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

ACCREDITED
TESTING LABORATORY
CERTIFICATE # 6356.01

TEST REPORT

Applicant: **Dnake (Xiamen) Intelligent Technology Co., Ltd.**

Address: No.8, Haijing North 2nd Road, Haicang District, Xiamen, Fujian 361026, China

FCC ID: **2ATT5-C112A**

Product Name: **Door Station**

Standard(s): **47 CFR Part 15, Subpart E(15.407)**
ANSI C63.10-2013
KDB 789033 D02 General U-NII Test Procedures New Rules v02r01

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: **CR231164424-00B**

Date Of Issue: **2023/12/30**

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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.

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	CR231164424-00B	Original Report	2023/12/30

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

1.1.1 General:

EUT Name:	Door Station
EUT Model:	C112A
Multiple Models:	C112W, C112, C112R, IPK04, IPK05, 170SD-C61A, 170SD-C61R, 170SD-C61W, 170SD-C61, 170SD-C26
Operation Frequency:	5180-5240 MHz (802.11a/n ht20/ac vht20) 5190-5230 MHz(802.11n ht40/ac vht40) 5745-5825 MHz (802.11a/n ht20/ac vht20) 5755-5795 MHz(802.11n ht40/ac vht40))
Maximum Average Output Power (Conducted):	6.64 dBm (5150-5250 MHz) 13.31dBm (5725-5850 MHz)
Modulation Type:	802.11a/n/ac: OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM
Rated Input Voltage:	DC 12V From DC Port or Powered from POE
Serial Number:	2B74-3(For RF Conducted test) 2B74-1(For AC line conducted emissions and Radiation Spurious Emissions test)
EUT Received Date:	2023/11/3
EUT Received Status:	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.	

1.1.2 Operation Frequency Detail:

For 802.11a/n ht20/ac vht20:

5150-5250MHz Band		5725-5850MHz Band	
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
36	5180	149	5745
40	5200	153	5765
44	5220	157	5785
48	5240	161	5805
/	/	165	5825
Per section 15.31(m), the below frequencies were performed the test as below:			
36	5180	149	5745
40	5200	157	5785
48	5240	165	5825

For 802.11n ht40/ac vht40:

5150-5250MHz Band		5725-5850MHz Band	
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
38	5190	151	5755
46	5230	159	5795
Per section 15.31(m), the below frequencies were performed the test as below:			
38	5190	151	5755
46	5230	159	5795

1.1.3 Antenna Information Detail▲:

Antenna Manufacturer	Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain
Zhongshan Boantong communication Technology Co., LTD	PIFA	50	5.15~5.25GHz	2.62 dBi
			5.725~5.85GHz	2 dBi
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.				

1.1.4 Accessory Information:

Accessory Description	Manufacturer	Model	Parameters
/	/	/	/

1.2 Description of Test Configuration

1.2.1 EUT Operation Condition:

EUT Operation Mode:	The system was configured for testing in Engineering Mode, which was provided by the manufacturer. Test was performed with the worst power mode according to 2.4G Wifi test result.(POE power mode for AC line conducted emission test and Adapter power mode for Radiated emission test)
Equipment Modifications:	No
EUT Exercise Software:	CMD

The software was provided by manufacturer. The maximum power was configured as below, that was provided by the manufacturer▲:

5150-5250 MHz Band:

Test Modes	Test Channels	Test Frequency (MHz)	Data rate	Power Level Setting
802.11a	Lowest	5180	6Mbps	11
	Middle	5200	6Mbps	11
	Highest	5240	6Mbps	11
802.11n ht20	Lowest	5180	MCS0	11
	Middle	5200	MCS0	11
	Highest	5240	MCS0	11
802.11n ht40	Lowest	5190	MCS0	11
	Highest	5230	MCS0	11

5725-5850 MHz Band:

Test Modes	Test Channels	Test Frequency (MHz)	Data rate	Power Level Setting
802.11a	Lowest	5745	6Mbps	11
	Middle	5785	6Mbps	11
	Highest	5825	6Mbps	11
802.11n ht20	Lowest	5745	MCS0	11
	Middle	5785	MCS0	11
	Highest	5825	MCS0	11
802.11n ht40	Lowest	5755	MCS0	11
	Highest	5795	MCS0	11

Note:
The system support 802.11a/n ht20/n ht40/ac vht20/vht40, the vht20/vht40 were reduced since the identical parameters with 802.11n ht20 and ht40.
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

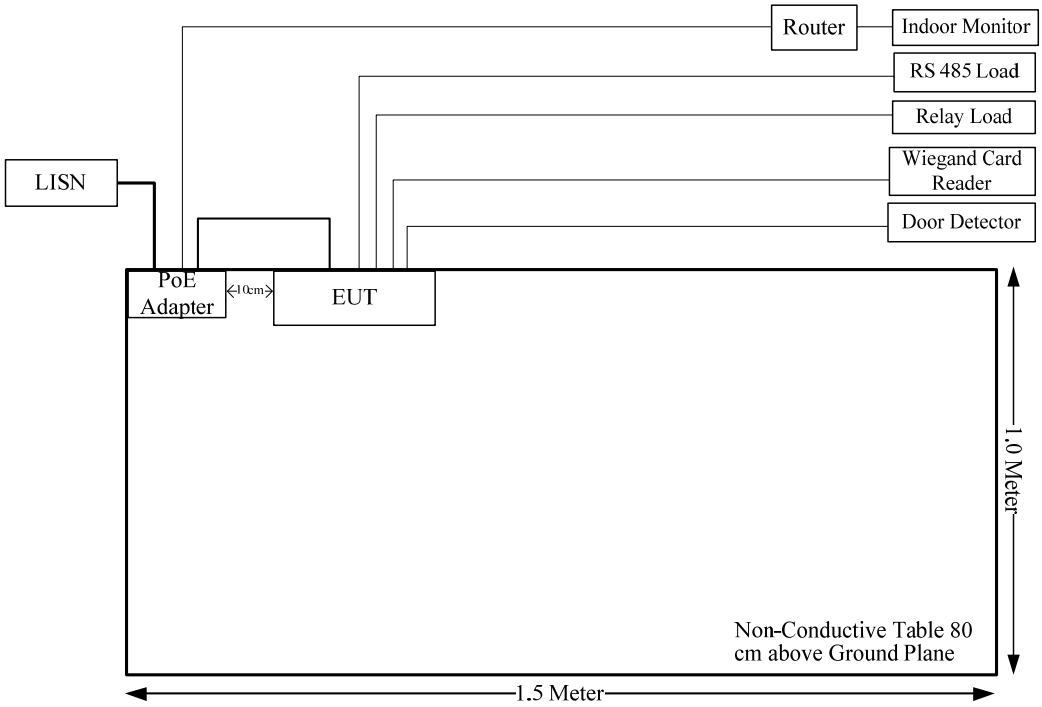
Manufacturer	Description	Model	Serial Number
TOTO Link	Router	LR1200	190924004S1
DEBOM	Adapter	DBS012A-1201000J	Unknown
Unknown	Relay Load	Relay-C1	EMRLLD20221010EN
Akuvox	Indoor Monitor	S568W	Unknown
Metke Skycom	PoE Adapter	M535122-2X1	WTX22X09195433S
Nexhome	Door Detector	DH-I66S(P)	EMZBIU20113001
Unknown	Wiegand Card Reader	Unknown	2B74-12
Unknown	RS485 Load	RS485-X1	F-EM-PHRJ45X8011

1.2.3 Support Cable List and Details

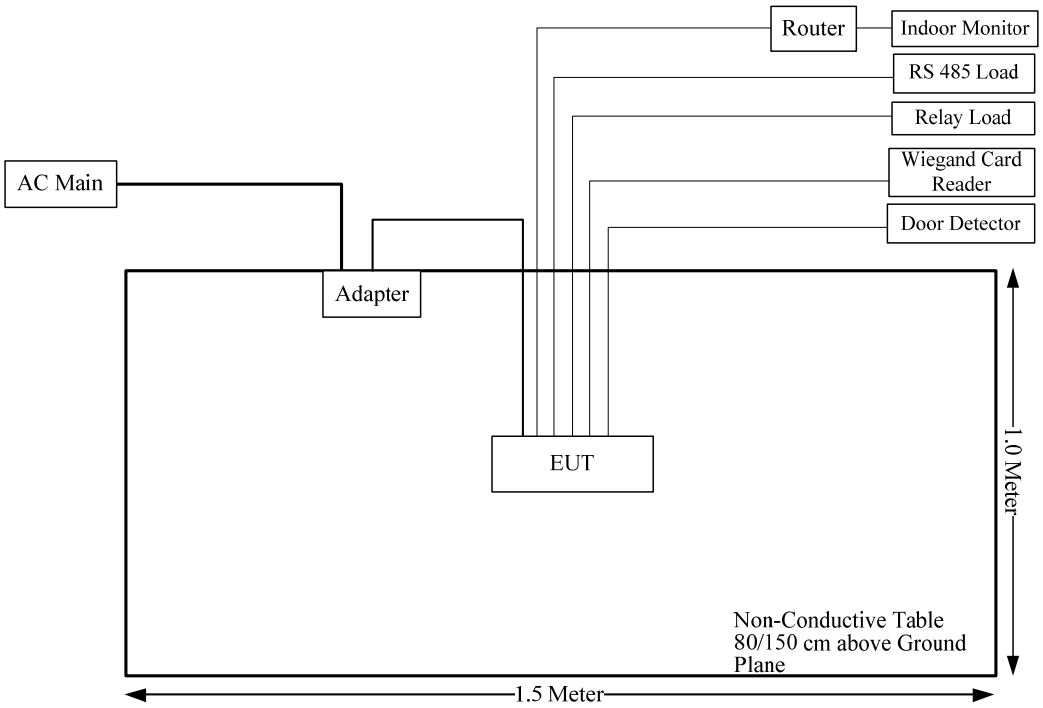
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
DC Cable	No	No	1	Adapter	EUT
RJ45 Cable	No	No	10	Router	EUT
RJ45 Cable	No	No	3	Router	Indoor Monitor
RS485 Cable	No	No	10	RS485 Load	EUT
DC Cable	No	No	10	Relay Load	EUT
DC Cable	No	No	10	Wiegand Card Reader	EUT
DC Cable	No	No	10	Door Detector	EUT
RJ45 Cable	No	No	1.2	POE	EUT

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, 30M~200MHz: 4.15 dB,200M~1GHz: 5.61 dB,1G~6GHz: 5.14 dB, 6G~18GHz: 5.93 dB, 18G~26.5G:5.47 dB,26.5G~40G:5.63 dB
Unwanted Emissions, conducted	±1.26 dB
Temperature	±1℃
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
FCC§15.205& §15.209 &§15.407(b)	Radiated Spurious Emissions	Compliant
FCC§15.407(a) (e)	Emission Bandwidth	Compliant
FCC§15.407(a)	Maximum Conducted Output Power	Compliant
FCC§15.407 (a)	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 µH/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.

	Conducted limit (dBµV)	
Frequency of emission (MHz)	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:

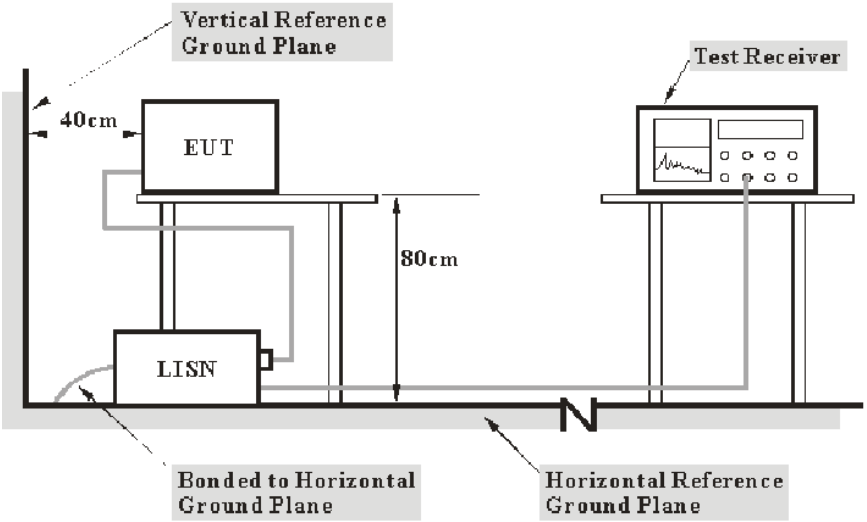
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000 µV within the frequency band 535-1705 kHz, as measured using a 50 µH/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, obtainig 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

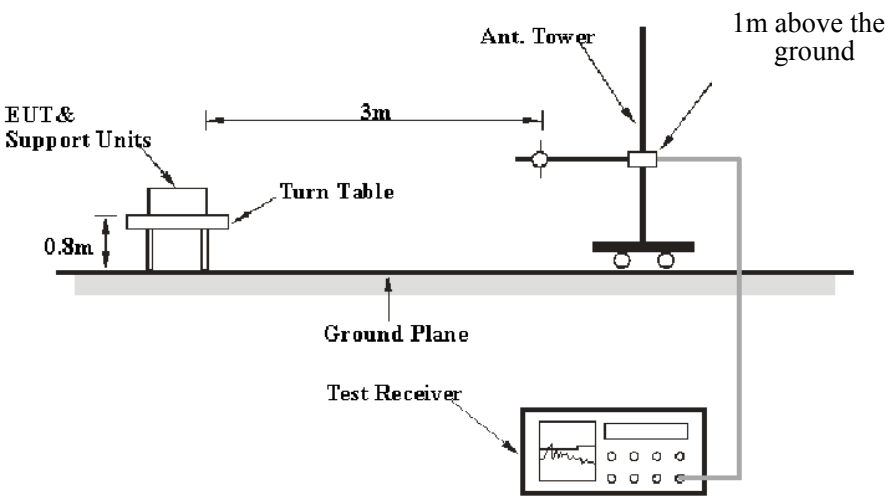
3.2.1 Applicable Standard

FCC §15.407 (b);

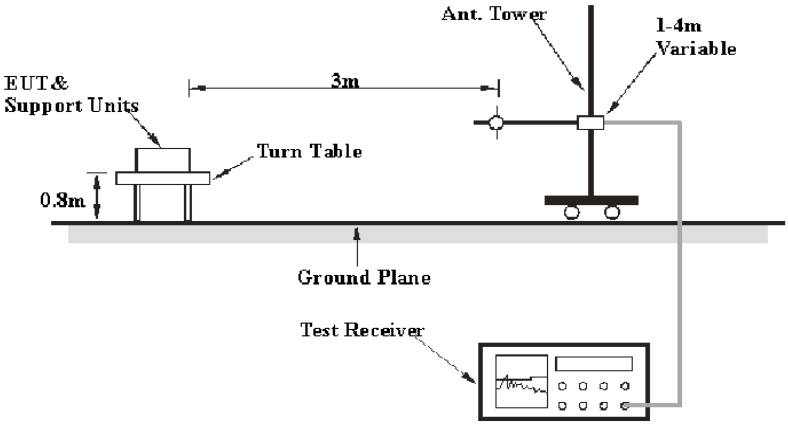
Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:
(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of – 27 dBm/MHz.
(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of – 27 dBm/MHz.
(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of – 27 dBm/MHz.
(4) For transmitters operating solely in the 5.725-5.850 GHz band:
(i) All emissions shall be limited to a level of – 27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
(ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.
(8) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
(9) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in § 15.207.
(10) The provisions of § 15.205 apply to intentional radiators operating under this section.
(11) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.
(c) The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

3.2.2 EUT Setup

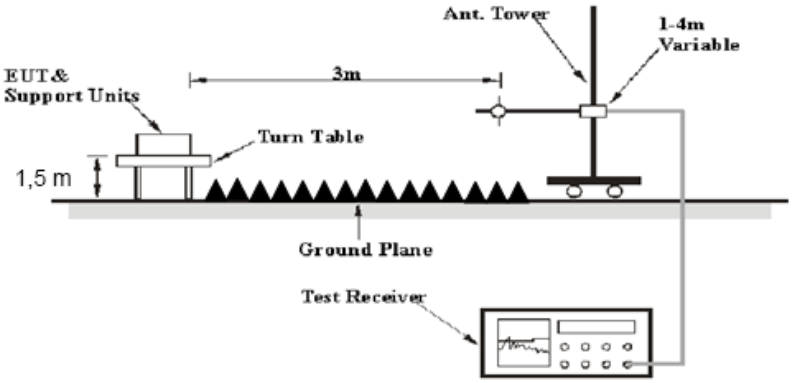
9kHz~30MHz:



30MHz~1GHz:



1~40 GHz:



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was FCC 15.209, FCC 15.407 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 9 kHz to 40 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	/	/	120 kHz	QP
	100 kHz	300 kHz	/	PK

1GHz- 40GHz:

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
AV	>98%	1MHz	10 Hz
	<98%	1MHz	⩾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

During the radiated emission test, the adapter was connected to the first AC floor outlet.

Data was recorded in Quasi-peak detection mode for frequency range of 9 kHz-1 GHz except 9 – 90 kHz, 110 – 490 kHz, employing an average detector, 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:

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

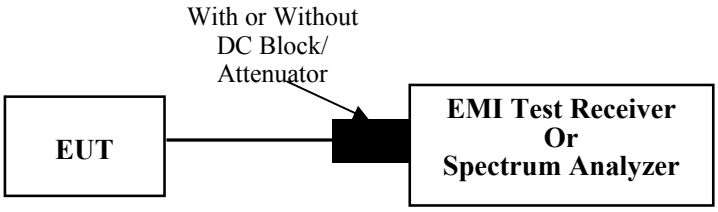
3.3 Emission Bandwidth

3.3.1 Applicable Standard

FCC §15.407 (a),(h)
(h)(2) Radar Detection Function of Dynamic Frequency Selection (DFS). U-NII devices operating with any part of its 26 dB emission bandwidth in the 5.25-5.35 GHz and 5.47-5.725 GHz bands shall employ a DFS radar detection mechanism to detect the presence of radar systems and to avoid co-channel operation with radar systems.

FCC §15.407 (e)
Within the 5.725-5.850 GHz and 5.850-5.895 GHz bands, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

3.3.2 EUT Setup



3.3.3 Test Procedure

26dB Emission Bandwidth:

According to ANSI C63.10-2013 Section 12.4.1

a) Set RBW = approximately 1% of the emission bandwidth.
b) Set the VBW > RBW.
c) Detector = peak.
d) Trace mode = max hold
e) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the instrument. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

6 dB emission bandwidth:

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01

a) Set RBW = 100 kHz.
b) Set the video bandwidth (VBW) ≥ 3 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.
Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described in this section. For devices that use channel aggregation refer to III.A and III.C for determining emission bandwidth.

99% Occupied Bandwidth:

According to ANSI C63.10-2013 Section 12.4.2&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).

3.4 Maximum Conducted Output Power

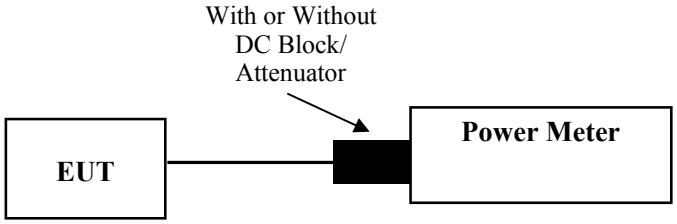
3.4.1 Applicable Standard

FCC §15.407(a) (1)(iv)
For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC §15.407(a) (2)
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC §15.407(a) (3)(i)
For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

3.4.2 EUT Setup



3.4.3 Test Procedure

According to ANSI C63.10-2013 Section 12.3.3.1

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

3.5 Maximum Power Spectral Density

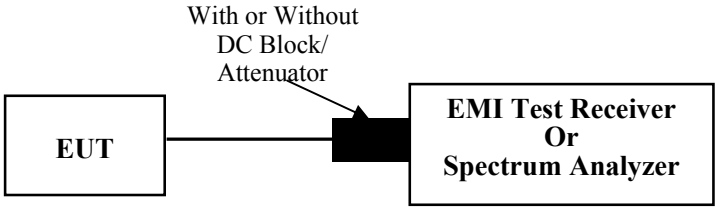
3.5.1 Applicable Standard

FCC §15.407(a) (1)(iv)
For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC §15.407(a) (2)
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC §15.407(a) (3)(i)
For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

3.5.2 EUT Setup



3.5.3 Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Duty cycle ⩾98%

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-1 should be applied.

Duty cycle <98%, duty cycle variations are less than ±2%

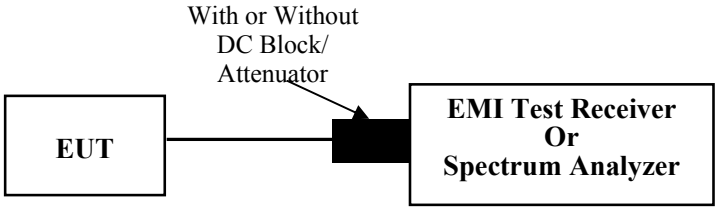
KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-2 should be applied.

Duty cycle <98%, duty cycle variations exceed ±2%

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-3 should be applied.

3.6 Duty Cycle

3.6.1 EUT Setup



3.6.2 Test Procedure

According to ANSI C63.10-2013 Section 12.2

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 ≥ OBW if possible; otherwise, set RBW to the largest available value.
3) Set VBW ≥ 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 ≤ 16.7 μs.)

3.7 Antenna Requirement

3.7.1 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.

3.7.2 Judgment

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

4. Test DATA AND RESULTS

4.1 AC Line Conducted Emissions

Serial Number:	2B74-1	Test Date:	2023/12/8
Test Site:	CE	Test Mode:	Transmitting (maximum output power mode (802.11n ht40 5755MHz) was tested)
Tester:	David Huang	Test Result:	Pass

Environmental Conditions:

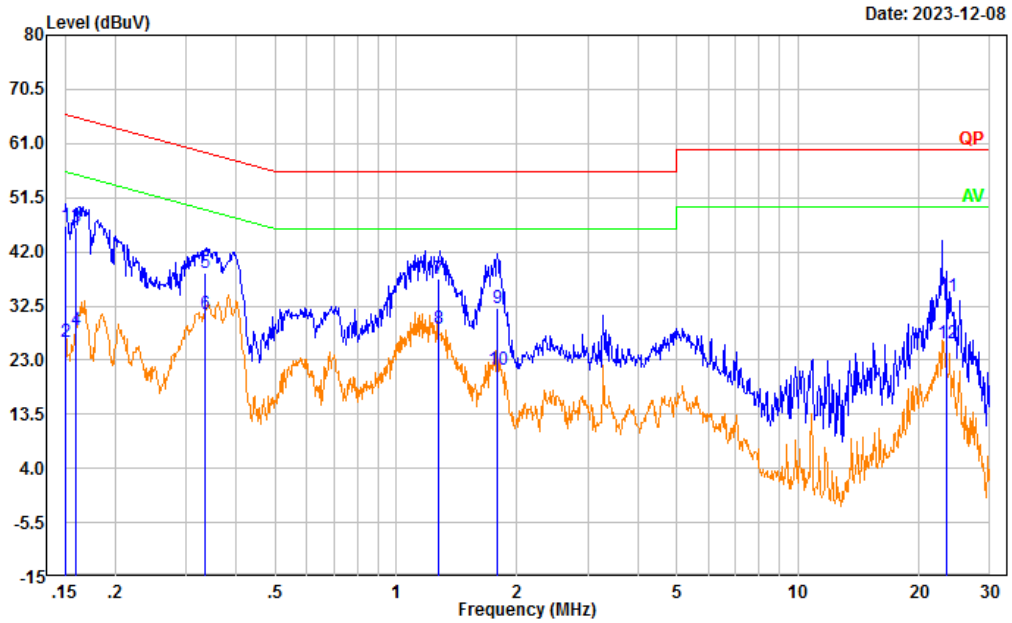
Temperature: (℃)	25.4	Relative Humidity: (%)	42	ATM Pressure: (kPa)	101.1

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

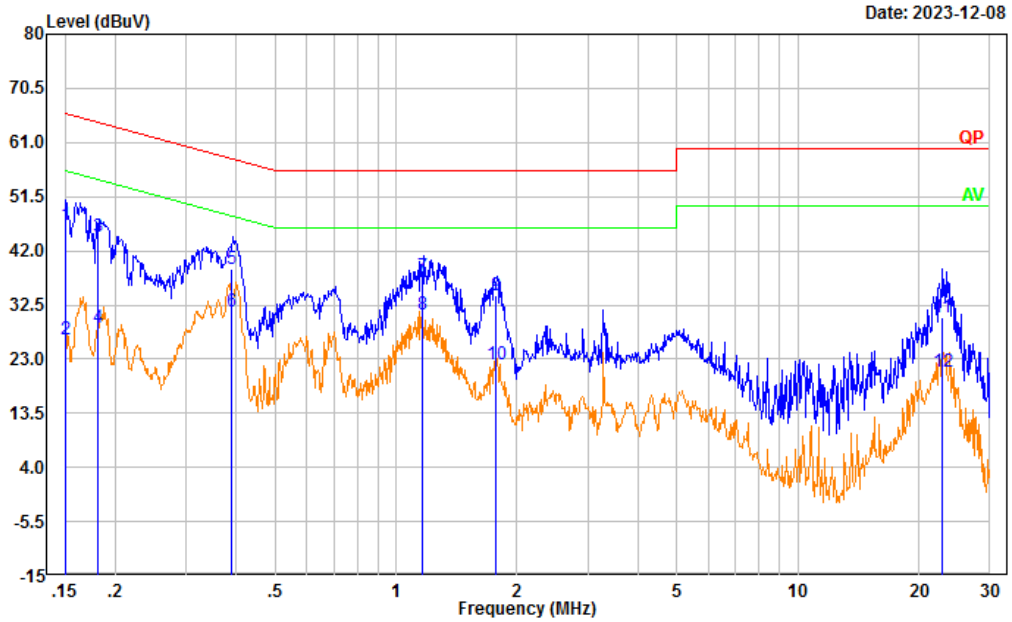
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Project No.: CR231164424-RF
Tester: David Huang
Port: Line
Note: Transmitting(5G WIFI Powered by POE)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.150	36.86	9.61	46.47	65.99	19.52	QP
2	0.150	16.64	9.61	26.25	55.99	29.74	Average
3	0.160	36.55	9.61	46.16	65.47	19.31	QP
4	0.160	18.71	9.61	28.32	55.47	27.15	Average
5	0.335	28.80	9.61	38.41	59.33	20.92	QP
6	0.335	21.51	9.61	31.12	49.33	18.21	Average
7	1.274	27.62	9.62	37.24	56.00	18.76	QP
8	1.274	18.89	9.62	28.51	46.00	17.49	Average
9	1.788	22.49	9.63	32.12	56.00	23.88	QP
10	1.788	11.68	9.63	21.31	46.00	24.69	Average
11	23.478	24.33	9.81	34.14	60.00	25.86	QP
12	23.478	16.16	9.81	25.97	50.00	24.03	Average

Project No.: CR231164424-RF
Tester: David Huang
Port: neutral
Note: Transmitting(5G WIFI Powered by POE)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.151	36.83	9.61	46.44	65.97	19.53	QP
2	0.151	16.91	9.61	26.52	55.97	29.45	Average
3	0.182	34.76	9.61	44.37	64.41	20.04	QP
4	0.182	18.96	9.61	28.57	54.41	25.84	Average
5	0.390	29.08	9.61	38.69	58.07	19.38	QP
6	0.390	21.86	9.61	31.47	48.07	16.60	Average
7	1.166	27.95	9.62	37.57	56.00	18.43	QP
8	1.166	21.33	9.62	30.95	46.00	15.05	Average
9	1.778	24.55	9.63	34.18	56.00	21.82	QP
10	1.778	12.47	9.63	22.10	46.00	23.90	Average
11	22.792	20.62	9.74	30.36	60.00	29.64	QP
12	22.792	11.13	9.74	20.87	50.00	29.13	Average

4.2 Radiation Spurious Emissions

Serial Number:	2B74-1	Test Date:	2023/12/11-2023/12/16
Test Site:	966-1/966-2	Test Mode:	Transmitting
Tester:	Carl Xue, Tao Zhu	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	25.5~26.1	Relative Humidity: (%)	43~57.8	ATM Pressure: (kPa)	100.9~101.2

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-6	2023/9/18	2026/9/17
BACL	Loop Antenna	1313-1P	3092721	2023/10/20	2026/10/19
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
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	2023/11/8	2024/11/7
PASTERNACK	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	5150-5850MHz	OE01902423	2023/8/6	2024/8/5
Mini Circuits	High Pass Filter	VHF-6010+	31119	2023/8/6	2024/8/5
PASTERNACK	Horn Antenna	PE9850/2F-20	072001	2021/2/5	2024/2/4

** 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:

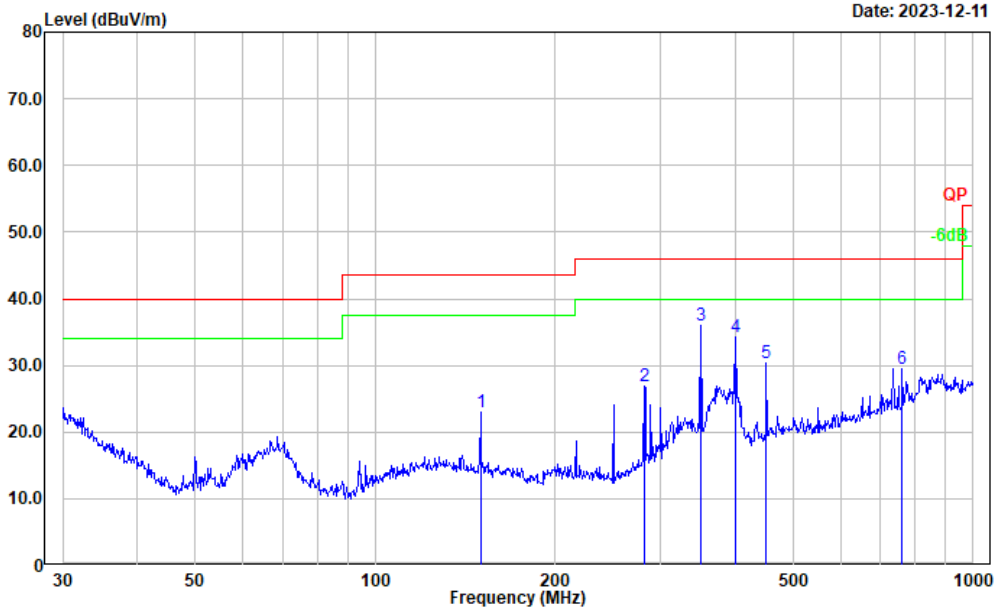
Please refer to the below table and plots.

1) 9kHz~30MHz

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

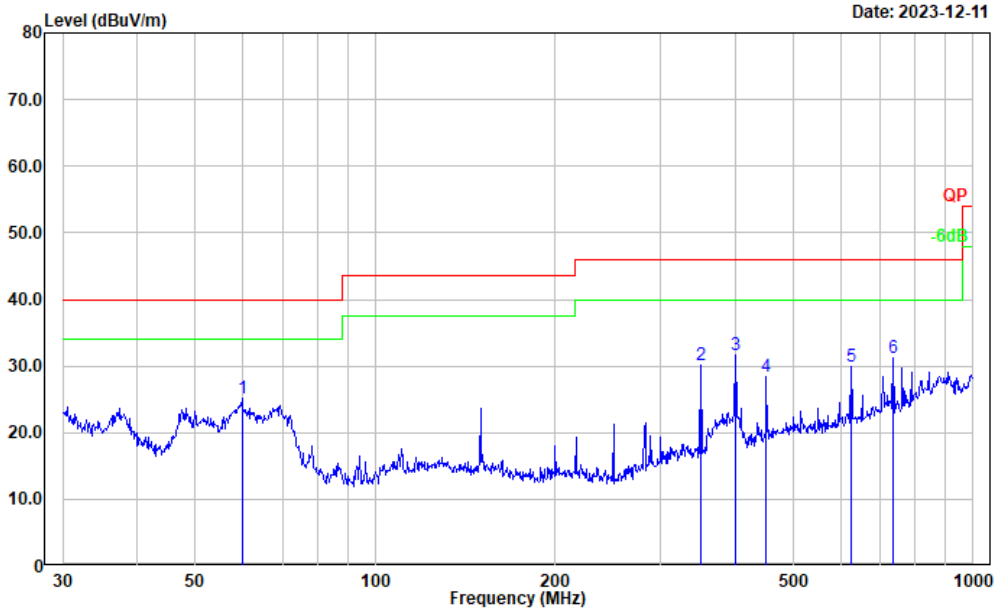
2) 30MHz-1GHz (maximum output power mode was tested)
5150-5250MHz(802.11a mode):Low Channel

Project No.: CR231164424-RF
Tester: Carl Xue
Polarization: horizontal
Note: Transmitting(5G WIFI B1)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	150.011	35.12	-12.23	22.89	43.50	20.61	Peak
2	281.995	38.85	-11.90	26.95	46.00	19.05	Peak
3	350.477	46.39	-10.34	36.05	46.00	9.95	Peak
4	400.432	43.31	-9.11	34.20	46.00	11.80	Peak
5	451.135	37.51	-7.23	30.28	46.00	15.72	Peak
6	760.704	32.71	-3.15	29.56	46.00	16.44	Peak

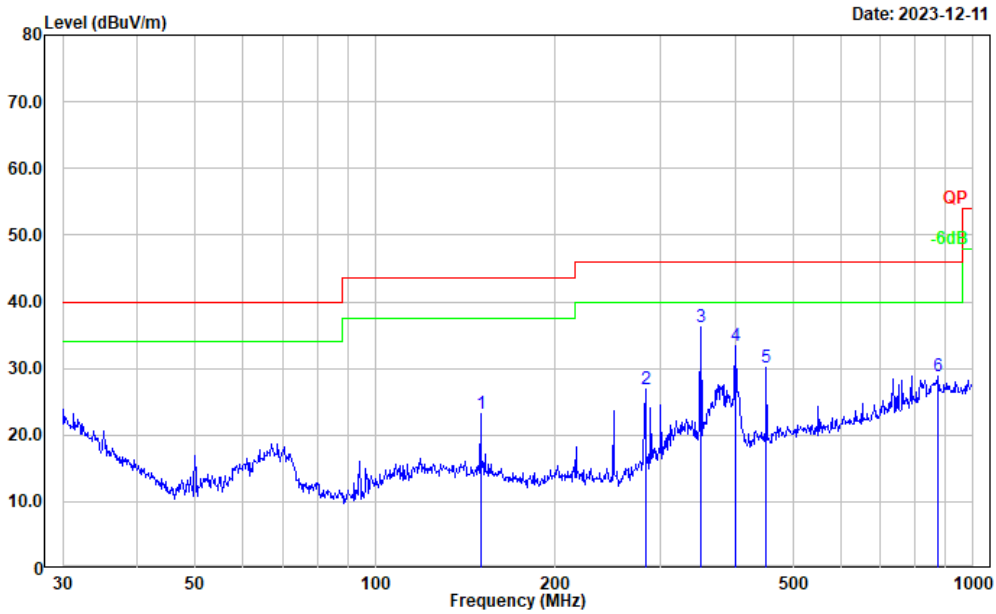
Project No.: CR231164424-RF
Tester: Carl Xue
Polarization: vertical
Note: Transmitting(5G WIFI B1)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	59.859	42.79	-17.65	25.14	40.00	14.86	Peak
2	350.477	40.53	-10.34	30.19	46.00	15.81	Peak
3	400.432	40.73	-9.11	31.62	46.00	14.38	Peak
4	451.135	35.59	-7.23	28.36	46.00	17.64	Peak
5	625.078	34.75	-4.89	29.86	46.00	16.14	Peak
6	734.491	34.64	-3.47	31.17	46.00	14.83	Peak

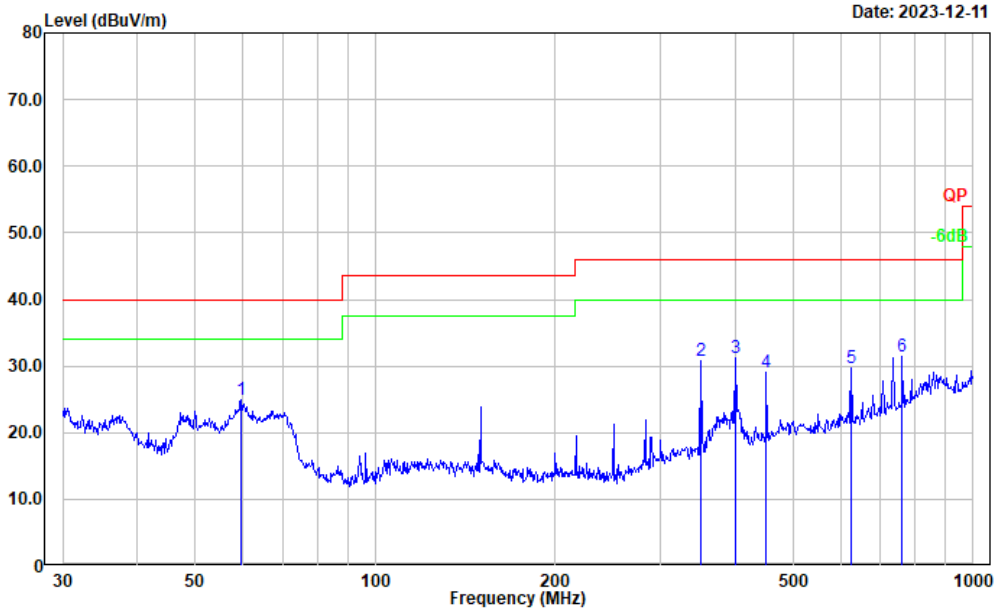
Middle Channel:

Project No.: CR231164424-RF
Tester: Carl Xue
Polarization: horizontal
Note: Transmitting(5G WIFI B1)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	150.011	35.42	-12.23	23.19	43.50	20.31	Peak
2	282.985	38.65	-11.84	26.81	46.00	19.19	Peak
3	350.477	46.48	-10.34	36.14	46.00	9.86	Peak
4	400.432	42.53	-9.11	33.42	46.00	12.58	Peak
5	451.135	37.47	-7.23	30.24	46.00	15.76	Peak
6	875.247	30.31	-1.38	28.93	46.00	17.07	Peak

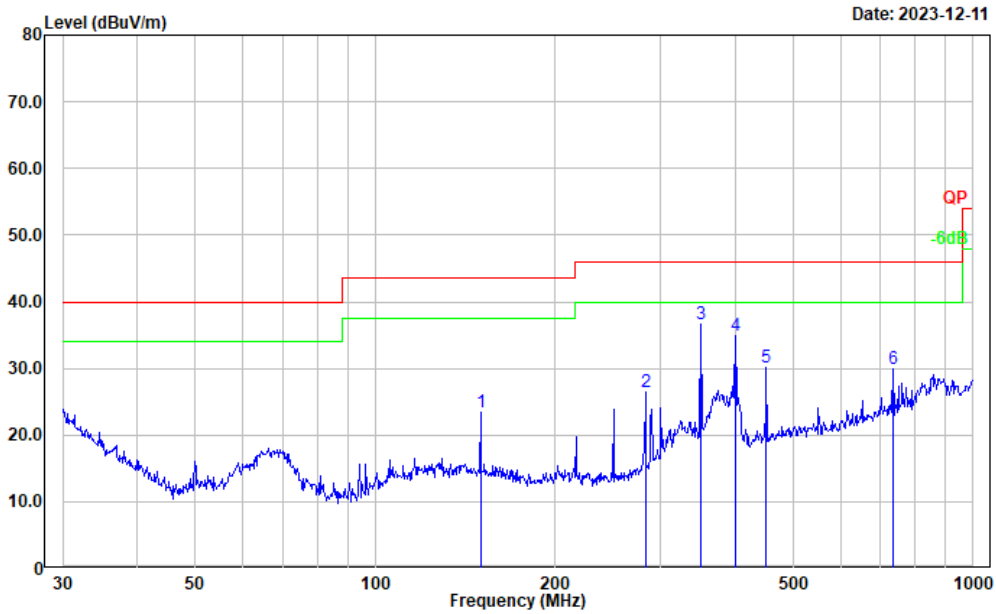
Project No.: CR231164424-RF
Tester: Carl Xue
Polarization: vertical
Note: Transmitting(5G WIFI B1)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	59.649	42.64	-17.65	24.99	40.00	15.01	Peak
2	350.477	41.06	-10.34	30.72	46.00	15.28	Peak
3	400.432	40.26	-9.11	31.15	46.00	14.85	Peak
4	451.135	36.28	-7.23	29.05	46.00	16.95	Peak
5	625.078	34.53	-4.89	29.64	46.00	16.36	Peak
6	760.704	34.50	-3.15	31.35	46.00	14.65	Peak

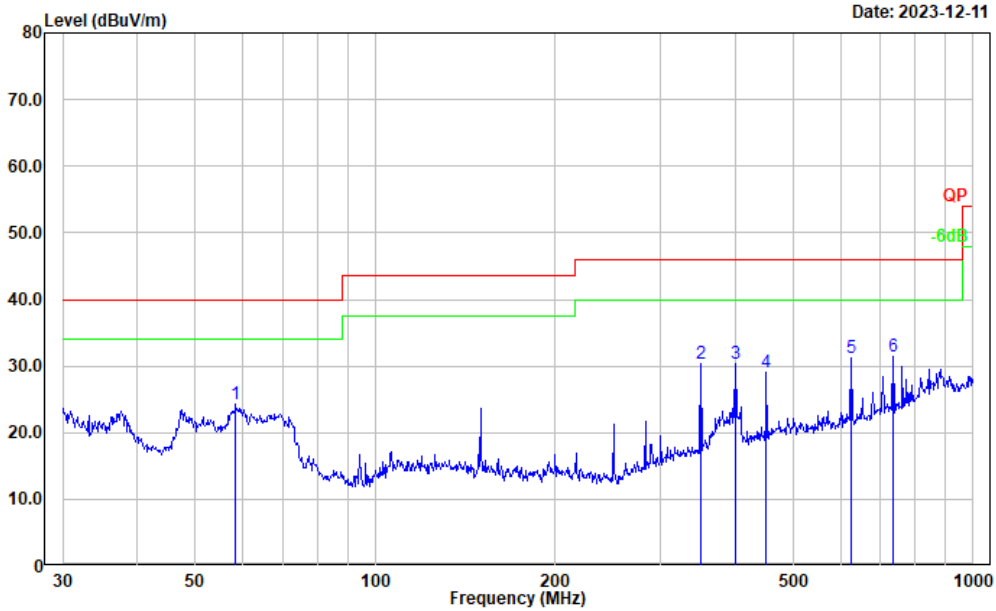
High Channel:

Project No.: CR231164424-RF
Tester: Carl Xue
Polarization: horizontal
Note: Transmitting(5G WIFI B1)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	150.011	35.59	-12.23	23.36	43.50	20.14	Peak
2	282.985	38.26	-11.84	26.42	46.00	19.58	Peak
3	350.477	46.90	-10.34	36.56	46.00	9.44	Peak
4	400.432	43.93	-9.11	34.82	46.00	11.18	Peak
5	451.135	37.28	-7.23	30.05	46.00	15.95	Peak
6	734.491	33.33	-3.47	29.86	46.00	16.14	Peak

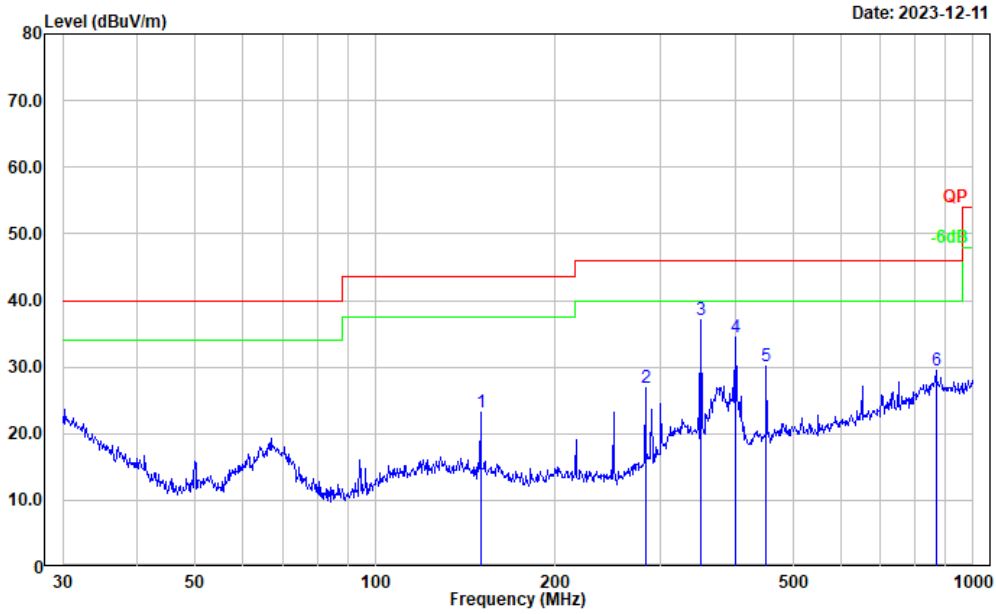
Project No.: CR231164424-RF
Tester: Carl Xue
Polarization: vertical
Note: Transmitting(5G WIFI B1)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	58.407	41.90	-17.60	24.30	40.00	15.70	Peak
2	350.477	40.67	-10.34	30.33	46.00	15.67	Peak
3	400.432	39.55	-9.11	30.44	46.00	15.56	Peak
4	451.135	36.22	-7.23	28.99	46.00	17.01	Peak
5	625.078	36.01	-4.89	31.12	46.00	14.88	Peak
6	734.491	34.80	-3.47	31.33	46.00	14.67	Peak

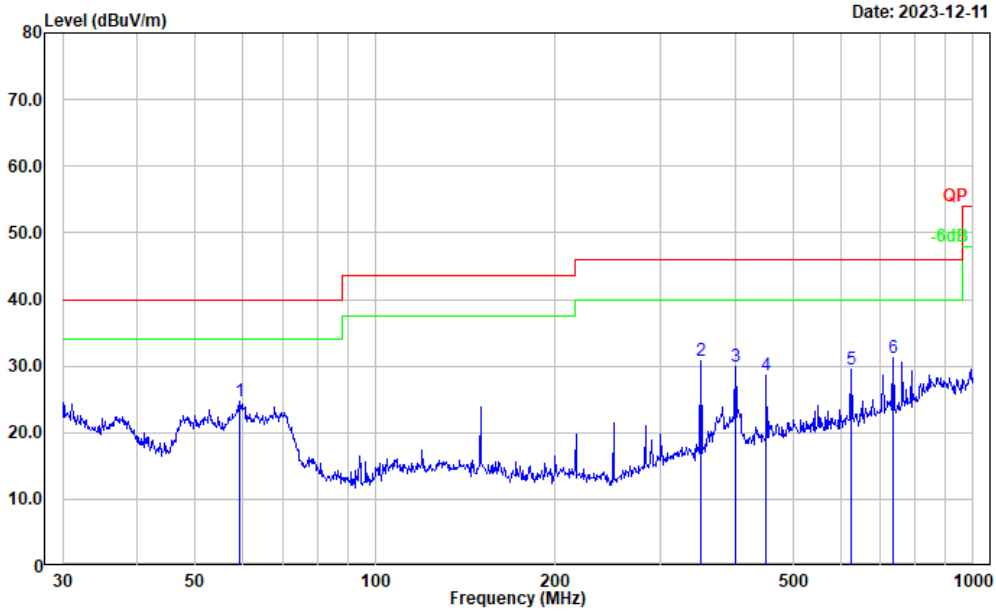
5725-5850MHz(802.11n ht40 mode):Low Channel

Project No.: CR231164424-RF
Tester: Carl Xue
Polarization: horizontal
Note: Transmitting(5G WIFI B4)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	150.011	35.33	-12.23	23.10	43.50	20.40	Peak
2	282.985	38.75	-11.84	26.91	46.00	19.09	Peak
3	350.477	47.41	-10.34	37.07	46.00	8.93	Peak
4	400.432	43.48	-9.11	34.37	46.00	11.63	Peak
5	451.135	37.29	-7.23	30.06	46.00	15.94	Peak
6	866.088	31.00	-1.55	29.45	46.00	16.55	Peak

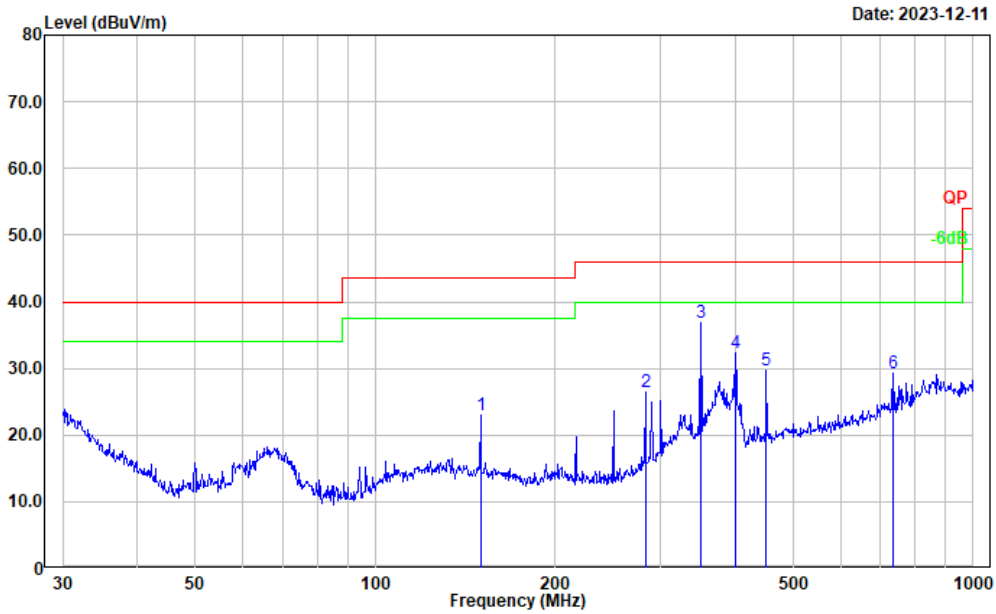
Project No.: CR231164424-RF
Tester: Carl Xue
Polarization: vertical
Note: Transmitting(5G WIFI B4)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	59.441	42.40	-17.64	24.76	40.00	15.24	Peak
2	350.477	41.08	-10.34	30.74	46.00	15.26	Peak
3	400.432	39.00	-9.11	29.89	46.00	16.11	Peak
4	451.135	35.80	-7.23	28.57	46.00	17.43	Peak
5	625.078	34.37	-4.89	29.48	46.00	16.52	Peak
6	734.491	34.64	-3.47	31.17	46.00	14.83	Peak

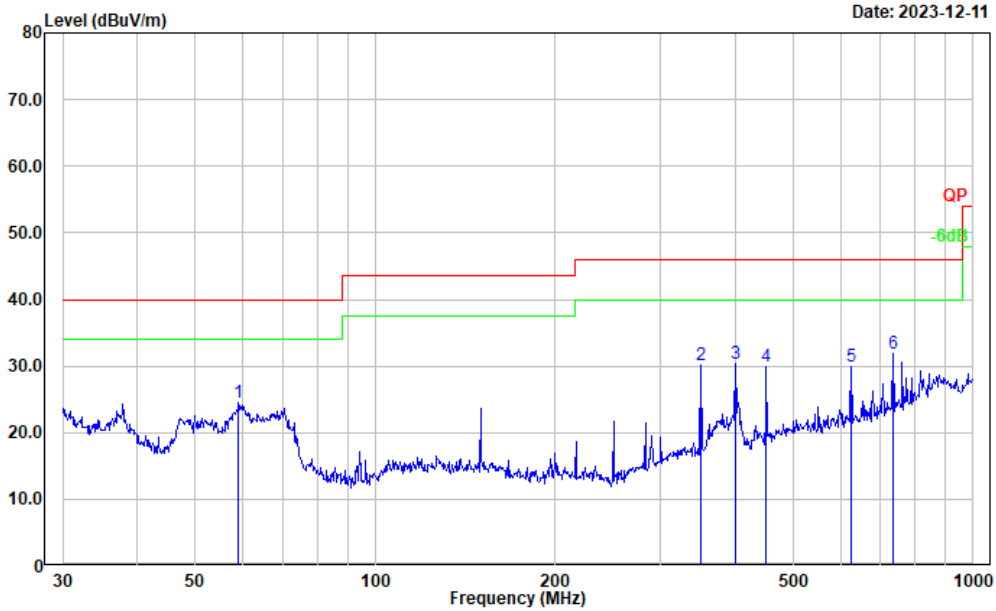
High Channel:

Project No.: CR231164424-RF
Tester: Carl Xue
Polarization: horizontal
Note: Transmitting(5G WIFI B4)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	150.011	35.29	-12.23	23.06	43.50	20.44	Peak
2	282.985	38.27	-11.84	26.43	46.00	19.57	Peak
3	350.477	47.27	-10.34	36.93	46.00	9.07	Peak
4	400.432	41.34	-9.11	32.23	46.00	13.77	Peak
5	451.135	37.00	-7.23	29.77	46.00	16.23	Peak
6	734.491	32.81	-3.47	29.34	46.00	16.66	Peak

Project No.: CR231164424-RF
Tester: Carl Xue
Polarization: vertical
Note: Transmitting(5G WIFI B4)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	59.025	42.09	-17.64	24.45	40.00	15.55	Peak
2	350.477	40.50	-10.34	30.16	46.00	15.84	Peak
3	400.432	39.57	-9.11	30.46	46.00	15.54	Peak
4	451.135	37.19	-7.23	29.96	46.00	16.04	Peak
5	625.078	34.89	-4.89	30.00	46.00	16.00	Peak
6	734.491	35.29	-3.47	31.82	46.00	14.18	Peak

3) 1GHz-40GHz:
5150-5250MHz
802.11a:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5180MHz							
5150.000	44.23	PK	H	11.67	55.90	74.00	18.10
5150.000	33.26	AV	H	11.67	44.93	54.00	9.07
5150.000	44.21	PK	V	11.67	55.88	74.00	18.12
5150.000	31.56	AV	V	11.67	43.23	54.00	10.77
10360.000	34.14	PK	H	20.47	54.61	68.20	13.59
10360.000	34.22	PK	V	20.47	54.69	68.20	13.51
15540.000	34.36	PK	H	24.62	58.98	74.00	15.02
15540.000	21.42	AV	H	24.62	46.04	54.00	7.96
15540.000	34.41	PK	V	24.62	59.03	74.00	14.97
15540.000	21.55	AV	V	24.62	46.17	54.00	7.83
Middle Channel: 5200 MHz							
10400.000	33.87	PK	H	20.54	54.41	68.20	13.79
10400.000	33.93	PK	V	20.54	54.47	68.20	13.73
15600.000	33.98	PK	H	24.71	58.69	74.00	15.31
15600.000	21.24	AV	H	24.71	45.95	54.00	8.05
15600.000	34.36	PK	V	24.71	59.07	74.00	14.93
15600.000	21.41	AV	V	24.71	46.12	54.00	7.88
High Channel: 5240 MHz							
5350.000	43.55	PK	H	11.94	55.49	74.00	18.51
5350.000	30.54	AV	H	11.94	42.48	54.00	11.52
5350.000	43.89	PK	V	11.94	55.83	74.00	18.17
5350.000	30.69	AV	V	11.94	42.63	54.00	11.37
10480.000	33.96	PK	H	20.42	54.38	68.20	13.82
10480.000	34.13	PK	V	20.42	54.55	68.20	13.65
15720.000	34.23	PK	H	24.82	59.05	74.00	14.95
15720.000	21.28	AV	H	24.82	46.10	54.00	7.90
15720.000	34.36	PK	V	24.82	59.18	74.00	14.82
15720.000	21.55	AV	V	24.82	46.37	54.00	7.63

802.11n ht20:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5180MHz							
5150.000	43.36	PK	H	11.67	55.03	74.00	18.97
5150.000	30.68	AV	H	11.67	42.35	54.00	11.65
5150.000	43.82	PK	V	11.67	55.49	74.00	18.51
5150.000	30.74	AV	V	11.67	42.41	54.00	11.59
10360.000	33.63	PK	H	20.47	54.10	68.20	14.10
10360.000	33.89	PK	V	20.47	54.36	68.20	13.84
15540.000	33.92	PK	H	24.62	58.54	74.00	15.46
15540.000	21.11	AV	H	24.62	45.73	54.00	8.27
15540.000	34.20	PK	V	24.62	58.82	74.00	15.18
15540.000	21.24	AV	V	24.62	45.86	54.00	8.14
Middle Channel: 5200 MHz							
10400.000	33.37	PK	H	20.54	53.91	68.20	14.29
10400.000	33.84	PK	V	20.54	54.38	68.20	13.82
15600.000	34.23	PK	H	24.71	58.94	74.00	15.06
15600.000	21.47	AV	H	24.71	46.18	54.00	7.82
15600.000	34.42	PK	V	24.71	59.13	74.00	14.87
15600.000	21.51	AV	V	24.71	46.22	54.00	7.78
High Channel: 5240 MHz							
5350.000	43.25	PK	H	11.94	55.19	74.00	18.81
5350.000	30.61	AV	H	11.94	42.55	54.00	11.45
5350.000	43.33	PK	V	11.94	55.27	74.00	18.73
5350.000	30.70	AV	V	11.94	42.64	54.00	11.36
10480.000	33.68	PK	H	20.42	54.10	68.20	14.10
10480.000	33.85	PK	V	20.42	54.27	68.20	13.93
15720.000	34.36	PK	H	24.82	59.18	74.00	14.82
15720.000	21.42	AV	H	24.82	46.24	54.00	7.76
15720.000	34.58	PK	V	24.82	59.40	74.00	14.60
15720.000	21.60	AV	V	24.82	46.42	54.00	7.58

802.11n ht40:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5190 MHz							
5150.000	43.22	PK	H	11.67	54.89	74.00	19.11
5150.000	30.19	AV	H	11.67	41.86	54.00	12.14
5150.000	43.52	PK	V	11.67	55.19	74.00	18.81
5150.000	30.25	AV	V	11.67	41.92	54.00	12.08
10380.000	33.69	PK	H	20.51	54.20	68.20	14.00
10380.000	33.74	PK	V	20.51	54.25	68.20	13.95
15570.000	33.85	PK	H	24.67	58.52	74.00	15.48
15570.000	20.65	AV	H	24.67	45.32	54.00	8.68
15570.000	33.86	PK	V	24.67	58.53	74.00	15.47
15570.000	20.82	AV	V	24.67	45.49	54.00	8.51
High Channel: 5230 MHz							
5350.000	43.20	PK	H	11.94	55.14	74.00	18.86
5350.000	21.28	AV	H	11.94	33.22	54.00	20.78
5350.000	43.36	PK	V	11.94	55.30	74.00	18.70
5350.000	21.37	AV	V	11.94	33.31	54.00	20.69
10460.000	33.63	PK	H	20.45	54.08	68.20	14.12
10460.000	33.87	PK	V	20.45	54.32	68.20	13.88
15690.000	33.89	PK	H	24.77	58.66	74.00	15.34
15690.000	21.02	AV	H	24.77	45.79	54.00	8.21
15690.000	34.20	PK	V	24.77	58.97	74.00	15.03
15690.000	21.39	AV	V	24.77	46.16	54.00	7.84

5725-5850MHz:
802.11a:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5745MHz							
11490.000	33.32	PK	H	21.49	54.81	74.00	19.19
11490.000	20.41	AV	H	21.49	41.90	54.00	12.10
11490.000	33.69	PK	V	21.49	55.18	74.00	18.82
11490.000	20.88	AV	V	21.49	42.37	54.00	11.63
17235.000	33.94	PK	H	28.71	62.65	68.20	5.55
17235.000	34.12	PK	V	28.71	62.83	68.20	5.37
Middle Channel: 5785 MHz							
11570.000	33.63	PK	H	21.71	55.34	74.00	18.66
11570.000	20.52	AV	H	21.71	42.23	54.00	11.77
11570.000	33.84	PK	V	21.71	55.55	74.00	18.45
11570.000	20.71	AV	V	21.71	42.42	54.00	11.58
17355.000	33.67	PK	H	29.35	63.02	68.20	5.18
17355.000	33.86	PK	V	29.35	63.21	68.20	4.99
High Channel: 5825 MHz							
11650.000	33.56	PK	H	22.04	55.60	74.00	18.40
11650.000	20.54	AV	H	22.04	42.58	54.00	11.42
11650.000	33.68	PK	V	22.04	55.72	74.00	18.28
11650.000	20.63	AV	V	22.04	42.67	54.00	11.33
17475.000	33.25	PK	H	29.89	63.14	68.20	5.06
17475.000	33.28	PK	V	29.89	63.17	68.20	5.03

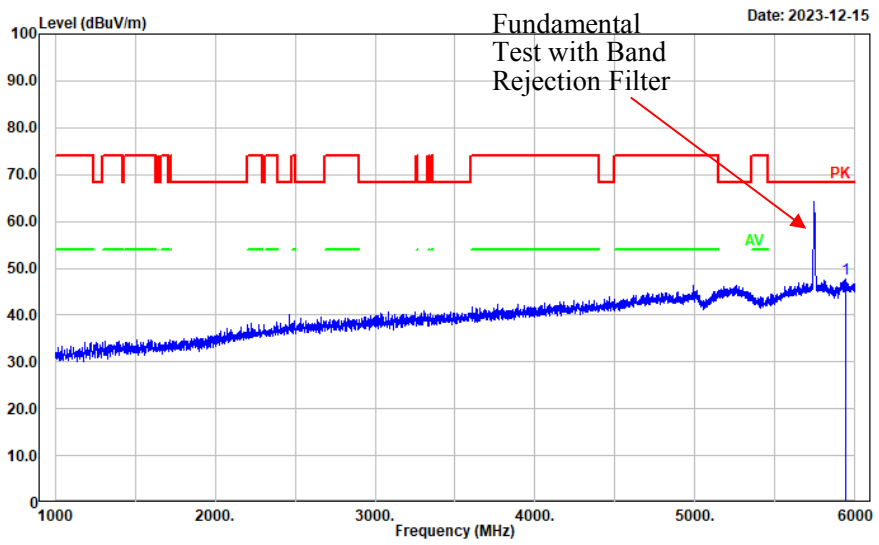
802.11n ht20:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5745MHz							
11490.000	34.20	PK	H	21.49	55.69	74.00	18.31
11490.000	21.28	AV	H	21.49	42.77	54.00	11.23
11490.000	34.33	PK	V	21.49	55.82	74.00	18.18
11490.000	21.45	AV	V	21.49	42.94	54.00	11.06
17235.000	34.45	PK	H	28.71	63.16	68.20	5.04
17235.000	34.79	PK	V	28.71	63.50	68.20	**4.70**
Middle Channel: 5785 MHz							
11570.000	34.29	PK	H	21.71	56.00	74.00	18.00
11570.000	21.28	AV	H	21.71	42.99	54.00	11.01
11570.000	34.63	PK	V	21.71	56.34	74.00	17.66
11570.000	21.36	AV	V	21.71	43.07	54.00	10.93
17355.000	33.65	PK	H	29.35	63.00	68.20	5.20
17355.000	33.85	PK	V	29.35	63.20	68.20	5.00
High Channel: 5825 MHz							
11650.000	33.97	PK	H	22.04	56.01	74.00	17.99
11650.000	20.54	AV	H	22.04	42.58	54.00	11.42
11650.000	34.13	PK	V	22.04	56.17	74.00	17.83
11650.000	20.74	AV	V	22.04	42.78	54.00	11.22
17475.000	33.33	PK	H	29.89	63.22	68.20	4.98
17475.000	33.42	PK	V	29.89	63.31	68.20	4.89

802.11n ht40:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5755 MHz							
11510.000	33.14	PK	H	21.48	54.62	74.00	19.38
11510.000	20.27	AV	H	21.48	41.75	54.00	12.25
11510.000	33.54	PK	V	21.48	55.02	74.00	18.98
11510.000	20.35	AV	V	21.48	41.83	54.00	12.17
17265.000	33.47	PK	H	28.79	62.26	68.20	5.94
17265.000	33.68	PK	V	28.79	62.47	68.20	5.73
High Channel: 5795 MHz							
11590.000	33.39	PK	H	21.78	55.17	74.00	18.83
11590.000	20.48	AV	H	21.78	42.26	54.00	11.74
11590.000	33.58	PK	V	21.78	55.36	74.00	18.64
11590.000	20.65	AV	V	21.78	42.43	54.00	11.57
17385.000	33.68	PK	H	29.59	63.27	68.20	4.93
17385.000	33.87	PK	V	29.59	63.46	68.20	4.74

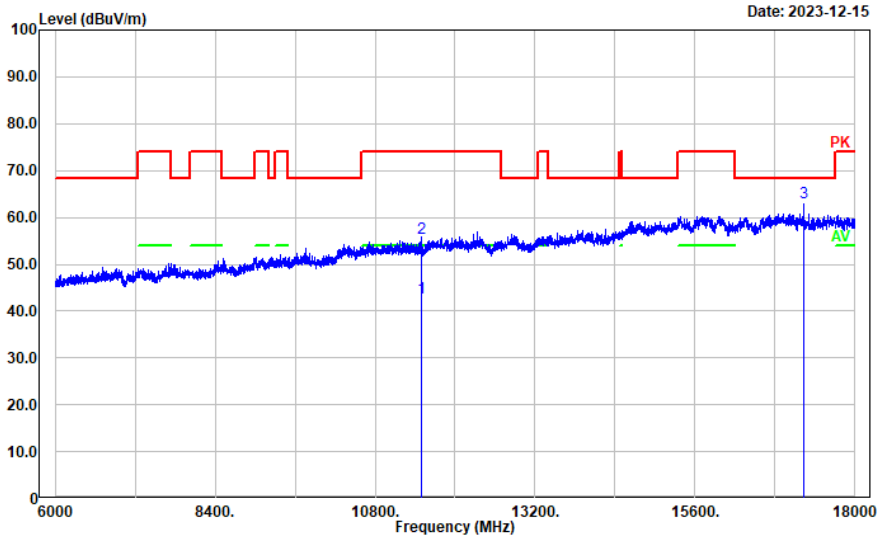
Worst Test plots (802.11n ht20 5745 MHz)

Horizontal	
1-6GHz	Project No.: CR231164424-RF Tester: Tao Zhu Polarization: Horizontal Note:  No. Frequency (MHz) Reading (dBμV) Factor (dB/m) Result (dBμV/m) Limit (dBμV/m) Margin (dB) Detector 1 5937.988 34.66 13.03 47.69 68.20 20.51 Peak

Horizontal

6-18GHz

Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: horizontal
Note:

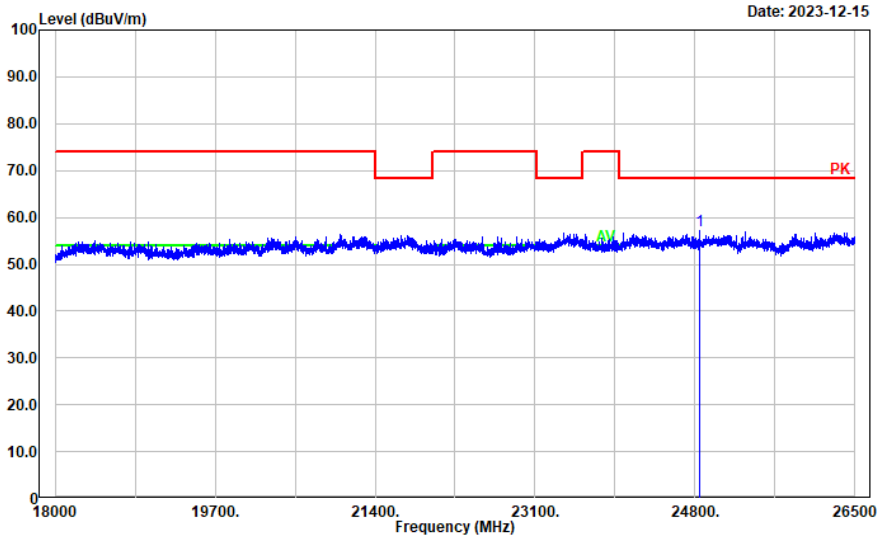


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	11490.000	21.28	21.49	42.77	54.00	11.23	Average
2	11490.000	34.20	21.49	55.69	74.00	18.31	Peak
3	17235.000	34.45	28.71	63.16	68.20	5.04	Peak

Horizontal

18-26.5GHz

Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:

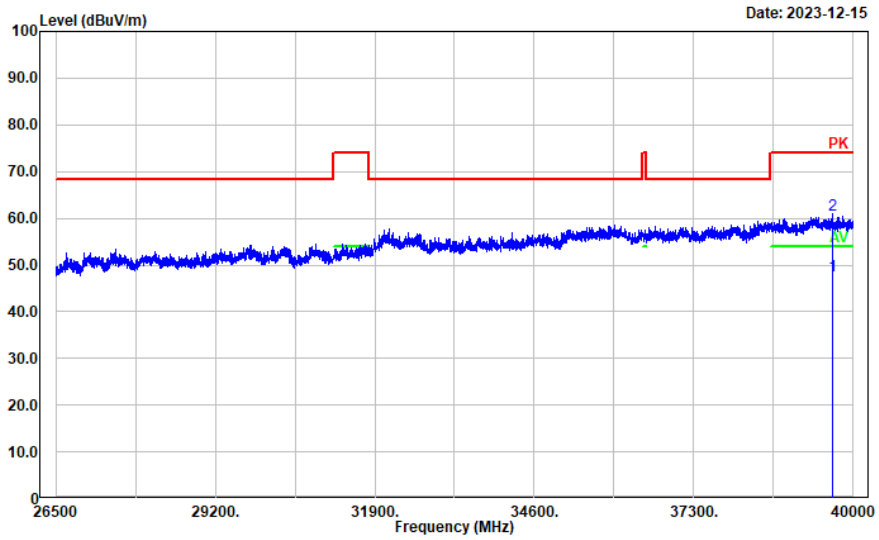


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	24850.670	51.08	5.98	57.06	68.20	11.14	Peak

Horizontal

26.5-40GHz

Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:

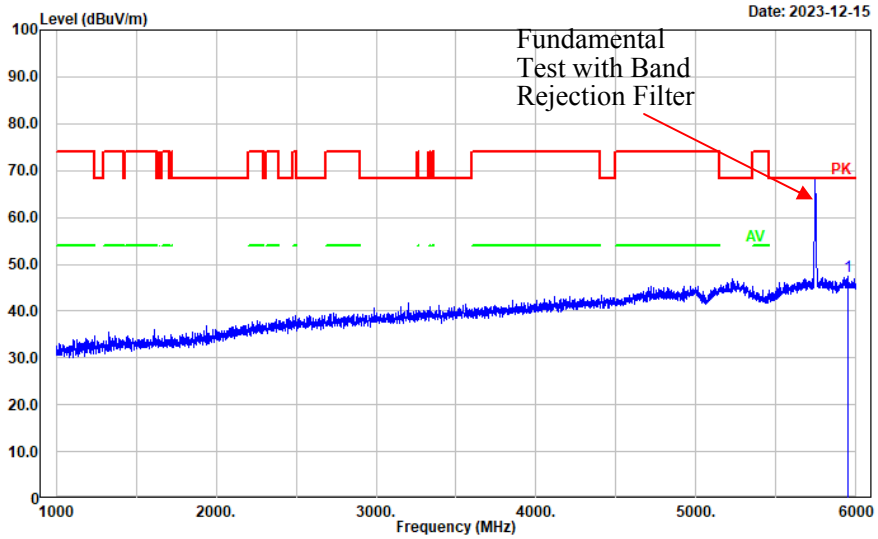


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	39654.330	38.09	9.53	47.62	54.00	6.38	Average
2	39654.330	51.31	9.53	60.84	74.00	13.16	Peak

Vertical

1-6GHz

Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: Vertical
Note:

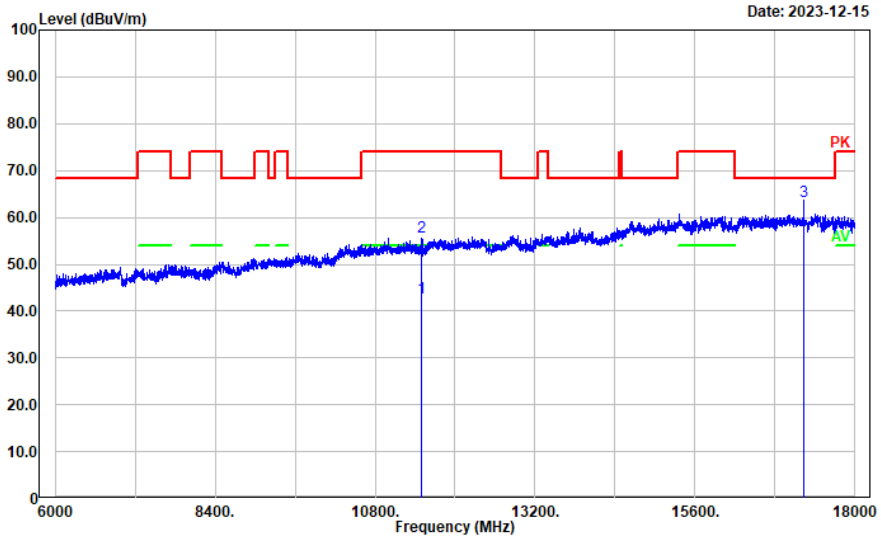


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	5950.990	34.48	13.04	47.52	68.20	20.68	Peak

Vertical

6-18GHz

Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: vertical
Note:

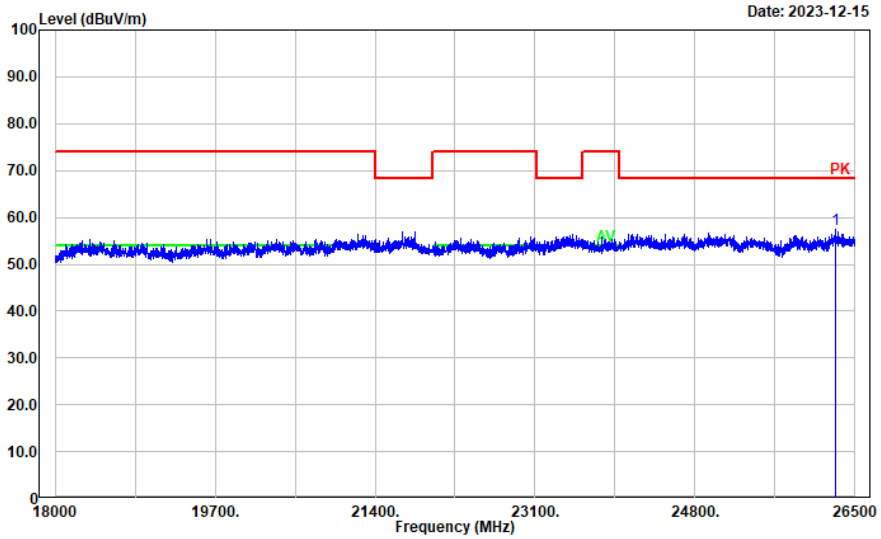


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	11490.000	21.45	21.49	42.94	54.00	11.06	Average
2	11490.000	34.33	21.49	55.82	74.00	18.18	Peak
3	17235.000	34.79	28.71	63.50	68.20	4.70	Peak

Vertical

18-26.5GHz

Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: vertical
Note:

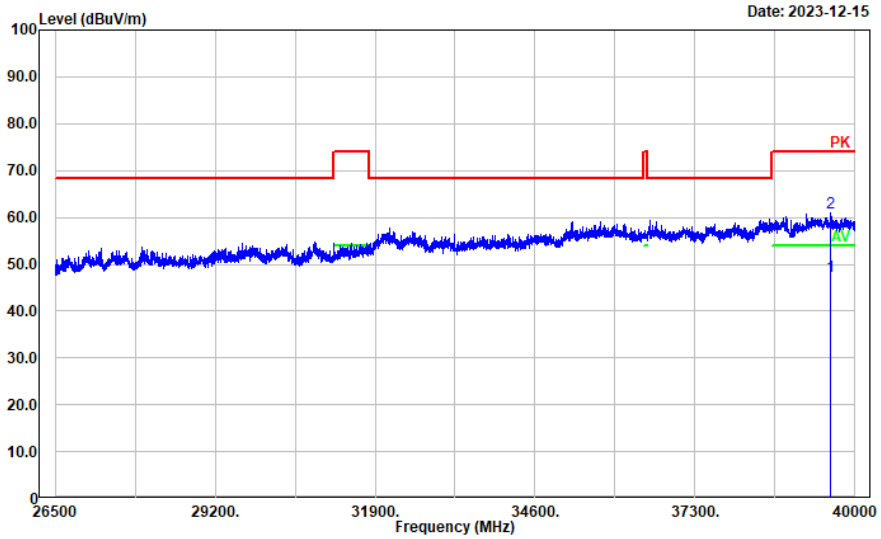


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	26292.560	50.43	6.95	57.38	68.20	10.82	Peak

Vertical

26.5-40GHz

Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: Vertical
Note:

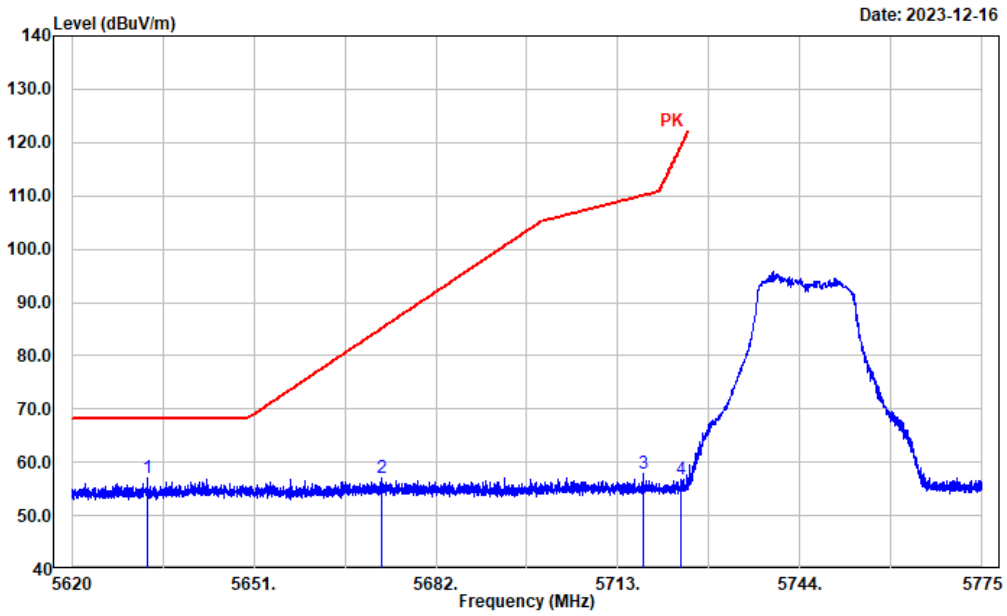


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	39592.220	37.55	9.79	47.34	54.00	6.66	Average
2	39592.220	51.18	9.79	60.97	74.00	13.03	Peak

Test plots for 5.8GHz band Mask Measurements

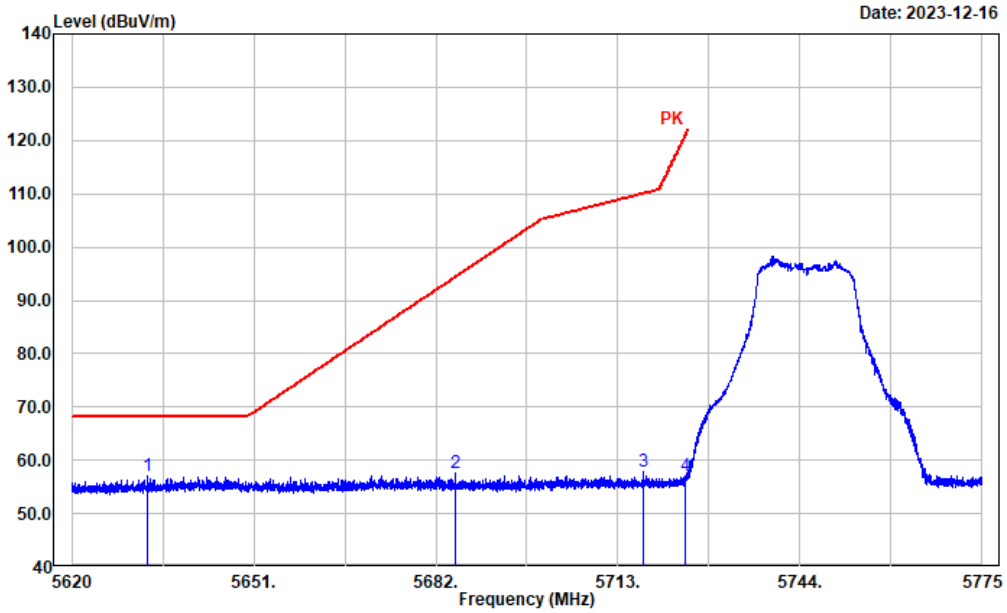
802.11 a :Low Channel

Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5632.836	44.84	12.23	57.07	68.20	11.13	Peak
2	5672.742	44.63	12.43	57.06	85.07	28.01	Peak
3	5717.329	45.37	12.57	57.94	110.05	52.11	Peak
4	5723.685	44.29	12.57	56.86	119.20	62.34	Peak

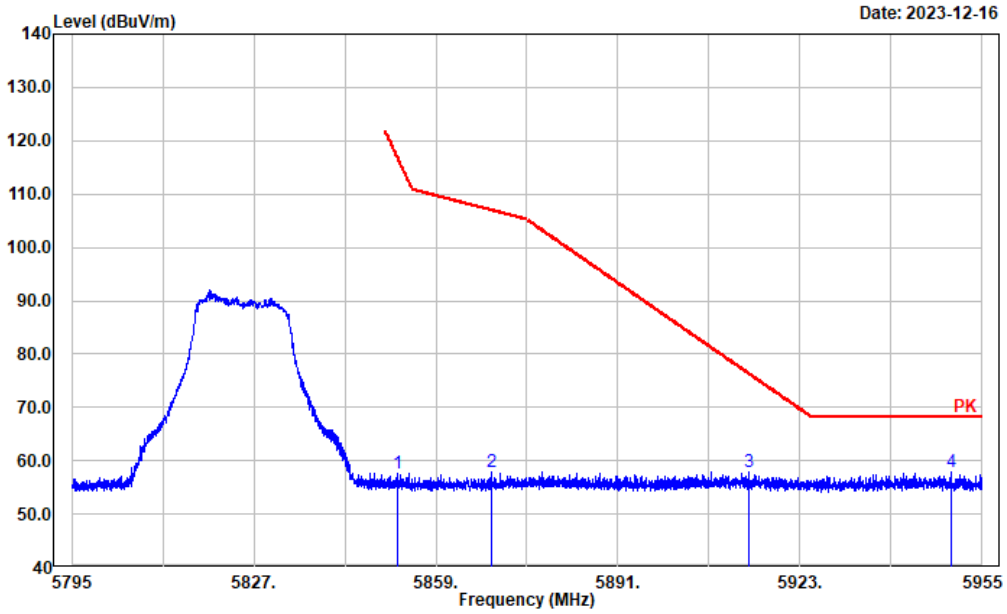
Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: Vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5632.836	44.84	12.23	57.07	68.20	11.13	Peak
2	5685.330	45.23	12.49	57.72	94.38	36.66	Peak
3	5717.329	45.37	12.57	57.94	110.05	52.11	Peak
4	5724.553	44.52	12.57	57.09	121.18	64.09	Peak

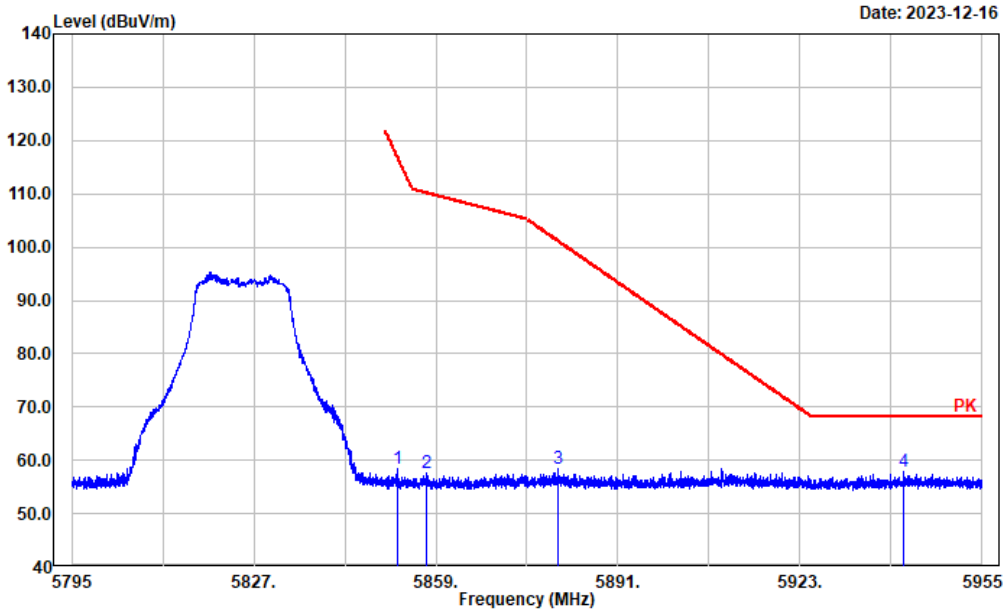
High Channel:

Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5852.164	44.96	12.78	57.74	117.27	59.53	Peak
2	5868.679	44.99	12.86	57.85	106.97	49.12	Peak
3	5914.064	44.91	13.02	57.93	76.27	18.34	Peak
4	5949.655	44.83	13.03	57.86	68.20	10.34	Peak

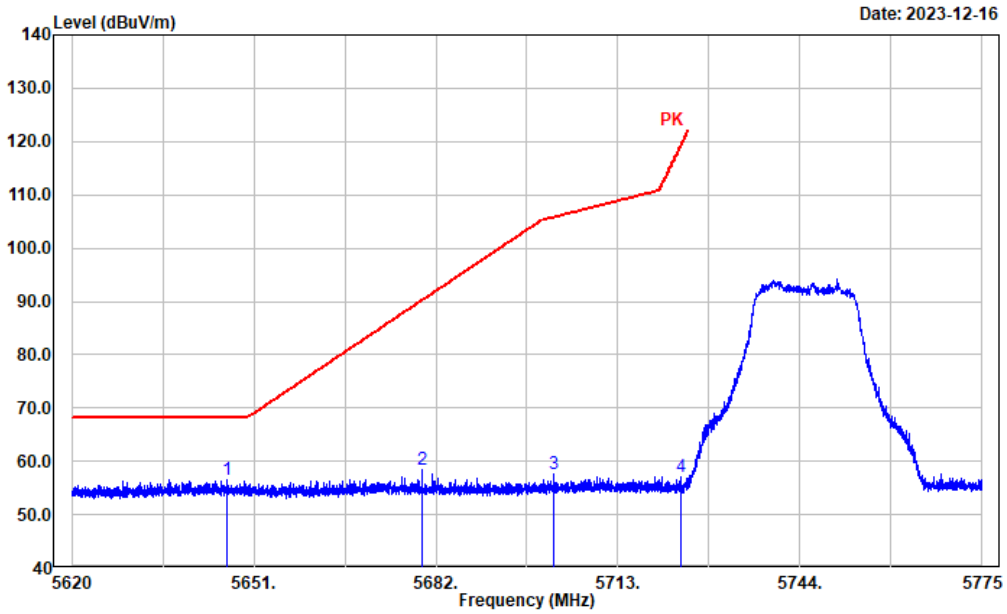
Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: Vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5852.355	45.55	12.78	58.33	116.83	58.50	Peak
2	5857.380	44.77	12.81	57.58	110.13	52.55	Peak
3	5880.585	45.54	12.92	58.46	101.05	42.59	Peak
4	5941.301	44.79	13.04	57.83	68.20	10.37	Peak

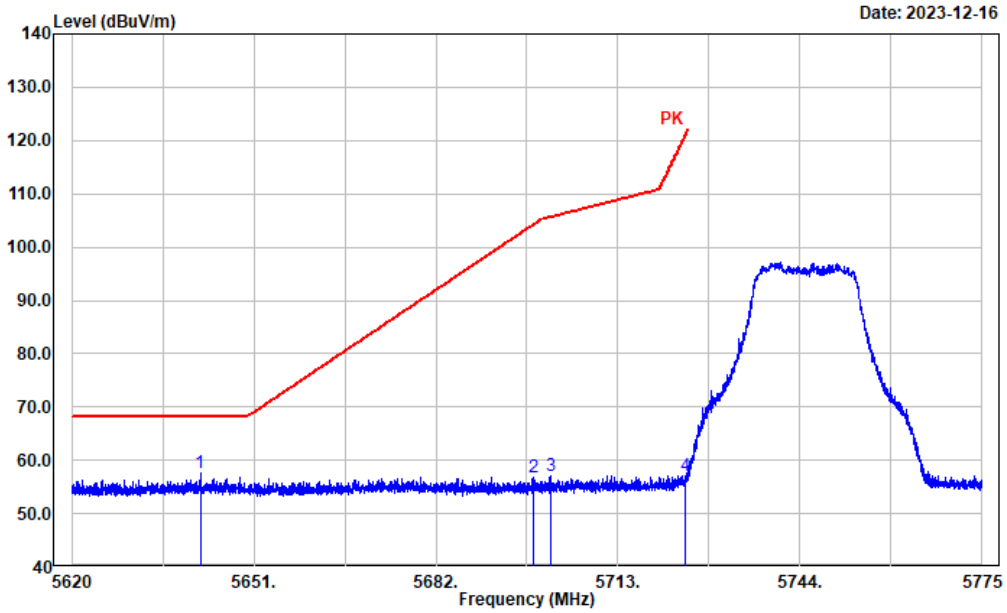
802.11 n ht20:Low Channel

Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5646.479	44.23	12.30	56.53	68.20	11.67	Peak
2	5679.749	45.86	12.46	58.32	90.25	31.93	Peak
3	5702.167	45.14	12.55	57.69	105.81	48.12	Peak
4	5723.716	44.56	12.57	57.13	119.27	62.14	Peak

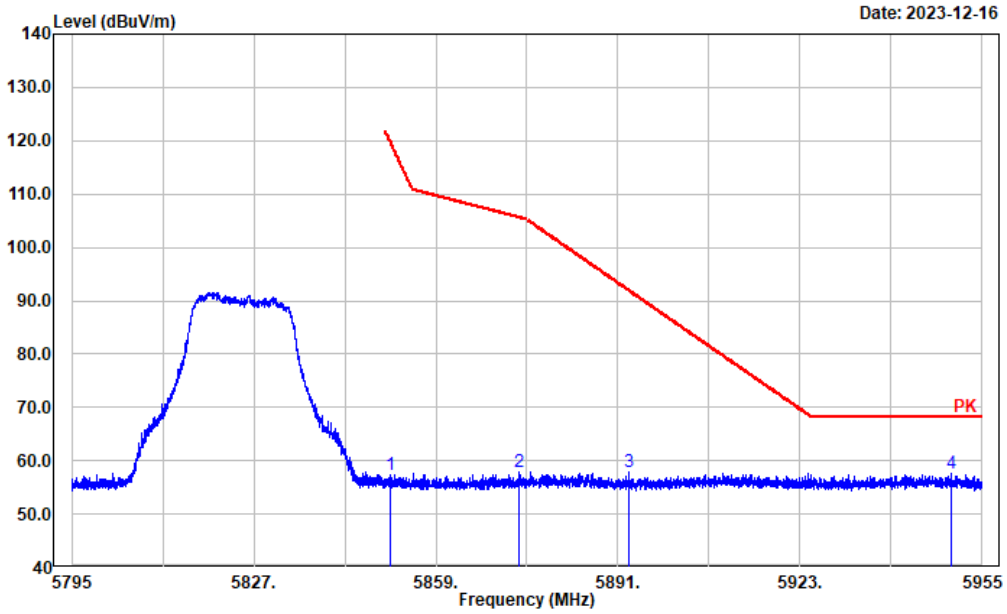
Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: Vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5641.890	45.40	12.28	57.68	68.20	10.52	Peak
2	5698.663	44.24	12.55	56.79	104.21	47.42	Peak
3	5701.453	44.49	12.55	57.04	105.61	48.57	Peak
4	5724.429	44.47	12.57	57.04	120.90	63.86	Peak

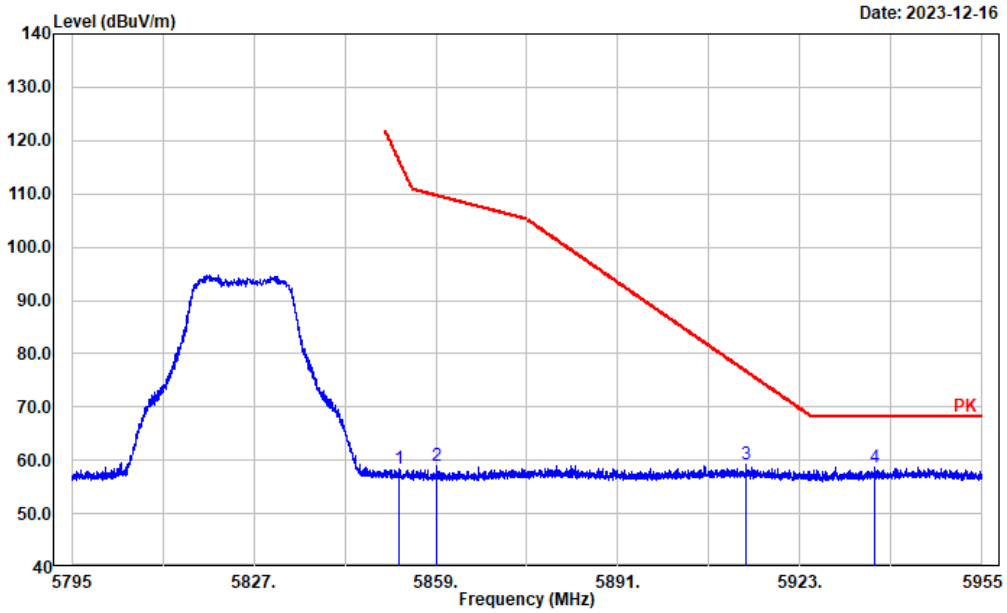
High Channel:

Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5851.107	44.60	12.77	57.37	119.67	62.30	Peak
2	5873.544	44.96	12.89	57.85	105.61	47.76	Peak
3	5892.908	44.89	12.98	57.87	91.91	34.04	Peak
4	5949.591	44.56	13.03	57.59	68.20	10.61	Peak

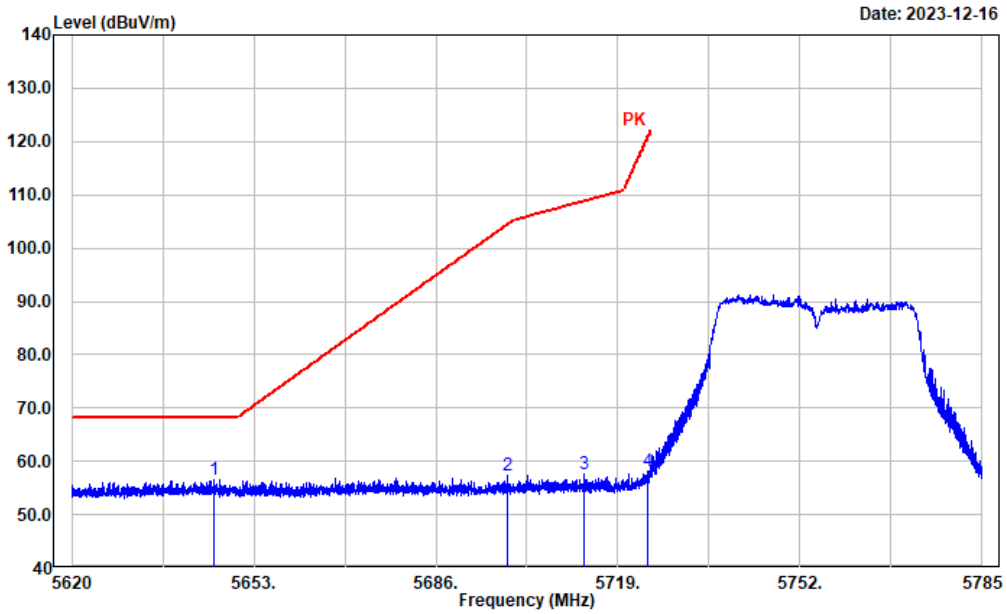
Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: Vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5852.516	45.64	12.78	58.42	116.46	58.04	Peak
2	5859.237	46.07	12.81	58.88	109.61	50.73	Peak
3	5913.520	46.10	13.03	59.13	76.67	17.54	Peak
4	5935.988	45.66	13.04	58.70	68.20	9.50	Peak

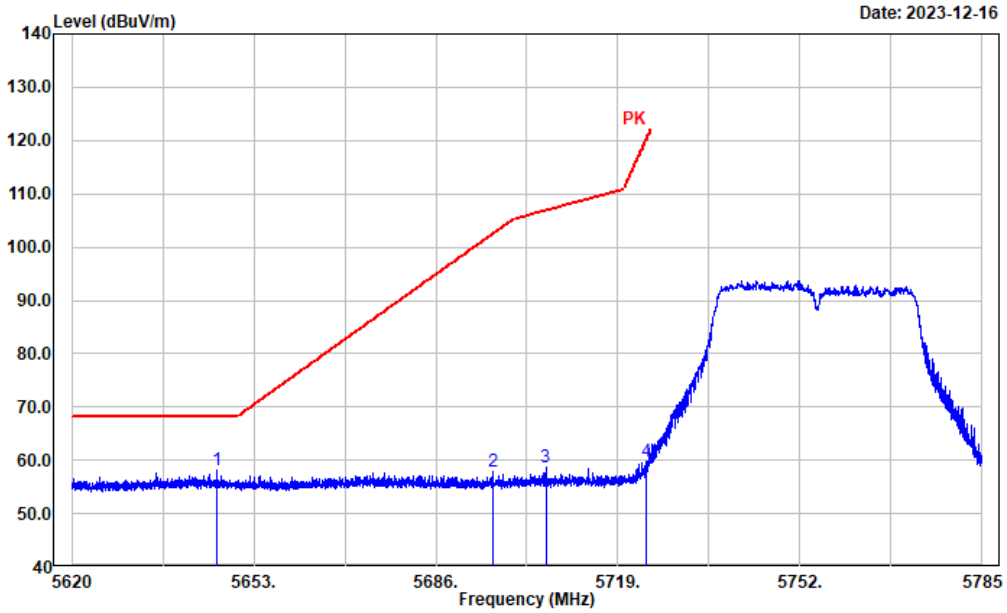
802.11 n ht40: Low Channel

Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5645.910	44.19	12.30	56.49	68.20	11.71	Peak
2	5698.919	44.66	12.55	57.21	104.40	47.19	Peak
3	5712.814	45.11	12.56	57.67	108.79	51.12	Peak
4	5724.499	45.49	12.57	58.06	121.06	63.00	Peak

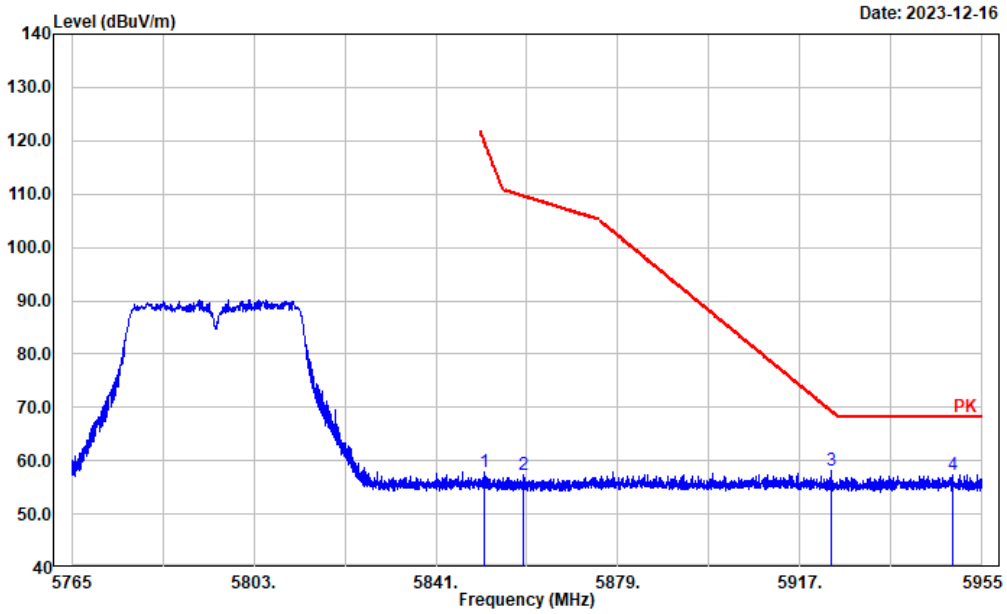
Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: Vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5646.273	45.86	12.30	58.16	68.20	10.04	Peak
2	5696.377	45.39	12.53	57.92	102.53	44.61	Peak
3	5705.916	46.21	12.56	58.77	106.86	48.09	Peak
4	5724.136	47.22	12.57	59.79	120.23	60.44	Peak

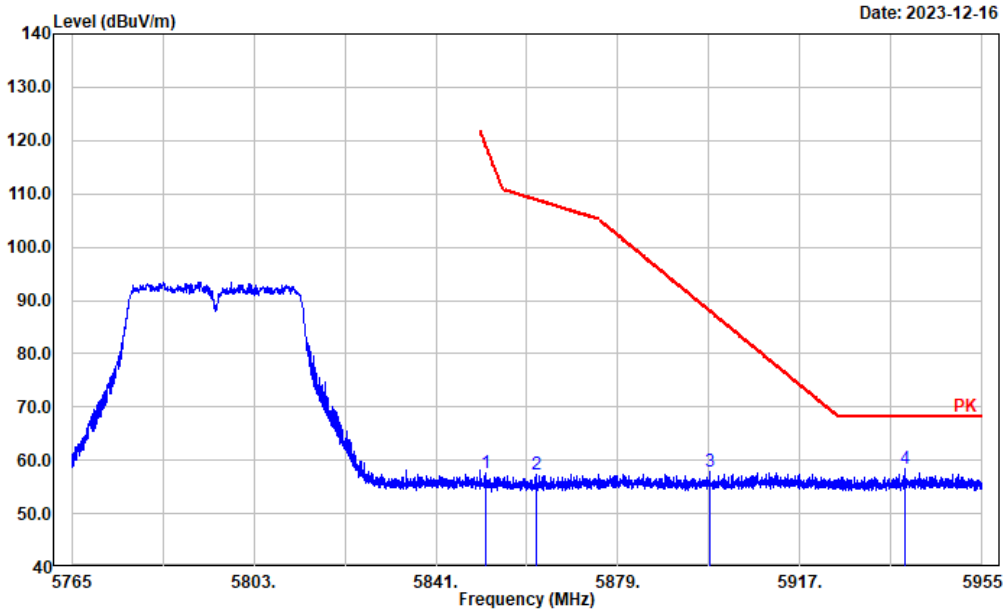
High Channel:

Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5850.973	45.00	12.77	57.77	119.98	62.21	Peak
2	5859.221	44.56	12.81	57.37	109.62	52.25	Peak
3	5923.377	45.01	13.03	58.04	69.40	11.36	Peak
4	5948.729	44.40	13.03	57.43	68.20	10.77	Peak

Project No.: CR231164424-RF
Tester: Tao Zhu
Polarization: Vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5851.315	44.77	12.78	57.55	119.20	61.65	Peak
2	5861.958	44.51	12.83	57.34	108.85	51.51	Peak
3	5898.217	44.97	13.01	57.98	87.98	30.00	Peak
4	5938.771	45.53	13.03	58.56	68.20	9.64	Peak

4.3 Emission Bandwidth:

Serial Number:	2B74-3	Test Date:	2023/12/21-2023/12/29
Test Site:	RF	Test Mode:	Transmitting
Tester:	LingLing Li	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	25.4-25.7	Relative Humidity: (%)	57-59	ATM Pressure: (kPa)	101.1-101.2

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	211002	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:

5150-5250 MHz:

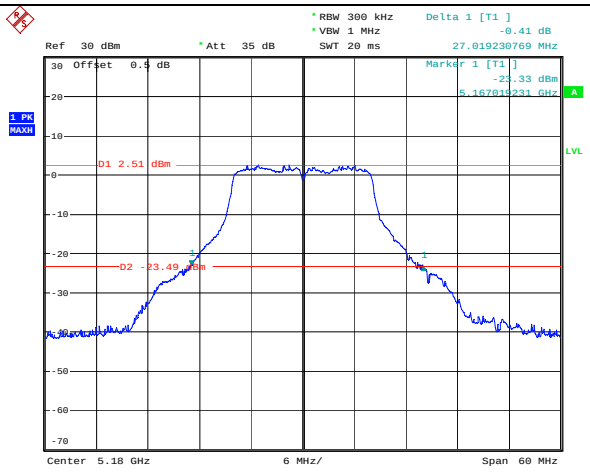
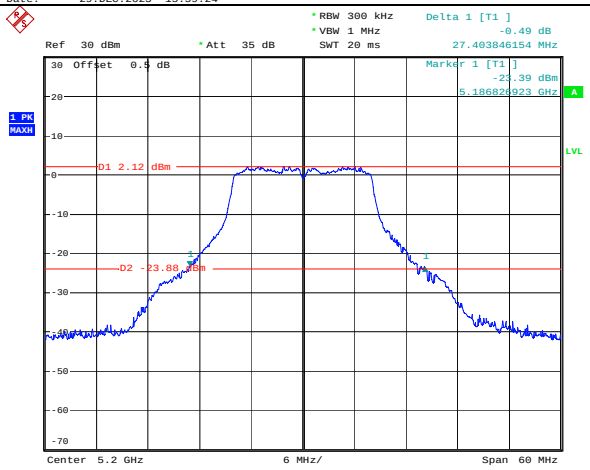
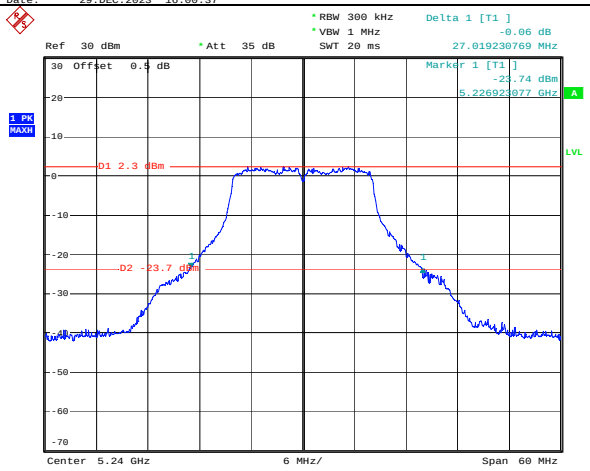
Test Modes	Test Frequency (MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180	27.019	17.628
	5200	27.404	17.564
	5240	27.019	17.564
802.11n ht20	5180	27.404	18.91
	5200	28.462	18.974
	5240	27.788	18.974
802.11n ht40	5190	50.593	37.436
	5230	50.417	37.436
Note: The 99% Occupied Bandwidth have not fall into the band 5250-5350MHz, please refer to the test plots of 99% Occupied Bandwidth.			

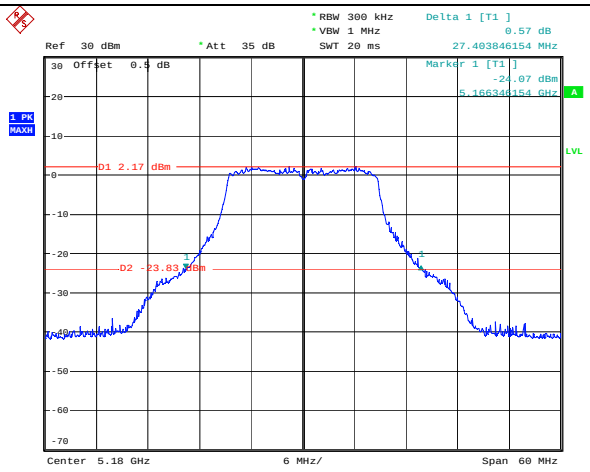
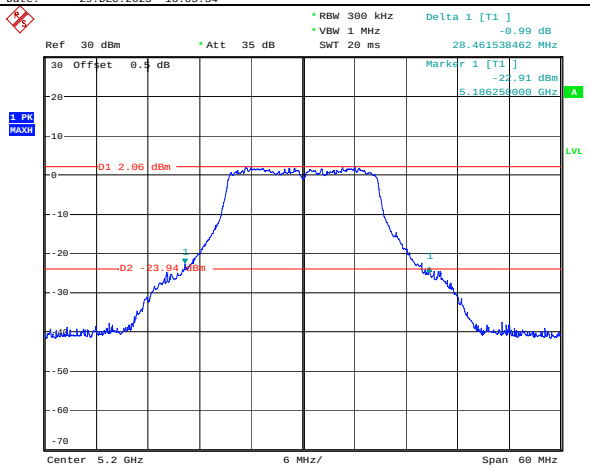
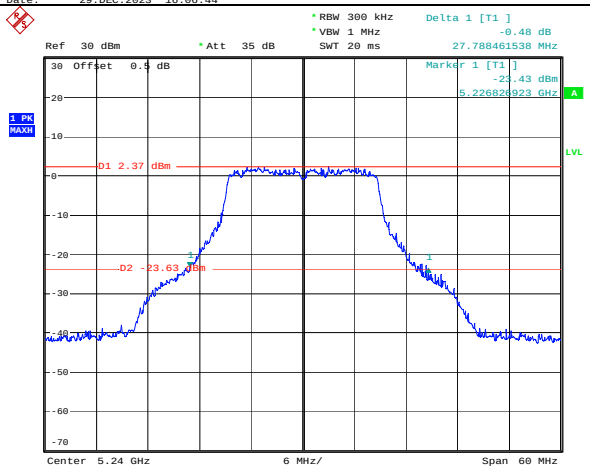
5725-5850 MHz:

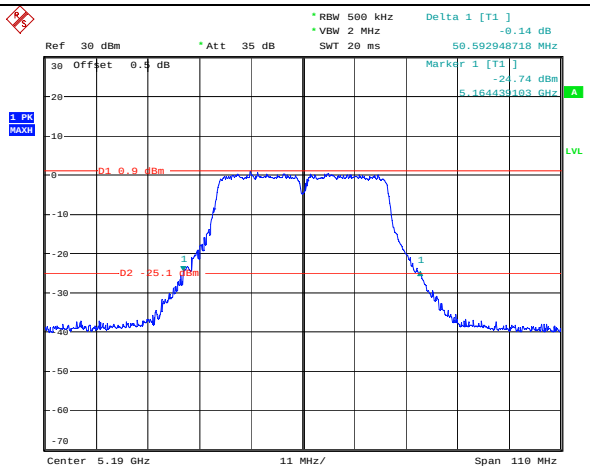
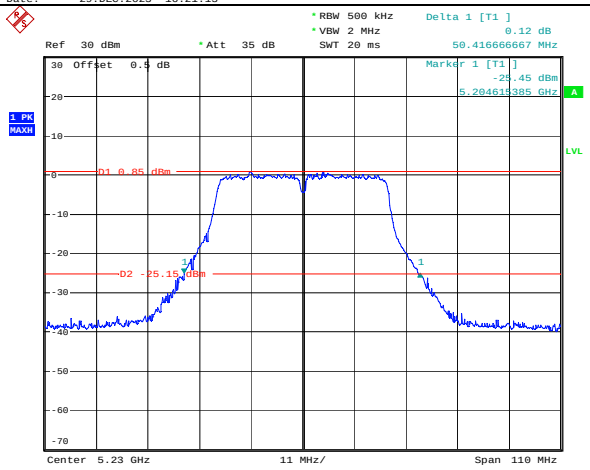
Test Modes	Test Frequency (MHz)	6 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5745	16.41	17.564
	5785	16.346	17.628
	5825	16.346	17.628
802.11n ht20	5745	17.628	18.974
	5785	17.628	18.91
	5825	17.628	18.91
802.11n ht40	5755	36.41	37.436
	5795	36.41	37.564

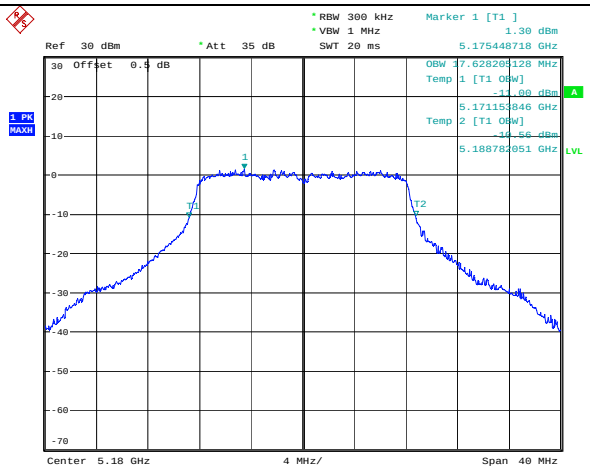
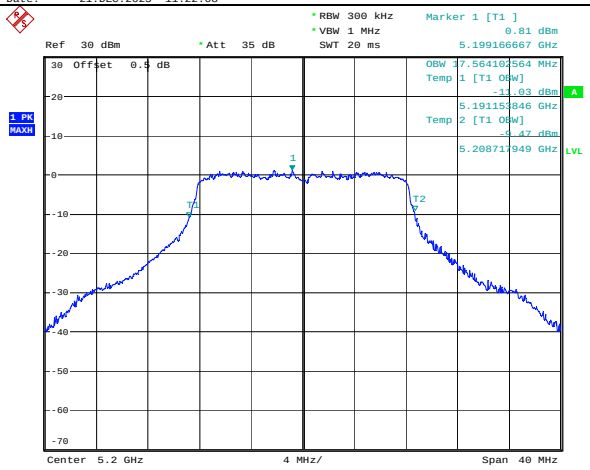
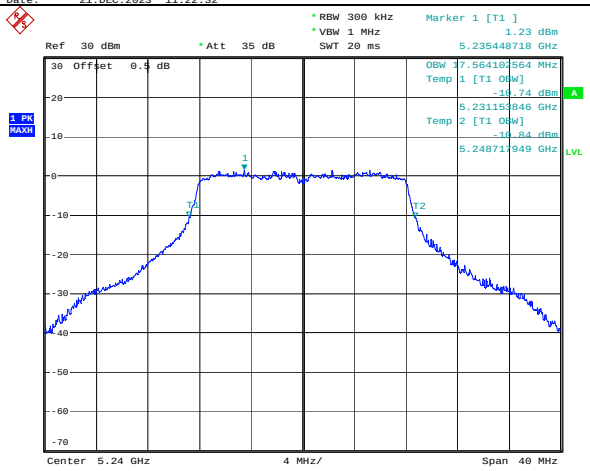
Note:
6dB Emission Bandwidth Limit: ⩾0.5 MHz.
The 99% Occupied Bandwidth have not fall into the band 5470-5725MHz, please refer to the test plots of 99% Occupied Bandwidth.

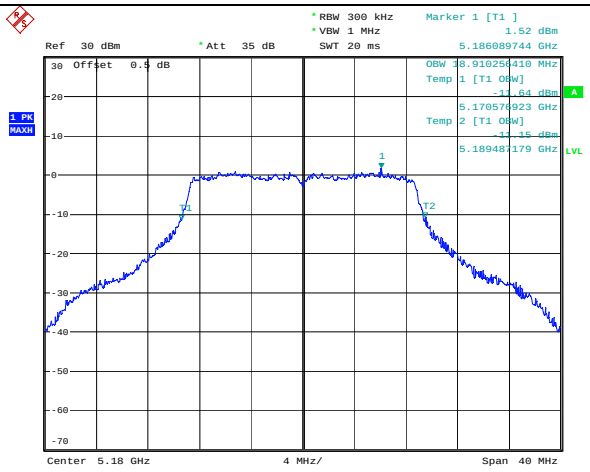
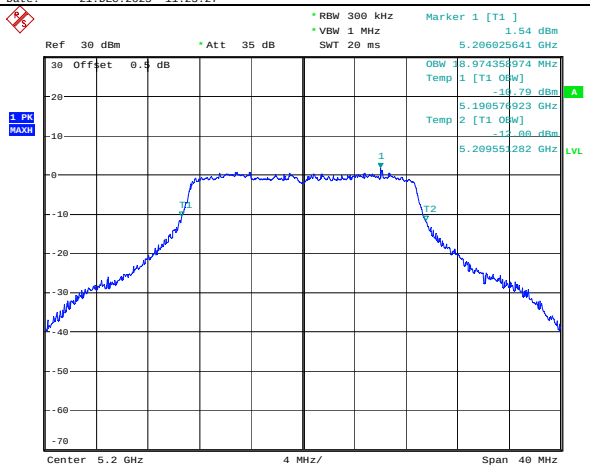
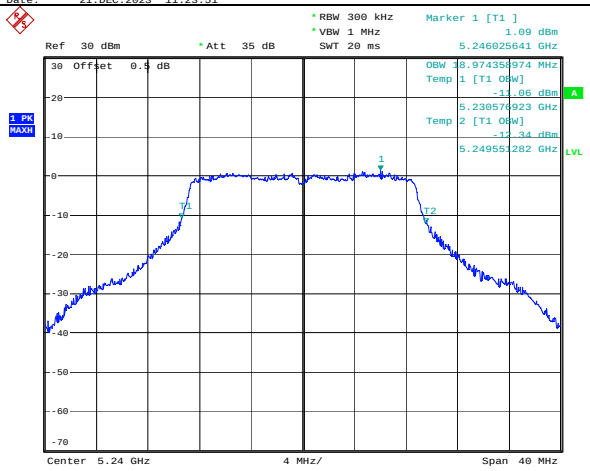
5150-5250MHz:

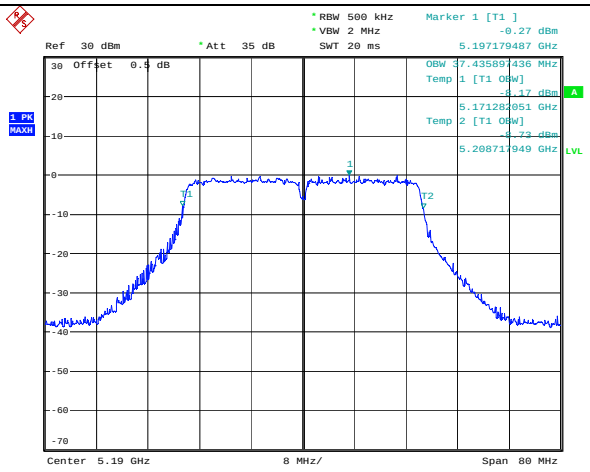
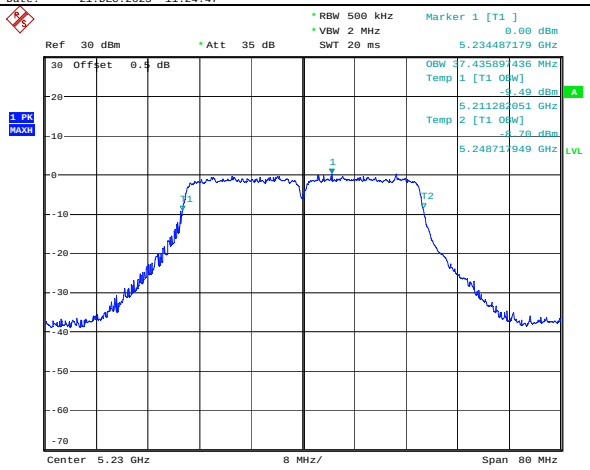
26dB Emission Bandwidth	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

26dB Emission Bandwidth	
802.11n ht20 Lowest Channel	
802.11n ht20 Middle Channel	
802.11n ht20 Highest Channel	

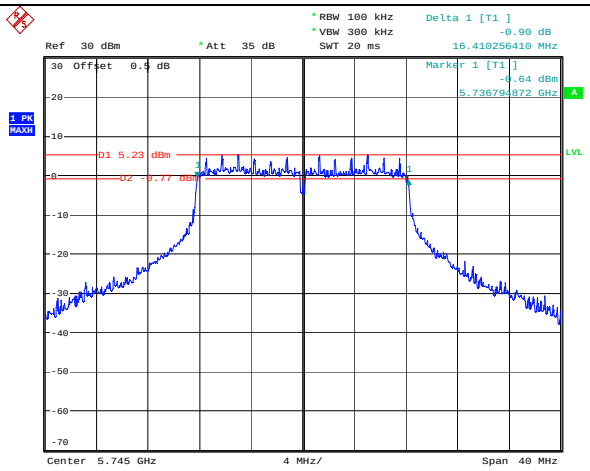
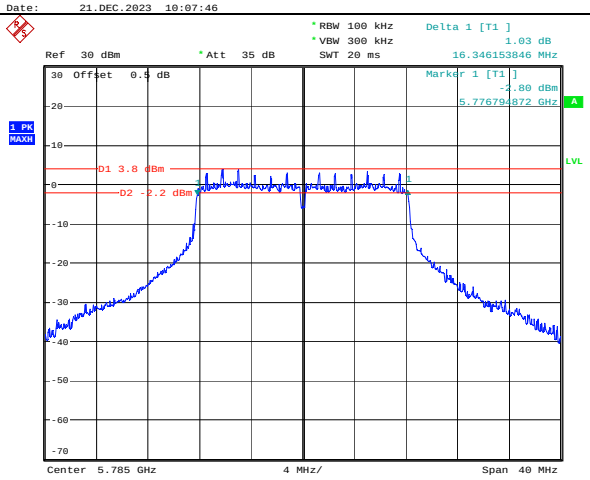
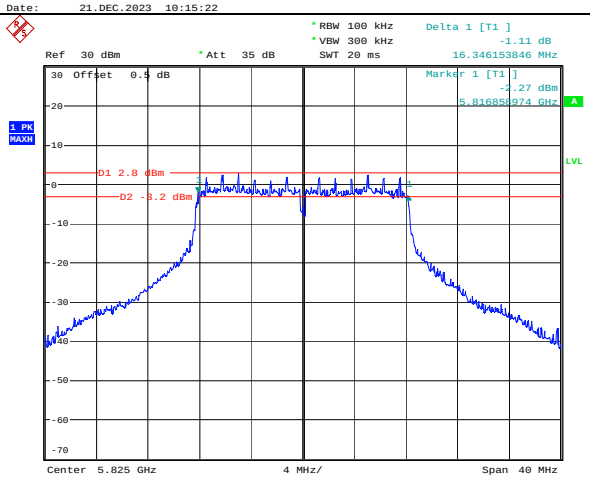
26dB Emission Bandwidth	
802.11n ht40 Lowest Channel	 Comment: ProjectNo.:CR231164424-RFTester:LingLing Li Date: 29.DEC.2023 16:21:13
802.11n ht40 Highest Channel	 Comment: ProjectNo.:CR231164424-RFTester:LingLing Li Date: 29.DEC.2023 16:23:05

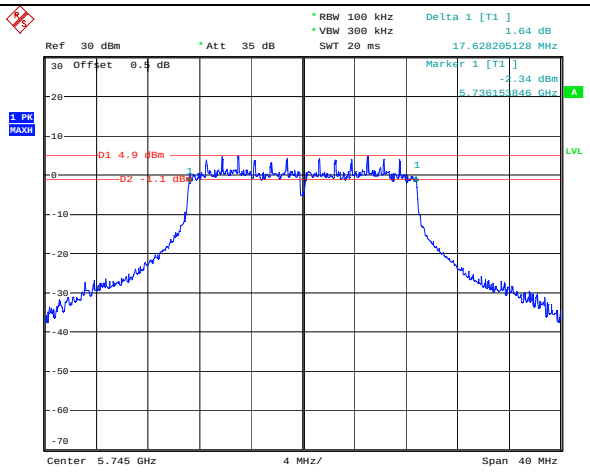
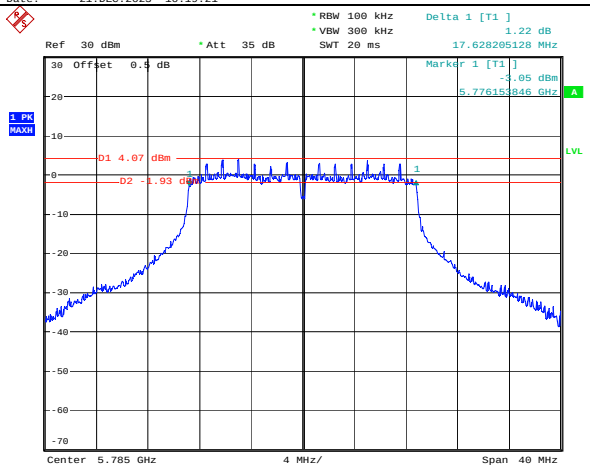
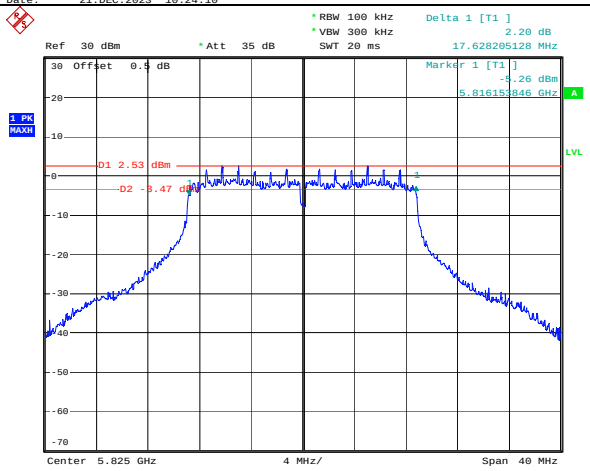
99% Emission Bandwidth	
802.11a Lowest Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 11:22:08
802.11a Middle Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 11:22:32
802.11a Highest Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 11:22:55

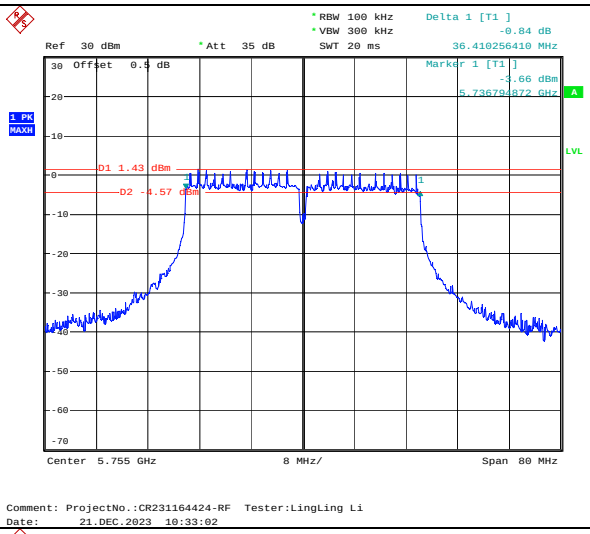
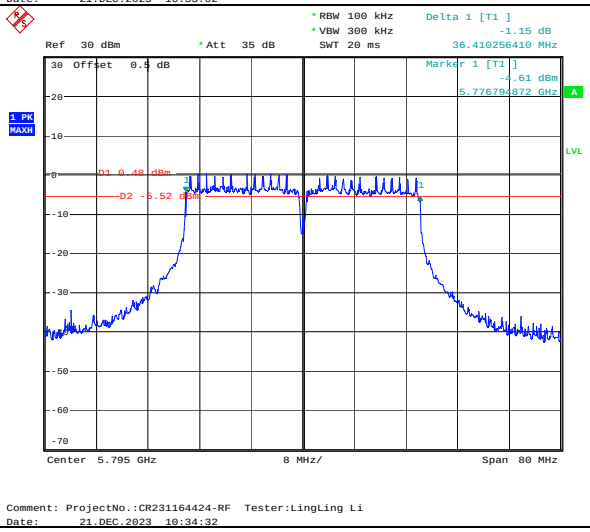
99% Emission Bandwidth	
802.11n ht20 Lowest Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 11:23:27
802.11n ht20 Middle Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 11:23:51
802.11n ht20 Highest Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 11:24:17

99% Emission Bandwidth	
802.11n ht40 Lowest Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 11:24:47
802.11n ht40 Highest Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 11:25:14

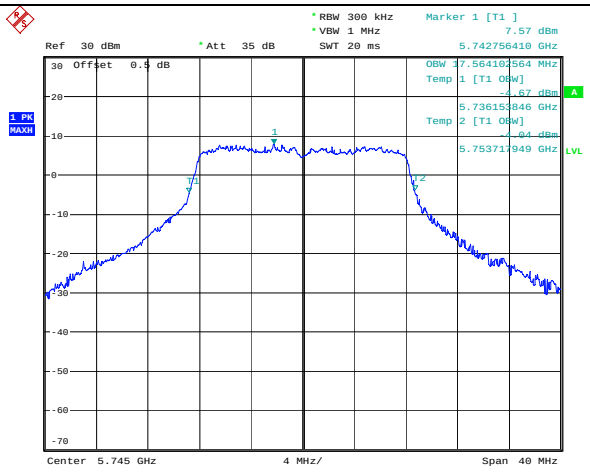
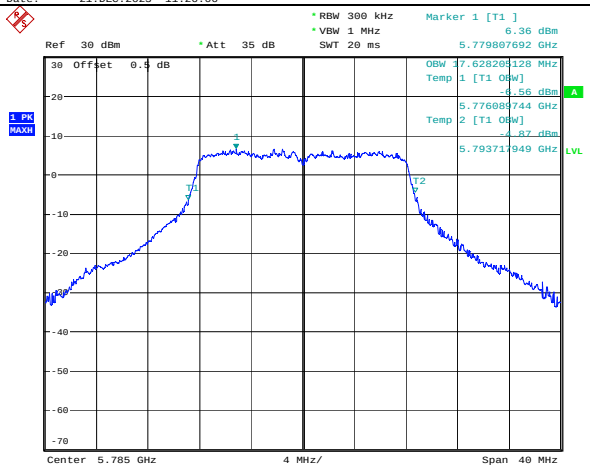
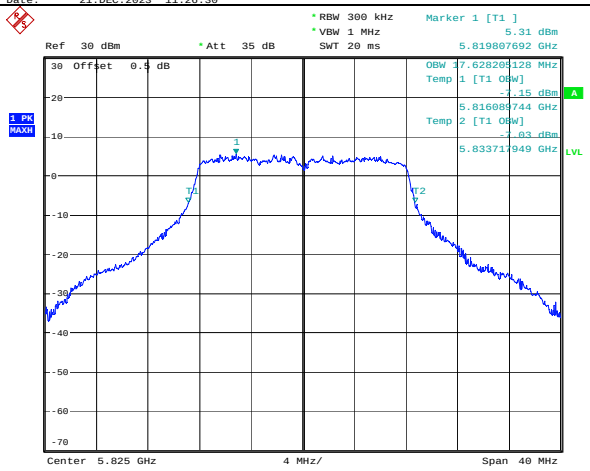
5725-5850MHz:

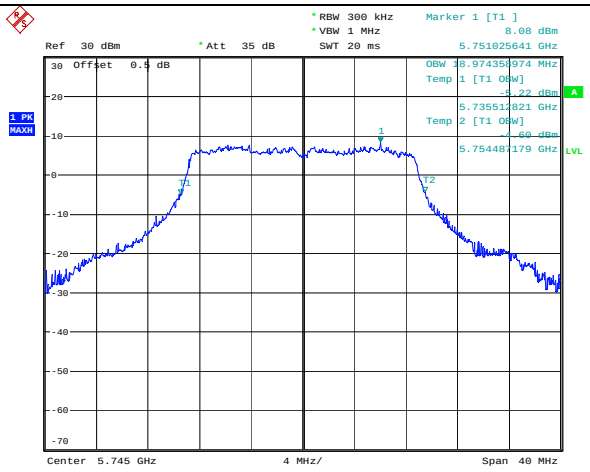
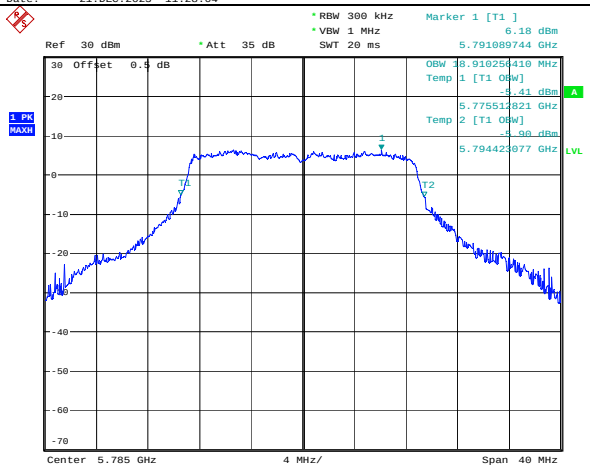
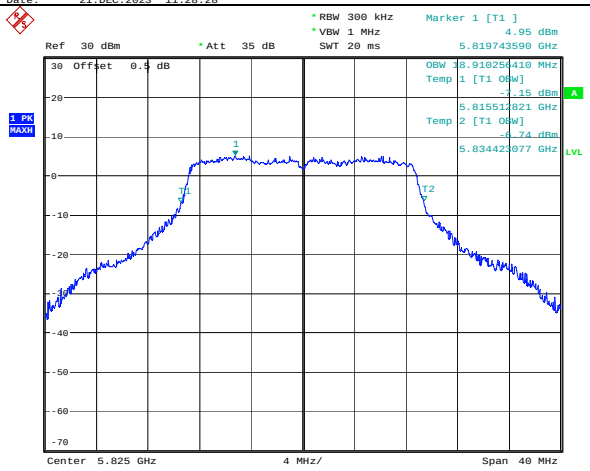
6dB Emission Bandwidth	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

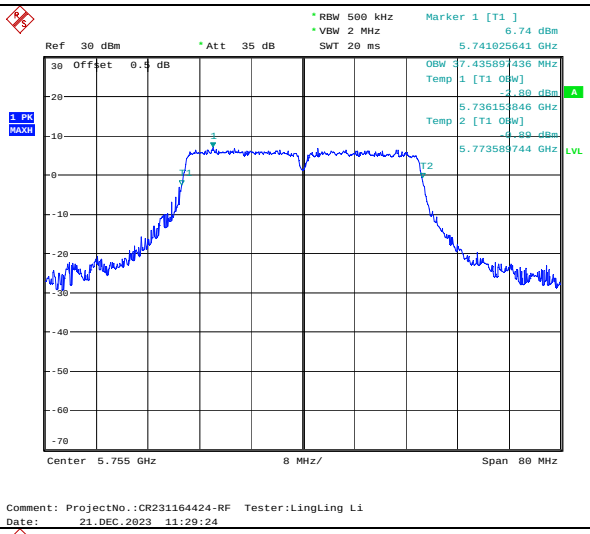
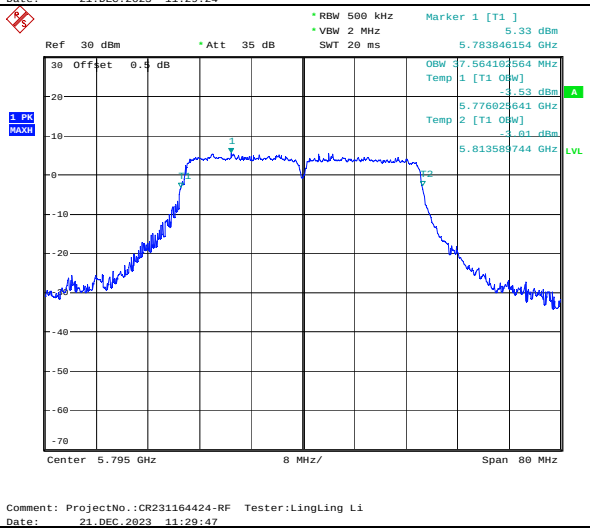
6dB Emission Bandwidth	
802.11n ht20 Lowest Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 10:19:21
802.11n ht20 Middle Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 10:24:10
802.11n ht20 Highest Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 10:28:52

6dB Emission Bandwidth	
802.11n ht40 Lowest Channel	
802.11n ht40 Highest Channel	

99% Emission Bandwidth

802.11a Lowest Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 11:26:06
802.11a Middle Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 11:26:30
802.11a Highest Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 11:27:00

99% Emission Bandwidth	
802.11n ht20 Lowest Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 11:28:04
802.11n ht20 Middle Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 11:28:28
802.11n ht20 Highest Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 11:28:52

99% Emission Bandwidth	
802.11n ht40 Lowest Channel	
802.11n ht40 Highest Channel	

4.4 Maximum Conducted Output Power:

Serial Number:	2B74-3	Test Date:	2023/12/21
Test Site:	RF	Test Mode:	Transmitting
Tester:	LingLing Li	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	25.7	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.1

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
zhuoxiang	Coaxial Cable	SMA-178	211002	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

** 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:

5150-5250 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)	
		Result	Limit
802.11a	5180	**6.64**	24
	5200	6.56	24
	5240	6.54	24
802.11n ht20	5180	6.41	24
	5200	6.48	24
	5240	6.54	24
802.11n ht40	5190	6.31	24
	5230	6.34	24
Note: The device is a client device.			

5725-5850 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)	
		Result	Limit
802.11a	5745	12.95	30
	5785	12.13	30
	5825	11.62	30
802.11n ht20	5745	13.25	30
	5785	12.38	30
	5825	11.95	30
802.11n ht40	5755	**13.31**	30
	5795	12.33	30

4.5 Maximum power spectral density:

Serial Number:	2B74-3	Test Date:	2023/12/21
Test Site:	RF	Test Mode:	Transmitting
Tester:	LingLing Li	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	25.7	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.1

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	211002	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:

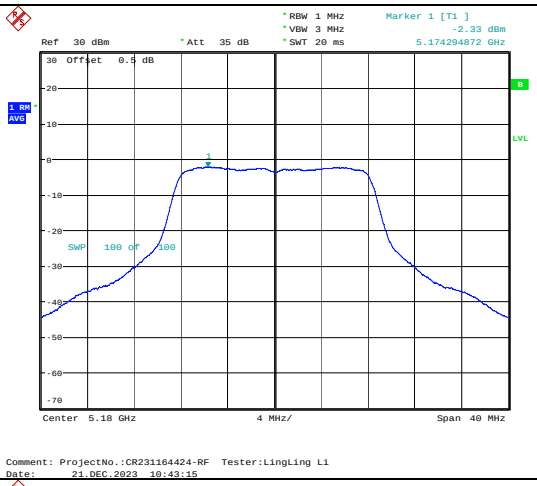
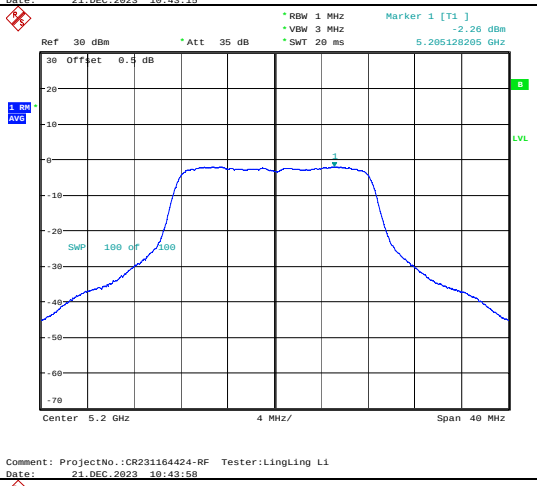
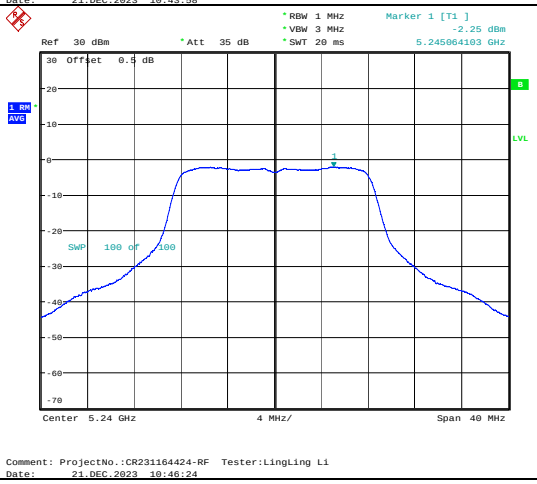
5150-5250 MHz:

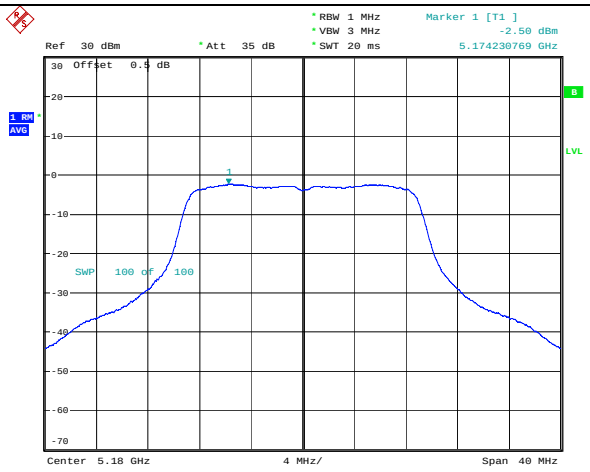
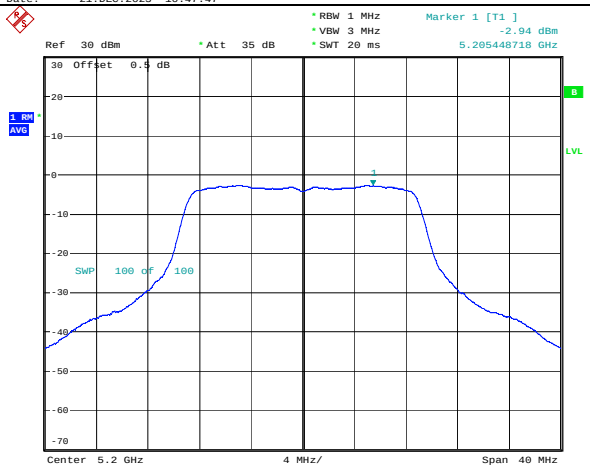
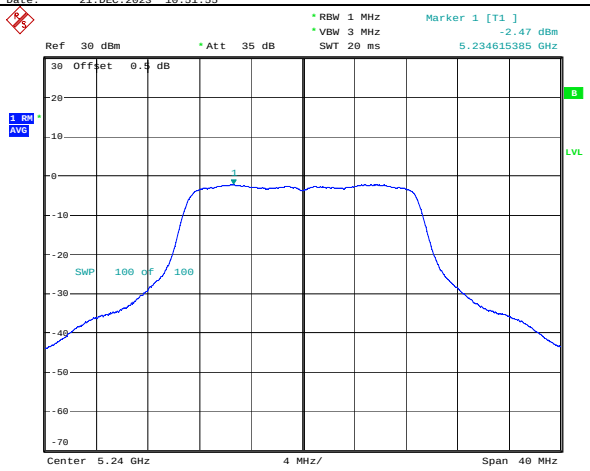
Test Modes	Test Frequency (MHz)	Reading (dBm/MHz)	Duty Cycle Factor (dB)	Maximum Power Spectral Density (dBm/MHz)	
				Result	Limit
802.11a	5180	-2.33	0.13	-2.2	11
	5200	-2.26	0.13	-2.13	11
	5240	-2.25	0.13	-2.12	11
802.11n ht20	5180	-2.50	0.33	-2.17	11
	5200	-2.94	0.33	-2.61	11
	5240	-2.47	0.33	-2.14	11
802.11n ht40	5190	-6.40	0.70	-5.70	11
	5230	-6.15	0.70	-5.45	11
Note: The device is a client device.					

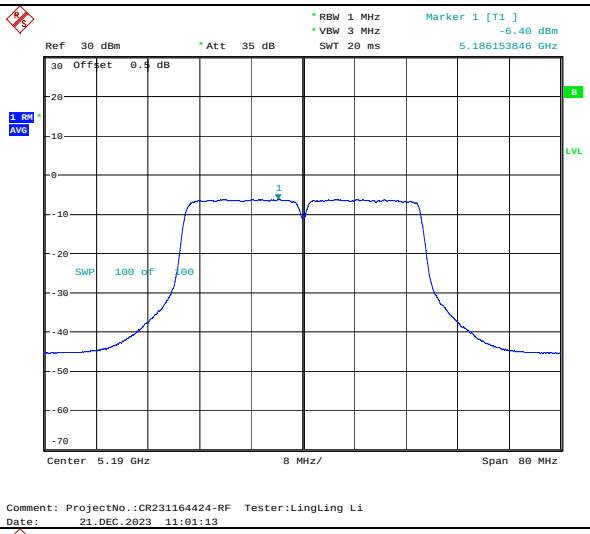
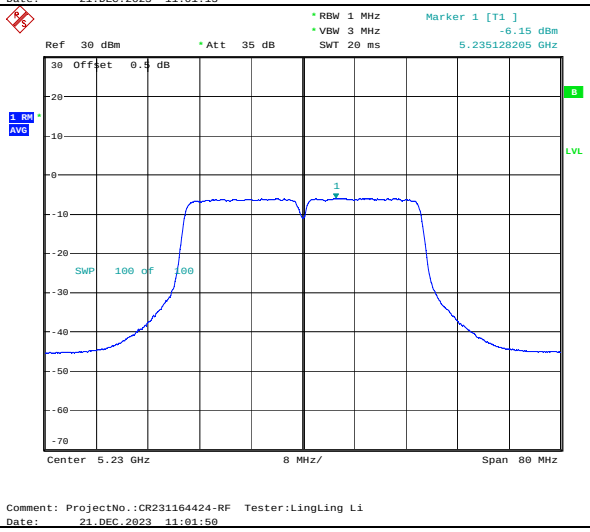
5725-5850 MHz:

Test Modes	Test Frequency (MHz)	Reading (dBm/500kHz)	Duty Cycle Factor (dB)	Maximum Power Spectral Density (dBm/500kHz)	
				Result	Limit
802.11a	5745	1.25	0.13	1.38	30
	5785	0.10	0.13	0.23	30
	5825	-0.97	0.13	-0.84	30
802.11n ht20	5745	1.10	0.33	1.43	30
	5785	-0.61	0.33	-0.28	30
	5825	-1.14	0.33	-0.81	30
802.11n ht40	5755	-2.65	0.70	-1.95	30
	5795	-3.75	0.70	-3.05	30

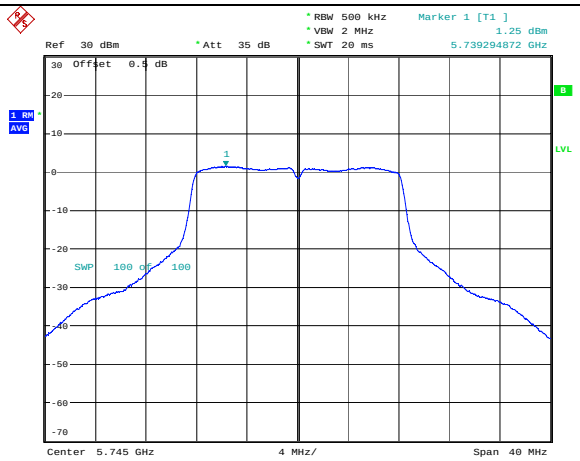
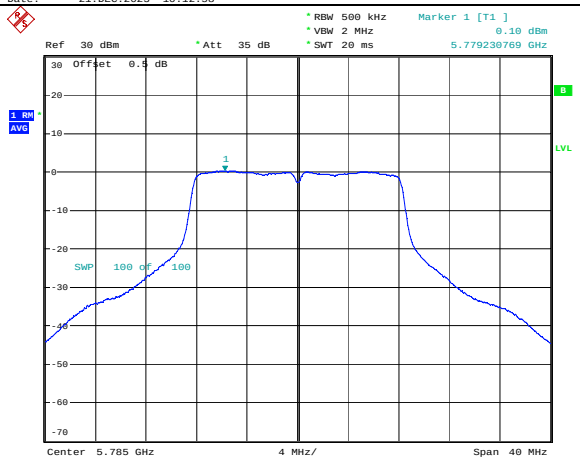
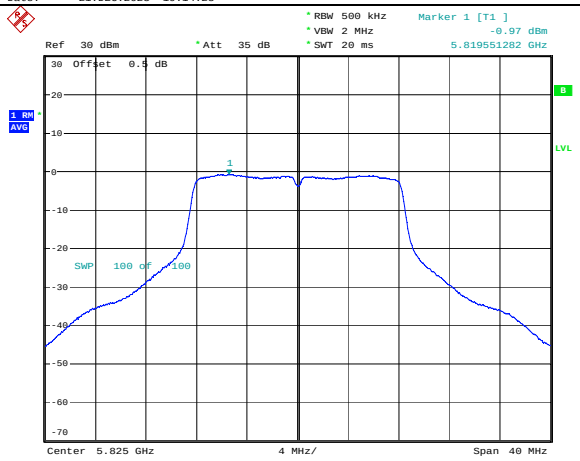
5150-5250MHz:

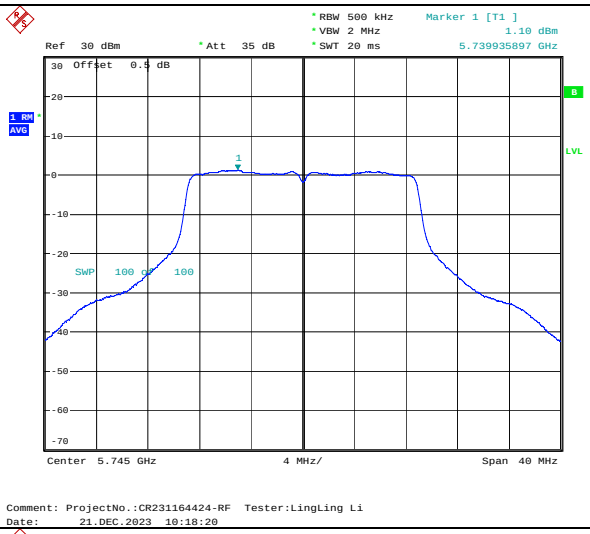
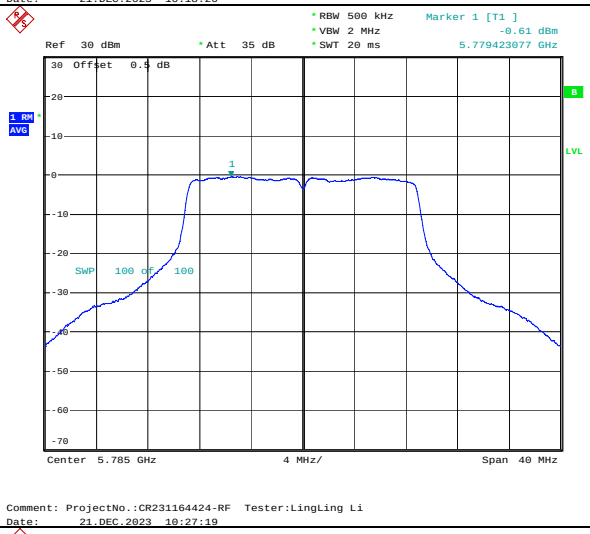
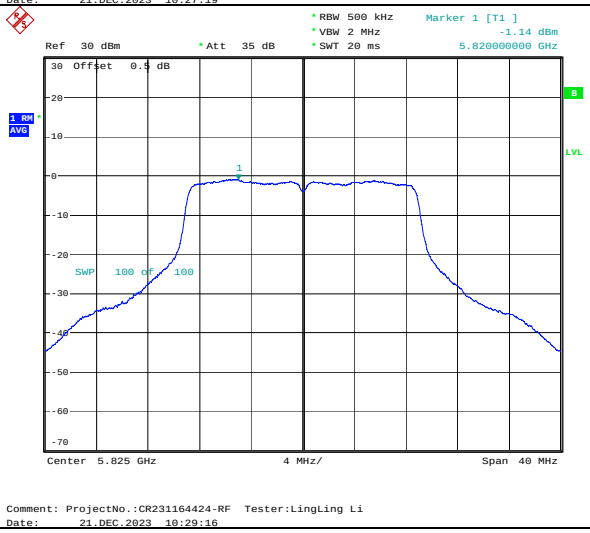
Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

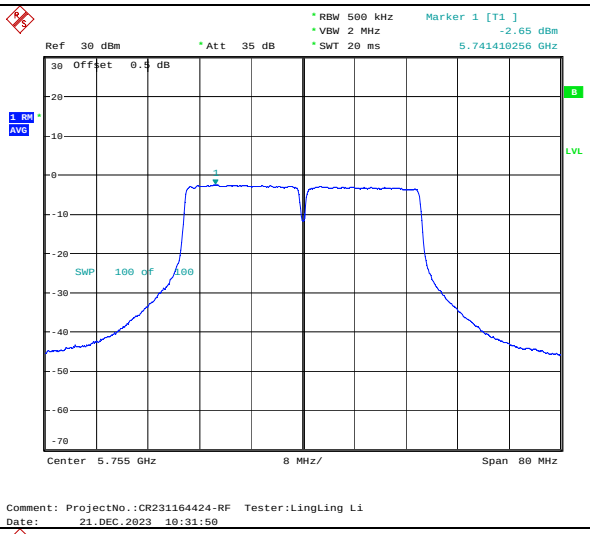
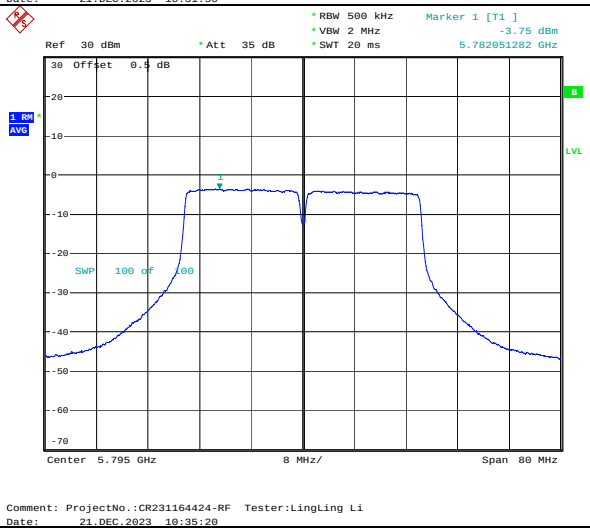
Maximum power spectral density	
802.11n ht20 Lowest Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 10:47:47
802.11n ht20 Middle Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 10:51:55
802.11n ht20 Highest Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 10:56:59

Maximum power spectral density	
802.11n ht40 Lowest Channel	
802.11n ht40 Highest Channel	

5725-5850MHz

Maximum power spectral density	
802.11a Lowest Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 10:12:58
802.11a Middle Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 10:14:25
802.11a Highest Channel	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 10:17:10

Maximum power spectral density	
802.11n ht20 Lowest Channel	
802.11n ht20 Middle Channel	
802.11n ht20 Highest Channel	

Maximum power spectral density	
802.11n ht40 Lowest Channel	
802.11n ht40 Highest Channel	

4.6 Duty Cycle:

Serial Number:	2B74-3	Test Date:	2023/12/21-2023/12/29
Test Site:	RF	Test Mode:	Transmitting
Tester:	LingLing Li	Test Result:	N/A

Environmental Conditions:					
Temperature: (℃)	24.5-25.7	Relative Humidity: (%)	57-59	ATM Pressure: (kPa)	101.1-101.2

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	211002	Each time	N/A

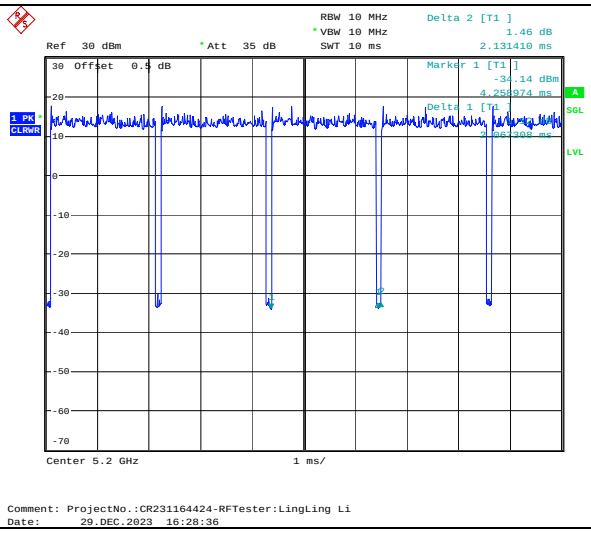
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

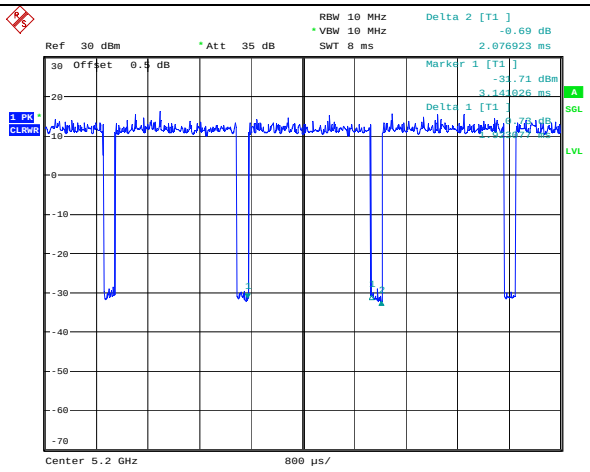
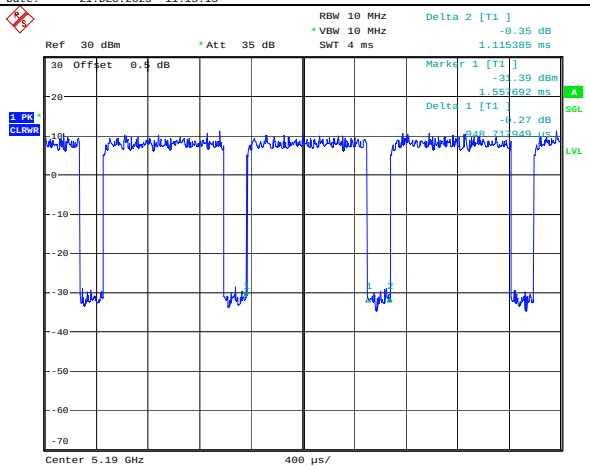
Test Data:

Test Modes	Ton (ms)	Ton+off (ms)	Duty cycle (%)	1/T (Hz)	Duty Cycle Factor (dB)	VBW Setting (kHz)
802.11a	2.067	2.131	97.00	484	0.13	0.5
802.11n ht20	1.923	2.077	92.59	520	0.33	1
802.11n ht40	0.949	1.115	85.11	1054	0.70	2

Duty Cycle

802.11a



Duty Cycle	
802.11n ht20	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 11:15:13
802.11n ht40	 Comment: ProjectNo.:CR231164424-RF Tester:LingLing Li Date: 21.DEC.2023 11:16:40

5. EUT PHOTOGRAPHS

Please refer to the attachment CR231164424-EXP EUT EXTERNAL PHOTOGRAPHS and CR231164424-INP EUT INTERNAL PHOTOGRAPHS

6. TEST SETUP PHOTOGRAPHS

Please refer to the attachment CR231164424-00B-TSP TEST SETUP PHOTOGRAPHS.

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