

TEST REPORT

Product Name : WIFI Module
Model Number : AL-7651B-WG-A, WF-M651-UWD1, WF-M651-UWD2
FCC ID : 2AOKI-AL7651B

Prepared for : Sichuan AI-Link Technology Co., Ltd.
Address : Anzhou, Industrial park, Mianyang, Sichuan, China

Prepared by : EMTEK (SHENZHEN) CO., LTD.
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Report Number : ENS2205050036W00102R
Date(s) of Tests : May 6, 2022 to May 31, 2022
Date of issue : June 6, 2022

1 TEST RESULT CERTIFICATION

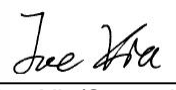
Applicant : Sichuan AI-Link Technology Co., Ltd.
Address : Anzhou, Industrial park, Mianyang, Sichuan, China
Manufacturer : Sichuan AI-Link Technology Co., Ltd.
Address : Anzhou, Industrial park, Mianyang, Sichuan, China
EUT : WIFI Module
Model Name : AL-7651B-WG-A, WF-M651-UWD1, WF-M651-UWD2
(Note: All models are different for connectors and radium carving, the others are the same.)
Trademark : AI-LINK

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 47 CFR Part 2, Subpart J FCC 47 CFR Part 15, Subpart E	PASS

The above equipment was tested by EMTEK (SHENZHEN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 2 and Part 15.407

The test results of this report relate only to the tested sample identified in this report.

Date of Test : May 6, 2022 to May 31, 2022
Prepared by : 
Una Yu/Editor
Reviewer : 
Joe Xia/Supervisor
Approved & Authorized Signer : 
Lisa Wang/Manager

Modified Information

Version	Report No.	Revision Date	Summary
Ver.1.0	ENS2205050036W00102R	/	Original Report

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2 EUT TECHNICAL DESCRIPTION

Characteristics	Description
Product	WIFI Module
Model Number	AL-7651B-WG-A, WF-M651-UWD1, WF-M651-UWD2 (Note: All models are different for connectors and radium carving, the others are the same.)
Wifi Type	☒ UNII-1: 5150MHz-5250MHz Band ☒ UNII-2A: with 5250MHz-5350MHz Band ☒ UNII-2C: with 5470MHz-5725MHz Band ☒ UNII-3 with 5725MHz-5850MHz Band
WLAN Supported	☒ 802.11a ☒ 802.11n(20MHz channel bandwidth) ☒ 802.11n(40MHz channel bandwidth) ☒ 802.11ac(20MHz channel bandwidth) ☒ 802.11ac(40MHz channel bandwidth) ☒ 802.11ac(80MHz channel bandwidth)
Data Rate	802.11a:54/48/36/24/18/12/9/6Mbps 802.11n:up to 600 Mbps 802.11ac:up to 1.733Gbps
Modulation	☒ OFDM with BPSK/QPSK/16QAM/64QAM for 802.11a/n ☒ OFDM with BPSK/QPSK/16QAM/64QAM/256QAM for 802.11ac
Frequency Range	☒ UNII-1: 5150MHz-5250MHz Band
	☒ 5180-5240MHz for 802.11a ☒ 5180-5240MHz for 802.11n(HT20) ☒ 5180-5240MHz for 802.11ac(HT20)
	☒ 5190-5230MHz for 802.11n(HT40) ☒ 5190-5230MHz for 802.11ac(HT40) ☒ 5210MHz for 802.11ac(HT80)
	☒ UNII-2A: with 5250MHz-5350MHz Band
	☒ 5260-5320MHz for 802.11a ☒ 5260-5320MHz for 802.11n(HT20) ☒ 5260-5320MHz for 802.11ac(HT20)
	☒ 5270-5310MHz for 802.11n(HT40) ☒ 5270-5310MHz for 802.11ac(HT40) ☒ 5290MHz for 802.11ac(HT80)
	☒ UNII-2C: with 5470MHz-5725MHz Band
	☒ 5500-5700MHz for 802.11a ☒ 5500-5700MHz for 802.11n(HT20) ☒ 5500-5700MHz for 802.11ac(HT20)
	☒ 5510-5670MHz for 802.11n(HT40) ☒ 5510-5670MHz for 802.11ac(HT40) ☒ 5530-5610MHz for 802.11ac(HT80)
	☒ UNII-3 with 5725MHz-5850MHz Band
	☒ 5745-5825MHz for 802.11a ☒ 5745-5825MHz for 802.11n(HT20) ☒ 5745-5825MHz for 802.11ac(HT20)
	☒ 5755-5795MHz for 802.11n(HT40) ☒ 5755-5795MHz for 802.11ac(HT40) ☒ 5775MHz for 802.11ac(HT80)
TPC Function	☐ Applicable ☒ Not Applicable
Antenna Type	Integrated Antenna
Antenna Gain	ANT1: 3.68dBi ANT2: 4.13dBi ANT3: 5.19dBi (ANT3 is another antenna of antenna2 port using by the clients.)

Transmit Power	Output Power (Max.) for UNII-1 (1TX)	802.11a: 19.64dBm 802.11n(HT 20 MHz): 19.42dBm 802.11n(HT 40 MHz): 18.66dBm 802.11ac (HT 20 MHz): 19.14dBm 802.11ac (HT 40 MHz): 18.52dBm 802.11ac (HT 80 MHz): 17.67dBm
	Output Power (Max.) for UNII-2A (1TX)	802.11a: 20.31dBm 802.11n(HT 20 MHz): 19.30dBm 802.11n(HT 40 MHz): 19.23dBm 802.11ac (HT 20 MHz): 19.19dBm 802.11ac (HT 40 MHz): 19.03dBm 802.11ac (HT 80 MHz): 18.69dBm
	Output Power (Max.) for UNII-2C (1TX)	802.11a: 21.23dBm 802.11n(HT 20 MHz): 19.66dBm 802.11n(HT 40 MHz): 19.97dBm 802.11ac (HT 20 MHz): 19.42dBm 802.11ac (HT 40 MHz): 19.96dBm 802.11ac (HT 80 MHz): 20.17dBm
	Output Power (Max.) for UNII-3 (1TX)	802.11a: 20.72dBm 802.11n(HT 20 MHz): 18.87dBm 802.11n(HT 40 MHz): 19.96dBm 802.11ac (HT 20 MHz): 18.66dBm 802.11ac (HT 40 MHz): 19.08dBm 802.11ac (HT 80 MHz): 18.44dBm
	Output Power (Max.) for UNII-1 (2TX)	802.11n(HT 20 MHz): 21.80dBm 802.11n(HT 40 MHz): 21.59dBm 802.11ac (HT 20 MHz): 21.77dBm 802.11ac (HT 40 MHz): 20.94dBm 802.11ac (HT 80 MHz): 20.65dBm
	Output Power (Max.) for UNII-2A (2TX)	802.11n(HT 20 MHz): 21.96dBm 802.11n(HT 40 MHz): 22.11dBm 802.11ac (HT 20 MHz): 21.82dBm 802.11ac (HT 40 MHz): 21.98dBm 802.11ac (HT 80 MHz): 21.32dBm
	Output Power (Max.) for UNII-2C (2TX)	802.11n(HT 20 MHz): 22.33dBm 802.11n(HT 40 MHz): 21.98dBm 802.11ac (HT 20 MHz): 22.22dBm 802.11ac (HT 40 MHz): 22.75dBm 802.11ac (HT 80 MHz): 22.98dBm
	Output Power (Max.) for UNII-3 (2TX)	802.11n(HT 20 MHz): 21.36dBm 802.11n(HT 40 MHz): 22.60dBm 802.11ac (HT 20 MHz): 21.26dBm 802.11ac (HT 40 MHz): 21.48dBm 802.11ac (HT 80 MHz): 20.86dBm
Power Supply	DC 3.3V	

Note: for more details, please refer to the user's manual of the EUT.

3 SUMMARY OF TEST RESULT

FCC Part Clause	Test Parameter	Verdict	Remark
15.407 (a) 15.407 (e)	99% , 6dB and 26dB Bandwidth	PASS	
15.407 (a)	Maximum Conducted Output Power	PASS	
15.407 (a)	Peak Power Spectral Density	PASS	
15.407 (b)	Radiated Spurious Emission	PASS	
15.407(g)	Frequency Stability	PASS	
15.407 (b)(6) 15.207	Power Line Conducted Emission	N/A	
15.407(a) 15.203	Antenna Application	PASS	
NOTE1: N/A (Not Applicable).			
NOTE2: According to FCC OET KDB 789033 D2 General UNII Test Procedures New Rules v02r01, In addition, the radiated test is also performed to ensure the emissions emanating from the device cabinet also comply with the applicable limits.			

RELATED SUBMITTAL(S) / GRANT(S):

This submittal(s) (test report) is intended for FCC ID: 2AOKI-AL7651B filing to comply with Section 15.247 of the FCC Part 15, Subpart E Rules.

4 TEST METHODOLOGY

4.1 GENERAL DESCRIPTION OF APPLIED STANDARDS

According to its specifications, the EUT must comply with the requirements of the following standards:

FCC 47 CFR Part 2, Subpart J

FCC 47 CFR Part 15, Subpart E

FCC KDB 789033 D2 General UNII Test Procedures New Rules v02r01

4.2 MEASUREMENT EQUIPMENT USED

For Conducted Emission Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
EMI Test Receiver	Rohde & Schwarz	ESCI	101045	2022/5/14	1Year
PULSE LIMTER	Rohde & Schwarz	ESH3-Z2	100107	2022/5/14	1Year
AMN	Rohde & Schwarz	ESH3-Z5	100191	2022/5/15	1Year
AMN	Schwarzbeck	NNLK 8129	8129203	2022/5/15	1Year
V-Network	Rohde & Schwarz	ESH3-Z6	100011	2022/5/15	1Year
V-Network	Rohde & Schwarz	ESH3-Z6	100253	2022/5/15	1Year

For Spurious Emissions Test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Pre-Amplifier	HP	8447F	2944A07999	2022/5/14	1Year
EMI Test Receiver	Rohde & Schwarz	ESCI	101414	2022/5/14	1Year
Bilog Antenna	Schwarzbeck	VULB9163	712	2021/7/5	2 Year
Horn antenna	Schwarzbeck	BBHA9120D	9120D-1178	2020/7/4	2 Year
Pre-Amplifie	Lunar EM	LNA1G18-48	J1011131010 001	2021/5/15	1Year
Spectrum Analyzer	Rohde & Schwarz	FSV40	100967	2022/5/14	1Year
Horn antenna	Schwarzbeck	BBHA9170	9170-399	2021/6/12	2 Year
Loop Antenna	Schwarzbeck	FMZB1519	1519-012	2021/6/12	2 Year

For other test items:

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Signal Analyzer	Agilent	N9010A	MY53470879	2022/5/14	1Year
Spectrum Analyzer	Rohde & Schwarz	FSV40	100967	2022/5/14	1Year
Power Meter	\	PS-X10-100	\	2022/5/15	1Year
Temp/ Humidity Chamber	ESPEC	EL-02KA	12107166	2021/7/3	1Year

4.3 DESCRIPTION OF TEST MODES

The EUT has been tested under its typical operating condition.

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Pre-defined engineering program for regulatory testing used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

☒ Wifi 5G with U-NII - 1

Frequency and Channel list for 802.11a/n (HT20)/802.11ac (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220		
40	5200	48	5240		

Frequency and Channel list for 802.11n (HT40)/ 802.11ac (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190				
46	5230				

Frequency and Channel list for 802.11ac Wave2 (HT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210				

Test Frequency and Channel for 802.11a/n (HT20)/802.11ac (HT20):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	40	5200	48	5240

Test Frequency and channel for 802.11n (HT40)/ 802.11ac (HT40):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	N/A	N/A	46	5230

Test Frequency and channel for 802.11ac Wave2 (HT80):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	N/A	N/A	N/A	N/A

☒ Wifi 5G with U-NII -2A

Frequency and Channel list for 802.11a/n (HT20)/802.11ac (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	60	5300		
56	5280	64	5320		

Frequency and Channel list for 802.11n (HT40)/ 802.11ac (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
54	5270				
62	5310				

Frequency and Channel list for 802.11ac (HT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
58	5290				

Test Frequency and Channel for 802.11a/n (HT20)/802.11ac (HT20):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	56	5280	64	5320

Test Frequency and channel for 802.11n (HT40)/ 802.11ac (HT40):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
54	5270	N/A	N/A	62	5310

Test Frequency and channel for 802.11ac (HT80):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
58	5290				

☒ Wifi 5G with U-NII -2C

Frequency and Channel list for 802.11a/n (HT20)/802.11ac (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	116	5580	132	5660
104	5520	120	5600	136	5680
108	5540	124	5620	140	5700
112	5560	128	5640		

Frequency and Channel list for 802.11n (HT40)/ 802.11ac (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
102	5510	118	5590	134	5670
110	5550	126	5630		

Frequency and Channel list for 802.11ac (HT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
106	5530	122	5610		

Test Frequency and Channel for 802.11a/n (HT20)/802.11ac (HT20):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	116	5580	140	5700

Test Frequency and channel for 802.11n (HT40)/ 802.11ac (HT40):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
102	5510			134	5670

Test Frequency and channel for 802.11ac (HT80):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
106	5530				

☒ Wifi 5G with U-NII -3

Frequency and Channel list for 802.11a/n (HT20)/802.11ac (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	157	5785	165	5825
153	5765	161	5805		

Frequency and Channel list for 802.11n (HT40)/ 802.11ac (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755				
159	5795				

Frequency and Channel list for 802.11ac (HT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
155	5775				

Test Frequency and Channel for 802.11a/n (HT20)/802.11ac (HT20):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	157	5785	165	5825

Test Frequency and channel for 802.11n (HT40)/ 802.11ac (HT40):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	N/A	N/A	159	5795

Test Frequency and channel for 802.11ac (HT80):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
155	5775				

Multi-antenna correlation:

☒	Transmit Signals are Correlated
	Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}]$ dBi
☐	All Transmit Signals are Completely Uncorrelated
	Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10}) / N_{ANT}]$ dBi

ANT1+ANT2:

Directional gain = $10 \log [(10^{3.68/20} + 10^{4.13/20})^2/2]$ dBi=6.92 dBi

ANT2+ANT3:

Directional gain = $10 \log [(10^{3.68/20} + 10^{5.19/20})^2/2]$ dBi=7.48 dBi

5 FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

Bldg 69, Majialong Industry Zone District, Nanshan District, Shenzhen, China

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 22.

5.2 LABORATORY ACCREDITATIONS AND LISTINGS

Site Description

EMC Lab.

: **Accredited by CNAS**

The Certificate Registration Number is L2291

The Laboratory has been assessed and proved to be in compliance with CNAS-CL01 (identical to ISO/IEC 17025:2017)

Accredited by FCC

Designation Number: CN1204

Test Firm Registration Number: 882943

Accredited by A2LA

The Certificate Number is 4321.01

Accredited by Industry Canada

The Conformity Assessment Body Identifier is CN0008

Name of Firm

: EMTEK (SHENZHEN) CO., LTD.

Site Location

: Building 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, China

6 TEST SYSTEM UNCERTAINTY

The following measurement uncertainty levels have been estimated for tests performed on the apparatus:

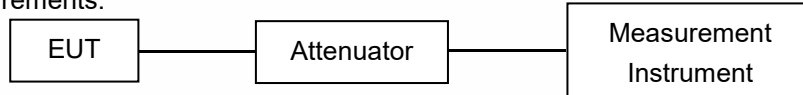
Parameter	Uncertainty
Radio Frequency	$\pm 1 \times 10^{-5}$
Maximum Peak Output Power Test	$\pm 1.0\text{dB}$
Conducted Emissions Test	$\pm 2.0\text{dB}$
Radiated Emission Test	$\pm 2.0\text{dB}$
Power Density	$\pm 2.0\text{dB}$
Occupied Bandwidth Test	$\pm 1.0\text{dB}$
Band Edge Test	$\pm 3\text{dB}$
All emission, radiated	$\pm 3\text{dB}$
Antenna Port Emission	$\pm 3\text{dB}$
Temperature	$\pm 0.5^\circ\text{C}$
Humidity	$\pm 3\%$

Measurement Uncertainty for a level of Confidence of 95%

7 SETUP OF EQUIPMENT UNDER TEST

7.1 RADIO FREQUENCY TEST SETUP

The WLAN component's antenna ports(s) of the EUT are connected to the measurement instrument per an appropriate attenuator. The EUT is controlled by PC/software to emit the specified signals for the purpose of measurements.



7.2 RADIO FREQUENCY TEST SETUP

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10. The test distance is 3m. The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 and CAN/CSA-CEI/IEC CISPR 22.

Below 30MHz:

The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna (loop antenna). The Antenna should be positioned with its plane vertical at the specified distance from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. The center of the loop shall be 1 m above the ground. For certain applications, the loop antenna plane may also need to be positioned horizontally at the specified distance from the EUT.

Above 30MHz:

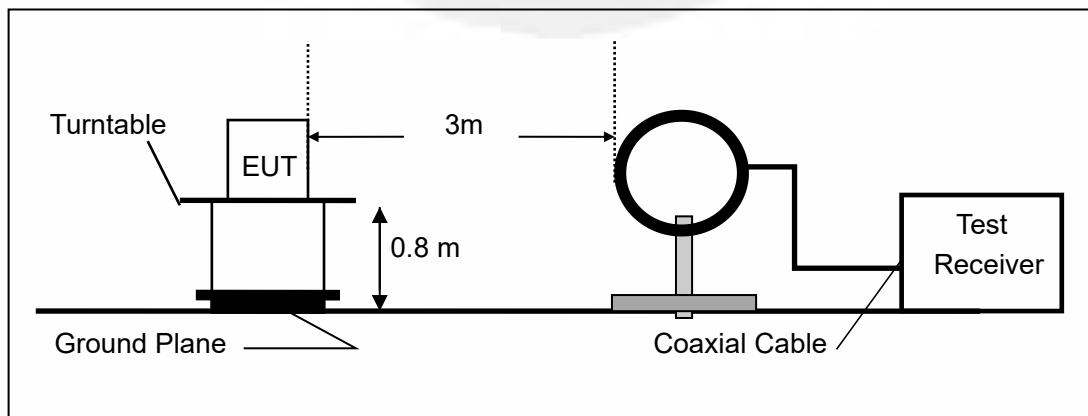
The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).

Above 1GHz:

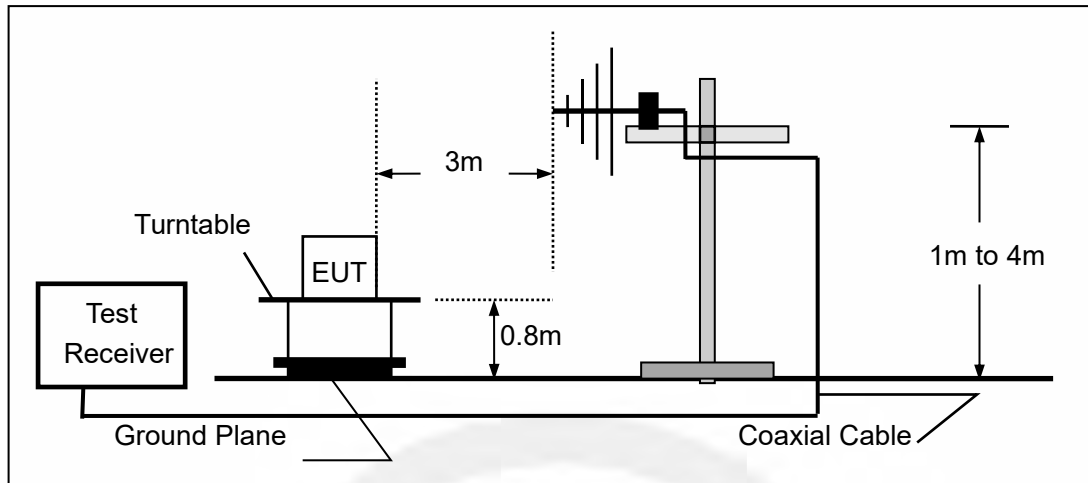
(Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.)

The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).

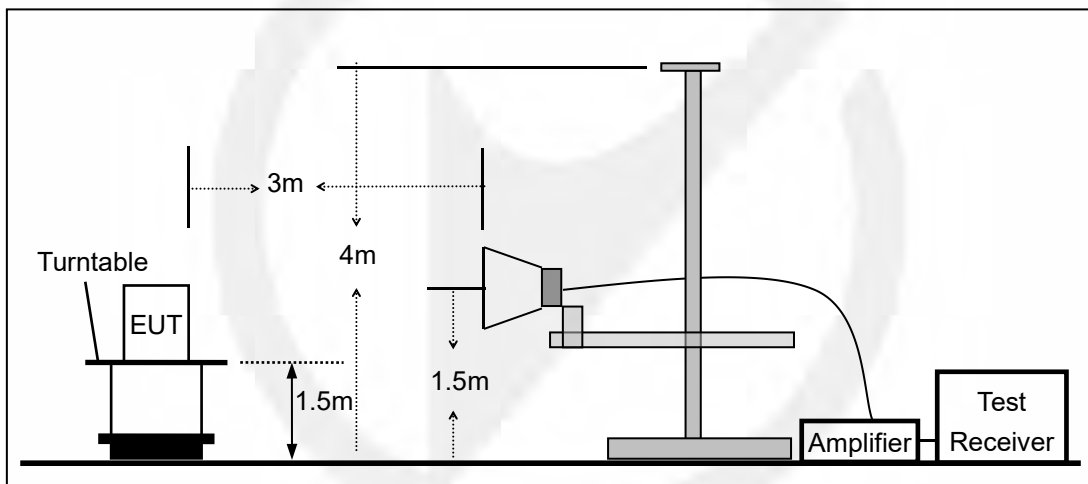
(a) Radiated Emission Test Set-Up, Frequency Below 30MHz



(b) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(c) Radiated Emission Test Set-Up, Frequency above 1000MHz

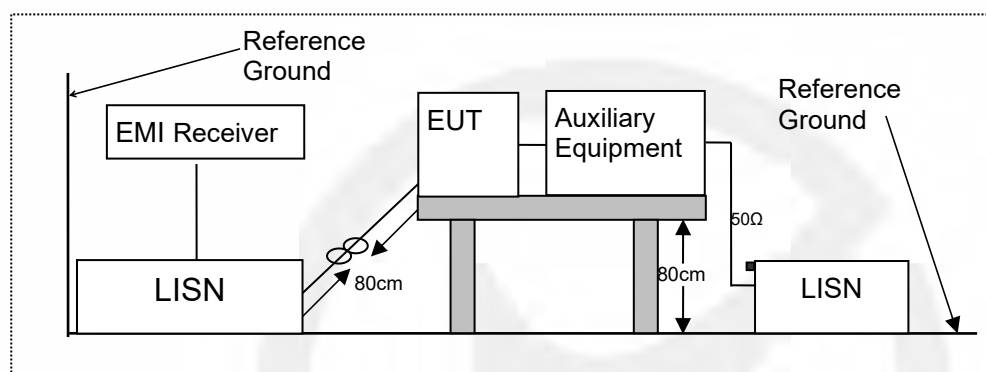


7.3 CONDUCTED EMISSION TEST SETUP

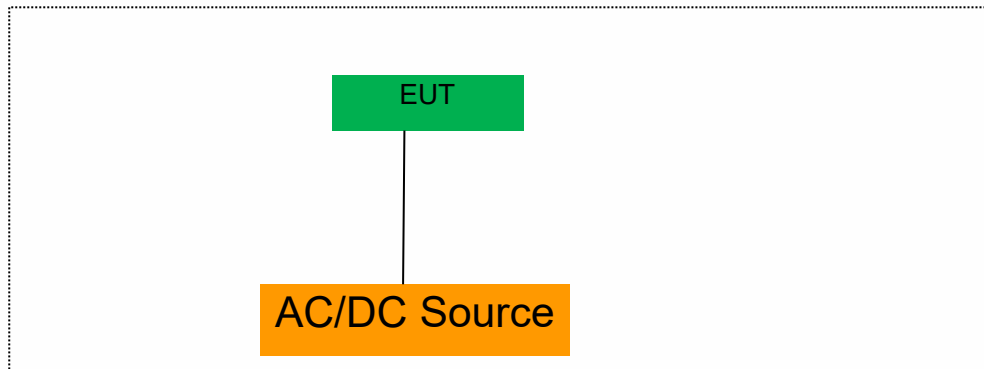
The mains cable of the EUT (maybe per AC/DC Adapter) must be connected to LISN. The LISN shall be placed 0.8 m from the boundary of EUT and bonded to a ground reference plane for LISN mounted on top of the ground reference plane. This distance is between the closest points of the LISN and the EUT. All other units of the EUT and associated equipment shall be at least 0.8m from the LISN.

Ground connections, where required for safety purposes, shall be connected to the reference ground point of the LISN and, where not otherwise provided or specified by the manufacturer, shall be of same length as the mains cable and run parallel to the mains connection at a separation distance of not more than 0.1 m.

According to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.



7.4 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM



7.5 SUPPORT EQUIPMENT

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite

Auxiliary Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

8 TEST REQUIREMENTS

8.1 BANDWIDTH MEASUREMENT

8.1.1 Applicable Standard

According to FCC Part 15.407(a)(1) for UNII Band I
According to FCC Part 15.407(a)(2) for UNII Band II-A and UNII Band II-C
According to FCC Part 15.407(a)(3) for UNII Band III
According to FCC Part 15.407(e) for UNII Band III
According to 789033 D02 Section II(C)
According to 789033 D02 Section II(D)

8.1.2 Conformance Limit

(1) For the band 5.15-5.25 GHz.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(e) Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

8.1.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.1.4 Test Procedure

According to 789033 D02 v02r01 section C&D, the following is the measurement procedure.

1. Emission Bandwidth (EBW)

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the maximum of the emission.

Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

2. Minimum Emission Bandwidth for the band 5.725-5.85 GHz

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times \text{RBW}$.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

D. 99 Percent Occupied Bandwidth

The 99-percent occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5 % of the total mean power of the given emission. Measurement of the 99-percent occupied bandwidth is required only as a condition for using the optional band-edge measurement techniques described in section II.G.3.d). Measurements of 99-percent occupied bandwidth may also optionally be used in lieu of the EBW to 789033 D02 v01r02 General UNII Test Procedures New Rules v01 define the minimum frequency range over which the spectrum is integrated when measuring maximum conducted output power as described in section II.E. However, the EBW must be measured to determine bandwidth dependent limits on maximum conducted output power in accordance with 15.407(a).

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW $\geq 3 \cdot \text{RBW}$
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

8.1.5 Test Results

26db

TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]
11A	Ant1	5180	27.560	5166.280	5193.840
	Ant2	5180	28.960	5166.120	5195.080
	Ant1	5220	29.840	5205.600	5235.440
	Ant2	5220	29.560	5205.360	5234.920
	Ant1	5240	31.080	5224.760	5255.840
	Ant2	5240	30.800	5224.680	5255.480
	Ant1	5260	27.440	5246.480	5273.920
	Ant2	5260	33.160	5243.840	5277.000
	Ant1	5300	30.480	5284.960	5315.440
	Ant2	5300	34.880	5282.640	5317.520
	Ant1	5320	27.240	5306.200	5333.440
	Ant2	5320	32.880	5303.720	5336.600
	Ant1	5500	32.920	5483.400	5516.320
	Ant2	5500	32.880	5483.840	5516.720
	Ant1	5580	32.520	5563.760	5596.280
	Ant2	5580	36.640	5562.280	5598.920
	Ant1	5700	32.200	5684.160	5716.360
	Ant2	5700	34.280	5682.920	5717.200
11N20SISO	Ant1	5180	24.560	5168.680	5193.240
	Ant2	5180	29.600	5165.280	5194.880
	Ant1	5220	29.440	5206.320	5235.760
	Ant2	5220	29.640	5206.440	5236.080
	Ant1	5240	31.920	5225.000	5256.920
	Ant2	5240	31.560	5224.720	5256.280
	Ant1	5260	30.280	5244.760	5275.040
	Ant2	5260	32.240	5244.000	5276.240
	Ant1	5300	28.800	5285.240	5314.040
	Ant2	5300	30.920	5284.480	5315.400
	Ant1	5320	28.520	5306.520	5335.040
	Ant2	5320	31.640	5304.760	5336.400
	Ant1	5500	27.720	5485.560	5513.280
	Ant2	5500	25.880	5486.640	5512.520
	Ant1	5580	29.720	5565.920	5595.640
	Ant2	5580	28.040	5565.960	5594.000
	Ant1	5700	29.040	5685.680	5714.720
	Ant2	5700	25.280	5688.840	5714.120
11N40SISO	Ant1	5190	40.720	5169.920	5210.640
	Ant2	5190	40.560	5169.840	5210.400
	Ant1	5230	61.200	5201.200	5262.400
	Ant2	5230	59.440	5200.320	5259.760
	Ant1	5270	63.360	5241.360	5304.720
	Ant2	5270	53.840	5243.760	5297.600
	Ant1	5310	69.520	5277.280	5346.800
	Ant2	5310	40.720	5290.000	5330.720
	Ant1	5510	41.360	5489.360	5530.720
	Ant2	5510	40.400	5489.840	5530.240
	Ant1	5550	46.080	5526.000	5572.080
	Ant2	5550	57.600	5523.280	5580.880
	Ant1	5670	68.160	5637.440	5705.600
	Ant2	5670	56.640	5642.000	5698.640

11AC20SISO	Ant1	5180	24.920	5167.560	5192.480
	Ant2	5180	27.080	5166.840	5193.920
	Ant1	5220	29.600	5206.080	5235.680
	Ant2	5220	28.640	5206.440	5235.080
	Ant1	5240	26.520	5227.200	5253.720
	Ant2	5240	29.160	5226.080	5255.240
	Ant1	5260	26.440	5246.960	5273.400
	Ant2	5260	31.000	5244.800	5275.800
	Ant1	5300	30.200	5284.080	5314.280
	Ant2	5300	30.920	5284.760	5315.680
	Ant1	5320	27.680	5306.000	5333.680
	Ant2	5320	28.160	5306.600	5334.760
	Ant1	5500	28.640	5486.160	5514.800
	Ant2	5500	26.240	5487.200	5513.440
	Ant1	5580	32.680	5564.720	5597.400
	Ant2	5580	25.360	5567.880	5593.240
	Ant1	5700	30.200	5685.520	5715.720
	Ant2	5700	27.640	5686.240	5713.880
11AC40SISO	Ant1	5190	40.640	5169.680	5210.320
	Ant2	5190	40.800	5169.600	5210.400
	Ant1	5230	68.480	5197.120	5265.600
	Ant2	5230	60.480	5197.200	5257.680
	Ant1	5270	68.640	5237.120	5305.760
	Ant2	5270	61.840	5237.360	5299.200
	Ant1	5310	40.960	5289.520	5330.480
	Ant2	5310	40.240	5290.000	5330.240
	Ant1	5510	41.040	5489.520	5530.560
	Ant2	5510	40.560	5489.760	5530.320
	Ant1	5550	72.720	5513.600	5586.320
	Ant2	5550	62.880	5517.360	5580.240
	Ant1	5670	74.080	5633.120	5707.200
	Ant2	5670	60.640	5637.280	5697.920
11AC80SISO	Ant1	5210	81.280	5169.520	5250.800
	Ant2	5210	139.680	5138.800	5278.480
	Ant1	5290	81.440	5249.520	5330.960
	Ant2	5290	112.320	5233.360	5345.680
	Ant1	5530	138.880	5456.400	5595.280
	Ant2	5530	118.080	5467.920	5586.000
	Ant1	5610	144.480	5538.960	5683.440
	Ant2	5610	118.080	5549.200	5667.280



11A Ant1 5180



11A Ant2 5180



11A Ant1 5220



11A_Ant2_5220



11A_Ant1_5240



11A_Ant2_5240



11A Ant1 5260



11A Ant2 5260



11A Ant1 5300



11A_Ant2_5300



11A_Ant1_5320



11A_Ant2_5320



11A Ant1 5500



11A Ant2 5500



11A Ant1 5580



11A_Ant2_5580



11A_Ant1_5700



11A_Ant2_5700



11N20SISO Ant1 5180



11N20SISO Ant2 5180



11N20SISO Ant1 5220



11N20SISO Ant2 5220



11N20SISO Ant1 5240



11N20SISO Ant2 5240



11N20SISO Ant1 5260



11N20SISO Ant2 5260



11N20SISO Ant1 5300



11N20SISO Ant2 5300



11N20SISO Ant1 5320



11N20SISO Ant2 5320



11N20SISO Ant1 5500



11N20SISO Ant2 5500



11N20SISO Ant1 5580





11N40SISO Ant1 5190



11N40SISO Ant2 5190



11N40SISO Ant1 5230



11N40SISO Ant2 5230



11N40SISO Ant1 5270



11N40SISO Ant2 5270



11N40SISO Ant1 5310



11N40SISO Ant2 5310



11N40SISO Ant1 5510



11N40SISO Ant2 5510



11N40SISO Ant1 5550



11N40SISO Ant2 5550



11N40SISO Ant1 5670



11N40SISO Ant2 5670



11AC20SISO Ant1 5180



11AC20SISO_Ant2_5180



11AC20SISO_Ant1_5220



11AC20SISO_Ant2_5220



11AC20SISO_Ant1_5240



11AC20SISO_Ant2_5240



11AC20SISO_Ant1_5260



11AC20SISO_Ant2_5260



11AC20SISO_Ant1_5300



11AC20SISO_Ant2_5300



11AC20SISO_Ant1_5320



11AC20SISO_Ant2_5320



11AC20SISO_Ant1_5500



11AC20SISO_Ant2_5500



11AC20SISO_Ant1_5580



11AC20SISO_Ant2_5580



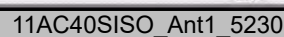
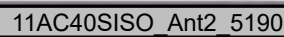
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11AC20SISO_Ant2_5700



11AC40SISO_Ant1_5190





11AC40SISO_Ant1_5270



11AC40SISO_Ant2_5270



11AC40SISO_Ant1_5310



11AC40SISO_Ant2_5310



11AC40SISO_Ant1_5510



11AC40SISO_Ant2_5510



11AC40SISO_Ant1_5550



11AC40SISO_Ant2_5550



11AC40SISO_Ant1_5670



11AC40SISO_Ant2_5670



11AC80SISO_Ant1_5210



11AC80SISO_Ant2_5210



11AC80SISO_Ant1_5290



11AC80SISO_Ant2_5290



11AC80SISO_Ant1_5530



11AC80SISO_Ant2_5530



11AC80SISO_Ant1_5610



11AC80SISO_Ant2_5610

Occupied channel bandwidth

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.671	5171.170	5188.841	---	---
	Ant2	5180	17.648	5171.259	5188.907	---	---
	Ant1	5220	17.965	5211.142	5229.107	---	---
	Ant2	5220	17.978	5211.187	5229.165	---	---
	Ant1	5240	18.142	5231.178	5249.320	---	---
	Ant2	5240	18.248	5231.110	5249.358	---	---
	Ant1	5260	17.859	5251.167	5269.026	---	---
	Ant2	5260	18.120	5251.073	5269.193	---	---
	Ant1	5300	18.226	5291.038	5309.264	---	---
	Ant2	5300	19.010	5290.773	5309.783	---	---
	Ant1	5320	17.899	5311.202	5329.101	---	---
	Ant2	5320	18.424	5311.010	5329.434	---	---
	Ant1	5500	18.202	5491.085	5509.287	---	---
	Ant2	5500	18.819	5490.877	5509.696	---	---
	Ant1	5580	18.953	5570.759	5589.712	---	---
	Ant2	5580	20.751	5570.046	5590.797	---	---
	Ant1	5700	19.343	5690.772	5710.115	---	---
	Ant2	5700	19.423	5690.576	5709.999	---	---
	Ant1	5745	24.120	5733.314	5757.434	---	---
	Ant2	5745	23.767	5733.169	5756.936	---	---
	Ant1	5785	25.748	5772.407	5798.155	---	---
	Ant2	5785	25.979	5772.108	5798.087	---	---
	Ant1	5825	26.530	5812.099	5838.629	---	---
	Ant2	5825	26.946	5811.655	5838.601	---	---
11N20SISO	Ant1	5180	18.202	5170.944	5189.146	---	---
	Ant2	5180	18.299	5170.922	5189.221	---	---
	Ant1	5220	18.285	5210.975	5229.260	---	---
	Ant2	5220	18.462	5210.917	5229.379	---	---
	Ant1	5240	18.410	5230.947	5249.357	---	---
	Ant2	5240	18.481	5230.883	5249.364	---	---
	Ant1	5260	18.377	5251.014	5269.391	---	---
	Ant2	5260	18.474	5251.028	5269.502	---	---
	Ant1	5300	18.386	5290.925	5309.311	---	---
	Ant2	5300	18.442	5290.999	5309.441	---	---
	Ant1	5320	18.317	5310.962	5329.279	---	---
	Ant2	5320	18.294	5311.102	5329.396	---	---
	Ant1	5500	18.149	5491.012	5509.161	---	---
	Ant2	5500	17.979	5491.221	5509.200	---	---
	Ant1	5580	18.371	5570.986	5589.357	---	---
	Ant2	5580	18.114	5571.151	5589.265	---	---
	Ant1	5700	18.352	5691.024	5709.376	---	---
	Ant2	5700	17.964	5691.205	5709.169	---	---
	Ant1	5745	22.708	5733.707	5756.415	---	---
	Ant2	5745	19.402	5735.349	5754.751	---	---
	Ant1	5785	24.682	5772.715	5797.397	---	---
	Ant2	5785	19.287	5775.269	5794.556	---	---
	Ant1	5825	25.821	5812.166	5837.987	---	---
	Ant2	5825	24.039	5813.079	5837.118	---	---
11N40SISO	Ant1	5190	36.343	5172.055	5208.398	---	---
	Ant2	5190	36.338	5171.874	5208.212	---	---
	Ant1	5230	37.047	5211.621	5248.668	---	---
	Ant2	5230	36.922	5211.630	5248.552	---	---

	Ant1	5270	37.023	5251.674	5288.697	---	---
	Ant2	5270	36.860	5251.755	5288.615	---	---
	Ant1	5310	36.394	5291.891	5328.285	---	---
	Ant2	5310	36.295	5292.022	5328.317	---	---
	Ant1	5510	36.455	5491.830	5528.285	---	---
	Ant2	5510	36.251	5491.967	5528.218	---	---
	Ant1	5550	36.588	5531.820	5568.408	---	---
	Ant2	5550	36.790	5531.801	5568.591	---	---
	Ant1	5670	37.187	5651.686	5688.873	---	---
	Ant2	5670	36.801	5651.806	5688.607	---	---
	Ant1	5755	47.250	5730.546	5777.796	---	---
	Ant2	5755	47.242	5730.799	5778.041	---	---
	Ant1	5795	55.441	5766.288	5821.729	---	---
	Ant2	5795	52.875	5767.713	5820.588	---	---
11AC20SISO	Ant1	5180	18.185	5170.984	5189.169	---	---
	Ant2	5180	18.243	5170.964	5189.207	---	---
	Ant1	5220	18.312	5210.957	5229.269	---	---
	Ant2	5220	18.318	5210.907	5229.225	---	---
	Ant1	5240	18.221	5230.944	5249.165	---	---
	Ant2	5240	18.389	5230.926	5249.315	---	---
	Ant1	5260	18.202	5250.989	5269.191	---	---
	Ant2	5260	18.390	5250.992	5269.382	---	---
	Ant1	5300	18.316	5290.942	5309.258	---	---
	Ant2	5300	18.292	5291.082	5309.374	---	---
	Ant1	5320	18.258	5310.989	5329.247	---	---
	Ant2	5320	18.056	5311.159	5329.215	---	---
	Ant1	5500	18.211	5491.029	5509.240	---	---
	Ant2	5500	17.976	5491.173	5509.149	---	---
	Ant1	5580	18.587	5570.945	5589.532	---	---
	Ant2	5580	17.893	5571.102	5588.995	---	---
	Ant1	5700	18.407	5691.072	5709.479	---	---
	Ant2	5700	17.991	5691.138	5709.129	---	---
	Ant1	5745	19.157	5735.479	5754.636	---	---
	Ant2	5745	18.907	5735.584	5754.491	---	---
	Ant1	5785	21.068	5774.391	5795.459	---	---
	Ant2	5785	19.766	5775.176	5794.942	---	---
	Ant1	5825	21.880	5814.137	5836.017	---	---
	Ant2	5825	20.445	5814.839	5835.284	---	---
11AC40SISO	Ant1	5190	36.284	5171.901	5208.185	---	---
	Ant2	5190	36.365	5171.914	5208.279	---	---
	Ant1	5230	36.998	5211.660	5248.658	---	---
	Ant2	5230	36.774	5211.615	5248.389	---	---
	Ant1	5270	37.130	5251.685	5288.815	---	---
	Ant2	5270	36.749	5251.802	5288.551	---	---
	Ant1	5310	36.396	5291.943	5328.339	---	---
	Ant2	5310	36.374	5291.985	5328.359	---	---
	Ant1	5510	36.443	5491.880	5528.323	---	---
	Ant2	5510	36.333	5491.961	5528.294	---	---
	Ant1	5550	37.957	5531.333	5569.290	---	---
	Ant2	5550	36.877	5531.720	5568.597	---	---
	Ant1	5670	38.037	5651.501	5689.538	---	---
	Ant2	5670	36.772	5651.836	5688.608	---	---
	Ant1	5755	47.397	5730.343	5777.740	---	---
	Ant2	5755	53.587	5728.598	5782.185	---	---
	Ant1	5795	53.985	5766.991	5820.976	---	---

	Ant2	5795	58.605	5765.843	5824.448	---	---
11AC80SISO	Ant1	5210	75.503	5172.332	5247.835	---	---
	Ant2	5210	76.512	5171.786	5248.298	---	---
	Ant1	5290	75.443	5252.555	5327.998	---	---
	Ant2	5290	75.938	5252.126	5328.064	---	---
	Ant1	5530	76.608	5491.688	5568.296	---	---
	Ant2	5530	76.132	5492.045	5568.177	---	---
	Ant1	5610	76.982	5571.626	5648.608	---	---
	Ant2	5610	76.172	5572.009	5648.181	---	---
	Ant1	5775	88.541	5725.254	5813.795	---	---
	Ant2	5775	101.70	5722.219	5823.919	---	---





11A_Ant1_5180



11A_Ant2_5180



11A_Ant1_5220



11A Ant2 5220



11A Ant1 5240



11A Ant2 5240



11A Ant1 5260



11A Ant2 5260



11A Ant1 5300



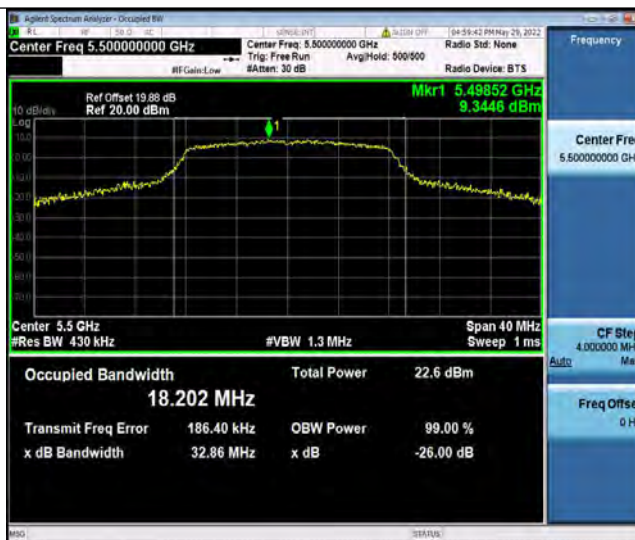
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11A_Ant1_5320



11A_Ant2_5320



11A Ant1 5500



11A Ant2 5500



11A Ant1 5580



11A_Ant2_5580



11A_Ant1_5700



11A_Ant2_5700



11A Ant1 5745



11A Ant2 5745



11A Ant1 5785



11A_Ant2_5785



11A_Ant1_5825



11A_Ant2_5825



11N20SISO Ant1 5180



11N20SISO Ant2 5180



11N20SISO Ant1 5220



11N20SISO Ant2 5220



11N20SISO Ant1 5240



11N20SISO Ant2 5240



11N20SISO Ant1 5260



11N20SISO Ant2 5260



11N20SISO Ant1 5300



11N20SISO Ant2 5300



11N20SISO Ant1 5320



11N20SISO Ant2 5320



11N20SISO Ant1 5500



11N20SISO Ant2 5500



11N20SISO Ant1 5580



11N20SISO Ant2 5580



11N20SISO Ant1 5700



11N20SISO Ant2 5700



11N20SISO Ant1 5745



11N20SISO Ant2 5745



11N20SISO Ant1 5785



11N20SISO Ant2 5785



11N20SISO Ant1 5825



11N20SISO Ant2 5825



11N40SISO Ant1 5190



11N40SISO Ant2 5190



11N40SISO Ant1 5230



11N40SISO Ant2 5230



11N40SISO Ant1 5270



11N40SISO Ant2 5270



11N40SISO Ant1 5310



11N40SISO Ant2 5310



11N40SISO Ant1 5510



11N40SISO Ant2 5510



11N40SISO Ant1 5550



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11N40SISO Ant1 5755



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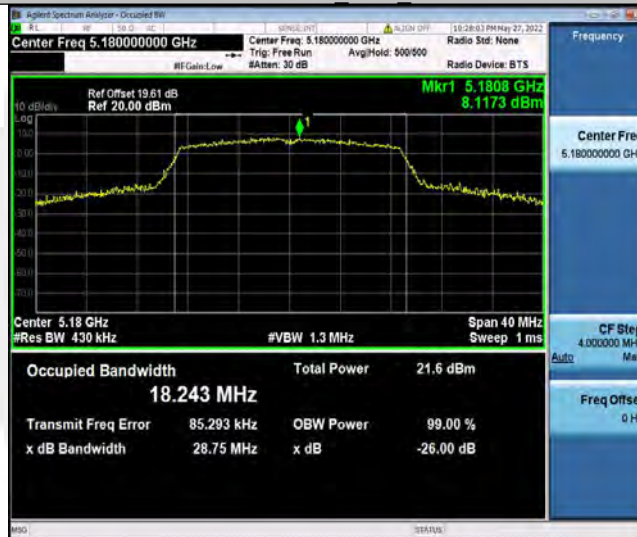
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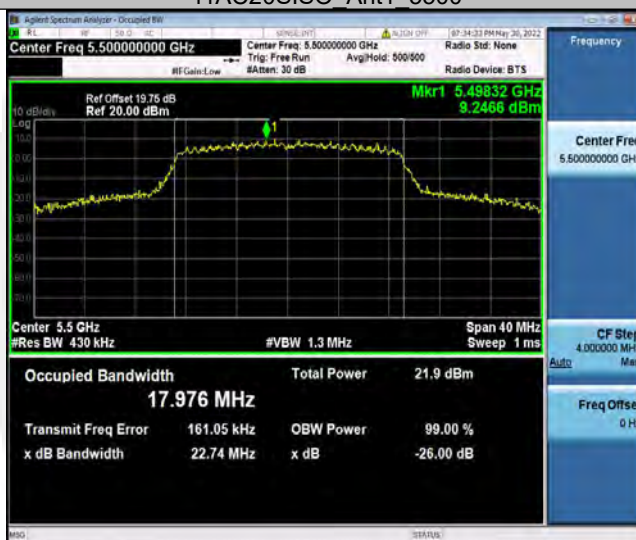
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11AC20SISO_Ant2_5745



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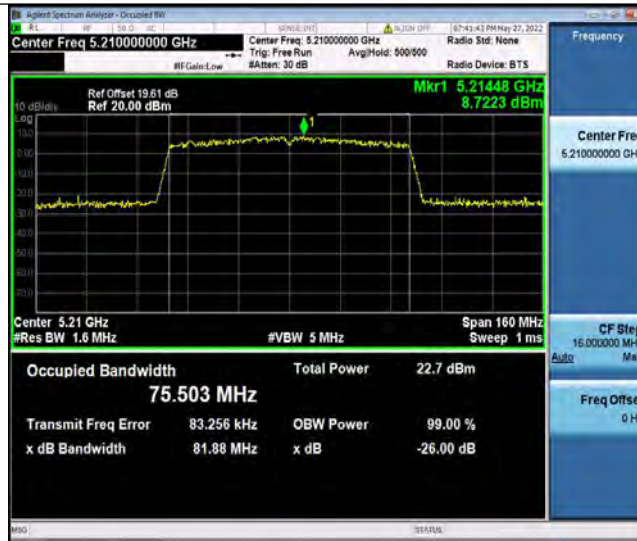
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11AC80SISO_Ant1_5290



11AC80SISO_Ant2_5290



11AC80SISO_Ant1_5530



11AC80SISO_Ant2_5530



11AC80SISO_Ant1_5610



11AC80SISO_Ant2_5610



11AC80SISO_Ant1_5775



6db

TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	15.120	5737.640	5752.760	0.5	PASS
	Ant2	5745	16.280	5736.960	5753.240	0.5	PASS
	Ant1	5785	15.040	5777.840	5792.880	0.5	PASS
	Ant2	5785	15.080	5777.760	5792.840	0.5	PASS
	Ant1	5825	16.280	5817.240	5833.520	0.5	PASS
	Ant2	5825	15.920	5817.200	5833.120	0.5	PASS
11N20SISO	Ant1	5745	15.320	5737.320	5752.640	0.5	PASS
	Ant2	5745	15.280	5737.320	5752.600	0.5	PASS
	Ant1	5785	16.920	5777.160	5794.080	0.5	PASS
	Ant2	5785	17.520	5776.240	5793.760	0.5	PASS
	Ant1	5825	16.520	5817.160	5833.680	0.5	PASS
	Ant2	5825	17.520	5816.480	5834.000	0.5	PASS
11N40SISO	Ant1	5755	35.040	5737.560	5772.600	0.5	PASS
	Ant2	5755	35.840	5737.160	5773.000	0.5	PASS
	Ant1	5795	35.280	5777.800	5813.080	0.5	PASS
	Ant2	5795	35.040	5777.640	5812.680	0.5	PASS
11AC20SISO	Ant1	5745	15.680	5736.920	5752.600	0.5	PASS
	Ant2	5745	16.040	5737.520	5753.560	0.5	PASS
	Ant1	5785	17.280	5776.680	5793.960	0.5	PASS
	Ant2	5785	17.560	5776.360	5793.920	0.5	PASS
	Ant1	5825	16.840	5816.880	5833.720	0.5	PASS
	Ant2	5825	17.160	5816.800	5833.960	0.5	PASS
11AC40SISO	Ant1	5755	35.520	5737.080	5772.600	0.5	PASS
	Ant2	5755	35.040	5737.560	5772.600	0.5	PASS
	Ant1	5795	34.880	5777.640	5812.520	0.5	PASS
	Ant2	5795	35.040	5777.800	5812.840	0.5	PASS
11AC80SISO	Ant1	5775	72.480	5737.560	5810.040	0.5	PASS
	Ant2	5775	75.040	5737.560	5812.600	0.5	PASS



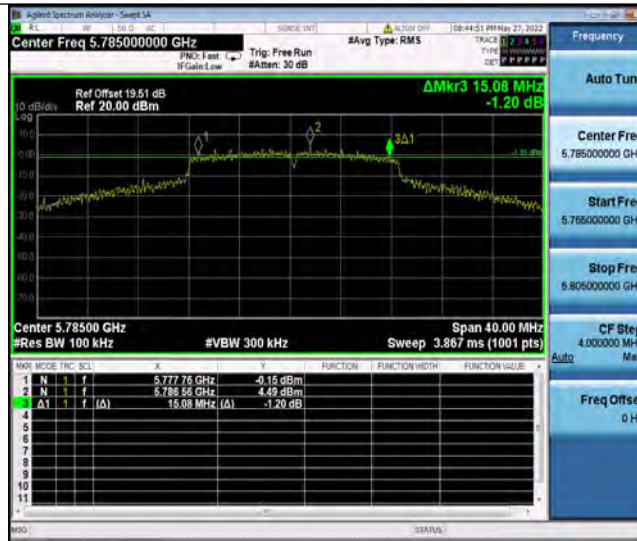
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11A_Ant2_5745



11A_Ant1_5785



11A_Ant2_5785



11A_Ant1_5825



11A_Ant2_5825



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11N20SISO Ant2 5745



11N20SISO Ant1 5785



11N20SISO Ant2 5785



11N20SISO Ant1 5825



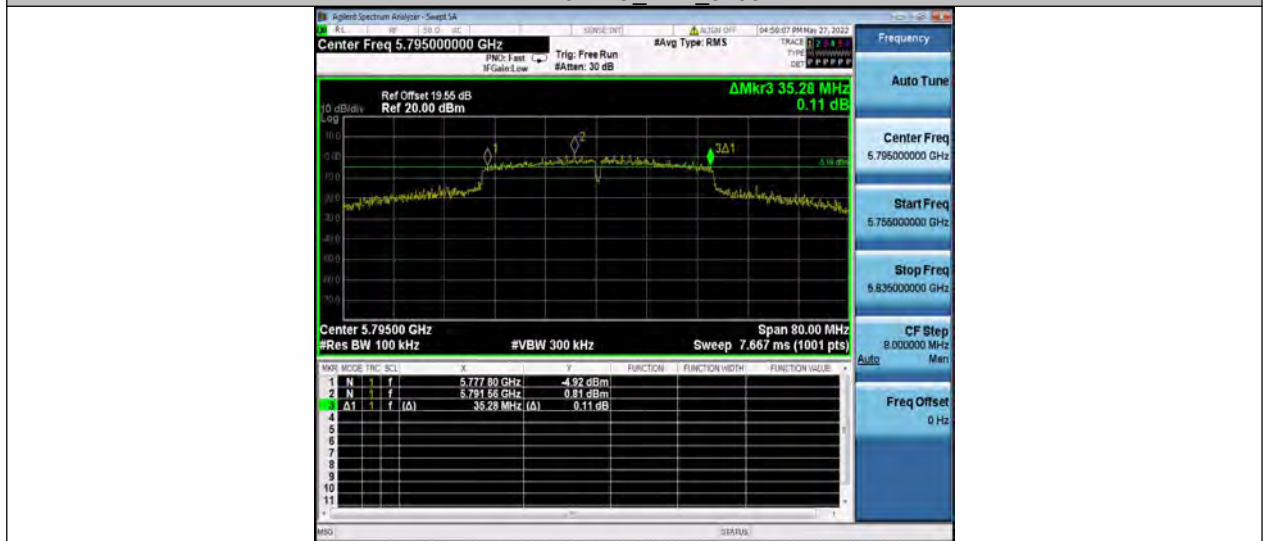
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11N40ISO Ant1 5755



11N40ISO Ant2 5755



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