

Appendix B

RF Test Data for BT LE (Conducted Measurement)

Product Name: Smart Terminal

Test Model: MX15

Environmental Conditions

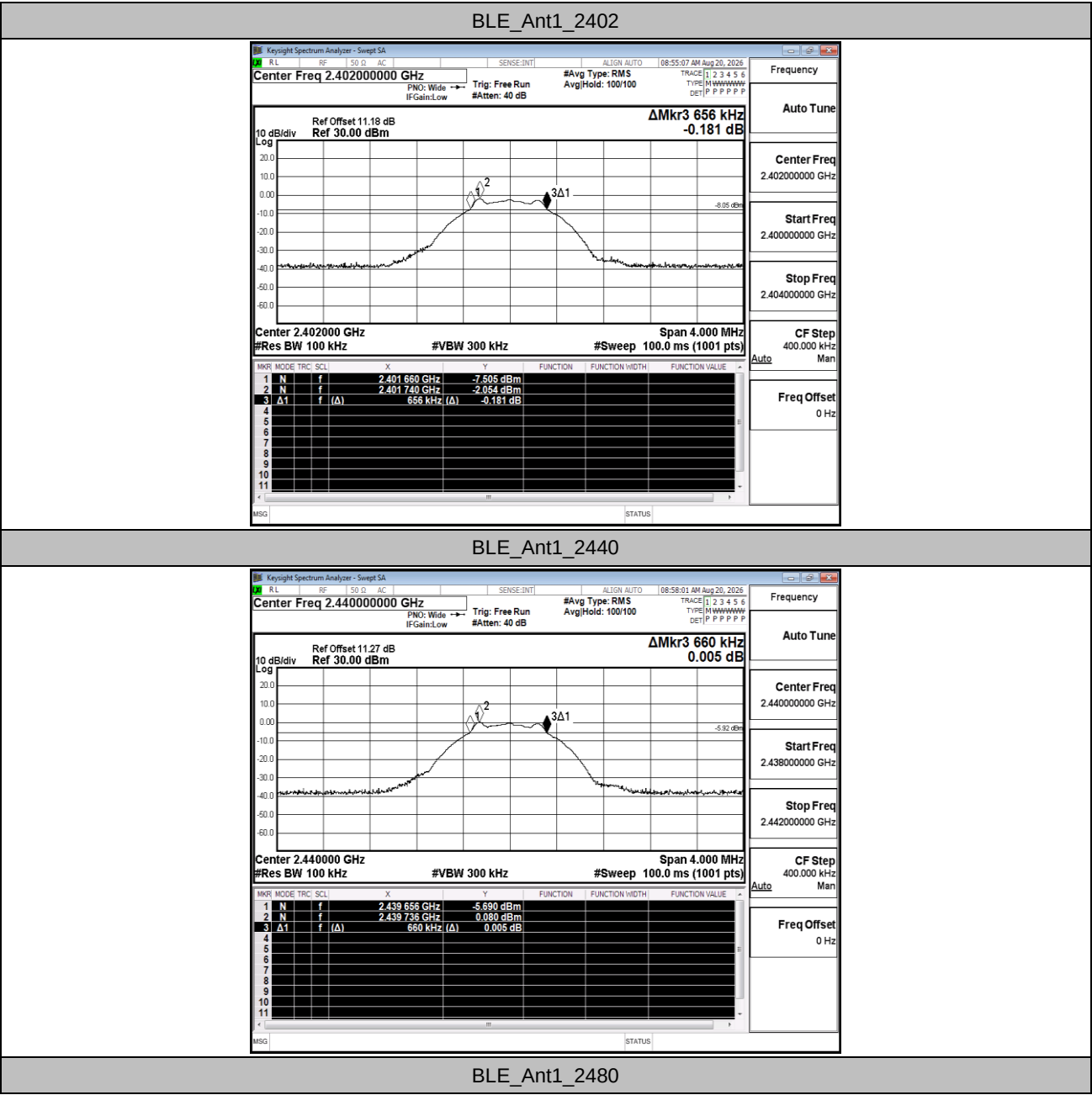
Temperature:	24.8°C
Relative Humidity:	53.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

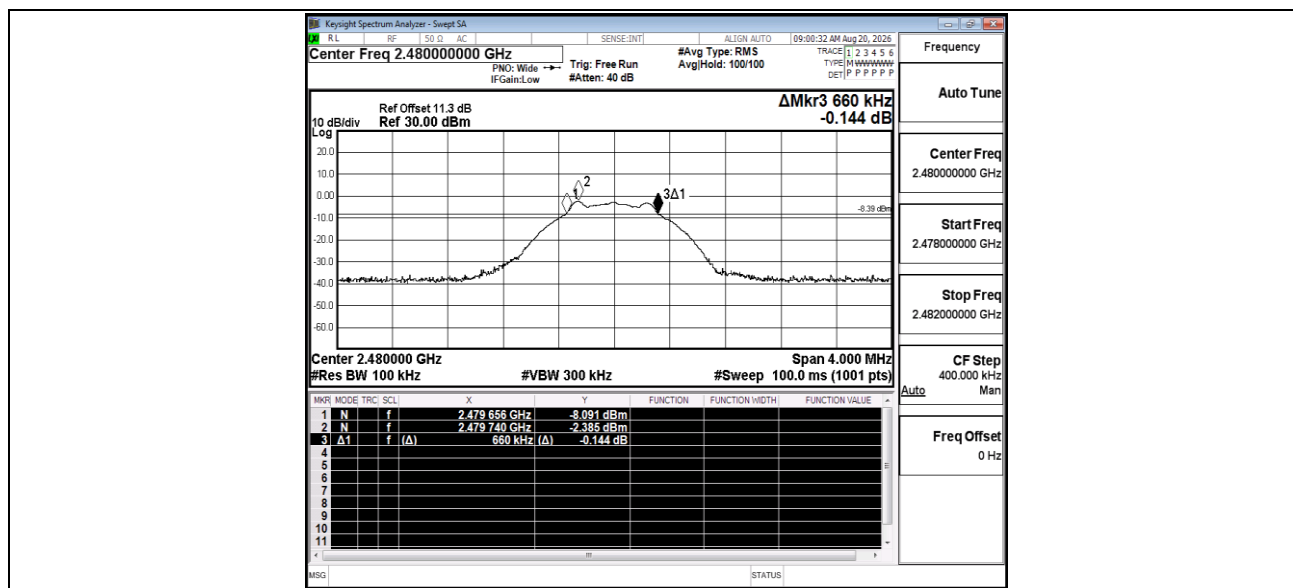
B.1 DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant1	2402	0.656	2401.660	2402.316	0.5	PASS
		2440	0.660	2439.656	2440.316	0.5	PASS
		2480	0.660	2479.656	2480.316	0.5	PASS

Test Graphs



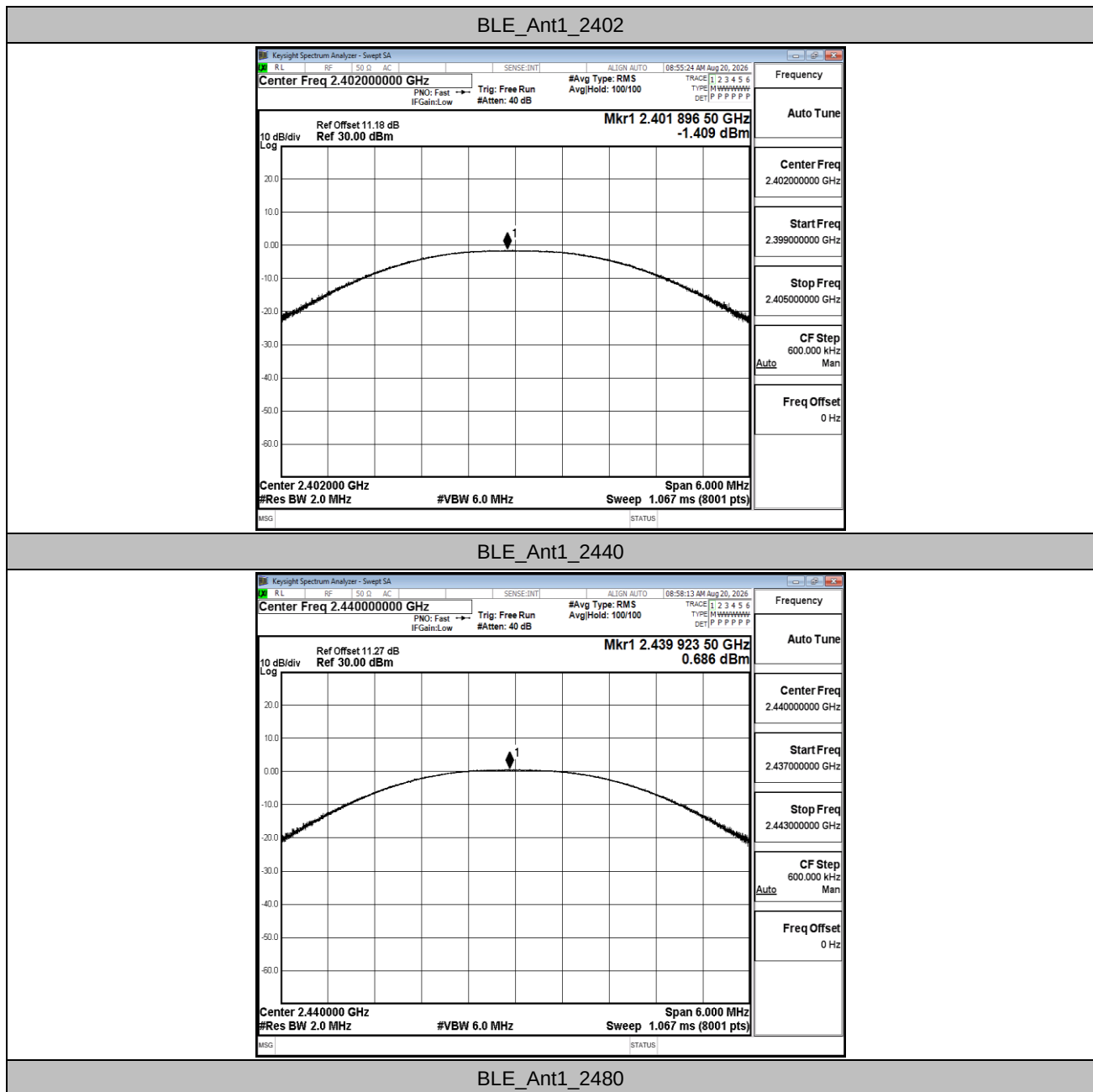


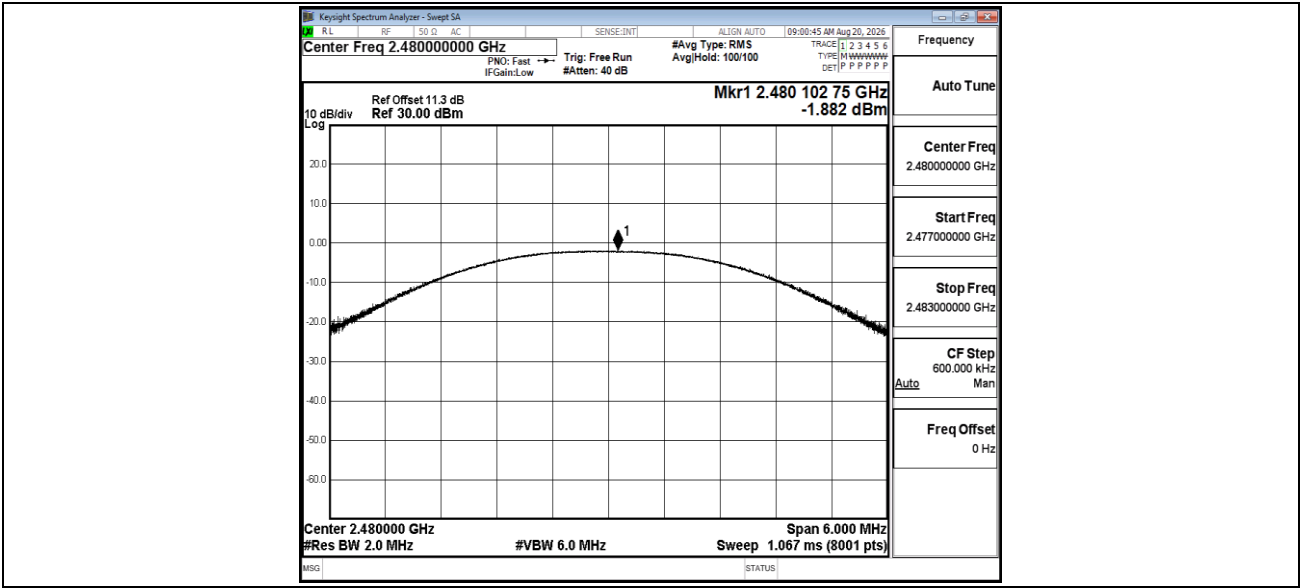
B.2 Maximum Peak conducted output power

Test Result Peak

TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE	Ant1	2402	-1.41	≤30	PASS
		2440	0.69	≤30	PASS
		2480	-1.88	≤30	PASS

Test Graphs Peak



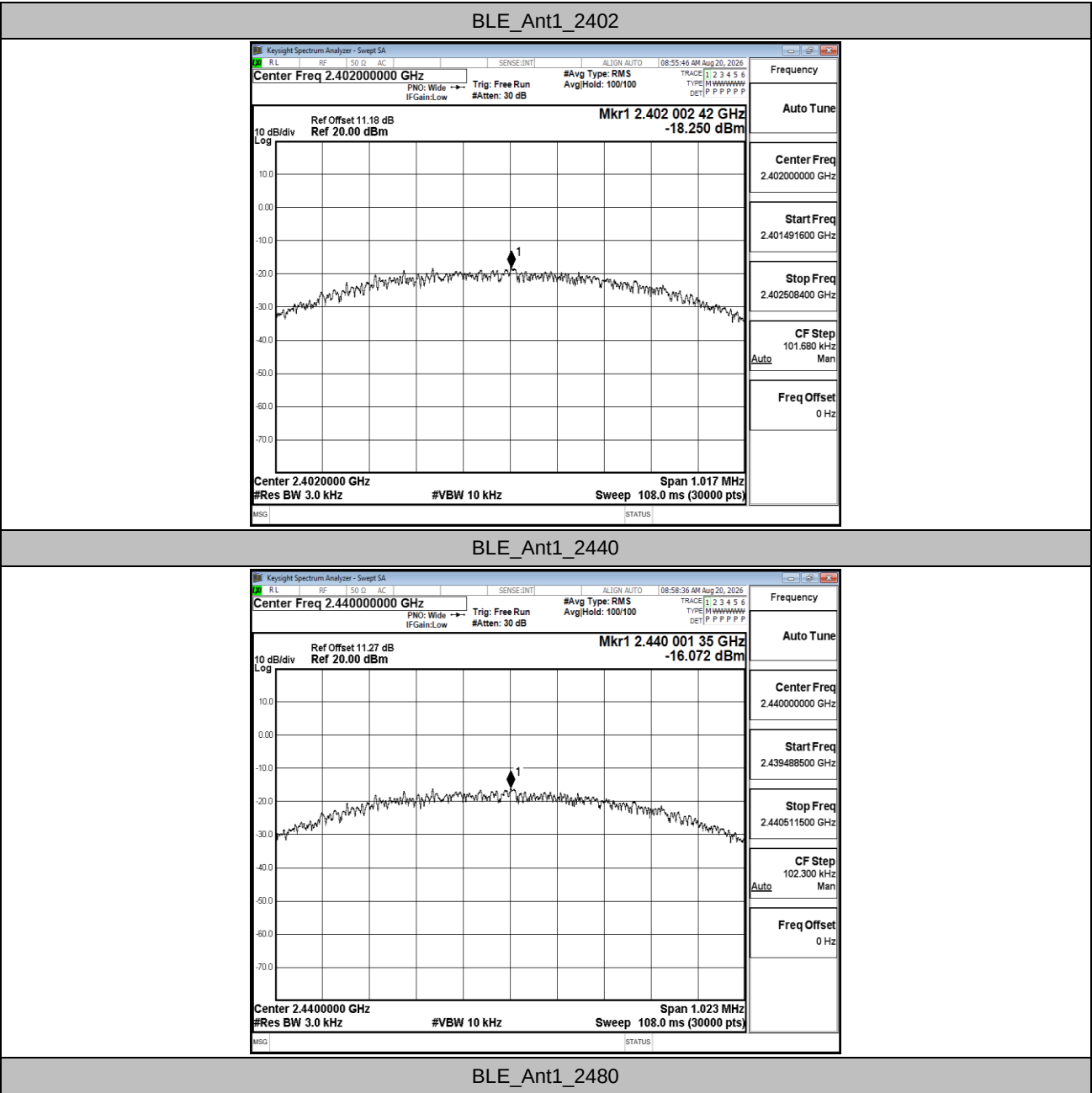


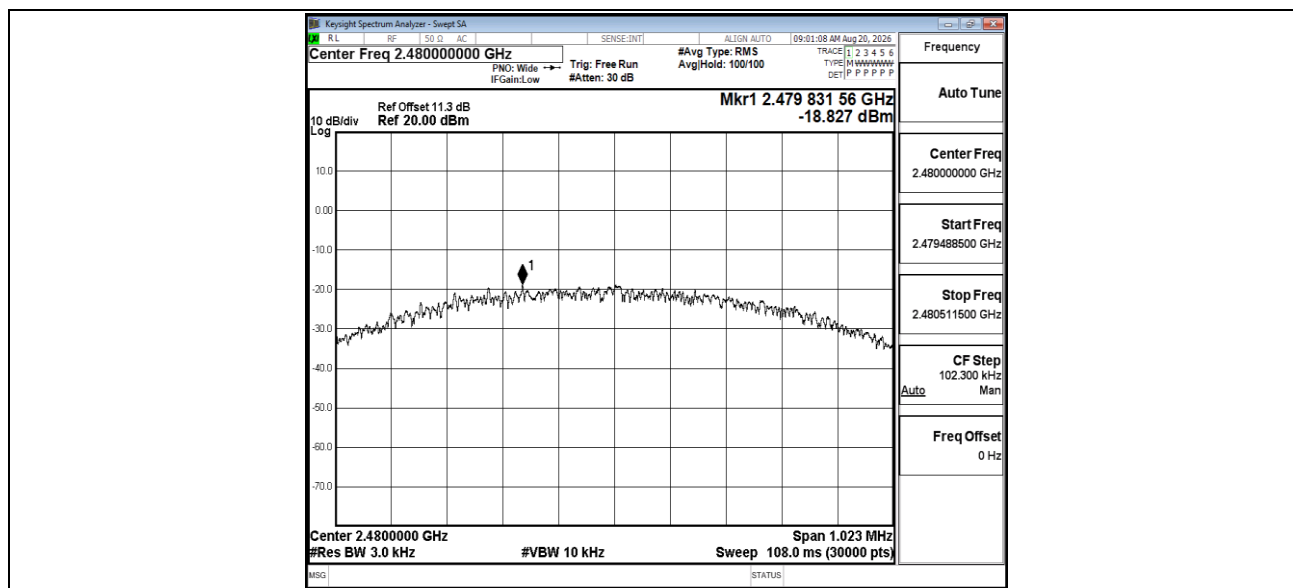
B.3 Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE	Ant1	2402	-18.25	≤8.00	PASS
		2440	-16.07	≤8.00	PASS
		2480	-18.83	≤8.00	PASS

Test Graphs



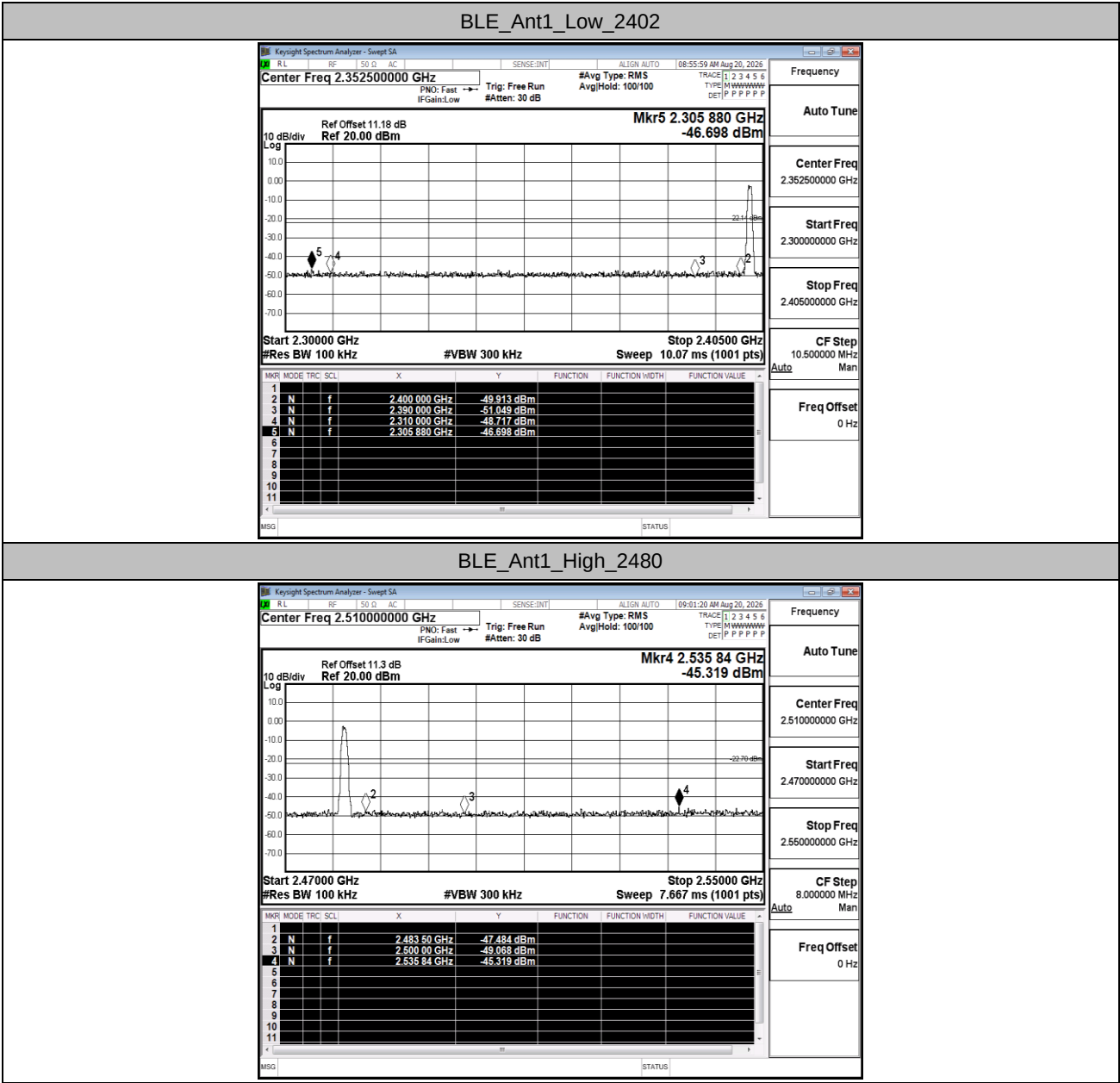


B.4 Band edge measurements

Test Result

TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant1	Low	2402	-2.14	-46.7	≤-22.14	PASS
		High	2480	-2.70	-45.32	≤-22.7	PASS

Test Graphs

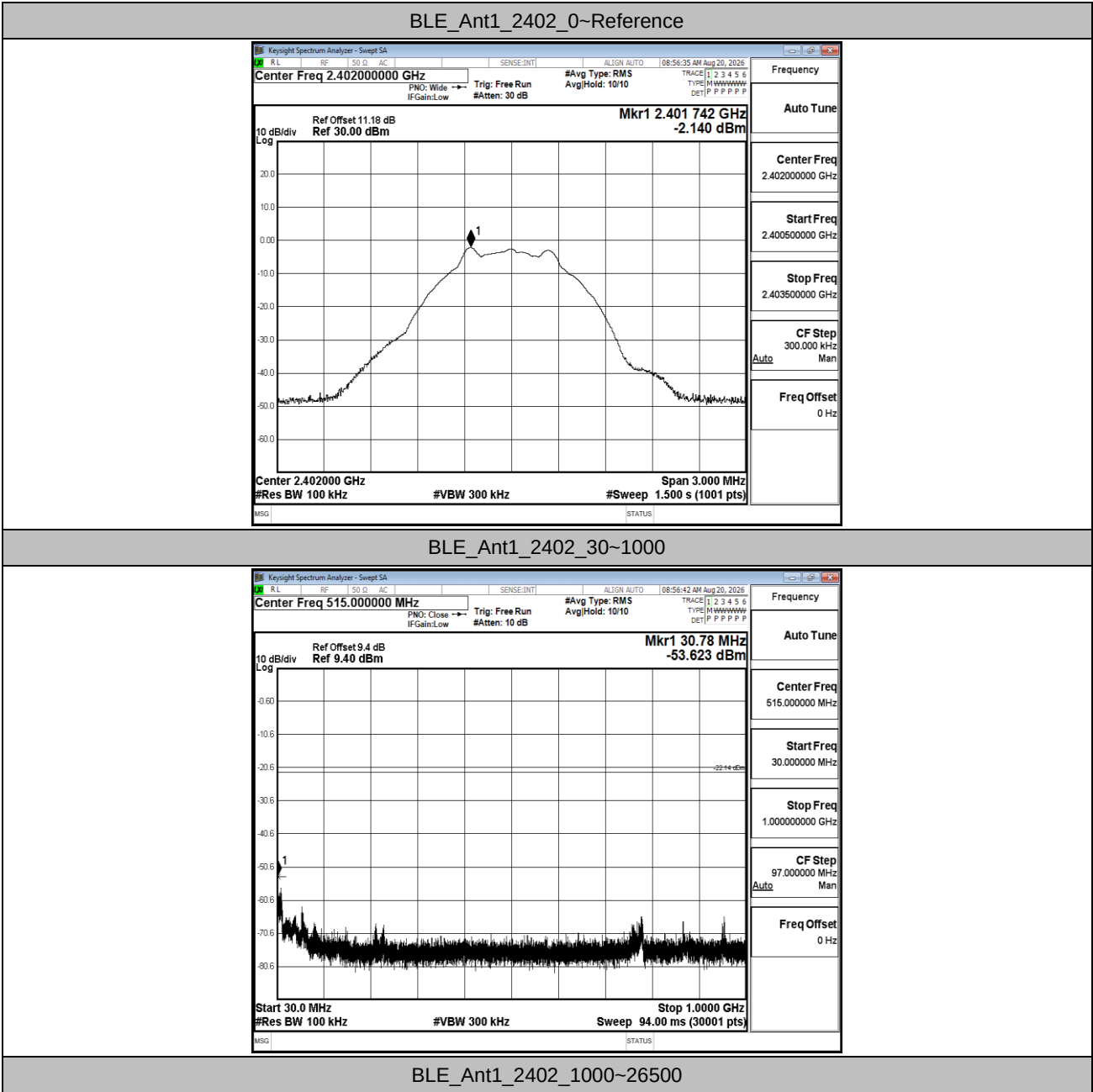


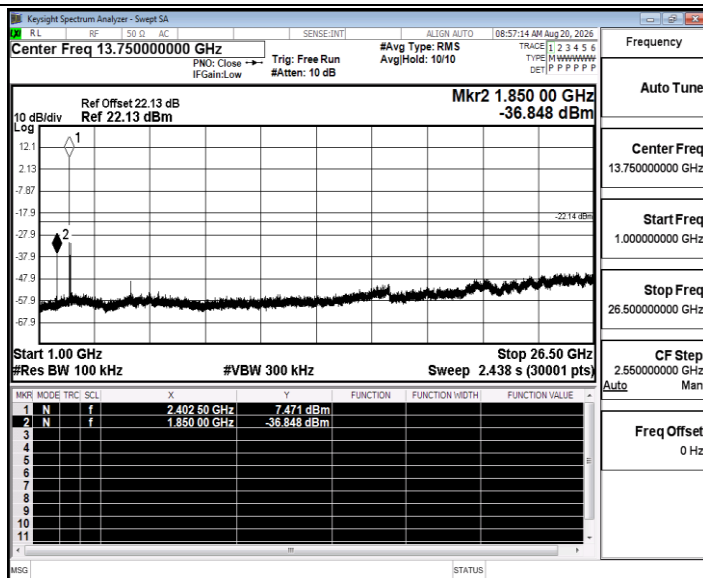
B.5 Conducted Spurious Emission

Test Result

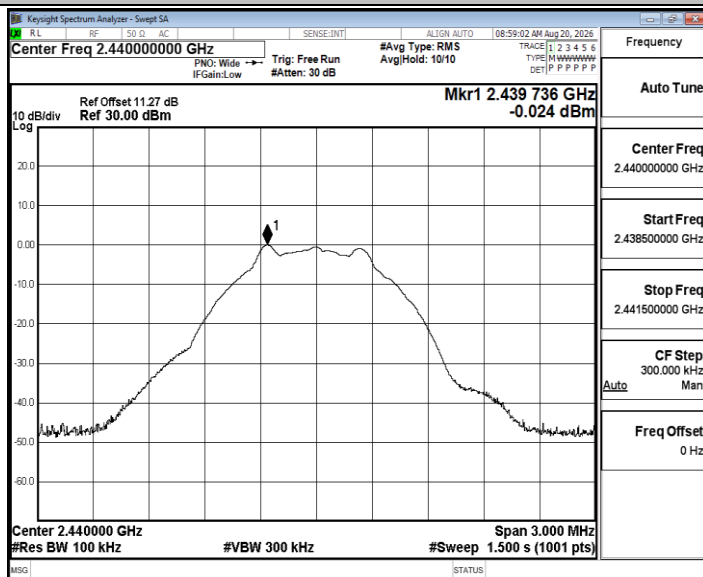
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant1	2402	Reference	-2.14	-2.14	---	PASS
			30~1000	-2.14	-53.62	≤-22.14	PASS
			1000~26500	-2.14	-36.85	≤-22.14	PASS
		2440	Reference	-0.02	-0.02	---	PASS
			30~1000	-0.02	-54.83	≤-20.02	PASS
			1000~26500	-0.02	-31.39	≤-20.02	PASS
		2480	Reference	-2.48	-2.48	---	PASS
			30~1000	-2.48	-56.79	≤-22.48	PASS
			1000~26500	-2.48	-44.55	≤-22.48	PASS

Test Graphs

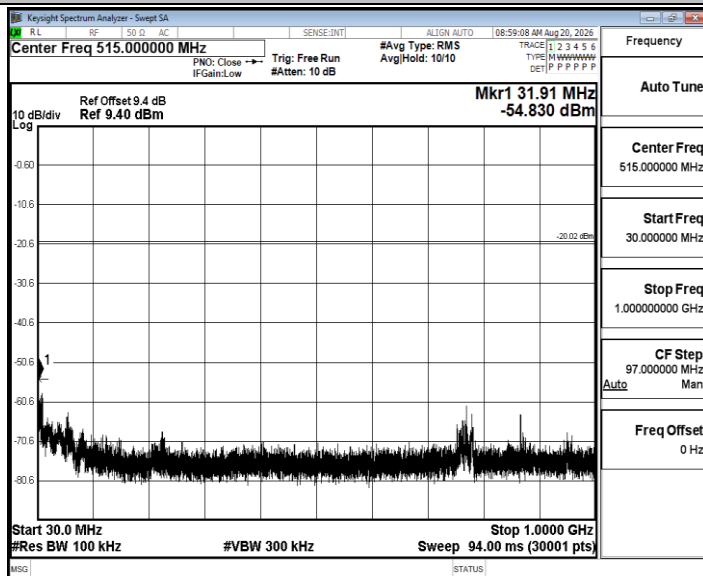


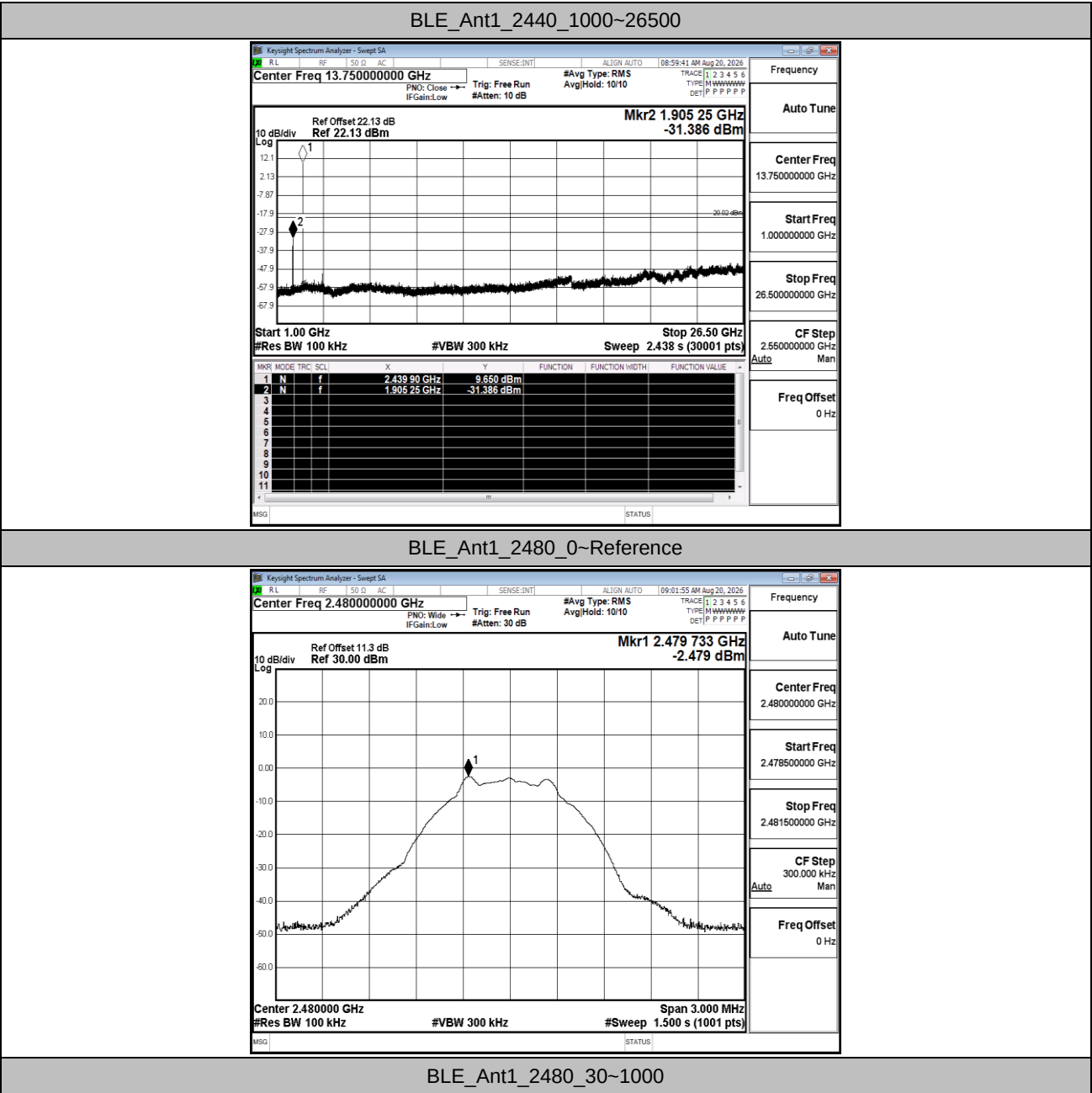


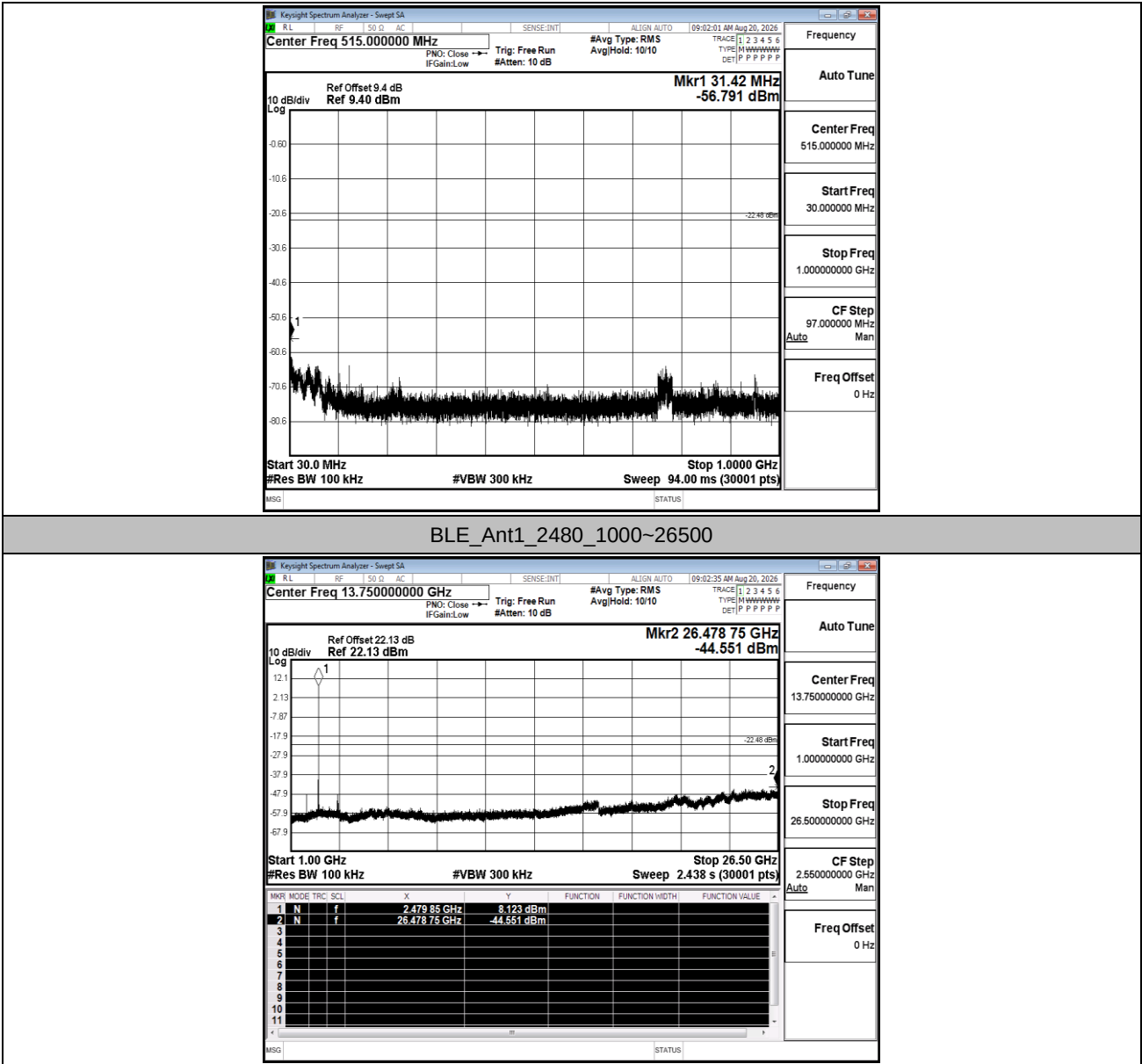
BLE_Ant1_2440_0~Reference



BLE_Ant1_2440_30~1000





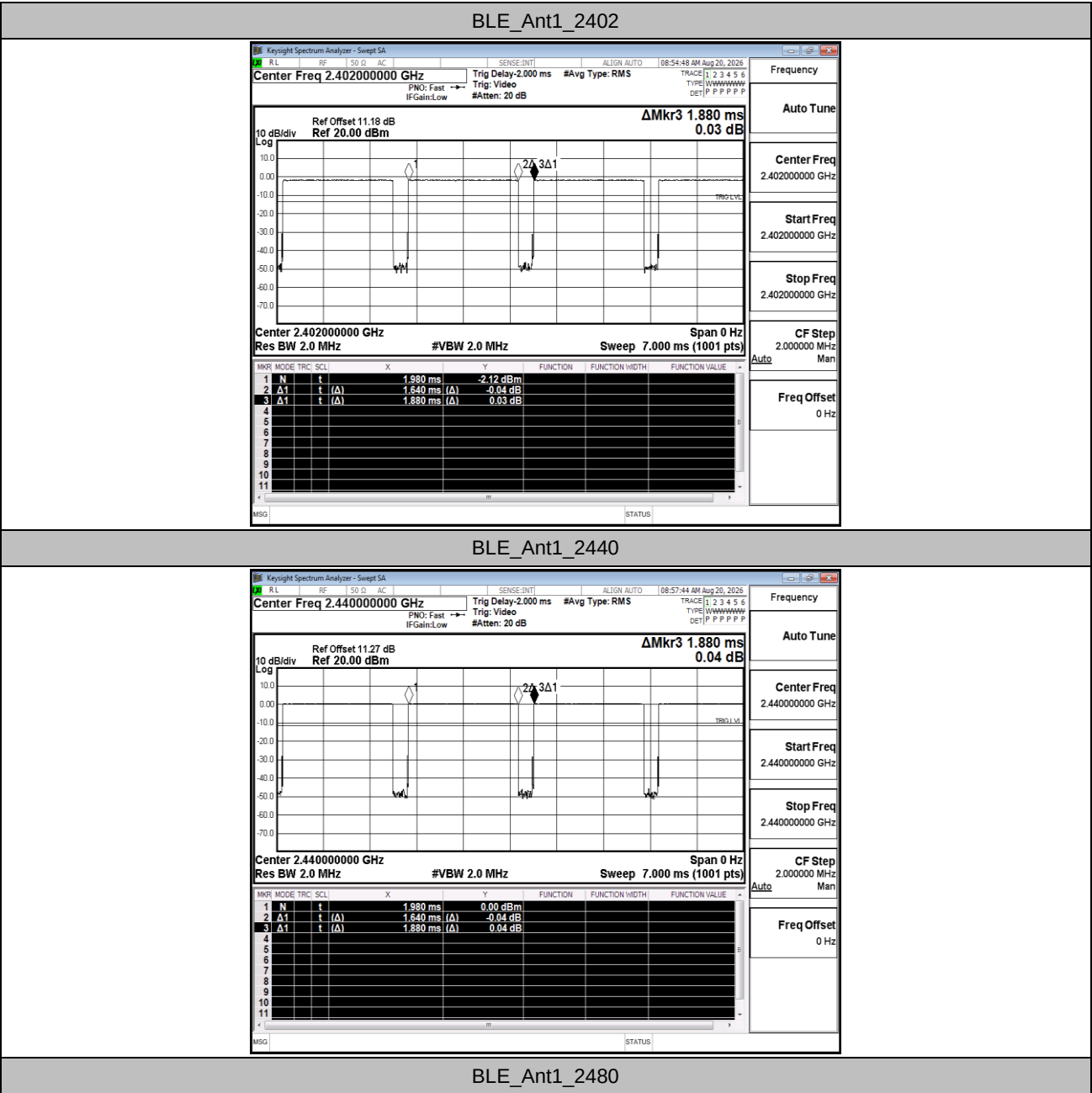


B.6 Duty Cycle

Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE	Ant1	2402	1.64	1.88	0.8723	87.23	0.59	---	---
		2440	1.64	1.88	0.8723	87.23	0.59	---	---
		2480	1.64	1.88	0.8723	87.23	0.59	---	---

Test Graphs



BLE_Ant1_2440

KeySight Spectrum Analyzer - Swept SA

RF 150.0 AC

SENSE INT

ALIGN AUTO

08:57:44 AM Aug 20, 2026

Center Freq 2.440000000 GHz

Trig Delay: 2.000 ms

#Avg Type: RMS

TRAC 1 2 3 4 5 6

PWD: Fast

Trig: Video

TYPE WWWWWWW

IF Gain: Low

#Atten: 20 dB

DET P P P P P P

Ref Offset 11.27 dB

Ref 20.00 dBm

ΔMkr3 1.880 ms

0.04 dB

Center 2.440000000 GHz

Res BW 2.0 MHz

#VBW 2.0 MHz

Sweep 7.000 ms (1001 pts)

Span 0 Hz

CF Step 2.000000 MHz

Auto Man

MNR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	t		1.980 ms	0.00 dBm			
2	Δ1	t	(Δ)	1.840 ms	-0.04 dB			
3	Δ1	t	(Δ)	1.880 ms	0.04 dB			
4								
5								
6								
7								
8								
9								
10								
11								

Frequency

Auto Tune

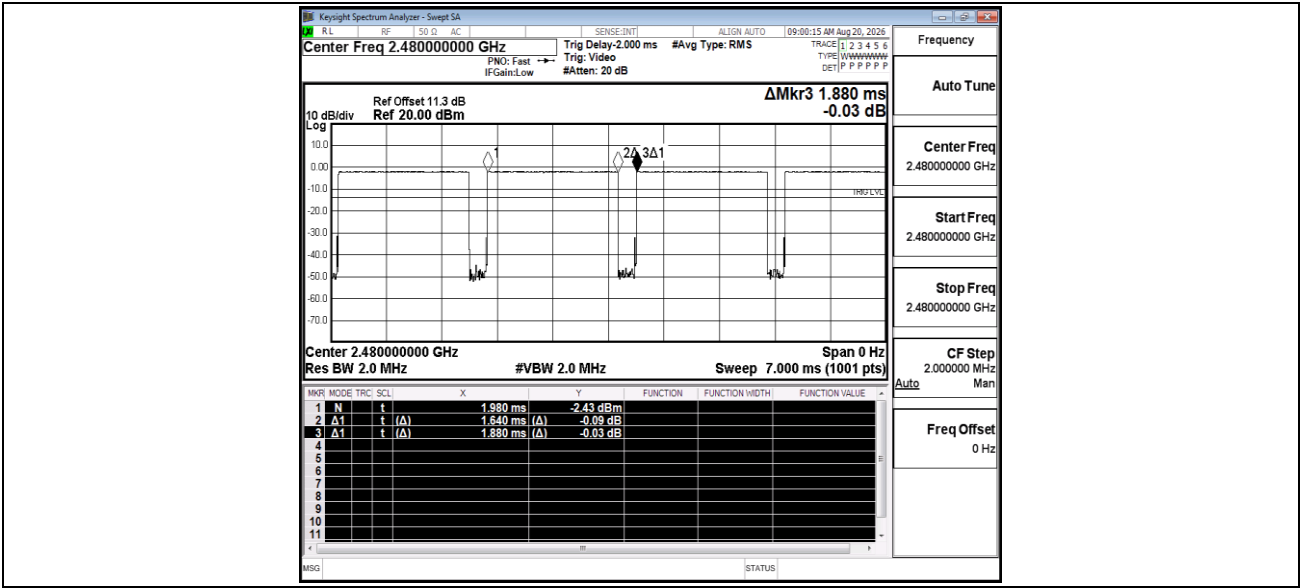
Center Freq 2.440000000 GHz

Start Freq 2.440000000 GHz

Stop Freq 2.440000000 GHz

Freq Offset 0 Hz

BLE_Ant1_2480



B.7 Emissions in Restricted Bands

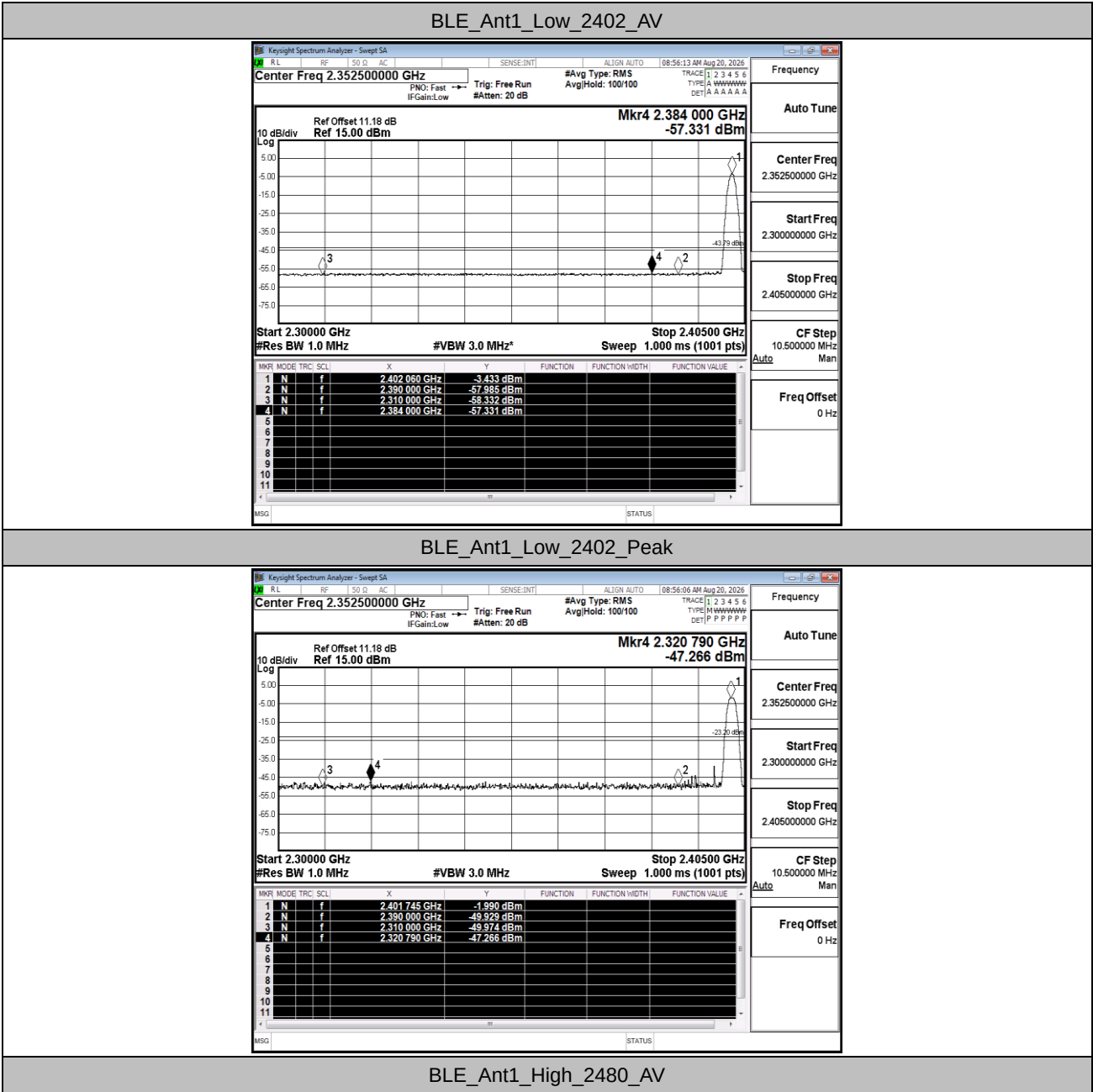
Test Result

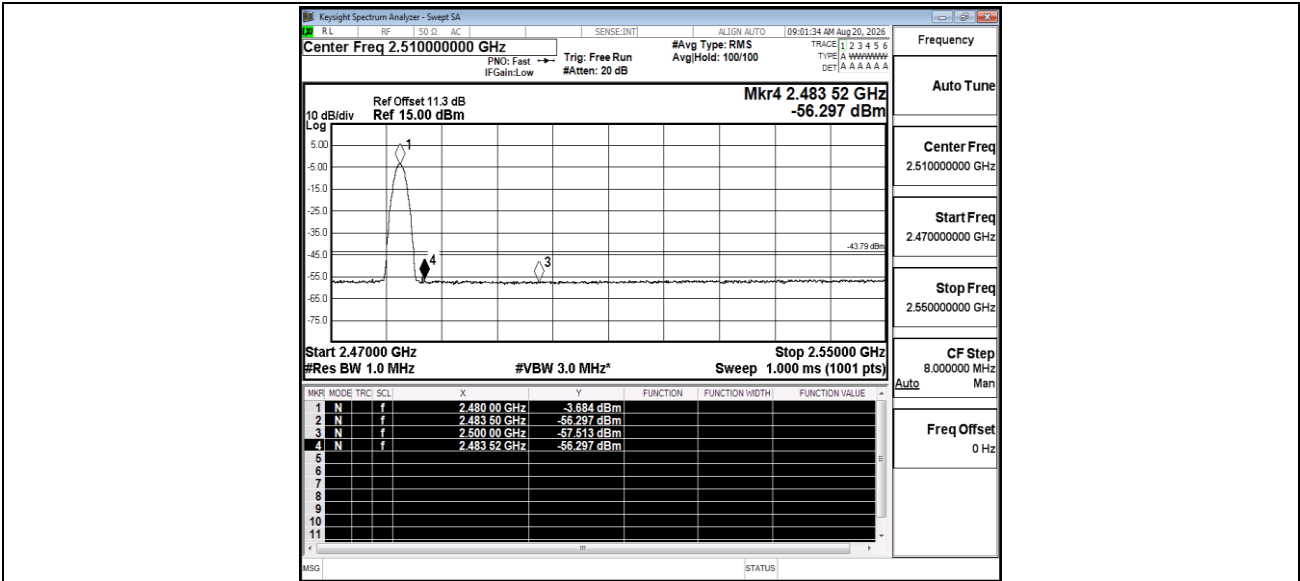
Test Mode	Antenna	Channel Name	Freq (MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Gain [dBi]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE	Ant1	Low	2402	AV	2310.000	-58.33	≤-43.79	5.01	0.59	45.06	≤54	PASS
				AV	2384.000	-57.33	≤-43.79	5.01	0.59	46.06	≤54	PASS
				AV	2390.000	-57.99	≤-43.79	5.01	0.59	45.40	≤54	PASS
				Peak	2310.000	-49.97	≤-23.20	5.01	0	52.83	≤74	PASS
				Peak	2320.790	-47.27	≤-23.20	5.01	0	55.53	≤74	PASS
				Peak	2390.000	-49.93	≤-23.20	5.01	0	52.87	≤74	PASS
		High	2480	AV	2483.500	-56.3	≤-43.79	5.01	0.59	47.09	≤54	PASS
				AV	2483.520	-56.3	≤-43.79	5.01	0.59	47.09	≤54	PASS
				AV	2500.000	-57.51	≤-43.79	5.01	0.59	45.88	≤54	PASS
				Peak	2483.500	-49.33	≤-23.20	5.01	0	53.47	≤74	PASS
				Peak	2485.280	-40.17	≤-23.20	5.01	0	62.63	≤74	PASS
				Peak	2500.000	-49.35	≤-23.20	5.01	0	53.45	≤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_Ant1_High_2480_Peak

