

Case No. : <u>GTS20251223009-1-01</u>	
Ambient Condition: <u>23</u> °C, <u>49</u> %RH	
According Standard: ■Part15C	
Test Date: <u>2025.12.26</u>	Test Engineer: <u>Evan ouyang</u>

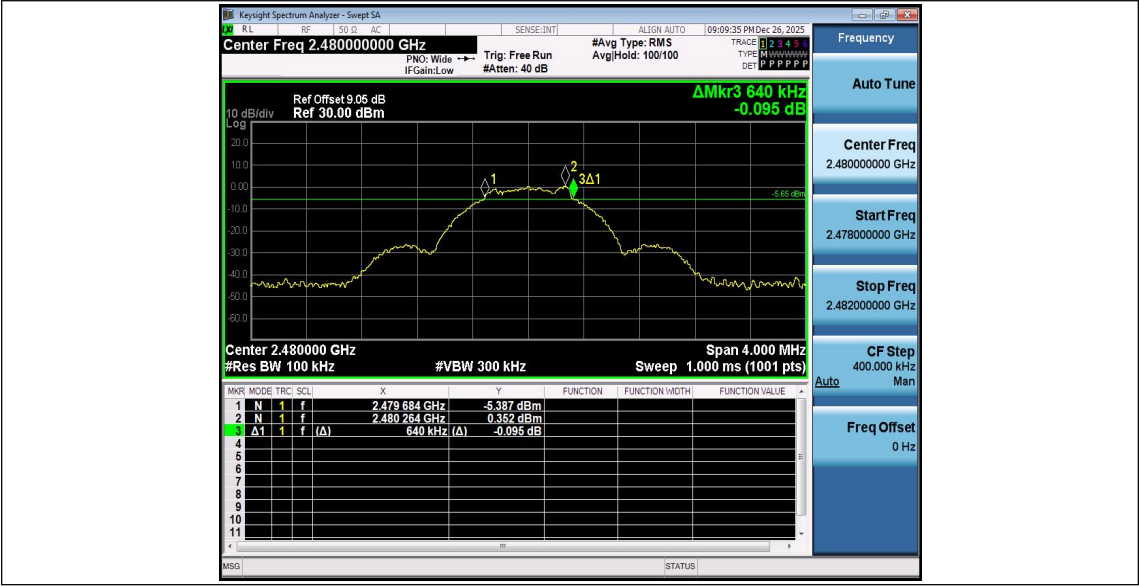
Appendix A.1: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_BT5.0	Ant1	2402	0.696	2401.660	2402.356	0.5	PASS
		2440	0.708	2439.652	2440.360	0.5	PASS
		2480	0.640	2479.684	2480.324	0.5	PASS

Test Graphs





Appendix A.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_BT5.0	Ant1	2402	1.0298	2401.4953	2402.5251	---	---
		2440	1.0251	2439.4963	2440.5214	---	---
		2480	1.0383	2479.4895	2480.5278	---	---

Test Graphs





Appendix A.3: Maximum conducted output power

TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_BT5.0	Ant1	2402	1.23	≤30	PASS
		2440	2.63	≤30	PASS
		2480	1.29	≤30	PASS

Appendix A.4: Maximum power spectral density

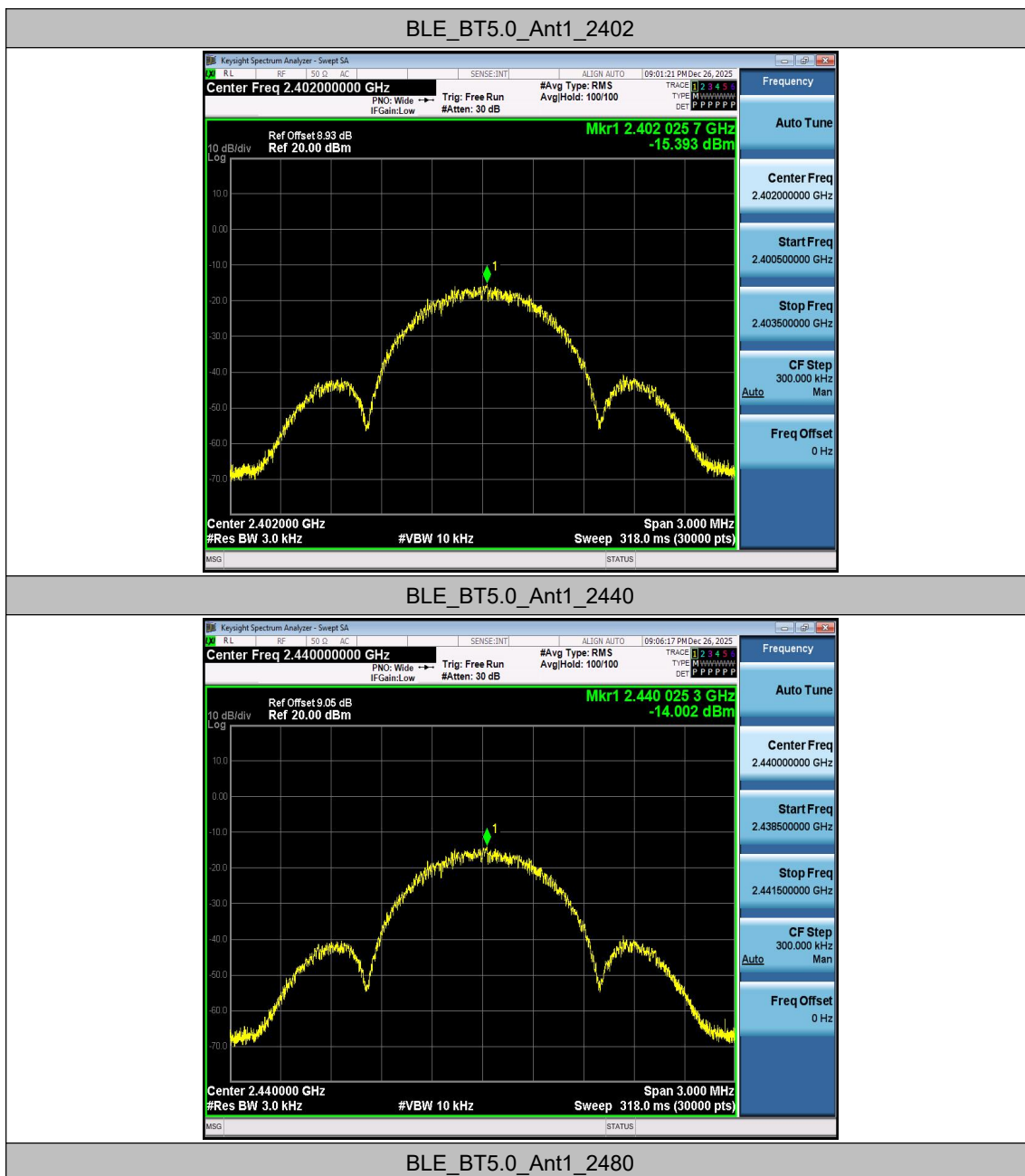
Test Result

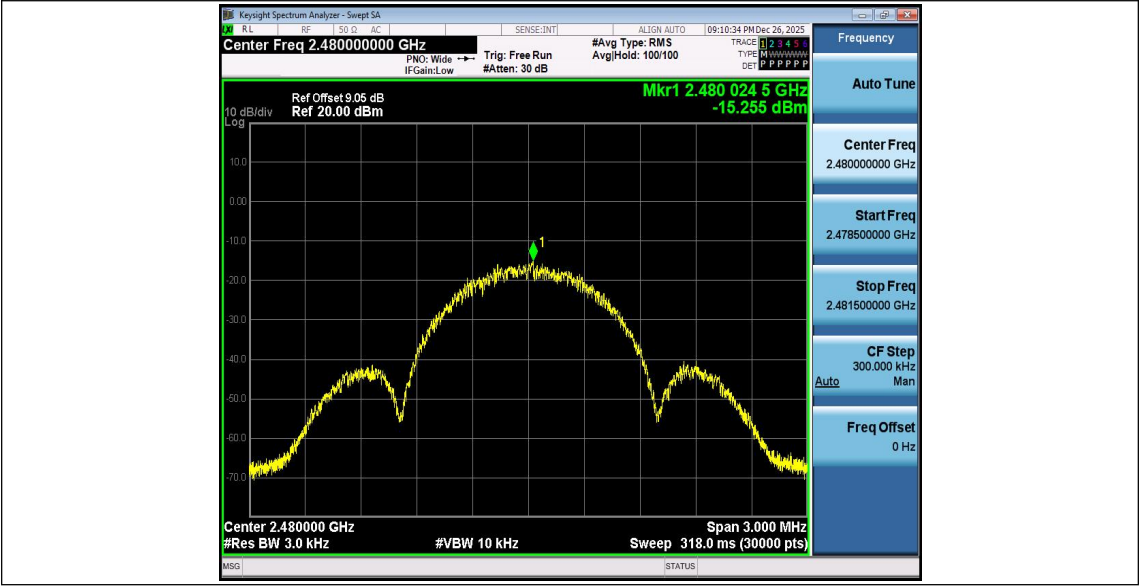
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_BT5.0	Ant1	2402	-15.39	≤8.00	PASS
		2440	-14.00	≤8.00	PASS
		2480	-15.26	≤8.00	PASS

Note:

1. The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs



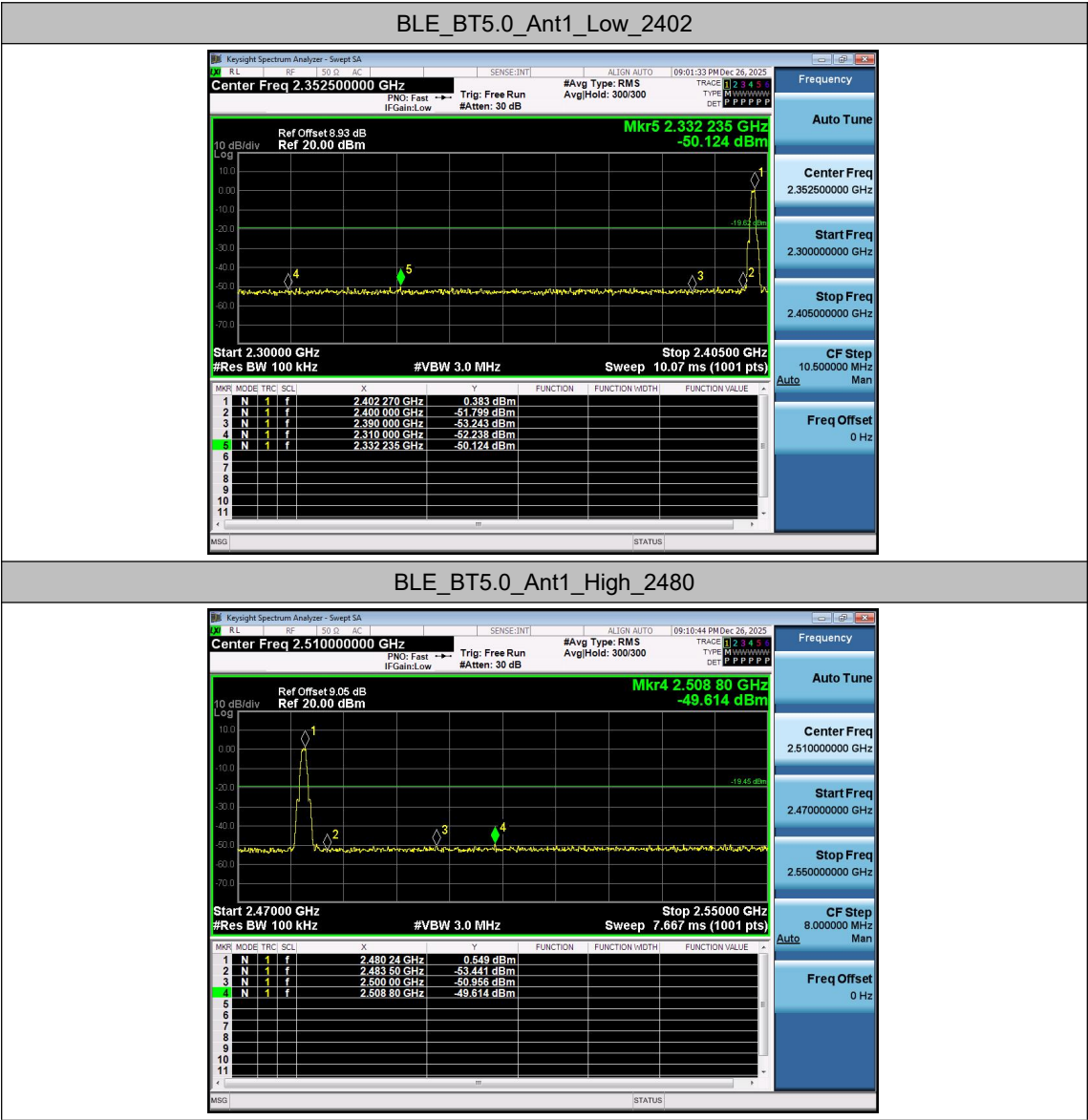


Appendix A.5: Band edge measurements

Test Result

TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_BT5.0	Ant1	Low	2402	0.38	-50.12	≤-19.62	PASS
		High	2480	0.55	-49.61	≤-19.45	PASS

Test Graphs

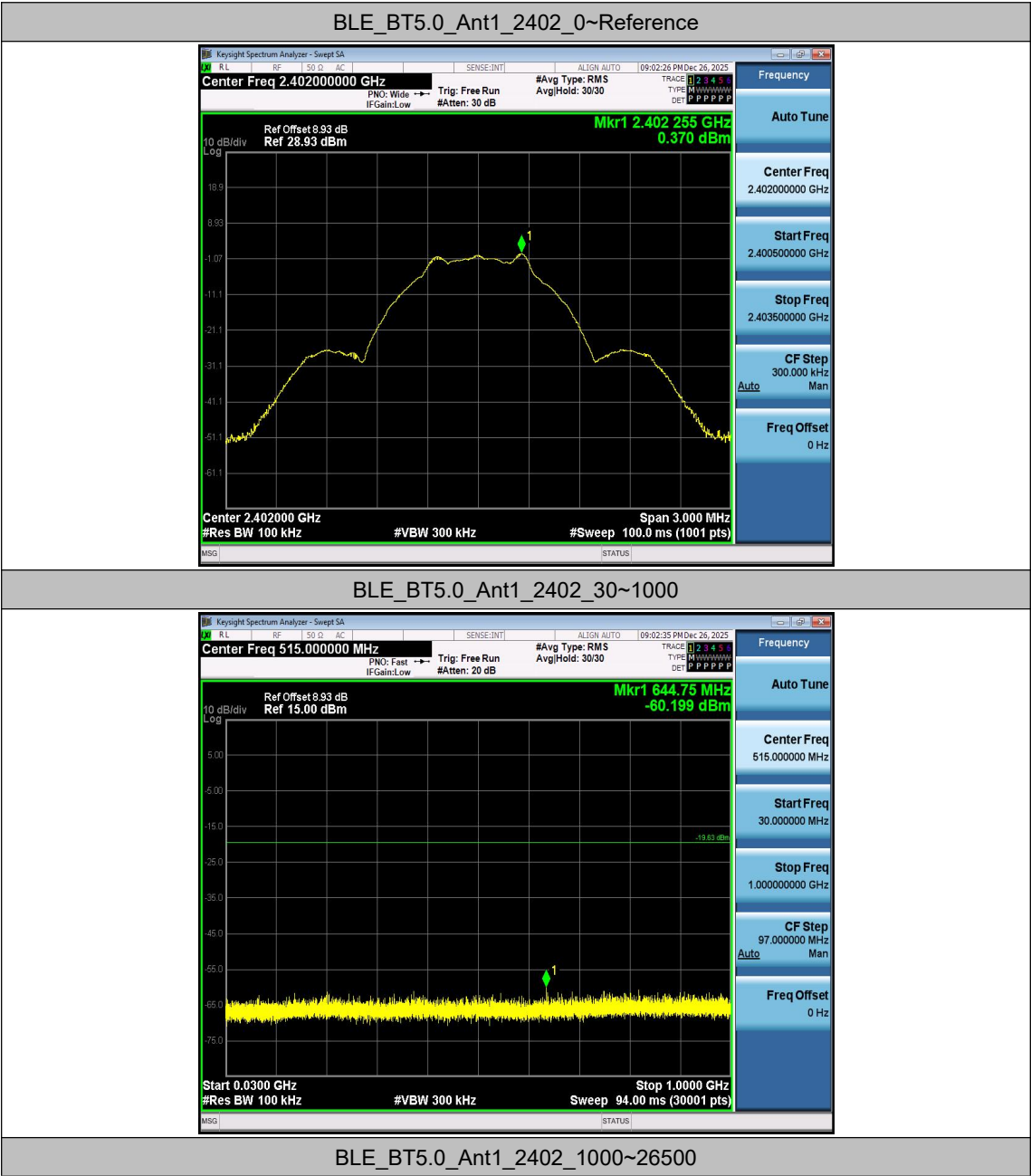


Appendix A.6: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_BT5.0	Ant1	2402	Reference	0.37	0.37	---	PASS
			30~1000	0.37	-60.2	≤-19.63	PASS
			1000~26500	0.37	-47.95	≤-19.63	PASS
		2440	Reference	1.85	1.85	---	PASS
			30~1000	1.85	-59.6	≤-18.15	PASS
			1000~26500	1.85	-47.7	≤-18.15	PASS
		2480	Reference	0.55	0.55	---	PASS
			30~1000	0.55	-60.25	≤-19.45	PASS
			1000~26500	0.55	-47.97	≤-19.45	PASS

Test Graphs



Keysight Spectrum Analyzer - Sweet SA

RF: 1.50 GHz AC SENSE: INT

ALIGN: AUTO 09:06:27 PM Dec 36 2025

Center Freq 2.44000000 GHz

Trig: Free Run #Atten: 30 dB

#Avg Type: RMS Avg/Hold: 30/30

TRACE 1 2 3 4 5
TYPE M M M M M M M M
DET P P P P P P

Ref Offset 9.05 dB
Ref 29.05 dBm

Mkr1 2.440 255 GHz
1.848 dBm

10 dB/div
Log

Center 2.440000 GHz
#Res BW 100 kHz
#VBW 300 kHz
#Sweep 100.0 ms (1001 pts)

Span 3.000 MHz

Frequency

Auto Tune

Center Freq
2.44000000 GHz

Start Freq
2.43850000 GHz

Stop Freq
2.44150000 GHz

CF Step
300.000 kHz
Man

Auto

Freq Offset
0 Hz

MSG STATUS

Keysight Spectrum Analyzer - Swept SA

SENSE:INT1 ALIGN:AUTO 09:06:35 PM Dec 26 2025

Center Freq 515.000000 MHz

Trig: Free Run #Ave: 20 dB

#Avg Type: RMS Avg/Hold: 30/30

TRACE 1 2 3 4 5
TYPE M W W W W W W W W
DET P P P P P P P

Ref Offset 9.05 dB
Ref 15.00 dBm

Mkr1 843.64 MHz
-59.604 dBm

10 dB/div
Log

Start 0.0300 GHz
#Res BW 100 kHz
#VBW 300 kHz

Stop 1.0000 GHz
Sweep 94.00 ms (30001 pts)

Frequency

Auto Tune

Center Freq
515.000000 MHz

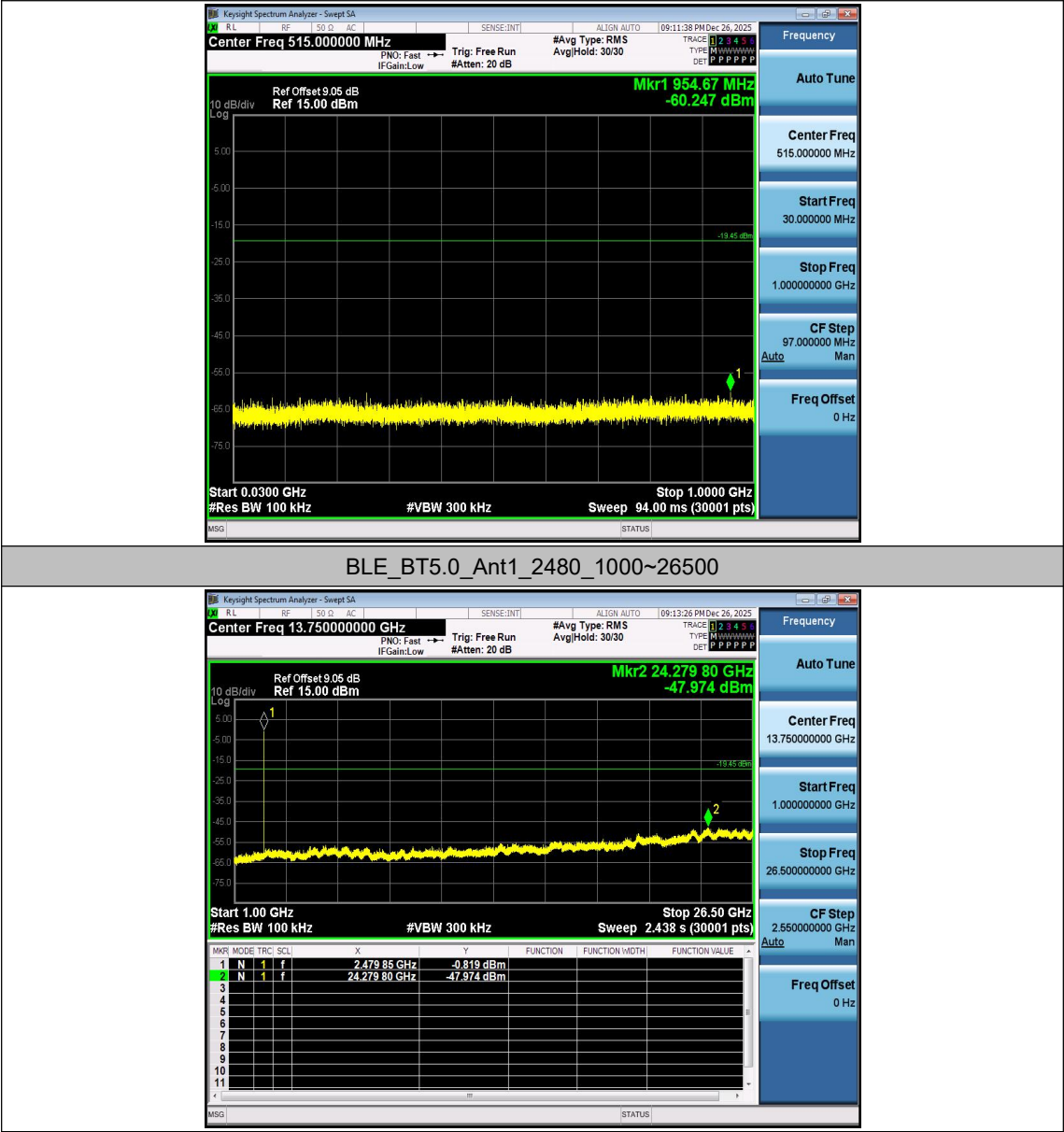
Start Freq
30.000000 MHz

Stop Freq
1.000000000 GHz

CF Step
97.000000 MHz
Auto Man

Freq Offset
0 Hz





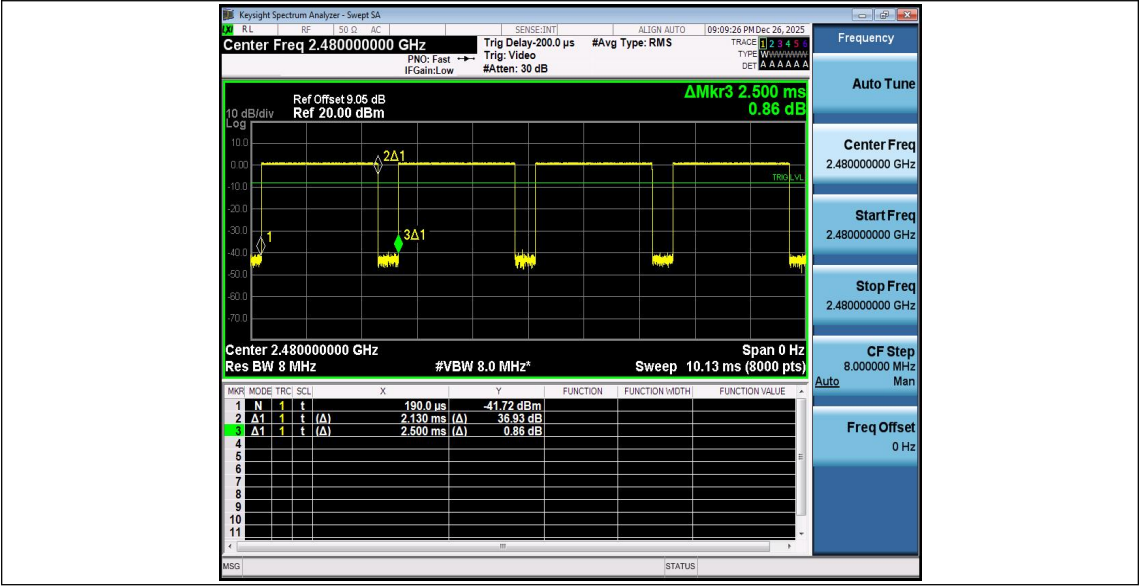
Appendix A.7: Duty Cycle

Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	Duty Cycle Factor[dB]	1/T Factor[KHz]
BLE_BT5.0	Ant1	2402	2.13	2.50	0.8520	85.20	0.70	0.47
		2440	2.12	2.50	0.8480	84.80	0.72	0.47
		2480	2.13	2.50	0.8520	85.20	0.70	0.47

Test Graphs





Appendix A.8: Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_BT5.0	Ant1	Low	2402	AV	2310.000	-49.42	≤-41.20	45.78	≤54	PASS
				AV	2387.150	-48.86	≤-41.20	46.34	≤54	PASS
				AV	2390.000	-49.03	≤-41.20	46.17	≤54	PASS
				Peak	2310.000	-42.77	≤-21.20	52.43	≤74	PASS
				Peak	2311.130	-39.07	≤-21.20	56.13	≤74	PASS
				Peak	2390.000	-41.89	≤-21.20	53.31	≤74	PASS
		High	2480	AV	2483.500	-48.23	≤-41.20	46.97	≤54	PASS
				AV	2483.520	-48.23	≤-41.20	46.97	≤54	PASS
				AV	2500.000	-48.66	≤-41.20	46.54	≤54	PASS
				Peak	2483.500	-41.13	≤-21.20	54.07	≤74	PASS
				Peak	2496.480	-38.84	≤-21.20	56.36	≤74	PASS
				Peak	2500.000	-42.25	≤-21.20	52.95	≤74	PASS

Note:

1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. 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

