

TEST REPORT

Product Name : 6221B-UUC
Brand Mark : HUNAN FN-LINK
Model No. : 6221B-UUC
FCC ID : 2AATL-6221B-UUC
Report Number : BLA-EMC-202012-A2904
Date of Sample Receipt : 2020/12/8
Date of Test : 2020/12/10 to 2021/1/11
Date of Issue : 2021/1/12
Test Standard : 47 CFR Part 15, Subpart E 15.407
Test Result : Pass

Prepared for:

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No. 8, Litong Road, Liuyang Economic Development Zone,
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Date: 2021/1/12



REPORT REVISE RECORD

Version No.	Date	Description
00	2021/1/12	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
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
Radiated Spurious emissions and Band-edge	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
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
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
99% Bandwidth	47 CFR Part 15, Subpart E 15.407	KDB 789033 II D	N/A	Pass
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart E 15.407	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207 & 15.407 b(6)	Pass
Antenna Requirement	47 CFR Part 15, Subpart E 15.407	N/A	47 CFR Part 15, Subpart C 15.203	Pass

2 GENERAL INFORMATION

Applicant	HUNAN FN-LINK TECHNOLOGY LIMITED
Address	No. 8, Litong Road, Liuyang Economic Development Zone, Liuyang China
Manufacturer	HUNAN FN-LINK TECHNOLOGY LIMITED
Address	No. 8, Litong Road, Liuyang Economic Development Zone, Liuyang China
Factory	N/A
Address	N/A
Product Name	6221B-UUC
Test Model No.	6221B-UUC

3 GENERAL DESCRIPTION OF E.U.T.

Hardware Version	1.4
Software Version	1.4
Operation Frequency:	Band 1 : 5180MHz-5240MHz; Band 2:5260MHz~5320MHz Band 3: 5500MHz~5700MHz; Band 4 : 5745MHz-5825MHz
Operation mode:	Indoor used
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(HT2): 20MHz, 802.11n/ac(HT40): 40MHz, 802.11ac(HT80): 80MHz
Modulation technology: (IEEE 802.11a/n/ac)	BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM
Data speed(IEEE 802.11a)	6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps
Data speed (IEEE 802.11n/ac):	Up to 433.3Mbps
Antenna Type:	Internal antenna
Antenna gain:	2.0dBi(Provided by the customer)
Power supply:	DC3.3V
Remark:The Antenna Gain is supplied by the customer	

4 TEST ENVIRONMENT

Environment	Temperature	Voltage
Normal	25 °C	DC3.3V

5 TEST MODE

TEST MODE	TEST MODE DESCRIPTION
Continuously transmitting mode	Keep the EUT in 100% duty cycle transmitting with modulation.

Remark:Only the data of the worst mode would be recorded in this report.

6 MEASUREMENT UNCERTAINTY

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

7 DESCRIPTION OF SUPPORT UNIT

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

8 LABORATORY LOCATION

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

9 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 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

Test Equipment Of DFS: Detection 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 DFS: Channel Closing Transmission Time

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 DFS: Channel Move Time

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 DFS: Non-occupancy period

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 DFS: Detection threshold

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 DFS: Channel Availability Check Time

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 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 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 99% 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 Conducted Emissions at AC Power Line (150kHz-30MHz)					
Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
Shield room	SKET	833	N/A	2020/11/25	2023/11/24
Receiver	R&S	ESPI3	101082	2020/10/12	2021/10/11
LISN	R&S	ENV216	3560.6550.15	2020/10/12	2021/10/11
LISN	AT	AT166-2	AKK1806000003	2020/10/12	2021/10/11
EMI software	EZ	EZ-EMC	EEMC-3A1	N/A	N/A

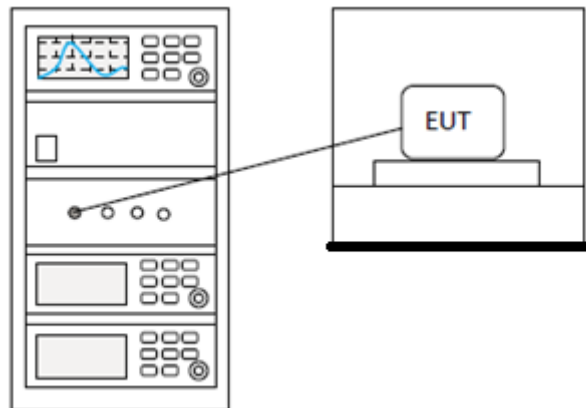
1 FREQUENCY STABILITY

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	Eason
Temperature	22°C
Humidity	50%

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.
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1.2 BLOCK DIAGRAM OF TEST SETUP



1.3 TEST DATA

Pass: Please Refer To Appendix: Appendix3 For Details

2 RADIATED EMISSIONS WHICH FALL IN THE RESTRICTED BANDS AND BAND EDGE

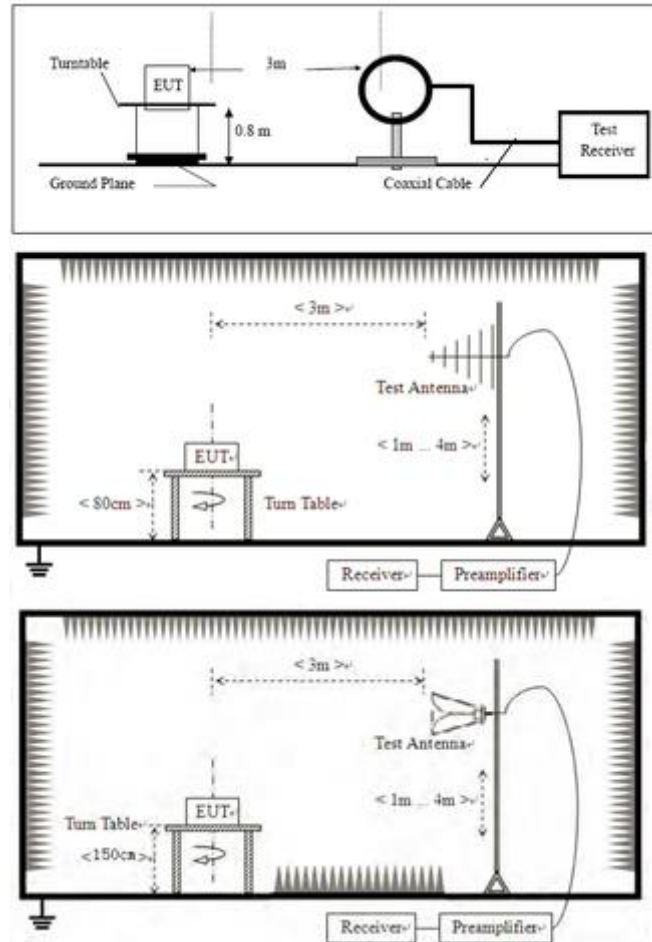
Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	KDB 789033 D02 II G
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Eason
Temperature	18°C
Humidity	50%

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

- 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.
- 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.
- 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.
- 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.
- 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.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- 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.

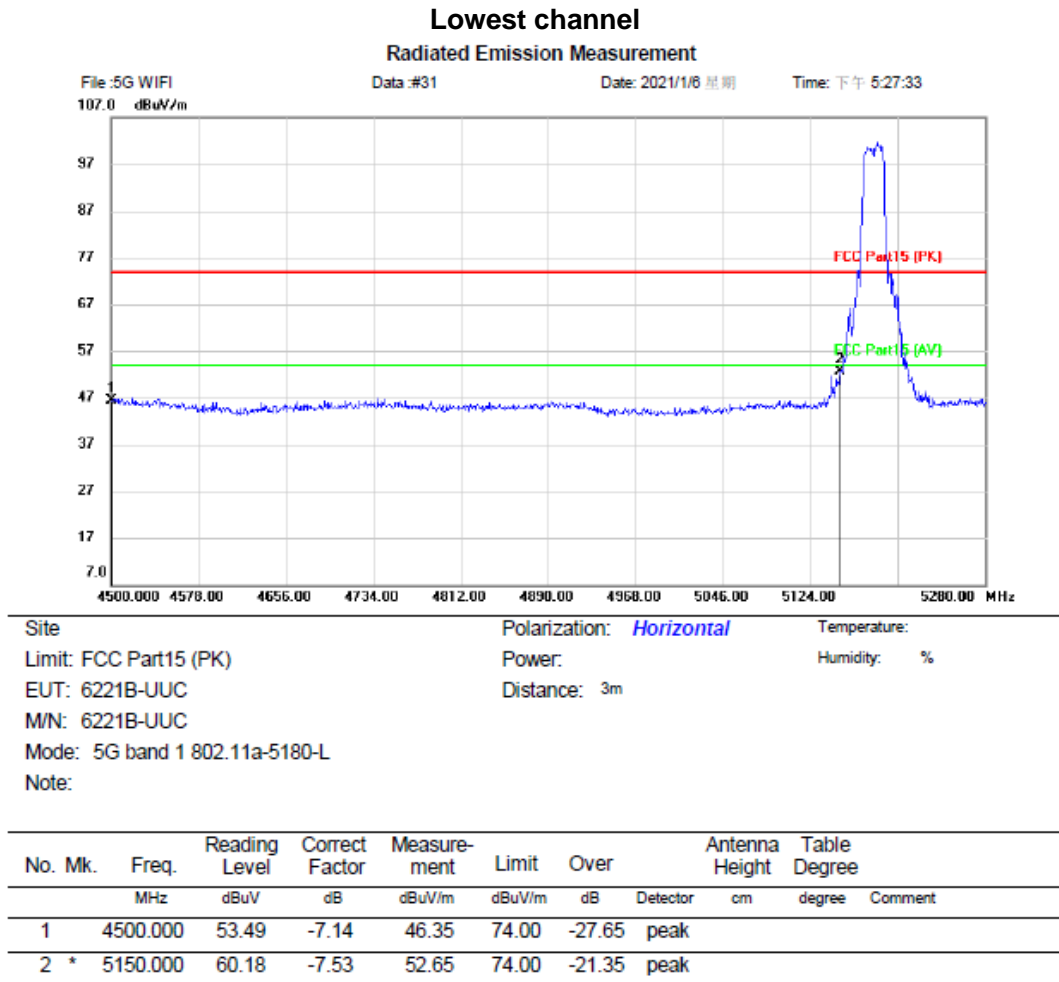
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
 - i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
 - j. Repeat above procedures until all frequencies measured was complete.
- Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

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2.4 TEST DATA

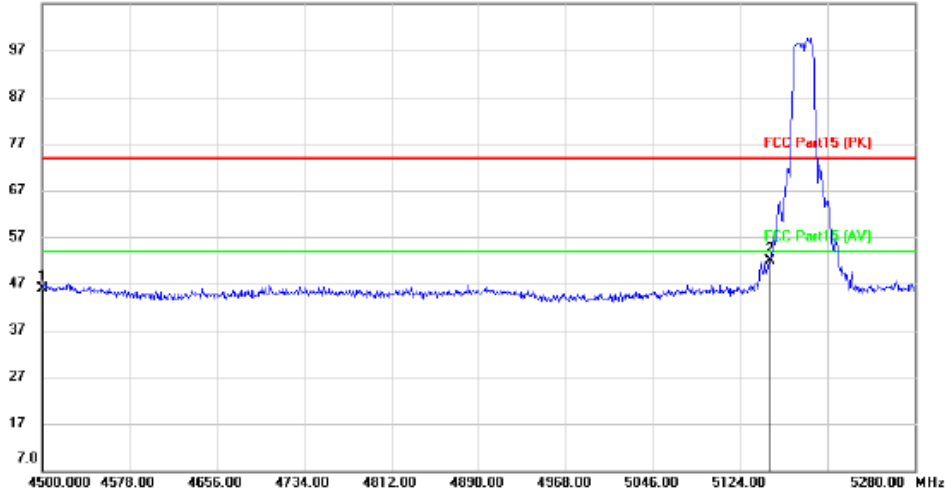
Remark: During the test, pre-scan the 802.11a/n/ac mode, and found the 802.11a mode which is worse case.

Band1:



Radiated Emission Measurement

File: 5G WIFI Data: #32 Date: 2021/1/6 星期 Time: 下午 5:29:54
107.0 dBuV/m

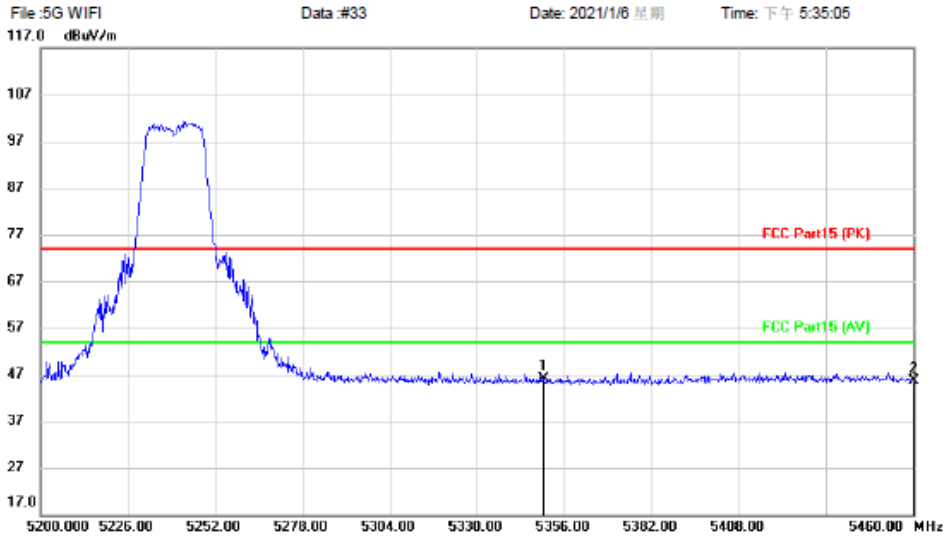


Site	Polarization: <i>Vertical</i>	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 1 802.11a-5180-L		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1		4500.000	52.91	-7.14	45.77	74.00	-28.23	peak			
2	*	5150.000	59.41	-7.41	52.00	74.00	-22.00	peak			

BLU

Highest channel
Radiated Emission Measurement

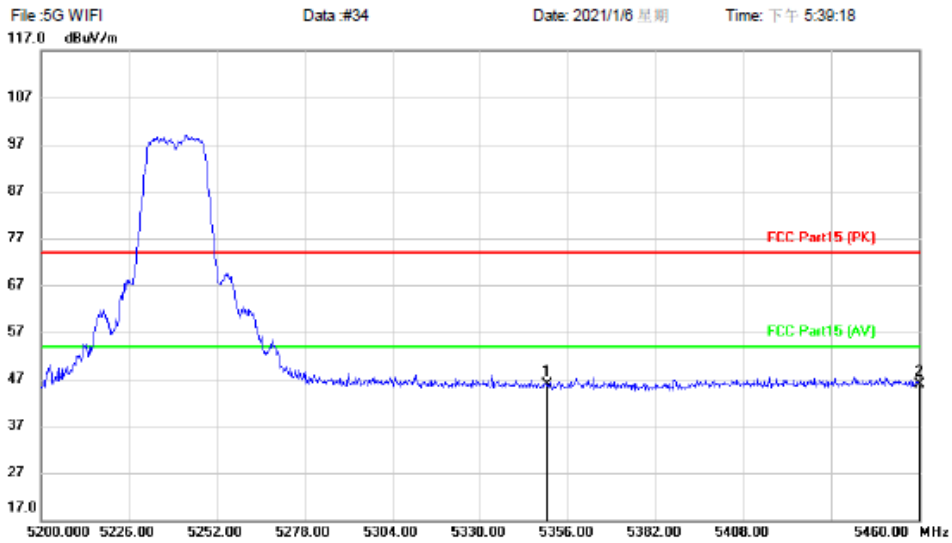


Site	Polarization: <i>Horizontal</i>	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 1 802.11a-5240-H		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	5350.000	53.07	-6.96	46.11	74.00	-27.89	peak		
2		5460.000	52.07	-6.51	45.56	74.00	-28.44	peak		



Radiated Emission Measurement



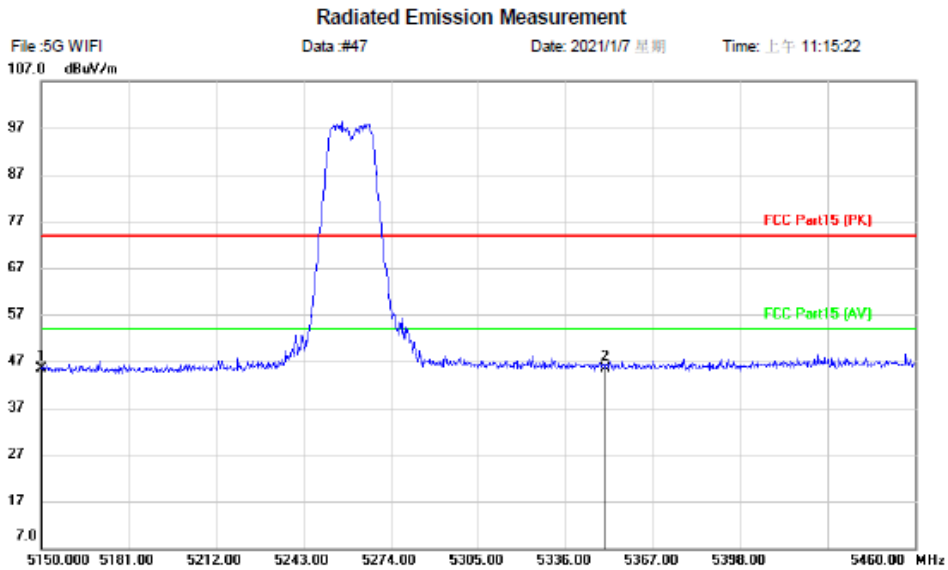
Site	Polarization: <i>Vertical</i>	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 1 802.11a-5240-H		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	5350.000	52.62	-6.68	45.94	74.00	-28.06	peak		
2		5460.000	51.99	-6.14	45.85	74.00	-28.15	peak		



Band2:

Lowest channel

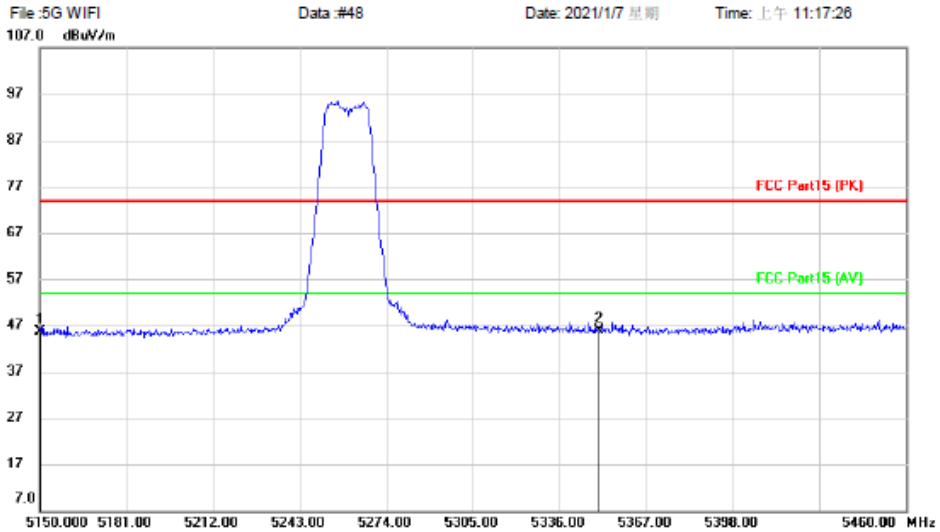


Site	Polarization: <i>Horizontal</i>	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 2 802.11a-5260-L		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree
1		5150.000	52.87	-7.53	45.34	74.00	-28.66	peak	
2	*	5350.000	52.41	-6.96	45.45	74.00	-28.55	peak	



Radiated Emission Measurement



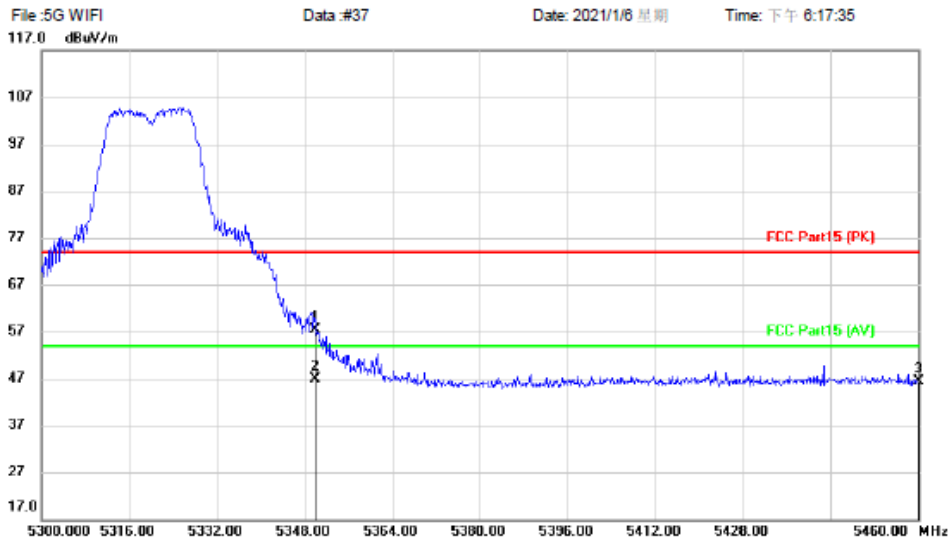
Site	Polarization: <i>Vertical</i>	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 2 802.11a-5260-L		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		5150.000	53.08	-7.41	45.67	74.00	-28.33	peak		
2	*	5350.000	52.45	-6.68	45.77	74.00	-28.23	peak		



Highest channel

Radiated Emission Measurement

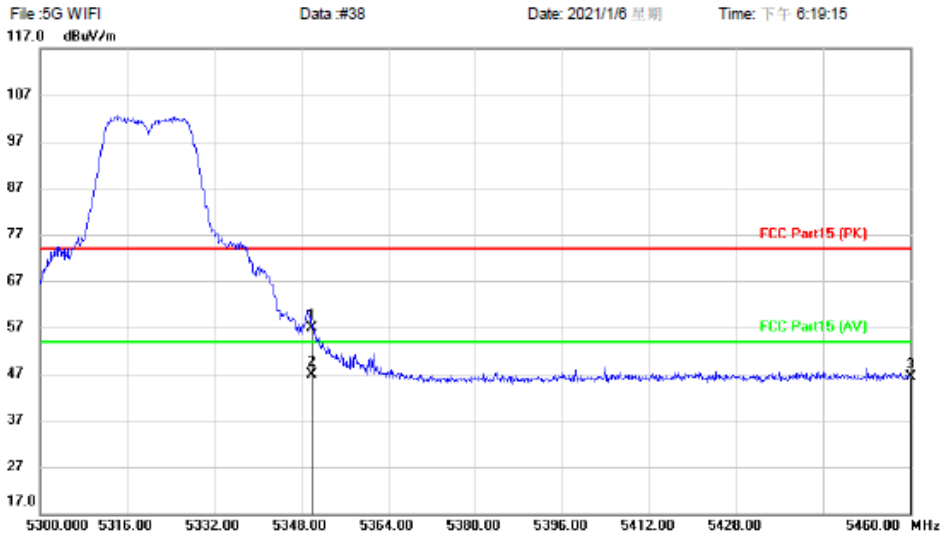


Site	Polarization: <i>Horizontal</i>	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 2 802.11a-5320-H		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		5350.000	64.38	-6.96	57.42	74.00	-16.58	peak		
2	*	5350.000	53.84	-6.96	46.88	54.00	-7.12	AVG		
3		5460.000	52.86	-6.51	46.35	74.00	-27.65	peak		

BLA

Radiated Emission Measurement



Site	Polarization: <i>Vertical</i>	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 2 802.11a-5320-H		
Note:		

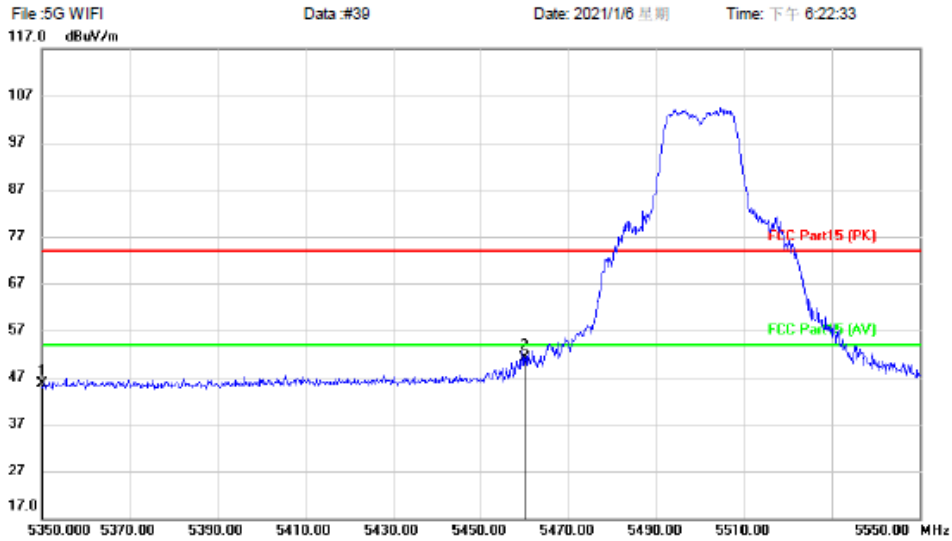
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		5350.000	63.49	-6.68	56.81	74.00	-17.19			peak
2	*	5350.000	53.61	-6.68	46.93	54.00	-7.07			AVG
3		5460.000	52.44	-6.14	46.30	74.00	-27.70			peak

BLA

Band3

Lowest channel

Radiated Emission Measurement

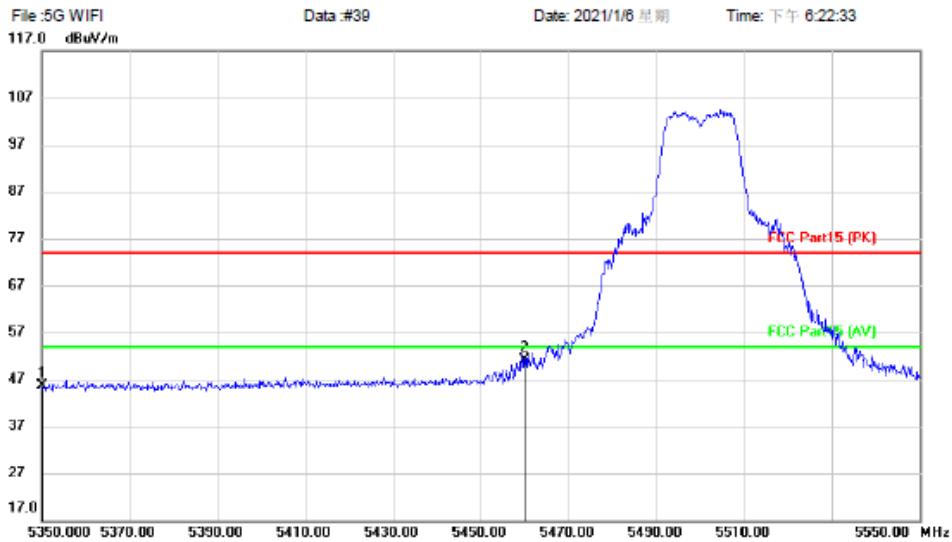


Site	Polarization: <i>Horizontal</i>	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 3 802.11a-5500-L		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		5350.000	52.60	-6.96	45.64	74.00	-28.36	peak		
2	*	5460.000	57.52	-6.51	51.01	74.00	-22.99	peak		



Radiated Emission Measurement



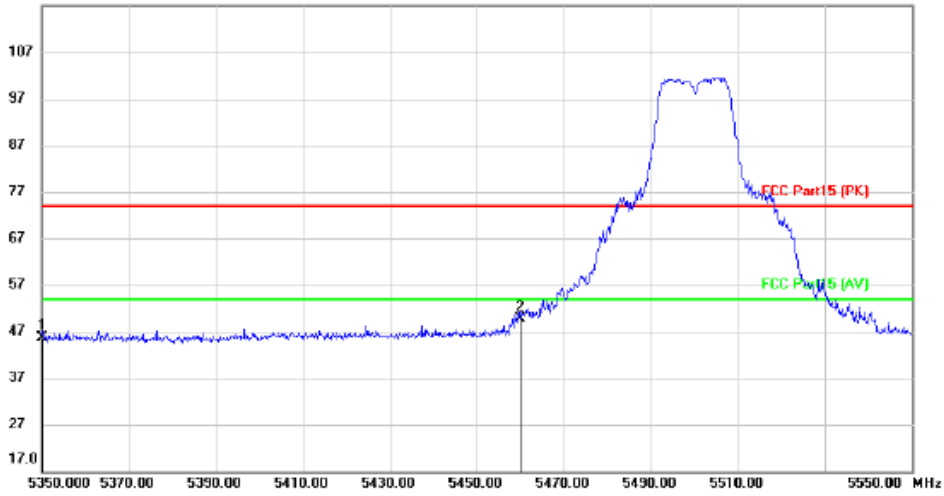
Site	Polarization: <i>Horizontal</i>	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 3 802.11a-5500-L		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		5350.000	52.60	-6.96	45.64	74.00	-28.36	peak		
2	*	5460.000	57.52	-6.51	51.01	74.00	-22.99	peak		

BLA

Radiated Emission Measurement

File :5G WIFI
117.0 dBuV/m
Data :#40
Date: 2021/1/6 星期
Time: 下午 6:24:09



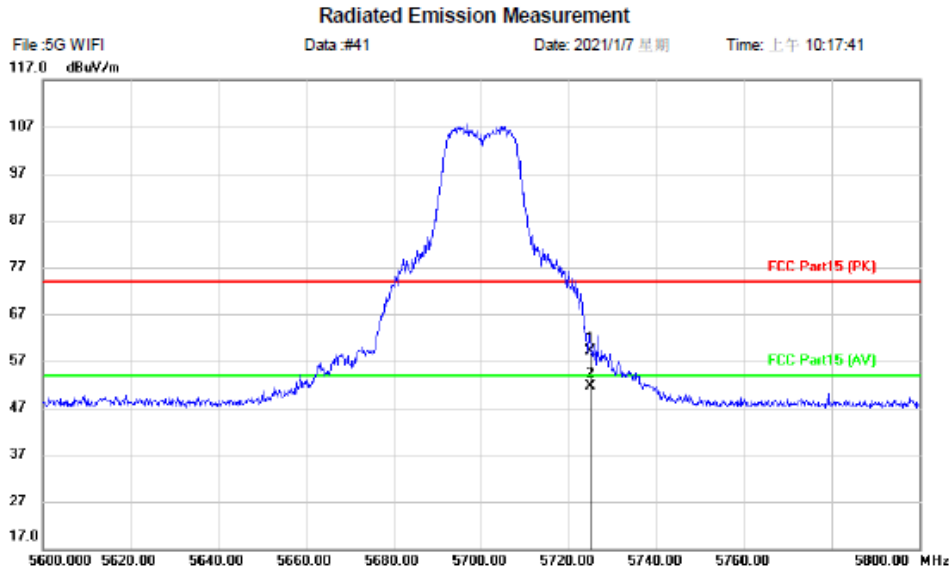
Site
Limit: FCC Part15 (PK)
EUT: 6221B-UUC
M/N: 6221B-UUC
Mode: 5G band 3 802.11a-5500-L
Note:

Polarization: *Vertical*
Power:
Distance: 3m
Temperature:
Humidity: %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		5350.000	52.25	-6.68	45.57	74.00	-28.43	peak		
2	*	5460.000	55.89	-6.14	49.75	74.00	-24.25	peak		

BLA

Highest channel



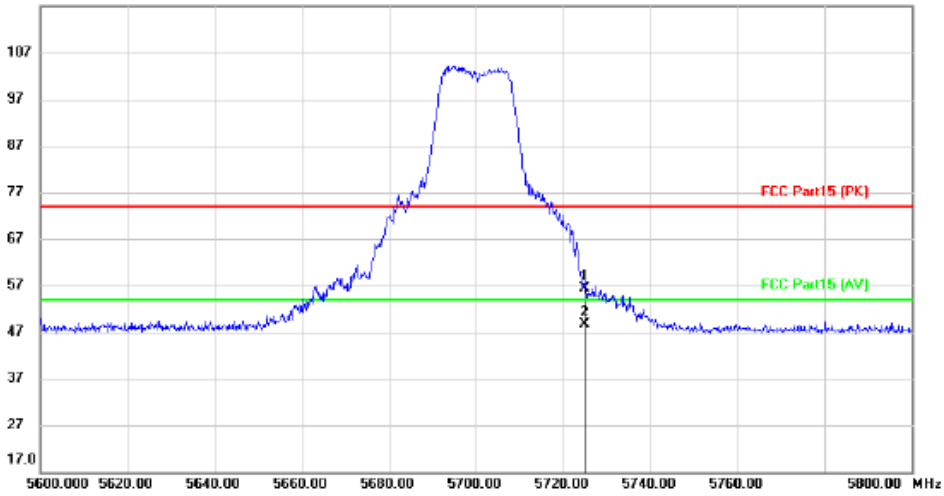
Site	Polarization: <i>Horizontal</i>	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 3 802.11a-5700-H		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		5725.000	64.59	-5.35	59.24	74.00	-14.76	peak		
2	*	5725.000	56.97	-5.35	51.62	54.00	-2.38	AVG		



Radiated Emission Measurement

File: 5G WIFI Data: #42 Date: 2021/1/7 星期 Time: 上午 10:23:43



Site Limit: FCC Part15 (PK) EUT: 6221B-UUC M/N: 6221B-UUC Mode: 5G band 3 802.11a-5700-H Note:

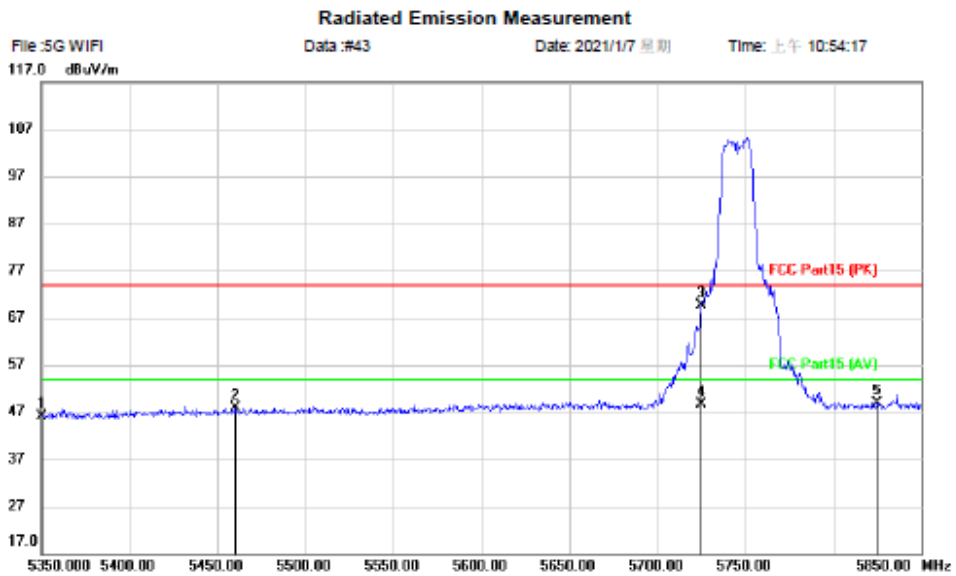
Polarization: *Vertical* Temperature: Power: Humidity: % Distance: 3m

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree
1		5725.000	61.70	-5.26	56.44	74.00	-17.56	peak	
2	*	5725.000	54.01	-5.26	48.75	54.00	-5.25	AVG	

BLA

Band4:

Lowest channel

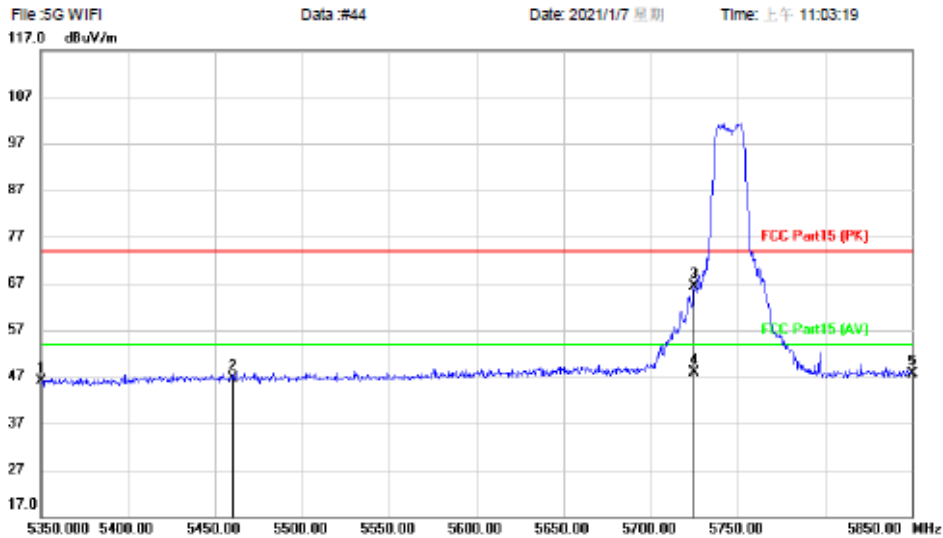


Site	Polarization: <i>Horizontal</i>	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 4 802.11a-5745-L		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		5350.000	53.04	-6.96	46.08	74.00	-27.92			peak
2		5480.000	54.49	-6.51	47.98	74.00	-26.02			peak
3	*	5725.000	74.88	-5.35	69.53	74.00	-4.47			peak
4		5725.000	53.96	-5.35	48.61	54.00	-5.39			AVG
5		5825.000	54.16	-5.25	48.91	74.00	-25.09			peak



Radiated Emission Measurement

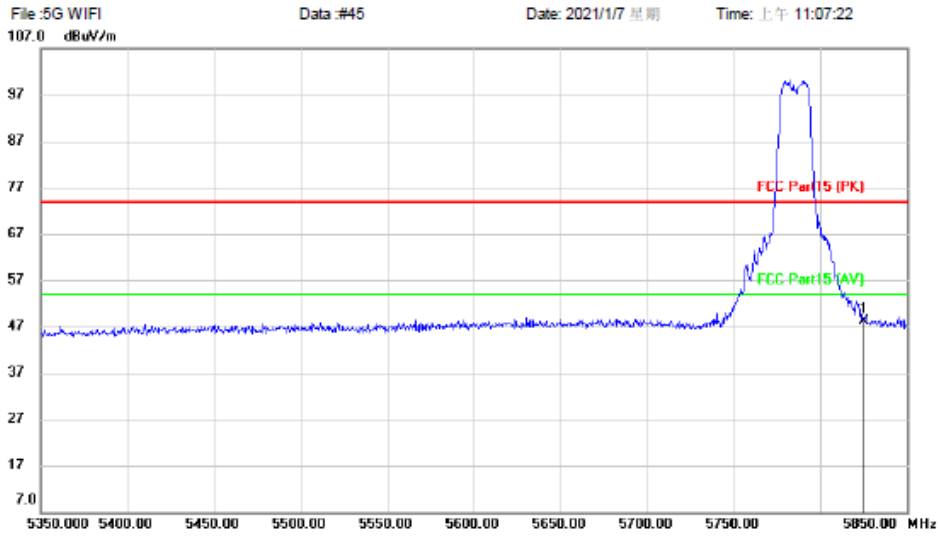


Site	Polarization: <i>Vertical</i>	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 4 802.11a-5745-L		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		5350.000	52.77	-6.68	46.09	74.00	-27.91	peak		
2		5460.000	52.66	-6.14	46.52	74.00	-27.48	peak		
3		5725.000	71.59	-5.26	66.33	74.00	-7.67	peak		
4	*	5725.000	53.09	-5.26	47.83	54.00	-6.17	AVG		
5		5850.000	53.04	-5.30	47.74	74.00	-26.26	peak		



Highest channel
Radiated Emission Measurement

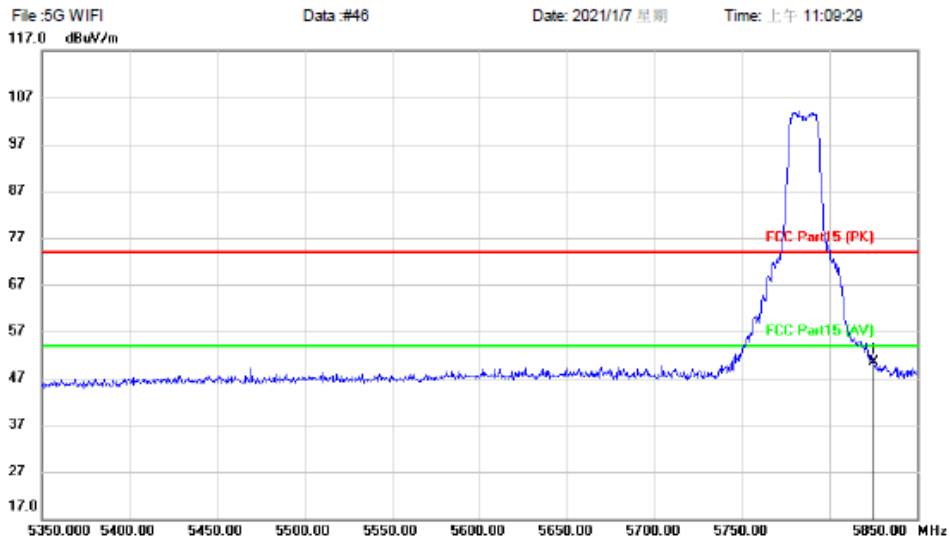


Site	Polarization: <i>Vertical</i>	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 4 802.11a-5745-H		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	5825.000	53.48	-5.30	48.18	74.00	-25.82	peak		



Radiated Emission Measurement



Site	Polarization: <i>Horizontal</i>	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
MN: 6221B-UUC		
Mode: 5G band 4 802.11a-5745-H		
Note:		

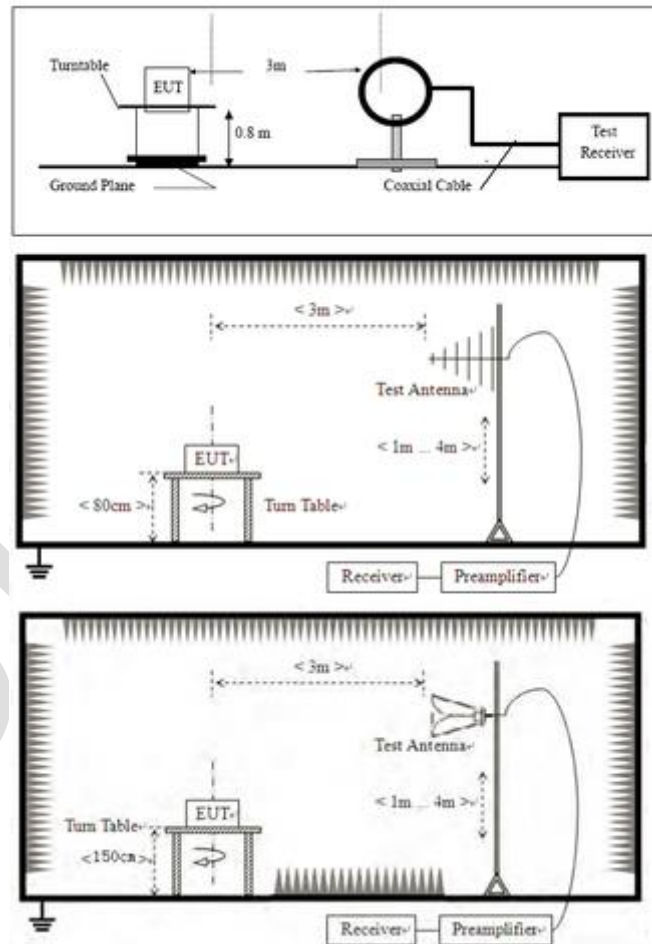
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	5825.000	55.70	-5.25	50.45	74.00	-23.55	peak		



3 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 mode (SE) above 1G
Test Mode (Final Test)	TX mode (SE) below 1G; TX mode (SE) above 1G
Tester	Eason
Temperature	18°C
Humidity	50%

3.1 BLOCK DIAGRAM OF TEST SETUP



3.2 PROCEDURE

- 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.
- 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 12.75GHz 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. fundamental frequency is blocked by filter, and only spurious emission is shown.

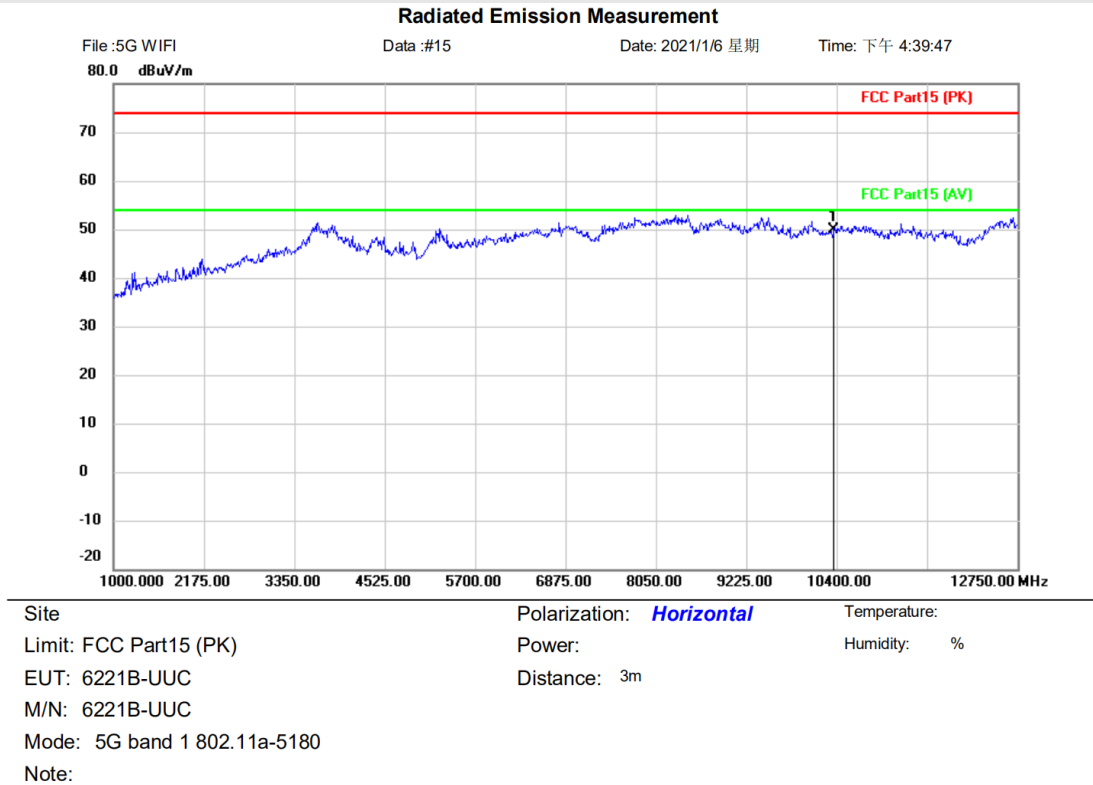
4. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

3.3 TEST DATA

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

[Polarization:Horizontal];[lowest channel]

802.11a:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	10360.000	47.41	2.52	49.93	74.00	-24.07	peak		

*:Maximum data x:Over limit !:over margin

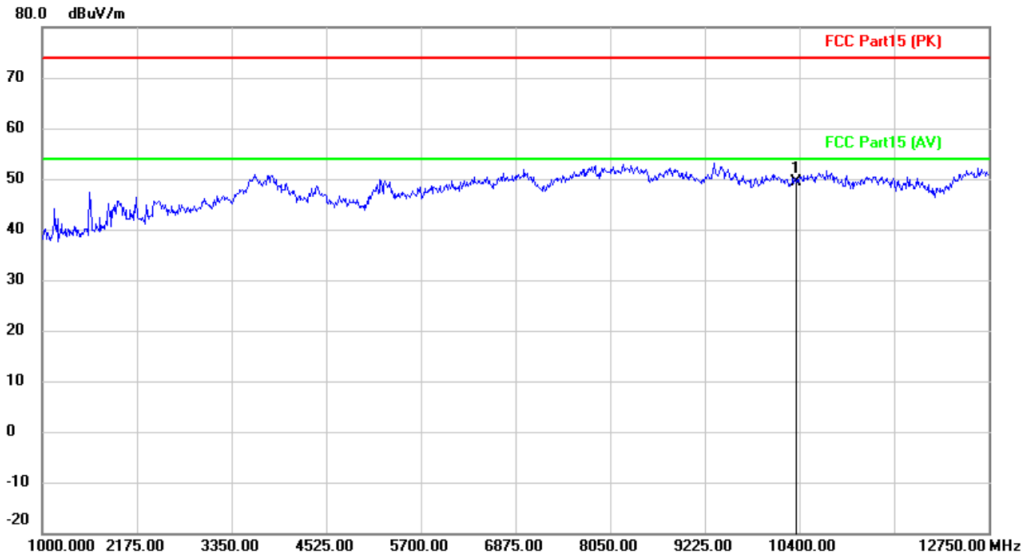
(Reference Only)

Test Result: Pass

[Polarization:Vertical];[lowest channel]

Radiated Emission Measurement

File :5G WIFI Data :#16 Date: 2021/1/6 星期 Time: 下午 4:42:32



Site	Polarization: Vertical	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 1 802.11a-5180		
Note:		

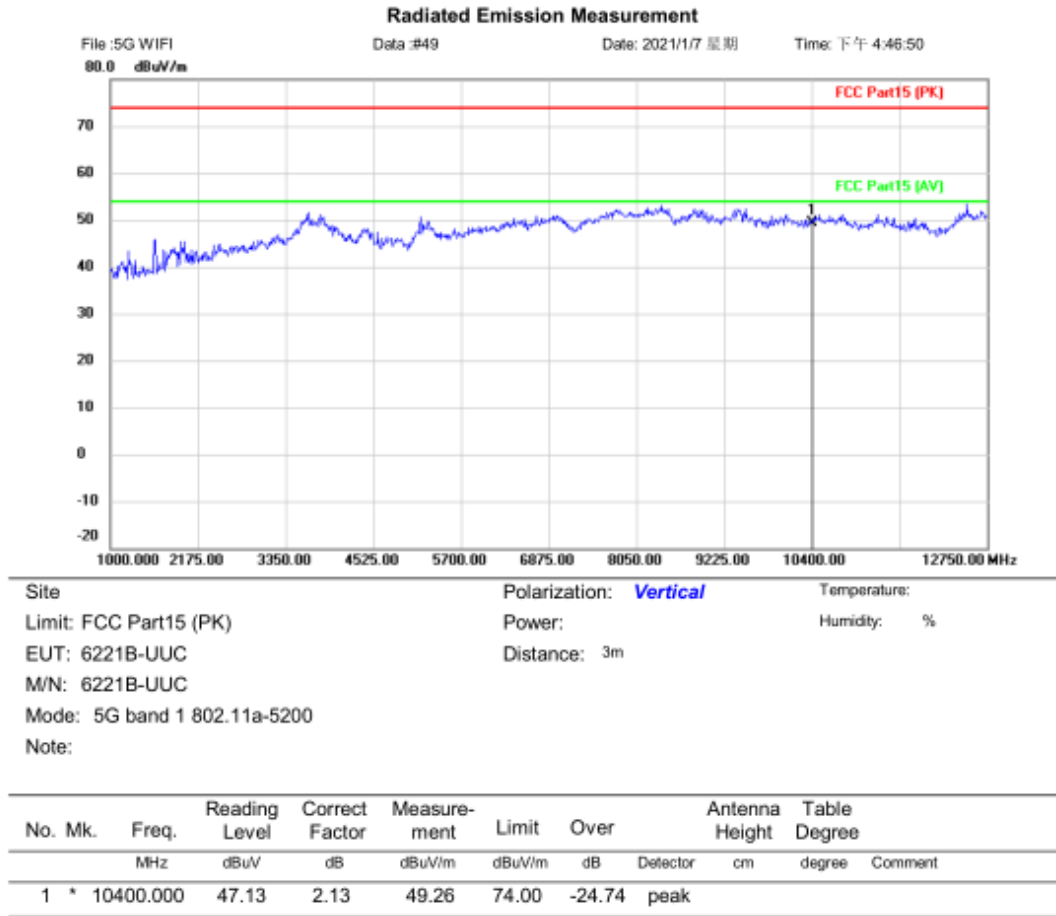
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	10360.000	47.37	1.93	49.30	74.00	-24.70	peak		

*:Maximum data x:Over limit !:over margin

<Reference Only

Test Result: Pass

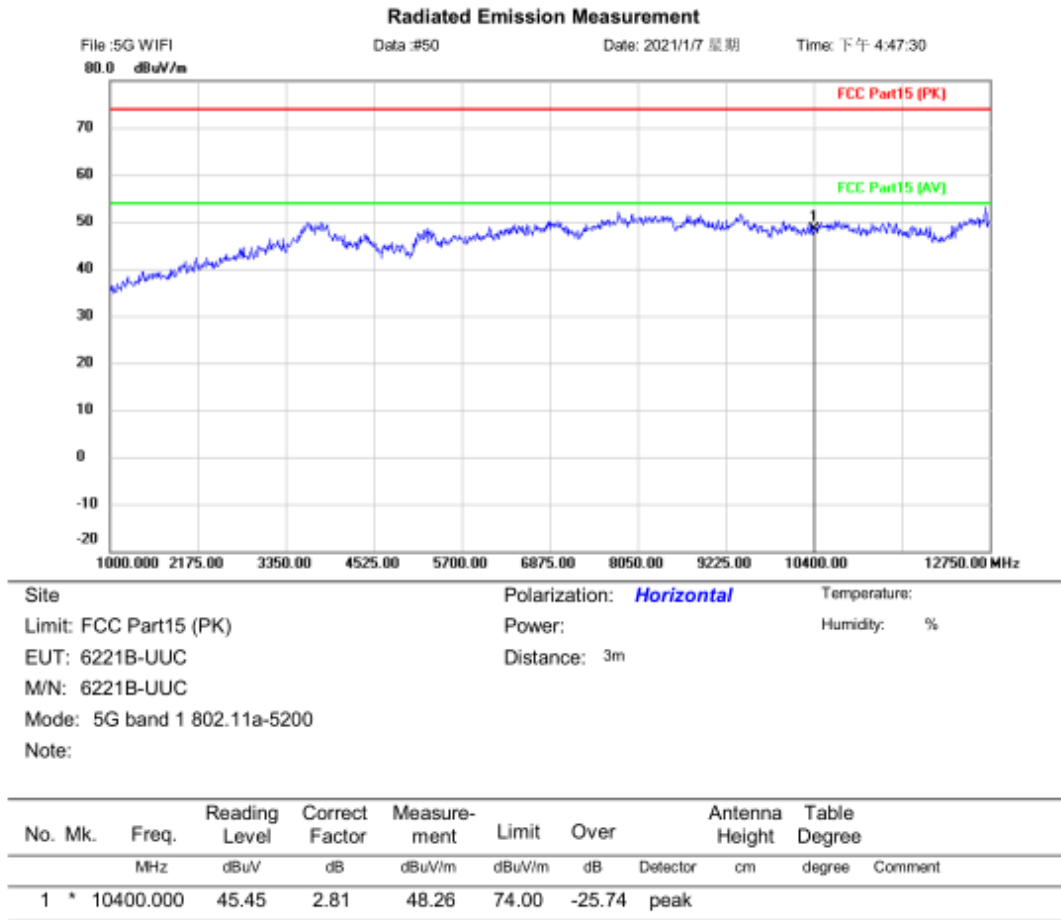
[Polarization:Vertical];[Middle channel]



Test Result: Pass

BLA

[Polarization:Horizontal];[Middle channel]

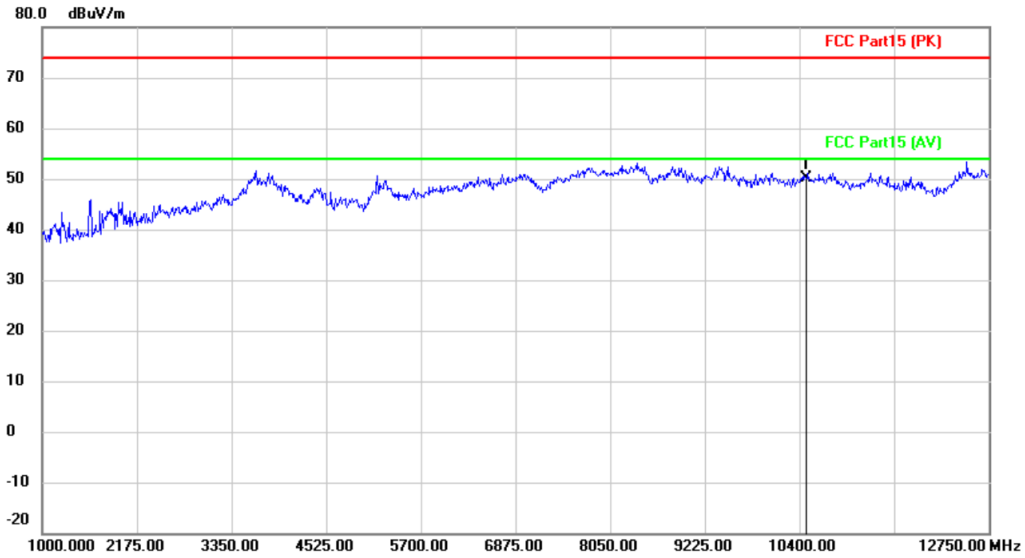


Test Result: Pass

[Polarization:Vertical];[Highest channel]

Radiated Emission Measurement

File :5G WIFI Data :#17 Date: 2021/1/6 星期 Time: 下午 4:46:50



Site	Polarization: Vertical	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 1 802.11a-5240		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	10480.000	48.43	1.65	50.08	74.00	-23.92	peak		

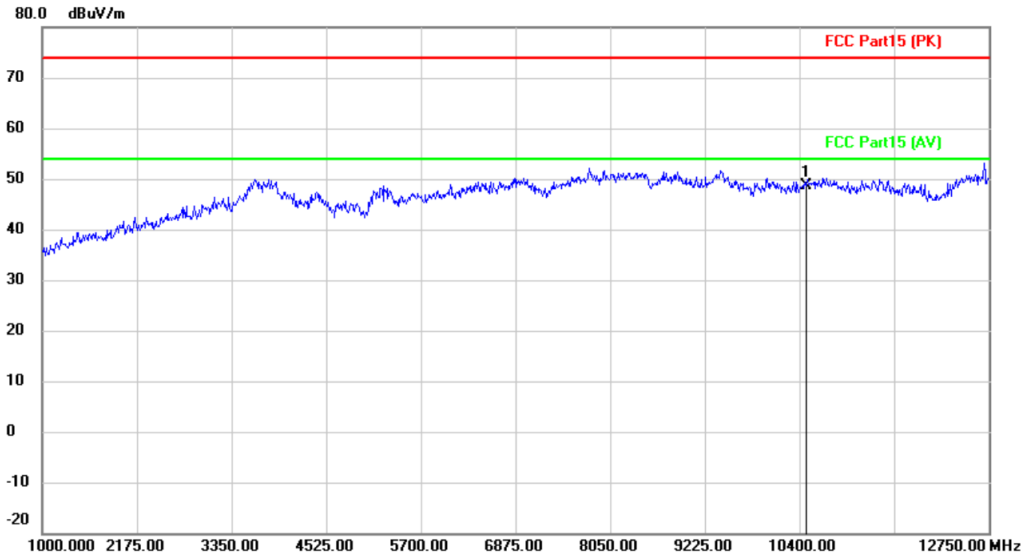
*:Maximum data x:Over limit !:over margin <Reference Only

Test Result: Pass

[Polarization:Horizontal];[Highest channel]

Radiated Emission Measurement

File :5G WIFI Data :#18 Date: 2021/1/6 星期 Time: 下午 4:47:30



Site Polarization: **Horizontal** Temperature:
Limit: FCC Part15 (PK) Power: Humidity: %
EUT: 6221B-UUC Distance: 3m
M/N: 6221B-UUC
Mode: 5G band 1 802.11a-5240
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	10480.000	46.19	2.50	48.69	74.00	-25.31	peak		

*:Maximum data x:Over limit !:over margin

<Reference Only

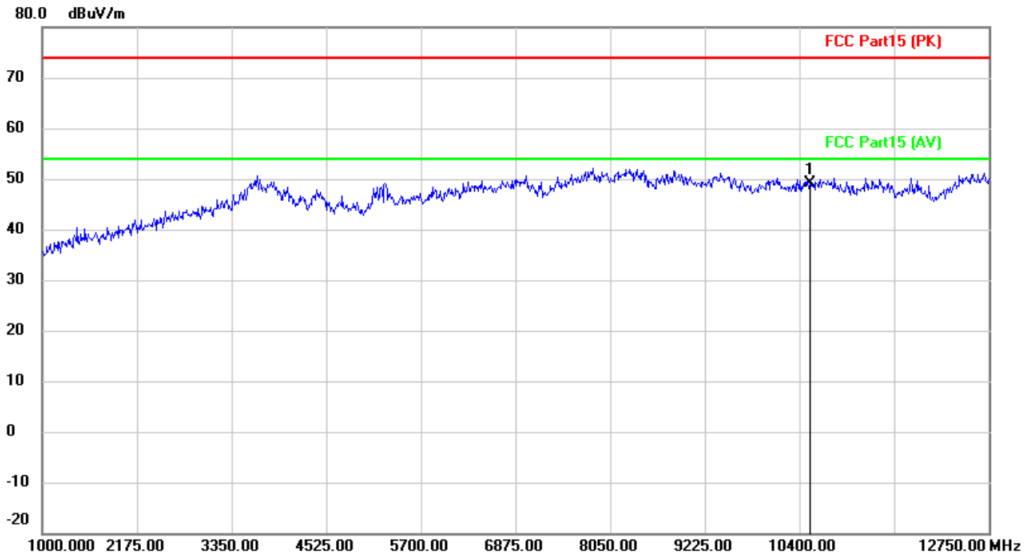
Test Result: Pass

Band2:

[Polarization:Horizontal]; [lowest channel]

Radiated Emission Measurement

File :5G WIFI Data :#19 Date: 2021/1/6 星期 Time: 下午 4:49:06



Site	Polarization: Horizontal	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 2 802.11a-5260		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	10520.000	46.80	2.26	49.06	74.00	-24.94	peak		

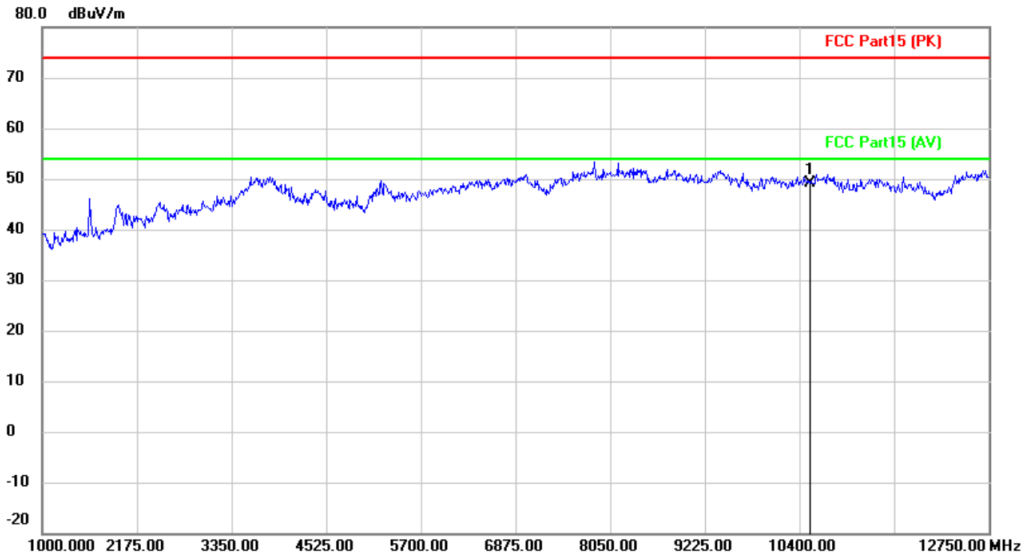
*:Maximum data x:Over limit !:over margin <Reference Only

Test Result: Pass

[Polarization:Vertical];[lowest channel]

Radiated Emission Measurement

File :5G WIFI Data :#20 Date: 2021/1/6 星期 Time: 下午 4:50:06



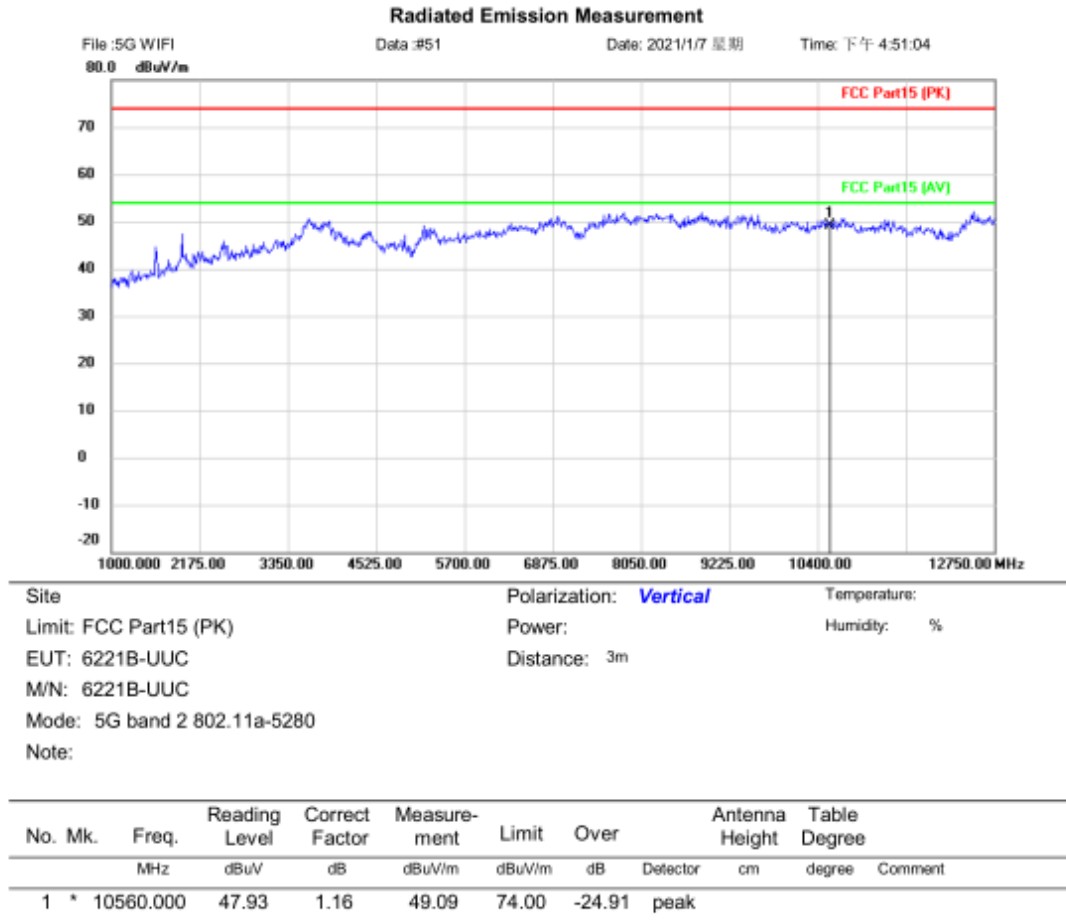
Site	Polarization: Vertical	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 2 802.11a-5260		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	10520.000	47.64	1.40	49.04	74.00	-24.96	peak		

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

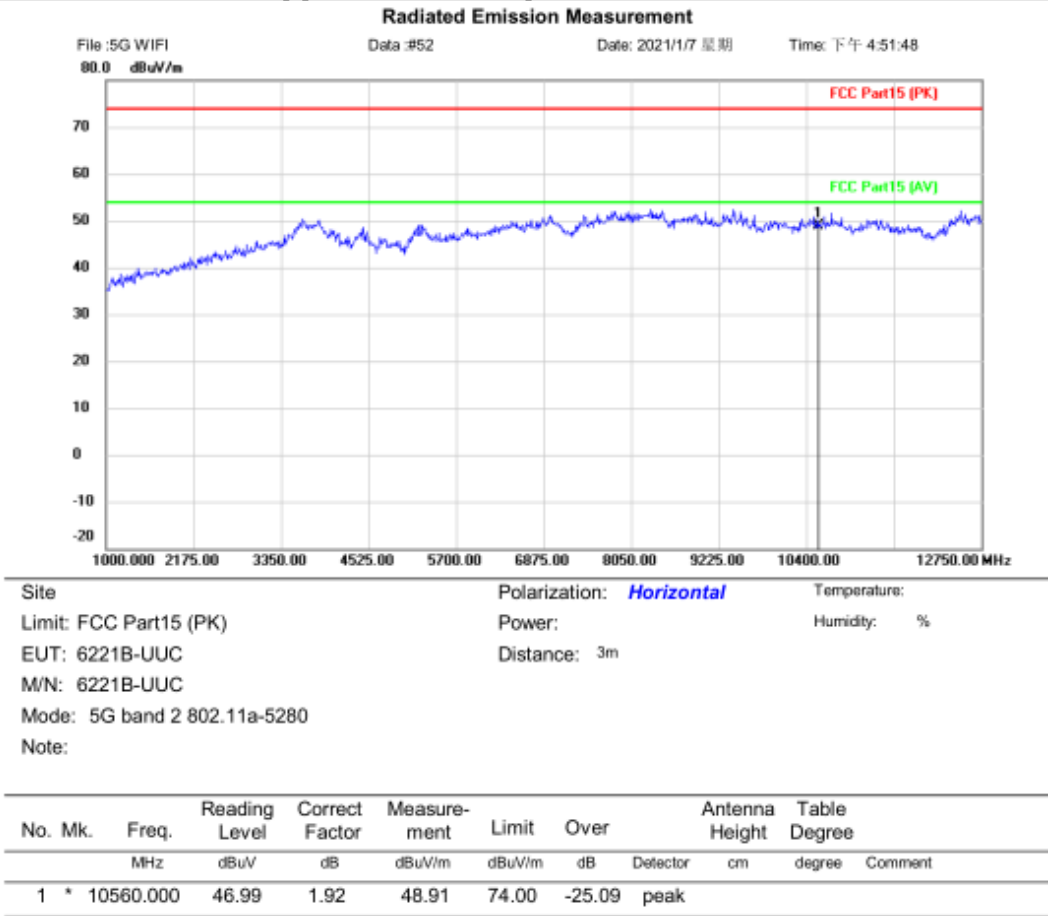
Test Result: Pass

[Polarization:Vertical];[Middle channel]



Test Result: Pass

[Polarization:Horizontal];[Middle channel]

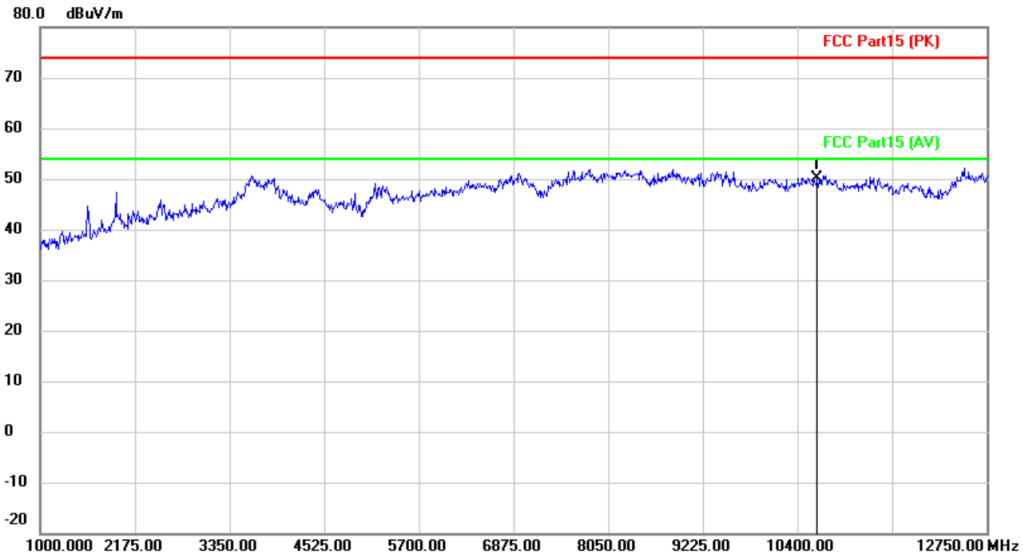


Test Result: Pass

[Polarization:Vertical];[Highest channel]

Radiated Emission Measurement

File :5G WIFI Data :#21 Date: 2021/1/6 星期 Time: 下午 4:51:04



Site	Polarization: Vertical	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 2 802.11a-5320		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	10640.000	49.07	1.10	50.17	74.00	-23.83	peak		

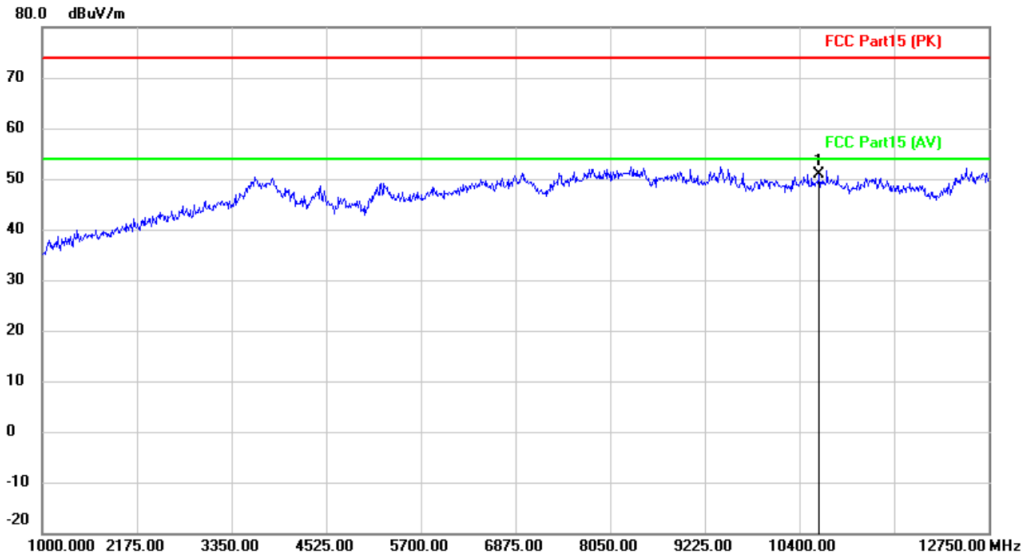
*:Maximum data x:Over limit !:over margin <Reference Only

Test Result: Pass

[Polarization:Horizontal];[Highest channel]

Radiated Emission Measurement

File :5G WIFI Data :#22 Date: 2021/1/6 星期 Time: 下午 4:51:48



Site	Polarization: Horizontal	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 2 802.11a-5320		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	10640.000	49.24	1.70	50.94	74.00	-23.06	peak		

*:Maximum data x:Over limit !:over margin

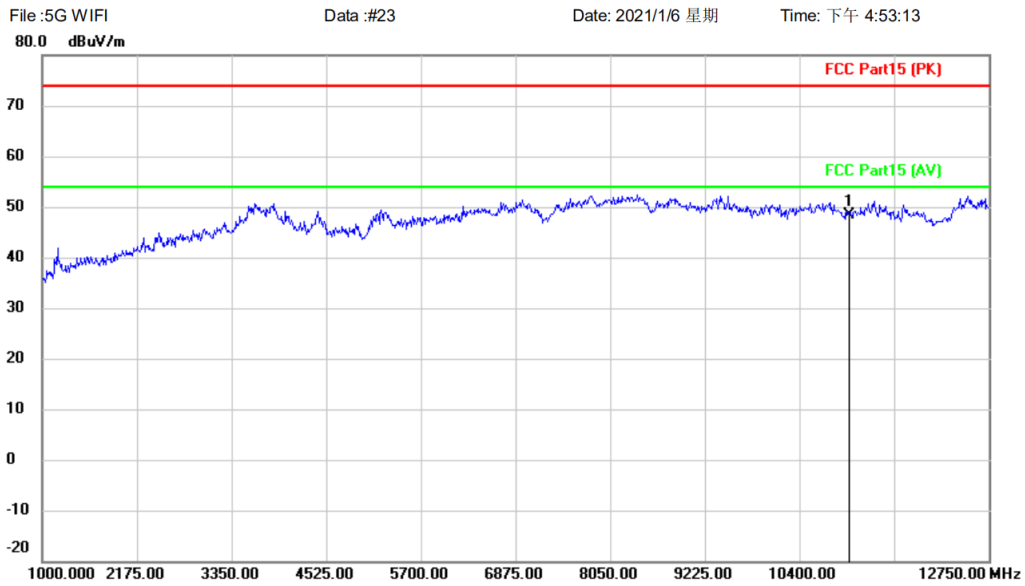
<Reference Only

Test Result: Pass

Band3:

[Polarization:Horizontal];[lowest channel]

Radiated Emission Measurement



Site	Polarization: Horizontal	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 3 802.11a-5500		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	11000.000	47.09	1.26	48.35	74.00	-25.65	peak		

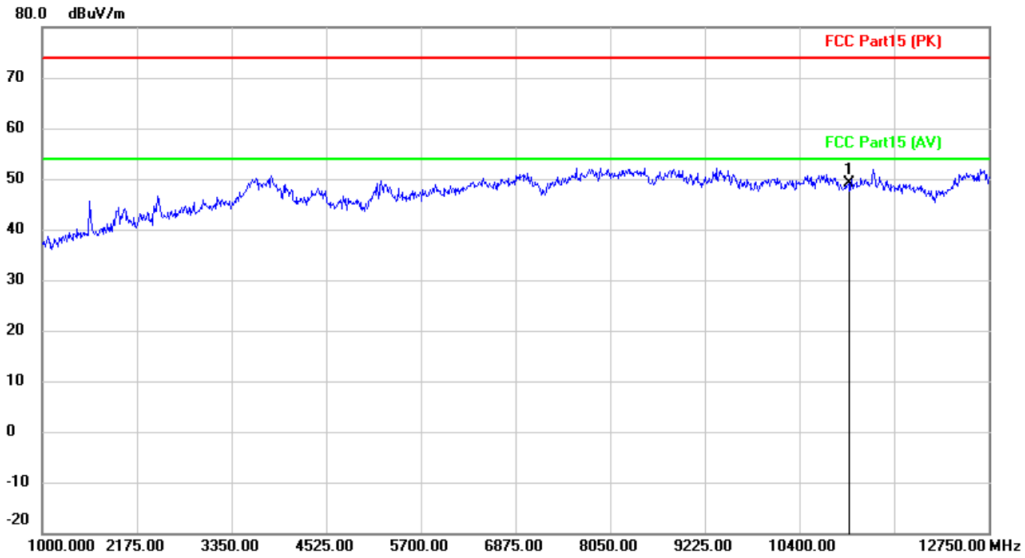
*:Maximum data x:Over limit !:over margin <Reference Only

Test Result: Pass

[Polarization: Vertical];[lowest channel]

Radiated Emission Measurement

File :5G WIFI Data :#24 Date: 2021/1/6 星期 Time: 下午 4:54:22



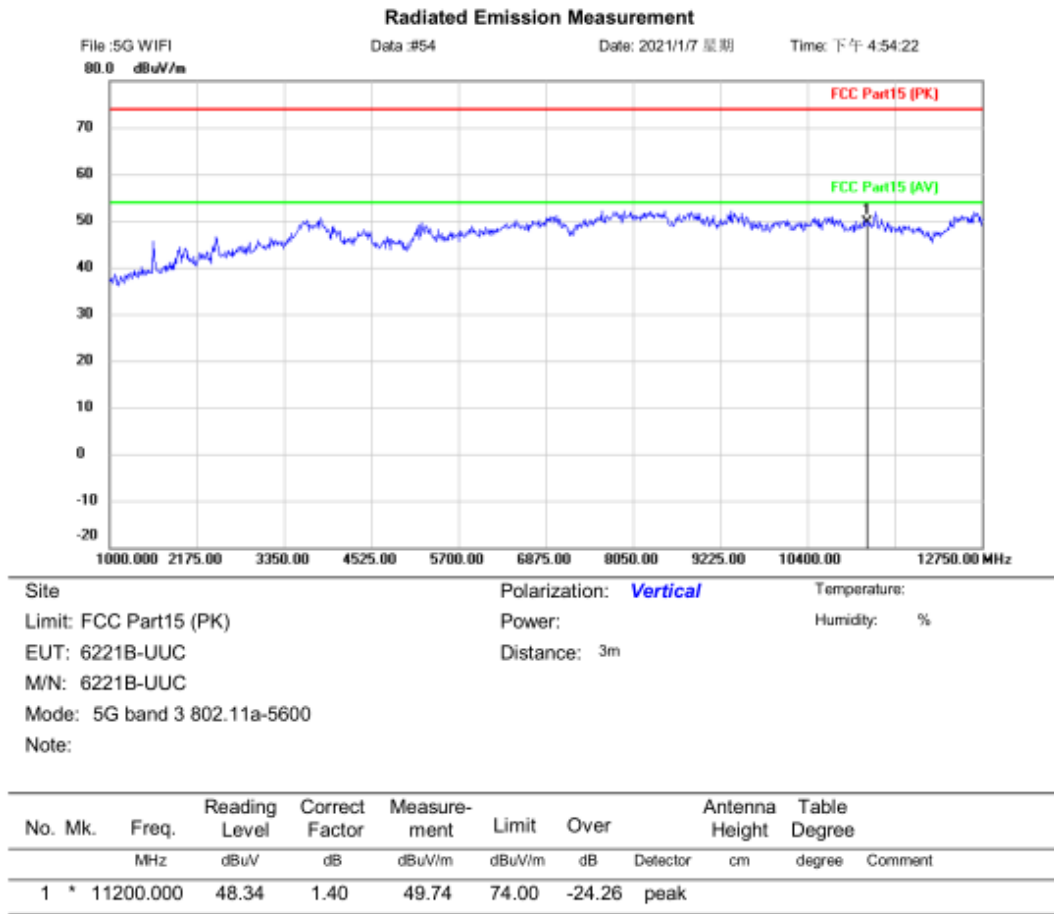
Site	Polarization: Vertical	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 3 802.11a-5500		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	11000.000	47.76	1.46	49.22	74.00	-24.78	peak		

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

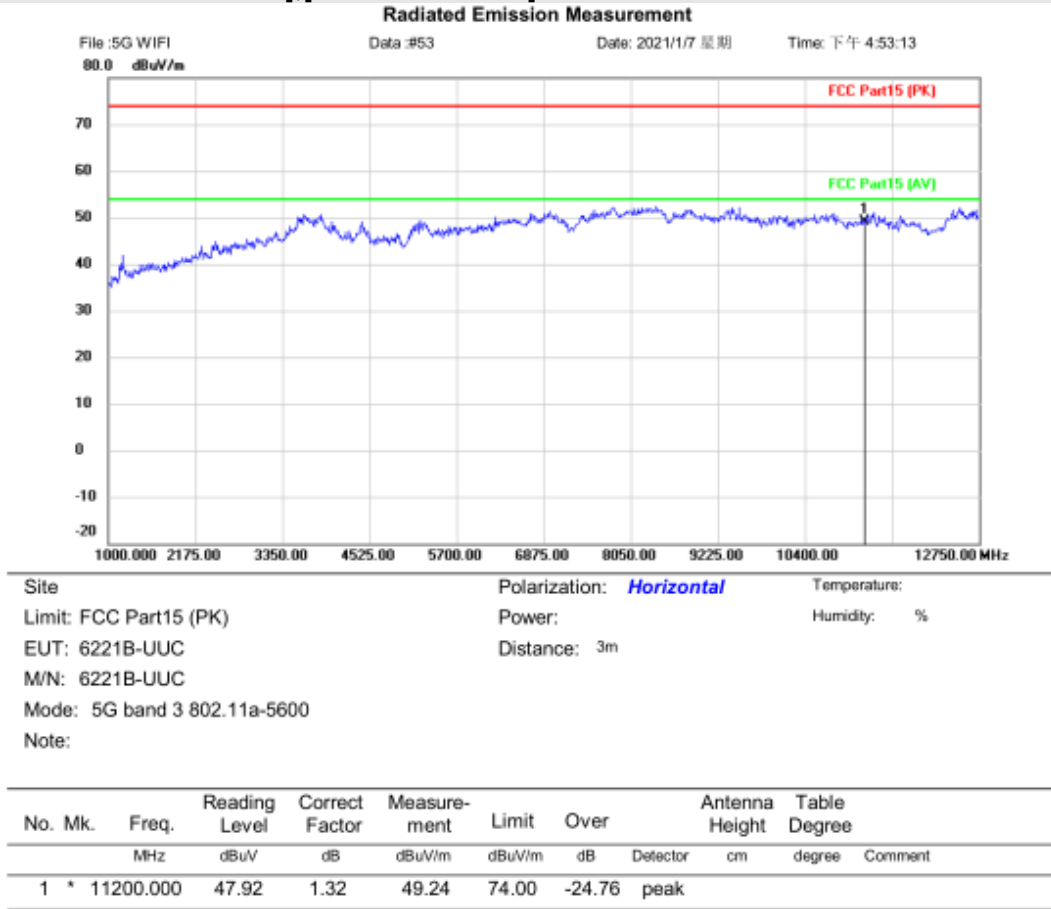
Test Result: Pass

[Polarization:Vertical];[Middle channel]



Test Result: Pass

[Polarization:Horizontal];[Middle channel]

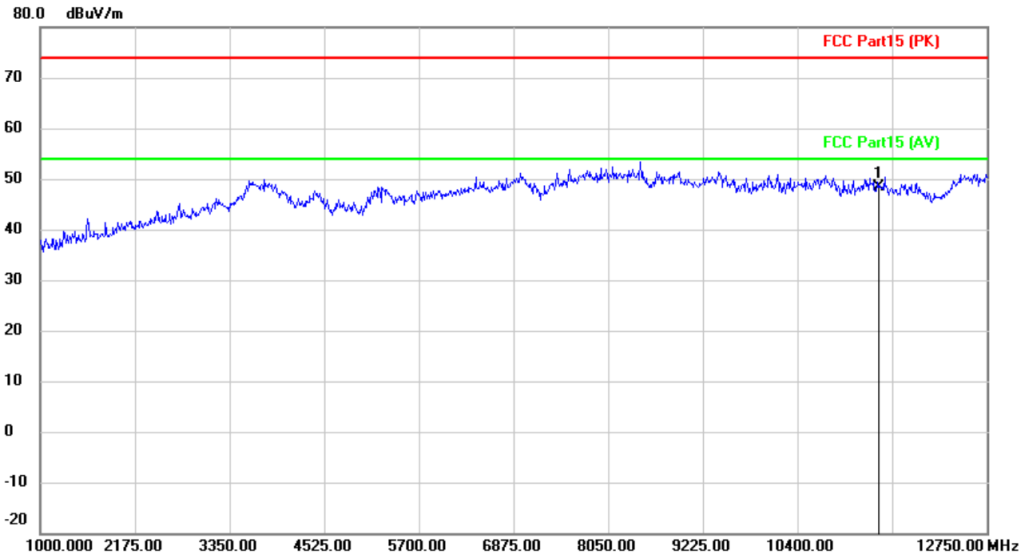


Test Result: Pass

[Polarization:Vertical];[Highest channel]

Radiated Emission Measurement

File :5G WIFI Data :#25 Date: 2021/1/6 星期 Time: 下午 4:56:48



Site	Polarization: Vertical	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 3 802.11a-5700		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	11400.000	47.72	0.75	48.47	74.00	-25.53	peak		

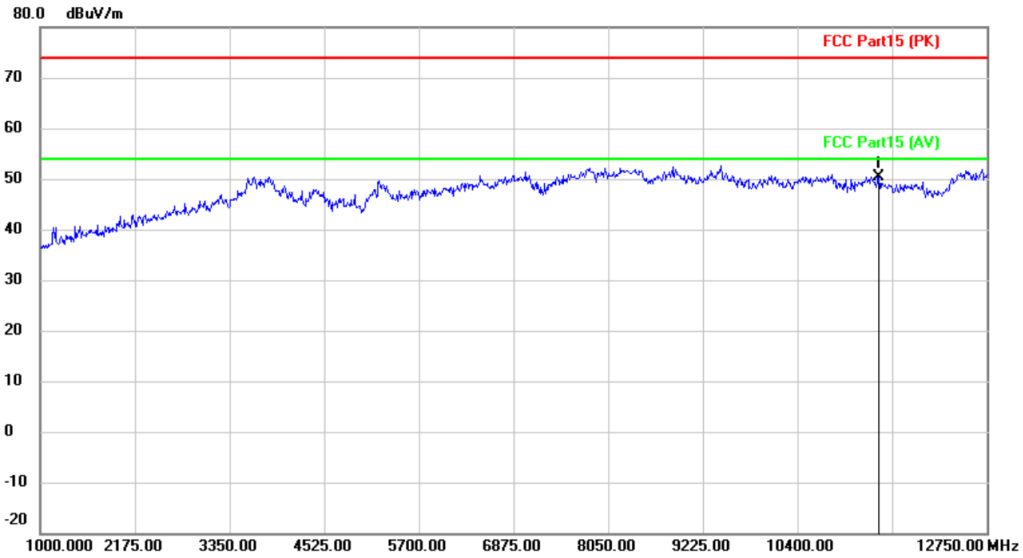
*:Maximum data x:Over limit !:over margin <Reference Only

Test Result: Pass

[Polarization:Horizontal];[Highest channel]

Radiated Emission Measurement

File :5G WIFI Data :#26 Date: 2021/1/6 星期 Time: 下午 4:58:04



Site	Polarization: Horizontal	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 3 802.11a-5700		
Note:		

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree	Comment
1	*	11400.000	49.56	0.79	50.35	74.00	-23.65	peak			

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

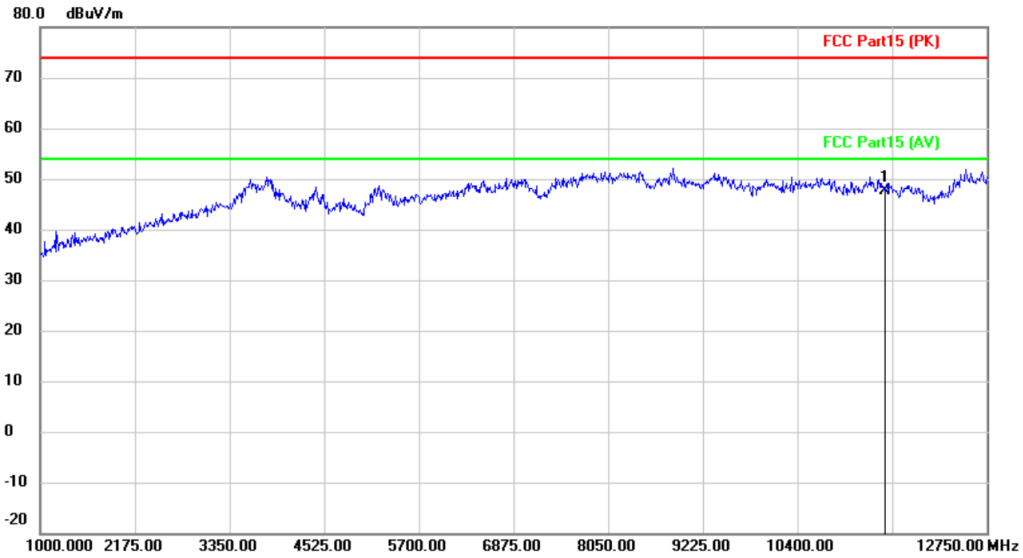
Test Result: Pass

Band4:

[Polarization:Horizontal];[Lowest channel]

Radiated Emission Measurement

File :5G WIFI Data :#27 Date: 2021/1/6 星期 Time: 下午 5:12:27



Site	Polarization: Horizontal	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 4 802.11a-5745		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	11490.000	46.92	0.82	47.74	74.00	-26.26	peak		

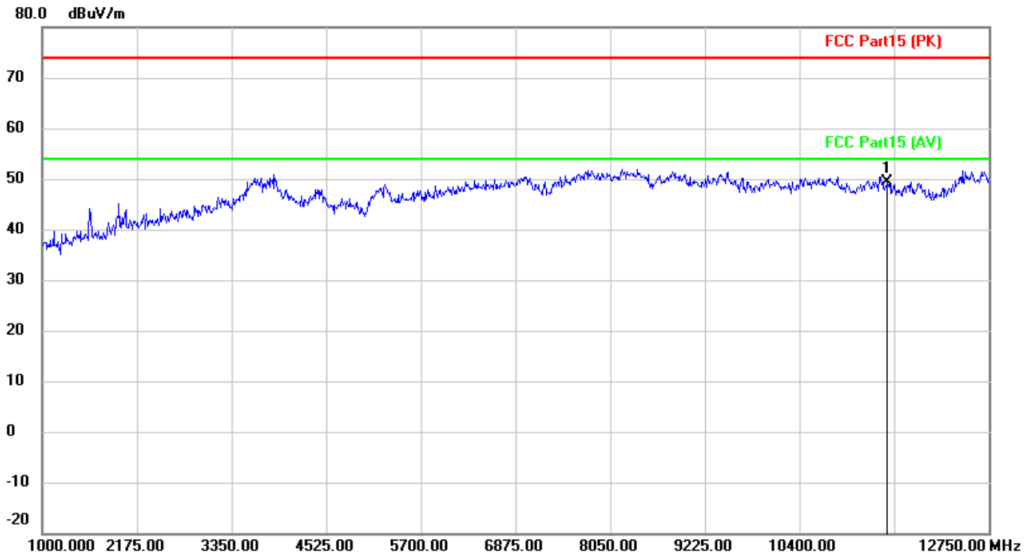
*:Maximum data x:Over limit !:over margin <Reference Only

Test Result: Pass

[Polarization:Vertical];[Lowest channel]

Radiated Emission Measurement

File :5G WIFI Data :#28 Date: 2021/1/6 星期 Time: 下午 5:14:56



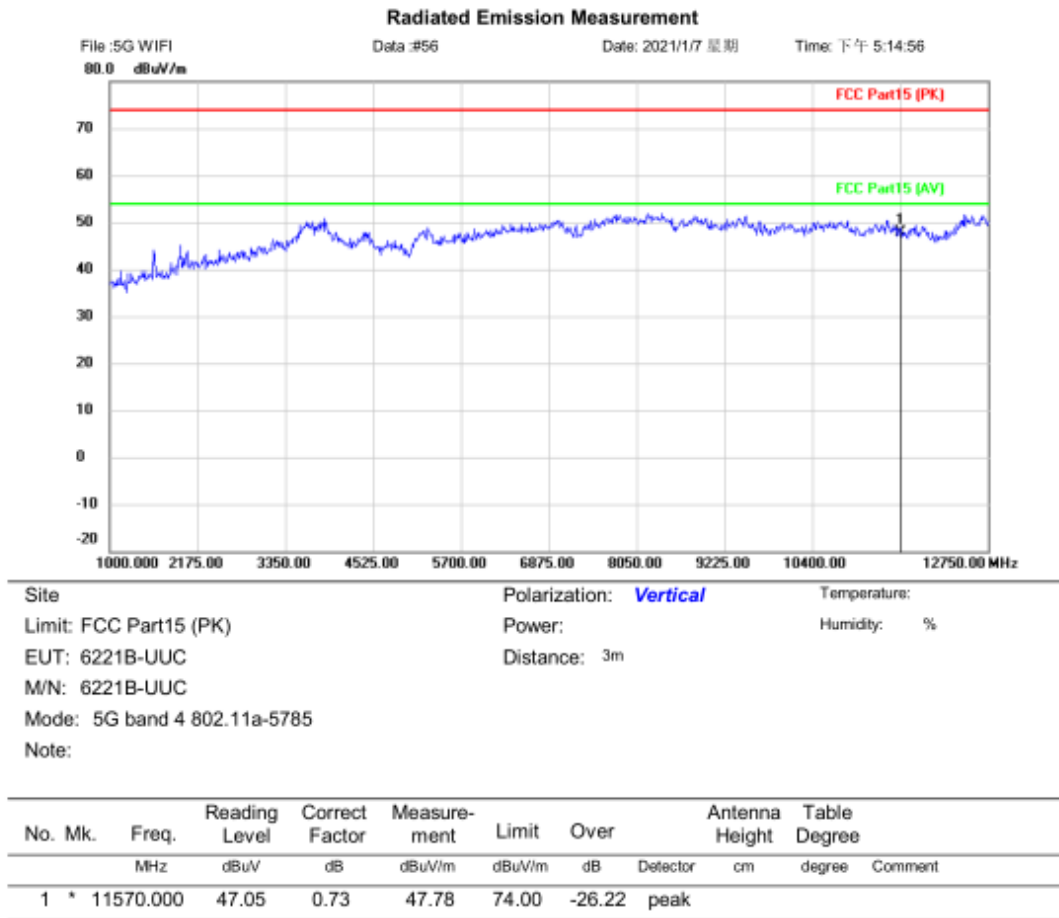
Site	Polarization: Vertical	Temperature:
Limit: FCC Part15 (PK)	Power:	Humidity: %
EUT: 6221B-UUC	Distance: 3m	
M/N: 6221B-UUC		
Mode: 5G band 4 802.11a-5745		
Note:		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	11490.000	48.55	0.73	49.28	74.00	-24.72	peak		Comment

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

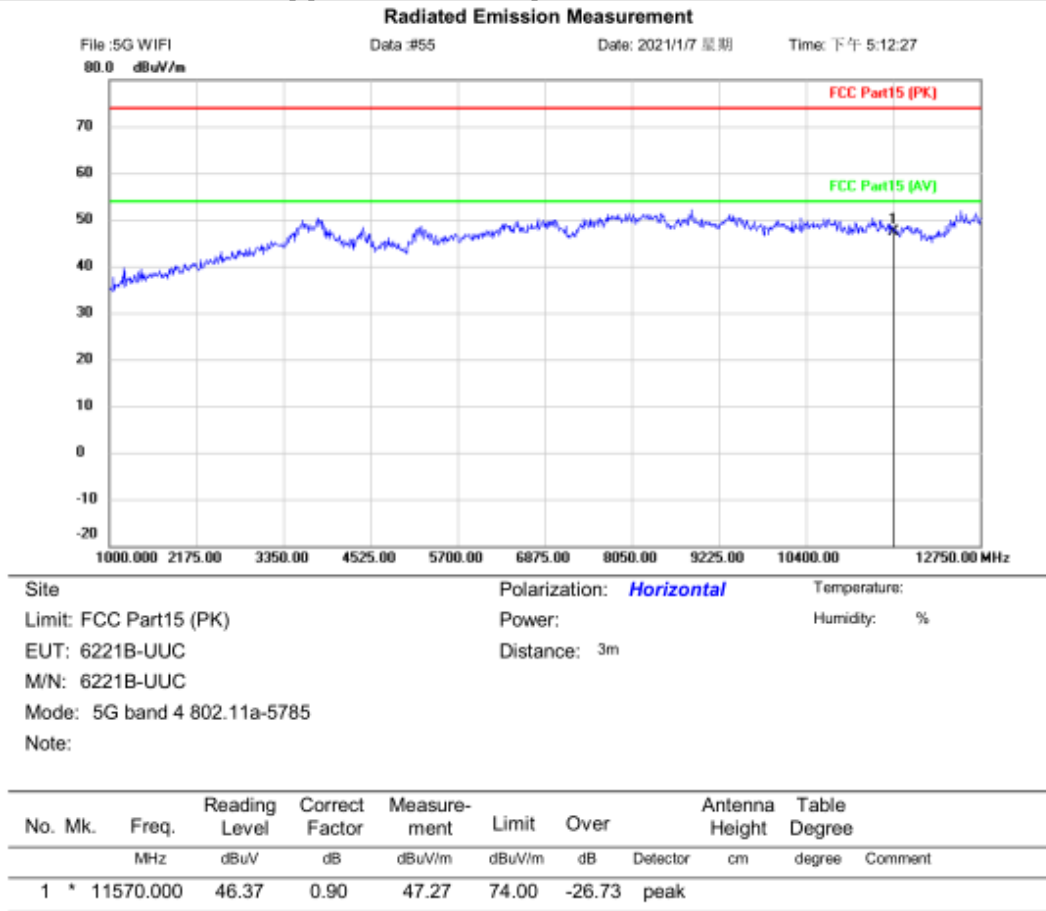
Test Result: Pass

[Polarization:Vertical];[Middle channel]



Test Result: Pass

[Polarization:Horizontal];[Middle channel]

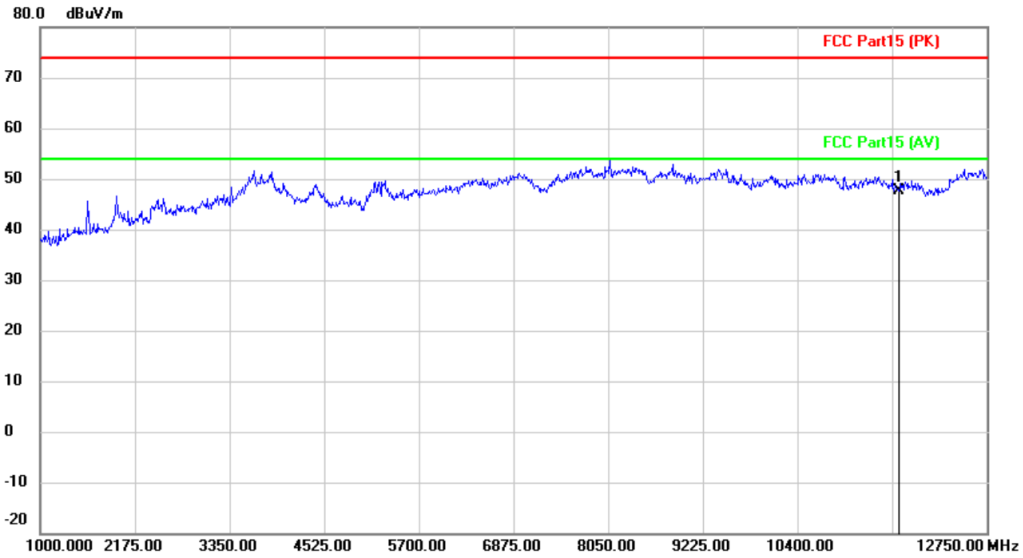


Test Result: Pass

[Polarization:Vertical];[Highest channel]

Radiated Emission Measurement

File :5G WIFI Data :#29 Date: 2021/1/6 星期 Time: 下午 5:17:42



Site Polarization: **Vertical** Temperature:
 Limit: FCC Part15 (PK) Power: Humidity: %
 EUT: 6221B-UUC Distance: 3m
 M/N: 6221B-UUC
 Mode: 5G band 4 802.11a-5825
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	11650.000	47.20	0.51	47.71	74.00	-26.29	peak			

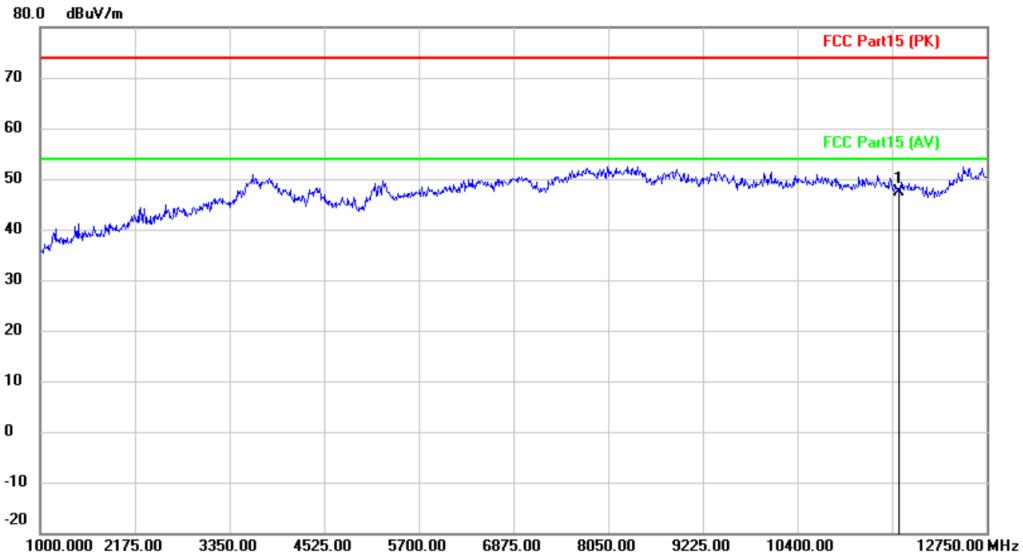
*:Maximum data x:Over limit !:over margin <Reference Only

Test Result: Pass

[Polarization:Horizontal];[Highest channel]

Radiated Emission Measurement

File :5G WIFI Data :#30 Date: 2021/1/6 星期 Time: 下午 5:19:25



Site Polarization: **Horizontal** Temperature:
 Limit: FCC Part15 (PK) Power: Humidity: %
 EUT: 6221B-UUC Distance: 3m
 M/N: 6221B-UUC
 Mode: 5G band 4 802.11a-5825
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Comment
1	*	11650.000	46.74	0.76	47.50	74.00	-26.50	peak		

*:Maximum data x:Over limit !:over margin

<Reference Only

Test Result: Pass

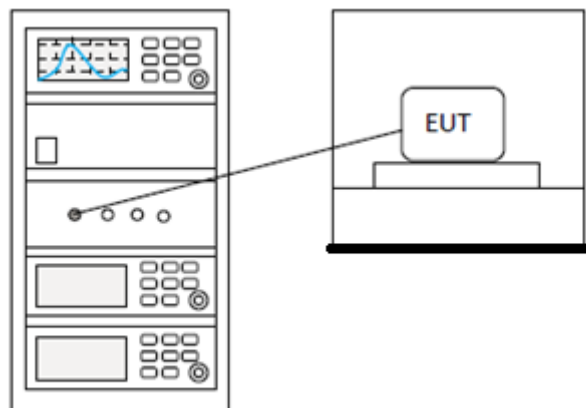
4 PEAK POWER SPECTRUM DENSITY

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	Eason
Temperature	20°C
Humidity	53%

4.1 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.

4.2 BLOCK DIAGRAM OF TEST SETUP



4.3 TEST DATA

Pass: Please Refer To Appendix: Appendix3 For Details

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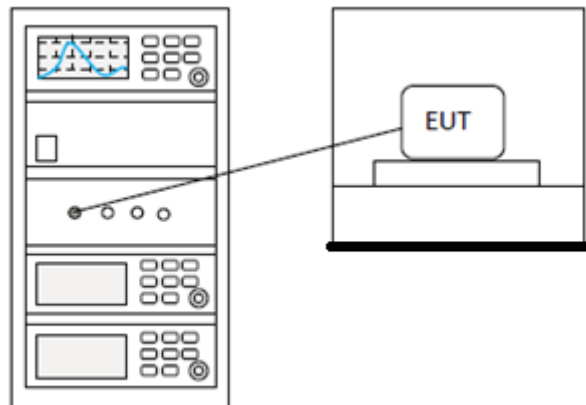
5 MAXIMUM CONDUCTED OUTPUT POWER

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	Eason
Temperature	23°C
Humidity	51%

5.1 LIMITS

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

5.2 BLOCK DIAGRAM OF TEST SETUP



5.3 TEST DATA

Pass: Please Refer To Appendix: Appendix3 For Details

BlueAsia

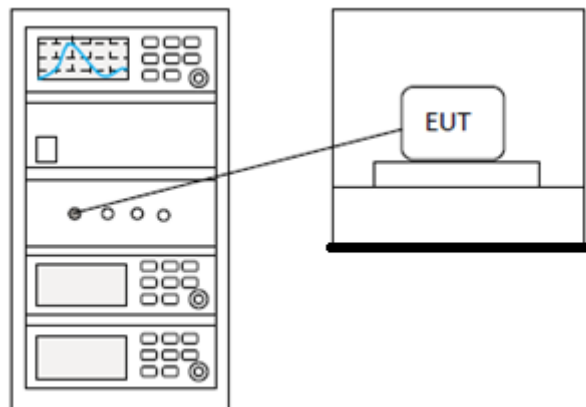
6 MINIMUM 6 DB BANDWIDTH (5.725-5.85 GHZ BAND)

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	Eason
Temperature	20°C
Humidity	53%

6.1 LIMITS

Limit:	≥ 500 kHz
---------------	----------------

6.2 BLOCK DIAGRAM OF TEST SETUP



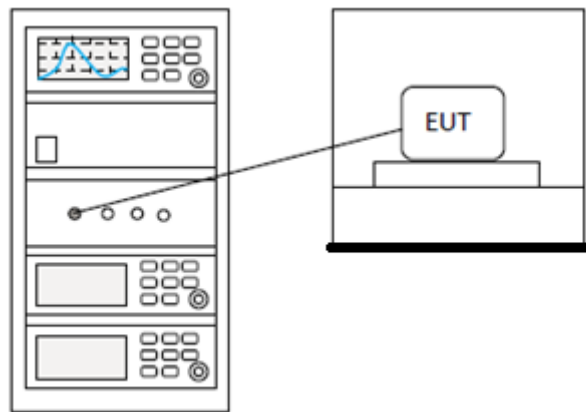
6.3 TEST DATA

Pass: Please Refer To Appendix: Appendix3 For Details

7 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	Eason
Temperature	20°C
Humidity	53%

7.1 BLOCK DIAGRAM OF TEST SETUP



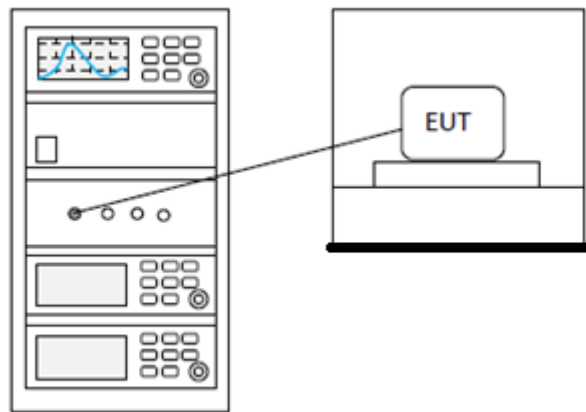
7.2 TEST DATA

Pass: Please Refer To Appendix: Appendix3 For Details

8 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	Eason
Temperature	20°C
Humidity	53%

8.1 BLOCK DIAGRAM OF TEST SETUP



8.2 TEST DATA

Pass: Please Refer To Appendix: Appendix3 For Details

9 CONDUCTED EMISSIONS AT AC POWER LINE (150KHZ-30MHZ)

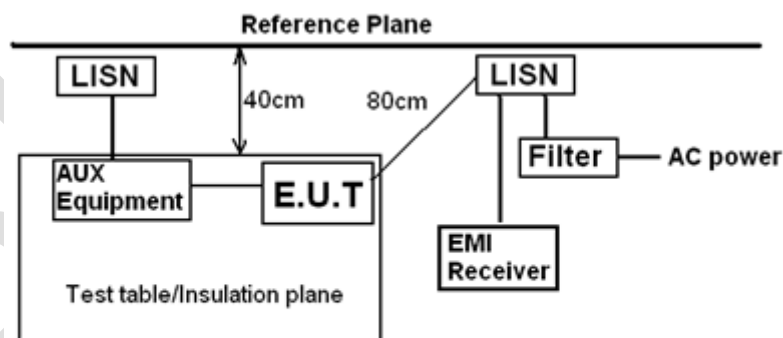
Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	ANSI C63.10 (2013) Section 6.2
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Eason
Temperature	20°C
Humidity	53%

9.1 LIMITS

Frequency of emission(MHz)	Conducted limit(dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

9.2 BLOCK DIAGRAM OF TEST SETUP



Remark
 E.U.T: Equipment Under Test
 LISN: Line Impedance Stabilization Network
 Test table height=0.8m

9.3 PROCEDURE

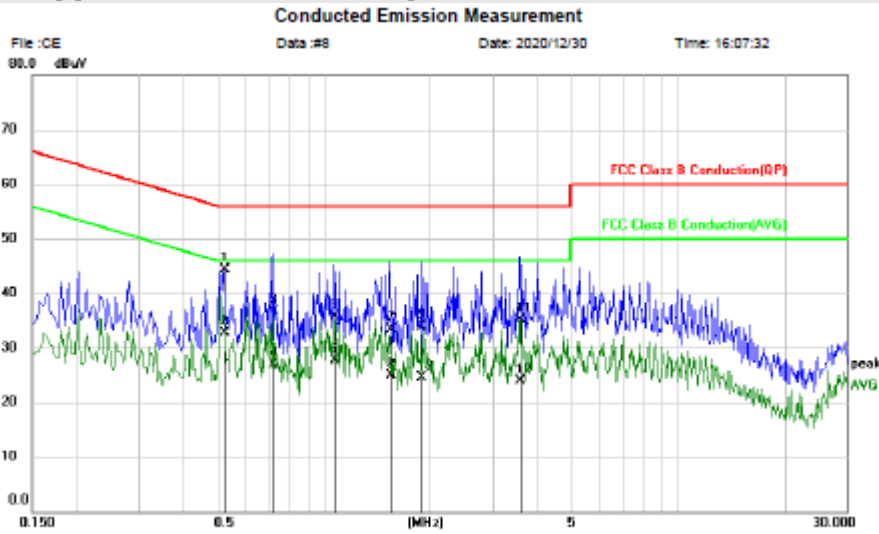
- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50 μ H + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark: LISN=Read Level+ Cable Loss+ LISN Factor

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[Line: Nutral] [Power: AC120V/60Hz]



Site: _____ Phase: **N** Temperature: _____
 Limit: FCC Class B Conduction(QP) Power: _____ Humidity: %
 EUT: 6221B-UUC
 M/N: 6221B-UUC
 Mode: 5G WIFI mode
 Note:

No.	Mk.	Freq.	Reading		Correct Factor	Measurement		Limit	Over	Detector	Comment
			Level	dBuV		dB	dBuV				
1	*	0.5220	34.68	9.72	44.40	56.00	-11.60	QP			
2		0.5220	22.93	9.72	32.65	46.00	-13.35	AVG			
3		0.7220	26.95	9.74	36.69	56.00	-19.31	QP			
4		0.7220	17.07	9.74	26.81	46.00	-19.19	AVG			
5		1.0660	25.99	9.80	35.79	56.00	-20.21	QP			
6		1.0660	17.88	9.80	27.68	46.00	-18.32	AVG			
7		1.5420	23.51	9.83	33.34	56.00	-22.66	QP			
8		1.5420	15.14	9.83	24.97	46.00	-21.03	AVG			
9		1.8780	24.10	9.85	33.95	56.00	-22.05	QP			
10		1.8780	14.64	9.85	24.49	46.00	-21.51	AVG			
11		3.5700	25.26	9.86	35.12	56.00	-20.88	QP			
12		3.5700	14.11	9.86	23.97	46.00	-22.03	AVG			

Test Result: Pass

10 ANTENNA REQUIREMENT

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

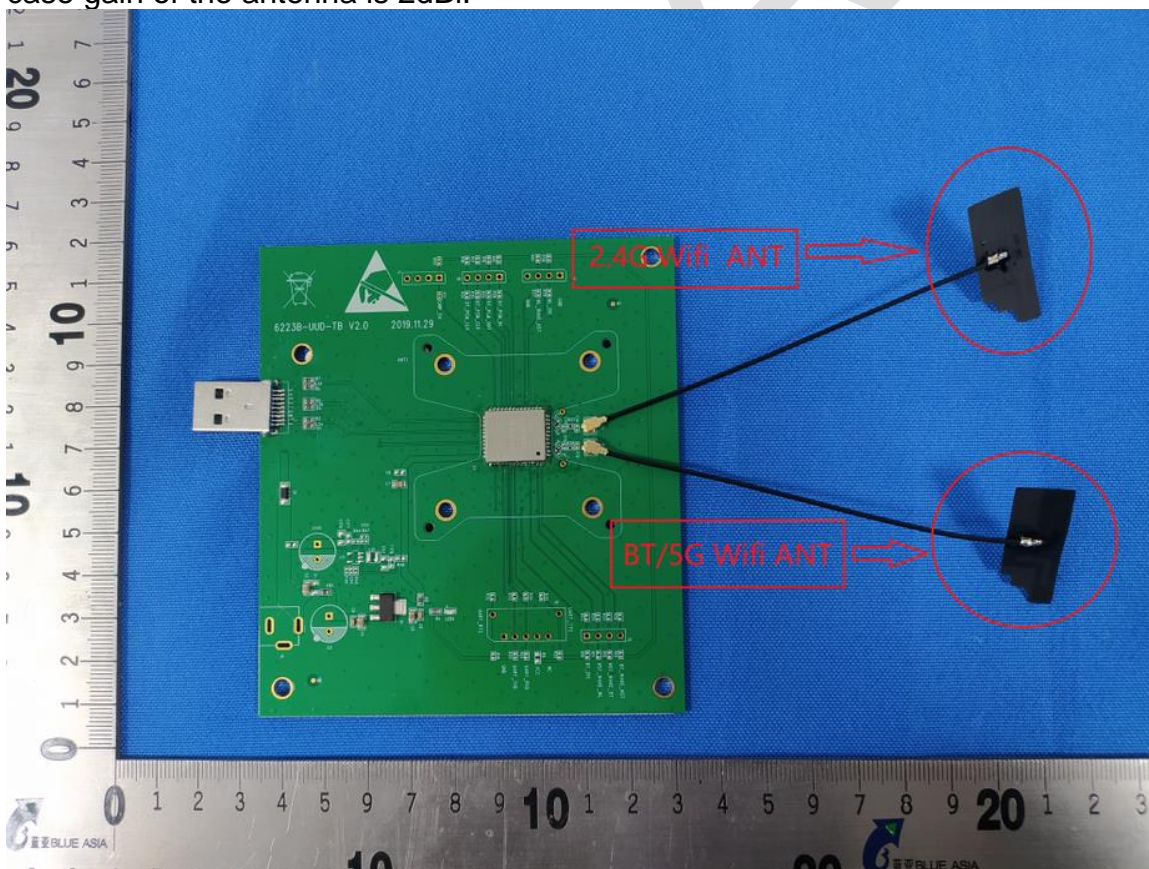
10.1 CONCLUSION

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 an 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 2dBi.

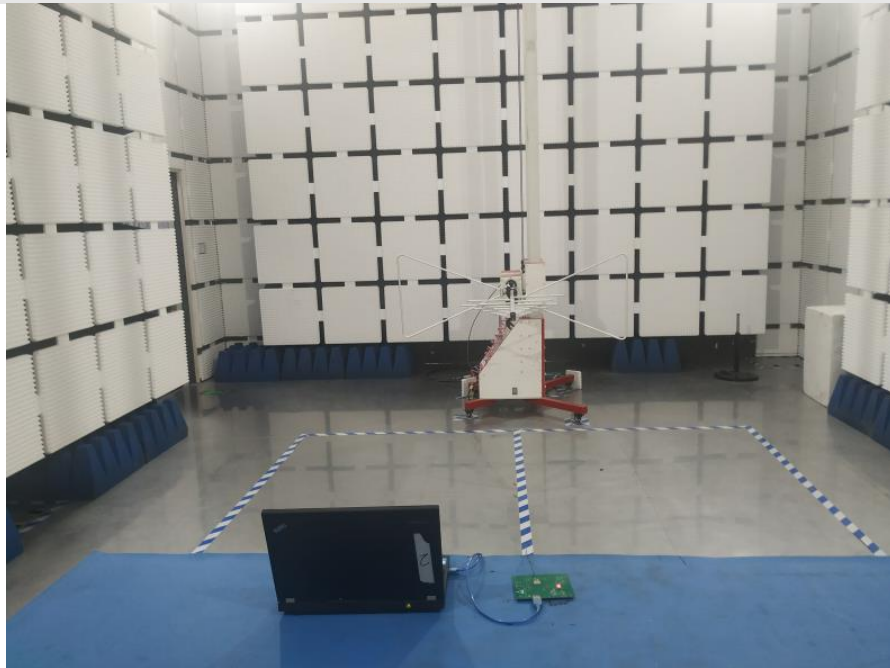


10 APPENDIX

Please Refer To Appendix1

APPENDIX A: PHOTOGRAPHS OF TEST SETUP

Radiated Emissions



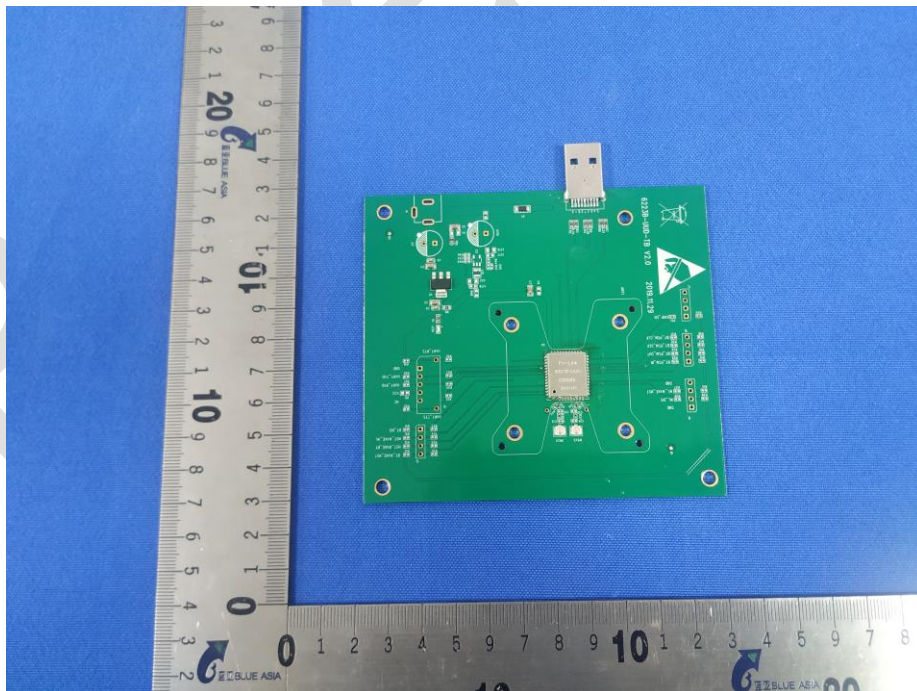
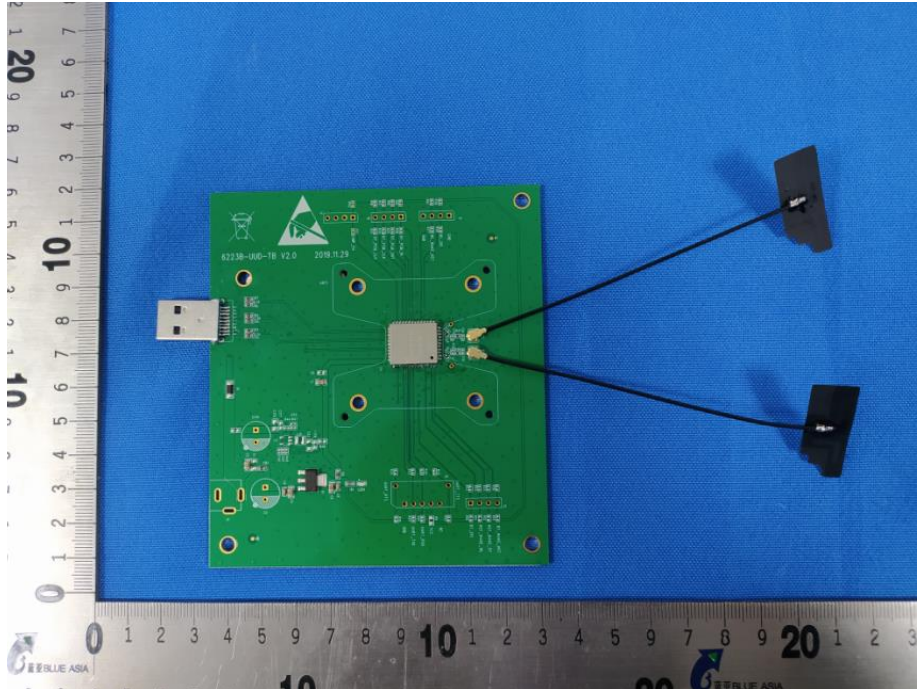
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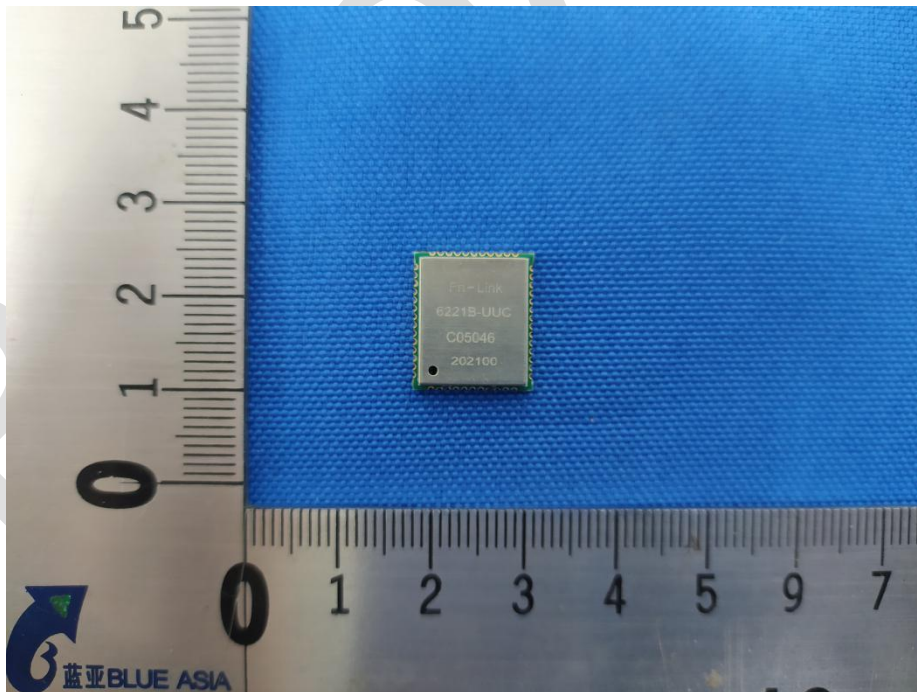
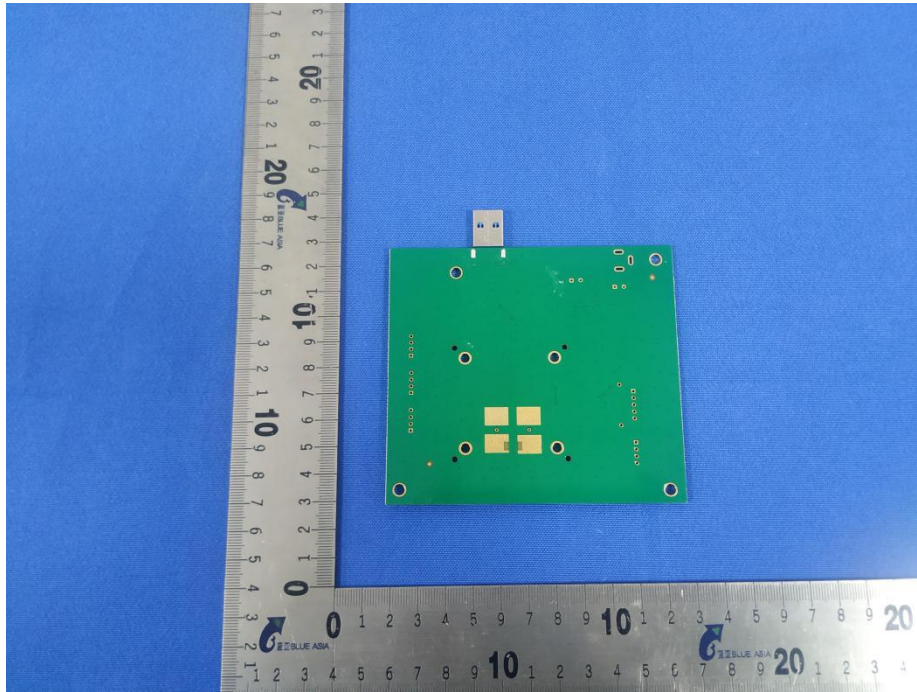
Conducted Emissions at AC Power Line (150kHz-30MHz)

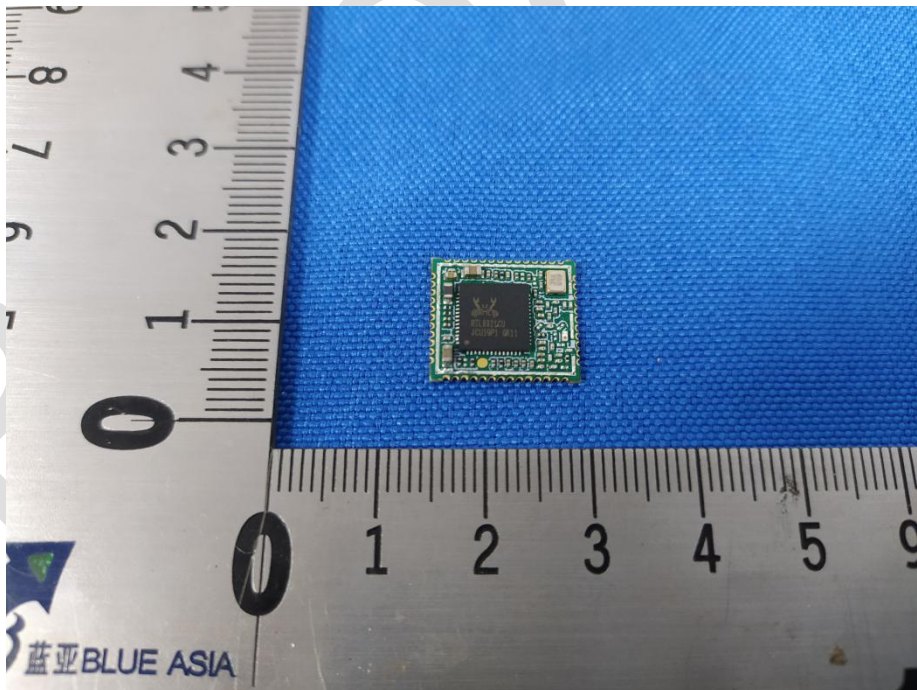
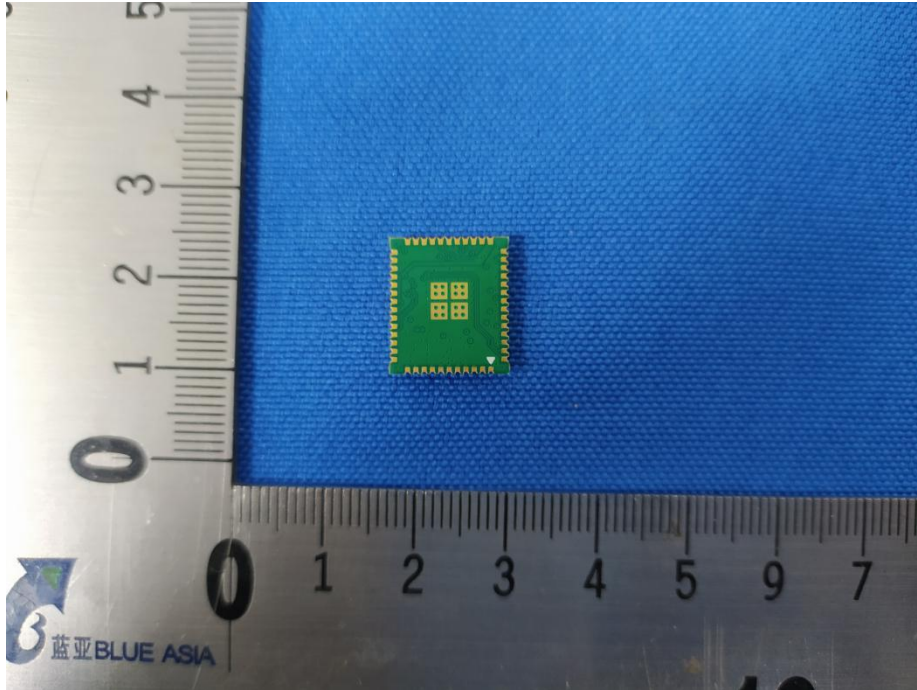


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APPENDIX B: PHOTOGRAPHS OF EUT







----END OF REPORT----

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