



FCC/ISED - TEST REPORT

Report Number : **709502605195-00B** Date of Issue: July 17, 2026

Model : Smart Kit

Product Type : MDWBRCU2D

Applicant : Hangzhou Tuya Information Technology Co.,Ltd

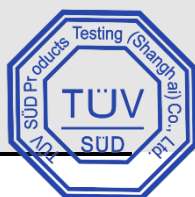
Address : Room 301,Building 1,Huace Center,Xihu District,
Hangzhou,Zhejiang, China

Manufacturer : Hangzhou Tuya Information Technology Co.,Ltd

Address : Room 301,Building 1,Huace Center,Xihu District,
Hangzhou,Zhejiang, China

Test Result : ☒ **Positive** ☐ **Negative**

Total pages including
Appendices : 94



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2 Report Version

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

Report No.	Description of Change	Date of Issue
709502605195-00B	First Issue	July 17, 2026



3 Details about the Test Laboratory

Details about the Test Laboratory

Test Site 1

Company name: TÜV SÜD Products Testing (Shanghai) Co., Ltd.
1F, No.16, Lane 1951 Duhui Road, Shanghai, 201108, People's
Republic of China

Telephone: +86 21 6037 6300

FCC Registration No.: 820234

FCC Designation Number: CN1183

ISED CAB identifier CN0101

IC Registration No.: 31668

4 Description of the Equipment under Test

Product: Smart Kit

Model no.: MDWBRCU2D

Identification No. (HVIN) MDWBRCU2D

Product Marketing Name (PMN) MDWBRCU2D

FCC ID: 2ANDL-MDWBRCU2D

IC: 23243-MDWBRCU2D

Options and accessories: N/A

Rating: DC 4.5~5.5V, Normal: DC 5V

RF Transmission Frequency: For Bluetooth:2402~2480MHz
 For 2.4G Wi-Fi:802.11b/g/n-HT20: 2412~2462 MHz
 802.11n-HT40: 2422~2452 MHz
 For 5G Wi-Fi:5180~5240 MHz (U-NII-1)
 5260~5320 MHz (U-NII-2A)
 5500~5720 MHz (U-NII-2C)
 5745~5825 MHz (U-NII-3)

No. of Operated Channel: 40 channels for Bluetooth 5.0 BLE

Bluetooth Low Energy							
Ch	Fre(MHz)	Ch	Fre(MHz)	Ch	Fre(MHz)	Ch	Fre(MHz)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	39	2480

2.4GHz WIFI: 11 for 802.11b/802.11g/802.11(H20);
 7 for 802.11n(HT40)

802.11b/g/n(HT20)				802.11n(HT40)			
Ch	Fre(MHz)	Ch	Fre(MHz)	Ch	Fre(MHz)	Ch	Fre(MHz)
1	2412	7	2442	3	2422	8	2447MHz
2	2417	8	2447	4	2427	9	2452MHz
3	2422	9	2452	5	2432		
4	2427	10	2457	6	2437		
5	2432	11	2462	7	2442		
6	2437						

5180~5240 MHz (U-NII-1):

4 channels are provided for 802.11a, 802.11n (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
40	5200	48	5240

2 channels are provided for 802.11n (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230

5260~5320 MHz (U-NII-2A)

4 channels are provided for 802.11a, 802.11n (HT20)

Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	60	5300
56	5280	64	5320

2 channels are provided for 802.11n (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
54	5270	62	5310

5500~5720 MHz (U-NII-2C)

12 channels are provided for 802.11a, 802.11n (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	124	5620
104	5520	128	5640
108	5540	132	5660
112	5560	136	5680
116	5580	140	5700
120	5600	144	5720

6 channels are provided for 802.11n (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
102	5510	126	5630
110	5550	134	5670
118	5590	142	5710

5745~5825 MHz (U-NII-3): Channel 149 – 165

5 channels are provided for 802.11a, 802.11n (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	161	5805
153	5765	165	5825
157	5785		

2 channels are provided for 802.11n (HT40)

Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	159	5795

Modulation:

Bluetooth 5.0: GFSK

For Wi-Fi: Direct Sequence Spread Spectrum (DSSS) for 802.11b

Orthogonal Frequency Division Multiplexing (OFDM) for 802.11a/g/n



Data speed:	1. Bluetooth: 1Mbps, 2Mbps 2. Wi-Fi: 11b 1 ~ 11Mbps, 11g/a 6 ~ 54Mbps, 11n HT20 6.5 ~ 65Mbps, 11n HT 40 13.5 ~ 135Mbps
Hardware Version:	V101
Software Version:	V3.5.0
Antenna Type:	PCB Antenna
Antenna Gain:	0.88dBi for 2.4GHz 1.53dBi for 5.0GHz
Description of the EUT:	The Equipment Under Test (EUT) is a Smart Kit which supports 2.4GHz & 5GHz Wi-Fi and Low Energy Bluetooth (1Mbps & 2Mbps data rate). This report is only for 2.4GHz Wi-Fi.
Test sample no.:	SHA-1041093-2 (Radiated sample) SHA-1041093-3 (Conducted sample)

The sample's mentioned in this report is/are submitted/ supplied/ manufactured by client. The laboratory therefore assumes no responsibility for accuracy of information on the brand name, model number, origin of manufacture, consignment, antenna gain or any information supplied.

5 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart C 10-1-2024 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators
RSS-Gen Issue 5 April 2018 + Amendment 1 March 2019 + Amendment 2 February 2021	General Requirements for Compliance of Radio Apparatus
RSS-247 Issue 4 July 2025	Digital Transmission Systems, Frequency Hopping Systems and Licence-Exempt Local Area Network Devices in 902-928 MHz, 2400-2483.5 MHz, 5150-5350 MHz, and 5470-5895 MHz bands

All the test methods were according to KDB 558074 D01 15.247 Meas Guidance v05r02 Measurement Guidance and ANSI C63.10-2020.

Note: For ISED, this report is also performed according to ANSI C63.10-2020 + Cor.1-2023 + C63.10a-2024 + Errata to C63.10a-2024 standards.

6 Summary of Test Results

Technical Requirements						
FCC Part 15 Subpart C & RSS-247 Issue 4/RSS-Gen Issue 5						
Test Condition			Test Site	Test Result		
				Pass	Fail	N/A
§15.207	RSS-GEN 8.8	Conducted emission AC power port	Site 1	☒	☐	☐
§15.247 (b) (3)	RSS-247 6.3.2	Conducted peak output power	Site 1	☒	☐	☐
	RSS-247 6.3.2	Equivalent Isotropic Radiated Power	Site 1	☒	☐	☐
§15.247(a)(1)	RSS-247 6.2.1(a) & RSS-Gen 6.7	20dB bandwidth and 99% Occupied Bandwidth	---	☐	☐	☒
§15.247(a)(1)	RSS-247 6.2.3.1(a)	Carrier frequency separation	---	☐	☐	☒
§15.247(a)(1)(iii)	RSS-247 6.2.3.1(b)	Number of hopping frequencies	---	☐	☐	☒
§15.247(a)(1)(iii)	RSS-247 6.2.3.1(b)	Dwell Time - Average Time of Occupancy	---	☐	☐	☒
§15.247(a)(2)	RSS-247 6.3.1(a) & RSS-GEN 6.7	6dB bandwidth and 99% Occupied Bandwidth	Site 1	☒	☐	☐
§15.247(e)	RSS-247 6.3.1 (b)	Power spectral density	Site 1	☒	☐	☐
§15.247(d)	RSS-247 6.6	Spurious RF conducted emissions	Site 1	☒	☐	☐
§15.247(d)	RSS-247 6.6	Band edge	Site 1	☒	☐	☐
§15.247(d) & §15.209 & §15.205	RSS-247 6.6 & RSS-Gen 6.13	Spurious radiated emissions for transmitter	Site 1	☒	☐	☐
§15.203	RSS-Gen 6.8	Antenna requirement	See note 1	☒	☐	☐

Remark 1: N/A – Not Applicable.

Note 1: The EUT uses a PCB Antenna, which gain is 0.88dBi for 2.4GHz and 1.53dBi for 5.0GHz. In accordance to §15.203 and RSS-Gen 6.8, it is considered sufficiently to comply with the provisions of this section.

7 General Remarks

Remarks

This submittal(s) (test report) is intended for FCC ID:2ANDL-MDWBRCU2D, IC: 23243-MDWBRCU2D complies with Section 15.207, 15.205, 15.209, 15.247 of the FCC Part 15, Subpart C Rules and RSS-247, RSS-GEN. This report is only for 2.4GHz Wi-Fi. For 2.4GHz BLE report, refer to report No. 709502605195-00C. For 5.0GHz Wi-Fi report, refer to report No. 709502605195-00D.

SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

The Equipment under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

Sample Received Date: June 9, 2026

Testing Start Date: June 11, 2026

Testing End Date: July 7, 2026

TÜV SÜD Products Testing (Shanghai) Co., Ltd.

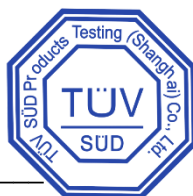
Reviewed by:

Prepared by:

Tested by:



Hui TONG
Review Engineer



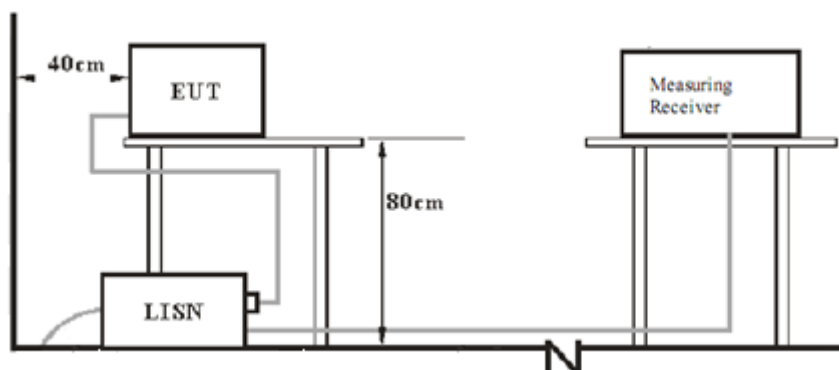
Jiayi XU
Project Engineer



Doujun XU
Test Engineer

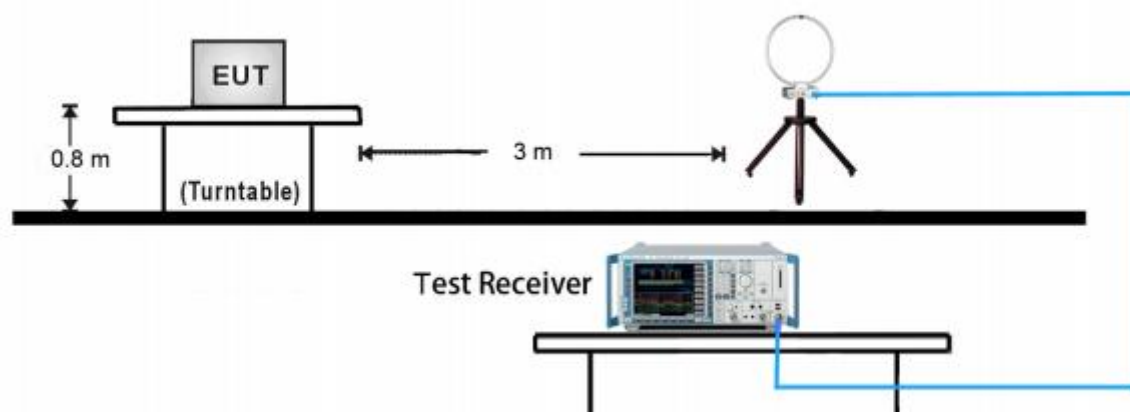
8 Test Setups

8.1 AC Power Line Conducted Emission test setups

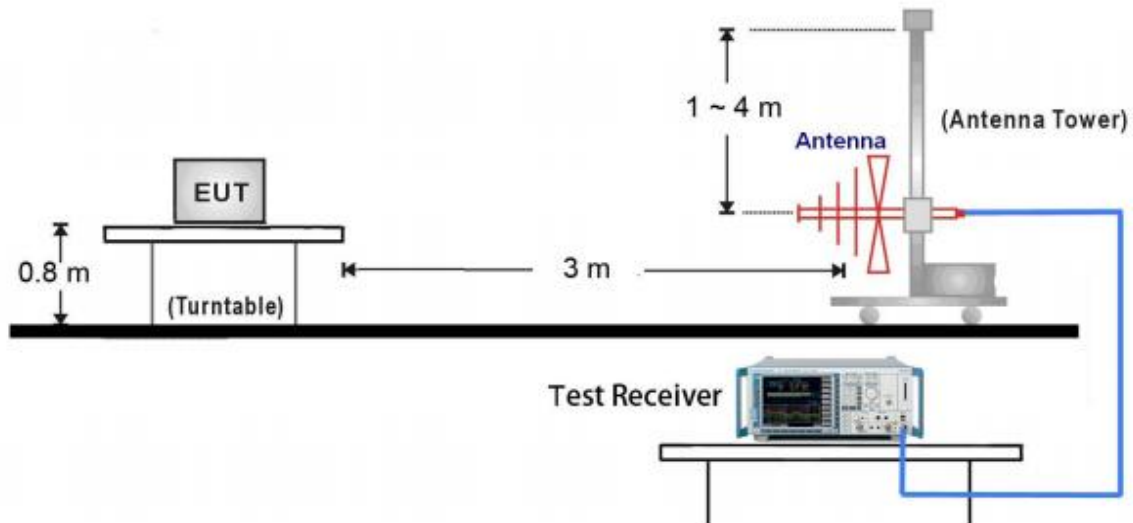


8.2 Radiated test setups

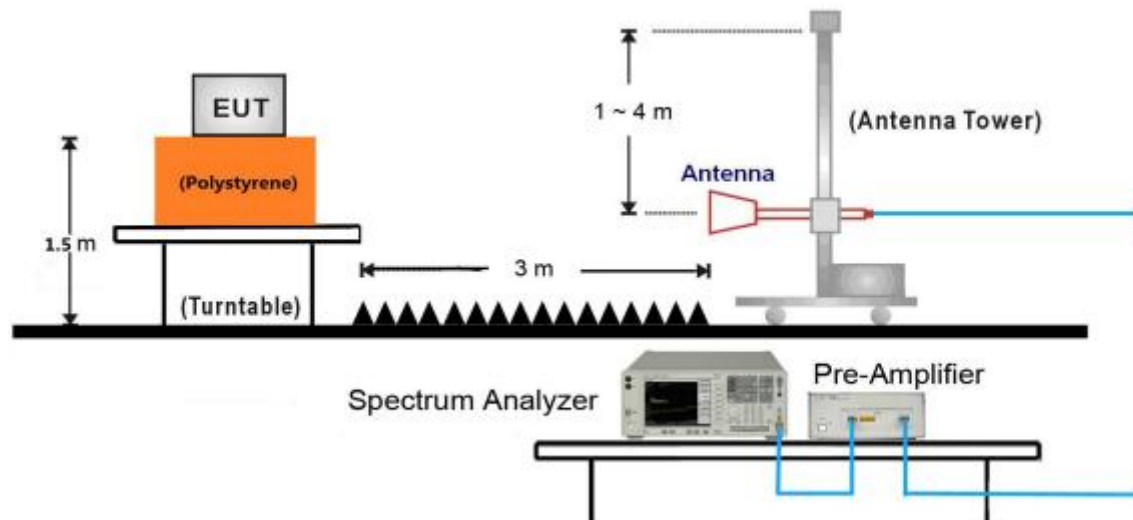
9kHz ~ 30MHz Test Setup:



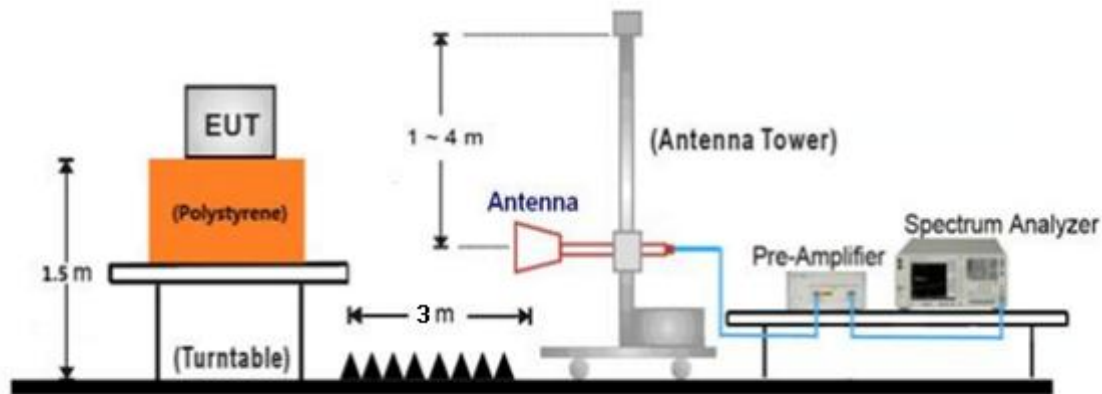
30MHz ~ 1GHz Test Setup:



1GHz ~ 18GHz Test Setup:

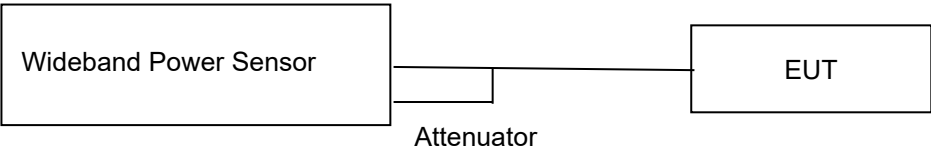


18GHz ~ 25GHz Test Setup:

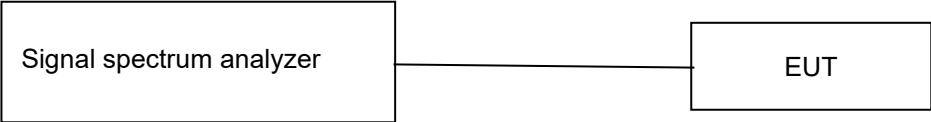


8.3 Conducted RF test setups

For Conducted peak output power



For other test items



9 Systems test configuration

Auxiliary Equipment Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.(SHIELD)	S/N(LENGTH)
Notebook	Lenovo	E470	PF-OU5TS7 17/09

Test software: AmebaDPlus_mptool 1V6

Test Mode Applicability and Tested Channel Detail:

Mode	Tested Channel	Data Rate (Mbps)	Modulation	Index Value (Power level setting)
802.11b	1	1	DSSS	84
	6	1	DSSS	84
	11	1	DSSS	84
802.11g	1	6	OFDM	84
	6	6	OFDM	84
	11	6	OFDM	84
802.11n HT20	1	MCS0	OFDM	84
	6	MCS0	OFDM	84
	11	MCS0	OFDM	84
802.11n HT40	1	MCS0	OFDM	75
	6	MCS0	OFDM	75
	11	MCS0	OFDM	75

Non-hopping mode: The system was configured to operate at a signal channel transmitting. The test software allows the configuration and operation at the worst-case duty and the highest transmit power.

10 Technical Requirement

10.1 Conducted Emission

Test Method

1. The EUT was placed on a table, which is 0.8m above ground plane
2. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
3. Maximum procedure was performed to ensure EUT compliance
4. A EMI test receiver is used to test the emissions from both sides of AC line

Limit

According to §15.207 & RSS-GEN 8.8, conducted emissions limit as below:

Frequency MHz	QP Limit dB μ V	AV Limit dB μ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

Decreasing linearly with logarithm of the frequency

150k-30MHz Conducted Emission Test

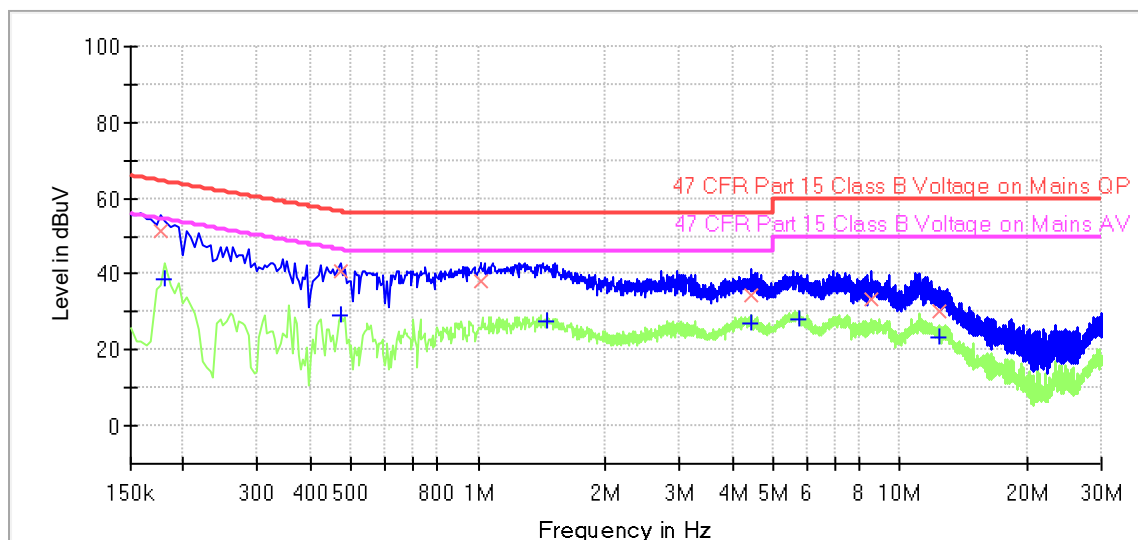
EUT Information

EUT Name: Smart Kit
 Model: MDWBRCU2D
 Client: Hangzhou Tuya Information Technology Co., Ltd
 Op Cond: Power on, TX_2412MHz at 802.11B
 Operator: Doujun XU
 Standard: FCC part 15.207
 Sample No.: SHA-1041093-2

Scan Setup: Voltage with 2-Line-LISN pre [EMI conducted]

Hardware Setup: Voltage with 2-Line-LISN
 Receiver: [ESR 3]
 Level Unit: dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.02 s	0 dB
150 kHz - 30 MHz	4.5 kHz	PK+; AVG	9 kHz	0.01 s	0 dB



Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.177000	51.41	---	64.63	13.22	1000.0	9.000	L1	19.4
0.181500	---	38.57	54.42	15.85	1000.0	9.000	L1	19.4
0.474000	40.56	---	56.44	15.88	1000.0	9.000	L1	19.4
0.474000	---	29.01	46.44	17.43	1000.0	9.000	L1	19.4
1.014000	38.33	---	56.00	17.67	1000.0	9.000	L1	19.4
1.455000	---	27.33	46.00	18.67	1000.0	9.000	L1	19.4
4.438500	34.31	---	56.00	21.69	1000.0	9.000	L1	19.5
4.456500	---	26.94	46.00	19.06	1000.0	9.000	L1	19.5
5.752500	---	28.19	50.00	21.81	1000.0	9.000	L1	19.5
8.502000	33.30	---	60.00	26.70	1000.0	9.000	L1	19.6
12.430500	29.98	---	60.00	30.02	1000.0	9.000	L1	19.7
12.439500	---	23.27	50.00	26.73	1000.0	9.000	L1	19.7

150k-30MHz Conducted Emission Test

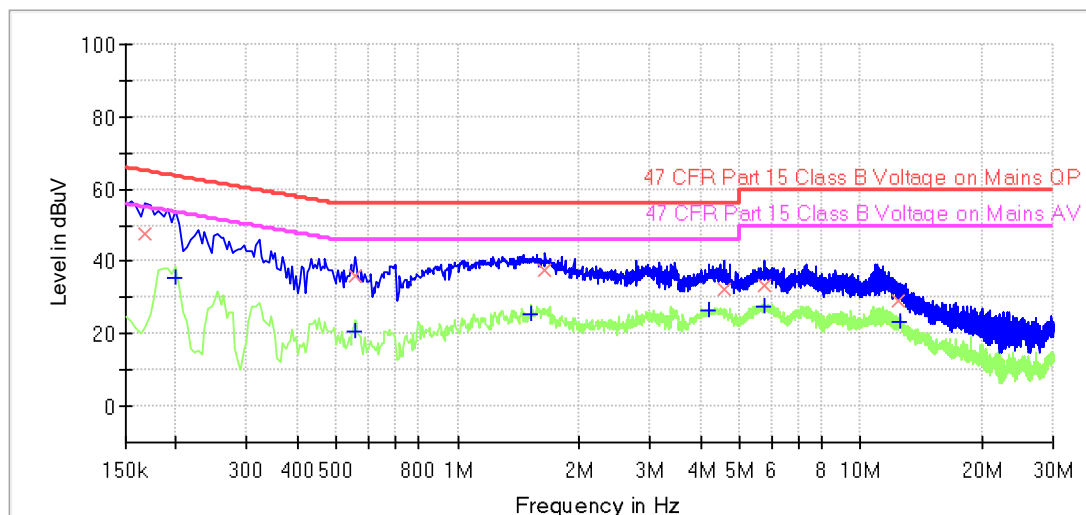
EUT Information

EUT Name: Smart Kit
 Model: MDWBRCU2D
 Client: Hangzhou Tuya Information Technology Co., Ltd
 Op Cond: Power on, TX_2412MHz at 802.11B
 Operator: Doujun XU
 Standard: FCC part 15.207
 Sample No.: SHA-1041093-2

Scan Setup: Voltage with 2-Line-LISN pre [EMI conducted]

Hardware Setup: Voltage with 2-Line-LISN
 Receiver: [ESR 3]
 Level Unit: dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamplifier
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.02 s	0 dB
150 kHz - 30 MHz	4.5 kHz	PK+; AVG	9 kHz	0.01 s	0 dB



Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.168000	47.76	---	65.06	17.30	1000.0	9.000	N	19.5
0.199500	---	35.39	53.63	18.24	1000.0	9.000	N	19.4
0.555000	---	20.70	46.00	25.30	1000.0	9.000	N	19.5
0.555000	36.00	---	56.00	20.00	1000.0	9.000	N	19.5
1.522500	---	25.46	46.00	20.54	1000.0	9.000	N	19.4
1.648500	37.44	---	56.00	18.56	1000.0	9.000	N	19.4
4.191000	---	26.54	46.00	19.46	1000.0	9.000	N	19.5
4.600500	32.48	---	56.00	23.52	1000.0	9.000	N	19.5
5.770500	33.54	---	60.00	26.46	1000.0	9.000	N	19.5
5.770500	---	27.53	50.00	22.47	1000.0	9.000	N	19.5
12.426000	29.25	---	60.00	30.75	1000.0	9.000	N	19.7
12.466500	---	23.25	50.00	26.75	1000.0	9.000	N	19.7

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

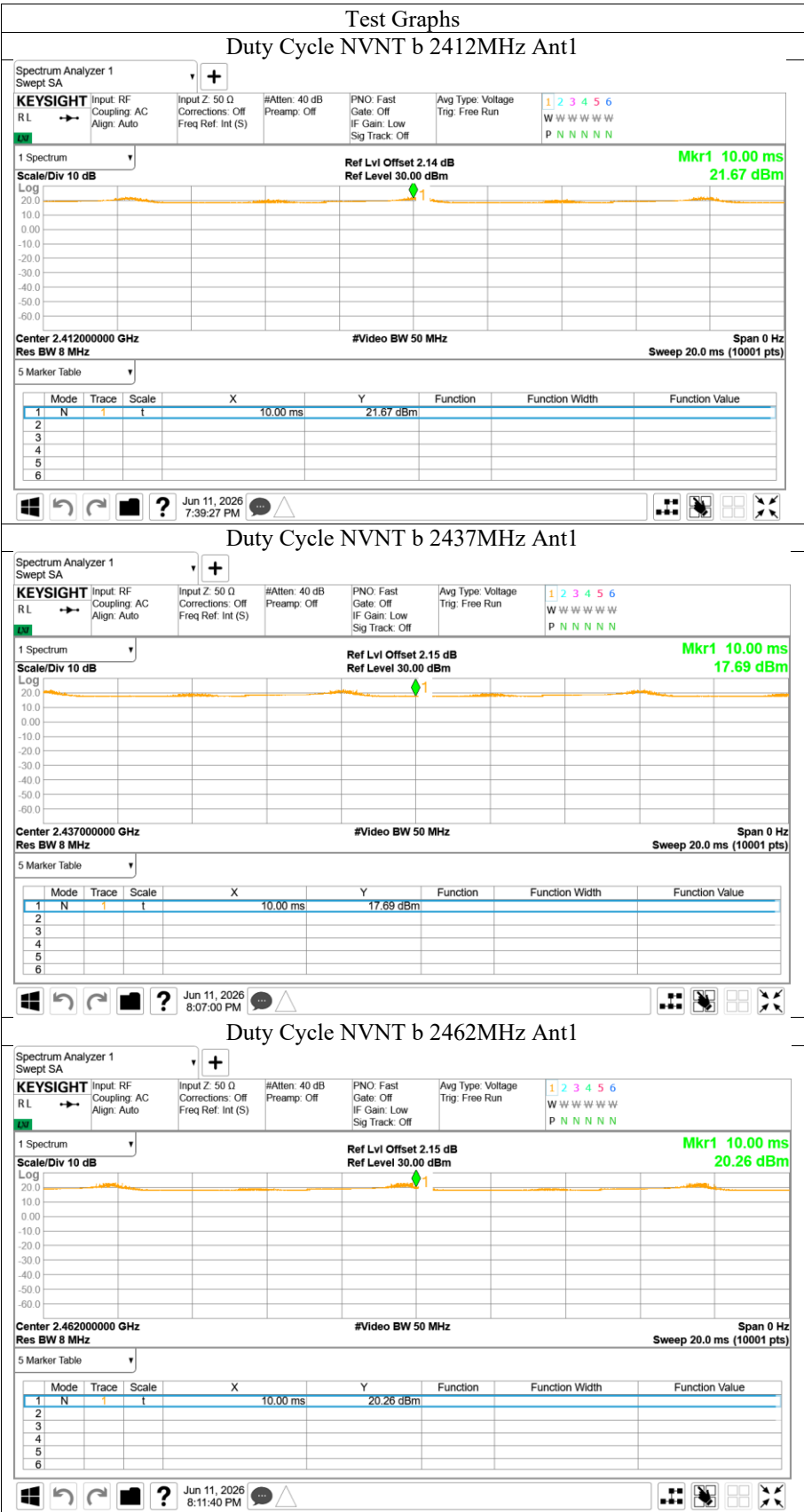
Factor (dB) = Cable Loss (dB) + LISN Factor (dB) + 10dB Attenuator

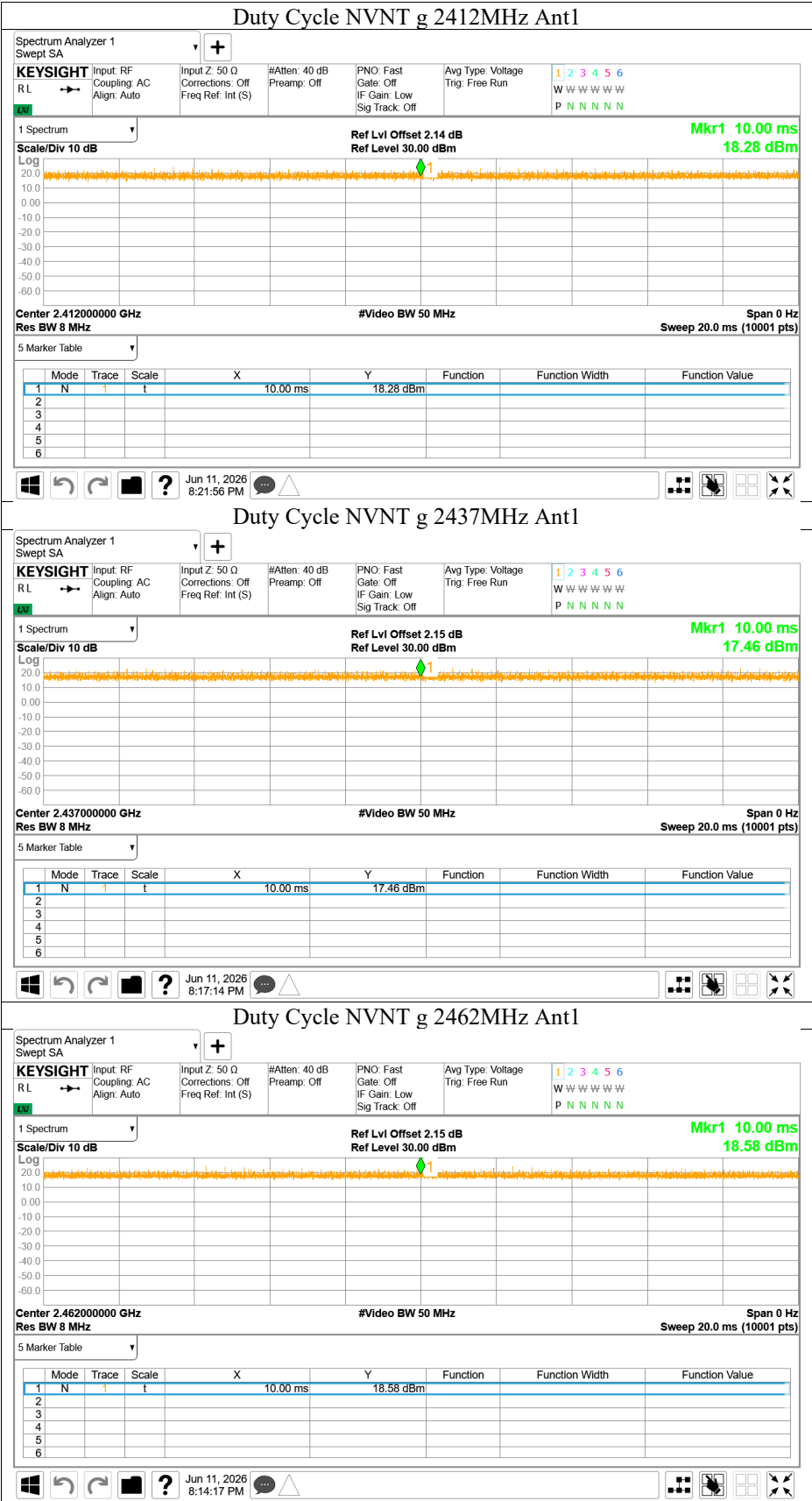
10.2 Duty Cycle

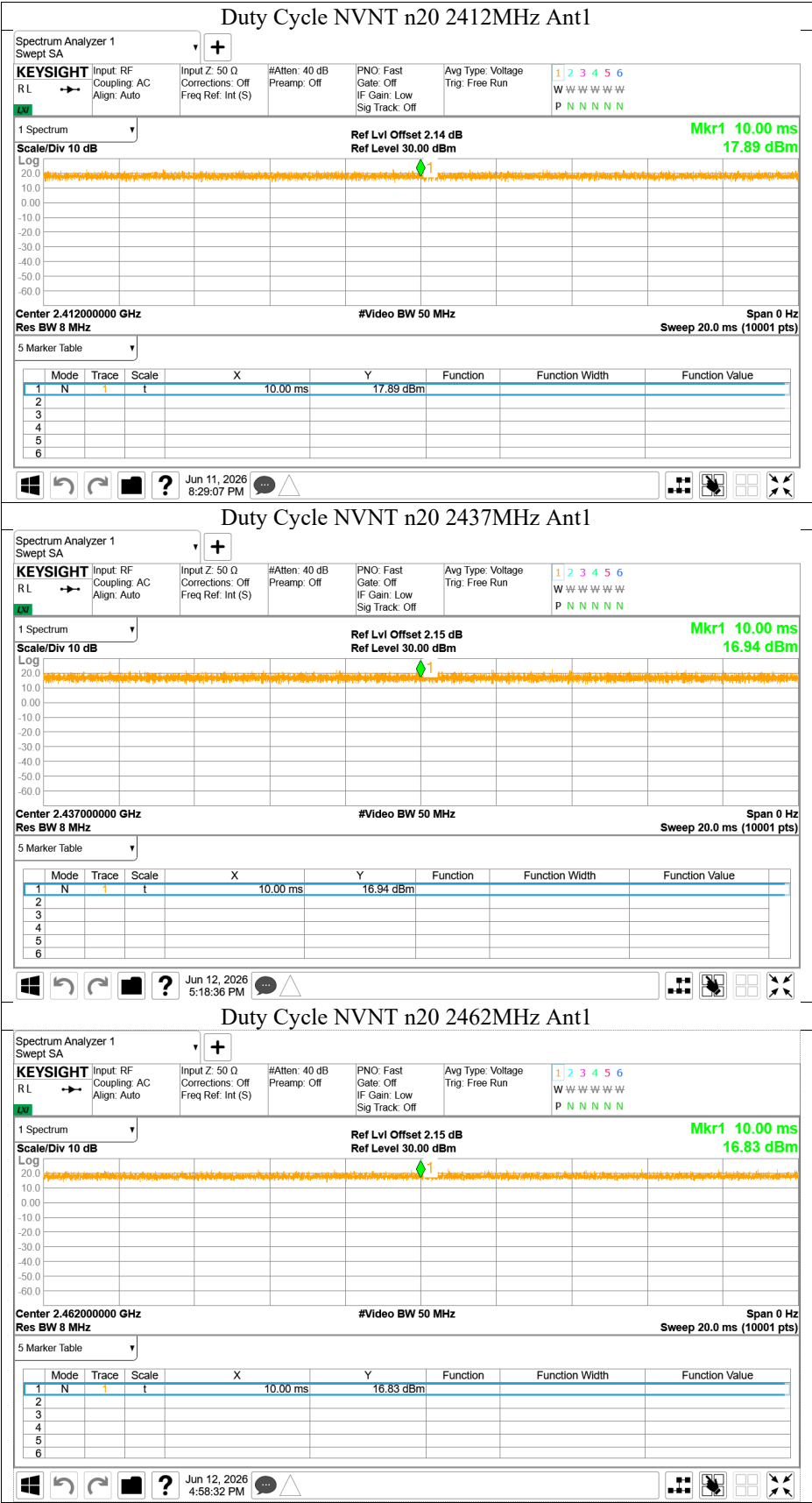
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	b	2412	Ant1	100	0
NVNT	b	2437	Ant1	100	0
NVNT	b	2462	Ant1	100	0
NVNT	g	2412	Ant1	100	0
NVNT	g	2437	Ant1	100	0
NVNT	g	2462	Ant1	100	0
NVNT	n20	2412	Ant1	100	0
NVNT	n20	2437	Ant1	100	0
NVNT	n20	2462	Ant1	100	0
NVNT	n40	2422	Ant1	100	0
NVNT	n40	2437	Ant1	100	0
NVNT	n40	2452	Ant1	100	0

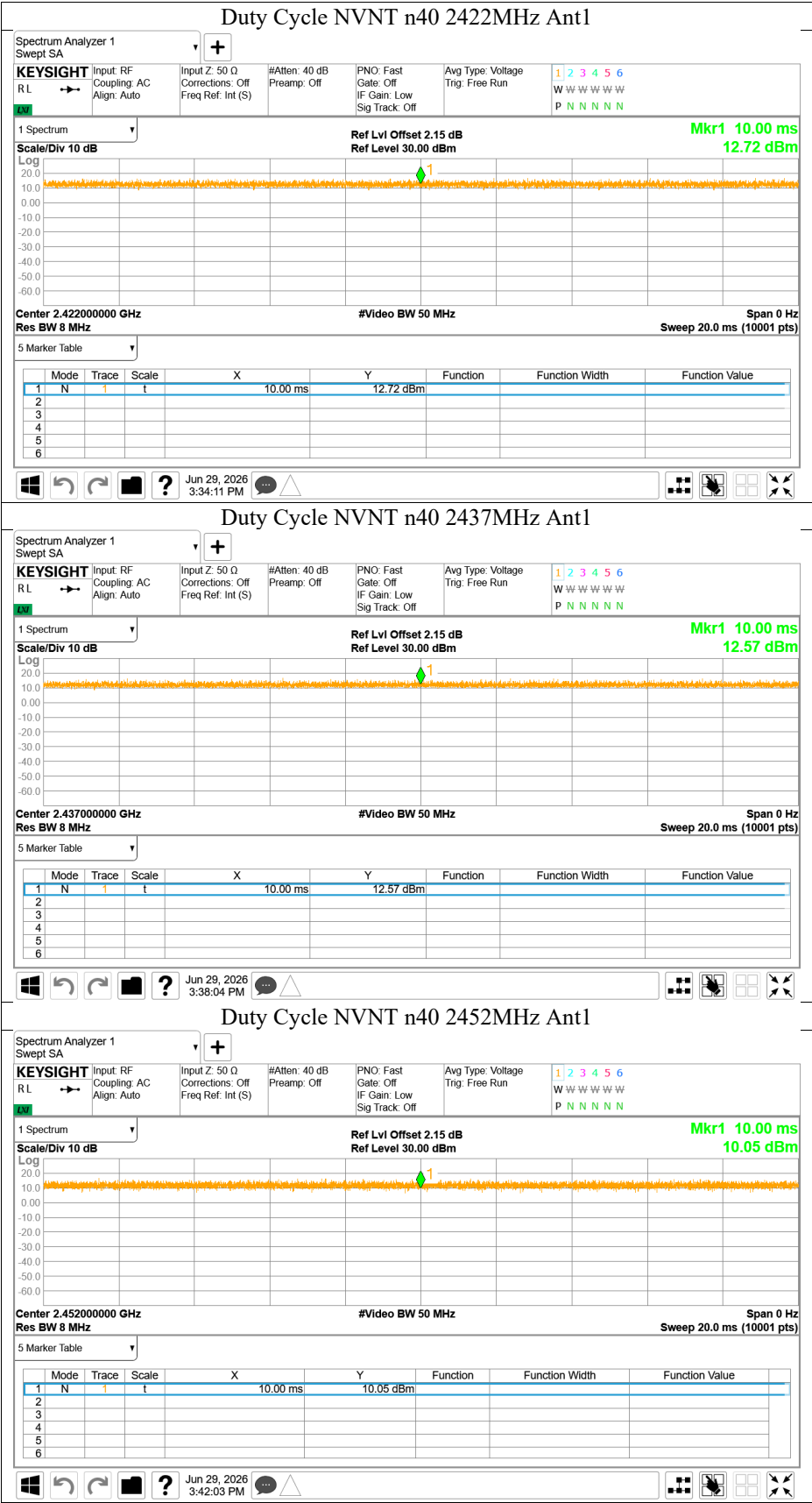


Test Graph





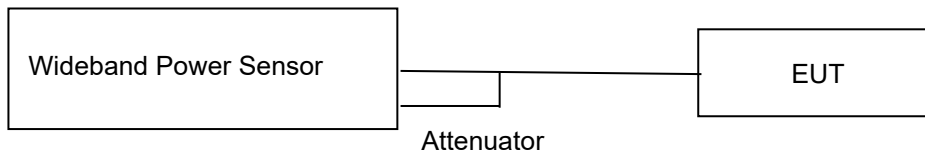




10.3 Conducted peak output power & EIRP

Test Method

- 1) The EUT is configured to transmit continuously, or to transmit with a constant duty cycle.
- 2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.
- 3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
- 4) Measure the peak power of the transmitter. This measurement is a peak over both the ON and OFF periods of the transmitter.



Wideband Power Sensor conducted test setup

Limits

According to §15.247 (b) (3) & RSS-247 6.3.2, peak output power limit as below:

	Frequency Range	Limit	Limit
	MHz	W	dBm
Conducted peak output power	2400-2483.5	≤1	≤30
e.i.r.p.	2400-2483.5	≤4	≤36

Test result as below table

802.11b: Antenna gain= 0.88dBi						
Frequency (MHz)	Conducted Peak Output Power (dBm) §15.247 (b) (3)			e.i.r.p. (dBm) RSS-247 6.3.2		
	Result	limit	Verdict	Result	limit	Verdict
2412MHz	18.16	≤30	Pass	19.04	≤36	Pass
2437MHz	17.93	≤30	Pass	18.81	≤36	Pass
2462MHz	18.03	≤30	Pass	18.91	≤36	Pass
802.11g: Antenna gain= 0.88dBi						
Frequency (MHz)	Conducted Peak Output Power (dBm) §15.247 (b) (3)			e.i.r.p. (dBm) RSS-247 6.3.2		
	Result	limit	Verdict	Result	limit	Verdict
2412MHz	25.83	≤30	Pass	26.71	≤36	Pass
2437MHz	25.61	≤30	Pass	26.49	≤36	Pass
2462MHz	25.50	≤30	Pass	26.38	≤36	Pass
802.11n(HT20): Antenna gain= 0.88dBi						
Frequency (MHz)	Conducted Peak Output Power (dBm) §15.247 (b) (3)			e.i.r.p. (dBm) RSS-247 6.3.2		
	Result	limit	Verdict	Result	limit	Verdict
2412MHz	25.30	≤30	Pass	26.18	≤36	Pass
2437MHz	24.97	≤30	Pass	25.85	≤36	Pass
2462MHz	24.82	≤30	Pass	25.70	≤36	Pass
802.11n(HT40): Antenna gain= 0.88dBi						
Frequency (MHz)	Conducted Peak Output Power (dBm) §15.247 (b) (3)			e.i.r.p. (dBm) RSS-247 6.3.2		
	Result	limit	Verdict	Result	limit	Verdict
2422MHz	22.57	≤30	Pass	23.45	≤36	Pass
2437MHz	23.02	≤30	Pass	23.90	≤36	Pass
2452MHz	23.16	≤30	Pass	24.04	≤36	Pass

10.46dB bandwidth and 99% Occupied Bandwidth

Test Method for 6 dB Bandwidth

1. The RF output of EUT was connected to the spectrum analyzer. The path loss was compensated to the results for each measurement.
2. Set to the maximum power setting, the instrument center frequency is set to the nominal EUT channel center frequency enable the EUT transmit continuously.
3. Use the following spectrum analyzer settings:
4. RBW=1% to 5% of the occupied bandwidth but not less than 100kHz, VBW $\geq$ 3RBW, Sweep = auto, Detector function = peak, Trace = max hold
5. Use the automatic bandwidth measurement capability of an instrument, use the X dB bandwidth mode with X set to 6 dB.
6. Allow the trace to stabilize, record the 6 dB Bandwidth value.

Test Method for 99 % Bandwidth

7. Connect EUT test port to spectrum analyzer.
Use the following spectrum analyzer settings:
RBW=1% to 5% of the actual occupied, VBW $\geq$ 3RBW, Sweep = auto,
Detector function = peak, Trace = max hold
8. Use the occupied bandwidth measurement capability of test receiver.
9. Allow the trace to stabilize, record the occupied bandwidth value.

Limit

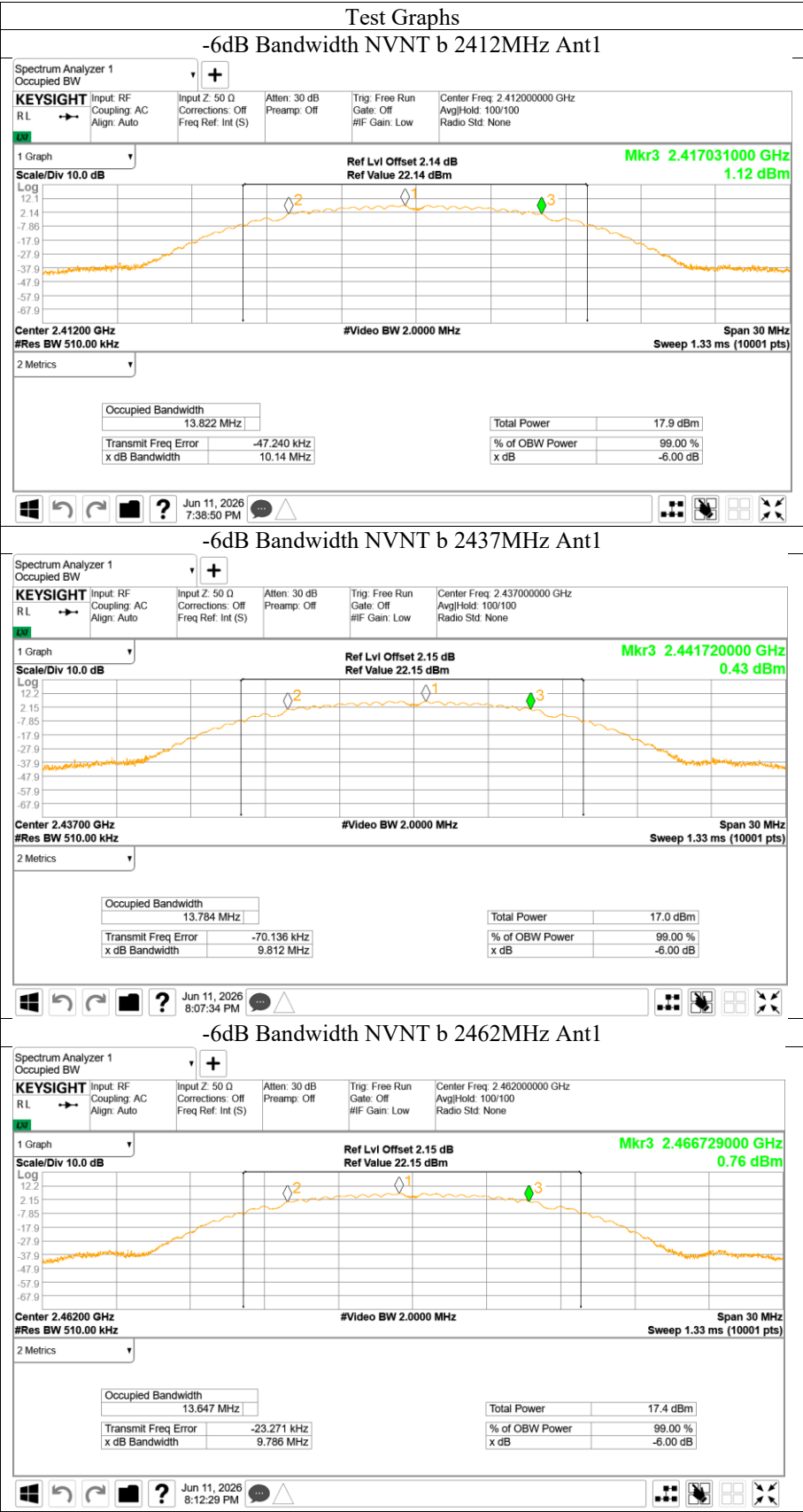
6dB bandwidth Limit [kHz]	99% bandwidth Limit [kHz]
≥ 500	--

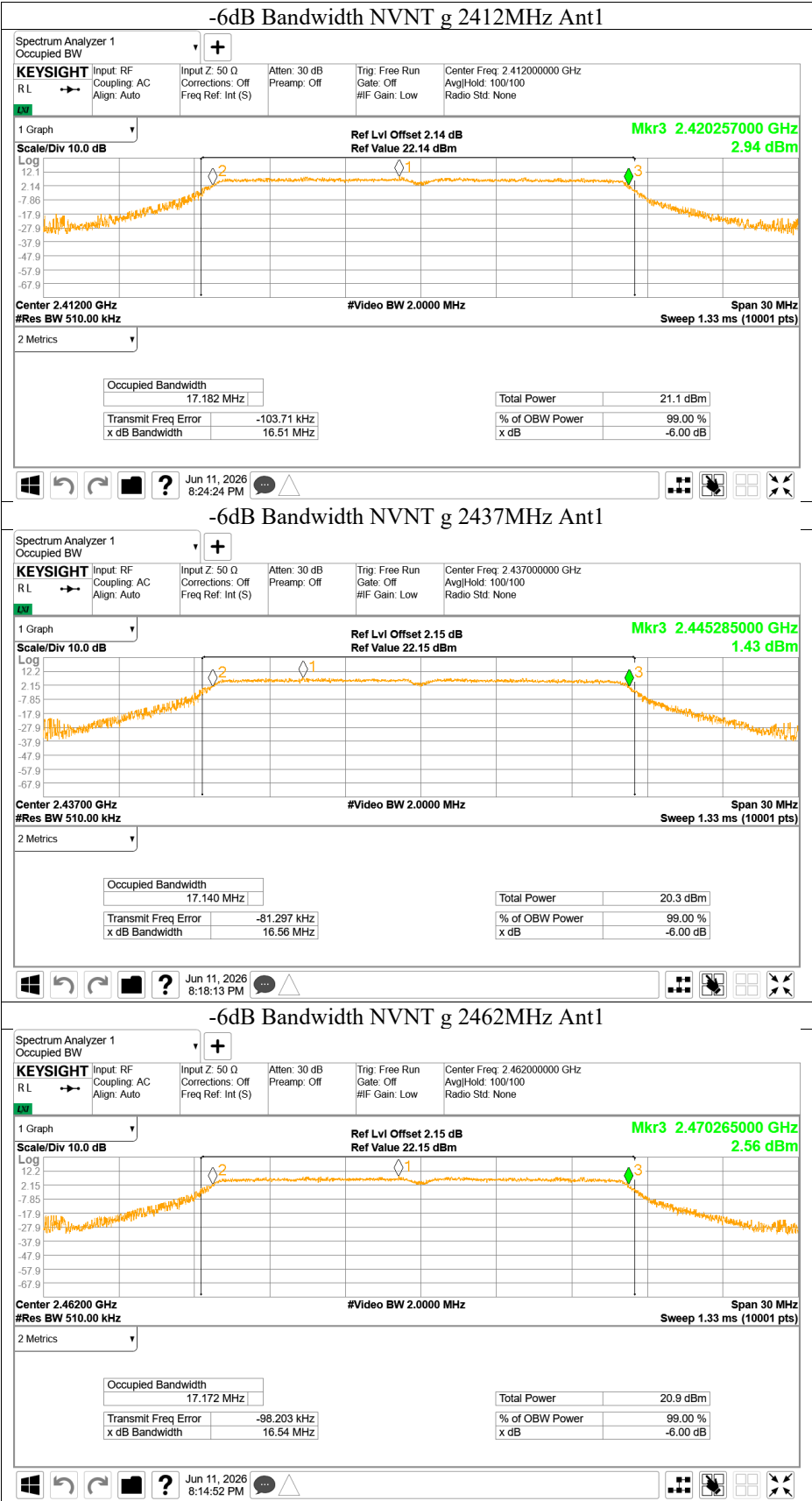
Test result

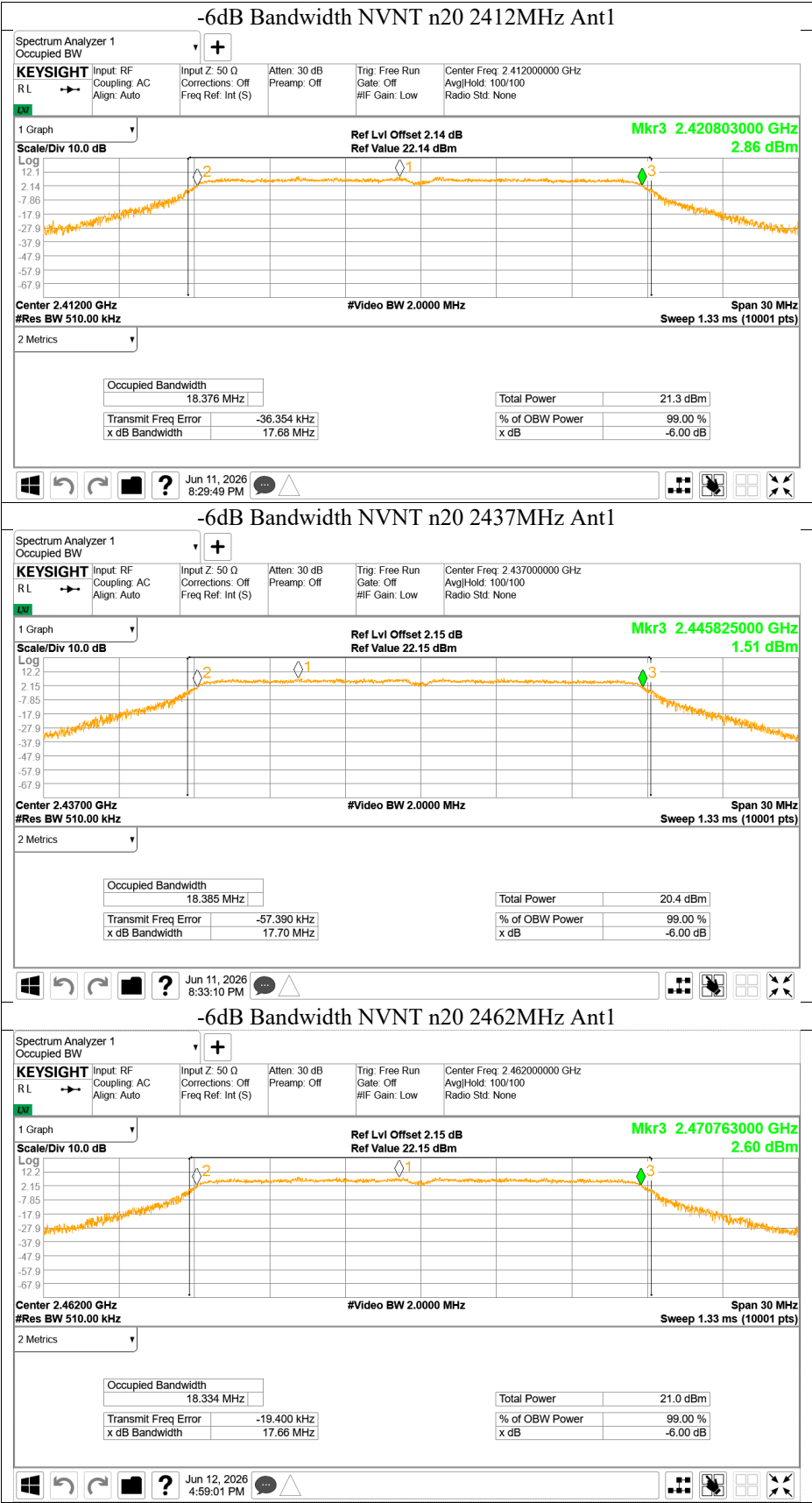
Test Mode	Frequency MHz	6dB bandwidth (MHz)		Result	99% occupied bandwidth MHz
		result	limit	verdict	
802.11b	2412	10.139	≥ 0.5	Pass	13.91
	2437	9.812	≥ 0.5	Pass	13.836
	2462	9.786	≥ 0.5	Pass	13.709
802.11g	2412	16.515	≥ 0.5	Pass	16.583
	2437	16.555	≥ 0.5	Pass	16.566
	2462	16.54	≥ 0.5	Pass	16.575
802.11n(HT20)	2412	17.679	≥ 0.5	Pass	17.815
	2437	17.705	≥ 0.5	Pass	17.841
	2462	17.661	≥ 0.5	Pass	17.843
802.11n(HT40)	2422	36.077	≥ 0.5	Pass	35.899
	2437	35.924	≥ 0.5	Pass	35.934
	2452	36.058	≥ 0.5	Pass	35.962

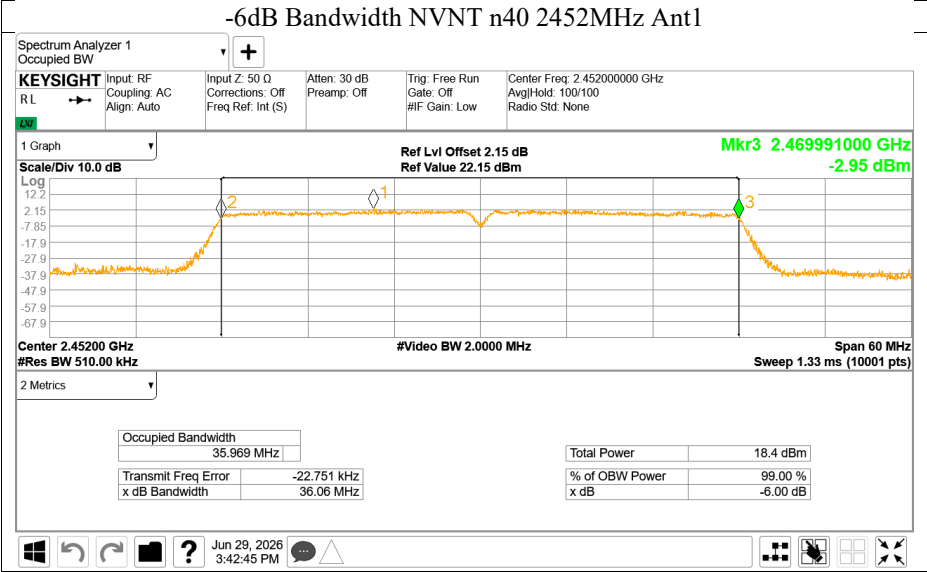
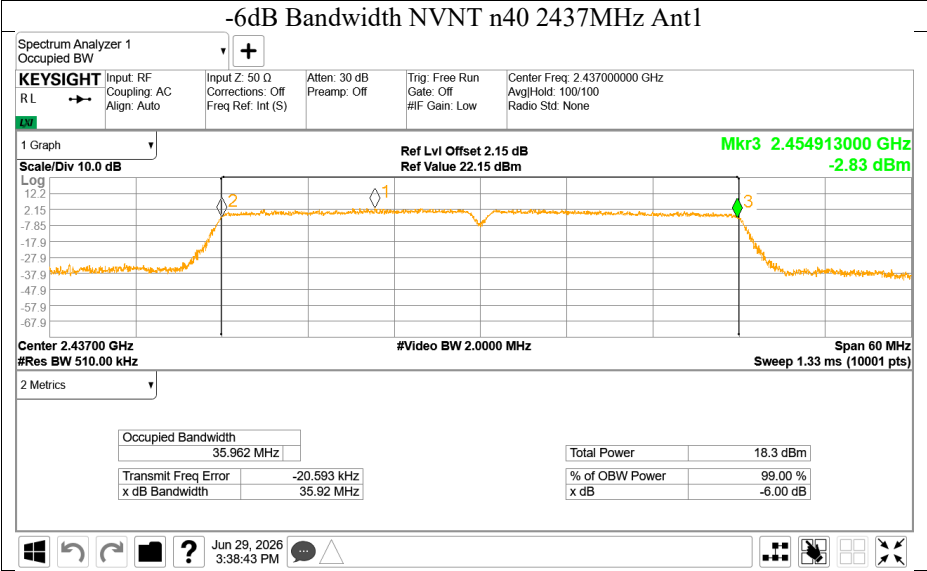
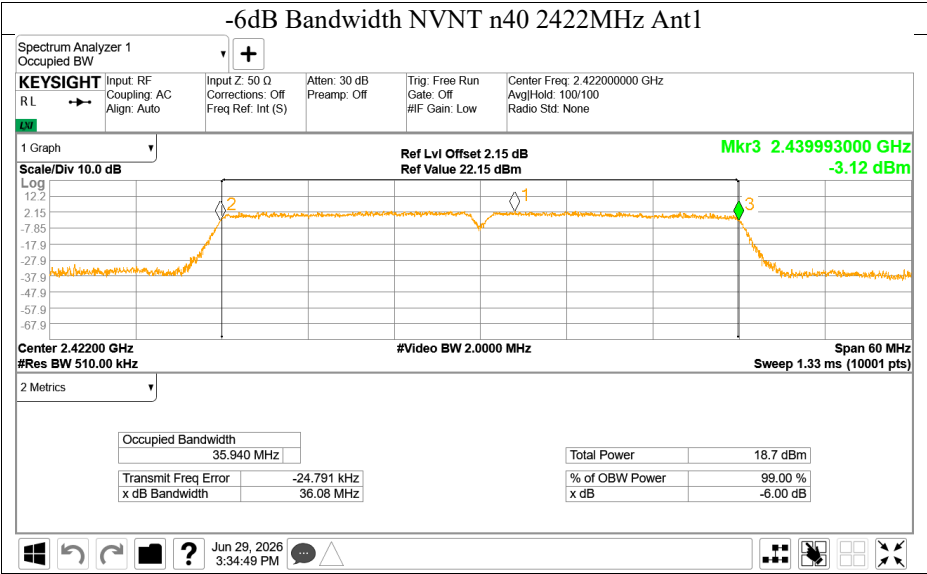


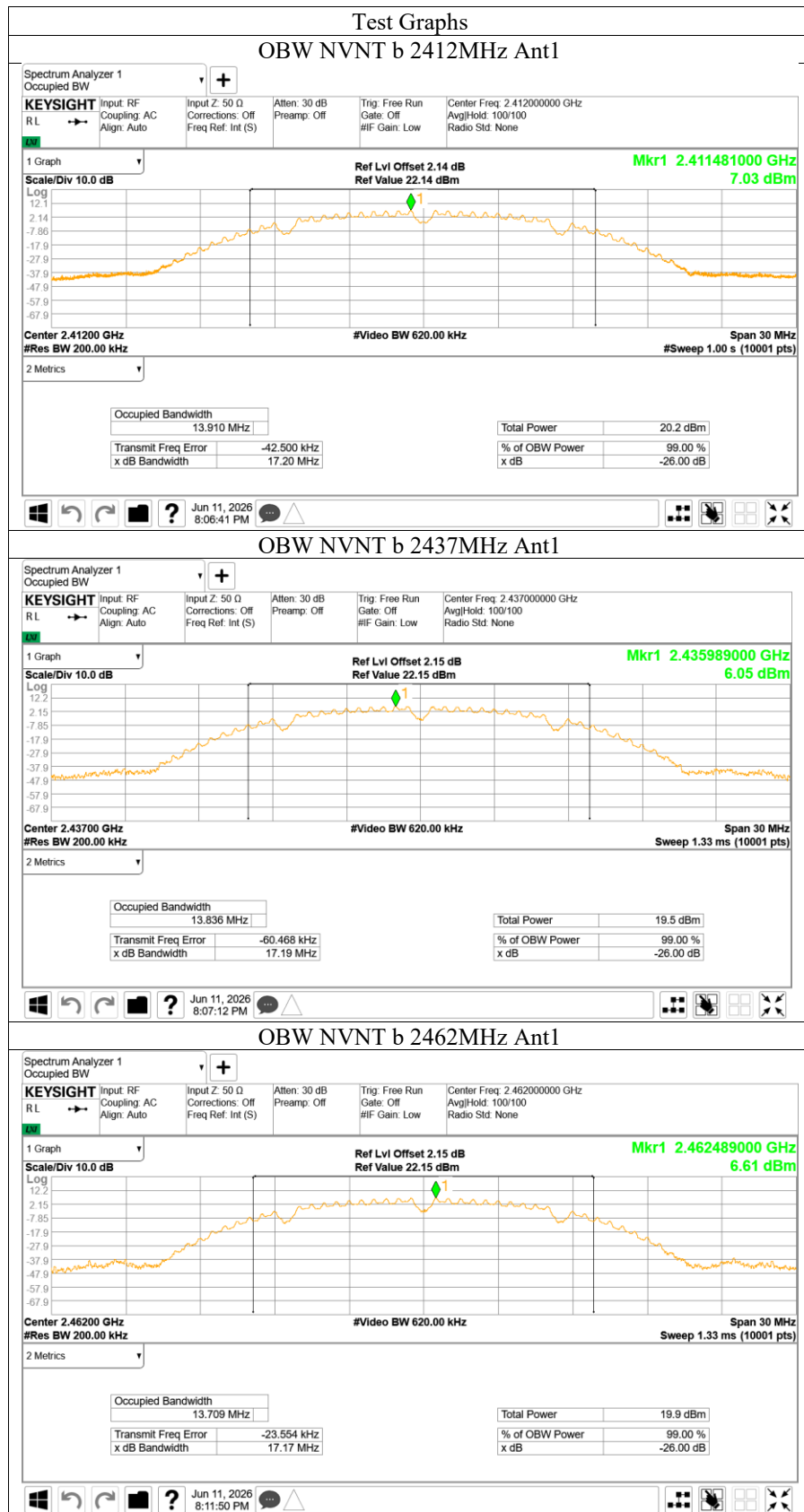
6 dB Bandwidth

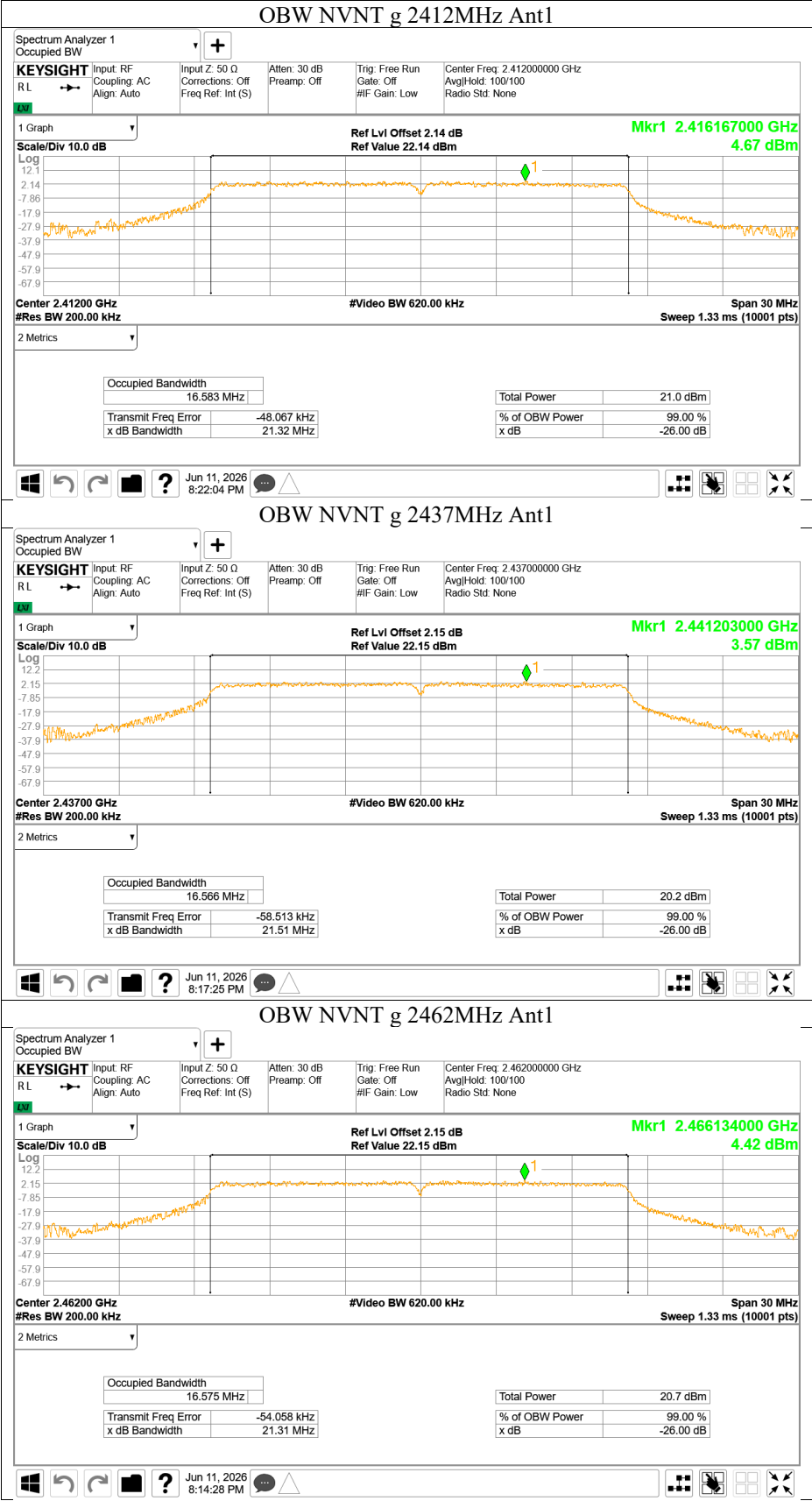


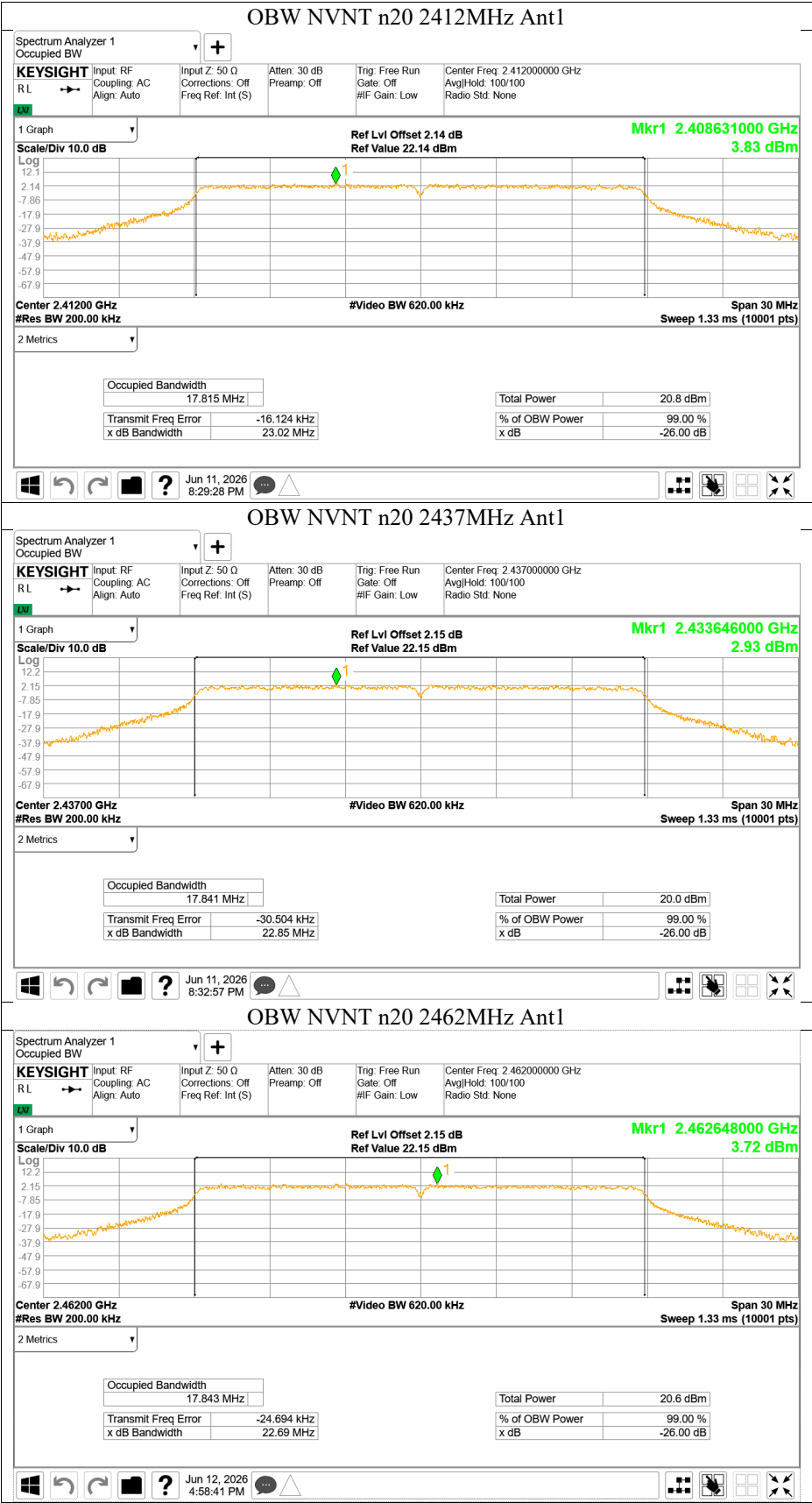


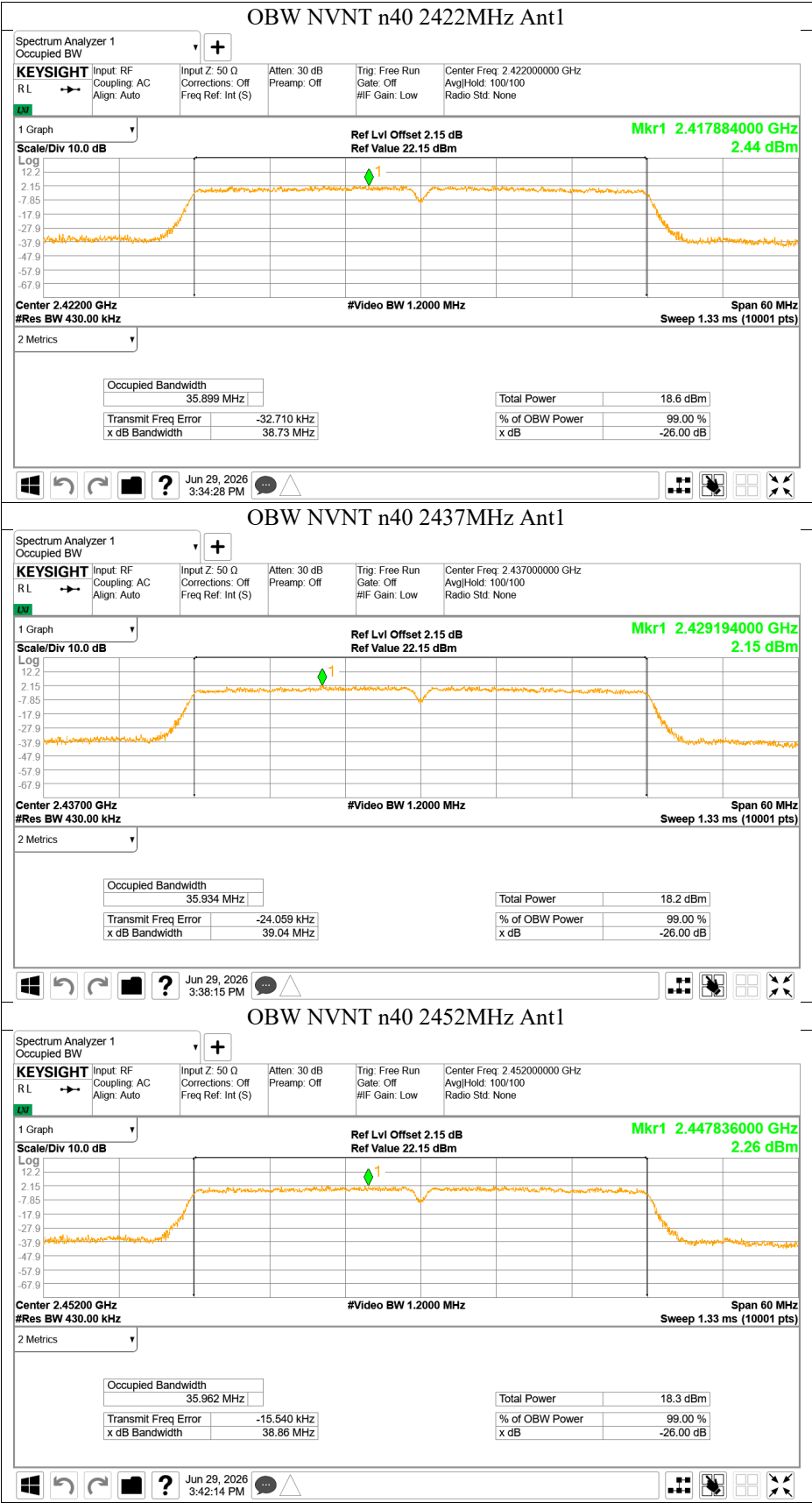




99% Occupied Bandwidth







10.5 Power spectral density

Test Method

This procedure shall be used if maximum peak conducted output power was used to demonstrate compliance:

1. The RF output of EUT was connected to the spectrum analyzer. The path loss was compensated to the results for each measurement.
2. Set to the maximum power setting, the instrument center frequency is set to the nominal EUT channel center frequency enable the EUT transmit continuously.
3. Use the following spectrum analyzer settings:
4. Set analyzer center frequency to DTS channel center frequency. RBW=3kHz, VBW≥3RBW, Span=1.5 times DTS bandwidth, Detector=Peak, Sweep=auto, Trace= max hold.
5. Allow trace to fully stabilize, use the peak marker function to determine the maximum amplitude level within the RBW.
6. Repeat above procedures until other frequencies measured were completed.

Limit

Limit [dBm/3KHz]
≤8

Test result
802.11 B

Frequency MHz	Power spectral density dBm/3kHz	Result
Low channel 2412MHz	-9.68	Pass
Middle channel 2437MHz	-10.48	Pass
High channel 2462MHz	-10.16	Pass

802.11 G

Frequency MHz	Power spectral density dBm/3kHz	Result
Low channel 2412MHz	-12.67	Pass
Middle channel 2437MHz	-13.49	Pass
High channel 2462MHz	-12.83	Pass

802.11 N20

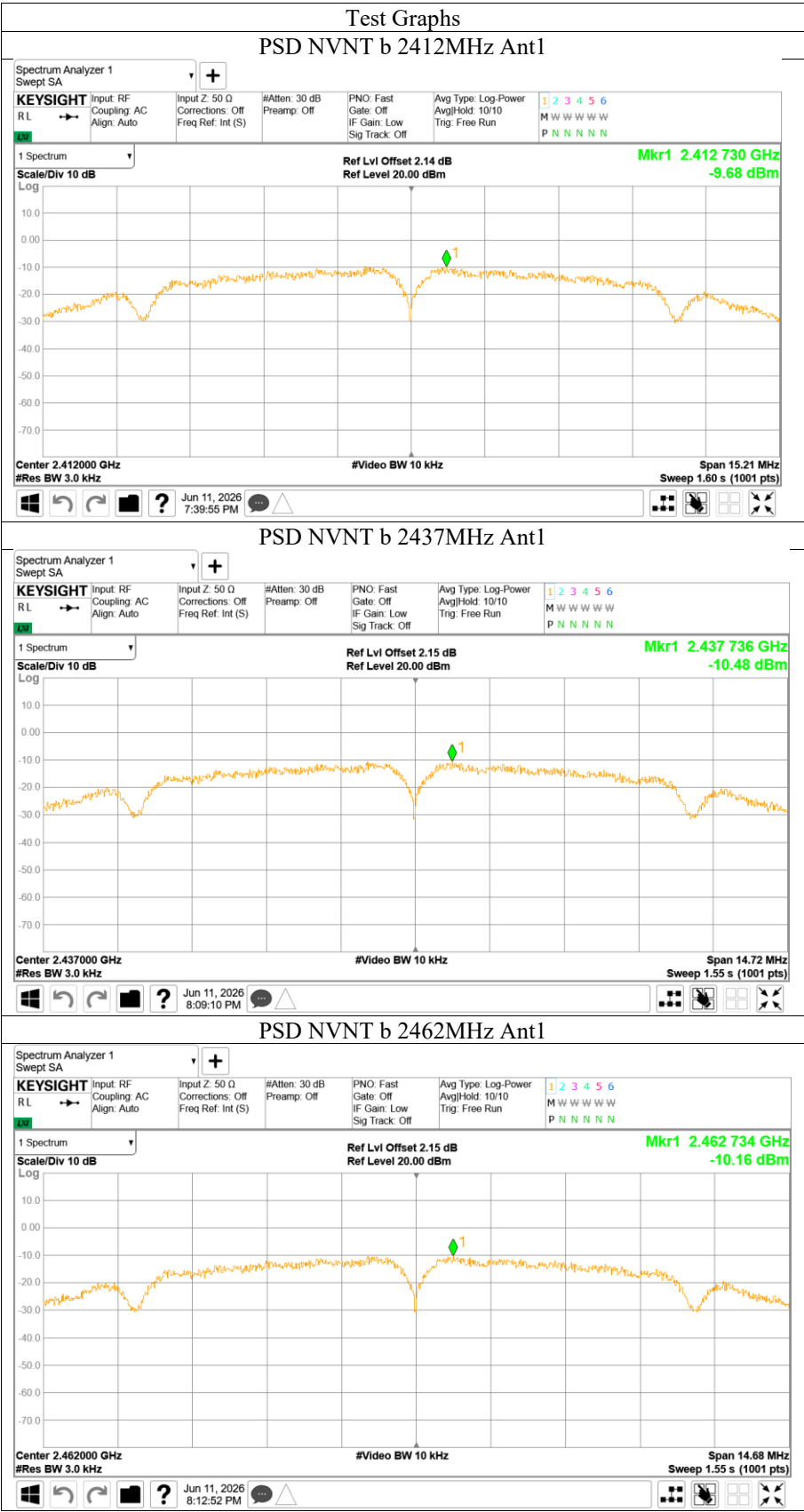
Frequency MHz	Power spectral density dBm/3kHz	Result
Low channel 2412MHz	-12.06	Pass
Middle channel 2437MHz	-12.85	Pass
High channel 2462MHz	-12.12	Pass

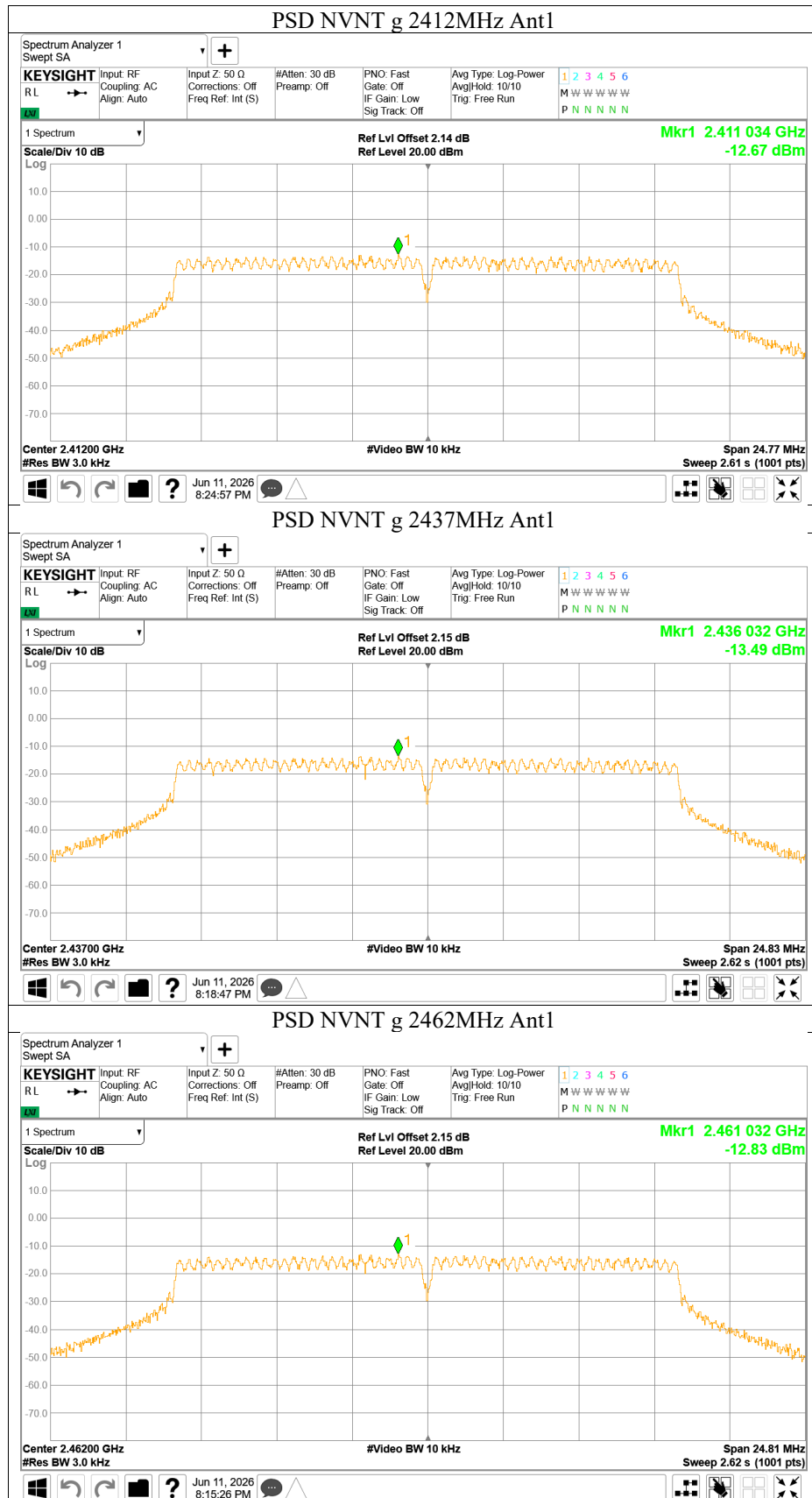
802.11 N40

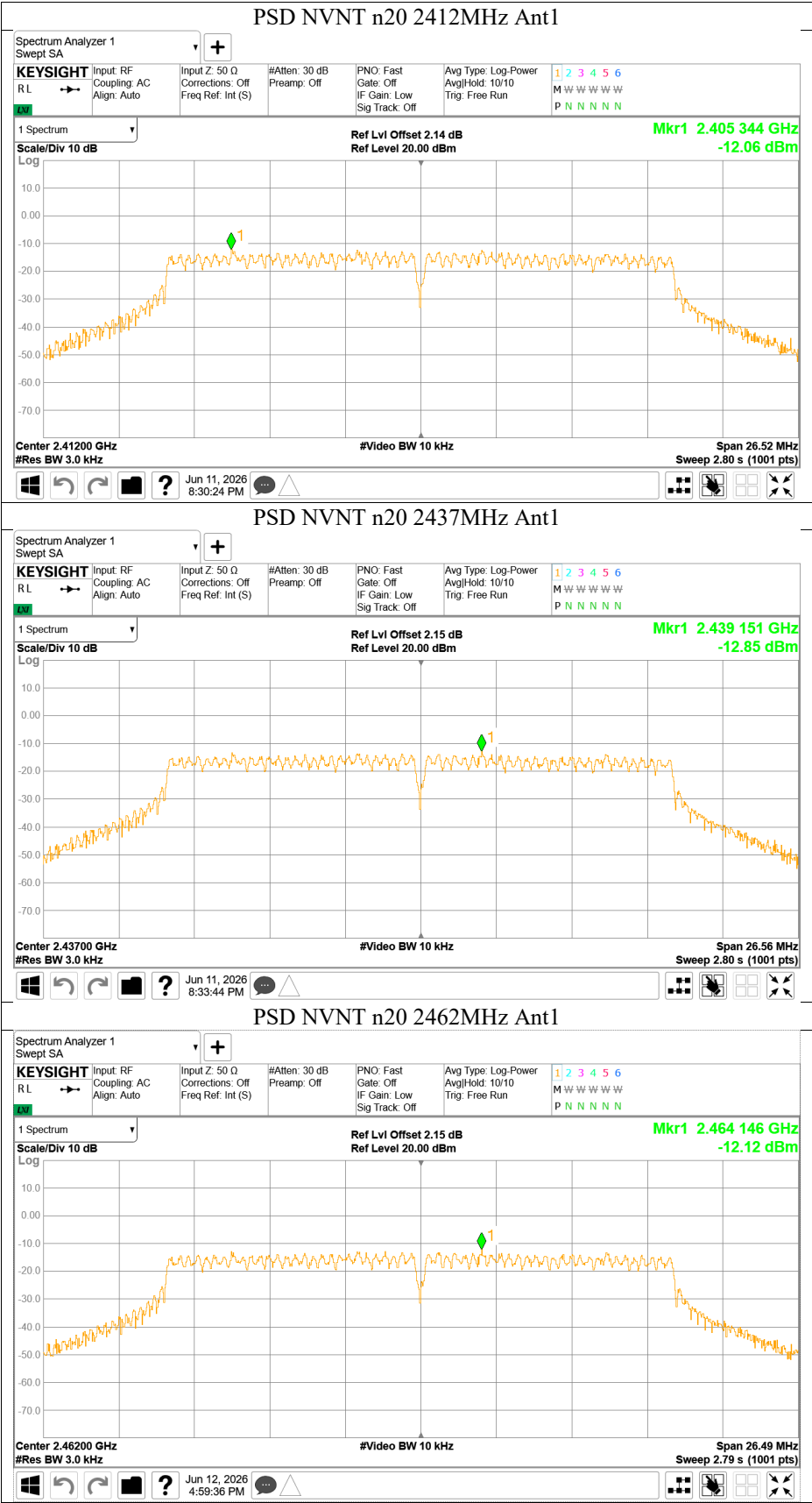
Frequency MHz	Power spectral density dBm/3kHz	Result
Low channel 2422MHz	-15.2	Pass
Middle channel 2437MHz	-15.12	Pass
High channel 2452MHz	-15.11	Pass

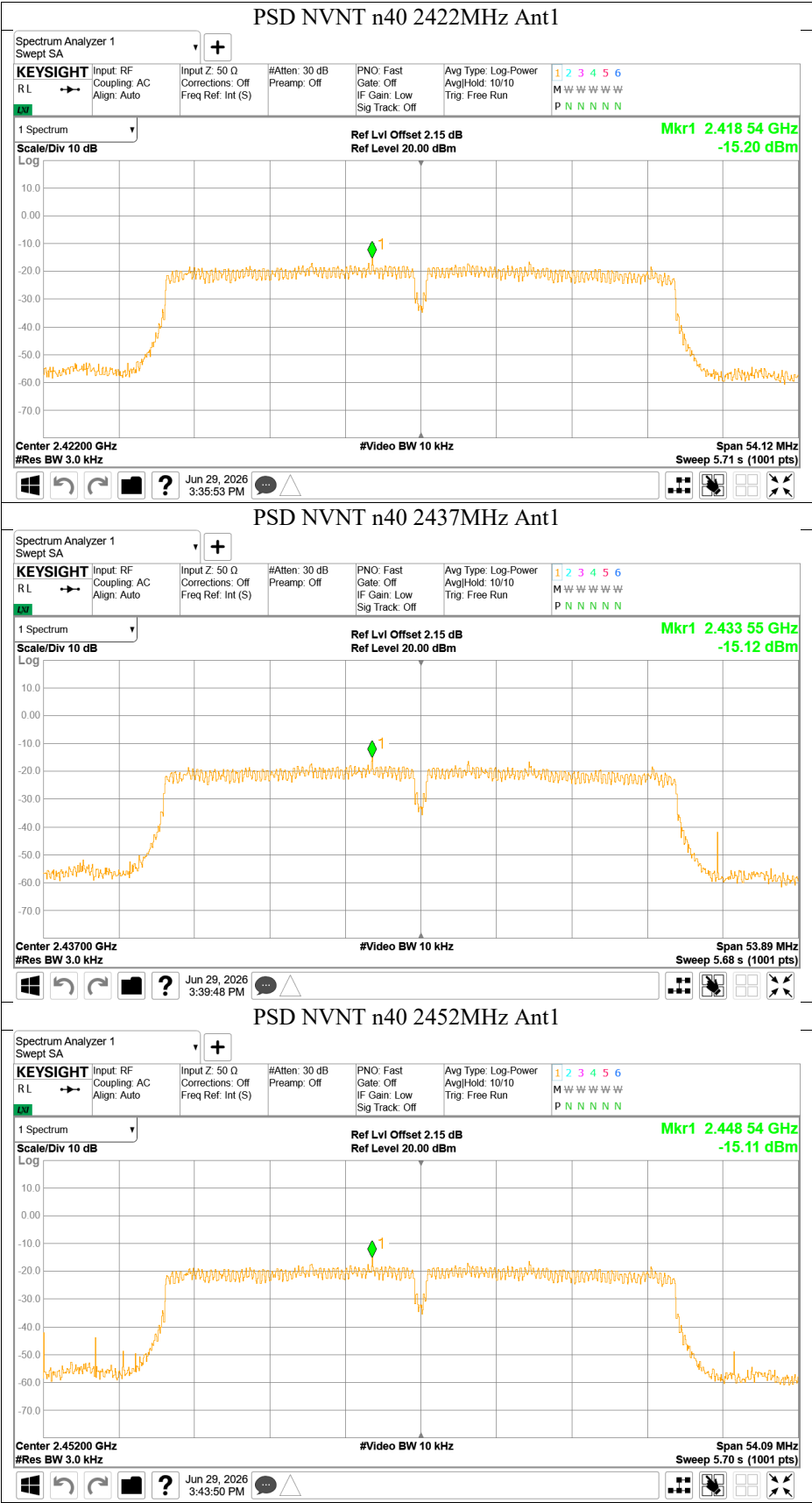


Power spectral density









10.6 Spurious RF conducted emissions

Test Method

1. The RF output of EUT was connected to the spectrum analyzer by RF cable. The path loss was compensated to the results for each measurement.
2. Set to the maximum power setting, the instrument center frequency is set to the nominal EUT channel center frequency enable the EUT transmit continuously.
3. Use the following spectrum analyzer settings:
Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.
RBW = 100 kHz, VBW $\geq$ 3RBW, Sweep = auto, Detector function = peak, Trace = max hold
4. Allow the trace to stabilize. Set the marker on the peak of any spurious emission recorded.
5. The level displayed must comply with the limit specified in this Section. Submit these plots.
6. Repeat above procedures until all frequencies measured were complete.

Limit

Frequency Range MHz	Limit (dBc)
30-25000	-20



Spurious RF conducted emissions

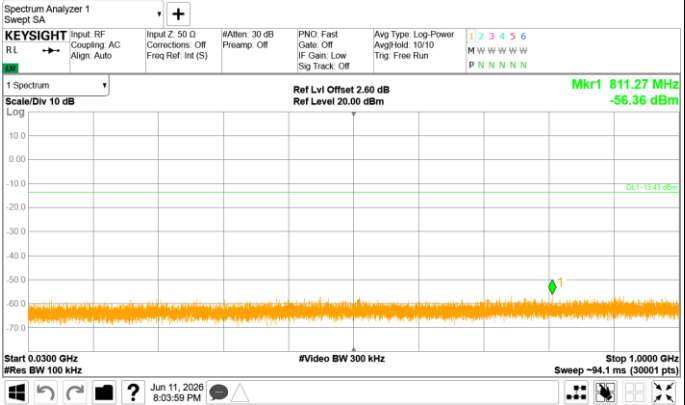
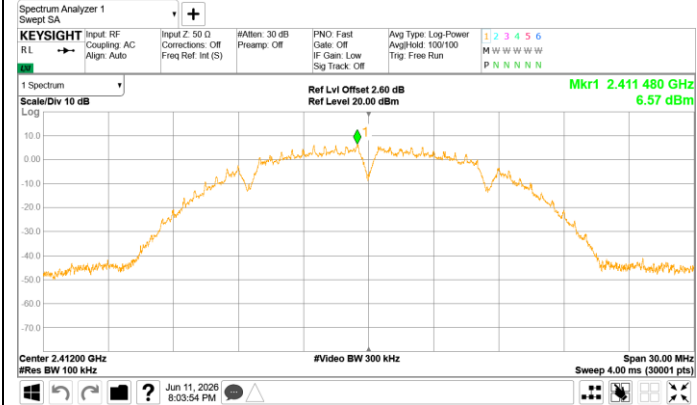
802.11 B

Out-of-Band Emissions

Channel 1 (2412MHz)

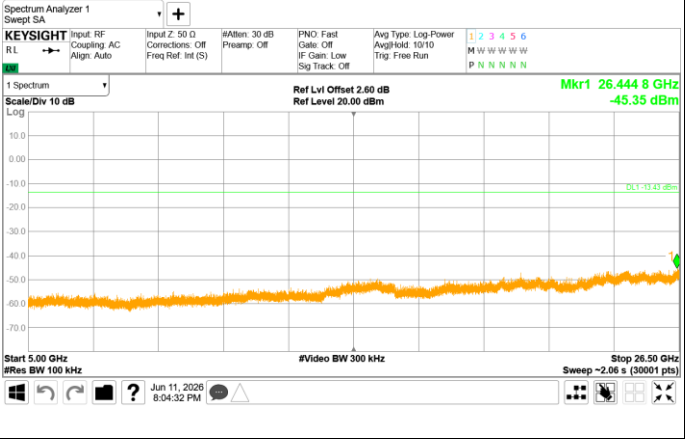
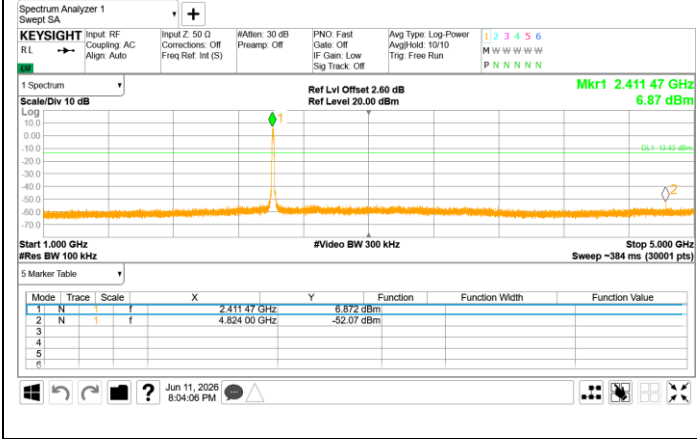
Reference point

Spurious Emission (30MHz – 1GHz)



Spurious Emission (1GHz –5GHz)

Spurious Emission (5GHz –26.5GHz)

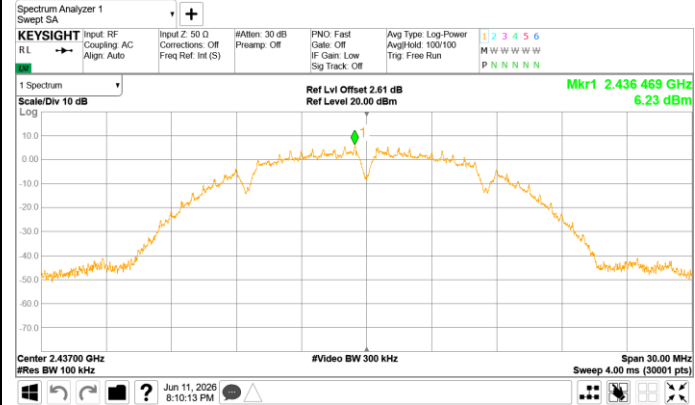




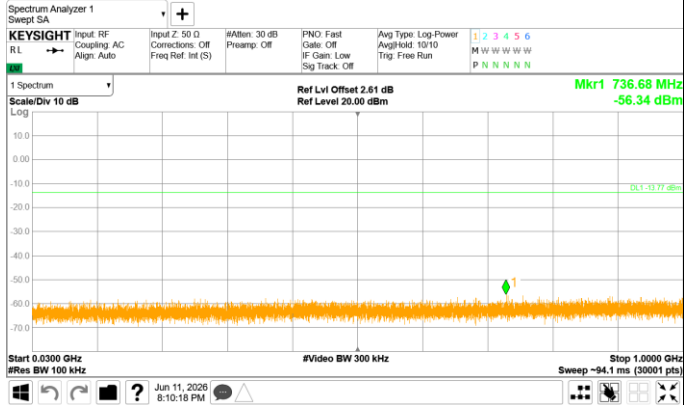
Out-of-Band Emissions

Channel 6 (2437MHz)

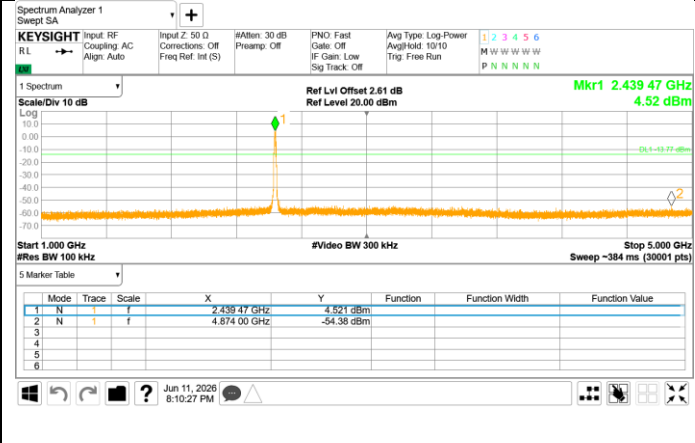
Reference point



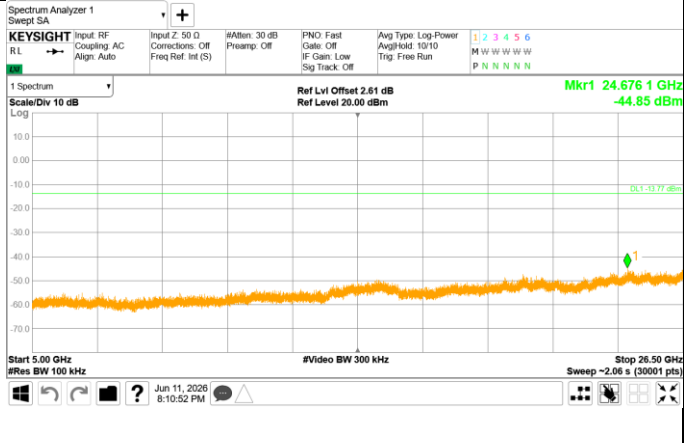
Spurious Emission (30MHz – 1GHz)



Spurious Emission (1GHz –5GHz)



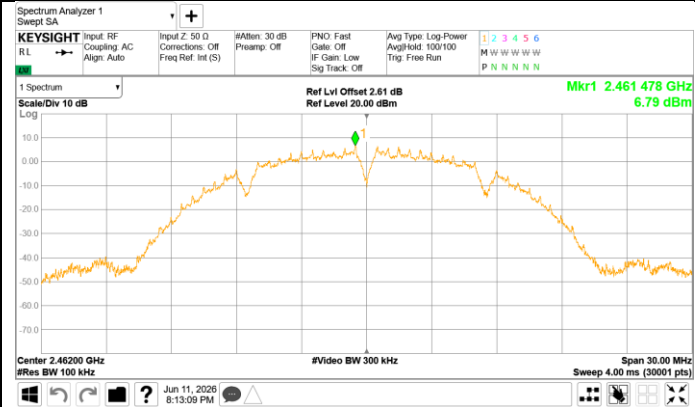
Spurious Emission (5GHz –26.5GHz)



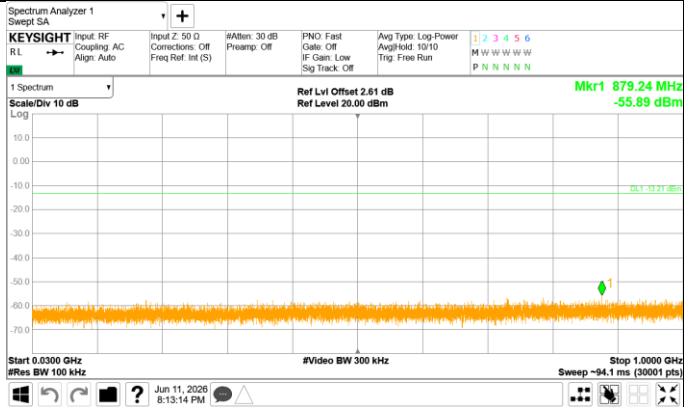


Out-of-Band Emissions
Channel 11 (2462MHz)

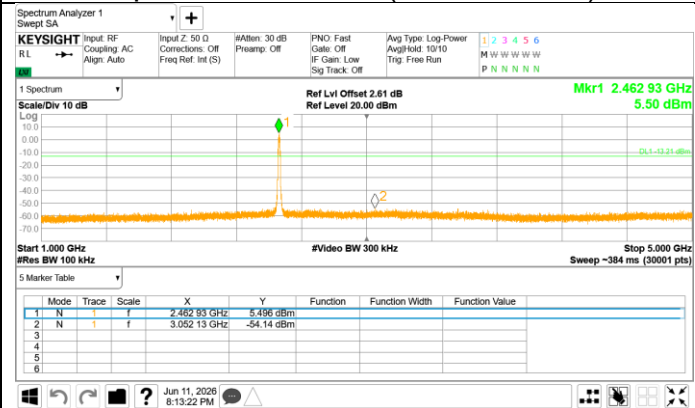
Reference point



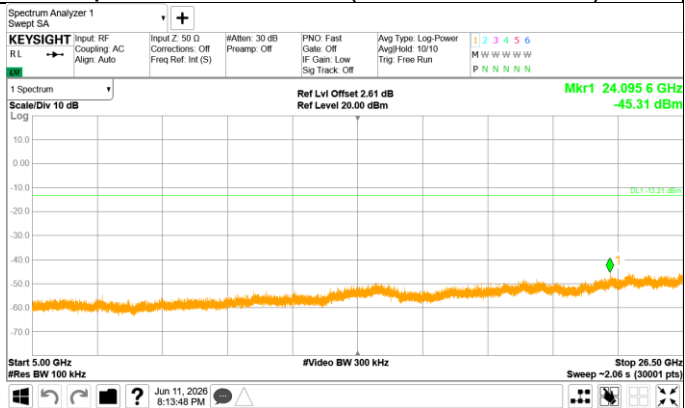
Spurious Emission (30MHz – 1GHz)



Spurious Emission (1GHz –5GHz)



Spurious Emission (5GHz –26.5GHz)





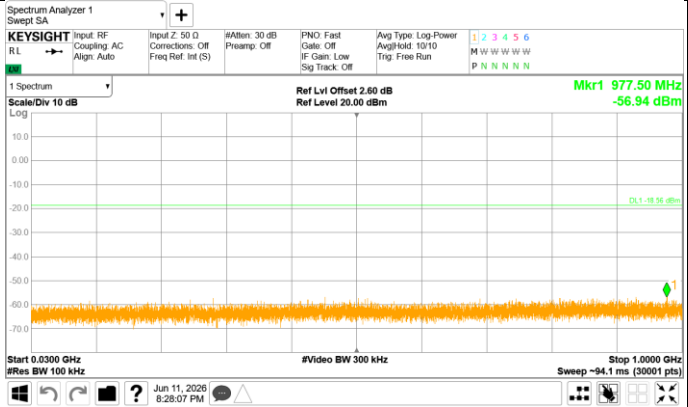
802.11G

Out-of-Band Emissions

Channel 1 (2412MHz)

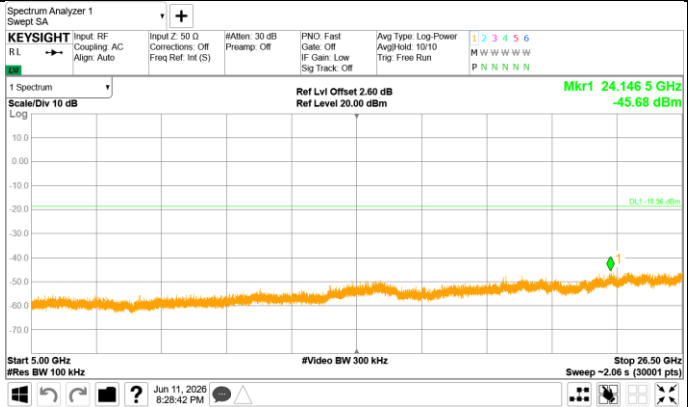
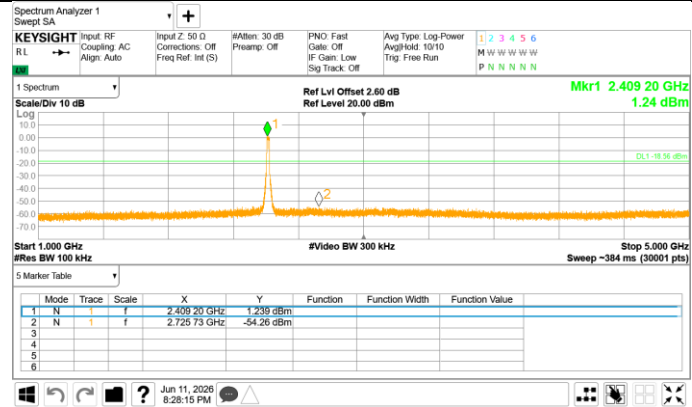
Reference point

Spurious Emission (30MHz – 1GHz)



Spurious Emission (1GHz –5GHz)

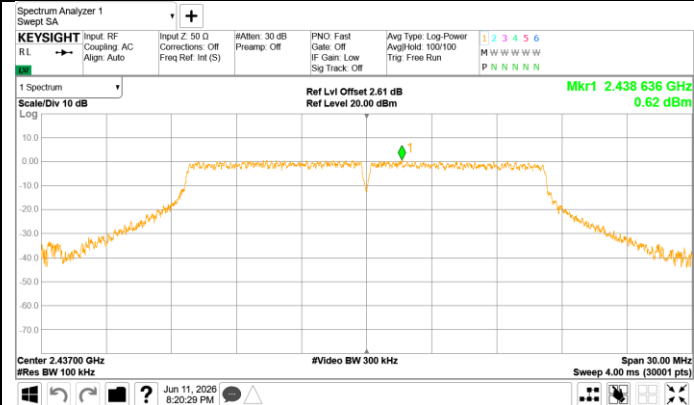
Spurious Emission (5GHz –26.5GHz)



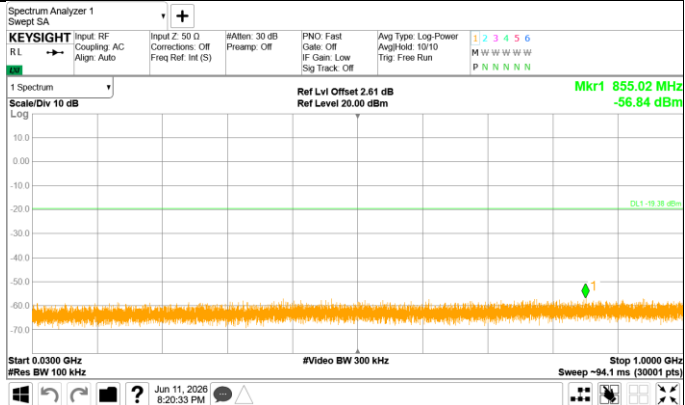


Out-of-Band Emissions
Channel 6 (2437MHz)

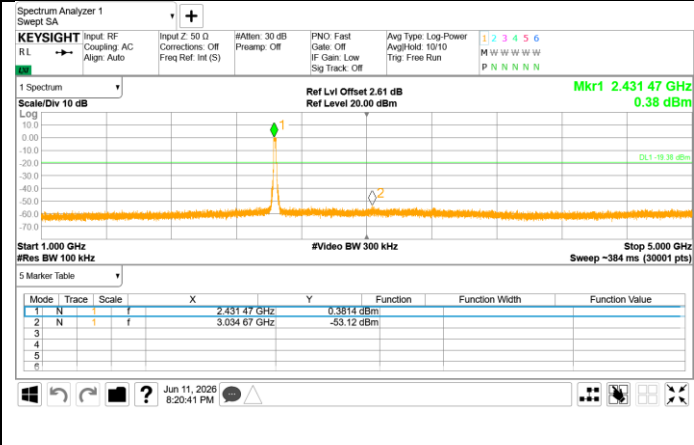
Reference point



Spurious Emission (30MHz – 1GHz)



Spurious Emission (1GHz –5GHz)



Spurious Emission (5GHz –26.5GHz)

