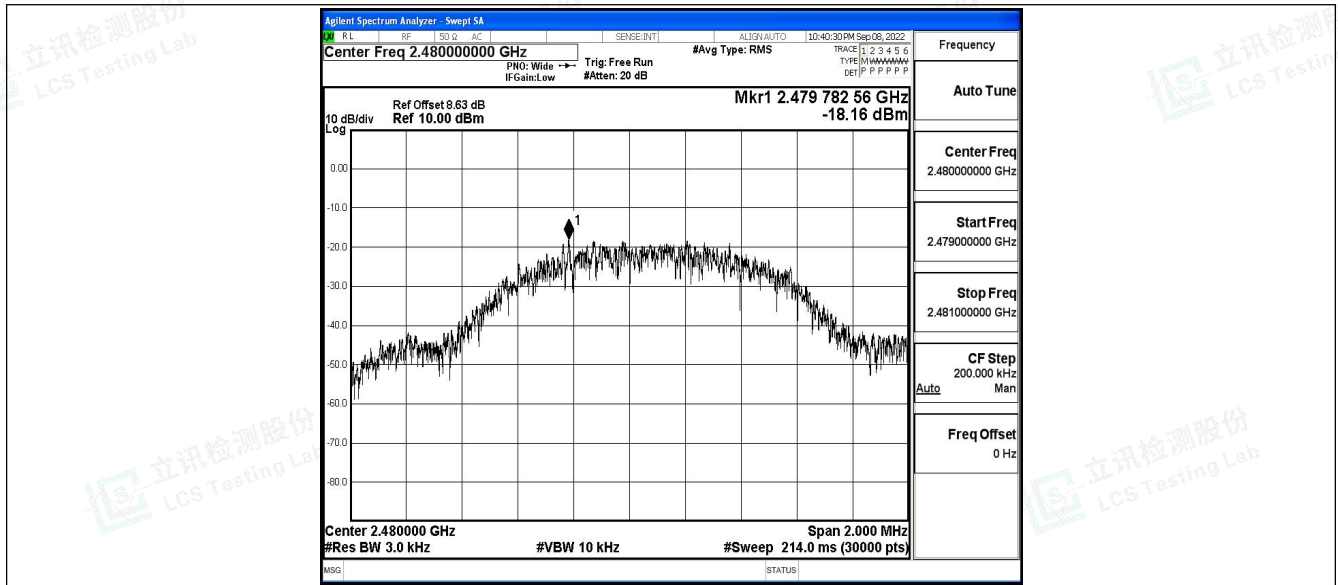


BLE_1M_Ant1_2440



BLE_1M_Ant1_2480







A.4 Band edge measurements

Test Result

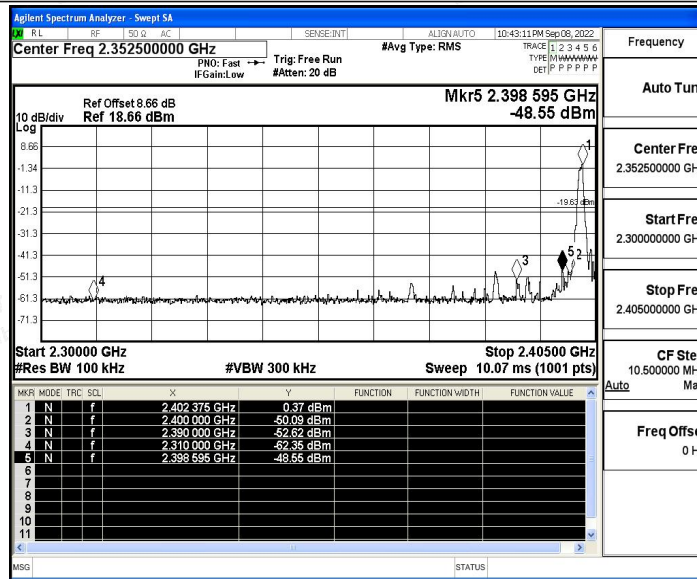
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.37	-48.55	≤-19.63	PASS
		High	2480	-2.10	-46.71	≤-22.1	PASS



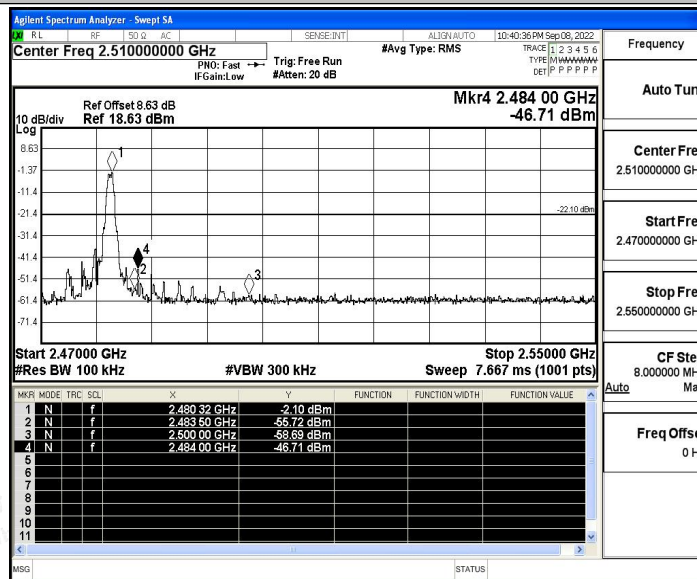


Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



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A.5 Conducted Spurious Emission

Test Result

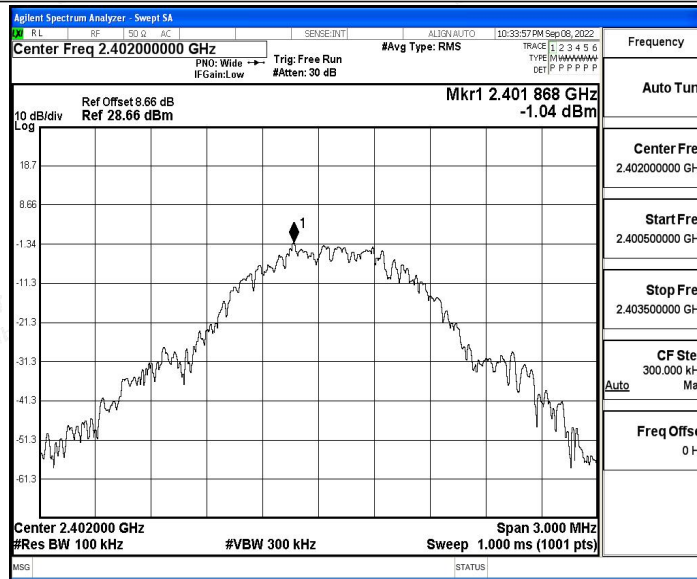
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-1.04	-1.04	---	PASS
			30~1000	-1.04	-61.06	≤ -21.04	PASS
			1000~26500	-1.04	-46.53	≤ -21.04	PASS
		2440	Reference	5.25	5.25	---	PASS
			30~1000	5.25	-60.08	≤ -14.75	PASS
			1000~26500	5.25	-46.59	≤ -14.75	PASS
		2480	Reference	-4.44	-4.44	---	PASS
			30~1000	-4.44	-60.96	≤ -24.44	PASS
			1000~26500	-4.44	-45.74	≤ -24.44	PASS



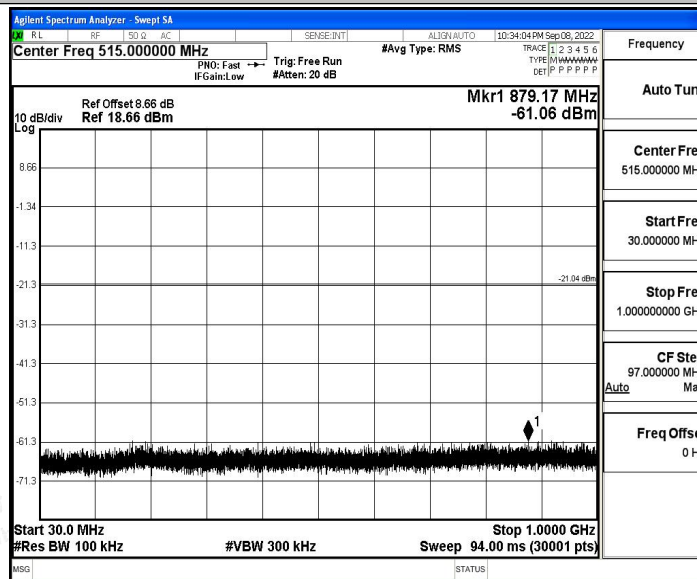


Test Graphs

BLE_1M_Ant1_2402_0~Reference

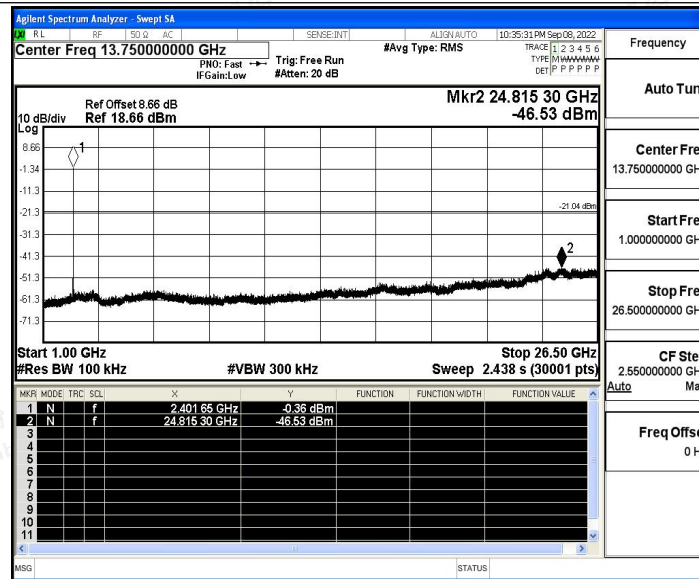


BLE_1M_Ant1_2402_30~1000

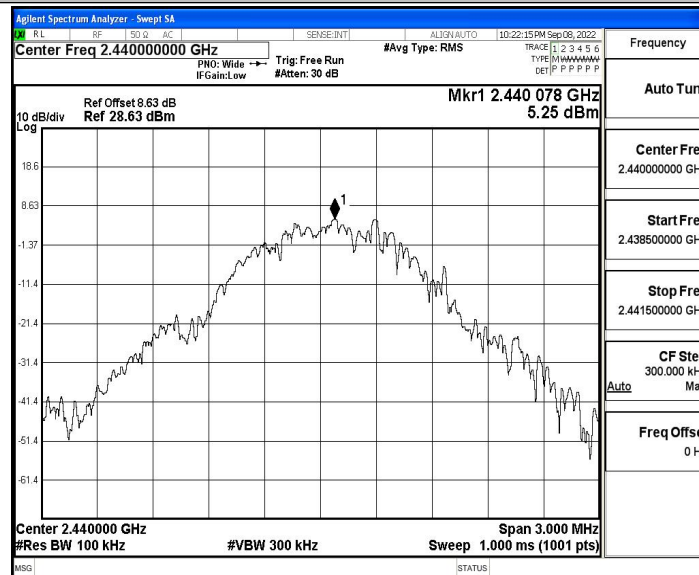


BLE_1M_Ant1_2402_1000~26500



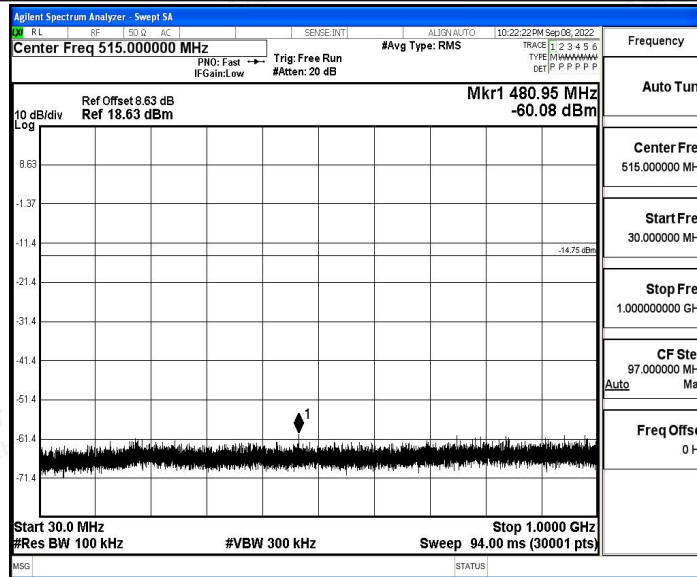


BLE_1M_Ant1_2440_0~Reference

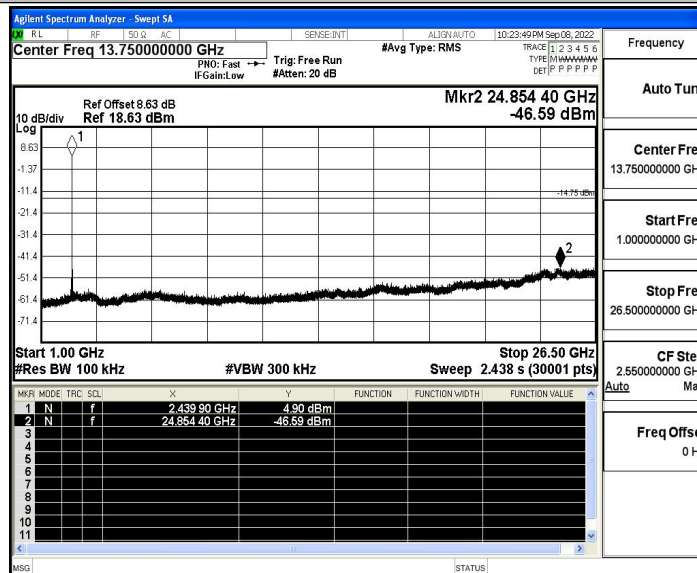


BLE_1M_Ant1_2440_30~1000



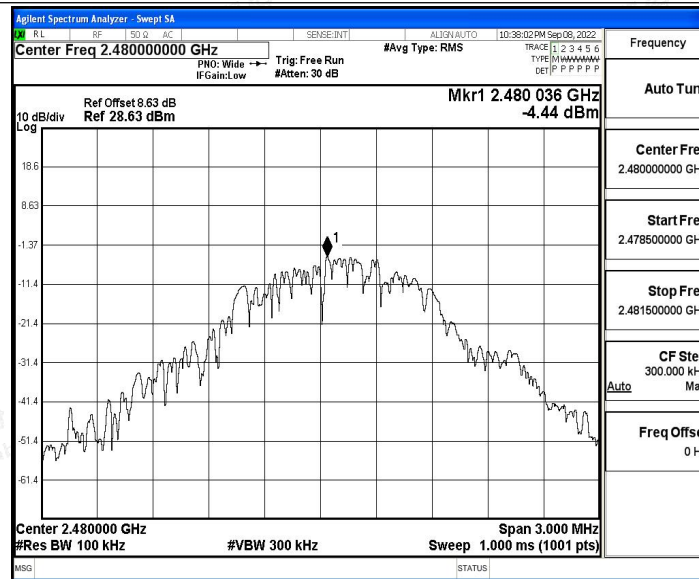


BLE_1M_Ant1_2440_1000~26500

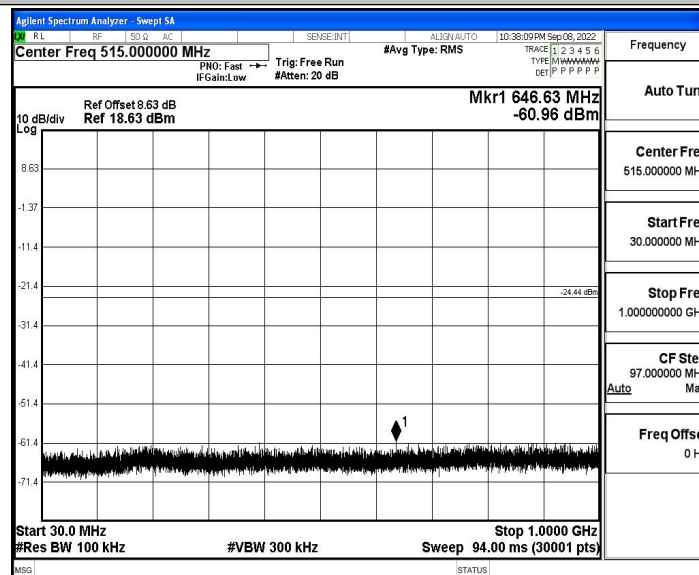


BLE_1M_Ant1_2480_0~Reference



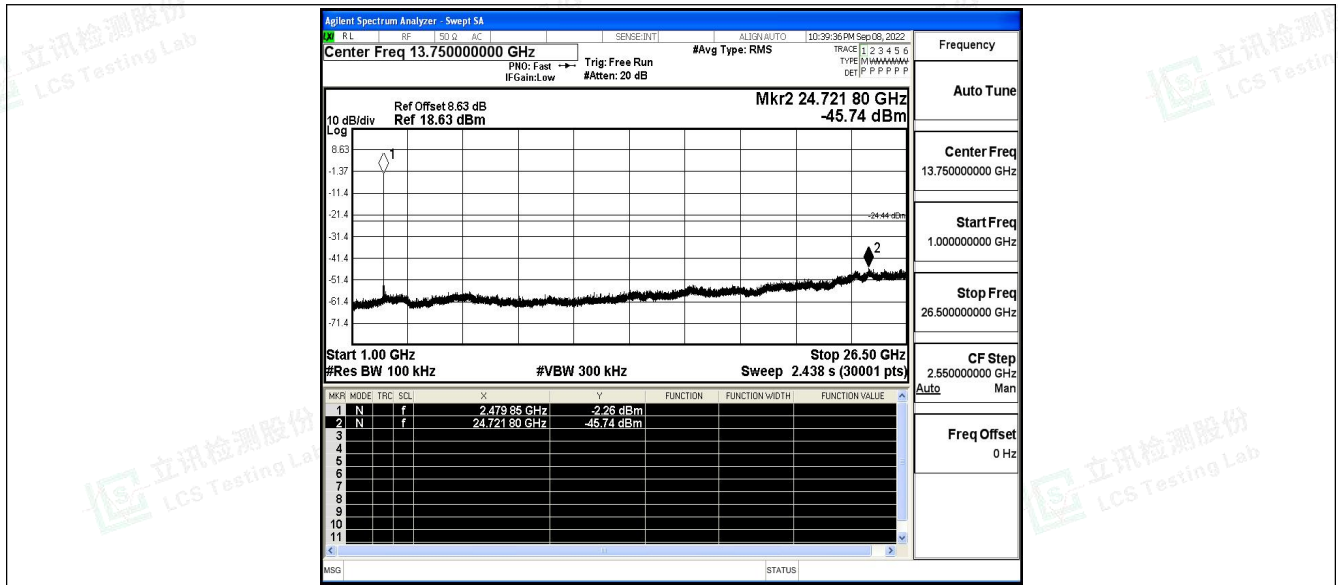


BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500







A.6 Duty Cycle

Test Result

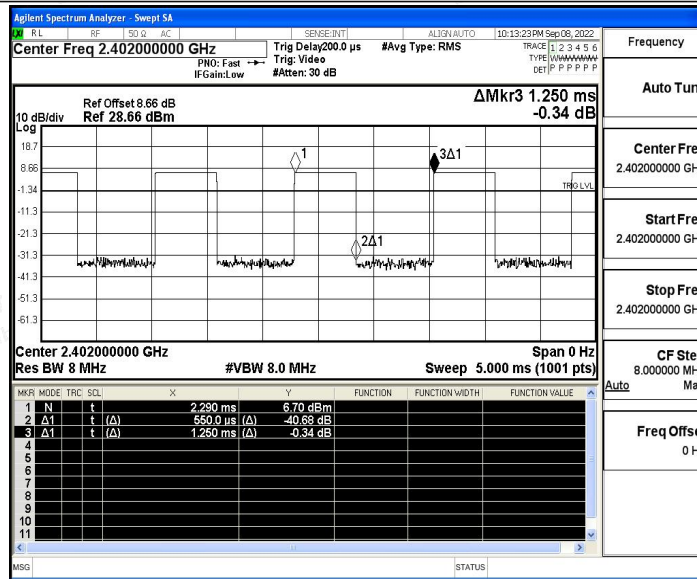
TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	1/T	Limit	Verdict
BLE_1M	Ant1	2402	0.55	1.25	0.4400	44.00	3.57	1.82	---	---
		2440	0.55	1.25	0.4400	44.00	3.57	1.82	---	---
		2480	0.55	1.25	0.4400	44.00	3.57	1.82	---	---



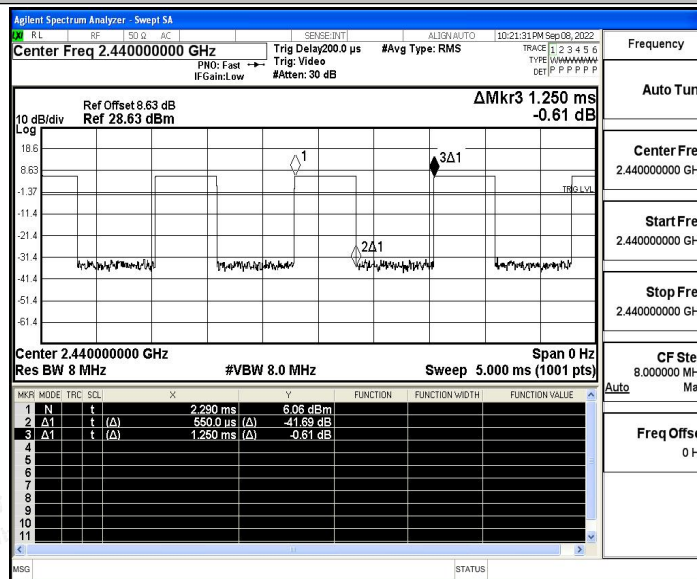


Test Graphs

BLE_1M_Ant1_2402

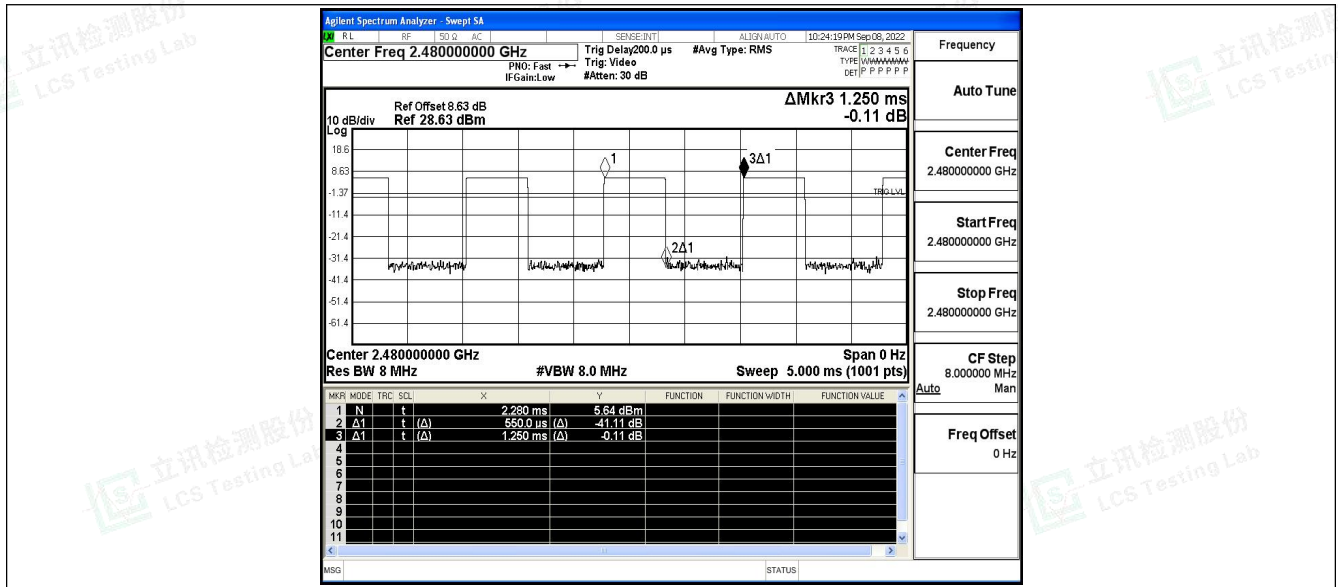


BLE_1M_Ant1_2440



BLE_1M_Ant1_2480







A.7 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-57.18	≤-41.20	38.02	≤54	PASS
				AV	2386.100	-47.19	≤-41.20	48.01	≤54	PASS
				AV	2390.000	-53.9	≤-41.20	41.30	≤54	PASS
				Peak	2310.000	-50.66	≤-21.20	44.54	≤74	PASS
				Peak	2370.350	-41.23	≤-21.20	53.97	≤74	PASS
				Peak	2390.000	-41.94	≤-21.20	53.26	≤74	PASS
		High	2480	AV	2483.500	-47.78	≤-41.20	47.42	≤54	PASS
				AV	2483.760	-47.47	≤-41.20	47.73	≤54	PASS
				AV	2500.000	-56.19	≤-41.20	39.01	≤54	PASS
				Peak	2483.500	-36.94	≤-21.20	58.26	≤74	PASS
				Peak	2483.920	-33.93	≤-21.20	61.27	≤74	PASS
				Peak	2500.000	-48.94	≤-21.20	46.26	≤74	PASS

Note:

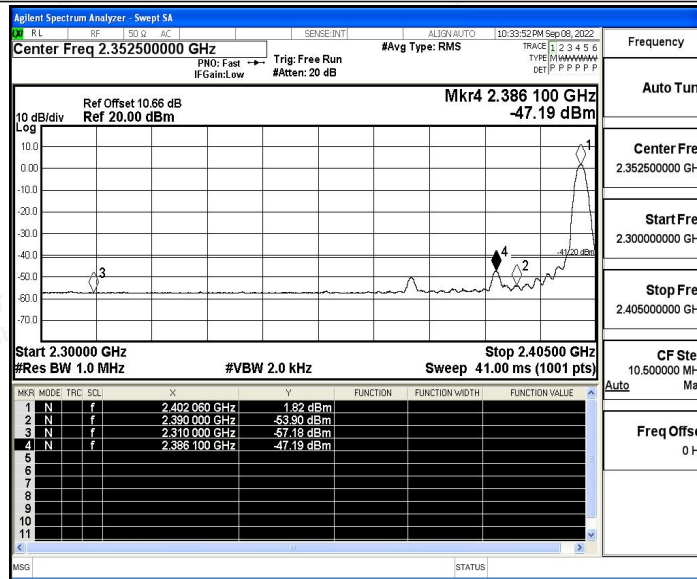
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



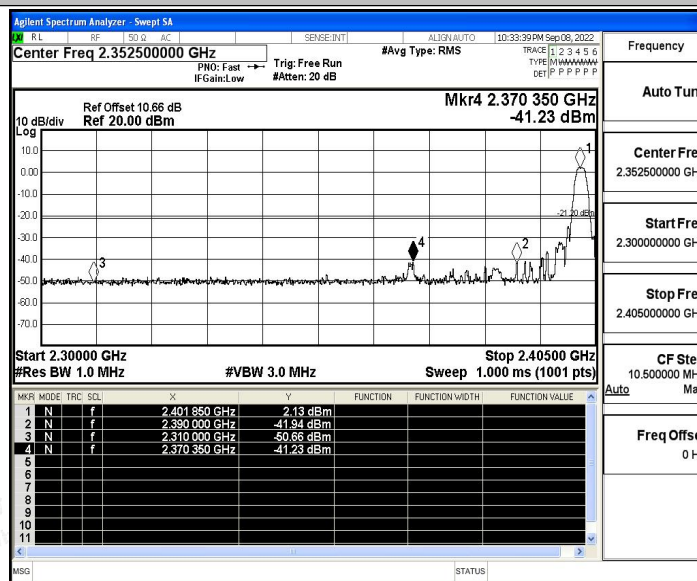


Test Graphs

BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV

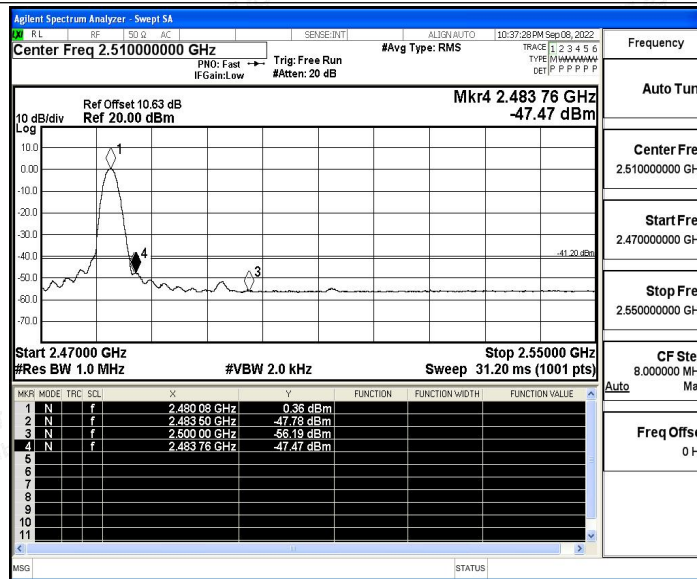


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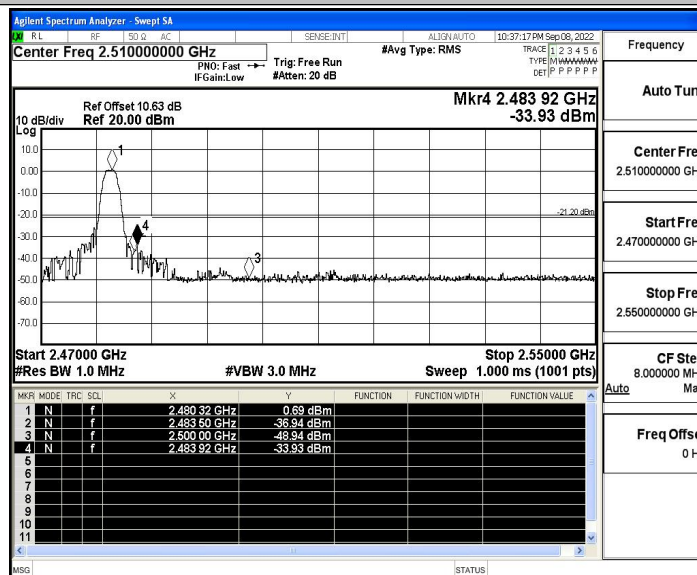
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BLE_1M_Ant1_High_2480_Peak



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