

AUDIX TECHNOLOGY CORP., EMC DEPT.
 NO. 491, ZHONGFU RD., LINKOU DIST.,
 NEW TAIPEI CITY 244, TAIWAN
 TEL : 886-2-2609-9301
 FAX : 886-2-2609-9303




HEAD OFFICE
 NO.8, LANE 120, NEI HU RD.,
 TAIPEI, TAIWAN, R.O.C.
 TEL : 886-2-2659-4900
 FAX : 886-2-2659-4833

REPORT NO.: EM-SC210065 (C1M2108032)

DATE: 2021. 08. 25

1. APPLICANT : Mako Networks
1355 N. McLean Blvd, Elgin, Illinois 60123,
United States
2. MANUFACTURER : Mako Networks
1355 N. McLean Blvd, Elgin, Illinois 60123,
United States
3. PREPARED BY : AUDIX Technology Corporation.
EMC Department
No. 491, Zhongfu Rd., Linkou Dist.,
New Taipei City 244, Taiwan
Tel: (02) 2609-9301~2
Fax: (02) 2609-9303
4. DESCRIPTION OF DEVICE : 11ax 2x2 WiFi AP with LTE connectivity
 - A) STANDARD : Title 47FCC CER, Part 2
Title 47FCC CER, Part 96
ANSI C63.26:2015
KDB 971168 D01 v03 r01
KDB 414788 D01 v01r01
KDB 412172 D01 v01r01
 - B) MODEL NO. : (1)5600 (2)5600-5G
Above two models are electrically identical, different
model names are for marketing purpose.
The mode 5600-5G was tested in this report.
 - C) SERIAL NO. : N/A
 - D) BRAND : Mako Networks
 - E) FCC ID : 2AVQL-5600
 - F) TEST VOLTAGE : AC 120V/60Hz
5. DATE OF MEASUREMENT : 2021. 08. 20

6. PLACE OF MEASUREMENT : **AUDIX Technology Corporation
EMC Department**
- No. 1 3m Semi Anechoic Chamber**
No. 491, Zhongfu Rd., Linkou Dist.,
New Taipei City 244, Taiwan
7. MEASUREMENT RESULTS : **PASSED**
The results obtained from the measuring of the
above-mentioned device are as shown in the
attached sheets.
- SIGNATURE :



Johnny Hsueh/Section Manager

AUDIX Technology Corporation
EMC Department
Date: 2021. 08. 25



1 TESTED SUPPORTING SYSTEM DETAILS

1.1 Support Peripheral Unit

No.	Product	Brand	Model No.	Serial No.	Approval
1	Notebook PC	acer	MS2343	N/A	Contains FCC ID: PPD-AR5BBU22 Contains IC: 4104A-AR5BBU22
2	Mobile Phone	ASUS	ASUS_T001	N/A	N/A
3	Mobile Phone	ASUS	ROG 3	N/A	N/A

1.2 Cable List

No.	Cable Description Of The Above Support Units
1	LAN Cable: Unshielded, Detachable, 1.0m Adapter: DELTA, M/N ADP-90CD DB, DC Cord : Shielded, Undetachable, 1.8m, Bonded a ferrite core AC Power Cord : Unshielded, Detachable, 1.8m
2	N/A
3	N/A

2 RADIATED EMISSION MEASUREMENT

2.1 Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1	Spectrum Analyzer	Keysight	N9010B-544	MY55460198	2021. 04. 14	1 Year
2	Radio Communication Analyzer	Anritsu	MT8821C	6201571640	2021. 05. 14	1 Year
3	RF Signal Generator	Keysight	E8257D	MY60020079	2021. 05. 12	1 Year
4	Amplifier	HP	8447D	2944A06305	2021. 01. 14	1 Year
5	Bilog Antenna	CHASE	CBL6112D	33821	2021. 07. 16	1 Year
6	Double-Ridged Waveguide Horn	ETS-Lindgren	3115	9609-4927	2021. 07. 02	1 Year
7	Double-Ridged Waveguide Horn	ETS-Lindgren	3117	00135902	2021. 03. 19	1 Year
8	Horn Antenna	COM-POWER	AH-840	101092	2021. 01. 05	1 Year
9	Digital Thermo-Hygro Meter	IMax	HTC-1	No.1 3m A/C	2021. 04. 15	1 Year
10	Coaxial Cable	MIYAZAKI	5D2W	RE-11	2021. 01. 29	1 Year
11	Coaxial Cable	HUBER+SUHNER	SUCOFLEX 102	RE-30	2020. 09. 19	1 Year
12	Coaxial Cable	HUBER+SUHNER	S07212BD	RE-21	2021. 01. 29	1 Year
13	Coaxial Cable	Yeida	CFD400-E	RE-27	2021. 05. 26	1 Year
14	Test Software	Audix	e3	V6.120619c	N.C.R.	N.C.R.

2.2 Test Procedure

Frequency Range 9kHz to 1GHz:

- Reference ANSI C63.26-2015 section 5.5.4
(All test trace done with RBW=100kHz and VBW=300kHz)

Limit Conversion:

According ANSI C63.26-2015 section 5.2.7:

$E \text{ (dB}\mu\text{V/m)} = \text{EIRP (dBm)} + 20\log(D) + 104.8$, ; where D is the measurement distance (in the far field region) in m

=> $E \text{ (dB}\mu\text{V/m)} = -40\text{dBm} + 95.2 = 55.2 \text{ (dB}\mu\text{V/m)}$,

Frequency Range above 1GHz

- Reference ANSI C63.26-2015 section 5.5.3 & 5.7.4.
(All test trace done with RBW=1MHz and VBW=3MHz)

2.3 Radiated Emission Measurement Data

All the test data are listed in the next pages.

Test Date	2021/08/20	Temp./Hum.	23°C/55%
Test Voltage	AC 120V/60Hz	Test Model	5600-5G
		Tested by	Sam Chang

● Frequency Below 1GHz

Test Mode	FDD Band 48+Wifi (2.4G+5G)
-----------	----------------------------

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
106.630	17.05	2.36	26.25	32.87	26.03	55.20	29.17	Average
153.190	16.10	2.89	26.00	33.45	26.44	55.20	28.76	Average
207.510	15.63	3.45	25.80	40.81	34.09	55.20	21.11	Average
403.450	21.45	5.57	26.52	30.63	31.13	55.20	24.07	Average
600.360	24.30	6.77	27.43	27.06	30.70	55.20	24.50	Average
829.280	26.06	8.01	27.23	25.24	32.08	55.20	23.12	Average

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Read Level (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
135.730	17.18	2.69	26.09	40.24	34.02	55.20	21.18	Average
207.510	15.63	3.45	25.80	34.90	28.18	55.20	27.02	Average
402.480	21.43	5.55	26.52	29.11	29.57	55.20	25.63	Average
576.110	24.05	6.70	27.38	28.62	31.99	55.20	23.21	Average
600.360	24.30	6.77	27.43	27.21	30.85	55.20	24.35	Average
830.250	26.06	8.01	27.23	26.73	33.57	55.20	21.63	Average

Note: Emission Level= Antenna Factor+ Cable Loss-Preamp Gain-Read Level.

● Frequency Above 1GHz

Test Mode	FDD Band 48+Wifi (2.4G+5G)
-----------	----------------------------

Antenna at Horizontal Polarization

Emission Frequency (MHz)	EUT Reading (dBm)	SG Output Power (dBm)	Antenna Gain	Cable Loss (dB)	EIRP (dBm)	Limits (dBm)	Margin (dB)	Detector
4824	-80.32	-55.3	10.76	3.46	-48.00	-40	8.00	Average
7236	-78.72	-52.1	11.02	4.20	-45.28	-40	5.28	Average
7250	-77.97	-51.9	11.03	4.26	-45.13	-40	5.13	Average
10875	-79.26	-47.8	12.65	6.20	-41.35	-40	1.35	Average
11490	-80.05	-47.1	12.43	6.90	-41.57	-40	1.57	Average

Antenna at Vertical Polarization

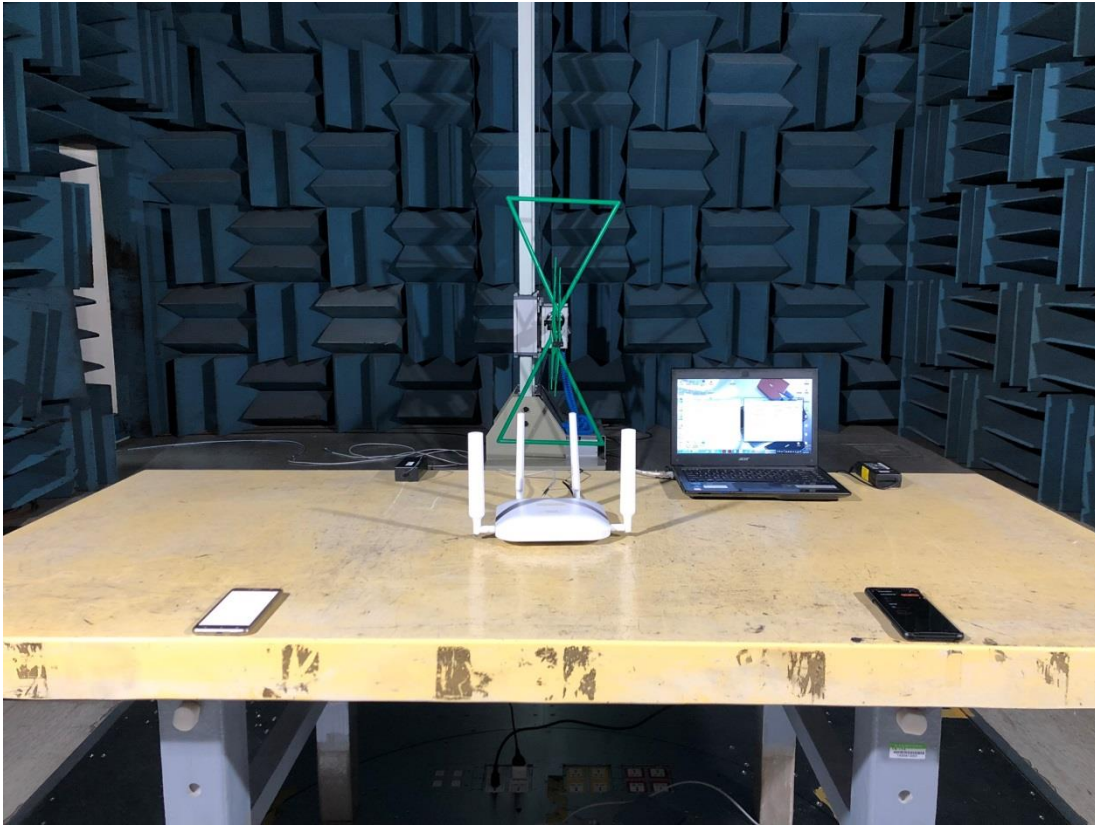
Emission Frequency (MHz)	EUT Reading (dBm)	SG Output Power (dBm)	Antenna Gain	Cable Loss (dB)	EIRP (dBm)	Limits (dBm)	Margin (dB)	Detector
4824	-79.78	-54.2	10.76	3.46	-46.9	-40.00	6.90	Average
7236	-79.17	-52.3	11.02	4.20	-45.48	-40.00	5.48	Average
7250	-78.24	-52.1	11.03	4.26	-45.33	-40.00	5.33	Average
10875	-80.11	-48.3	12.65	6.20	-41.85	-40.00	1.85	Average
11490	-79.47	-46.7	12.43	6.9	-41.17	-40.00	1.17	Average

Note: EIRP= SG Output Power-Cable Loss+ Antenna Gain.

3 PHOTOGRAPHS OF MEASUREMENT

3.1 Photos of Radiated Disturbance Measurement

3.1.1. For Frequency Below 1GHz



3.1.2. For above 1GHz Frequency



FRONT VIEW OF RADIATED MEASUREMENT

