

TEST REPORT

Product Name : Smart Mini Pro Projector
Brand Mark : N/A
Model No. : M1200S
FCC ID : 2AW96-M1200S
Report Number : BLA-EMC-202012-A1505
Date of Sample Receipt : 2020/12/3
Date of Test : 2020/12/3 to 2020/12/18
Date of Issue : 2021/01/15
Test Standard : 47 CFR Part 15, Subpart E 15.407
Test Result : Pass

Prepared for:

Telstar USA LLC

9817 Valley View Road, Eden Prairie, MN, US

Prepared by:

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2021/01/15



REPORT REVISE RECORD

Version No.	Date	Description
00	2021/01/15	Original

BlueAsia

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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
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
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
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

2 GENERAL INFORMATION

Applicant	Telstar USA LLC
Address	9817 Valley View Road,Eden Prairie, MN, US
Manufacturer	Telstar USA LLC
Address	9817 Valley View Road,Eden Prairie, MN, US
Factory	N/A
Address	N/A
Product Name	Smart Mini Pro Projector
Test Model No.	M1200S

3 GENERAL DESCRIPTION OF E.U.T.

Hardware Version	N/A
Software Version	N/A
Operation Frequency:	Band 1: 5180MHz-5240MHz
Channel numbers:	Band 1: 802.11a/802.11n(HT20)/802.11ac(HT20): 4, 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 1:2.0dBi, Antenna 2:2.3dBi
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 TEST ENVIRONMENT

Environment	Temperature	Voltage
Normal	+25°C	19Vdc

5 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.	

6 MEASUREMENT UNCERTAINTY

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

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	7/1/2020	6/30/2021
Spectrum	Agilent	N9020A	MY49100060	12/17/2019	12/16/2020
Signal Generator	Agilent	N5182A	MY49060650	12/17/2019	12/16/2020
Signal Generator	Agilent	E8257D	MY44320250	4/20/2020	4/19/2021

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	5/8/2018	5/7/2021
Spectrum	R&S	FSP40	100817	7/1/2020	6/30/2021
Receiver	R&S	ESR7	101199	4/20/2020	4/19/2021
broadband Antenna	Schwarzbeck	VULB9168	00836 P:00227	7/14/2018	7/13/2021
Horn Antenna	Schwarzbeck	9120D	01892 P:00331	7/14/2018	7/13/2021
Amplifier	SKET	PA-000318G-45	N/A	7/1/2020	6/30/2021
EMI software	EZ	EZ-EMC	N/A	N/A	N/A
Loop antenna	SCHNARZBECK	FMZB1519B	00102	2/14/2019	2/13/2022
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	7/1/2020	6/30/2021
Spectrum	Agilent	N9020A	MY49100060	12/17/2019	12/16/2020
Signal Generator	Agilent	N5182A	MY49060650	12/17/2019	12/16/2020
Signal Generator	Agilent	E8257D	MY44320250	4/20/2020	4/19/2021

Test Equipment Of Radiated Emissions

Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
Chamber	SKET	966	N/A	5/8/2018	5/7/2021
Spectrum	R&S	FSP40	100817	7/1/2020	6/30/2021
Receiver	R&S	ESR7	101199	4/20/2020	4/19/2021
broadband Antenna	Schwarzbeck	VULB9168	00836 P:00227	7/14/2018	7/13/2021
Horn Antenna	Schwarzbeck	9120D	01892 P:00331	7/14/2018	7/13/2021
Amplifier	SKET	PA-000318G-45	N/A	7/1/2020	6/30/2021
EMI software	EZ	EZ-EMC	N/A	N/A	N/A
Loop antenna	SCHNARZBECK	FMZB1519B	00102	2/14/2019	2/13/2022
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 99% Bandwidth

Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
Spectrum	R&S	FSP40	100817	7/1/2020	6/30/2021
Spectrum	Agilent	N9020A	MY49100060	12/17/2019	12/16/2020

Signal Generator	Agilent	N5182A	MY49060650	12/17/2019	12/16/2020
Signal Generator	Agilent	E8257D	MY44320250	4/20/2020	4/19/2021

Test Equipment Of Radiated Spurious emissions and Band-edge

Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
Chamber	SKET	966	N/A	5/8/2018	5/7/2021
Spectrum	R&S	FSP40	100817	7/1/2020	6/30/2021
Receiver	R&S	ESR7	101199	4/20/2020	4/19/2021
broadband Antenna	Schwarzbeck	VULB9168	00836 P:00227	7/14/2018	7/13/2021
Horn Antenna	Schwarzbeck	9120D	01892 P:00331	7/14/2018	7/13/2021
Amplifier	SKET	PA-000318G-45	N/A	7/1/2020	6/30/2021
EMI software	EZ	EZ-EMC	N/A	N/A	N/A
Loop antenna	SCHNARZBECK	FMZB1519B	00102	2/14/2019	2/13/2022
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 Duty Cycle

Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
Spectrum	R&S	FSP40	100817	7/1/2020	6/30/2021
Spectrum	Agilent	N9020A	MY49100060	12/17/2019	12/16/2020
Signal Generator	Agilent	N5182A	MY49060650	12/17/2019	12/16/2020
Signal Generator	Agilent	E8257D	MY44320250	4/20/2020	4/19/2021

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	6/10/2018	6/9/2021
Receiver	R&S	ESPI3	101082	4/20/2020	4/19/2021
LISN	R&S	ENV216	3560.6550.15	7/1/2020	6/30/2021
LISN	AT	AT166-2	AKK1806000003	12/17/2019	12/16/2020
EMI software	EZ	EZ-EMC	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	7/1/2020	6/30/2021
Spectrum	Agilent	N9020A	MY49100060	12/17/2019	12/16/2020
Signal Generator	Agilent	N5182A	MY49060650	12/17/2019	12/16/2020
Signal Generator	Agilent	E8257D	MY44320250	4/20/2020	4/19/2021

Test Equipment Of Transmitter Power Control

Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
Spectrum	R&S	FSP40	100817	7/1/2020	6/30/2021
Spectrum	Agilent	N9020A	MY49100060	12/17/2019	12/16/2020
Signal Generator	Agilent	N5182A	MY49060650	12/17/2019	12/16/2020
Signal Generator	Agilent	E8257D	MY44320250	4/20/2020	4/19/2021

Test Equipment Of Maximum Conducted output power

Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
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Spectrum	R&S	FSP40	100817	7/1/2020	6/30/2021
Spectrum	Agilent	N9020A	MY49100060	12/17/2019	12/16/2020
Signal Generator	Agilent	N5182A	MY49060650	12/17/2019	12/16/2020
Signal Generator	Agilent	E8257D	MY44320250	4/20/2020	4/19/2021

BlueAsia

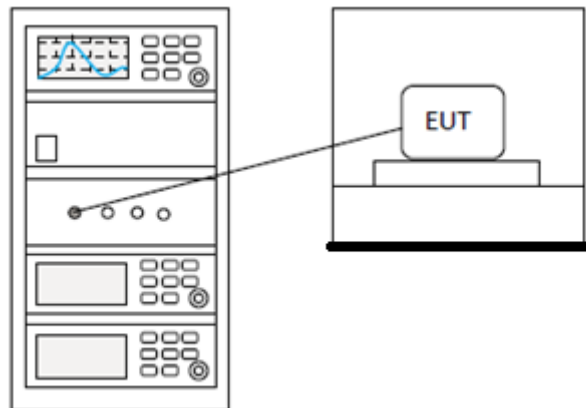
1 FREQUENCY STABILITY

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°C
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.
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1.2 BLOCK DIAGRAM OF TEST SETUP



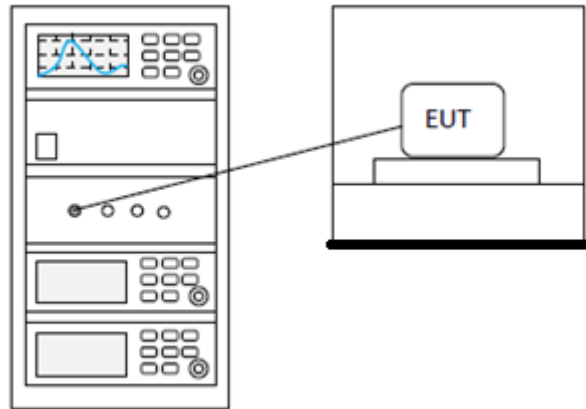
1.3 TEST DATA

Pass: Please Refer To Appendix: For Details

2 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°C
Humidity	60%

2.1 BLOCK DIAGRAM OF TEST SETUP



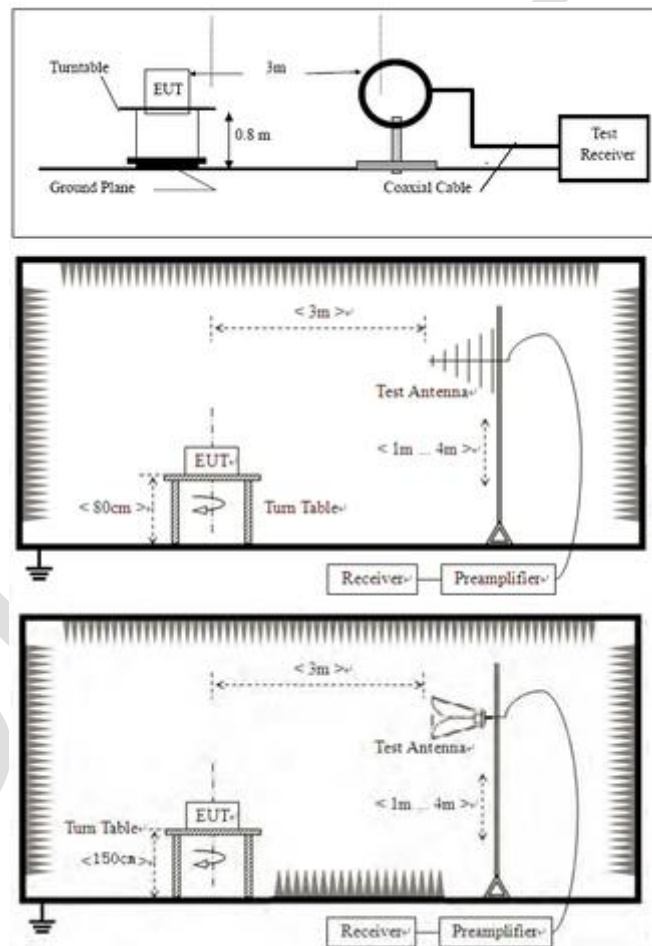
2.2 TEST DATA

Pass: Please Refer To Appendix: For Details

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 Low channel;TX middle channel;TX high channel
Test Mode (Final Test)	TX Low channel
Tester	Ben
Temperature	25°C
Humidity	60%

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.

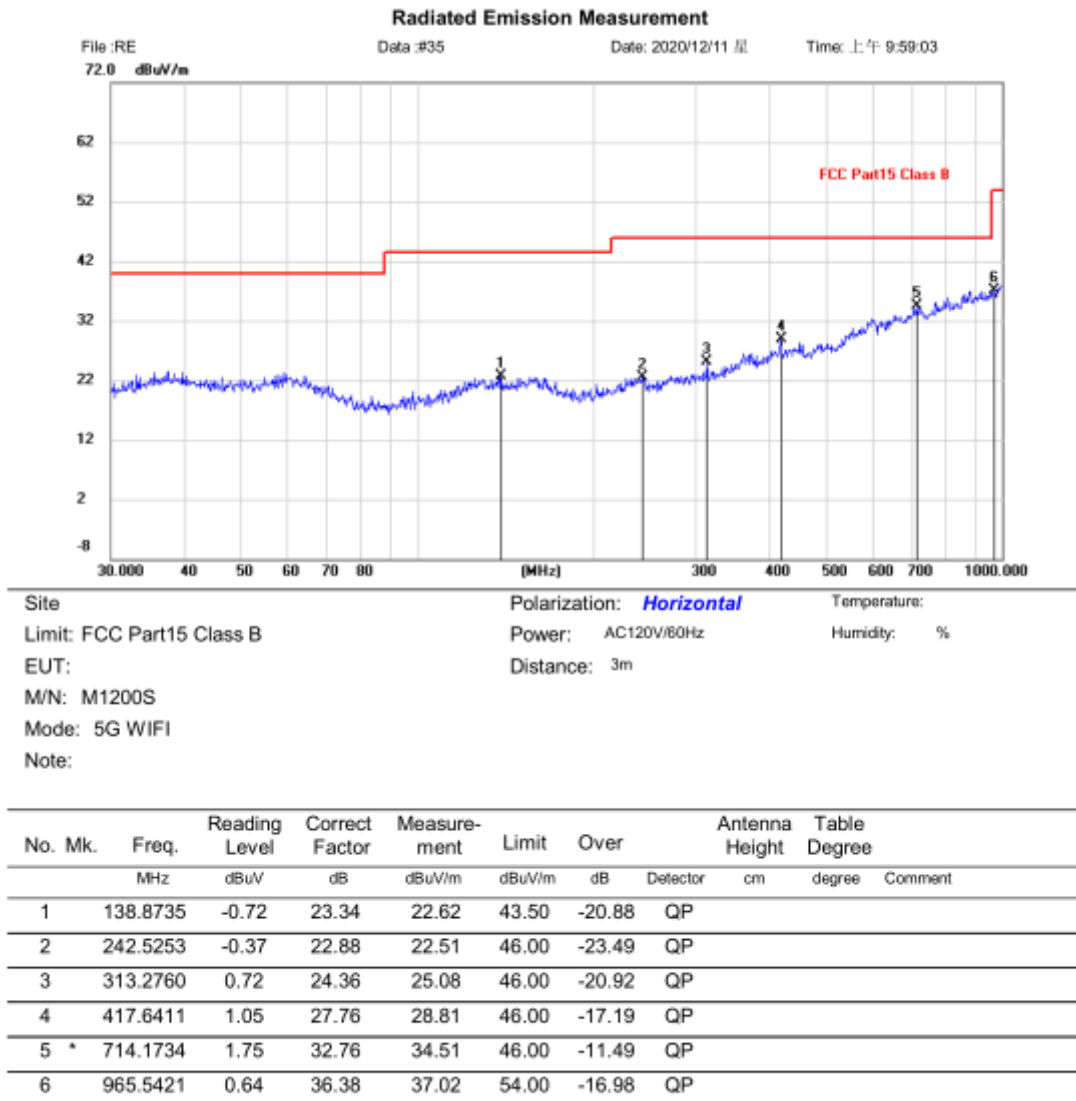
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and 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. $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamp Factor}$
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. 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.

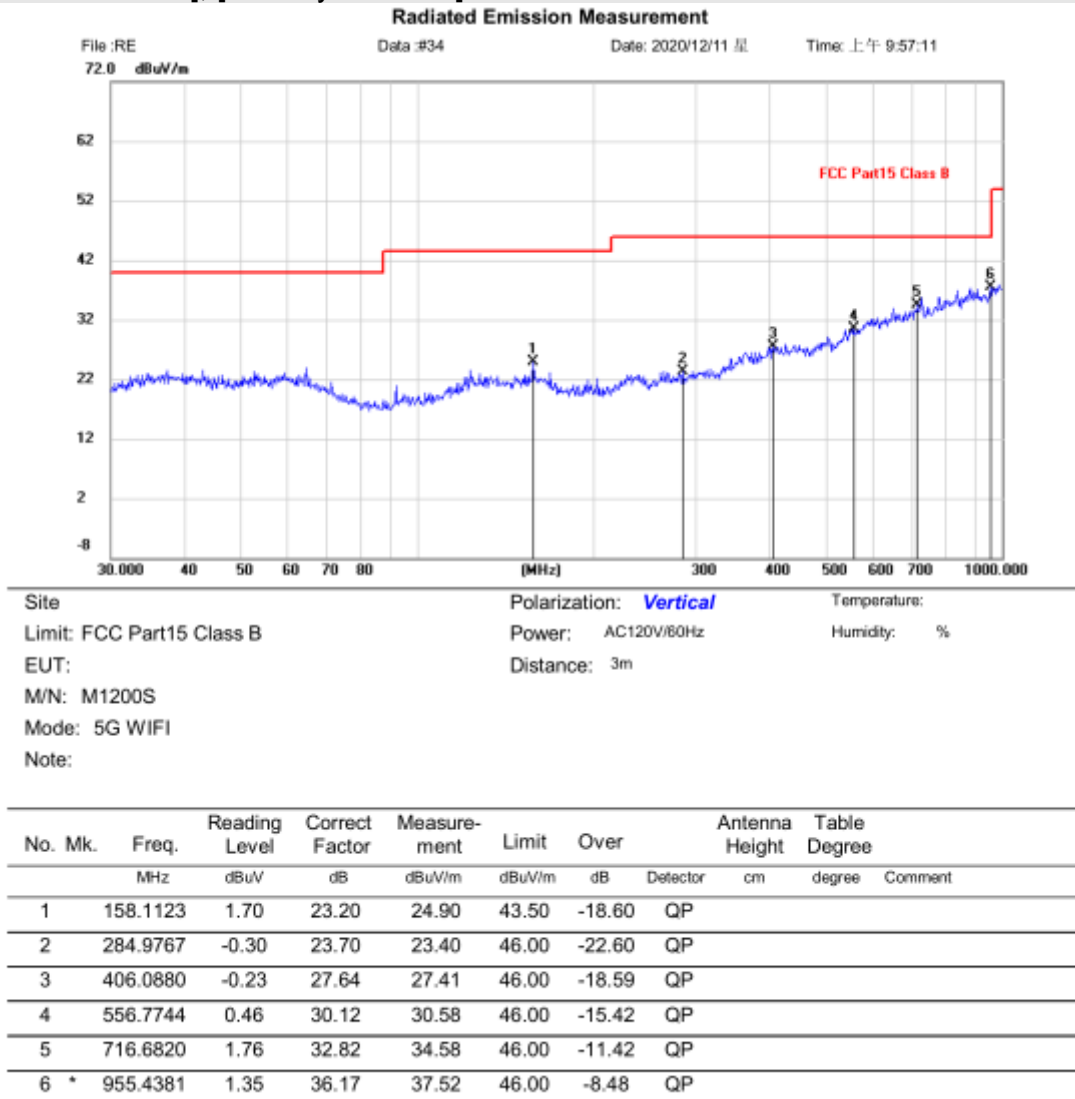
3.3 TEST DATA

[TestMode: TX mode]; [Polarity: Horizontal]



Test Result: Pass

[TestMode: TX mode]; [Polarity: Vertical]



Test Result: Pass

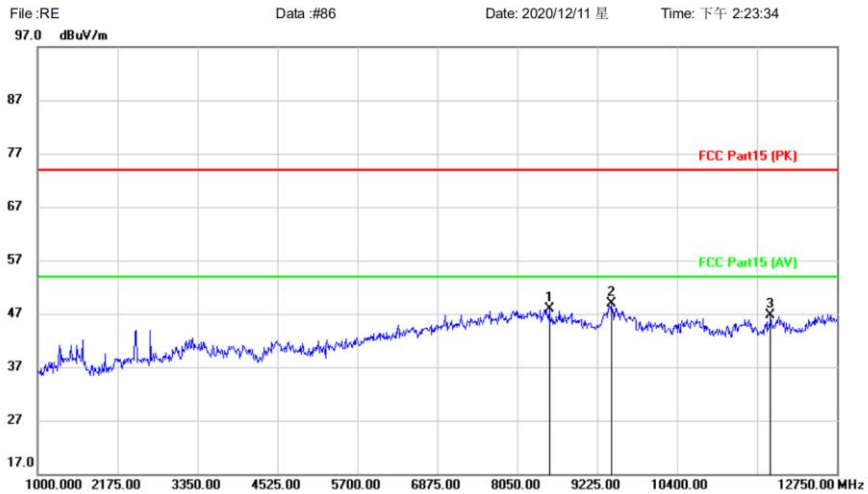
802.11a

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



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Radiated Emission Measurement



Site: Polarization: **Horizontal** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11a
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		8520.000	52.49	-4.66	47.83	74.00	-26.17	peak			
2	*	9436.500	52.37	-3.55	48.82	74.00	-25.18	peak			
3		11774.750	51.70	-5.07	46.63	74.00	-27.37	peak			

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

File :RE\Data :#86

Page: 1

Engineer Signature:

Test Result: Pass

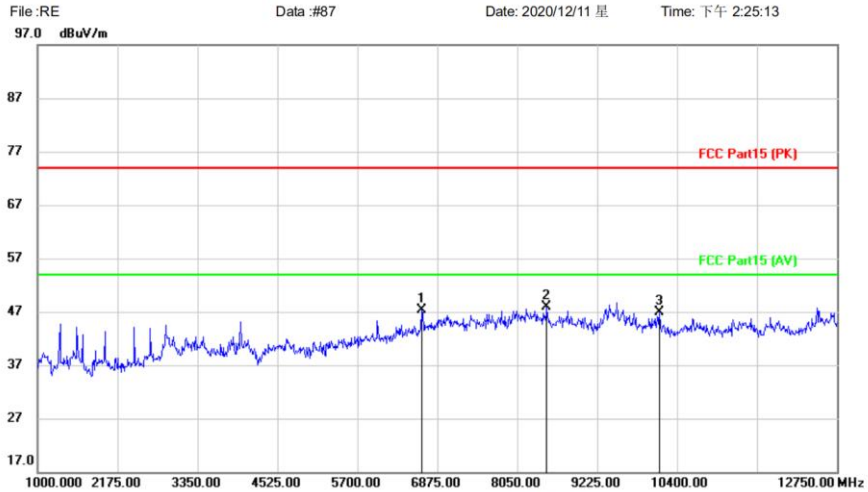
802.11a

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



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Radiated Emission Measurement



Site: Polarization: **Vertical** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11a
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		6640.000	53.90	-6.59	47.31	74.00	-26.69	peak			
2	*	8484.750	52.89	-4.96	47.93	74.00	-26.07	peak			
3		10141.500	51.29	-4.37	46.92	74.00	-27.08	peak			

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

(Reference Only)

File :RE\Data :#87

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Engineer Signature:

Test Result: Pass

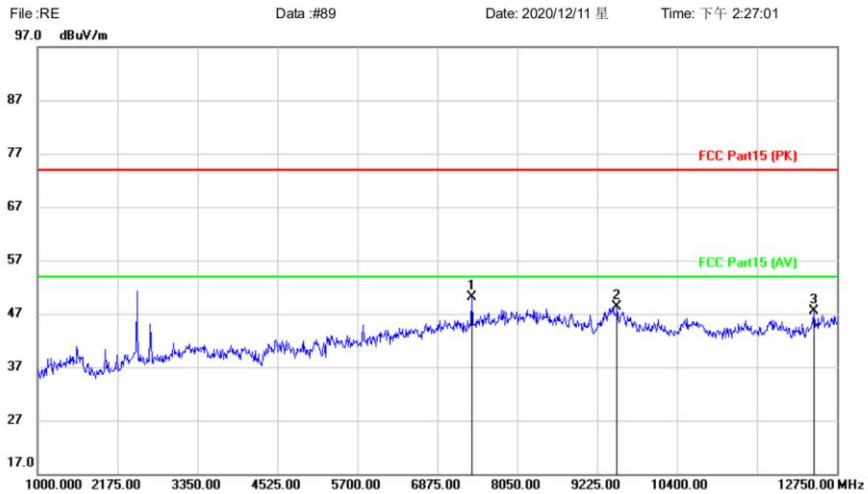
802.11n20

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



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Radiated Emission Measurement



Site: Polarization: **Horizontal** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11n20
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	*	7380.250	55.55	-5.54	50.01	74.00	-23.99	peak		
2		9518.750	51.78	-3.39	48.39	74.00	-25.61	peak		
3		12409.250	52.14	-4.63	47.51	74.00	-26.49	peak		

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

File :RE\Data :#89

Page: 1

Engineer Signature:

Test Result: Pass

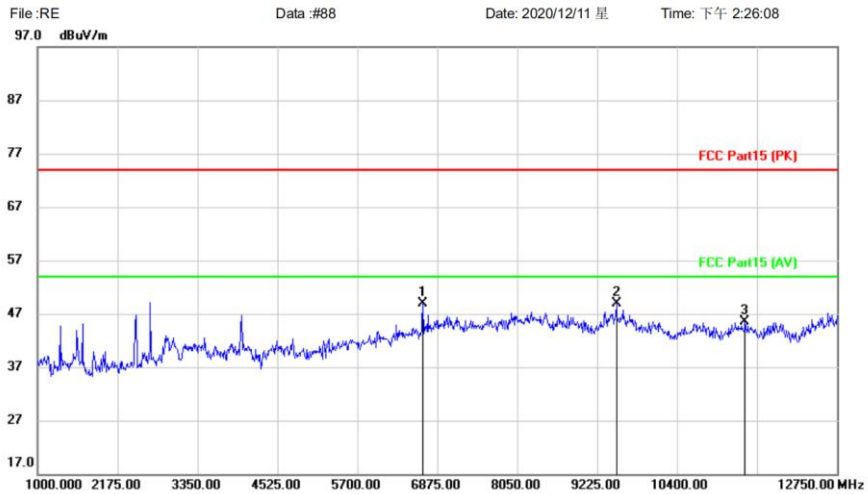
802.11n20

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



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Radiated Emission Measurement



Site: Polarization: **Vertical** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11n20
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		6663.500	55.35	-6.51	48.84	74.00	-25.16	peak			
2	*	9507.000	52.65	-3.66	48.99	74.00	-25.01	peak			
3		11398.750	50.57	-5.16	45.41	74.00	-28.59	peak			

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

File :RE>Data :#88

Page: 1

Engineer Signature:

Test Result: Pass

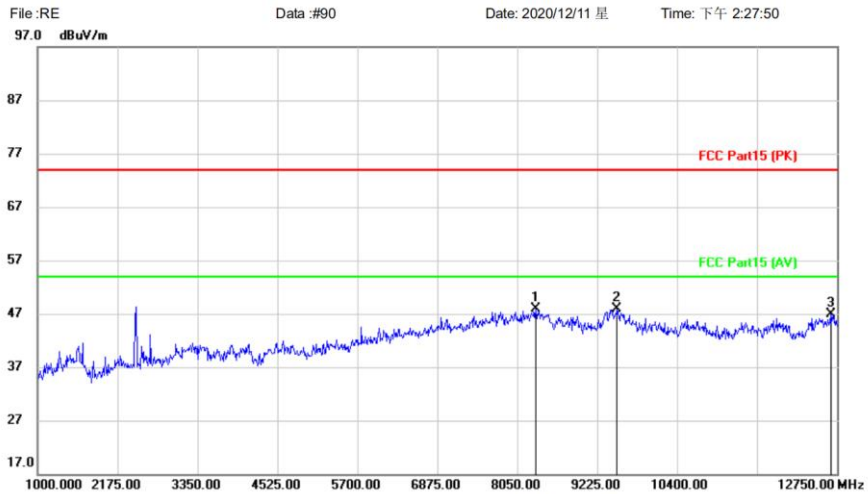
802.11n40

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



Company: BlueAsia of Technical Services (Shenzhen) Co., Ltd.
Address: 深圳市宝安区石岩石环路107号鸿景达产业园C栋
Tel: +86-755-23059481

Radiated Emission Measurement



Site: Polarization: **Horizontal** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11n40
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	*	8320.250	52.60	-4.74	47.86	74.00	-26.14	peak			
2		9518.750	51.24	-3.39	47.85	74.00	-26.15	peak			
3		12656.000	50.81	-3.85	46.96	74.00	-27.04	peak			

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

(Reference Only)

File :RE\Data :#90

Page: 1

Engineer Signature:

Test Result: Pass

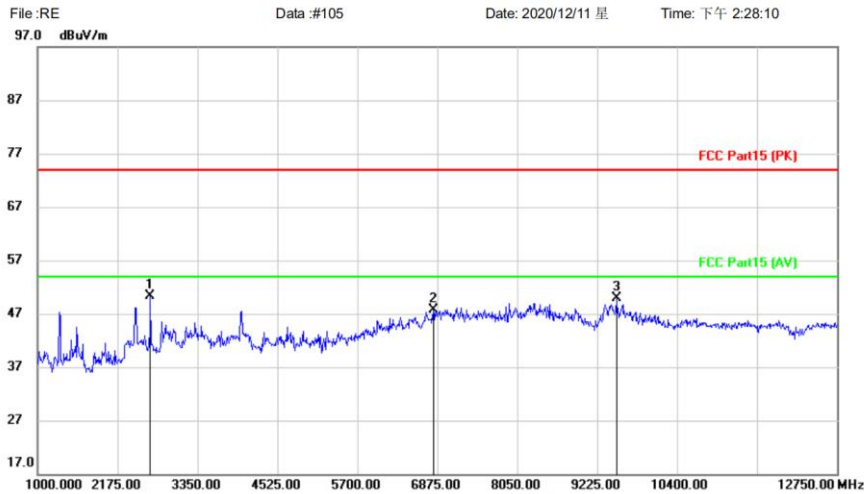
802.11n40

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



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Tel: +86-755-23059481

Radiated Emission Measurement



Site: Polarization: **Vertical** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11n40
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	*	2656.750	66.33	-16.01	50.32	74.00	-23.68	peak			
2		6816.250	53.80	-6.00	47.80	74.00	-26.20	peak			
3		9507.000	53.66	-3.66	50.00	74.00	-24.00	peak			

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

File :RE\Data :#105

Page: 1

Engineer Signature:

Test Result: Pass

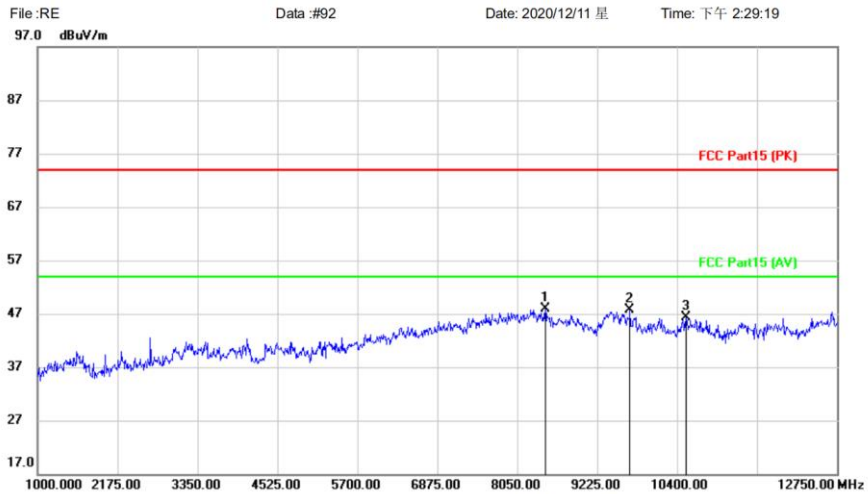
802.11ac20

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



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Radiated Emission Measurement



Site: Polarization: **Horizontal** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11ac20
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	*	8461.250	52.61	-4.67	47.94	74.00	-26.06	peak			
2		9706.750	51.47	-3.83	47.64	74.00	-26.36	peak			
3		10529.250	50.03	-3.73	46.30	74.00	-27.70	peak			

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

File :RE\Data :#92

Page: 1

Engineer Signature:

Test Result: Pass

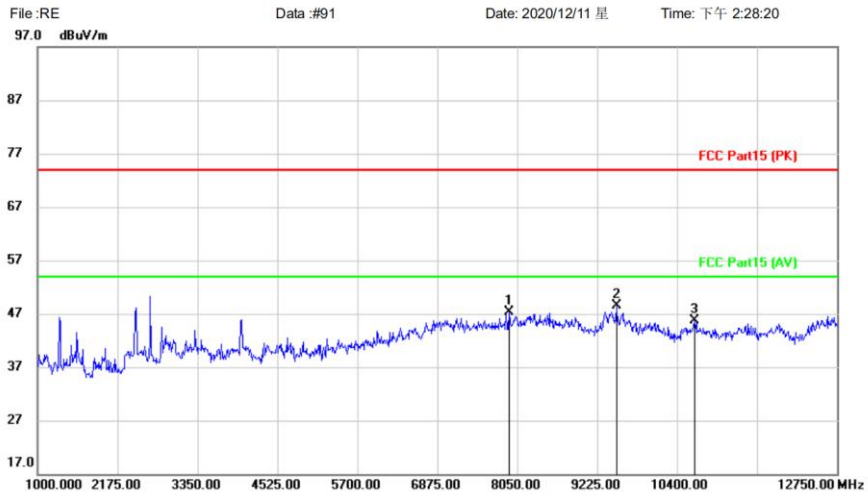
802.11ac20

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



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Radiated Emission Measurement



Site: Polarization: **Vertical** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11ac20
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		7932.500	52.89	-5.57	47.32	74.00	-26.68	peak			
2	*	9507.000	52.16	-3.66	48.50	74.00	-25.50	peak			
3		10658.500	50.29	-4.63	45.66	74.00	-28.34	peak			

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

File :RE\Data :#91

Page: 1

Engineer Signature:

Test Result: Pass

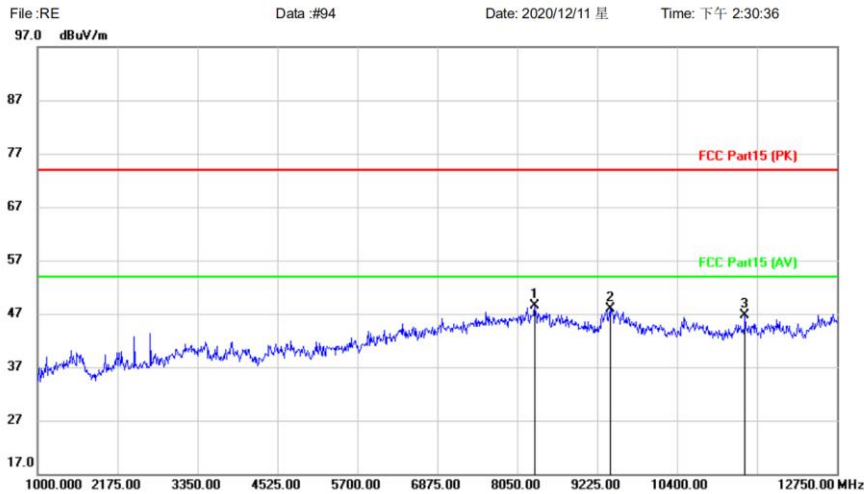
802.11ac40

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



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Radiated Emission Measurement



Site: Polarization: **Horizontal** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11ac40
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	*	8308.500	53.28	-4.75	48.53	74.00	-25.47	peak		
2		9413.000	51.50	-3.62	47.88	74.00	-26.12	peak		
3		11398.750	51.73	-5.12	46.61	74.00	-27.39	peak		

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

File :RE\Data :#94

Page: 1

Engineer Signature:

Test Result: Pass

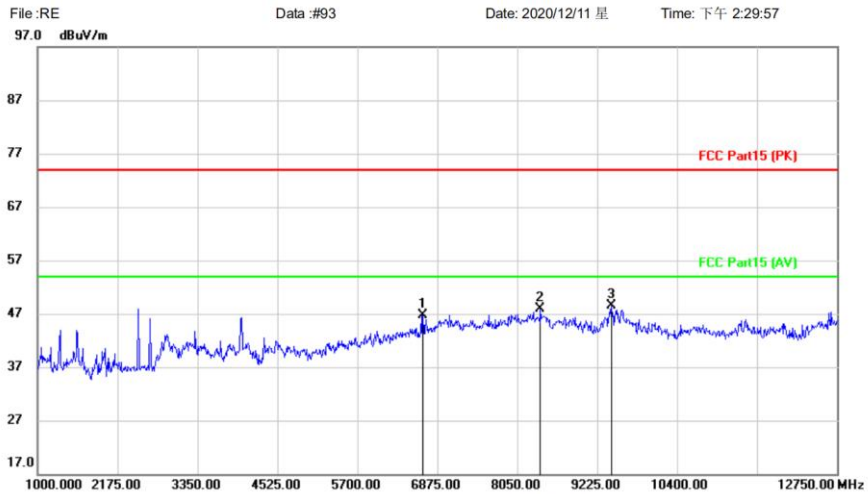
802.11ac40

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



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Radiated Emission Measurement



Site: Polarization: **Vertical** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11ac40
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		6663.500	53.31	-6.51	46.80	74.00	-27.20	peak			
2		8390.750	52.89	-5.07	47.82	74.00	-26.18	peak			
3	*	9436.500	52.26	-3.85	48.41	74.00	-25.59	peak			

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

File :RE\Data :#93

Page: 1

Engineer Signature:

Test Result: Pass

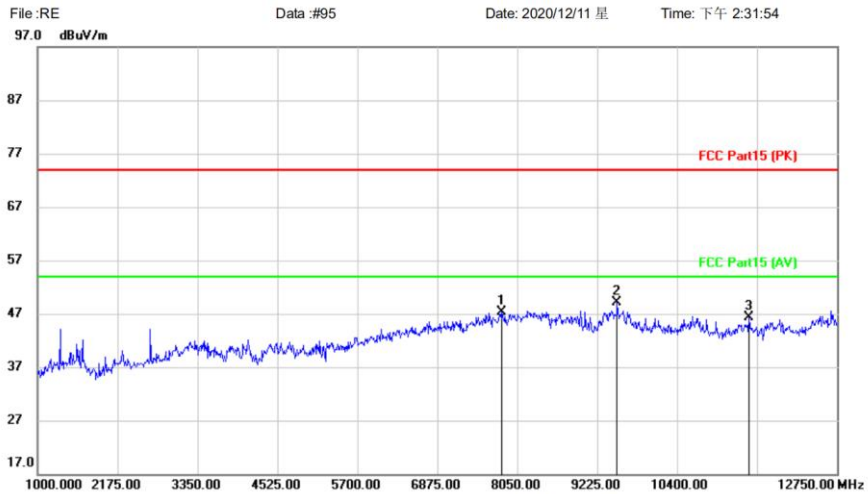
802.11ac80

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



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Radiated Emission Measurement



Site Polarization: **Horizontal** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11ac80
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		7826.750	52.40	-5.04	47.36	74.00	-26.64	peak		
2	*	9518.750	52.41	-3.39	49.02	74.00	-24.98	peak		
3		11457.500	51.52	-5.14	46.38	74.00	-27.62	peak		

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

File :RE\Data :#95

Page: 1

Engineer Signature:

Test Result: Pass

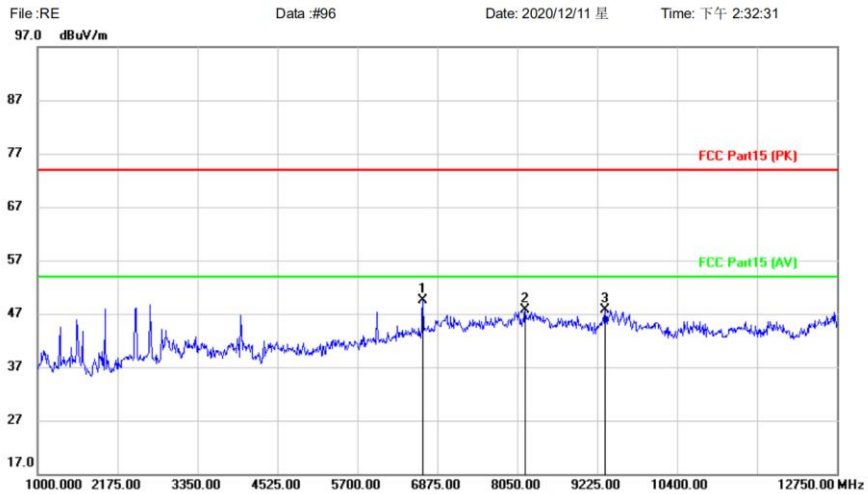
802.11ac80

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



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Radiated Emission Measurement



Site: Polarization: **Vertical** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11ac80
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	*	6663.500	55.94	-6.51	49.43	74.00	-24.57	peak			
2		8167.500	53.00	-5.32	47.68	74.00	-26.32	peak			
3		9342.500	51.90	-4.14	47.76	74.00	-26.24	peak			

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

File :RE\Data :#96

Page: 1

Engineer Signature:

Test Result: Pass

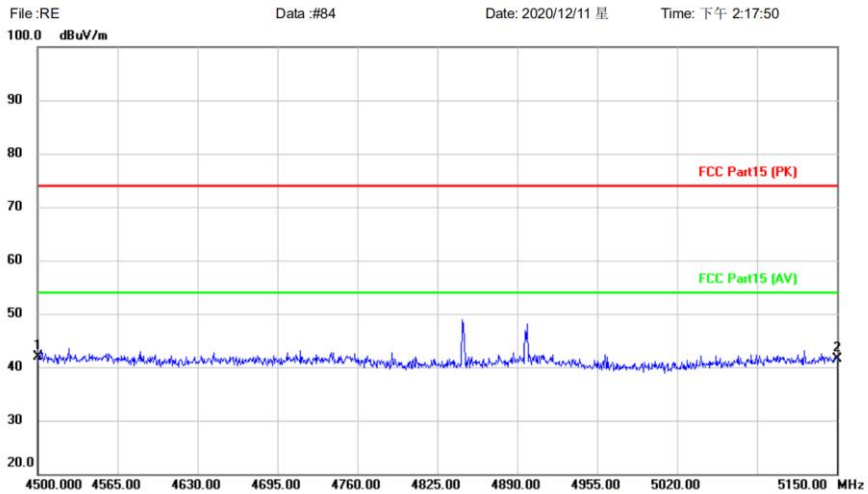
802.11a

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



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Radiated Emission Measurement



Site Polarization: **Horizontal** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11a-pk
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	*	4500.000	52.93	-11.10	41.83	74.00	-32.17	peak			
2		5150.000	52.58	-11.02	41.56	74.00	-32.44	peak			

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

File :RE\Data :#84

Page: 1

Engineer Signature:

Test Result: Pass

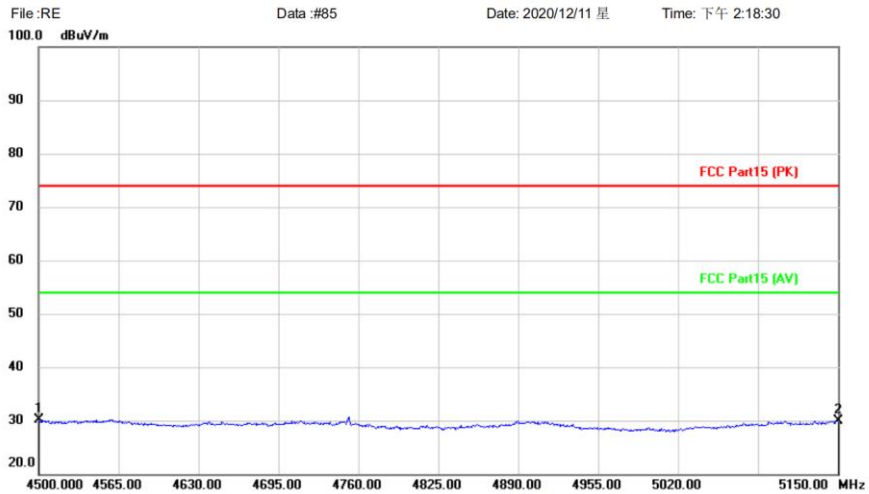
802.11a

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



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Tel: +86-755-23059481

Radiated Emission Measurement



Site Polarization: **Horizontal** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11a-av
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	*	4500.000	41.11	-11.10	30.01	54.00	-23.99	AVG			
2		5150.000	40.85	-11.02	29.83	54.00	-24.17	AVG			

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

File :RE\Data :#85

Page: 1

Engineer Signature:

Test Result: Pass

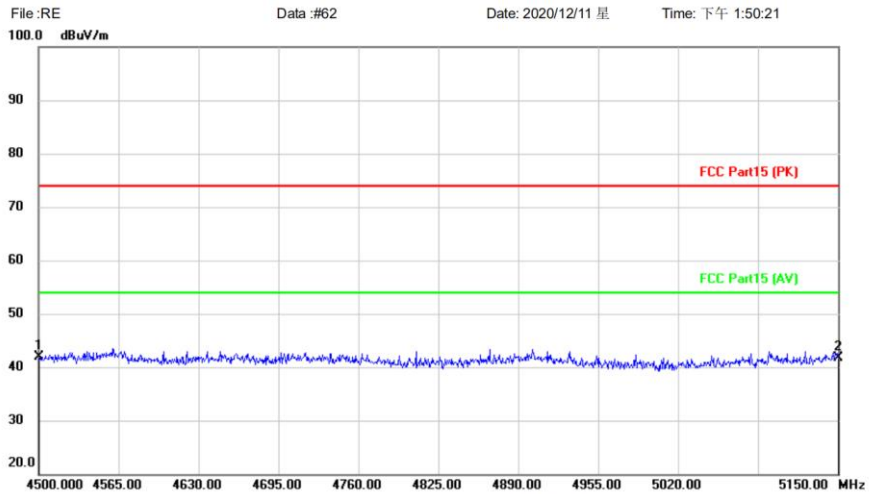
802.11a

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



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Tel: +86-755-23059481

Radiated Emission Measurement



Site Polarization: **Vertical** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11a-5180-PK
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	*	4500.000	53.04	-11.10	41.94	74.00	-32.06	peak		
2		5150.000	52.70	-10.90	41.80	74.00	-32.20	peak		

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

File :RE\Data :#62

Page: 1

Engineer Signature:

Test Result: Pass

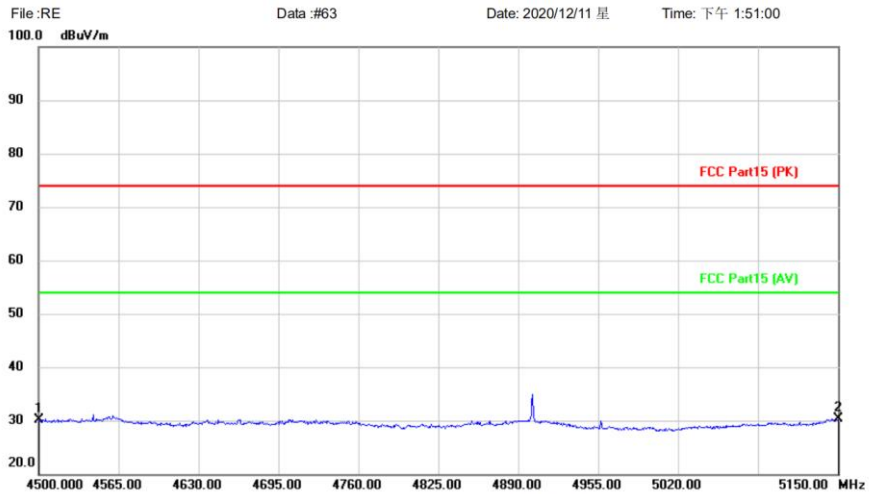
802.11a

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



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Tel: +86-755-23059481

Radiated Emission Measurement



Site Polarization: **Vertical** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11a-5180-AV
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		4500.000	41.11	-11.10	30.01	54.00	-23.99	AVG			
2	*	5150.000	41.11	-10.90	30.21	54.00	-23.79	AVG			

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

File :REData :#63

Page: 1

Engineer Signature:

Test Result: Pass

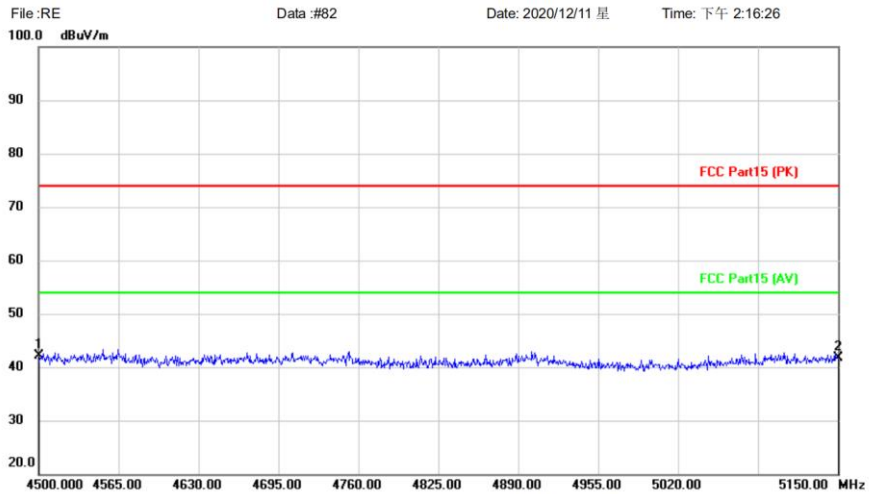
802.11N20

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



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Radiated Emission Measurement



Site: Polarization: **Horizontal** Temperature:
 Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
 EUT: Distance: 3m
 M/N: M1200S
 Mode: BAND1-802.11n20-pk
 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	*	4500.000	53.20	-11.10	42.10	74.00	-31.90	peak			
2		5150.000	52.64	-11.02	41.62	74.00	-32.38	peak			

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

File :RE\Data :#82

Page: 1

Engineer Signature:

Test Result: Pass

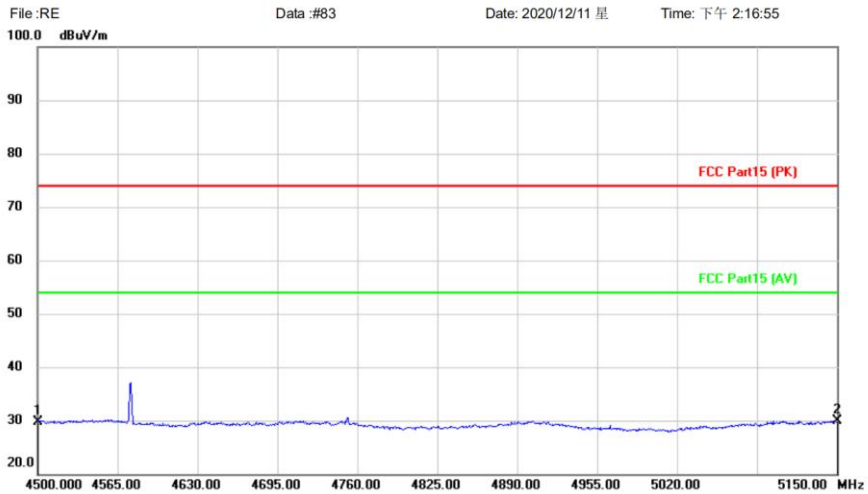
802.11N20

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



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Radiated Emission Measurement



Site: Polarization: **Horizontal** Temperature:
 Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
 EUT: Distance: 3m
 M/N: M1200S
 Mode: BAND1-802.11n20-av
 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		4500.000	40.81	-11.10	29.71	54.00	-24.29	AVG			
2	*	5150.000	40.88	-11.02	29.86	54.00	-24.14	AVG			

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

File :RE\Data :#83

Page: 1

Engineer Signature:

Test Result: Pass

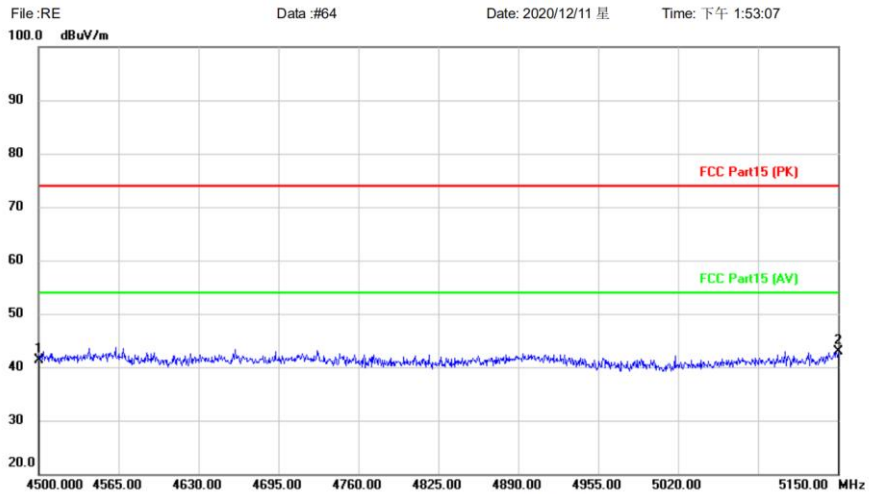
802.11N20

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



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Radiated Emission Measurement



Site Polarization: **Vertical** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11n20-5180-PK
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		4500.000	52.46	-11.10	41.36	74.00	-32.64	peak		
2	*	5150.000	53.82	-10.90	42.92	74.00	-31.08	peak		

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

File :REData :#64

Page: 1

Engineer Signature:

Test Result: Pass

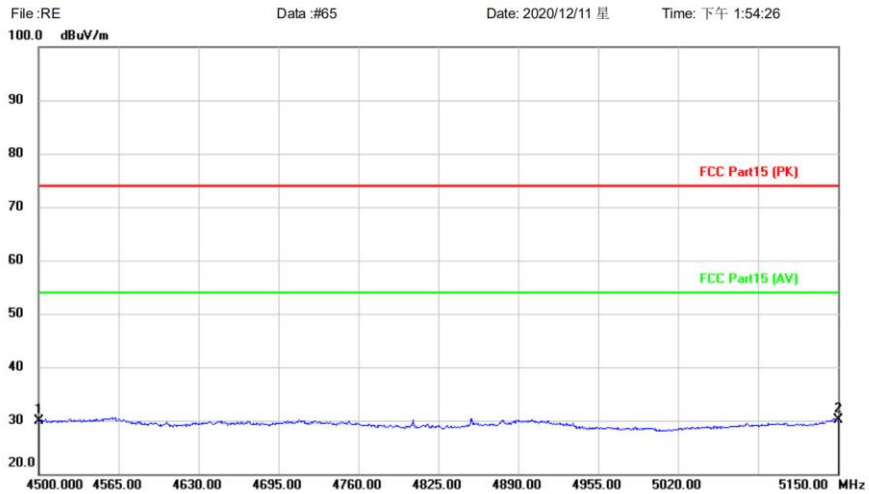
802.11N20

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



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Radiated Emission Measurement



Site Polarization: **Vertical** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11n20-5180-AV
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		4500.000	41.03	-11.10	29.93	54.00	-24.07	AVG		
2	*	5150.000	40.96	-10.90	30.06	54.00	-23.94	AVG		

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

File :RE\Data :#65

Page: 1

Engineer Signature:

Test Result: Pass

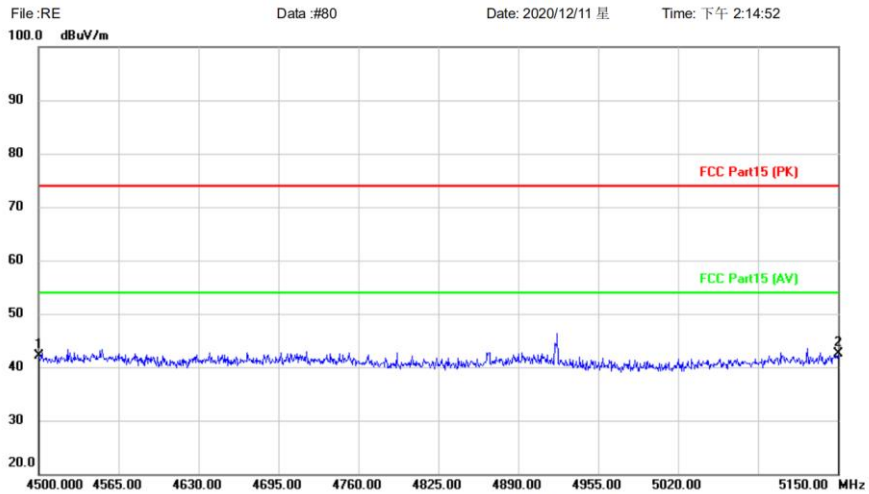
802.11N40

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



Company: BlueAsia of Technical Services (Shenzhen) Co., Ltd.
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Radiated Emission Measurement



Site Polarization: **Horizontal** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11n40-pk
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		4500.000	53.27	-11.10	42.17	74.00	-31.83	peak			
2	*	5150.000	53.54	-11.02	42.52	74.00	-31.48	peak			

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

File :RE\Data :#80

Page: 1

Engineer Signature:

Test Result: Pass

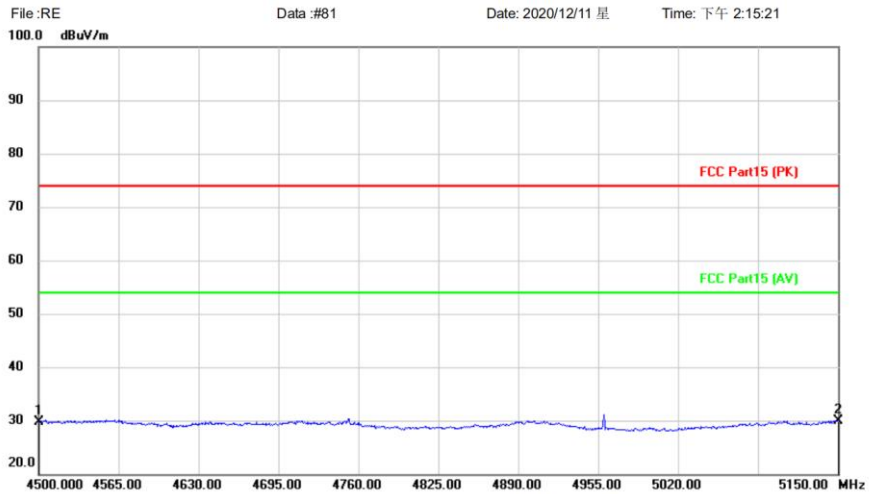
802.11N40

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



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Radiated Emission Measurement



Site Polarization: **Horizontal** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11n40-AV
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		4500.000	40.90	-11.10	29.80	54.00	-24.20	AVG			
2	*	5150.000	40.94	-11.02	29.92	54.00	-24.08	AVG			

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

File :REData :#81

Page: 1

Engineer Signature:

Test Result: Pass

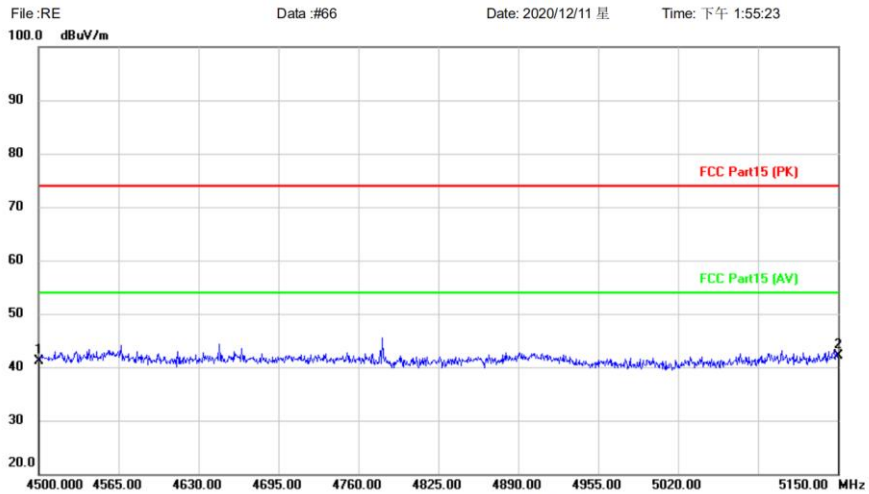
802.11N40

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



Company: BlueAsia of Technical Services (Shenzhen) Co., Ltd.
Address: 深圳市宝安区石岩石环路107号鸿景达产业园C栋
Tel: +86-755-23059481

Radiated Emission Measurement



Site Polarization: **Vertical** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11n40-5180-PK
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		4500.000	52.14	-11.10	41.04	74.00	-32.96	peak			
2	*	5150.000	53.06	-10.90	42.16	74.00	-31.84	peak			

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

File :RE\Data :#66

Page: 1

Engineer Signature:

Test Result: Pass

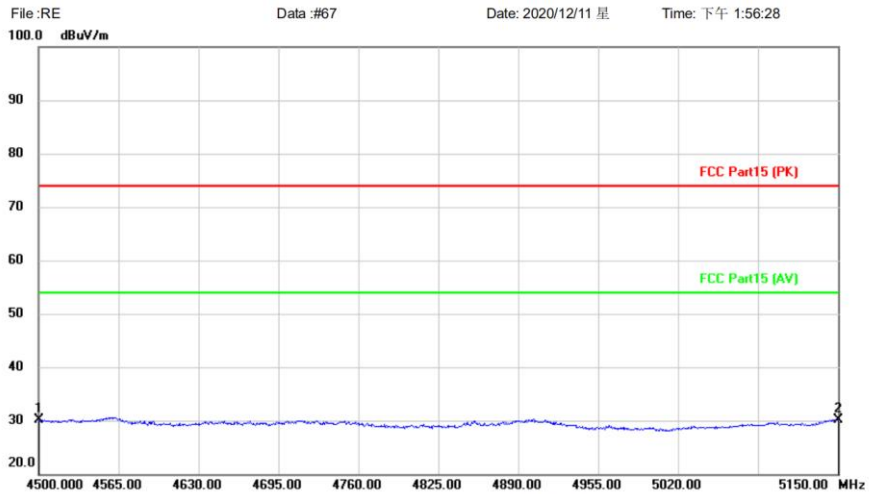
802.11N40

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



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Tel: +86-755-23059481

Radiated Emission Measurement



Site Polarization: **Vertical** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11n40-5180-AV
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		4500.000	41.17	-11.10	30.07	54.00	-23.93	AVG			
2	*	5150.000	41.10	-10.90	30.20	54.00	-23.80	AVG			

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

File :REData :#67

Page: 1

Engineer Signature:

Test Result: Pass

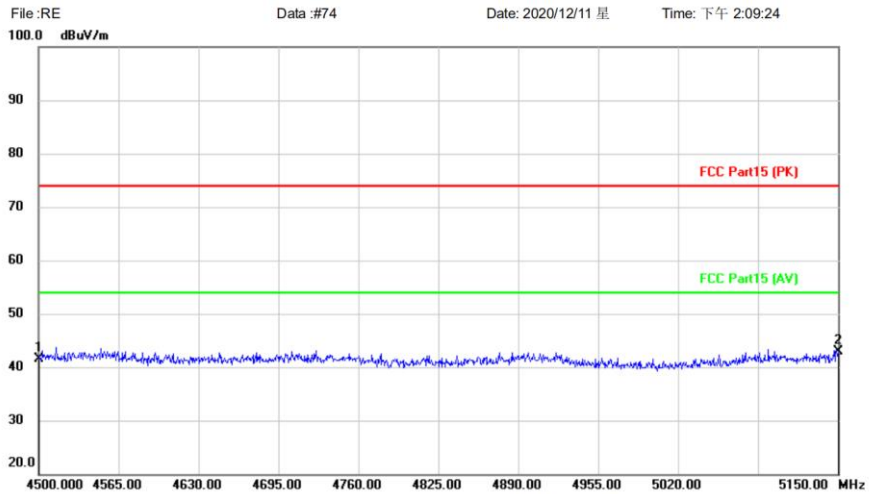
802.11ac80

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



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Tel: +86-755-23059481

Radiated Emission Measurement



Site Polarization: **Horizontal** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11ac80-PK
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		4500.000	52.62	-11.10	41.52	74.00	-32.48	peak			
2	*	5150.000	53.85	-11.02	42.83	74.00	-31.17	peak			

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

File :RE\Data :#74

Page: 1

Engineer Signature:

Test Result: Pass

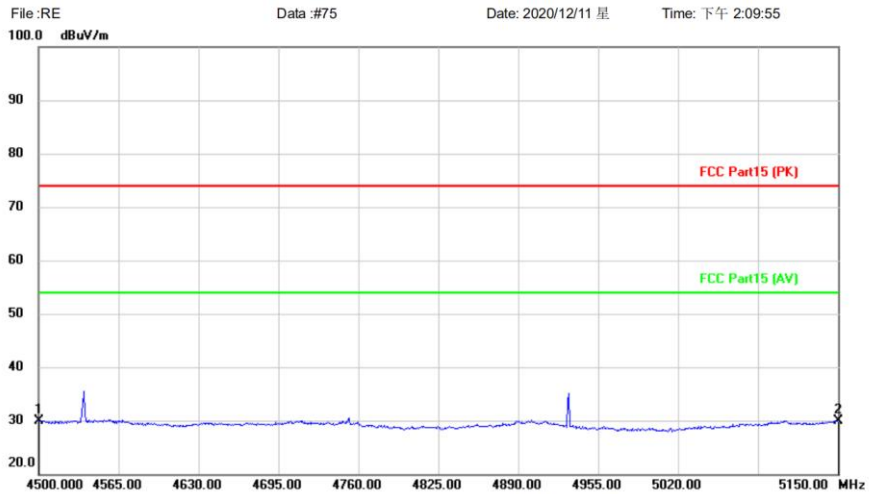
802.11ac80

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



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Radiated Emission Measurement



Site Polarization: **Horizontal** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11ac80-AV
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		4500.000	40.95	-11.10	29.85	54.00	-24.15	AVG			
2	*	5150.000	40.91	-11.02	29.89	54.00	-24.11	AVG			

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

File :RE\Data :#75

Page: 1

Engineer Signature:

Test Result: Pass

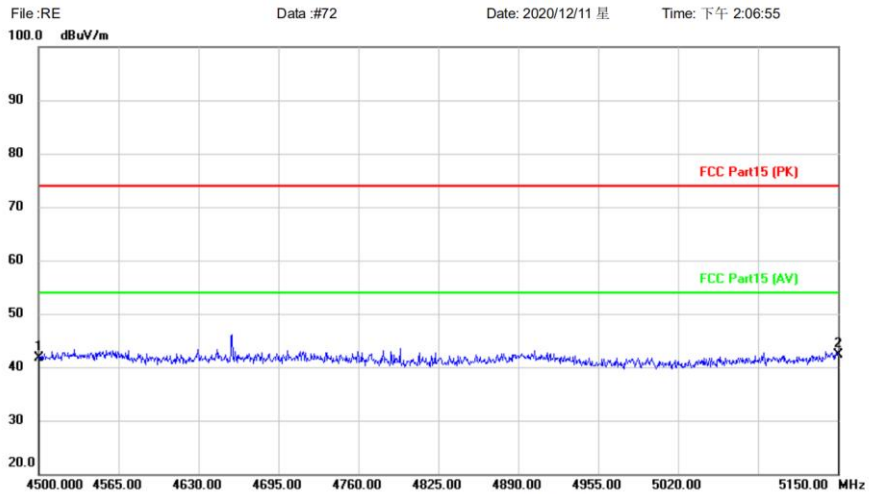
802.11ac80

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



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Tel: +86-755-23059481

Radiated Emission Measurement



Site Polarization: **Vertical** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11ac80-PK
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		4500.000	52.83	-11.10	41.73	74.00	-32.27	peak		
2	*	5150.000	53.20	-10.90	42.30	74.00	-31.70	peak		

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

File :RE\Data :#72

Page: 1

Engineer Signature:

Test Result: Pass

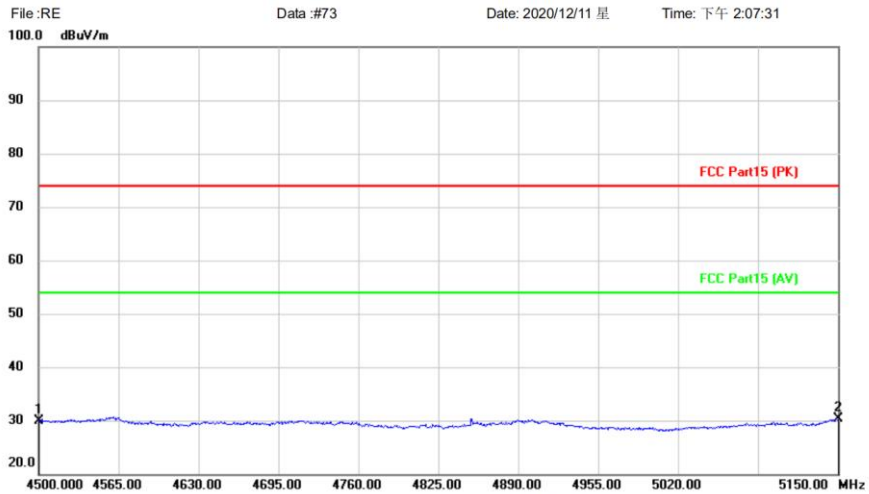
802.11ac80

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



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Tel: +86-755-23059481

Radiated Emission Measurement



Site Polarization: **Vertical** Temperature:
Limit: FCC Part15 (PK) Power: AC120V/60Hz Humidity: %
EUT: Distance: 3m
M/N: M1200S
Mode: BAND1-802.11ac80-AV
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		4500.000	41.05	-11.10	29.95	54.00	-24.05	AVG		
2	*	5150.000	41.26	-10.90	30.36	54.00	-23.64	AVG		

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

File :RE\Data :#73

Page: 1

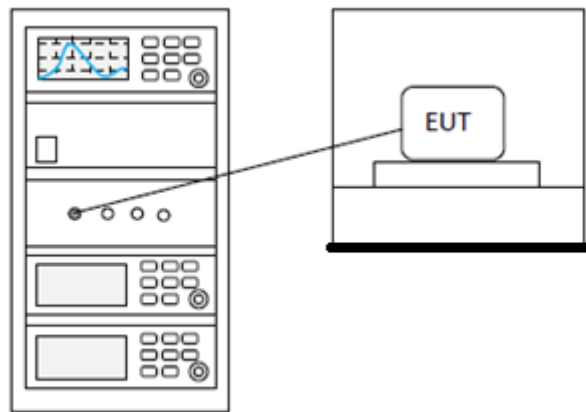
Engineer Signature:

Test Result: Pass

4 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°C
Humidity	60%

4.1 BLOCK DIAGRAM OF TEST SETUP



4.2 TEST DATA

Pass: Please Refer To Appendix: For Details

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

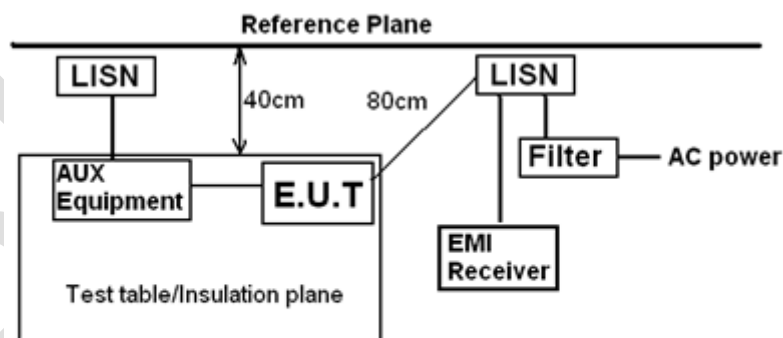
Test Standard	47 CFR Part 15, Subpart E 15.407
Test Method	ANSI C63.10 (2013) Section 6.2
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Ben
Temperature	25°C
Humidity	60%

5.1 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.

5.2 BLOCK DIAGRAM OF TEST SETUP



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

5.3 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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[TestMode: TX]; [Line: Neutral]

Conducted Emission Measurement



Site: _____ Phase: **N** Temperature: _____
 Limit: FCC Class B Conduction(QP) Power: AC120V/60Hz Humidity: %
 EUT: _____
 M/N: M1200S
 Mode: 5.1G Wifi Mode
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.2420	33.05	9.85	42.90	62.03	-19.13	QP	
2		0.2420	20.65	9.85	30.50	52.03	-21.53	AVG	
3		0.3620	33.46	9.75	43.21	58.68	-15.47	QP	
4		0.3620	20.01	9.75	29.76	48.68	-18.92	AVG	
5	*	0.4620	39.47	9.72	49.19	56.66	-7.47	QP	
6		0.4620	21.90	9.72	31.62	46.66	-15.04	AVG	
7		0.5980	37.47	9.74	47.21	56.00	-8.79	QP	
8		0.5980	19.44	9.74	29.18	46.00	-16.82	AVG	
9		0.7780	30.61	9.74	40.35	56.00	-15.65	QP	
10		0.7780	14.96	9.74	24.70	46.00	-21.30	AVG	
11		21.3900	26.73	10.04	36.77	60.00	-23.23	QP	
12		21.3900	19.68	10.04	29.72	50.00	-20.28	AVG	

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

Test Result: Pass

6 ANTENNA REQUIREMENT

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

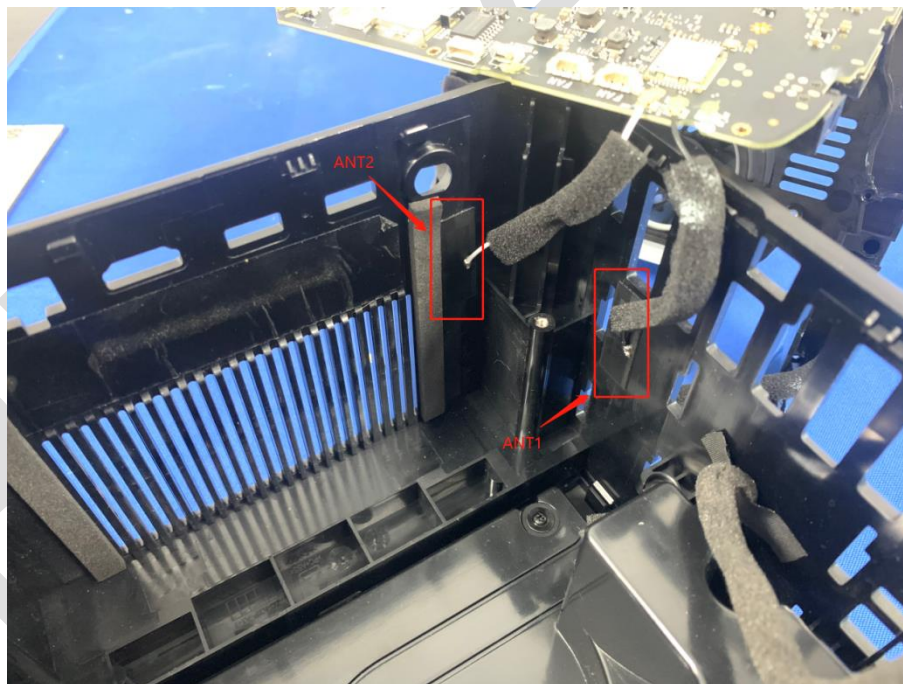
6.1 CONCLUSION

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 Antenna 1:2.0dBi and Antenna 2:2.3dBi



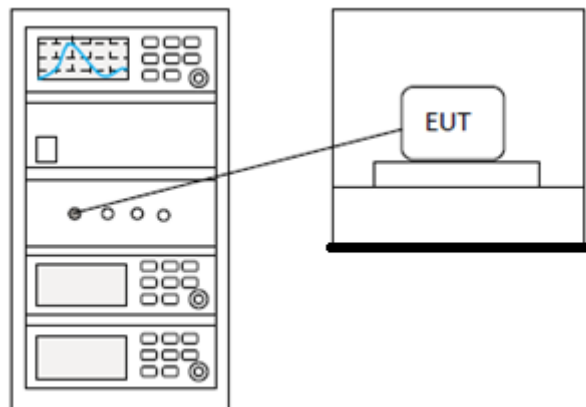
7 PEAK POWER SPECTRUM DENSITY

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°C
Humidity	60%

7.1 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.

7.2 BLOCK DIAGRAM OF TEST SETUP



7.3 EST DATA

Pass: Please Refer To Appendix: For Details

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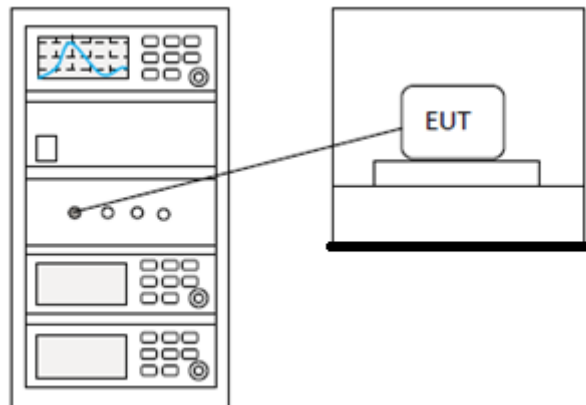
8 MAXIMUM CONDUCTED OUTPUT POWER

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°C
Humidity	60%

8.1 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>

8.2 BLOCK DIAGRAM OF TEST SETUP



8.3 TEST DATA

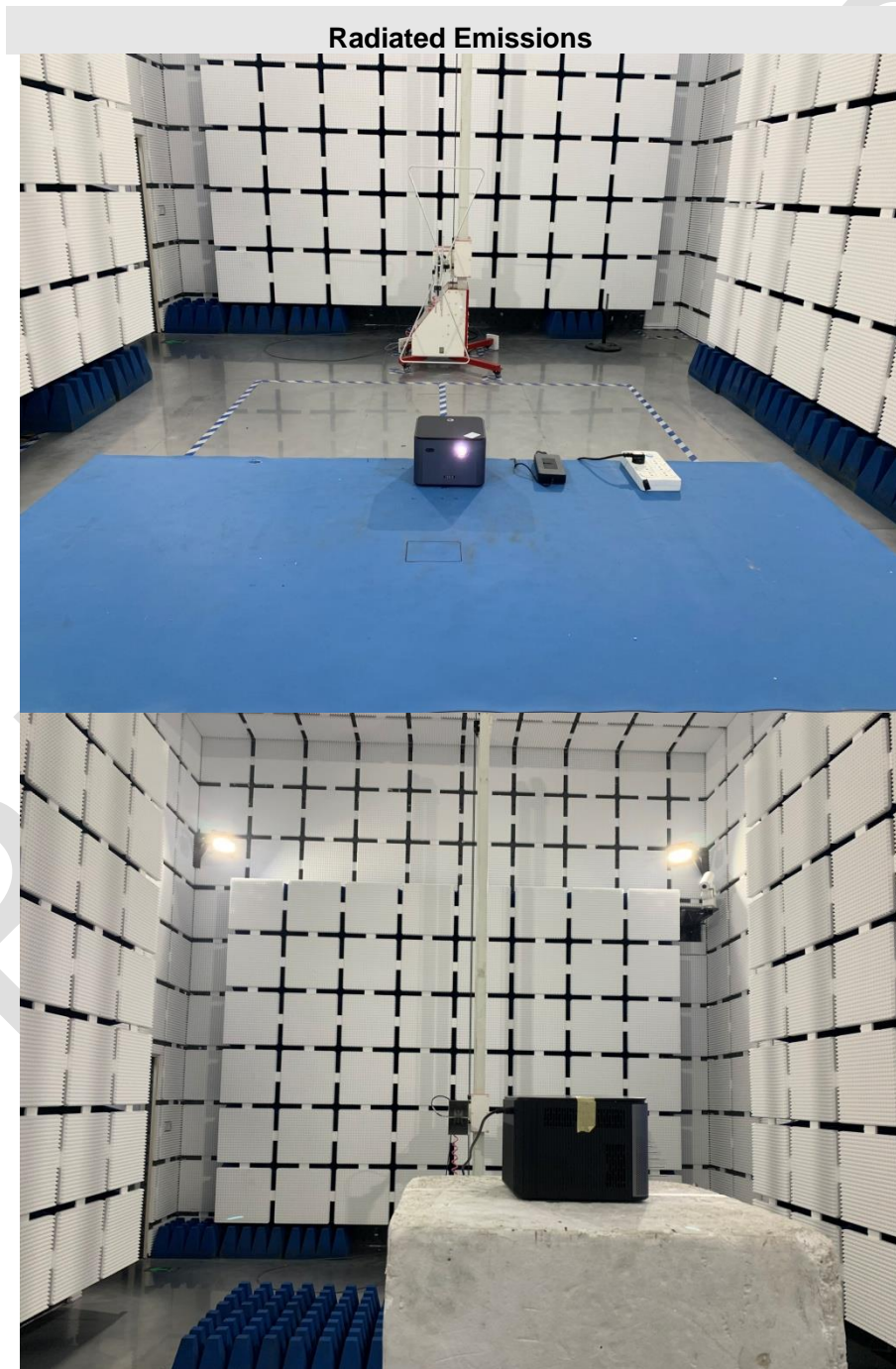
Pass: Please Refer To Appendix: For Details

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10 APPENDIX

Please Refer To Appendix2: For RF test data

APPENDIX A: PHOTOGRAPHS OF TEST SETUP



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



----END OF REPORT----

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