

# CTC Laboratories, Inc.

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# TEST REPORT

Report No...... CTC2024214214

FCC ID-----: XUJX431PROV5

Applicant ....:: Launch Tech Co., Ltd.

Launch Industrial Park, North of Wuhe Avenue, Banxuegang, Address.....

Longgang, Shenzhen, Guangdong, P.R. China

Manufacturer....: Launch Tech Co., Ltd.

Launch Industrial Park, North of Wuhe Avenue, Banxuegang, Address....:

Longgang, Shenzhen, Guangdong, P.R. China

Product Name .....: **AUTO Smart Diagnostic Tool** 

Trade Mark .....: **LAUNCH** 

Model/Type reference....: OADD-PO0805A, OADD-PO1005A

X-431 PRO3 APEX, X-431 V+ SmartLink HD, X-431 PRO3S+ Listed Model(s) .....:

SmartLink HD, X-431 PRO3 ACE, X-431 PRO3(PRO3S+

V5.0), X-431 PRO3(PRO3S+ V5), X-431 PRO5, X-431

PRO3(PRO3S+ ELITE), X-431 PRO3 V+ ELITE, X-431 PRO3 LINK HD, X-431 PRO(PROS V5.0), X-431 PRO(PROS V5), X-431 PRO DYNO, X-431 PRO TT, X-431 PRO(IMMO ELITE),

X-431 PRO(IMMO PLUS)

Standard ....:: **FCC Part 15, Subpart E 15. 407** 

Date of receipt of test sample...: Sept. 02, 2024

Apr. 14, 2021 ~ Jul. 06, 2021 Date of testing.....

Sept. 02, 2024 ~ Oct. 12, 2024

Date of issue....: Oct. 16, 2024

Result....: **PASS** 

Compiled by:

(Printed name+signature) Jim Jiang

Supervised by:

(Printed name+signature) Eric Zhang Jin Jiang Briczhang

Approved by:

(Printed name+signature) Totti Zhao

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3.7. 3.8.

3.9.

#### **Table of Contents Page** TEST SUMMARY ......3 1.1. TEST STANDARDS. 1.2. 13 1 4 1.5. 1.6. 2. 2.1. GENERAL DESCRIPTION OF EUT ......8 2.2. 2.3. 24 2.5. 3.1. 3.2. 3.3. 3 4 3.5. 3.6.

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Page 3 of 169

Report No.: CTC2024214214



# 1. TEST SUMMARY

# 1.1. Test Standards

The tests were performed according to following standards:

<u>FCC Part 15, Subpart E(15.407)</u> — for 802.11a/n/ac, the test procedure follows the FCC KDB 789033 D02 General UNII Test Procedures New Rules V02r01.

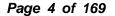
RSS-247 Issue 3 — Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices

RSS-Gen — General Requirements for Compliance of Radio Apparatus

# 1.2. Report version

Revised No.	Report No.	Date of issue	Description
01	CTC2024214214	Oct. 16, 2024	On the basis of the original report CTC20210728E14, update product model, battery factory and adapter, small changes in the mainboard. Retest conducted emission, radiated spurious emission (below 1GHz), conducted power, OBW and emission bandwidth. Other data refer to the original report.

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1.3. Test Description

FCC Part 15 Subpart E (15.407) / RSS-247 Issue 3							
Test Item	Test re	equire	Result	Test			
rest item	FCC IC		Result	Engineer			
Antenna Requirement	15.203	/	Pass	Rod Luo			
Conducted Emission	15.207	RSS-Gen 8.8	Pass	Jim Jiang			
Band Edge Emissions	15.407(b)	RSS-247 6.2.1.2 RSS-247 6.2.2.2 RSS-247 6.2.4.2	Pass	Rod Luo			
26dB Bandwidth & 99% Bandwidth	15.407(a) (5)	RSS-247 6.2.1.2	Pass	Rod Luo			
6dB Bandwidth (only for UNII-3)	15.407(e)	RSS-247 6.2.4.1	Pass	Rod Luo			
Peak Output Power	15.407(a)	RSS-247 6.2.1.1 RSS-247 6.2.4.1	Pass	Rod Luo			
Power Spectral Density	15.407(a)	RSS-247 6.2	Pass	Rod Luo			
Transmitter Radiated Spurious Emission	15.407(b) &15.209	RSS-Gen 8.9 RSS-247 6.2.1.2 RSS-247 6.2.4.2	Pass	Rod Luo			
Frequency Stability	15.407(g)	/	Pass	Rod Luo			
Dynamic Frequency Selection (DFS)	15.407(h)	RSS-247 6.3	Pass	Rod Luo			

Note: "N/A" is not applicable.

The measurement uncertainty is not included in the test result.





# 1.4. Test Facility

### CTC Laboratories, Inc.

Add: Room 101 Building B, No. 7, Lanqing 1st Road, Luhu Community, Guanhu Subdistrict, Longhua District, Shenzhen, Guangdong, China

#### Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

#### CNAS-Lab Code: L5365

CTC Laboratories, Inc. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation .Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025:2017 General Requirements) for the Competence of Testing and Calibration Laboratories.

#### A2LA-Lab Cert. No.: 4340.01

CTC Laboratories, Inc. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

# Industry Canada (Registration No.: 9783A, CAB Identifier: CN0029)

CTC Laboratories, Inc. EMC Laboratory has been registered by Certification and Engineer Bureau of Indus try Canada for the performance of with Registration NO.: 9783A on Jan, 2016.

### FCC (Registration No.: 951311, Designation Number CN1208)

CTC Laboratories, Inc. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained inour files. Registration 951311, Aug 26, 2017.

# 1.5. Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01" Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the CTC Laboratories, Inc. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Below is the best measurement capability for CTC Laboratories, Inc.

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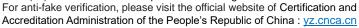
**Notes Test Items Measurement Uncertainty** Transmitter power conducted 0.42 dB (1) Transmitter power Radiated 2.14 dB (1) Conducted spurious emissions 9kHz~40GHz 1.60 dB (1) Radiated spurious emissions 9kHz~40GHz 2.20 dB (1) Conducted Emissions 9kHz~30MHz 3.08 dB (1) Radiated Emissions 30~1000MHz 4.51 dB (1) Radiated Emissions 1~18GHz 5.84 dB (1) Radiated Emissions 18~40GHz 6.12 dB (1) Occupied Bandwidth (1)

**Note (1):** This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

# 1.6. Environmental conditions

	Temperature	22 °C ~ 28°C
Normal Condition	Relative humidity	50% ~ 65%
Condition	Voltage	The equipment shall be the nominal voltage for which the equipment was designed.
Extreme	Temperature	Measurements shall be made over the extremes of the operating temperature range as declared by the manufacturer
Condition	Voltage	Measurements shall be made over the extremes of the operating temperature range as declared by the manufacturer

Normal Condition	T <sub>N</sub> =Normal Temperature	22 °C ~ 28°C
Extreme Condition	T <sub>L</sub> =Lower Temperature	0 °C
Extreme Condition	T <sub>H</sub> =Higher Temperature	50 °C







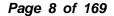


# 2. GENERAL INFORMATION

# 2.1. Client Information

Applicant:	Launch Tech Co., Ltd.
Address:	Launch Industrial Park, North of Wuhe Avenue, Banxuegang, Longgang, Shenzhen, Guangdong, P.R. China
Manufacturer:	Launch Tech Co., Ltd.
Address:	Launch Industrial Park, North of Wuhe Avenue, Banxuegang, Longgang, Shenzhen, Guangdong, P.R. China

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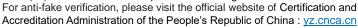


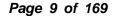
2.2. General Description of EUT

Product Name:	AUTO Smar	t Diagnostic Too	ol					
Trade Mark:	LAUNCH	LAUNCH						
Model/Type reference:	OADD-PO08	OADD-PO0805A, OADD-PO1005A						
Listed Model(s):	10 inch display: X-431 PRO3 APEX, X-431 V+ SmartLink HD, X-431 PRO3S+ SmartLink HD, X-431 PRO3 ACE, X-431 PRO3(PRO3S+ V5.0), X-431 PRO3(PRO3S+ V5), X-431 PRO5, X-431 PRO3(PRO3S+ ELITE), X-431 PRO3 V+ ELITE, X-431 PRO3 LINK HD 8 inch display: X-431 PRO(PROS V5.0), X-431 PRO(PROS V5), X-431 PRO DYNO, X-431 PRO TT, X-431 PRO(IMMO ELITE), X-431 PRO(IMMO PLUS)							
Model Difference:	circuit. The cand rubber siguard, OAD	only difference i sleeve, antenna D-PO0805A do	al in the same In screen size, no position, OADE es without a roll	nodel D-PO	name, co 1005A wi	olour of shell		
Power supply:		n AC/DC Adapt 6300mAh Li-io						
Adapter model:	XDJ361R-05 Input: 100-2 Output: 5Vd	40V~ 50/60Hz (	0.9A					
Hardware version:	BSK-Y12-V3	3						
Software version:	V1.1.4							
Antenna type:	FPC Antenn	a						
OADD-PO1005A Antenna gain: OADD-PO0805A	2.2dBi							
Antenna gain:	2.5dBi							
Technical index for 5G WIFI	_							
Operation Band:	⊠U-NII-1	⊠U-NII-2A	□U-NII-2C		⊠U-NII-	-3		
	U-NII-1:	5150MHz~52	50MHz					
Operation Frequency Range:	U-NII-2A:	5250MHz~53	50MHz					
	U-NII-3:	5725MHz~58	50MHz	1				
	802.11a	⊠ 20MHz						
Support bandwidth:	802.11n	⊠ 20MHz	⊠ 40MHz					
	802.11ac					☐ 160MHz		
Modulation:	802.11a: OFDM (BIT/SK, QPSK, BPSK, 16QAM) 802.11n: OFDM (BIT/SK, QPSK, BPSK, 16QAM, 64QAM) 802.11ac: OFDM (BIT/SK, QPSK, BPSK, 16QAM, 64QAM, 256QAM)							
Bit Rate of Transmitter:	802.11a: 6/9/12/18/24/36/48/54 Mbps 802.11n: up to 300Mbps 802.11ac: at most 866.7 Mbps							

Remark: 1. OADD-PO0805A, OADD-PO1005A has been testes, Just the worst case recorded in report.

2. This device does not transmit any beacons or initiate any transmissions in UNII Band 2A.







2.3. Accessory Equipment information

Equipment Information							
Name	Model	S/N	Manufacturer				
GPON Terminal	EchoLife EG8247Q		HUAWEI				
Notebook	X220	R9-NCMYL 12/04	Lenovo				
Cable Information							
Name	Shielded Type	Ferrite Core	Length				
/	/	/	1				
Test Software Information	Test Software Information						
Name	/	/	1				
Engineering mode	/	/	/				

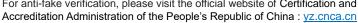
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# 2.4. Operation state

# Operation Frequency List:

	20MHz Bandwidth		40MHz Bandwidth		80MHz Bandwidth	
Band (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
	36	5180	20	F100		
11 NII 4	40	5200	38	5190	40	F240
U-NII-1	44	5220	46	F220	5230	5210
	48	5240	46	5230		
	52	5260	ΕA	F270	- 58	
U-NII-2A	56	5280	54	5270		5290
U-MII-ZA	60	5300	60	F210		
	64	5320	62	5310		
	149	5745	151	5755		
	153	5765	151	3733		
U-NII-3	157	5785			155	5775
	161	5805	159	5795	)	
	165	5825				





#### Test channel is below:

Operating	Test	20	20MHz		40MHz		80MHz	
Band	Channel	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	
	CH∟	36	5180	38	5190	/	/	
U-NII-1	$CH_M$	40	5200	/	/	42	5210	
	СНн	48	5240	46	5230	/	/	
	CH∟	52	5260	54	5270	/	/	
U-NII-2A	CH <sub>M</sub>	56	5280	/	/	58	5290	
	СНн	64	5320	62	5310	/	/	
	CH∟	149	5745	151	5755	/	/	
U-NII-3	CH <sub>M</sub>	157	5785	/	/	155	5775	
	СНн	165	5825	159	5795	/	/	

#### **Data Rated**

Preliminary tests were performed in different data rate, and found which the below bit rate is worst case mode, so only show data which it is a worst case mode.

Mode	Data rate (worst mode)
802.11a	6Mbps
802.11n(HT20)/ 802.11n(HT40)	HT-MCS0
802.11ac(VHT20)/ 802.11ac(VHT40)/ 802.11ac(VHT80)	VHT-MCS0

# Test mode

## For RF test items

The engineering test program was provided and enabled to make EUT continuous transmit.

# For AC power line conducted emissions:

The EUT was set to connect with the WLAN AP under large package sizes transmission.

# For Radiated spurious emissions test item:

The engineering test program was provided and enabled to make EUT continuous transmit. The EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data Recorded in the report.

# For DFS test items

The EUT has been tested under test mode condition. The Applicant provides software to control the EUT for staying in DFS mode for testing.



# 2.5. Measurement Instruments List

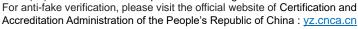
RF Te	RF Test System						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until		
1	Spectrum Analyzer	R&S	FSV40-N	101331	Mar. 21, 2025		
2	MXA Signal Analyzer	Keysight	N9020A	MY46471737	Dec. 12, 2024		
3	MXG Vector Signal Generator	Agilent	N5182A	MY47420864	Dec. 12, 2024		
4	PSG Analog Signal Generator	Agilent	E8257D	MY46521908	Dec. 12, 2024		
5	EXG Analog Signal Generator	Keysight	N5173B	MY59100842	Dec. 12, 2024		
6	MXG Vector Signal Generator	Keysight	N5182B	MY59100212	Dec. 12, 2024		
7	USB Wideband Power Sensor	Keysight	U2021XA	MY55130004	Mar. 21, 2025		
8	USB Wideband Power Sensor	Keysight	U2021XA	MY55130006	Mar. 21, 2025		
9	Wideband Radio Communication Tester	R&S	CMW500	102414	Dec. 12, 2024		
10	High and low temperature test chamber	ESPEC	MT3035	/	Mar. 21, 2025		

Radiated Emission (3m chamber 3)						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until	
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9163	01026	Dec. 18, 2024	
2	Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-647	Dec. 01, 2024	
3	Test Receiver	Keysight	N9038A	MY56400071	Dec. 12, 2024	
4	Broadband Amplifier	SCHWARZBECK	BBV9743B	259	Dec. 12, 2024	
5	Mirowave Broadband Amplifier	SCHWARZBECK	BBV9718C	111	Dec. 12, 2024	
6	3m chamber 3	YIHENG	EE106	/	Aug. 28, 2026	
7	Test Software	FARA	EZ-EMC	FA-03A2	/	

Condu	ucted Emission				
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until
1	LISN	R&S	ENV216	101112	Dec. 12, 2024
2	LISN	R&S	ENV216	101113	Dec. 12, 2024
3	EMI Test Receiver	R&S	ESCS30	100353	Dec. 12, 2024
4	ISN CAT6	Schwarzbeck	NTFM 8158	CAT6-8158-0046	Dec. 12, 2024
5	ISN CAT5	Schwarzbeck	NTFM 8158	CAT5-8158-0046	Dec. 12, 2024
6	Test Software	R&S	EMC32	6.10.10	/

Note: 1. The Cal. Interval was one year.

- 2. The Cal. Interval was three year of the chamber.
- 3. The cable loss has calculated in test result which connection between each test instruments.





# 3. TEST ITEM AND RESULTS

# 3.1. Conducted Emission

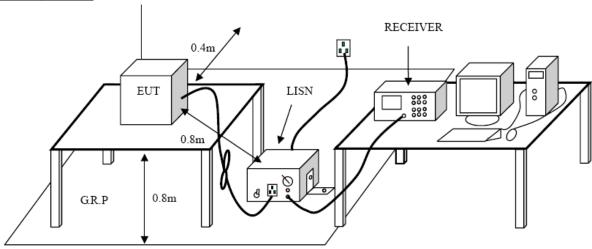
### **Limit**

# FCC CFR Title 47 Part 15 Subpart C Section 15.207/ RSS - Gen 8.8:

Frequency ronge (MHz)	Limit (dBuV)				
Frequency range (MHz)	Quasi-peak	Average			
0.15-0.5	66 to 56*	56 to 46*			
0.5-5	56	46			
5-30	60	50			

<sup>\*</sup> Decreases with the logarithm of the frequency.

# **Test Configuration**



### **Test Procedure**

- 1. The EUT was setup according to ANSI C63.10:2013 requirements.
- 2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface.
- 3. The EUT and simulators are connected to the main power through a line impedances stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment.
  - The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
- 4. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
- 5. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
- 6. Conducted Emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.
- 7. During the above scans, the emissions were maximized by cable manipulation.

## **Test Mode**

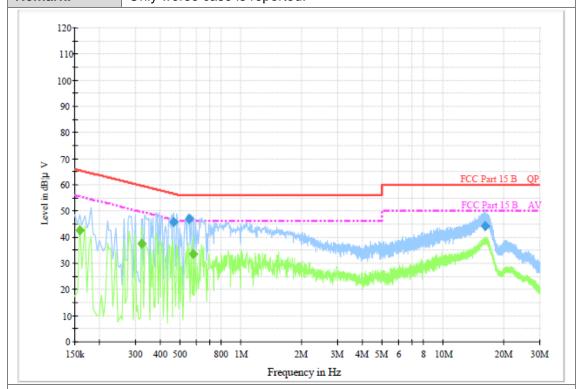
Please refer to the clause 2.4.



# **Test Results**

Test Voltage:	AC 120V/60 Hz
Terminal:	Line
Remark:	Only worse case is reported.

Report No.: CTC2024214214



# **Final Measurement Detector 1**

Frequency (MHz)	QuasiPeak (dBµ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµ V)	Comment
0.465000	46.0	1000.00	9.000	On	L1	9.5	10.6	56.6	
0.555000	47.1	1000.00	9.000	On	L1	9.5	8.9	56.0	
16.053000	44.3	1000.00	9.000	On	L1	9.7	15.7	60.0	

# Final Measurement Detector 2

Frequency (MHz)	Average (dBµ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµ V)	Comment
0.159000	42.8	1000.00	9.000	On	L1	9.5	12.7	55.5	
0.321000	37.4	1000.00	9.000	On	L1	9.5	12.3	49.7	
0.582000	33.4	1000.00	9.000	On	L1	9.5	12.6	46.0	

Emission Level= Read Level+ Correct Factor

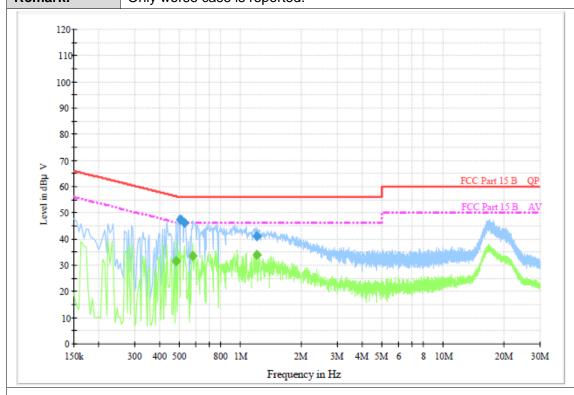


Test Voltage: AC 120V/60 Hz

Terminal: Neutral

Remark: Only worse case is reported.

Report No.: CTC2024214214



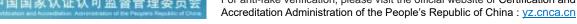
# **Final Measurement Detector 1**

	Frequency (MHz)	QuasiPeak (dBµ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµ V)	Comment
ľ	0.505500	47.4	1000.00	9.000	On	N	9.4	8.6	56.0	
	0.528000	46.1	1000.00	9.000	On	N	9.4	9.9	56.0	
	1.198500	41.2	1000.00	9.000	On	N	9.6	14.8	56.0	

# Final Measurement Detector 2

	Frequency	Average	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit	Comment
	(MHz)	(dBµ V)	Time	(kHz)			(dB)	(dB)	(dBµ	
			(ms)						`V)	
	0.478500	31.4	1000.00	9.000	On	N	9.4	15.0	46.4	
	0.582000	33.6	1000.00	9.000	On	N	9.4	12.4	46.0	
[	1.198500	33.8	1000.00	9.000	On	Ν	9.6	13.2	46.0	

Emission Level= Read Level+ Correct Factor





# 3.2. Radiated Emission

### **Limit**

### FCC CFR Title 47 Part 15 Subpart C Section 15.209/ RSS-Gen 8.9

Frequency	Limit (dBuV/m @3m)	Value
30 MHz ~ 88 MHz	40.00	Quasi-peak
88 MHz ~ 216 MHz	43.50	Quasi-peak
216 MHz ~ 960 MHz	46.00	Quasi-peak
960 MHz ~ 1 GHz	54.00	Quasi-peak
Above 1 GHz	54.00	Average
Above I GHZ	74.00	Peak

#### Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level (dBuV/m)= 20log Emission Level (uV/m).

## Limits of unwanted emission out of the restricted bands

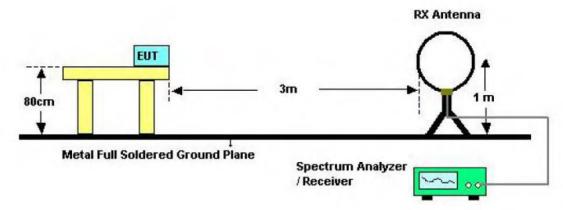
### FCC CFR Title 47 Part 15 Subpart C Section 15.407(b)/ RSS-247 6.2.1.2 & RSS-247 6.2.4.2

Frequency (MHz)	EIRP Limits (dBm)	Equivalent Field Strength at 3m (dBuV/m)		
5150~5250	-27	68.2		
5250~5350	-27	68.2		
5470~5725	-27	68.2		
	-27(Note 2)	68.2		
E70E E00E	10(Note 2)	105.2		
5725~5825	15.6(Note 2)	110.8		
	27(Note 2)	122.2		

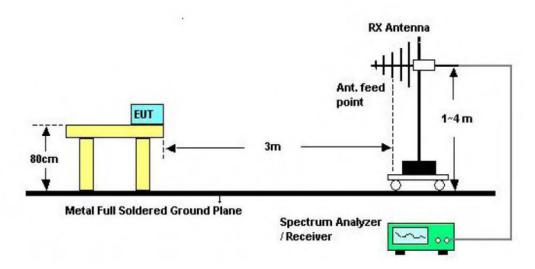
Note: 1. The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:  $E = \frac{1000000\sqrt{30P}}{3}$  uV/m, where P is the eirp (Watts)

2. According to FCC 16-24, 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 25MHz 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 27dBm/MHz at the band edge.

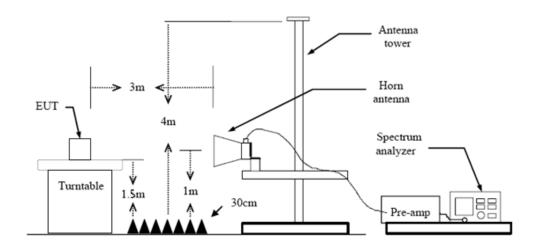
For anti-fake verification, please visit the official website of Certification and Accreditation Administration of the People's Republic of China: <a href="mailto:yz.cnca.cn">yz.cnca.cn</a>



Below 30MHz Test Setup



Below 1000MHz Test Setup



Above 1GHz Test Setup

# **Test Procedure**

- 1. The EUT was setup and tested according to ANSI C63.10:2013
- 2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.



3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower.

Report No.: CTC2024214214

- 4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
- 5. Set to the maximum power setting and enable the EUT transmit continuously.
- 6. Use the following spectrum analyzer settings
  - (1) Span shall wide enough to fully capture the emission being measured;
  - (2) Below 1 GHz:

RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold;

If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

(3) From 1 GHz to 10th harmonic:

RBW=1MHz, VBW=3MHz Peak detector for Peak value.

RBW=1MHz, VBW≥1/T Peak detector for Average value.

Note 1: For the 1/T& Duty Cycle please refer to clause Duty Cycle.

# **Test Mode**

Please refer to the clause 2.4.

### **Test Result**

#### 9 KHz~30 MHz

From 9 KHz to 30 MHz: Conclusion: PASS

Note: The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



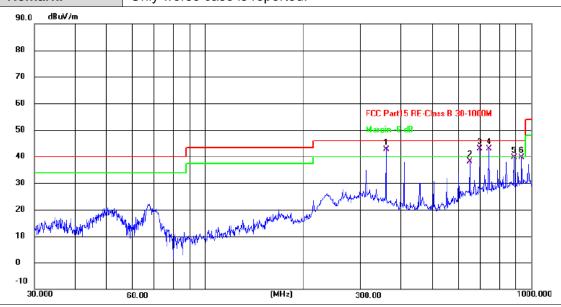


Ant. Pol.: Horizontal

Test Mode: TX 802.11a Mode 5180MHz (U-NII-1)

Report No.: CTC2024214214

**Remark:** Only worse case is reported.



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1!	359.1860	56.67	-14.08	42.59	46.00	-3.41	QP
2	647.3855	44.77	-6.74	38.03	46.00	-7.97	QP
3 *	694.4174	49.01	-6.06	42.95	46.00	-3.05	QP
4 !	742.2587	47.75	-4.95	42.80	46.00	-3.20	QP
5	887.6097	42.41	-2.84	39.57	46.00	-6.43	QP
6	935.5462	41.73	-1.99	39.74	46.00	-6.26	QP

# Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

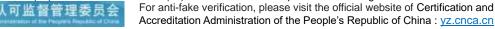


Ant. Pol.: Vertical **Test Mode:** TX 802.11a Mode 5180MHz (U-NII-1) Remark: Only worse case is reported. dBuV/m 90.0 80 70 60 FCC Part 5 RE-Cl 50 40 30 20 10 0 -10 (MHz) 1000.000 30.000 60.00 300.00

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	49.7068	45.16	-16.40	28.76	40.00	-11.24	QP
2	600.0367	45.91	-7.71	38.20	46.00	-7.80	QP
3!	647.3856	46.76	-6.74	40.02	46.00	-5.98	QP
4 *	694.4174	50.45	-6.06	44.39	46.00	-1.61	QP
5	742.2587	41.68	-4.95	36.73	46.00	-9.27	QP
6	935.5463	41.14	-1.99	39.15	46.00	-6.85	QP

### Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor





### **Above 1GHz**

Ant. Pol.:	Horizonta	ļ			
Test Mode:	TX 802.1	a Mode 518	OMHz (U-NII-	1)	
Remark:		eport for the emission which more than 10 dB below the cribed limit.			below the
100.0 dBuV/m					
			F	CC Part15 Class C 3M A	bove-1G Peak
	2				
	Ž X			FCC Part15 Class C 3M	Above-1G AV
50					
	*				
0.0					
1000.000 4900.00	8800.00 12700	.00 16600.00	20500.00 24400.0	0 28300.00 3220	0.00 40000.00 M

1	No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
	1	10359.633	6.64	37.59	44.23	54.00	-9.77	AVG
	2	10360.033	6.64	51.05	57.69	74.00	-16.31	peak

# Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



Ant. Pol.: Vertical **Test Mode:** TX 802.11a Mode 5180MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)		Level (dBuV/m)		Margin (dB)	Detector
1	10359.952	6.64	50.62	57.26	74.00	-16.74	peak
2	10359.974	6.64	37.39	44.03	54.00	-9.97	AVG

16600.00 20500.00

24400.00

28300.00

32200.00

40000.00 MHz

# Remarks:

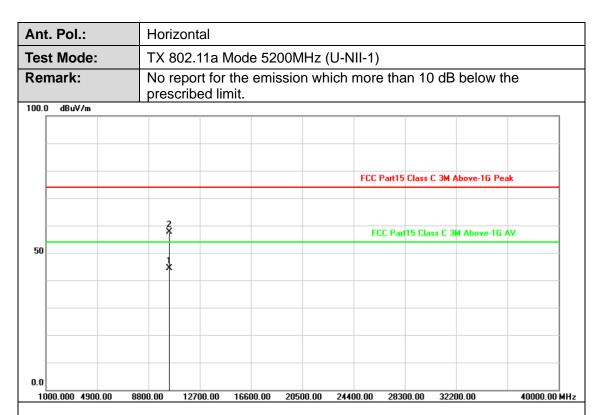
1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00





No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10399.755	6.76	37.57	44.33	54.00	-9.67	AVG
2	10399.888	6.76	50.90	57.66	74.00	-16.34	peak

# Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

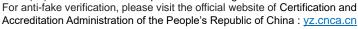


Ant. Pol.: Vertical **Test Mode:** TX 802.11a Mode 5200MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50 1000.000 4900.00 8800.00 12700.00 16600.00 28300.00 32200.00 40000.00 MHz 20500.00 24400.00

	No.	Frequency (MHz)			Level (dBuV/m)		Margin (dB)	Detector
	1	10400.230	6.76	49.47	56.23	74.00	-17.77	peak
Г	2	10400.412	6.76	37.77	44.53	54.00	-9.47	AVG

# Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



40000.00 MHz

32200.00



Ant. Pol.: Horizontal **Test Mode:** TX 802.11a Mode 5240MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10480.121	6.99	50.33	57.32	74.00	-16.68	peak
2	10480.201	6.99	37.67	44.66	54.00	-9.34	AVG

12700.00 16600.00 20500.00 24400.00 28300.00

### Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

32200.00

40000.00 MHz



Ant. Pol.: Vertical **Test Mode:** TX 802.11a Mode 5240MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

	No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
	1	10479.201	6.99	49.24	56.23	74.00	-17.77	peak
Г	2	10480.142	6.99	36.27	43.26	54.00	-10.74	AVG

20500.00

24400.00

28300.00

# Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

12700.00

32200.00

40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11n(HT20) Mode 5180MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10360.125	6.64	37.72	44.36	54.00	-9.64	AVG
2	10360.362	6.64	49.53	56.17	74.00	-17.83	peak

20500.00

24400.00

28300.00

# Remarks:

1000.000 4900.00

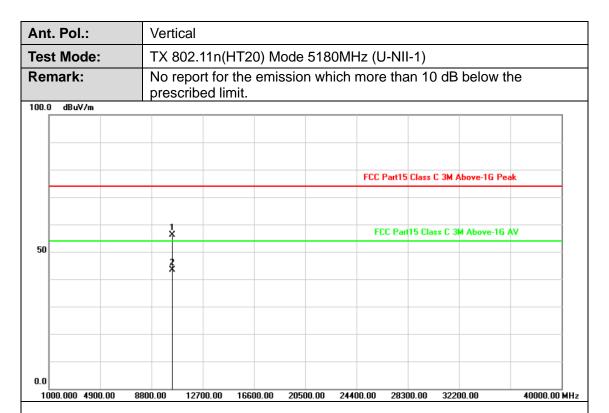
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

12700.00

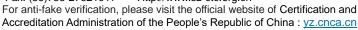




No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10360.412	6.64	49.59	56.23	74.00	-17.77	peak
2	10360.452	6.64	36.62	43.26	54.00	-10.74	AVG

# Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11n(HT20) Mode 5200MHz (U-NII-1) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50 0.0

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10400.125	6.76	37.36	44.12	54.00	-9.88	AVG
2	10400.548	6.76	49.57	56.33	74.00	-17.67	peak

20500.00

24400.00

28300.00

32200.00

#### Remarks:

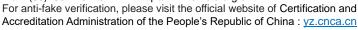
1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

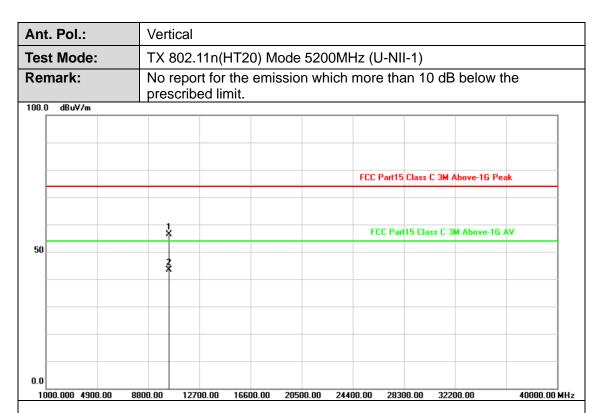
2.Margin value = Level -Limit value

8800.00

12700.00







No.	Frequency (MHz)	Factor (dB/m)		Level (dBuV/m)		Margin (dB)	Detector
1	10399.421	6.75	49.57	56.32	74.00	-17.68	peak
2	10400.423	6.76	36.50	43.26	54.00	-10.74	AVG

#### Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11n(HT20) Mode 5240MHz (U-NII-1) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10480.298	6.99	38.37	45.36	54.00	-8.64	AVG
2	10480.317	6.99	50.24	57.23	74.00	-16.77	peak

12700.00 16600.00 20500.00 24400.00 28300.00 32200.00

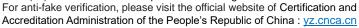
### Remarks:

0.0

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value





Ant. Pol.: Vertical **Test Mode:** TX 802.11n(HT20) Mode 5240MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50 0.0

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10479.865	6.99	49.23	56.22	74.00	-17.78	peak
2	10479.953	6.99	36.13	43.12	54.00	-10.88	AVG

12700.00 16600.00 20500.00 24400.00 28300.00

32200.00

40000.00 MHz

#### Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11ac(VHT20) Mode 5180MHz (U-NII-1) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV

No.	Frequency (MHz)	Factor (dB/m)			Limit (dBuV/m)	Margin (dB)	Detector
1	10359.845	6.64	38.02	44.66	54.00	-9.34	AVG
2	10359.969	6.64	50.62	57.26	74.00	-16.74	peak

20500.00

24400.00

28300.00

# Remarks:

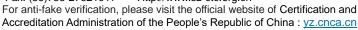
1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

12700.00





Ant. Pol.: Vertical **Test Mode:** TX 802.11ac(VHT20) Mode 5180MHz (U-NII-1) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10360.120	6.64	36.99	43.63	54.00	-10.37	AVG
2	10360.230	6.64	49.32	55.96	74.00	-18.04	peak

20500.00

24400.00

28300.00

32200.00

40000.00 MHz

# Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

12700.00



Ant. Pol.: Horizontal **Test Mode:** TX 802.11ac(VHT20) Mode 5200MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10399.895	6.76	37.86	44.62	54.00	-9.38	AVG
2	10400.455	6.76	50.93	57.69	74.00	-16.31	peak

20500.00 24400.00 28300.00

32200.00

40000.00 MHz

### Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

12700.00

32200.00

24400.00 28300.00

40000.00 MHz



Ant. Pol.: Vertical **Test Mode:** TX 802.11ac(VHT20) Mode 5200MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)		Limit (dBuV/m)	Margin (dB)	Detector
1	10399.282	6.75	49.52	56.27	74.00	-17.73	peak
2	10400.417	6.76	35.26	42.02	54.00	-11.98	AVG

16600.00 20500.00

#### Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00



Ant. Pol.: Horizontal **Test Mode:** TX 802.11ac(VHT20) Mode 5240MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10479.996	6.99	37.63	44.62	54.00	-9.38	AVG
2	10480.120	6.99	50.64	57.63	74.00	-16.37	peak

12700.00 16600.00 20500.00 24400.00 28300.00

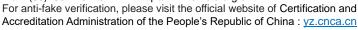
32200.00

40000.00 MHz

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value





Ant. Pol.: Vertical **Test Mode:** TX 802.11ac(VHT20) Mode 5240MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10480.263	6.99	48.27	55.26	74.00	-18.74	peak
2	10480.412	6.99	36.37	43.36	54.00	-10.64	AVG

20500.00

24400.00

28300.00

32200.00

40000.00 MHz

# Remarks:

0.0

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

12700.00

40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11n(HT40) Mode 5190MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10379.865	6.70	37.96	44.66	54.00	-9.34	AVG
2	10380.003	6.70	50.91	57.61	74.00	-16.39	peak

12700.00 16600.00 20500.00 24400.00 28300.00 32200.00

0.0

1000.000 4900.00

8800.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



Ant. Pol.: Vertical **Test Mode:** TX 802.11n(HT40) Mode 5190MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 0.0 1000.000 4900.00 8800.00 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10379.120	6.70	48.42	55.12	74.00	-18.88	peak
2	10379.412	6.70	36.33	43.03	54.00	-10.97	AVG

# Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

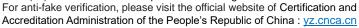


Ant. Pol.: Horizontal **Test Mode:** TX 802.11n(HT40) Mode 5230MHz (U-NII-1) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50 0.0 1000.000 4900.00 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10459.855	6.94	50.68	57.62	74.00	-16.38	peak
2	10459.895	6.94	37.69	44.63	54.00	-9.37	AVG

# Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



32200.00

40000.00 MHz



Ant. Pol.: Vertical **Test Mode:** TX 802.11n(HT40) Mode 5230MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10460.012	6.94	36.09	43.03	54.00	-10.97	AVG
2	10460.122	6.94	49.39	56.33	74.00	-17.67	peak

20500.00

24400.00

28300.00

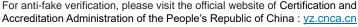
# Remarks:

1000.000 4900.00

- 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 2.Margin value = Level -Limit value

8800.00

12700.00



40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11ac(VHT40) Mode 5190MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10379.893	6.70	50.88	57.58	74.00	-16.42	peak
2	10380.208	6.70	38.41	45.11	54.00	-8.89	AVG

12700.00 16600.00 20500.00 24400.00 28300.00 32200.00

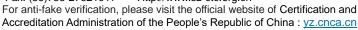
## Remarks:

0.0

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value



40000.00 MHz



Ant. Pol.: Vertical **Test Mode:** TX 802.11ac(VHT40) Mode 5190MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10379.865	6.70	48.53	55.23	74.00	-18.77	peak
2	10380.230	6.70	36.56	43.26	54.00	-10.74	AVG

20500.00

24400.00

28300.00

# Remarks:

1000.000 4900.00

8800.00

12700.00

16600.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11ac(VHT40) Mode 5230MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

	No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
	1	10459.869	6.94	37.68	44.62	54.00	-9.38	AVG
ſ	2	10460.362	6.94	50.20	57.14	74.00	-16.86	peak

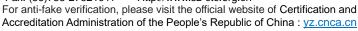
12700.00 16600.00 20500.00 24400.00 28300.00 32200.00

## Remarks:

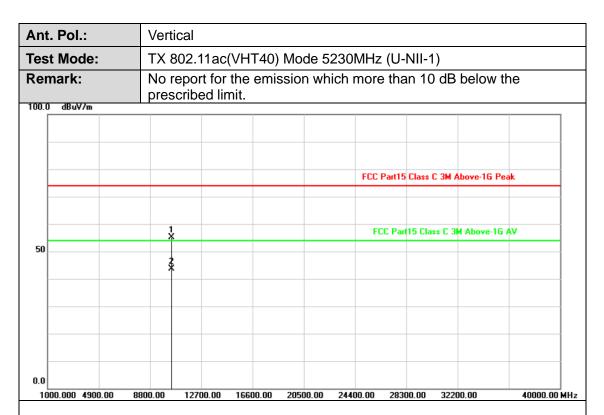
1000.000 4900.00

8800.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







No.	Frequency (MHz)			Level (dBuV/m)		Margin (dB)	Detector
1	10459.861	6.94	48.19	55.13	74.00	-18.87	peak
2	10459.865	6.94	36.68	43.62	54.00	-10.38	AVG

### Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11ac(VHT80) Mode 5210MHz (U-NII-1) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10420.003	6.82	48.32	55.14	74.00	-18.86	peak
2	10420.120	6.82	37.54	44.36	54.00	-9.64	AVG

20500.00

24400.00

28300.00

32200.00

# Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

12700.00

40000.00 MHz



Ant. Pol.: Vertical **Test Mode:** TX 802.11ac(VHT80) Mode 5210MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)			Level (dBuV/m)		Margin (dB)	Detector
1	10420.020	6.82	36.44	43.26	54.00	-10.74	AVG
2	10420.110	6.82	49.29	56.11	74.00	-17.89	peak

12700.00 16600.00 20500.00 24400.00 28300.00 32200.00

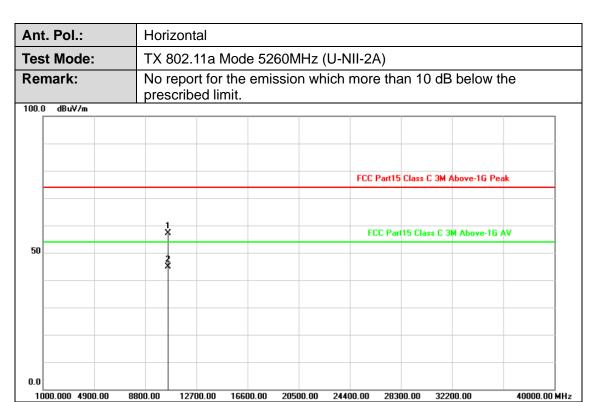
### Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

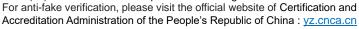




No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10519.985	7.10	50.03	57.13	74.00	-16.87	peak
2	10520.360	7.10	37.77	44.87	54.00	-9.13	AVG

# Remarks:

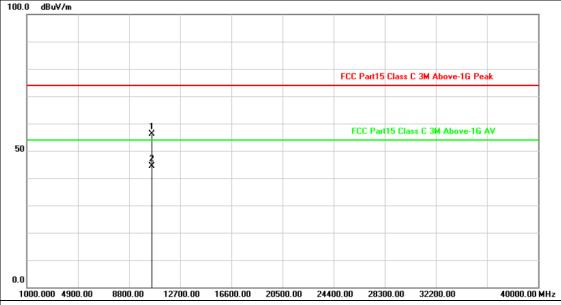
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor





Ant. Pol.: Vertical **Test Mode:** TX 802.11a Mode 5260MHz (U-NII-2A) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m

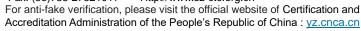
Report No.: CTC2024214214



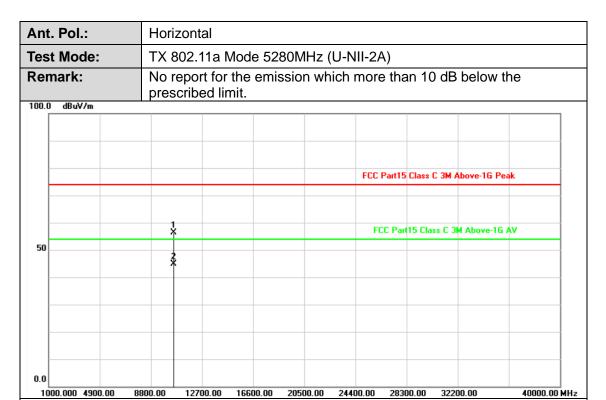
No.	Frequency (MHz)	Factor (dB/m)		Level (dBuV/m)		Margin (dB)	Detector
1	10519.631	7.10	49.13	56.23	74.00	-17.77	peak
2	10520.152	7.10	37.16	44.26	54.00	-9.74	AVG

# Remarks:

- 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 2.Margin value = Level -Limit value



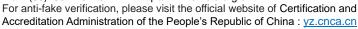




No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10559.899	7.17	49.14	56.31	74.00	-17.69	peak
2	10559.955	7.17	37.78	44.95	54.00	-9.05	AVG

### Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor





Ant. Pol.: Vertical **Test Mode:** TX 802.11a Mode 5280MHz (U-NII-2A) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10559.152	7.17	36.08	43.25	54.00	-10.75	AVG
2	10559.562	7.17	49.06	56.23	74.00	-17.77	peak

20500.00

24400.00

28300.00

32200.00

40000.00 MHz

# Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

12700.00

40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11a Mode 5320MHz (U-NII-2A) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10639.865	7.35	35.91	43.26	54.00	-10.74	AVG
2	10640.032	7.35	50.50	57.85	74.00	-16.15	peak

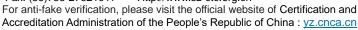
12700.00 16600.00 20500.00 24400.00 28300.00 32200.00

## Remarks:

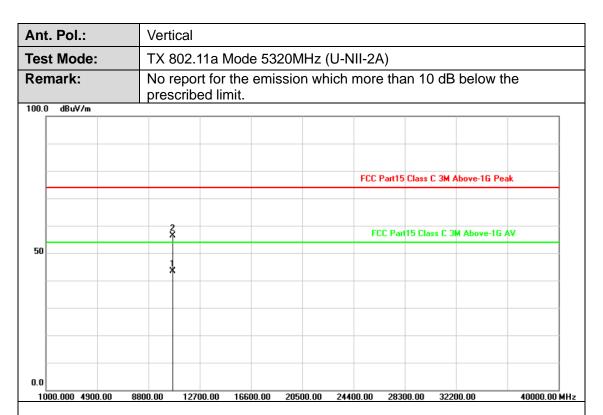
1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value



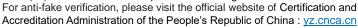




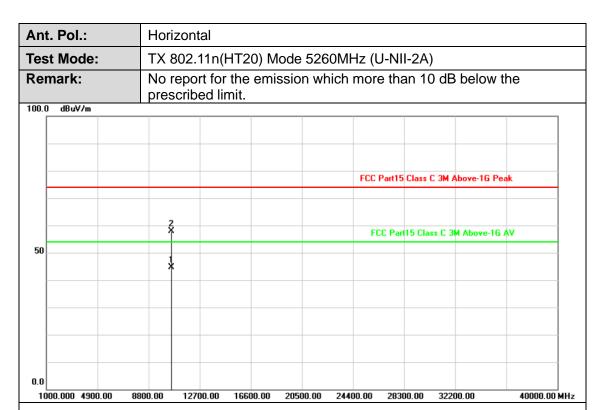
No.	Frequency (MHz)		Reading (dBuV)			Margin (dB)	Detector
1	10640.152	7.35	35.91	43.26	54.00	-10.74	AVG
2	10640.415	7.35	48.97	56.32	74.00	-17.68	peak

### Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10520.120	7.10	37.52	44.62	54.00	-9.38	AVG
2	10520.122	7.10	50.79	57.89	74.00	-16.11	peak

# Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value

CTC Laboratories, Inc.

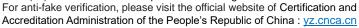


Ant. Pol.: Vertical **Test Mode:** TX 802.11n(HT20) Mode 5260MHz (U-NII-2A) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50 1000.000 4900.00 8800.00 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10519.626	7.10	48.92	56.02	74.00	-17.98	peak
2	10520.452	7.10	36.13	43.23	54.00	-10.77	AVG

### Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11n(HT20) Mode 5280MHz (U-NII-2A) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10559.895	7.17	49.16	56.33	74.00	-17.67	peak
2	10560.865	7.18	36.82	44.00	54.00	-10.00	AVG

16600.00 20500.00 24400.00 28300.00 32200.00

## Remarks:

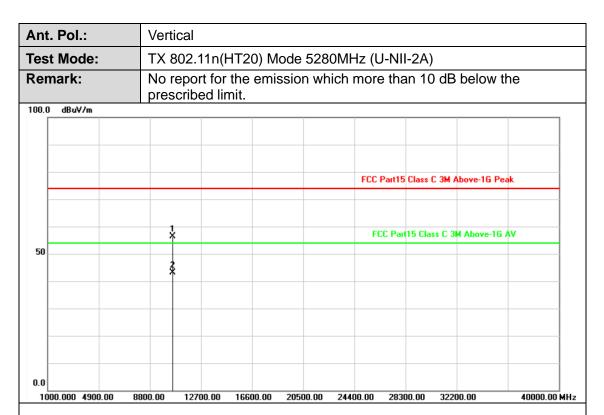
1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00





No.	Frequency (MHz)	Factor (dB/m)		Level (dBuV/m)			Detector
1	10559.623	7.17	49.15	56.32	74.00	-17.68	peak
2	10560.415	7.17	35.86	43.03	54.00	-10.97	AVG

# Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11n(HT20) Mode 5320MHz (U-NII-2A) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10640.026	7.35	37.01	44.36	54.00	-9.64	AVG
2	10640.110	7.35	50.27	57.62	74.00	-16.38	peak

12700.00 16600.00 20500.00 24400.00 28300.00 32200.00

0.0

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

40000.00 MHz



Ant. Pol.:

Test Mode: TX 802.11n(HT20) Mode 5320MHz (U-NII-2A)

Remark: No report for the emission which more than 10 dB below the prescribed limit.

100.0 dBuV/m

FCC Part15 Class C 3M Above-1G Peak

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10639.412	7.35	48.88	56.23	74.00	-17.77	peak
2	10639.895	7.35	35.91	43.26	54.00	-10.74	AVG

20500.00

24400.00

28300.00

32200.00

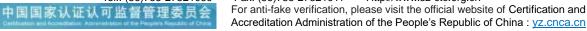
# Remarks:

1000.000 4900.00

- 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 2.Margin value = Level -Limit value

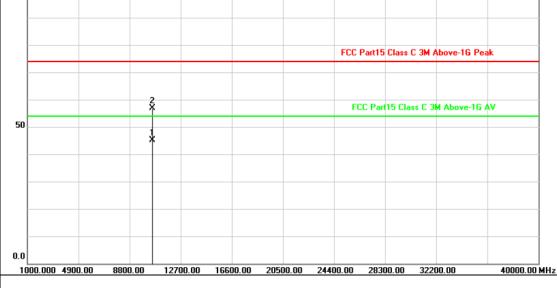
8800.00

12700.00





Ant. Pol.: Horizontal **Test Mode:** TX 802.11ac(VHT20) Mode 5260MHz (U-NII-2A) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10519.801	7.10	38.02	45.12	54.00	-8.88	AVG
2	10519.935	7.10	49.85	56.95	74.00	-17.05	peak

# Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

32200.00

40000.00 MHz



Ant. Pol.: Vertical **Test Mode:** TX 802.11ac(VHT20) Mode 5260MHz (U-NII-2A) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10519.963	7.10	49.22	56.32	74.00	-17.68	peak
2	10520.453	7.10	36.59	43.69	54.00	-10.31	AVG

20500.00

24400.00

28300.00

# Remarks:

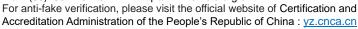
1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

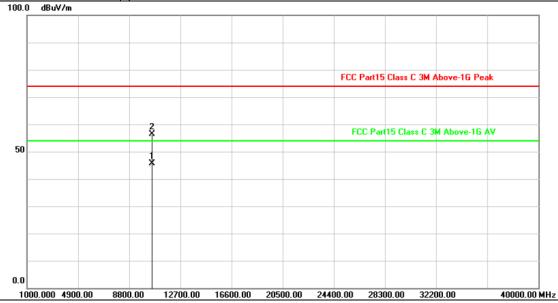
8800.00

12700.00





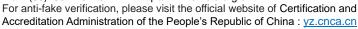
Ant. Pol.: Horizontal **Test Mode:** TX 802.11ac(VHT20) Mode 5280MHz (U-NII-2A) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m



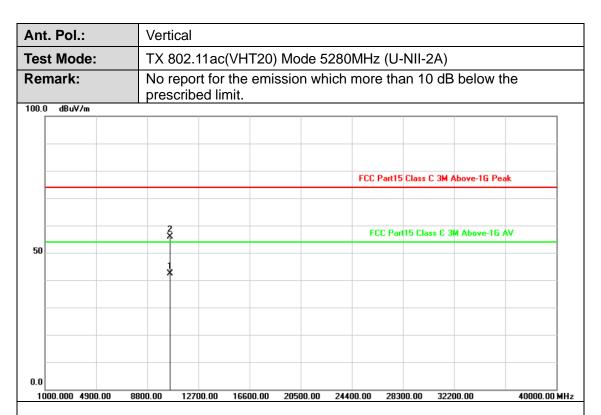
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10560.102	7.17	38.49	45.66	54.00	-8.34	AVG
2	10560.212	7.17	49.19	56.36	74.00	-17.64	peak

### Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







No.	Frequency (MHz)			Level (dBuV/m)		Margin (dB)	Detector
1	10559.346	7.17	35.09	42.26	54.00	-11.74	AVG
2	10559.580	7.17	48.69	55.86	74.00	-18.14	peak

### Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



Ant. Pol.: Horizontal **Test Mode:** TX 802.11ac(VHT20) Mode 5320MHz (U-NII-2A) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10639.748	7.35	48.97	56.32	74.00	-17.68	peak
2	10639.996	7.35	37.31	44.66	54.00	-9.34	AVG

20500.00

24400.00

28300.00

32200.00

40000.00 MHz

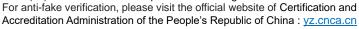
1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

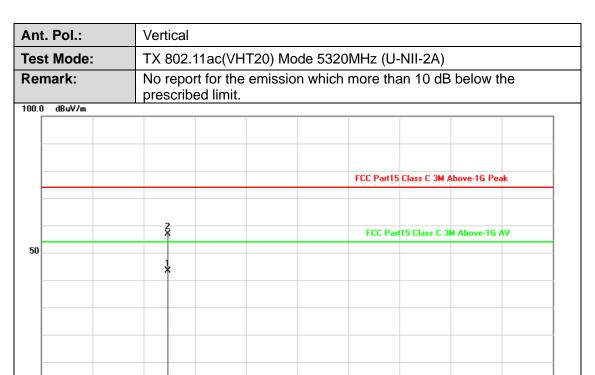
2.Margin value = Level -Limit value

8800.00

12700.00







No.	Frequency (MHz)	Factor (dB/m)		Level (dBuV/m)		Margin (dB)	Detector
1	10639.596	7.35	35.96	43.31	54.00	-10.69	AVG
2	10640.141	7.35	49.45	56.80	74.00	-17.20	peak

20500.00

24400.00

28300.00

32200.00

40000.00 MHz

# Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

12700.00



Ant. Pol.: Horizontal **Test Mode:** TX 802.11n(HT40) Mode 5270MHz (U-NII-2A) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	10539.895	7.15	49.87	57.02	74.00	-16.98	peak
2	10540.006	7.15	37.40	44.55	54.00	-9.45	AVG

20500.00

24400.00

32200.00

40000.00 MHz

0.0

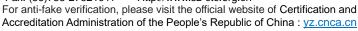
1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

12700.00



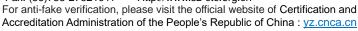


Ant. Pol.: Vertical **Test Mode:** TX 802.11n(HT40) Mode 5270MHz (U-NII-2A) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50 1000.000 4900.00 8800.00 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz

	No.	Frequency (MHz)	Factor (dB/m)	_	Level (dBuV/m)		Margin (dB)	Detector
	1	10539.415	7.15	49.15	56.30	74.00	-17.70	peak
ſ	2	10540.152	7.15	36.30	43.45	54.00	-10.55	AVG

# Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor





Ant. Pol.: Horizontal **Test Mode:** TX 802.11n(HT40) Mode 5310MHz (U-NII-2A) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)		Limit (dBuV/m)	Margin (dB)	Detector
1	10619.938	7.30	49.04	56.34	74.00	-17.66	peak
2	10620.025	7.30	37.03	44.33	54.00	-9.67	AVG

16600.00 20500.00 24400.00 28300.00

32200.00

40000.00 MHz

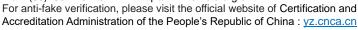
## Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00



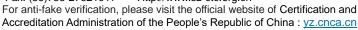


Ant. Pol.: Vertical **Test Mode:** TX 802.11n(HT40) Mode 5310MHz (U-NII-1) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 1000.000 4900.00 40000.00 MHz 8800.00 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00

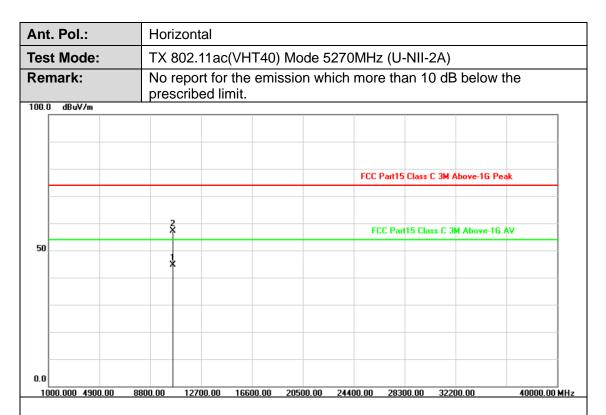
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10619.856	7.30	35.71	43.01	54.00	-10.99	AVG
2	10619.912	7.30	49.03	56.33	74.00	-17.67	peak

# Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor





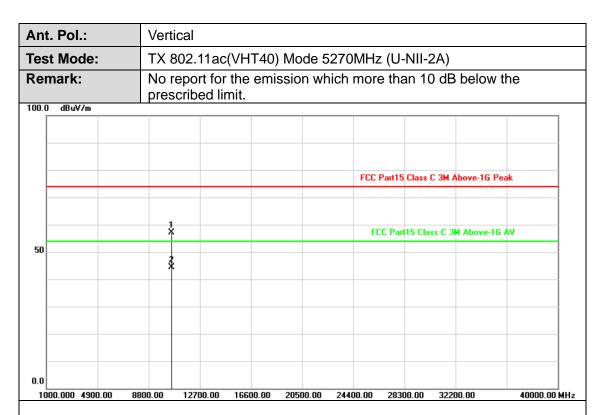


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10539.895	7.15	37.51	44.66	54.00	-9.34	AVG
2	10540.859	7.15	49.96	57.11	74.00	-16.89	peak

# Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor





No.	Frequency (MHz)			Level (dBuV/m)			Detector
1	10540.023	7.15	50.05	57.20	74.00	-16.80	peak
2	10540.135	7.15	37.11	44.26	54.00	-9.74	AVG

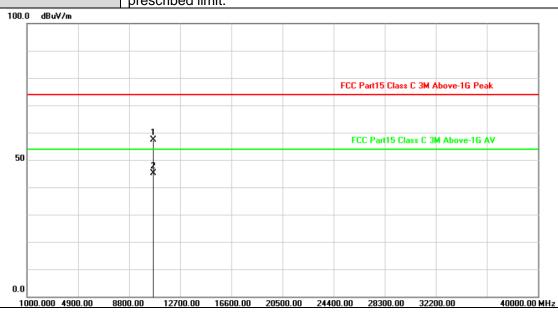
### Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



Ant. Pol.: Horizontal **Test Mode:** TX 802.11ac(VHT40) Mode 5310MHz (U-NII-2A) No report for the emission which more than 10 dB below the Remark: prescribed limit.

Report No.: CTC2024214214



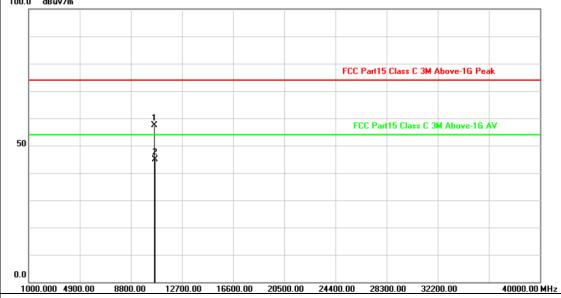
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	10620.016	7.30	50.03	57.33	74.00	-16.67	peak
2	10620.102	7.30	37.80	45.10	54.00	-8.90	AVG

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



Ant. Pol.: Vertical **Test Mode:** TX 802.11ac(VHT40) Mode 5310MHz (U-NII-2A) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m

Report No.: CTC2024214214



No.	Frequency (MHz)			Level (dBuV/m)			Detector
1	10619.865	7.30	50.02	57.32	74.00	-16.68	peak
2	10620.541	7.30	37.65	44.95	54.00	-9.05	AVG

## Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11ac(VHT80) Mode 5290MHz (U-NII-2A) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV

No.	Frequency (MHz)	Factor (dB/m)	_	Level (dBuV/m)		Margin (dB)	Detector
1	10579.985	7.21	49.12	56.33	74.00	-17.67	peak
2	10580.032	7.21	37.94	45.15	54.00	-8.85	AVG

20500.00

24400.00 28300.00

## Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

12700.00

40000.00 MHz



Ant. Pol.: Vertical **Test Mode:** TX 802.11ac(VHT80) Mode 5290MHz (U-NII-2A) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)			Level (dBuV/m)		Margin (dB)	Detector
1	10579.895	7.21	36.94	44.15	54.00	-9.85	AVG
2	10580.132	7.21	49.90	57.11	74.00	-16.89	peak

16600.00 20500.00 24400.00

28300.00

32200.00

## Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11a Mode 5745MHz (U-NII-3) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50 0.0

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11490.125	7.44	48.88	56.32	74.00	-17.68	peak
2	11490.415	7.44	36.22	43.66	54.00	-10.34	AVG

12700.00 16600.00 20500.00 24400.00 28300.00 32200.00

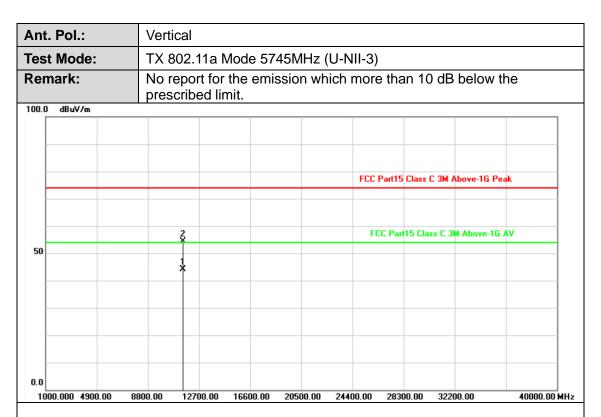
### Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value





No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)		Limit (dBuV/m)	Margin (dB)	Detector
1	11489.152	7.44	36.79	44.23	54.00	-9.77	AVG
2	11489.426	7.44	46.82	54.26	74.00	-19.74	peak

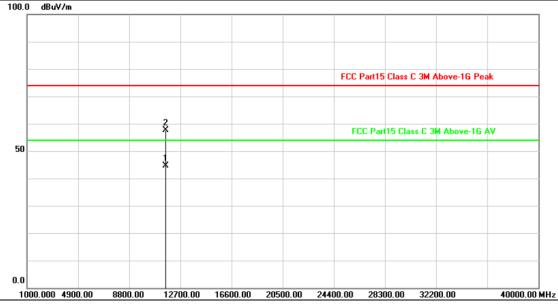
## Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



Ant. Pol.: Horizontal **Test Mode:** TX 802.11a Mode 5785MHz (U-NII-3) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m

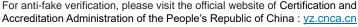
Report No.: CTC2024214214



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11569.865	7.39	37.27	44.66	54.00	-9.34	AVG
2	11569.886	7.39	50.24	57.63	74.00	-16.37	peak

## Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



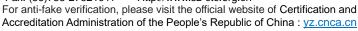


Ant. Pol.: Vertical **Test Mode:** TX 802.11a Mode 5785MHz (U-NII-3) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 1000.000 4900.00 8800.00 12700.00 16600.00 20500.00 24400.00 40000.00 MHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11569.895	7.39	48.84	56.23	74.00	-17.77	peak
2	11570.854	7.39	35.87	43.26	54.00	-10.74	AVG

## Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11a Mode 5825MHz (U-NII-3) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11649.619	7.34	48.19	55.53	74.00	-18.47	peak
2	11650.147	7.33	37.30	44.63	54.00	-9.37	AVG

12700.00 16600.00 20500.00 24400.00 28300.00 32200.00

## Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin\_value = Level -Limit value



Ant. Pol.: Vertical **Test Mode:** TX 802.11a Mode 5825MHz (U-NII-3) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50 0.08800.00 1000.000 4900.00 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz

No.	Frequency (MHz)			Level (dBuV/m)			Detector
1	11649.562	7.34	48.98	56.32	74.00	-17.68	peak
2	11650.152	7.33	35.90	43.23	54.00	-10.77	AVG

### Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



Ant. Pol.: Horizontal

Test Mode: TX 802.11n(HT20) Mode 5745MHz (U-NII-3)

Remark: No report for the emission which more than 10 dB below the prescribed limit.

100.0 dBuV/m

FCC Part15 Class C 3M Above-16 Peak

50

FCC Part15 Class C 3M Above-16 AV

No.	Frequency (MHz)			Level (dBuV/m)	Limit (dBuV/m)		Detector
1	11490.135	7.44	49.51	56.95	74.00	-17.05	peak
2	11490.369	7.44	37.30	44.74	54.00	-9.26	AVG

20500.00 24400.00 28300.00

32200.00

40000.00 MHz

## Remarks:

0.0

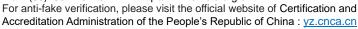
1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

12700.00





Ant. Pol.: Vertical **Test Mode:** TX 802.11n(HT20) Mode 5745MHz (U-NII-3) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11489.939	7.44	49.27	56.71	74.00	-17.29	peak
2	11490.551	7.44	36.79	44.23	54.00	-9.77	AVG

20500.00

24400.00

32200.00

40000.00 MHz

# Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

12700.00



Ant. Pol.: Horizontal **Test Mode:** TX 802.11n(HT20) Mode 5785MHz (U-NII-3) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11569.875	7.39	37.23	44.62	54.00	-9.38	AVG
2	11570.110	7.39	50.26	57.65	74.00	-16.35	peak

20500.00 24400.00 28300.00

32200.00

40000.00 MHz

## Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

12700.00

40000.00 MHz



Ant. Pol.: Vertical **Test Mode:** TX 802.11n(HT20) Mode 5785MHz (U-NII-3) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)			Level (dBuV/m)			Detector
1	11569.152	7.39	35.87	43.26	54.00	-10.74	AVG
2	11570.263	7.39	49.71	57.10	74.00	-16.90	peak

16600.00 20500.00 24400.00

28300.00

32200.00

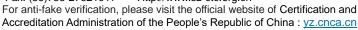
## Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

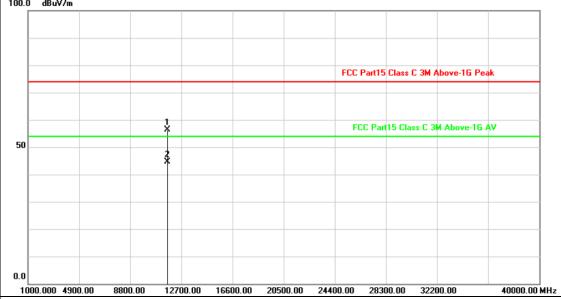
2.Margin value = Level -Limit value

8800.00





Ant. Pol.: Horizontal **Test Mode:** TX 802.11n(HT20) Mode 5825MHz (U-NII-3) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m



No.	Frequency (MHz)			Level (dBuV/m)			Detector
1	11649.962	7.34	48.99	56.33	74.00	-17.67	peak
2	11650.121	7.33	37.22	44.55	54.00	-9.45	AVG

## Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

40000.00 MHz



Ant. Pol.: Vertical **Test Mode:** TX 802.11n(HT20) Mode 5825MHz (U-NII-3) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50 0.0

No.	Frequency (MHz)		Reading (dBuV)				Detector
1	11650.142	7.33	48.90	56.23	74.00	-17.77	peak
2	11650.526	7.33	35.70	43.03	54.00	-10.97	AVG

20500.00

24400.00

28300.00

32200.00

## Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

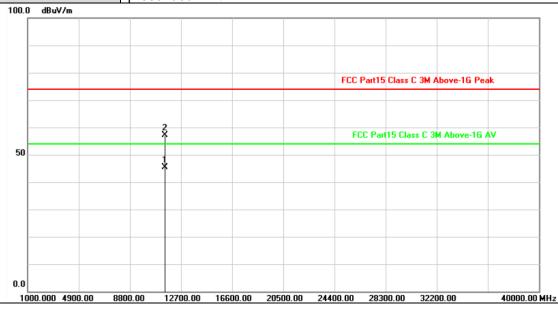
8800.00

12700.00



Ant. Pol.: Horizontal **Test Mode:** TX 802.11ac(VHT20) Mode 5745MHz (U-NII-3) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m

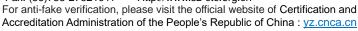
Report No.: CTC2024214214



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11489.865	7.44	37.92	45.36	54.00	-8.64	AVG
2	11490.023	7.44	49.68	57.12	74.00	-16.88	peak

## Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor





Ant. Pol.: Vertical **Test Mode:** TX 802.11ac(VHT20) Mode 5745MHz (U-NII-3) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50 1000.000 4900.00 8800.00 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11489.623	7.44	48.58	56.02	74.00	-17.98	peak
2	11489.652	7.44	36.82	44.26	54.00	-9.74	AVG

## Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value = Level -Limit value

CTC Laboratories, Inc.

40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11ac(VHT20) Mode 5785MHz (U-NII-3) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11569.899	7.39	37.94	45.33	54.00	-8.67	AVG
2	11570.763	7.39	49.87	57.26	74.00	-16.74	peak

16600.00 20500.00 24400.00 28300.00 32200.00

### Remarks:

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

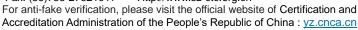


Ant. Pol.: Vertical **Test Mode:** TX 802.11ac(VHT20) Mode 5785MHz (U-NII-3) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50 1000.000 4900.00 8800.00 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11569.895	7.39	47.65	55.04	74.00	-18.96	peak
2	11569.926	7.39	36.56	43.95	54.00	-10.05	AVG

## Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11ac(VHT20) Mode 5825MHz (U-NII-3) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	11649.885	7.34	37.28	44.62	54.00	-9.38	AVG
2	11650 333	7 33	10.70	57.12	74.00	16 99	noak

16600.00 20500.00 24400.00 28300.00 32200.00

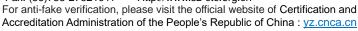
0.0

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00





Ant. Pol.: Vertical **Test Mode:** TX 802.11ac(VHT20) Mode 5825MHz (U-NII-3) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11649.896	7.34	35.92	43.26	54.00	-10.74	AVG
2	11650.451	7.33	48.30	55.63	74.00	-18.37	peak

# Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

40000.00 MHz



Ant. Pol.: Horizontal **Test Mode:** TX 802.11n(HT40) Mode 5755MHz (U-NII-3) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)		Reading (dBuV)				Detector
1	11509.858	7.43	49.83	57.26	74.00	-16.74	peak
2	11509.965	7.43	36.83	44.26	54.00	-9.74	AVG

20500.00

24400.00

28300.00

32200.00

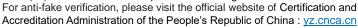
1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

8800.00

12700.00





Ant. Pol.: Vertical **Test Mode:** TX 802.11n(HT40) Mode 5755MHz (U-NII-3) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 1000.000 4900.00 8800.00 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz

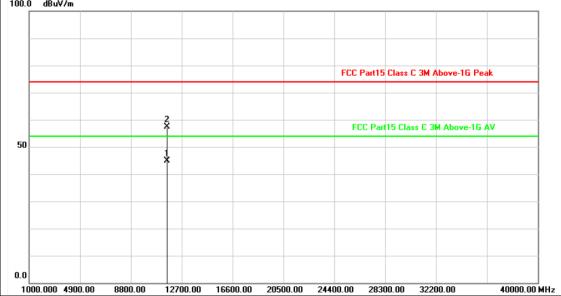
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11509.885	7.43	48.90	56.33	74.00	-17.67	peak
2	11509.956	7.43	36.59	44.02	54.00	-9.98	AVG

## Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



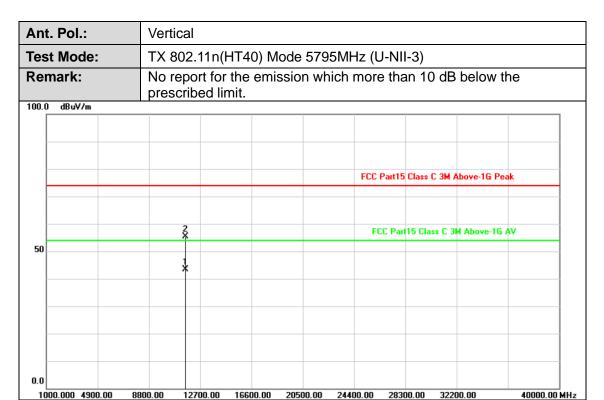
Ant. Pol.: Horizontal **Test Mode:** TX 802.11n(HT40) Mode 5795MHz (U-NII-3) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11590.023	7.37	37.48	44.85	54.00	-9.15	AVG
2	11590.120	7.37	49.99	57.36	74.00	-16.64	peak

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor





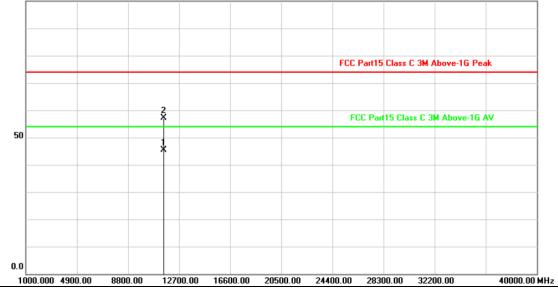
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11589.896	7.37	35.99	43.36	54.00	-10.64	AVG
2	11590.452	7.37	48.01	55.38	74.00	-18.62	peak

## Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



Ant. Pol.: Horizontal **Test Mode:** TX 802.11ac(VHT40) Mode 5755MHz (U-NII-3) Remark: No report for the emission which more than 10 dB below the prescribed limit. 100.0 dBuV/m



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11509.856	7.43	37.87	45.30	54.00	-8.70	AVG
2	11510.413	7.43	49.71	57.14	74.00	-16.86	peak

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

40000.00 MHz



Ant. Pol.: Vertical **Test Mode:** TX 802.11ac(VHT40) Mode 5755MHz (U-NII-3) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11509.878	7.43	37.42	44.85	54.00	-9.15	AVG
2	11509.895	7.43	50.20	57.63	74.00	-16.37	peak

12700.00 16600.00 20500.00 24400.00 28300.00 32200.00

## Remarks:

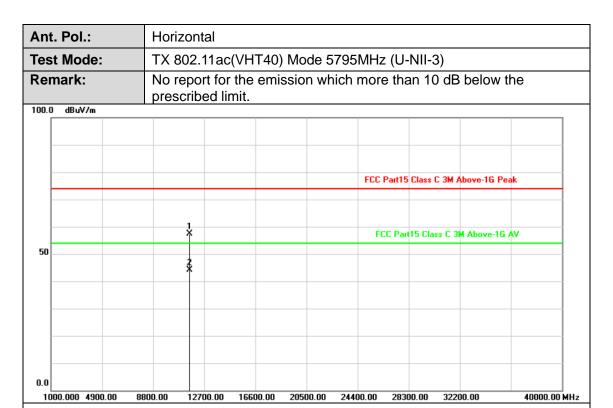
0.0

1000.000 4900.00

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor

2.Margin value = Level -Limit value

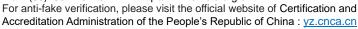




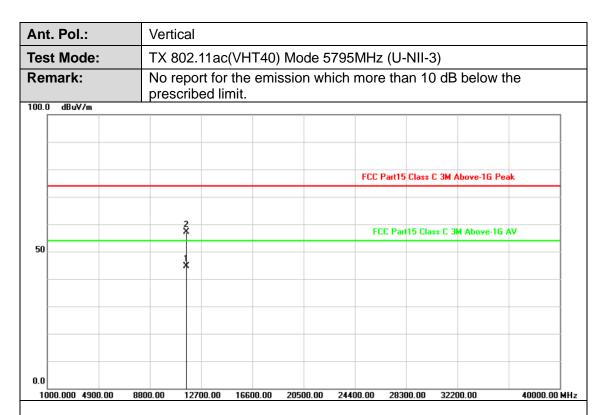
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11589.784	7.37	49.89	57.26	74.00	-16.74	peak
2	11590.487	7.37	36.75	44.12	54.00	-9.88	AVG

### Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor







No.	Frequency (MHz)	Factor (dB/m)		Level (dBuV/m)		Margin (dB)	Detector
1	11589.230	7.37	37.26	44.63	54.00	-9.37	AVG
2	11590.562	7.37	49.85	57.22	74.00	-16.78	peak

## Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor



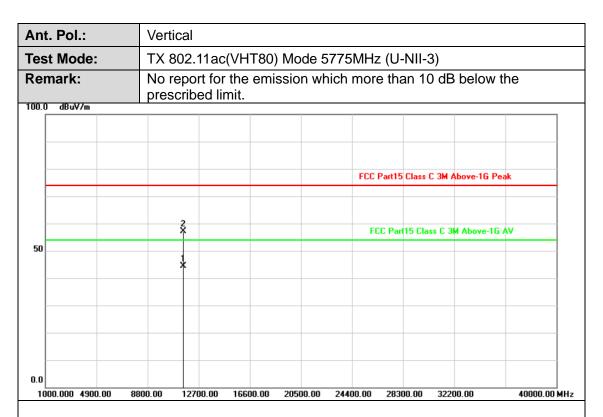
Ant. Pol.: Horizontal **Test Mode:** TX 802.11ac(VHT80) Mode 5775MHz (U-NII-3) No report for the emission which more than 10 dB below the Remark: prescribed limit. 100.0 dBuV/m FCC Part15 Class C 3M Above-1G Peak FCC Part15 Class C 3M Above-1G AV 50 0.0 1000.000 4900.00 8800.00 12700.00 16600.00 20500.00 24400.00 28300.00 32200.00 40000.00 MHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11550.016	7.39	35.87	43.26	54.00	-10.74	AVG
2	11550.260	7.39	48.85	56.24	74.00	-17.76	peak

# Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor





No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector
1	11549.980	7.40	36.86	44.26	54.00	-9.74	AVG
2	11550.011	7.39	49.75	57.14	74.00	-16.86	peak

### Remarks:

1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor