

Case No. : <u>GTS20260413018-4-01</u>	
Ambient Condition: <u>26</u> °C, <u>53</u> %RH	
According Standard: ■Part15C	
Test Date: <u>2026.4.17-2026.4.18</u>	Test Engineer: <u>Evan ouyang</u>

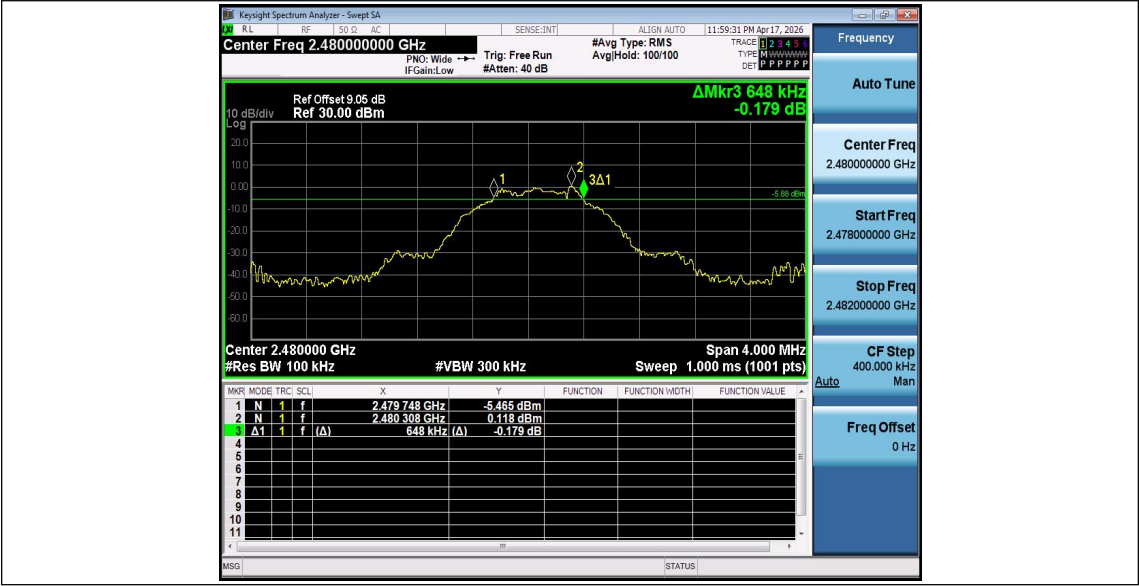
Appendix A.1: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant1	2402	0.632	2401.748	2402.380	0.5	PASS
		2440	0.636	2439.748	2440.384	0.5	PASS
		2480	0.648	2479.748	2480.396	0.5	PASS

Test Graphs



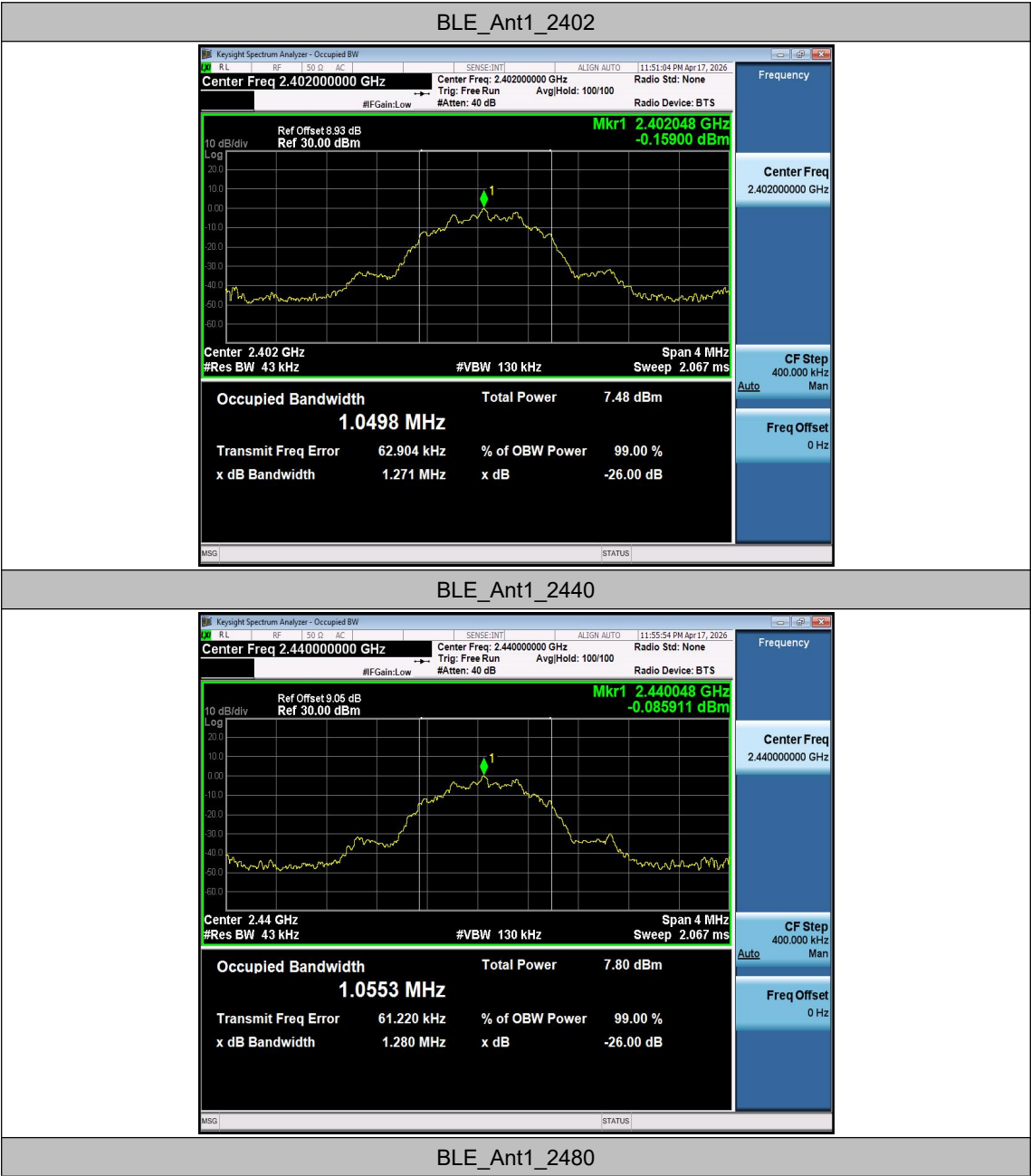


Appendix A.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE	Ant1	2402	1.0498	2401.5380	2402.5878	---	---
		2440	1.0553	2439.5336	2440.5889	---	---
		2480	1.0464	2479.5345	2480.5809	---	---

Test Graphs





Appendix A.3: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE	Ant1	2402	0.57	≤30	PASS
		2440	0.82	≤30	PASS
		2480	0.37	≤30	PASS

Appendix A.4: Maximum power spectral density

Test Result

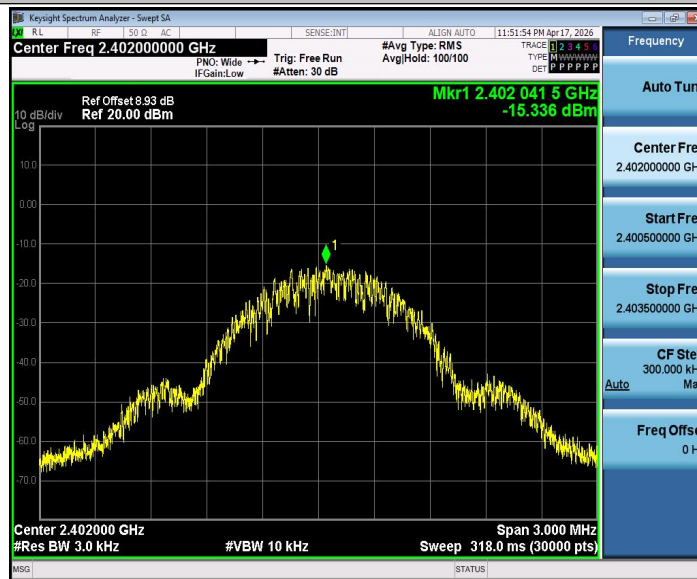
TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE	Ant1	2402	-15.34	≤8.00	PASS
		2440	-14.93	≤8.00	PASS
		2480	-14.98	≤8.00	PASS

Note:

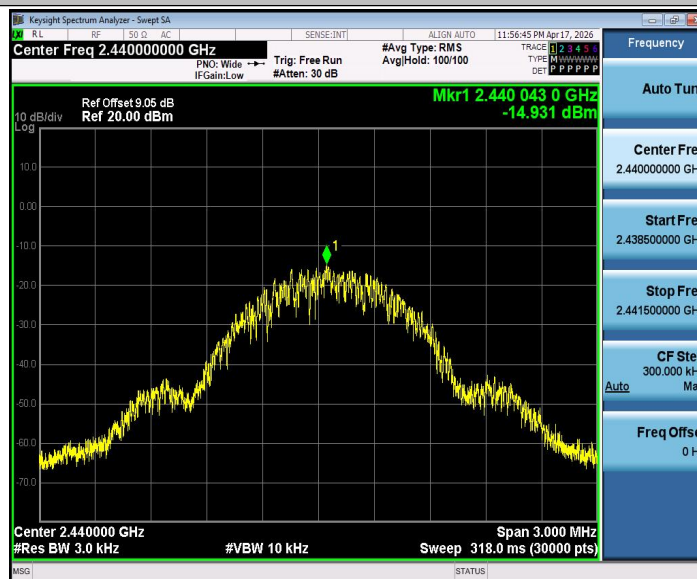
1. The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

BLE_Ant1_2402



BLE_Ant1_2440



BLE_Ant1_2480



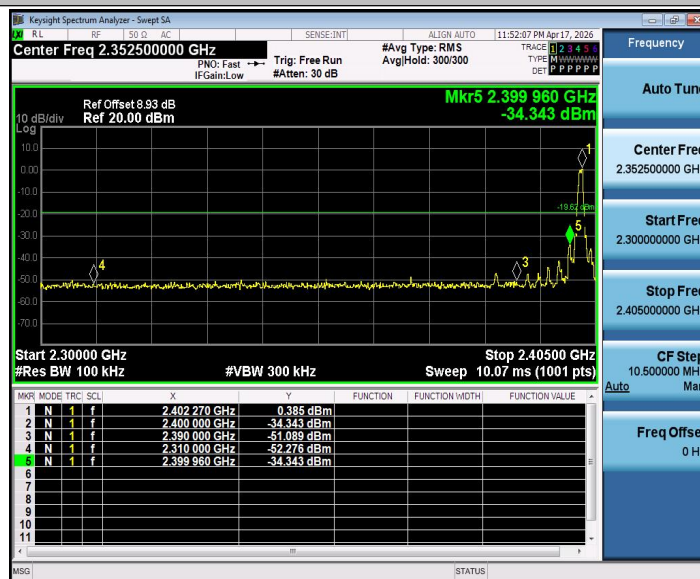
Appendix A.5: Band edge measurements

Test Result

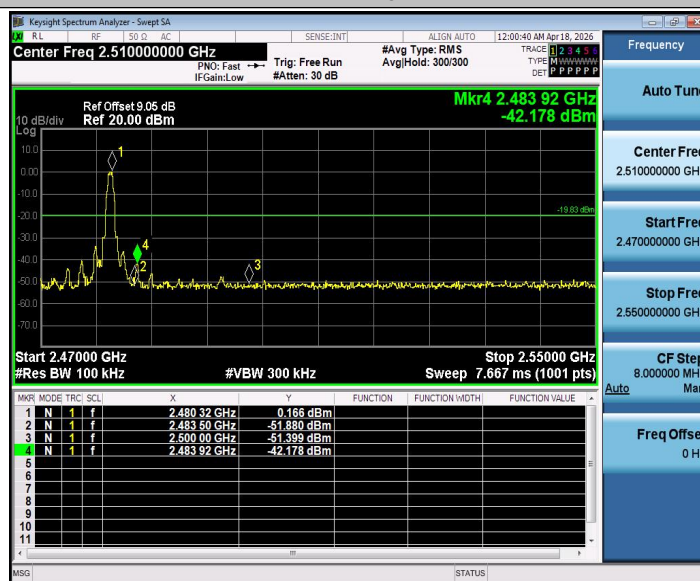
TestMode	Antenna	ChName	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant1	Low	2402	0.39	-34.34	≤-19.62	PASS
		High	2480	0.17	-42.18	≤-19.83	PASS

Test Graphs

BLE_Ant1_Low_2402



BLE_Ant1_High_2480

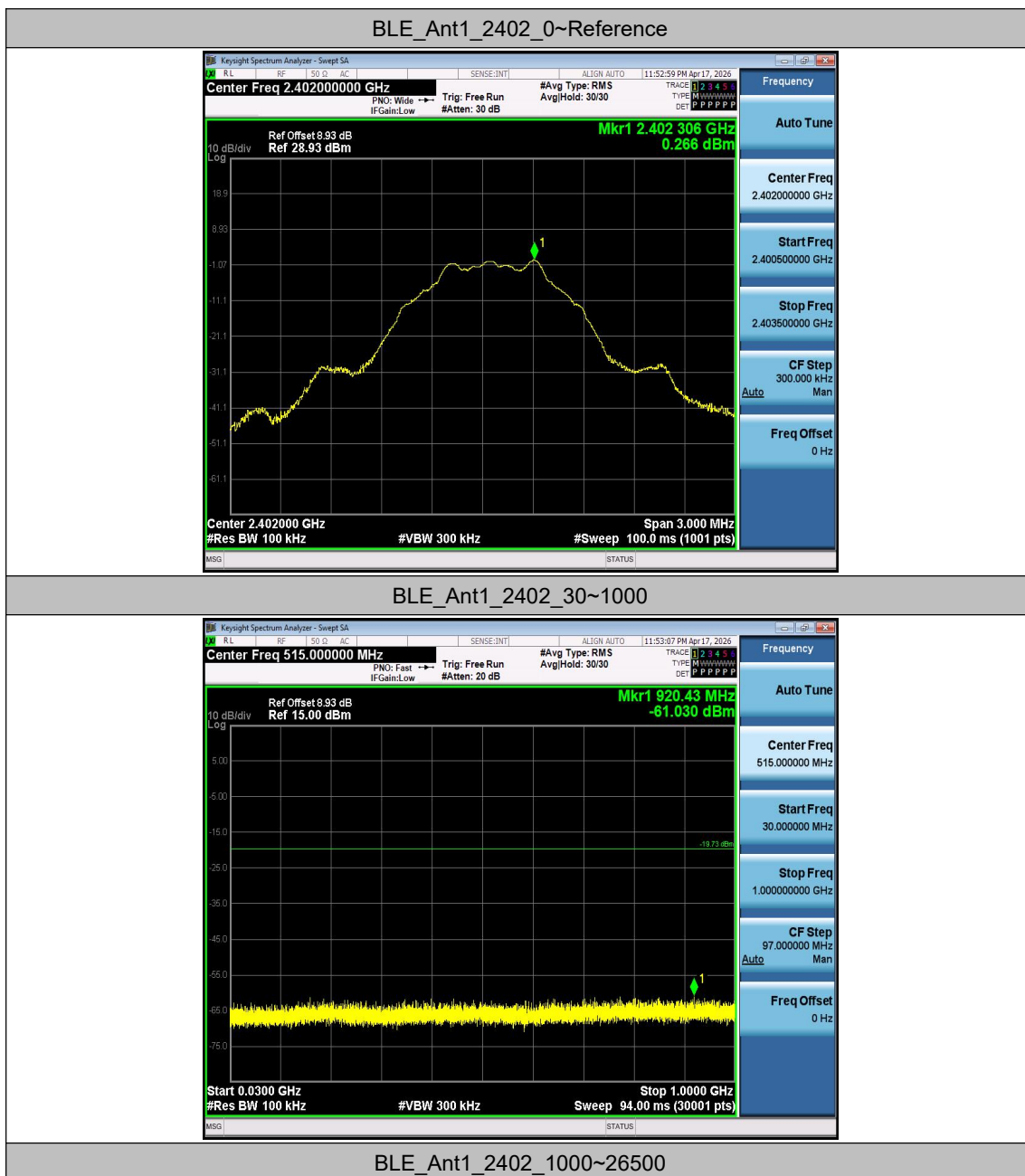


Appendix A.6: Conducted Spurious Emission

Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE	Ant1	2402	Reference	0.27	0.27	---	PASS
			30~1000	0.27	-61.03	≤-19.73	PASS
			1000~26500	0.27	-47.3	≤-19.73	PASS
		2440	Reference	0.51	0.51	---	PASS
			30~1000	0.51	-60.44	≤-19.49	PASS
			1000~26500	0.51	-47.4	≤-19.49	PASS
		2480	Reference	0.10	0.10	---	PASS
			30~1000	0.10	-60.1	≤-19.9	PASS
			1000~26500	0.10	-47.26	≤-19.9	PASS

Test Graphs



Keysight Spectrum Analyzer - Sweep SA

RF 10.0 dB SENSE:INT 11:56:55 PM Apr 17, 2026

Center Freq 2.44000000 GHz

PN0: Wide Trig: Free Run #Avg Type: RMS

IFGain:Low #Atten: 30 dB AvgHld: 30/30

TRACE 1 2 1 4 3

TYPE M W W W W W W W

DET P P P P P P P

Frequency

Auto Tune

Center Freq
2.44000000 GHz

Start Freq
2.43850000 GHz

Stop Freq
2.44150000 GHz

CF Step
300.000 kHz

Auto Man

Freq Offset
0 Hz

Ref Offset 9.05 dB

Ref 29.05 dBm

Mkr1 2.440 306 GHz

0.509 dBm

10 dB/div

Log

Center 2.440000 GHz

#Res BW 300 kHz

#Sweep 100.0 ms (1001 pts)

Span 3.000 MHz

MSG STATUS

The figure shows a Keysight Spectrum Analyzer interface. The main display is a log-linear plot of power spectral density (PSD) in dBm/Hz versus frequency in GHz. The y-axis ranges from -60.0 to 19.1 dBm/Hz, with a 10 dB/div scale. The x-axis ranges from 2.4385 GHz to 2.4415 GHz, with a 3 MHz span. A yellow trace shows a signal with a peak at 2.440 GHz, marked with a green diamond and labeled '1'. The peak power is 0.509 dBm. The reference level is 29.05 dBm, and the reference offset is 9.05 dB. The center frequency is 2.440 GHz, and the resolution bandwidth (RBW) is 300 kHz. The sweep time is 100.0 ms, and the span is 3.000 MHz. The display also shows various settings like PNO: Wide, Trig: Free Run, #Avg Type: RMS, and #Atten: 30 dB. The right side of the interface has a 'Frequency' panel with controls for Auto Tune, Center Freq, Start Freq, Stop Freq, CF Step, Auto Man, and Freq Offset.

Keysight Spectrum Analyzer - Swept SA

RF 11.57:59 PM Apr 17, 2026

SENSE:INT1

ALIGN: AUTO

Center Freq 515.000000 MHz

#Avg Type: RMS

Trig: Free Run

Avg1 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 P

Ref Offset 9.05 dB

Ref 15.00 dBm

Mkr1 222.84 MHz

-60.439 dBm

10 dB/div

Log

Start 0.0300 GHz

Stop 1.0000 GHz

Res BW 100 kHz

#VBW 300 kHz

Sweep 94.00 ms (30001 pts)

Auto Tune

Center Freq 515.000000 MHz

Start Freq 30.000000 MHz

Stop Freq 1.000000000 GHz

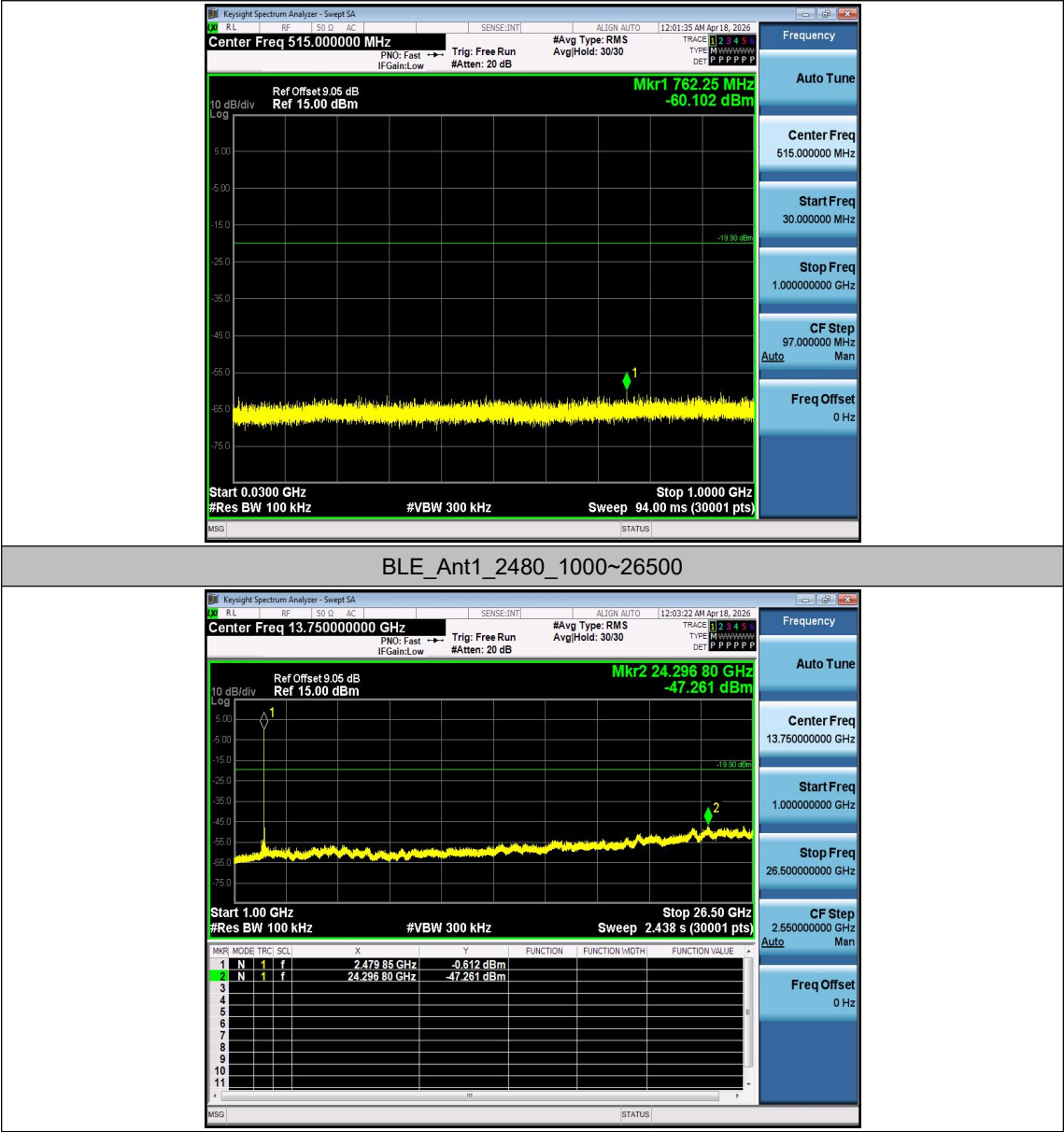
CF Step 97.000000 MHz

Man

Auto

Freq Offset 0 Hz



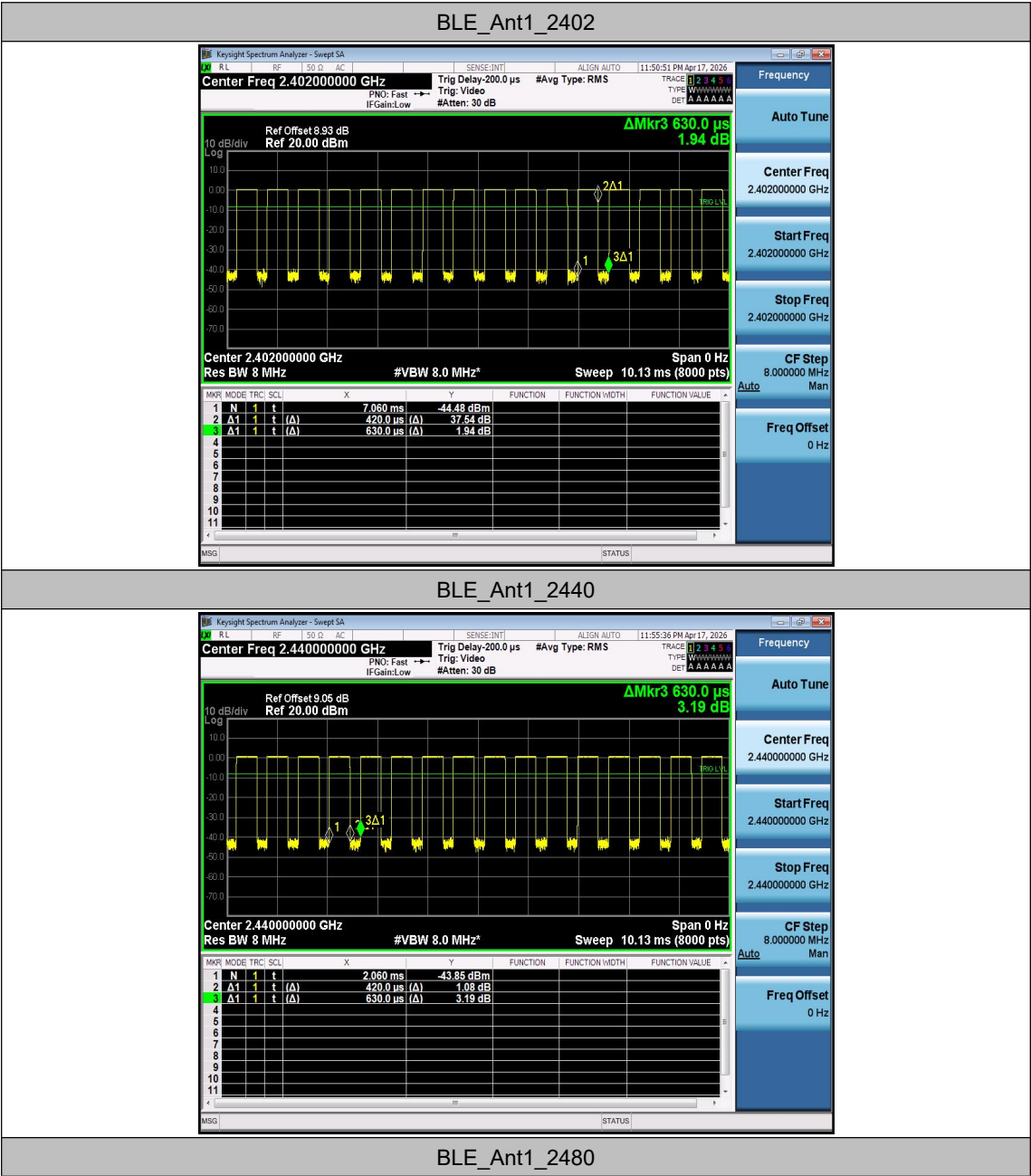


Appendix A.7: Duty Cycle

Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	Duty Cycle Factor[dB]	1/T Factor[KHz]
BLE	Ant1	2402	0.42	0.63	0.6667	66.67	1.76	2.38
		2440	0.42	0.63	0.6667	66.67	1.76	2.38
		2480	0.42	0.63	0.6667	66.67	1.76	2.38

Test Graphs



BLE_Ant1_2440

Keysight Spectrum Analyzer - Swept SA

RF 150.0 AC

SENSE:INT

ALIGN: AUTO

11:55:36 PM Apr 17, 2026

Center Freq 2.440000000 GHz

Trig Delay: 200.0 μ s

#Avg Type: RMS

TRAC 1 2 3 4 5

PNO: Fast

IFGain: Low

Trig: Video

#Atten: 30 dB

TYPE WWWWWWWW

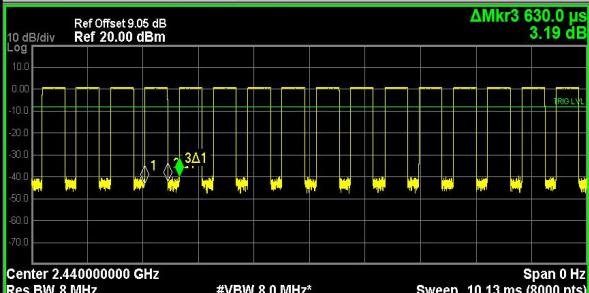
DET AAAAAA

Ref Offset 9.05 dB

Ref 20.00 dBm

Δ Mkr3 630.0 μ s

3.19 dB



MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION (WIDTH)	FUNCTION VALUE
1	N	1	t	2.060 ms	-43.85 dBm			
2	Δ 1	1	t	420.0 μ s (Δ)	1.08 dB			
3	Δ 1	1	t	630.0 μ s (Δ)	3.19 dB			

Center 2.440000000 GHz

Res BW 8 MHz

#VBW 8.0 MHz*

Sweep 10.13 ms (8000 pts)

Span 0 Hz

MSG

STATUS

Frequency

Auto Tune

Center Freq 2.440000000 GHz

Start Freq 2.440000000 GHz

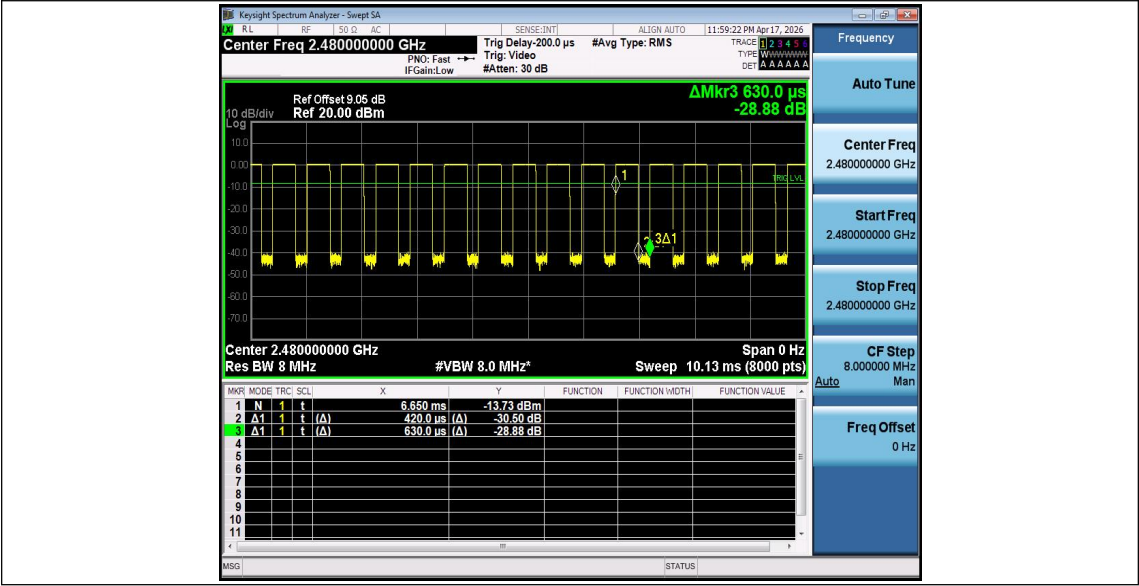
Stop Freq 2.440000000 GHz

CF Step 8.000000 MHz

Auto Man

Freq Offset 0 Hz

BLE_Ant1_2480



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	Ant1	Low	2402	AV	2310.000	-49.43	≤-41.20	45.77	≤54	PASS
				AV	2385.890	-46.26	≤-41.20	48.94	≤54	PASS
				AV	2390.000	-49.04	≤-41.20	46.16	≤54	PASS
				Peak	2310.000	-43.19	≤-21.20	52.01	≤74	PASS
				Peak	2385.890	-37.11	≤-21.20	58.09	≤74	PASS
				Peak	2390.000	-43.37	≤-21.20	51.83	≤74	PASS
		High	2480	AV	2483.500	-46.3	≤-41.20	48.90	≤54	PASS
				AV	2496.000	-46.18	≤-41.20	49.02	≤54	PASS
				AV	2500.000	-48.44	≤-41.20	46.76	≤54	PASS
				Peak	2483.500	-30.1	≤-21.20	65.10	≤74	PASS
				Peak	2484.080	-28.6	≤-21.20	66.60	≤74	PASS
				Peak	2500.000	-42	≤-21.20	53.20	≤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

