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检测
TESTING
CNAS L8198

TEST REPORT

Report No.: SHE25120030-03BE

Date: 2026-03-23

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Applicant : PETKIT Network Technology (Shanghai) Co., Ltd.
Address of Applicant : Room 4139, Building 2, 588 Zixing Road, Minhang District, Shanghai

Product Name : PETKIT EVERSWEET ULTRA AI HEALTH CARE PET WATER FOUNTAIN
Brand Name : PETKIT
Model Name : P4117
Sample Acquisition Method : Sent by Client
Sample No. : E25120030-01#02

Standards : MIC Notice No.88 Appendix No.43 Article 2, Paragraph 1, Item 19

Date of Receipt : 2025-12-15
Date of Test : 2026-01-19
Date of Issue : 2026-03-23

Remark:

This report details the results of the testing carried out on one sample, the results contained in this report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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1 General Information

1.1 Testing Laboratory

Company Name	ICAS Testing Technology Service (Shanghai) Co., Ltd.
Address	No.1298, Pingan Road, Minhang District, Shanghai, China
Telephone	0086 21-51682999
Fax	0086 21-54711112
Homepage	www.icasiso.com

1.2 Details of Application

Applicant Company Name	PETKIT Network Technology (Shanghai) Co., Ltd.
Applicant Company Address	Room 4139, Building 2, 588 Zixing Road, Minhang District, Shanghai
Contact Person	TingHe
Telephone	+86 13916991059
Email	ting.he@petkit.com
Manufacturer Company Name	Dongguan Zhihang Electronic Technology Co., LTD.
Manufacturer Company Address	Room 701, Building 15, No.1, Pushi Road I, Qiaotou Town, Dongguan City,Guangdong Province, China.
Factory Company Name	Dongguan Zhihang Electronic Technology Co., LTD.
Factory Company Address	Room 701, Building 15, No.1, Pushi Road I, Qiaotou Town, Dongguan City,Guangdong Province, China.

1.3 Details of EUT

Product Name	PETKIT EVERSWEET ULTRA AI HEALTH CARE PET WATER FOUNTAIN
Brand Name	PETKIT
Model Name	P4117
Wireless Description	WLAN 802.11b/g/n(20M)
Frequency Range	2412MHz ~ 2472MHz
Channel No.	13
Modulation Type	802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n(20M): OFDM(64QAM, 16QAM, QPSK, BPSK)
WIFI Hardware Version	V1.0
WIFI Software Version	V1.360
Antenna Type	Internal Antenna
Antenna Gain	3.26dBi
Normal Temperature	25 °C
Normal Test Voltage	AC 100V
Extreme Voltage Range	DC 12V 2A by adapter AC 90V-240V (Low Voltage is 90V; High Voltage is 240V)

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RF power setting in TEST SW	SecureCRT Version 7.0.4 and rtwpriv command_ Power setting_802.11b_patha=62 Power setting_802.11g_patha=52 Power setting_802.11n_patha=52
-----------------------------	--

Note:

1. The above information was declared by the manufacture.
2. EUT has only one antenna in use.
3. The EUT has single chip with one antenna and the output of the antenna feeder is 50Ohm.
4. For more details, please refer to the User's manual of the EUT.

Channel List

Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2.412GHz	6	2.437GHz	11	2.462GHz
2	2.417GHz	7	2.442GHz	12	2.467GHz
3	2.422GHz	8	2.447GHz	13	2.472GHz
4	2.427GHz	9	2.452GHz		
5	2.432GHz	10	2.457GHz		

Note: For 20MHz bandwidth system use Channel 1 to Channel 13

1.4 Test Summary

No.	Test Item	Result
1	Frequency Error	Compliance
2	Occupied Bandwidth and Spreading Bandwidth	Compliance
3	Transmitter Spurious Emission Strength and Unwanted Emission Intensity	Compliance
4	Antenna Output Power and Output Power Tolerance and Transmission Antenna Gain	Compliance
5	Receiver Spurious Emission and Unwanted Emission Intensity	Compliance
6	Transmission Radiation Angle Width	Not Applicable
7	Frequency Hopping Dwell Time	Not Applicable ^{Note 1}
8	Carrier sense capability	Not Applicable
9	Interference Prevention Function	Compliance
Note	Construction Protection Confirmation	Compliance

Note(s):

1. Testing is only required for FHSS system devices.

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2 Test Condition

2.1 Environmental Conditions

Temperature (°C)	21.0°C
Humidity (%RH)	40.1%RH
Barometric Pressure (mbar)	1012mbar

Note: Actual values will be recorded during the test.

2.2 Equipment List

Name of Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Calibration Company
Spectrum Analyzer	Keysight	N9020B	MY59260184	2025-06-30	2026-06-29	NACC
DC Power Supply	ITECH	IT6512A	N/A	2025-06-30	2026-06-29	NACC
Signal Generator	Rohde & Schwarz	SMR27	100184	2025-06-30	2026-06-29	NACC
USB type temperature and humidity recorder	Jianda Renke	COS-03	0535389	2025-09-24	2026-09-23	GSMT
Test Software	BL	BL410_R	Version:3.5.2.642	N/A	N/A	N/A

Note:

“NACC” Full name is Guangzhou Zhongguang Measurement and Testing Technology Co., Ltd.

“GSMT” Full name is Guangdong Kelian Testing Technology Co., Ltd.

2.3 Measurement Uncertainty

The uncertainty is calculated using the methods suggested in the “Guide to the Expression of Uncertainty in measurement” (GUM) published by CIPR and ANSI. The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95.45%.

Parameter	Uncertainty
Bandwidth	$\pm 39.26\text{KHz}$
Antenna Power	$\pm 1.06\text{dB}$
Frequency Tolerance	$\pm 0.38\text{ppm}$
Conducted spurious emission	$\pm 1.04\text{dB}$

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3 Test Set-up and Operation Modes

3.1 Details of Test Mode

Using test software to control EUT work in continuous transmitting and receiving mode. select test channel as below:
For 802.11b/g/n(20MHz)

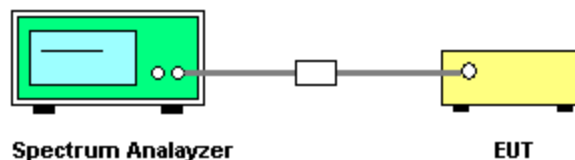
Channel	Frequency
The lowest channel (CH1)	2412MHz
The middle channel (CH7)	2442MHz
The highest channel (CH13)	2472MHz

In addition during the input supply voltage to the EUT from the external power source is varied by +/- 10%, if output voltage had been confirmed that the fluctuation of power supply to the RF circuit of EUT (excluding power source) is equal to or less than +/-1%. Exempt extremely high and low supply voltage condition test, EUT only operated in normal voltage to test all regulations.

Supply Voltage			
Condition	Input Voltage (Vac)	Voltage at the input of the RF Circuit (Vdc)	Tolerance (%)
Normal	AC 100V	3.3	0
High	AC 240V	3.3	
Low	AC 90V	3.3	

Note: Output voltage had been confirmed that the fluctuation of power supply to the RF circuit of EUT (excluding power source) is equal to or less than +/-1%. Exempt extremely high and low supply voltage condition test, EUT only operated in normal voltage to test all regulations

3.2 Block Diagram of Test Setup



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3.3 Special Accessories and Auxiliary Equipment

Description	Manufacturer	Model Name	Serial No.
Laptop	HP	HP ZHAN 66 PRO G1	5CD7438R1J
Switching Adapter	N/A	GQ24-120200-AX	Input: AC 100-240V 50/60Hz 1.0A Max; Output: DC 12V 2A 24W

3.4 Support Software

Description	Manufacturer	Software Name
Software	N/A	SecureCRT Version 7.0.4 and rtwpriv command

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4 Test Results

4.1 FREQUENCY ERROR

4.1.1 Limit

Item	Limits
Frequency Tolerance (2400~2483.5MHz)	$\leq 50\text{ppm}$

4.1.2 Test Setup

Set the EUT to the measurement frequency without modulation.

Setting of SA is following as: RB: 10kHz / VB: 10kHz

Center Frequency: The center frequency of testing for EUT

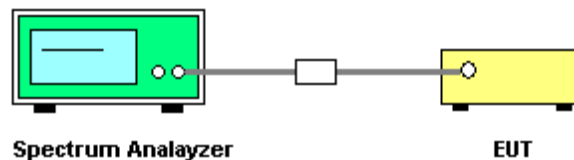
Sweep time: Auto

Sweep mode: Continuous sweep

Detect mode: Positive peak

Mark function: Frequency Counter (Resolution 100Hz)

If the EUT can't set at un-modulation mode, measure the 10dBc center frequency.



4.1.3 Test Record

Voltage (V)	Center Frequency (MHz)	Measure Frequency (MHz)	Frequency Tolerance (ppm)	Limit (ppm)	P/F
Normal	2412	2411.993250	-2.80	± 50	Pass
	2442	2441.993625	-2.61	± 50	Pass
	2472	2471.994300	-2.31	± 50	Pass

Note: Frequency Tolerance (ppm) = $[(\text{Measure frequency} - \text{Center Frequency}) / \text{Center Frequency}] * 10^6$

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Normal Voltage

Figure 1-Test Frequency: 2412MHz

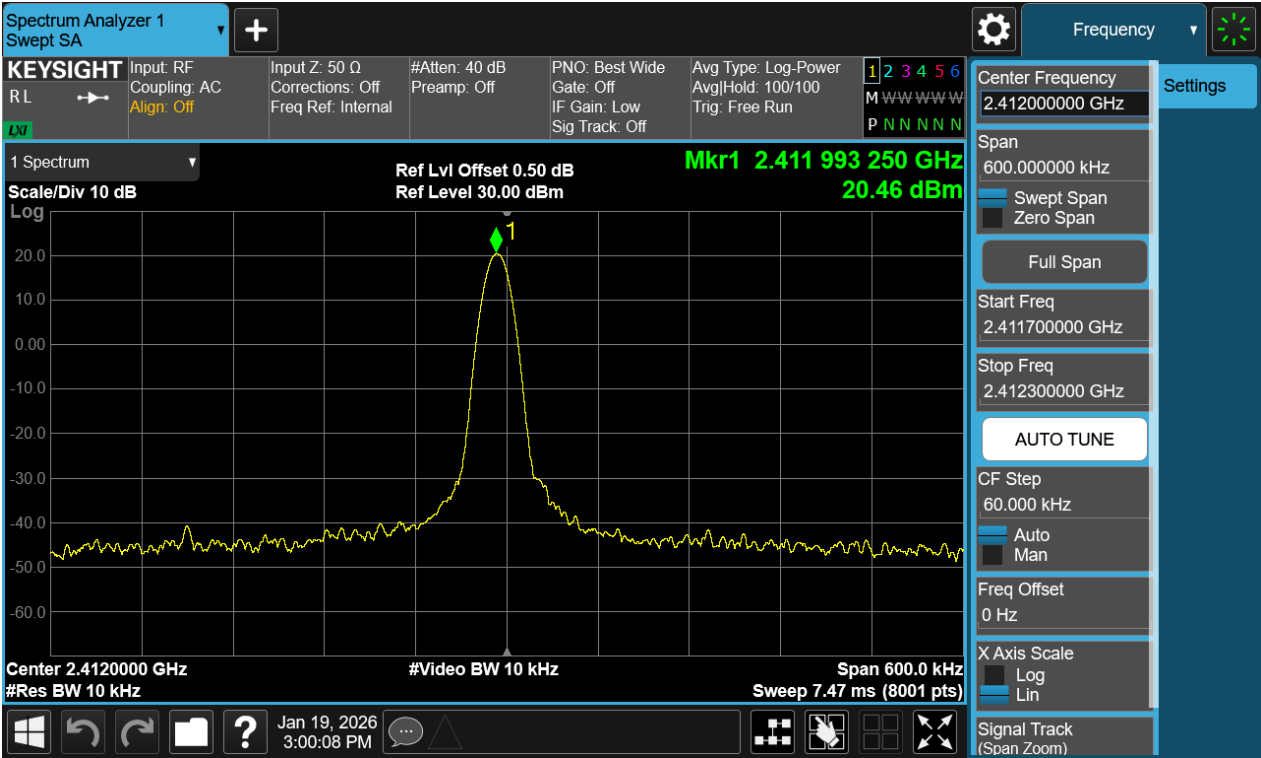


Figure 2-Test Frequency: 2442MHz

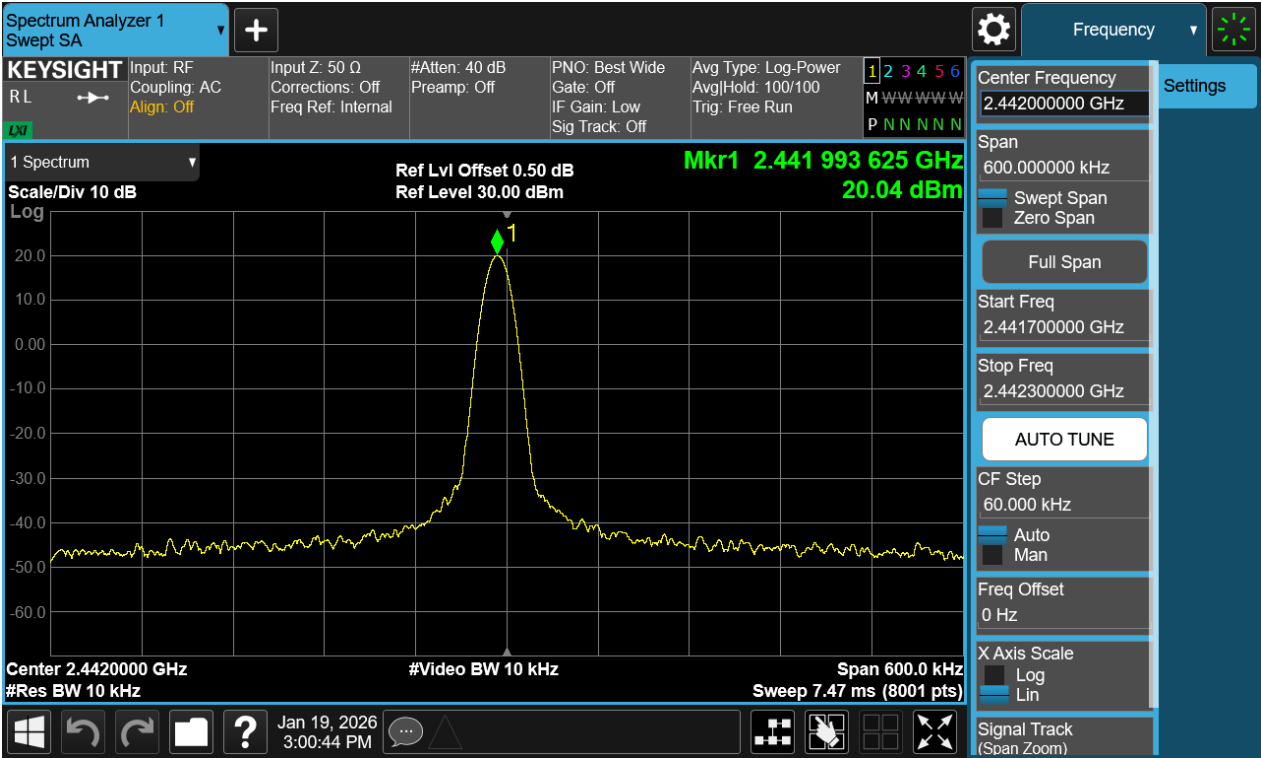


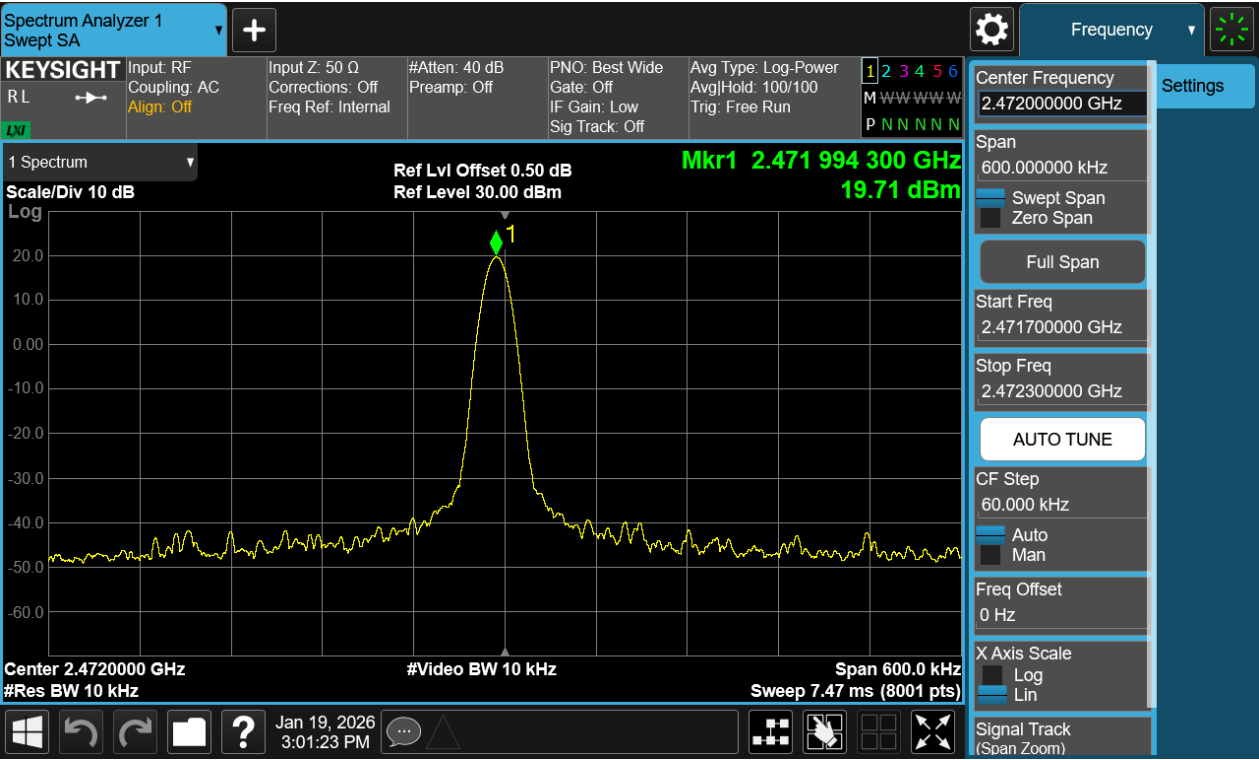
Figure 3-Test Frequency: 2472MHz

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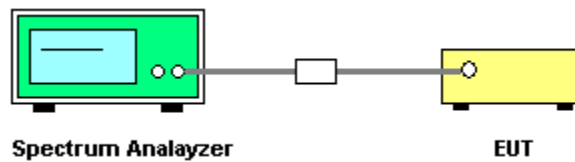
4.2 OCCUPIED BANDWIDTH

4.2.1 Limit

Item	Limits
Occupied Bandwidth:	$FH \leq 83.5\text{MHz}$; $DS \leq 26\text{ MHz}$; $OFDM \leq 40\text{MHz}$; Others $\leq 26\text{MHz}$

4.2.2 Test Setup

1. Setting of SA is following as: RB: 300 kHz / VB: 300 kHz / SPAN: 40 MHz / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold
2. EUT have transmitted the maximum modulation signal and fixed channelize. SA set to 99% of occupied bandwidth to measure occupied bandwidth.
3. EUT have transmitted the maximum modulation signal and fixed channelize. SA set to 90% of occupied bandwidth to measure spread bandwidth.
4. Spread Factor=Spread Bandwidth/modulation rate. The modulation rate: MR=1.375 for 802.11b. The spread factor is not required for 802.11g/n20



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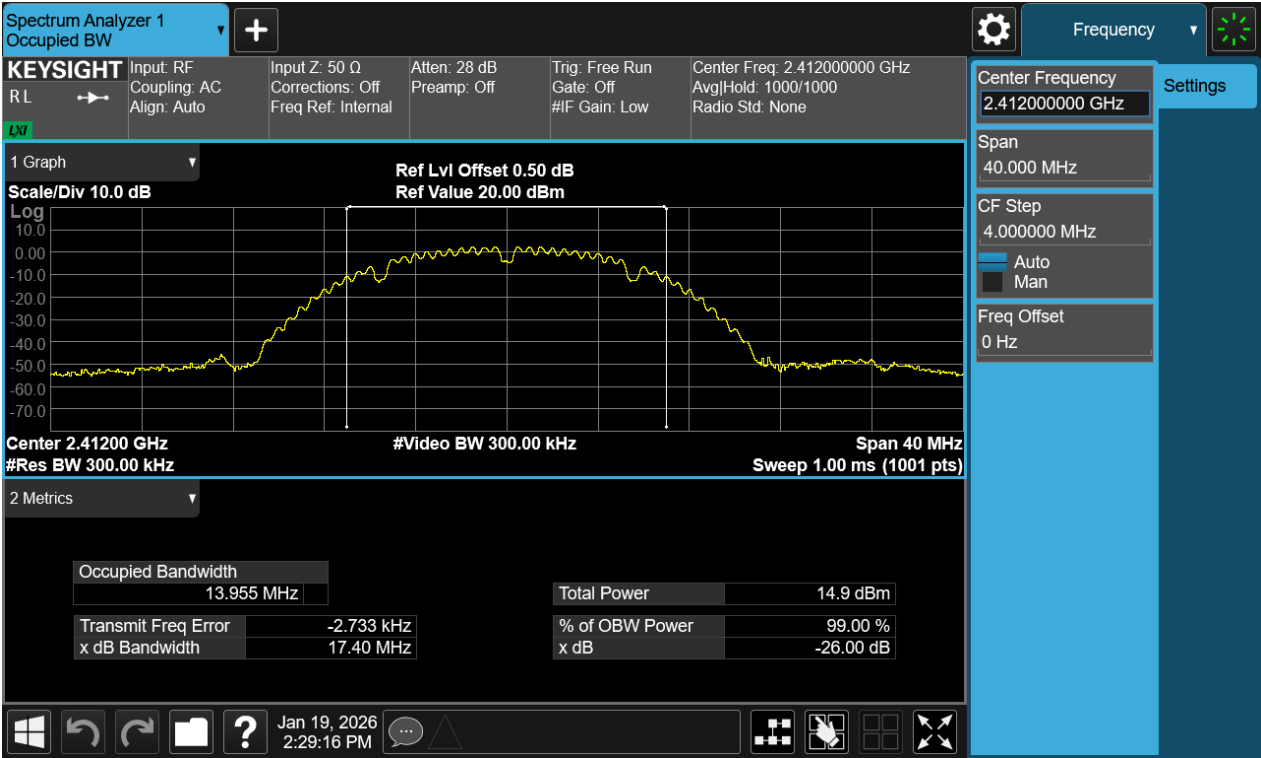
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4.2.3 Test Record

Voltage (V)	Mode	Item	Result			Limit	P/F
			2412MHz	2442MHz	2472MHz		
Normal	802.11b	Occupied Bandwidth	13.955MHz	13.994MHz	13.992MHz	≤ 26 MHz	Pass
	802.11g	Occupied Bandwidth	16.403MHz	16.376MHz	16.332MHz	≤ 40 MHz	Pass
	802.11n(20M)	Occupied Bandwidth	17.518MHz	17.488MHz	17.273MHz	≤ 40 MHz	Pass

Normal Voltage

Figure 4-Occupied Bandwidth of 2412MHz, 802.11b



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Figure 5-Occupied Bandwidth of 2442MHz, 802.11b



Figure 6-Occupied Bandwidth of 2472MHz, 802.11b

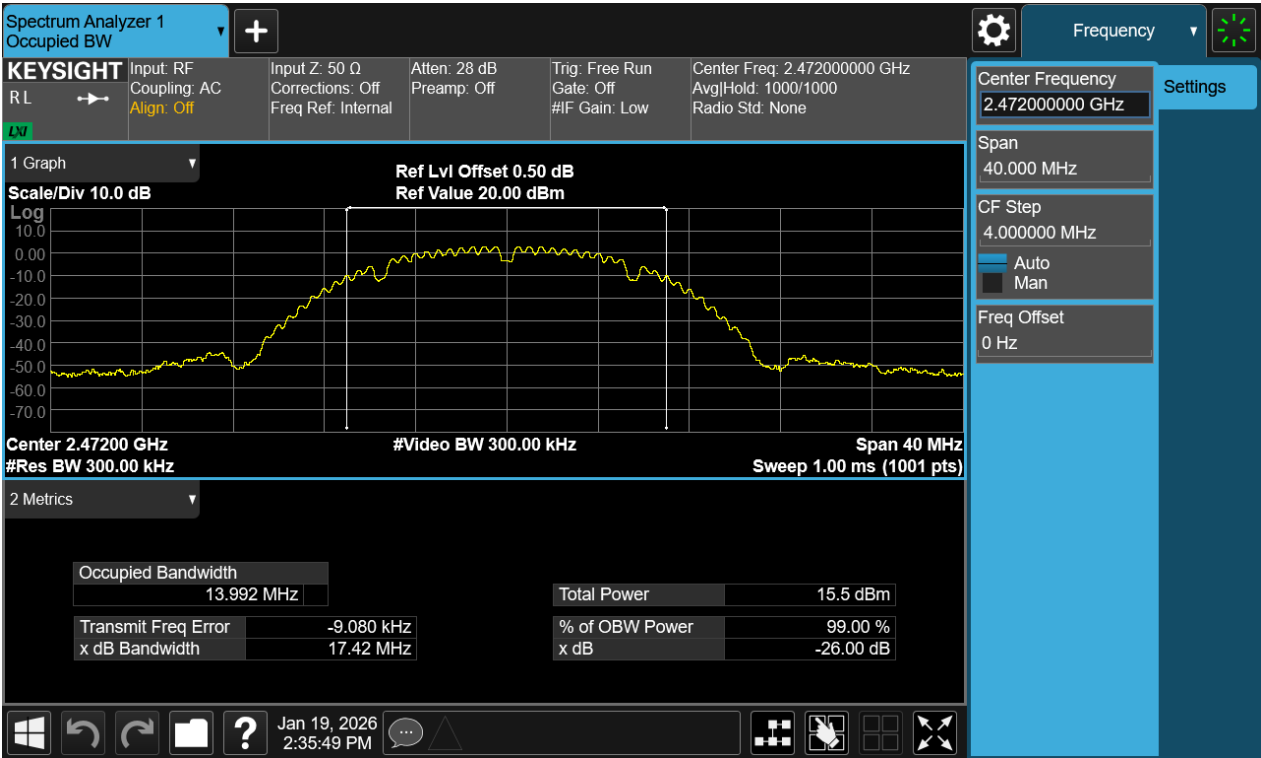


Figure 7-Occupied Bandwidth of 2412MHz, 802.11g

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Figure 8-Occupied Bandwidth of 2442MHz, 802.11g

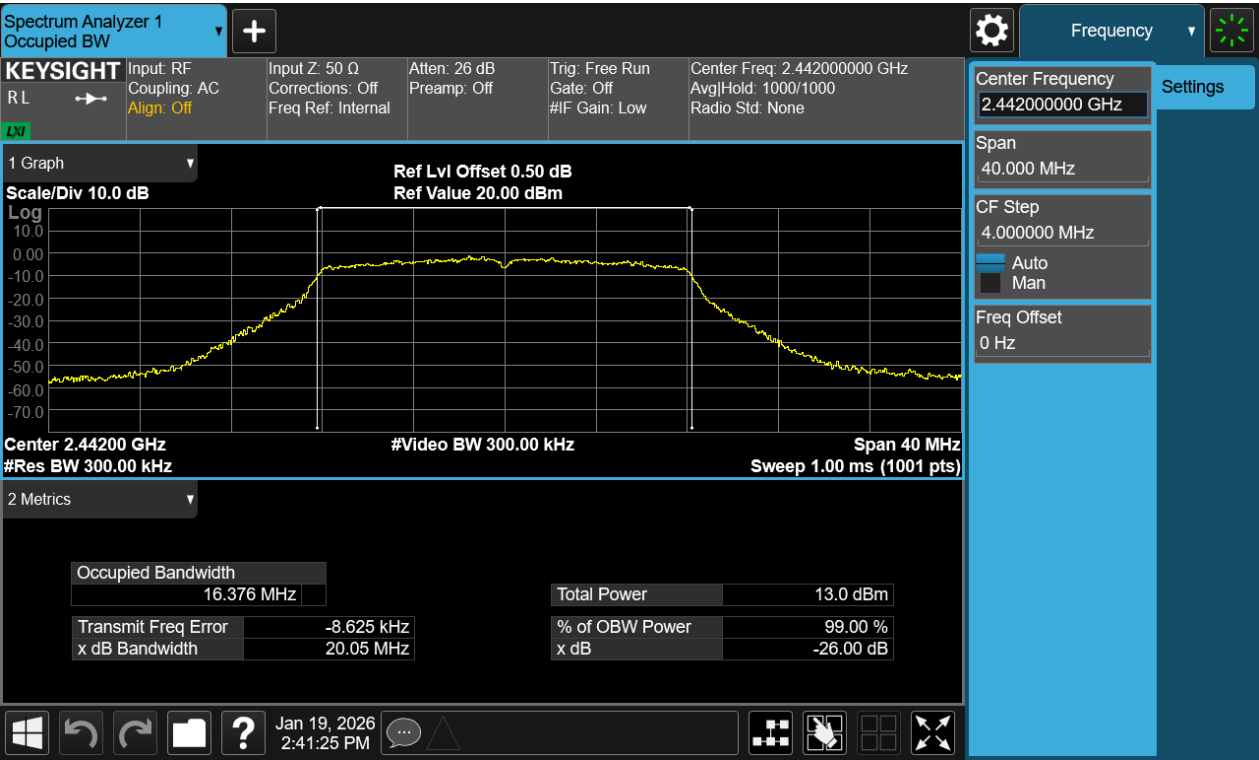


Figure 9-Occupied Bandwidth of 2472MHz, 802.11g

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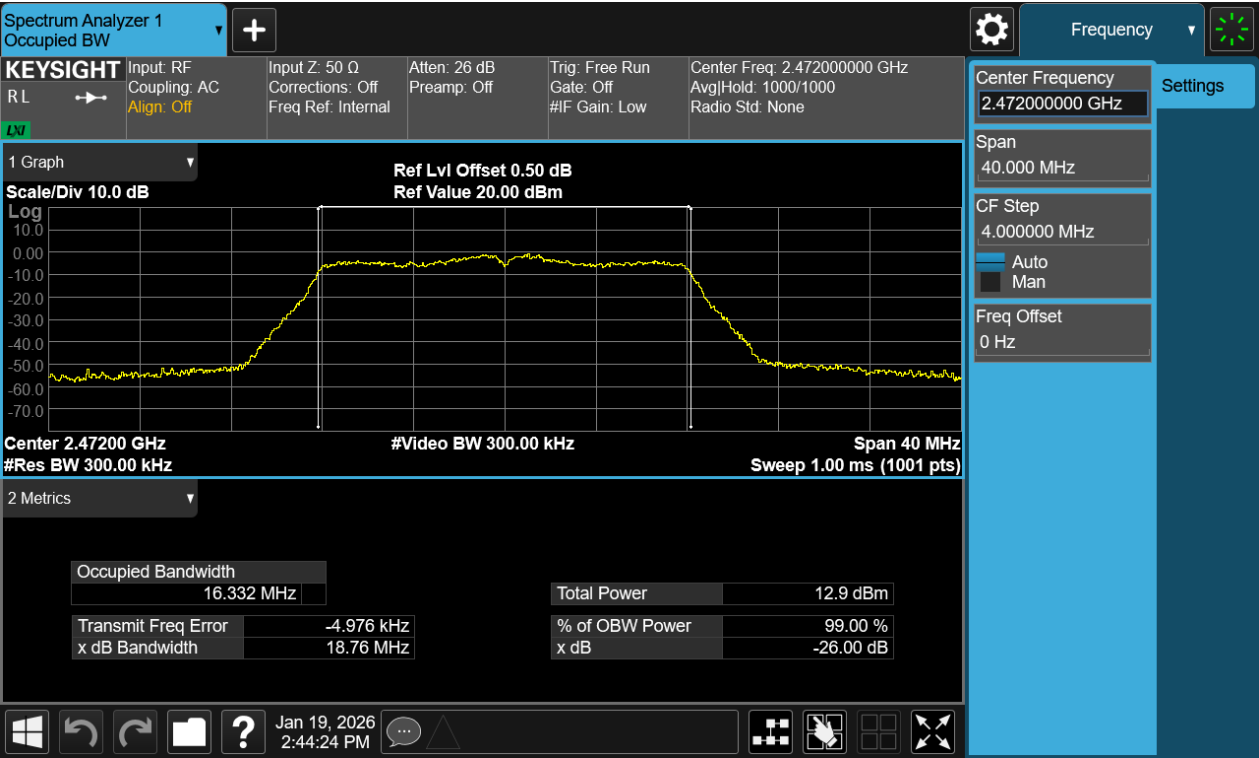


Figure 10-Occupied Bandwidth of 2412MHz, 802.11n(20M)

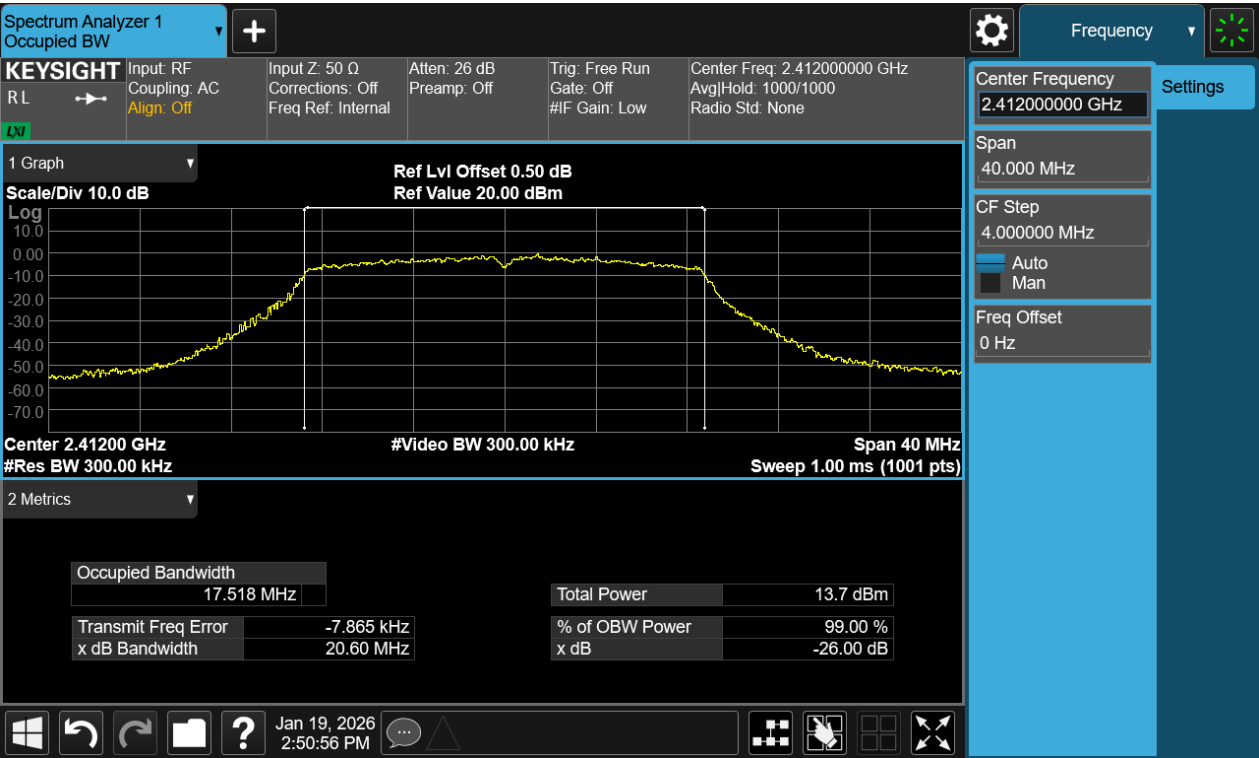


Figure 11-Occupied Bandwidth of 2442MHz, 802.11n(20M)

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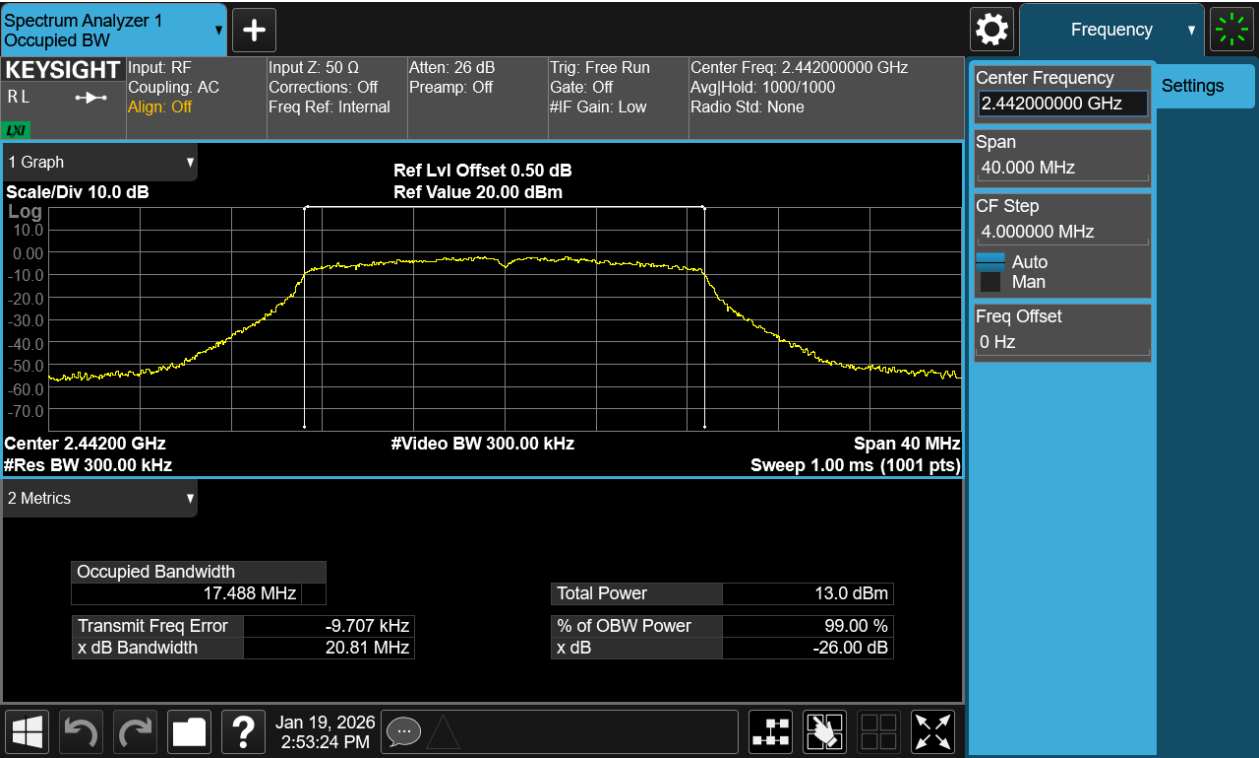
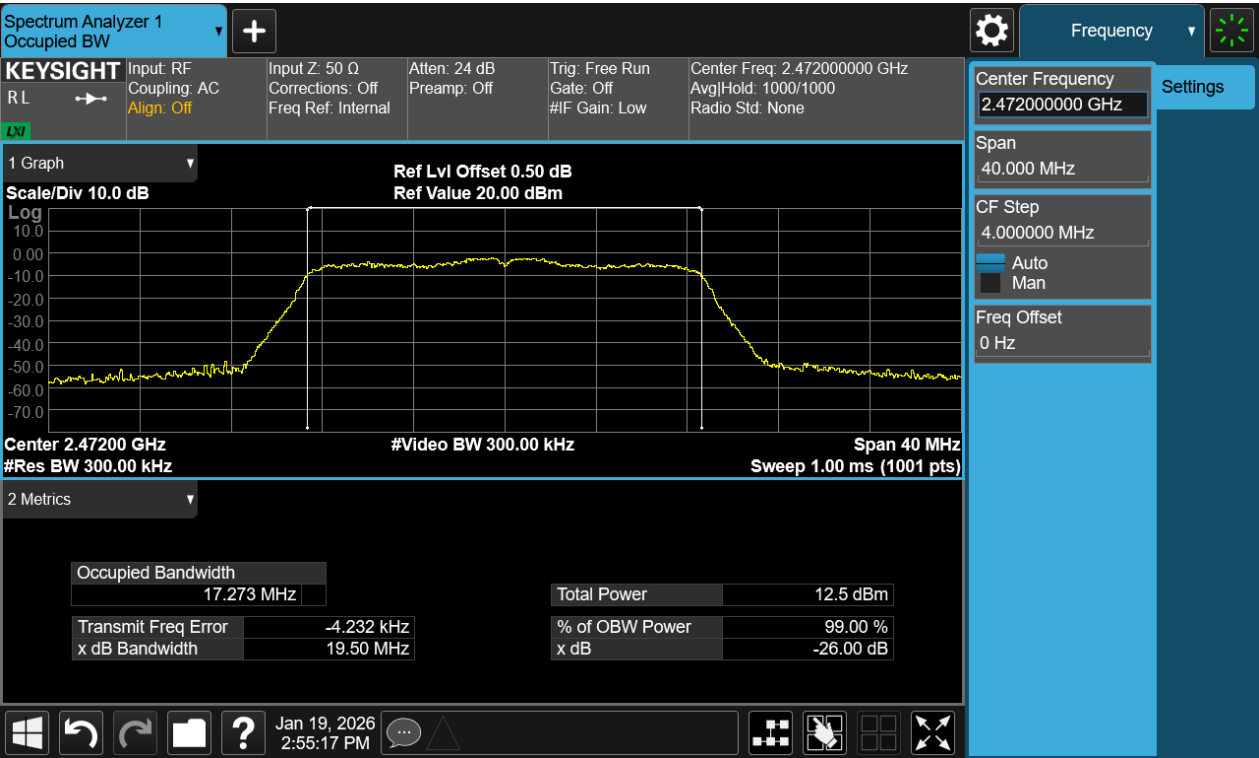


Figure 12-Occupied Bandwidth of 2472MHz, 802.11n(20M)



4.3 TRANSMITTER SPURIOUS EMISSION STRENGTH AND UNWANTED EMISSION

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INTENSITY

4.3.1 Limit

Item	Limits
TX Spurious Emission(2412~2472MHz)	$\leq 2.5\mu\text{W}(-26\text{dBm})$ ($30\text{MHz} \leq f \leq 1000\text{MHz}$)
	$\leq 2.5\mu\text{W}(-26\text{dBm})$ ($1000\text{MHz} < f \leq 2387\text{MHz}$)
	$\leq 25\mu\text{W}(-16\text{dBm})$ ($2387\text{MHz} < f \leq 2400\text{MHz}$)
	$\leq 25\mu\text{W}(-16\text{dBm})$ ($2483.5\text{MHz} \leq f < 2496.5\text{MHz}$)
	$\leq 2.5\mu\text{W}(-26\text{dBm})$ ($2496.5\text{MHz} \leq f < 12500\text{MHz}$)

4.3.2 Test Setup

The modulation state shall be in continuously transmitting mode.

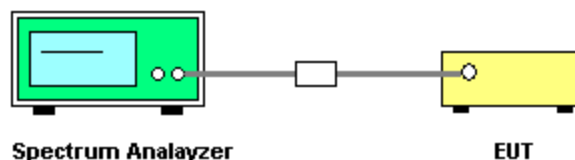
Setting of SA start 30MHz and stop frequency 1000MHz, RB:1MHz/VB:1MHz, Sweep time: Auto. Sweep mode: continuous sweep. Detect mode: Positive peak/Trace mode: max hold. Then to mark peak. reading value + cable loss shall be less than 2.5 μW .

Setting of SA start 1000MHz and stop frequency 2387MHz, RB:1MHz/VB:1MHz, Sweep time: Auto. Sweep mode: continuous sweep. Detect mode: Positive peak/Trace mode: max hold. Then to mark peak. reading value + cable loss shall be less than 2.5 μW .

Setting of SA start 2387MHz and stop frequency 2400MHz, RB:1MHz/VB:1MHz, Sweep time: Auto. Sweep mode: continuous sweep. Detect mode: Positive peak/Trace mode: max hold. Then to mark peak. reading value + cable loss shall be less than 25 μW .

Setting of SA start 2483.5MHz and stop frequency 2496.5MHz, RB:1MHz/VB:1MHz, Sweep time: Auto. Sweep mode: continuous sweep. Detect mode: Positive peak/Trace mode: max hold. Then to mark peak. reading value + cable loss shall be less than 25 μW .

Setting of SA start 2496.5MHz and stop frequency 12500MHz, RB:1MHz/VB:1MHz, Sweep time: Auto. Sweep mode: continuous sweep. Detect mode: Positive peak/Trace mode: max hold. Then to mark peak. reading value + cable loss shall be less than 2.5 μW .



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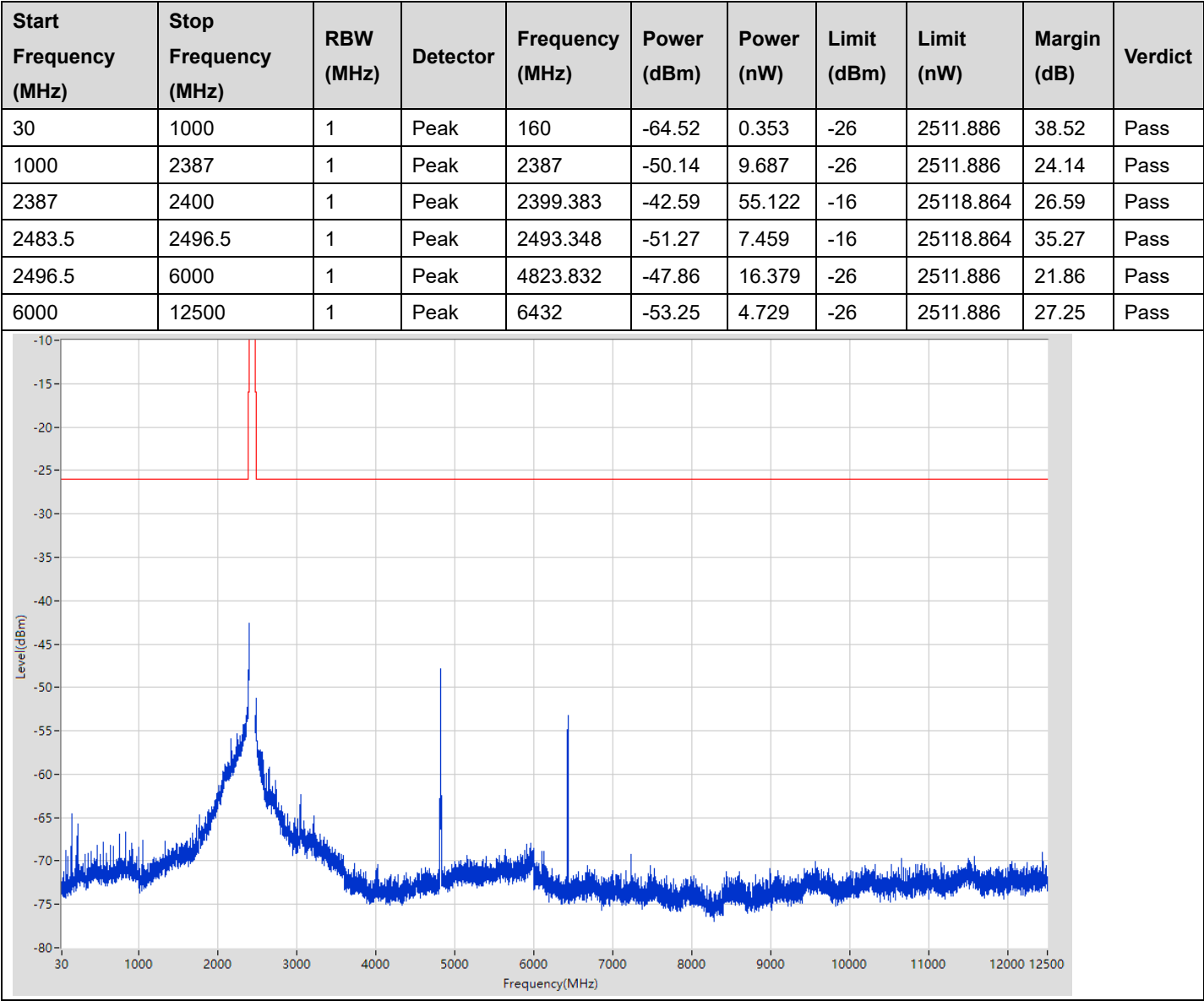
4.3.3 Test Record

Voltage (V)	Mode	Frequency Range (MHz)	Max Value (dBm)			Limit (dBm)	P/F
			2412MHz	2442MHz	2472MHz		
Normal	802.11b	30 ~ 1000	-64.52	-58.98	-64.54	-26	Pass
		1000 ~ 2387	-50.14	-52.21	-53.46	-26	Pass
		2387 ~ 2400	-42.59	-50.53	-50.43	-16	Pass
		2483.5 ~ 2496.5	-51.27	-49.87	-38.27	-16	Pass
		2496.5 ~ 6000	-47.86	-48.92	-48.87	-26	Pass
		6000 ~ 12500	-53.25	-53.62	-53.54	-26	Pass
	802.11g	30 ~ 1000	-60.85	-60.86	-60.90	-26	Pass
		1000 ~ 2387	-52.96	-54.37	-54.14	-26	Pass
		2387 ~ 2400	-27.73	-52.60	-53.42	-16	Pass
		2483.5 ~ 2496.5	-51.81	-52.29	-38.81	-16	Pass
		2496.5 ~ 6000	-55.79	-55.22	-52.40	-26	Pass
		6000 ~ 12500	-53.53	-53.06	-53.64	-26	Pass
	802.11n (20M)	30 ~ 1000	-60.77	-60.82	-60.7	-26	Pass
		1000 ~ 2387	-51.67	-54.33	-54.09	-26	Pass
		2387 ~ 2400	-24.86	-52.93	-53.7	-16	Pass
		2483.5 ~ 2496.5	-51.74	-52.3	-39.62	-16	Pass
		2496.5 ~ 6000	-55.02	-55.03	-52.76	-26	Pass
		6000 ~ 12500	-53.12	-53.5	-53.66	-26	Pass

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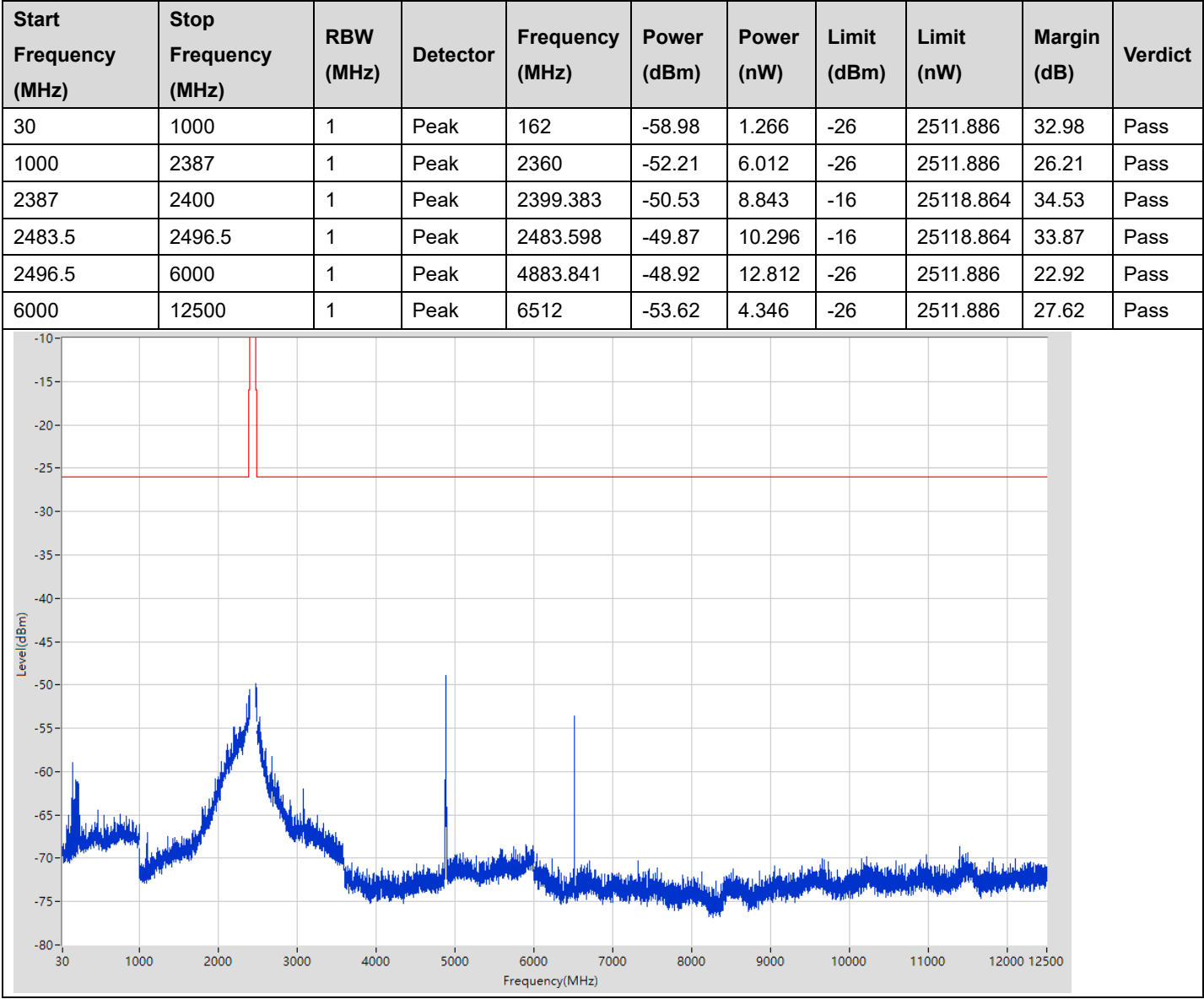
Normal Voltage

Figure 13-Test Frequency: 2412MHz, 802.11b



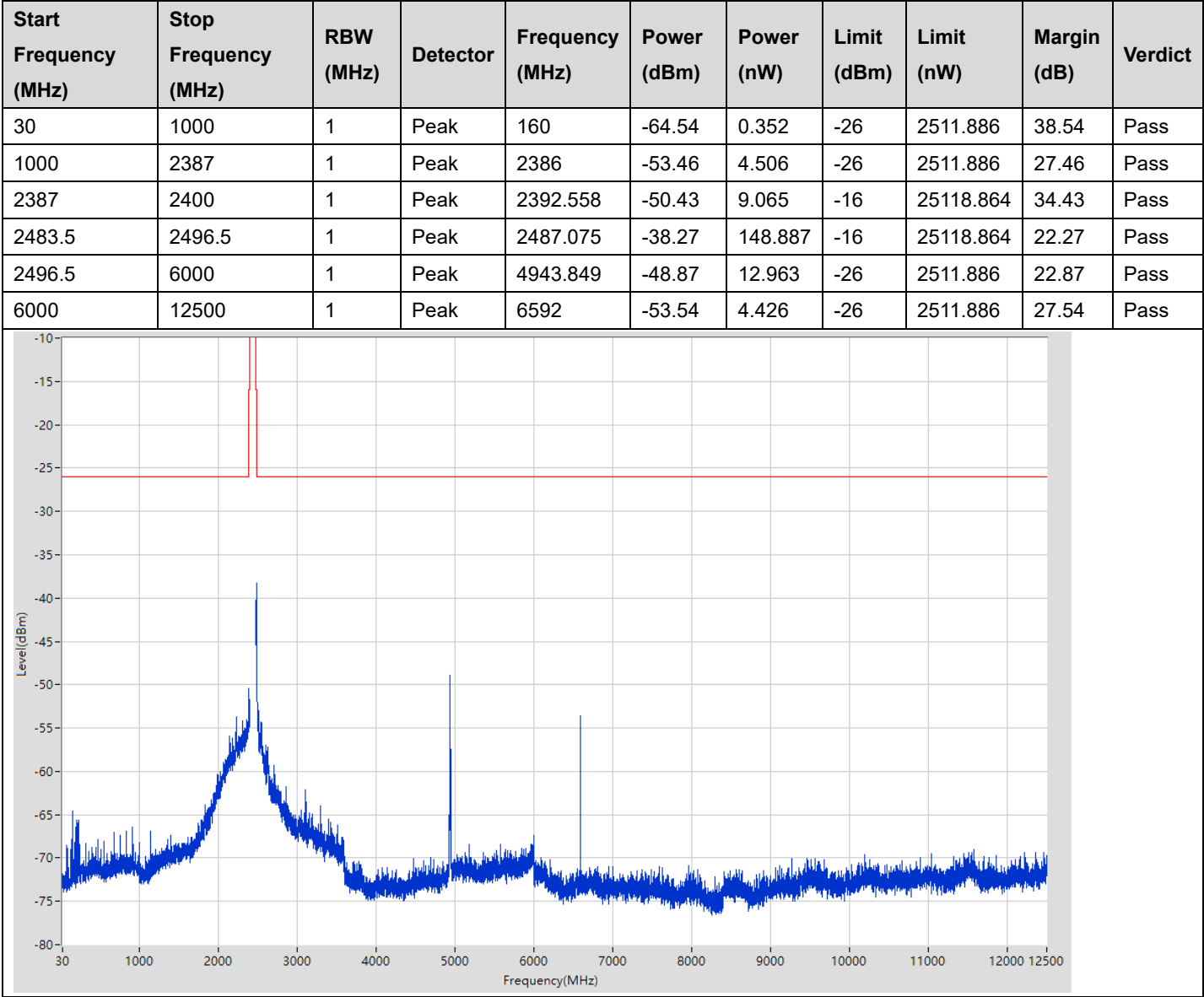
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Figure 14-Test Frequency: 2442MHz, 802.11b



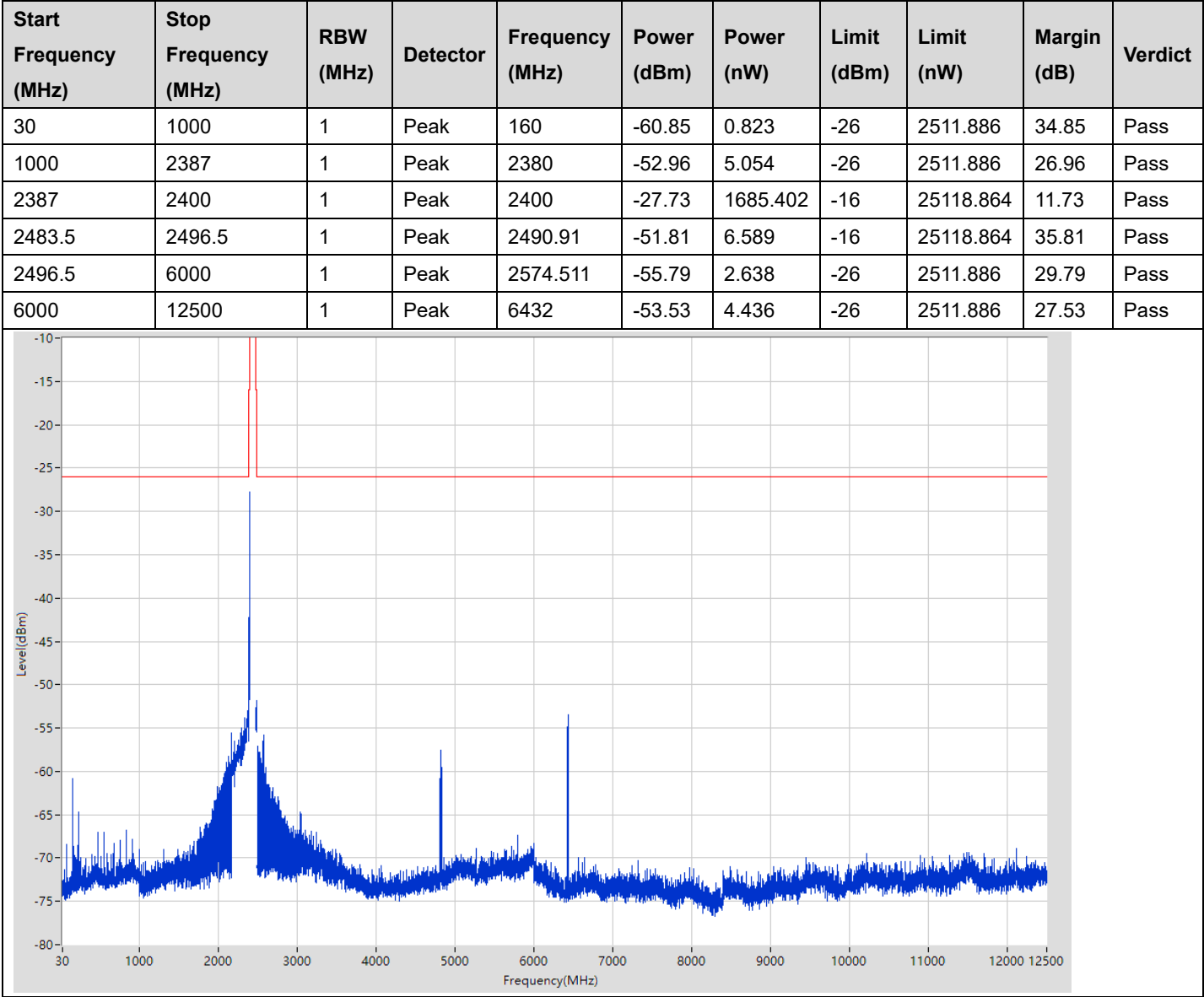
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Figure 15-Test Frequency: 2472MHz, 802.11b



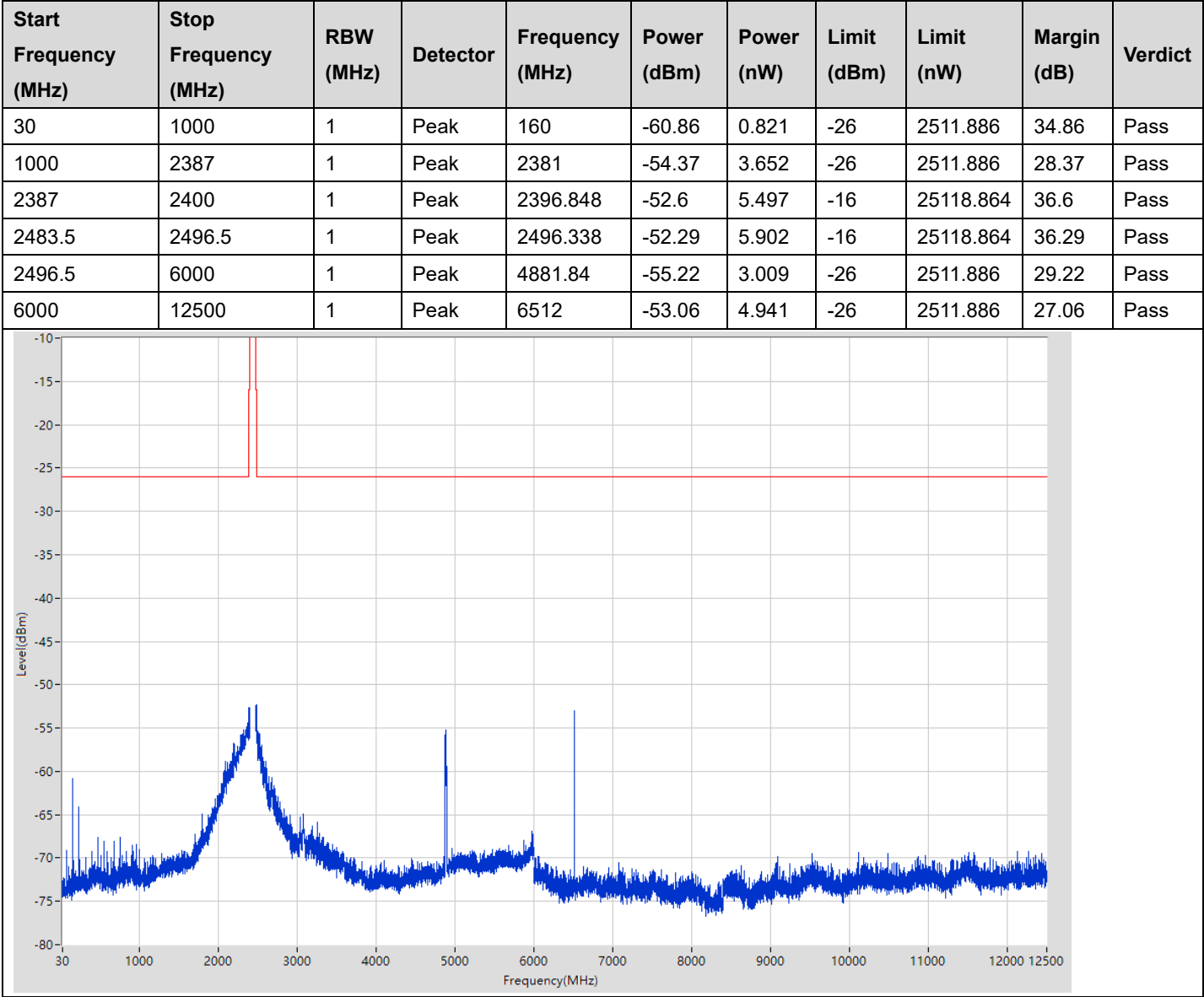
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Figure 16-Test Frequency: 2412MHz, 802.11g



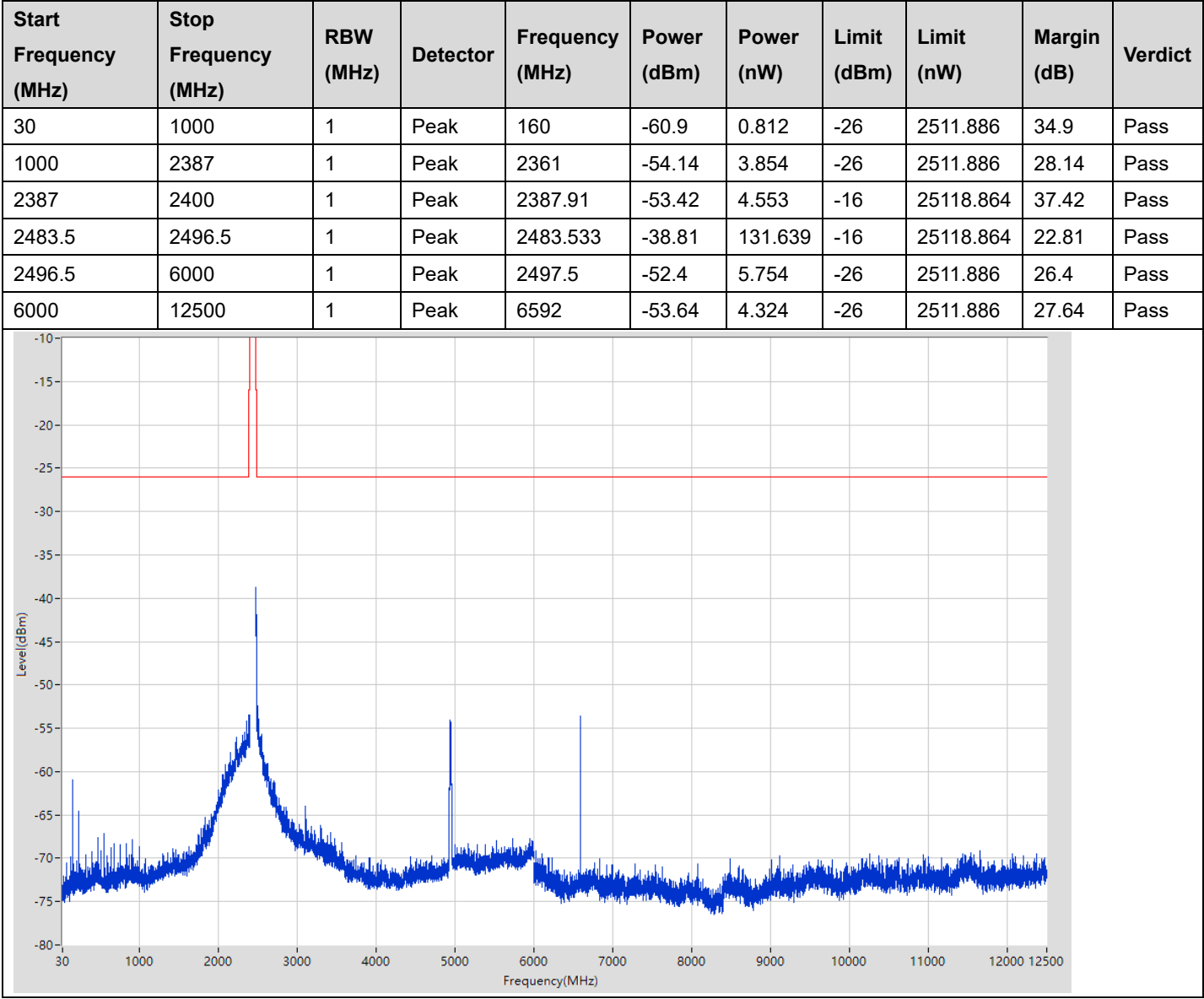
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Figure 17-Test Frequency: 2442MHz, 802.11g



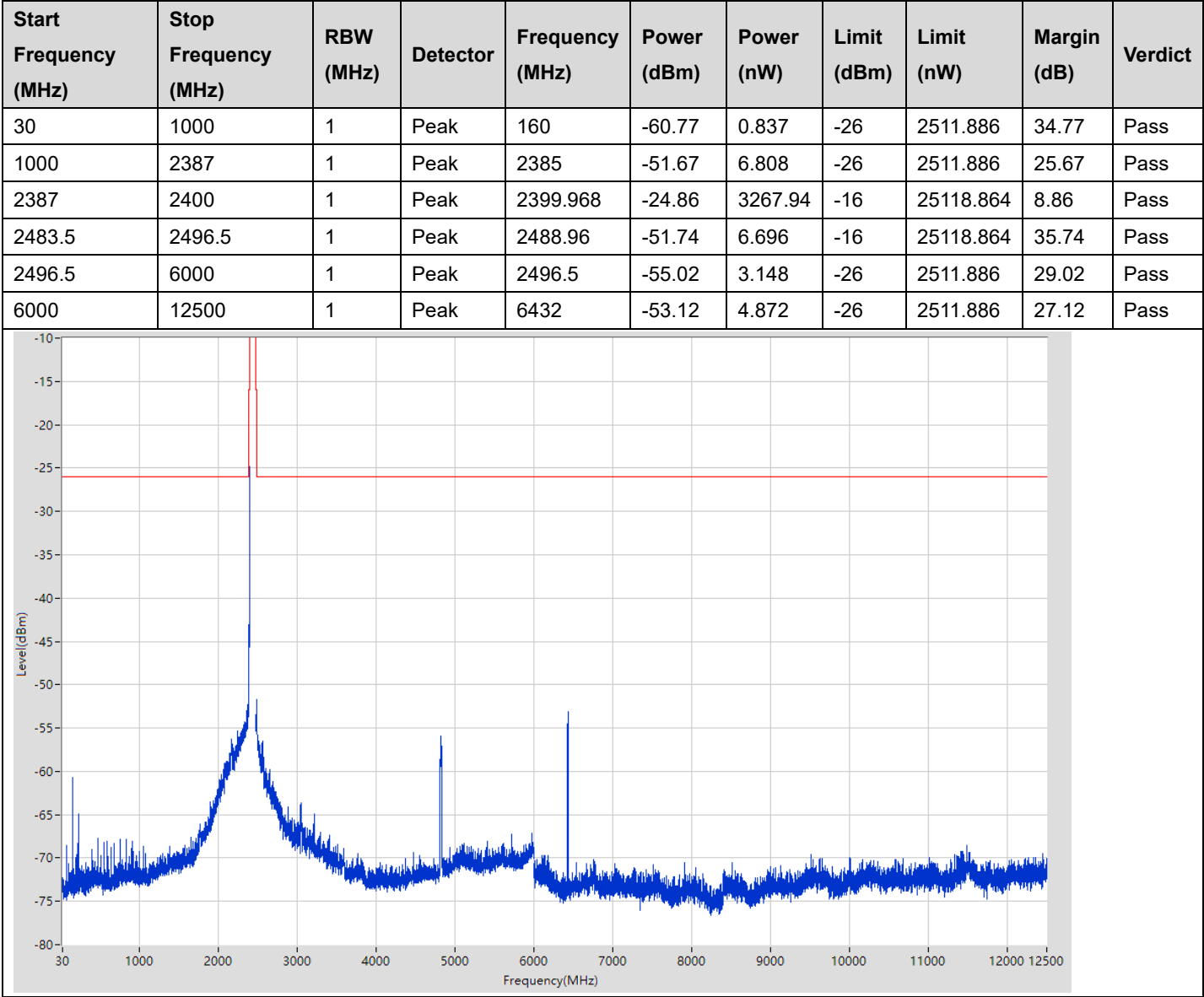
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Figure 18-Test Frequency: 2472MHz, 802.11g



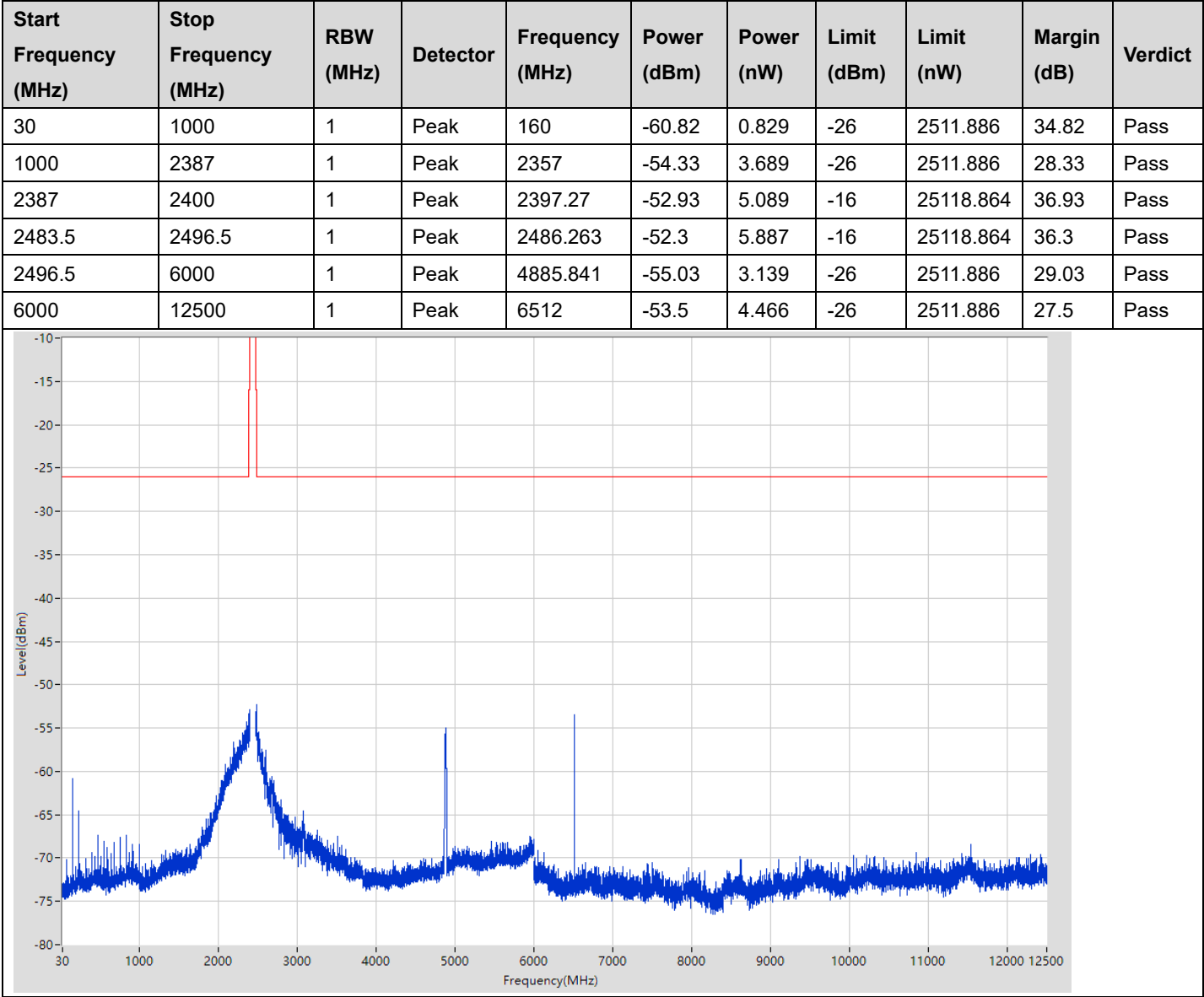
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Figure 19-Test Frequency: 2412MHz, 802.11n(20M)



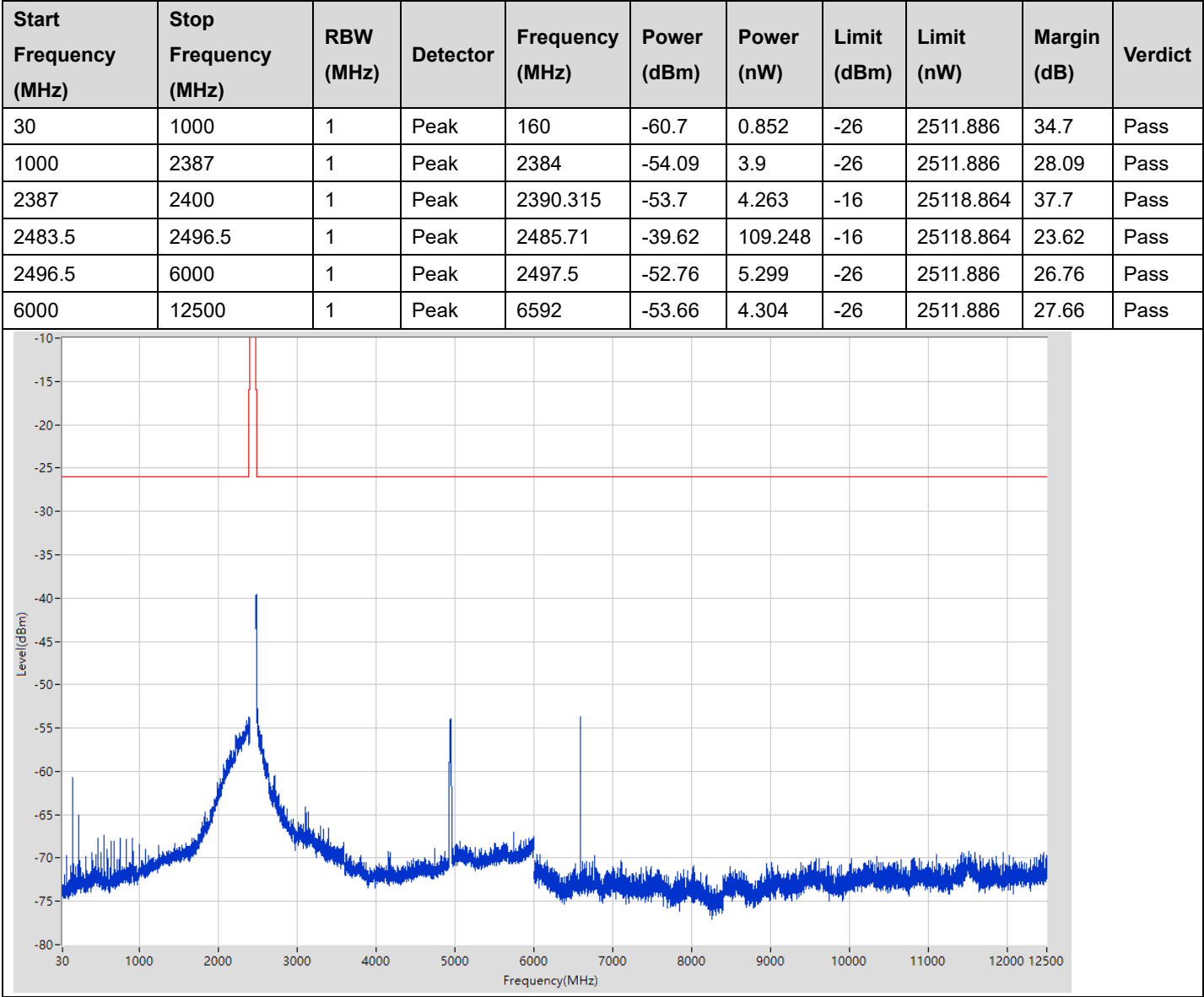
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Figure 20-Test Frequency: 2442MHz, 802.11n(20M)



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Figure 21-Test Frequency: 2472MHz, 802.11n(20M)



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4.4 ANTENNA OUTPUT POWER, ANTENNA POWER TOLERANCE AND TRANSMISSION ANTENNA GAIN

4.4.1 Limit

Item	Limits
Antenna Power	≤ 3 mW /MHz (FHSS from 2427-2470.75 MHz) ≤ 10 mW/MHz for within 26MHz Occupied Bandwidth (OFDM, DSSS from 2400-2483.5 MHz) ≤ 5 mW/MHz for 26MHz-38MHz Occupied Bandwidth (OFDM, DSSS from 2400-2483.5 MHz) ≤ 10 mW (other from 2400-2483.5 MHz)
E.I.R.P.	6.91-16.91dBm/MHz (FHSS from 2427-2470.75 MHz) 12.14-22.14 dBm/MHz for within 26MHz Occupied Bandwidth (OFDM, DSSS from 2400-2483.5 MHz) 9.13-19.13 dBm/MHz for 26MHz-38MHz Occupied Bandwidth (OFDM, DSSS from 2400-2483.5 MHz) 12.14-22.14 dBm/MHz (other from 2400-2483.5 MHz)
Antenna Power Tolerance	+20%

Note:

E.I.R.P will not be applied to the transmission antenna which has a gain of 2.14dBi or less.

4.4.2 Test Setup

Step 1:

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

- Centre Frequency: The centre frequency of the channel under test.
- Resolution BW: 1MHz.
- Video BW: 3MHz.
- Span: Wide enough to cover the complete power envelope of the signal of the UUT.
- Detector: Peak.
- Trace Mode: Max Hold.

Step 2:

When the trace is complete, find the peak value of the power envelope and record the frequency.

Step 3:

Make the following changes to the settings of the spectrum analyser:

- Centre Frequency: Equal to the frequency recorded in step 2.
- Span: 0MHz.
- Resolution BW: 1 MHz.
- Video BW: 1 MHz.
- Sweep time: 1 minute.

The maximum PD, which is e.i.r.p. PSD (spectral density power) or power, is calculated from the above measured

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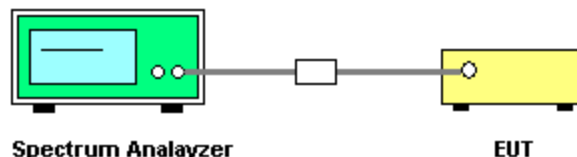
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value D, and the applicable antenna assembly gain "G" in dBi, according to the formula below. If more than one antenna assembly is intended for this power setting, the gain of the antenna assembly with the highest gain shall be used.

$$PD = D + G$$



4.4.3 Test Record

Voltage (V)	Mode	Item	Result			Limit	P/F
			2412MHz	2442MHz	2472MHz		
Normal	802.11b	Antenna Power	6.17dBm/MHz	6.71dBm/MHz	6.38dBm/MHz	10dBm/MHz	Pass
			4.140mW/MHz	4.688mW/MHz	4.345mW/MHz	10mW/MHz	Pass
		Declared Antenna Power	5.00mW/MHz.	5.00mW/MHz.	5.00mW/MHz.	/	/
		Antenna Power Error	-17.20%	-6.24%	-13.10%	+20%	Pass
		EIRP	9.43dBm/MHz	9.97Bm/MHz	9.64dBm/MHz	12.14dBm/MHz	Pass
	802.11g	Antenna Power	5.03dBm/MHz	4.21dBm/MHz	4.62dBm/MHz	10dBm/MHz	Pass
			3.184mW/MHz	2.636mW/MHz	2.897mW/MHz	10mW/MHz	Pass
		Declared Antenna Power	4.00mW/MHz	4.00mW/MHz	4.00mW/MHz	/	/
		Antenna Power Error	-20.40%	-34.10%	-27.58%	+20%	Pass
		EIRP	8.29Bm/MHz	7.47dBm/MHz	7.88dBm/MHz	12.14dBm/MHz	Pass
	802.11n (20M)	Antenna Power	5.76dBm/MHz	4.22dBm/MHz	5.06dBm/MHz	10dBm/MHz	Pass
			3.767mW/MHz	2.642mW/MHz	3.206mW/MHz	10mW/MHz	Pass
		Declared Antenna Power	4.00mW/MHz	4.00mW/MHz	4.00mW/MHz	/	/
		Antenna Power Error	-5.83%	-33.95%	-19.85%	+20%	Pass
		EIRP	9.02dBm/MHz	7.48dBm/MHz	8.32dBm/MHz	12.14dBm/MHz	Pass

Note(s):

- The antenna gain is 3.26dBi.
- 802.11b mode: Declared Antenna power is 5.00mW/MHz.
802.11g mode: Declared Antenna power is 4.00mW/MHz.
802.11n(20M) mode: Declared Antenna power is 4.00mW/MHz.
- Antenna Power Error = [(Antenna Power - Declared Antenna Power) / Declared Antenna Power] * 100%

Normal Voltage

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Figure 22- Antenna Power of 2412MHz, 802.11b

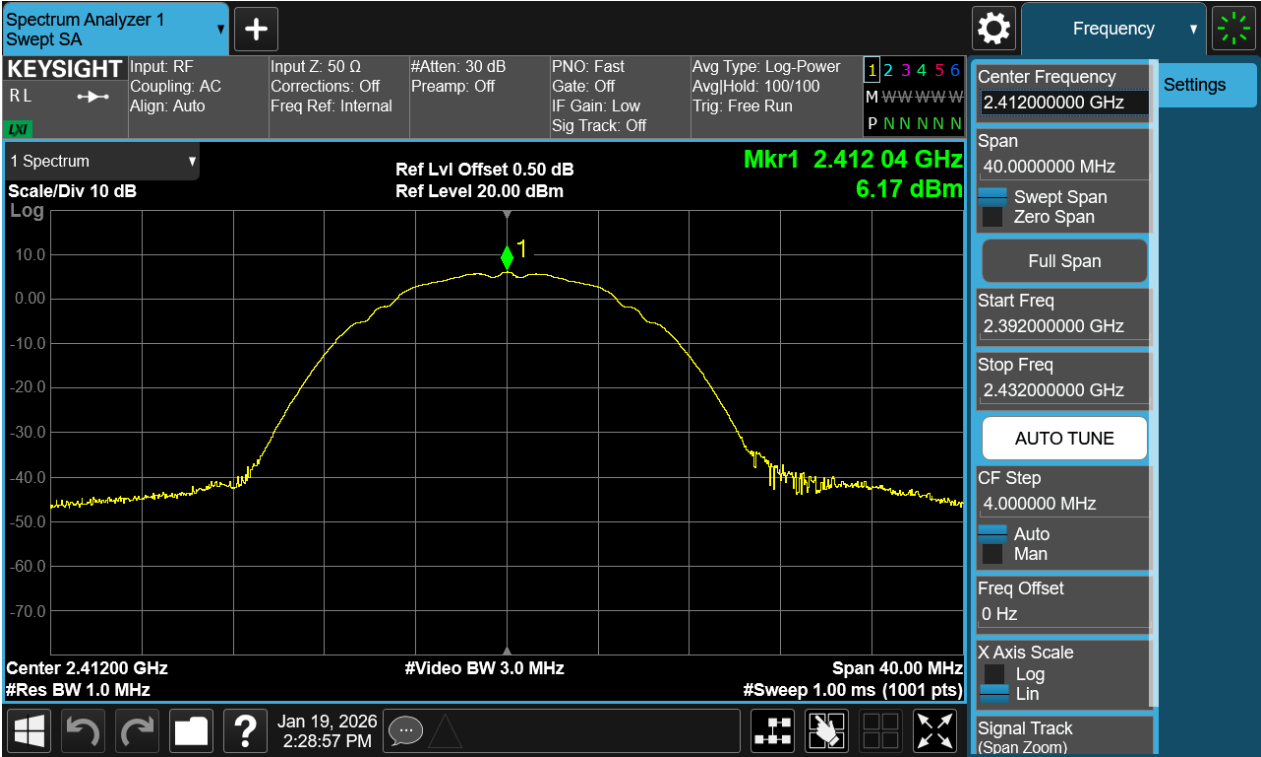


Figure 23- Antenna Power of 2442MHz, 802.11b

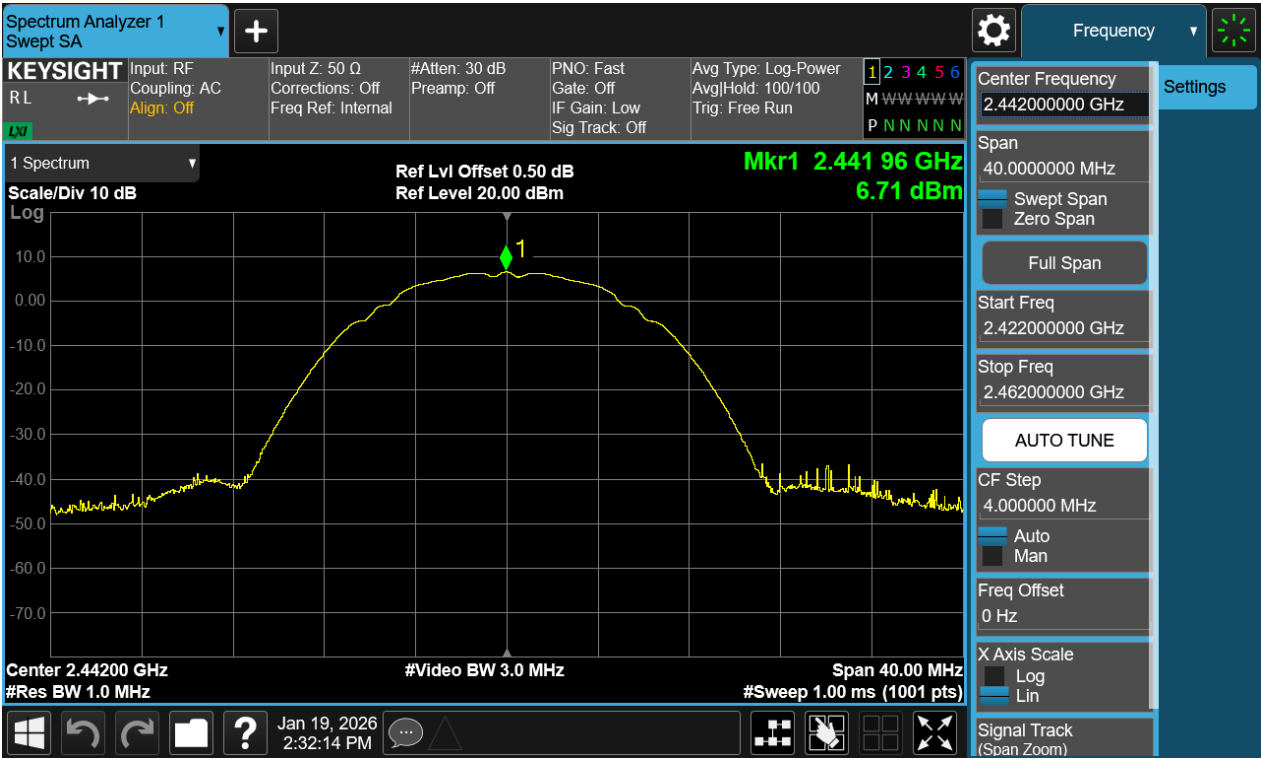


Figure 24- Antenna Power of 2472MHz, 802.11b

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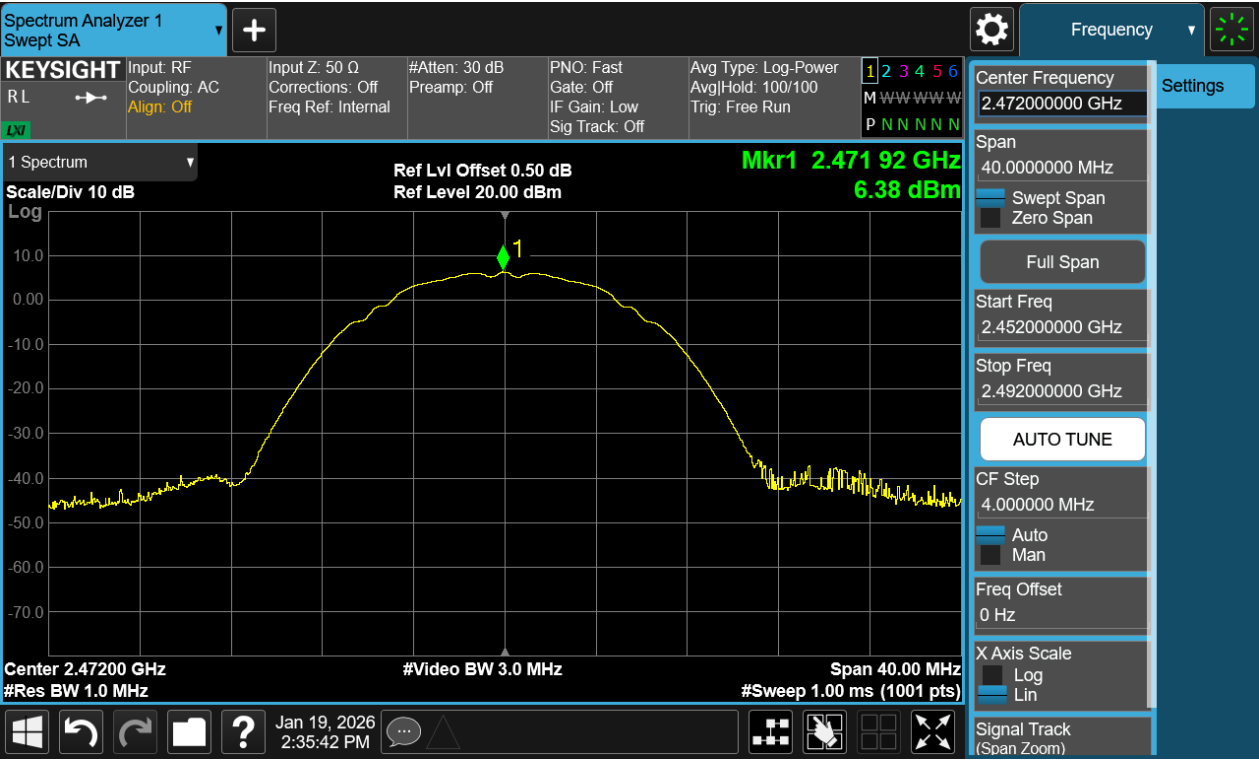


Figure 25- Antenna Power of 2412MHz, 802.11g

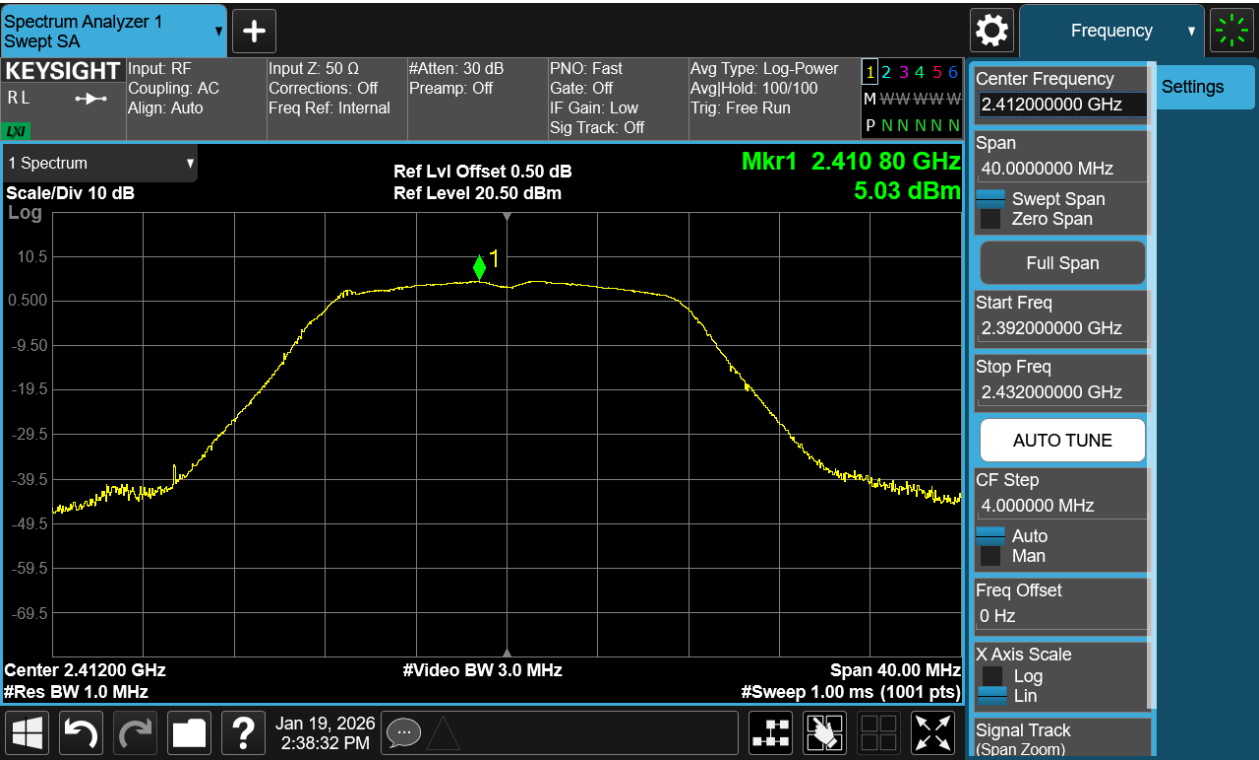


Figure 26- Antenna Power of 2442MHz, 802.11g

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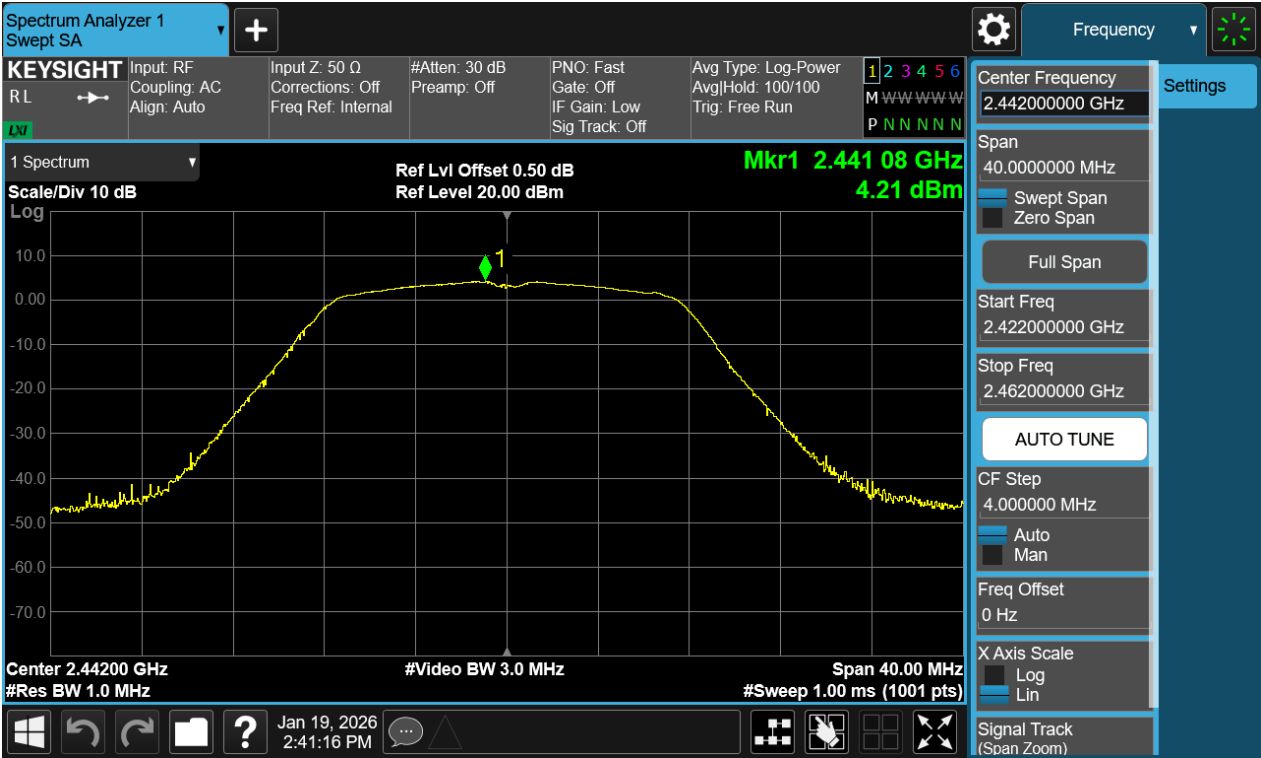


Figure 27- Antenna Power of 2472MHz, 802.11g

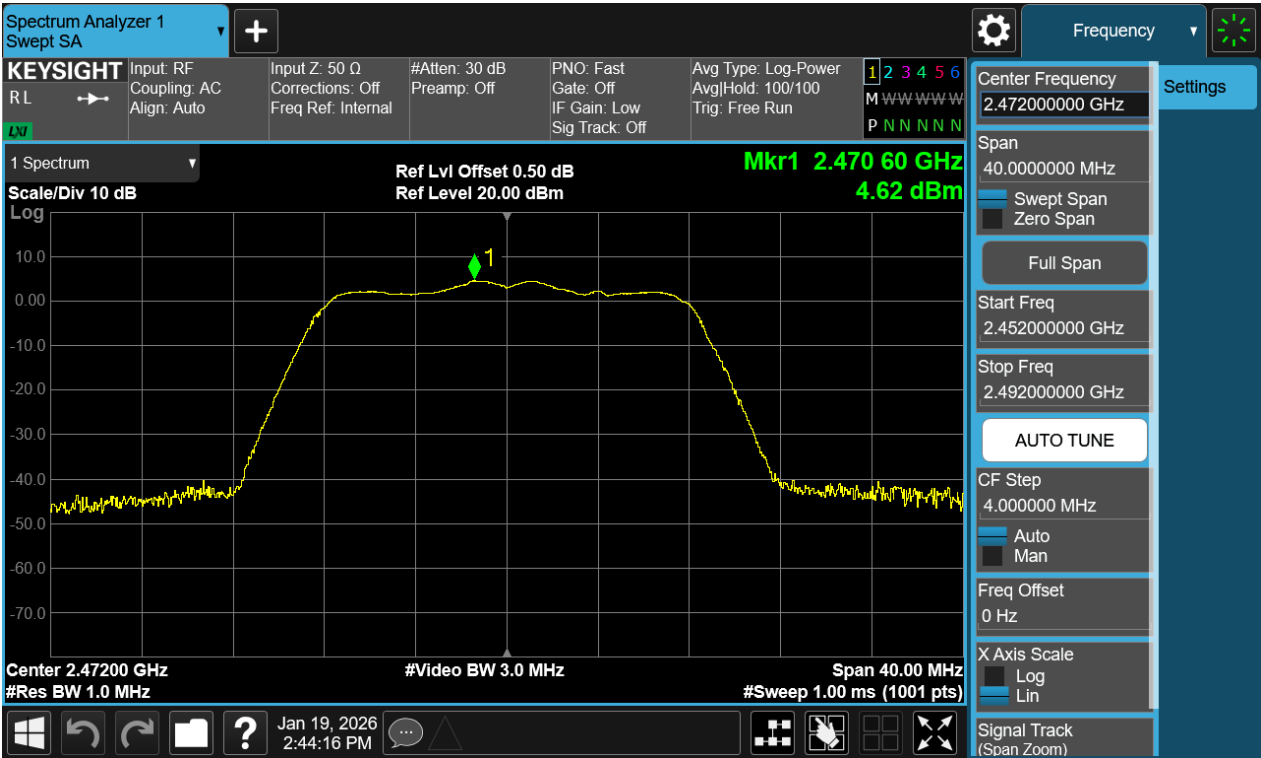


Figure 28- Antenna Power of 2412MHz, 802.11n(20M)

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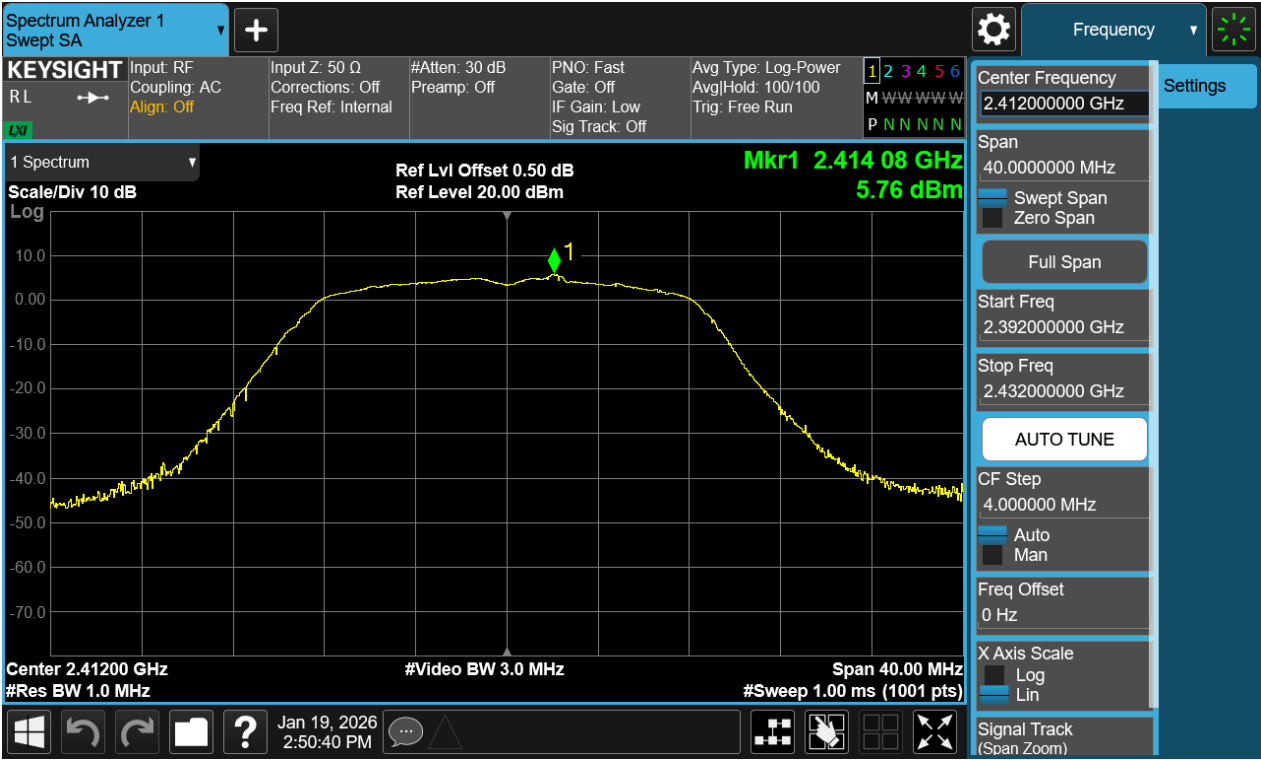


Figure 29- Antenna Power of 2442MHz, 802.11n(20M)

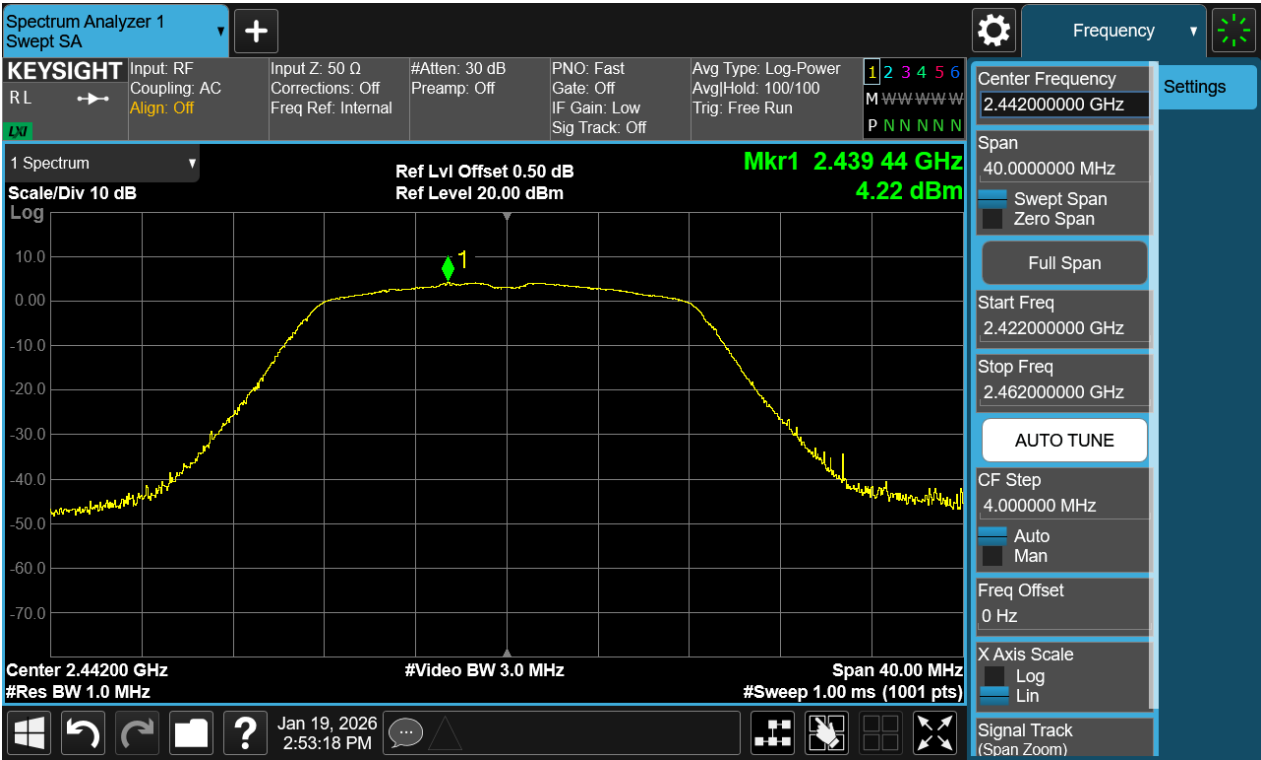


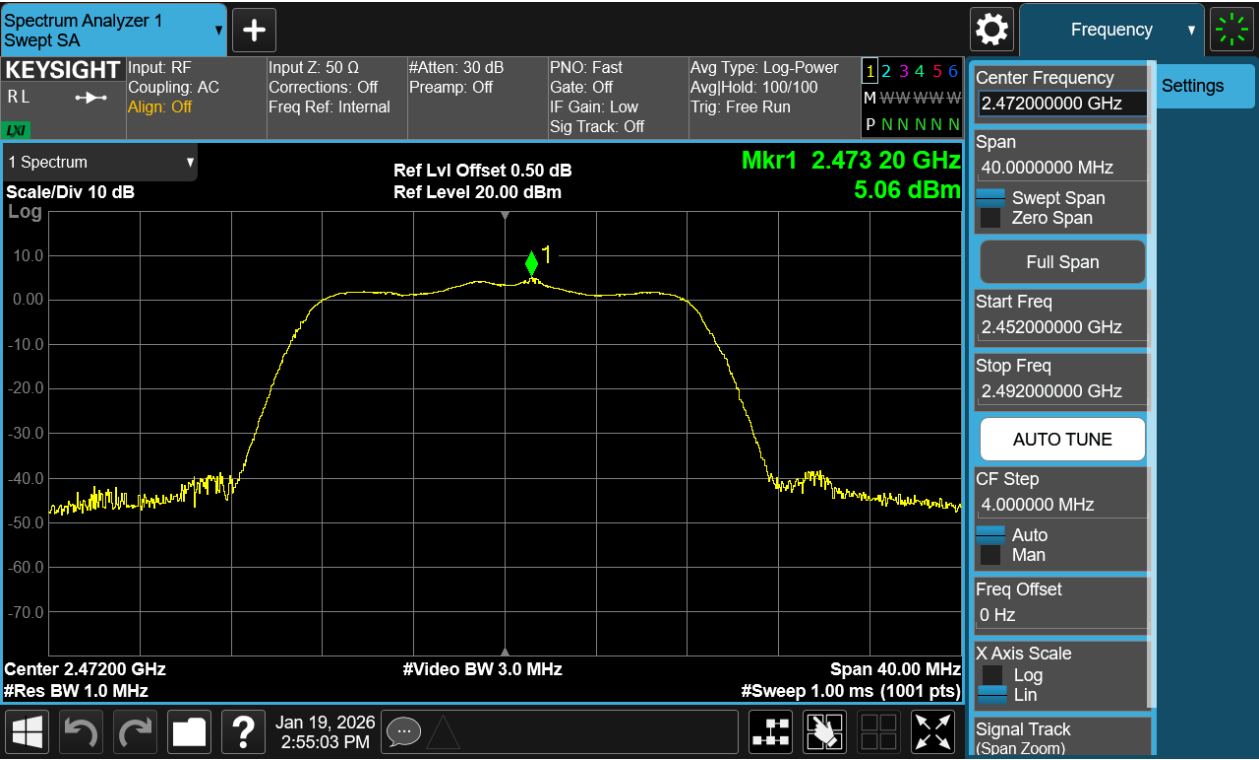
Figure 30- Antenna Power of 2472MHz, 802.11n(20M)

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4.5 TRANSMISSION RADIATION ANGLE WIDTH (3DB BEAMWIDTH) MEASUREMENT

4.5.1 Limit

Item	Limits
3dB antenna beam width	$360/A$ (If $A < 1$; then $A = 1$) $A = \{\text{EIRP Power [mW]} / 16.36 \text{ for DS, OFDM}\}$ or $A = \{\text{EIRP Power [mW]} / 4.9 \text{ for FH}\}$
Note: This test item is not applied for radio equipment with equivalent isotropic radiation power lower than 12.14dBm/MHz, but Antenna Power (Conducted) limit is 10mW/MHz (10dBm/MHz), So the test item will not be applied to the transmission antenna which has a gain of 2.14dBi or less	

4.5.2 Measuring Instruments and setting

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	0 MHz
RB	1 MHz
VB	1 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

4.5.3 Test Procedures

1. Set EUT and measuring antenna at the same height and roughly facing each other.
2. Set spectrum analyzer with condition in section 4.7.2 and tune reference level to observe receiving signal position.
3. Rotate directions of the EUT horizontally and vertically to find the maximum receiving power.
4. Move the measuring antenna height up and down within $\pm 50\text{cm}$ of EUT height and swing it to find the maximum output of measuring antenna. The output level at the spectrum analyzer is read as "E"
5. Calculate permitted radiation angle in horizontal and vertical using EIRP measured in another test method.
6. Calculate 3dB antenna beam width by the formula below $360/A$ (If $A < 1$; then $A = 1$).
 $A = \{\text{EIRP Power [mW]} / 16.36 \text{ for DS, OFDM}\}$ or
 $A = \{\text{EIRP Power [mW]} / 4.9 \text{ for FH}\}$

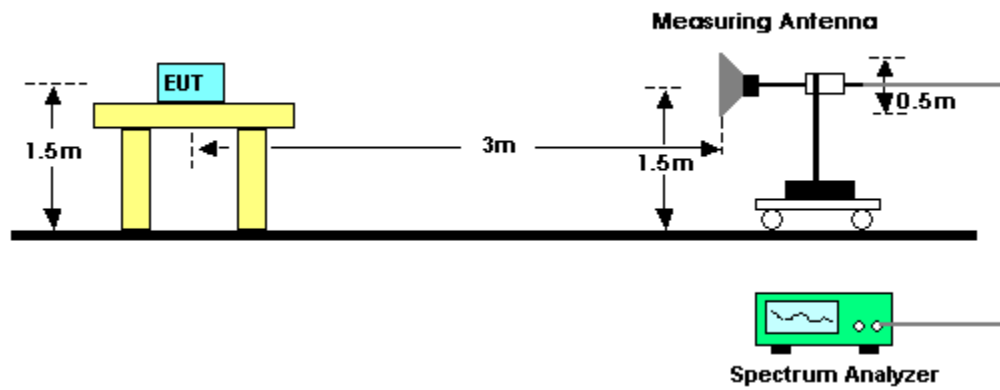
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4.5.4 Test Setup



4.5.5 Test Result

Note: This test item is not applied for radio equipment with equivalent isotropic radiation power lower than 12.14dBm/MHz.

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4.6 RECEIVER SPURIOUS EMISSION AND UNWANTED EMISSION INTENSITY

4.6.1 Limit

Frequency Range	Limits
30MHz ~ 1GHz	4 nW (-54dBm)
1GHz ~ 12.5GHz	20 nW (-47dBm)

4.6.2 Test Setup

The modulation state shall be “continuous receiving mode”.

Start Frequency: Start Frequency of frequency range to measure (30MHz or 1GHz)

Stop Frequency: Stop Frequency of frequency range to measure (1GHz or 12.5GHz)

Span: AUTO (Measurement Range)

RBW: 100KHz, VBW: 100KHz for Frequency < 1 GHz

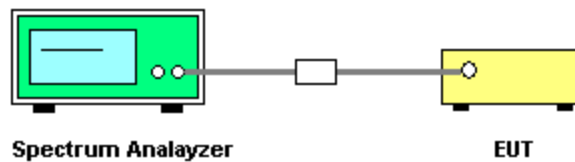
RBW: 1MHz, VBW: 1MHz for Frequency > 1 GHz

Sweep time: AUTO or more

Log scale: 10dB/Div, Data points: 501points (400 points or more)

Detection: Positive Peak

Reference Level: Enough level for maximum dynamic range



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4.6.3 Test Record

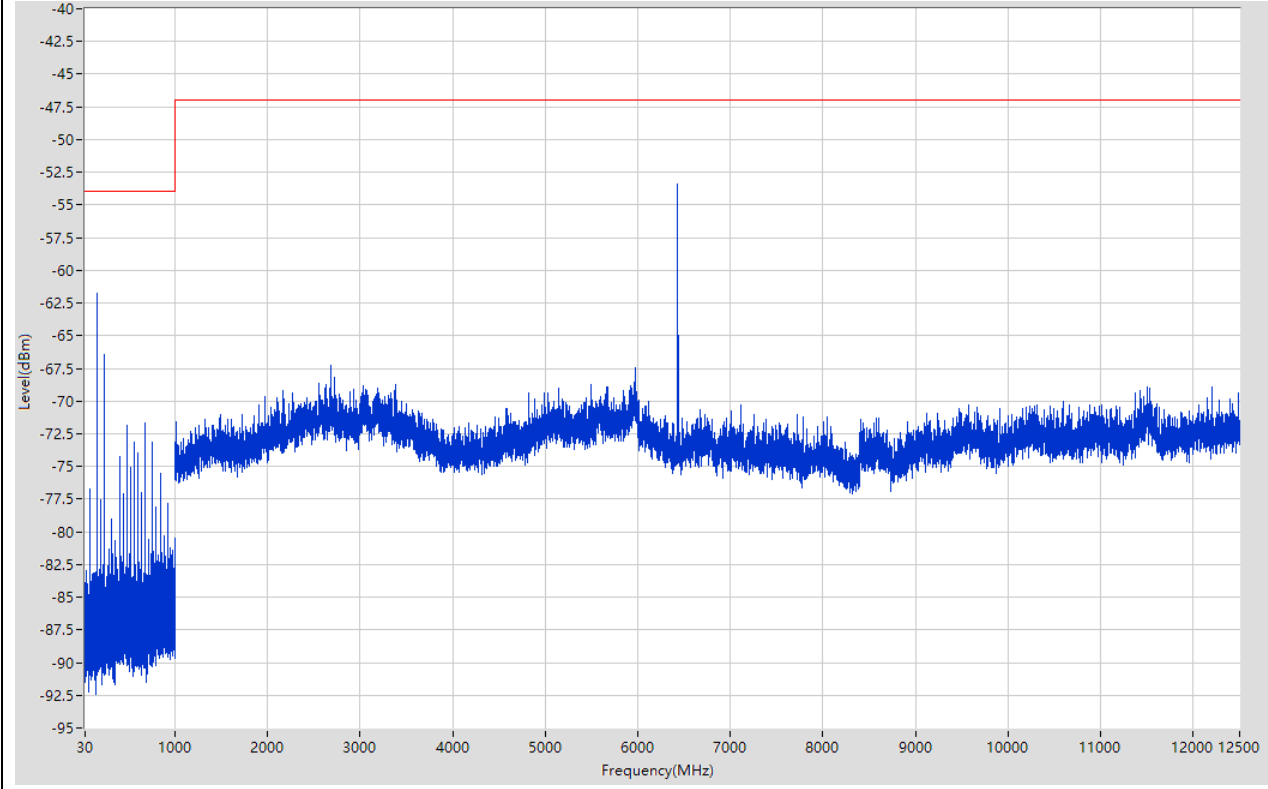
Voltage (V)	Frequency Range (MHz)	Max Value (dBm)			Limit (dBm)	P/F
		2412MHz	2442MHz	2472MHz		
Normal	30 ~ 1000	-61.81	-62.12	-61.62	-54	Pass
	1000 ~ 6000	-67.27	-68.07	-67.91	-47	Pass
	6000 ~ 12500	-53.39	-53.76	-53.93	-47	Pass

Note: All test modes had been pre-tested, but only the 802.11b is the worst case and recorded in the report.

Normal Voltage

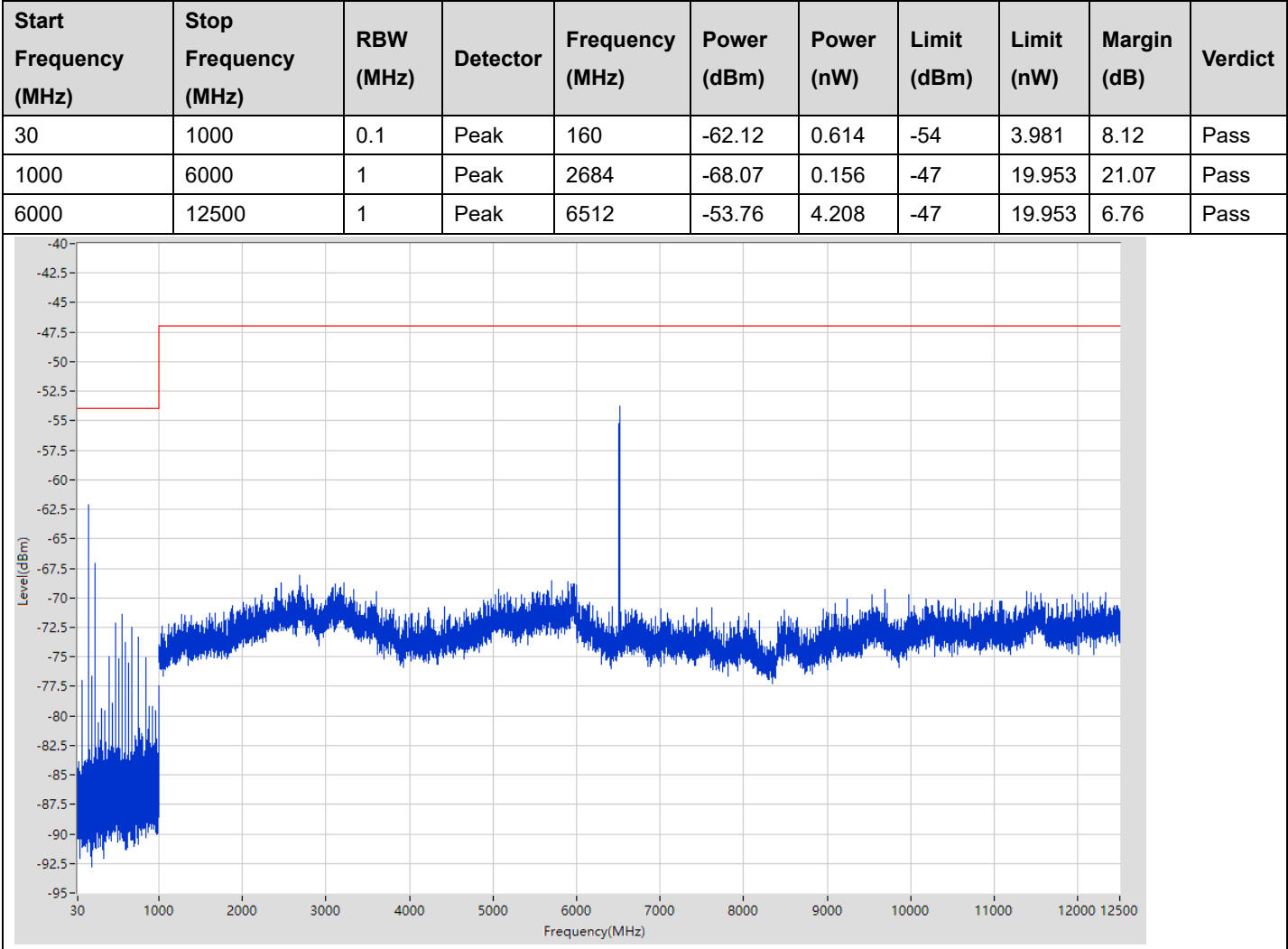
Figure 31-Test Frequency: 2412MHz

Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Power (nW)	Limit (dBm)	Limit (nW)	Margin (dB)	Verdict
30	1000	0.1	Peak	160	-61.81	0.66	-54	3.981	7.81	Pass
1000	6000	1	Peak	2680	-67.27	0.187	-47	19.953	20.27	Pass
6000	12500	1	Peak	6432	-53.39	4.579	-47	19.953	6.39	Pass



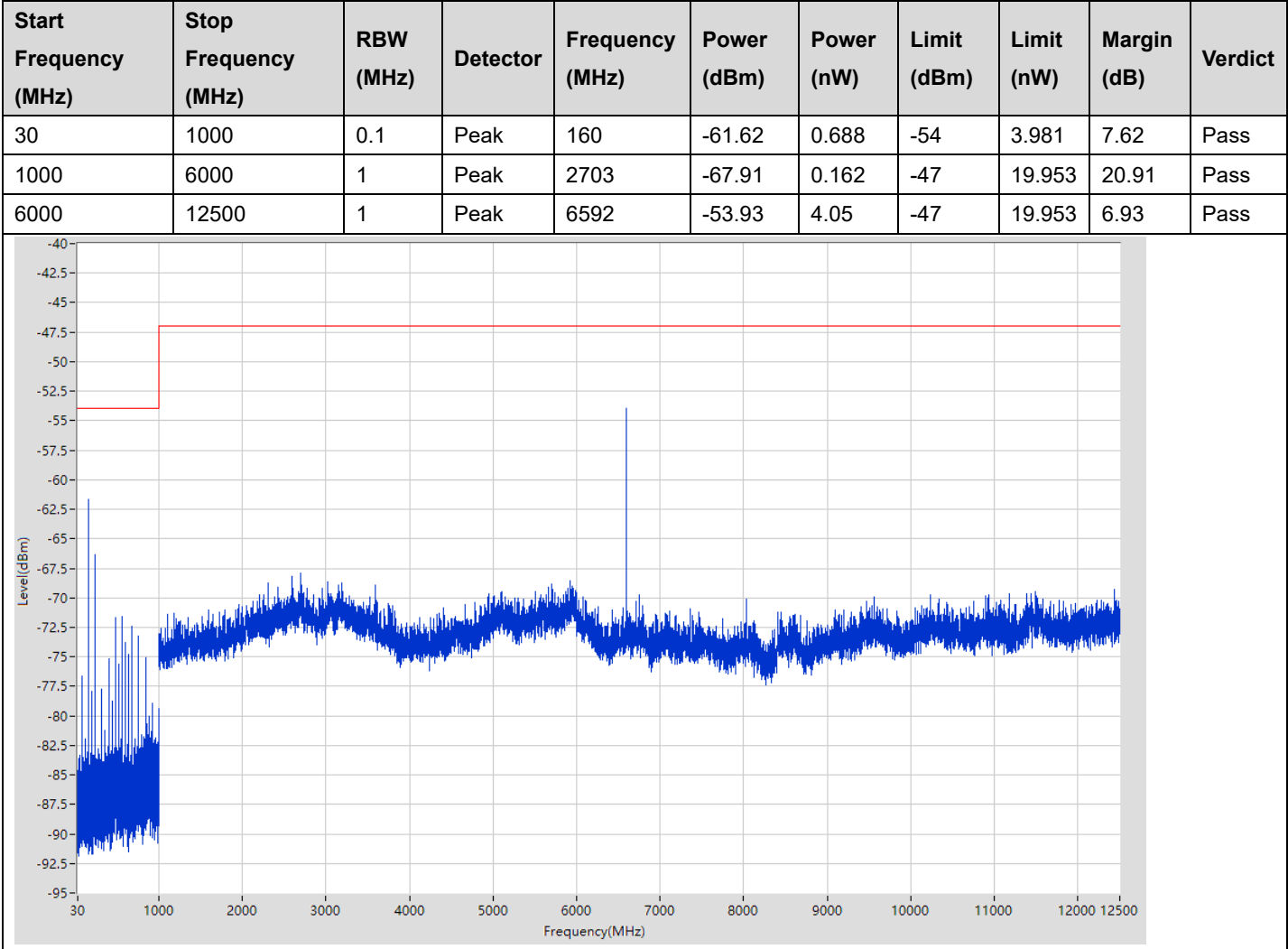
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Figure 32-Test Frequency: 2442MHz



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Figure 33-Test Frequency: 2472MHz



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4.7 RADIO INTERFERENCE PREVENTION CAPABILITY

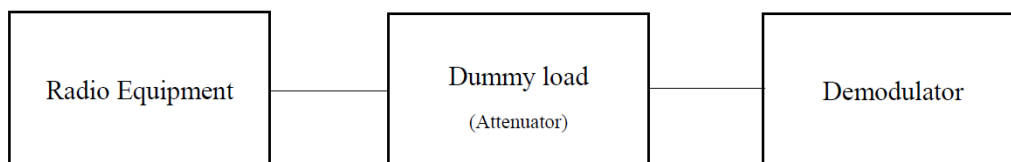
4.7.1 Limit

Item	Limit
Identification code	≥ 48 bits

4.7.2 Test Setup

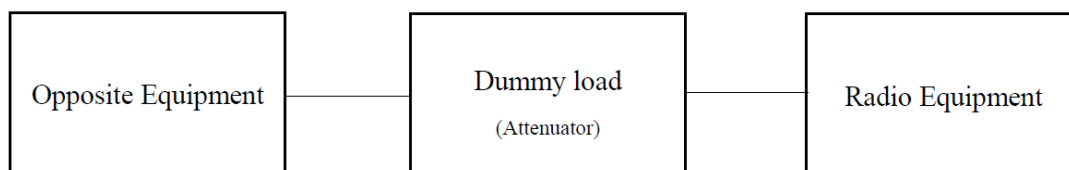
In the case that the EUT has the function of automatically transmitting the identification code:

- Transmit the assigned identification code from the radio equipment.
- Confirm the identification code received by the demodulator.



In the case of receiving the identification code:

- Transmit the assigned identification code from the opposite equipment.
- Confirm that the usual communication is available.
- Transmit the identification code distinct from the assigned one from the opposite equipment.
- Confirm that the radio equipment is stopped or an indication is displayed as the identification code is different.



4.7.3 Test Record

Test Result: Pass

MAC Address: 94:BA:06:05:33:66

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4.8 CONSTRUCTION PROTECTION CONFIRMATION

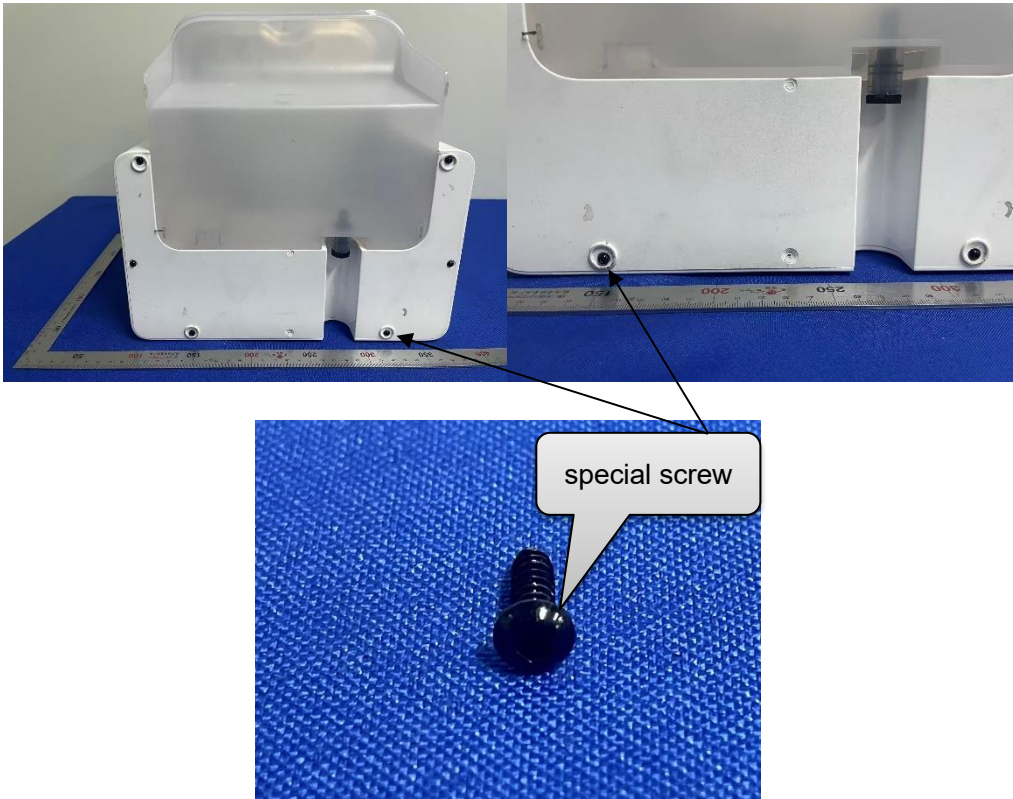
4.8.1 Limit

The high-frequency section and modulation section of the radio equipment except for the antenna system shall not be capable of being opened easily.

4.8.2 Confirmation method

The RF and modulation portions are protected against illegal modification as following method:

Protected Method	Description
WIFI Module Package	WIFI Module Package of RF (U51:BL-M8731BU4-Q) and Modulation (TX: 40MHz) portions is 6pin and 13.0*12.3*2.2mm(L*W*H)±0.15mm
Enclosure	RF and Modulation components are covered within case of EUT and this case used special screw to protect anybody to open this case.
User Manual	we will add some warning statements on the user manual to against illegal modification



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5 Appendixes

5.1 External Photo of the Sample



All of the sample



Add a sample with only color differences

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Adapter of the sample



Front of the sample

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Rear of the sample



Left of the sample

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Right of the sample



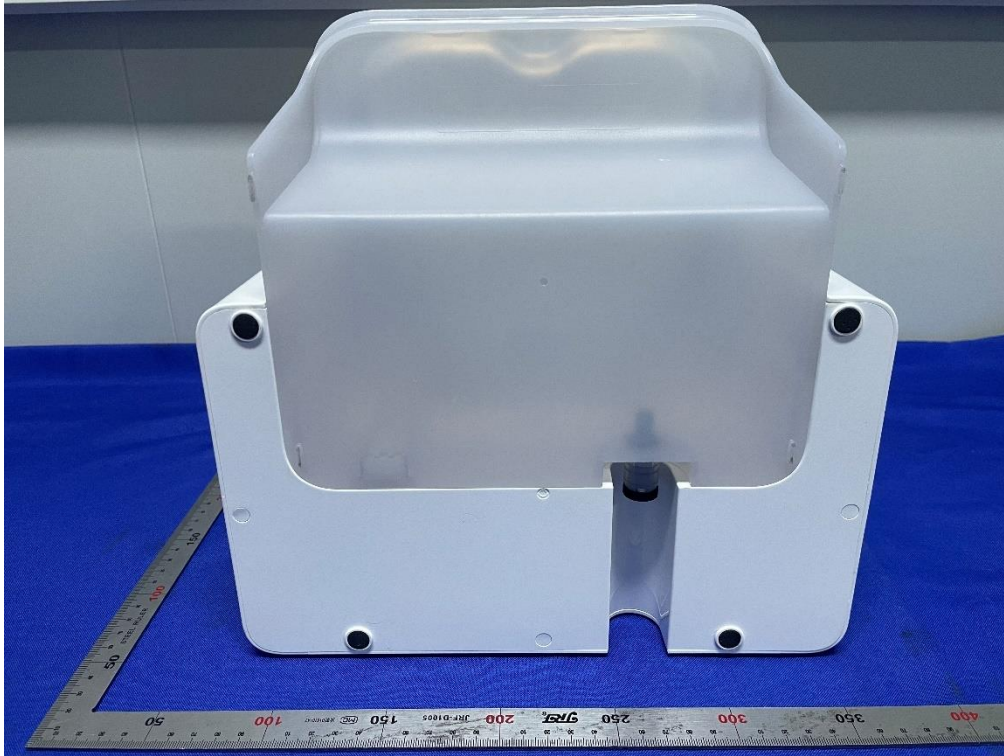
Top of the sample

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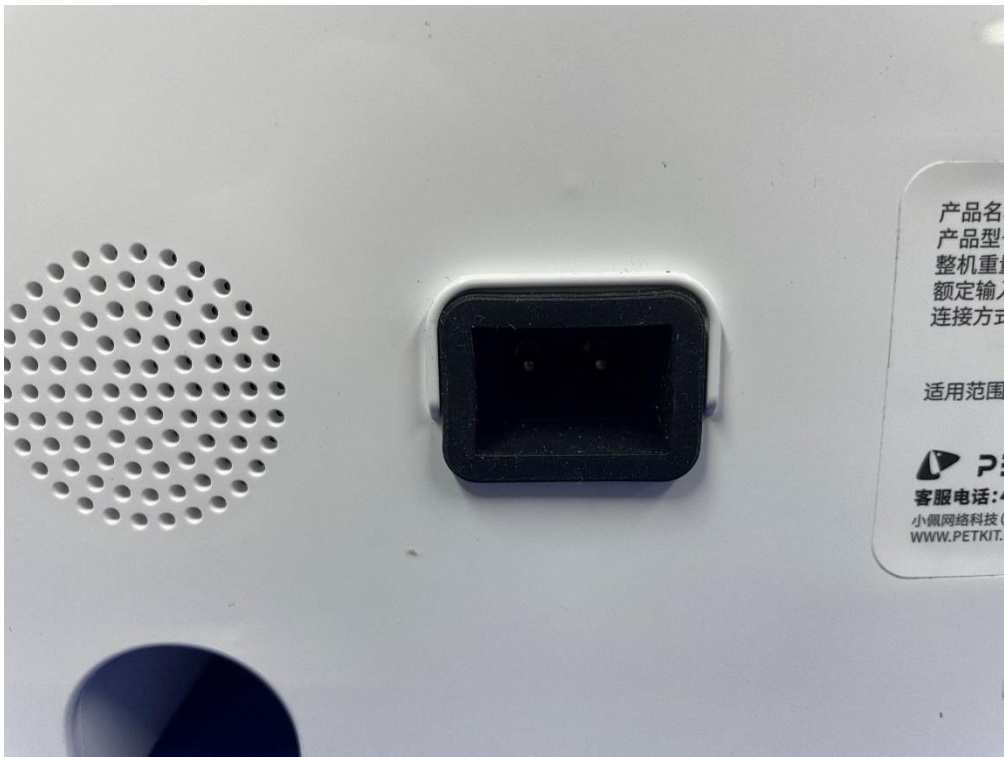
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Bottom of the sample



Port of the sample

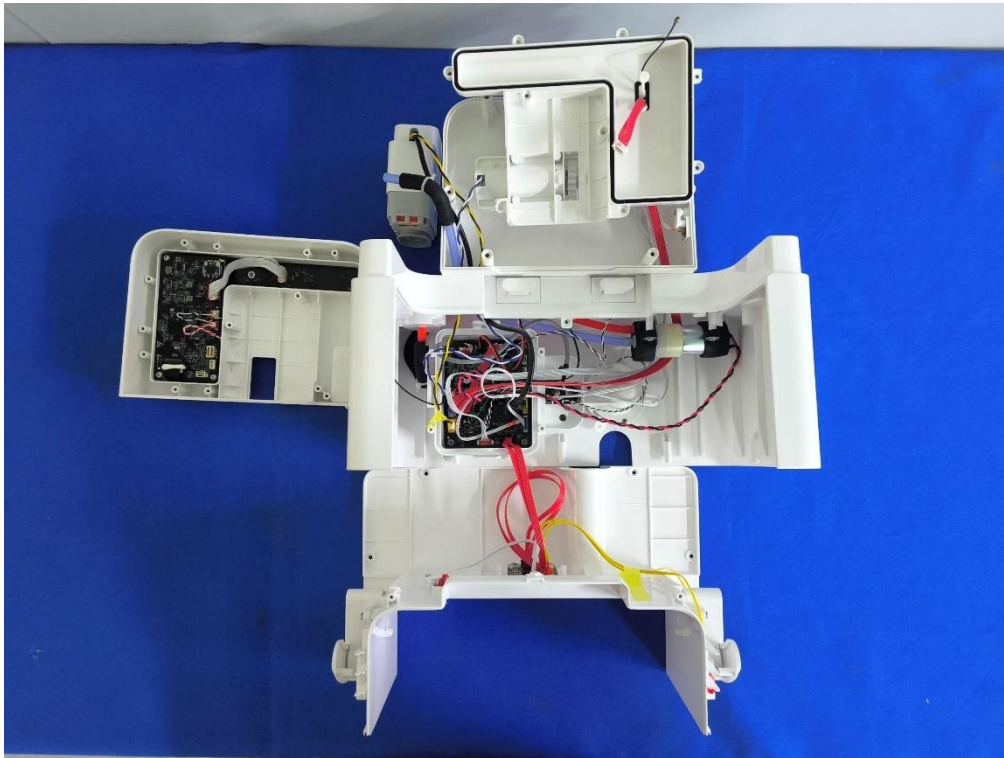
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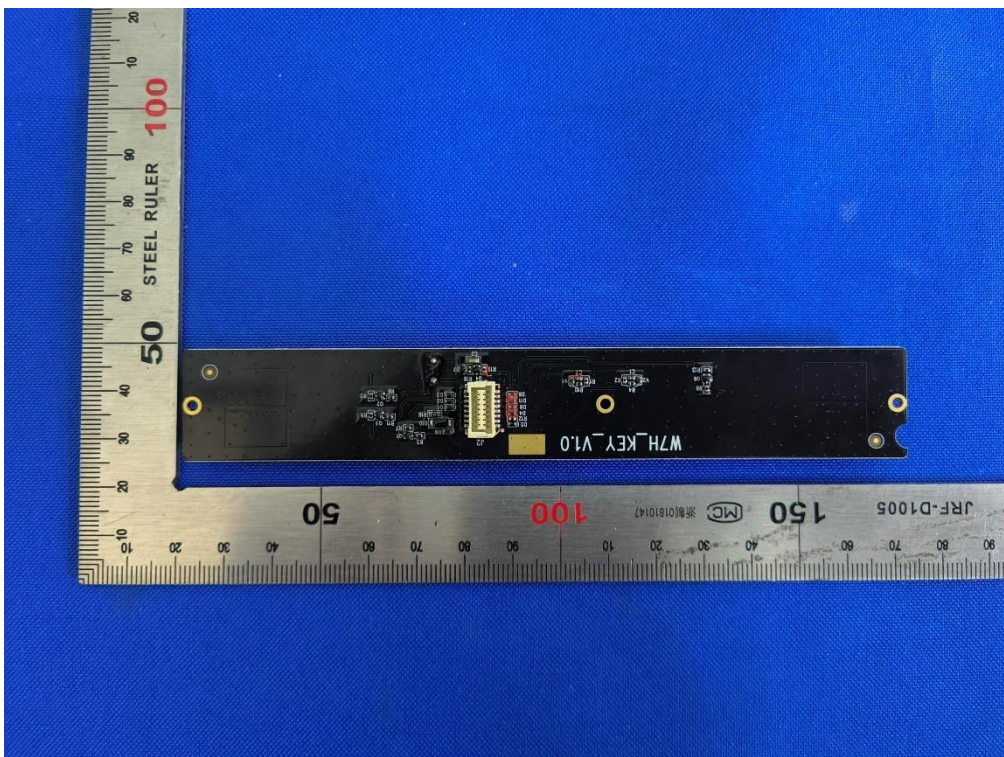
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5.2 Internal Photo of the Sample



Open of the sample



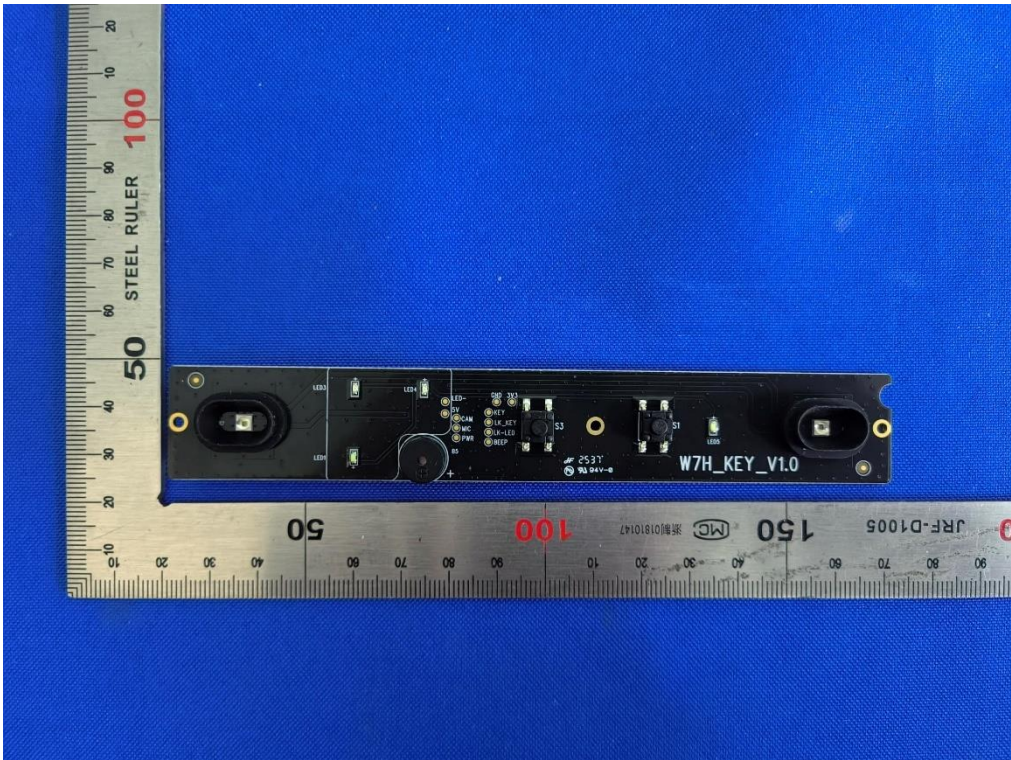
Internal-1 of the sample

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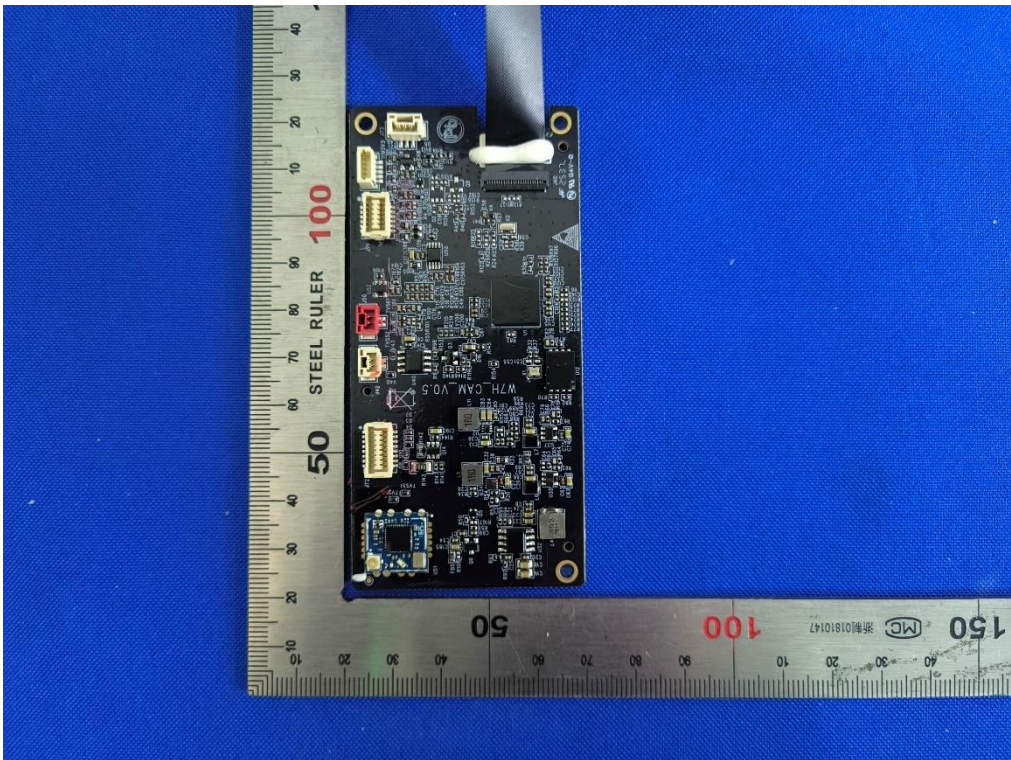
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Internal-2 of the sample



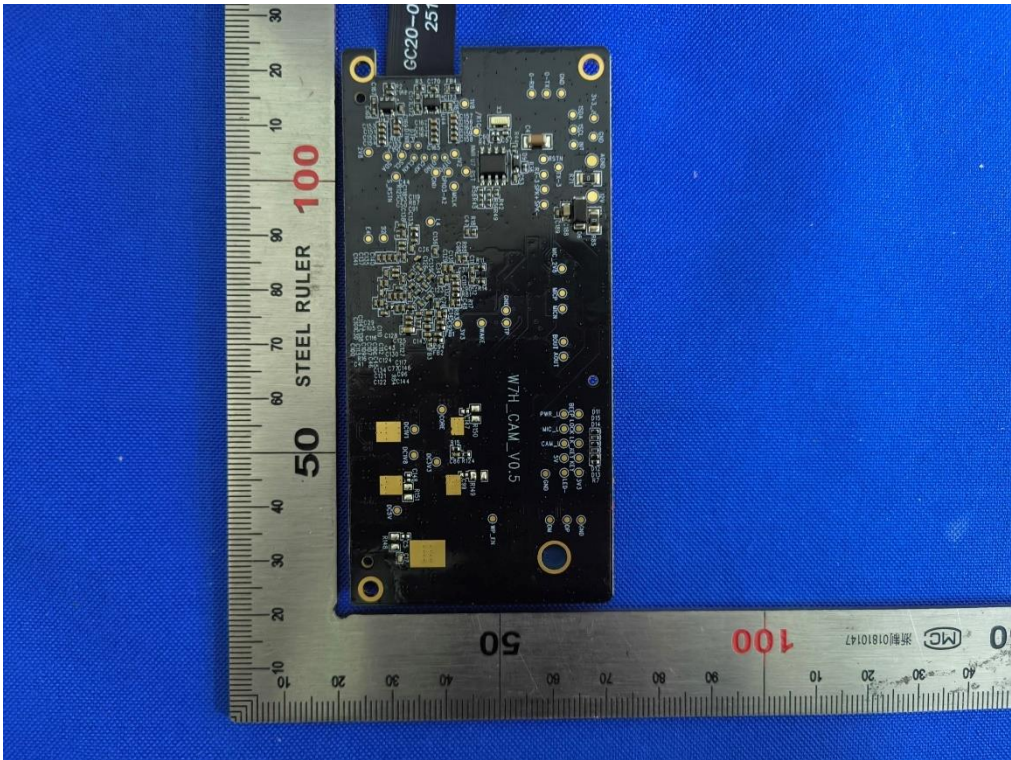
Internal-3 of the sample

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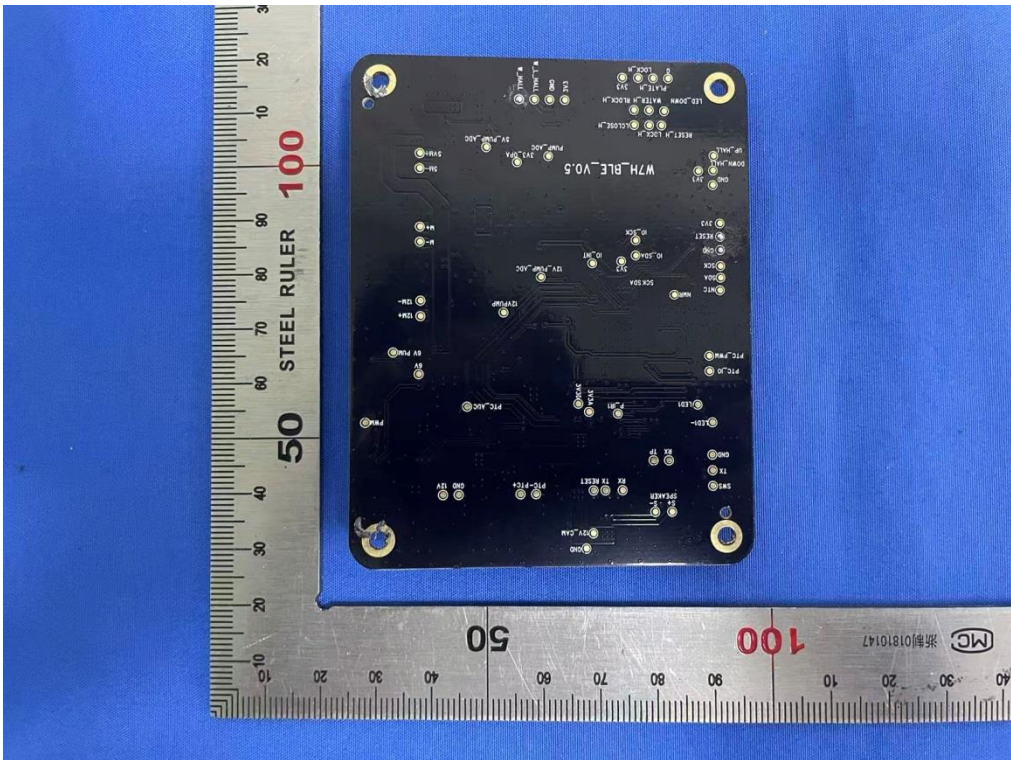
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Internal-4 of the sample



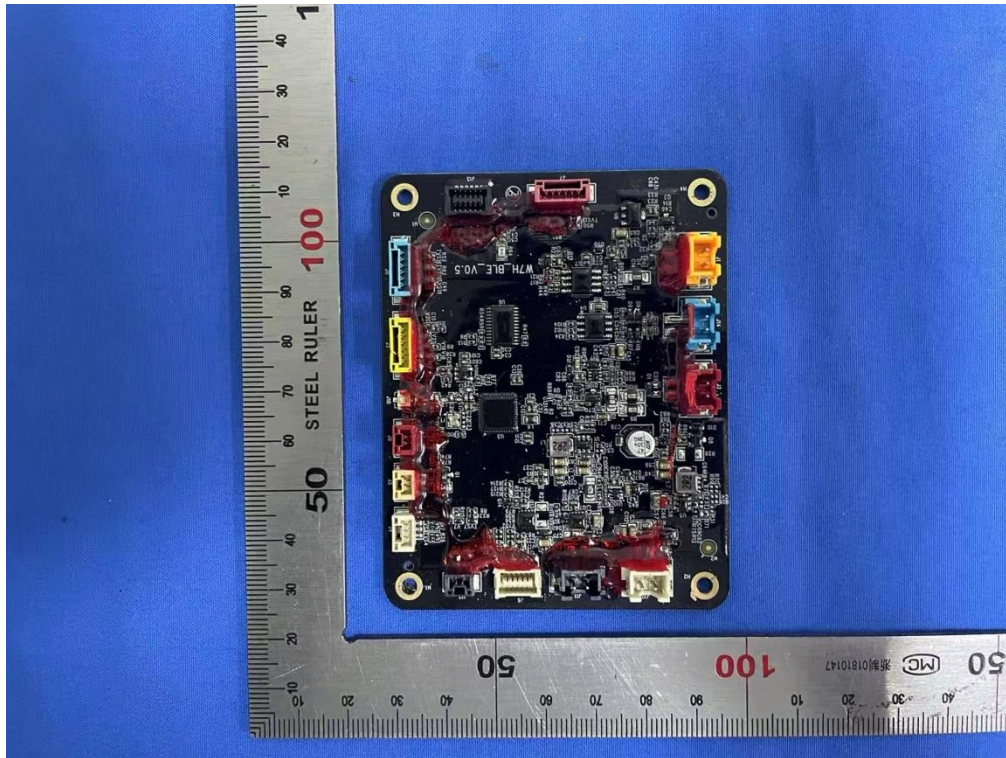
Internal-5 of the sample

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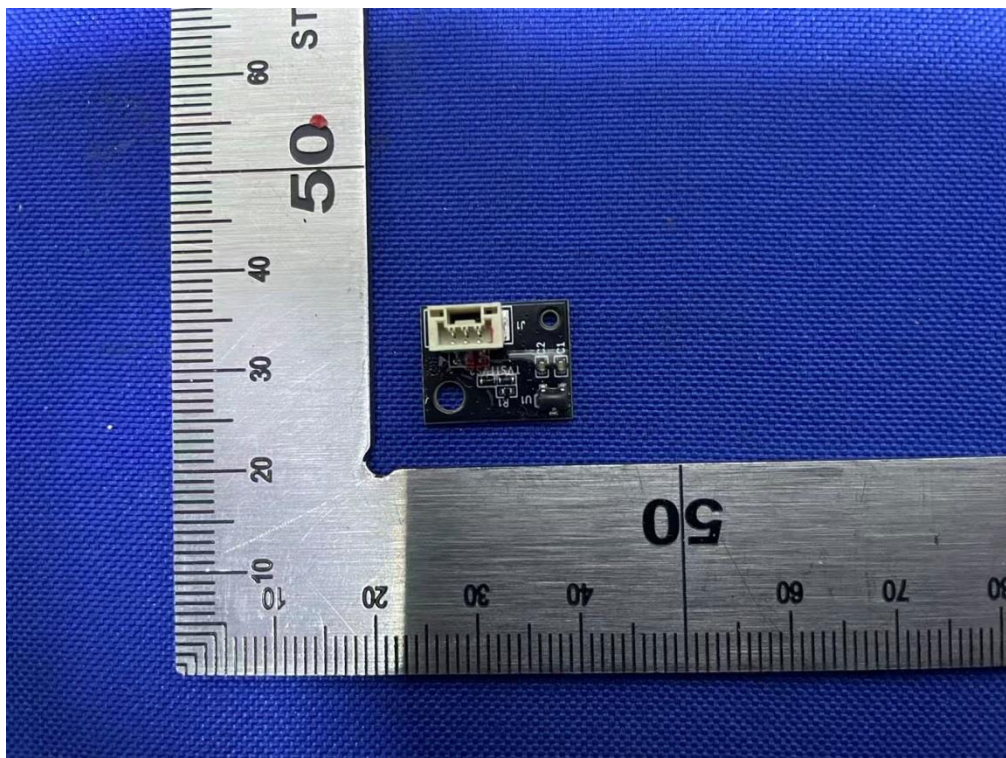
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Internal-6 of the sample



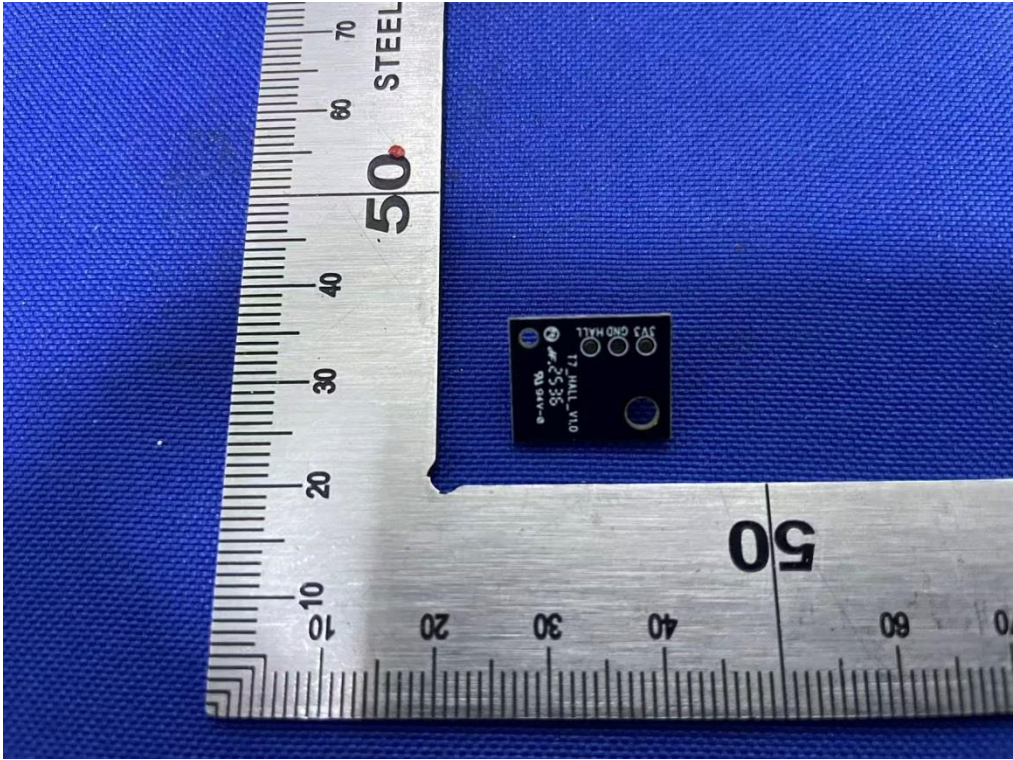
Internal-7 of the sample

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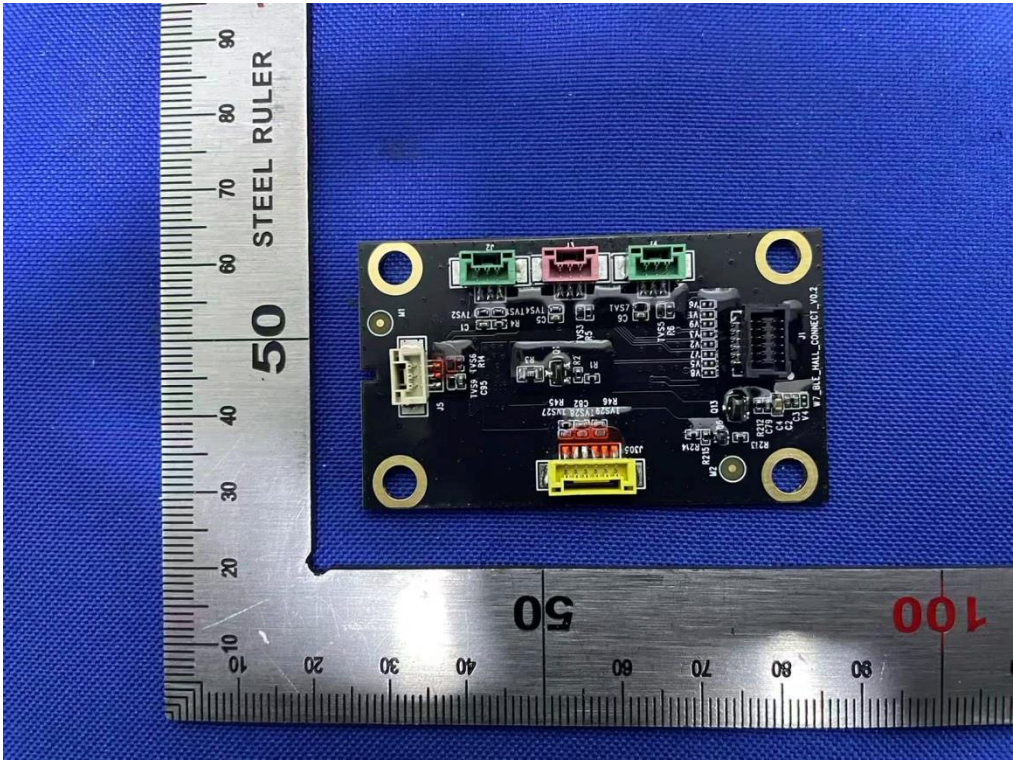
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Internal-8 of the sample



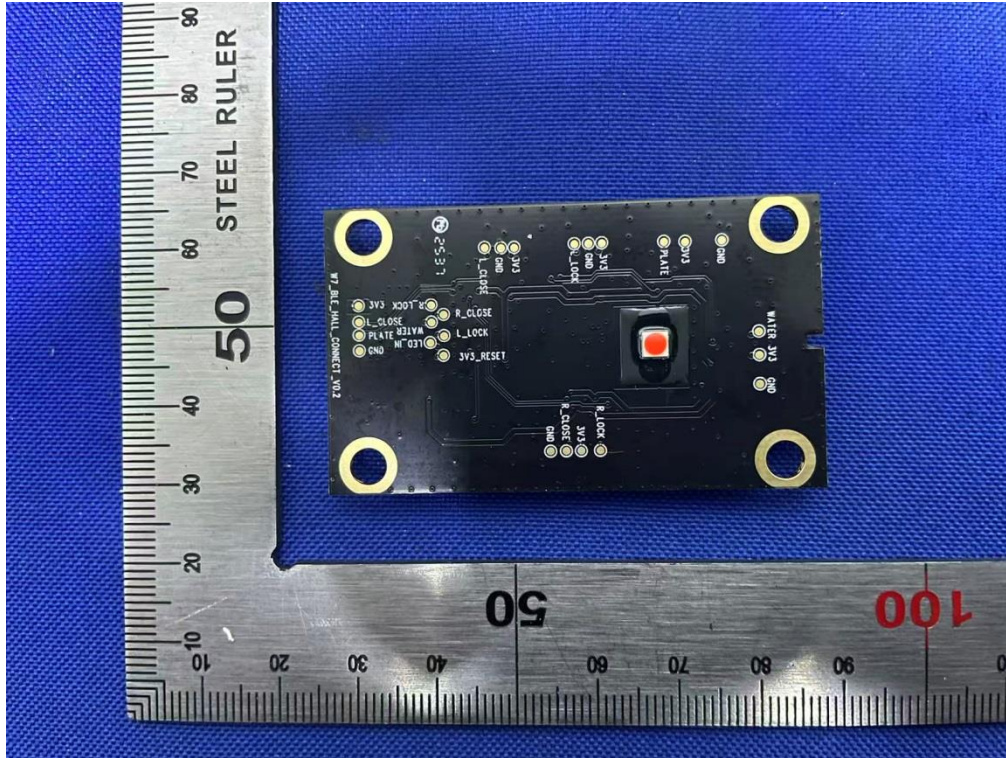
Internal-9 of the sample

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Internal-10 of the sample



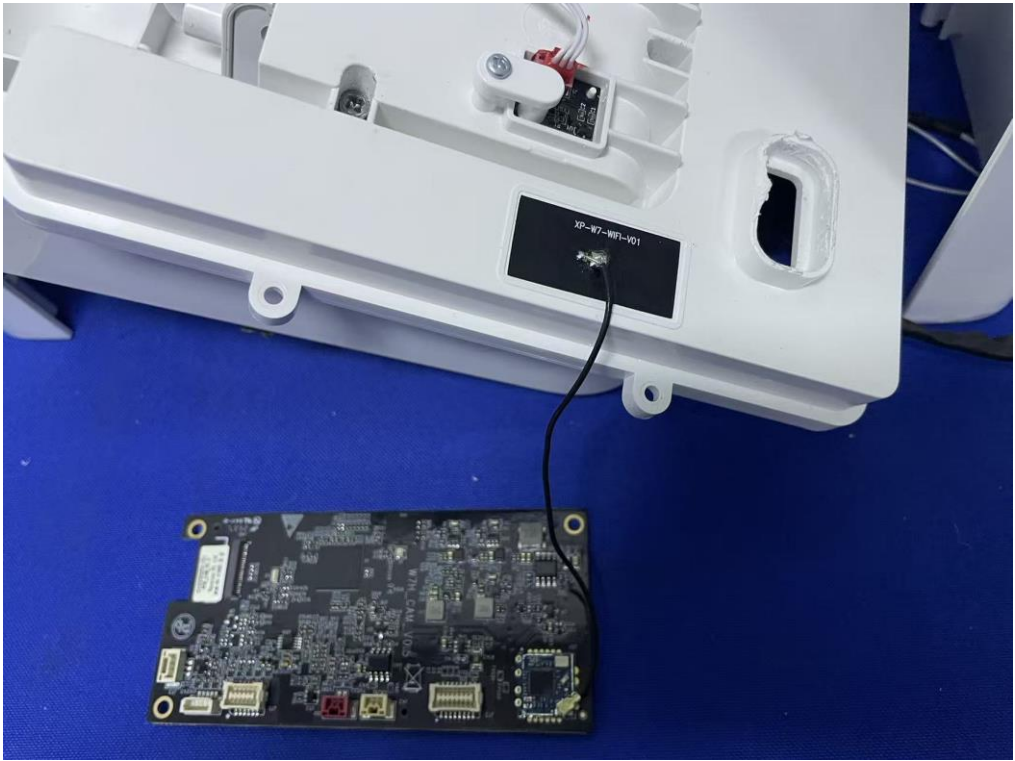
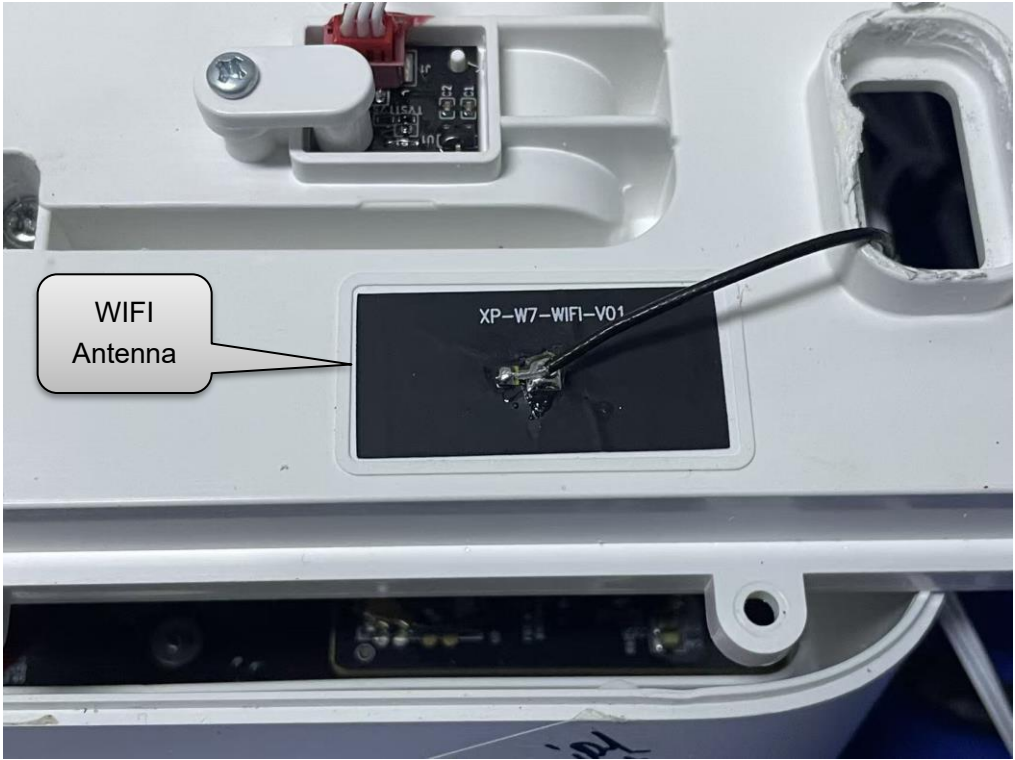
Bluetooth Antenna position

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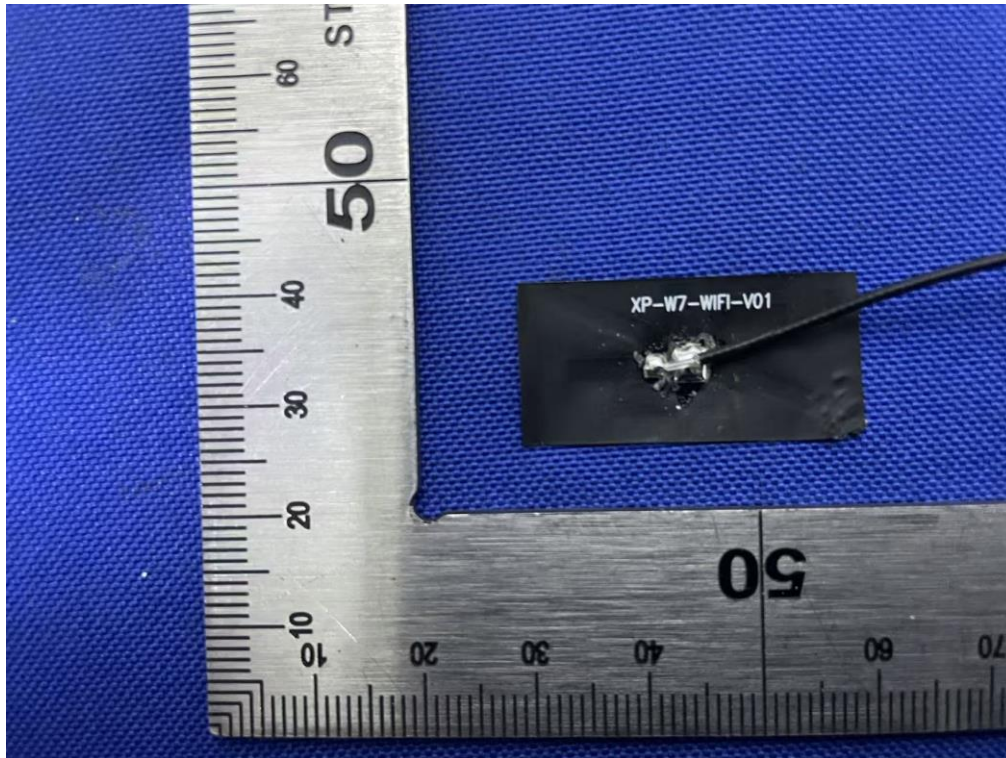
WIFI Antenna position

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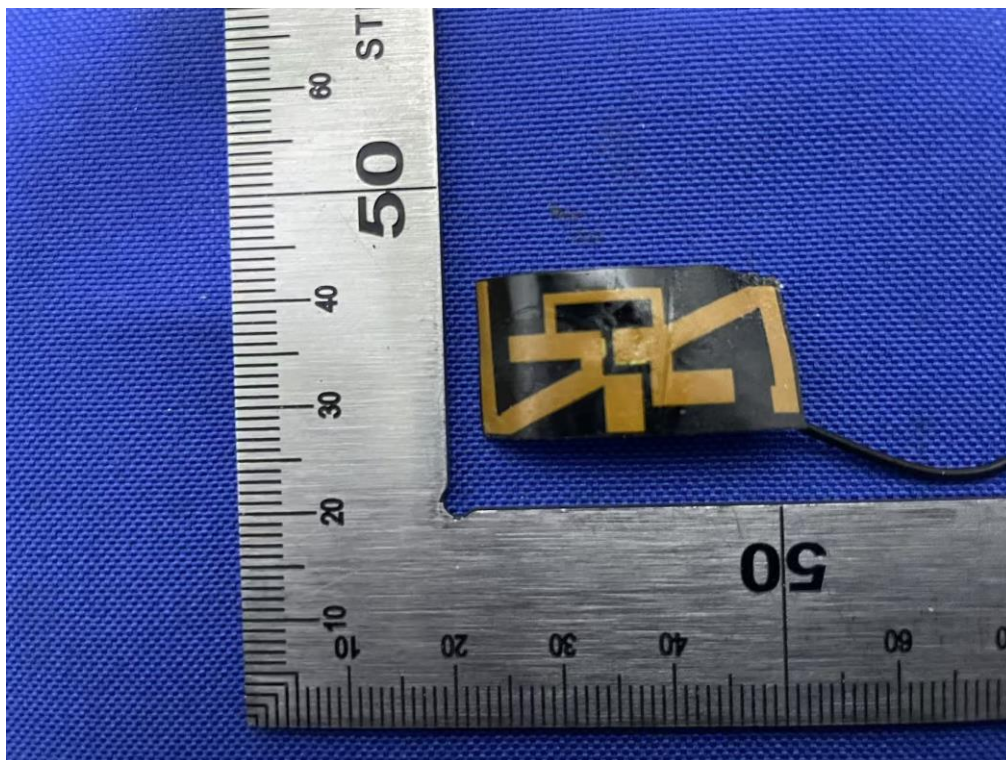
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WIFI Antenna-Front



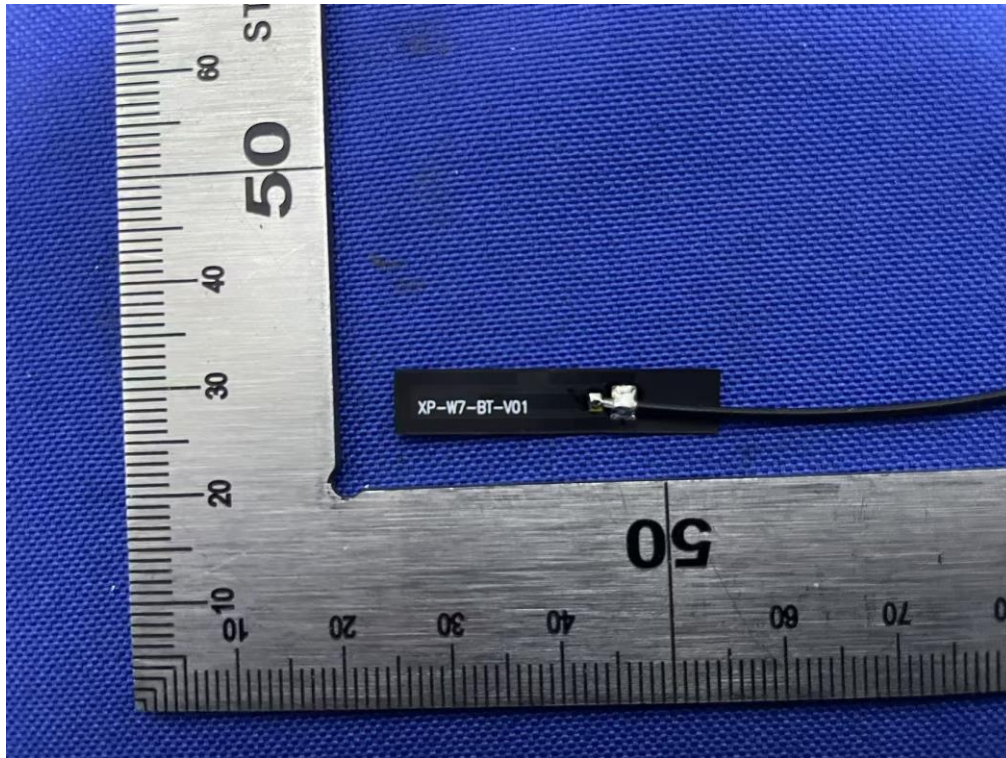
WIFI Antenna-Back

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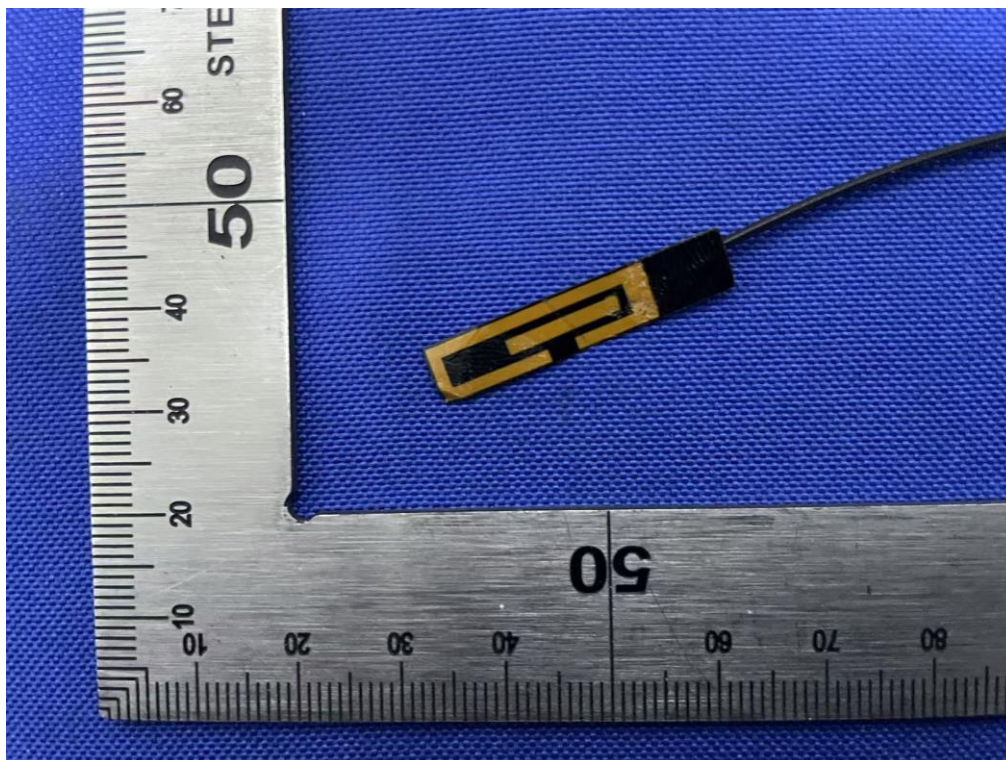
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Bluetooth Antenna-Front



Bluetooth Antenna-Back

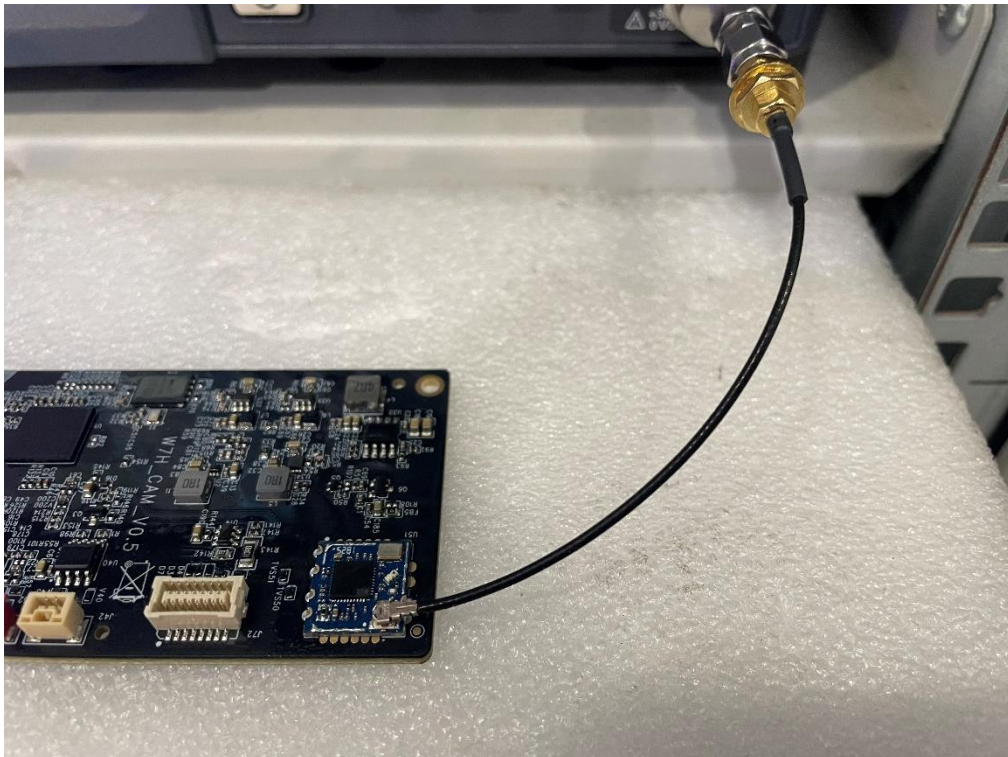
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5.3 Photographs of the Test Set-up



End of the report