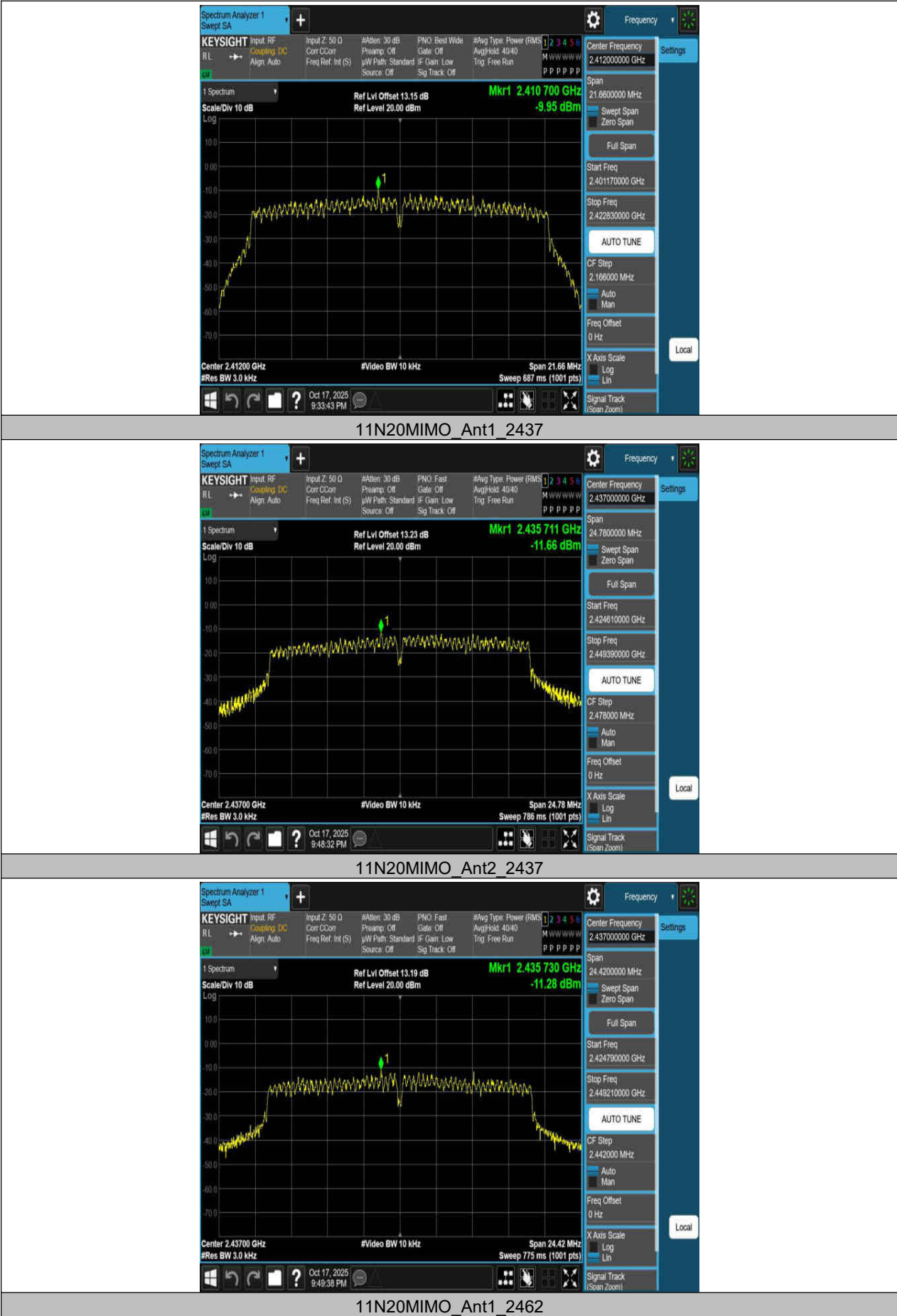








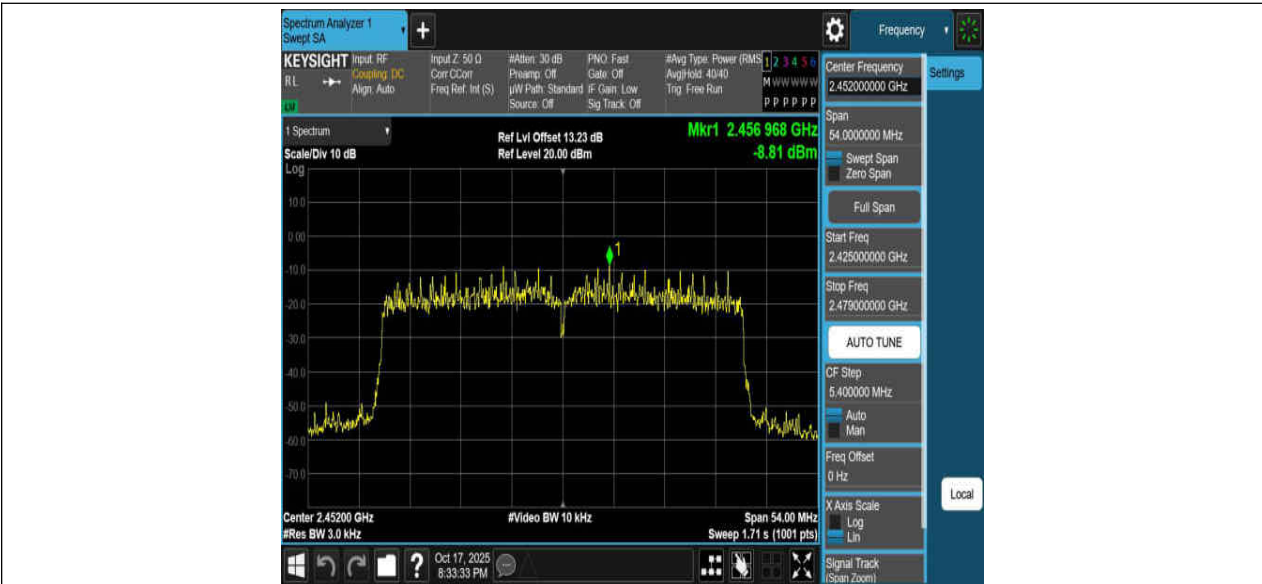




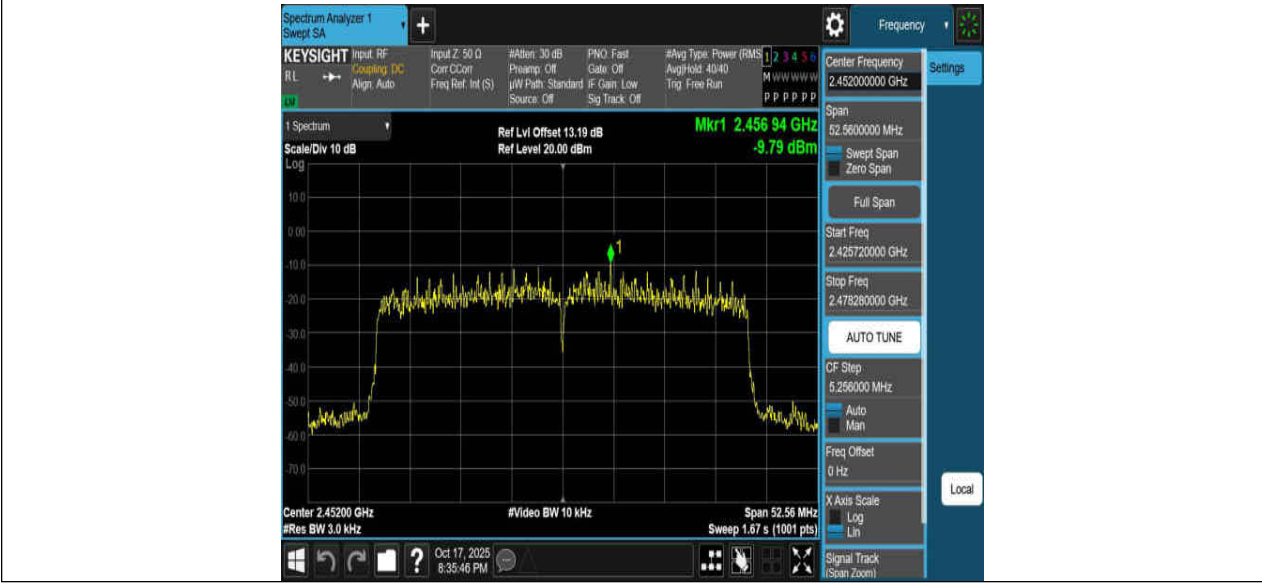








11AX40MIMO_Ant2_2452



12. Conducted Band edge and Spurious Emissions

12.1. Block diagram of test setup

Same as section 8.1

12.2. Limits

CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 3		
Section	Test Item	Limit
CFR 47 FCC §15.247 (d) ISED RSS-247 5.5	Conducted Bandedge and Spurious Emissions	at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power

12.3. Test Procedure

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

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

Use the peak marker function to determine the maximum PSD level.

Span	Set the center frequency and span to encompass frequency range to be measured
Detector	Peak
RBW	100 kHz
VBW	$\geq 3 \times \text{RBW}$
measurement points	$\geq \text{span}/\text{RBW}$
Trace	Max hold
Sweep time	Auto couple.

Use the peak marker function to determine the maximum amplitude level.

12.4. Test result

Test Mode	Ant.	Ch Name	Freq. (MHz)	Ref Level (dBm)	Result (dBm)	Limit (dBm)	Verdict
11B	Ant1	Low	2412	8.62	-36.36	≤ -11.38	PASS
	Ant2	Low	2412	7.63	-34.7	≤ -12.37	PASS
	Ant1	High	2462	8.54	-53.89	≤ -11.46	PASS
	Ant2	High	2462	7.41	-48	≤ -12.59	PASS
11G	Ant1	Low	2412	4.67	-40.26	≤ -15.33	PASS
	Ant2	Low	2412	3.61	-43.41	≤ -16.39	PASS
	Ant1	High	2462	2.18	-45.38	≤ -17.82	PASS
	Ant2	High	2462	1.76	-50.46	≤ -18.24	PASS
11N20MIMO	Ant1	Low	2412	0.64	-42.47	≤ -19.36	PASS
	Ant2	Low	2412	0.75	-46.93	≤ -19.25	PASS
	Ant1	High	2462	-0.69	-51.65	≤ -20.69	PASS
	Ant2	High	2462	-1.35	-53.84	≤ -21.35	PASS

11N40MIMO	Ant1	Low	2422	-5.74	-47.79	≤-25.74	PASS
	Ant2	Low	2422	-8.25	-46.42	≤-28.25	PASS
	Ant1	High	2452	-6.11	-53.42	≤-26.11	PASS
	Ant2	High	2452	-6.73	-55.38	≤-26.73	PASS
11AX20MIMO	Ant1	Low	2412	-1.91	-46.44	≤-21.91	PASS
	Ant2	Low	2412	-2.70	-43.39	≤-22.7	PASS
	Ant1	High	2462	-1.85	-51.91	≤-21.85	PASS
	Ant2	High	2462	-3.58	-55.26	≤-23.58	PASS
11AX40MIMO	Ant1	Low	2422	-8.22	-33.31	≤-28.22	PASS
	Ant2	Low	2422	0.80	-34.21	≤-19.2	PASS
	Ant1	High	2452	1.48	-41.91	≤-18.52	PASS
	Ant2	High	2452	0.84	-43.56	≤-19.16	PASS

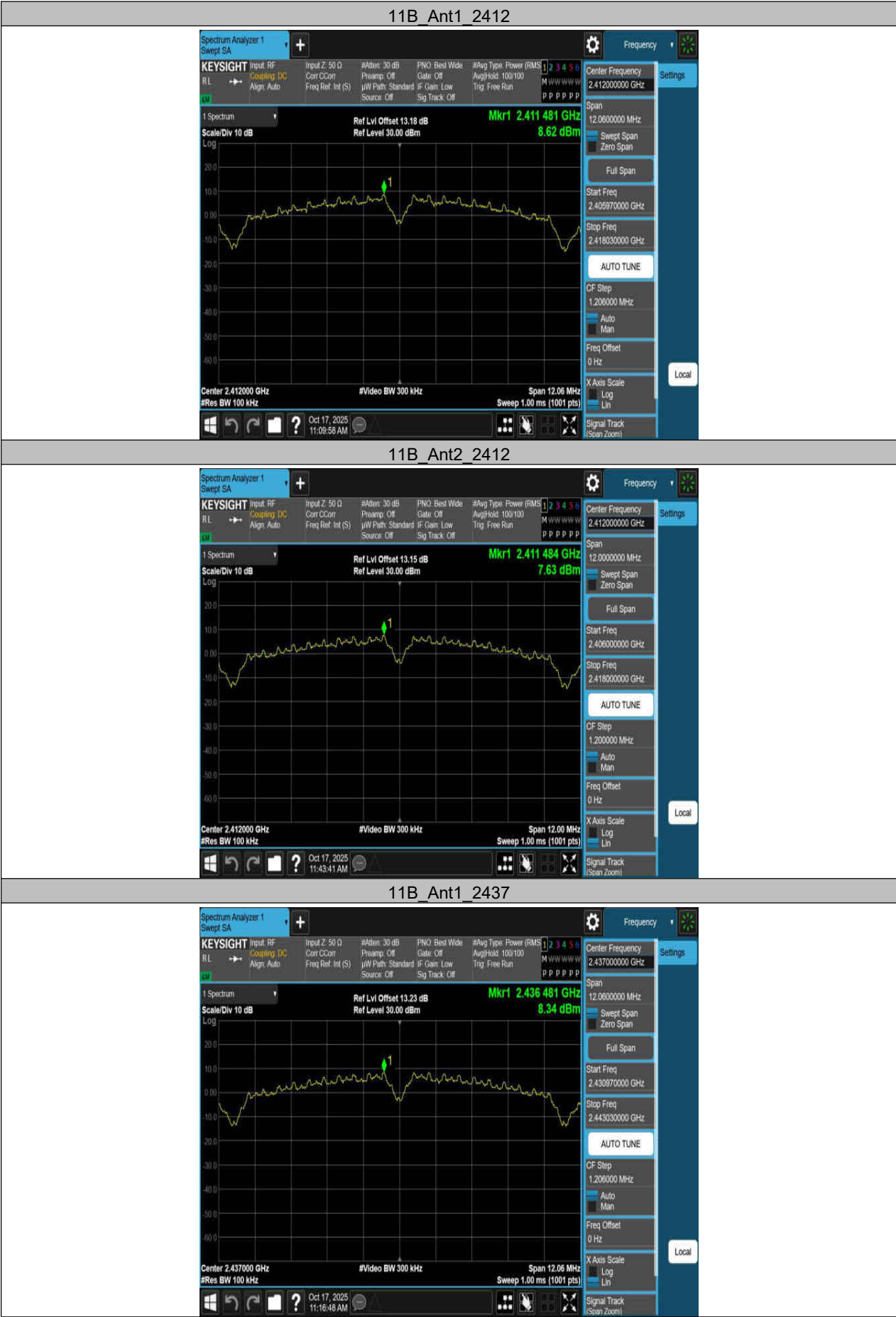
Test Mode	Ant.	Freq. (MHz)	Freq Range (Mhz)	Ref Level (dBm)	Result (dBm)	Limit (dBm)	Verdict
11B	Ant1	2412	30~1000	8.62	-60.76	≤-11.38	PASS
			1000~26500	8.62	-40.44	≤-11.38	PASS
	Ant2	2412	30~1000	7.63	-61.07	≤-12.37	PASS
			1000~26500	7.63	-40.87	≤-12.37	PASS
	Ant1	2437	30~1000	8.34	-60.43	≤-11.66	PASS
			1000~26500	8.34	-41.38	≤-11.66	PASS
	Ant2	2437	30~1000	7.06	-60.05	≤-12.94	PASS
			1000~26500	7.06	-40.92	≤-12.94	PASS
	Ant1	2462	30~1000	8.54	-60	≤-11.46	PASS
			1000~26500	8.54	-40.67	≤-11.46	PASS
	Ant2	2462	30~1000	7.41	-60.5	≤-12.59	PASS
			1000~26500	7.41	-41.26	≤-12.59	PASS
11G	Ant1	2412	30~1000	4.67	-60.68	≤-15.33	PASS
			1000~26500	4.67	-40.75	≤-15.33	PASS
	Ant2	2412	30~1000	3.61	-60.14	≤-16.39	PASS
			1000~26500	3.61	-40.52	≤-16.39	PASS
	Ant1	2437	30~1000	4.08	-60	≤-15.92	PASS
			1000~26500	4.08	-40.91	≤-15.92	PASS
	Ant2	2437	30~1000	1.43	-60.72	≤-18.57	PASS
			1000~26500	1.43	-40.91	≤-18.57	PASS
	Ant1	2462	30~1000	2.18	-60.3	≤-17.82	PASS
			1000~26500	2.18	-40.68	≤-17.82	PASS
	Ant2	2462	30~1000	1.76	-60.92	≤-18.24	PASS
			1000~26500	1.76	-40	≤-18.24	PASS
11N20MIMO	Ant1	2412	30~1000	0.64	-60.5	≤-19.36	PASS
			1000~26500	0.64	-41.71	≤-19.36	PASS
	Ant2	2412	30~1000	0.75	-60.63	≤-19.25	PASS
			1000~26500	0.75	-40.77	≤-19.25	PASS
	Ant1	2437	30~1000	0.88	-59.49	≤-19.12	PASS
			1000~26500	0.88	-40.95	≤-19.12	PASS
	Ant2	2437	30~1000	-0.25	-60.13	≤-20.25	PASS
			1000~26500	-0.25	-41.51	≤-20.25	PASS
	Ant1	2462	30~1000	-0.69	-60.21	≤-20.69	PASS
			1000~26500	-0.69	-41	≤-20.69	PASS
	Ant2	2462	30~1000	-1.35	-60.36	≤-21.35	PASS
			1000~26500	-1.35	-40.68	≤-21.35	PASS
11N40MIMO	Ant1	2422	30~1000	-5.74	-60.41	≤-25.74	PASS
			1000~26500	-5.74	-40.1	≤-25.74	PASS
	Ant2	2422	30~1000	-8.25	-60.18	≤-28.25	PASS
			1000~26500	-8.25	-40.4	≤-28.25	PASS

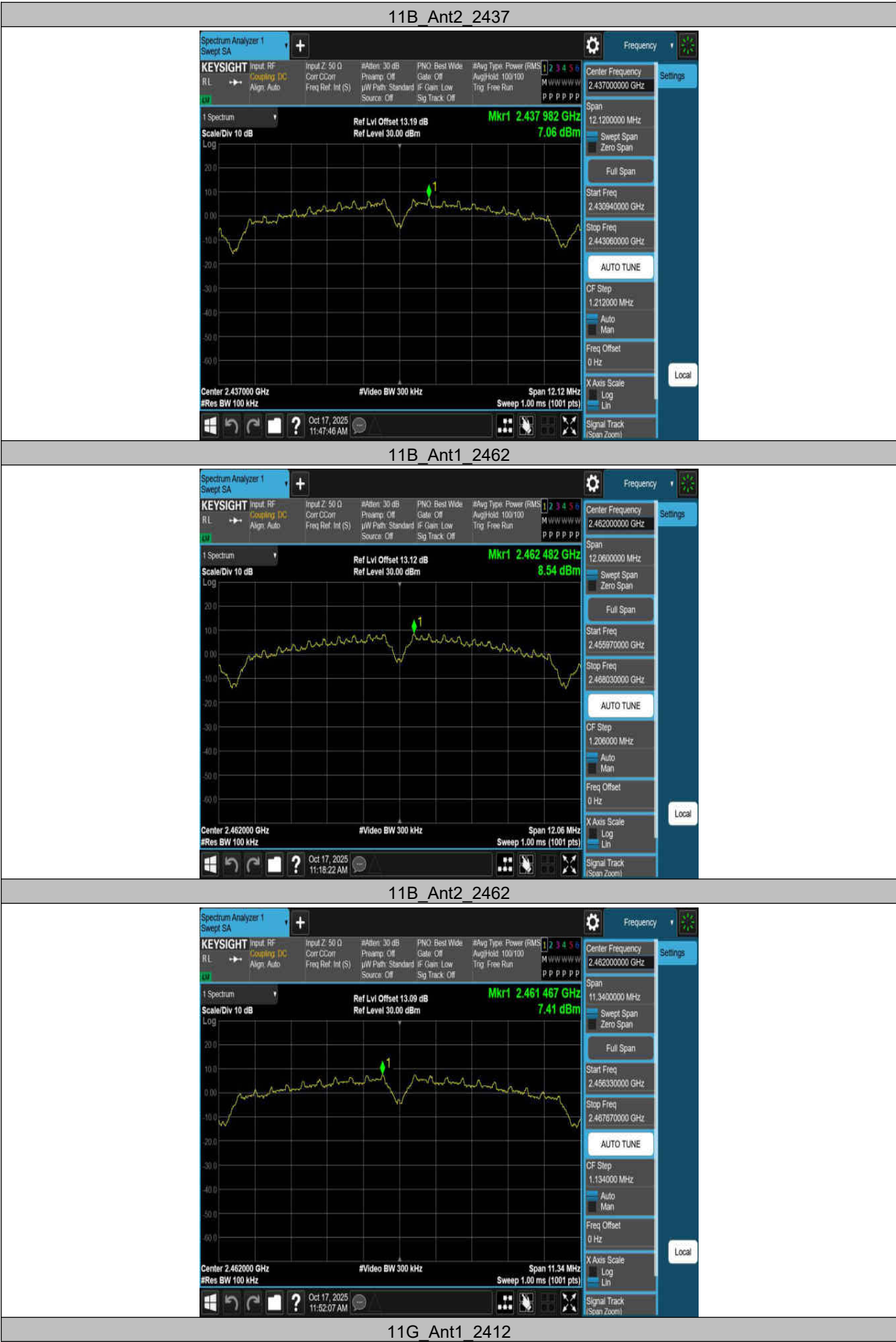
	Ant1	2437	30~1000	-6.46	-59.06	≤ -26.46	PASS
			1000~26500	-6.46	-40.57	≤ -26.46	PASS
	Ant2	2437	30~1000	-6.88	-58.91	≤ -26.88	PASS
			1000~26500	-6.88	-40.53	≤ -26.88	PASS
	Ant1	2452	30~1000	-6.11	-60.61	≤ -26.11	PASS
			1000~26500	-6.11	-41.07	≤ -26.11	PASS
11AX20MIMO	Ant2	2452	30~1000	-6.73	-60.22	≤ -26.73	PASS
			1000~26500	-6.73	-40.59	≤ -26.73	PASS
	Ant1	2412	30~1000	-1.91	-59.96	≤ -21.91	PASS
			1000~26500	-1.91	-40.93	≤ -21.91	PASS
	Ant2	2412	30~1000	-2.70	-60.1	≤ -22.7	PASS
			1000~26500	-2.70	-40.82	≤ -22.7	PASS
	Ant1	2437	30~1000	-2.66	-59.94	≤ -22.66	PASS
			1000~26500	-2.66	-40.77	≤ -22.66	PASS
	Ant2	2437	30~1000	-3.04	-60.53	≤ -23.04	PASS
			1000~26500	-3.04	-40.42	≤ -23.04	PASS
	Ant1	2462	30~1000	-1.85	-59.67	≤ -21.85	PASS
			1000~26500	-1.85	-40.61	≤ -21.85	PASS
11AX40MIMO	Ant2	2462	30~1000	-3.58	-60.19	≤ -23.58	PASS
			1000~26500	-3.58	-41.17	≤ -23.58	PASS
	Ant1	2422	30~1000	-8.22	-59.44	≤ -28.22	PASS
			1000~26500	-8.22	-41.15	≤ -28.22	PASS
	Ant2	2422	30~1000	0.80	-60.29	≤ -19.2	PASS
			1000~26500	0.80	-40.58	≤ -19.2	PASS
	Ant1	2437	30~1000	2.76	-59.93	≤ -17.24	PASS
			1000~26500	2.76	-40.85	≤ -17.24	PASS
	Ant2	2437	30~1000	0.38	-60.05	≤ -19.62	PASS
			1000~26500	0.38	-40.52	≤ -19.62	PASS
	Ant1	2452	30~1000	1.48	-60.24	≤ -18.52	PASS
			1000~26500	1.48	-41.13	≤ -18.52	PASS
	Ant2	2452	30~1000	0.84	-60.19	≤ -19.16	PASS
			1000~26500	0.84	-41.26	≤ -19.16	PASS

Note: Offset=cable loss

12.5. Original test data

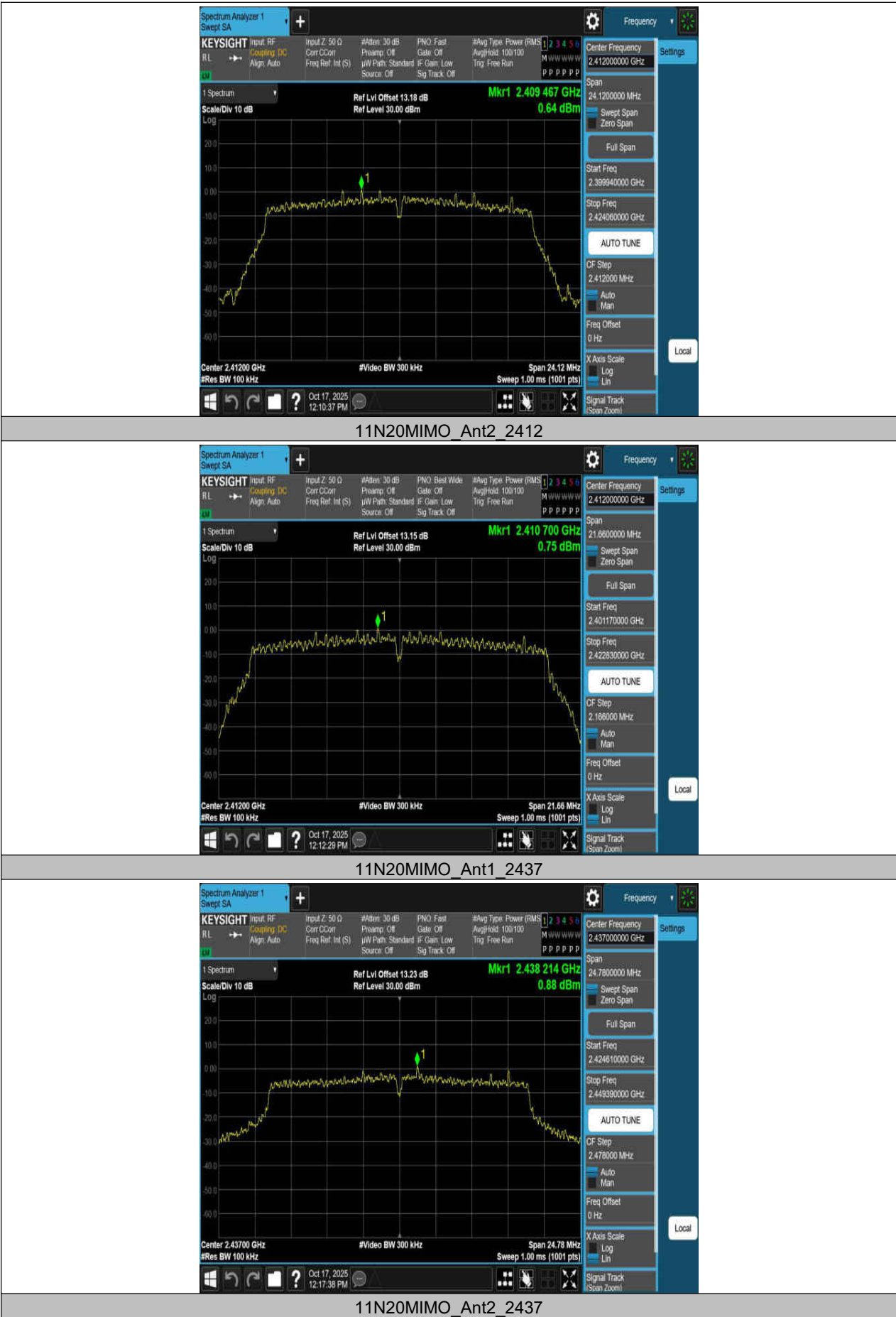
Reference level























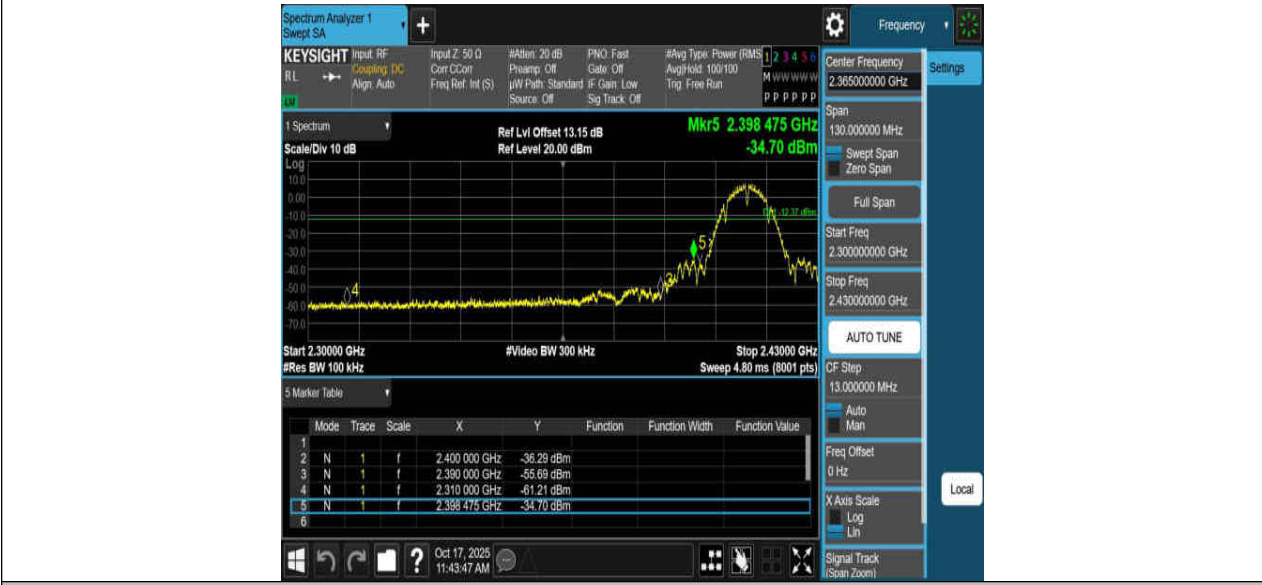


Band edge:

11B_Ant1_Low_2412



11B_Ant2_Low_2412



11B_Ant1_High_2462



11B_Ant2_High_2462



11G_Ant1_Low_2412



11G_Ant2_Low_2412



11G_Ant1_High_2462



11G_Ant2_High_2462



11N20MIMO_Ant1_Low_2412



11N20MIMO_Ant2_Low_2412



11N20MIMO_Ant1_High_2462



11N20MIMO_Ant2_High_2462



11N40MIMO_Ant1_Low_2422



11N40MIMO_Ant2_Low_2422

Spectrum Analyzer 1

Sweep SA

KEYSIGHT

Input: RF

Coating: DC

Align: Auto

Input Z: 50 Ω

Corr: Corr

Freq Ref: Int (S)

#Atten: 20 dB

Preamp: Off

μW Path: Standard

Source: Off

PNO: Fast

Gate: Off

IF Gain: Low

Sig Track: Off

#Avg Type: Power (RMS)

Aug/Hold: 100/100

Trig: Free Run

1 2 3 4 5 6

M W W W W W

P P P P P P

Center Frequency

2.375000000 GHz

Span

150.000000 MHz

Sweep Span

Zero Span

Full Span

Start Freq

2.300000000 GHz

Stop Freq

2.450000000 GHz

AUTO TUNE

CF Step

15.000000 MHz

Auto

Man

Freq Offset

0 Hz

X Axis Scale

Log

Lin

Signal Track

(Span Zoom)

Local

1 Spectrum

Ref Lvl Offset 13.15 dB

Ref Level 20.00 dBm

Mkr5 2.399 450 GHz

-46.41 dBm

Scale/Div 10 dB

Log

Start 2.30000 GHz

#Video BW 300 kHz

Stop 2.45000 GHz

#Res BW 100 kHz

Sweep 5.87 ms (8001 pts)

5 Marker Table

	Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.400 000 GHz	-52.90 dBm			
2	N	1	f	2.390 000 GHz	-56.02 dBm			
3	N	1	f	2.310 000 GHz	-59.88 dBm			
4	N	1	f	2.399 450 GHz	-46.41 dBm			
5	N	1	f	2.399 450 GHz	-46.41 dBm			
6								

Oct 17, 2025

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11N40MIMO_Ant1_High_2452

Spectrum Analyzer 1

Sweep SA

KEYSIGHT

Input: RF

Coating: DC

Align: Auto

Input Z: 50 Ω

Corr: Corr

Freq Ref: Int (S)

#Atten: 20 dB

Preamp: Off

μW Path: Standard

Source: Off

PNO: Fast

Gate: Off

IF Gain: Low

Sig Track: Off

#Avg Type: Power (RMS)

Aug/Hold: 100/100

Trig: Free Run

1 2 3 4 5 6

M W W W W W

P P P P P P

Center Frequency

2.487500000 GHz

Span

125.000000 MHz

Sweep Span

Zero Span

Full Span

Start Freq

2.425000000 GHz

Stop Freq

2.550000000 GHz

AUTO TUNE

CF Step

12.500000 MHz

Auto

Man

Freq Offset

0 Hz

X Axis Scale

Log

Lin

Signal Track

(Span Zoom)

Local

1 Spectrum

Ref Lvl Offset 13.23 dB

Ref Level 20.00 dBm

Mkr4 2.483 875 GHz

-53.42 dBm

Scale/Div 10 dB

Log

Start 2.42500 GHz

#Video BW 300 kHz

Stop 2.55000 GHz

#Res BW 100 kHz

Sweep 4.80 ms (8001 pts)

5 Marker Table

	Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	2.483 500 GHz	-56.33 dBm			
2	N	1	f	2.500 000 GHz	-58.88 dBm			
3	N	1	f	2.483 875 GHz	-53.42 dBm			
4	N	1	f	2.483 875 GHz	-53.42 dBm			
5								
6								

Oct 17, 2025

1:10:15 PM

11N40MIMO_Ant2_High_2452

