

# FCC Test Report

Report No. : 1812C50225112504

Applicant : Shenzhen Kejinming Electronic Co.,Ltd

Address 1-6F, Block B7, Yintian Industrial Park, Xixiang

Street, Bao'an Dist., Shenzhen, China

Product Name : Video projector

Report Date : 2025-07-15

**Shenzhen Anbotek Compliance Laboratory Limited** 





FCC ID: 2ATFT-J7

# **Contents**

1. General Information	6
1.1. Client Information 1.2. Description of Device (EUT) 1.3. Auxiliary Equipment Used During Test 1.4. Operation channel list 1.5. Description of Test Modes 1.6. Measurement Uncertainty 1.7. Additional Instructions 1.8. Test Summary 1.9. Description of Test Facility 1.10. Disclaimer 1.11. Test Equipment List	
2. Conducted Emission at AC power line	14
2.1. EUT Operation	14
3. Duty Cycle	17
3.1. EUT Operation 3.2. Test Setup 3.3. Test Data	17
4. Emission bandwidth and occupied bandwidth	18
4.1. EUT Operation	20
5. Maximum conducted output power	
5.1. EUT Operation	22
6. Power spectral density	23
6.1. EUT Operation	24
7. Band edge emissions (Conducted)	25
7.1. EUT Operation 7.2. Test Setup 7.3. Test Data	27
8. Band edge emissions (Radiated)	28
8.1. EUT Operation 8.2. Test Setup 8.3. Test Data	30
9. Undesirable emission limits (below 1GHz)	39
9.1 FUT Operation	41





9.2. Test Setup	41
9.3. Test Data	42
10. Undesirable emission limits (above 1GHz)	44
10.1. EUT Operation	46
10.2. Test Setup	
10.3. Test Data	
APPENDIX I TEST SETUP PHOTOGRAPH	49
APPENDIX II EXTERNAL PHOTOGRAPH	49
APPENDIX III INTERNAL PHOTOGRAPH	40



FCC ID: 2ATFT-J7

# **TEST REPORT**

Applicant : Shenzhen Kejinming Electronic Co.,Ltd

Manufacturer : Shenzhen Kejinming Electronic Co.,Ltd

Product Name : Video projector

Model No. : J7, A5, C5, K350, W350, K350A, K350B

Trade Mark : N/A

Rating(s) : Input: 100-240VAC

47 CFR Part 15E

Test Standard(s) : ANSI C63.10-2020

KDB 789033 D02 General UNII Test Procedures New Rules v02r01

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with above listed standard(s) requirements. This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Receipt:	2025-05-14
Date of Test:	2025-05-14 to 2025-06-04
Prepared By:	Haidi Huang
	(Haidi Huang)
Approved & Authorized Signer:	Augo Chen
	(Hugo Chen)



FCC ID: 2ATFT-J7

# **Revision History**

Report Version	Description	Issued Date
R00	Original Issue.	2025-07-15



FCC ID: 2ATFT-J7

# 1. General Information

## 1.1. Client Information

Applicant	:	Shenzhen Kejinming Electronic Co.,Ltd
Address	:	1-6F, Block B7, Yintian Industrial Park, Xixiang Street, Bao'an Dist., Shenzhen, China
Manufacturer	:	Shenzhen Kejinming Electronic Co.,Ltd
Address	:	1-6F, Block B7, Yintian Industrial Park, Xixiang Street, Bao'an Dist., Shenzhen, China

# 1.2. Description of Device (EUT)

Product Name	:	Video projector
Model No.	:	J7, A5, C5, K350, W350, K350A, K350B (Note: All samples are the same except the model name, so we prepare "J7" for test only.)
Trade Mark	:	N/A
Test Power Supply	•	AC 120V/60Hz
Test Sample No.	•	1-2-1(Normal Sample), 1-2-2(Engineering Sample)
Adapter	:	N/A
RF Specification		
Operation Frequency	:	802.11a/n(HT20)/ac(VHT20)/ax(HEW20): U-NII Band 1: 5180MHz to 5240MHz; U-NII Band 3: 5745MHz to 5825MHz;  802.11n(HT40)/ac(VHT40)/ax(HEW40): U-NII Band 1: 5190MHz to 5230MHz; U-NII Band 3: 5755MHz to 5795MHz;
Number of Channel	:	802.11a/n(HT20)/ac(VHT20)/ax(HEW20): U-NII Band 1: 4; U-NII Band 3: 5;  802.11n(HT40)/ac(VHT40)/ax(HEW40): U-NII Band 1: 2; U-NII Band 3: 2;
Modulation Type	:	802.11a: OFDM(BPSK, QPSK, 16QAM, 64QAM); 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM); 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)
Device Type	:	Client Devices
DFS Type	:	Slave without radar detection
Antenna Type	:	FPC Antenna
TPC Function	:	Without TPC
Antenna Gain(Peak)	:	WiFi 5.2G: 2.26dBi

## **Shenzhen Anbotek Compliance Laboratory Limited**





FCC ID: 2ATFT-J7

WiFi 5.8G: 2.72dBi

#### Remark

- (1) All of the RF specification are provided by customer.
- (2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

# 1.3. Auxiliary Equipment Used During Test

Title	Manufacturer	Model No.	Serial No.
1	1	1	1

# 1.4. Operation channel list

Operation Band: U-NII Band 1

Bandwidth:	20MHz	Bandwidth:	40MHz
Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	1	1
48	5240	1	1

Operation Band: U-NII Band 3

Bandwidth:	20MHz	Bandwidth:	40MHz
Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755
153	5765	159	5795
157	5785	1	1
161	5805	1	1
165	5825	1	1



FCC ID: 2ATFT-J7

# 1.5. Description of Test Modes

Pretest Modes	Descriptions	
TM1	Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case.  Only the data of worst case is recorded in the report.	
TM2	Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.	
ТМЗ	Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.	
TM4	Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.	
TM5	Keep the EUT works in normal operating mode and connect to companion device	

# 1.6. Measurement Uncertainty

Parameter	Uncertainty
Conducted emissions (AMN 150kHz~30MHz)	3.2dB
Dwell Time	2%
Occupied Bandwidth	925Hz
Conducted Output Power	0.76dB
Power Spectral Density	0.76dB
Conducted Spurious Emission	1.24dB
Radiated spurious emissions (above 1GHz)	1G-6GHz: 4.64dB; 6G-18GHz: 4.82dB 18G-40GHz: 5.62dB
Radiated emissions (Below 30MHz)	3.26dB
Radiated spurious emissions (30MHz~1GHz)	Horizontal: 3.70dB; Vertical: 4.42dB

The measurement uncertainty and decision risk evaluated according to AB/WI-RF-F-032.

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



FCC ID: 2ATFT-J7

## 1.7. Additional Instructions

Power level setup in software sscom5.13.1

Operation Band: U-NII Band 3

Mode	Power level	Transmitting type
802.11a	default	data pack TX
802.11n(HT20)	default	data pack TX
802.11n(HT40)	default	data pack TX
802.11ac(VHT20)	default	data pack TX
802.11ac(VHT40)	default	data pack TX
802.11ac(VHT80)	default	data pack TX
802.11ax(HEW20)	default	data pack TX
802.11ax(HEW40)	default	data pack TX

Operation Band: U-NII Band 1

Mode	Power level	Transmitting type
802.11a	default	data pack TX
802.11n(HT20)	default	data pack TX
802.11n(HT40)	default	data pack TX
802.11ac(VHT20)	default	data pack TX
802.11ac(VHT40)	default	data pack TX
802.11ac(VHT80)	default	data pack TX
802.11ax(HEW20)	default	data pack TX
802.11ax(HEW40)	default	data pack TX



FCC ID: 2ATFT-J7

# 1.8. Test Summary

Test Items	Test Modes	Status
Conducted Emission at AC power line	Mode1,2,3,4	Р
Duty Cycle	Mode1,2,3,4	Р
Emission bandwidth and occupied bandwidth	Mode1,2,3,4	Р
Maximum conducted output power	Mode1,2,3,4	Р
Power spectral density	Mode1,2,3,4	Р
Band edge emissions (Conducted)	Mode1,2,3,4	Р
Band edge emissions (Radiated)	Mode1,2,3,4	Р
Undesirable emission limits (below 1GHz)	Mode1,2,3,4	Р
Undesirable emission limits (above 1GHz)	Mode1,2,3,4	Р
Note: P: Pass	·	

N: N/A, not applicable



FCC ID: 2ATFT-J7

#### 1.9. Description of Test Facility

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

#### FCC-Registration No.:279531

Shenzhen Anbotek Compliance Laboratory Limited, 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 in our files. Registration No. 279531.

#### **Test Location**

Shenzhen Anbotek Compliance Laboratory Limited.

Sogood Industrial Zone Laboratory & 1/F. of Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Subdistrict, Bao'an District, Shenzhen, Guangdong, China.

#### 1.10. Disclaimer

- 1. The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
- 2. The test report is invalid if there is any evidence and/or falsification.
- 3. The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
- 4. This document may not be altered or revised in any way unless done so by Anbotek and all revisions are duly noted in the revisions section.
- 5. Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- 6. The authenticity of the information provided by the customer is the responsibility of the customer and the laboratory is not responsible for its authenticity.
- 7. The data in this report will be synchronized with the corresponding national market supervision and management departments and cross-border e-commerce platforms as required by regulatory agencies.

The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.



FCC ID: 2ATFT-J7

# 1.11. Test Equipment List

Condu	Conducted Emission at AC power line					
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1	L.I.S.N. Artificial Mains Network	Rohde & Schwarz	ENV216	100055	2024-09-09	2025-09-08
2	Three Phase V- type Artificial Power Network	CYBERTEK	EM5040DT	E215040D T001	2025-01-13	2026-01-12
3	Software Name EZ-EMC	Farad Technology	ANB-03A	N/A	1	1
4	EMI Test Receiver(CE2#)	Rohde & Schwarz	ESPI3	100926	2024-09-09	2025-09-08

Band edge emissions (Conducted)

**Duty Cycle** 

Emission bandwidth and occupied bandwidth

Maximum conducted output power

Power spectral density

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1	Constant Temperature Humidity Chamber	ZHONGJIAN	ZJ- KHWS80B	N/A	2024-10-14	2025-10-13
2	DC Power Supply	IVYTECH	IV3605	1804D360 510	2024-09-09	2025-09-08
3	Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102150	2025-04-25	2026-04-24
4	MXA Spectrum Analysis	KEYSIGHT	N9020A	MY505318 23	2024-09-09	2025-09-08
5	Oscilloscope	Tektronix	MDO3012	C020298	2024-10-10	2025-10-09
6	MXG RF Vector Signal Generator	Agilent	N5182A	MY474206 47	2025-01-14	2026-01-13



1	Band edge emissions (Radiated) Undesirable emission limits (above 1GHz)					
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1	EMI Test Receiver(RE2/3#)	Rohde & Schwarz	ESR26	101481	2025-01-14	2026-01-13
2	EMI Preamplifier	SKET Electronic	LNPA- 0118G-45	SKET-PA- 002	2025-01-13	2026-01-12
3	Double Ridged Horn Antenna	SCHWARZBECK	BBHA 9120D	02555	2022-10-16	2025-10-15
4	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	1	/
5	Horn Antenna	A-INFO	LB-180400- KF	J21106062 8	2024-01-22	2027-01-21
6	Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102150	2025-04-25	2026-04-24
7	Amplifier	Talent Microwave	TLLA18G40 G-50-30	23022802	2025-02-24	2026-02-23

Unde	Undesirable emission limits (below 1GHz)					
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1	EMI Test Receiver(RE2/3#)	Rohde & Schwarz	ESR26	101481	2025-01-14	2026-01-13
2	Pre-amplifier	SONOMA	310N	186860	2025-01-14	2026-01-13
3	Bilog Broadband Antenna	Schwarzbeck	VULB9163	345	2022-10-23	2025-10-22
4	Loop Antenna (9K- 30M)	Schwarzbeck	FMZB1519B	00053	2024-09-12	2025-09-11
5	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	1	1



FCC ID: 2ATFT-J7

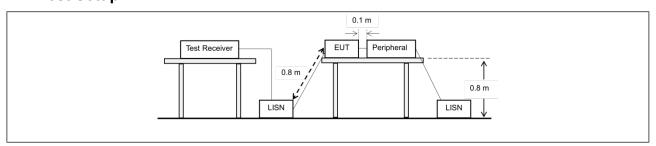
# 2. Conducted Emission at AC power line

Test Requirement:	47 CFR Part 15.207(a)		
	Frequency of emission (MHz)	Conducted limit (dBµV)	
Test Limit:		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 t	he frequency.	
Test Method:	ANSI C63.10-2020 section 6.2		

## 2.1. EUT Operation

Operating Env	Operating Environment:					
Test mode:	1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.  2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.  3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.  4: 802.11ax mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.					

## 2.2. Test Setup

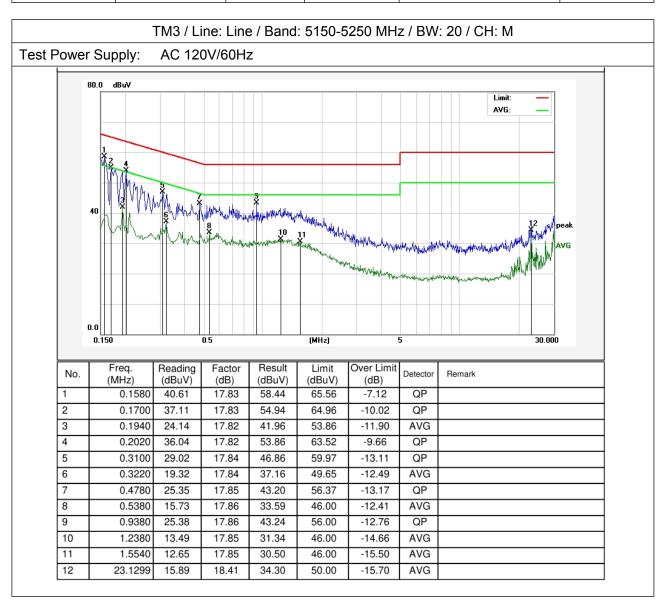




FCC ID: 2ATFT-J7

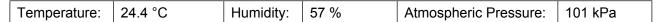
#### 2.3. Test Data

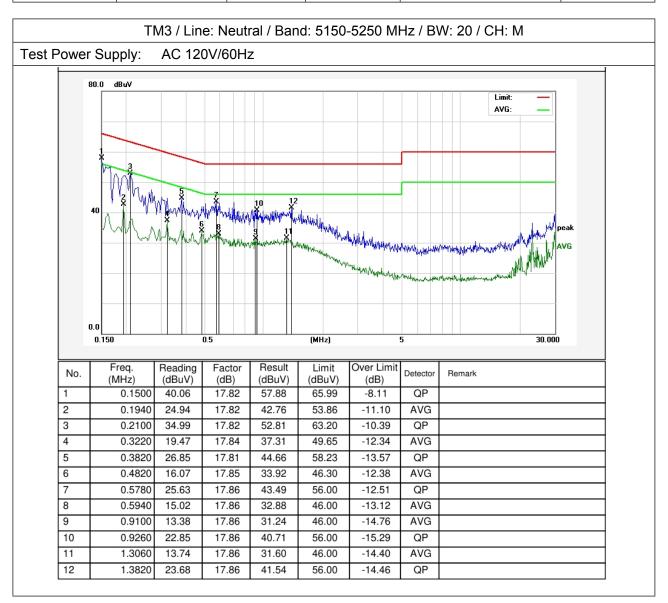
Temperature: 24.4 °C Humidity: 57 % Atmospheric Pressure: 101 kPa





FCC ID: 2ATFT-J7





#### Note:

- 1. Only record the worst data in the report.
- 2. Result(dB $\mu$ V) = Reading(dB $\mu$ V) + Factor(dB); Over Limit(dB) = Result(dB $\mu$ V) - Limit(dB $\mu$ V)

**Shenzhen Anbotek Compliance Laboratory Limited** 



FCC ID: 2ATFT-J7

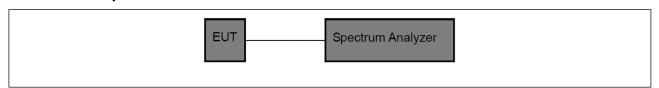
# 3. Duty Cycle

Test Requirement:	All measurements are to be performed with the EUT transmitting at 100% duty cycle at its maximum power control level; however, if 100% duty cycle cannot be achieved, measurements of duty cycle, x, and maximum-power transmission duration, T, are required for each tested mode of operation.
Test Limit:	No limits, only for report use.
Test Method:	ANSI C63.10-2020 section 12.2 (b)
Procedure:	<ul> <li>i) Set the center frequency of the instrument to the center frequency of the transmission.</li> <li>ii) Set RBW &gt;= EBW if possible; otherwise, set RBW to the largest available value.</li> <li>iii) Set VBW &gt;= RBW.</li> <li>iv) Set detector = peak.</li> <li>v) The zero-span measurement method shall not be used unless both RBW and VBW are &gt; 50/T, where T is defined in item a1) of 12.2, and the number of sweep points across duration T exceeds 100.</li> </ul>

# 3.1. EUT Operation

Operating Env	Operating Environment:					
Test mode:	1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.  2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.  3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.  4: 802.11ax mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.					

# 3.2. Test Setup



#### 3.3. Test Data

Temperature: 26 °C	Humidity:	49 %	Atmospheric Pressure:	101 kPa
--------------------	-----------	------	-----------------------	---------

Please Refer to Appendix for Details.

**Shenzhen Anbotek Compliance Laboratory Limited** 



FCC ID: 2ATFT-J7

# 4. Emission bandwidth and occupied bandwidth

	<u> </u>
Test Requirement:	U-NII 1, U-NII 2A, U-NII 2C: No limits, only for report use.
•	U-NII 3, U-NII 4: 47 CFR Part 15.407(e)
	U-NII 1, U-NII 2A, U-NII 2C: No limits, only for report use.
Test Limit:	U-NII 3, U-NII 4: 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.
Test Method:	ANSI C63.10-2020, section 6.9 & 12.5 KDB 789033 D02, Clause C.2
	Emission bandwidth:  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%.
Procedure:	Occupied 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





FCC ID: 2ATFT-J7

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).

6 dB emission bandwidth:

- 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.

## 4.1. EUT Operation

#### Operating Environment:

1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.

2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

Test mode:

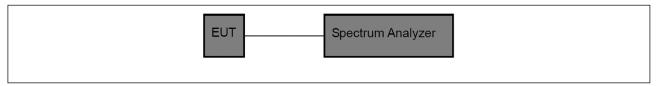
3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

4: 802.11ax mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.



FCC ID: 2ATFT-J7

# 4.2. Test Setup



## 4.3. Test Data

Temperature: 26 °C	Humidity:	49 %	Atmospheric Pressure:	101 kPa
--------------------	-----------	------	-----------------------	---------

Please Refer to Appendix for Details.



FCC ID: 2ATFT-J7

# 5. Maximum conducted output power

	47 OFD D : 1 45 407(-)/4)// )
Test Requirement:	47 CFR Part 15.407(a)(1)(iv) 47 CFR Part 15.407(a)(3)(i)
	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. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
	For the band 5.725-5.850 GHz, the maximum conducted output power over
	the frequency band of operation shall not exceed 1 W.  If transmitting antennas of directional gain greater than 6 dBi are used, the
Test Limit:	maximum conducted output power 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.
Test Method:	ANSI C63.10-2020, section 12.4
Procedure:	Refer to ANSI C63.10-2020 section 12.4

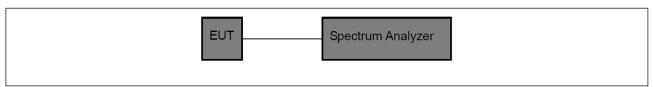
# 5.1. EUT Operation

Operating Envi	Operating Environment:					
Test mode:	1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.  2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.  3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.  4: 802.11ax mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.					



FCC ID: 2ATFT-J7

# 5.2. Test Setup



## 5.3. Test Data

Temperature: 26 °C	Humidity:	49 %	Atmospheric Pressure:	101 kPa
--------------------	-----------	------	-----------------------	---------

Please Refer to Appendix for Details.



FCC ID: 2ATFT-J7

# 6. Power spectral density

Test Requirement:	47 CFR Part 15.407(a)(1)(iv) 47 CFR Part 15.407(a)(3)(i)
Test Limit:	For client devices in the 5.15-5.25 GHz band, 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, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.  For the band 5.725-5.850 GHz, 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, 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
Toot Mothod:	for fixed, point-to-point operations.
Test Method:	ANSI C63.10-2020, section 12.6
Procedure:	Refer to ANSI C63.10-2020, section 12.6

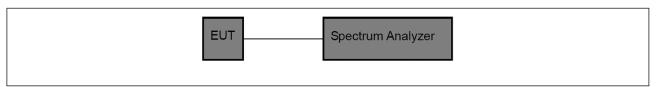
# 6.1. EUT Operation

Operating Envi	Operating Environment:					
Test mode:	1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.  2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.  3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.  4: 802.11ax mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.					



FCC ID: 2ATFT-J7

# 6.2. Test Setup



## 6.3. Test Data

Temperature: 26 °C	Humidity:	49 %	Atmospheric Pressure:	101 kPa
--------------------	-----------	------	-----------------------	---------

Please Refer to Appendix for Details.



FCC ID: 2ATFT-J7

# 7. Band edge emissions (Conducted)

Test Requirement:	47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(4) 47 CFR Part 15.407(b)(10)					
	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.					
	For transmitters operating solely in the 5.725-5.850 GHz band: 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 M 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/MH	z at the band ed	ge.		
	MHz	MHz	MHz	GHz		
	0.090-0.110	16.42-16.423	399.9-410	4.5-5.15		
	10.495-0.505	16.69475- 16.69525	608-614	5.35-5.46		
	2.1735-2.1905	16.80425- 16.80475	960-1240	7.25-7.75		
	4.125-4.128	25.5-25.67	1300-1427	8.025-8.5		
	4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2		
	4.20725-4.20775	73-74.6	1645.5- 1646.5	9.3-9.5		
	6.215-6.218	74.8-75.2	1660-1710	10.6-12.7		
	6.26775-6.26825	108-121.94	1718.8- 1722.2	13.25-13.4		
Test Limit:	6.31175-6.31225	123-138	2200-2300	14.47-14.5		
	8.291-8.294	149.9-150.05	2310-2390	15.35-16.2		
	8.362-8.366	156.52475- 156.52525	2483.5-2500	17.7-21.4		
	8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12		
	8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0		
	12.29-12.293	167.72-173.2	3332-3339	31.2-31.8		
	12.51975-12.52025	240-285	3345.8-3358	36.43-36.5		
	12.57675-12.57725	322-335.4	3600-4400	(2)		
	13.36-13.41					
	<sup>1</sup> Until February 1, 199 <sup>2</sup> Above 38.6  The field strength of ending exceed the limits so 1000 MHz, compliance using measurement in detector. Above 1000	missions appearing v shown in § 15.209. At e with the limits in § 1 strumentation emplo	vithin these frequencies equencies equencies de	uency bands shall ual to or less than emonstrated uasi-peak		
	emissions. The provisi	15.209shall be demonstrated based on the average value of the measured emissions. The provisions in § 15.35apply to these measurements.  Except as provided elsewhere in this subpart, the emissions from an				

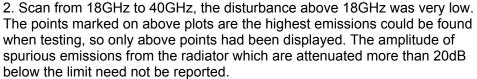


	I., ,, ,,				
	intentional radiator shall not exceed the field strength levels specified in the following table:				
	Frequency (MHz)	Field strength	Measurement		
	Trequency (Wiriz)	(microvolts/meter)	distance (meters)		
	0.009-0.490	2400/F(kHz)	300		
	0.490-1.705	24000/F(kHz)	30		
	1.705-30.0	30	30		
	30-88	100 **	3		
	88-216	150 **	3		
	216-960	200 **	3		
	Above 960	500	3		
	** Except as provided in pa				
	I not be located in the Hz or 470-806 MHz. Dermitted under other at the band edges. The edge on measurements are frequency bands 9—d emission limits in oying an average				
Test Method:	ANSI C63.10-2020, section	n 12.7.4, 12.7.6, 12.7.7			
Procedure:	Above 1GHz: a. For above 1GHz, the EU meters above the ground a was rotated 360 degrees to b. The EUT was set 3 meters which was mounted on the c. The antenna height is varying ground to determine the mand vertical polarizations of d. For each suspected eminand then the antenna was test frequency of below 30 and the rotatable table was maximum reading. e. The test-receiver system Bandwidth with Maximum f. If the emission level of the limit specified, then testing would be reported. Otherw would be re-tested one by and then reported in a data g. Test the EUT in the lower channel. h. The radiation measurem Transmitting mode, and for case. i. Repeat above procedure Remark: 1. Level= Read Level+ Cal	at a 3 meter fully-anechoic of determine the position of ers away from the interfere at top of a variable-height arraied from one meter to four aximum value of the field soft the antenna are set to massion, the EUT was arrang tuned to heights from 1 med MHz, the antenna was tuned turned from 0 degrees to a was set to Peak Detect Fully Hold Mode. The EUT in peak mode was a could be stopped and the rise the emissions that did none using peak or average a sheet. The est channel, the middle channels are performed in X, Y and the X axis positioning was until all frequencies means.	chamber. The table the highest radiation. Ince-receiving antenna, Intenna tower. It meters above the strength. Both horizontal take the measurement. It ged to its worst case effect to 4 meters (for the led to heights 1 meter) 360 degrees to find the function and Specified 10dB lower than the peak values of the EUT and have 10dB margin the method as specified annel, the Highest for which it is the worst sured was complete.		

## **Shenzhen Anbotek Compliance Laboratory Limited**



FCC ID: 2ATFT-J7



- 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
- 4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

## 7.1. EUT Operation

#### Operating Environment:

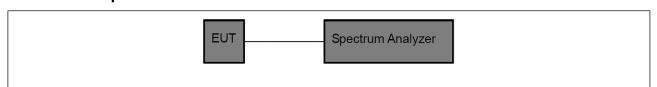
1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.

2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

Test mode:

- 3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.
- 4: 802.11ax mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

#### 7.2. Test Setup



#### 7.3. Test Data

Temperature:	26 °C	Humidity:	49 %	Atmospheric Pressure:	101 kPa
--------------	-------	-----------	------	-----------------------	---------

Please Refer to Appendix for Details.





FCC ID: 2ATFT-J7

# 8. Band edge emissions (Radiated)

Test Requirement:	47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(4) 47 CFR Part 15.407(b)(10)					
	For transmitters operating in the 5.15-5.25 GHz band: All emissions outsic of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.  For transmitters operating solely in the 5.725-5.850 GHz band:					
	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					
	MHz	MHz	MHz	GHz		
	0.090-0.110	16.42-16.423	399.9-410	4.5-5.15		
	10.495-0.505	16.69475- 16.69525	608-614	5.35-5.46		
	2.1735-2.1905	16.80425- 16.80475	960-1240	7.25-7.75		
	4.125-4.128	25.5-25.67	1300-1427	8.025-8.5		
	4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2		
	4.20725-4.20775	73-74.6	1645.5- 1646.5	9.3-9.5		
	6.215-6.218	74.8-75.2	1660-1710	10.6-12.7		
	6.26775-6.26825	108-121.94	1718.8- 1722.2	13.25-13.4		
Test Limit:	6.31175-6.31225	123-138	2200-2300	14.47-14.5		
	8.291-8.294	149.9-150.05	2310-2390	15.35-16.2		
	8.362-8.366	156.52475- 156.52525	2483.5-2500	17.7-21.4		
	8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12		
	8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0		
	12.29-12.293	167.72-173.2	3332-3339	31.2-31.8		
	12.51975-12.52025	240-285	3345.8-3358	36.43-36.5		
	12.57675-12.57725	322-335.4	3600-4400	(2)		
	13.36-13.41					
	<sup>1</sup> Until February 1, 199 <sup>2</sup> Above 38.6	9, this restricted ban	d shall be 0.490	-0.510 MHz.		
	The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in § 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in § 15.209shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in § 15.209shall be demonstrated based on the average value of the measured emissions. The provisions in § 15.35apply to these measurements.					
	Except as provided els	sewhere in this subpa	art, the emission	s from an		





	T				
	intentional radiator shall no following table:	ot exceed the field strengt	th levels specified in the		
	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)		
	0.009-0.490	2400/F(kHz)	300		
	0.490-1.705	24000/F(kHz)	30		
	1.705-30.0	30	30		
	30-88	100 **	3		
	88-216	150 **	3		
	216-960	200 **	3		
	Above 960	500	3		
	** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241. In the emission table above, the tighter limit applies at the band edges. The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.				
Test Method:	ANSI C63.10-2020, section	n 12.7.4. 12.7.6. 12.7.7			
Procedure:	a. For above 1GHz, the EU meters above the ground a was rotated 360 degrees to b. The EUT was set 3 meters which was mounted on the c. The antenna height is vary ground to determine the mand vertical polarizations of d. For each suspected eminand then the antenna was test frequency of below 30 and the rotatable table was maximum reading.  e. The test-receiver system Bandwidth with Maximum f. If the emission level of the limit specified, then testing would be reported. Otherw would be retested one by and then reported in a data g. Test the EUT in the lower channel.  h. The radiation measurem Transmitting mode, and for case. i. Repeat above procedure Remark:	at a 3 meter fully-anechoice determine the position of determine the interference to possible aried from one meter to for aximum value of the field of the antenna are set to ression, the EUT was arrand tuned to heights from 1 mMHz, the antenna was turned from 0 degrees the turned from 0 degrees the EUT in peak mode was could be stopped and the rise the emissions that did one using peak or average as heet.  The est channel, the middle claiments are performed in X, and the X axis positioning the stopped in X, and the X axis positioning the stopped in X, and the X axis positioning the stopped in X, and the X axis positioning the stopped in X, and the X axis positioning the stopped in X, and the X axis positioning the stopped in X, axis positioning the x axis positionin	c chamber. The table of the highest radiation. The tence-receiving antenna, antenna tower. Our meters above the strength. Both horizontal make the measurement. The description of the strength of the strengt		

## **Shenzhen Anbotek Compliance Laboratory Limited**



FCC ID: 2ATFT-J7

- 1. Result( $dB\mu V/m$ ) = Reading( $dB\mu V$ ) + Factor(dB/m);Over Limit(dB) = Result(dBµV/m) - Limit(dBµV/m)
- 2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
- 4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

## 8.1. EUT Operation

#### Operating Environment:

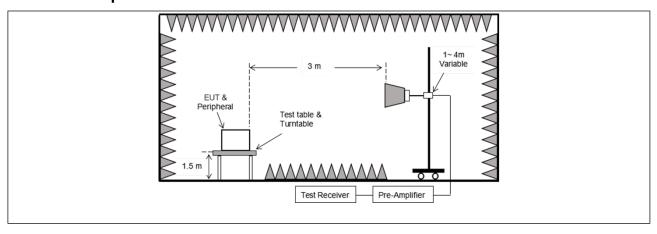
1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.

2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

Test mode:

- 3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.
- 4: 802.11ax mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

#### 8.2. Test Setup



#### **Shenzhen Anbotek Compliance Laboratory Limited**



FCC ID: 2ATFT-J7

## 8.3. Test Data

Temperature:	26 °C	Humidity:	49 %	Atmospheric Pressure:	101 kPa
--------------	-------	-----------	------	-----------------------	---------

	TM1 / Band: 5150-5250 MHz / BW: 20 / L										
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5150.00	37.06	15.99	53.05	68.20	-15.15	Н	Peak				
5150.00	39.15	15.99	55.14	68.20	-13.06	V	Peak				
5150.00	26.98	15.99	42.97	54.00	-11.03	Н	AVG				
5150.00	29.05	15.99	45.04	54.00	-8.96	V	AVG				
		TM1 / E	Band: 5150-52	250 MHz / BW	/: 20 / H						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5250.00	37.49	16.43	53.92	68.20	-14.28	Н	Peak				
	00	10.10	33.32	00.20	11.20	• •	. Jan				
5250.00	40.48	16.43	56.91	68.20	-11.29	V	Peak				
5250.00 5250.00	• • • • • • • • • • • • • • • • • • • •		77.7	771							

Remark: 1. Result=Reading + Factor

	TM2 / Band: 5150-5250 MHz / BW: 20 / L										
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5150.00	35.98	15.99	51.97	68.20	-16.23	Н	Peak				
5150.00	37.39	15.99	53.38	68.20	-14.82	V	Peak				
5150.00	26.70	15.99	42.69	54.00	-11.31	Н	AVG				
5150.00	27.68	15.99	43.67	54.00	-10.33	V	AVG				
		TM2 / E	and: 5150-52	250 MHz / BW	/: 20 / H						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5250.00	37.81	16.43	54.24	68.20	-13.96	Н	Peak				
5250.00	38.84	16.43	55.27	68.20	-12.93	V	Peak				
5250.00	27.85	16.43	44.28	54.00	-9.72	Н	AVG				
5250.00	29.33	16.43	45.76	54.00	-8.24	V	AVG				

Remark: 1. Result=Reading + Factor





	TM2 / Band: 5150-5250 MHz / BW: 40 / L										
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5150.00	36.56	15.99	52.55	68.20	-15.65	Н	Peak				
5150.00	38.40	15.99	54.39	68.20	-13.81	V	Peak				
5150.00	27.14	15.99	43.13	54.00	-10.87	Н	AVG				
5150.00	28.78	15.99	44.77	54.00	-9.23	V	AVG				
		TM2 / E	Band: 5150-52	250 MHz / BW	/: 40 / H						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5250.00	38.14	16.43	54.57	68.20	-13.63	Н	Peak				
5250.00	36.98	16.43	53.41	68.20	-14.79	V	Peak				
5250.00	28.39	16.43	44.82	54.00	-9.18	Н	AVG				
5250.00	29.60	16.43	46.03	54.00	-7.97	V	AVG				

Remark: 1. Result=Reading + Factor

	TM3 / Band: 5150-5250 MHz / BW: 20 / L										
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5150.00	37.03	15.99	53.02	68.20	-15.18	Н	Peak				
5150.00	38.79	15.99	54.78	68.20	-13.42	V	Peak				
5150.00	26.61	15.99	42.60	54.00	-11.40	Н	AVG				
5150.00	28.83	15.99	44.82	54.00	-9.18	V	AVG				
		TM3 / E	Band: 5150-52	250 MHz / BW	/: 20 / H						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5250.00	37.93	16.43	54.36	68.20	-13.84	Н	Peak				
5250.00	38.17	16.43	54.60	68.20	-13.60	V	Peak				
5250.00	27.85	16.43	44.28	54.00	-9.72	Н	AVG				
5250.00	28.45	16.43	44.88	54.00	-9.12	V	AVG				

Remark: 1. Result=Reading + Factor



	TM3 / Band: 5150-5250 MHz / BW: 40 / L										
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5150.00	35.97	15.99	51.96	68.20	-16.24	Н	Peak				
5150.00	36.39	15.99	52.38	68.20	-15.82	V	Peak				
5150.00	26.19	15.99	42.18	54.00	-11.82	Н	AVG				
5150.00	26.89	15.99	42.88	54.00	-11.12	V	AVG				
		TM3 / E	Band: 5150-52	250 MHz / BW	/: 40 / H						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5250.00	38.10	16.43	54.53	68.20	-13.67	Н	Peak				
5250.00	37.23	16.43	53.66	68.20	-14.54	V	Peak				
5250.00	27.54	16.43	43.97	54.00	-10.03	Н	AVG				
5250.00	27.58	16.43	44.01	54.00	-9.99	V	AVG				

Remark: 1. Result=Reading + Factor

	TM4 / Band: 5150-5250 MHz / BW: 20 / L										
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5150.00	35.93	15.99	51.92	68.20	-16.28	Н	Peak				
5150.00	37.32	15.99	53.31	68.20	-14.89	V	Peak				
5150.00	26.65	15.99	42.64	54.00	-11.36	Н	AVG				
5150.00	27.63	15.99	43.62	54.00	-10.38	V	AVG				
		TM4 / E	Band: 5150-52	250 MHz / BW	/: 20 / H						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5250.00	37.75	16.43	54.18	68.20	-14.02	Н	Peak				
5250.00	38.79	16.43	55.22	68.20	-12.98	V	Peak				
5250.00	27.78	16.43	44.21	54.00	-9.79	Н	AVG				
5250.00	29.23	16.43	45.66	54.00	-8.34	V	AVG				

Remark: 1. Result=Reading + Factor



	TM4 / Band: 5150-5250 MHz / BW: 40 / L										
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5150.00	36.47	15.99	52.46	68.20	-15.74	Н	Peak				
5150.00	38.32	15.99	54.31	68.20	-13.89	V	Peak				
5150.00	27.04	15.99	43.03	54.00	-10.97	Н	AVG				
5150.00	28.74	15.99	44.73	54.00	-9.27	V	AVG				
		TM4 / E	Band: 5150-52	250 MHz / BW	/: 40 / H						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5250.00	38.08	16.43	54.51	68.20	-13.69	Н	Peak				
5250.00	36.94	16.43	53.37	68.20	-14.83	V	Peak				
5250.00	28.29	16.43	44.72	54.00	-9.28	Н	AVG				
5250.00	29.49	16.43	45.92	54.00	-8.08	V	AVG				

Remark: 1. Result=Reading + Factor



	TM1 / Band: 5725-5850 MHz / BW: 20 / L										
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5725.00	38.04	16.37	54.41	68.20	-13.79	Н	Peak				
5725.00	39.37	16.37	55.74	68.20	-12.46	V	Peak				
5725.00	28.93	16.70	45.63	54.00	-8.37	Н	AVG				
5725.00	30.03	16.70	46.73	54.00	-7.27	V	AVG				
		TM1 / E	Band: 5725-58	350 MHz / BW	/: 20 / H						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5850.00	38.96	17.21	56.17	68.20	-12.03	Н	Peak				
5850.00	39.30	17.21	56.51	68.20	-11.69	V	Peak				
5850.00	28.97	17.21	46.18	54.00	-7.82	Н	AVG				
5850.00	29.00	17.21	46.21	54.00	-7.79	V	AVG				

Remark: 1. Result=Reading + Factor

	TM2 / Band: 5725-5850 MHz / BW: 20 / L										
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5725.00	38.00	17.05	55.05	68.20	-13.15	Н	Peak				
5725.00	38.54	17.05	55.59	68.20	-12.61	V	Peak				
5725.00	27.52	17.05	44.57	54.00	-9.43	Н	AVG				
5725.00	28.01	17.05	45.06	54.00	-8.94	V	AVG				
		TM2 / E	Band: 5725-58	350 MHz / BW	/: 20 / H						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5850.00	37.20	17.21	54.41	68.20	-13.79	Н	Peak				
5850.00	37.85	17.21	55.06	68.20	-13.15	V	Peak				
5850.00	27.43	17.21	44.64	54.00	-9.36	Н	AVG				
5850.00	28.31	17.21	45.52	54.00	-8.48	V	AVG				

Remark: 1. Result=Reading + Factor



FCC ID: 2ATFT-J7

	TM2 / Band: 5725-5850 MHz / BW: 40 / L										
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5725.00	37.58	17.05	54.63	68.20	-13.57	Н	Peak				
5725.00	38.42	17.05	55.47	68.20	-12.73	V	Peak				
5725.00	26.93	17.05	43.98	54.00	-10.02	Н	AVG				
5725.00	28.32	17.05	45.37	54.00	-8.63	V	AVG				
		TM2 / E	Band: 5725-58	350 MHz / BW	/: 40 / H						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5850.00	37.94	17.21	55.15	68.20	-13.05	Н	Peak				
5850.00	38.35	17.21	55.56	68.20	-12.64	V	Peak				
5850.00	28.10	17.21	45.31	54.00	-8.69	Н	AVG				
5850.00	29.23	17.21	46.44	54.00	-7.57	V	AVG				

Remark: 1. Result=Reading + Factor

	TM3 / Band: 5725-5850 MHz / BW: 20 / L										
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5725.00	37.25	17.05	54.30	68.20	-13.91	Н	Peak				
5725.00	37.46	17.05	54.51	68.20	-13.69	V	Peak				
5725.00	28.20	17.05	45.25	54.00	-8.75	Н	AVG				
5725.00	28.95	17.05	46.00	54.00	-8.00	V	AVG				
		TM3 / E	Band: 5725-58	350 MHz / BW	/: 20 / H						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector				
5850.00	37.99	17.21	55.20	68.20	-13.01	Н	Peak				
5850.00	38.89	17.21	56.10	68.20	-12.10	V	Peak				
5850.00	27.88	17.21	45.09	54.00	-8.91	Н	AVG				
5850.00	28.91	17.21	46.12	54.00	-7.88	V	AVG				

Remark: 1. Result=Reading + Factor



FCC ID: 2ATFT-J7

TM3 / Band: 5725-5850 MHz / BW: 40 / L								
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector	
5725.00	36.20	17.05	53.25	68.20	-14.95	Н	Peak	
5725.00	37.76	17.05	54.81	68.20	-13.39	V	Peak	
5725.00	27.48	17.05	44.53	54.00	-9.47	Н	AVG	
5725.00	28.18	17.05	45.23	54.00	-8.77	V	AVG	
		TM3 / E	Band: 5725-58	350 MHz / BW	/: 40 / H			
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector	
5850.00	37.56	17.21	54.77	68.20	-13.43	Н	Peak	
5850.00	38.35	17.21	55.56	68.20	-12.64	V	Peak	
5850.00	27.55	17.21	44.76	54.00	-9.24	Н	AVG	
5850.00	27.14	17.21	44.35	54.00	-9.65	V	AVG	

Remark: 1. Result=Reading + Factor

TM4 / Band: 5725-5850 MHz / BW: 20 / L									
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector		
5725.00	37.27	17.05	54.32	68.20	-13.88	Н	Peak		
5725.00	37.48	17.05	54.53	68.20	-13.67	V	Peak		
5725.00	28.22	17.05	45.27	54.00	-8.73	Н	AVG		
5725.00	28.98	17.05	46.03	54.00	-7.97	V	AVG		
		TM4 / E	Band: 5725-58	350 MHz / BW	/: 20 / H				
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector		
5850.00	38.01	17.21	55.22	68.20	-12.98	Н	Peak		
5850.00	38.92	17.21	56.13	68.20	-12.07	V	Peak		
5850.00	27.91	17.21	45.12	54.00	-8.88	Н	AVG		
5850.00	28.94	17.21	46.15	54.00	-7.85	V	AVG		

Remark: 1. Result=Reading + Factor



Report No.:1812C50225112504 FCC ID: 2ATFT-J7

TM4 / Band: 5725-5850 MHz / BW: 40 / L								
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector	
5725.00	36.23	17.05	53.28	68.20	-14.92	Н	Peak	
5725.00	37.78	17.05	54.83	68.20	-13.37	V	Peak	
5725.00	27.50	17.05	44.55	54.00	-9.45	Н	AVG	
5725.00	28.20	17.05	45.25	54.00	-8.75	V	AVG	
		TM4 / E	Band: 5725-58	350 MHz / BW	/: 40 / H			
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector	
5850.00	37.59	17.21	54.80	68.20	-13.40	Н	Peak	
5850.00	38.38	17.21	55.59	68.20	-12.61	V	Peak	
5850.00	27.58	17.21	44.79	54.00	-9.21	Н	AVG	
5850.00	27.17	17.21	44.38	54.00	-9.62	V	AVG	

Remark: 1. Result=Reading + Factor



FCC ID: 2ATFT-J7

# 9. Undesirable emission limits (below 1GHz)

Test Requirement:	47 CFR Part 15.407(b)(9)							
	Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209.  Except as provided elsewhere in this subpart, the emissions from an							
Test Limit:	intentional radiator shall not exceed the field strength levels specified in the following table:							
	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)					
	0.009-0.490	2400/F(kHz)	300					
	0.490-1.705	24000/F(kHz)	30					
	1.705-30.0	30	30					
	30-88	100 **	3					
	88-216	150 **	3					
	216-960	200 **	3					
	Above 960	500	3					
	** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.							
	In the emission table above, the tighter limit applies at the band edges. The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.							
Test Method:	ANSI C63.10-2020, section 12.7.4, 12.7.5							
Procedure:	Below 1GHz:  a. For below 1GHz, the meters above the ground was rotated 360 degrees b. The EUT was set 3 or antenna, which was more. The antenna height is ground to determine the and vertical polarizations d. For each suspected e and then the antenna was test frequency of below and the rotatable table of maximum reading.  e. The test-receiver syst Bandwidth with Maximum f. If the emission level of limit specified, then testi would be reported. Othe	EUT was placed on the top d at a 3 meter semi-anecho s to determine the position 10 meters away from the unted on the top of a variate varied from one meter to f maximum value of the field of the antenna are set to mission, the EUT was arra as tuned to heights from 1 as tuned to heights from 1 as turned from 0 degrees m Hold Mode. If the EUT in peak mode wa ng could be stopped and the rwise the emissions that di by one using quasi-peak m	of the highest radiation. interference-receiving ble-height antenna tower. four meters above the distrength. Both horizontal make the measurement. Inged to its worst case meter to 4 meters (for the uned to heights 1 meter) to 360 degrees to find the trunction and Specified as 10dB lower than the ne peak values of the EUT id not have 10dB margin					





FCC ID: 2ATFT-J7

- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete. Remark:
- 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- 2. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

#### Above 1GHz:

- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete. Remark:
- 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- 2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any



FCC ID: 2ATFT-J7

emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

# 9.1. EUT Operation

### Operating Environment:

1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.

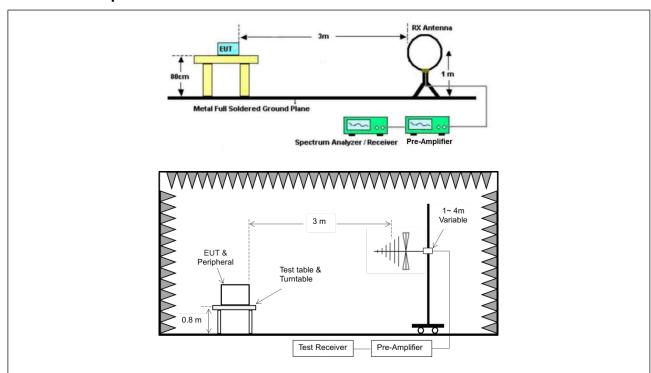
2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

#### Test mode:

3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

4: 802.11ax mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

## 9.2. Test Setup

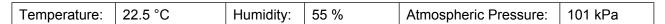


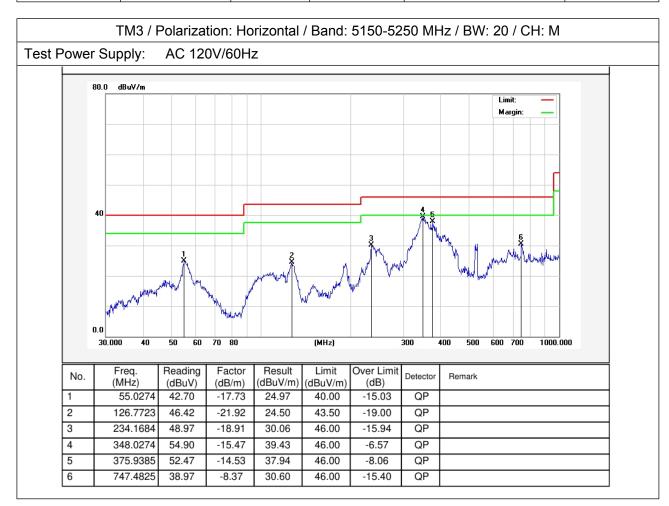


FCC ID: 2ATFT-J7

#### 9.3. Test Data

The test results of 9kHz-30MHz was attenuated more than 20dB below the permissible limits, so the results don't record in the report.

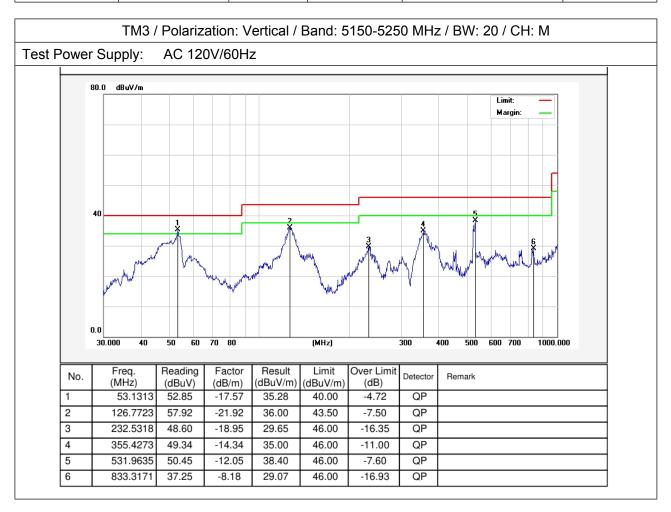






FCC ID: 2ATFT-J7

Temperature: 22.5 °C Humidity: 55 % Atmospheric Pressure: 101
---



#### Noto:

- 1. Only record the worst data in the report.
- 2. Result(dB $\mu$ V) = Reading(dB $\mu$ V) + Factor(dB); Over Limit(dB) = Result(dB $\mu$ V) - Limit(dB $\mu$ V)



FCC ID: 2ATFT-J7

# 10. Undesirable emission limits (above 1GHz)

Test Requirement:	47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(4) 47 CFR Part 15.407(b)(10)						
	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.						
	For transmitters opera All emissions shall be above or below the ba above or below the ba edge increasing linear below the band edge, increasing linearly to a MHz  0.090-0.110	limited to a level of – nd edge increasing li nd edge, and from 29 ly to a level of 15.6 d and from 5 MHz abo	27 dBm/MHz at nearly to 10 dBr 5 MHz above or Bm/MHz at 5 MI ve or below the	75 MHz or more m/MHz at 25 MHz below the band Hz above or band edge			
	10.495-0.505	16.69475-	608-614	5.35-5.46			
		16.69525		3.00 0.10			
	2.1735-2.1905	16.80425- 16.80475	960-1240	7.25-7.75			
	4.125-4.128	25.5-25.67	1300-1427	8.025-8.5			
	4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2			
	4.20725-4.20775	73-74.6	1645.5- 1646.5	9.3-9.5			
	6.215-6.218	74.8-75.2	1660-1710	10.6-12.7			
	6.26775-6.26825	108-121.94	1718.8- 1722.2	13.25-13.4			
Test Limit:	6.31175-6.31225	123-138	2200-2300	14.47-14.5			
	8.291-8.294	149.9-150.05	2310-2390	15.35-16.2			
	8.362-8.366	156.52475- 156.52525	2483.5-2500	17.7-21.4			
	8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12			
	8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0			
	12.29-12.293	167.72-173.2	3332-3339	31.2-31.8			
	12.51975-12.52025	240-285	3345.8-3358	36.43-36.5			
	12.57675-12.57725	322-335.4	3600-4400	(2)			
	13.36-13.41						
	<sup>1</sup> Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. <sup>2</sup> Above 38.6  The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in § 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in § 15.209 ball be demonstrated.						
	1000 MHz, compliance with the limits in § 15.209shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in § 15.209shall be demonstrated based on the average value of the measured emissions. The provisions in § 15.35apply to these measurements.						
	Except as provided els	sewhere in this subpa	art, the emission	s from an			



Report No.:1812C50225112504 FCC ID: 2ATFT-J7

	T		
	intentional radiator shall no following table:	ot exceed the field strengt	th levels specified in the
	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
	0.009-0.490	2400/F(kHz)	300
	0.490-1.705	24000/F(kHz)	30
	1.705-30.0	30	30
	30-88	100 **	3
	88-216	150 **	3
	216-960	200 **	3
			3
	Above 960  ** Except as provided in page 1.5	500	
	intentional radiators operar frequency bands 54-72 MH However, operation within sections of this part, e.g., § In the emission table abov The emission limits shown employing a CISPR quasi-90 kHz, 110–490 kHz and these three bands are bas detector.	Hz, 76-88 MHz, 174-216 Nethese frequency bands is \$\\$ 15.231 and 15.241. e, the tighter limit applies in the above table are bapeak detector except for above 1000 MHz. Radiat	MHz or 470-806 MHz. s permitted under other at the band edges. ased on measurements the frequency bands 9—sed emission limits in
Test Method:	ANSI C63.10-2020, section	n 12.7.4, 12.7.6, 12.7.7	
Procedure:	Above 1GHz: a. For above 1GHz, the EU meters above the ground a was rotated 360 degrees to b. The EUT was set 3 met which was mounted on the c. The antenna height is vaground to determine the mand vertical polarizations of d. For each suspected emiand then the antenna was test frequency of below 30 and the rotatable table was maximum reading. e. The test-receiver system Bandwidth with Maximum f. If the emission level of the limit specified, then testing would be reported. Otherw would be re-tested one by and then reported in a data g. Test the EUT in the lower channel. h. The radiation measurem Transmitting mode, and for case. i. Repeat above procedure Remark: 1. Level= Read Level+ Cal	at a 3 meter fully-anechoice of determine the position of the same of a variable-height a deried from one meter to for aximum value of the field of the antenna are set to receive the antenna are set to receive the same of the field of the antenna are set to receive the field of the antenna are set to receive the field of the antenna was a truned to heights from 1 meters are peak mode was a could be stopped and the vise the emissions that did one using peak or average a sheet.  The ents are performed in X, and the X axis positioning the suntil all frequencies meters are until all frequencies meters are performed in X, and the X axis positioning the suntil all frequencies meters are performed in X, and the X axis positioning the suntil all frequencies meters are performed in X, and the X axis positioning the suntil all frequencies meters are performed in X, and the X axis positioning the suntil all frequencies meters are performed in X, and the X axis positioning the suntil all frequencies meters are performed in X, and the X axis positioning the suntil all frequencies meters are performed in X.	c chamber. The table of the highest radiation. The rence-receiving antenna, antenna tower. Our meters above the strength. Both horizontal make the measurement. The rence to its worst case meter to 4 meters (for the ned to heights 1 meter) to 360 degrees to find the sepak values of the EUT of not have 10dB marging method as specified thannel, the Highest than the regular positioning for gwhich it is the worst than the result of the sepak values of the sepak value

FCC ID: 2ATFT-J7

- 2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
- 4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

# 10.1. EUT Operation

#### Operating Environment:

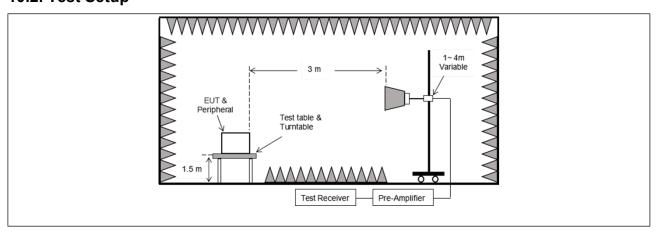
1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.

2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

Test mode:

- 3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.
- 4: 802.11ax mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

#### 10.2. Test Setup





FCC ID: 2ATFT-J7

## 10.3. Test Data

Temperature: 26 °	°C Humidity:	49 %	Atmospheric Pressure:	101 kPa
-------------------	--------------	------	-----------------------	---------

TM3 / Band: 5150-5250 MHz / BW: 20 / CH: L									
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector		
10360.00	31.43	23.81	55.24	68.20	-12.96	V	Peak		
15540.00	32.72	28.68	61.40	68.20	-6.80	V	Peak		
10360.00	31.76	23.81	55.57	68.20	-12.63	Н	Peak		
15540.00	32.82	28.68	61.50	68.20	-6.70	Н	Peak		
10360.00	20.770	23.81	44.58	54.00	-9.42	V	AVG		
15540.00	21.813	28.68	50.49	54.00	-3.51	V	AVG		
10360.00	20.946	23.81	44.76	54.00	-9.24	Н	AVG		
15540.00	21.527	28.68	50.21	54.00	-3.79	Н	AVG		
		TM3 / Ban	d: 5150-5250	MHz / BW:	20 / CH: M				
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector		
10400.00	30.79	23.81	54.60	68.20	-13.60	V	Peak		
15600.00	32.25	29.13	61.38	68.20	-6.82	V	Peak		
10400.00	31.25	23.81	55.06	68.20	-13.14	Н	Peak		
15600.00	32.34	29.13	61.47	68.20	-6.73	Н	Peak		
10400.00	21.040	23.81	44.85	54.00	-9.15	V	AVG		
15600.00	21.933	29.13	51.06	54.00	-2.94	V	AVG		
10400.00	20.936	23.81	44.75	54.00	-9.25	Н	AVG		
15600.00	21.607	29.13	50.74	54.00	-3.26	Н	AVG		
		TM3 / Ban	d: 5150-5250	MHz / BW:	20 / CH: H				
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector		
10480.00	30.36	23.80	54.16	68.20	-14.04	V	Peak		
15720.00	31.73	30.03	61.76	68.20	-6.44	V	Peak		
10480.00	30.89	23.80	54.69	68.20	-13.51	Н	Peak		
15720.00	31.25	30.03	61.28	68.20	-6.92	Н	Peak		
10480.00	19.71	23.80	43.51	54.00	-10.49	V	AVG		
15720.00	20.69	30.03	50.72	54.00	-3.28	V	AVG		
10480.00	20.15	23.80	43.95	54.00	-10.05	Н	AVG		
15720.00	20.40	30.03	50.43	54.00	-3.57	Н	AVG		

## Remark:

- 1. Result =Reading + Factor
- 2. Only the worst case (802.11ac(VHT20)) is recorded in the report.
- 3. Test frequency are from 1GHz to 40GHz, the amplitude of spurious emissions which are attenuated more than 20 dB below the limits are not reported.



FCC ID: 2ATFT-J7

		TM4 / Ban	d: 5725-585	0 MHz / BW:	40 / CH: L		
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
11510.000	28.59	23.36	51.95	68.20	-16.25	V	Peak
17265.000	29.14	32.02	61.16	68.20	-7.04	V	Peak
11510.000	29.44	23.36	52.80	68.20	-15.40	Н	Peak
17265.000	29.40	32.02	61.42	68.20	-6.78	Н	Peak
11510.000	18.31	23.36	41.67	54.00	-12.33	V	AVG
17265.000	18.69	32.02	50.71	54.00	-3.29	V	AVG
11510.000	18.66	23.36	42.02	54.00	-11.98	Н	AVG
17265.000	19.14	32.02	51.16	54.00	-2.84	Н	AVG
		TM4 / Ban	d: 5725-5850	MHz / BW:	40 / CH: H		
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
11590.00	27.92	23.43	51.35	68.20	-16.85	V	Peak
17385.00	29.10	32.23	61.33	68.20	-6.87	V	Peak
11590.00	28.45	23.43	51.88	68.20	-16.32	Н	Peak
17385.00	28.67	32.23	60.90	68.20	-7.30	Н	Peak
11590.00	17.55	23.43	40.98	54.00	-13.02	V	AVG
17385.00	17.71	32.23	49.94	54.00	-4.06	V	AVG
11590.00	18.48	23.43	41.91	54.00	-12.09	Н	AVG
17385.00	18.63	32.23	50.86	54.00	-3.14	Н	AVG

## Remark:

- 1. Result =Reading + Factor
- 2. Only the worst case (802.11ax(HEW40)) is recorded in the report.
- 3. Test frequency are from 1GHz to 40GHz, the amplitude of spurious emissions which are attenuated more than 20 dB below the limits are not reported.



FCC ID: 2ATFT-J7

# APPENDIX I -- TEST SETUP PHOTOGRAPH

Please refer to separated files Appendix I -- Test Setup Photograph\_RF

# **APPENDIX II -- EXTERNAL PHOTOGRAPH**

Please refer to separated files Appendix II- External Photograph

# **APPENDIX III -- INTERNAL PHOTOGRAPH**

Please refer to separated files Appendix III- Internal Photograph

