



**中认信通**  
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)



# TEST REPORT

**Applicant: JEM ACCESSORIES INC.**

Address: 32 Brunswick Avenue, Edison, New Jersey, United States,08817

**FCC ID: 2AHAS-EIX11004**

**Product Name: Smart indoor fixed camera**

**Standard(s): 47 CFR Part 15, Subpart C(15.247)  
ANSI C63.10-2013  
KDB 558074 D01 15.247 Meas Guidance v05r02**

The above equipment has been tested and found compliant with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

**Report Number: CR230848227-00**

**Date Of Issue: 2023/9/6**

**Reviewed By: Calvin Chen**

Title: RF Engineer

**Approved By: Sun Zhong**

Title: Manager

**Test Laboratory: China Certification ICT Co., Ltd (Dongguan)**

No. 113, Pingkang Road, Dalang Town, Dongguan,  
Guangdong, China  
Tel: +86-769-82016888

*Calvin Chen*

*Sun Zhong*

## Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0123.

## Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol “▲”. Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

This report cannot be reproduced except in full, without prior written approval of the Company.

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

This report may contain data that are not covered by the accreditation scope and shall be marked with an asterisk “★”.

## CONTENTS

<b>TEST FACILITY .....</b>	<b>2</b>
<b>DECLARATIONS.....</b>	<b>2</b>
<b>DOCUMENT REVISION HISTORY .....</b>	<b>5</b>
<b>1. GENERAL INFORMATION.....</b>	<b>6</b>
<b>1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) .....</b>	<b>6</b>
<b>1.2 DESCRIPTION OF TEST CONFIGURATION.....</b>	<b>8</b>
1.2.1 EUT Operation Condition:.....	8
1.2.2 Support Equipment List and Details .....	8
1.2.3 Support Cable List and Details .....	8
1.2.4 Block Diagram of Test Setup.....	9
<b>1.3 MEASUREMENT UNCERTAINTY .....</b>	<b>10</b>
<b>2. SUMMARY OF TEST RESULTS.....</b>	<b>11</b>
<b>3. REQUIREMENTS AND TEST PROCEDURES .....</b>	<b>12</b>
<b>3.1 AC LINE CONDUCTED EMISSIONS.....</b>	<b>12</b>
3.1.1 Applicable Standard.....	12
3.1.2 EUT Setup.....	13
3.1.3 EMI Test Receiver Setup .....	13
3.1.4 Test Procedure .....	14
3.1.5 Corrected Amplitude & Margin Calculation.....	14
<b>3.2 RADIATION SPURIOUS EMISSIONS.....</b>	<b>15</b>
3.2.1 Applicable Standard.....	15
3.2.2 EUT Setup.....	15
3.2.3 EMI Test Receiver & Spectrum Analyzer Setup .....	16
3.2.4 Test Procedure .....	16
3.2.5 Corrected Amplitude & Margin Calculation.....	16
<b>3.3 MINIMUM 6 DB EMISSION BANDWIDTH .....</b>	<b>17</b>
3.3.1 Applicable Standard.....	17
3.3.2 EUT Setup.....	17
3.3.3 Test Procedure .....	17
<b>3.4 99% OCCUPIED BANDWIDTH.....</b>	<b>18</b>
3.4.1 EUT Setup.....	18
3.4.2 Test Procedure .....	18
<b>3.5 MAXIMUM CONDUCTED OUTPUT POWER.....</b>	<b>19</b>
3.5.1 Applicable Standard.....	19
3.5.2 EUT Setup.....	19
3.5.3 Test Procedure .....	19
<b>3.6 MAXIMUM POWER SPECTRAL DENSITY .....</b>	<b>20</b>
3.6.1 Applicable Standard.....	20
3.6.2 EUT Setup.....	20
3.6.3 Test Procedure .....	20
<b>3.7 100 KHZ BANDWIDTH OF FREQUENCY BAND EDGE.....</b>	<b>21</b>



## DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR230848227-00	Original Report	2023/9/6



**Antenna Information Detail▲:**

Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain
Ceramic	50	2.4~2.5GHz	3.47 dBi

The Method of §15.203 Compliance:

- Antenna must be permanently attached to the unit.  
 Antenna must use a unique type of connector to attach to the EUT.  
 Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

**Accessory Information:**

Accessory Description	Manufacturer	Model	Parameters
Adapter	SHENZHEN KEYU POWER SUPPLY TECHNOLOGY CO.,LTD.	KA06E-0501000US	Input: 100-240V~50/60Hz 0.25A Output: 5.0V 1000mA

## 1.2 Description of Test Configuration

### 1.2.1 EUT Operation Condition:

For 802.11b/g/n:

<b>EUT Operation Mode:</b>	The system was configured for testing in Engineering Mode, which was provided by the manufacturer.			
<b>Equipment Modifications:</b>	No			
<b>EUT Exercise Software:</b>	SecureCRSecureFX_x64			
The software was provided by manufacturer. The maximum power was configured as below, that was provided by the manufacturer ▲:				
Test Modes	Data Rate	Power Level Setting		
		Lowest Channel	Middle Channel	Highest Channel
802.11b	1Mbps	Default	Default	Default
802.11g	6Mbps	Default	Default	Default
802.11n ht20	MCS0	Default	Default	Default
802.11n ht40	MCS0	Default	Default	Default
The above are the worst-case data rates, which are determined for each mode based upon investigations by measuring the average power and PSD across all data rates, bandwidths, and modulations.				

### 1.2.2 Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
SHENZHEN KEYU POWER SUPPLY TECHNOLOGY CO.,LTD.	Adapter	KA06E-0501000US	2324

### 1.2.3 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
Power Cable	NO	NO	1.2	Adapter	EUT





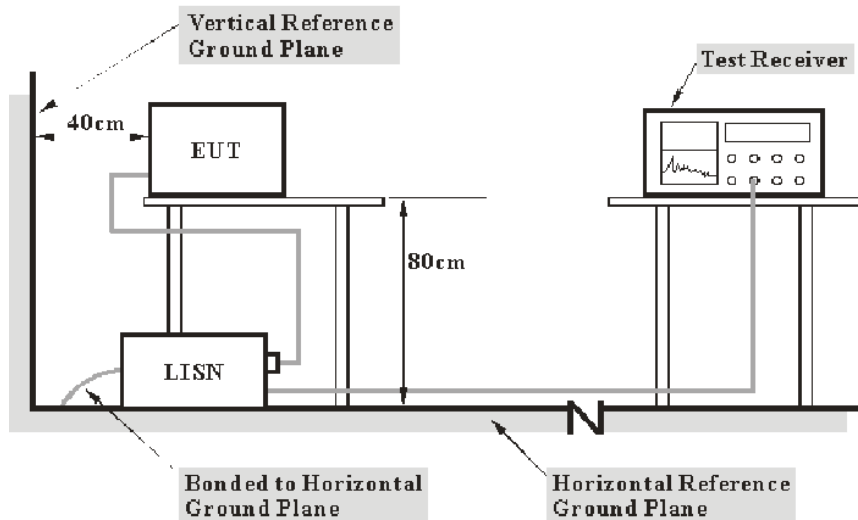


## 2. SUMMARY OF TEST RESULTS

Standard(s) Section	Test Items	Result
§15.207(a)	AC Line Conducted Emissions	Compliant
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliant
§15.247 (a)(2)	Minimum 6 dB Bandwidth	Compliant
§15.247(b)(3)	Maximum Conducted Output Power	Compliant
§15.247(d)	100 kHz Bandwidth Of Frequency Band Edge	Compliant
§15.247(e)	Power Spectral Density	Compliant
§15.203	Antenna Requirement	Compliant
FCC§15.247 (i) & §1.1307	RF Exposure Evaluation	Compliant



### 3.1.2 EUT Setup



- Note: 1. Support units were connected to second LISN.  
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

The adapter or EUT was connected to the main LISN with a 120 V/60 Hz AC power source.

### 3.1.3 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

### 3.1.4 Test Procedure

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit, measured over all the current-carrying conductors of the EUT power cords, and the operating frequency or frequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are more than 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carried out only on each of the phase (“hot”) line(s) and (if used) on the neutral line(s), but not on the ground [protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noise level of the measuring instrument at representative frequencies should be reported. The specific conductor of the power-line cord for each of the reported emissions should be identified. Measure the six highest emissions with respect to the limit on each current-carrying conductor of each power cord associated with the EUT (but not the power cords of associated or peripheral equipment that are part of the test configuration). Then, report the six highest emissions with respect to the limit from among all the measurements identifying the frequency and specific current-carrying conductor identified with the emission. The six highest emissions should be reported for each of the current-carrying conductors, or the six highest emissions may be reported over all the current-carrying conductors.

### 3.1.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

Factor = attenuation caused by cable loss + voltage division factor of AMN

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

## 3.2 Radiation Spurious Emissions

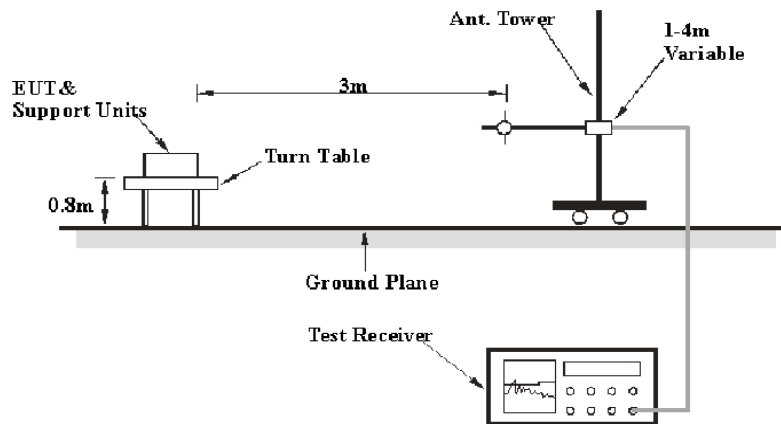
### 3.2.1 Applicable Standard

FCC §15.247 (d);

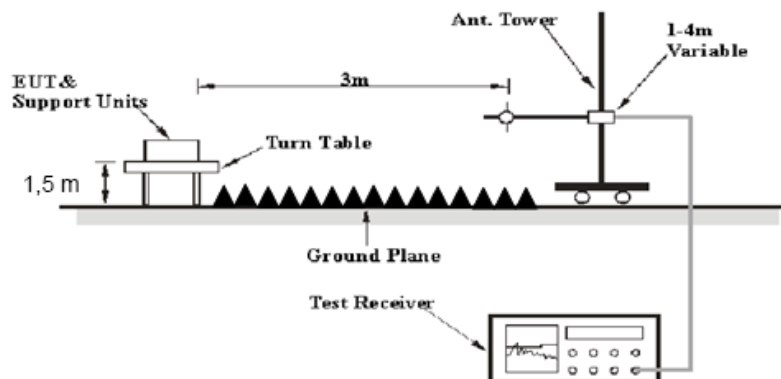
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

### 3.2.2 EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emissions were performed in the 3 meters distance, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.247 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

### 3.2.3 EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

30-1000MHz:

Measurement	RBW	Video B/W	IF B/W
QP	120 kHz	300 kHz	120kHz

1GHz- 25GHz:

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
Ave.	>98%	1MHz	10 Hz
	<98%	1MHz	$\geq 1/T$

Note: T is minimum transmission duration

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

### 3.2.4 Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1 GHz, peak and Average detection modes for frequencies above 1 GHz.

### 3.2.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

Factor = Antenna Factor + Cable Loss- Amplifier Gain

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result



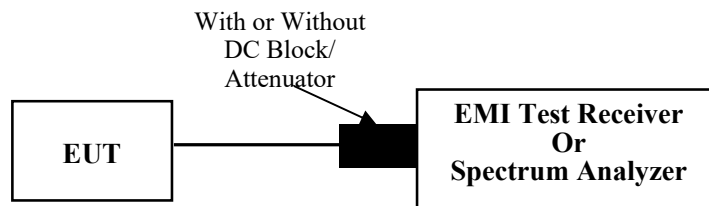
### 3.3 Minimum 6 dB Emission Bandwidth

#### 3.3.1 Applicable Standard

FCC §15.247 (a)(2)

Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

#### 3.3.2 EUT Setup



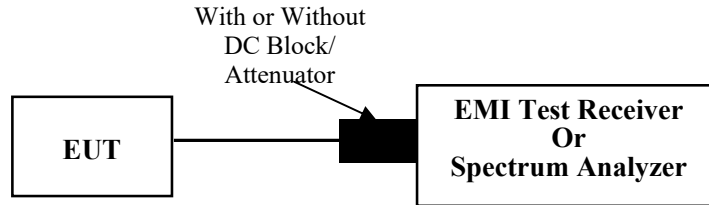
#### 3.3.3 Test Procedure

According to ANSI C63.10-2013 Section 11.8

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW)  $\geq 3 \times$  RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

### 3.4 99% Occupied Bandwidth

#### 3.4.1 EUT Setup



#### 3.4.2 Test Procedure

According to ANSI C63.10-2013 Section 6.9.3

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than  $[10 \log (OBW/RBW)]$  below the reference level. Specific guidance is given in 4.1.5.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
- g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).



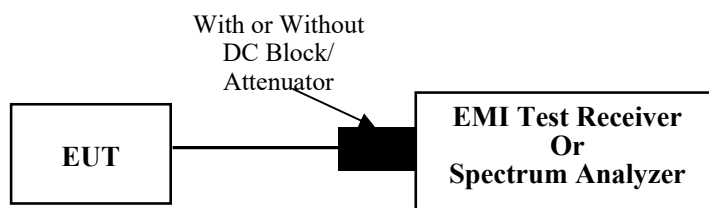
### 3.6 Maximum Power Spectral Density

#### 3.6.1 Applicable Standard

FCC §15.247 (e)

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

#### 3.6.2 EUT Setup



#### 3.6.3 Test Procedure

According to ANSI C63.10-2013 Section 11.10.2

The following procedure shall be used if maximum peak conducted output power was used to determine compliance:

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5 times the DTS bandwidth.
- c) Set RBW to:  $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$ .
- d) Set VBW  $\geq [3 \times \text{RBW}]$ .
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.

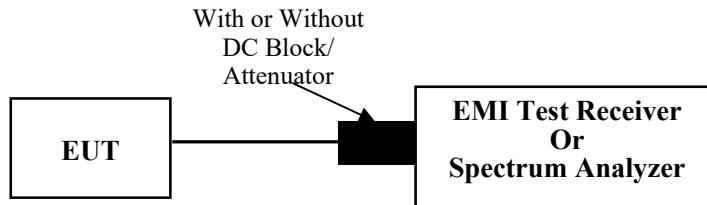
### 3.7 100 kHz Bandwidth of Frequency Band Edge

#### 3.7.1 Applicable Standard

FCC §15.247 (d);

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

#### 3.7.2 EUT Setup



#### 3.7.3 Test Procedure

According to ANSI C63.10-2013 Section 11.11

- a) Set the center frequency and span to encompass frequency range to be measured.
- b) Set the RBW = 100 kHz.
- c) Set the VBW  $\geq [3 \times \text{RBW}]$ .
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.



## 4. Test DATA AND RESULTS

### 4.1 AC Line Conducted Emissions

Serial Number:	2A5T-1	Test Date:	2023/8/30
Test Site:	CE	Test Mode:	Transmitting(Maximum output power mode 802.11b low channel)
Tester:	David Huang	Test Result:	Pass

#### Environmental Conditions:

Temperature: (°C)	24.5	Relative Humidity: (%)	53	ATM Pressure: (kPa)	99.7
----------------------	------	---------------------------	----	------------------------	------

#### Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101134	2023/3/31	2024/3/30
R&S	EMI Test Receiver	ESR3	102726	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2023/8/6	2024/8/5
Audix	Test Software	E3	190306 (V9)	N/A	N/A

\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

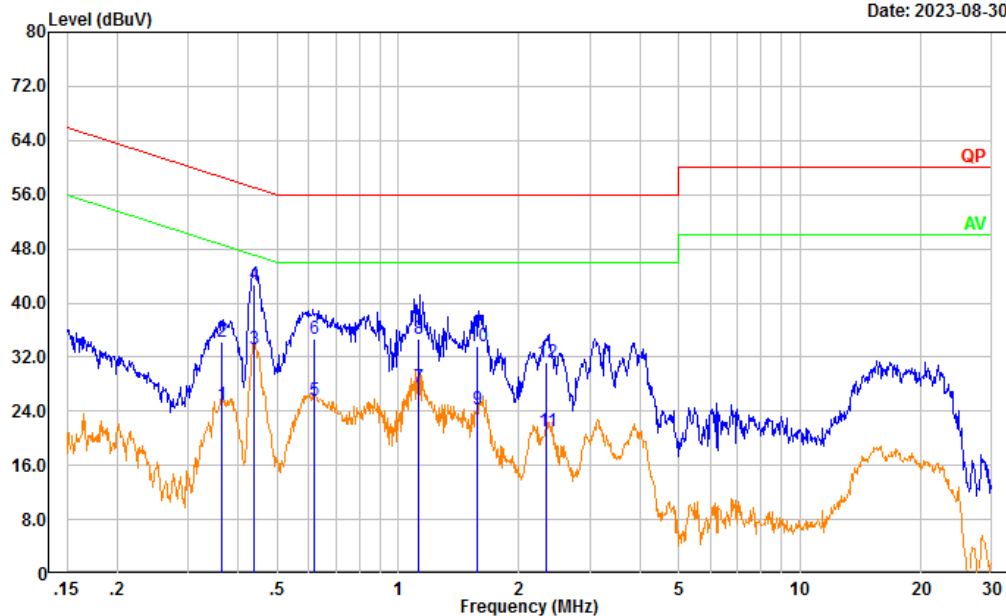
#### Test Data:





Project No.: CR230848227-RF  
 Tester: David Huang  
 Port: neutral  
 Note:

Date: 2023-08-30



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.363	15.32	9.61	24.93	48.65	23.72	Average
2	0.363	24.64	9.61	34.25	58.65	24.40	QP
3	0.438	23.64	9.61	33.25	47.11	13.86	Average
4	0.438	33.07	9.61	42.68	57.11	14.43	QP
5	0.620	16.03	9.62	25.65	46.00	20.35	Average
6	0.620	25.11	9.62	34.73	56.00	21.27	QP
7	1.121	17.88	9.62	27.50	46.00	18.50	Average
8	1.121	24.97	9.62	34.59	56.00	21.41	QP
9	1.578	14.66	9.63	24.29	46.00	21.71	Average
10	1.578	24.05	9.63	33.68	56.00	22.32	QP
11	2.344	11.29	9.64	20.93	46.00	25.07	Average
12	2.344	21.64	9.64	31.28	56.00	24.72	QP

**4.2 Radiation Spurious Emissions**

Serial Number:	2A5T-1	Test Date:	2023/8/27~2023/9/2
Test Site:	966-2,966-1	Test Mode:	Transmitting
Tester:	Hugo Huo, coco Tian	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	25.5~26.2	Relative Humidity: (%)	53~65	ATM Pressure: (kPa)	99.3~100.1
----------------------	-----------	------------------------------	-------	------------------------	------------

**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-5	2020/10/19	2023/10/18
R&S	EMI Test Receiver	ESR3	102724	2023/3/31	2024/3/30
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2023/7/16	2024/7/15
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2023/7/16	2024/7/15
Sonoma	Amplifier	310N	186165	2023/7/16	2024/7/15
ETS-Lindgren	Horn Antenna	3115	9912-5985	2020/10/13	2023/10/12
R&S	Spectrum Analyzer	FSV40	101591	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2023/8/6	2024/8/5
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2023/8/6	2024/8/5
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2022/11/9	2023/11/8
Audix	Test Software	E3	201021 (V9)	N/A	N/A
PASTERNAK	Horn Antenna	PE9852/2F-20	112002	2021/2/5	2024/2/4
Quinstar	Preamplifier	QLW-18405536-JO	15964001005	2022/9/16	2023/9/15
MICRO-COAX	Coaxial Cable	UFB142A-1-2362-200200	235772-001	2023/8/6	2024/8/5
E-Microwave	Band Rejection Filter	2400-2483.5MHz	OE01902424	2023/8/6	2024/8/5
Mini Circuits	High Pass Filter	VHF-6010+	31119	2023/8/6	2024/8/5

\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Data:**

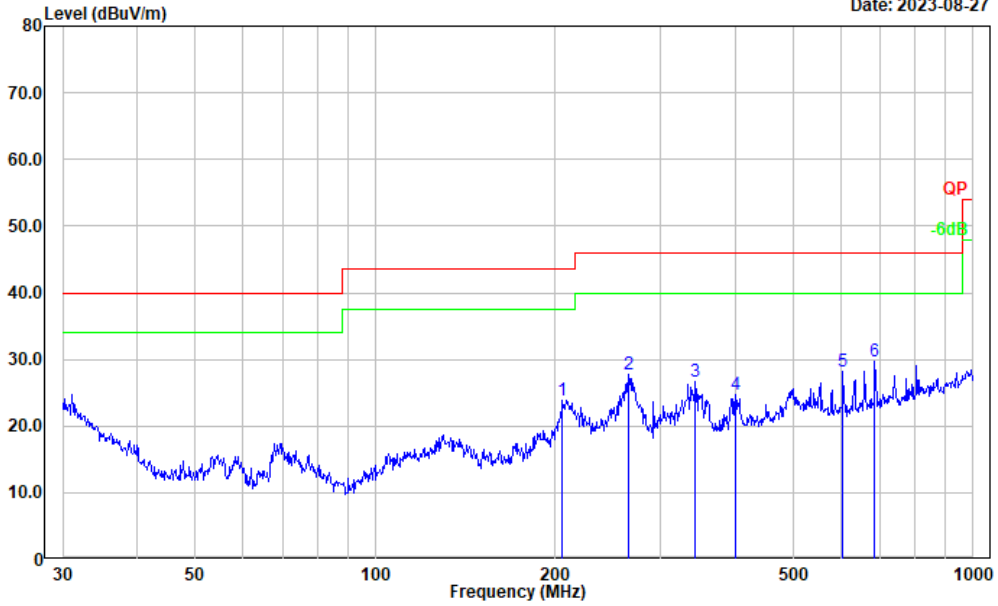
Please refer to the below table and plots.

After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

**1) 30MHz-1GHz(Maximum output power mode 802.11b mode)  
Low Channel**

Project No.: CR230848227-RF  
 Tester: Hugo Huo  
 Polarization: horizontal  
 Note:

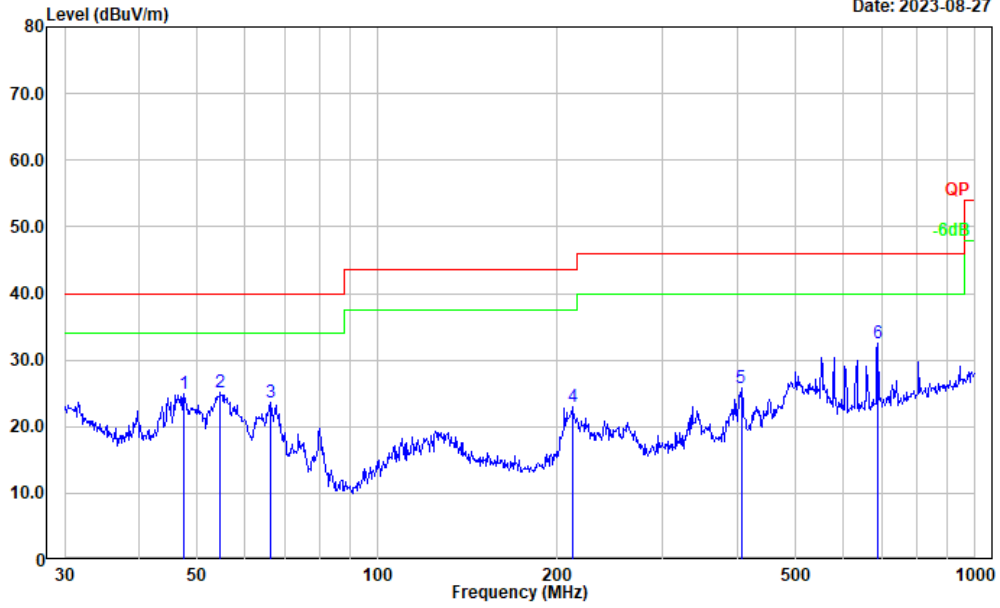
Date: 2023-08-27



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	205.675	36.23	-12.37	23.86	43.50	19.64	Peak
2	264.746	40.04	-12.29	27.75	46.00	18.25	Peak
3	343.180	36.64	-10.04	26.60	46.00	19.40	Peak
4	400.432	33.51	-8.74	24.77	46.00	21.23	Peak
5	605.659	33.03	-4.84	28.19	46.00	17.81	Peak
6	684.745	33.38	-3.59	29.79	46.00	16.21	Peak

Project No.: CR230848227-RF  
 Tester: Hugo Huo  
 Polarization: vertical  
 Note:

Date: 2023-08-27

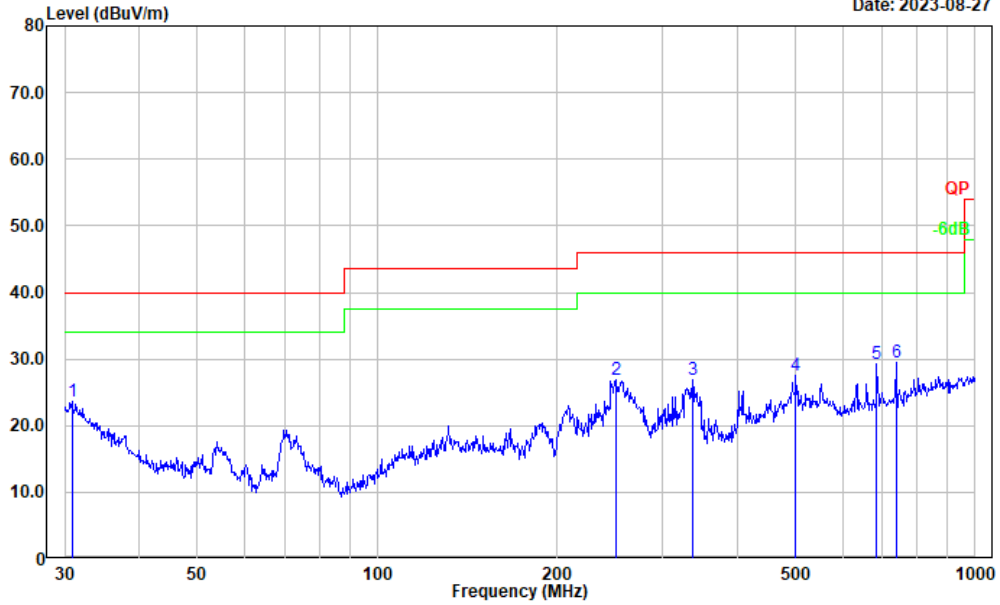


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	47.492	40.70	-15.72	24.98	40.00	15.02	Peak
2	54.643	42.31	-17.27	25.04	40.00	14.96	Peak
3	66.266	40.54	-16.84	23.70	40.00	16.30	Peak
4	212.270	35.52	-12.54	22.98	43.50	20.52	Peak
5	406.088	34.43	-8.58	25.85	46.00	20.15	Peak
6	687.151	36.09	-3.55	32.54	46.00	13.46	Peak

**Middle Channel**

Project No.: CR230848227-RF  
 Tester: Hugo Huo  
 Polarization: horizontal  
 Note:

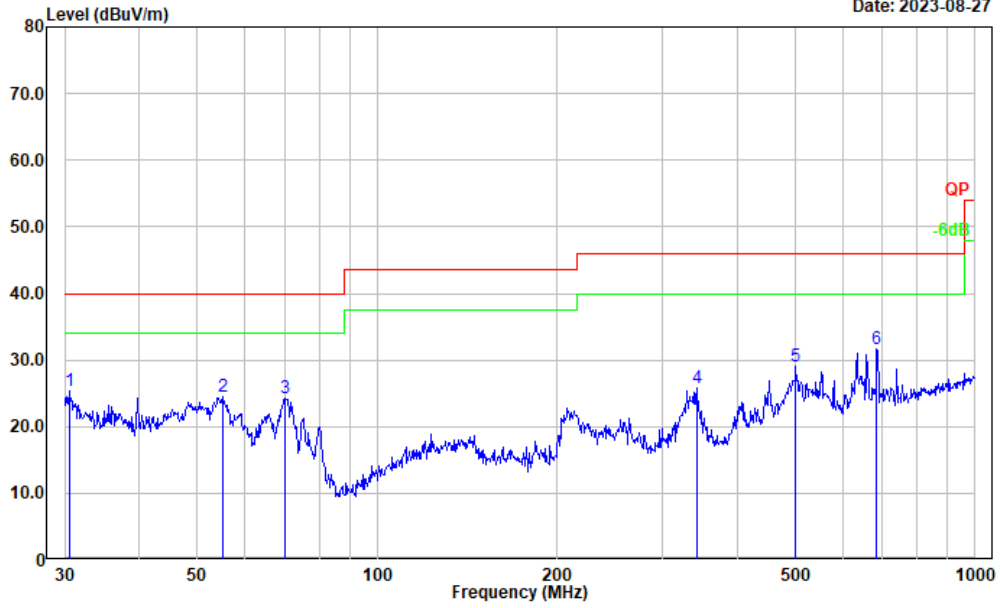
Date: 2023-08-27



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.853	27.92	-4.26	23.66	40.00	16.34	Peak
2	251.180	39.94	-13.03	26.91	46.00	19.09	Peak
3	337.216	36.93	-10.10	26.83	46.00	19.17	Peak
4	501.179	33.43	-5.99	27.44	46.00	18.56	Peak
5	684.745	32.88	-3.59	29.29	46.00	16.71	Peak
6	737.071	32.45	-2.91	29.54	46.00	16.46	Peak

Project No.: CR230848227-RF  
 Tester: Hugo Huo  
 Polarization: vertical  
 Note:

Date: 2023-08-27



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.531	29.44	-4.00	25.44	40.00	14.56	Peak
2	55.027	41.81	-17.28	24.53	40.00	15.47	Peak
3	70.090	40.79	-16.47	24.32	40.00	15.68	Peak
4	343.180	35.94	-10.04	25.90	46.00	20.10	Peak
5	501.179	34.98	-5.99	28.99	46.00	17.01	Peak
6	684.745	35.31	-3.59	31.72	46.00	14.28	Peak









**802.11g Mode:**

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
	Reading (dB $\mu$ V)	Detector					
Low Channel: 2412 MHz							
2390.000	28.79	PK	H	31.46	60.25	74.00	13.75
2390.000	14.27	AV	H	31.46	45.73	54.00	8.27
2390.000	27.91	PK	V	31.46	59.37	74.00	14.63
2390.000	14.52	AV	V	31.46	45.98	54.00	8.02
4824.000	35.97	PK	H	10.94	46.91	74.00	27.09
4824.000	25.03	AV	H	10.94	35.97	54.00	18.03
4824.000	37.64	PK	V	10.94	48.58	74.00	25.42
4824.000	26.16	AV	V	10.94	37.10	54.00	16.90
Middle Channel: 2437 MHz							
4874.000	35.24	PK	H	11.05	46.29	74.00	27.71
4874.000	24.30	AV	H	11.05	35.35	54.00	18.65
4874.000	36.91	PK	V	11.05	47.96	74.00	26.04
4874.000	25.43	AV	V	11.05	36.48	54.00	17.52
High Channel: 2462MHz							
2483.500	27.71	PK	H	31.64	59.35	74.00	14.65
2483.500	15.14	AV	H	31.64	46.78	54.00	7.22
2483.500	28.91	PK	V	31.64	60.55	74.00	13.45
2483.500	14.46	AV	V	31.64	46.10	54.00	7.90
4924.000	37.13	PK	H	11.19	48.32	74.00	25.68
4924.000	24.72	AV	H	11.19	35.91	54.00	18.09
4924.000	37.64	PK	V	11.19	48.83	74.00	25.17
4924.000	26.26	AV	V	11.19	37.45	54.00	16.55

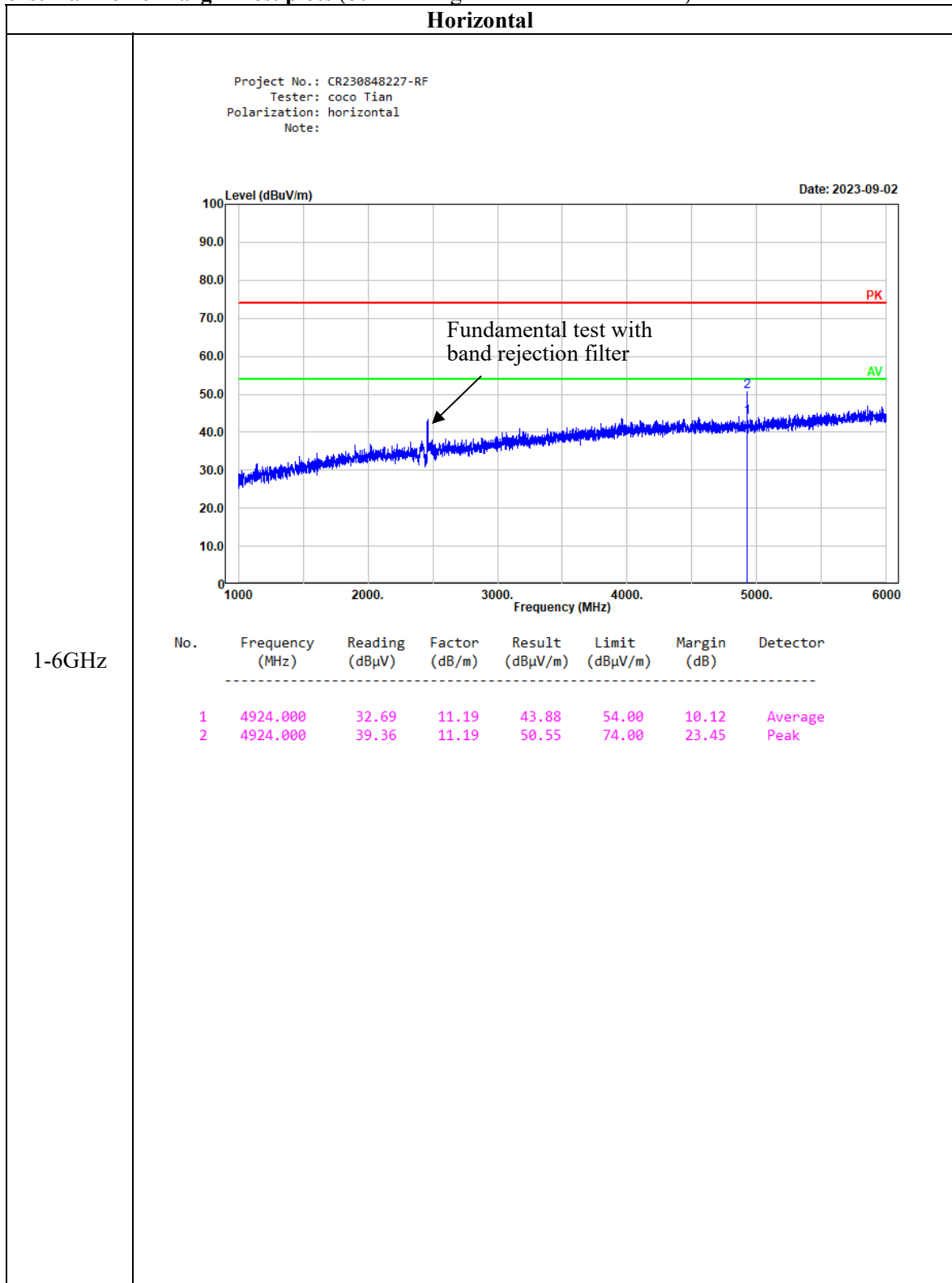


**802.11n ht40 Mode:**

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
	Reading (dB $\mu$ V)	Detector					
Low Channel: 2422 MHz							
2390.000	26.90	PK	H	31.46	58.36	74.00	15.64
2390.000	14.96	AV	H	31.46	46.42	54.00	7.58
2390.000	26.85	PK	V	31.46	58.31	74.00	15.69
2390.000	14.99	AV	V	31.46	46.45	54.00	7.55
4844.000	36.45	PK	H	10.96	47.41	74.00	26.59
4844.000	24.99	AV	H	10.96	35.95	54.00	18.05
4844.000	37.01	PK	V	10.96	47.97	74.00	26.03
4844.000	26.08	AV	V	10.96	37.04	54.00	16.96
Middle Channel: 2437 MHz							
4874.000	35.68	PK	H	11.05	46.73	74.00	27.27
4874.000	24.22	AV	H	11.05	35.27	54.00	18.73
4874.000	36.24	PK	V	11.05	47.29	74.00	26.71
4874.000	25.31	AV	V	11.05	36.36	54.00	17.64
High Channel: 2452MHz							
2483.500	26.61	PK	H	31.64	58.25	74.00	15.75
2483.500	14.44	AV	H	31.64	46.08	54.00	7.92
2483.500	26.68	PK	V	31.64	58.32	74.00	15.68
2483.500	14.52	AV	V	31.64	46.16	54.00	7.84
4904.000	36.98	PK	H	11.14	48.12	74.00	25.88
4904.000	25.40	AV	H	11.14	36.54	54.00	17.46
4904.000	37.69	PK	V	11.14	48.83	74.00	25.17
4904.000	25.77	AV	V	11.14	36.91	54.00	17.09

Note: other emissions which were more than 20dB below the Peak limit or on noise floor level was not recorded.

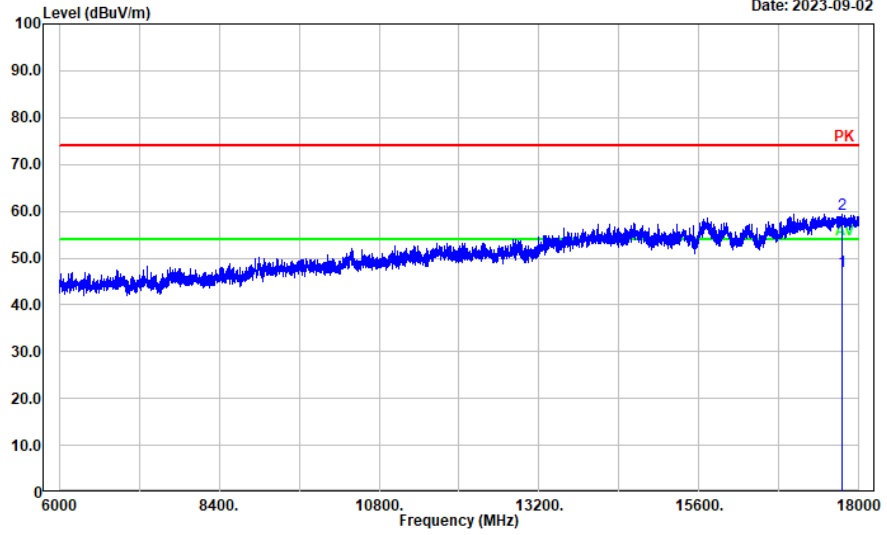
**Worst Harmonic Margin Test plots (802.11b High channel was the worst)**



**Horizontal**

Project No.: CR230848227-RF  
 Tester: coco Tian  
 Polarization: horizontal  
 Note:

Date: 2023-09-02

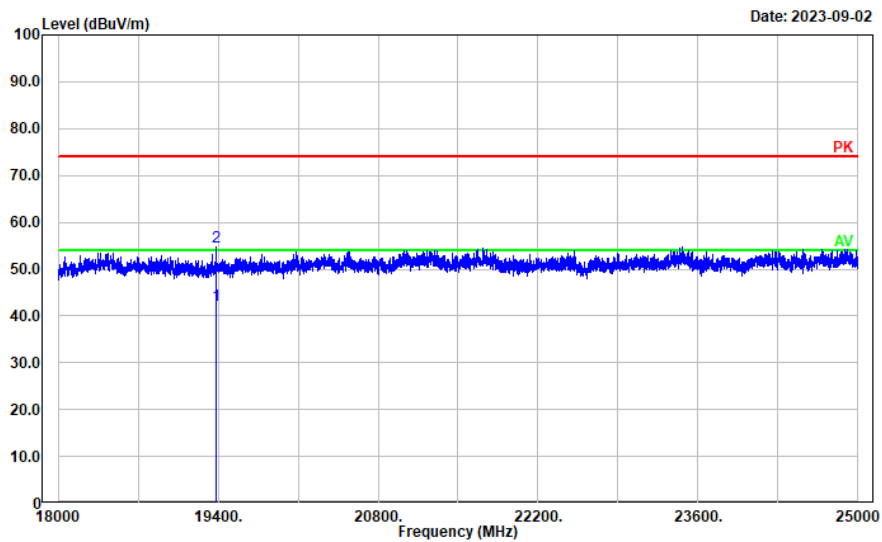


6-18GHz

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	17735.950	16.69	30.52	47.21	54.00	6.79	Average
2	17735.950	28.90	30.52	59.42	74.00	14.58	Peak

**Horizontal**

Project No.: CR230848227-RF  
 Tester: coco Tian  
 Polarization: Horizontal  
 Note:



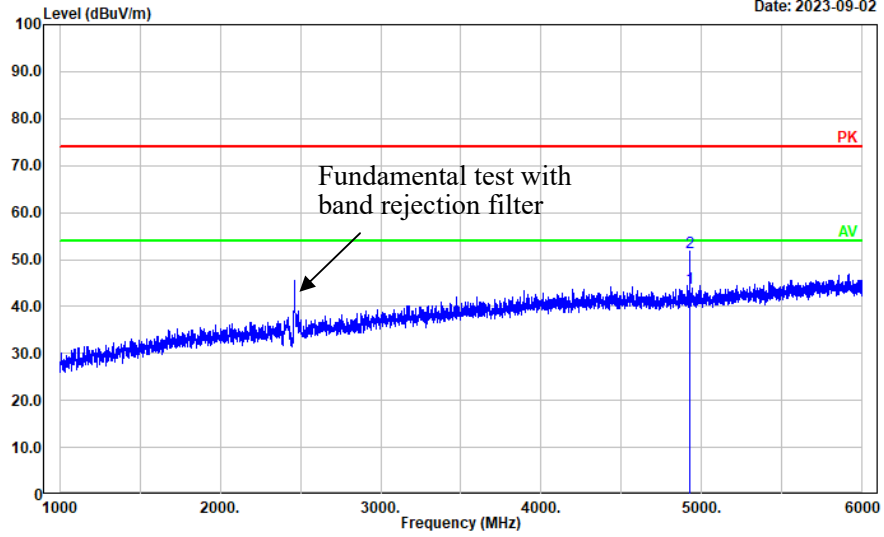
18-25GHz

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	19382.080	37.61	4.79	42.40	54.00	11.60	Average
2	19382.080	50.01	4.79	54.80	74.00	19.20	Peak

**Vertical**

Project No.: CR230848227-RF  
 Tester: coco Tian  
 Polarization: Vertical  
 Note:

Date: 2023-09-02



1-6GHz

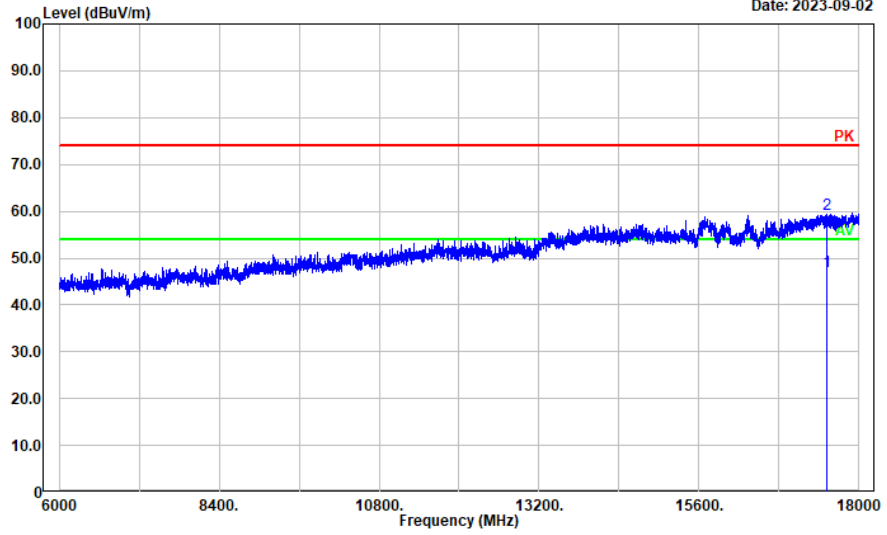
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	4924.000	32.73	11.19	43.92	54.00	10.08	Average
2	4924.000	40.23	11.19	51.42	74.00	22.58	Peak



**Vertical**

Project No.: CR230848227-RF  
 Tester: coco Tian  
 Polarization: Vertical  
 Note:

Date: 2023-09-02



6-18GHz

No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	17507.900	18.42	28.80	47.22	54.00	6.78	Average
2	17507.900	30.64	28.80	59.44	74.00	14.56	Peak



**4.3 Minimum 6 dB Emission Bandwidth**

Serial Number:	2A5T-1	Test Date:	2023/8/8
Test Site:	RF	Test Mode:	Transmitting
Tester:	Panda Sun	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	26.3	Relative Humidity: (%)	52	ATM Pressure: (kPa)	101.2
----------------------	------	------------------------------	----	------------------------	-------

**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200120	2023/4/18	2024/4/17
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Data:**

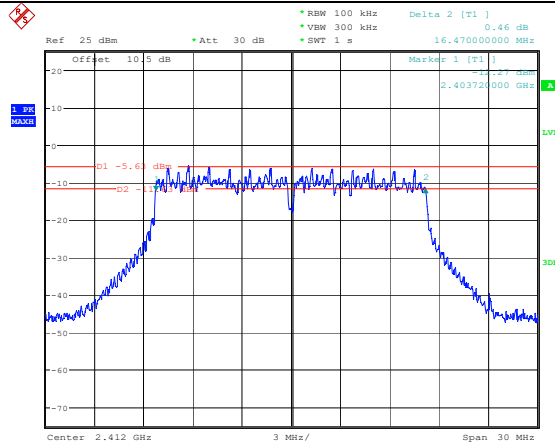
Test Modes	Test Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)
802.11b	2412	8.13	0.5
	2437	8.94	0.5
	2462	8.64	0.5
802.11g	2412	16.47	0.5
	2437	16.47	0.5
	2462	16.47	0.5
802.11n ht20	2412	17.34	0.5
	2437	17.34	0.5
	2462	17.31	0.5
802.11n ht40	2422	35.88	0.5
	2437	35.94	0.5
	2452	35.88	0.5

**Minimum 6dB Emission Bandwidth**

<p>802.11b Lowest Channel</p>	<p>Ref: 25 dBm, Att: 30 dB, RBW: 100 kHz, VBW: 300 kHz, SWT: 1 s, Delta 2 [T1]: -0.37 dB, Marker 1 [T1]: 2.407560000 GHz</p> <p>Offset: 10.5 dB, Marker 1 [T1]: 2.407560000 GHz</p> <p>D1: 0.47 dBm, D2: -9.53 dBm</p> <p>Center: 2.412 GHz, Span: 30 MHz</p> <p>Date: 8.AUG.2023 21:12:24</p>
<p>802.11b Middle Channel</p>	<p>Ref: 25 dBm, Att: 30 dB, RBW: 100 kHz, VBW: 300 kHz, SWT: 1 s, Delta 2 [T1]: -1.18 dB, Marker 1 [T1]: 2.432500000 GHz</p> <p>Offset: 10.5 dB, Marker 1 [T1]: 2.432500000 GHz</p> <p>D1: 0.14 dBm, D2: -9.18 dBm</p> <p>Center: 2.437 GHz, Span: 30 MHz</p> <p>Date: 8.AUG.2023 21:10:32</p>
<p>802.11b Highest Channel</p>	<p>Ref: 25 dBm, Att: 30 dB, RBW: 100 kHz, VBW: 300 kHz, SWT: 1 s, Delta 2 [T1]: 0.42 dB, Marker 1 [T1]: 2.457470000 GHz</p> <p>Offset: 10.5 dB, Marker 1 [T1]: 2.457470000 GHz</p> <p>D1: 0.25 dBm, D2: -9.75 dBm</p> <p>Center: 2.462 GHz, Span: 30 MHz</p> <p>Date: 8.AUG.2023 21:07:59</p>

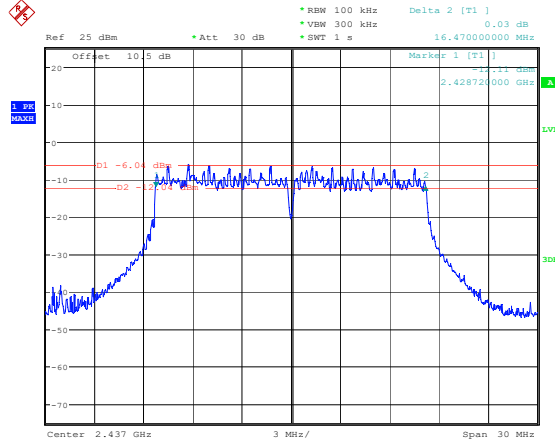
### Minimum 6dB Emission Bandwidth

802.11g  
Lowest Channel



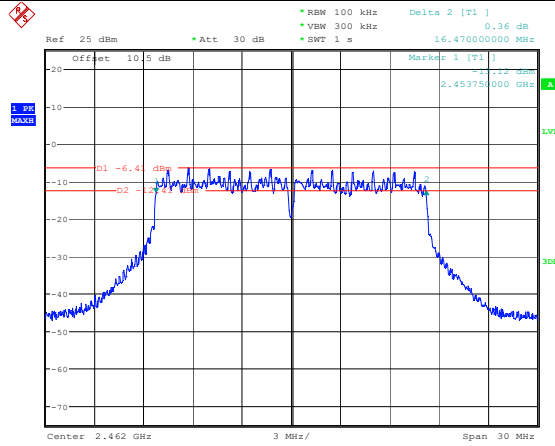
Date: 8.AUG.2023 21:05:18

802.11g  
Middle Channel



Date: 8.AUG.2023 21:02:20

802.11g  
Highest Channel

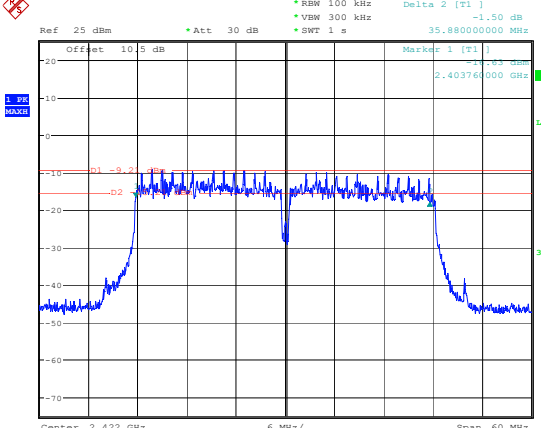
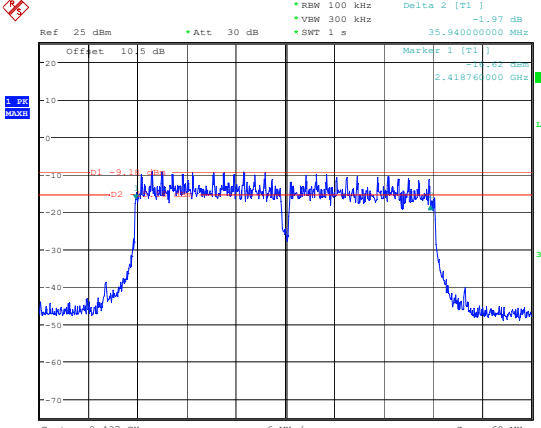
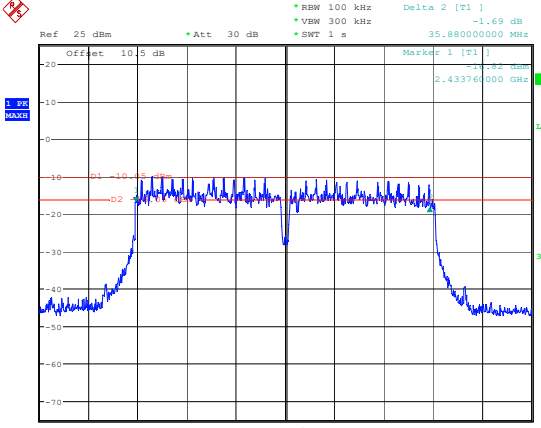


Date: 8.AUG.2023 20:58:44

### Minimum 6dB Emission Bandwidth

<p>802.11n ht20 Lowest Channel</p>	
<p>802.11n ht20 Middle Channel</p>	
<p>802.11n ht20 Highest Channel</p>	

### Minimum 6dB Emission Bandwidth

<p>802.11n ht40 Lowest Channel</p>	 <p>Ref: 25 dBm, Att: 30 dB, RBW: 100 kHz, VSW: 300 kHz, SWT: 1 s, Delta 2 [T1]: -1.50 dB, Marker 1 [T1]: 2.40376000 GHz</p> <p>Offset: 10.5 dB, Center: 2.422 GHz, Span: 60 MHz</p> <p>Date: 8.AUG.2023 20:41:42</p>
<p>802.11n ht40 Middle Channel</p>	 <p>Ref: 25 dBm, Att: 30 dB, RBW: 100 kHz, VSW: 300 kHz, SWT: 1 s, Delta 2 [T1]: -1.97 dB, Marker 1 [T1]: 2.41876000 GHz</p> <p>Offset: 10.5 dB, Center: 2.437 GHz, Span: 60 MHz</p> <p>Date: 8.AUG.2023 20:39:33</p>
<p>802.11n ht40 Highest Channel</p>	 <p>Ref: 25 dBm, Att: 30 dB, RBW: 100 kHz, VSW: 300 kHz, SWT: 1 s, Delta 2 [T1]: -1.69 dB, Marker 1 [T1]: 2.43376000 GHz</p> <p>Offset: 10.5 dB, Center: 2.452 GHz, Span: 60 MHz</p> <p>Date: 8.AUG.2023 20:35:46</p>

**4.4 99% Occupied Bandwidth**

Serial Number:	2A5T-1	Test Date:	2023/8/8
Test Site:	RF	Test Mode:	Transmitting
Tester:	Panda Sun	Test Result:	N/A

**Environmental Conditions:**

Temperature: (°C)	26.3	Relative Humidity: (%)	52	ATM Pressure: (kPa)	101.2
----------------------	------	------------------------------	----	------------------------	-------

**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200120	2023/4/18	2024/4/17
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Data:**

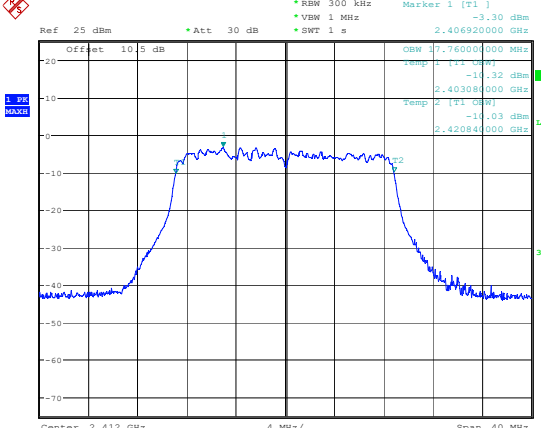
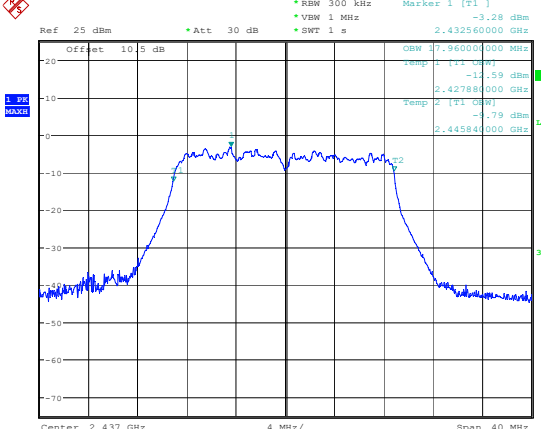
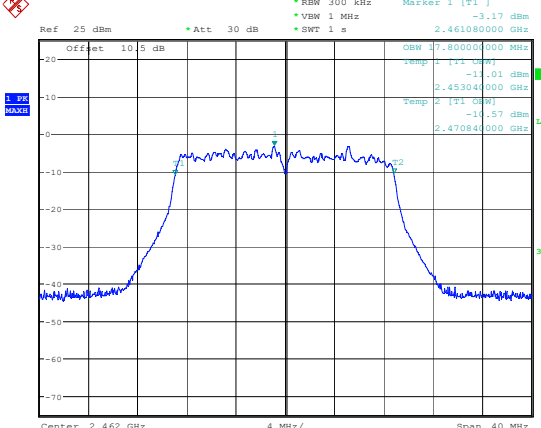
Test Modes	Test Channel	Test Frequency (MHz)	99% Occupied Bandwidth (MHz)
802.11b	Lowest	2412	13.28
	Middle	2437	13.32
	Highest	2462	13.36
802.11g	Lowest	2412	16.80
	Middle	2437	16.92
	Highest	2462	16.72
802.11n ht20	Lowest	2412	17.76
	Middle	2437	17.96
	Highest	2462	17.80
802.11n ht40	Lowest	2422	36.40
	Middle	2437	36.16
	Highest	2452	36.72







**99% Occupied Bandwidth**

<p>802.11n ht20 Lowest Channel</p>	 <p>Ref: 25 dBm, Att: 30 dB, RBW: 300 kHz, VBW: 1 MHz, SWT: 1 s, Marker 1 [T1]: 2.406520000 GHz, -3.30 dBm</p> <p>Offset: 10.5 dB, CBW: 7.760000000 MHz, Temp: 1 [T1] [BW]: -11.32 dBm</p> <p>2.403080000 GHz, Temp: 2 [T1] [BW]: -11.03 dBm</p> <p>2.420840000 GHz, LVL: -10.03 dBm</p> <p>Center: 2.412 GHz, 4 MHz/, Span: 40 MHz</p> <p>Date: 8.AUG.2023 20:53:57</p>
<p>802.11n ht20 Middle Channel</p>	 <p>Ref: 25 dBm, Att: 30 dB, RBW: 300 kHz, VBW: 1 MHz, SWT: 1 s, Marker 1 [T1]: 2.432560000 GHz, -3.28 dBm</p> <p>Offset: 10.5 dB, CBW: 7.960000000 MHz, Temp: 1 [T1] [BW]: -11.59 dBm</p> <p>2.427880000 GHz, Temp: 2 [T1] [BW]: -11.79 dBm</p> <p>2.445840000 GHz, LVL: -11.79 dBm</p> <p>Center: 2.437 GHz, 4 MHz/, Span: 40 MHz</p> <p>Date: 8.AUG.2023 20:50:15</p>
<p>802.11n ht20 Highest Channel</p>	 <p>Ref: 25 dBm, Att: 30 dB, RBW: 300 kHz, VBW: 1 MHz, SWT: 1 s, Marker 1 [T1]: 2.461080000 GHz, -3.17 dBm</p> <p>Offset: 10.5 dB, CBW: 7.800000000 MHz, Temp: 1 [T1] [BW]: -11.01 dBm</p> <p>2.453040000 GHz, Temp: 2 [T1] [BW]: -11.57 dBm</p> <p>2.470840000 GHz, LVL: -11.57 dBm</p> <p>Center: 2.462 GHz, 4 MHz/, Span: 40 MHz</p> <p>Date: 8.AUG.2023 20:46:37</p>





**4.6 Maximum Power Spectral Density**

Serial Number:	2A5T-1	Test Date:	2023/8/8
Test Site:	RF	Test Mode:	Transmitting
Tester:	Panda Sun	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	26.3	Relative Humidity: (%)	52	ATM Pressure: (kPa)	101.2
----------------------	------	------------------------------	----	------------------------	-------

**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200120	2023/4/18	2024/4/17
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Data:**

Test Mode	Test Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
802.11b	2412	-15.81	8.00
	2437	-14.92	8.00
	2462	-15.76	8.00
802.11g	2412	-21.09	8.00
	2437	-21.88	8.00
	2462	-22.58	8.00
802.11n ht20	2412	-23.09	8.00
	2437	-23.53	8.00
	2462	-23.20	8.00
802.11n ht40	2422	-25.77	8.00
	2437	-23.79	8.00
	2452	-25.50	8.00

### Maximum power spectral density

<p>802.11b Lowest Channel</p>	<p>Ref: 25 dBm * Att: 30 dB * RBW: 3 kHz * VBW: 10 kHz * SWT: 1.5 s Marker 1 [T1] -15.81 dBm 2.412730125 GHz</p> <p>Offset: 10.5 dB</p> <p>Center: 2.412 GHz 1.3275 MHz/ Span: 13.275 MHz</p> <p>Date: 8.AUG.2023 18:11:40</p>
<p>802.11b Middle Channel</p>	<p>Ref: 25 dBm * Att: 30 dB * RBW: 3 kHz * VBW: 10 kHz * SWT: 1.4 s Marker 1 [T1] -14.92 dBm 2.436334585 GHz</p> <p>Offset: 10.5 dB</p> <p>Center: 2.437 GHz 1.2555 MHz/ Span: 12.555 MHz</p> <p>Date: 8.AUG.2023 18:19:03</p>
<p>802.11b Highest Channel</p>	<p>Ref: 25 dBm * Att: 30 dB * RBW: 3 kHz * VBW: 10 kHz * SWT: 1.5 s Marker 1 [T1] -15.76 dBm 2.463503090 GHz</p> <p>Offset: 10.5 dB</p> <p>Center: 2.462 GHz 1.3185 MHz/ Span: 13.185 MHz</p> <p>Date: 8.AUG.2023 18:24:18</p>

### Maximum power spectral density

<p>802.11g Lowest Channel</p>	<p>Ref: 25 dBm    *Att: 30 dB    *RBW: 3 kHz    Marker 1 [T1]    -21.09 dBm          *VBW: 10 kHz    2.416619935 GHz          *SWT: 2.8 s</p> <p>Center: 2.412 GHz    2.4705 MHz/    Span: 24.705 MHz</p> <p>Date: 8.AUG.2023 18:29:48</p>
<p>802.11g Middle Channel</p>	<p>Ref: 25 dBm    *Att: 30 dB    *RBW: 3 kHz    Marker 1 [T1]    -21.88 dBm          *VBW: 10 kHz    2.440396870 GHz          *SWT: 2.8 s</p> <p>Center: 2.437 GHz    2.4615 MHz/    Span: 24.615 MHz</p> <p>Date: 8.AUG.2023 18:37:00</p>
<p>802.11g Highest Channel</p>	<p>Ref: 25 dBm    *Att: 30 dB    *RBW: 3 kHz    Marker 1 [T1]    -22.58 dBm          *VBW: 10 kHz    2.455156715 GHz          *SWT: 2.8 s</p> <p>Center: 2.462 GHz    2.4705 MHz/    Span: 24.705 MHz</p> <p>Date: 8.AUG.2023 18:39:51</p>



### Maximum power spectral density

<p>802.11n ht20 Lowest Channel</p>	<p>Ref: 25 dBm    *Att: 30 dB    *RBW: 3 kHz    Marker 1 [T1]    -23.09 dBm *VBW: 10 kHz SWT: 3 s    2.412388585 GHz</p> <p>Center: 2.412 GHz    2.6235 MHz/    Span: 26.235 MHz</p> <p>Date: 8.AUG.2023 18:45:22</p>
<p>802.11n ht20 Middle Channel</p>	<p>Ref: 25 dBm    *Att: 30 dB    *RBW: 3 kHz    Marker 1 [T1]    -23.53 dBm *VBW: 10 kHz SWT: 3 s    2.430490840 GHz</p> <p>Center: 2.437 GHz    2.646 MHz/    Span: 26.46 MHz</p> <p>Date: 8.AUG.2023 18:53:44</p>
<p>802.11n ht20 Highest Channel</p>	<p>Ref: 25 dBm    *Att: 30 dB    *RBW: 3 kHz    Marker 1 [T1]    -23.20 dBm *VBW: 10 kHz SWT: 3 s    2.456982050 GHz</p> <p>Center: 2.462 GHz    2.655 MHz/    Span: 26.55 MHz</p> <p>Date: 8.AUG.2023 18:58:21</p>



**4.7 100 kHz Bandwidth of Frequency Band Edge:**

Serial Number:	2A5T-1	Test Date:	2023/8/8
Test Site:	RF	Test Mode:	Transmitting
Tester:	Panda Sun	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	26.3	Relative Humidity: (%)	52	ATM Pressure: (kPa)	101.2
----------------------	------	------------------------------	----	------------------------	-------

**Test Equipment List and Details:**

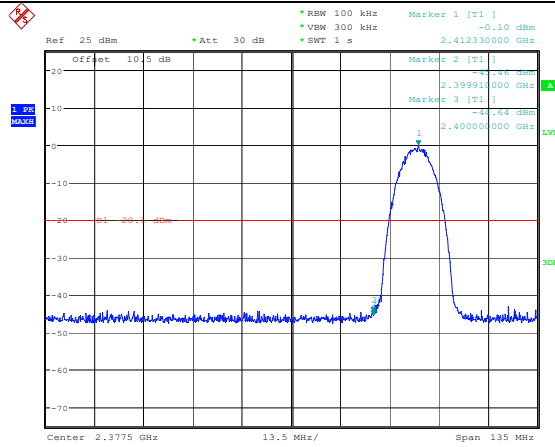
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200120	2023/4/18	2024/4/17
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

\* *Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

**Test Data:**

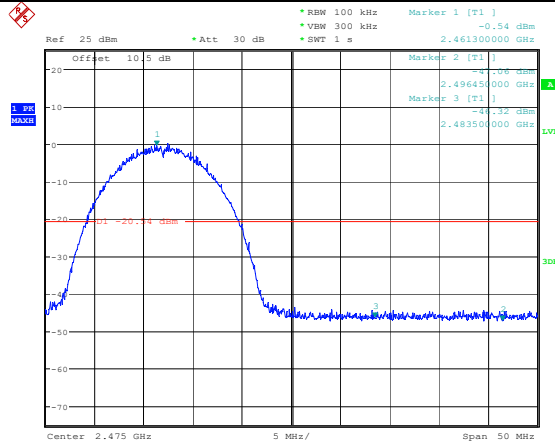
### 100 kHz Bandwidth of Frequency Band Edge

802.11b  
Lowest Band edge



Date: 8.AUG.2023 18:13:31

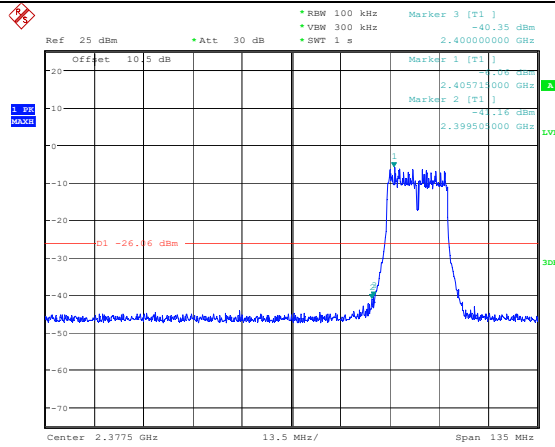
802.11b  
Highest Band edge



Date: 8.AUG.2023 18:26:01

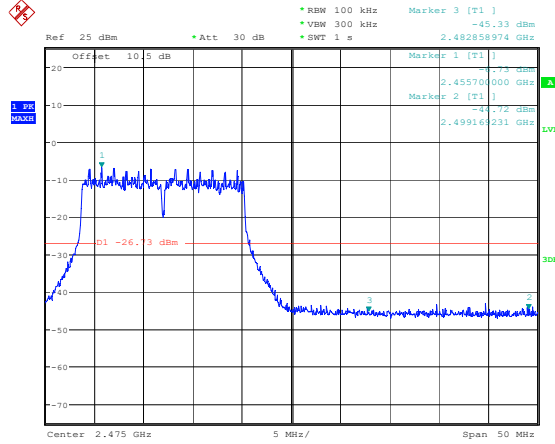
**100 kHz Bandwidth of Frequency Band Edge**

802.11g  
Lowest Band edge



Date: 8.AUG.2023 18:31:44

802.11g  
Highest Band edge

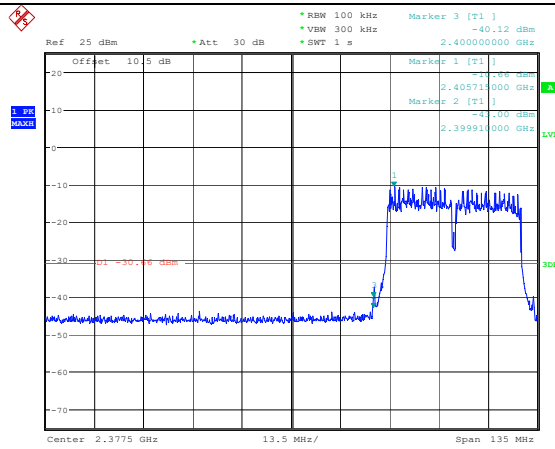


Date: 8.AUG.2023 18:42:06



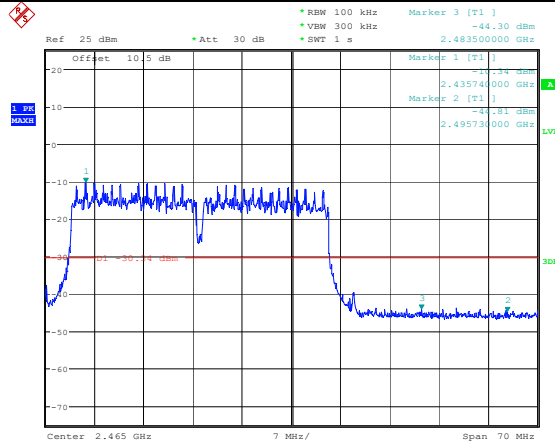
### 100 kHz Bandwidth of Frequency Band Edge

802.11n ht40  
Lowest Band edge



Date: 8.AUG.2023 19:13:46

802.11n ht40  
Highest Band edge



Date: 8.AUG.2023 19:24:53

**4.8 Duty Cycle:**

Serial Number:	2A5T-1	Test Date:	2023/8/8
Test Site:	RF	Test Mode:	Transmitting
Tester:	Panda Sun	Test Result:	N/A

**Environmental Conditions:**

Temperature: (°C)	26.3	Relative Humidity: (%)	52	ATM Pressure: (kPa)	101.2
----------------------	------	------------------------------	----	------------------------	-------

**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200120	2023/4/18	2024/4/17
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

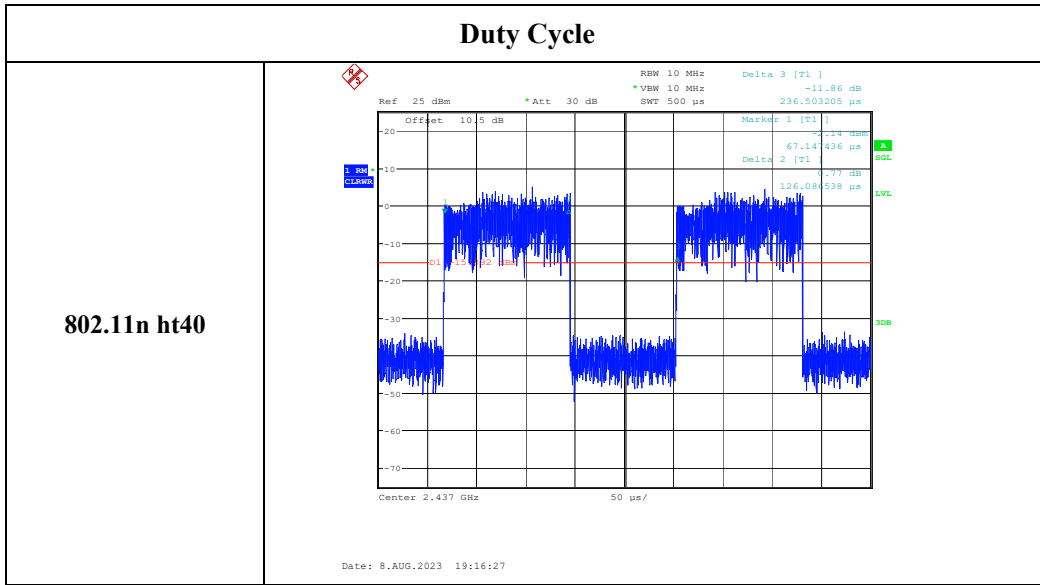
*\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

**Test Data:**

Test Modes	Ton (ms)	Ton+off (ms)	Duty cycle (%)	1/T (Hz)	VBW Setting (Hz)
802.11b	1.300	1.442	90.15	769	1000
802.11g	0.245	0.418	not constant	4082	5000
802.11n ht20	0.226	0.364	62.09	4425	5000
802.11n ht40	0.126	0.236	53.39	7937	10000







## 5. RF EXPOSURE EVALUATION

### 5.1 Applicable Standard

According to §1.1307(b)(3)(i)

(C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least  $\lambda/2\pi$ , where  $\lambda$  is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of  $\lambda/4$  or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	$1,920 R^2$ .
1.34-30	$3,450 R^2/f^2$ .
30-300	$3.83 R^2$ .
300-1,500	$0.0128 R^2f$ .
1,500-100,000	$19.2R^2$ .

### 5.1.2 Measurement Result

Operation Modes	Frequency (MHz)	$\lambda/2\pi$ (mm)	Distance (mm)	Exemption ERP		Maximum Conducted Power including Tune-up Tolerance (dBm)	Antenna Gain (dBi)	ERP (dBm)	MPE-Based Exemption
				(mW)	(dBm)				
Wi-Fi	2412-2462	19.80	200	768	28.85	15.5	3.47	16.82	Compliant

Note:

The Maximum Conducted Power including Tune-up Tolerance was declared by manufacturer.

**Result: The device compliant the MPE-Based Exemption at 20cm distances.**

## **6. EUT PHOTOGRAPHS**

---

Please refer to the attachment CR230848227-EXP EUT EXTERNAL PHOTOGRAPHS and CR230848227-INP EUT INTERNAL PHOTOGRAPHS

## **7. TEST SETUP PHOTOGRAPHS**

---

Please refer to the attachment CR230848227-00-TSP TEST SETUP PHOTOGRAPHS.

**===== END OF REPORT =====**