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TEST REPORT

Product Name	:	Wireless Microphone
Brand Mark	:	N/A
Model No.	:	AW-AWM20T
Extension model	:	AW-AWM20D, AW-AWM21T, AW-AWM22T, AW-AWM23T, AW-AWM24T, AW-AWM25T, AW-AWM26T, AW-AWM27T, AW-AWM28T, AW-AWM29T, AW-AWM21D, AW-AWM22D, AW-AWM23D, AW-AWM24D, AW-AWM25D, AW-AWM26D, AW-AWM27D, AW-AWM28D, AW-AWM29D
Report Number	:	BLA-EMC-202307-A9801
FCC ID	:	2BAHR-AWM20RX
Date of Sample Receipt	:	2023/7/24
Date of Test	:	2023/7/26 to 2023/8/23
Date of Issue	:	2023/8/23
Test Standard	:	47 CFR Part 15, Subpart C 15.247
Test Result	:	Pass

Prepared for:

NINGBO AUDITORYWORKS CO., LTD.

3-314 Lingqiao Road 229, Haishu District, Ningbo City, Zhejiang Province, China

Prepared by:

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2023/8/23

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REPORT REVISE RECORD

Versio	on No.	Date	Description
0	00	2023/8/23	Original



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1 TEST SUMMARY

Test item	Test Requirement	Test Method	Class/Severity	Result
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass
Conducted Band Edges Measurement	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 7.8.8 & Section 11.13.3.2	47 CFR Part 15, Subpart C 15.247(d)	Pass
Radiated Spurious Emissions	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.4,6.5,6.6	47 CFR Part 15, Subpart C 15.209 & 15.247(d)	Pass
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.10.5	47 CFR Part 15, Subpart C 15.209 & 15.247(d)	Pass
Conducted Spurious Emissions	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 7.8.6 & Section 11.11	47 CFR Part 15, Subpart C 15.247(d)	Pass
Power Spectrum Density	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.10.2	47 CFR Part 15, Subpart C 15.247(e)	Pass
Conducted Peak Output Power	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 7.8.5	47 CFR Part 15, Subpart C 15.247(b)(3)	Pass
Minimum 6dB Bandwidth	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.8.1	47 CFR Part 15, Subpart C 15.247a(2)	Pass
Antenna Requirement	47 CFR Part 15, Subpart C 15.247	N/A	47 CFR Part 15, Subpart C 15.203 & 15.247(c)	Pass



2 GENERAL INFORMATION

Applicant	NINGBO AUDITORYWORKS CO., LTD.	
Address	3-314 Lingqiao Road 229, Haishu District, Ningbo City, Zhejiang Province, China	
Manufacturer	NINGBO AUDITORYWORKS CO., LTD.	
Address	3-314 Lingqiao Road 229, Haishu District, Ningbo City, Zhejiang Province, China	
Factory	Shenzhen Inecan Electronic Co.,Ltd	
Address	201,Building A,No.54,Puxia Road,Liuyue community, Henggang Street, Longgang District,Shenzhen City, Guangdong Province, China	
Product Name	Wireless Microphone	
Test Model No.	AW-AWM20T	
Extension model	AW-AWM20D, AW-AWM21T, AW-AWM22T, AW-AWM23T, AW-AWM24T, AW-AWM25T, AW-AWM26T, AW-AWM27T, AW-AWM28T, AW-AWM29T, AW-AWM21D, AW-AWM22D, AW-AWM23D, AW-AWM24D, AW-AWM25D, AW-AWM26D, AW-AWM27D, AW-AWM28D, AW-AWM29D	
Note	All above models are identical in the same PCB layout, interior structure and electrical circuits. The differences are model name for commercial purpose.	

3 GENERAL DESCRIPTION OF E.U.T.

Hardware Version	N/A
Software Version	N/A
Engineer sample no.:	AW-AWM20T ^{note}
Operation Frequency:	2402MHz-2480MHz
Modulation Type:	GFSK
Rate data:	1Mbps, 2Mbps,
Channel Spacing:	2MHz
Number of Channels:	40
Antenna Type:	FPC Antenna
Antenna Gain:	-2.42dBi (Provided by the applicant)

Note: only the RX device was tested.



Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2402MHz	11	2422MHz	21	2442MHz	31	2462MHz
2	2404MHz	12	2424MHz	22	2444MHz	32	2464MHz
: :	: :	: :	: :	:	: :	: :	: :
9	2418MHz	19	2438MHz	29	2458MHz	39	2478MHz
10	2420MHz	20	2440MHz	30	2460MHz	40	2480MHz

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Note:

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

Channel	Frequency
The lowest channel	2402MHz
The middle channel	2442MHz
The Highest channel	2480MHz



TEST ENVIRONMENT 4

Environment	Temperature	Voltage
Normal	25°C	3.8Vdc

5 **TEST MODE**

TEST MODE	TEST MODE DESCRIPTION
Transmitting mode	Keep the EUT in continuously transmitting mode with modulation.
6 MEASUREMEN	

MEASUREMENT UNCERTAINTY 6

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

Parameter	Expanded Uncertainty (Confidence of 95%)
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±1.5 dB
Power Spectral Density, conducted	±3.0 dB
Unwanted Emissions, conducted	±3.0 dB
Temperature	±3 °C
Supply voltages	±3 %
Time	±5 %
Unwanted Radiated Emission (30MHz ~ 1000MHz)	±4.35 dB
Unwanted Radiated Emission (1GHz ~ 18GHz)	±4.44 dB



7 DESCRIPTION OF SUPPORT UNIT

Device Type	Manufacturer	Model Name	Serial No.	Remark
AC Adapter	UGREEN	CD112	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, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province, China

Telephone: TEL: +86-755-28682673 FAX: +86-755-28682673



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9 TEST INSTRUMENTS LIST

Test Equipment Of Radiated Spurious Emissions						
Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due	
Chamber 1	SKET	966	N/A	2020/11/10	2023/11/9	
Chamber 2	SKET	966	N/A	2021/07/20	2024/07/19	
Spectrum	R&S	FSP40	100817	2022/09/15	2023/09/14	
Receiver	R&S	ESR7	101199	2022/09/15	2023/09/14	
Receiver	R&S	ESPI7	101477	2022/07/16 2023/07/14	2023/07/15 2024/07/13	
broadband Antenna	Schwarzbeck	VULB9168	00836 P:00227	2022/09/15	2023/09/14	
Horn Antenna	Schwarzbeck	BBHA9120D	01892 P:00331	2022/09/13	2025/09/12	
Amplifier	SKET	LNPA_30M01G-30	SK2021060801	2022/07/16 2023/07/14	2023/07/15 2024/07/13	
Amplifier	SKET	PA-000318G-45	N/A	2022/09/13	2023/09/12	
Amplifier	SKET	LNPA_18G40G-50	SK2022071301	2022/07/14 2023/07/14	2023/07/13 2024/07/13	
Filter group	SKET	2.4G/5G Filter group r	N/A	2022/07/16 2023/07/14	2023/07/15 2024/07/13	
EMI software	EZ	EZ-EMC	EEMC-3A1	N/A	N/A	
Loop antenna	SCHNARZBECK	FMZB1519B	00102	2022/9/14	2025/9/13	
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 O	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	2022/09/14	2023/09/13		
LISN	R&S	ENV216	3560.6550.15	2022/09/14	2023/09/13		
LISN	AT	AT166-2	AKK1806000003	2022/09/14	2023/09/13		
ISN	TESEQ	ISNT8-cat6	53580	2022/09/14	2023/09/13		
Single-channel vehicle artificial power network	Schwarzbeck	NNBM 8124	01045	2022/08/17	2023/08/16		
Single-channel vehicle artificial power network	Schwarzbeck	NNBM 8124	01075	2022/08/17	2023/08/16		
EMI software	EZ	EZ-EMC	EEMC-3A1	N/A	N/A		

Test Equipment	Of RF Conducte	d Test						
Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due			
Spectrum	R&S	FSP40	100817	2022/09/15	2023/09/14			
Spectrum	Agilent	N9020A	MY49100060	2022/09/07	2023/09/06			
Spectrum	KEYSIGHT	N9030A	MY52350152	2023/06/30	2024/06/29			
Spectrum	KEYSIGHT	N9010A	MY54330814	2023/06/30	2024/06/29			
Signal Generator	Agilent	N5182A	MY47420955	2022/09/07	2023/09/06			
Signal Generator	Agilent	E8257D	MY44320250	2023/06/30	2024/06/29			
Signal Generator	Agilent	N5181A	MY46240904	2022/08/02 2023/08/02	2023/08/01 2024/08/01			
Signal Generator	R&S	CMW500	132429	2022/09/07	2023/09/06			
BluetoothTester	Anritsu	MT8852B	06262047872	2022/09/07	2023/09/06			
Power probe	DARE	RPR3006W	14100889SN042	2022/09/07	2023/09/06			
DCPowersupply	zhaoxin	KXN-305D	20K305D1221363	2022/09/14	2023/09/13			
DCPowersupply	zhaoxin	RXN-1505D	19R1505D050168	2022/09/14	2023/09/13			
2.4GHz/5GHz RF Test sorfware	MTS	MTS 8310	Version 2.0.0.0	N/A	N/A			
Audio Analyzer	Audioprecision	N/A	ATSI-41094	2023/06/30	2024/06/29			

— (150kHz 20MHz) d Emissia du lir . . .



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

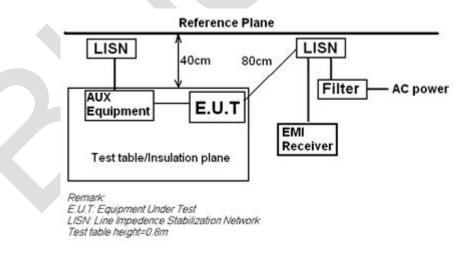
Test Standard	47 CFR Part 15, Subpart C 15.247				
Test Method	ANSI C63.10 (2013) Section 6.2				
Test Mode (Pre-Scan)	ТХ				
Test Mode (Final Test)	ТХ				
Tester	Jozu				
Temperature	25 ℃				
Humidity	60%				

10.1 LIMITS

Frequency of	Conducted limit(dBµV)						
emission(MHz)	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.

10.2 BLOCK DIAGRAM OF TEST SETUP



10.3 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/50H + 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,

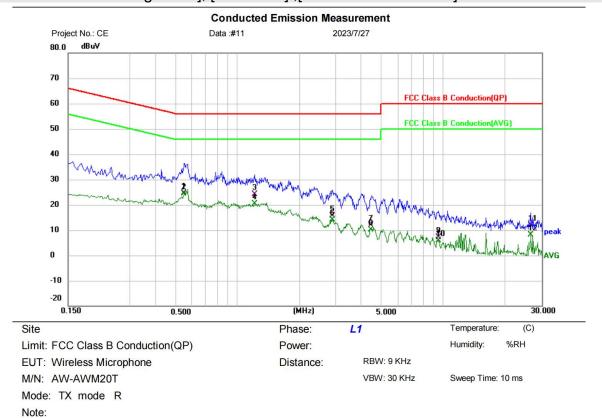
4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test 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



10.4 TEST DATA



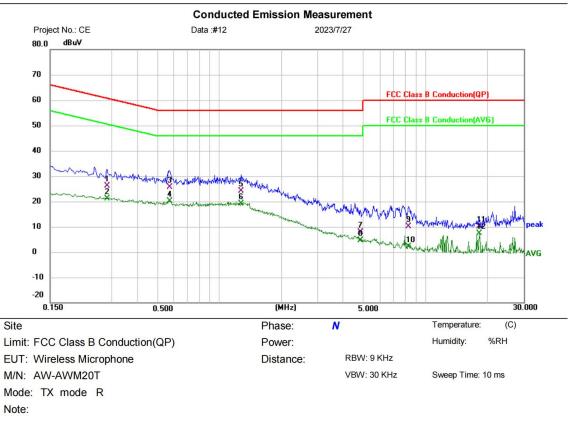
[TestMode: Transmitting mode]; [Line: Line] ; [Power:AC120V/60Hz]

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		0.5500	14.45	10.08	24.53	56.00	-31.47	QP			
2	*	0.5500	14.21	10.08	24.29	46.00	-21.71	AVG			
3		1.2100	14.02	10.15	24.17	56.00	-31.83	QP			
4		1.2100	10.23	10.15	20.38	46.00	-25.62	AVG			
5		2.8860	5.48	10.23	15.71	56.00	-40.29	QP			
6		2.8860	3.81	<mark>10.23</mark>	14.04	46.00	-31.96	AVG			
7		4.4699	1.88	10.05	11.93	56.00	-44.07	QP			
8		4.4699	0.20	10.05	10.25	46.00	-35.75	AVG			
9		9.4540	-2.98	10.13	7.15	60.00	-52.85	QP			
10		9.4540	- <mark>4</mark> .31	10.13	5.82	50.00	- <mark>44</mark> .18	AVG			
11		26.5500	1.79	10.00	11.79	60.00	-48.21	QP			
12		26.5500	-1.97	10.00	8.03	50.00	- <mark>41.9</mark> 7	AVG			
*:Ma	ximu	m data	x:Over lim	it !:over	margin						(Reference Only
Receiv	ver:	ESPI_	_1			Spectrum	Analyzer:	ES	PI		
L.I.S.N	1 :					Engineer	Signature				

Test Result: Pass



[TestMode: Transmitting mode]; [Line: Neutral] ;[Power:AC120V/60Hz]



		Reading	Correct	Measure-		1417		Antenna	Table	
No. Mk	Freq.	Level	Factor	ment	Limit	Over		Height	Degree	
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1	0.2819	16.13	10.07	26.20	60.76	-34.56	QP			
2	0.2819	11.08	10.07	21.15	50.76	-29.61	AVG			
3	0.5740	15.64	10.04	25.68	56.00	-30.32	QP			
4 *	0.5740	10.11	10.04	20.15	46.00	-25.85	AVG			
5	1.2740	13.99	10.04	24.03	56.00	-31.97	QP			
6	1.2740	9.07	10.04	19.11	46.00	-26.89	AVG			
7	4.8460	-1.84	9.83	7.99	56.00	-48.01	QP			
8	4.8460	-5.23	9.83	4.60	46.00	-41.40	AVG			
9	8.3060	0.24	9.89	10.13	60.00	-49.87	QP			
10	8.3060	-7.80	9.89	2.09	50.00	-47.91	AVG			
11	18.2460	0.06	10.03	10.09	60.00	- <mark>4</mark> 9.91	QP			
12	18.2460	-2.74	10.03	7.29	50.00	-42.71	AVG			

*:Maximum d	ata	x:Over limit	Lover margin			(Reference Only
Receiver:	ESPI	_1		Spectrum Analyzer:	ESPI	
L.I.S.N:				Engineer Signature		

Test Result: Pass



Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.

2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.

3. Final Level =Receiver Read level + LISN Factor + Cable Loss.



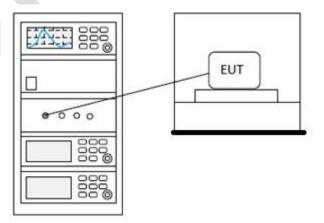
Test Standard	47 CFR Part 15, Subpart C 15.247					
Test Method	ANSI C63.10 (2013) Section 7.8.8 & Section 11.13.3.2					
Test Mode (Pre-Scan)	ТХ					
Test Mode (Final Test)	ТХ					
Tester	Jozu					
Temperature	25°C					
Humidity	60%					

11 CONDUCTED BAND EDGES MEASUREMENT

11.1 LIMITS

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

11.2 BLOCK DIAGRAM OF TEST SETUP





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11.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details



12 RADIATED SPURIOUS EMISSIONS

Test Standard	47 CFR Part 15, Subpart C 15.247					
Test Method	ANSI C63.10 (2013) Section 6.4,6.5,6.6					
Test Mode (Pre-Scan)	ТХ					
Test Mode (Final Test)	ТХ					
Tester	Jozu					
Temperature	25°C					
Humidity	60%					

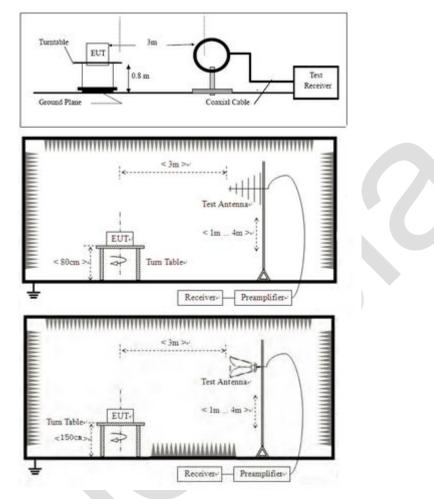
12.1 LIMITS

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.



12.2 BLOCK DIAGRAM OF TEST SETUP



12.3 PROCEDURE

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

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

g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.



h. Test the EUT in the lowest channel, the middle channel, the Highest channel.

i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

j. Repeat above procedures until all frequencies measured was complete.

Remark:

1) For emission below 1GHz, through pre-scan found the worst case is the lowest channel. Only the worst case is recorded in the report.

2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor

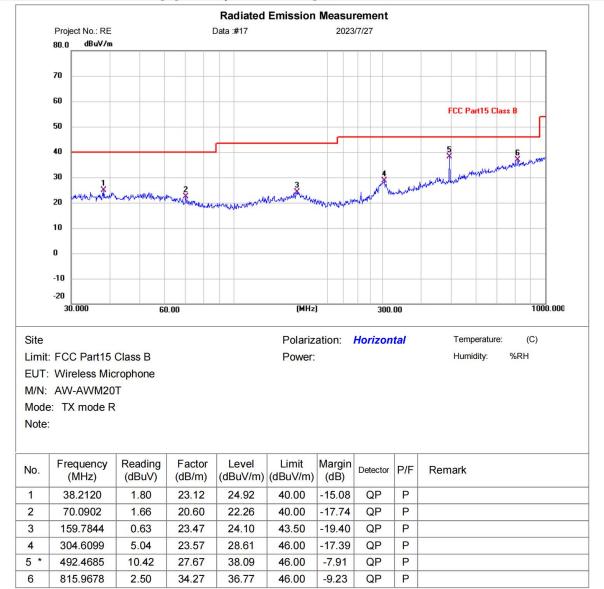
3) Scan from 9kHz to 25GHz, the disturbance above 12.75GHz and below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported. fundamental frequency is blocked by filter, and only spurious emission is shown.

4) 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.



12.4 TEST DATA

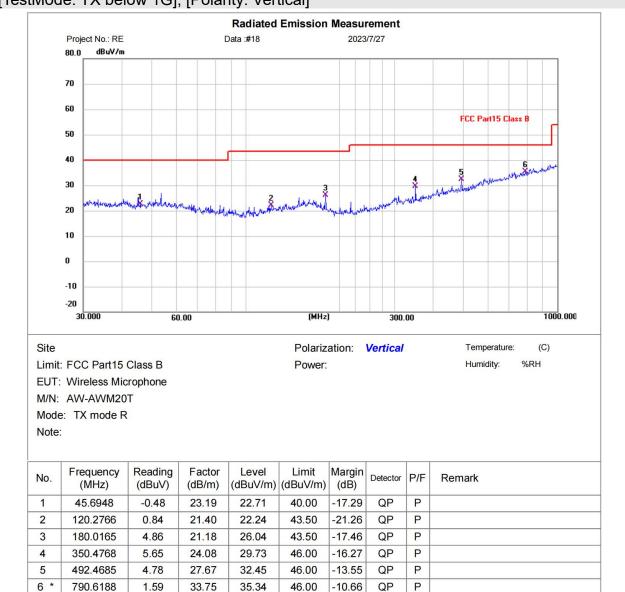




*:Maximum data x:Over limit !:over margin

Test Result: Pass





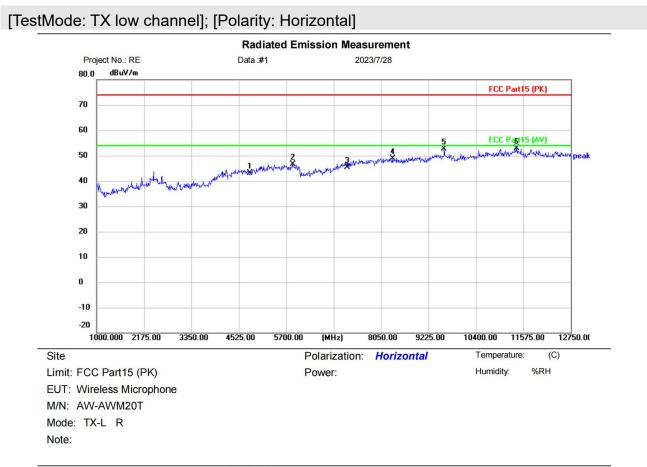
[TestMode: TX below 1G]; [Polarity: Vertical]

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

Test Result: Pass



Remark: During the test, pre-scan the BLE1M, BLE2M mode, and found the BLE1M mode which it is worse case.

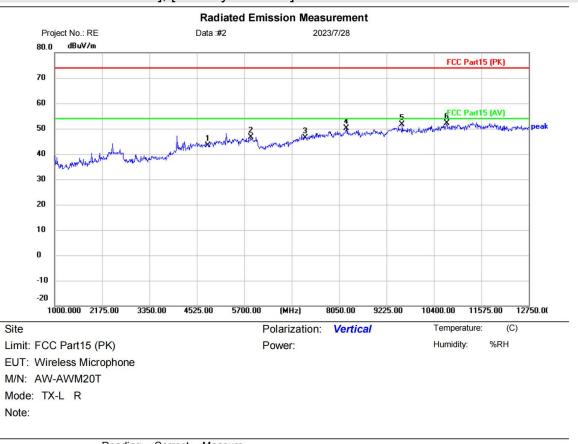


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4804.000	38.61	4.51	43.12	74.00	-30.88	peak	
2		5864.500	39.95	6.62	46.57	74.00	- <mark>27.4</mark> 3	peak	
3		7206.000	37.90	7.41	45.31	74.00	- <mark>28.69</mark>	peak	
4		8332.000	40.17	8.81	48.98	74.00	-25.02	peak	
5		9608.000	40.98	11.59	52.57	74.00	- <mark>21.4</mark> 3	peak	
6	*	11410.50	39.35	13.42	52.77	74.00	-21.23	peak	

*:Maximum	data	x:Over limit	!:over margin			
Receiver:	ESR	_1		Spectrum Analyzer:	FSP40	
Antenna:	EZ 9	120D 1G-18G new		Engineer Signature		
Test Result:	Pas	s				



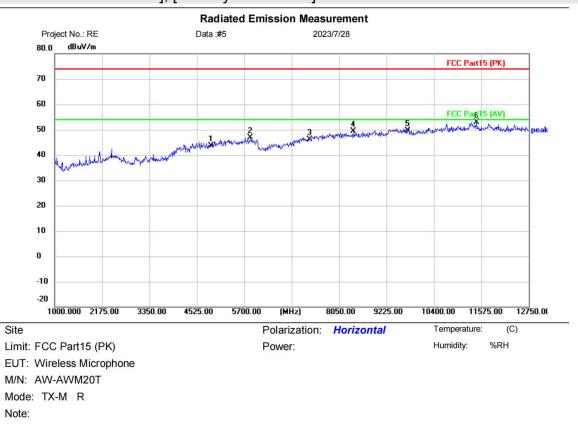
[TestMode: TX low channel]; [Polarity: Vertical]



۷k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
48	804.000	38.90	4.51	43.41	74.00	-30.59	peak	
58	864.500	40.04	6.62	46.66	74.00	- <mark>27.34</mark>	peak	
72	206.000	38.93	7.41	46.34	74.00	-27.66	peak	
82	226.250	41.54	8.56	50.10	74.00	-23.90	peak	
96	608.000	40.06	11.59	51.65	74.00	-22.35	peak	
* 1(0717.25	38.69	13.32	52.01	74.00	-21.99	peak	
*	1	10717.25						

*:Maximum	data	x:Over limit	:over margin			(Reference Only
Receiver:	ESR	_1		Spectrum Analyzer:	FSP40	
Antenna:	EZ 9	120D 1G-18G new		Engineer Signature		
st Result	: Pas	s				





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

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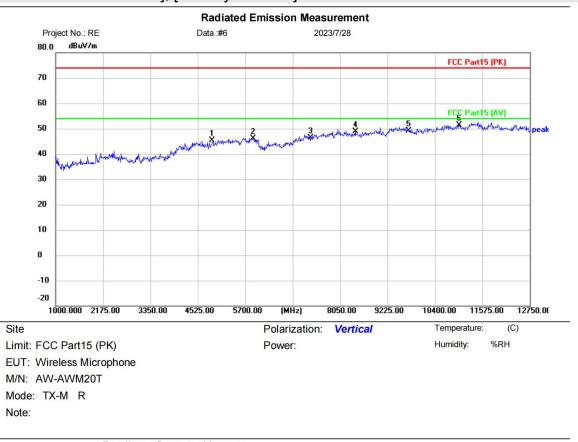
....

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4882.000	39.11	4.60	43.71	74.00	-30.29	peak	
2		5841.000	40.42	6.49	46.91	74.00	-27.09	peak	
3		7323.000	38.28	7.82	46.10	74.00	- <mark>27.90</mark>	peak	
4		8402.500	40.43	8.84	49.27	74.00	- <mark>24</mark> .73	peak	
5		9764.000	37.85	11.76	49.61	74.00	- <mark>24</mark> .39	peak	
6	*	11457.50	39.42	13.48	52.90	74.00	- <mark>21.10</mark>	peak	

*:Maximum data	x:Over limit	!:over margin			Reference Only
Receiver: ES	R_1		Spectrum Analyzer:	FSP40	
Antenna: EZ	9120D 1G-18G new		Engineer Signature		
t Result: Pa	ss				



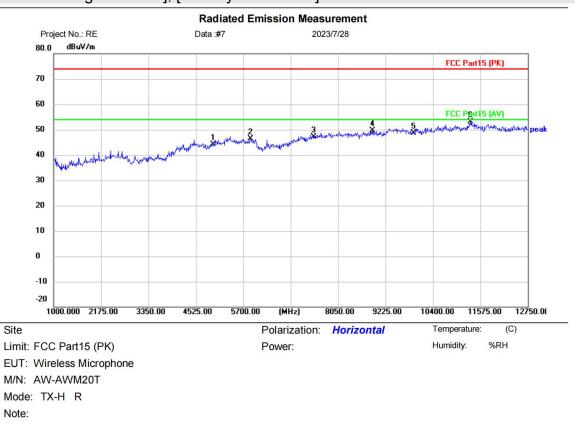
[TestMode: TX mid channel]; [Polarity: Vertical]



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4882.000	40.75	4.60	45.35	74.00	-28.65	peak	
2		5899.750	39.31	6.75	46.06	74.00	-27.94	peak	
3		7323.000	38.44	7.82	46.26	74.00	- <mark>27.74</mark>	peak	
4		8426.000	39.96	9.01	48.97	74.00	-25.03	peak	
5		9764.000	37.42	11.76	49.18	74.00	- <mark>24.8</mark> 2	peak	
6	*	10999.25	37.65	13.82	51.47	74.00	-22.53	peak	

*:Maximum of	data	x:Over limit	!:over margin			(Reference Only
Receiver:	ESR	_1		Spectrum Analyzer:	FSP40	
Antenna:	EZ 9	120D 1G-18G new		Engineer Signature		
st Result:	Pas	S				





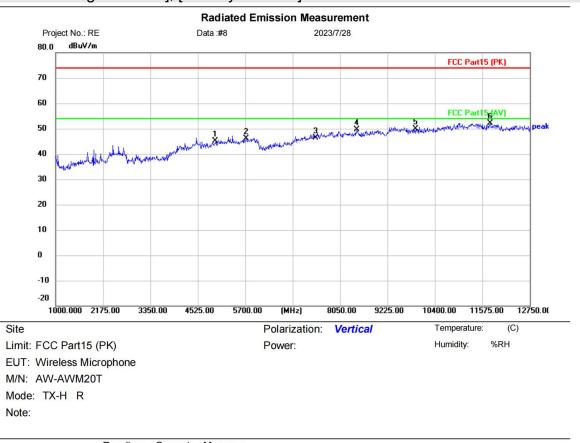
[TestMode: TX high channel]; [Polarity: Horizontal]

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4960.000	38.78	5.47	44.25	74.00	-29.75	peak	
2		5876.250	39.61	6.66	46.27	74.00	- <mark>27.73</mark>	peak	
3		7440.000	39.01	8.24	47.25	74.00	-26.75	peak	
4		8907.750	39.32	10.37	49.69	74.00	- <mark>24</mark> .31	peak	
5		9920.000	36.69	11.96	48.65	74.00	-25.35	peak	
6	*	11328.25	39.66	13.39	53.05	74.00	-20.95	peak	

*:Maximum d	ata x:Over limit	!:over margin			Reference Only
Receiver:	ESR_1		Spectrum Analyzer:	FSP40	
Antenna:	EZ 9120D 1G-18G nev	V	Engineer Signature		
st Result:	Pass				



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



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4960.000	39.60	5.47	45.07	74.00	-28.93	peak	
2		5723.500	39.75	6.43	46.18	74.00	- <mark>27.8</mark> 2	peak	
3		7440.000	38.22	8.24	46.46	74.00	- <mark>27.54</mark>	peak	
4		8461.250	40.30	9.25	49.55	74.00	-24.45	peak	
5		9920.000	37.82	11.96	49.78	74.00	-24.22	peak	
6	*	11774.75	39.21	12.99	52.20	74.00	- <mark>21.80</mark>	peak	
		5.6.							

*:Maximum data	x:Over limit	!:over margin			(Reference Only
Receiver: ES	R_1		Spectrum Analyzer:	FSP40	
Antenna: EZ	9120D 1G-18G new		Engineer Signature		
t Result: Pa	ss				



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Remark:

- 1. Final Level =Receiver Read level + Correct factor
- 2. Correct factor = Antenna Factor + Cable Loss Preamplifier Factor
- 3. The emission levels of other frequencies are very lower than the limit and not show in test report.

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