



## Appendix B

### RF Test Data for BLE (Conducted Measurement)

**Product Name: Aeye-P4**

**Test Model: JBV-ME20301A**

#### Environmental Conditions

Temperature:	21.1 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Monkey Li
Supervised by:	Li Huan

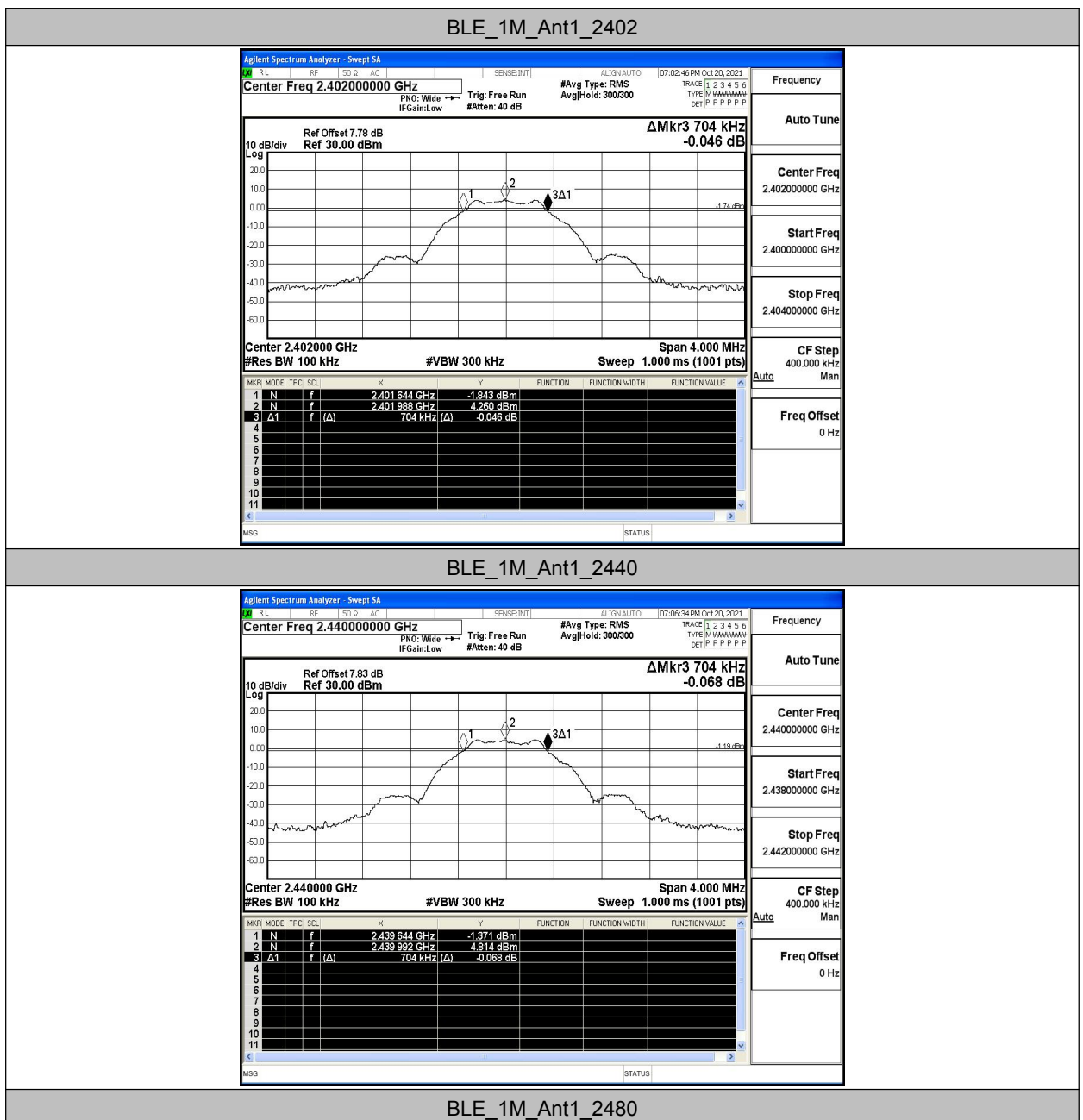


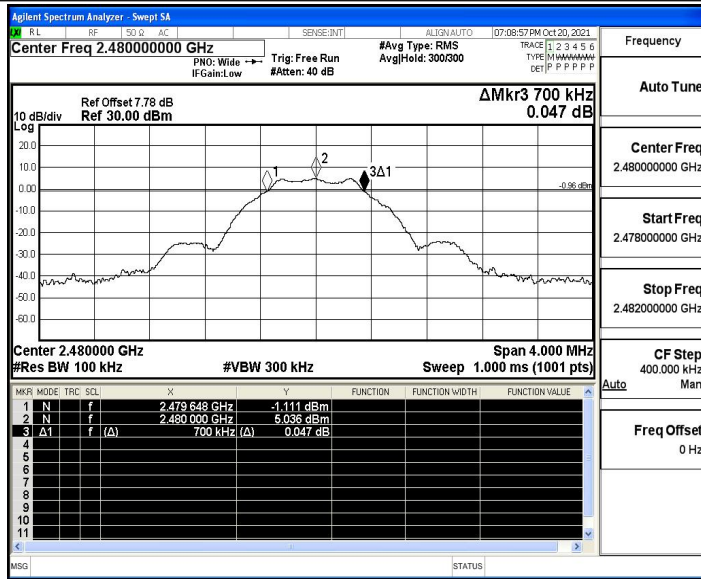
## B.1 6dB Bandwidth

### Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.704	2401.644	2402.348	≥0.5	PASS
		2440	0.704	2439.644	2440.348	≥0.5	PASS
		2480	0.700	2479.648	2480.348	≥0.5	PASS

### Test Graphs





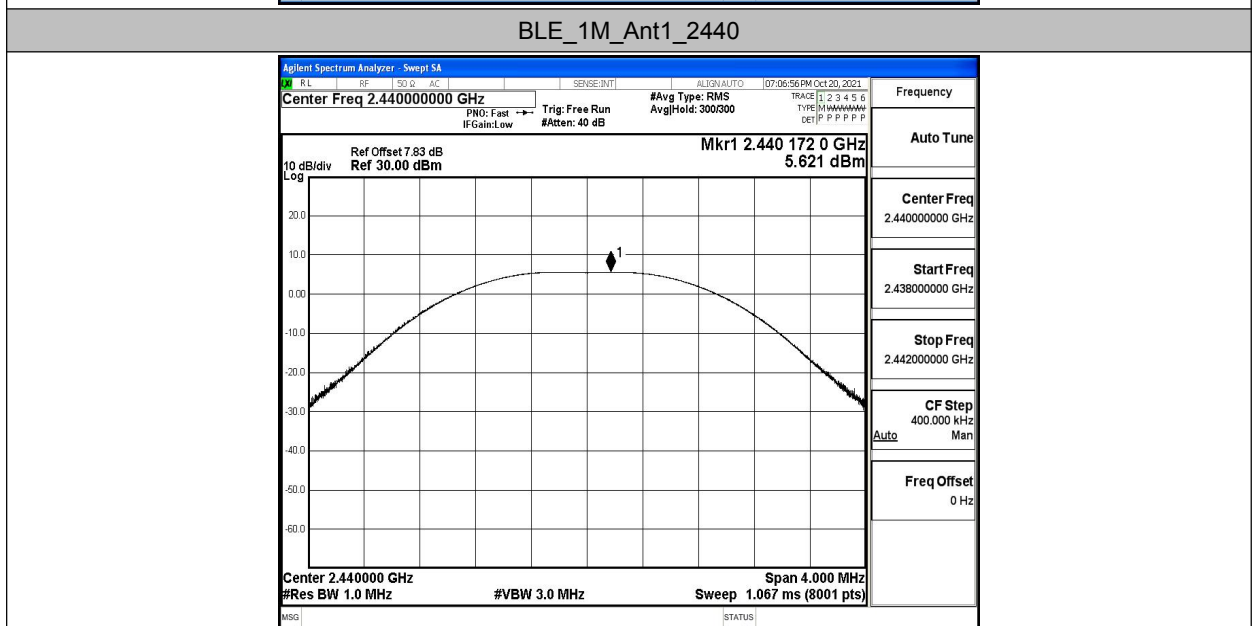
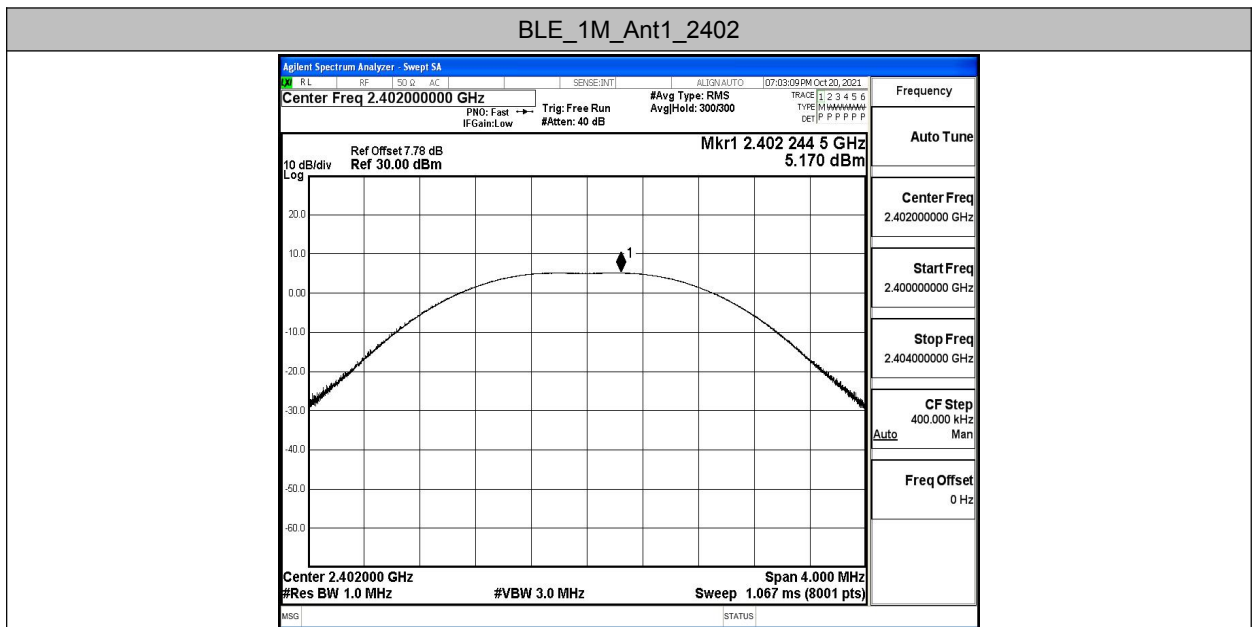


## B.2 Maximum conducted output power

### Test Result

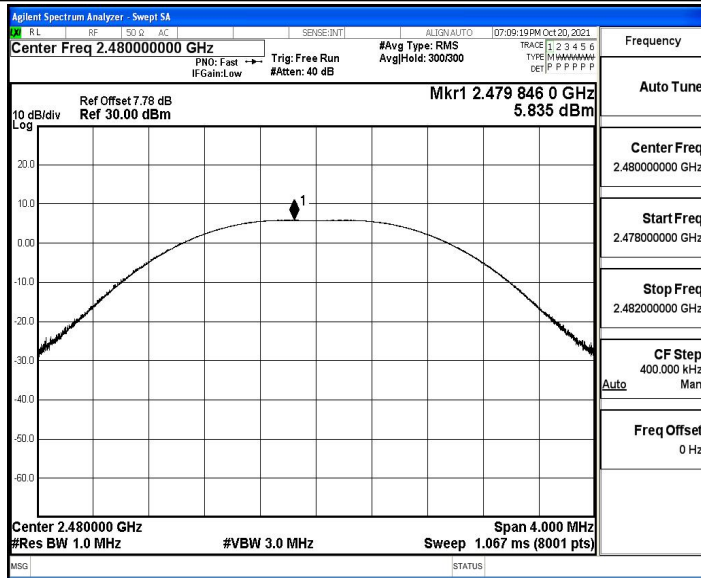
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	5.17	≤30	PASS
		2440	5.62	≤30	PASS
		2480	5.84	≤30	PASS

### Test Graphs





BLE\_1M\_Ant1\_2480



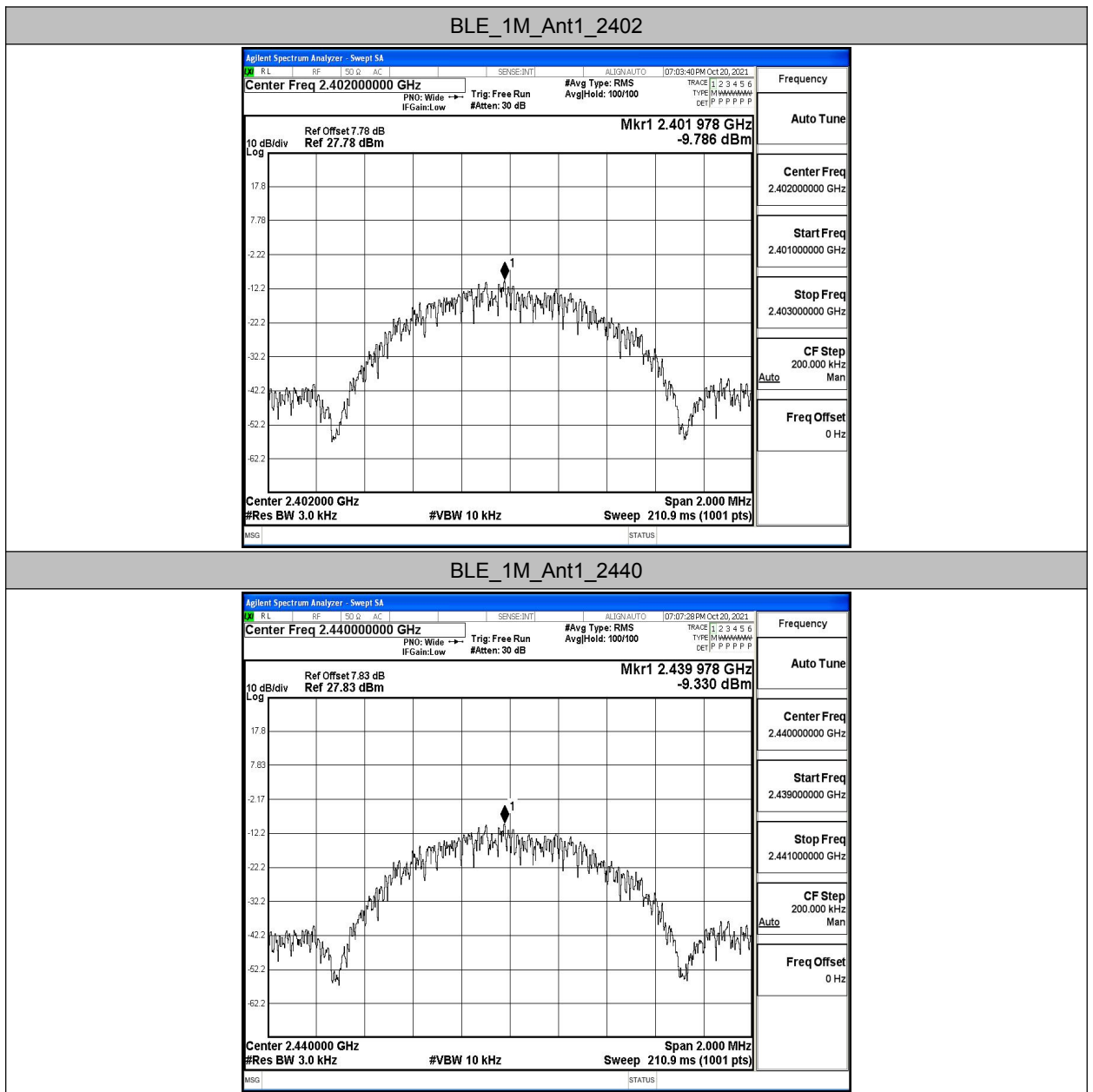


### B.3 Maximum power spectral density

#### Test Result

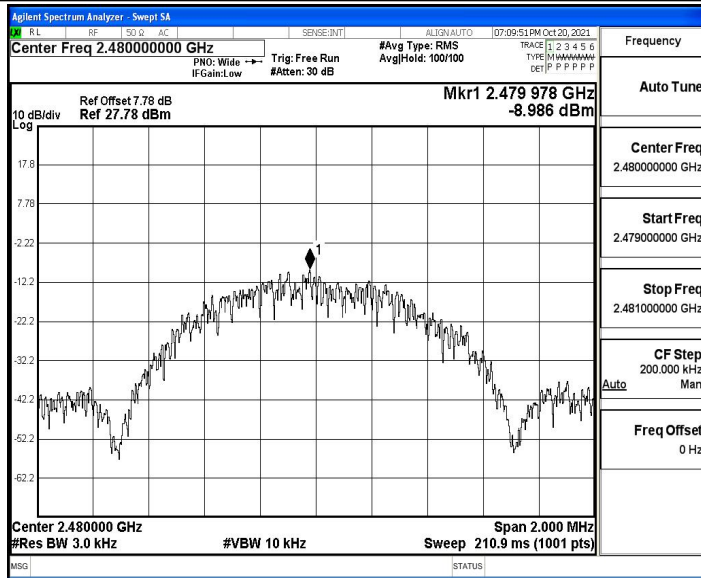
TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-9.79	≤8	PASS
		2440	-9.33	≤8	PASS
		2480	-8.99	≤8	PASS

#### Test Graphs





BLE\_1M\_Ant1\_2480



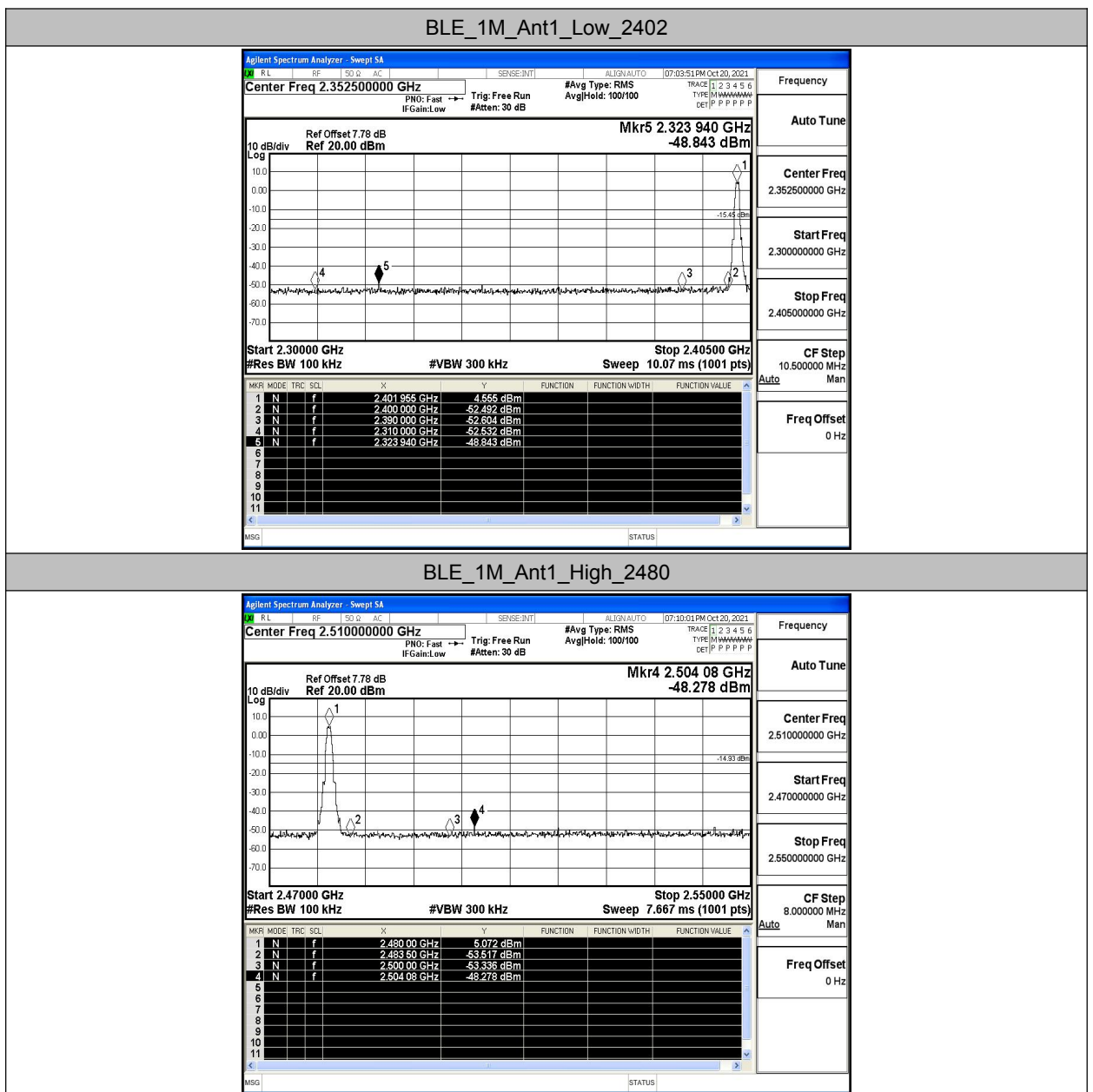


## B.4 Band edge measurements

### Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	4.56	-48.84	≤-15.45	PASS
		High	2480	5.07	-48.28	≤-14.93	PASS

### Test Graphs







## B.5 Conducted Spurious Emission

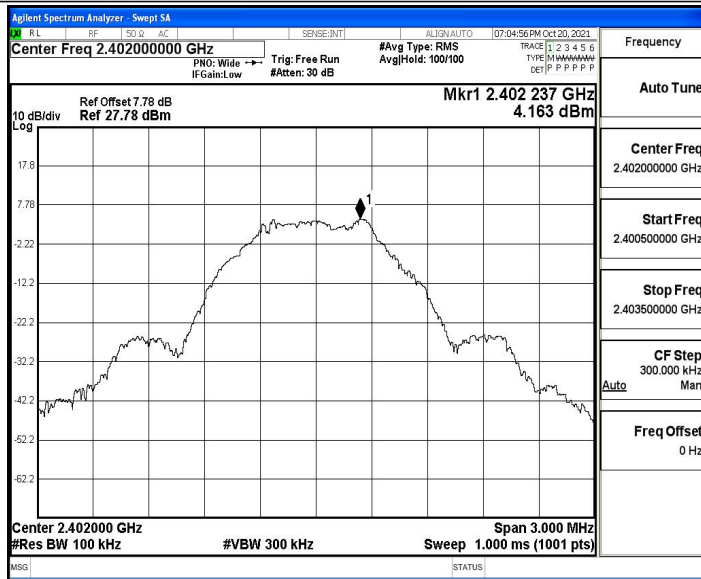
### Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	4.16	4.16	---	PASS
			30~1000	4.16	-59.81	$\leq -15.84$	PASS
			1000~26500	4.16	-47.17	$\leq -15.84$	PASS
		2440	Reference	4.70	4.70	---	PASS
			30~1000	4.70	-60.08	$\leq -15.3$	PASS
			1000~26500	4.70	-47.5	$\leq -15.3$	PASS
		2480	Reference	5.02	5.02	---	PASS
			30~1000	5.02	-61.79	$\leq -14.98$	PASS
			1000~26500	5.02	-43.08	$\leq -14.98$	PASS

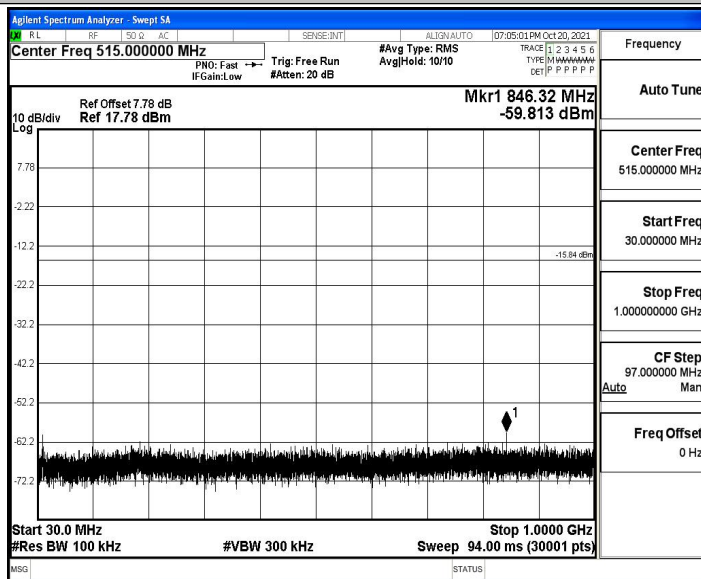


### Test Graphs

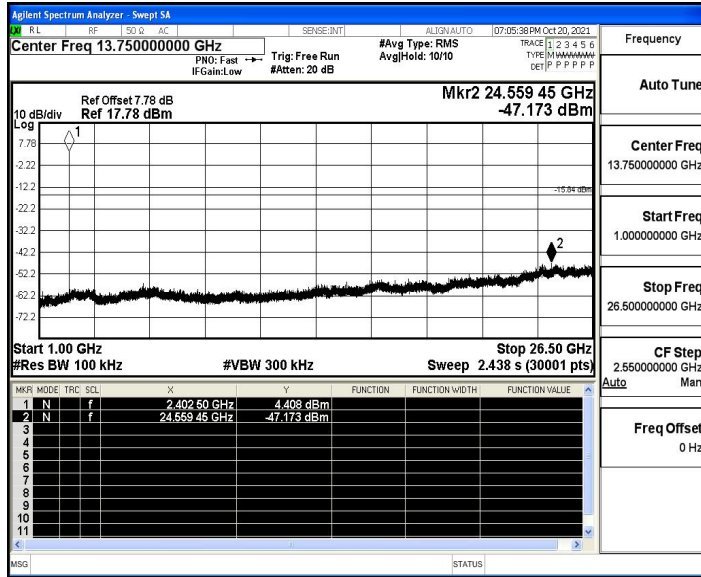
BLE\_1M\_Ant1\_2402\_0~Reference



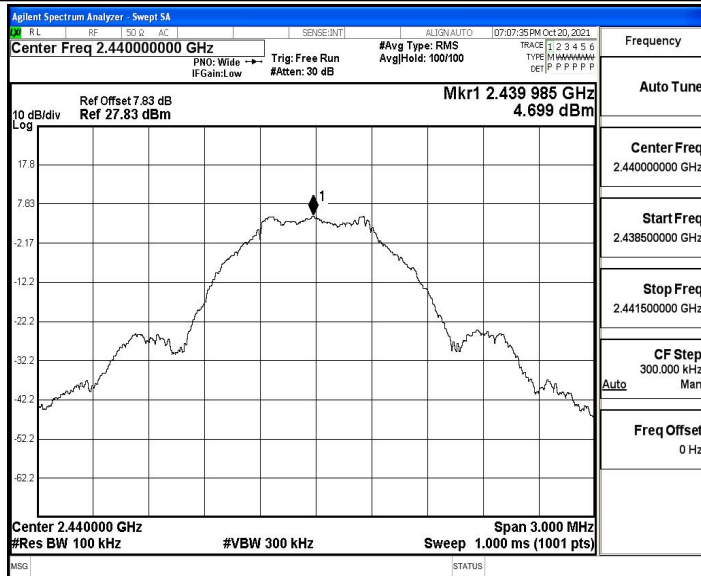
BLE\_1M\_Ant1\_2402\_30~1000



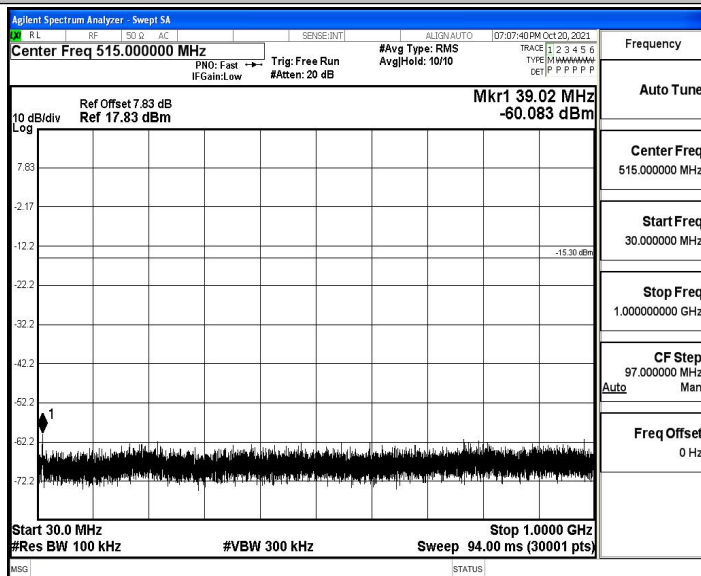
BLE\_1M\_Ant1\_2402\_1000~26500



BLE\_1M\_Ant1\_2440\_0~Reference

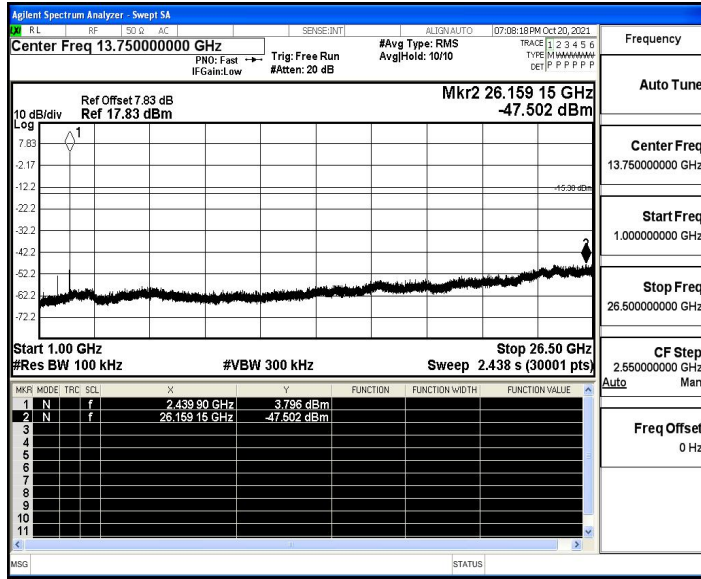


BLE\_1M\_Ant1\_2440\_30~1000

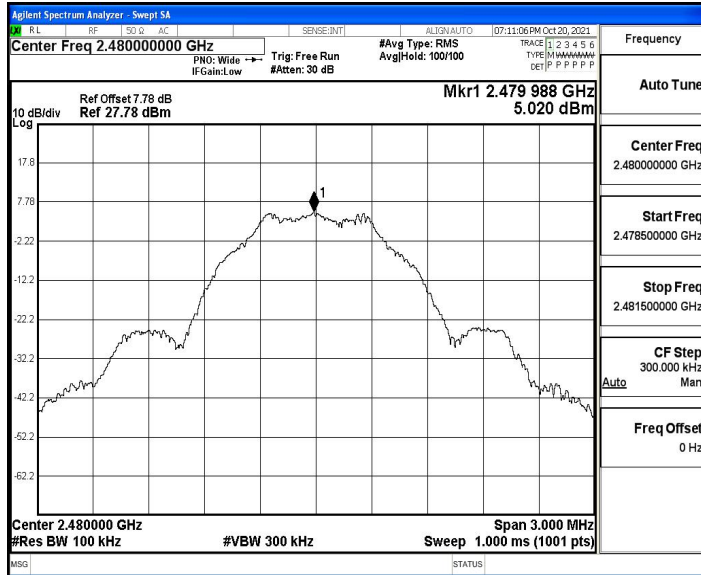




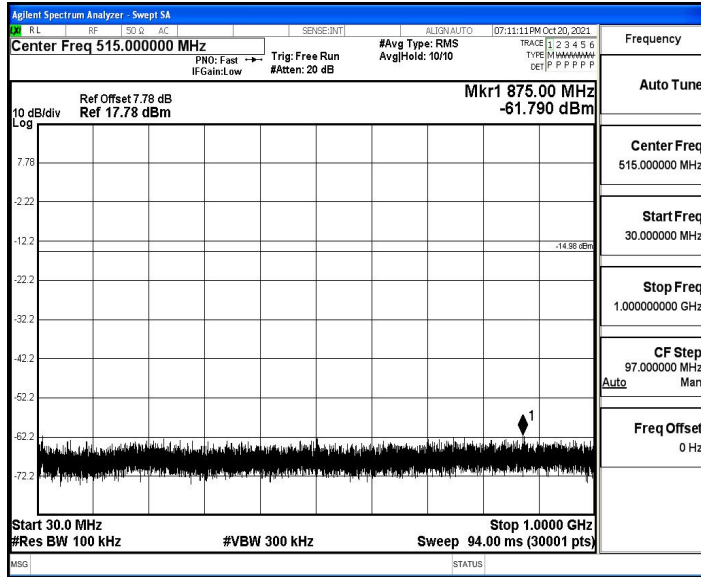
BLE\_1M\_Ant1\_2440\_1000~26500



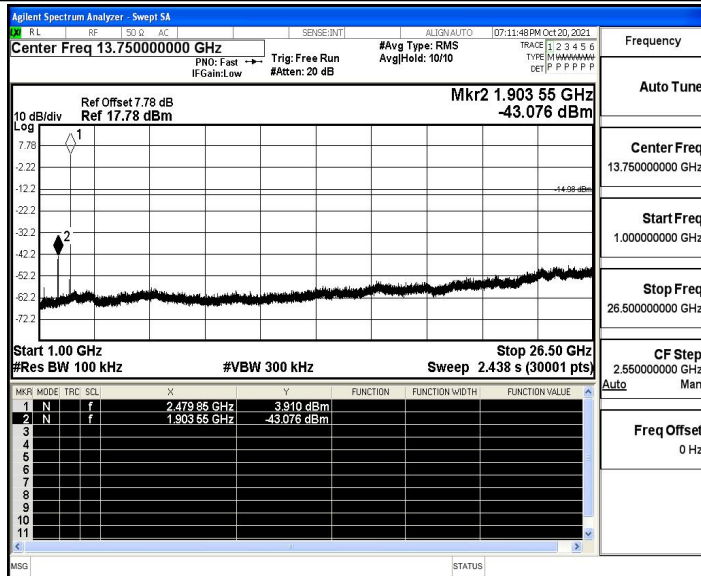
BLE\_1M\_Ant1\_2480\_0~Reference



BLE\_1M\_Ant1\_2480\_30~1000



BLE\_1M\_Ant1\_2480\_1000~26500



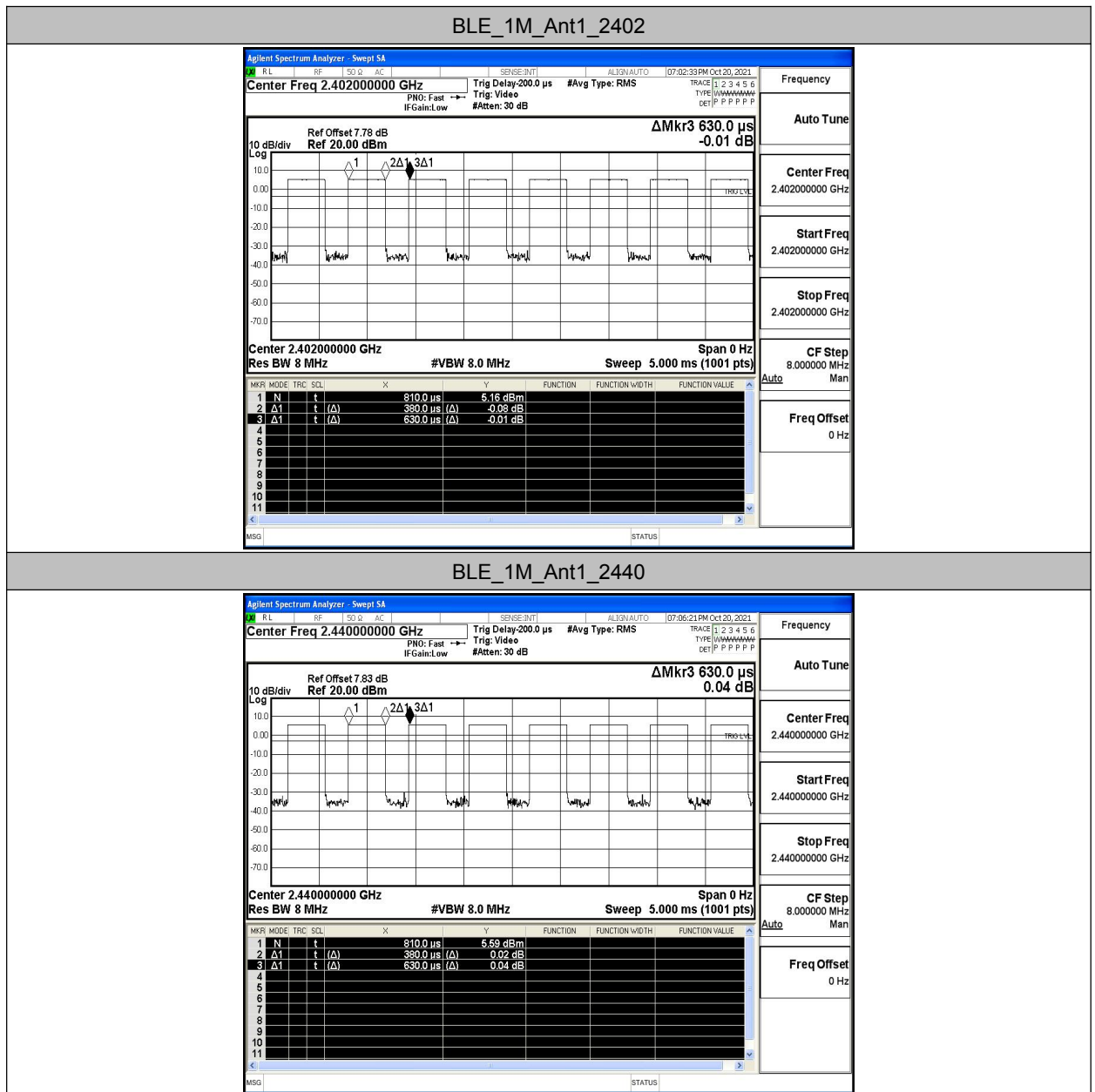


## B.6 Duty Cycle

### Test Result

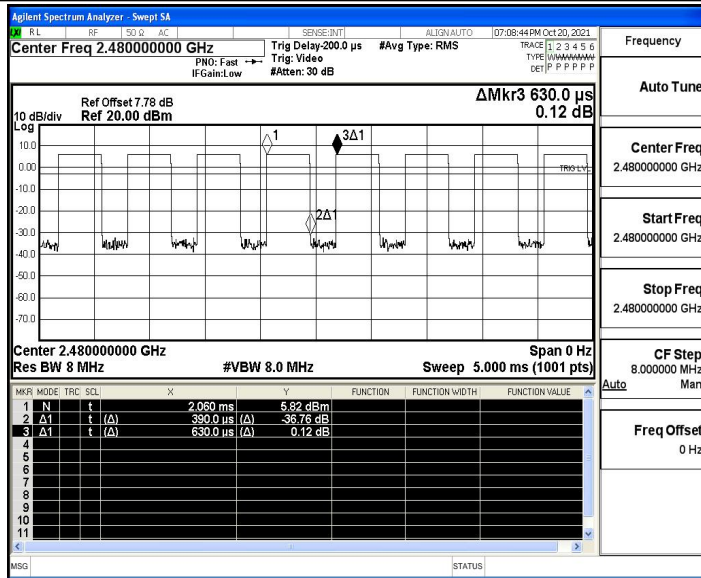
TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.38	0.63	0.6032	60.32	2.20	---	PASS
		2440	0.38	0.63	0.6032	60.32	2.20	---	PASS
		2480	0.39	0.63	0.6190	61.90	2.08	---	PASS

### Test Graphs





BLE\_1M\_Ant1\_2480





## B.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	-48.5	≤-41.20	46.70	≤54	PASS
				AV	2385.890	-47.32	≤-41.20	47.88	≤54	PASS
				AV	2390.000	-47.72	≤-41.20	47.48	≤54	PASS
				Peak	2310.000	-42.81	≤-21.20	52.39	≤74	PASS
				Peak	2336.750	-39.44	≤-21.20	55.76	≤74	PASS
				Peak	2390.000	-42.31	≤-21.20	52.89	≤74	PASS
		High	2480	AV	2483.500	-45.6	≤-41.20	49.60	≤54	PASS
				AV	2483.520	-45.6	≤-41.20	49.60	≤54	PASS
				AV	2500.000	-47.4	≤-41.20	47.80	≤54	PASS
				Peak	2483.500	-41.26	≤-21.20	53.94	≤74	PASS
				Peak	2499.680	-38.51	≤-21.20	56.69	≤74	PASS
				Peak	2500.000	-40.83	≤-21.20	54.37	≤74	PASS

Note:

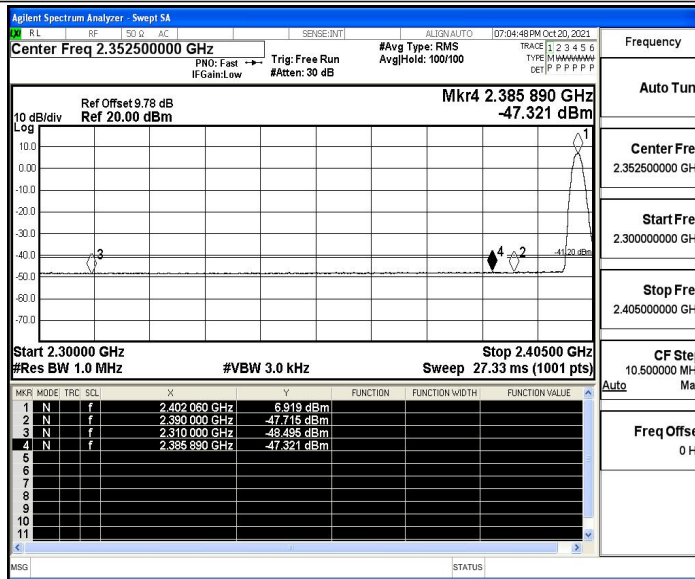
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



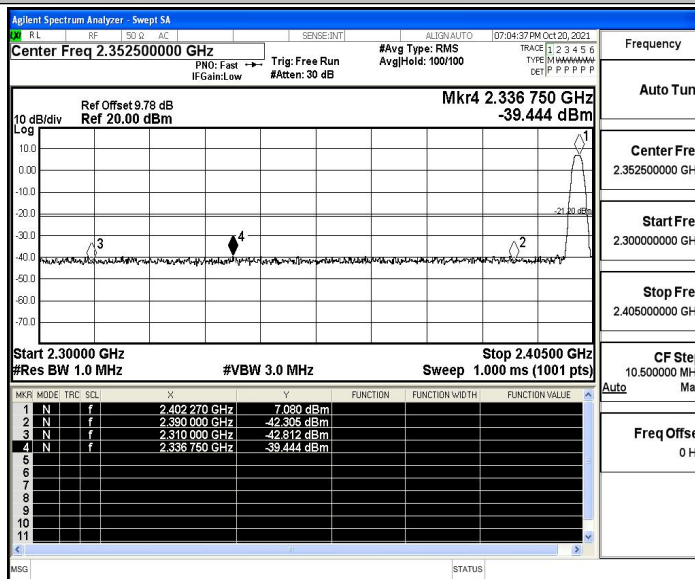


Test Graphs

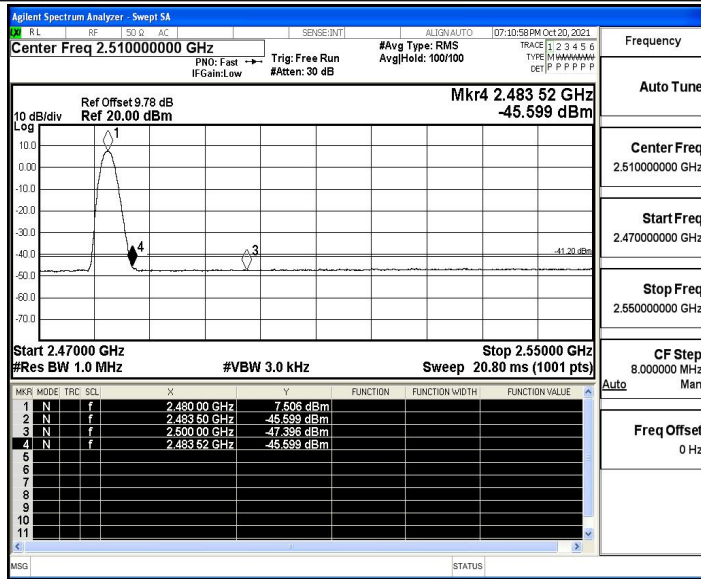
BLE\_1M\_Ant1\_Low\_2402\_AV



BLE\_1M\_Ant1\_Low\_2402\_Peak



BLE\_1M\_Ant1\_High\_2480\_AV



BLE\_1M\_Ant1\_High\_2480\_Peak

