



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



## TEST REPORT

**Applicant: CHITECH SHENZHEN TECHNOLOGY CO.,LTD**

Address: 101,NO.48,Xiashijia Road,Gongming Town,Guangming  
Dist.,Shenzhen,China

**FCC ID: 2AXUI-CT1001**

**Product Name: Tablet PC**

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

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

**Report Number: CR230955186-00C**

**Date Of Issue: 2023/10/30**

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## 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.

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## DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR230955186-00C	Original Report	2023/10/30

## 1. GENERAL INFORMATION

### 1.1 Product Description for Equipment under Test (EUT)

<b>EUT Name:</b>	Tablet PC
<b>Trade:</b>	YYSWIE
<b>EUT Model:</b>	CT1001
<b>Multiple Model(s):</b>	Z10, M10, G10, K10, F108W, E200
<b>Operation Frequency:</b>	2412-2462 MHz (802.11b/g/n ht20/ax hew20) 2422-2452 MHz (802.11n ht40/ax hew40)
<b>Maximum Peak Output Power (Conducted):</b>	21.42dBm
<b>Modulation Type:</b>	802.11b: DSSS-DBPSK, DQPSK, CCK 802.11g/n/ax: OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
<b>Rated Input Voltage:</b>	DC 5V charging from adapter or DC 3.8V from battery
<b>Serial Number:</b>	2BFJ-3(For Conducted Emissions and Radiated Spurious Emissions) 2BFJ-1(For RF Conducted)
<b>EUT Received Date:</b>	2023/9/20
<b>EUT Received Status:</b>	Good
Note: The Multiple models are electrically identical with the test model. Please refer to the declaration letter for more detail, which was provided by manufacturer.	

#### Operation Frequency Detail: For 802.11b/g/n ht20/ax hew20:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437	/	/
Per section 15.31(m), the below frequencies were performed the test as below:			
Test Channel		Frequency (MHz)	
Lowest		2412	
Middle		2437	
Highest		2462	

#### For 802.11n ht40/ax hew40:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	7	2442
4	2427	8	2447
5	2432	9	2452
6	2437	/	/
Per section 15.31(m), the below frequencies were performed the test as below:			
Test Channel		Frequency (MHz)	
Lowest		2422	
Middle		2437	
Highest		2452	

**Antenna Information Detail▲:**

Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain
FPC	50	2.4~2.5GHz	2.1dBi

The Method of §15.203 Compliance:

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

**Accessory Information:**

Accessory Description	Manufacturer	Model
Adapter	Shenzhen Fangxin Technology Co.,Ltd.	FX18U-050300U1

## 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>	ADB			
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	8	8	8
802.11g	6Mbps	10	10	10
802.11n ht20	MCS0	10	10	10
802.11ax hew20	MCS0	10	10	10
802.11n ht40	MCS0	10	10	10
802.11ax hew40	MCS0	9	9	9
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

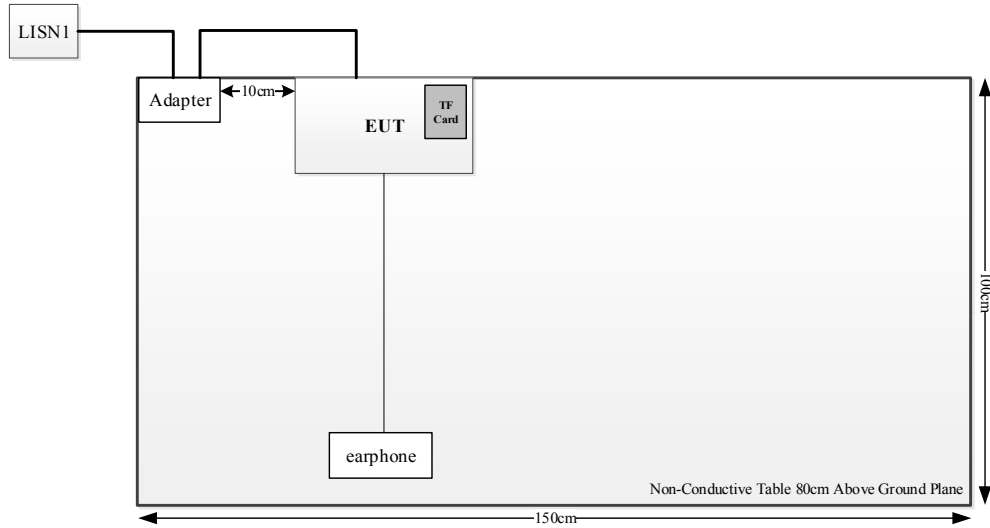
Manufacturer	Description	Model	Serial Number
IPRO	Earphone	Phonenix 5.0s	EP221126001
SanDisk	TF Card	16 GB	1183DRECV11N

### 1.2.3 Support Cable List and Details

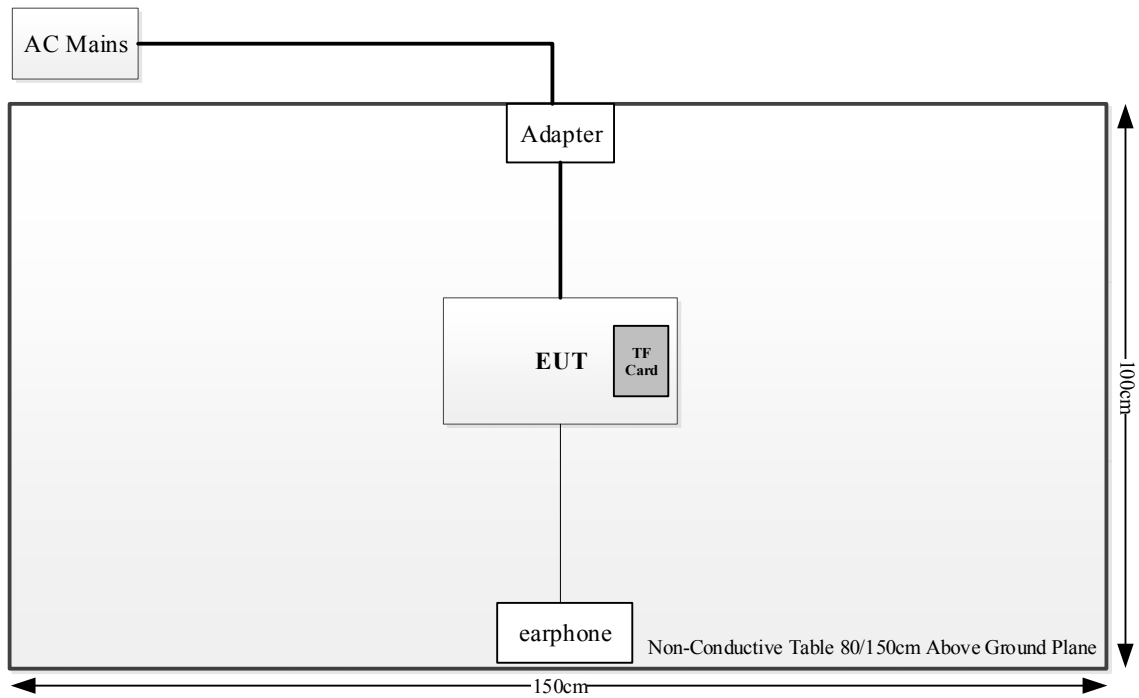
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
USB Cable	No	No	1	EUT	Adapter
Earphone Cable	No	No	1.5	EUT	Earphone



**1.2.4 Block Diagram of Test Setup**  
**AC Line Conducted Emissions:**



**Radiated Spurious Emissions:**



### 1.3 Measurement Uncertainty

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	9kHz~30MHz: 4.12dB, 30MHz~200MHz: 4.15 dB, 200MHz~1GHz: 5.61 dB, 1GHz~6GHz: 5.14 dB, 6GHz~18GHz: 5.93 dB, 18GHz~26.5GHz:5.47 dB, 26.5GHz~40GHz:5.63 dB
Unwanted Emissions, conducted	±1.26 dB
Temperature	±1 °C
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

## 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

### 3. REQUIREMENTS AND TEST PROCEDURES

#### 3.1 AC Line Conducted Emissions

##### 3.1.1 Applicable Standard

FCC§15.207(a).

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of emission (MHz)	Conducted limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

\*Decreases with the logarithm of the frequency.

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators on frequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000  $\mu$ V within the frequency band 535-1705 kHz, as measured using a 50  $\mu$ H/50 ohms LISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits in §15.205, §15.209, §15.221, §15.223, or §15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtaining their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

### 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

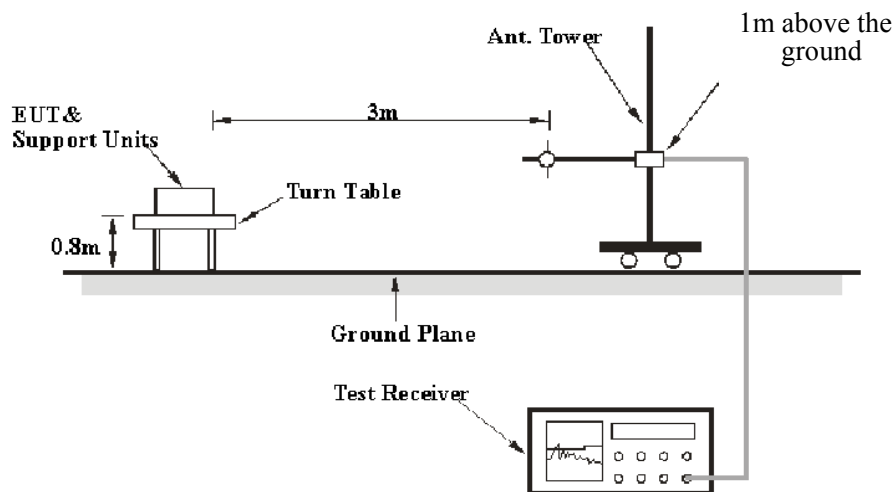
### 3.2.1 Applicable Standard

FCC §15.247 (d);

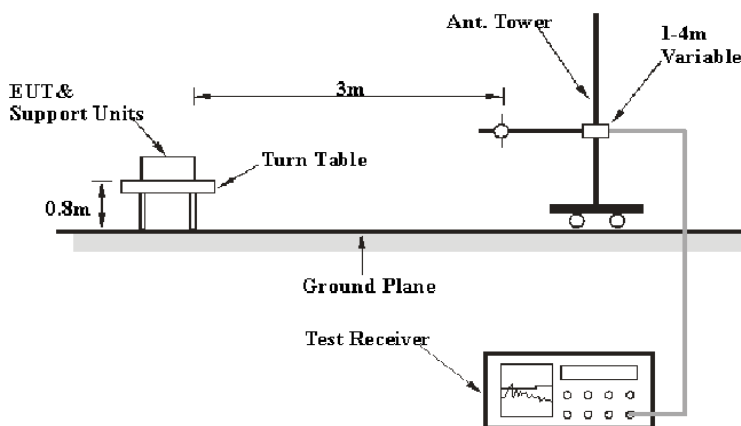
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the 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)).

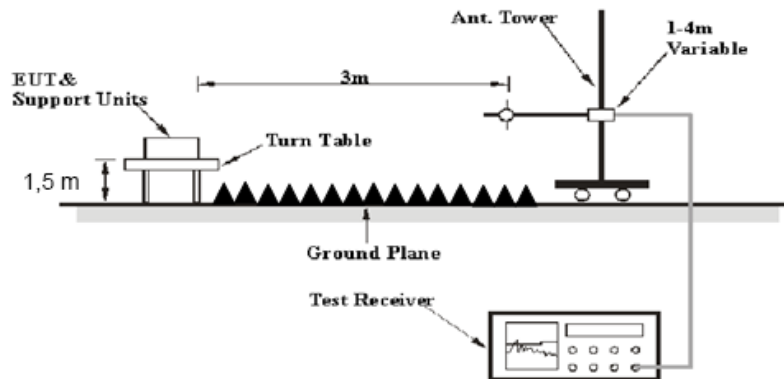
### 3.2.2 EUT Setup

9kHz~30MHz:



30MHz~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.

For 9kHz-30MHz test, the lowest height of the magnetic antenna shall be 1 m above the ground and three antenna orientations (parallel, perpendicular, and ground-parallel) shall be measured.

**3.2.3 EMI Test Receiver & Spectrum Analyzer Setup**

The system was investigated from 9kHz to 25 GHz.

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

9kHz-1000MHz:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
9 kHz – 150 kHz	300 Hz	1 kHz	200 Hz	QP/AV
150 kHz – 30 MHz	10 kHz	30 kHz	9 kHz	QP/AV
30 MHz – 1000 MHz	100 kHz	300 kHz	120 kHz	QP

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.

All emissions under the average limit and under the noise floor have not recorded in the report.

### 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

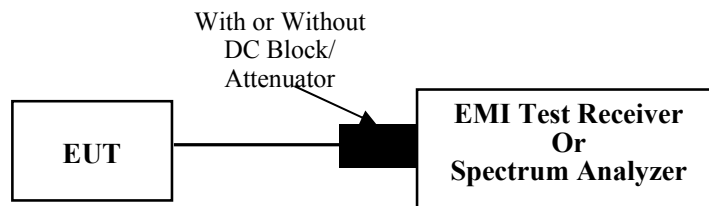
### 3.3 Minimum 6 dB Emission Bandwidth

#### 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



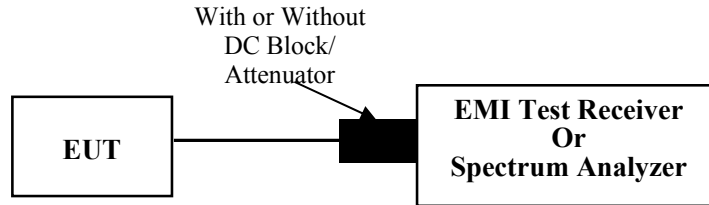
#### 3.3.3 Test Procedure

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).

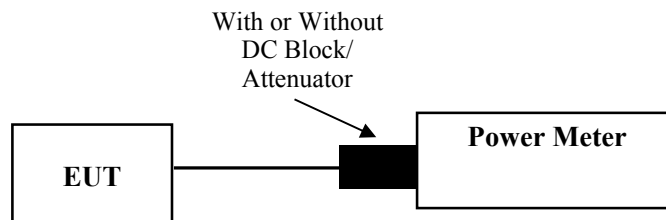
### 3.5 Maximum Conducted Output Power

#### 3.5.1 Applicable Standard

FCC §15.247 (b)(3)

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

#### 3.5.2 EUT Setup



#### 3.5.3 Test Procedure

According to ANSI C63.10-2013 Section 11.9.2.3.2

Method AVGP-G is a measurement using a gated RF average power meter.

Alternatively, measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Because the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

According to ANSI C63.10-2013 Section 11.9.1.3

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

- a) Set the EUT in transmitting mode.
- b) Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to test equipment.
- c) Add a correction factor to the display.
- d) Set the power meter to test peak output power, record the result.

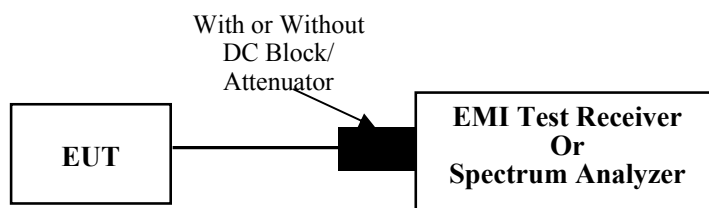
### 3.6 Maximum Power Spectral Density

#### 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

##### **Duty cycle $\geq 98\%$**

According to ANSI C63.10-2013 Section 11.10.3

##### **Duty cycle $< 98\%$ , duty cycle variations are less than $\pm 2\%$**

According to ANSI C63.10-2013 Section 11.10.5

##### **Duty cycle $< 98\%$ , duty cycle variations exceed $\pm 2\%$**

According to ANSI C63.10-2013 Section 11.10.7

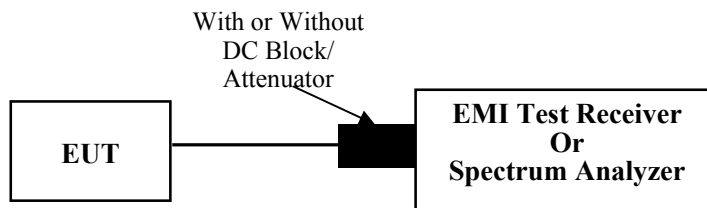
### 3.7 100 kHz Bandwidth of Frequency Band Edge

#### 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

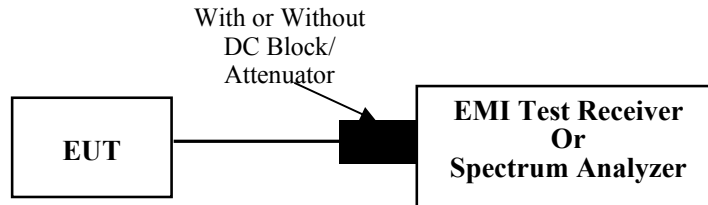
According to ANSI C63.10-2013 Section 11.11

- 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.

### 3.8 Duty Cycle

#### 3.8.1 EUT Setup



#### 3.8.2 Test Procedure

According to ANSI C63.10-2013 Section 11.6

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the ON and OFF times of the transmitted signal:

- 1) Set the center frequency of the instrument to the center frequency of the transmission.
- 2) Set  $RBW \geq OBW$  if possible; otherwise, set RBW to the largest available value.
- 3) Set  $VBW \geq RBW$ . Set detector = peak or average.
- 4) The zero-span measurement method shall not be used unless both RBW and VBW are  $> 50/T$  and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring the duty cycle shall not be used if  $T \leq 16.7 \mu s$ .)

### 3.9 Antenna Requirement

#### 3.9.1 Applicable Standard

FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or §15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

#### 3.9.2 Judgment

**Compliant.** Please refer to the Antenna Information detail in Section 1.

## 4. Test DATA AND RESULTS

### 4.1 AC Line Conducted Emissions

Serial Number:	2BFJ-3	Test Date:	2023/9/23
Test Site:	CE	Test Mode:	Transmitting (Maximum Conducted Output Power Mode 802.11g Mode High Channel)
Tester:	David Huang	Test Result:	Pass

#### Environmental Conditions:

Temperature: (°C)	25.5	Relative Humidity: (%)	54	ATM Pressure: (kPa)	100.1
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#### Test Equipment List and Details:

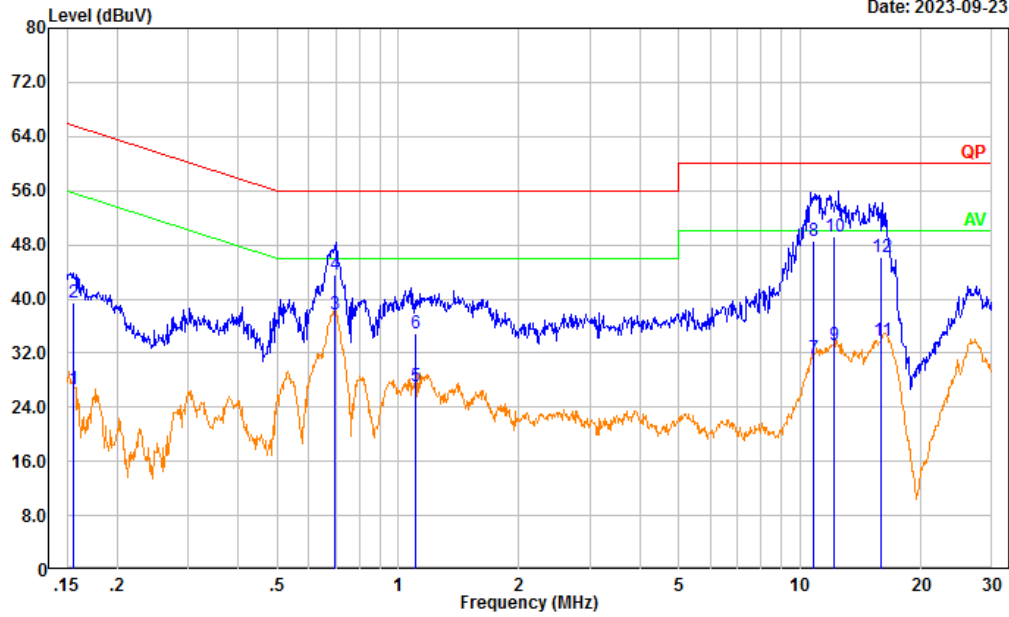
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101134	2023/03/31	2024/03/30
R&S	EMI Test Receiver	ESR3	102726	2023/03/31	2024/03/30
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2023/08/06	2024/08/05
Audix	Test Software	E3	190306 (V9)	N/A	N/A

\* 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).



Project No.: CR230955186-RF  
 Tester: David Huang  
 Port: Line  
 Note:

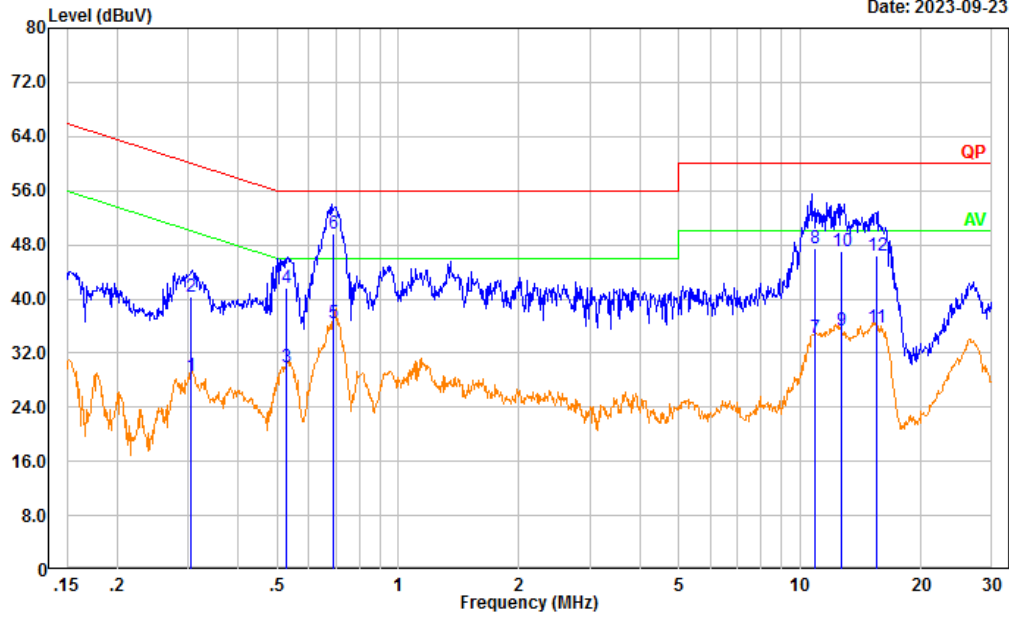
Date: 2023-09-23



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.155	17.09	9.61	26.70	55.71	29.01	Average
2	0.155	29.93	9.61	39.54	65.71	26.17	QP
3	0.696	28.09	9.62	37.71	46.00	8.29	Average
4	0.696	33.92	9.62	43.54	56.00	12.46	QP
5	1.107	17.58	9.62	27.20	46.00	18.80	Average
6	1.107	25.36	9.62	34.98	56.00	21.02	QP
7	10.844	21.60	9.67	31.27	50.00	18.73	Average
8	10.844	38.79	9.67	48.46	60.00	11.54	QP
9	12.158	23.48	9.67	33.15	50.00	16.85	Average
10	12.158	39.47	9.67	49.14	60.00	10.86	QP
11	15.963	24.07	9.71	33.78	50.00	16.22	Average
12	15.963	36.56	9.71	46.27	60.00	13.73	QP

Project No.: CR230955186-RF  
 Tester: David Huang  
 Port: neutral  
 Note:

Date: 2023-09-23



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.306	18.94	9.61	28.55	50.08	21.53	Average
2	0.306	30.67	9.61	40.28	60.08	19.80	QP
3	0.527	20.37	9.61	29.98	46.00	16.02	Average
4	0.527	31.91	9.61	41.52	56.00	14.48	QP
5	0.690	26.79	9.62	36.41	46.00	9.59	Average
6	0.690	40.02	9.62	49.64	56.00	6.36	QP
7	10.917	24.55	9.67	34.22	50.00	15.78	Average
8	10.917	37.91	9.67	47.58	60.00	12.42	QP
9	12.660	25.61	9.68	35.29	50.00	14.71	Average
10	12.660	37.33	9.68	47.01	60.00	12.99	QP
11	15.488	26.09	9.69	35.78	50.00	14.22	Average
12	15.488	36.68	9.69	46.37	60.00	13.63	QP

**4.2 Radiation Spurious Emissions**

Serial Number:	2BFJ-3	Test Date:	Below 1GHz: 2023/9/22 Above 1GHz: 2023/10/19
Test Site:	966-1, 966-2	Test Mode:	Transmitting
Tester:	Carl Xue, coco Tian	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	25.5~25.9	Relative Humidity: (%)	59~60	ATM Pressure: (kPa)	100.1~100.4
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
<b>Below 1GHz</b>					
EMCO	Passive Loop Antenna	6512	9706-1209	2023/02/15	2026/02/14
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
Audix	Test Software	E3	201021 (V9)	N/A	N/A
<b>Above 1GHz</b>					
AH	Double Ridge Guide Horn Antenna	SAS-571	1394	2023/2/22	2026/2/21
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
PASTERNAK	Horn Antenna	PE9852/2F-20	112002	2021/2/5	2024/2/4
Quinstar	Preamplifier	QLW-18405536-JO	15964001005	2023/9/15	2024/9/14
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
Audix	Test Software	E3	201021 (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:**

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

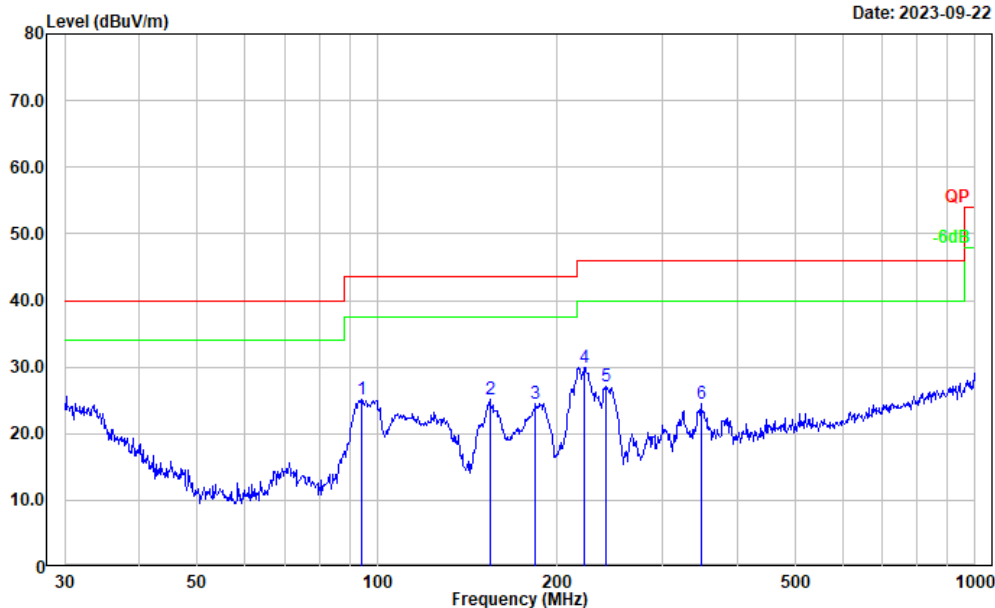
**1) 9kHz~30MHz**

The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

2) 30MHz-1GHz (Tested at Maximum Conducted Output Power 802.11g Mode High Channel)

Project No.: CR230955186-RF  
 Tester: Carl Xue  
 Polarization: horizontal  
 Note:

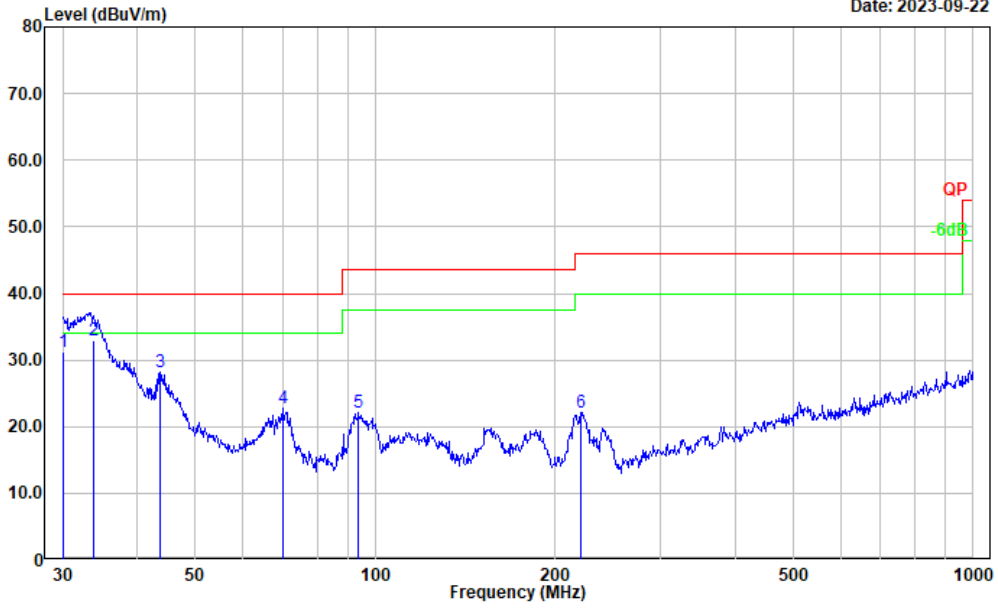
Date: 2023-09-22



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	94.098	40.98	-15.90	25.08	43.50	18.42	Peak
2	154.279	37.13	-12.03	25.10	43.50	18.40	Peak
3	183.844	38.07	-13.58	24.49	43.50	19.01	Peak
4	222.170	42.78	-12.83	29.95	46.00	16.05	Peak
5	241.676	40.17	-13.00	27.17	46.00	18.83	Peak
6	348.027	34.57	-10.03	24.54	46.00	21.46	Peak

Project No.: CR230955186-RF  
 Tester: Carl Xue  
 Polarization: vertical  
 Note:

Date: 2023-09-22



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.052	34.90	-3.64	31.26	40.00	8.74	QP
2	33.865	39.54	-6.56	32.98	40.00	7.02	QP
3	43.659	41.71	-13.46	28.25	40.00	11.75	Peak
4	70.090	39.24	-16.47	22.77	40.00	17.23	Peak
5	93.768	38.19	-15.98	22.21	43.50	21.29	Peak
6	220.617	35.02	-12.83	22.19	46.00	23.81	Peak

**3) 1-25GHz:  
802.11b 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	27.42	PK	H	31.71	59.13	74.00	14.87
2390.000	13.79	AV	H	31.71	45.50	54.00	8.50
2390.000	27.32	PK	V	31.71	59.03	74.00	14.98
2390.000	13.86	AV	V	31.71	45.57	54.00	8.43
4824.000	44.54	PK	H	11.26	55.80	74.00	18.20
4824.000	41.13	AV	H	11.26	52.39	54.00	1.61
4824.000	40.33	PK	V	11.26	51.59	74.00	22.41
4824.000	37.84	AV	V	11.26	49.10	54.00	4.90
7236.000	34.23	PK	H	15.24	49.47	74.00	24.53
7236.000	21.52	AV	H	15.24	36.76	54.00	17.24
7236.000	34.67	PK	V	15.24	49.91	74.00	24.09
7236.000	21.64	AV	V	15.24	36.88	54.00	17.12
Middle Channel: 2437 MHz							
4874.000	44.04	PK	H	11.45	55.49	74.00	18.51
4874.000	40.87	AV	H	11.45	52.32	54.00	1.68
4874.000	39.87	PK	V	11.45	51.32	74.00	22.68
4874.000	36.15	AV	V	11.45	47.60	54.00	6.40
7311.000	34.26	PK	H	15.58	49.84	74.00	24.16
7311.000	21.53	AV	H	15.58	37.11	54.00	16.89
7311.000	33.97	PK	V	15.58	49.55	74.00	24.45
7311.000	20.78	AV	V	15.58	36.36	54.00	17.64
High Channel: 2462MHz							
2483.500	27.41	PK	H	32.19	59.60	74.00	14.40
2483.500	14.03	AV	H	32.19	46.22	54.00	7.78
2483.500	26.88	PK	V	32.19	59.07	74.00	14.93
2483.500	13.97	AV	V	32.19	46.16	54.00	7.84
4924.000	43.64	PK	H	11.67	55.31	74.00	18.69
4924.000	40.28	AV	H	11.67	51.95	54.00	2.05
4924.000	39.87	PK	V	11.67	51.54	74.00	22.46
4924.000	36.54	AV	V	11.67	48.21	54.00	5.79
7386.000	34.13	PK	H	15.63	49.76	74.00	24.24
7386.000	21.06	AV	H	15.63	36.69	54.00	17.31
7386.000	33.97	PK	V	15.63	49.60	74.00	24.40
7386.000	20.89	AV	V	15.63	36.52	54.00	17.48

**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	38.89	PK	H	31.71	70.60	74.00	3.40
2390.000	19.97	AV	H	31.71	51.68	54.00	2.32
2390.000	38.24	PK	V	31.71	69.95	74.00	4.05
2390.000	19.53	AV	V	31.71	51.24	54.00	2.76
4824.000	41.76	PK	H	11.26	53.02	74.00	20.98
4824.000	28.48	AV	H	11.26	39.74	54.00	14.26
4824.000	38.37	PK	V	11.26	49.63	74.00	24.37
4824.000	25.68	AV	V	11.26	36.94	54.00	17.06
7236.000	34.02	PK	H	15.24	49.26	74.00	24.74
7236.000	21.01	AV	H	15.24	36.25	54.00	17.75
7236.000	33.72	PK	V	15.24	48.96	74.00	25.04
7236.000	20.81	AV	V	15.24	36.05	54.00	17.95
Middle Channel: 2437 MHz							
4874.000	40.67	PK	H	11.45	52.12	74.00	21.88
4874.000	27.84	AV	H	11.45	39.29	54.00	14.71
4874.000	38.79	PK	V	11.45	50.24	74.00	23.76
4874.000	25.65	AV	V	11.45	37.10	54.00	16.90
7311.000	33.74	PK	H	15.58	49.32	74.00	24.68
7311.000	20.85	AV	H	15.58	36.43	54.00	17.57
7311.000	33.59	PK	V	15.58	49.17	74.00	24.83
7311.000	20.46	AV	V	15.58	36.04	54.00	17.96
High Channel: 2462MHz							
2483.500	38.25	PK	H	32.19	70.44	74.00	3.56
2483.500	20.77	AV	H	32.19	52.96	54.00	1.04
2483.500	38.11	PK	V	32.19	70.30	74.00	3.70
2483.500	20.69	AV	V	32.19	52.88	54.00	1.12
4924.000	41.35	PK	H	11.67	53.02	74.00	20.98
4924.000	28.53	AV	H	11.67	40.20	54.00	13.80
4924.000	39.11	PK	V	11.67	50.78	74.00	23.22
4924.000	26.07	AV	V	11.67	37.74	54.00	16.26
7386.000	33.64	PK	H	15.63	49.27	74.00	24.73
7386.000	20.58	AV	H	15.63	36.21	54.00	17.79
7386.000	33.57	PK	V	15.63	49.20	74.00	24.80
7386.000	20.41	AV	V	15.63	36.04	54.00	17.96



**802.11n ht20 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	39.39	PK	H	31.71	71.10	74.00	2.90
2390.000	20.10	AV	H	31.71	51.81	54.00	2.19
2390.000	39.42	PK	V	31.71	71.13	74.00	2.87
2390.000	19.87	AV	V	31.71	51.58	54.00	2.42
4824.000	40.19	PK	H	11.26	51.45	74.00	22.55
4824.000	27.08	AV	H	11.26	38.34	54.00	15.66
4824.000	37.69	PK	V	11.26	48.95	74.00	25.05
4824.000	24.57	AV	V	11.26	35.83	54.00	18.17
7236.000	33.38	PK	H	15.24	48.62	74.00	25.38
7236.000	20.29	AV	H	15.24	35.53	54.00	18.47
7236.000	33.41	PK	V	15.24	48.65	74.00	25.35
7236.000	20.61	AV	V	15.24	35.85	54.00	18.15
Middle Channel: 2437 MHz							
4874.000	39.64	PK	H	11.45	51.09	74.00	22.91
4874.000	26.45	AV	H	11.45	37.90	54.00	16.10
4874.000	37.23	PK	V	11.45	48.68	74.00	25.32
4874.000	24.39	AV	V	11.45	35.84	54.00	18.16
7311.000	33.63	PK	H	15.58	49.21	74.00	24.79
7311.000	20.55	AV	H	15.58	36.13	54.00	17.87
7311.000	33.43	PK	V	15.58	49.01	74.00	24.99
7311.000	20.27	AV	V	15.58	35.85	54.00	18.15
High Channel: 2462MHz							
2483.500	40.31	PK	H	32.19	72.50	74.00	1.50
2483.500	19.11	AV	H	32.19	51.30	54.00	2.70
2483.500	39.65	PK	V	32.19	71.84	74.00	2.16
2483.500	19.23	AV	V	32.19	51.42	54.00	2.58
4924.000	39.64	PK	H	11.67	51.31	74.00	22.69
4924.000	26.15	AV	H	11.67	37.82	54.00	16.18
4924.000	37.64	PK	V	11.67	49.31	74.00	24.69
4924.000	24.76	AV	V	11.67	36.43	54.00	17.57
7386.000	33.57	PK	H	15.63	49.20	74.00	24.80
7386.000	20.44	AV	H	15.63	36.07	54.00	17.93
7386.000	33.62	PK	V	15.63	49.25	74.00	24.75
7386.000	20.52	AV	V	15.63	36.15	54.00	17.85

**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	33.99	PK	H	31.71	65.70	74.00	8.30
2390.000	17.87	AV	H	31.71	49.58	54.00	4.42
2390.000	33.84	PK	V	31.71	65.55	74.00	8.45
2390.000	17.62	AV	V	31.71	49.33	54.00	4.67
4844.000	36.47	PK	H	11.31	47.78	74.00	26.22
4844.000	23.73	AV	H	11.31	35.04	54.00	18.96
4844.000	35.86	PK	V	11.31	47.17	74.00	26.83
4844.000	22.72	AV	V	11.31	34.03	54.00	19.97
7266.000	33.69	PK	H	15.43	49.12	74.00	24.88
7266.000	20.57	AV	H	15.43	36.00	54.00	18.00
7266.000	33.41	PK	V	15.43	48.84	74.00	25.16
7266.000	20.52	AV	V	15.43	35.95	54.00	18.05
Middle Channel: 2437 MHz							
4874.000	35.84	PK	H	11.45	47.29	74.00	26.71
4874.000	22.95	AV	H	11.45	34.40	54.00	19.60
4874.000	35.02	PK	V	11.45	46.47	74.00	27.53
4874.000	22.11	AV	V	11.45	33.56	54.00	20.44
7311.000	33.32	PK	H	15.58	48.90	74.00	25.10
7311.000	20.19	AV	H	15.58	35.77	54.00	18.23
7311.000	33.36	PK	V	15.58	48.94	74.00	25.06
7311.000	20.62	AV	V	15.58	36.20	54.00	17.80
High Channel: 2452MHz							
2483.500	35.79	PK	H	32.19	67.98	74.00	6.02
2483.500	18.54	AV	H	32.19	50.73	54.00	3.27
2483.500	35.43	PK	V	32.19	67.62	74.00	6.38
2483.500	18.14	AV	V	32.19	50.33	54.00	3.67
4904.000	36.54	PK	H	11.58	48.12	74.00	25.88
4904.000	23.54	AV	H	11.58	35.12	54.00	18.88
4904.000	35.64	PK	V	11.58	47.22	74.00	26.78
4904.000	22.47	AV	V	11.58	34.05	54.00	19.95
7356.000	33.46	PK	H	15.55	49.01	74.00	24.99
7356.000	20.61	AV	H	15.55	36.16	54.00	17.84
7356.000	33.72	PK	V	15.55	49.27	74.00	24.73
7356.000	20.23	AV	V	15.55	35.78	54.00	18.22

**802.11ax hew20 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	39.25	PK	H	31.71	70.96	74.00	3.04
2390.000	20.24	AV	H	31.71	51.95	54.00	2.05
2390.000	39.52	PK	V	31.71	71.23	74.00	2.77
2390.000	20.01	AV	V	31.71	51.72	54.00	2.28
4824.000	39.92	PK	H	11.26	51.18	74.00	22.82
4824.000	26.87	AV	H	11.26	38.13	54.00	15.87
4824.000	37.46	PK	V	11.26	48.72	74.00	25.28
4824.000	24.34	AV	V	11.26	35.60	54.00	18.40
7236.000	33.35	PK	H	15.24	48.59	74.00	25.41
7236.000	20.06	AV	H	15.24	35.30	54.00	18.70
7236.000	33.19	PK	V	15.24	48.43	74.00	25.57
7236.000	20.32	AV	V	15.24	35.56	54.00	18.44
Middle Channel: 2437 MHz							
4874.000	39.76	PK	H	11.45	51.21	74.00	22.79
4874.000	26.50	AV	H	11.45	37.95	54.00	16.05
4874.000	37.28	PK	V	11.45	48.73	74.00	25.27
4874.000	24.33	AV	V	11.45	35.78	54.00	18.22
7311.000	33.43	PK	H	15.58	49.01	74.00	24.99
7311.000	20.50	AV	H	15.58	36.08	54.00	17.92
7311.000	33.47	PK	V	15.58	49.05	74.00	24.95
7311.000	20.22	AV	V	15.58	35.80	54.00	18.20
High Channel: 2462 MHz							
2483.500	40.12	PK	H	32.19	72.31	74.00	1.69
2483.500	19.33	AV	H	32.19	51.52	54.00	2.48
2483.500	39.78	PK	V	32.19	71.97	74.00	2.03
2483.500	19.35	AV	V	32.19	51.54	54.00	2.46
4924.000	39.84	PK	H	11.67	51.51	74.00	22.49
4924.000	26.50	AV	H	11.67	38.17	54.00	15.83
4924.000	37.60	PK	V	11.67	49.27	74.00	24.73
4924.000	24.73	AV	V	11.67	36.40	54.00	17.60
7386.000	33.50	PK	H	15.63	49.13	74.00	24.87
7386.000	20.41	AV	H	15.63	36.04	54.00	17.96
7386.000	33.44	PK	V	15.63	49.07	74.00	24.93
7386.000	20.32	AV	V	15.63	35.95	54.00	18.05

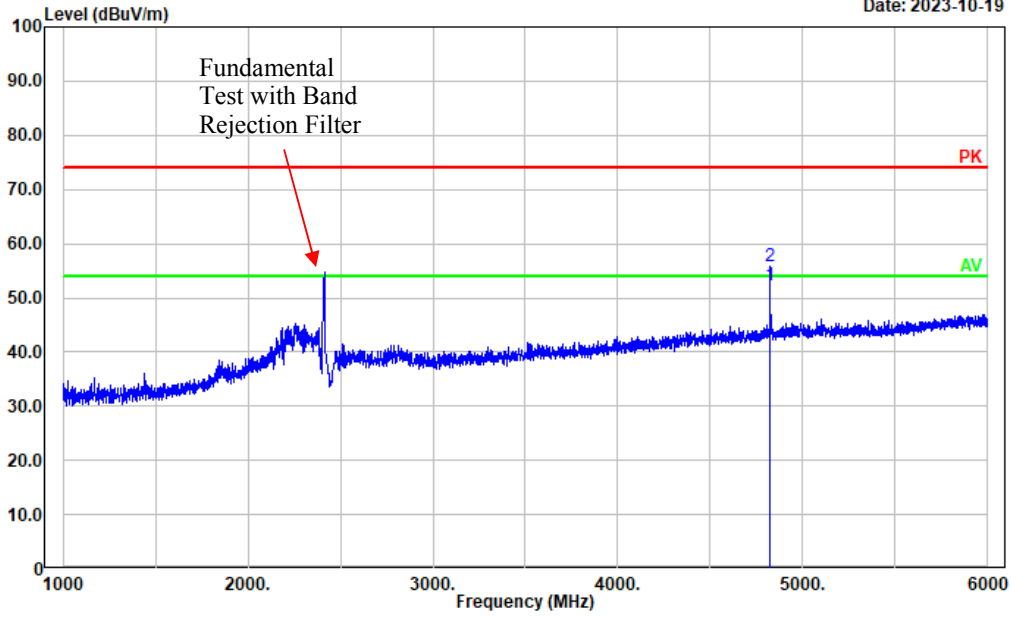
**802.11ax hew40 Mode:**

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	33.60	PK	H	31.71	65.31	74.00	8.69
2390.000	17.58	AV	H	31.71	49.29	54.00	4.71
2390.000	33.50	PK	V	31.71	65.21	74.00	8.79
2390.000	17.38	AV	V	31.71	49.09	54.00	4.91
4844.000	36.25	PK	H	11.31	47.56	74.00	26.44
4844.000	23.44	AV	H	11.31	34.75	54.00	19.25
4844.000	35.56	PK	V	11.31	46.87	74.00	27.13
4844.000	22.43	AV	V	11.31	33.74	54.00	20.26
7266.000	33.30	PK	H	15.43	48.73	74.00	25.27
7266.000	20.27	AV	H	15.43	35.70	54.00	18.30
7266.000	33.19	PK	V	15.43	48.62	74.00	25.38
7266.000	20.36	AV	V	15.43	35.79	54.00	18.21
Middle Channel: 2437 MHz							
4874.000	35.56	PK	H	11.45	47.01	74.00	26.99
4874.000	22.60	AV	H	11.45	34.05	54.00	19.95
4874.000	34.74	PK	V	11.45	46.19	74.00	27.81
4874.000	21.77	AV	V	11.45	33.22	54.00	20.78
7311.000	33.28	PK	H	15.58	48.86	74.00	25.14
7311.000	19.82	AV	H	15.58	35.40	54.00	18.60
7311.000	33.14	PK	V	15.58	48.72	74.00	25.28
7311.000	20.35	AV	V	15.58	35.93	54.00	18.07
High Channel: 2452 MHz							
2483.500	35.46	PK	H	32.19	67.65	74.00	6.35
2483.500	18.23	AV	H	32.19	50.42	54.00	3.58
2483.500	35.21	PK	V	32.19	67.40	74.00	6.60
2483.500	17.80	AV	V	32.19	49.99	54.00	4.01
4904.000	36.26	PK	H	11.58	47.84	74.00	26.16
4904.000	23.24	AV	H	11.58	34.82	54.00	19.18
4904.000	35.36	PK	V	11.58	46.94	74.00	27.06
4904.000	22.20	AV	V	11.58	33.78	54.00	20.22
7356.000	33.17	PK	H	15.55	48.72	74.00	25.28
7356.000	20.23	AV	H	15.55	35.78	54.00	18.22
7356.000	33.44	PK	V	15.55	48.99	74.00	25.01
7356.000	19.92	AV	V	15.55	35.47	54.00	18.53

**Worst Radiation Spurious Emissions Margin Test plots (802.11b mode low channel)**

Project No.: CR230955186-RF  
 Tester: coco Tian  
 Polarization: horizontal  
 Note:

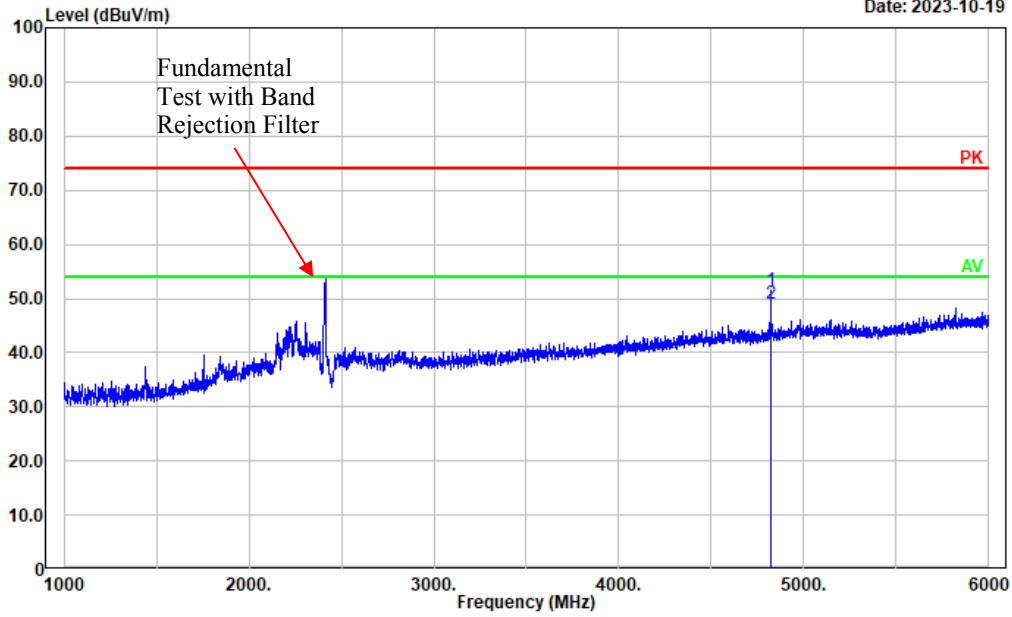
Date: 2023-10-19



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	4824.000	41.13	11.26	52.39	54.00	1.61	Average
2	4824.000	44.54	11.26	55.80	74.00	18.20	Peak

Project No.: CR230955186-RF  
 Tester: coco Tian  
 Polarization: vertical  
 Note:

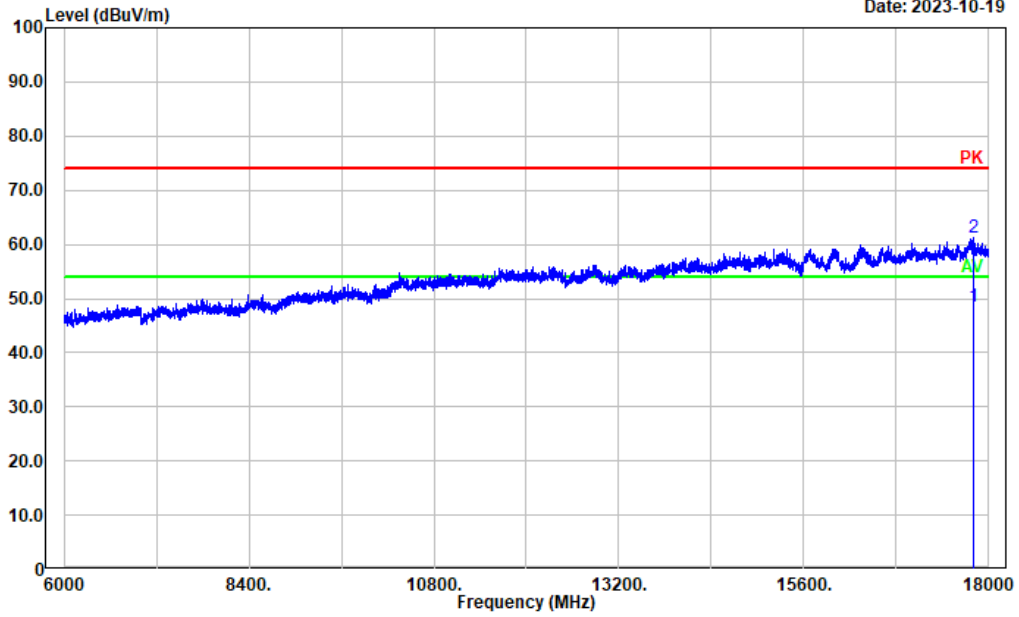
Date: 2023-10-19



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	4824.000	40.33	11.26	51.59	74.00	22.41	Peak
2	4824.765	37.84	11.26	49.10	54.00	4.90	Average

Project No.: CR230955186-RF  
 Tester: coco Tian  
 Polarization: horizontal  
 Note:

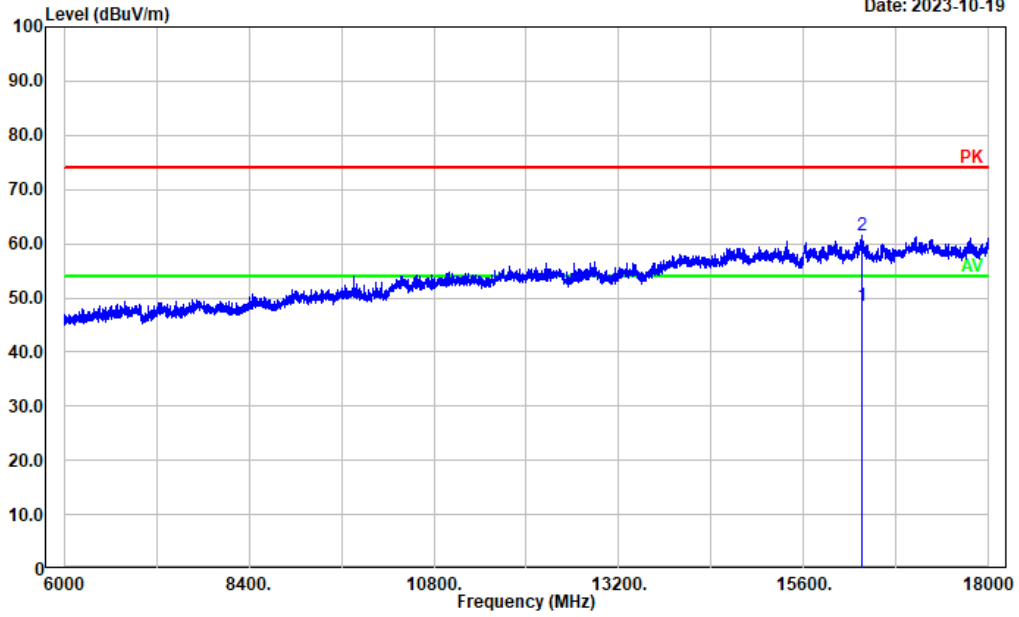
Date: 2023-10-19



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	17810.360	16.89	31.68	48.57	54.00	5.43	Average
2	17810.360	29.59	31.68	61.27	74.00	12.73	Peak

Project No.: CR230955186-RF  
 Tester: coco Tian  
 Polarization: vertical  
 Note:

Date: 2023-10-19

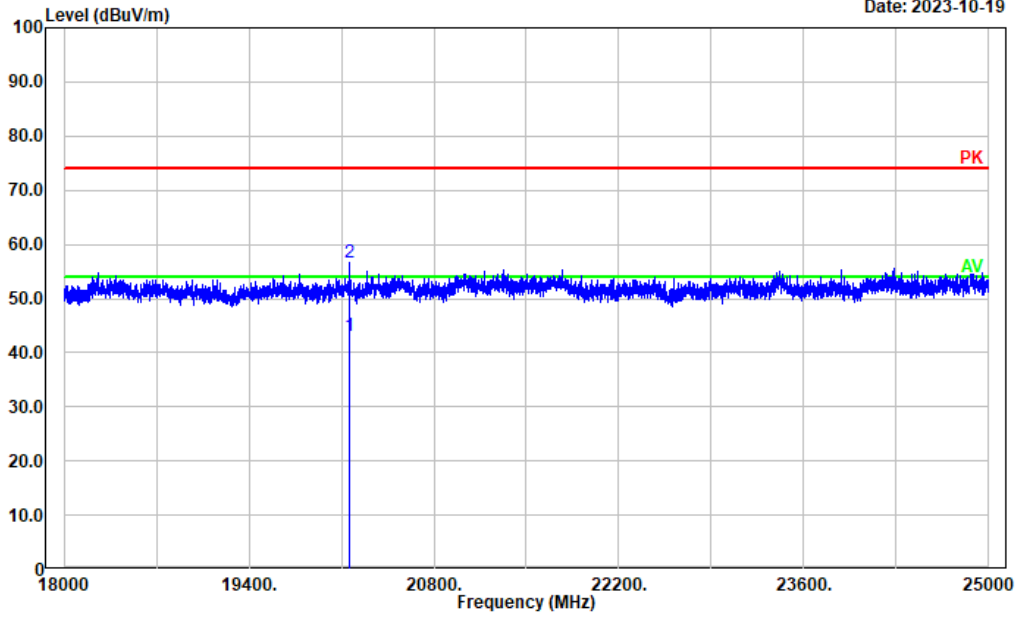


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	16353.270	22.94	25.70	48.64	54.00	5.36	Average
2	16353.270	35.82	25.70	61.52	74.00	12.48	Peak



Project No.: CR230955186-RF  
 Tester: coco Tian  
 Polarization: Horizontal  
 Note:

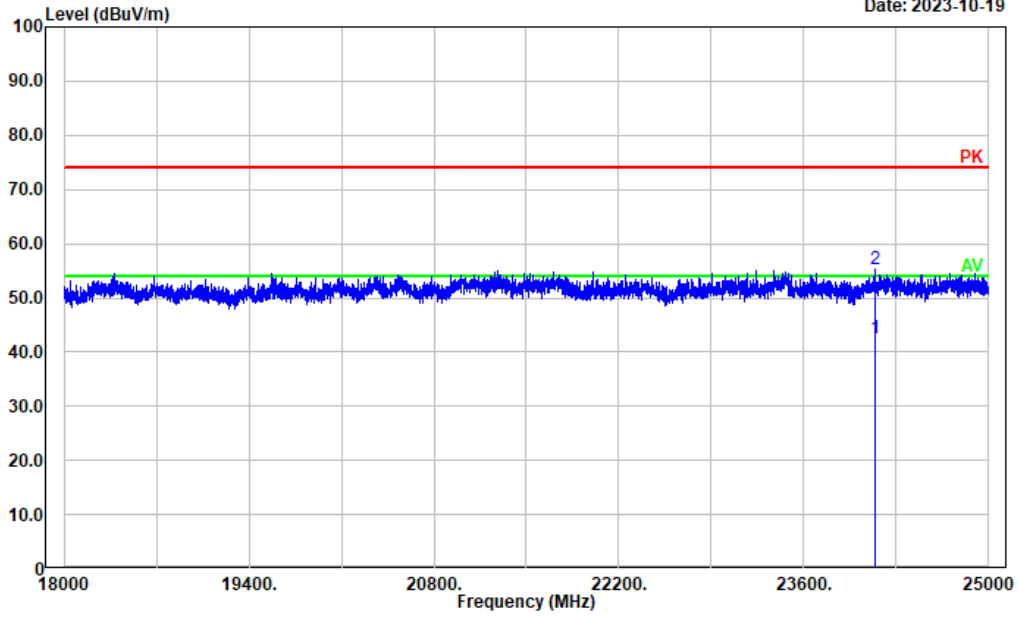
Date: 2023-10-19



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	20164.830	38.76	4.45	43.21	54.00	10.79	Average
2	20164.830	52.06	4.45	56.51	74.00	17.49	Peak

Project No.: CR230955186-RF  
 Tester: coco Tian  
 Polarization: Vertical  
 Note:

Date: 2023-10-19



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	24138.830	37.76	4.88	42.64	54.00	11.36	Average
2	24138.830	50.36	4.88	55.24	74.00	18.76	Peak

**4.3 Minimum 6 dB Emission Bandwidth**

Serial Number:	2BFJ-1	Test Date:	2023/9/27~2023/10/13
Test Site:	RF	Test Mode:	Transmitting
Tester:	LingLing Li	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	25.8~26.2	Relative Humidity: (%)	60~61	ATM Pressure: (kPa)	100.1~100.2
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A

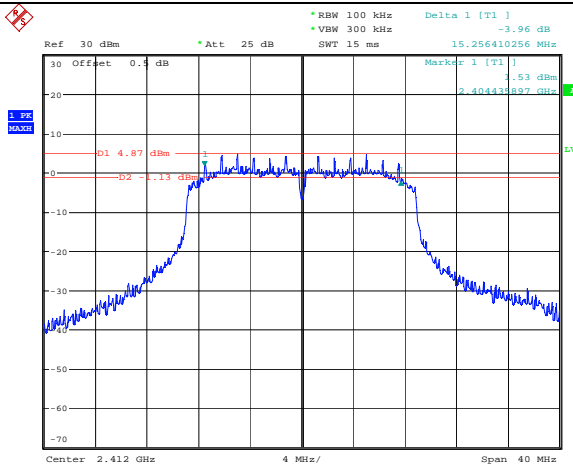
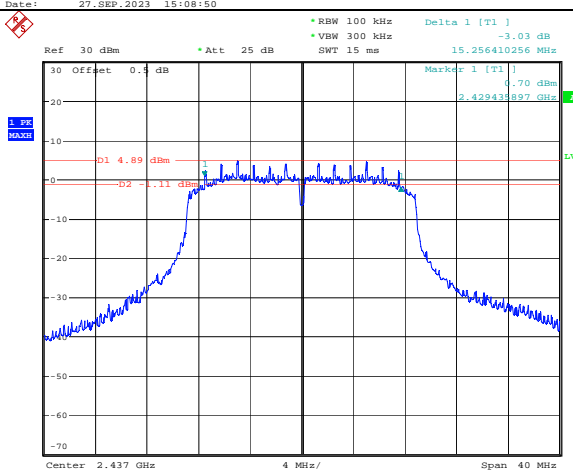
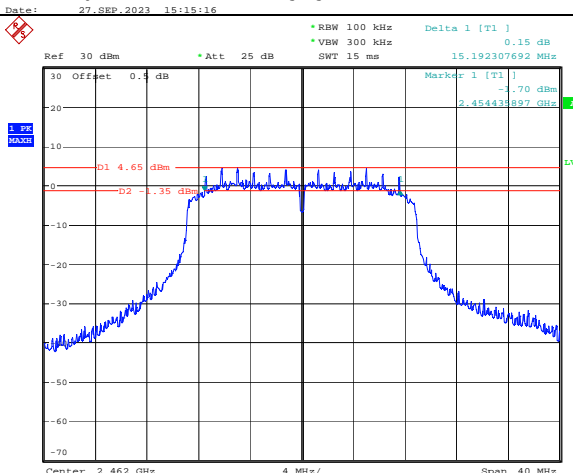
\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Data:**

Test Modes	Test Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)
802.11b	2412	8.077	0.5
	2437	8.141	0.5
	2462	8.141	0.5
802.11g	2412	15.192	0.5
	2437	15.577	0.5
	2462	15.256	0.5
802.11n ht20	2412	15.256	0.5
	2437	15.256	0.5
	2462	15.192	0.5
802.11ax hew20	2412	16.346	0.5
	2437	16.154	0.5
	2462	16.603	0.5
802.11n ht40	2422	35.641	0.5
	2437	35.513	0.5
	2452	35.513	0.5
802.11ax hew40	2422	36.795	0.5
	2437	35.897	0.5
	2452	35.385	0.5

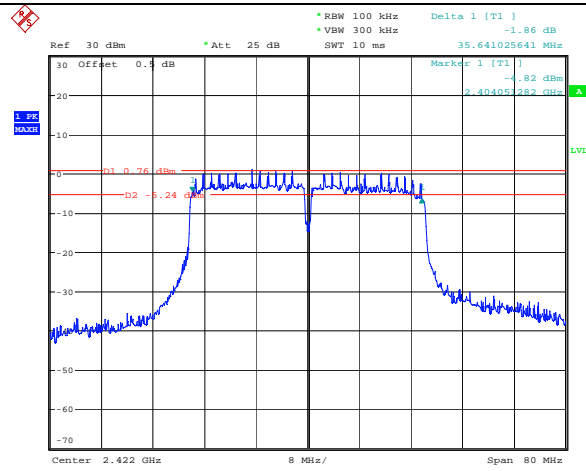
<b>6dB Emission Bandwidth</b>	
802.11b Lowest Channel	<p>Ref: 30 dBm    Att: 35 dB    RBW: 100 kHz    Delta 1 [T1]: -0.35 dB          VBW: 300 kHz    SWT: 15 ms    8.076923077 MHz</p> <p>Offset: 0.4 dB    Marker 1 [T1]: 2.40755538 GHz    0.61 dBm</p> <p>D1: 5.57 dBm    D2: -9.43 dBm    LVL</p> <p>Center: 2.412 GHz    4 MHz/    Span: 40 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 9.OCT.2023 17:09:11</p>
802.11b Middle Channel	<p>Ref: 30 dBm    Att: 35 dB    RBW: 100 kHz    Delta 1 [T1]: -1.32 dB          VBW: 300 kHz    SWT: 15 ms    8.141025641 MHz</p> <p>Offset: 0.4 dB    Marker 1 [T1]: 2.43296538 GHz    -0.03 dBm</p> <p>D1: 5.87 dBm    D2: -9.13 dBm    LVL</p> <p>Center: 2.437 GHz    4 MHz/    Span: 40 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 9.OCT.2023 17:21:18</p>
802.11b Highest Channel	<p>Ref: 30 dBm    Att: 35 dB    RBW: 100 kHz    Delta 1 [T1]: -3.18 dB          VBW: 300 kHz    SWT: 15 ms    8.141025641 MHz</p> <p>Offset: 0.4 dB    Marker 1 [T1]: 2.45795538 GHz    0.64 dBm</p> <p>D1: 5.71 dBm    D2: -9.29 dBm    LVL</p> <p>Center: 2.462 GHz    4 MHz/    Span: 40 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 9.OCT.2023 17:23:03</p>

<b>6dB Emission Bandwidth</b>	
802.11g Lowest Channel	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    VBW 300 kHz    SWT 15 ms    Delta 1 [T1] -2.28 dB</p> <p>Offset 0.4 dB    Marker 1 [T1] 2.40433897 GHz    -1.33 dBm</p> <p>D1 4.89 dBm    D2 -1.11 dBm</p> <p>Center 2.412 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li Date: 27_SEP.2023 15:20:25</p>
802.11g Middle Channel	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    VBW 300 kHz    SWT 15 ms    Delta 1 [T1] -1.16 dB</p> <p>Offset 0.4 dB    Marker 1 [T1] 2.42911385 GHz    -1.54 dBm</p> <p>D1 4.65 dBm    D2 -1.35 dBm</p> <p>Center 2.437 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li Date: 27_SEP.2023 15:02:33</p>
802.11g Highest Channel	<p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    VBW 300 kHz    SWT 15 ms    Delta 1 [T1] -0.57 dB</p> <p>Offset 0.4 dB    Marker 1 [T1] 2.45437795 GHz    -2.44 dBm</p> <p>D1 4.33 dBm    D2 -1.67 dBm</p> <p>Center 2.462 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li Date: 27_SEP.2023 15:23:22</p>

<b>6dB Emission Bandwidth</b>	
802.11n ht20 Lowest Channel	 <p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Delta 1 [T1] -3.96 dB          VBW 300 kHz    15.256410256 MHz          SWT 15 ms</p> <p>Offset 0.4 dB    Marker 1 [T1] -1.53 dBm          2.40433897 GHz</p> <p>D1 4.87 dBm    LVL          D2 -1.13 dBm</p> <p>Center 2.412 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li          Date: 27_SEP.2023 15:08:50</p>
802.11n ht20 Middle Channel	 <p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Delta 1 [T1] -3.03 dB          VBW 300 kHz    15.256410256 MHz          SWT 15 ms</p> <p>Offset 0.4 dB    Marker 1 [T1] -1.70 dBm          2.42943897 GHz</p> <p>D1 4.89 dBm    LVL          D2 -1.11 dBm</p> <p>Center 2.437 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li          Date: 27_SEP.2023 15:15:16</p>
802.11n ht20 Highest Channel	 <p>Ref 30 dBm    Att 25 dB    RBW 100 kHz    Delta 1 [T1] 0.15 dB          VBW 300 kHz    15.192307692 MHz          SWT 15 ms</p> <p>Offset 0.4 dB    Marker 1 [T1] -1.70 dBm          2.45443897 GHz</p> <p>D1 4.65 dBm    LVL          D2 -1.35 dBm</p> <p>Center 2.462 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li          Date: 27_SEP.2023 15:13:41</p>

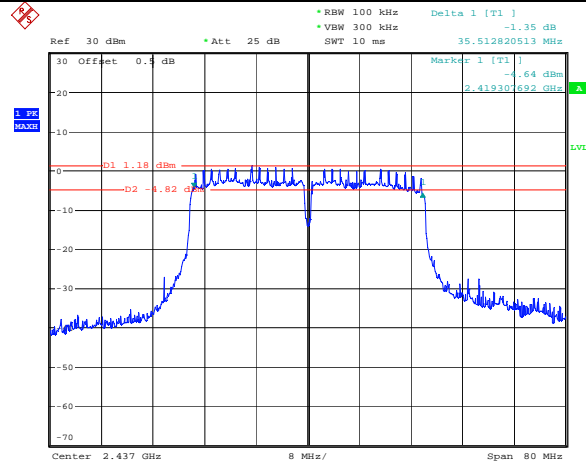
### 6dB Emission Bandwidth

802.11n ht40  
Lowest Channel



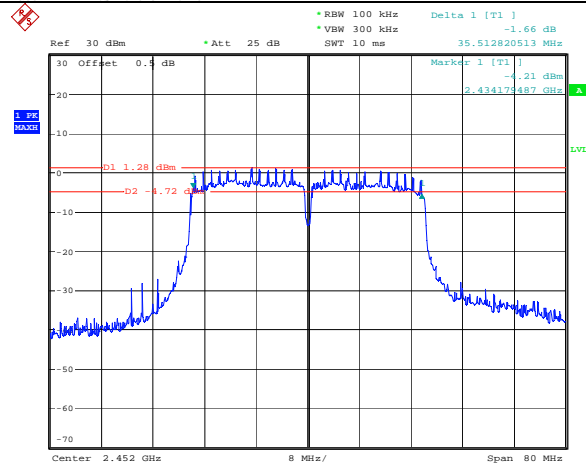
Comment: ProjectNo.:CR230955186 Tester:LingLing Li  
Date: 27.SEP.2023 16:26:37

802.11n ht40  
Middle Channel



Comment: ProjectNo.:CR230955186 Tester:LingLing Li  
Date: 27.SEP.2023 16:25:12

802.11n ht40  
Highest Channel



Comment: ProjectNo.:CR230955186 Tester:LingLing Li  
Date: 27.SEP.2023 16:28:00

<b>6dB Emission Bandwidth</b>	
802.11ax hew20 Lowest Channel	<p>Ref 30 dBm    Att 35 dB    RBW 100 kHz    Delta 1 [T1] -1.25 dB          VBW 300 kHz    SWT 15 ms    16.346153846 MHz</p> <p>Offset 0.4 dB    Marker 1 [T1] -1.15 dBm          2.40373762 GHz</p> <p>D1 2.89 dBm    D2 -9.11 dBm</p> <p>Center 2.412 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 13.OCT.2023 11:19:48</p>
802.11ax hew20 Middle Channel	<p>Ref 30 dBm    Att 35 dB    RBW 100 kHz    Delta 1 [T1] -0.60 dB          VBW 300 kHz    SWT 15 ms    16.153846154 MHz</p> <p>Offset 0.4 dB    Marker 1 [T1] -1.85 dBm          2.428794872 GHz</p> <p>D1 3.96 dBm    D2 -9.04 dBm</p> <p>Center 2.437 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 13.OCT.2023 11:52:19</p>
802.11ax hew20 Highest Channel	<p>Ref 30 dBm    Att 35 dB    RBW 100 kHz    Delta 1 [T1] -1.43 dB          VBW 300 kHz    SWT 15 ms    16.602564103 MHz</p> <p>Offset 0.4 dB    Marker 1 [T1] -1.27 dBm          2.453794872 GHz</p> <p>D1 3.41 dBm    D2 -9.59 dBm</p> <p>Center 2.462 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 13.OCT.2023 11:51:19</p>



<b>6dB Emission Bandwidth</b>	
802.11ax ht40 Lowest Channel	<p>Ref 30 dBm    Att 35 dB    RBW 100 kHz    Delta 1 [T1] -1.29 dB          VBW 300 kHz    SWT 10 ms    36.794871795 MHz</p> <p>Marker 1 [T1] -1.18 dBm          2.4035846 GHz</p> <p>D1 -2.3 dBm          D2 -9.3 dBm</p> <p>Center 2.422 GHz    8 MHz/    Span 80 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 13.OCT.2023 10:45:38</p>
802.11ax ht40 Middle Channel	<p>Ref 30 dBm    Att 35 dB    RBW 100 kHz    Delta 1 [T1] -1.79 dB          VBW 300 kHz    SWT 10 ms    35.897435897 MHz</p> <p>Marker 1 [T1] -1.91 dBm          2.41892077 GHz</p> <p>D1 -1.14 dBm          D2 -7.16 dBm</p> <p>Center 2.437 GHz    8 MHz/    Span 80 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 13.OCT.2023 10:50:56</p>
802.11ax ht40 Highest Channel	<p>Ref 30 dBm    Att 35 dB    RBW 100 kHz    Delta 1 [T1] -0.36 dB          VBW 300 kHz    SWT 10 ms    35.384615385 MHz</p> <p>Marker 1 [T1] -1.25 dBm          2.43420692 GHz</p> <p>D1 -1.14 dBm          D2 -7.18 dBm</p> <p>Center 2.452 GHz    8 MHz/    Span 80 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 13.OCT.2023 10:55:12</p>

**4.4 99% Occupied Bandwidth**

Serial Number:	2BFJ-1	Test Date:	2023/9/27~2023/10/13
Test Site:	RF	Test Mode:	Transmitting
Tester:	LingLing Li	Test Result:	pass

**Environmental Conditions:**

Temperature: (°C)	25.8~26.2	Relative Humidity: (%)	60~61	ATM Pressure: (kPa)	100.1~100.2
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	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	12.308
	Middle	2437	12.179
	Highest	2462	12.244
802.11g	Lowest	2412	16.603
	Middle	2437	16.538
	Highest	2462	16.603
802.11n ht20	Lowest	2412	17.628
	Middle	2437	17.692
	Highest	2462	17.628
802.11ax hew20	Lowest	2412	18.782
	Middle	2437	18.846
	Highest	2462	18.782
802.11n ht40	Lowest	2422	36.41
	Middle	2437	36.41
	Highest	2452	36.41
802.11ax hew40	Lowest	2422	37.692
	Middle	2437	37.692
	Highest	2452	37.564

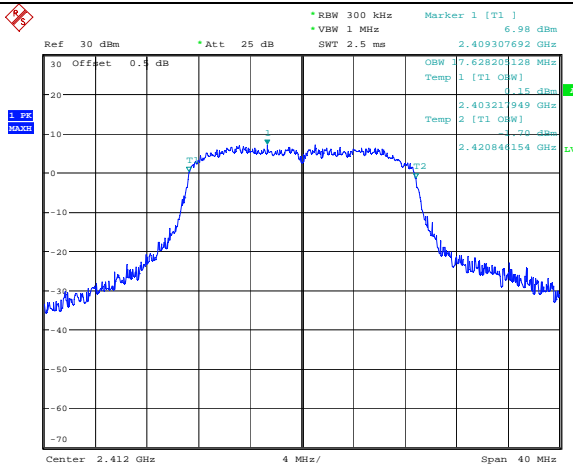
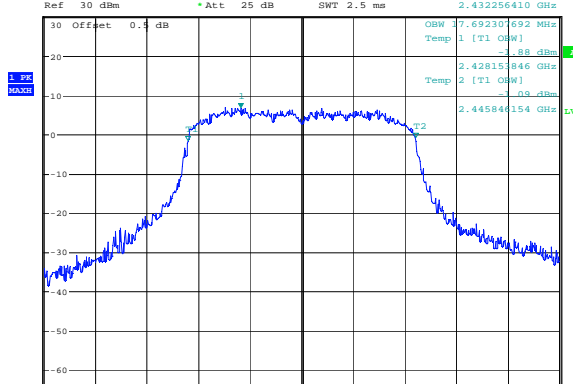
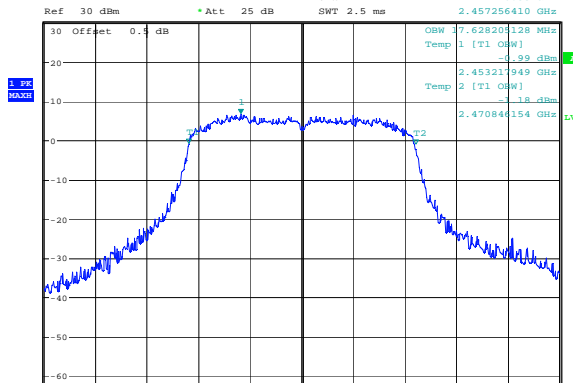
**99% Occupied Bandwidth**

<p>802.11b Lowest Channel</p>	<p>Ref 30 dBm    Att 35 dB    RBW 300 kHz    Marker 1 [T1]    6.01 dBm          VBW 1 MHz    2.411551282 GHz          SWT 2.5 ms</p> <p>OBW 2.307693308 MHz          Temp 1 [T1 OHW]    -1.64 dBm          2.405844154 GHz          Temp 2 [T1 OHW]    -1.04 dBm          2.418153846 GHz    LVL</p> <p>Center 2.412 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 9.OCT.2023 17:31:30</p>
<p>802.11b Middle Channel</p>	<p>Ref 30 dBm    Att 35 dB    RBW 300 kHz    Marker 1 [T1]    6.20 dBm          VBW 1 MHz    2.436487179 GHz          SWT 2.5 ms</p> <p>OBW 2.179481179 MHz          Temp 1 [T1 OHW]    -1.06 dBm          2.430910256 GHz          Temp 2 [T1 OHW]    -1.08 dBm          2.443088744 GHz    LVL</p> <p>Center 2.437 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 9.OCT.2023 17:21:38</p>
<p>802.11b Highest Channel</p>	<p>Ref 30 dBm    Att 35 dB    RBW 300 kHz    Marker 1 [T1]    6.02 dBm          VBW 1 MHz    2.461487179 GHz          SWT 2.5 ms</p> <p>OBW 2.243588744 MHz          Temp 1 [T1 OHW]    -1.38 dBm          2.455910256 GHz          Temp 2 [T1 OHW]    -1.79 dBm          2.468153846 GHz    LVL</p> <p>Center 2.462 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 9.OCT.2023 17:22:10</p>

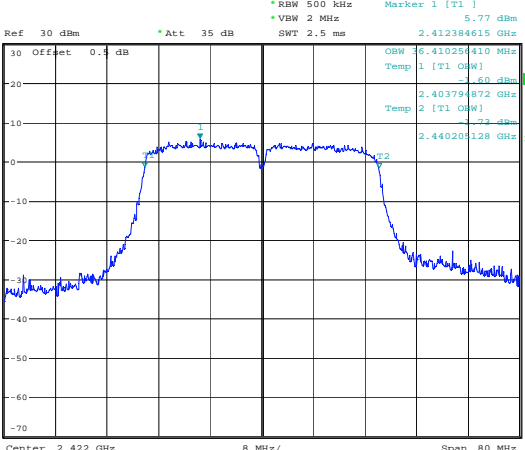
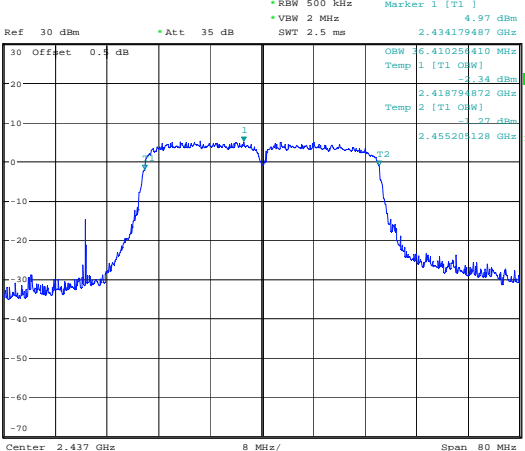
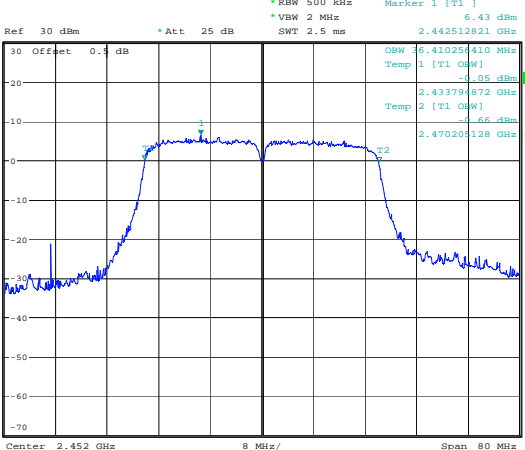
**99% Occupied Bandwidth**

<p>802.11g Lowest Channel</p>	<p>Ref 30 dBm    Att 25 dB    RBW 300 kHz    VBW 1 MHz    SWT 2.5 ms    Marker 1 [T1] 7.81 dBm          2.409620513 GHz</p> <p>OBW 36.602564103 MHz          Temp 1 [T1 OHW] -1.35 dBm          2.403664667 GHz          Temp 2 [T1 OHW] -1.18 dBm          2.420266231 GHz LVL</p> <p>Center 2.412 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li          Date: 27_SEP.2023 15:32:10</p>
<p>802.11g Middle Channel</p>	<p>Ref 30 dBm    Att 25 dB    RBW 300 kHz    VBW 1 MHz    SWT 2.5 ms    Marker 1 [T1] 6.95 dBm          2.432320513 GHz</p> <p>OBW 36.538461538 MHz          Temp 1 [T1 OHW] -1.90 dBm          2.428730769 GHz          Temp 2 [T1 OHW] -1.80 dBm          2.445266231 GHz LVL</p> <p>Center 2.437 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li          Date: 27_SEP.2023 15:34:02</p>
<p>802.11g Highest Channel</p>	<p>Ref 30 dBm    Att 25 dB    RBW 300 kHz    VBW 1 MHz    SWT 2.5 ms    Marker 1 [T1] 6.88 dBm          2.457448718 GHz</p> <p>OBW 36.602564103 MHz          Temp 1 [T1 OHW] -1.37 dBm          2.453664667 GHz          Temp 2 [T1 OHW] -1.42 dBm          2.470266231 GHz LVL</p> <p>Center 2.462 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li          Date: 27_SEP.2023 15:47:25</p>

**99% Occupied Bandwidth**

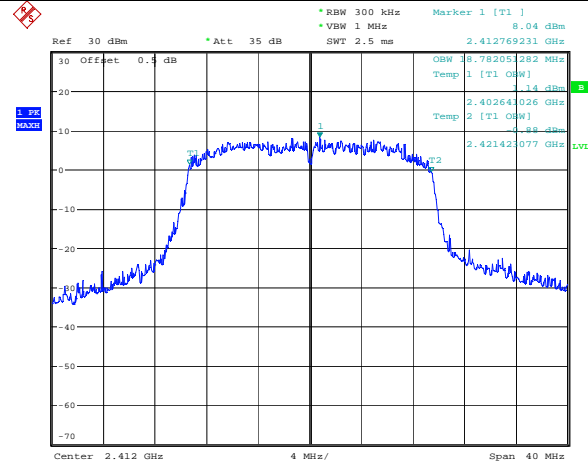
<p>802.11n ht20 Lowest Channel</p>	 <p>Comment: ProjectNo.:CR230955186 Tester:LingLing Li Date: 27_SEP.2023 15:50:37</p>
<p>802.11n ht20 Middle Channel</p>	 <p>Comment: ProjectNo.:CR230955186 Tester:LingLing Li Date: 27_SEP.2023 15:52:09</p>
<p>802.11n ht20 Highest Channel</p>	 <p>Comment: ProjectNo.:CR230955186 Tester:LingLing Li Date: 27_SEP.2023 15:54:28</p>

### 99% Occupied Bandwidth

<p>802.11n ht40 Lowest Channel</p>	 <p>Ref 30 dBm    Att 35 dB    RBW 500 kHz    Marker 1 [T1]    5.77 dBm          VBW 2 MHz    2.412388615 GHz          SWT 2.5 ms</p> <p>OBW 36.410254410 MHz          Temp 1 [T1 OHW]    -1.60 dBm          2.403794872 GHz    Temp 2 [T1 OHW]    -72 dBm          2.440205128 GHz    LVL</p> <p>Center 2.422 GHz    8 MHz/    Span 80 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li          Date: 27_SEP.2023 16:39:34</p>
<p>802.11n ht40 Middle Channel</p>	 <p>Ref 30 dBm    Att 35 dB    RBW 500 kHz    Marker 1 [T1]    4.97 dBm          VBW 2 MHz    2.434179487 GHz          SWT 2.5 ms</p> <p>OBW 36.410254410 MHz          Temp 1 [T1 OHW]    -1.34 dBm          2.418794872 GHz    Temp 2 [T1 OHW]    -97 dBm          2.455205128 GHz    LVL</p> <p>Center 2.437 GHz    8 MHz/    Span 80 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li          Date: 27_SEP.2023 16:35:39</p>
<p>802.11n ht40 Highest Channel</p>	 <p>Ref 30 dBm    Att 25 dB    RBW 500 kHz    Marker 1 [T1]    6.43 dBm          VBW 2 MHz    2.442512821 GHz          SWT 2.5 ms</p> <p>OBW 36.410254410 MHz          Temp 1 [T1 OHW]    -1.05 dBm          2.433794872 GHz    Temp 2 [T1 OHW]    -66 dBm          2.470205128 GHz    LVL</p> <p>Center 2.452 GHz    8 MHz/    Span 80 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li          Date: 27_SEP.2023 16:30:07</p>

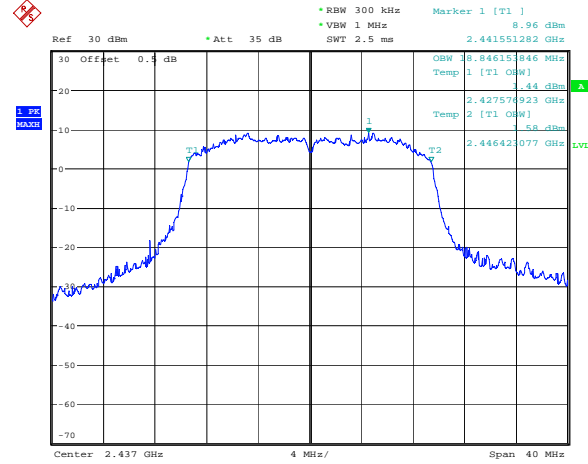
**99% Occupied Bandwidth**

802.11ax hew20  
Lowest Channel



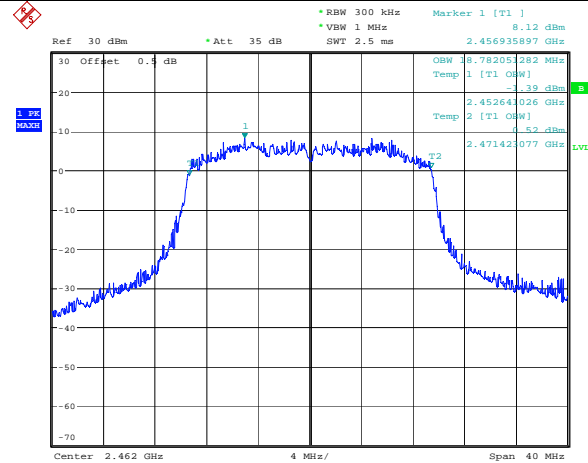
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802.11ax hew20  
Middle Channel



Comment: ProjectNo.:CR230955186-RF Tester:LingLing Li  
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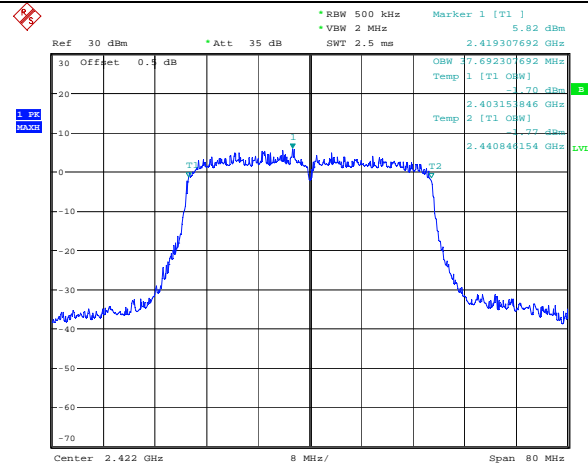
802.11ax ht20  
Highest Channel



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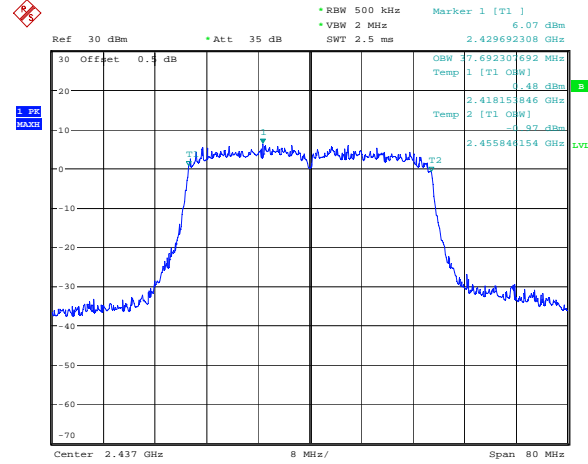
**99% Occupied Bandwidth**

802.11ax ht40  
Lowest Channel



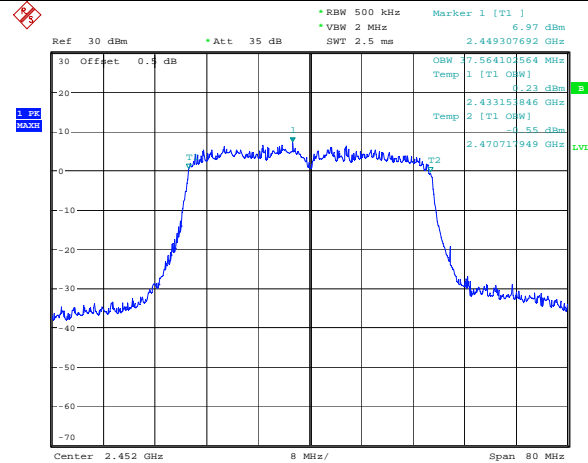
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802.11ax ht40  
Middle Channel



Comment: ProjectNo.:CR230955186-RF Tester:LingLing Li  
Date: 13.OCT.2023 11:12:26

802.11ax ht40  
Highest Channel



Comment: ProjectNo.:CR230955186-RF Tester:LingLing Li  
Date: 13.OCT.2023 11:05:47



**4.5 Maximum Conducted Output Power**

Serial Number:	2BFJ-1	Test Date:	2023/9/27~2023/10/13
Test Site:	RF	Test Mode:	Transmitting
Tester:	LingLing Li	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	25.8~26.2	Relative Humidity: (%)	60~61	ATM Pressure: (kPa)	100.1~100.2
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
Anritsu	Power Meter	ML2495A	1106009	2023/8/4	2024/8/3
Anritsu	Pulse Power Sensor	MA2411A	10780	2023/8/4	2024/8/3
zhuoxiang	Coaxial Cable	SMA-178	211001	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)	Maximum Conducted Peak Output Power (dBm)	Maximum Conducted Average Output Power (dBm)	Limit (dBm)
802.11b	2412	16.17	13.91	30
	2437	17.01	14.21	30
	2462	16.34	13.81	30
802.11g	2412	21.17	14.56	30
	2437	21.31	14.70	30
	2462	21.42	14.68	30
802.11n ht20	2412	21.33	14.41	30
	2437	21.38	14.59	30
	2462	21.37	14.69	30
802.11ax hew20	2412	19.76	13.07	30
	2437	20.84	14.22	30
	2462	20.91	14.31	30
802.11n ht40	2422	19.11	12.10	30
	2437	19.51	12.22	30
	2452	19.53	12.15	30
802.11ax hew40	2422	18.36	11.27	30
	2437	19.11	11.90	30
	2452	19.23	11.91	30

**4.6 Maximum Power Spectral Density**

Serial Number:	2BFJ-1	Test Date:	2023/9/27~2023/10/13
Test Site:	RF	Test Mode:	Transmitting
Tester:	LingLing Li	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	25.8~26.2	Relative Humidity: (%)	60~61	ATM Pressure: (kPa)	100.1~100.2
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	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 Channel	Test Frequency (MHz)	Reading (dBm/10kHz)	Duty Factor (dB)	Power Spectral Density (dBm/10kHz)	Limit (dBm/3kHz)
802.11b	2412	-13.81	/	-13.81	8.00
	2437	-13.48	/	-13.48	8.00
	2462	-13.83	/	-13.83	8.00
802.11g	2412	-15.45	0.13	-15.32	8.00
	2437	-15.63	0.13	-15.50	8.00
	2462	-15.7	0.13	-15.57	8.00
802.11n ht20	2412	-15.75	0.47	-15.28	8.00
	2437	-15.92	0.47	-15.45	8.00
	2462	-15.48	0.47	-15.01	8.00
802.11ax hew20	2412	-17.47	0.43	-17.04	8.00
	2437	-17.75	0.43	-17.32	8.00
	2462	-17.42	0.43	-16.99	8.00
802.11n ht40	2422	-19.17	0.55	-18.62	8.00
	2437	-18.88	0.55	-18.33	8.00
	2452	-18.84	0.55	-18.29	8.00
802.11ax hew40	2422	-23.02	0.74	-22.28	8.00
	2437	-22.51	0.74	-21.77	8.00
	2452	-22.35	0.74	-21.61	8.00

Note:

Duty cycle  $\geq 98\%$ , ANSI C63.10-2013 Section 11.10.3 was used for test.

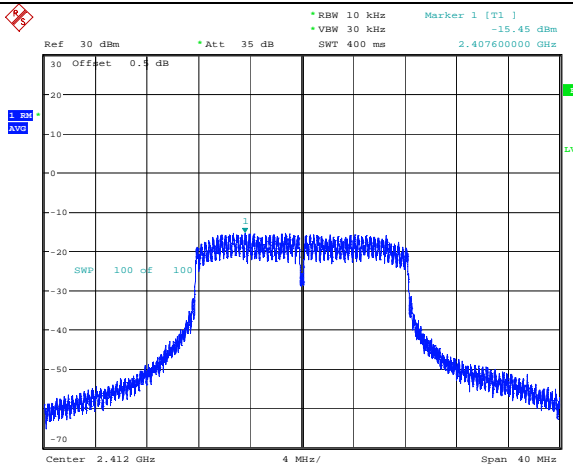
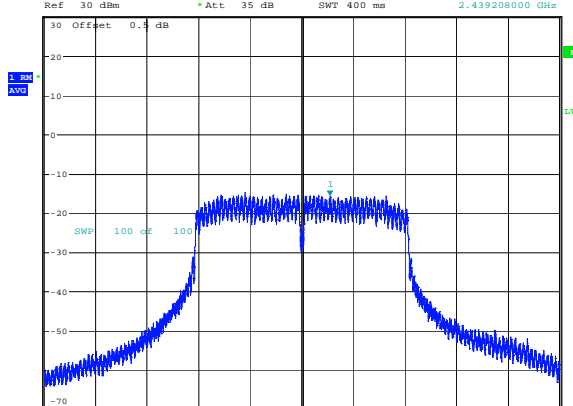
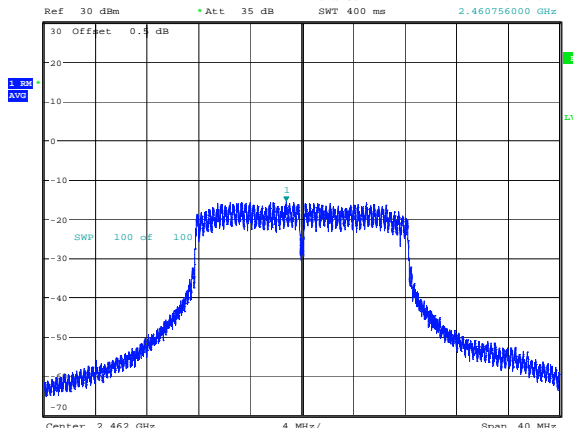
Duty cycle  $< 98\%$ , duty cycle variations are less than  $\pm 2\%$ , ANSI C63.10-2013 Section 11.10.5 was used for test.

For Duty cycle  $< 98\%$ , and Duty cycle be considered to be constant (variations are less than  $\pm 2\%$ ), the duty cycle factor was added into the result.

**Maximum power spectral density**

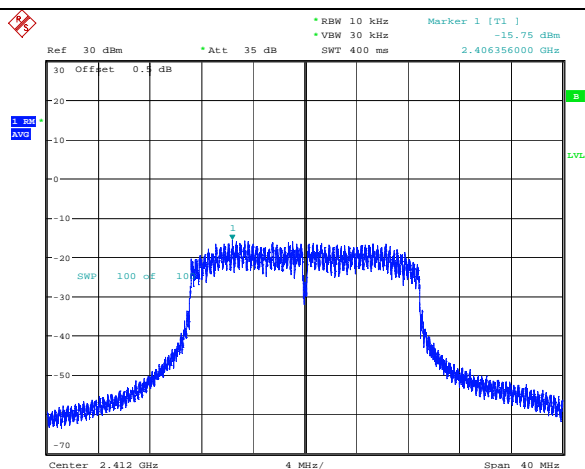
<p>802.11b Lowest Channel</p>	<p>Ref: 20 dBm    Att: 35 dB    RBW: 10 kHz    VBW: 30 kHz    SWT: 400 ms    Marker 1 [T1]    -13.81 dBm          2.412628000 GHz</p> <p>Center: 2.412 GHz    4 MHz/    Span: 40 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 9.OCT.2023 17:43:33</p>
<p>802.11b Middle Channel</p>	<p>Ref: 20 dBm    Att: 35 dB    RBW: 10 kHz    VBW: 30 kHz    SWT: 400 ms    Marker 1 [T1]    -13.48 dBm          2.436248000 GHz</p> <p>Center: 2.437 GHz    4 MHz/    Span: 40 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 9.OCT.2023 17:41:50</p>
<p>802.11b Highest Channel</p>	<p>Ref: 20 dBm    Att: 35 dB    RBW: 10 kHz    VBW: 30 kHz    SWT: 400 ms    Marker 1 [T1]    -13.83 dBm          2.461340000 GHz</p> <p>Center: 2.462 GHz    4 MHz/    Span: 40 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 9.OCT.2023 17:45:23</p>

### Maximum power spectral density

<p>802.11g Lowest Channel</p>	 <p>Ref 30 dBm    Att 35 dB    RBW 10 kHz    VBW 30 kHz    SWT 400 ms    Marker 1 [T1]    -15.45 dBm</p> <p>Center: 2.412 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li Date: 27_SEP.2023 15:33:09</p>
<p>802.11g Middle Channel</p>	 <p>Ref 30 dBm    Att 35 dB    RBW 10 kHz    VBW 30 kHz    SWT 400 ms    Marker 1 [T1]    -15.63 dBm</p> <p>Center: 2.437 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li Date: 27_SEP.2023 15:46:13</p>
<p>802.11g Highest Channel</p>	 <p>Ref 30 dBm    Att 35 dB    RBW 10 kHz    VBW 30 kHz    SWT 400 ms    Marker 1 [T1]    -15.70 dBm</p> <p>Center: 2.462 GHz    4 MHz/    Span 40 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li Date: 27_SEP.2023 15:48:38</p>

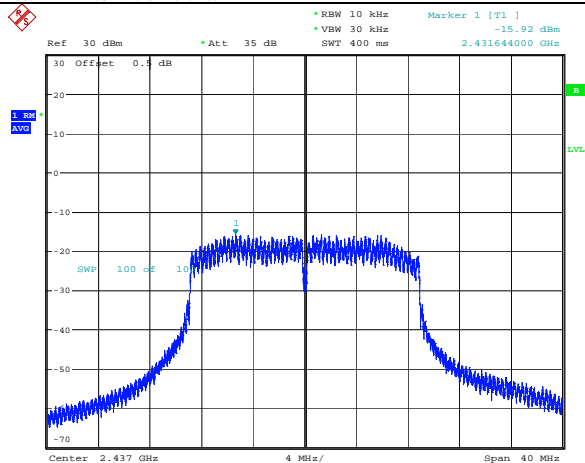
### Maximum power spectral density

802.11n ht20  
Lowest Channel



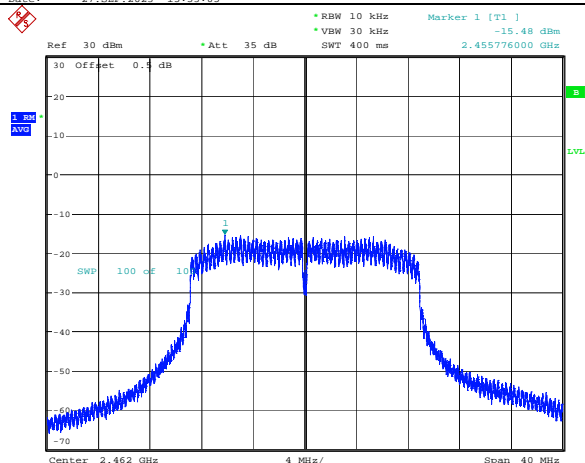
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Date: 27\_SEP.2023 15:51:39

802.11n ht20  
Middle Channel



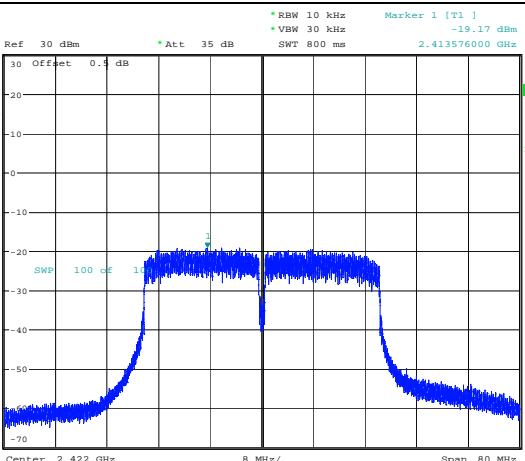
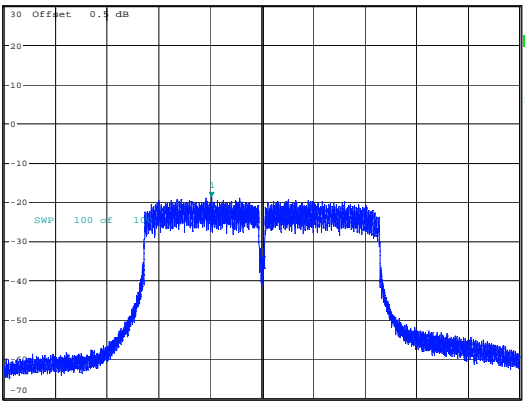
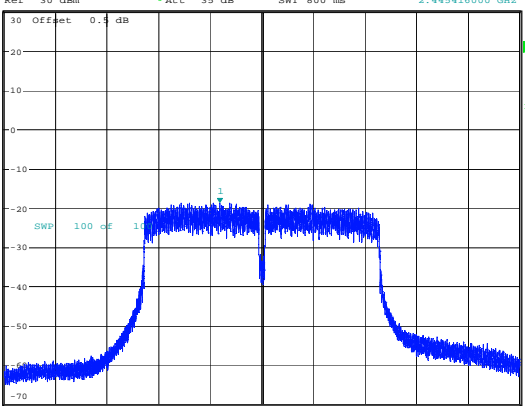
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802.11n ht20  
Highest Channel



Comment: ProjectNo.:CR230955186 Tester:LingLing Li  
Date: 27\_SEP.2023 15:54:19

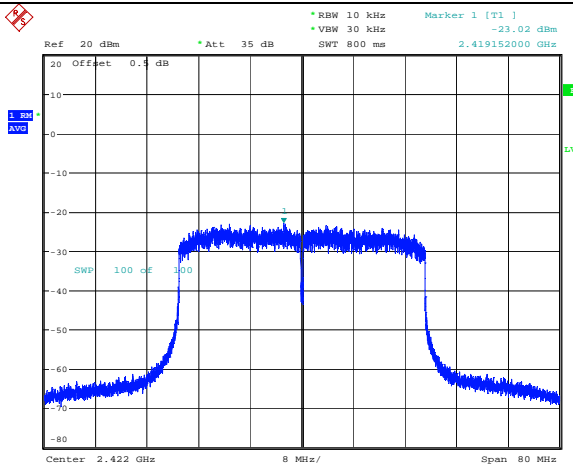
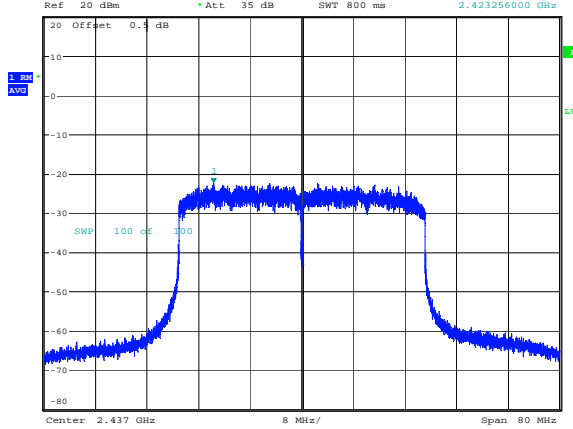
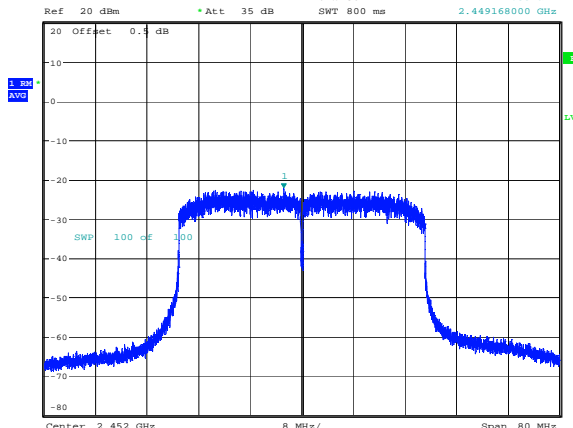
### Maximum power spectral density

<p>802.11n ht40 Lowest Channel</p>	 <p>Ref 30 dBm    Att 35 dB    RBW 10 kHz    VBW 30 kHz    SWT 800 ms    Marker 1 [T1]    -19.17 dBm</p> <p>Center: 2.422 GHz    8 MHz/    Span 80 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li Date: 27_SEP.2023 16:41:14</p>
<p>802.11n ht40 Middle Channel</p>	 <p>Ref 30 dBm    Att 35 dB    RBW 10 kHz    VBW 30 kHz    SWT 800 ms    Marker 1 [T1]    -18.88 dBm</p> <p>Center: 2.437 GHz    8 MHz/    Span 80 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li Date: 27_SEP.2023 16:38:43</p>
<p>802.11n ht40 Highest Channel</p>	 <p>Ref 30 dBm    Att 35 dB    RBW 10 kHz    VBW 30 kHz    SWT 800 ms    Marker 1 [T1]    -18.84 dBm</p> <p>Center: 2.452 GHz    8 MHz/    Span 80 MHz</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li Date: 27_SEP.2023 16:43:08</p>

### Maximum power spectral density

<p>802.11ax hew20 Lowest Channel</p>	<p>Ref: 20 dBm    Att: 35 dB    RBW: 10 kHz    VBW: 30 kHz    SWT: 400 ms    Marker 1 [T1]    -17.47 dBm 2.411304000 GHz</p> <p>Center: 2.412 GHz    4 MHz/    Span: 40 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li Date: 13.OCT.2023 11:22:46</p>
<p>802.11ax hew20 Middle Channel</p>	<p>Ref: 20 dBm    Att: 35 dB    RBW: 10 kHz    VBW: 30 kHz    SWT: 400 ms    Marker 1 [T1]    -17.75 dBm 2.435432000 GHz</p> <p>Center: 2.437 GHz    4 MHz/    Span: 40 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li Date: 13.OCT.2023 11:53:40</p>
<p>802.11ax hew20 Highest Channel</p>	<p>Ref: 20 dBm    Att: 35 dB    RBW: 10 kHz    VBW: 30 kHz    SWT: 400 ms    Marker 1 [T1]    -17.42 dBm 2.456520000 GHz</p> <p>Center: 2.462 GHz    4 MHz/    Span: 40 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li Date: 13.OCT.2023 11:24:19</p>

**Maximum power spectral density**

<p>802.11ax hew40 Lowest Channel</p>	 <p>Ref: 20 dBm    Att: 35 dB    RBW: 10 kHz    VBW: 30 kHz    SWT: 800 ms    Marker 1 [T1]    -23.02 dBm          2.419152000 GHz</p> <p>Center: 2.422 GHz    8 MHz/    Span: 80 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 13.OCT.2023 10:48:26</p>
<p>802.11ax hew40 Middle Channel</p>	 <p>Ref: 20 dBm    Att: 35 dB    RBW: 10 kHz    VBW: 30 kHz    SWT: 800 ms    Marker 1 [T1]    -22.51 dBm          2.423256000 GHz</p> <p>Center: 2.437 GHz    8 MHz/    Span: 80 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 13.OCT.2023 10:53:50</p>
<p>802.11ax hew40 Highest Channel</p>	 <p>Ref: 20 dBm    Att: 35 dB    RBW: 10 kHz    VBW: 30 kHz    SWT: 800 ms    Marker 1 [T1]    -22.35 dBm          2.449168000 GHz</p> <p>Center: 2.452 GHz    8 MHz/    Span: 80 MHz</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li          Date: 13.OCT.2023 10:57:27</p>



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

Serial Number:	2BFJ-1	Test Date:	2023/9/27~2023/10/13
Test Site:	RF	Test Mode:	Transmitting
Tester:	LingLing Li	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	25.8~26.2	Relative Humidity: (%)	60~61	ATM Pressure: (kPa)	100.1~100.2
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**Test Equipment List and Details:**

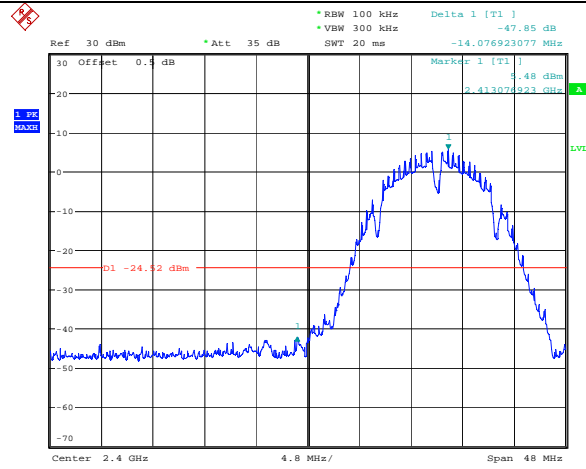
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A

\* 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:**

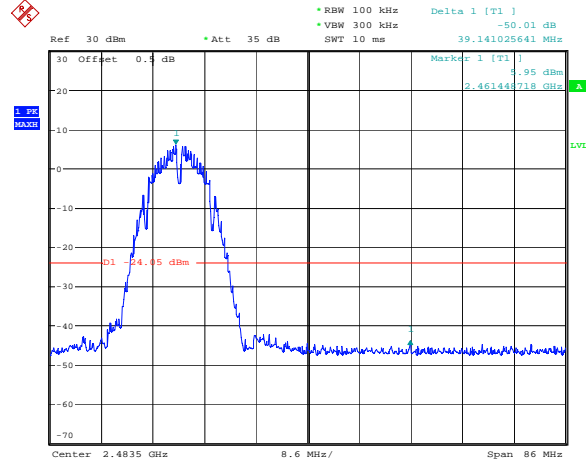
### 100 kHz Bandwidth of Frequency Band Edge

802.11b  
Lowest Band edge



Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li  
Date: 9.OCT.2023 17:32:51

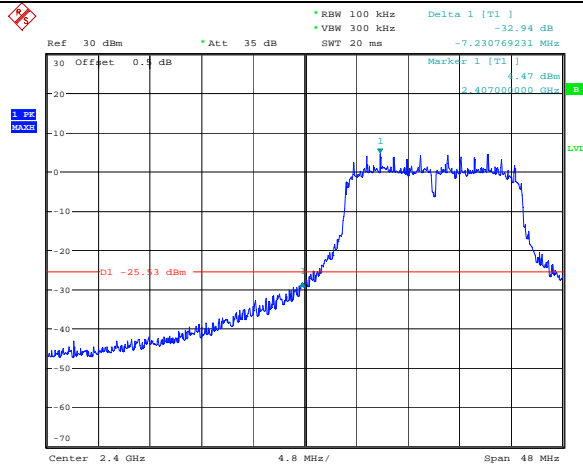
802.11b  
Highest Band edge



Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li  
Date: 9.OCT.2023 17:34:43

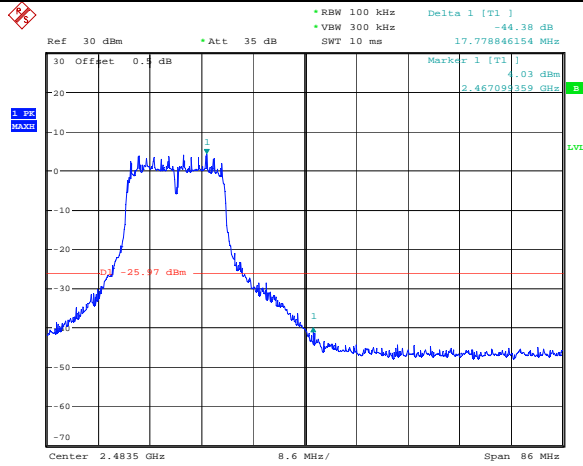
### 100 kHz Bandwidth of Frequency Band Edge

802.11g  
Lowest Band edge



Comment: ProjectNo.:CR230955186 Tester:LingLing Li  
 Date: 27.SEP.2023 15:21:30

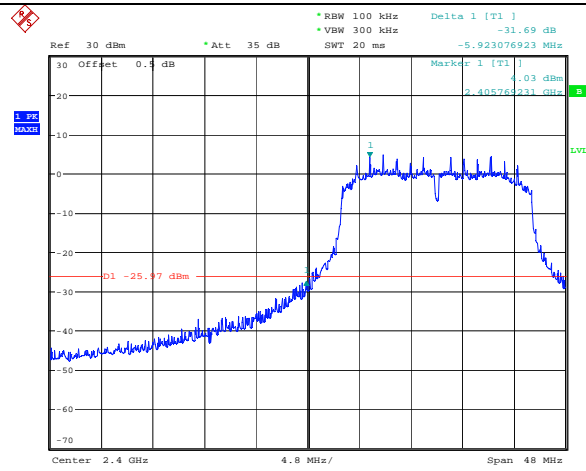
802.11g  
Highest Band edge



Comment: ProjectNo.:CR230955186 Tester:LingLing Li  
 Date: 27.SEP.2023 14:56:52

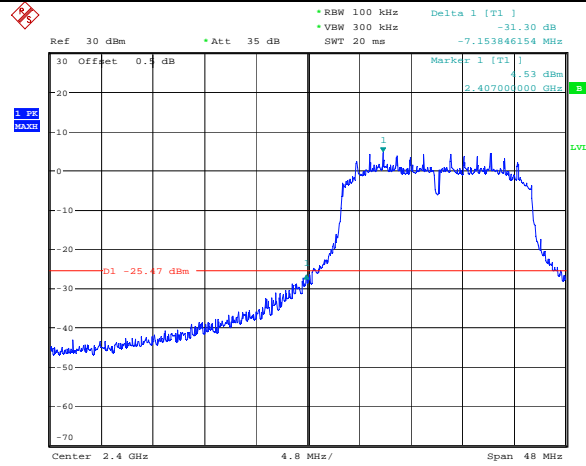
### 100 kHz Bandwidth of Frequency Band Edge

802.11n ht20  
Lowest Band edge



Comment: ProjectNo.:CR230955186 Tester:LingLing Li  
 Date: 27\_SEP.2023 15:09:36

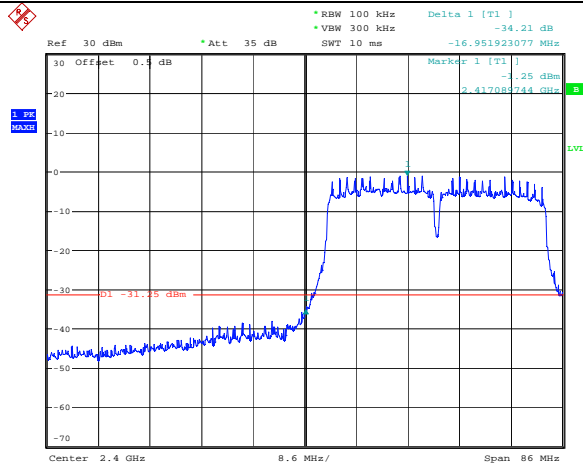
802.11n ht20  
Highest Band edge



Comment: ProjectNo.:CR230955186 Tester:LingLing Li  
 Date: 27\_SEP.2023 15:27:15

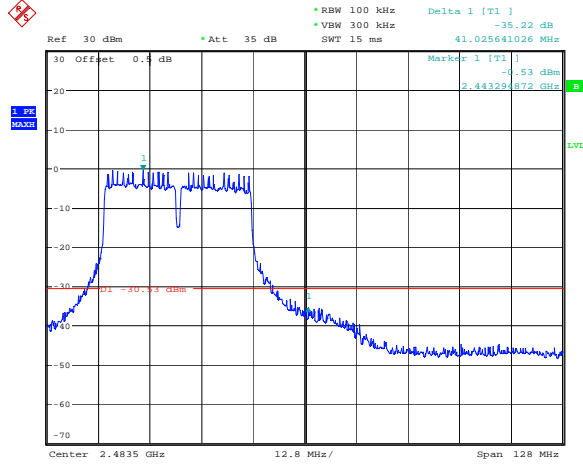
### 100 kHz Bandwidth of Frequency Band Edge

802.11n ht40  
Lowest Band edge



Comment: ProjectNo.:CR230955186    Tester:LingLing Li  
Date: 27\_SEP.2023 16:23:09

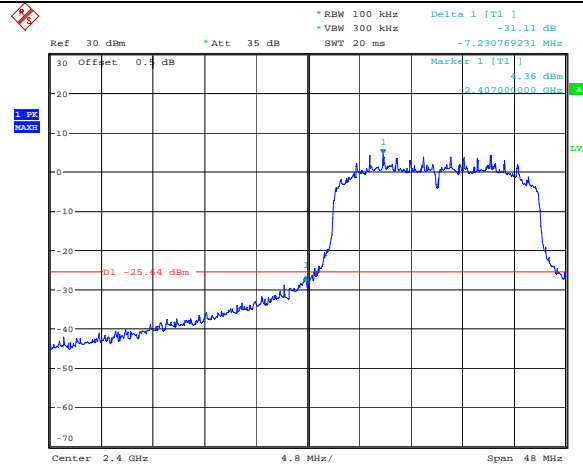
802.11n ht40  
Highest Band edge



Comment: ProjectNo.:CR230955186    Tester:LingLing Li  
Date: 27\_SEP.2023 16:17:23

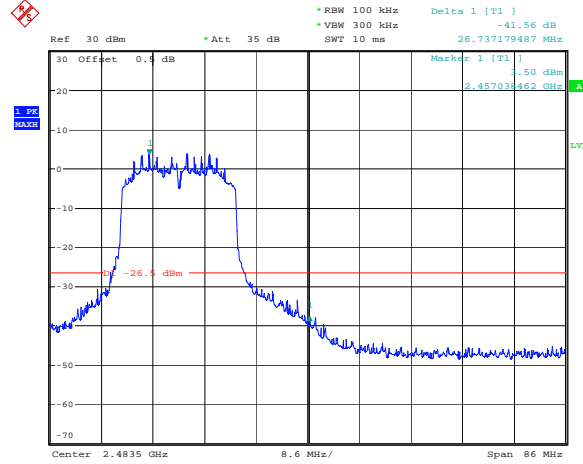
### 100 kHz Bandwidth of Frequency Band Edge

802.11ax ht20  
Lowest Band edge



Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li  
Date: 13.OCT.2023 13:23:50

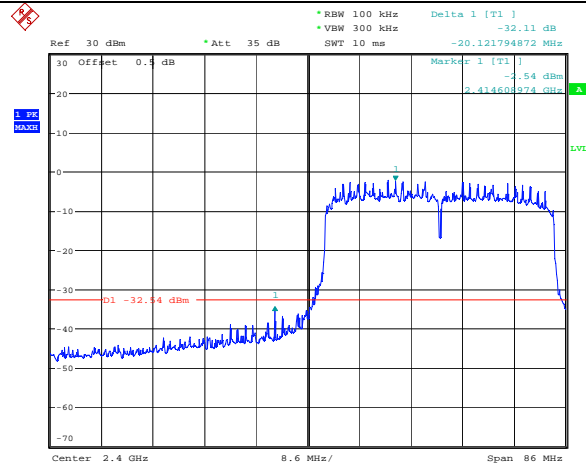
802.11ax ht20  
Highest Band edge



Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li  
Date: 13.OCT.2023 13:17:53

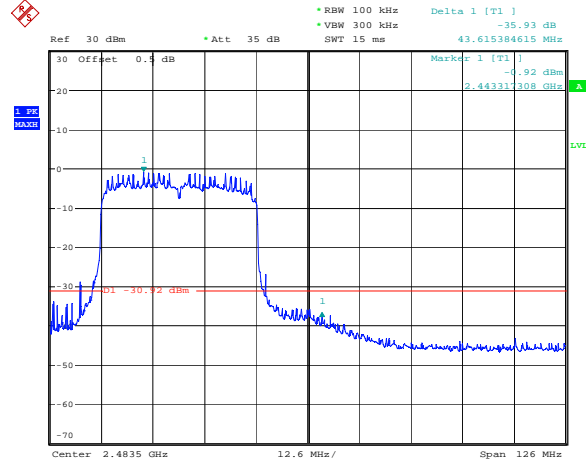
### 100 kHz Bandwidth of Frequency Band Edge

802.11ax ht40  
Lowest Band edge



Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li  
 Date: 13.OCT.2023 13:25:26

802.11ax ht40  
Highest Band edge



Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li  
 Date: 13.OCT.2023 11:09:32

#### 4.8 Duty Cycle

Serial Number:	2BFJ-1	Test Date:	2023/9/27~2023/10/13
Test Site:	RF	Test Mode:	Transmitting
Tester:	LingLing Li	Test Result:	pass

#### Environmental Conditions:

Temperature: (°C)	25.8~26.2	Relative Humidity: (%)	60~61	ATM Pressure: (kPa)	100.1~100.2
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#### Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	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)	Duty Factor (dB)	VBW Setting (kHz)
802.11b	100	100	100.00	/	/	0.01
802.11g	2.077	2.141	97.01	481	0.13	0.5
802.11n ht20	1.923	2.141	89.82	520	0.47	1
802.11ax hew20	1.474	1.628	90.54	678	0.43	1
802.11n ht40	0.955	1.083	88.18	1047	0.55	2
802.11ax hew40	0.763	0.904	84.40	1311	0.74	2



<b>Duty Cycle</b>	
<b>802.11b</b>	<p>Ref 30 dBm    Att 35 dB    RBW 10 MHz    VBW 10 MHz    SWT 100 ms    Marker 1 [T1] 16.79 dBm 91.987179 ms</p> <p>Offset 0.4 dB</p> <p>Center 2.437 GHz    10 ms/</p> <p>Comment: ProjectNo.:CR230955186-RF    Tester:LingLing Li Date: 9.OCT.2023 17:37:47</p>
<b>802.11g</b>	<p>Ref 30 dBm    Att 35 dB    RBW 10 MHz    VBW 10 MHz    SWT 8 ms    Delta 2 [T1] 0.35 dB 2.141026 ms</p> <p>Offset 0.4 dB</p> <p>Center 2.437 GHz    800 μs/</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li Date: 27.SEP.2023 15:04:32</p>
<b>802.11n ht20</b>	<p>Ref 30 dBm    Att 35 dB    RBW 10 MHz    VBW 10 MHz    SWT 8 ms    Delta 2 [T1] 0.37 dB 2.141026 ms</p> <p>Offset 0.4 dB</p> <p>Center 2.437 GHz    800 μs/</p> <p>Comment: ProjectNo.:CR230955186    Tester:LingLing Li Date: 27.SEP.2023 15:16:27</p>

<b>Duty Cycle</b>	
<b>802.11n ht40</b>	<div style="text-align: right; font-size: small;">                     RBW 10 MHz    Delta 2 [T1 ]                      • VBW 10 MHz    -0.15 dB                      • Att 35 dB    1.083333 ms                      Ref 30 dBm    • SWT 4 ms                 </div> <div style="text-align: center; font-size: x-small;">                     Center 2.437 GHz    400 μs/                 </div> <p style="font-size: x-small;">                     Comment: ProjectNo.:CR230955186 Tester:LingLing Li                      Date: 27.SEP.2023 16:34:11                 </p>
<b>802.11ax hew20</b>	<div style="text-align: right; font-size: small;">                     RBW 10 MHz    Delta 2 [T1 ]                      • VBW 10 MHz    -1.23 dB                      • Att 35 dB    1.628205 ms                      Ref 30 dBm    • SWT 8 ms                 </div> <div style="text-align: center; font-size: x-small;">                     Center 2.437 GHz    800 μs/                 </div> <p style="font-size: x-small;">                     Comment: ProjectNo.:CR230955186-RF Tester:LingLing Li                      Date: 13.OCT.2023 11:54:45                 </p>
<b>802.11ax hew40</b>	<div style="text-align: right; font-size: small;">                     RBW 10 MHz    Delta 2 [T1 ]                      • VBW 10 MHz    1.74 dB                      • Att 35 dB    903.846154 μs                      Ref 30 dBm    • SWT 4 ms                 </div> <div style="text-align: center; font-size: x-small;">                     Center 2.437 GHz    400 μs/                 </div> <p style="font-size: x-small;">                     Comment: ProjectNo.:CR230955186-RF Tester:LingLing Li                      Date: 13.OCT.2023 11:13:48                 </p>

## **5. EUT PHOTOGRAPHS**

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Please refer to the attachment CR230955186-EXP EUT EXTERNAL PHOTOGRAPHS and CR230955186-INP EUT INTERNAL PHOTOGRAPHS

## **6. TEST SETUP PHOTOGRAPHS**

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Please refer to the attachment CR230955186-00C-TSP TEST SETUP PHOTOGRAPHS.

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