



FCC Test Report

Report No: FCS202209251W02

Issued for

Applicant:	Dongguan Sunhans Technology Company Limited
Address:	Romm 1103,Building 8,Gemdale Wisdom Park,No 95 Jiaoping Road,Tangxia,Dongguan City,China
Product Name:	WIFI signal amplifier
Brand Name:	sunhans
Model Name:	SH24Go10W, SH24Gi10W
FCC ID:	2AYN6-SH24GO10W
Issued By: Flux Compliance Service Laboratory Add: Room 105 Floor Bao hao Technology Building 1 NO.15 Gong ye West Road Hi-Tech Industrial, Song shan lake Dongguan Tel: 769-27280901 Fax:769-27280901 http://www.FCS-lab.com	

TEST RESULT CERTIFICATION

Applicant's Name.....: Dongguan Sunhans Technology Company Limited
 Address.....: Romm 1103,Building 8,Gemdale Wisdom Park,No 95 Jiaoping Road, Tangxia,Dongguan City,China
 Manufacture's Name.....: Dongguan Sunhans Technology Company Limited
 Address.....: Romm 1103,Building 8,Gemdale Wisdom Park,No 95 Jiaoping Road,Tangxia,Dongguan City,China

Product Description

Product Name.....: WIFI signal amplifier
 Brand Name.....: sunhans
 Model Name.....: SH24Go10W
 Series Model.....: SH24Gi10W
 Test Standards.....: FCC Rules and Regulations Part 15 Subpart C, Section 247
 Test Procedure.....: ANSI C63.10:2013

This device described above has been tested by Flux Compliance Service Laboratory, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test.....:

Date (s) of performance of tests.: Aug 31, 2022 ~ Sep 24, 2022

Date of Issue.....: Sep 25, 2022

Test Result.....: Pass

Tested by

:

Scott Shen

(Scott Shen)

Reviewed by

:

Duke Qian

(Duke Qian)

Approved by

:

Jack Wang

(Jack Wang)



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Revision History

Rev.	Issue Date	Contents
00	September 25, 2022	Initial Issue

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

KDB 558074 D01 15.247 Meas Guidance v05r02.

FCC Part 15.247, Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	--
15.247 (a)(2)	6dB Bandwidth	PASS	--
15.247 (b)(3)	Output Power	PASS	--
15.209	Radiated Spurious Emission	PASS	--
15.247 (d)	Conducted Spurious & Band Edge Emission	PASS	--
15.247 (e)	Power Spectral Density	PASS	--
15.205	Restricted Band Edge Emission	PASS	--
Part 15.247(d)/ Part 15.209(a)	Band Edge Emission	PASS	--
15.203	Antenna Requirement	PASS	--

NOTE:

(1) 'N/A' denotes test is not applicable in this Test Report.

(2) All tests are according to ANSI C63.10-2013.

1.1 TEST FACTORY

Company Name:	Flux Compliance Service Laboratory		
Address:	Room 105 Floor Bao hao Technology Building 1 NO.15 Gong ye West Road Hi-Tech Industrial, Song shan lake Dongguan		
Telephone:	+86-769-27280901		
Fax:	+86-769-27280901		
FCC Test Firm Registration Number: 514908 Designation number: CN0127 A2LA accreditation number: 5545.01 ISED Number: 25801 CAB ID : CN0097			
Organization	CAB identifier	Scope / Recognition Date (yyyy-mm-dd)	Expiration (yyyy-mm-dd)
FLUX COMPLIANCE SERVICE LABORATORY Baohao Technology Building 1 No. 15 Gongye West Road Hi-Tech Industrial Park Songsham Lake Dongguan, Guangdong. 523808 PRC. ISED#: 25801 Contact: Andy Yue andy-vue@fcs-lab.com	CN0097	RSS-102(RFExp) (2020-01-09) RSS-GEN (2020-01-09) RSS-210 (2020-01-09) RSS-247 (2020-01-09)	RECOGNIZED UNTIL: 2023-12-31 A2LA ISO/IEC 17025: 2017 Expires: 2023-12-31

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95 %**.

No.	Item	Uncertainty
1	RF output power, conducted	$\pm 0.68\text{dB}$
2	Unwanted Emissions, conducted	$\pm 2.988\text{dB}$
3	All emissions, radiated 9K-30MHz	$\pm 2.84\text{dB}$
4	All emissions, radiated 30M-1GHz	$\pm 4.39\text{dB}$
5	All emissions, radiated 1G-6GHz	$\pm 5.10\text{dB}$
6	All emissions, radiated >6G	$\pm 5.48\text{dB}$
7	Conducted Emission (9KHz-150KHz)	$\pm 2.79\text{dB}$
8	Conducted Emission (150KHz-30MHz)	$\pm 2.80\text{dB}$

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	WIFI signal amplifier	
Trade Mark	Sunhans	
Model Name	SH24Go10W	
Series Model	SH24Gi10W	
Model Difference	PCB board,structure and internal of these model(s) are the same ,except the model name difference,So no additional models were tested.	
Product Description	The EUT is a SH24Go10W	
	Operation Frequency:	802.11b/g/n20 2412~2462 MHz 802.11n40:2422~2452MHz
	Modulation Type:	802.11b(DSSS):CCK,DQPSK,DBPSK 802.11g(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM
	Number of Channel:	802.11b/g/n/20: 11CH 802.11n/40: 7CH
	Antenna Designation:	External antenna
	Antenna Gain(dBi):	ANT 1: 2.13
	Duty Cycle:	>98%
Channel List	Please refer to the Note 2.	
Adapter	Input: 100-240V~ 50/60Hz 1.5A Output: 24V-2A 48W MODEL: SK05T-2400200Z SN:21080601000202 Wireless adapter:DC 5V-1A	
Battery	N/A	
Hardware version number	V03	
Software versionnumber	V3.02	
Connecting I/O Port(s)	Please refer to the Note 1.	

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.
2. The accompanying wireless adapter is USB WiFi Adapter (Model:WD8811CU_D),support IEEE802.11 b/g/n.

2.

Operation Frequency of channel			
802.11b/g/n(20MHz)		Channel List for 802.11n(40MHz)	
Channel	Frequency	Channel	Frequency
01	2412	03	2422
02	2417	04	2427
03	2422	05	2432
04	2427	06	2437
05	2432	07	2442
06	2437	08	2447
07	2442	09	2452
08	2447		
09	2452		
10	2457		
11	2462		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Carrier Frequency Channel

2.4GHz Test Frequency:

For 802.11b/g/n (HT20)		For 802.11n (HT40)	
Channel	Freq.(MHz)	Channel	Freq.(MHz)
01	2412	03	2422
06	2437	06	2437
11	2462	09	2452

Note: The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report.

2.2 DESCRIPTION OF THE TEST MODES

Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Worst Mode	Description	Data Rate
Mode 1	TX IEEE 802.11b CH1	1 Mbps
Mode 2	TX IEEE 802.11b CH6	1 Mbps
Mode 3	TX IEEE 802.11 b CH11	1 Mbps
Mode 4	TX IEEE 802.11g CH1	6 Mbps
Mode 5	TX IEEE 802.11g CH6	6 Mbps
Mode 6	TX IEEE 802.11g CH11	6 Mbps
Mode 7	TX IEEE 802.11n HT20 CH1	MCS 0
Mode 8	TX IEEE 802.11n HT20 CH6	MCS 0
Mode 9	TX IEEE 802.11n HT20 CH11	MCS 0
Mode 10	TX IEEE 802.11n HT40 CH3	MCS 0
Mode 11	TX IEEE 802.11n HT40 CH6	MCS 0
Mode 12	TX IEEE 802.11n HT40 CH9	MCS 0

Note:

- (1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.
- (2) We have be tested for all available U.S. voltage and frequencies(For 120V,50/60Hz and 240V, 50/60Hz) for which the device is capable of operation, and the worst case of 120V /60Hz is shown in the report.
- (3) The battery is fully-charged during the radited and RF conducted test.

AC Conducted Emission

Test Case	
AC Conducted Emission	WLAN Link

2.3 TEST SOFTWARE AND POWER LEVEL

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

Accessories Equipment

Description	Manufacturer	Model	S/N	Rating
power adapter	DTEN	SK05T-2400200Z	21080601000202	1.5m
notebook computer	DELL	DELL	N/A	N/A

2.4 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (2) “YES” is means “with core”; “NO” is means “without core”.

2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Company No.	Last calibration	Calibrated until
EMI Test Receiver	R&S	ESRP 3	FCS-E001	2022.02.10	2023.02.09
Signal Analyzer	R&S	FSV40-N	FCS-E012	2022.02.10	2023.02.09
Active loop Antenna	ZHINAN	ZN30900C	FCS-E013	2022.02.10	2023.02.09
Bilog Antenna	SCHWARZBECK	VULB 9168	FCS-E002	2022.02.10	2023.02.09
Horn Antenna	SCHWARZBECK	BBHA 9120D	FCS-E003	2022.02.10	2023.02.09
SHF-EHF Horn Antenna (18G-40GHz)	A-INFO	LB-180400-KF	FCS-E018	2022.02.10	2023.02.09
Pre-Amplifier(0.1M-3G Hz)	EMCI	EM330N	FCS-E004	2022.02.10	2023.02.09
Pre-Amplifier (1G-18GHz)	N/A	TSAMP-0518SE	FCS-E014	2022.02.10	2023.02.09
Pre-Amplifier (18G-40GHz)	TERA-MW	TRLA-0400	FCS-E019	2022.02.10	2023.02.09
Temperature & Humidity	HTC-1	victor	FCS-E005	2022.02.10	2023.02.09
Testing Software	EZ-EMC(Ver.STSLAB 03A1 RE)				

Conduction Test equipment

Kind of Equipment	Manufacturer	Type No.	Company No.	Last calibration	Calibrated until
EMI Test Receiver	R&S	ESPI	FCS-E020	2022.02.10	2023.02.09
LISN	R&S	ENV216	FCS-E007	2022.02.10	2023.02.09
LISN	ETS	3810/2NM	FCS-E009	2022.02.10	2023.02.09
Temperature & Humidity	HTC-1	victor	FCS-E008	2022.02.10	2023.02.09
Testing Software	EZ-EMC(Ver.EMC-CON 3A1.1)				

RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Company No.	Last calibration	Calibrated until
MXA SIGNAL Analyzer	Keysight	N9020A	FCS-E015	2022.02.10	2023.02.09
Spectrum Analyzer	Agilent	E4447A	MY50180039	2022.02.10	2023.02.09
Spectrum Analyzer	R&S	FSV-40	101499	2022.02.10	2023.02.09
Power Sensor	Agilent	UX2021XA	FCS-E021	2022.02.10	2023.02.09
Testing Software	EZ-EMC(Ver.STSLAB 03A1 RE)				

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table.

FREQUENCY (MHz)	Conducted Emissionlimit (dBuV)	
	Quasi-peak	Average
0.15 -0.5	66 – 56 *	56 – 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of “ * ” marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

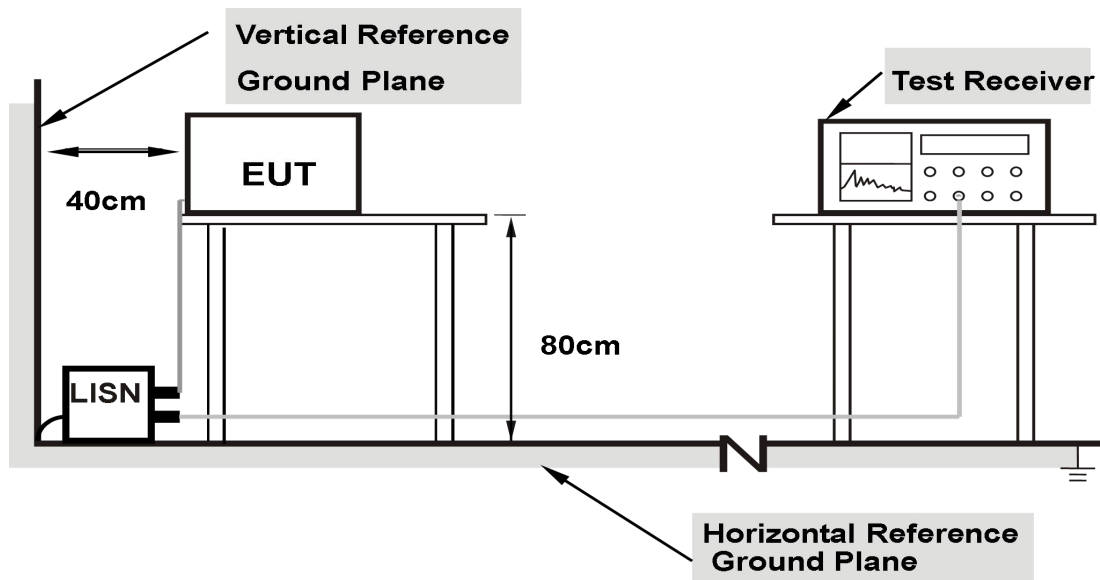
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2 TEST PROCEDURE

- The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN is at least 80 cm from the nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 TEST SETUP



Note: 1. Support units were connected to second LISN.

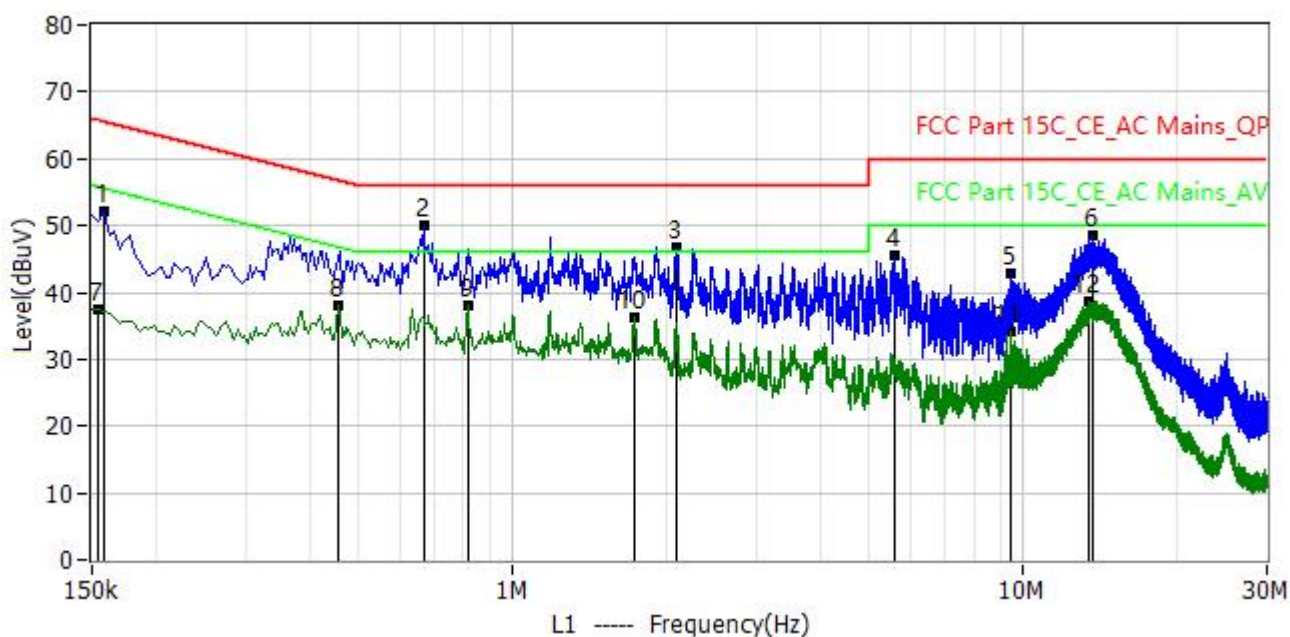
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes support units.

3.1.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

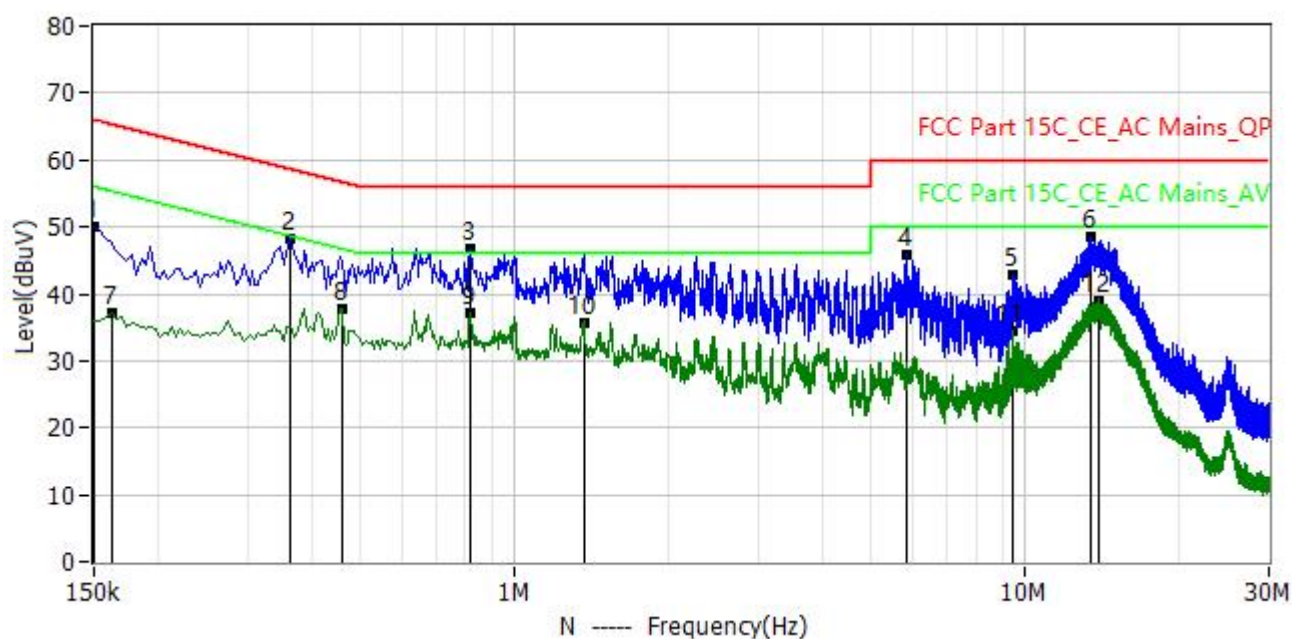
3.1.5 TEST RESULT

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25°C
M/N: SH24Go10W	Humidity: 45%RH
Test Mode: Mode 1	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-19	



No.	Frequency	Limit dBuV	Level dBuV	Delta dB	Reading dBuV	Factor dB	Detector	Phase
1*	158.000kHz	65.6	52.1	-13.5	31.6	20.5	QP	L1
2*	670.000kHz	56.0	49.9	-6.1	29.4	20.5	QP	L1
3*	2.102MHz	56.0	46.6	-9.4	25.9	20.7	QP	L1
4*	5.594MHz	60.0	45.4	-14.6	24.6	20.8	QP	L1
5*	9.482MHz	60.0	42.8	-17.2	21.9	20.9	QP	L1
6*	13.710MHz	60.0	48.4	-11.6	27.3	21.1	QP	L1
7*	154.000kHz	55.8	37.4	-18.4	16.9	20.5	AV	L1
8*	454.000kHz	46.8	38.0	-8.8	17.5	20.5	AV	L1
9*	818.000kHz	46.0	38.1	-7.9	17.6	20.5	AV	L1
10*	1.738MHz	46.0	36.4	-9.6	15.7	20.7	AV	L1
11*	9.414MHz	50.0	34.1	-15.9	13.2	20.9	AV	L1
12*	13.470MHz	50.0	38.7	-11.3	17.6	21.1	AV	L1

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25°C
M/N: SH24Go10W	Humidity: 45%RH
Test Mode: Mode 1	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-19	



No.	Frequency	Limit dBuV	Level dBuV	Delta dB	Reading dBuV	Factor dB	Detector	Phase
1*	150.000kHz	66.0	50.1	-15.9	29.6	20.5	QP	N
2*	362.000kHz	58.7	48.3	-10.4	27.8	20.5	QP	N
3*	822.000kHz	56.0	46.8	-9.2	26.3	20.5	QP	N
4*	5.834MHz	60.0	45.8	-14.2	25.0	20.8	QP	N
5*	9.450MHz	60.0	42.9	-17.1	22.0	20.9	QP	N
6*	13.446MHz	60.0	48.6	-11.4	27.6	21.0	QP	N
7*	162.000kHz	55.4	37.1	-18.3	16.6	20.5	AV	N
8*	458.000kHz	46.7	37.7	-9.0	17.2	20.5	AV	N
9*	818.000kHz	46.0	37.3	-8.7	16.8	20.5	AV	N
10*	1.370MHz	46.0	35.8	-10.2	15.2	20.6	AV	N
11*	9.414MHz	50.0	34.4	-15.6	13.5	20.9	AV	N
12*	13.874MHz	50.0	39.1	-10.9	18.0	21.1	AV	N

3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS

In any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the Restricted band specified on Part15.205(a)&209(a) limit in the table and according to ANSI C63.10-2013 below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (0.009MHz - 1000MHz)

Frequencies (MHz)	Field Strength (micorvolts/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

LIMITS OF RADIATED EMISSION MEASUREMENT (1000MHz-25GHz)

FREQUENCY (MHz)	(dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

LIMITS OF RESTRICTED FREQUENCY BANDS

FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (GHz)
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	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
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	Above 38.6

13.36-13.41			
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For Radiated Emission

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/QP/AV
Start Frequency	9 KHz/150KHz(Peak/QP/AV)
Stop Frequency	150KHz/30MHz(Peak/QP/AV)
RB / VB (emission in restricted band)	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz); 200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/QP
Start Frequency	30 MHz(Peak/QP)
Stop Frequency	1000 MHz (Peak/QP)
RB / VB (emission in restricted band)	120 KHz / 300 KHz

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/AV
Start Frequency	1000 MHz(Peak/AV)
Stop Frequency	10th carrier hamonic(Peak/AV)
RB / VB (emission in restricted band)	1 MHz / 3 MHz(Peak) 1 MHz/1/T MHz(AVG)

For Restricted band

Spectrum Parameter	Setting
Detector	Peak/AV
Start/Stop Frequency	Lower Band Edge: 2310 to 2430 MHz Upper Band Edge: 2445 to 2500 MHz
RB / VB	1 MHz / 3 MHz(Peak) 1 MHz/1/T MHz(AVG)

Receiver Parameter	Setting
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	90kHz~110kHz / RB 200Hz for QP
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	490kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.2.2 TEST PROCEDURE

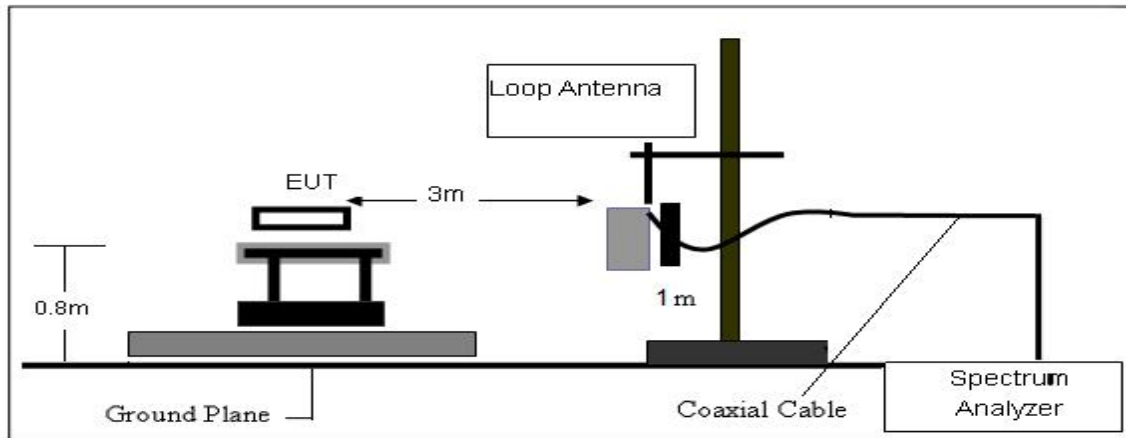
- The measuring distance at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
- The EUT was placed on the top of a rotating table 0.8 m (above 1GHz is 1.5 m) above the ground at a 3 m anechoic chamber test site. The table was rotated 360 degree to determine the position of the highest radiation.
- The height of the equipment shall be 0.8 m (above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. Horizontal and vertical polarization of the antenna are set to make the measurement.
- The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and QuasiPeak detector mode will be re-measured.
- If the Peak Mode measured value is compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and no additional QP Mode measurement was performed.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

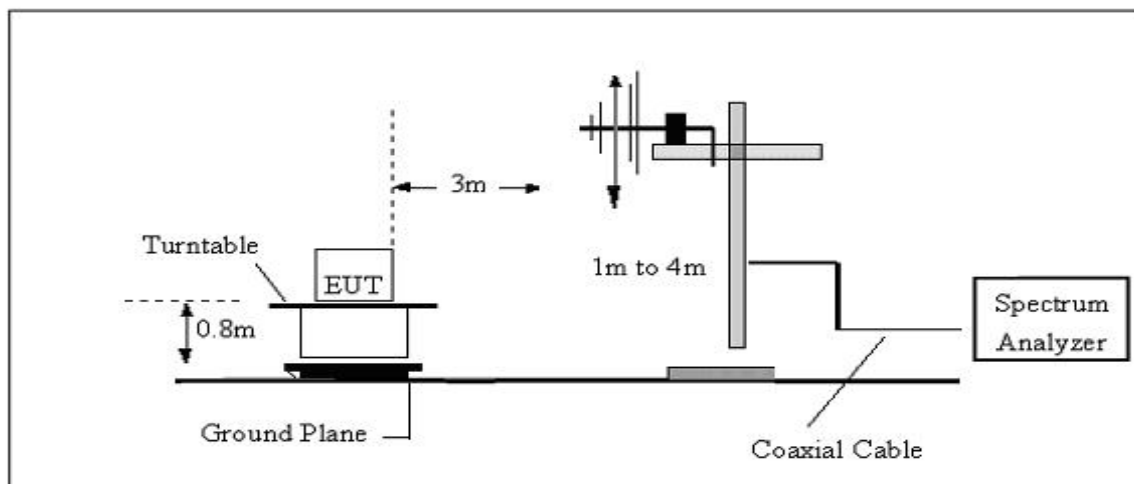
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

3.2.3 TEST SETUP

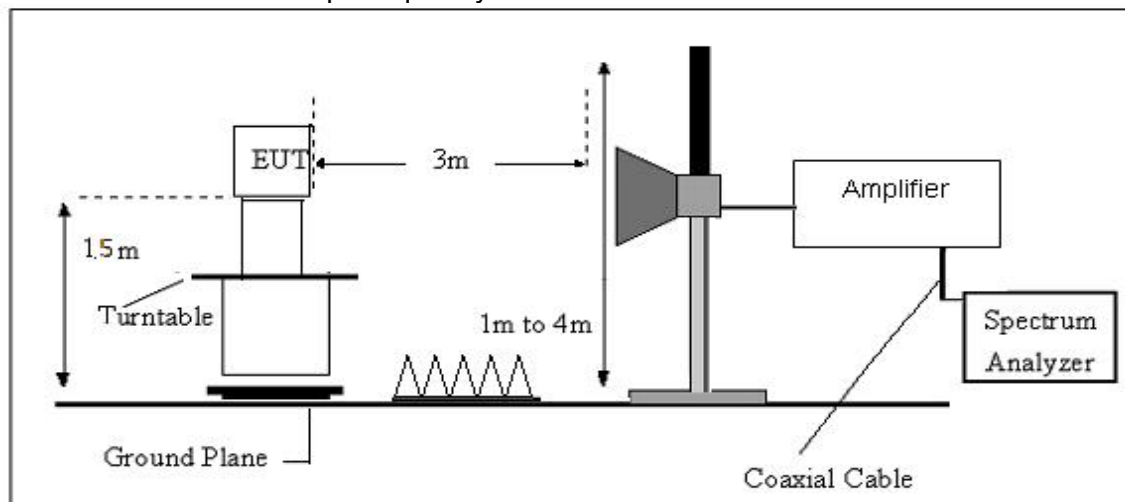
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



3.2.4 EUT OPERATING CONDITIONS

Please refer to section 3.1.4 of this report.

3.2.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where

FS = Field Strength

CL = Cable Attenuation Factor (Cable Loss)

RA = Reading Amplitude

AG = Amplifier Gain

AF = Antenna Factor

For example

Frequency	FS	RA	AF	CL	AG	Factor
(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(dB)	(dB)	(dB)
300	40	58.1	12.2	1.6	31.9	-18.1

$$\text{Factor} = AF + CL - AG$$

3.2.6 TEST RESULT

We have scanned the 10th harmonic from 9KHz to the EUT' s highest frequency.

Detailed information please see the following page.

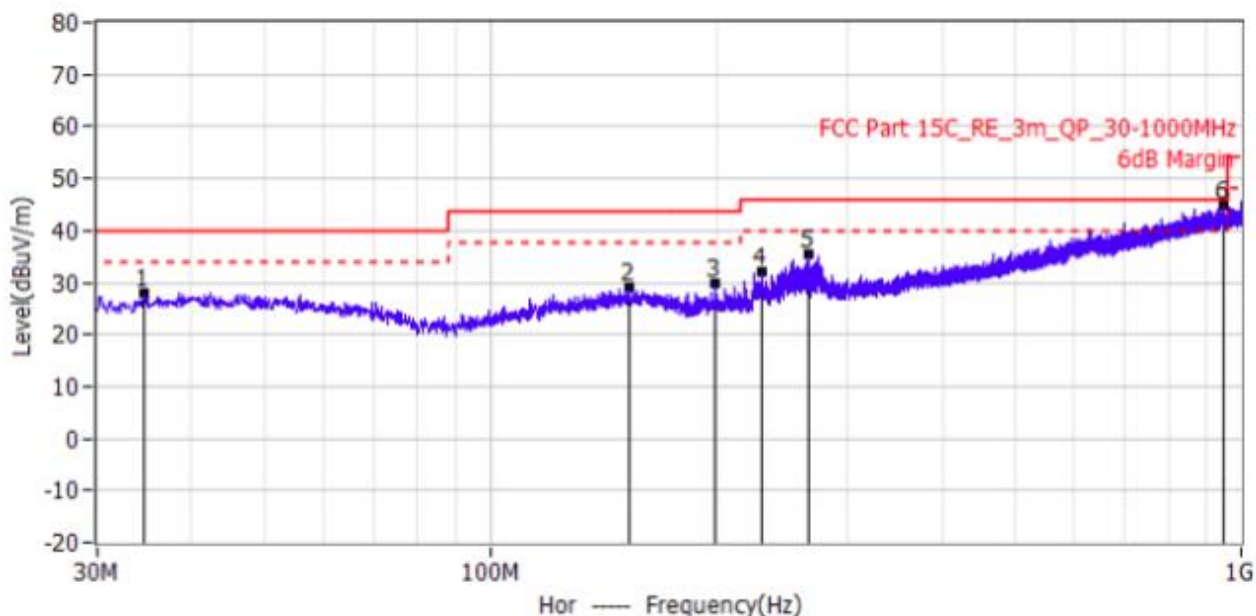
From 9KHz to 30MHz Conclusion: PASS

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

30-1G Remark: All modes have been tested, and only worst data of 802.11 B mode, Channel 2412MHz was listed in this report.

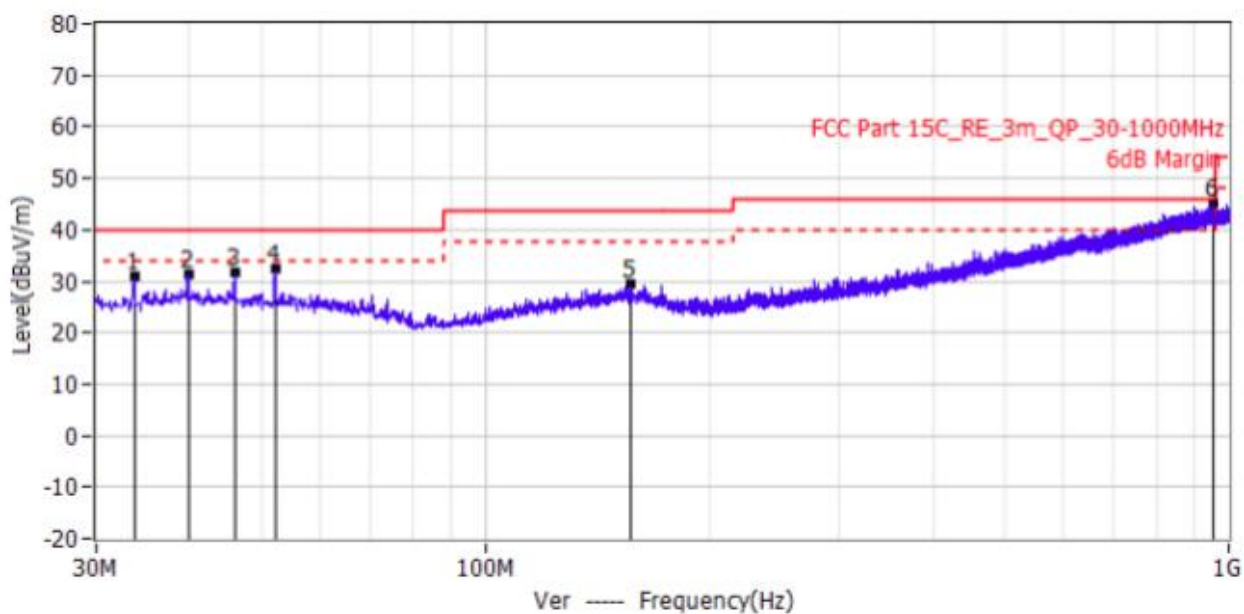
1-18G Remark: All modes have been tested, and only worst data of 802.11 B mode, was listed in this report.

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25°C
M/N: SH24Go10W	Humidity: 46%RH
Test Mode: Mode 1	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-17	



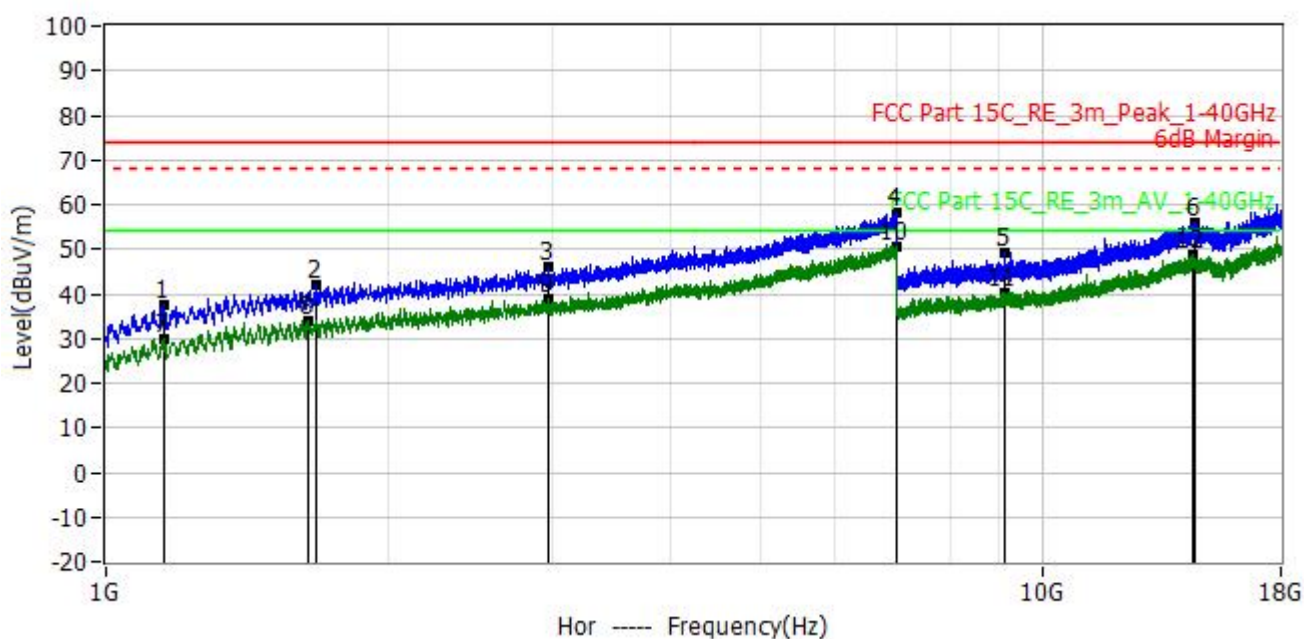
No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Delta dB	Detector	Polar
1*	34.608MHz	11.33	13.5	24.83	40	-15.17	QP	Hor
2*	152.948MHz	12.36	14.3	26.66	43.5	-16.84	QP	Hor
3*	199.871MHz	15.23	11.4	26.63	43.5	-16.87	QP	Hor
4*	230.426MHz	14.44	12.8	27.24	46	-18.76	QP	Hor
5*	265.104MHz	16.04	14.3	30.34	46	-15.66	QP	Hor
6*	945.438MHz	10.09	28.4	38.49	46	-7.51	QP	Hor

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25°C
M/N: SH24Go10W	Humidity: 46%RH
Test Mode: Mode 1	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-17	



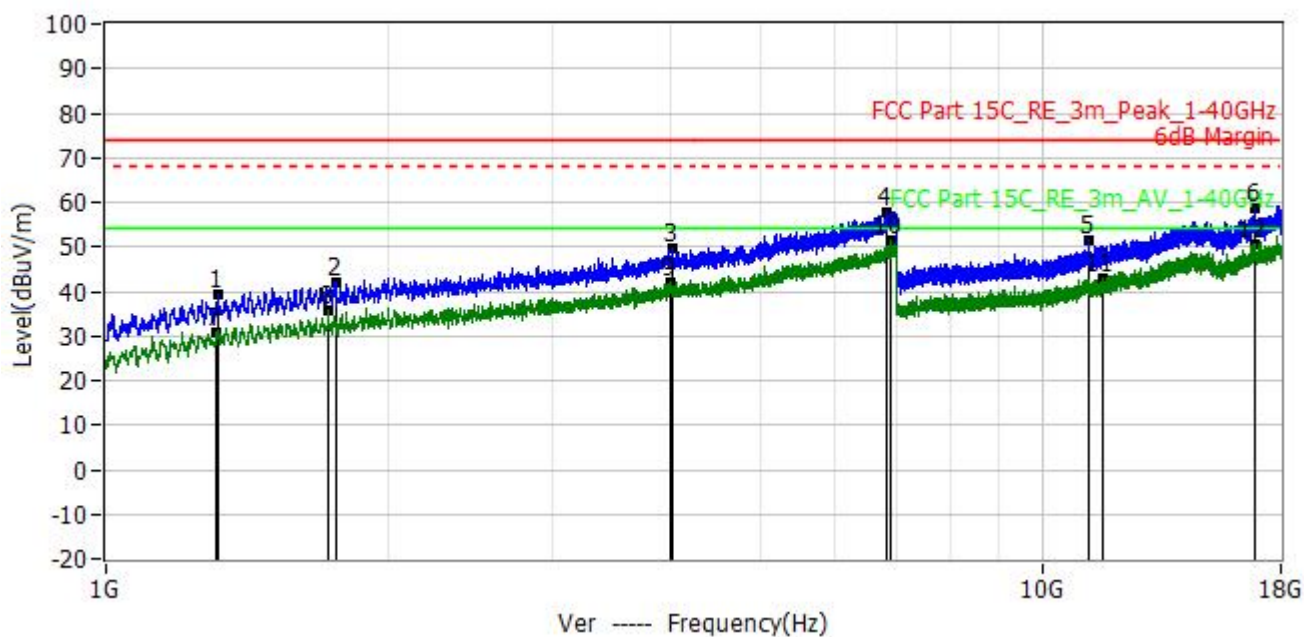
No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Delta dB	Detector	Polar
1*	33.759MHz	15.58	13.4	28.98	40.00	-11.02	QP	Ver
2*	39.943MHz	14.57	14.3	28.87	40.00	-11.13	QP	Ver
3*	46.005MHz	15.09	14.1	29.19	40.00	-10.81	QP	Ver
4*	52.189MHz	16.98	13.8	30.78	40.00	-9.22	QP	Ver
5*	157.070MHz	14.08	14.4	28.48	43.50	-15.02	QP	Ver
6*	952.470MHz	13.08	28.4	41.48	46.00	-4.52	QP	Ver

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25°C
M/N: SH24Go10W	Humidity: 46%RH
Test Mode: Mode 1	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-18	



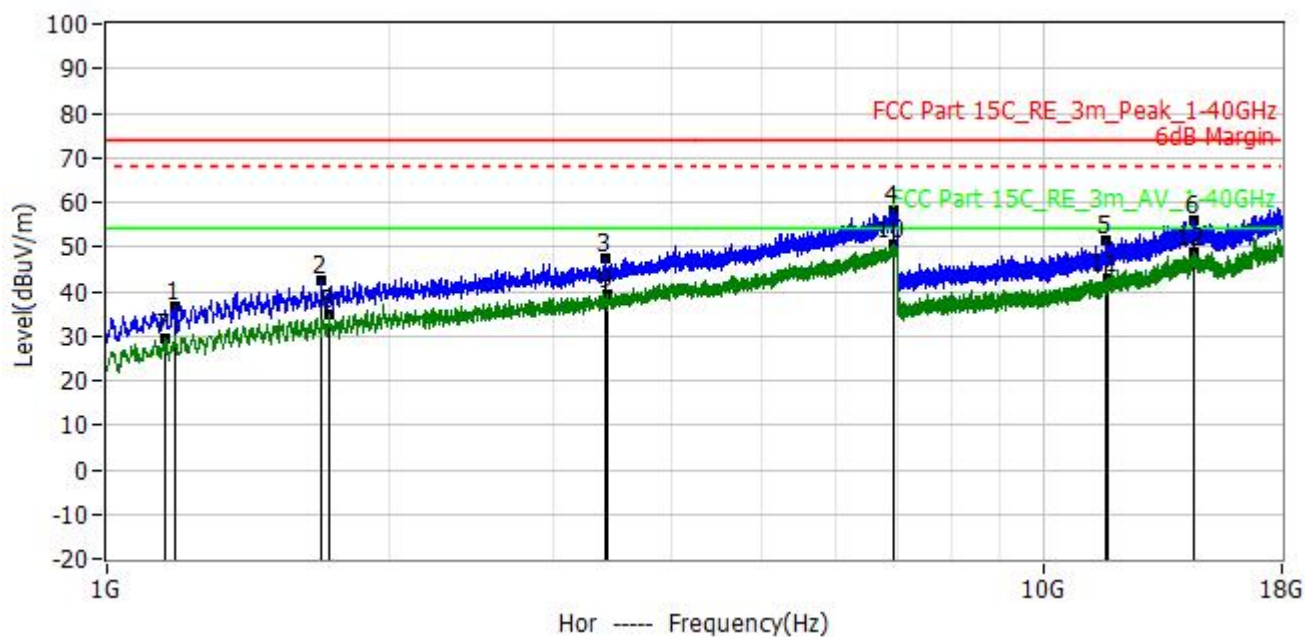
No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Delta dB	Detector	Polar
1*	1.151GHz	47.61	-10.07	37.54	74.00	-36.46	PK	Hor
2*	1.677GHz	46.55	-4.67	41.88	74.00	-32.12	PK	Hor
3*	2.965GHz	43.58	2.68	46.26	74.00	-27.74	PK	Hor
4*	6.985GHz	44.90	13.29	58.19	74.00	-15.81	PK	Hor
5*	9.137GHz	43.63	5.55	49.18	74.00	-24.82	PK	Hor
6*	14.586GHz	42.20	13.83	56.03	74.00	-17.97	PK	Hor
7*	1.151GHz	39.99	-10.07	29.92	54.00	-24.08	AV	Hor
8*	1.643GHz	39.15	-5.05	34.10	54.00	-19.90	AV	Hor
9*	2.962GHz	36.20	2.66	38.86	54.00	-15.14	AV	Hor
10*	6.991GHz	37.46	13.30	50.76	54.00	-3.24	AV	Hor
11*	9.118GHz	34.72	5.54	40.26	54.00	-13.74	AV	Hor
12*	14.479GHz	35.00	13.89	48.89	54.00	-5.11	AV	Hor

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25°C
M/N: SH24Go10W	Humidity: 46%RH
Test Mode: Mode 1	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-18	



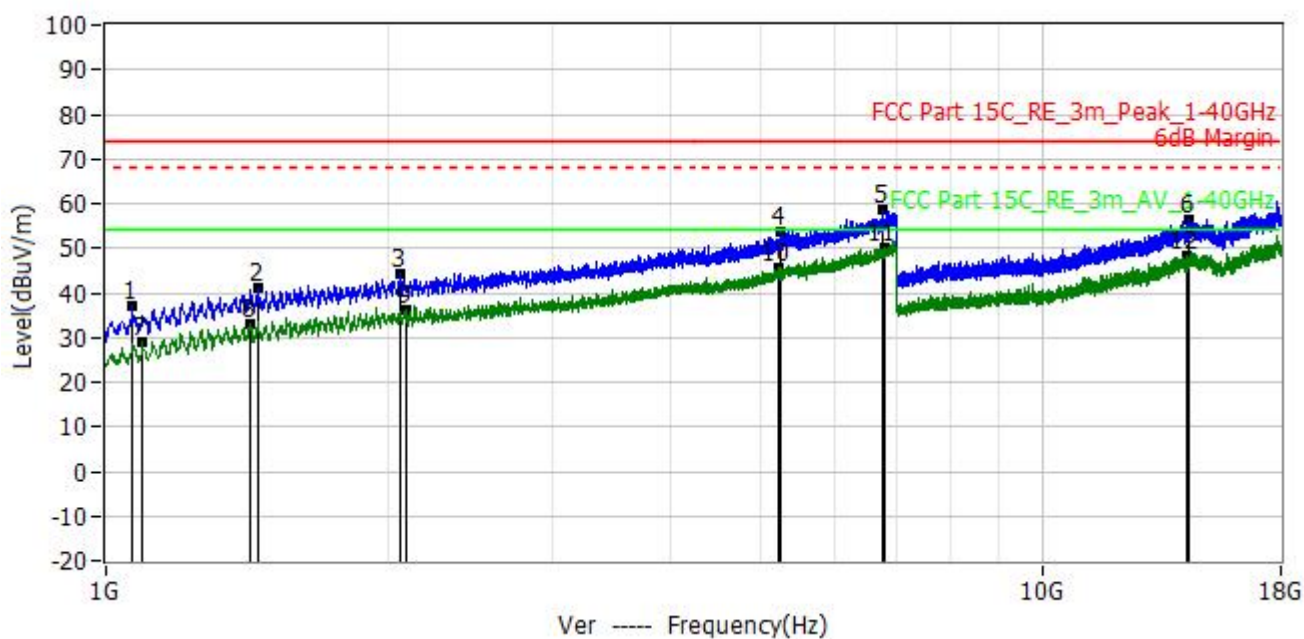
No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Delta dB	Detector	Polar
1*	1.315GHz	47.77	-8.54	39.23	74.00	-34.77	PK	Ver
2*	1.760GHz	45.54	-3.60	41.94	74.00	-32.06	PK	Ver
3*	4.028GHz	43.28	6.17	49.45	74.00	-24.55	PK	Ver
4*	6.823GHz	44.95	12.93	57.88	74.00	-16.12	PK	Ver
5*	11.201GHz	43.08	8.20	51.28	74.00	-22.72	PK	Ver
6*	16.854GHz	44.28	14.15	58.43	74.00	-15.57	PK	Ver
7*	1.311GHz	39.46	-8.58	30.88	54.00	-23.12	AV	Ver
8*	1.729GHz	39.71	-4.00	35.71	54.00	-18.29	AV	Ver
9*	4.006GHz	36.02	6.13	42.15	54.00	-11.85	AV	Ver
10*	6.884GHz	38.18	13.07	51.25	54.00	-2.75	AV	Ver
11*	11.590GHz	34.20	8.85	43.05	54.00	-10.95	AV	Ver
12*	16.854GHz	36.37	14.15	50.52	54.00	-3.48	AV	Ver

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25°C
M/N: SH24Go10W	Humidity: 46%RH
Test Mode: Mode 2	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-18	



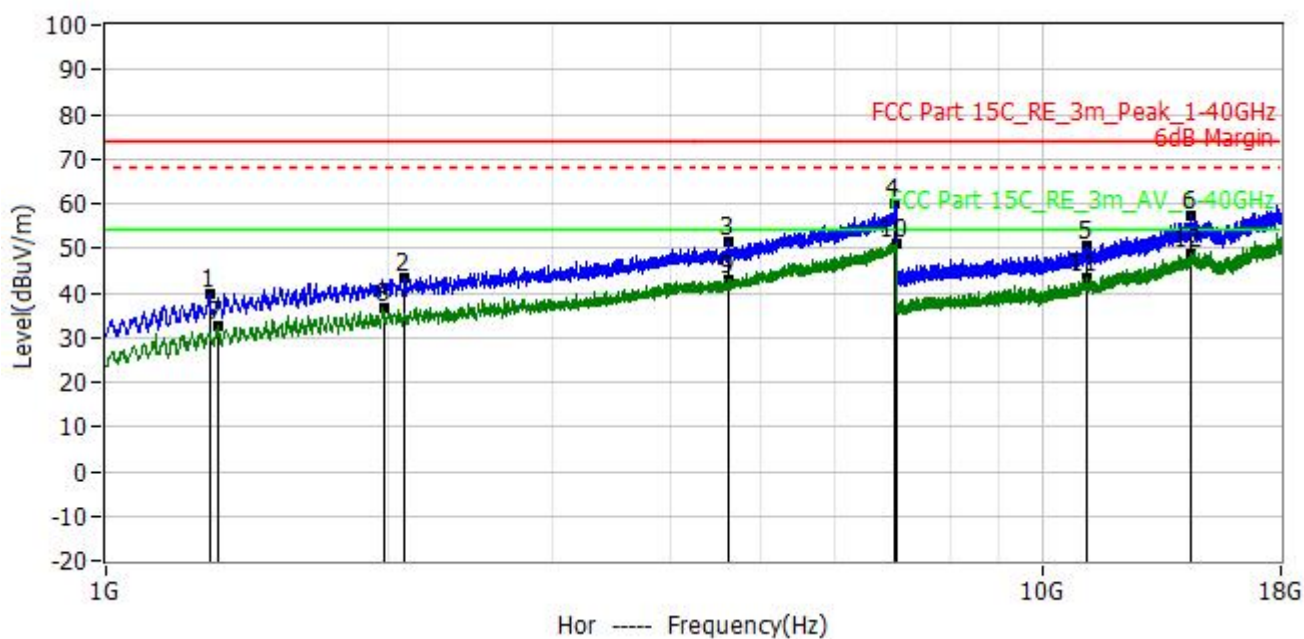
No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Delta dB	Detector	Polar
1*	1.180GHz	46.28	-9.79	36.49	74.00	-37.51	PK	Hor
2*	1.697GHz	46.65	-4.37	42.28	74.00	-31.72	PK	Hor
3*	3.407GHz	43.92	3.66	47.58	74.00	-26.42	PK	Hor
4*	6.928GHz	45.02	13.16	58.18	74.00	-15.82	PK	Hor
5*	11.648GHz	42.48	8.97	51.45	74.00	-22.55	PK	Hor
6*	14.501GHz	41.86	13.89	55.75	74.00	-18.25	PK	Hor
7*	1.151GHz	39.69	-10.07	29.62	54.00	-24.38	AV	Hor
8*	1.729GHz	38.71	-4.00	34.71	54.00	-19.29	AV	Hor
9*	3.433GHz	35.67	3.83	39.50	54.00	-14.50	AV	Hor
10*	6.923GHz	37.19	13.15	50.34	54.00	-3.66	AV	Hor
11*	11.737GHz	33.58	9.14	42.72	54.00	-11.28	AV	Hor
12*	14.498GHz	34.81	13.89	48.70	54.00	-5.30	AV	Hor

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25°C
M/N: SH24Go10W	Humidity: 46%RH
Test Mode: Mode 2	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-18	



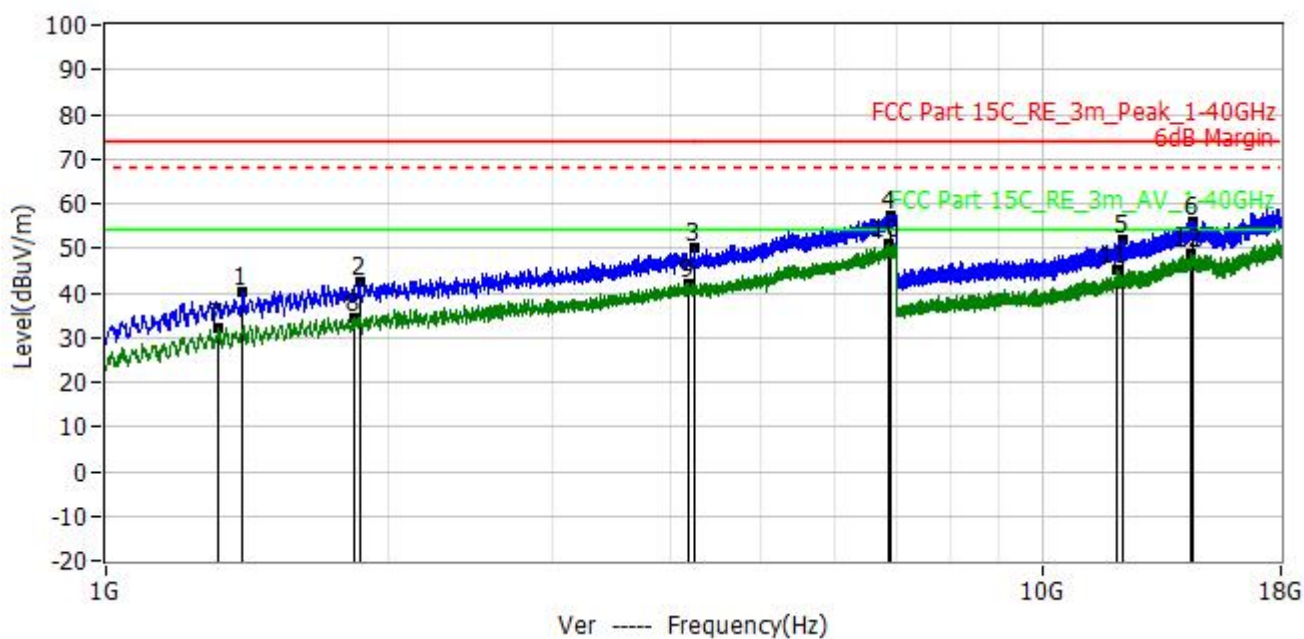
No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Delta dB	Detector	Polar
1*	1.066GHz	47.73	-10.80	36.93	74.00	-37.07	PK	Ver
2*	1.456GHz	48.33	-7.24	41.09	74.00	-32.91	PK	Ver
3*	2.058GHz	44.69	-0.43	44.26	74.00	-29.74	PK	Ver
4*	5.262GHz	44.37	9.26	53.63	74.00	-20.37	PK	Ver
5*	6.757GHz	45.77	12.79	58.56	74.00	-15.44	PK	Ver
6*	14.329GHz	42.50	13.94	56.44	74.00	-17.56	PK	Ver
7*	1.094GHz	39.49	-10.59	28.90	54.00	-25.10	AV	Ver
8*	1.425GHz	40.51	-7.51	33.00	54.00	-21.00	AV	Ver
9*	2.090GHz	36.34	-0.22	36.12	54.00	-17.88	AV	Ver
10*	5.218GHz	36.43	9.27	45.70	54.00	-8.30	AV	Ver
11*	6.794GHz	37.21	12.87	50.08	54.00	-3.92	AV	Ver
12*	14.309GHz	34.36	13.95	48.31	54.00	-5.69	AV	Ver

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25°C
M/N: SH24Go10W	Humidity: 46%RH
Test Mode: Mode 3	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-18	



No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Delta dB	Detector	Polar
1*	1.291GHz	48.71	-8.77	39.94	74.00	-34.06	PK	Hor
2*	2.086GHz	43.54	-0.23	43.31	74.00	-30.69	PK	Hor
3*	4.626GHz	43.95	7.30	51.25	74.00	-22.75	PK	Hor
4*	6.952GHz	46.67	13.21	59.88	74.00	-14.12	PK	Hor
5*	11.157GHz	42.28	8.13	50.41	74.00	-23.59	PK	Hor
6*	14.445GHz	43.33	13.91	57.24	74.00	-16.76	PK	Hor
7*	1.315GHz	41.02	-8.54	32.48	54.00	-21.52	AV	Hor
8*	1.978GHz	37.79	-0.95	36.84	54.00	-17.16	AV	Hor
9*	4.626GHz	35.65	7.30	42.95	54.00	-11.05	AV	Hor
10*	6.983GHz	37.72	13.28	51.00	54.00	-3.00	AV	Hor
11*	11.164GHz	35.23	8.14	43.37	54.00	-10.63	AV	Hor
12*	14.413GHz	34.97	13.92	48.89	54.00	-5.11	AV	Hor

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25°C
M/N: SH24Go10W	Humidity: 46%RH
Test Mode: Mode 3	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-18	



No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Delta dB	Detector	Polar
1*	1.396GHz	47.88	-7.79	40.09	74.00	-33.91	PK	Ver
2*	1.865GHz	44.65	-2.31	42.34	74.00	-31.66	PK	Ver
3*	4.246GHz	43.57	6.50	50.07	74.00	-23.93	PK	Ver
4*	6.894GHz	44.43	13.09	57.52	74.00	-16.48	PK	Ver
5*	12.197GHz	42.01	10.02	52.03	74.00	-21.97	PK	Ver
6*	14.506GHz	41.98	13.88	55.86	74.00	-18.14	PK	Ver
7*	1.316GHz	40.64	-8.52	32.12	54.00	-21.88	AV	Ver
8*	1.840GHz	37.00	-2.62	34.38	54.00	-19.62	AV	Ver
9*	4.193GHz	35.89	6.30	42.19	54.00	-11.81	AV	Ver
10*	6.852GHz	38.23	13.00	51.23	54.00	-2.77	AV	Ver
11*	12.036GHz	35.27	9.73	45.00	54.00	-9.00	AV	Ver
12*	14.431GHz	34.70	13.91	48.61	54.00	-5.39	AV	Ver

4. CONDUCTED SPURIOUS & BAND EDGE EMISSION

4.1 LIMIT

According to FCC section 15.247(d), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

4.2 TEST PROCEDURE

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	30 MHz to 10th carrier harmonic
RB / VB (emission in restricted band)	100 KHz/300 KHz
Trace-Mode:	Max hold

For Band edge

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	Lower Band Edge: 2300 to 2432 MHz Upper Band Edge: 2442 to 2500 MHz
RB / VB (emission in restricted band)	100 KHz/300 KHz
Trace-Mode:	Max hold

4.3 DEVIATION FROM STANDARD

No deviation.

4.4 TEST SETUP



The EUT which is powered by the $\{ \text{Power} \}$, is connected to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW.

4.5 EUT OPERATION CONDITIONS

Please refer to section 3.1.4 of this report.

4.6 TEST RESULTS

1) Radiated Method:

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25.3°C
M/N: SH24Go10W	Humidity: 47%RH
Test Mode: Mode 1	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-20	

Antenna polarity: Vertical

Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2390	44.23	27.62	3.92	34.97	40.8	74	33.2	PK
2390	--	27.62	3.92	34.97	--	54	--	AV

Antenna Polarity: Horizontal

2390	42.86	27.62	3.92	34.97	39.43	74	34.57	PK
2390	--	27.62	3.92	34.97	--	54	--	AV

Note:

- 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
- 2, Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: RMS
- 3, Result = Read level + Antenna factor + cable loss-Amp factor
- 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25.3°C
M/N: SH24Go10W	Humidity: 47%RH
Test Mode: Mode 3	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-20	

Antenna polarity: Vertical

Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2483.5	44.07	27.89	4	34.97	40.99	74	33.01	PK
2483.5	--	27.89	4	34.97	--	54	--	AV

Antenna Polarity: Horizontal

2483.5	43.27	27.89	4	34.97	40.19	74	33.81	PK
2483.5	--	27.89	4	34.97	--	54	--	AV

Note:

- 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
- 2, Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: RMS
- 3, Result = Read level + Antenna factor + cable loss-Amp factor
- 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25.3°C
M/N: SH24Go10W	Humidity: 47%RH
Test Mode: Mode 4	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-20	

Antenna polarity: Vertical								
Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2390	42.73	27.62	3.92	34.97	39.3	74	34.7	PK
2390	--	27.62	3.92	34.97	--	54	--	AV
Antenna Polarity: Horizontal								
2390	43.68	27.62	3.92	34.97	40.25	74	33.75	PK
2390	--	27.62	3.92	34.97	--	54	--	AV
Note:								
1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK								
2, Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: RMS								
3, Result = Read level + Antenna factor + cable loss-Amp factor								
4, All the other emissions not reported were too low to read and deemed to comply with FCC limit.								

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25.3°C
M/N: SH24Go10W	Humidity: 47%RH
Test Mode: Mode 6	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-20	

Antenna polarity: Vertical

Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2483.5	43.2	27.89	4	34.97	40.12	74	33.88	PK
2483.5	--	--	--	--	--	54	--	AV

Antenna Polarity: Horizontal

2483.5	43.42	27.89	4	34.97	40.34	74	33.66	PK
2483.5		--	--	--	--	54	--	AV

Note:

- 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
- 2, Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: RMS
- 3, Result = Read level + Antenna factor + cable loss-Amp factor
- 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25.3°C
M/N: SH24Go10W	Humidity: 47%RH
Test Mode: Mode 7	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-20	

Antenna polarity: Vertical								
Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2390	43.5	27.62	3.92	34.97	40.07	74	33.93	PK
2390	--	27.62	3.94	34.97	--	54	--	AV
Antenna Polarity: Horizontal								
2390	43.82	27.62	3.92	34.97	40.39	74	33.61	PK
2390	--	27.62	3.94	34.97	--	54	--	AV
Note:								
1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK								
2, Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: RMS								
3, Result = Read level + Antenna factor + cable loss-Amp factor								
4, All the other emissions not reported were too low to read and deemed to comply with FCC limit.								

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25.3°C
M/N: SH24Go10W	Humidity: 47%RH
Test Mode: Mode 9	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-20	

Antenna polarity: Vertical

Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2483.5	42.91	27.89	4	34.97	39.83	74	34.17	PK
2483.5		--	--	--	--	54	--	AV

Antenna Polarity: Horizontal

2483.5	43.35	27.89	4	34.97	40.27	74	33.73	PK
2483.5		--	--	--	--	54	--	AV

Note:

- 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
- 2, Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: RMS
- 3, Result = Read level + Antenna factor + cable loss-Amp factor
- 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25.3°C
M/N: SH24Go10W	Humidity: 47%RH
Test Mode: Mode 10	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-20	

Antenna polarity: Vertical

Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2390	43.5	27.62	3.92	34.97	40.07	74	33.93	PK
2390	--	27.62	3.94	34.97	--	54	--	AV

Antenna Polarity: Horizontal

2390	43.46	27.62	3.92	34.97	40.03	74	33.97	PK
2390	--	27.62	3.94	34.97	--	54	--	AV

Note:

- 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
- 2, Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: RMS
- 3, Result = Read level + Antenna factor + cable loss-Amp factor
- 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Test Lab: Huaxin test lab 3m	Test Engineer: Scott Shen
EUT: WIFI signal amplifier	Temperature: 25.3°C
M/N: SH24Go10W	Humidity: 47%RH
Test Mode: Mode 12	Test Voltage: AC 120V/60Hz
Test Data: 2022-09-20	

Antenna polarity: Vertical								
Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2483.5	42.75	27.89	4	34.97	39.67	74	34.33	PK
2483.5		--	--	--	--	54	--	AV
Antenna Polarity: Horizontal								
2483.5	43.52	27.89	4	34.97	40.44	74	33.56	PK
2483.5		--	--	--	--	54	--	AV
Note:								
1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK								
2, Spectrum Set for AV measure: RBW=1MHz, VBW=3MHz, Sweep time=Auto, Detector: RMS								
3, Result = Read level + Antenna factor + cable loss-Amp factor								
4, All the other emissions not reported were too low to read and deemed to comply with FCC limit.								

2)Conducted Method:

For the measurement records · refer to the appendix I.

5. POWER SPECTRAL DENSITY TEST

5.1 LIMIT

FCC Part15.247 , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(e)	Power Spectral Density	$\leq 8 \text{ dBm}$ (RBW $\geq 3\text{KHz}$)	2400-2483.5	PASS

5.2 TEST PROCEDURE

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.
3. Set the $100 \text{ kHz} \geq \text{RBW} \geq 3 \text{ kHz}$.
4. Set the $\text{VBW} \geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

Please refer to section 3.1.4 of this report.

5.6 TEST RESULTS

For the measurement records · refer to the appendix I.

6. BANDWIDTH TEST

6.1 LIMIT

FCC Part15.247,Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	$\geq 500\text{KHz}$ (6dB bandwidth)	2400-2483.5	PASS

6.2 TEST PROCEDURE

The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described above (i.e., RBW = 100 kHz, VBW $\geq$ 3RBW, peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

Please refer to section 3.1.4 of this report.

6.6 TEST RESULTS

For the measurement records · refer to the appendix I.

7. PEAK OUTPUT POWER TEST

7.1 LIMIT

FCC Part15.247,Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Output Power	1 watt or 30dBm	2400-2483.5	PASS

7.2 TEST PROCEDURE

One of the following procedures may be used to determine the maximum peak conducted output power of a DTS EUT.

RBW $\geq$ DTS bandwidth

The following procedure shall be used when an instrument with a resolution bandwidth that is greater than the DTS bandwidth is available to perform the measurement:

- Set the RBW $\geq$ DTS bandwidth.
- Set VBW $\geq$ [3 $\times$ RBW].
- Set span $\geq$ [3 $\times$ RBW].
- Sweep time = auto couple.
- Detector = peak.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use peak marker function to determine the peak amplitude level.

Integrated band power method:

The following procedure can be used when the maximum available RBW of the instrument is less than the

DTS bandwidth:

- Set the RBW = 1 MHz.
- Set the VBW $\geq$ [3 $\times$ RBW].
- Set the span $\geq$ [1.5 $\times$ DTS bandwidth].
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges (for some instruments, this may require a manual override to select the peak detector). If the instrument does not have a band power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the DTS channel bandwidth.

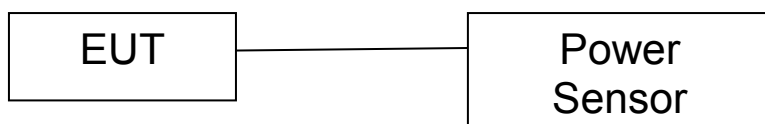
PKPM1 Peak power meter method:

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

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

Please refer to section 3.1.4 of this report.

7.6 TEST RESULTS

For the measurement records · refer to the appendix I.

8. ANTENNA REQUIREMENT

8.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

8.2 EUT ANTENNA

The EUT antenna is External Antenna. It comply with the standard requirement.

APPENDIX I:TEST RESULTS

Please refer to separated files for APPENDIX I TEST RESULTS.

APPENDIX II: External Photos

Please refer to separated files for APPENDIX II External Photos.

APPENDIX III: Internal Photos

Please refer to separated files for APPENDIX III Internal Photos.

APPENDIX III: Test Setup Photos

Please refer to separated files for APPENDIX III Test Setup Photos.



*****END OF THE REPORT*****