TEST REPORT

Product Name	:	Wi-Fi/BT Module
Brand Mark	:	FN-LINK
Model No.	:	6222D-UUC
FCC ID	:	2AATL-6222D-UUC
Report Number	:	BLA-EMC-202103-A7004
Date of Sample Receipt	:	2021/3/19
Date of Test	:	2021/3/19 to 2021/4/7
Date of Issue	:	2021/4/7
Test Standard	:	47 CFR Part 15, Subpart E 15.407
Test Result	:	Pass

Prepared for:

HUNAN FN-LINK TECHNOLOGY LIMITED
No.8, Litong Road, Liuyang Economic & Technical Development Zone, Changsha, Hunan, CHINA

Prepared by:

BlueAsia of Technical Services(Shenzhen) Co.,Ltd.
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Compiled by: Ben Zong

Review by: Sweet. Liang

Approved by: Tomen Li

Date: 2021/4/7

BlueAsia of Technical Services(Shenzhen) Co., Ltd. BLA

REPORT REVISE RECORD

Version No.	Date	Description
00	2021/4/7	Original

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1 TEST SUMMARY

Test item	Test Requirement	Test Method	Class/Severity	Result
Frequency Stability	47 CFR Part 15, Subpart E 15.407	ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart C 15.407 (g)	Pass
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass
26dB Emission bandwidth	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II C 1	47 CFR Part 15, Subpart C 15.407 (a)	Pass
Antenna Requirement	47 CFR Part 15, Subpart E 15.407	N/A	47 CFR Part 15, Subpart C 15.203	Pass
99% Bandwidth	47 CFR Part 15, Subpart E 15.407	KDB 789033 II D	N/A	Pass
Peak Power spectrum density	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II F	47 CFR Part 15, Subpart C 15.407 (a)	Pass
Maximum Conducted output power	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II E	47 CFR Part 15, Subpart C 15.407 (a)	Pass
Minimum 6 dB bandwidth (5.725-5.85 GHz band)	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II C 2	47 CFR Part 15, Subpart C 15.407 (e)	Pass
Radiated Emissions	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	Pass

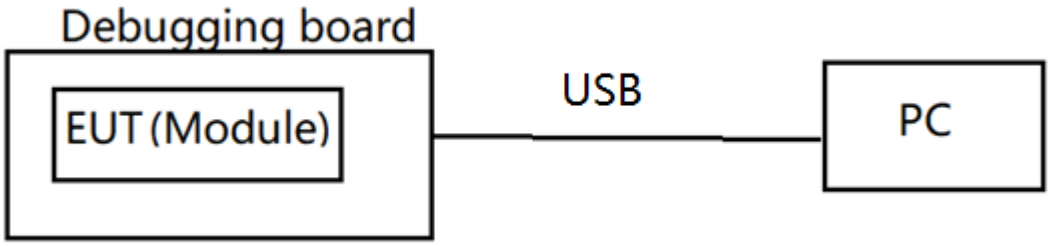
2 GENERAL INFORMATION

Applicant	HUNAN FN-LINK TECHNOLOGY LIMITED
Address	No.8, Litong Road, Liuyang Economic & Technical Development Zone, Changsha, Hunan, CHINA
Manufacturer	HUNAN FN-LINK TECHNOLOGY LIMITED
Address	No.8, Litong Road, Liuyang Economic & Technical Development Zone, Changsha, Hunan, CHINA
Factory	HUNAN FN-LINK TECHNOLOGY LIMITED
Address	No.8, Litong Road, Liuyang Economic & Technical Development Zone, Changsha, Hunan, CHINA
Product Name	Wi-Fi/BT Module
Test Model No.	6222D-UUC

3 GENERAL DESCRIPTION OF E.U.T.

Hardware Version	V2.0
Software Version	V2.0
Operation Frequency:	Band 1 : 5180MHz-5240MHz; Band 2:5260MHz~5320MHz Band 3: 5500MHz~5700MHz; Band 4 : 5745MHz-5825MHz
Channel numbers:	Band 1: 802.11a/802.11n(HT20)/802.11ac(HT20): 4, 802.11n(HT40)/802.11ac(HT40):2, 802.11ac(HT80): 1
	Band 2: 802.11a/802.11n(HT20)/802.11ac(HT20): 4, 802.11n(HT40)/802.11ac(HT40):2, 802.11ac(HT80): 1
	Band 3: 802.11a/802.11n(HT20)/802.11ac(HT20): 11, 802.11n(HT40)/802.11ac(HT40):5, 802.11ac(HT80): 3
	Band 4: 802.11a/802.11(HT20)/802.11ac(HT20): 5, 802.11n(HT40)/802.11ac(HT40): 2, 802.11ac(HT80): 1
Channel separation:	802.11a/n/ac(HT20): 20MHz, 802.11n/ac(HT40): 40MHz, 802.11ac(HT80): 80MHz
Modulation technology: (IEEE 802.11a/n/ac)	BPSK, QPSK,16-QAM, 64-QAM, 256QAM
Data speed(IEEE 802.11a)	6Mbps, 9Mbps,12Mbps,18Mbps, 24Mbps,36Mbps,48Mbps, 54Mbps
Data speed (IEEE 802.11n/ac):	Up to 866.7Mbps
Antenna Type:	Internal antenna
Antenna gain:	Antenna 1:2.5dBi, Antenna 2:2.5dBi
Note:	Antenna number : 2 SISO mode： 802.11a MIMO mode： 802.11n(HT20)/ 802.11n(HT40)/ 802.11ac(HT20)/ 802.11ac(HT40)/ 802.11ac(HT80) Directional gain of MIMO mode:2+10log2=5.01dBi
Remark:The Antenna Gain is supplied by the customer.BlueAsia is not responsible for this data	

4 BLOCK DIAGRAM OF EUT CONNECTION



5 TEST ENVIRONMENT

Environment	Temperature	Voltage
Normal	+25°C	DC3.3V

6 TEST MODE

TEST MODE	TEST MODE DESCRIPTION
Continuously transmitting mode	Keep the EUT in transmitting with modulation.
TX Low channel	Keep the EUT in continuously transmitting mode in low channel
TX middle channel	Keep the EUT in continuously transmitting mode in middle channel
TX high channel	Keep the EUT in continuously transmitting mode in high channel
Remark:Only the data of the worst mode would be recorded in this report.	

7 MEASUREMENT UNCERTAINTY

Parameter	Expanded Uncertainty (Confidence of 95%)
Radiated Emission(9kHz-30MHz)	±4.34dB
Radiated Emission(30Mz-1000MHz)	±4.24dB
Radiated Emission(1GHz-18GHz)	±4.68dB
AC Power Line Conducted Emission(150kHz-30MHz)	±3.45dB

Parameter	Expanded Uncertainty (Confidence of 95%)
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±1.5 dB
Power Spectral Density, conducted	±3.0 dB
Unwanted Emissions, conducted	±3.0 dB

Temperature	±3 °C
Supply voltages	±3 %
Time	±5 %
Radiated Emission (30MHz ~ 1000MHz)	±4.35 dB
Radiated Emission (1GHz ~ 18GHz)	±4.44 dB

8 DESCRIPTION OF SUPPORT UNIT

Device Type	Manufacturer	Model Name	Serial No.	Remark
PC	HASEE	K610D	N/A	N/A

9 LABORATORY LOCATION

All tests were performed at:
BlueAsia of Technical Services(Shenzhen) Co., Ltd.
Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province, China
Telephone: TEL: +86-755-28682673 FAX: +86-755-28682673
No tests were sub-contracted.

10 TEST INSTRUMENTS LIST

Test Equipment Of Frequency Stability					
Equipment	**Manufacturer**	**Model**	**S/N**	**Cal.Date**	**Cal.Due**
Spectrum	R&S	FSP40	100817	2020/10/12	2021/10/11
Spectrum	Agilent	N9020A	MY49100060	2020/10/12	2021/10/11
Signal Generator	Agilent	N5182A	MY49060650	2020/10/12	2021/10/11
Signal Generator	Agilent	E8257D	MY44320250	2020/10/12	2021/10/11

Test Equipment Of Radiated Emissions which fall in the restricted bands					
Equipment	**Manufacturer**	**Model**	**S/N**	**Cal.Date**	**Cal.Due**
Chamber	SKET	966	N/A	2020/11/10	2023/11/9
Spectrum	R&S	FSP40	100817	2020/10/12	2021/10/11
Receiver	R&S	ESR7	101199	2020/10/12	2021/10/11
broadband Antenna	Schwarzbeck	VULB9168	00836 P:00227	2020/9/26	2022/9/25
Horn Antenna	Schwarzbeck	9120D	01892 P:00331	2020/9/26	2022/9/25
Amplifier	SKET	PA-000318G-45	N/A	2020/10/16	2021/10/15
EMI software	EZ	EZ-EMC	EEMC-3A1	N/A	N/A
Loop antenna	SCHNARZBECK	FMZB1519B	00102	2020/9/26	2022/9/25
Controller	SKET	N/A	N/A	N/A	N/A
Coaxial Cable	BlueAsia	BLA-XC-02	N/A	N/A	N/A
Coaxial Cable	BlueAsia	BLA-XC-03	N/A	N/A	N/A
Coaxial Cable	BlueAsia	BLA-XC-01	N/A	N/A	N/A

Test Equipment Of 26dB Emission bandwidth					
Equipment	**Manufacturer**	**Model**	**S/N**	**Cal.Date**	**Cal.Due**

Spectrum	R&S	FSP40	100817	2020/10/12	2021/10/11
Spectrum	Agilent	N9020A	MY49100060	2020/10/12	2021/10/11
Signal Generator	Agilent	N5182A	MY49060650	2020/10/12	2021/10/11
Signal Generator	Agilent	E8257D	MY44320250	2020/10/12	2021/10/11

Test Equipment Of Radiated Spurious emissions and Band-edge					
Equipment	**Manufacturer**	**Model**	**S/N**	**Cal.Date**	**Cal.Due**
Chamber	SKET	966	N/A	2020/11/10	2023/11/9
Spectrum	R&S	FSP40	100817	2020/10/12	2021/10/11
Receiver	R&S	ESR7	101199	2020/10/12	2021/10/11
broadband Antenna	Schwarzbeck	VULB9168	00836 P:00227	2020/9/26	2022/9/25
Horn Antenna	Schwarzbeck	9120D	01892 P:00331	2020/9/26	2022/9/25
Amplifier	SKET	PA-000318G-45	N/A	2020/10/16	2021/10/15
EMI software	EZ	EZ-EMC	EEMC-3A1	N/A	N/A
Loop antenna	SCHNARZBECK	FMZB1519B	00102	2020/9/26	2022/9/25
Controller	SKET	N/A	N/A	N/A	N/A
Coaxial Cable	BlueAsia	BLA-XC-02	N/A	N/A	N/A
Coaxial Cable	BlueAsia	BLA-XC-03	N/A	N/A	N/A
Coaxial Cable	BlueAsia	BLA-XC-01	N/A	N/A	N/A

Test Equipment Of Peak Power spectrum density					
Equipment	**Manufacturer**	**Model**	**S/N**	**Cal.Date**	**Cal.Due**
Spectrum	R&S	FSP40	100817	2020/10/12	2021/10/11
Spectrum	Agilent	N9020A	MY49100060	2020/10/12	2021/10/11

Signal Generator	Agilent	N5182A	MY49060650	2020/10/12	2021/10/11
Signal Generator	Agilent	E8257D	MY44320250	2020/10/12	2021/10/11

Test Equipment Of Transmitter Power Control					
Equipment	**Manufacturer**	**Model**	**S/N**	**Cal.Date**	**Cal.Due**
Spectrum	R&S	FSP40	100817	2020/10/12	2021/10/11
Spectrum	Agilent	N9020A	MY49100060	2020/10/12	2021/10/11
Signal Generator	Agilent	N5182A	MY49060650	2020/10/12	2021/10/11
Signal Generator	Agilent	E8257D	MY44320250	2020/10/12	2021/10/11

Test Equipment Of Maximum Conducted output power					
Equipment	**Manufacturer**	**Model**	**S/N**	**Cal.Date**	**Cal.Due**
Spectrum	R&S	FSP40	100817	2020/10/12	2021/10/11
Spectrum	Agilent	N9020A	MY49100060	2020/10/12	2021/10/11
Signal Generator	Agilent	N5182A	MY49060650	2020/10/12	2021/10/11
Signal Generator	Agilent	E8257D	MY44320250	2020/10/12	2021/10/11

Test Equipment Of Minimum 6 dB bandwidth (5.725-5.85 GHz band)					
Equipment	**Manufacturer**	**Model**	**S/N**	**Cal.Date**	**Cal.Due**
Spectrum	R&S	FSP40	100817	2020/10/12	2021/10/11
Spectrum	Agilent	N9020A	MY49100060	2020/10/12	2021/10/11
Signal Generator	Agilent	N5182A	MY49060650	2020/10/12	2021/10/11
Signal Generator	Agilent	E8257D	MY44320250	2020/10/12	2021/10/11

Test Equipment Of Radiated Emissions

Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
Chamber	SKET	966	N/A	2020/11/10	2023/11/9
Spectrum	R&S	FSP40	100817	2020/10/12	2021/10/11
Receiver	R&S	ESR7	101199	2020/10/12	2021/10/11
broadband Antenna	Schwarzbeck	VULB9168	00836 P:00227	2020/9/26	2022/9/25
Horn Antenna	Schwarzbeck	9120D	01892 P:00331	2020/9/26	2022/9/25
Amplifier	SKET	PA-000318G-45	N/A	2020/10/16	2021/10/15
EMI software	EZ	EZ-EMC	EEMC-3A1	N/A	N/A
Loop antenna	SCHNARZBECK	FMZB1519B	00102	2020/9/26	2022/9/25
Controller	SKET	N/A	N/A	N/A	N/A
Coaxial Cable	BlueAsia	BLA-XC-02	N/A	N/A	N/A
Coaxial Cable	BlueAsia	BLA-XC-03	N/A	N/A	N/A
Coaxial Cable	BlueAsia	BLA-XC-01	N/A	N/A	N/A

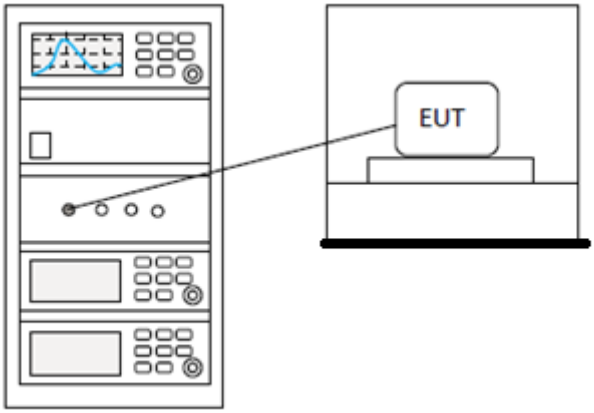
1 FREQUENCY STABILITY

Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	ANSI C63.10 (2013) Section 6.8
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Ben
Temperature	25℃
Humidity	60%

1.1 LIMITS

Limit:	The frequency tolerance shall be maintained within the band of operation frequency over a temperature variation of 0 degrees to 35 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

1.2 BLOCK DIAGRAM OF TEST SETUP



1.3 TEST DATA

Pass: Please Refer To Appendix: For Details

2 RADIATED EMISSIONS WHICH FALL IN THE RESTRICTED BANDS

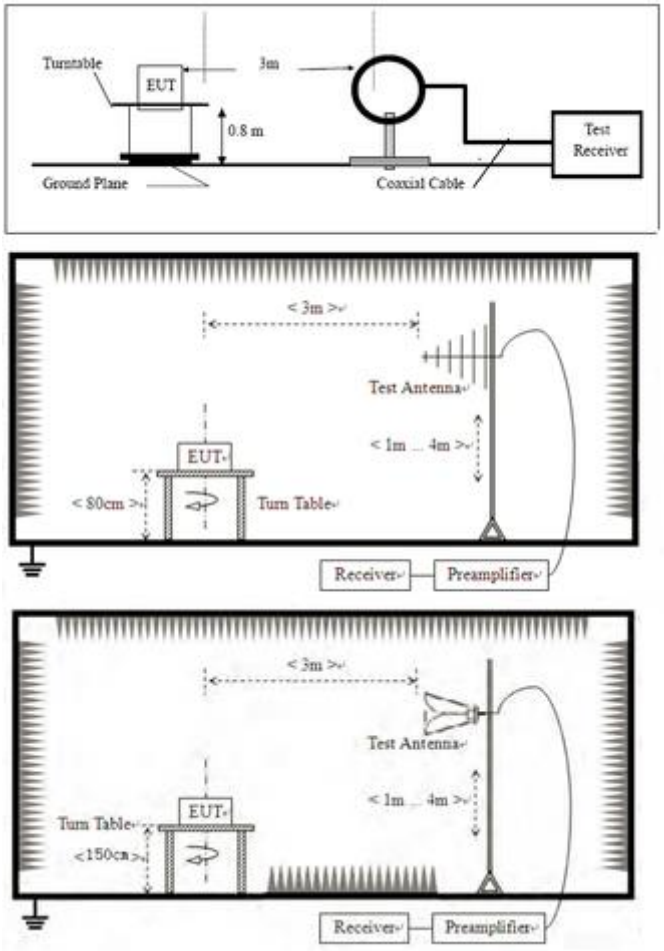
Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	KDB 789033 D02 II G
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Ben
Temperature	25℃
Humidity	60%

2.1 LIMITS

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

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, 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.

2.2 BLOCK DIAGRAM OF TEST SETUP



2.3 PROCEDURE

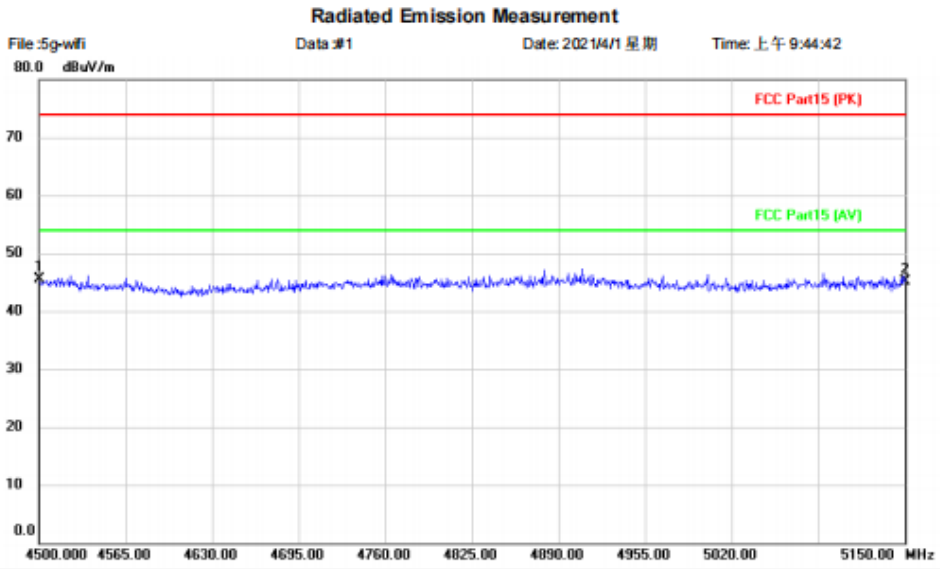
a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
d. 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.
e. 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.
f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
g. 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, quasi-peak or average method as specified and then reported in a data sheet.

h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
i. 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.
j. Repeat above procedures until all frequencies measured was complete.
Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

2.4 TEST DATA

802.11a

[TestMode: band 5.15-5.25GHz]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11a-band1
Note:

Polarization: *Horizontal*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

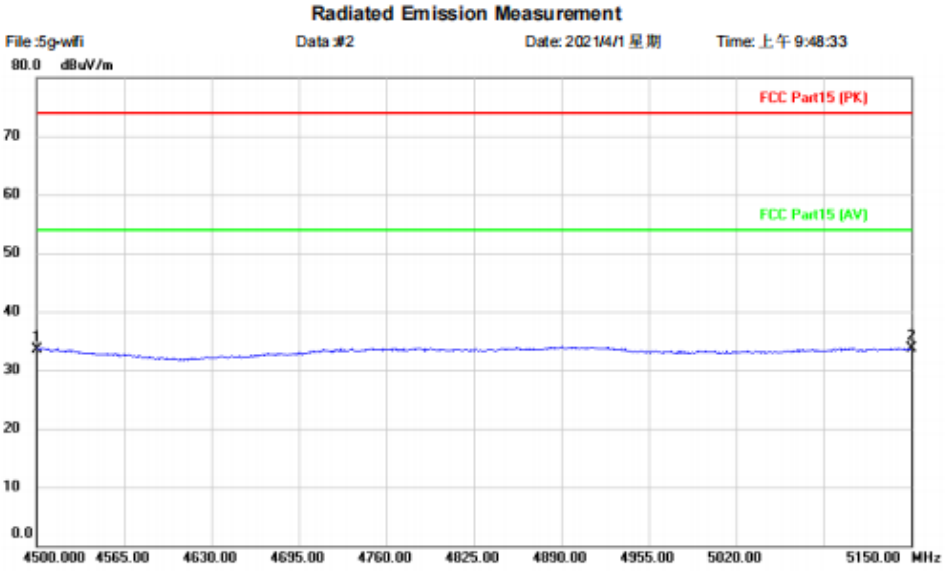
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	4500.000	45.57	-0.16	45.41	74.00	-28.59	peak			
2		5150.000	44.76	0.36	45.12	74.00	-28.88	peak			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11a

[TestMode: band 5.15-5.25GHz]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11a-band1
Note:

Polarization: *Horizontal*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

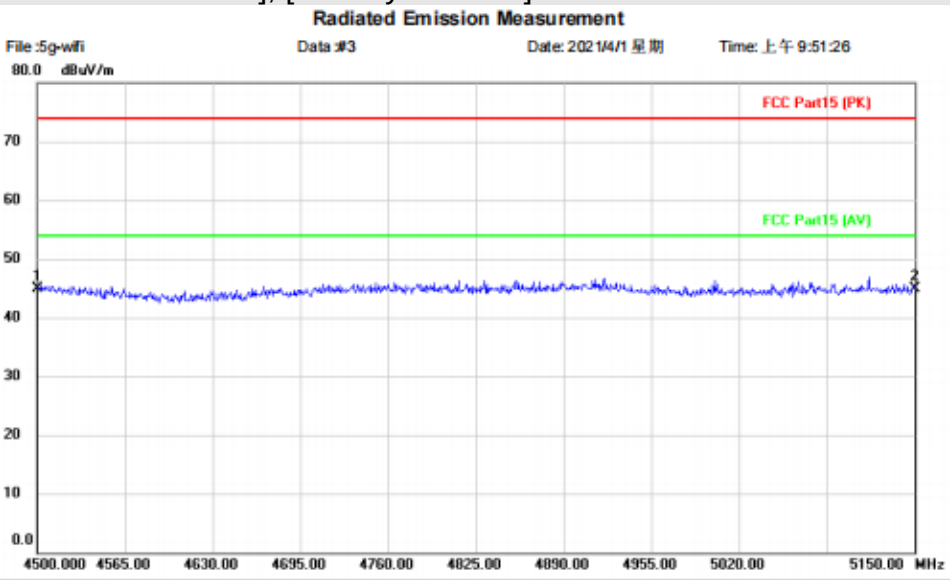
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4500.000	33.75	-0.16	33.59	54.00	-20.41	AVG			
2	*	5150.000	33.35	0.36	33.71	54.00	-20.29	AVG			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11a

[TestMode: band 5.15-5.25GHz]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11a-band1
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

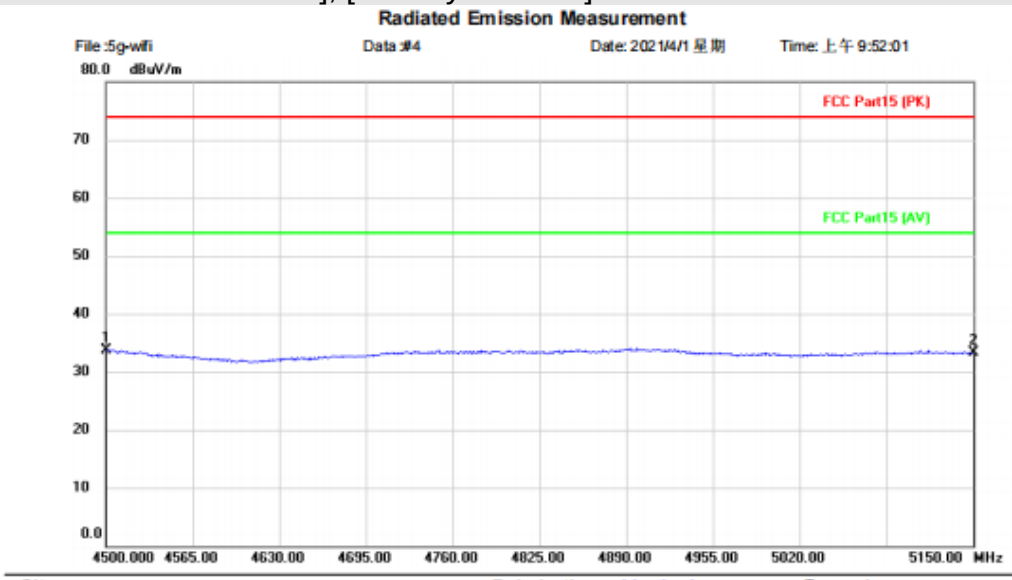
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4500.000	45.05	-0.16	44.89	74.00	-29.11	peak			
2	*	5150.000	44.60	0.36	44.96	74.00	-29.04	peak			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11a

[TestMode: band 5.15-5.25GHz]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11a-band1
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

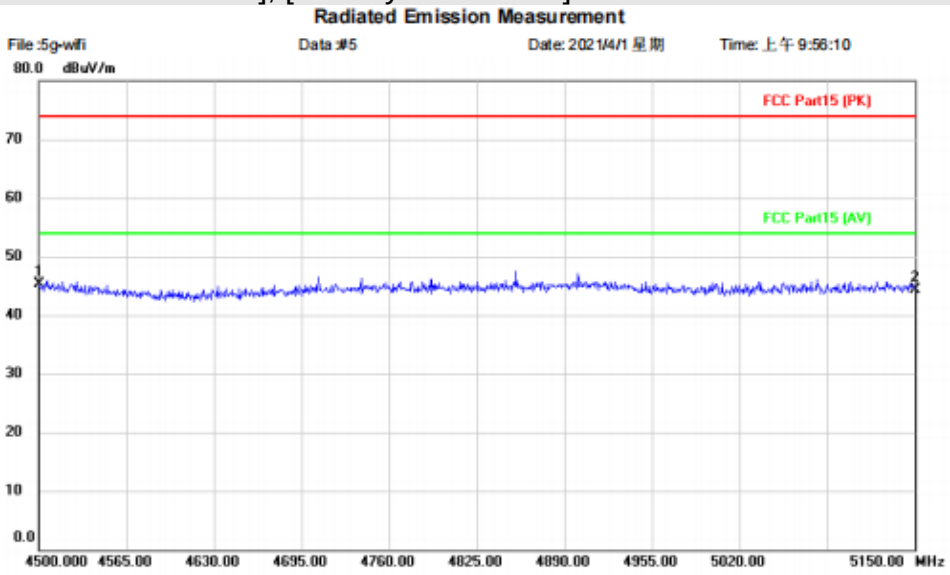
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	4500.000	33.81	-0.16	33.65	54.00	-20.35	AVG			
2		5150.000	32.90	0.36	33.26	54.00	-20.74	AVG			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11N20

[TestMode: band 5.15-5.25GHz]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11n20-band1
Note:

Polarization: *Horizontal*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

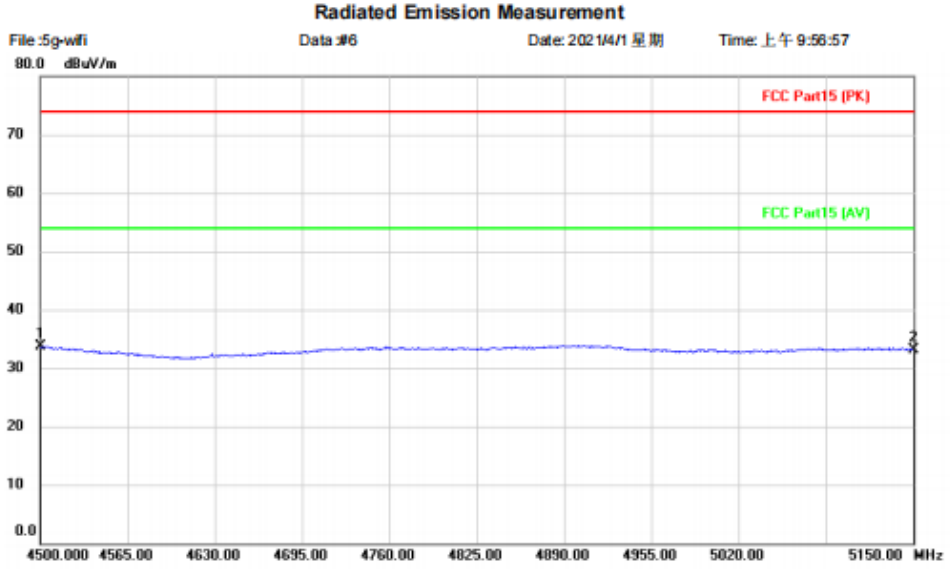
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	4500.000	45.47	-0.16	45.31	74.00	-28.69	peak			
2		5150.000	43.90	0.36	44.26	74.00	-29.74	peak			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11N20

[TestMode: band 5.15-5.25GHz]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11n20-band1
Note:

Polarization: *Horizontal*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

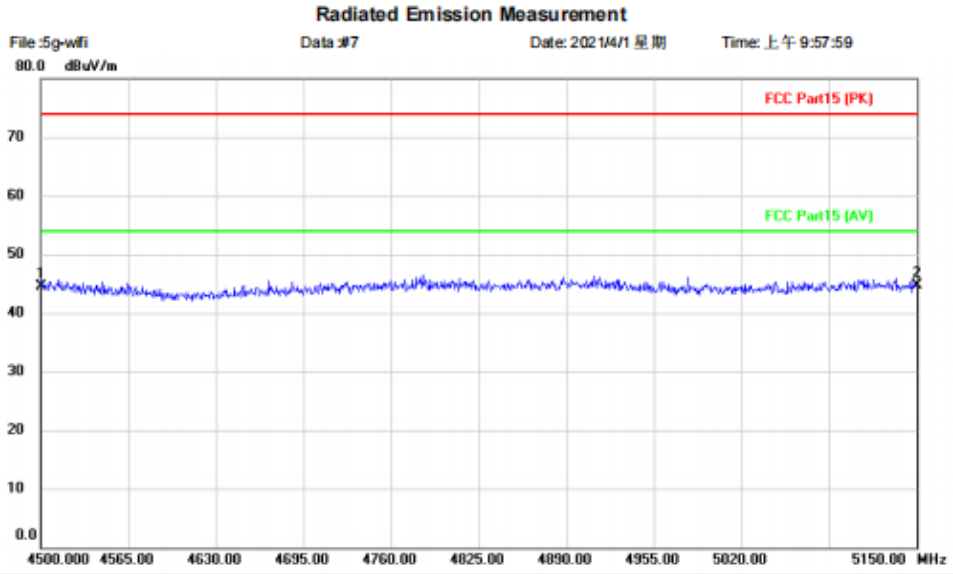
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	4500.000	33.78	-0.16	33.62	54.00	-20.38	AVG			
2		5150.000	32.78	0.36	33.14	54.00	-20.86	AVG			

*:Maximum data x:Over limit !:over margin ⟨Reference Only

Test Result: Pass

802.11N20

[TestMode: band 5.15-5.25GHz]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11n20-band1
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

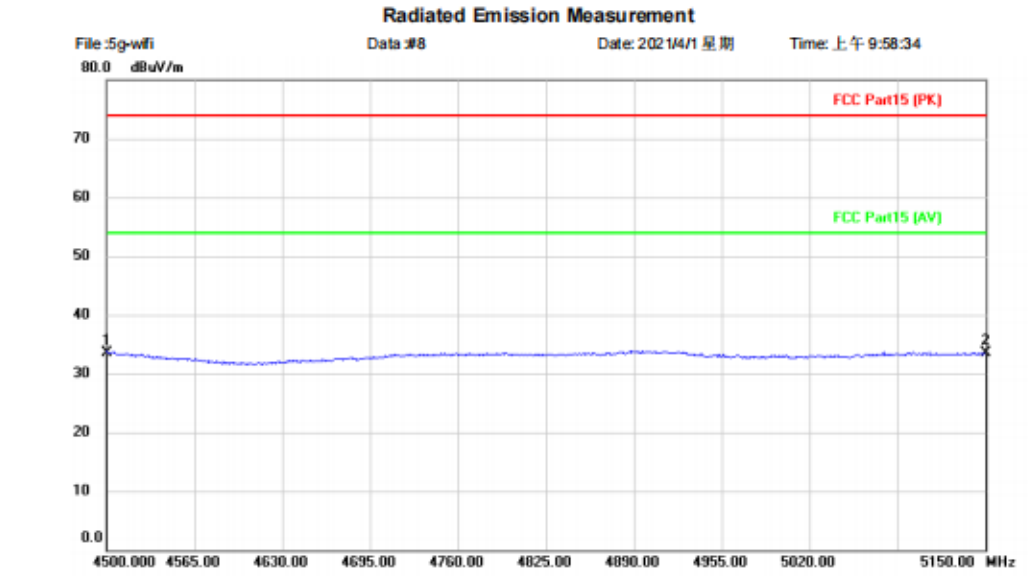
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4500.000	44.68	-0.16	44.52	74.00	-29.48	peak			
2	*	5150.000	44.26	0.36	44.62	74.00	-29.38	peak			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11N20

[TestMode: band 5.15-5.25GHz]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11n20-band1
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

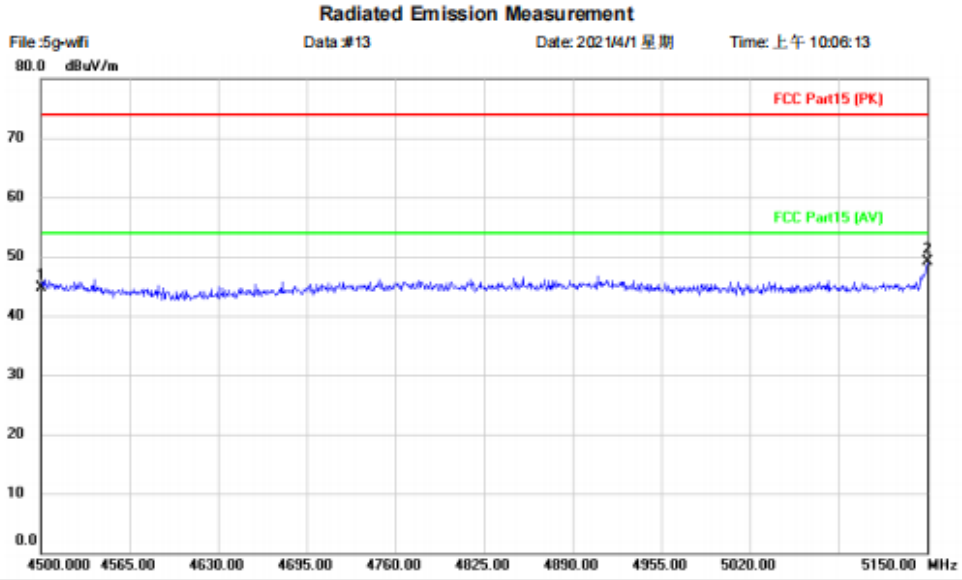
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	4500.000	33.67	-0.16	33.51	54.00	-20.49	AVG			
2		5150.000	33.08	0.36	33.44	54.00	-20.56	AVG			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11N40

[TestMode: band 5.15-5.25GHz]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11N40-band1
Note:

Polarization: *Horizontal*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

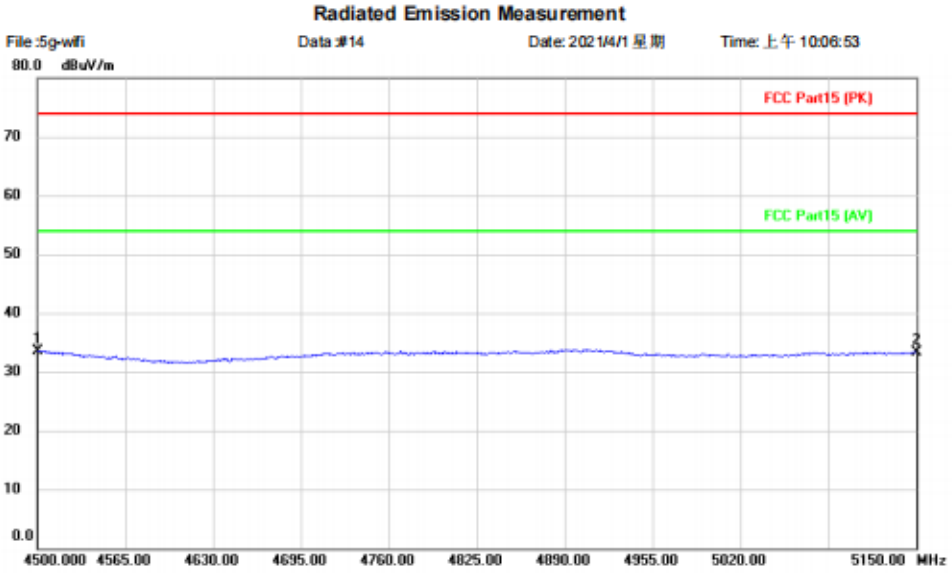
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4500.000	44.89	-0.16	44.73	74.00	-29.27	peak			
2	*	5150.000	48.83	0.36	49.19	74.00	-24.81	peak			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11N40

[TestMode: band 5.15-5.25GHz]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11N40-band1
Note:

Polarization: *Horizontal*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

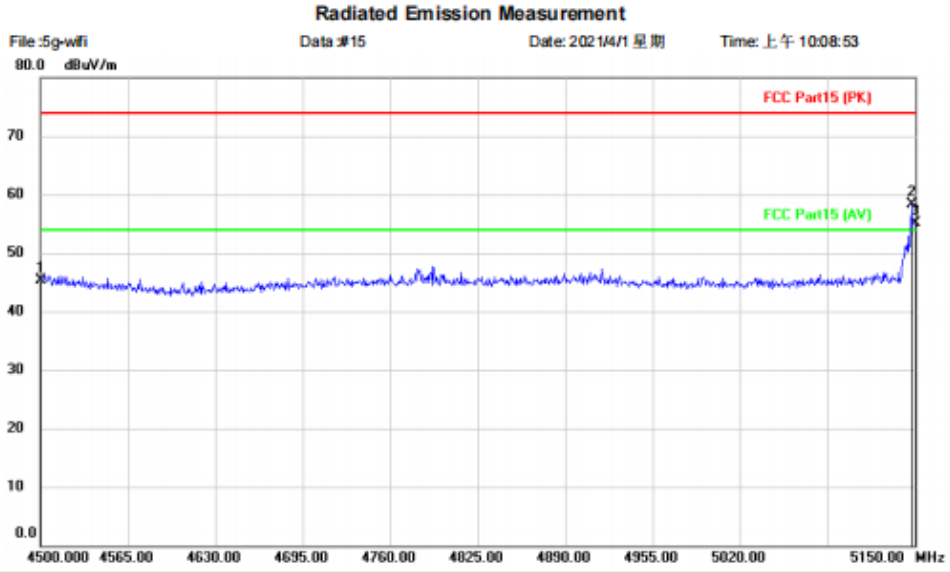
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	4500.000	33.73	-0.16	33.57	54.00	-20.43	AVG			
2		5150.000	32.98	0.36	33.34	54.00	-20.66	AVG			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11N40

[TestMode: band 5.15-5.25GHz]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11N40-band1
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

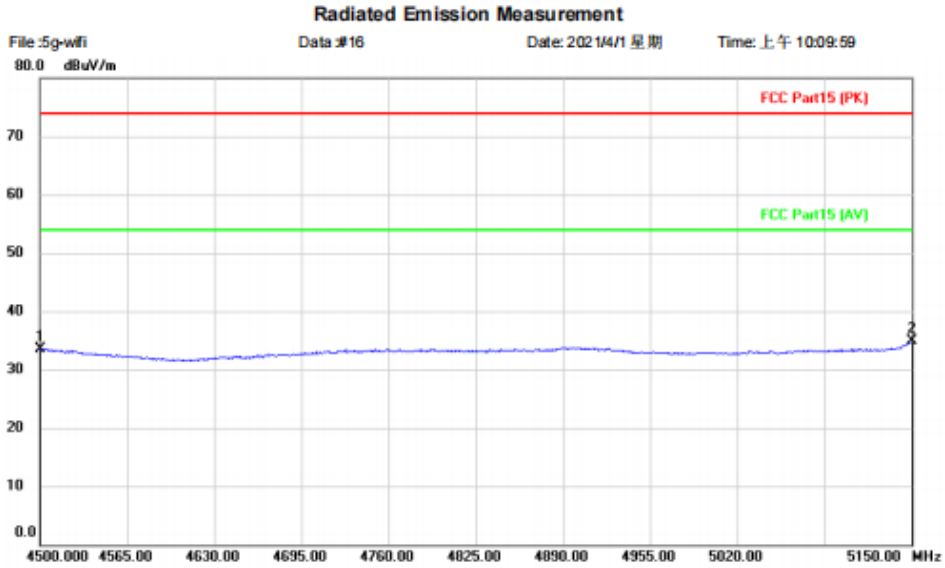
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4500.000	45.48	-0.16	45.32	74.00	-28.68	peak			
2	*	5147.400	58.05	0.35	58.40	74.00	-15.60	peak			
3		5150.000	54.68	0.36	55.04	74.00	-18.96	peak			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11N40

[TestMode: band 5.15-5.25GHz]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11N40-band1
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

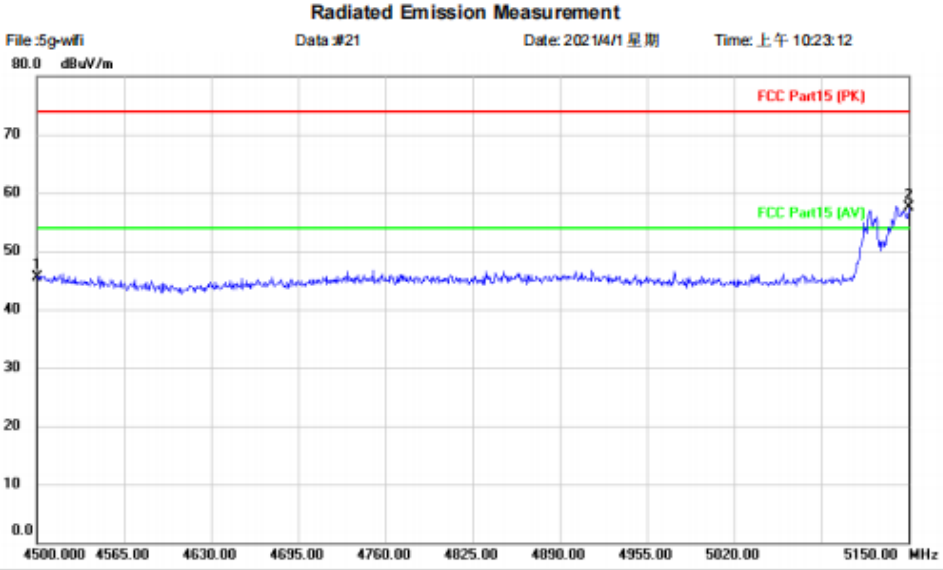
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4500.000	33.65	-0.16	33.49	54.00	-20.51	AVG			
2	*	5150.000	34.47	0.36	34.83	54.00	-19.17	AVG			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11ac80

[TestMode: band 5.15-5.25GHz]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11ac80-band1
Note:

Polarization: *Horizontal*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

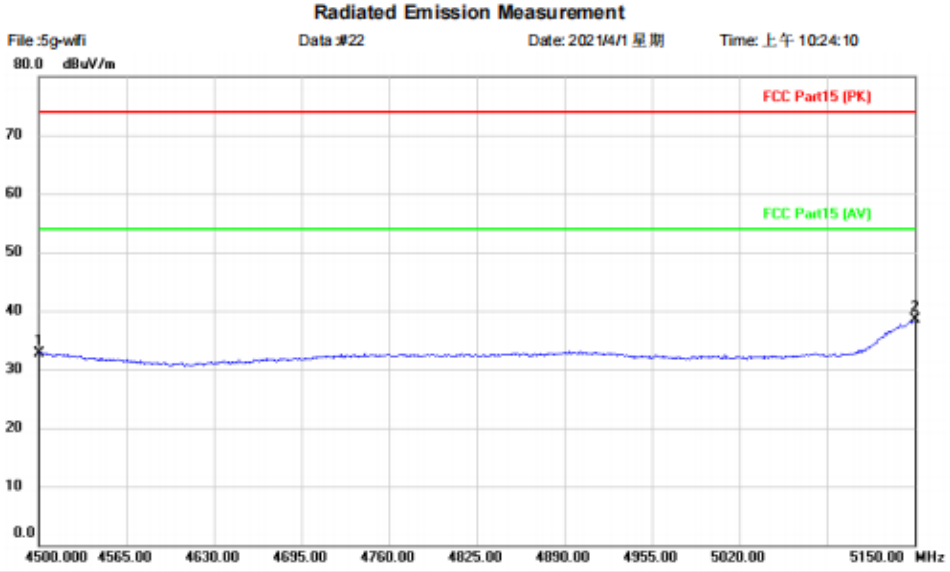
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4500.000	45.65	-0.16	45.49	74.00	-28.51	peak			
2	*	5150.000	57.11	0.36	57.47	74.00	-16.53	peak			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11ac80

[TestMode: band 5.15-5.25GHz]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11ac80-band1
Note:

Polarization: *Horizontal*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

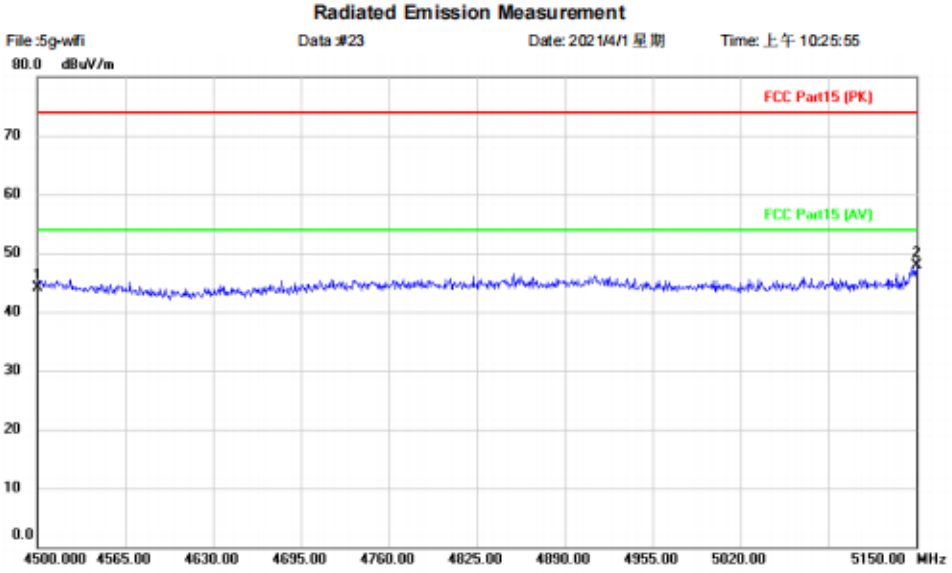
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4500.000	32.85	-0.16	32.69	54.00	-21.31	AVG			
2	*	5150.000	38.09	0.36	38.45	54.00	-15.55	AVG			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11ac80

[TestMode: band 5.15-5.25GHz]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11ac80-band1
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

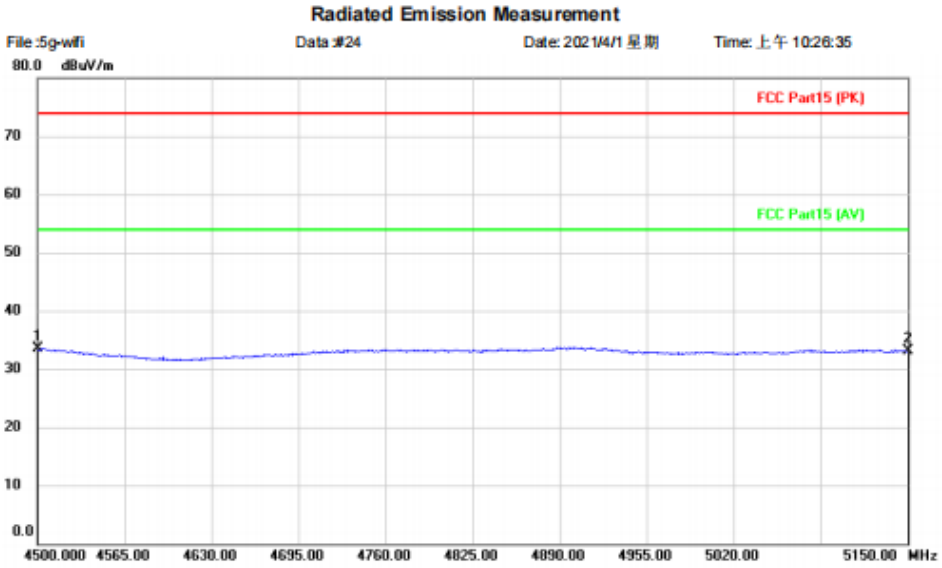
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		4500.000	44.36	-0.16	44.20	74.00	-29.80	peak			
2	*	5150.000	47.60	0.36	47.96	74.00	-26.04	peak			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11ac80

[TestMode: band 5.15-5.25GHz]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11ac80-band1
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

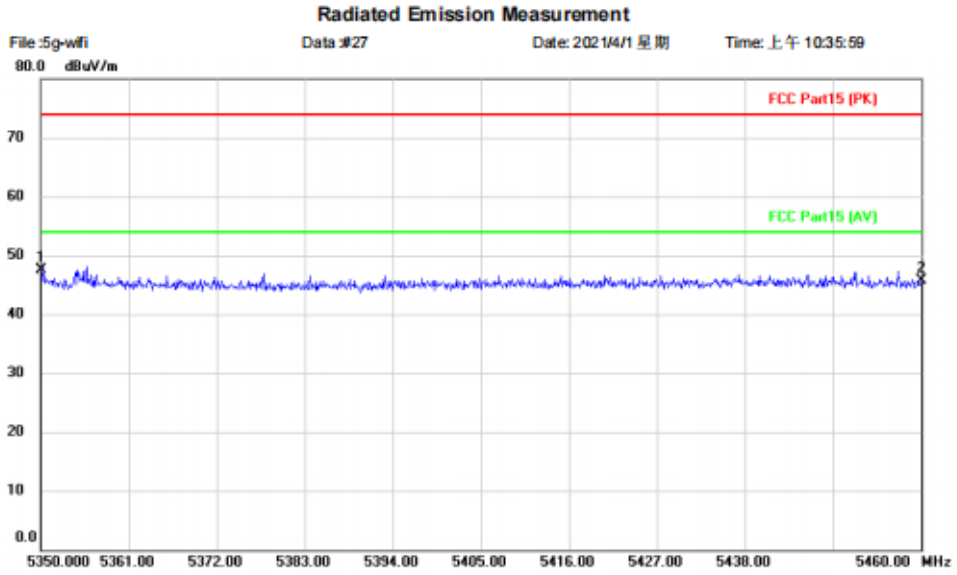
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	4500.000	33.63	-0.16	33.47	54.00	-20.53	AVG			
2		5150.000	32.67	0.36	33.03	54.00	-20.97	AVG			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11a

[TestMode: band 5.35-5.47GHz]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11a-band2
Note:

Polarization: *Horizontal*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

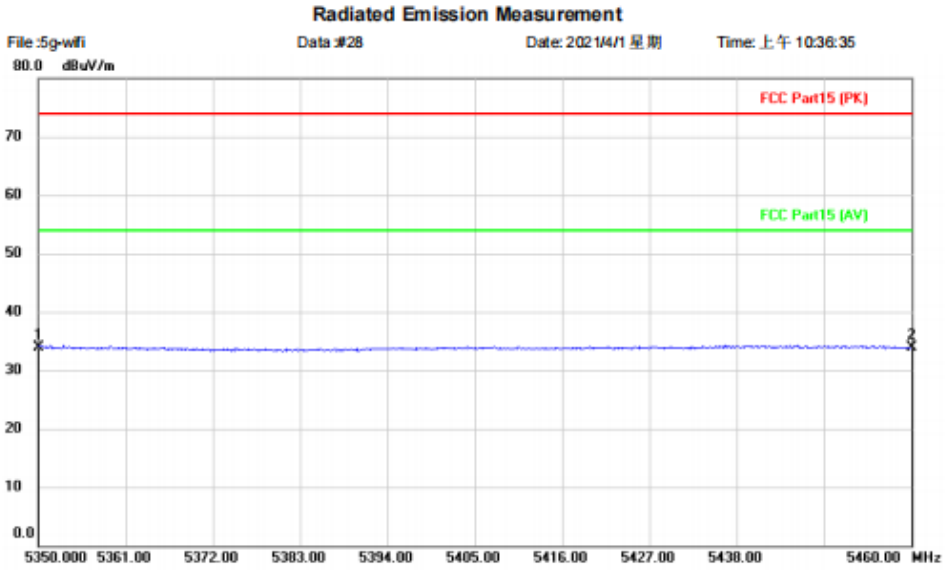
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	5350.000	46.84	0.68	47.52	74.00	-26.48	peak			
2		5460.000	44.79	0.91	45.70	74.00	-28.30	peak			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11a

[TestMode: band 5.35-5.47GHz]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11a-band2
Note:

Polarization: *Horizontal*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

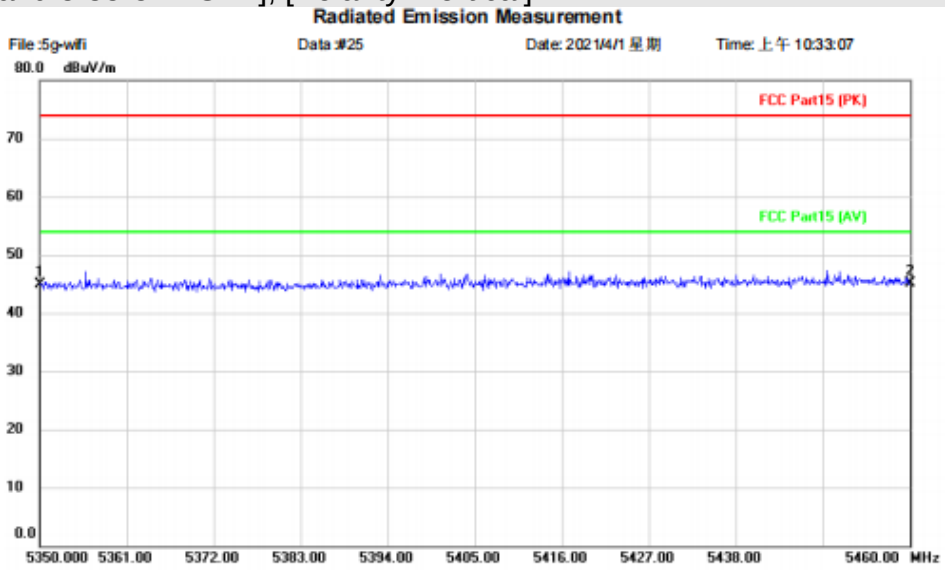
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		5350.000	33.22	0.68	33.90	54.00	-20.10	AVG			
2	*	5460.000	33.07	0.91	33.98	54.00	-20.02	AVG			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11a

[TestMode: band 5.35-5.47GHz]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11a-band2
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

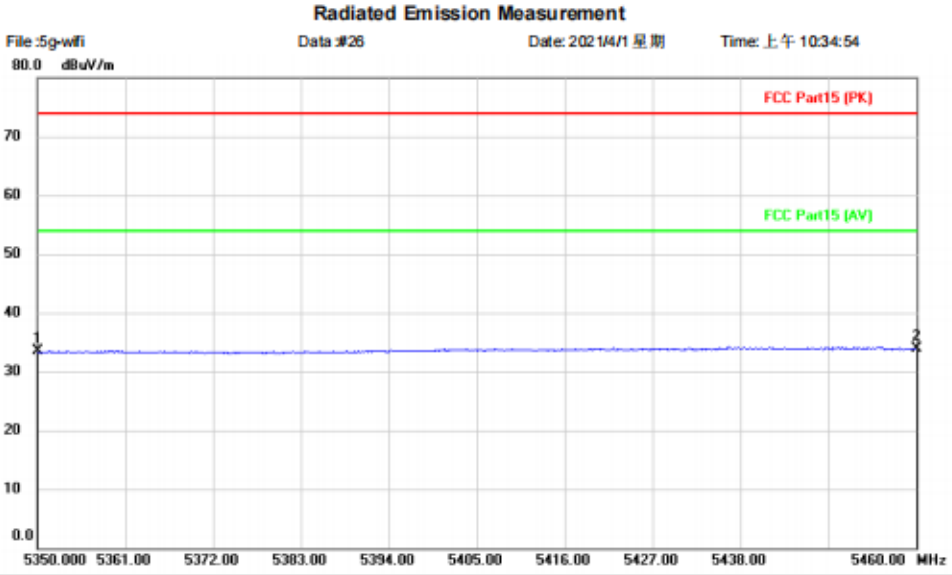
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		5350.000	44.14	0.68	44.82	74.00	-29.18	peak			
2	*	5460.000	44.15	0.91	45.06	74.00	-28.94	peak			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11a

[TestMode: band 5.35-5.47GHz; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11a-band2
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

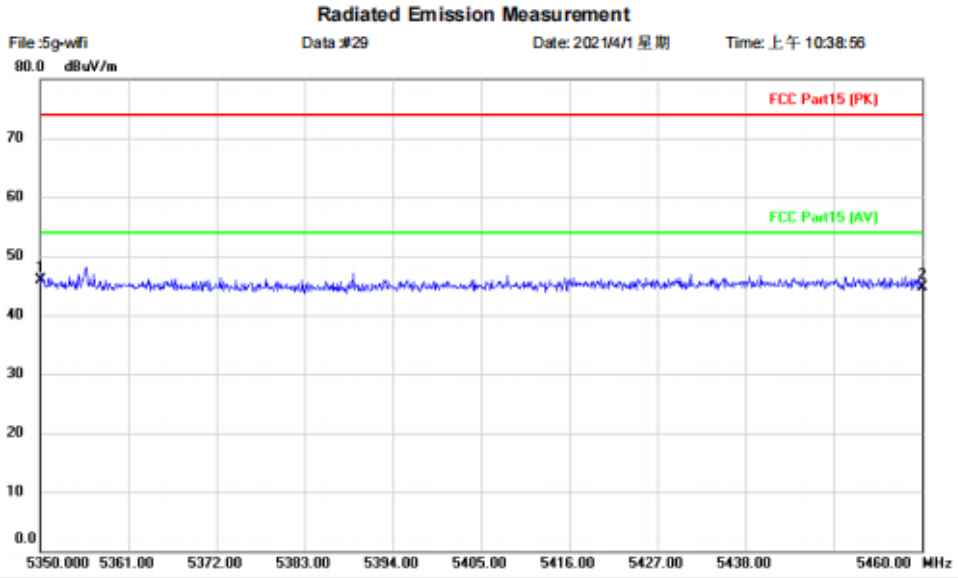
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		5350.000	32.77	0.68	33.45	54.00	-20.55	AVG			
2	*	5460.000	33.00	0.91	33.91	54.00	-20.09	AVG			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11N20

[TestMode: band 5.35-5.47GHz]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11n20-band2
Note:

Polarization: *Horizontal*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

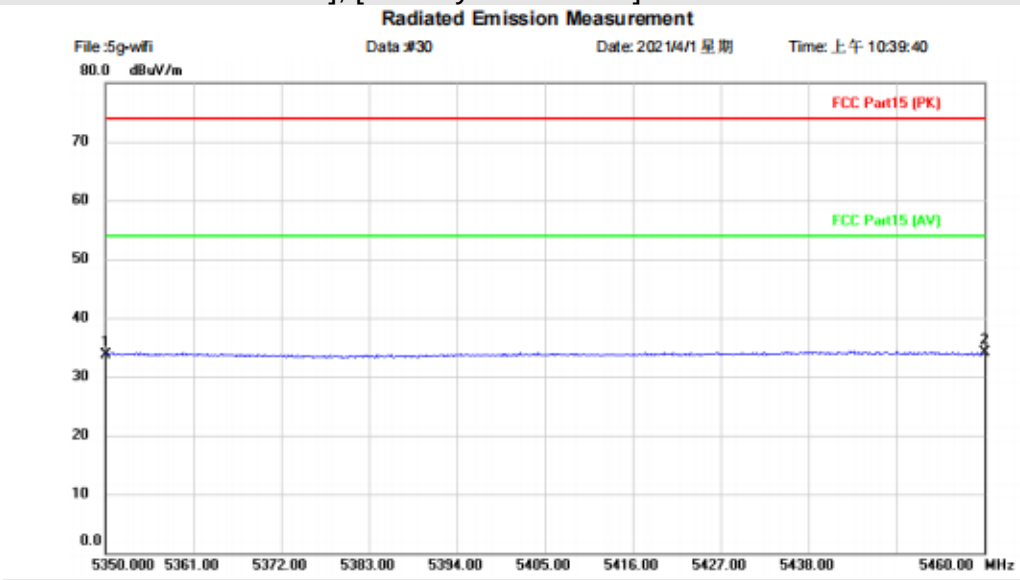
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	5350.000	45.13	0.68	45.81	74.00	-28.19	peak			
2		5460.000	43.79	0.91	44.70	74.00	-29.30	peak			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11N20

[TestMode: band 5.35-5.47GHz]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11n20-band2
Note:

Polarization: *Horizontal*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

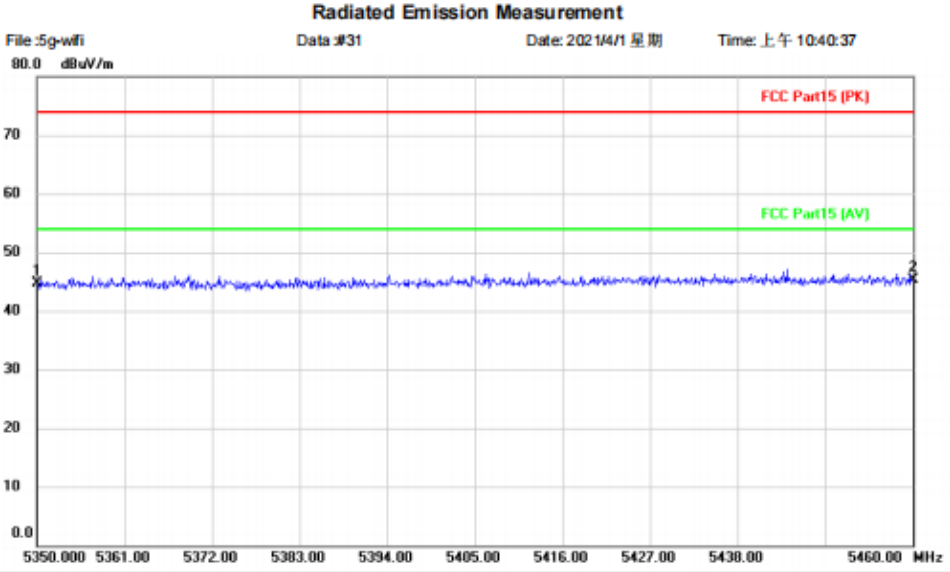
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		5350.000	33.12	0.68	33.80	54.00	-20.20	AVG			
2	*	5460.000	33.11	0.91	34.02	54.00	-19.98	AVG			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11N20

[TestMode: band 5.35-5.47GHz]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11n20-band2
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

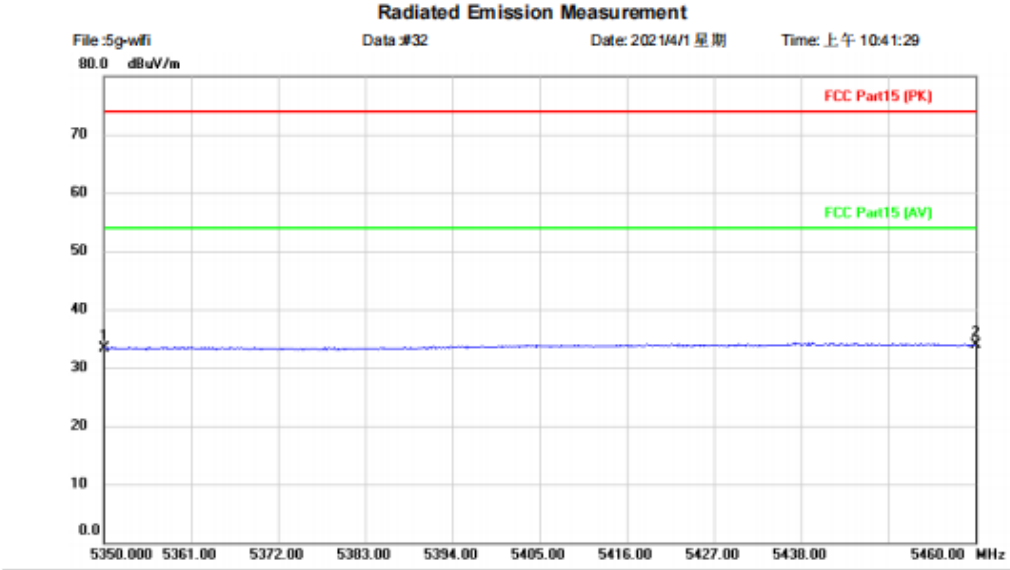
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		5350.000	44.04	0.68	44.72	74.00	-29.28	peak			
2	*	5460.000	44.42	0.91	45.33	74.00	-28.67	peak			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11N20

[TestMode: band 5.35-5.47GHz]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11n20-band2
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

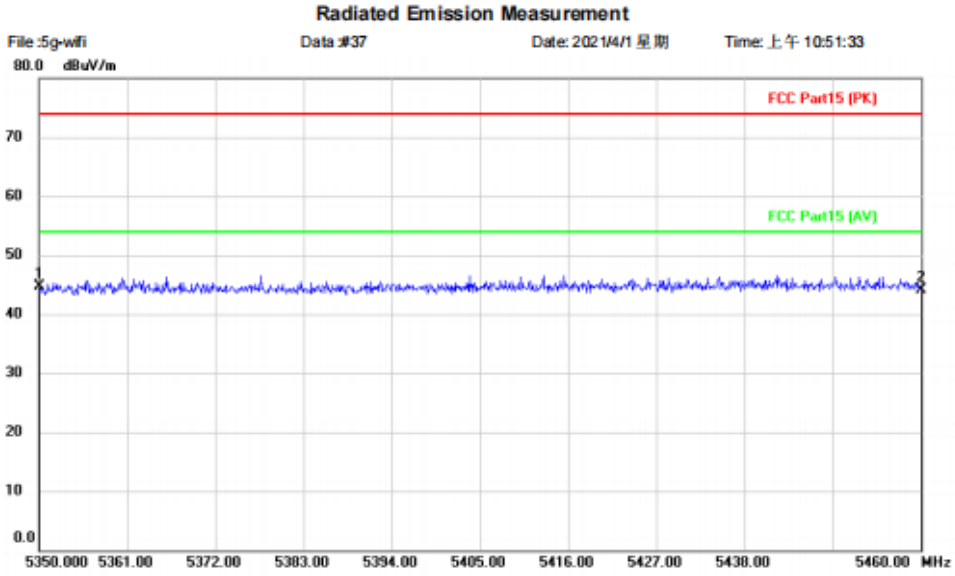
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		5350.000	32.72	0.68	33.40	54.00	-20.60	AVG			
2	*	5460.000	32.95	0.91	33.86	54.00	-20.14	AVG			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11N40

[TestMode: band 5.35-5.47GHz]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11n40-band2
Note:

Polarization: *Horizontal*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

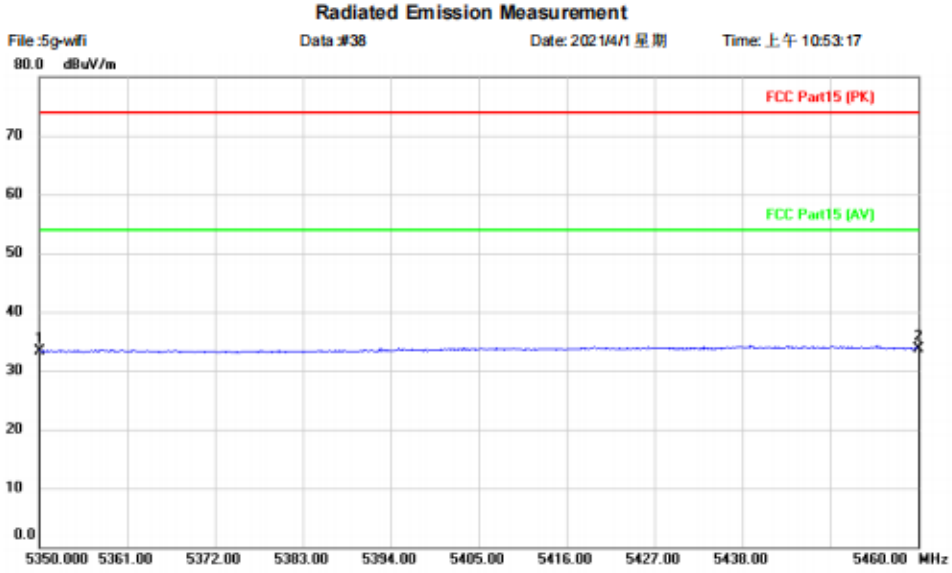
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	5350.000	44.04	0.68	44.72	74.00	-29.28	peak			
2		5460.000	43.22	0.91	44.13	74.00	-29.87	peak			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11N40

[TestMode: band 5.35-5.47GHz]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11n40-band2
Note:

Polarization: *Horizontal*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

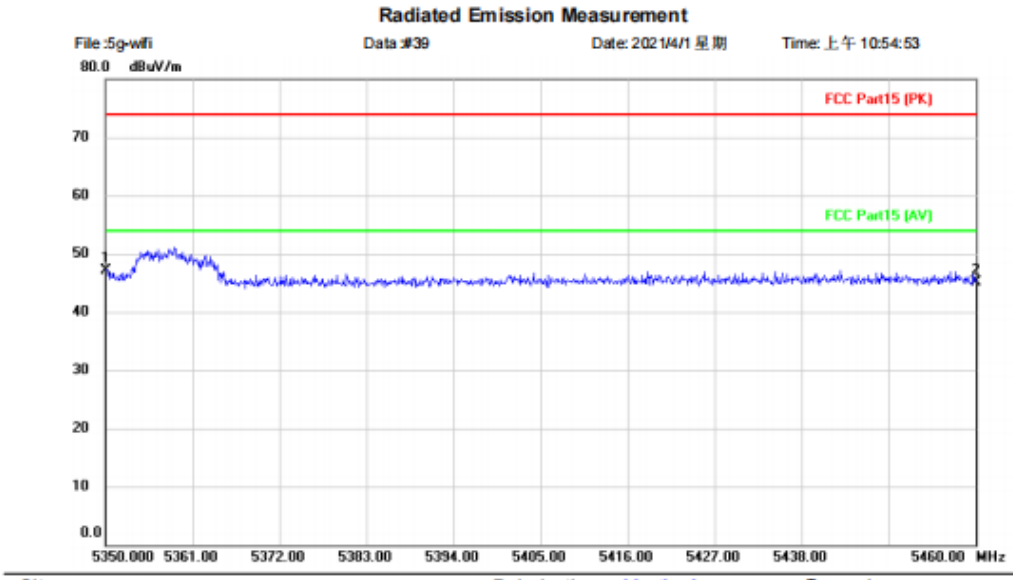
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		5350.000	32.64	0.68	33.32	54.00	-20.68	AVG			
2	*	5460.000	32.82	0.91	33.73	54.00	-20.27	AVG			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11N40

[TestMode: band 5.35-5.47GHz]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11n40-band2
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

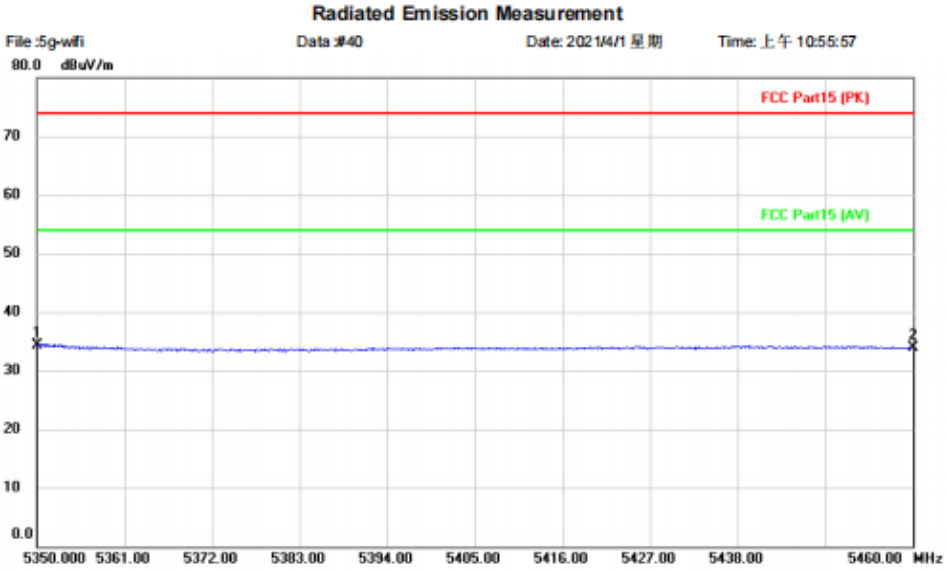
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	5350.000	46.38	0.68	47.06	74.00	-26.94	peak			
2		5460.000	44.28	0.91	45.19	74.00	-28.81	peak			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11N40

[TestMode: band 5.35-5.47GHz]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11n40-band2
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

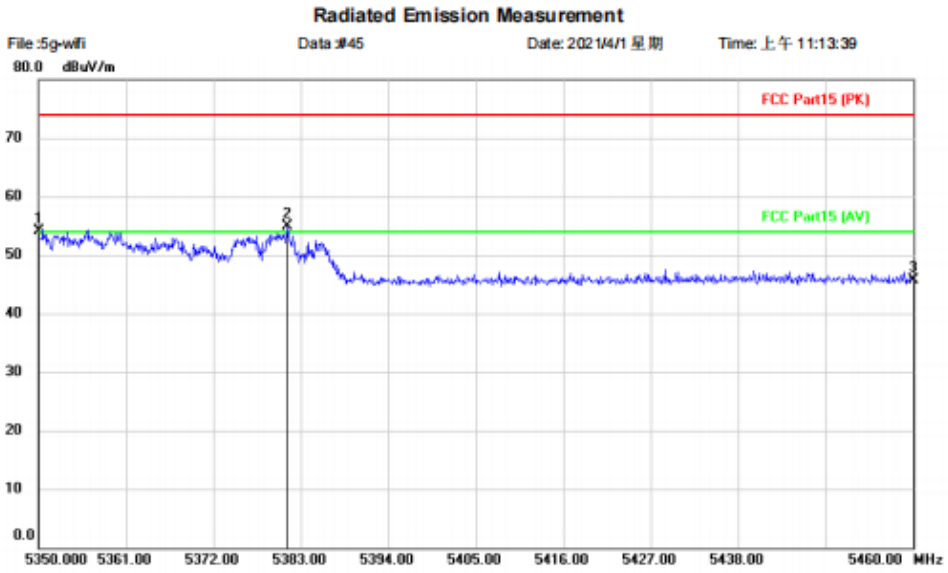
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	5350.000	33.59	0.68	34.27	54.00	-19.73	AVG			
2		5460.000	33.01	0.91	33.92	54.00	-20.08	AVG			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11ac80

[TestMode: band 5.35-5.47GHz]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11ac80-band2
Note:

Polarization: *Horizontal*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

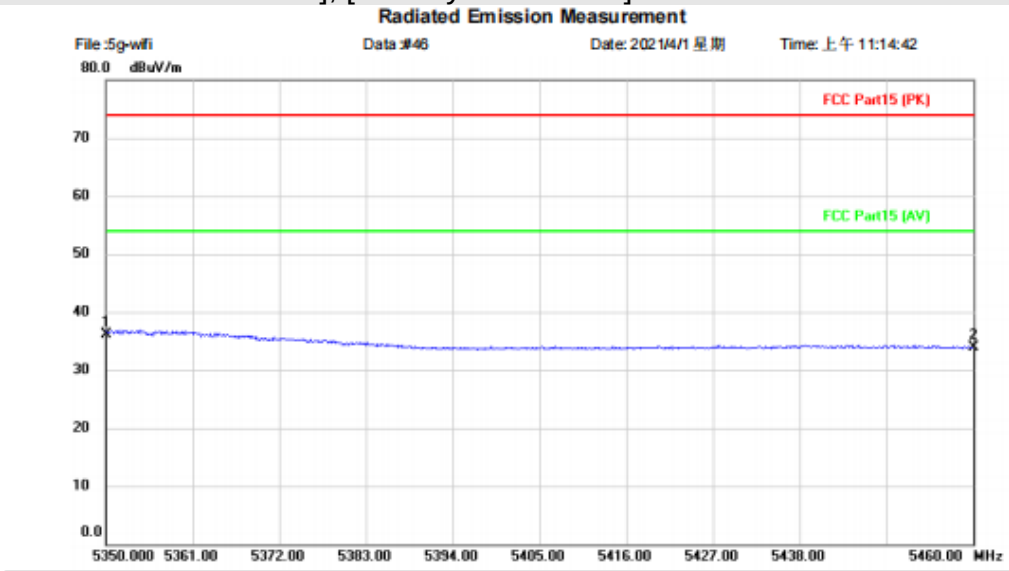
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		5350.000	53.37	0.68	54.05	74.00	-19.95	peak			
2	*	5381.350	54.21	0.74	54.95	74.00	-19.05	peak			
3		5460.000	44.81	0.91	45.72	74.00	-28.28	peak			

*:Maximum data x:Over limit !:over margin ⟨Reference Only

Test Result: Pass

802.11ac80

[TestMode: band 5.35-5.47GHz]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11ac80-band2
Note:

Polarization: *Horizontal*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

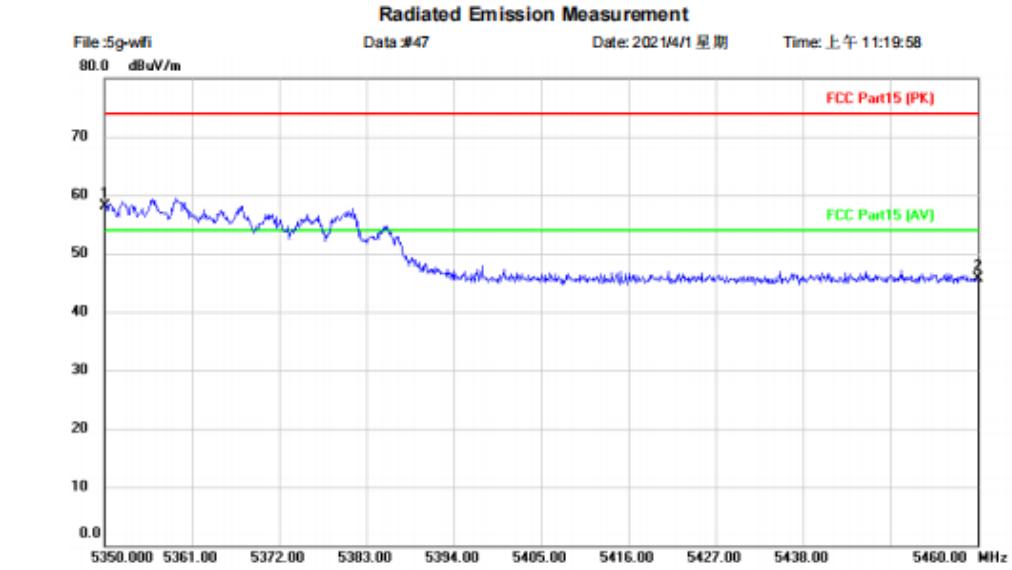
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	5350.000	35.52	0.68	36.20	54.00	-17.80	AVG			
2		5460.000	32.93	0.91	33.84	54.00	-20.16	AVG			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11ac80

[TestMode: band 5.35-5.47GHz]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11ac80-band2
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

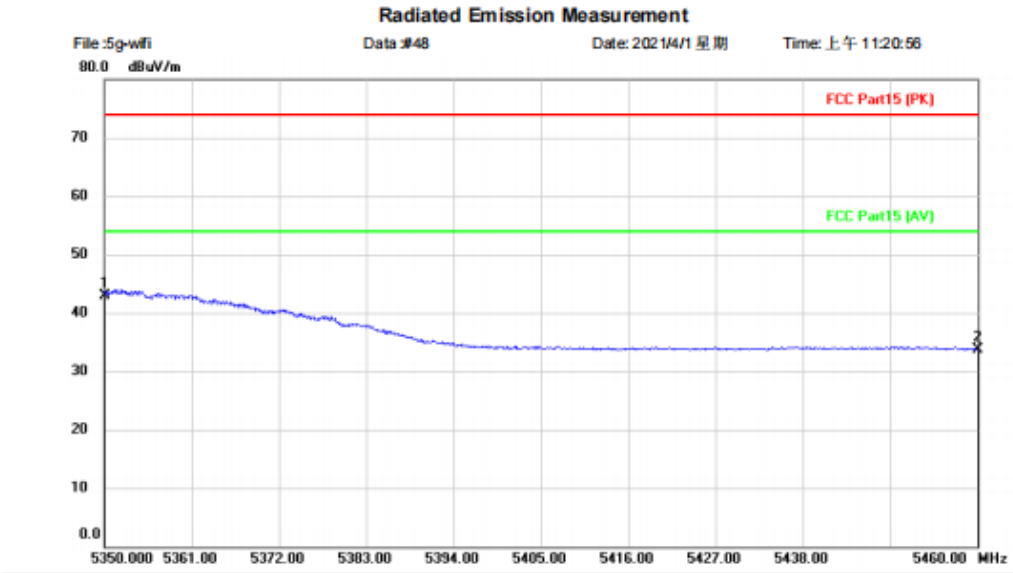
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	5350.000	57.34	0.68	58.02	74.00	-15.98	peak			
2		5460.000	44.87	0.91	45.78	74.00	-28.22	peak			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

802.11ac80

[TestMode: band 5.35-5.47GHz]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11ac80-band2
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	5350.000	42.13	0.68	42.81	54.00	-11.19	AVG			
2		5460.000	32.89	0.91	33.80	54.00	-20.20	AVG			

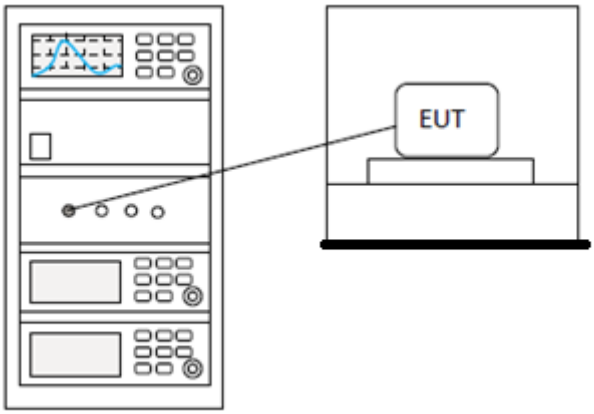
*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

3 26DB EMISSION BANDWIDTH

Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	KDB 789033 D02 II C 1
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Ben
Temperature	25℃
Humidity	60%

3.1 BLOCK DIAGRAM OF TEST SETUP



3.2 TEST DATA

Pass: Please Refer To Appendix: For Details

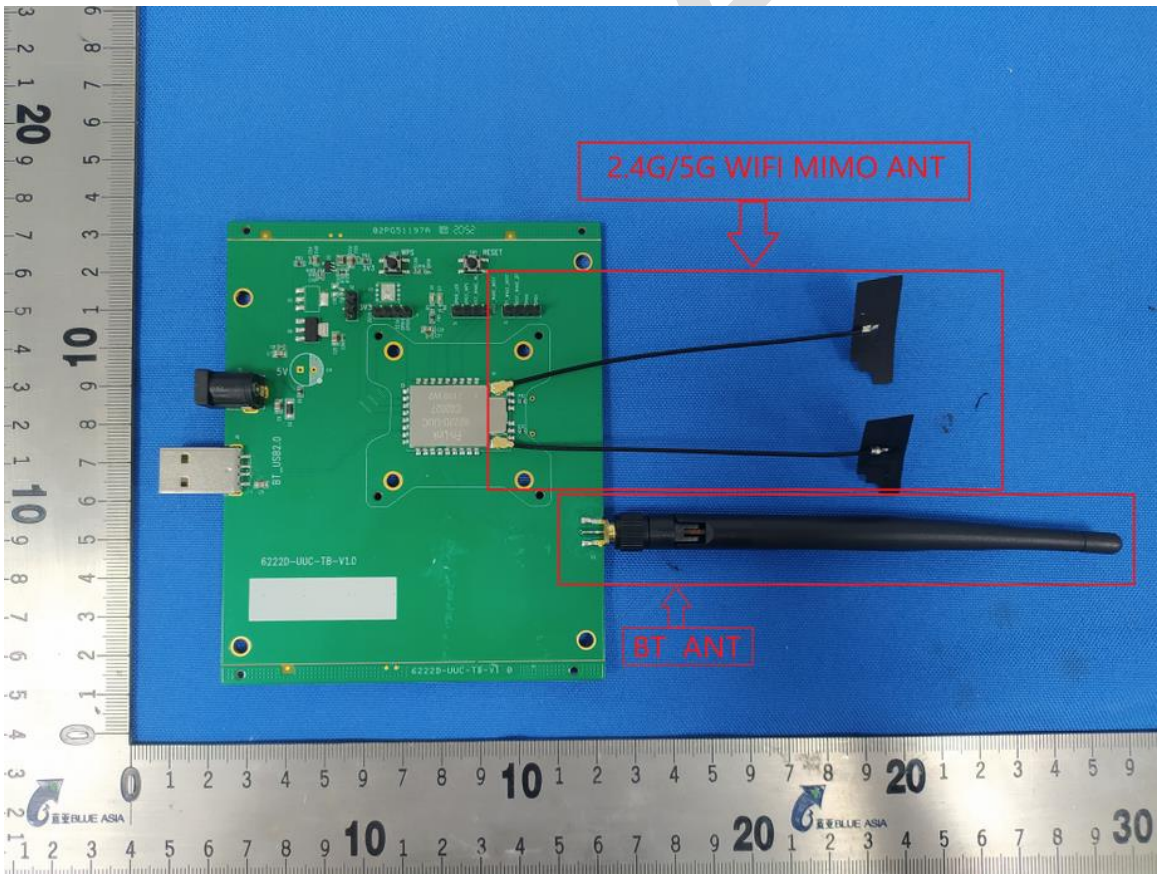
4 ANTENNA REQUIREMENT

Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	N/A

4.1 CONCLUSION

Standard Requirement:
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

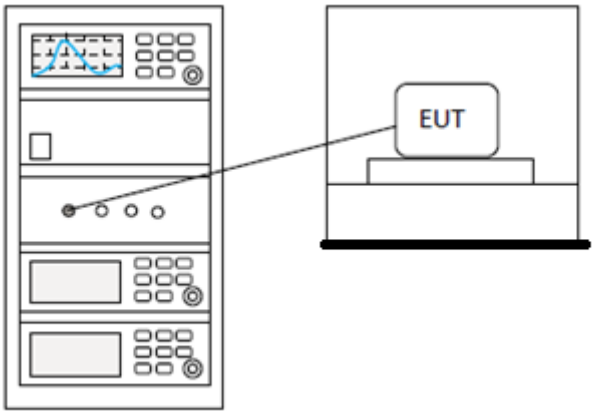
EUT Antenna:
The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 2.5dBi.



5 99% BANDWIDTH

Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	KDB 789033 II D
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Ben
Temperature	25℃
Humidity	60%

5.1 BLOCK DIAGRAM OF TEST SETUP



5.2 TEST DATA

Pass: Please Refer To Appendix: For Details

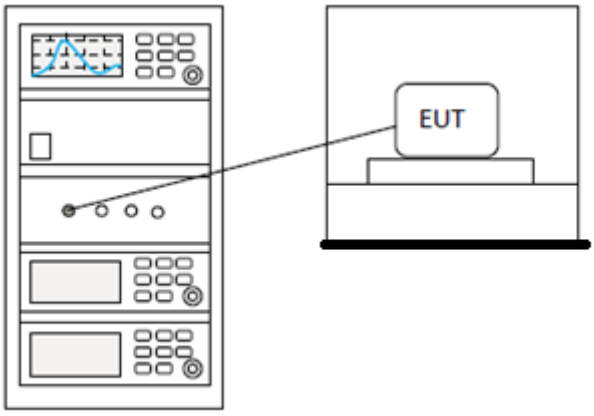
6 PEAK POWER SPECTRUM DENSITY

Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	KDB 789033 D02 II F
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Ben
Temperature	25℃
Humidity	60%

6.1 LIMITS

Frequency band(MHz)	Limit
5150-5250	≤17dBm in 1MHz for master device
	≤11dBm in 1MHz for client device
5250-5350	≤11dBm in 1MHz for client device
5470-5725	≤11dBm in 1MHz for client device
5725-5850	≤30dBm in 500 kHz
Remark:	The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test.

6.2 BLOCK DIAGRAM OF TEST SETUP



6.3 EST DATA

Pass: Please Refer To Appendix: For Details

7 TRANSMITTER POWER CONTROL

Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	KDB 789033 D02 II E

7.1 CONCLUSION

Standard Requirement:
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:
The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 2.5dBi.

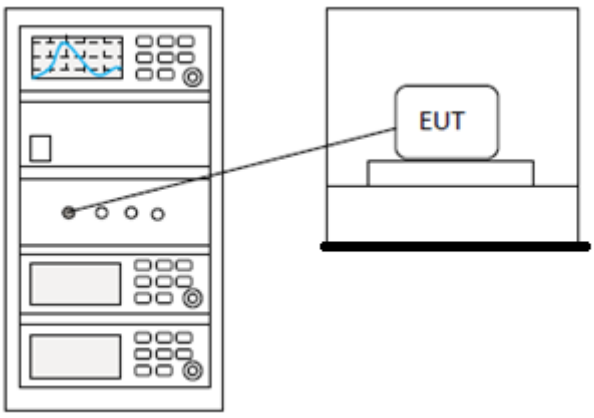
8 MAXIMUM CONDUCTED OUTPUT POWER

Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	KDB 789033 D02 II E
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Ben
Temperature	25℃
Humidity	60%

8.1 LIMITS

Frequency band(MHz)	Limit
5150-5250	≤1W(30dBm) for master device
	≤250mW(24dBm) for client device
5250-5350	≤250mW(24dBm) for client device or 11dBm+10logB*
5470-5725	≤250mW(24dBm) for client device or 11dBm+10logB*
5725-5850	≤1W(30dBm)
Remark:	* Where B is the 26dB emission bandwidth in MHz. The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

8.2 BLOCK DIAGRAM OF TEST SETUP



8.3 TEST DATA

Pass: Please Refer To Appendix: For Details

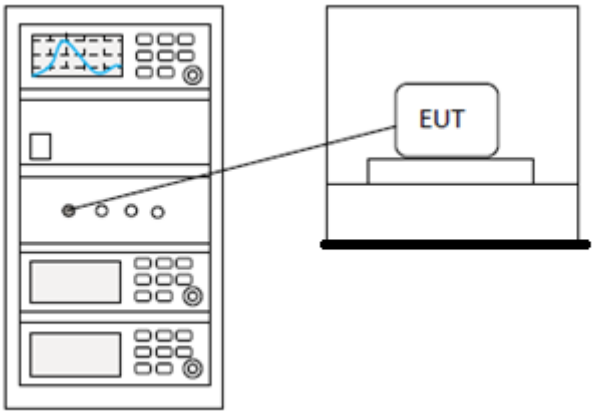
9 MINIMUM 6 DB BANDWIDTH (5.725-5.85 GHZ BAND)

Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	KDB 789033 D02 II C 2
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Ben
Temperature	25℃
Humidity	60%

9.1 LIMITS

Limit:	≥500 kHz

9.2 BLOCK DIAGRAM OF TEST SETUP



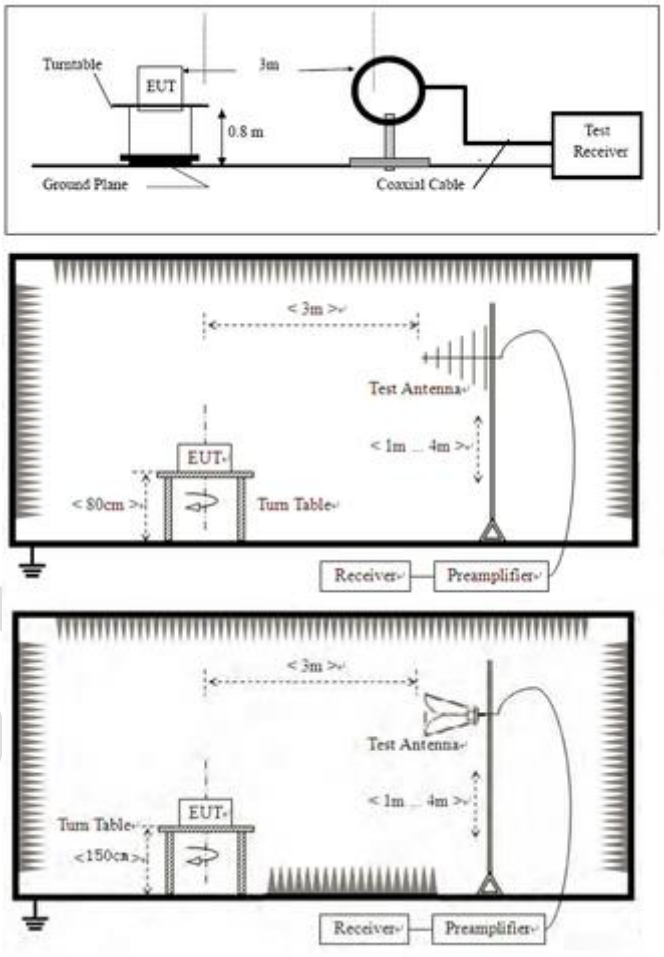
9.3 TEST DATA

Pass: Please Refer To Appendix: For Details

10 RADIATED EMISSIONS

Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	KDB 789033 D02 II G
Test Mode (Pre-Scan)	TX mode (SE) below 1G;TX Low channel;TX middle channel;TX high channel
Test Mode (Final Test)	TX mode (SE) below 1G
Tester	Ben
Temperature	25℃
Humidity	60%

10.1 BLOCK DIAGRAM OF TEST SETUP



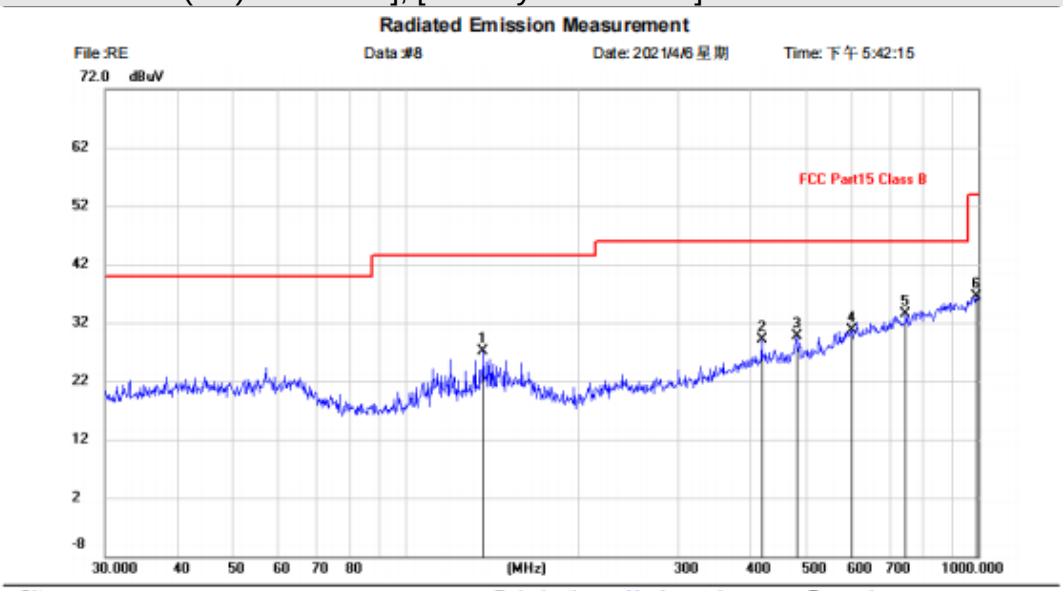
10.2 PROCEDURE

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. 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.
c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
d. 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.
e. 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.
f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
g. 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, quasi-peak or average method as specified and then reported in a data sheet.
h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
i. 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.
j. Repeat above procedures until all frequencies measured was complete.
Remark:
1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. For emission below 1GHz, through the pre-scan found the worst case is the lowest channel of 802.11a. Only the worst case is recorded in the report.
3. Scan from 9kHz to 40GHz, the disturbance above 18GHz and 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.
4. 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.

10.3 TEST DATA

[TestMode: TX mode (SE) below 1G]; [Polarity: Horizontal]



Site
Limit: FCC Part15 Class B
EUT:
M/N: M1200S
Mode: 5G-WIFI mode
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

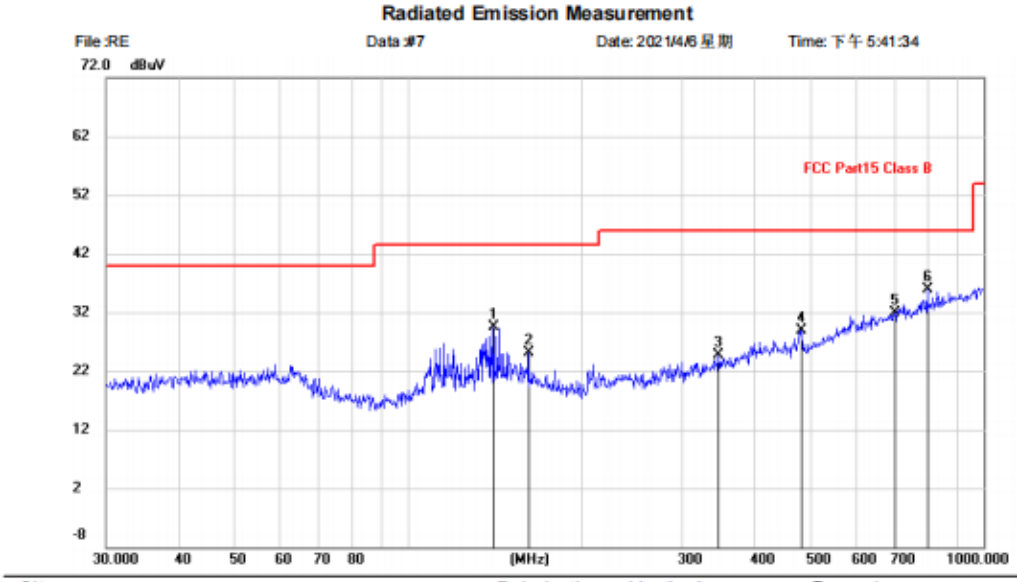
Temperature:
Humidity: %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		136.9391	4.01	23.17	27.18	43.50	-16.32	QP			
2		419.1081	1.61	27.48	29.09	46.00	-16.91	QP			
3		482.2156	1.74	28.01	29.75	46.00	-16.25	QP			
4		601.4265	-0.63	31.38	30.75	46.00	-15.25	QP			
5	*	747.4825	0.34	33.15	33.49	46.00	-12.51	QP			
6		993.0114	0.18	36.40	36.58	54.00	-17.42	QP			

*:Maximum data x:Over limit !:over margin (Reference Only

Test Result: Pass

[TestMode: TX mode (SE) below 1G]; [Polarity: Vertical]



Site
Limit: FCC Part15 Class B
EUT:
M/N: M1200S
Mode: 5G-WIFI mode
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature:
Humidity: %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		140.8351	6.21	23.29	29.50	43.50	-14.00	QP			
2		162.0414	2.26	22.92	25.18	43.50	-18.32	QP			
3		346.8092	-0.76	25.50	24.74	46.00	-21.26	QP			
4		483.9094	0.88	28.04	28.92	46.00	-17.08	QP			
5		701.7610	-0.25	32.13	31.88	46.00	-14.12	QP			
6	*	798.9797	1.64	34.34	35.98	46.00	-10.02	QP			

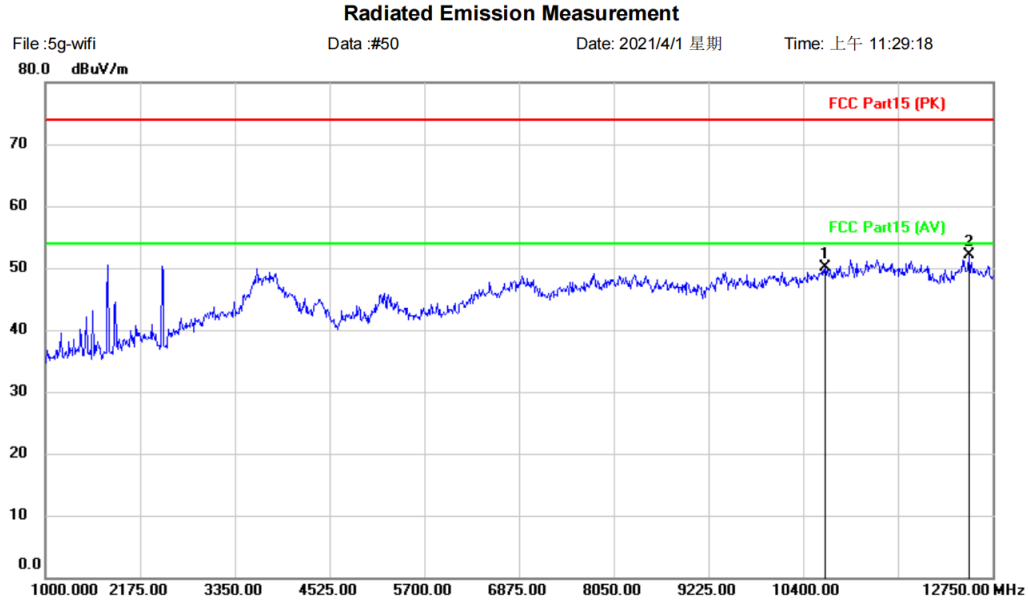
*:Maximum data x:Over limit !:over margin ⟨Reference Only

Test Result: Pass

Remark: During the test, pre-scan the 802.11a/n/ac mode, and found the 802.11a mode which it is worse case.

5.15-5.25GHz (802.11a)-ANT1

[TestMode: TX Low channel]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11a-L-band1
Note:

Polarization: ***Horizontal***
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

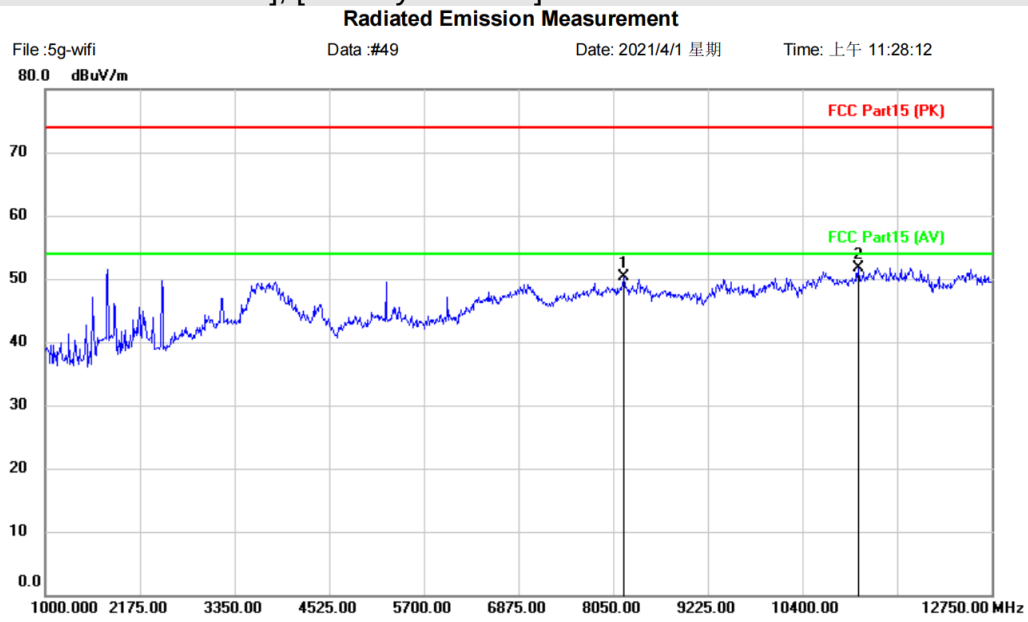
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		10670.250	38.78	11.36	50.14	74.00	-23.86	peak			
2	*	12456.250	40.36	11.79	52.15	74.00	-21.85	peak			

*:Maximum data x:Over limit !:over margin 〈Reference Only

Test Result: Pass

5.15-5.25GHz (802.11a)-ANT1

[TestMode: TX Low channel]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11a-L-band1
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

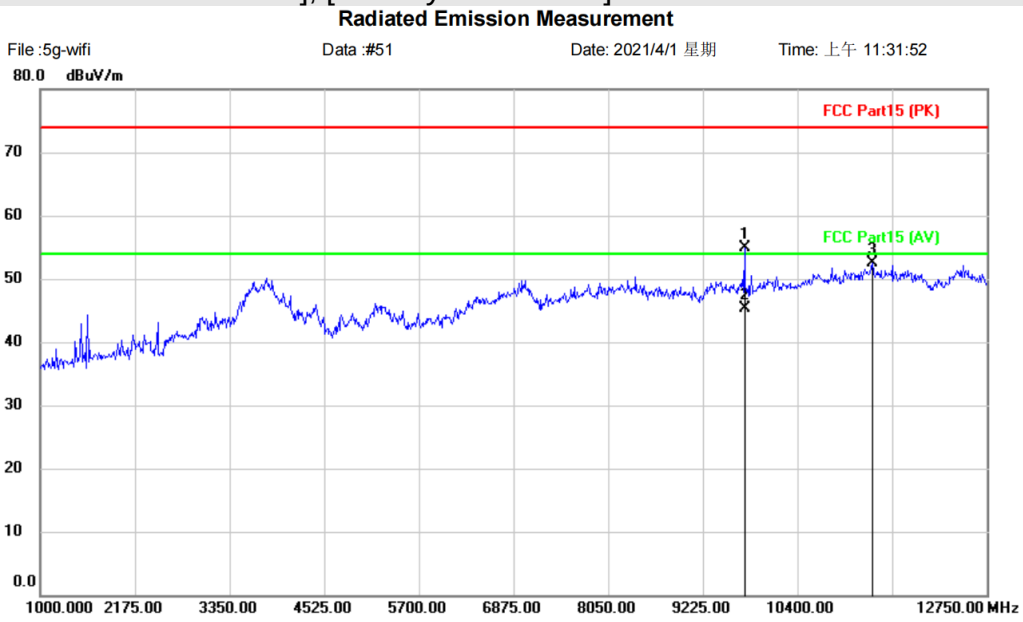
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		8179.250	42.15	8.18	50.33	74.00	-23.67	peak			
2	*	11093.250	39.69	12.01	51.70	74.00	-22.30	peak			

*:Maximum data x:Over limit !:over margin 〈Reference Only

Test Result: Pass

5.15-5.25GHz (802.11a)-ANT1

[TestMode: TX middle channel]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11a-M-band1
Note:

Polarization: ***Horizontal***
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

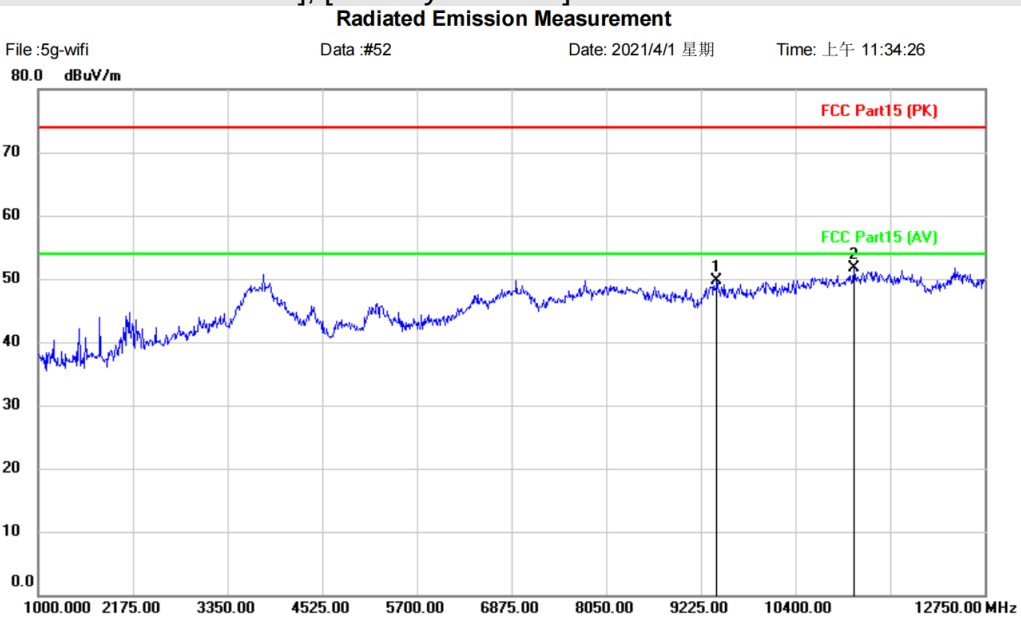
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		9742.000	45.41	9.57	54.98	74.00	-19.02	peak			
2	*	9742.000	35.79	9.57	45.36	54.00	-8.64	AVG			
3		11328.250	40.71	11.86	52.57	74.00	-21.43	peak			

*:Maximum data x:Over limit !:over margin 〈Reference Only

Test Result: Pass

5.15-5.25GHz (802.11a)-ANT1

[TestMode: TX middle channel]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11a-M-band1
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

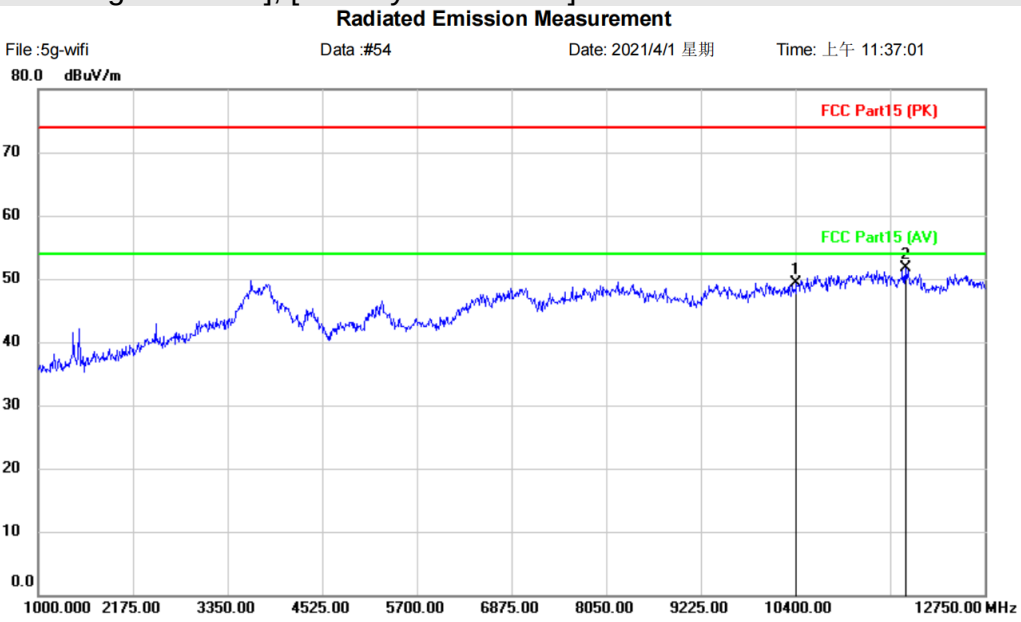
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		9424.750	40.89	8.89	49.78	74.00	-24.22	peak			
2	*	11128.500	39.78	12.02	51.80	74.00	-22.20	peak			

*:Maximum data x:Over limit !:over margin 〈Reference Only

Test Result: Pass

5.15-5.25GHz (802.11a)-ANT1

[TestMode: TX high channel]; [Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11a-H-band1
Note:

Polarization: ***Horizontal***
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

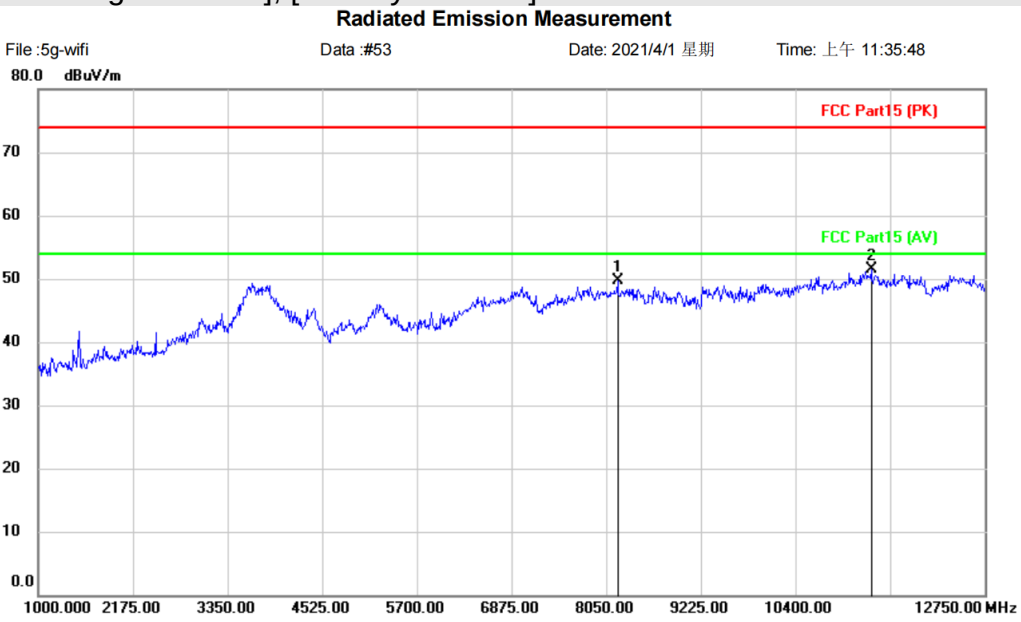
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		10411.750	38.15	11.21	49.36	74.00	-24.64	peak			
2	*	11763.000	40.14	11.63	51.77	74.00	-22.23	peak			

*:Maximum data x:Over limit !:over margin 〈Reference Only

Test Result: Pass

5.15-5.25GHz (802.11a)-ANT1

[TestMode: TX high channel]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11a-H-band1
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

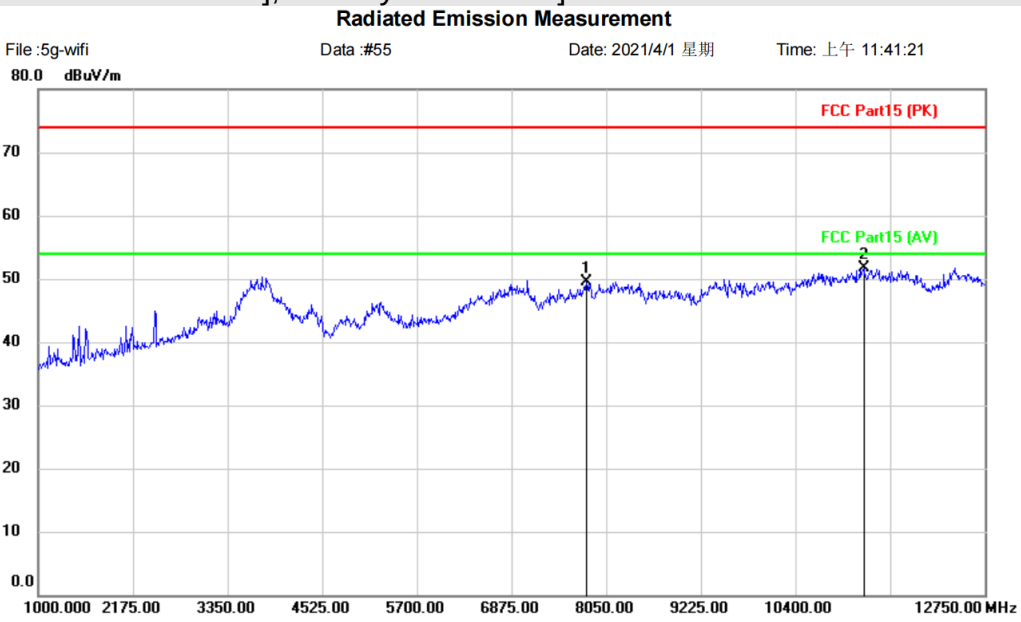
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		8191.000	41.55	8.20	49.75	74.00	-24.25	peak			
2	*	11340.000	39.67	11.85	51.52	74.00	-22.48	peak			

*:Maximum data x:Over limit !:over margin 〈Reference Only

Test Result: Pass

5.250-5.350GHz (802.11a)-ANT1

[TestMode: TX Low channel]; Polarity: Horizontal]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11a-L-band2
Note:

Polarization: ***Horizontal***
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

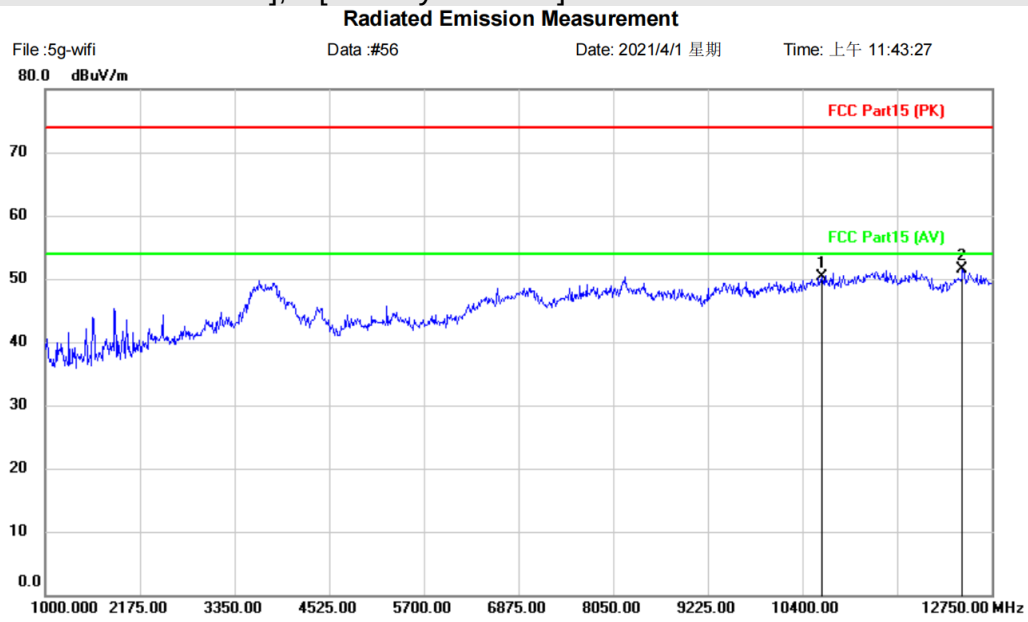
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		7803.250	41.88	7.70	49.58	74.00	-24.42	peak			
2	*	11246.000	39.72	11.98	51.70	74.00	-22.30	peak			

*:Maximum data x:Over limit !:over margin 〈Reference Only

Test Result: Pass

5.250-5.350GHz (802.11a)-ANT1

[TestMode: TX Low channel]; [Polarity: Vertical]



Site
Limit: FCC Part15 (PK)
EUT:
M/N: M1200S
Mode: 802.11a-L-band2
Note:

Polarization: *Vertical*
Power: AC120V/60Hz
Distance: 3m

Temperature:
Humidity: %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		10646.750	39.02	11.29	50.31	74.00	-23.69	peak			
2	*	12385.750	39.73	11.76	51.49	74.00	-22.51	peak			

*:Maximum data x:Over limit !:over margin 〈Reference Only

Test Result: Pass