



























11BE40MIMO_Ant2_2452

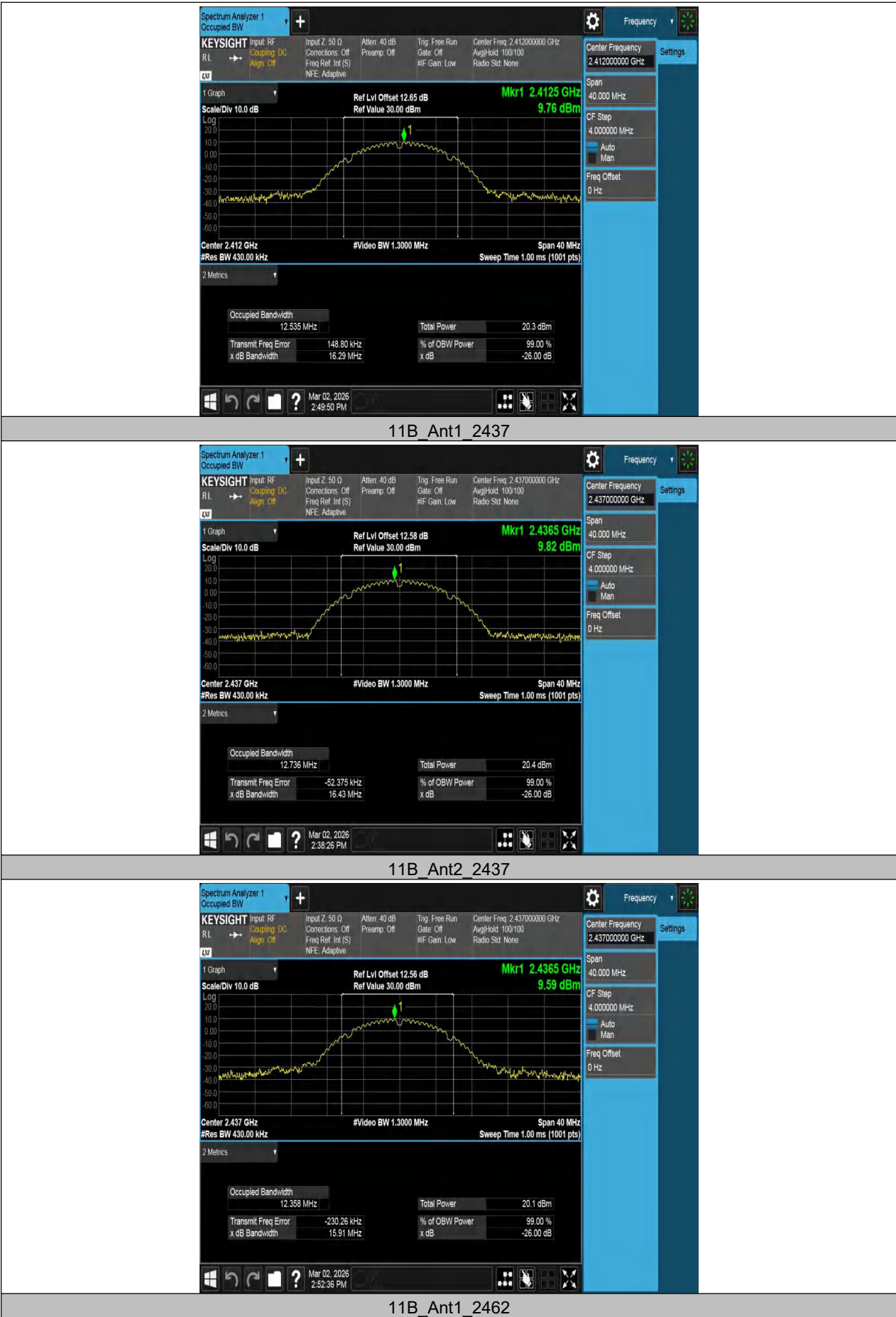


99 % bandwidth:

11B_Ant1_2412



11B_Ant2_2412





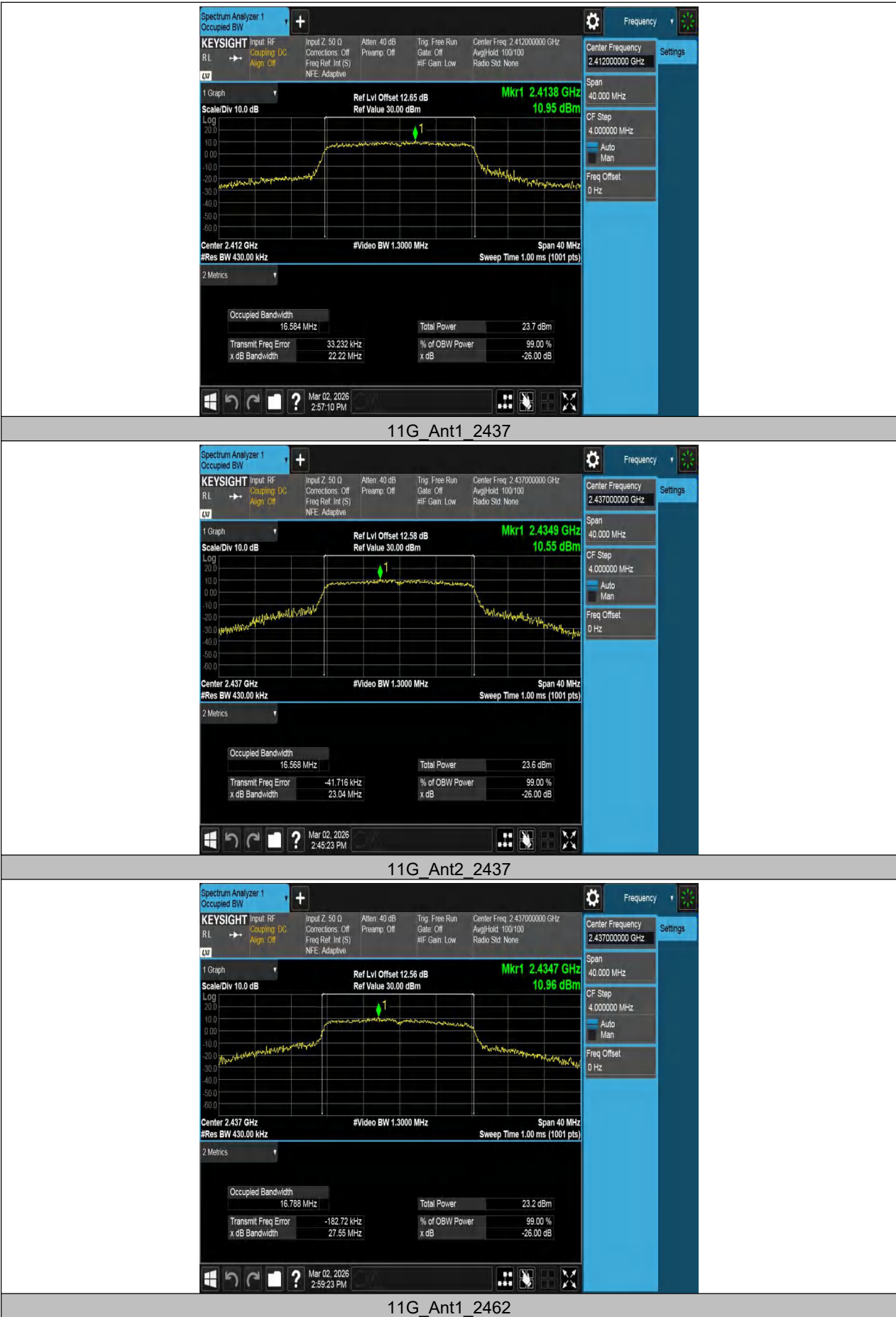
11B_Ant2_2462



11G_Ant1_2412



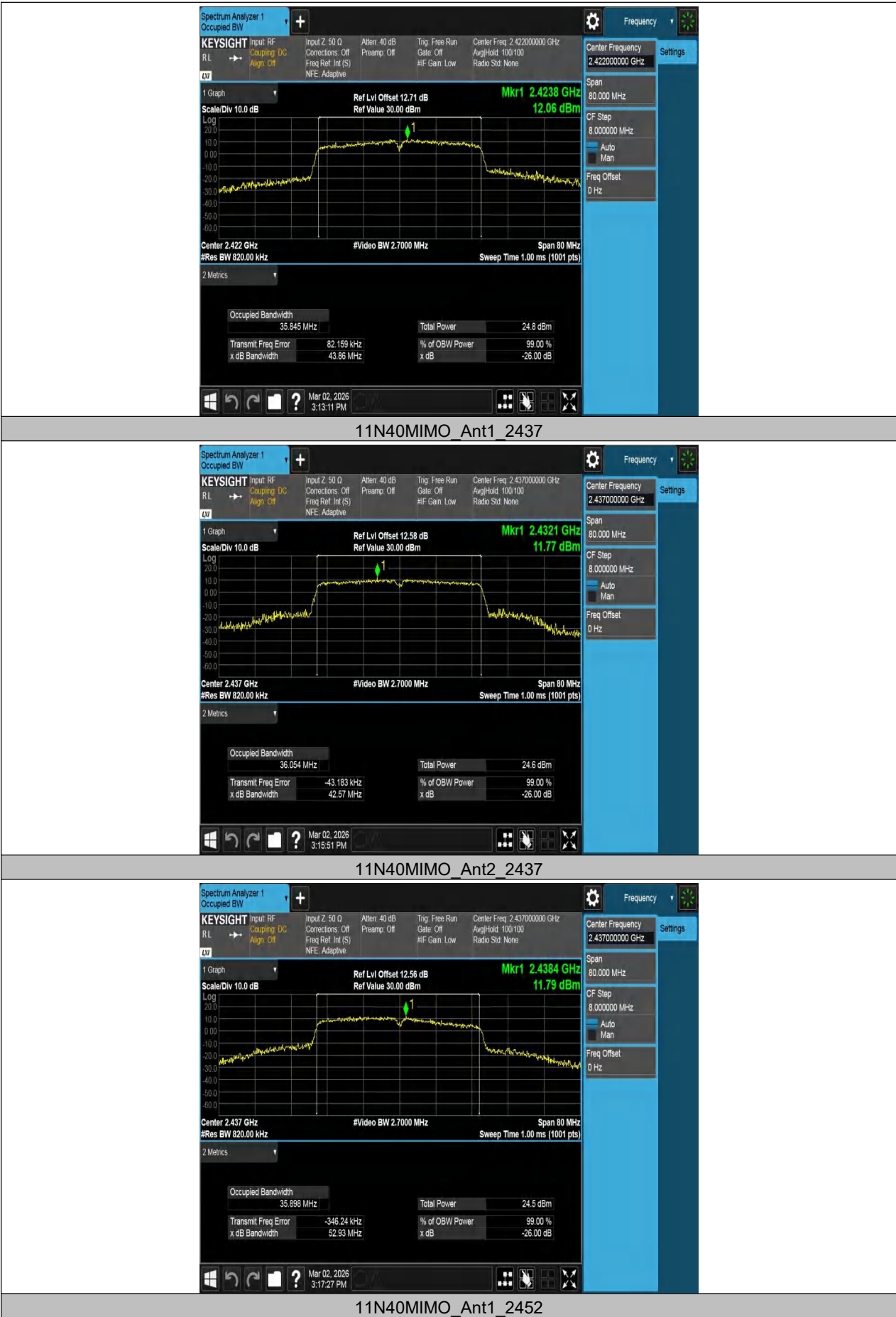
11G_Ant2_2412











Spectrum Analyzer 1

Occupied BW

KEYSIGHT

Input: RF

RL

Coupling: DC

Align: Off

Input Z: 50 Ω

Corrections: Off

Freq Ref: Int (S)

NFE: Adaptive

Atten: 40 dB

Preamp: Off

Trig: Free Run

Gate: Off

#IF Gain: Low

Center Freq: 2.43700000 GHz

Avg/Hold: 100/100

Radio Std: None

Center Frequency

2.43700000 GHz

Settings

Span

80.000 MHz

CF Step

8.000000 MHz

Auto

Man

Freq Offset

0 Hz

1 Graph

Scale/Div: 10.0 dB

Log

Ref Lvl Offset: 12.56 dB

Ref Value: 30.00 dBm

Mkr1: 2.4384 GHz

11.79 dBm

Center: 2.437 GHz

#Res BW: 820.00 kHz

#Video BW: 2.7000 MHz

Span: 80 MHz

Sweep Time: 1.00 ms (1001 pts)

2 Metrics

Occupied Bandwidth

35.898 MHz

Total Power

24.5 dBm

Transmit Freq Error

-345.24 kHz

% of OBW Power

99.00 %

x dB Bandwidth

52.93 MHz

x dB

-26.00 dB

Mar 02, 2026

3:17:27 PM

11N40MIMO_Ant1_2452



11N40MIMO_Ant2_2452



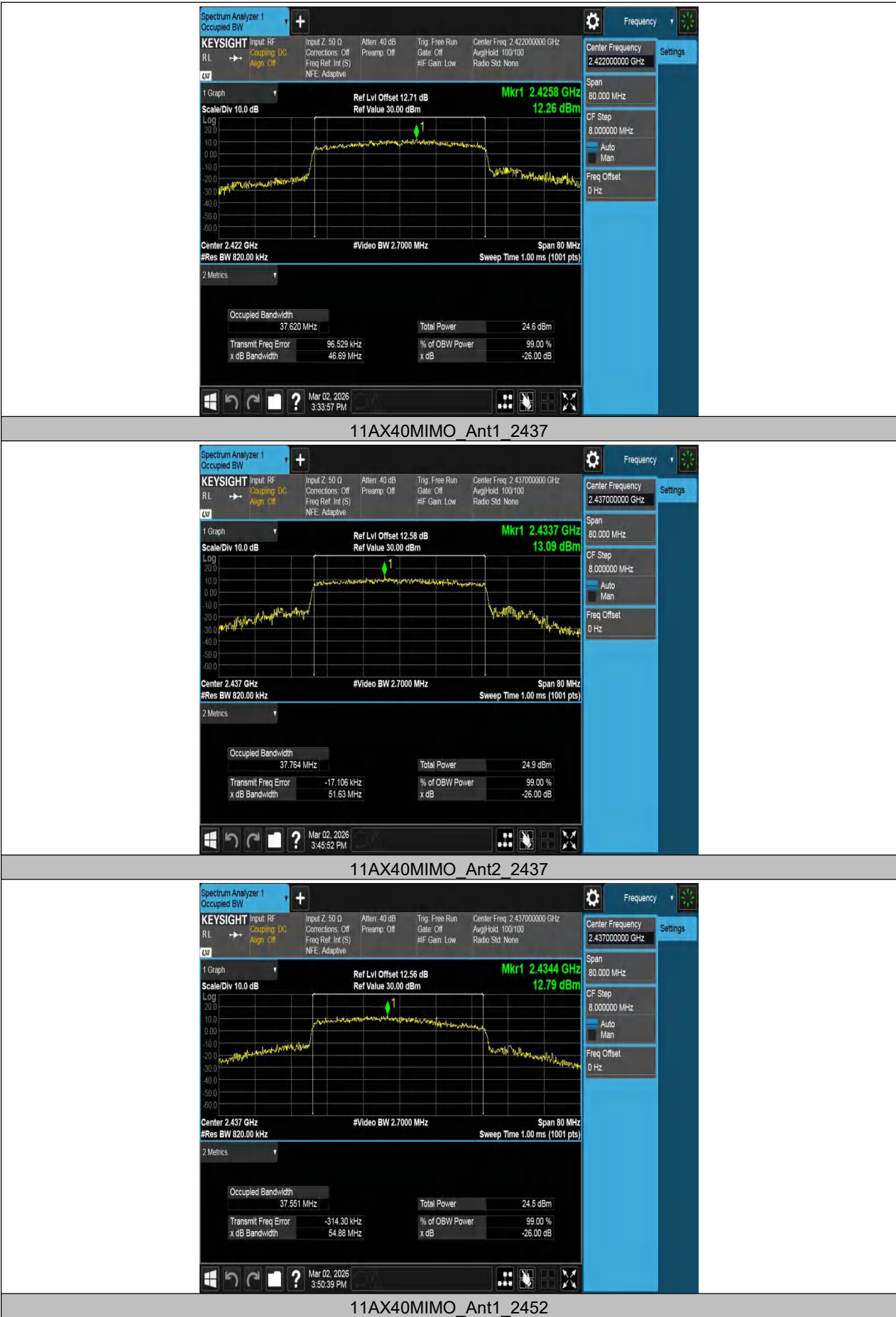
11AX20MIMO_Ant1_2412



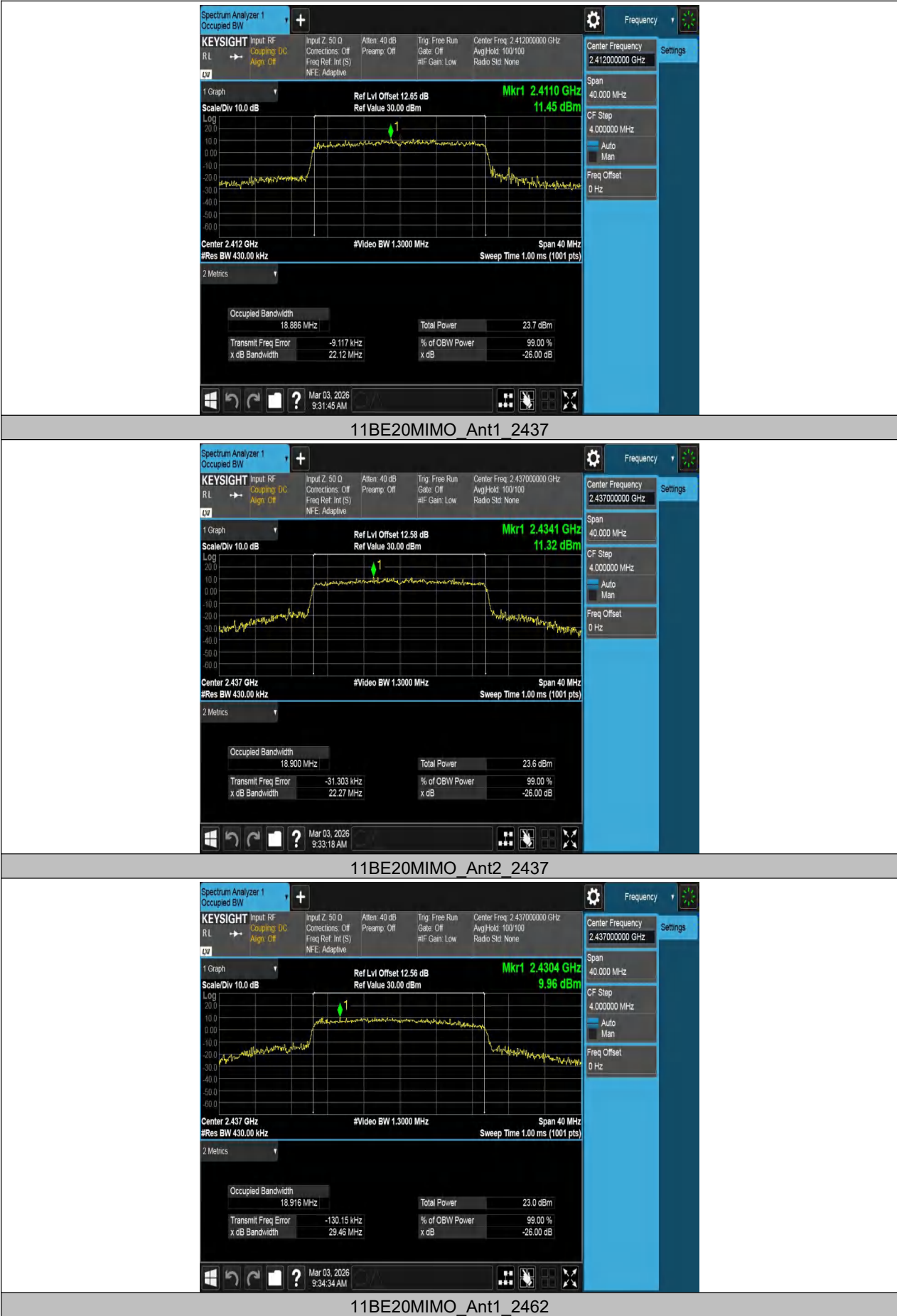
11AX20MIMO_Ant2_2412













Spectrum Analyzer 1

Occupied BW

KEYSIGHT

Input: RF

RL

Coupling: DC

Align: Off

Input Z: 50 Ω

Corrections: Off

Freq Ref: Int (S)

NFE: Adaptive

Atten: 40 dB

Preamp: Off

Trig: Free Run

Gate: Off

#IF Gain: Low

Center Freq: 2.462000000 GHz

Avg/Hold: 100/100

Radio Std: None

Center Frequency

2.462000000 GHz

Settings

Span

40.000 MHz

CF Step

4.000000 MHz

Auto

Man

Freq Offset

0 Hz

1 Graph

Ref Lvl Offset 12.70 dB

Ref Value 30.00 dBm

Mkr1 2.4602 GHz

11.90 dBm

Scale/Div 10.0 dB

Log

20.0

10.0

0.00

-10.0

-20.0

-30.0

-40.0

-50.0

-60.0

Center 2.462 GHz

#Res BW 430.00 kHz

#Video BW 1.3000 MHz

Span 40 MHz

Sweep Time 1.00 ms (1001 pts)

2 Metrics

Occupied Bandwidth

19.077 MHz

Total Power

24.2 dBm

Transmit Freq Error

520 Hz

% of OBW Power

99.00 %

x dB Bandwidth

29.97 MHz

x dB

-26.00 dB

Mar 03, 2026

9:38:02 AM

11BE40MIMO_Ant1_2422

Spectrum Analyzer 1

Occupied BW

KEYSIGHT

Input: RF

RL

Coupling: DC

Align: Off

Input Z: 50 Ω

Corrections: Off

Freq Ref: Int (S)

NFE: Adaptive

Atten: 40 dB

Preamp: Off

Trig: Free Run

Gate: Off

#IF Gain: Low

Center Freq: 2.422000000 GHz

Avg/Hold: 100/100

Radio Std: None

Center Frequency

2.422000000 GHz

Settings

Span

80.000 MHz

CF Step

8.000000 MHz

Auto

Man

Freq Offset

0 Hz

1 Graph

Ref Lvl Offset 12.73 dB

Ref Value 30.00 dBm

Mkr1 2.4243 GHz

12.81 dBm

Scale/Div 10.0 dB

Log

20.0

10.0

0.00

-10.0

-20.0

-30.0

-40.0

-50.0

-60.0

Center 2.422 GHz

#Res BW 820.00 kHz

#Video BW 2.7000 MHz

Span 80 MHz

Sweep Time 1.00 ms (1001 pts)

2 Metrics

Occupied Bandwidth

37.857 MHz

Total Power

24.8 dBm

Transmit Freq Error

38.715 kHz

% of OBW Power

99.00 %

x dB Bandwidth

48.02 MHz

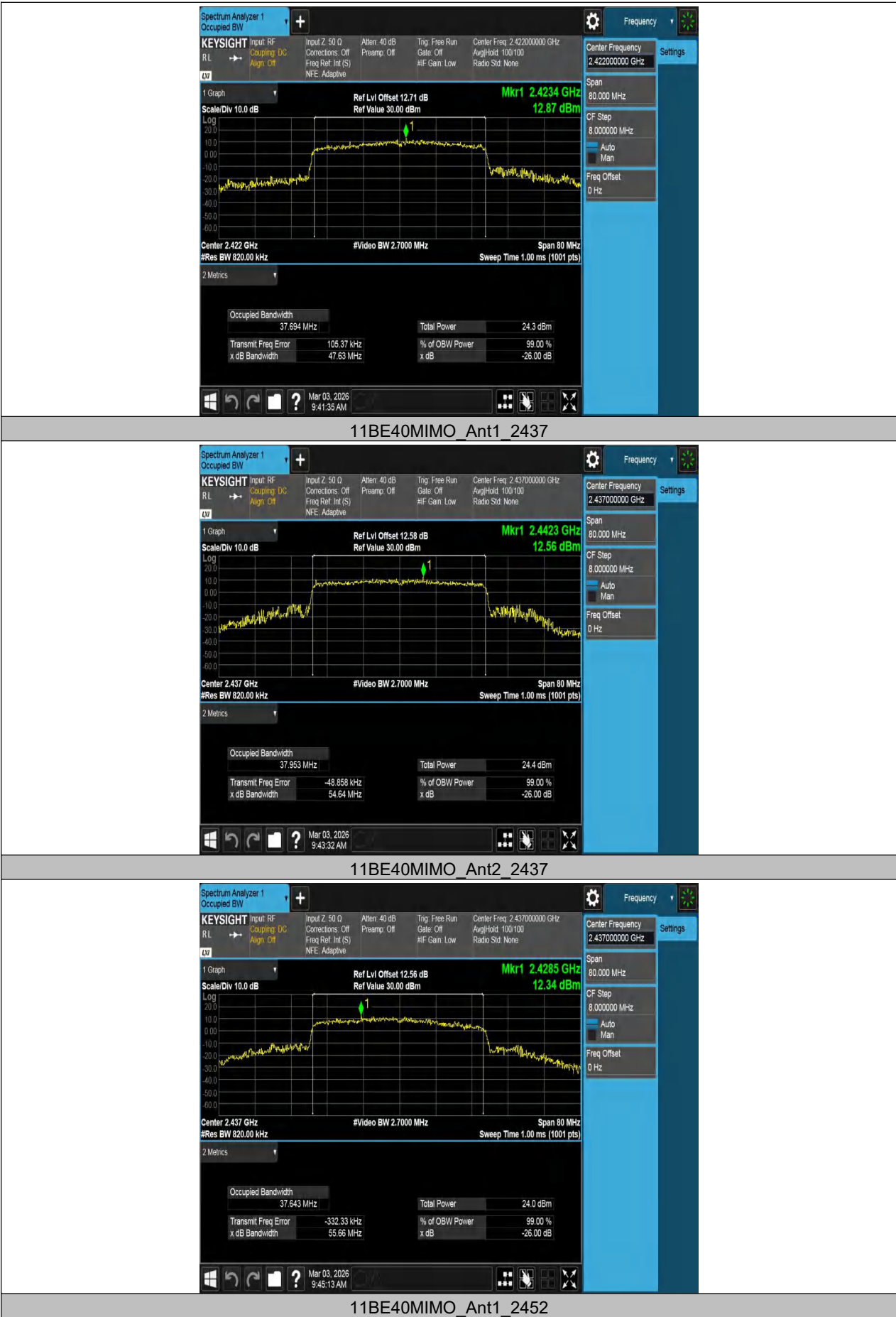
x dB

-26.00 dB

Mar 03, 2026

9:39:53 AM

11BE40MIMO_Ant2_2422





11BE40MIMO_Ant2_2452



10. Conducted Output Power

10.1. Block diagram of test setup

Same as section 8.1

10.2. Limits

CFR 47 FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(b)(3)	Peak Output Power	1 watt or 30 dBm	2400-2483.5

10.3. Test Procedure

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast responding diode detector. See Figure 24.

10.4. Results

Test Mode	Ant.	Freq. (MHz)	Peak Power (dBm)	Conducted Limit (dBm)	Verdict
11B	Ant1	2412	17.75	≤30.00	PASS
	Ant2	2412	17.36	≤30.00	PASS
	Ant1	2437	17.47	≤30.00	PASS
	Ant2	2437	17.24	≤30.00	PASS
	Ant1	2462	17.36	≤30.00	PASS
	Ant2	2462	17.38	≤30.00	PASS
11G	Ant1	2412	11.64	≤30.00	PASS
	Ant2	2412	11.87	≤30.00	PASS
	Ant1	2437	17.72	≤30.00	PASS
	Ant2	2437	17.18	≤30.00	PASS
	Ant1	2462	16.44	≤30.00	PASS
	Ant2	2462	18.36	≤30.00	PASS
11N20MIMO	Ant1	2412	10.76	≤30.00	PASS
	Ant2	2412	10.18	≤30.00	PASS
	total	2412	13.49	≤30.00	PASS
	Ant1	2437	17.84	≤30.00	PASS
	Ant2	2437	17.07	≤30.00	PASS
	total	2437	20.48	≤30.00	PASS
	Ant1	2462	15.74	≤30.00	PASS
	Ant2	2462	16.22	≤30.00	PASS
	total	2462	19.00	≤30.00	PASS
11N40MIMO	Ant1	2422	17.36	≤30.00	PASS
	Ant2	2422	18.02	≤30.00	PASS
	total	2422	20.71	≤30.00	PASS
	Ant1	2437	18.14	≤30.00	PASS
	Ant2	2437	16.95	≤30.00	PASS
	total	2437	20.60	≤30.00	PASS
	Ant1	2452	17.68	≤30.00	PASS
	Ant2	2452	17.16	≤30.00	PASS
	total	2452	20.44	≤30.00	PASS
11AX20MIMO	Ant1	2412	12.80	≤30.00	PASS
	Ant2	2412	13.16	≤30.00	PASS
	total	2412	16.49	≤30.00	PASS

	Ant1	2437	17.93	≤ 30.00	PASS
	Ant2	2437	17.32	≤ 30.00	PASS
	total	2437	20.65	≤ 30.00	PASS
	Ant1	2462	17.50	≤ 30.00	PASS
	Ant2	2462	18.05	≤ 30.00	PASS
	total	2462	20.79	≤ 30.00	PASS
11AX40MIMO	Ant1	2422	18.13	≤ 30.00	PASS
	Ant2	2422	18.02	≤ 30.00	PASS
	total	2422	21.09	≤ 30.00	PASS
	Ant1	2437	18.26	≤ 30.00	PASS
	Ant2	2437	17.34	≤ 30.00	PASS
	total	2437	20.83	≤ 30.00	PASS
	Ant1	2452	17.93	≤ 30.00	PASS
	Ant2	2452	17.30	≤ 30.00	PASS
	total	2452	20.64	≤ 30.00	PASS
11BE20MIMO	Ant1	2412	7.58	≤ 30.00	PASS
	Ant2	2412	8.79	≤ 30.00	PASS
	total	2412	11.24	≤ 30.00	PASS
	Ant1	2437	17.59	≤ 30.00	PASS
	Ant2	2437	16.80	≤ 30.00	PASS
	total	2437	20.22	≤ 30.00	PASS
	Ant1	2462	17.46	≤ 30.00	PASS
	Ant2	2462	17.85	≤ 30.00	PASS
	total	2462	20.67	≤ 30.00	PASS
11BE40MIMO	Ant1	2422	18.07	≤ 30.00	PASS
	Ant2	2422	17.35	≤ 30.00	PASS
	total	2422	20.74	≤ 30.00	PASS
	Ant1	2437	17.73	≤ 30.00	PASS
	Ant2	2437	17.00	≤ 30.00	PASS
	total	2437	20.39	≤ 30.00	PASS
	Ant1	2452	17.26	≤ 30.00	PASS
	Ant2	2452	17.27	≤ 30.00	PASS
	total	2452	20.28	≤ 30.00	PASS

11. Power Spectral Density

11.1. Block diagram of test setup

Same as section 8.1

11.2. Limits

CFR 47 FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC §15.247 (e)	Power Spectral Density	8 dBm/3 kHz	2400-2483.5

11.3. Test Procedure

Connect the UUT to the spectrum analyzer and use the following settings:

Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	$3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$
VBW	$\geq 3 \times \text{RBW}$
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

11.4. Results

Test Mode	Ant.	Freq. (MHz)	Result (dBm/3-100kHz)	Limit (dBm/3kHz)	Verdict
11B	Ant1	2412	-12.33	≤ 8.00	PASS
	Ant2	2412	-7.82	≤ 8.00	PASS
	Ant1	2437	-11.28	≤ 8.00	PASS
	Ant2	2437	-11.27	≤ 8.00	PASS
	Ant1	2462	-11.33	≤ 8.00	PASS
	Ant2	2462	-11.07	≤ 8.00	PASS
11G	Ant1	2412	-19.17	≤ 8.00	PASS
	Ant2	2412	-13.77	≤ 8.00	PASS
	Ant1	2437	-12.70	≤ 8.00	PASS
	Ant2	2437	-13.35	≤ 8.00	PASS
	Ant1	2462	-13.11	≤ 8.00	PASS
	Ant2	2462	-12.11	≤ 8.00	PASS
11N20MIMO	Ant1	2412	-20.06	≤ 8.00	PASS
	Ant2	2412	-20.30	≤ 8.00	PASS
	total	2412	-17.17	≤ 8.00	PASS
	Ant1	2437	-13.06	≤ 8.00	PASS
	Ant2	2437	-13.73	≤ 8.00	PASS
	total	2437	-10.37	≤ 8.00	PASS
	Ant1	2462	-13.16	≤ 8.00	PASS
	Ant2	2462	-12.99	≤ 8.00	PASS
	total	2462	-10.06	≤ 8.00	PASS
11N40MIMO	Ant1	2422	-15.13	≤ 8.00	PASS
	Ant2	2422	-15.76	≤ 8.00	PASS
	total	2422	-12.42	≤ 8.00	PASS

	Ant1	2437	-15.31	≤8.00	PASS
	Ant2	2437	-15.77	≤8.00	PASS
	total	2437	-12.52	≤8.00	PASS
	Ant1	2452	-16.70	≤8.00	PASS
	Ant2	2452	-16.00	≤8.00	PASS
	total	2452	-13.33	≤8.00	PASS
11AX20MIMO	Ant1	2412	-11.36	≤8.00	PASS
	Ant2	2412	-11.43	≤8.00	PASS
	total	2412	-8.38	≤8.00	PASS
	Ant1	2437	-10.55	≤8.00	PASS
	Ant2	2437	-9.87	≤8.00	PASS
	total	2437	-7.19	≤8.00	PASS
	Ant1	2462	-9.97	≤8.00	PASS
	Ant2	2462	-10.14	≤8.00	PASS
	total	2462	-7.04	≤8.00	PASS
11AX40MIMO	Ant1	2422	-12.58	≤8.00	PASS
	Ant2	2422	-14.53	≤8.00	PASS
	total	2422	-10.44	≤8.00	PASS
	Ant1	2437	-14.33	≤8.00	PASS
	Ant2	2437	-13.43	≤8.00	PASS
	total	2437	-10.85	≤8.00	PASS
	Ant1	2452	-14.55	≤8.00	PASS
	Ant2	2452	-13.89	≤8.00	PASS
	total	2452	-11.20	≤8.00	PASS
11BE20MIMO	Ant1	2412	-10.36	≤8.00	PASS
	Ant2	2412	-9.64	≤8.00	PASS
	total	2412	-6.97	≤8.00	PASS
	Ant1	2437	-11.26	≤8.00	PASS
	Ant2	2437	-10.86	≤8.00	PASS
	total	2437	-8.05	≤8.00	PASS
	Ant1	2462	-11.15	≤8.00	PASS
	Ant2	2462	-9.65	≤8.00	PASS
	total	2462	-7.33	≤8.00	PASS
11BE40MIMO	Ant1	2422	-15.31	≤8.00	PASS
	Ant2	2422	-14.29	≤8.00	PASS
	total	2422	-11.76	≤8.00	PASS
	Ant1	2437	-15.53	≤8.00	PASS
	Ant2	2437	-14.35	≤8.00	PASS
	total	2437	-11.89	≤8.00	PASS
	Ant1	2452	-15.09	≤8.00	PASS
	Ant2	2452	-15.22	≤8.00	PASS
	total	2452	-12.14	≤8.00	PASS

Note: Offset=cable loss + Test system insertion loss

11.5. Original test data

11B_Ant1_2412

