TEST REPORT

Applicant Name :	Grandstream Networks, Inc.
Address :	126 Brookline Ave, 3rd Floor Boston, MA 02215, USA
Manufacturer Name :	Grandstream Networks, Inc.
Address :	126 Brookline Ave, 3rd Floor Boston, MA 02215, USA
Report Number :	SZNS220330-11529E-RF-00B
FCC ID:	YZZGXV3450

Test Standard (s)

FCC PART 15.407

Sample Description

Product Type:	High-End Smart Video Phone for Android™
Model No.:	GXV3450
Trade Mark:	GRANDSTREAM
Date Received:	2022/03/30
Report Date:	2022/05/21

Test Result:	Pass*

* In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

Ting Lü
EMC Engineer

Approved By:

Candy Li
EMC Engineer

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Frequency Range	5G Wi-Fi: 5150-5250MHz; 5250-5350MHz; 5470-5725MHz; 5725-5850MHz
Mode	802.11a/n20/n40/ac20/ac40/ac80
Maximum Conducted Average Ouput Power	5150-5250 MHz: 14.3dBm 5250-5350MHz: 13.33dBm 5470-5725MHz: 10.6dBm 5725-5850 MHz: 15.04dBm
Modulation Technique	OFDM
Antenna Specification*	Antenna gain:3.5dBi
Voltage Range	DC 12V from adapter or DC 48V from POE
Sample serial number	SZNS220330-11529E-RF-S1 for Conducted and Radiated Emissions SZNS220330-11529E-RF-S2 for RF Conducted Test (Assigned by ATC)
Sample/EUT Status	Good condition
Adapter 1 information	Model: F18W8-120150SPAUY Input: AC 100-240V, 50/60Hz, 0.6A Output: DC12.0V,1.5A
Adapter 2 information	Model: DSA-18PFR-09 FUS 120150 Input: AC 100-240V, 50/60Hz, 0.6A Output: DC12.V,1.5A,18.0W
Adapter 3 information	Model: H18US1200150A Input: AC 100-240V, 50/60Hz, 0.8A max L.P.S Output: DC12.V,1.5A

Objective

This test report is in accordance with Part 2-Subpart J, Part 15-Subparts A and E of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart E, section 15.203, 15.205, 15.207, 15.209 and 15.407 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices. And KDB789033 D02 General U-NII Test Procedures New Rules v02r01.

All emissions measurement was performed at Shenzhen Accurate Technology Co., Ltd. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Each test item follows test standards and with no deviation.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		5%
RF output power, conducted		0.73dB
Unwanted Emission, conducted		1.6dB
AC Power Lines Conducted Emissions		2.72dB
Emissions, Radiated	30MHz - 1GHz	4.28dB
	1GHz- 18GHz	4.98dB
	18GHz- 26.5GHz	5.06dB
	26.5GHz- 40GHz	4.72dB
Temperature		1℃
Humidity		6%
Supply voltages		0.4%

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 708358, the FCC Designation No.: CN1189. Accredited by American Association for Laboratory Accreditation (A2LA) The Certificate Number is 429 7.01.

Listed by Innovation, Science and Economic Development Canada (ISEDC), the Registration Number is 5077A.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

For 5150-5250MHz Band, 7 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
38	5190	46	5230
40	5200	48	5240
42	5210	/	/

For 802.11a, 802.11n20/ac20 mode: channel 36, 40, 48 were tested; For 802.11n40/ac40 mode: channel 38, 46 were tested. For 802.11ac80 mode, channel 42 was tested.

For 5250-5350MHz Band, 7 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	60	5300
54	5270	62	5310
56	5280	64	5320
58	5290	/	/

For 802.11a, 802.11n20/ac20 mode: channel 52, 56, 64 were tested; For 802.11n40/ac40 mode: channel 54, 62 were tested. For 802.11ac80 mode, channel 58 was tested.

For 5470-5725MHz Band, 18 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	120	5600
102	5510	122	5610
104	5520	124	5620
106	5530	126	5630
108	5540	128	5640
110	5550	132	5660
112	5560	134	5670
116	5580	136	5680
118	5590	140	5700

For 802.11a, 802.11n20/ac20 mode: channel 100, 116, 140 were tested; For 802.11n40/ac40 mode: channel 102, 110, 134 were tested. For 802.11ac80 mode, channel 106, 122 was tested.

For 5725-5850MHz Band, 8 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	157	5785
151	5755	159	5795
153	5765	161	5805
155	5775	165	5825

For 802.11a, 802.11n20/ac20 mode: channel 149, 157, 165 were tested; For 802.11n40/ac40 mode: channel 151, 159 were tested. For 802.11ac80 mode, channel 155 was tested.

EUT Exercise Software

"SecureCRT"* exercise software was used. The software and power level was provided by the manufacturer.

The worst case was performed under:

U-NII	Mode	Frequency (MHz)	Data Rate	Power Level*
5150 – 5250MHz	802.11 a	5180	6Mbps	default
		5200	6Mbps	default
		5240	6Mbps	default
	802.11 n20	5180	MCS0	default
		5200	MCS0	default
		5240	MCS0	default
	802.11 n40	5190	MCS0	default
		5230	MCS0	default
	802.11 ac20	5180	MCS0	default
		5200	MCS0	default
		5240	MCS0	default
	802.11 ac40	5190	MCS0	default
		5230	MCS0	default
	802.11 ac80	5210	MCS0	13

U-NII	Mode	Frequency (MHz)	Data Rate	Power Level*
5250 – 5350MHz	802.11 a	5260	6Mbps	default
		5280	6Mbps	default
		5320	6Mbps	default
	802.11 n20	5260	MCS0	default
		5280	MCS0	default
		5320	MCS0	default
	802.11 n40	5270	MCS0	13
		5310	MCS0	13
	802.11 ac20	5260	MCS0	default
		5280	MCS0	default
		5320	MCS0	default
	802.11 ac40	5270	MCS0	13
		5310	MCS0	13
	802.11 ac80	5290	MCS0	12

U-NII	Mode	Frequency (MHz)	Data Rate set	Power Level*
5470 – 5725MHz	802.11 a	5500	6Mbps	default
		5580	6Mbps	default
		5700	6Mbps	default
	802.11 n20	5500	MCS0	default
		5580	MCS0	default
		5700	MCS0	default
	802.11 n40	5510	MCS0	default
		5550	MCS0	default
		5670	MCS0	default
	802.11 ac20	5500	MCS0	default
		5580	MCS0	default
		5700	MCS0	default
	802.11 ac40	5510	MCS0	default
		5550	MCS0	default
		5670	MCS0	default
	802.11 ac80	5530	MCS0	default
		5610	MCS0	default

U-NII	Mode	Frequency (MHz)	Data Rate	Power Level*
5725 – 5850MHz	802.11 a	5745	6Mbps	default
		5785	6Mbps	default
		5825	6Mbps	default
	802.11 n20	5745	MCS0	default
		5785	MCS0	default
		5825	MCS0	default
	802.11 n40	5755	MCS0	default
		5795	MCS0	default
	802.11 ac20	5745	MCS0	default
		5785	MCS0	default
		5825	MCS0	default
	802.11 ac40	5755	MCS0	default
		5795	MCS0	default
	802.11 ac80	5775	MCS0	default

The worse-case data rates are determined to be as above for each mode based upon investigations by measuring the output power and PSD across all data rates, bandwidths and modulations.

Duty cycle

Test Result: Pass. Please refer to the Appendix.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
DELL	Note Book	Latitude E4710	PC201911252059
HUAWEI	Router	WS5100	A4933FEF1D01
YEALINK	Headphone	Unknown	Unknown
Unknown	U disk*2	Unknown	Unknown
YEALINK	POE	YLPOE30	SU10551

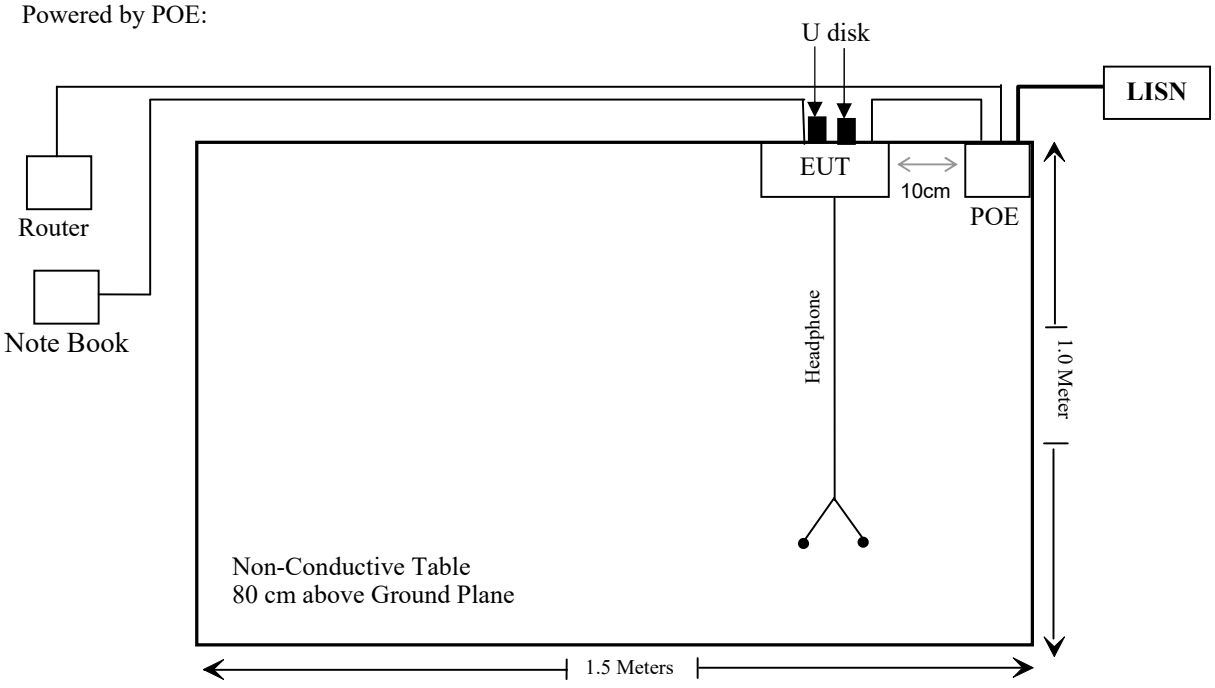
External I/O Cable

Cable Description	Length (m)	From/Port	To
Unshielded detachable AC cable	1.5	POE/Receptacle	LISN
Un-shielded detachable RJ45 cable	1.5	POE	EUT
Un-shielded detachable RJ45 cable	8.0	POE/EUT	Router
Un-shielded detachable RJ45 cable	8.0	EUT	Note Book
Unshielded Un-detachable DC cable	2.5	Adapter	EUT

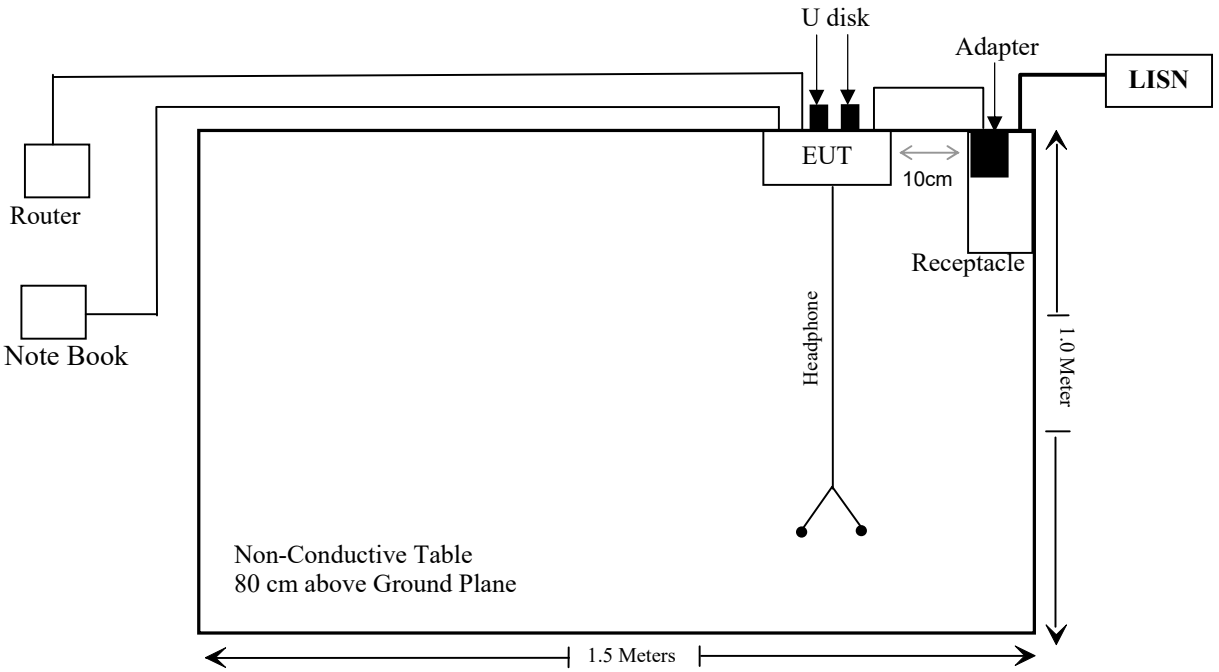
Block Diagram of Test Setup

For conducted emission

Powered by POE:

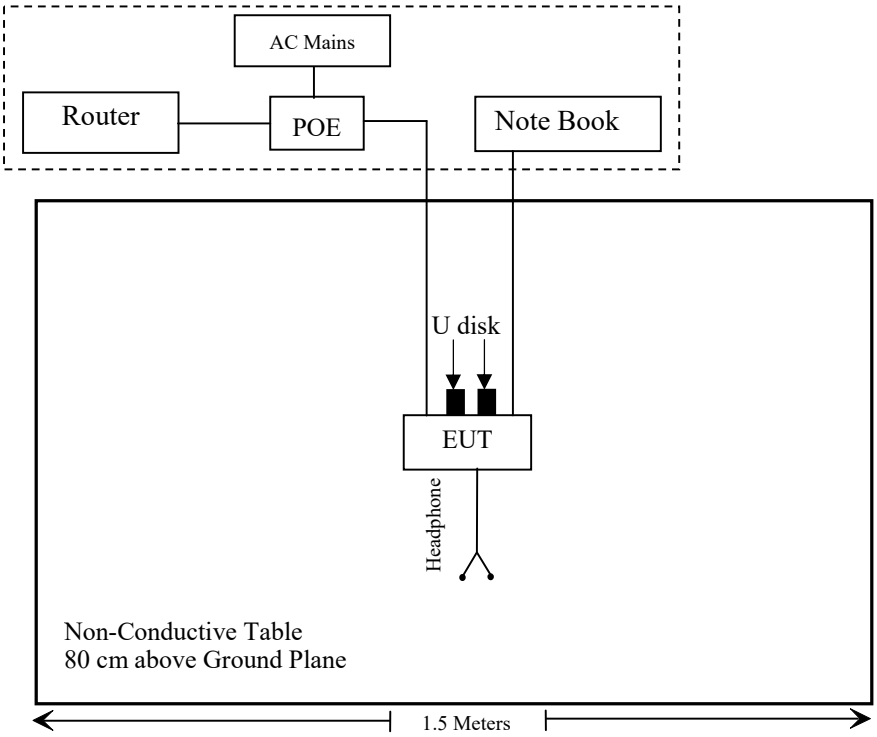


Powered by Adapter:

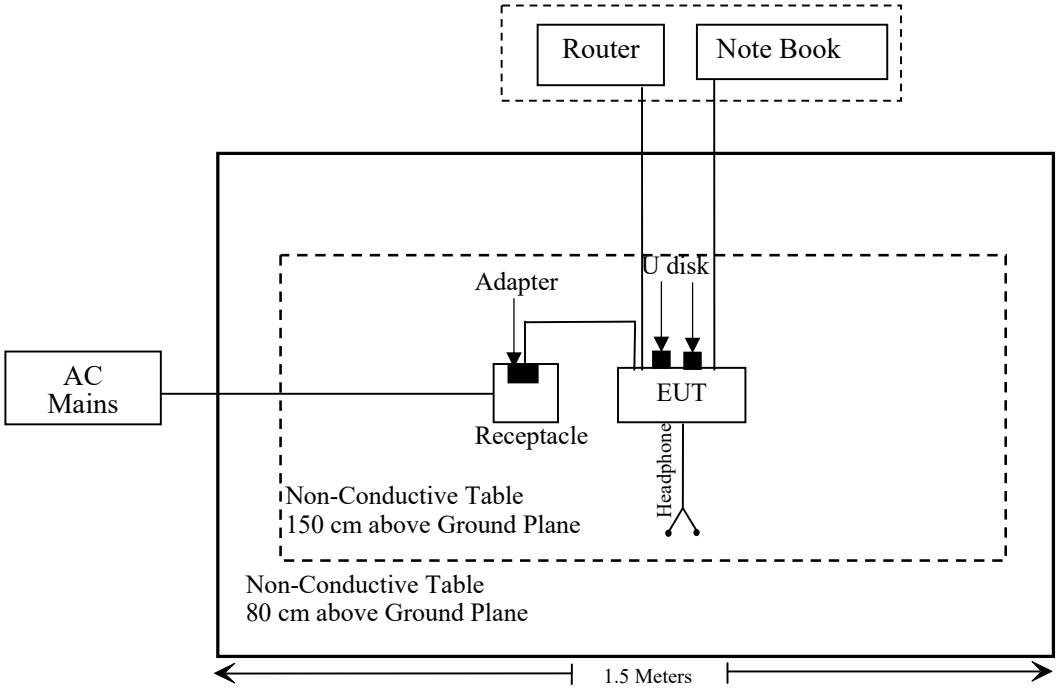


For radiated emission: (below 1GHz)

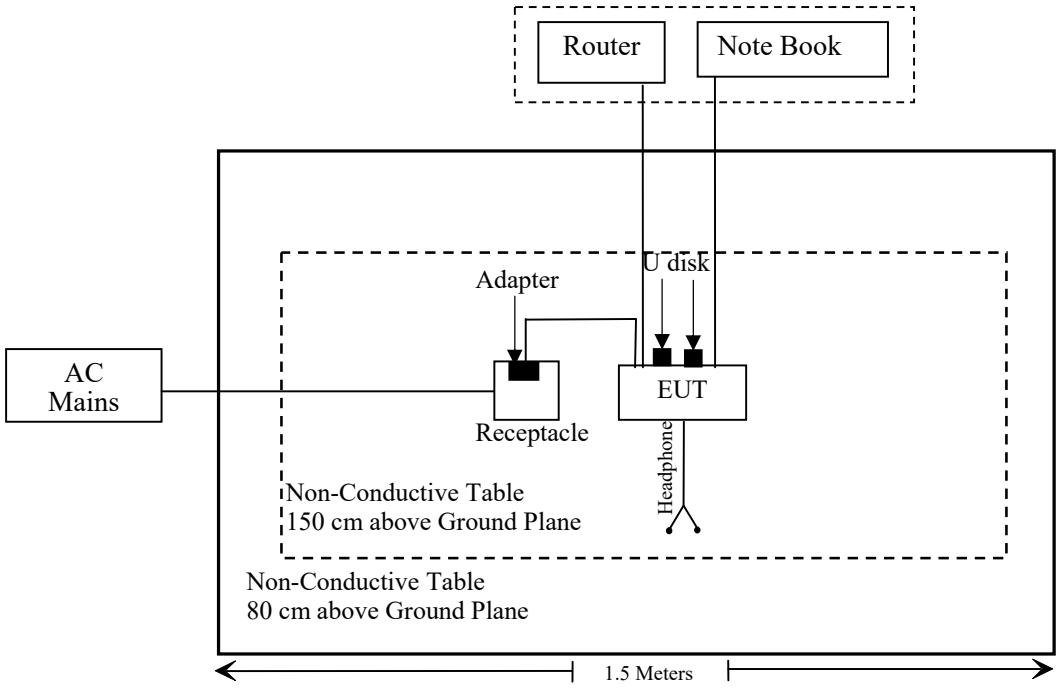
Powered by POE:



Powered by Adapter:



For radiated emission: (above 1GHz)



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1307 (b) (1) & §2.1091	MaximuM Permissible exposure (MPE)	Compliant
§15.203	Antenna Requirement	Compliant
§15.407(b)(9)& §15.207(a)	Conducted Emissions	Compliant
§15.205& §15.209 &§15.407(b)	Undesirable Emission& Restricted Bands	Compliant
§15.407(a) (e)	26 dB Emission Bandwidth & 6dB Bandwidth	Compliant
§15.407(a)	Conducted Transmitter Output Power	Compliant
§15.407 (a)	Power Spectral Density	Compliant
§15.407 (h)	Transmit Power Control (TPC)	Not Applicable
§15.407 (h)	Dynamic Frequency Selection (DFS)	Compliant*

Not Applicable: the EUT has no TPC function which was declarded by the applicant.
Compliant*: Please refer to the DFS report: SZNS220330-11529E-RFC.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emissions Test					
Rohde& Schwarz	EMI Test Receiver	ESCI	100784	2021/12/13	2022/12/12
Rohde & Schwarz	L.I.S.N.	ENV216	101314	2021/12/13	2022/12/12
Anritsu Corp	50 Coaxial Switch	MP59B	6100237248	2021/12/13	2022/12/12
Unknown	RF Coaxial Cable	No.17	N0350	2021/12/14	2022/12/13
Conducted Emission Test Software: e3 19821b (V9)					
Radiated Emissions Test					
Rohde& Schwarz	Test Receiver	ESR	102725	2021/12/13	2022/12/12
Rohde&Schwarz	Spectrum Analyzer	FSV40	101949	2021/12/13	2022/12/12
SONOMA INSTRUMENT	Amplifier	310 N	186131	2021/11/09	2022/11/08
A.H. Systems, inc.	Preamplifier	PAM-0118P	135	2021/11/09	2022/11/08
Quinstar	Amplifier	QLW-18405536-J0	15964001002	2021/11/11	2022/11/10
Schwarzbeck	Bilog Antenna	VULB9163	9163-323	2021/07/06	2024/07/05
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-1067	2020/01/05	2023/01/04
Schwarzbeck	HORN ANTENNA	BBHA9170	9170-359	2020/01/05	2023/01/04
Unknown	RF Coaxial Cable	No.10	N050	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.11	N1000	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.12	N040	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.13	N300	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.14	N800	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.15	N600	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.16	N650	2021/12/14	2022/12/13
CD	Band Reject Filter	BRM-5.47/5.725G-45	075	2021/12/14	2022/12/13
CD	Band Reject Filter	BRM-5.725/5.875G-45	065	2021/12/14	2022/12/13
Radiated Emission Test Software: e3 19821b (V9)					

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde&Schwarz	Spectrum Analyzer	FSV-40	101948	2021/12/13	2022/12/12
Tonscend	RF Control Unit	JS0806-2	19G8060182	2021/07/06	2022/07/05
Unknown	RF Coaxial Cable	No.31	RF-01	Each time	/
Unknown	RF Coaxial Cable	Unknown	Unknown	Each time	/

*** Statement of Traceability:** Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

1.1307 (b) (1) & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart 1.1307 (b)(1), 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (V/m)**	**Magnetic Field Strength (A/m)**	**Power Density (mW/cm^2)**	**Averaging Time (Minutes)**
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*($180/f^2$)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz
* = Plane-wave equivalent power density
a)

Result

Calculated Formulary:

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

S = power density (in appropriate units, e.g. mW/cm^2)
P = power input to the antenna (in appropriate units, e.g., mW).
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \le 1$$

Frequency (MHz)	Antenna Gain		Tune up conducted power		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
	(dBi)	(numeric)	(dBm)	(mW)			
2402-2480	4.0	2.51	5.5	3.55	20	0.002	1
2412-2462	4.0	2.51	21.0	125.89	20	0.063	1
5150-5250	3.5	2.24	15.0	31.62	20	0.014	1
5250-5350	3.5	2.24	13.5	22.39	20	0.010	1
5470-5725	3.5	2.24	11.0	12.59	20	0.006	1
5725-5850	3.5	2.24	15.5	35.48	20	0.016	1

Note: 1. The tune up conducted power and antenna gain was declared by the applicant.
2. The Bluetooth can transmit at same time with Wi-Fi, the 2.4G Wi-Fi cannot transmit at the same time with the 5G Wi-Fi.

Simultaneous transmitting consideration (worst case):

The ratio=$MPE_{Wi\text{-}Fi}$/limit+MPE_{BT}/limit=0.063/1+0.002/1=0.065＜1.0, so simultaneous exposure is compliant.

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

Result: Compliant.

FCC §15.203 – ANTENNA REQUIREMENT

Applicable Standard

According to § 15.203, 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 permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

b. Antenna must be permanently attached to the unit.
c. Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.407 (a), if the transmitting antennas of directional gain greater than 6dBi are used, the transmit power and power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Antenna Connector Construction

The EUT has one internal antennas arrangement for 5G Wi-Fi, which were permanently attached to the EUT. Please refer to the EUT photos.

Type	Antenna Gain	Impedance	Frequency Range
PIFA	3.5dBi	50 Ω	5150-5850MHz

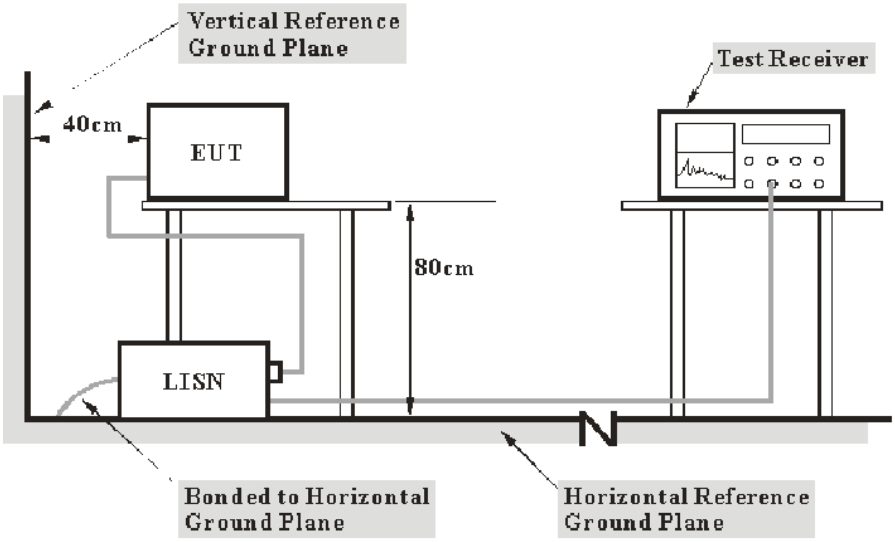
Result: Compliant.

FCC §15.407 (b) (6) §15.207 (a) – CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207, §15.407(b) (6)

EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

Test Procedure

During the conducted emission test, the adapter was connected to the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and Average detection mode.

Corrected Factor & Margin Calculation

The Corrected factor is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss. The basic equation is as follows:

Factor = LISN VDF + Cable Loss

The "Over Limit" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit of -7 dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

Over Limit = Level – Limit
Level = Reading level + Factor

Test Data

Environmental Conditions

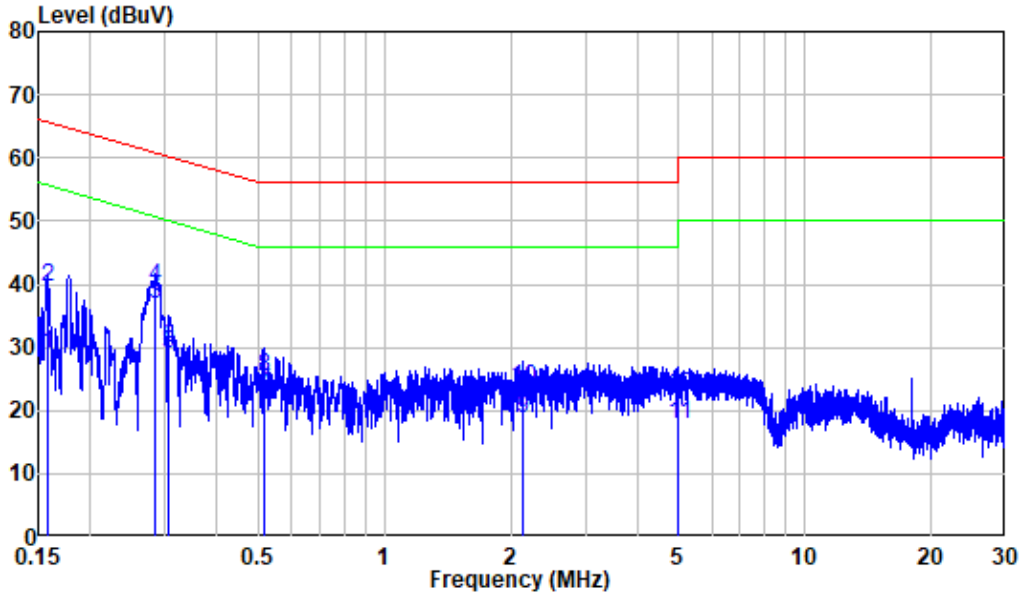
Temperature:	25 ℃
Relative Humidity:	43 %
ATM Pressure:	101.0 kPa

The testing was performed by Caro Hu on 2022-04-19.

EUT operation mode: Transmitting (worst case for 802.11 ac20 5745MHz)

For Adapter 1（F18W8-120150SPAUY）

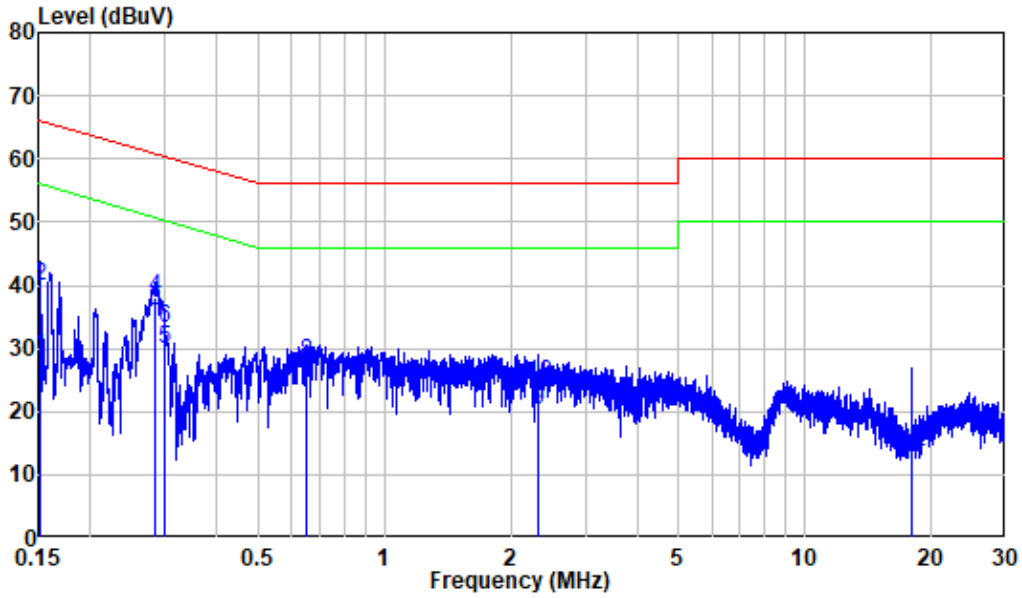
AC 120V/60 Hz, Line



Site : Shielding Room
Condition: Line
Mode : 5G WiFi
Model : GXV3450
Power : AC 120V 60Hz
Adapter : F18W8-120150SPAUY

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.158	9.80	19.16	28.96	55.57	-26.61	Average
2	0.158	9.80	29.75	39.55	65.57	-26.02	QP
3	0.285	9.80	27.02	36.82	50.68	-13.86	Average
4	0.285	9.80	29.70	39.50	60.68	-21.18	QP
5	0.308	9.80	19.17	28.97	50.04	-21.07	Average
6	0.308	9.80	20.07	29.87	60.04	-30.17	QP
7	0.517	9.81	12.99	22.80	46.00	-23.20	Average
8	0.517	9.81	15.44	25.25	56.00	-30.75	QP
9	2.128	9.82	9.02	18.84	46.00	-27.16	Average
10	2.128	9.82	13.79	23.61	56.00	-32.39	QP
11	4.998	9.85	7.95	17.80	46.00	-28.20	Average
12	4.998	9.85	12.53	22.38	56.00	-33.62	QP

AC 120V/60 Hz, Neutral

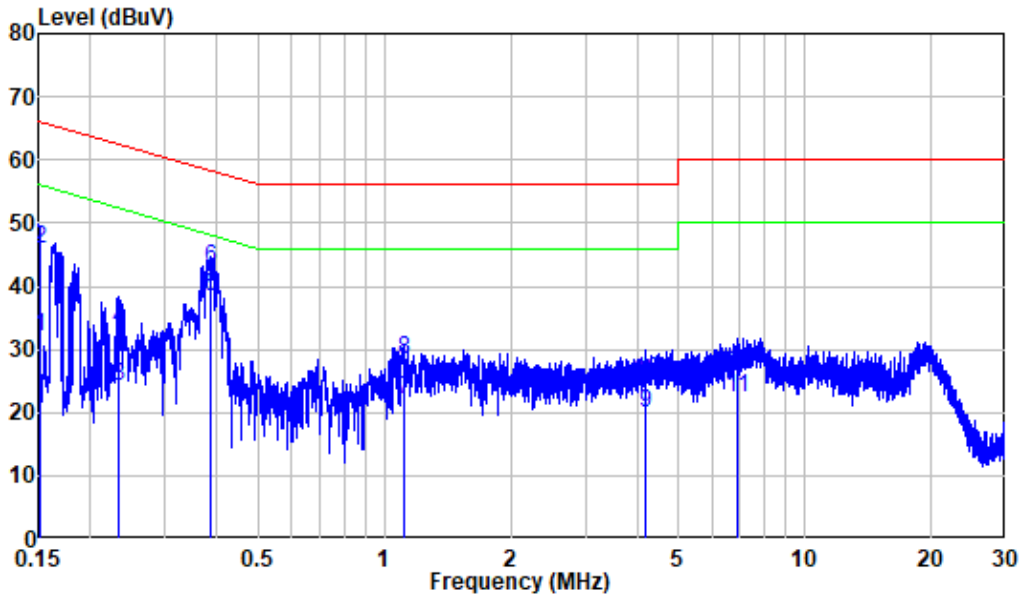


Site : Shielding Room
Condition: Neutral
Mode : 5G WiFi
Model : GXV3450
Power : AC 120V 60Hz
Adapter : F18W8-120150SPAUY

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.151	9.80	18.76	28.56	55.93	-27.37	Average
2	0.151	9.80	30.17	39.97	65.93	-25.96	QP
3	0.286	9.80	26.15	35.95	50.65	-14.70	Average
4	0.286	9.80	28.24	38.04	60.65	-22.61	QP
5	0.300	9.80	20.17	29.97	50.25	-20.28	Average
6	0.300	9.80	23.28	33.08	60.25	-27.17	QP
7	0.654	9.81	14.85	24.66	46.00	-21.34	Average
8	0.654	9.81	18.01	27.82	56.00	-28.18	QP
9	2.317	9.82	10.40	20.22	46.00	-25.78	Average
10	2.317	9.82	14.56	24.38	56.00	-31.62	QP
11	17.932	10.08	1.45	11.53	50.00	-38.47	Average
12	17.932	10.08	3.47	13.55	60.00	-46.45	QP

For Adapter 2（DSA-18PFR-09 FUS 120150）

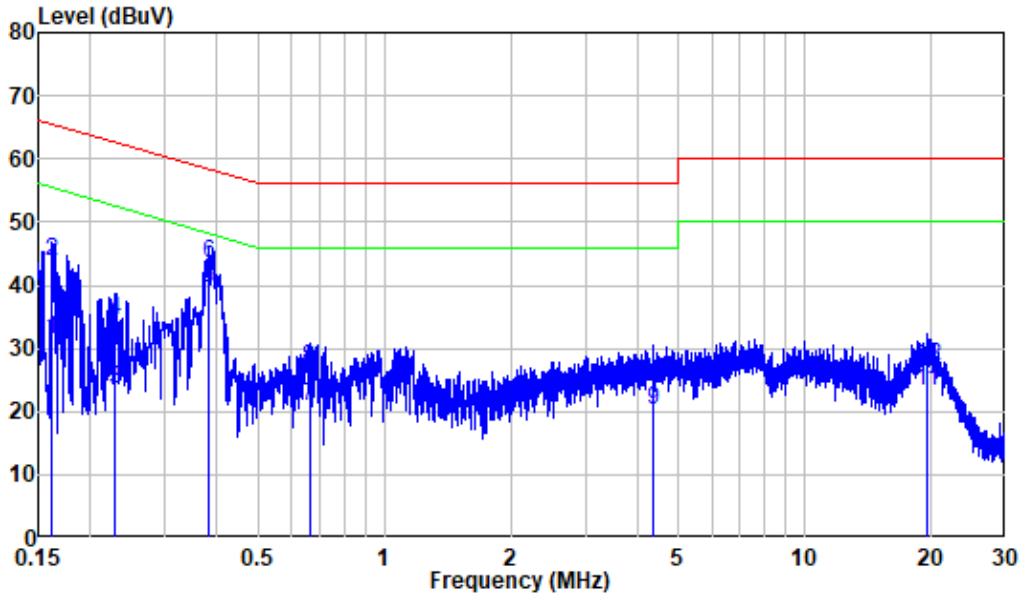
AC 120V/60 Hz, Line



Site : Shielding Room
Condition: Line
Mode : 5G WiFi
Model : GXV3450
Power : AC 120V 60Hz
Adapter : DSA-18PFR-09 FUS

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.151	9.80	22.07	31.87	55.94	-24.07	Average
2	0.151	9.80	36.04	45.84	65.94	-20.10	QP
3	0.232	9.80	14.28	24.08	52.37	-28.29	Average
4	0.232	9.80	23.55	33.35	62.37	-29.02	QP
5	0.385	9.80	28.57	38.37	48.17	-9.80	Average
6	0.385	9.80	33.13	42.93	58.17	-15.24	QP
7	1.111	9.81	12.37	22.18	46.00	-23.82	Average
8	1.111	9.81	18.43	28.24	56.00	-27.76	QP
9	4.188	9.84	10.10	19.94	46.00	-26.06	Average
10	4.188	9.84	15.30	25.14	56.00	-30.86	QP
11	6.914	9.87	12.36	22.23	50.00	-27.77	Average
12	6.914	9.87	16.54	26.41	60.00	-33.59	QP

AC 120V/60 Hz, Neutral

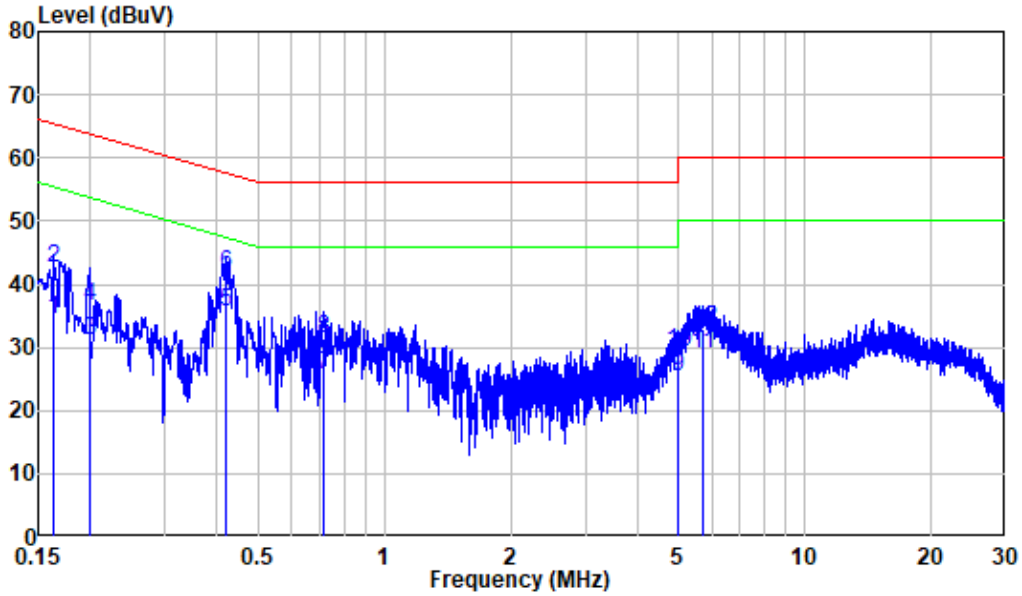


Site : Shielding Room
Condition: Neutral
Mode : 5G WiFi
Model : GXV3450
Power : AC 120V 60Hz
Adapter : DSA-18PFR-09 FUS

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.162	9.80	21.59	31.39	55.38	-23.99	Average
2	0.162	9.80	34.10	43.90	65.38	-21.48	QP
3	0.229	9.80	13.71	23.51	52.47	-28.96	Average
4	0.229	9.80	24.52	34.32	62.47	-28.15	QP
5	0.383	9.80	29.62	39.42	48.22	-8.80	Average
6	0.383	9.80	33.74	43.54	58.22	-14.68	QP
7	0.662	9.81	11.09	20.90	46.00	-25.10	Average
8	0.662	9.81	17.13	26.94	56.00	-29.06	QP
9	4.358	9.86	10.42	20.28	46.00	-25.72	Average
10	4.358	9.86	14.94	24.80	56.00	-31.20	QP
11	19.493	10.09	13.23	23.32	50.00	-26.68	Average
12	19.493	10.09	17.19	27.28	60.00	-32.72	QP

For Adapter 3（H18US1200150A）

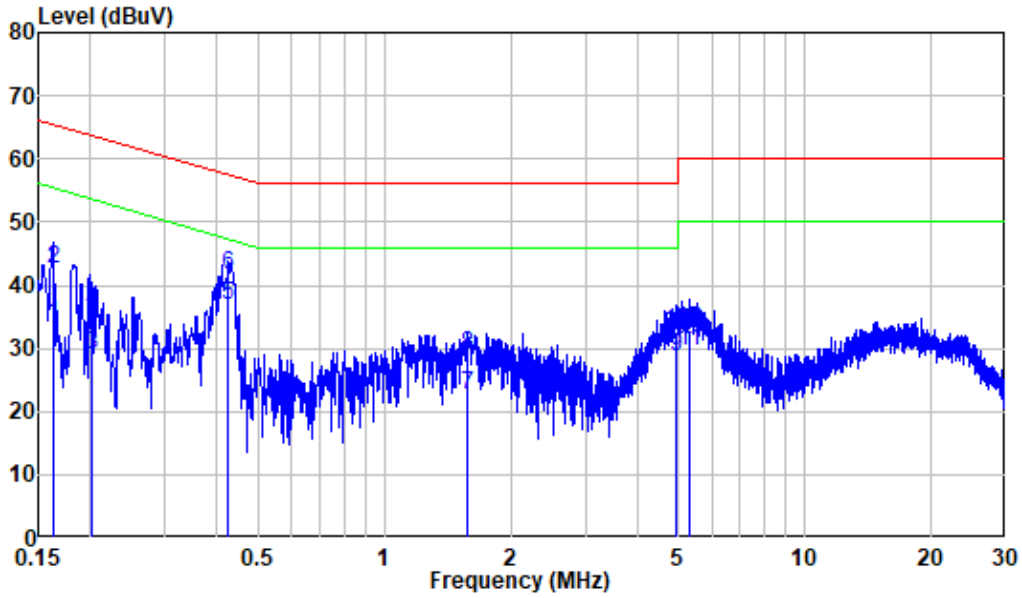
AC 120V/60 Hz, Line



Site : Shielding Room
Condition: Line
Mode : 5G WiFi
Model : GXV3450
Power : AC 120V 60Hz
Adapter : H18US1200150A

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.163	9.80	24.54	34.34	55.32	-20.98	Average
2	0.163	9.80	32.69	42.49	65.32	-22.83	QP
3	0.200	9.80	21.39	31.19	53.62	-22.43	Average
4	0.200	9.80	26.73	36.53	63.62	-27.09	QP
5	0.421	9.80	25.93	35.73	47.43	-11.70	Average
6	0.421	9.80	31.97	41.77	57.43	-15.66	QP
7	0.716	9.81	15.90	25.71	46.00	-20.29	Average
8	0.716	9.81	21.63	31.44	56.00	-24.56	QP
9	4.981	9.85	15.43	25.28	46.00	-20.72	Average
10	4.981	9.85	19.52	29.37	56.00	-26.63	QP
11	5.725	9.86	19.18	29.04	50.00	-20.96	Average
12	5.725	9.86	22.96	32.82	60.00	-27.18	QP

AC 120V/60 Hz, Neutral

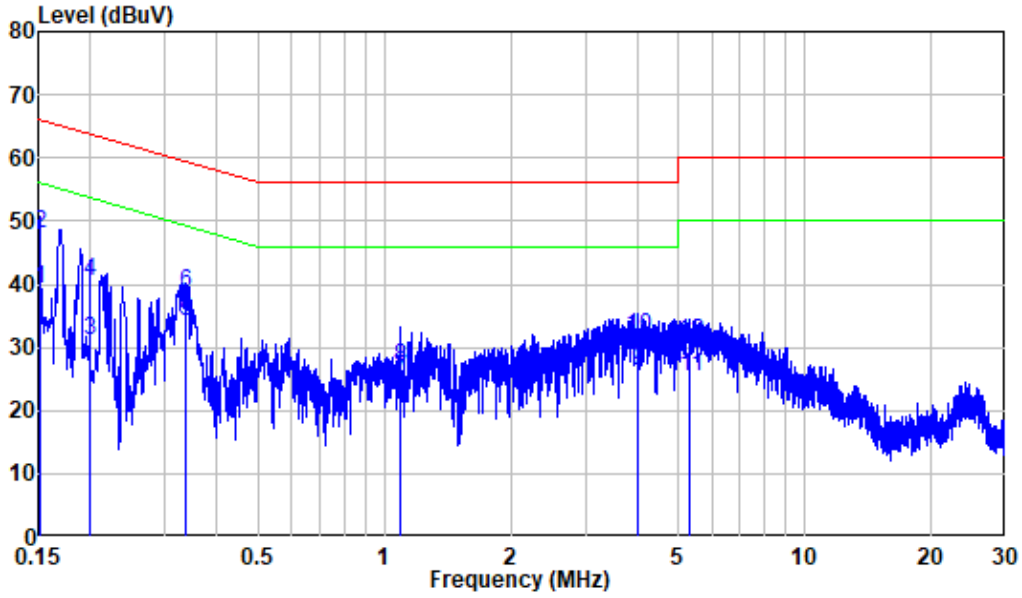


Site : Shielding Room
Condition: Neutral
Mode : 5G WiFi
Model : GXV3450
Power : AC 120V 60Hz
Adapter : H18US1200150A

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.163	9.80	23.97	33.77	55.28	-21.51	Average
2	0.163	9.80	32.62	42.42	65.28	-22.86	QP
3	0.202	9.80	19.29	29.09	53.53	-24.44	Average
4	0.202	9.80	26.18	35.98	63.53	-27.55	QP
5	0.426	9.80	26.97	36.77	47.34	-10.57	Average
6	0.426	9.80	31.82	41.62	57.34	-15.72	QP
7	1.573	9.82	12.81	22.63	46.00	-23.37	Average
8	1.573	9.82	19.10	28.92	56.00	-27.08	QP
9	4.932	9.89	18.94	28.83	46.00	-17.17	Average
10	4.932	9.89	22.63	32.52	56.00	-23.48	QP
11	5.287	9.90	19.72	29.62	50.00	-20.38	Average
12	5.287	9.90	23.08	32.98	60.00	-27.02	QP

For POE:

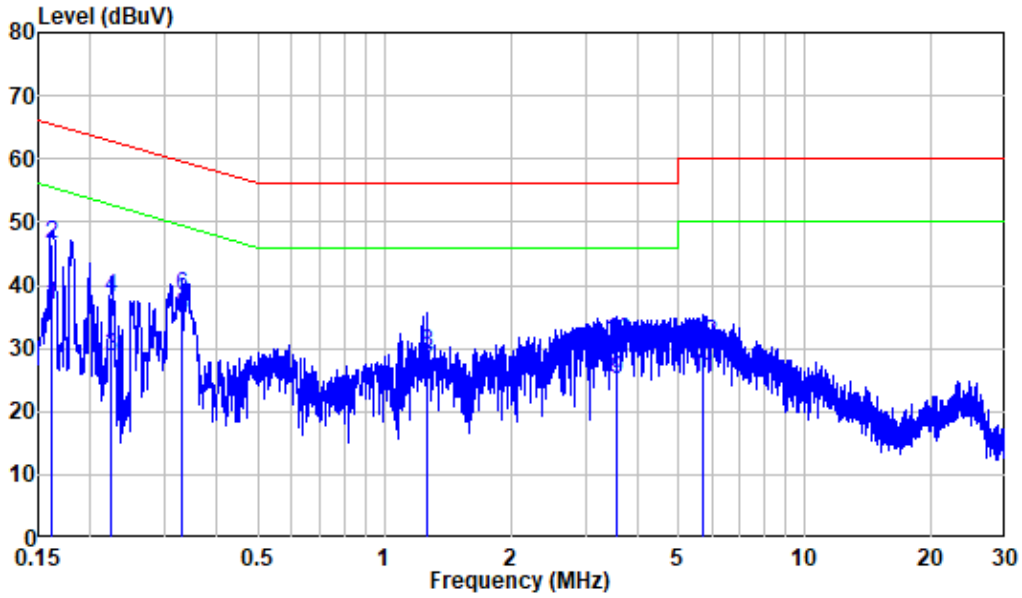
AC 120V/60 Hz, Line



Site : Shielding Room
Condition: Line
Mode : 5G WiFi
Model : GXV3450
Power : AC 120V 60Hz POE

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.152	9.80	29.30	39.10	55.90	-16.80	Average
2	0.152	9.80	38.33	48.13	65.90	-17.77	QP
3	0.200	9.80	21.38	31.18	53.62	-22.44	Average
4	0.200	9.80	30.72	40.52	63.62	-23.10	QP
5	0.337	9.80	24.17	33.97	49.27	-15.30	Average
6	0.337	9.80	28.76	38.56	59.27	-20.71	QP
7	1.087	9.81	15.12	24.93	46.00	-21.07	Average
8	1.087	9.81	17.02	26.83	56.00	-29.17	QP
9	3.988	9.84	16.35	26.19	46.00	-19.81	Average
10	3.988	9.84	21.75	31.59	56.00	-24.41	QP
11	5.333	9.85	15.49	25.34	50.00	-24.66	Average
12	5.333	9.85	20.91	30.76	60.00	-29.24	QP

AC 120V/60 Hz, Neutral



Site : Shielding Room
Condition: Neutral
Mode : 5G WiFi
Model : GXV3450
Power : AC 120V 60Hz POE

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.161	9.80	27.04	36.84	55.41	-18.57	Average
2	0.161	9.80	36.75	46.55	65.41	-18.86	QP
3	0.224	9.80	18.76	28.56	52.66	-24.10	Average
4	0.224	9.80	28.35	38.15	62.66	-24.51	QP
5	0.330	9.80	25.16	34.96	49.45	-14.49	Average
6	0.330	9.80	28.60	38.40	59.45	-21.05	QP
7	1.265	9.81	16.67	26.48	46.00	-19.52	Average
8	1.265	9.81	19.37	29.18	56.00	-26.82	QP
9	3.575	9.84	15.32	25.16	46.00	-20.84	Average
10	3.575	9.84	21.39	31.23	56.00	-24.77	QP
11	5.695	9.92	15.30	25.22	50.00	-24.78	Average
12	5.695	9.92	20.86	30.78	60.00	-29.22	QP

§15.205 & §15.209 & §15.407(B)– UNDESIRABLE EMISSION

Applicable Standard

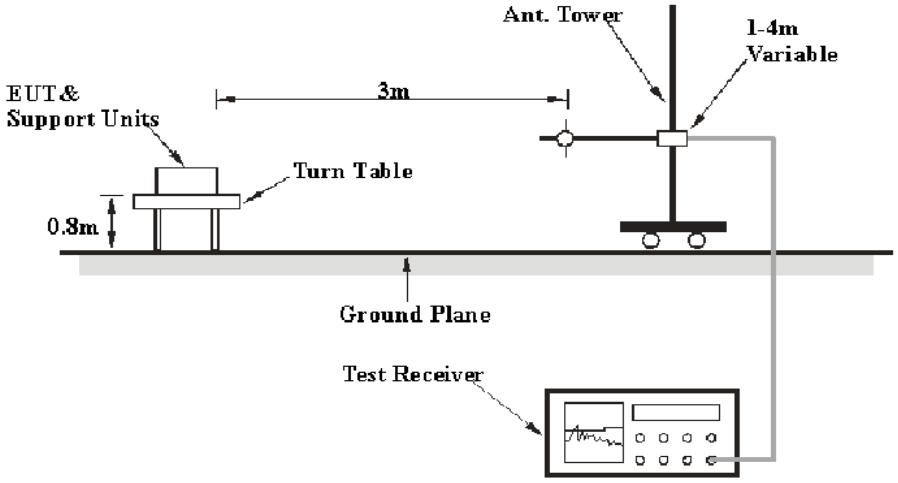
FCC §15.407 (b); §15.209; §15.205;

(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:
(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(4) For transmitters operating in the 5.725-5.85 GHz band:
(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

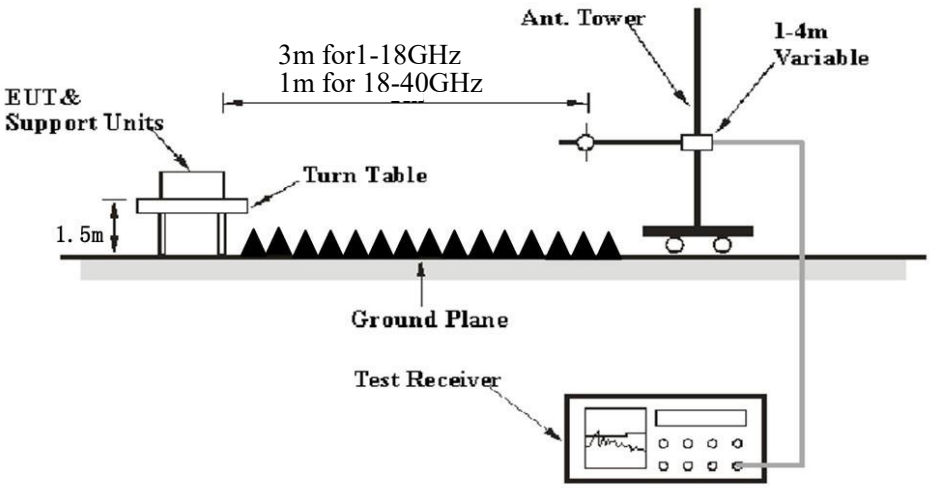
Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

EUT Setup

Below 1 GHz:



Above 1 GHz:



The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC 15.209 and FCC 15.407 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 40 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	100 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	PK
	1MHz	10 Hz Note 1	/	Average
	1MHz	＞1/T Note 2	/	Average

Note 1: when duty cycle is no less than 98%
Note 2: when duty cycle is less than 98%

Test Procedure

Radiated Spurious Emission

During the radiated emission test, the adapter was connected to the AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all the installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1GHz, peak and Average detection modes for frequencies above 1GHz.

According to ANSI C63.10-2013,9.4: For field strength measurements made at other than the distance at which the applicable limit is specified,extrapolate the measured field strength to the field strength at the distance specified by the limit using an inverse distance correction factor (20 dB/decade of distance). In some cases, a different distance correction factor may be required;

$$E_{\mathrm{SpecLimit}} = E_{\mathrm{Meas}} + 20\log\left(\frac{d_{\mathrm{Meas}}}{d_{\mathrm{SpecLimit}}}\right)$$

where

$E_{\mathrm{SpecLimit}}$	is the field strength of the emission at the distance specified by the limit, in dBμV/m
E_{Meas}	is the field strength of the emission at the measurement distance, in dBμV/m
d_{Meas}	is the measurement distance, in m
$d_{\mathrm{SpecLimit}}$	is the distance specified by the limit, in m

So the extrapolation factor of 1m is 20*log(1/3)= -9.5 dB, for 18-40GHz range, the limit of 1m distance was added by 9.5dB from limit of 3m to compared with the result measurement at 1m distance.

Corrected Factor & Margin Calculation

The Corrected Factor is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain. The basic equation is as follows:

Corrected Amplitude = Antenna Factor + Cable Loss - Amplifier Gain

The "**Margin/Over Limit**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin/over limit of -7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin/Over limit = Corrected Amplitude/Level - Limit
Corrected Amplitude/Level = Reading + Factor

Test Data

Environmental Conditions

Temperature:	25~28℃
Relative Humidity:	65%
ATM Pressure:	101.0 kPa

The testing was performed by Nick Fang on 2022-04-19 for below 1GHz, Leve Li on 2022-05-09.

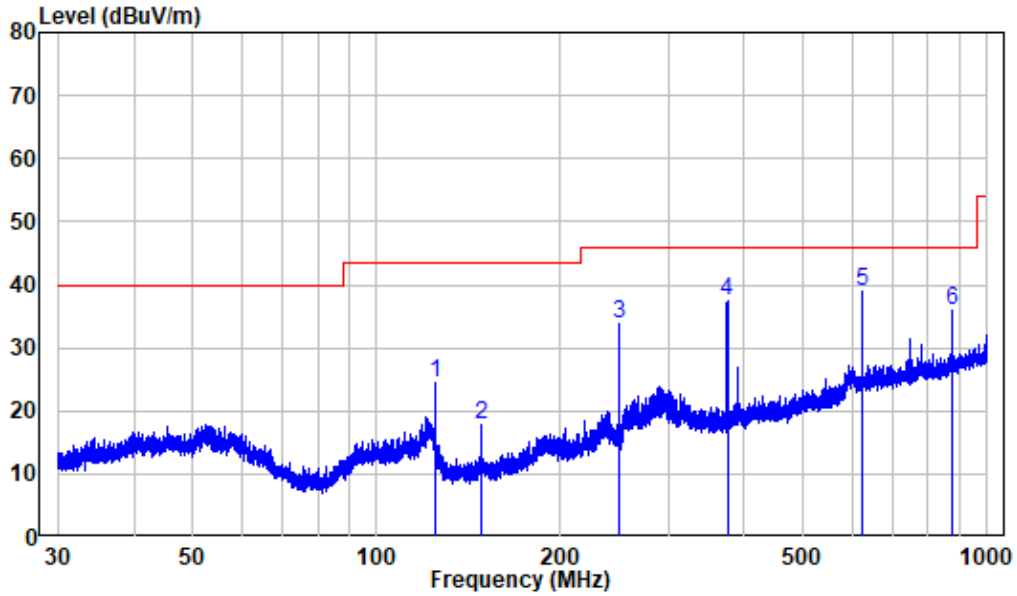
EUT operation mode: Transmitting (Pre-scan in the X,Y and Z axes of orientation, the worst case X-axes of orientation was recorded)

30MHz-1GHz: (worst case for 802.11 ac20 5745MHz)

Note: When the test result of Peak was less than the limit of QP, just the peak value was recorded.

For Adapter 1（F18W8-120150SPAUY）

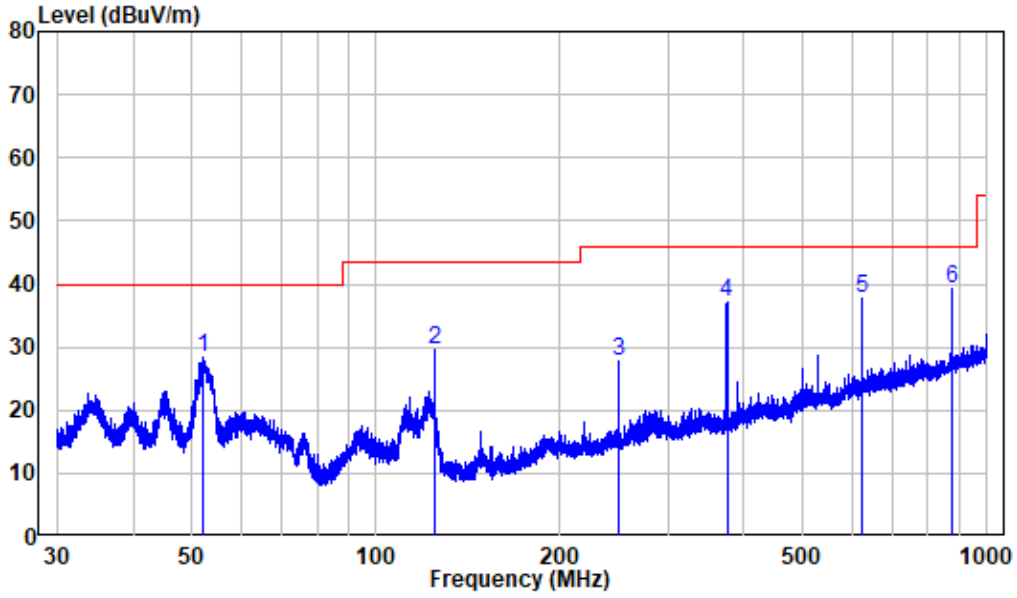
Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No. : SZNS220330-11529E-RF
Test Mode: 5G WIFI

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	125.007	-14.31	38.66	24.35	43.50	-19.15	Peak
2	148.376	-15.36	33.22	17.86	43.50	-25.64	Peak
3	249.972	-10.74	44.61	33.87	46.00	-12.13	Peak
4	375.116	-7.28	44.58	37.30	46.00	-8.70	Peak
5	625.078	-2.35	41.29	38.94	46.00	-7.06	Peak
6	875.247	1.18	34.79	35.97	46.00	-10.03	Peak

Vertical

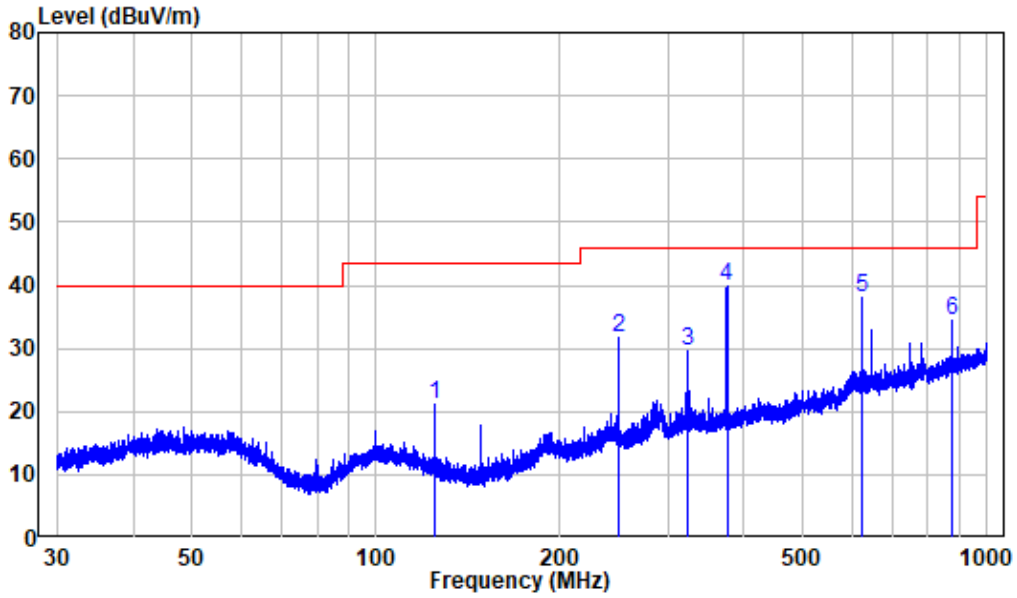


Site : chamber
Condition: 3m VERTICAL
Job No. : SZNS220330-11529E-RF
Test Mode: 5G WIFI

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	52.208	-10.01	38.49	28.48	40.00	-11.52	Peak
2	125.007	-14.31	43.92	29.61	43.50	-13.89	Peak
3	249.972	-10.74	38.58	27.84	46.00	-18.16	Peak
4	375.116	-7.28	44.29	37.01	46.00	-8.99	Peak
5	625.078	-2.35	40.03	37.68	46.00	-8.32	Peak
6	875.247	1.18	38.01	39.19	46.00	-6.81	Peak

For Adapter 2（DSA-18PFR-09 FUS 120150）

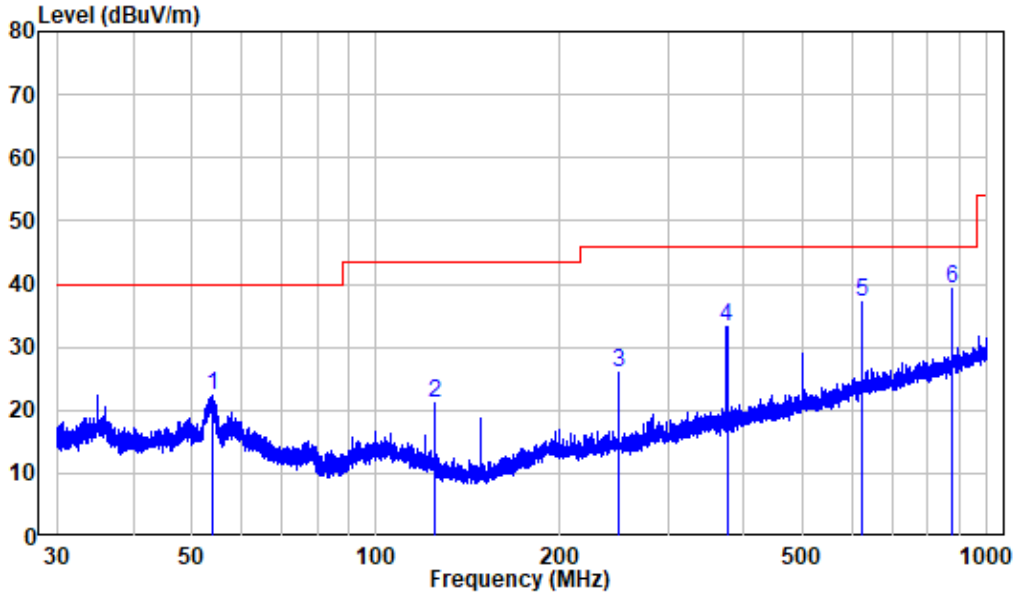
Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No. : SZNS220330-11529E-RF
Test Mode: 5G WIFI

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	125.007	-14.31	35.56	21.25	43.50	-22.25	Peak
2	249.972	-10.74	42.35	31.61	46.00	-14.39	Peak
3	323.320	-8.33	37.90	29.57	46.00	-16.43	Peak
4	375.116	-7.28	47.05	39.77	46.00	-6.23	Peak
5	625.078	-2.35	40.53	38.18	46.00	-7.82	Peak
6	875.247	1.18	33.29	34.47	46.00	-11.53	Peak

Vertical

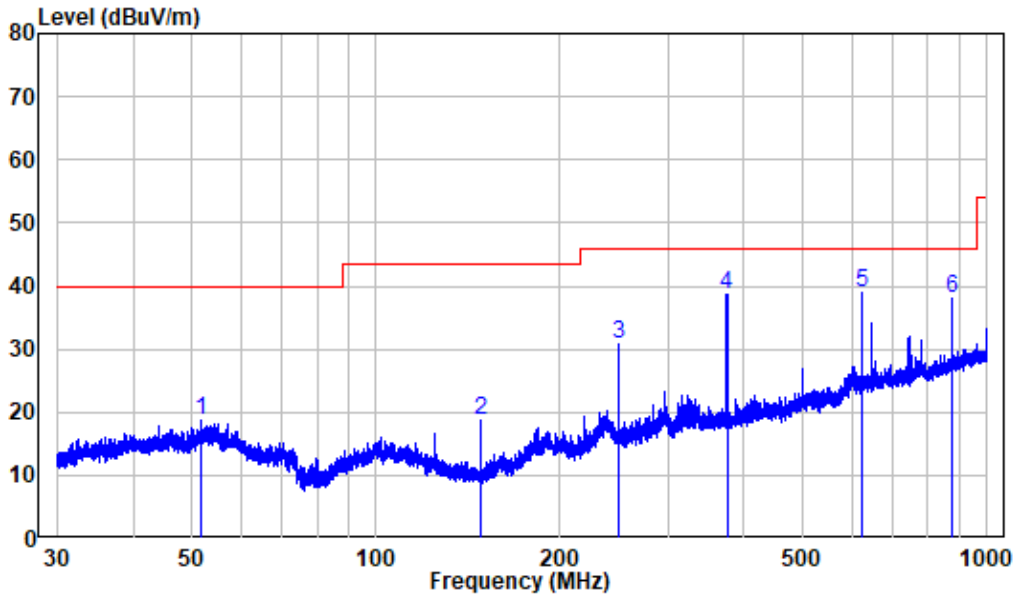


Site : chamber
Condition: 3m VERTICAL
Job No. : SZNS220330-11529E-RF
Test Mode: 5G WIFI

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	53.835	-10.32	32.71	22.39	40.00	-17.61	Peak
2	125.007	-14.31	35.51	21.20	43.50	-22.30	Peak
3	249.972	-10.74	36.57	25.83	46.00	-20.17	Peak
4	375.116	-7.28	40.64	33.36	46.00	-12.64	Peak
5	625.078	-2.35	39.37	37.02	46.00	-8.98	Peak
6	875.247	1.18	38.13	39.31	46.00	-6.69	Peak

For Adapter 3（H18US1200150A）

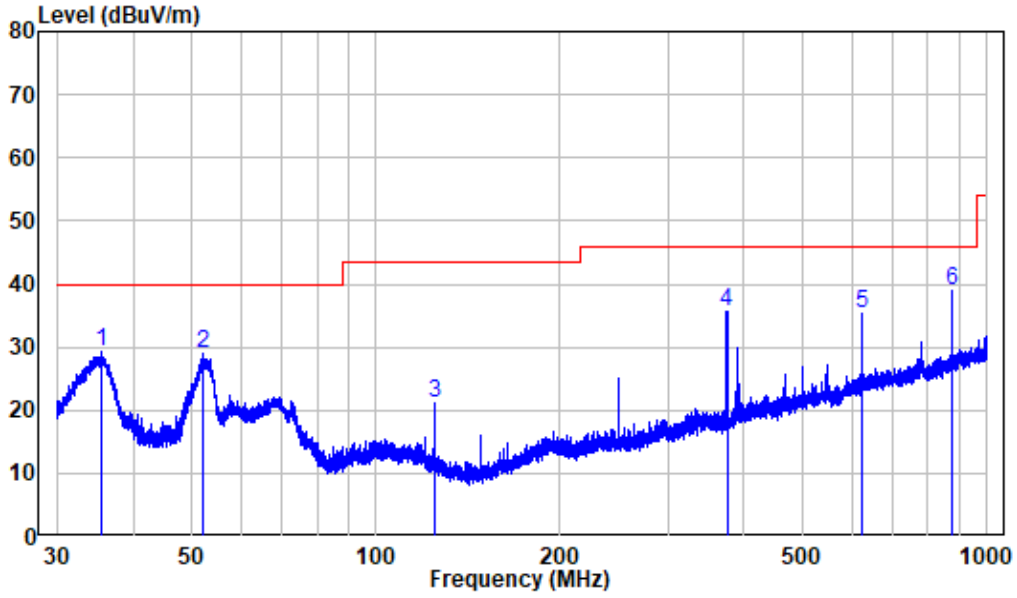
Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No. : SZNS220330-11529E-RF
Test Mode: 5G WIFI

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	51.820	-9.97	28.57	18.60	40.00	-21.40	Peak
2	148.376	-15.36	34.07	18.71	43.50	-24.79	Peak
3	249.972	-10.74	41.59	30.85	46.00	-15.15	Peak
4	375.116	-7.28	45.88	38.60	46.00	-7.40	Peak
5	625.078	-2.35	41.33	38.98	46.00	-7.02	Peak
6	875.247	1.18	36.97	38.15	46.00	-7.85	Peak

Vertical

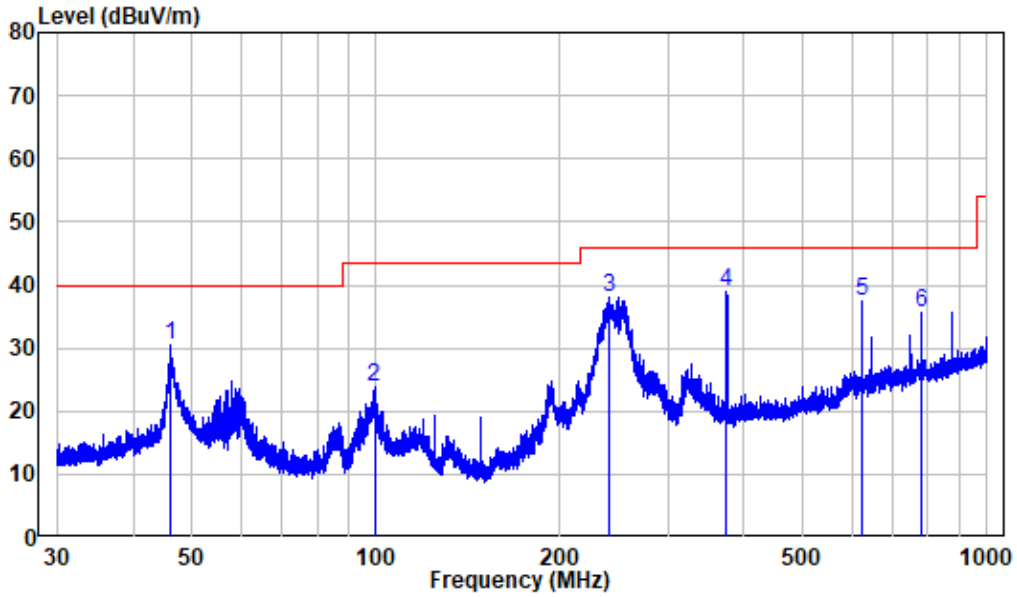


Site : chamber
Condition: 3m VERTICAL
Job No. : SZNS220330-11529E-RF
Test Mode: 5G WIFI

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	35.406	-11.41	40.78	29.37	40.00	-10.63	Peak
2	52.139	-10.00	38.83	28.83	40.00	-11.17	Peak
3	125.007	-14.31	35.59	21.28	43.50	-22.22	Peak
4	375.116	-7.28	42.94	35.66	46.00	-10.34	Peak
5	625.078	-2.35	37.57	35.22	46.00	-10.78	Peak
6	875.247	1.18	37.74	38.92	46.00	-7.08	Peak

For POE

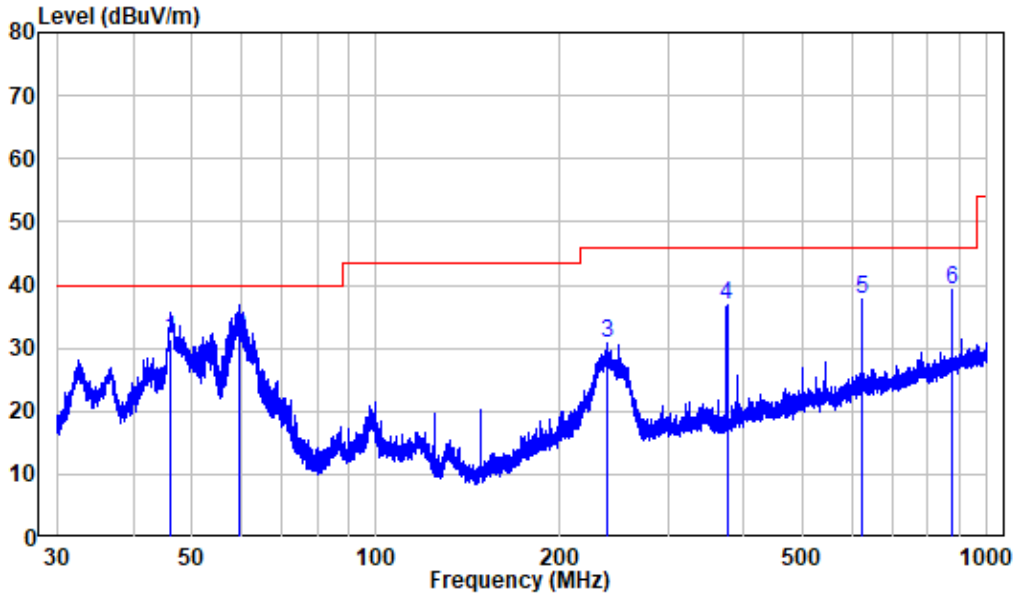
Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No. : SZNS220330-11529E-RF
Test Mode: 5G WIFI
Note : Poe

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	45.996	-9.99	40.58	30.59	40.00	-9.41	Peak
2	99.354	-11.95	35.78	23.83	43.50	-19.67	Peak
3	240.936	-10.84	49.03	38.19	46.00	-7.81	Peak
4	374.951	-7.27	46.07	38.80	46.00	-7.20	Peak
5	625.078	-2.35	39.87	37.52	46.00	-8.48	Peak
6	780.291	0.07	35.64	35.71	46.00	-10.29	Peak

Vertical



Site : chamber
Condition: 3m VERTICAL
Job No. : SZNS220330-11529E-RF
Test Mode: 5G WIFI
Note : Poe

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	46.037	-9.99	41.48	31.49	40.00	-8.51	QP
2	59.728	-10.52	42.28	31.76	40.00	-8.24	QP
3	238.728	-10.93	41.57	30.64	46.00	-15.36	Peak
4	375.116	-7.28	43.98	36.70	46.00	-9.30	Peak
5	625.078	-2.35	39.96	37.61	46.00	-8.39	Peak
6	875.247	1.18	38.08	39.26	46.00	-6.74	Peak

Above 1GHz: *(worst case adapter 1)*

5150-5250 MHz:

Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11A									
5180 MHz									
4500	63.09	PK	86	2.3	H	-4.72	58.37	74	-15.63
4500	49.77	AV	86	2.3	H	-4.72	45.05	54	-8.95
4500	63.55	PK	342	1.8	V	-4.72	58.83	74	-15.17
4500	49.85	AV	342	1.8	V	-4.72	45.13	54	-8.87
5150	65.53	PK	39	1.9	H	-2.73	62.8	74	-11.2
5150	51.73	AV	39	1.9	H	-2.73	49	54	-5
5150	70.81	PK	73	1.1	V	-2.73	68.08	74	-5.92
5150	55.55	AV	73	1.1	V	-2.73	52.82	54	-1.18
10360	41.89	PK	236	2.2	H	8.12	50.01	68.2	-18.19
10360	41.82	PK	247	2.2	V	8.12	49.94	68.2	-18.26
5200 MHz									
10400	42.15	PK	262	2	H	8.24	50.39	68.2	-17.81
10400	42.12	PK	109	2.3	V	8.24	50.36	68.2	-17.84
5240 MHz									
5350	62.94	PK	136	2.1	H	-2.33	60.61	74	-13.39
5350	50.35	AV	136	2.1	H	-2.33	48.02	54	-5.98
5350	63.15	PK	267	2.5	V	-2.33	60.82	74	-13.18
5350	50.09	AV	267	2.5	V	-2.33	47.76	54	-6.24
5460	64.45	PK	296	2.5	H	-2.26	62.19	74	-11.81
5460	51.1	AV	296	2.5	H	-2.26	48.84	54	-5.16
5460	64	PK	303	2.2	V	-2.26	61.74	74	-12.26
5460	50.9	AV	303	2.2	V	-2.26	48.64	54	-5.36
10480	41.61	PK	321	1.4	H	8.56	50.17	68.2	-18.03
10480	41.3	PK	247	1.9	V	8.56	49.86	68.2	-18.34

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11n20									
5180 MHz									
4500	62.96	PK	212	2.2	H	-4.72	58.24	74	-15.76
4500	49.59	AV	212	2.2	H	-4.72	44.87	54	-9.13
4500	63.23	PK	167	2.1	V	-4.72	58.51	74	-15.49
4500	49.74	AV	167	2.1	V	-4.72	45.02	54	-8.98
5150	65.16	PK	151	1.9	H	-2.73	62.43	74	-11.57
5150	51.82	AV	151	1.9	H	-2.73	49.09	54	-4.91
5150	70.68	PK	324	1.4	V	-2.73	67.95	74	-6.05
5150	55.04	AV	324	1.4	V	-2.73	52.31	54	-1.69
10360	41.26	PK	176	1.8	H	8.12	49.38	68.2	-18.82
10360	41.21	PK	216	1.1	V	8.12	49.33	68.2	-18.87
5200 MHz									
10400	41.11	PK	78	1.3	H	8.24	49.35	68.2	-18.85
10400	40.85	PK	152	1.4	V	8.24	49.09	68.2	-19.11
5240 MHz									
5350	63.25	PK	294	1.2	H	-2.33	60.92	74	-13.08
5350	50.18	AV	294	1.2	H	-2.33	47.85	54	-6.15
5350	62.93	PK	27	1.9	V	-2.33	60.6	74	-13.4
5350	50.05	AV	27	1.9	V	-2.33	47.72	54	-6.28
5460	64.14	PK	312	1.8	H	-2.26	61.88	74	-12.12
5460	50.9	AV	312	1.8	H	-2.26	48.64	54	-5.36
5460	63.68	PK	193	1.1	V	-2.26	61.42	74	-12.58
5460	51.11	AV	193	1.1	V	-2.26	48.85	54	-5.15
10480	40.23	PK	124	1.8	H	8.56	48.79	68.2	-19.41
10480	40.46	PK	217	2	V	8.56	49.02	68.2	-19.18

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11N40									
5190 MHz									
4500	62.78	PK	208	2.2	H	-4.72	58.06	74	-15.94
4500	50.14	AV	208	2.2	H	-4.72	45.42	54	-8.58
4500	63.43	PK	343	1.7	V	-4.72	58.71	74	-15.29
4500	50.27	AV	343	1.7	V	-4.72	45.55	54	-8.45
5150	64.56	PK	69	2	H	-2.73	61.83	74	-12.17
5150	51.87	AV	69	2	H	-2.73	49.14	54	-4.86
5150	66.87	PK	295	1.3	V	-2.73	64.14	74	-9.86
5150	54.19	AV	295	1.3	V	-2.73	51.46	54	-2.54
10380	41.17	PK	272	1.3	H	8.18	49.35	68.2	-18.85
10380	40.92	PK	267	1.1	V	8.18	49.1	68.2	-19.1
5230 MHz									
5350	62.98	PK	265	1.8	H	-2.33	60.65	74	-13.35
5350	50.03	AV	265	1.8	H	-2.33	47.7	54	-6.3
5350	63.22	PK	196	1.2	V	-2.33	60.89	74	-13.11
5350	50.35	AV	196	1.2	V	-2.33	48.02	54	-5.98
5460	64.54	PK	61	2.2	H	-2.26	62.28	74	-11.72
5460	50.84	AV	61	2.2	H	-2.26	48.58	54	-5.42
5460	64.07	PK	276	2.1	V	-2.26	61.81	74	-12.19
5460	50.83	AV	276	2.1	V	-2.26	48.57	54	-5.43
10460	40.56	PK	301	1.2	H	8.47	49.03	68.2	-19.17
10460	40.2	PK	107	2.4	V	8.47	48.67	68.2	-19.53

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AC20									
5180 MHz									
4500	63.38	PK	1	2.5	H	-4.72	58.66	74	-15.34
4500	49.57	AV	1	2.5	H	-4.72	44.85	54	-9.15
4500	63.54	PK	355	1.6	V	-4.72	58.82	74	-15.18
4500	49.61	AV	355	1.6	V	-4.72	44.89	54	-9.11
5150	65.58	PK	156	1.5	H	-2.73	62.85	74	-11.15
5150	51.95	AV	156	1.5	H	-2.73	49.22	54	-4.78
5150	70.93	PK	262	1.9	V	-2.73	68.2	74	-5.8
5150	54.88	AV	262	1.9	V	-2.73	52.15	54	-1.85
10360	40.88	PK	182	1.6	H	8.12	49	68.2	-19.2
10360	41.11	PK	212	1.6	V	8.12	49.23	68.2	-18.97
5200 MHz									
10400	40.86	PK	338	2.2	H	8.24	49.1	68.2	-19.1
10400	40.82	PK	278	2.5	V	8.24	49.06	68.2	-19.14
5240 MHz									
5350	63.23	PK	312	1.8	H	-2.33	60.9	74	-13.1
5350	50	AV	312	1.8	H	-2.33	47.67	54	-6.33
5350	63.17	PK	101	2.2	V	-2.33	60.84	74	-13.16
5350	50.05	AV	101	2.2	V	-2.33	47.72	54	-6.28
5460	64.22	PK	84	2.5	H	-2.26	61.96	74	-12.04
5460	50.92	AV	84	2.5	H	-2.26	48.66	54	-5.34
5460	63.82	PK	329	2.3	V	-2.26	61.56	74	-12.44
5460	51.02	AV	329	2.3	V	-2.26	48.76	54	-5.24
10480	40.41	PK	163	2.3	H	8.56	48.97	68.2	-19.23
10480	40.52	PK	2	2.5	V	8.56	49.08	68.2	-19.12

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AC40									
5190 MHz									
4500	63.56	PK	186	1.4	H	-4.72	58.84	74	-15.16
4500	50.21	AV	186	1.4	H	-4.72	45.49	54	-8.51
4500	62.83	PK	164	1.2	V	-4.72	58.11	74	-15.89
4500	50.21	AV	164	1.2	V	-4.72	45.49	54	-8.51
5150	64.59	PK	202	2	H	-2.73	61.86	74	-12.14
5150	51.84	AV	202	2	H	-2.73	49.11	54	-4.89
5150	67.02	PK	200	1	V	-2.73	64.29	74	-9.71
5150	54.29	AV	200	1	V	-2.73	51.56	54	-2.44
10380	41.04	PK	144	1.5	H	8.18	49.22	68.2	-18.98
10380	40.81	PK	294	2.1	V	8.18	48.99	68.2	-19.21
5230 MHz									
5350	63.15	PK	22	2.4	H	-2.33	60.82	74	-13.18
5350	50.28	AV	22	2.4	H	-2.33	47.95	54	-6.05
5350	63.19	PK	217	2.2	V	-2.33	60.86	74	-13.14
5350	50.06	AV	217	2.2	V	-2.33	47.73	54	-6.27
5460	64.53	PK	273	1.5	H	-2.26	62.27	74	-11.73
5460	51.09	AV	273	1.5	H	-2.26	48.83	54	-5.17
5460	63.85	PK	111	2	V	-2.26	61.59	74	-12.41
5460	51.12	AV	111	2	V	-2.26	48.86	54	-5.14
10460	40.47	PK	133	1.6	H	8.47	48.94	68.2	-19.26
10460	40.37	PK	256	1.2	V	8.47	48.84	68.2	-19.36

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11ac80									
5210 MHz									
4500	63.62	PK	271	1.9	H	-4.72	58.9	74	-15.1
4500	52.3	Ave.	271	1.9	H	-4.72	47.58	54	-6.42
4500	63.74	PK	194	2.4	V	-4.72	59.02	74	-14.98
4500	52.5	Ave.	194	2.4	V	-4.72	47.78	54	-6.22
5150	64.74	PK	260	1.1	H	-2.73	62.01	74	-11.99
5150	54.84	Ave.	260	1.1	H	-2.73	52.11	54	-1.89
5150	65.33	PK	91	2.1	V	-2.73	62.6	74	-11.4
5150	55.41	Ave.	91	2.1	V	-2.73	52.68	54	-1.32
5350	63.91	PK	136	2.3	H	-2.33	61.58	74	-12.42
5350	51.43	Ave.	136	2.3	H	-2.33	49.1	54	-4.9
5350	63.52	PK	102	1.6	V	-2.33	61.19	74	-12.81
5350	51.68	Ave.	102	1.6	V	-2.33	49.35	54	-4.65
5460	63.22	PK	329	1.2	H	-2.26	60.96	74	-13.04
5460	51.09	Ave.	329	1.2	H	-2.26	48.83	54	-5.17
5460	63.44	PK	147	1.1	V	-2.26	61.18	74	-12.82
5460	51.1	Ave.	147	1.1	V	-2.26	48.84	54	-5.16
10420	40.87	PK	143	1.1	H	8.32	49.19	68.2	-19.01
10420	40.94	PK	292	2.2	V	8.32	49.26	68.2	-18.94

5250-5350 MHz:

Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11A									
5260 MHz									
4500	63.36	PK	43	1.4	H	-4.72	58.64	74	-15.36
4500	50.28	AV	43	1.4	H	-4.72	45.56	54	-8.44
4500	62.64	PK	90	1.4	V	-4.72	57.92	74	-16.08
4500	50.08	AV	90	1.4	V	-4.72	45.36	54	-8.64
5150	63.29	PK	115	1.7	H	-2.73	60.56	74	-13.44
5150	50.36	AV	115	1.7	H	-2.73	47.63	54	-6.37
5150	64.33	PK	27	1.7	V	-2.73	61.6	74	-12.4
5150	50.51	AV	27	1.7	V	-2.73	47.78	54	-6.22
10520	40.21	PK	37	1.5	H	8.65	48.86	68.2	-19.34
10520	40.51	PK	49	1.6	V	8.65	49.16	68.2	-19.04
5280 MHz									
10560	41.03	PK	324	1.3	H	8.69	49.72	68.2	-18.48
10560	40.95	PK	175	1	V	8.69	49.64	68.2	-18.56
5320 MHz									
5350	67.16	PK	218	1	H	-2.33	64.83	74	-9.17
5350	51.27	AV	218	1	H	-2.33	48.94	54	-5.06
5350	70.37	PK	124	1.7	V	-2.33	68.04	74	-5.96
5350	52.89	AV	124	1.7	V	-2.33	50.56	54	-3.44
5460	64.35	PK	194	2.2	H	-2.26	62.09	74	-11.91
5460	50.87	AV	194	2.2	H	-2.26	48.61	54	-5.39
5460	63.97	PK	303	1.8	V	-2.26	61.71	74	-12.29
5460	50.97	AV	303	1.8	V	-2.26	48.71	54	-5.29
10640	40.86	PK	108	1.5	H	8.92	49.78	74	-24.22
10640	40.84	PK	331	2	V	8.92	49.76	74	-24.24

Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11n20									
5260 MHz									
4500	62.9	PK	195	2	H	-4.72	58.18	74	-15.82
4500	50.16	AV	195	2	H	-4.72	45.44	54	-8.56
4500	62.64	PK	71	1.4	V	-4.72	57.92	74	-16.08
4500	50.16	AV	71	1.4	V	-4.72	45.44	54	-8.56
5150	63.31	PK	337	2.5	H	-2.73	60.58	74	-13.42
5150	50.16	AV	337	2.5	H	-2.73	47.43	54	-6.57
5150	64.23	PK	133	1.9	V	-2.73	61.5	74	-12.5
5150	50.16	AV	133	1.9	V	-2.73	47.43	54	-6.57
10520	40.12	PK	321	2	H	8.65	48.77	68.2	-19.43
10520	40.29	PK	77	1.9	V	8.65	48.94	68.2	-19.26
5280 MHz									
10560	40.72	PK	156	2.4	H	8.69	49.41	68.2	-18.79
10560	40.94	PK	219	1.5	V	8.69	49.63	68.2	-18.57
5320 MHz									
5350	67.28	PK	179	2.1	H	-2.33	64.95	74	-9.05
5350	51.09	AV	179	2.1	H	-2.33	48.76	54	-5.24
5350	70.39	PK	196	1.2	V	-2.33	68.06	74	-5.94
5350	52.65	AV	196	1.2	V	-2.33	50.32	54	-3.68
5460	64.59	PK	54	1.4	H	-2.26	62.33	74	-11.67
5460	50.98	AV	54	1.4	H	-2.26	48.72	54	-5.28
5460	63.65	PK	125	2.4	V	-2.26	61.39	74	-12.61
5460	50.92	AV	125	2.4	V	-2.26	48.66	54	-5.34
10640	40.77	PK	31	1.9	H	8.92	49.69	74	-24.31
10640	40.9	PK	228	2.4	V	8.92	49.82	74	-24.18

Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11N40									
5270 MHz									
4500	63.22	PK	254	1.1	H	-4.72	58.5	74	-15.5
4500	50.2	AV	254	1.1	H	-4.72	45.48	54	-8.52
4500	62.76	PK	334	2.3	V	-4.72	58.04	74	-15.96
4500	50.21	AV	334	2.3	V	-4.72	45.49	54	-8.51
5150	63.62	PK	353	1.6	H	-2.73	60.89	74	-13.11
5150	50.61	AV	353	1.6	H	-2.73	47.88	54	-6.12
5150	64.57	PK	44	2	V	-2.73	61.84	74	-12.16
5150	50.27	AV	44	2	V	-2.73	47.54	54	-6.46
10540	40.28	PK	341	1.6	H	8.65	48.93	68.2	-19.27
10540	40.55	PK	11	1.9	V	8.65	49.2	68.2	-19
5310 MHz									
5350	71.41	PK	309	2.3	H	-2.33	69.08	74	-4.92
5350	53.33	AV	309	2.3	H	-2.33	51	54	-3
5350	75.09	PK	44	1.5	V	-2.33	72.76	74	-1.24
5350	54.79	AV	44	1.5	V	-2.33	52.46	54	-1.54
5460	63.7	PK	240	1.7	H	-2.26	61.44	74	-12.56
5460	50.9	AV	240	1.7	H	-2.26	48.64	54	-5.36
5460	64.04	PK	317	1.5	V	-2.26	61.78	74	-12.22
5460	50.88	AV	317	1.5	V	-2.26	48.62	54	-5.38
10620	40.67	PK	98	2.3	H	8.89	49.56	74	-24.44
10620	41	PK	276	1.8	V	8.89	49.89	74	-24.11

Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11AC20									
5260 MHz									
4500	62.93	PK	300	2.1	H	-4.72	58.21	74	-15.79
4500	50.23	AV	300	2.1	H	-4.72	45.51	54	-8.49
4500	63.51	PK	236	1.3	V	-4.72	58.79	74	-15.21
4500	50.09	AV	236	1.3	V	-4.72	45.37	54	-8.63
5150	63.31	PK	132	1.6	H	-2.73	60.58	74	-13.42
5150	50.17	AV	132	1.6	H	-2.73	47.44	54	-6.56
5150	64.6	PK	161	1.3	V	-2.73	61.87	74	-12.13
5150	50.14	AV	161	1.3	V	-2.73	47.41	54	-6.59
10520	40.45	PK	211	1.8	H	8.65	49.1	68.2	-19.1
10520	40.47	PK	320	1.9	V	8.65	49.12	68.2	-19.08
5280 MHz									
10560	41.09	PK	143	1.2	H	8.69	49.78	68.2	-18.42
10560	40.73	PK	51	1.4	V	8.69	49.42	68.2	-18.78
5320 MHz									
5350	68.32	PK	189	1.2	H	-2.33	65.99	74	-8.01
5350	51.31	AV	189	1.2	H	-2.33	48.98	54	-5.02
5350	71.02	PK	23	1.2	V	-2.33	68.69	74	-5.31
5350	52.87	AV	23	1.2	V	-2.33	50.54	54	-3.46
5460	64.17	PK	131	1.5	H	-2.26	61.91	74	-12.09
5460	51.06	AV	131	1.5	H	-2.26	48.8	54	-5.2
5460	63.85	PK	68	2.1	V	-2.26	61.59	74	-12.41
5460	50.91	AV	68	2.1	V	-2.26	48.65	54	-5.35
10640	40.63	PK	293	1.9	H	8.92	49.55	74	-24.45
10640	40.91	PK	18	1.5	V	8.92	49.83	74	-24.17

Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11AC40									
5270 MHz									
4500	63.03	PK	197	2.4	H	-4.72	58.31	74	-15.69
4500	50.82	AV	197	2.4	H	-4.72	46.1	54	-7.9
4500	63.39	PK	137	2.2	V	-4.72	58.67	74	-15.33
4500	50.74	AV	137	2.2	V	-4.72	46.02	54	-7.98
5150	63.16	PK	31	2.4	H	-2.73	60.43	74	-13.57
5150	50.15	AV	31	2.4	H	-2.73	47.42	54	-6.58
5150	64.27	PK	191	1.2	V	-2.73	61.54	74	-12.46
5150	50.53	AV	191	1.2	V	-2.73	47.8	54	-6.2
10540	40.32	PK	159	1.6	H	8.65	48.97	68.2	-19.23
10540	40.5	PK	307	1.5	V	8.65	49.15	68.2	-19.05
5310 MHz									
5350	71	PK	186	1.9	H	-2.33	68.67	74	-5.33
5350	53.29	AV	186	1.9	H	-2.33	50.96	54	-3.04
5350	75.12	PK	345	1.2	V	-2.33	72.79	74	-1.21
5350	54.51	AV	345	1.2	V	-2.33	52.18	54	-1.82
5460	63.65	PK	235	1.4	H	-2.26	61.39	74	-12.61
5460	50.9	AV	235	1.4	H	-2.26	48.64	54	-5.36
5460	63.8	PK	343	2.2	V	-2.26	61.54	74	-12.46
5460	51	AV	343	2.2	V	-2.26	48.74	54	-5.26
10620	41.01	PK	360	2.4	H	8.89	49.9	74	-24.1
10620	41.12	PK	84	1.6	V	8.89	50.01	74	-23.99

Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11AC80									
5290 MHz									
4500	63.09	PK	293	1.6	H	-4.72	58.37	74	-15.63
4500	50.74	AV	293	1.6	H	-4.72	46.02	54	-7.98
4500	63.08	PK	243	2.4	V	-4.72	58.36	74	-15.64
4500	50.84	AV	243	2.4	V	-4.72	46.12	54	-7.88
5150	63.21	PK	12	1.8	H	-2.73	60.48	74	-13.52
5150	50.16	AV	12	1.8	H	-2.73	47.43	54	-6.57
5150	64.15	PK	240	1.9	V	-2.73	61.42	74	-12.58
5150	50.35	AV	240	1.9	V	-2.73	47.62	54	-6.38
5350	70.09	PK	83	1.8	H	-2.33	67.76	74	-6.24
5350	53.28	AV	83	1.8	H	-2.33	50.95	54	-3.05
5350	72.34	PK	6	2.1	V	-2.33	70.01	74	-3.99
5350	54.38	AV	6	2.1	V	-2.33	52.05	54	-1.95
5460	63.9	PK	131	2.1	H	-2.26	61.64	74	-12.36
5460	50.83	AV	131	2.1	H	-2.26	48.57	54	-5.43
5460	63.88	PK	354	2.5	V	-2.26	61.62	74	-12.38
5460	50.9	AV	354	2.5	V	-2.26	48.64	54	-5.36
10560	41.03	PK	229	2.3	H	8.69	49.72	68.2	-18.48
10560	41.03	PK	291	1.1	V	8.69	49.72	68.2	-18.48

5470-5725MHz:

Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11A									
5500 MHz									
5460	63.56	PK	72	1.7	H	-2.26	61.3	74	-12.7
5460	50.58	AV	72	1.7	H	-2.26	48.32	54	-5.68
5460	63.99	PK	244	1.3	V	-2.26	61.73	74	-12.27
5460	50.91	AV	244	1.3	V	-2.26	48.65	54	-5.35
5470	64.83	PK	1	2.1	H	-2.22	62.61	68.2	-5.59
5470	65.76	PK	314	2.3	V	-2.22	63.54	68.2	-4.66
11000	40.91	PK	29	2.3	H	9.67	50.58	74	-23.42
11000	40.83	PK	193	1.5	V	9.67	50.5	74	-23.5
5580 MHz									
11160	41.9	PK	194	2	H	8.68	50.58	74	-23.42
11160	41.77	PK	274	2.3	V	8.68	50.45	74	-23.55
5700 MHz									
5725	65.56	PK	267	1.7	H	-1.96	63.6	68.2	-4.6
5725	66.28	PK	176	2.3	V	-1.96	64.32	68.2	-3.88
5745	63.48	PK	312	2	H	-1.91	61.57	68.2	-6.63
5745	64.32	PK	164	1.8	V	-1.91	62.41	68.2	-5.79
11400	44.41	PK	27	1.6	H	7.26	51.67	74	-22.33
11400	44.29	PK	313	2.3	V	7.26	51.55	74	-22.45
802.11n20									
5500 MHz									
5460	64.02	PK	348	1.7	H	-2.26	61.76	74	-12.24
5460	50.54	AV	348	1.7	H	-2.26	48.28	54	-5.72
5460	64.41	PK	208	1.8	V	-2.26	62.15	74	-11.85
5460	50.78	AV	208	1.8	V	-2.26	48.52	54	-5.48
5470	66.87	PK	206	1.9	H	-2.22	64.65	68.2	-3.55
5470	68.48	PK	136	1.5	V	-2.22	66.26	68.2	-1.94
11000	41.18	PK	174	2.4	H	9.67	50.85	74	-23.15
11000	41.02	PK	106	1.6	V	9.67	50.69	74	-23.31
5580 MHz									
11160	42.1	PK	199	2.1	H	8.68	50.78	74	-23.22
11160	41.95	PK	36	1.1	V	8.68	50.63	74	-23.37
5700 MHz									
5725	65.82	PK	243	1.5	H	-1.96	63.86	68.2	-4.34
5725	66.67	PK	36	1.7	V	-1.96	64.71	68.2	-3.49
5745	63.63	PK	153	2.4	H	-1.91	61.72	68.2	-6.48
5745	63.78	PK	128	1.3	V	-1.91	61.87	68.2	-6.33
11400	44.51	PK	155	1.5	H	7.26	51.77	74	-22.23
11400	44.32	PK	199	1.1	V	7.26	51.58	74	-22.42

Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11n40									
5510 MHZ									
5460	63.61	PK	240	2.4	H	-2.26	61.35	74	-12.65
5460	51.25	AV	240	2.4	H	-2.26	48.99	54	-5.01
5460	63.94	PK	328	1.1	V	-2.26	61.68	74	-12.32
5460	51.86	AV	328	1.1	V	-2.26	49.6	54	-4.4
5470	65.73	PK	89	1	H	-2.22	63.51	68.2	-4.69
5470	67.24	PK	34	1.2	V	-2.22	65.02	68.2	-3.18
11020	39.46	PK	168	2.5	H	9.57	49.03	74	-24.97
11020	39.63	PK	90	2.4	V	9.57	49.2	74	-24.8
5550 MHz									
11100	40.42	PK	75	1.2	H	9.12	49.54	74	-24.46
11100	40.73	PK	237	1.2	V	9.12	49.85	74	-24.15
5670 MHz									
5725	66.49	PK	286	2.2	H	-1.96	64.53	68.2	-3.67
5725	67.03	PK	146	1.8	V	-1.96	65.07	68.2	-3.13
5745	63.85	PK	294	2.1	H	-1.91	61.94	68.2	-6.26
5745	64.47	PK	303	2.2	V	-1.91	62.56	68.2	-5.64
11340	43.52	PK	8	2	H	7.67	51.19	74	-22.81
11340	43.74	PK	104	2.4	V	7.67	51.41	74	-22.59

Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11AC20									
5500 MHz									
5460	64.18	PK	87	1.4	H	-2.26	61.92	74	-12.08
5460	50.66	AV	87	1.4	H	-2.26	48.4	54	-5.6
5460	64.77	PK	171	1.3	V	-2.26	62.51	74	-11.49
5460	50.81	AV	171	1.3	V	-2.26	48.55	54	-5.45
5470	67	PK	69	1.7	H	-2.22	64.78	68.2	-3.42
5470	68.96	PK	40	1	V	-2.22	66.74	68.2	-1.46
11000	41.04	PK	265	2.4	H	9.67	50.71	74	-23.29
11000	40.86	PK	92	1.4	V	9.67	50.53	74	-23.47
5580 MHz									
11160	42.05	PK	5	1.9	H	8.68	50.73	74	-23.27
11160	41.89	PK	79	2.4	V	8.68	50.57	74	-23.43
5700 MHz									
5725	66.19	PK	349	1.4	H	-1.96	64.23	68.2	-3.97
5725	67.07	PK	324	1.4	V	-1.96	65.11	68.2	-3.09
5745	64.03	PK	215	2.3	H	-1.91	62.12	68.2	-6.08
5745	64.35	PK	342	1.3	V	-1.91	62.44	68.2	-5.76
11400	44.54	PK	281	2.3	H	7.26	51.8	74	-22.2
11400	43.69	PK	102	1.4	V	7.26	50.95	74	-23.05
802.11AC40									
5510 MHz									
5460	63.76	PK	191	2.2	H	-2.26	61.5	74	-12.5
5460	51.09	AV	191	2.2	H	-2.26	48.83	54	-5.17
5460	64.07	PK	189	1.4	V	-2.26	61.81	74	-12.19
5460	51.58	AV	189	1.4	V	-2.26	49.32	54	-4.68
5470	65.66	PK	166	1.2	H	-2.22	63.44	68.2	-4.76
5470	66.75	PK	250	1.6	V	-2.22	64.53	68.2	-3.67
11020	40.95	PK	112	1	H	9.57	50.52	74	-23.48
11020	41.13	PK	86	1.3	V	9.57	50.7	74	-23.3
5550 MHz									
11100	40.74	PK	199	2	H	9.12	49.86	74	-24.14
11100	40.93	PK	353	1.2	V	9.12	50.05	74	-23.95
5670 MHz									
5725	66.34	PK	293	2.2	H	-1.96	64.38	68.2	-3.82
5725	66.93	PK	36	1	V	-1.96	64.97	68.2	-3.23
5745	64.06	PK	169	1.5	H	-1.91	62.15	68.2	-6.05
5745	64.35	PK	170	2.2	V	-1.91	62.44	68.2	-5.76
11340	43.65	PK	255	1.7	H	7.67	51.32	74	-22.68
11340	43.84	PK	288	2	V	7.67	51.51	74	-22.49

Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11AC80									
5530 MHz									
5460	64.1	PK	171	1.6	H	-2.26	61.84	74	-12.16
5460	52.24	AV	171	1.6	H	-2.26	49.98	54	-4.02
5460	64.56	PK	223	1.9	V	-2.26	62.3	74	-11.7
5460	53.89	AV	223	1.9	V	-2.26	51.63	54	-2.37
5470	66.17	PK	307	1.7	H	-2.22	63.95	68.2	-4.25
5470	67.98	PK	240	2.3	V	-2.22	65.76	68.2	-2.44
11060	40.12	PK	203	2.3	H	9.37	49.49	74	-24.51
11060	40.53	PK	345	2	V	9.37	49.9	74	-24.1
5610 MHz									
5725	65.64	PK	145	2.3	H	-1.96	63.68	68.2	-4.52
5725	66.76	PK	309	2.2	V	-1.96	64.8	68.2	-3.4
5745	64.15	PK	319	1.4	H	-1.91	62.24	68.2	-5.96
5745	64.44	PK	353	1.2	V	-1.91	62.53	68.2	-5.67
11220	42.43	PK	168	1.5	H	8.33	50.76	74	-23.24
11220	42.68	PK	73	2.2	V	8.33	51.01	74	-22.99

5725-5850 MHz:

Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11A									
5745 MHz									
5650	65.48	PK	246	1.6	H	-1.95	63.53	68.2	-4.67
5700	66.19	PK	263	1.8	H	-2.02	64.17	105.2	-41.03
5720	69.51	PK	226	1.8	H	-1.97	67.54	110.8	-43.26
5725	74.34	PK	320	2	H	-1.96	72.38	122.2	-49.82
5650	65.6	PK	185	2.1	V	-1.95	63.65	68.2	-4.55
5700	66.6	PK	202	1.2	V	-2.02	64.58	105.2	-40.62
5720	74.59	PK	81	1.3	V	-1.97	72.62	110.8	-38.18
5725	79.93	PK	239	2.4	V	-1.96	77.97	122.2	-44.23
11490	43.43	PK	127	1.6	H	6.63	50.06	74	-23.94
11490	43.59	PK	118	1.9	V	6.63	50.22	74	-23.78
5785 MHz									
11570	44.3	PK	192	1.4	H	6.59	50.89	74	-23.11
11570	44.66	PK	135	2.3	V	6.59	51.25	74	-22.75
5825 MHz									
5850	69.93	PK	8	2.4	H	-1.81	68.12	122.2	-54.08
5855	67.67	PK	111	1.4	H	-1.82	65.85	110.8	-44.95
5875	66.9	PK	96	1.3	H	-1.84	65.06	105.2	-40.14
5925	66.61	PK	9	2	H	-1.82	64.79	68.2	-3.41
5850	73.63	PK	88	1.4	V	-1.81	71.82	122.2	-50.38
5855	70.15	PK	237	1.5	V	-1.82	68.33	110.8	-42.47
5875	67.08	PK	36	2.2	V	-1.84	65.24	105.2	-39.96
5925	66.72	PK	244	1.8	V	-1.82	64.9	68.2	-3.3
11650	42.45	PK	28	1.4	H	6.77	49.22	74	-24.78
11650	42.89	PK	334	2.4	V	6.77	49.66	74	-24.34

Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11N20									
5745 MHz									
5650	65.59	PK	52	1.6	H	-1.95	63.64	68.2	-4.56
5700	66.49	PK	19	1.3	H	-2.02	64.47	105.2	-40.73
5720	72.68	PK	51	1.4	H	-1.97	70.71	110.8	-40.09
5725	77.64	PK	258	2.2	H	-1.96	75.68	122.2	-46.52
5650	65.69	PK	70	2.5	V	-1.95	63.74	68.2	-4.46
5700	66.55	PK	224	1.8	V	-2.02	64.53	105.2	-40.67
5720	76.08	PK	25	1.2	V	-1.97	74.11	110.8	-36.69
5725	82.33	PK	350	2.1	V	-1.96	80.37	122.2	-41.83
11490	43.01	PK	325	2	H	6.63	49.64	74	-24.36
11490	43.18	PK	341	1.5	V	6.63	49.81	74	-24.19
5785 MHz									
11570	44.39	PK	270	1.8	H	6.59	50.98	74	-23.02
11570	44.66	PK	203	1.3	V	6.59	51.25	74	-22.75
5825 MHz									
5850	70.66	PK	168	1.9	H	-1.81	68.85	122.2	-53.35
5855	68.24	PK	110	1.3	H	-1.82	66.42	110.8	-44.38
5875	66.9	PK	177	1.6	H	-1.84	65.06	105.2	-40.14
5925	66.56	PK	152	1.7	H	-1.82	64.74	68.2	-3.46
5850	74.77	PK	14	2.4	V	-1.81	72.96	122.2	-49.24
5855	71.64	PK	22	2.5	V	-1.82	69.82	110.8	-40.98
5875	67.03	PK	170	1.6	V	-1.84	65.19	105.2	-40.01
5925	66.65	PK	179	1.4	V	-1.82	64.83	68.2	-3.37
11650	42.5	PK	191	2.2	H	6.77	49.27	74	-24.73
11650	42.69	PK	296	1.7	V	6.77	49.46	74	-24.54

Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11N40									
5755 MHz									
5650	65.58	PK	138	2	H	-1.95	63.63	68.2	-4.57
5700	67.73	PK	352	1.3	H	-2.02	65.71	105.2	-39.49
5720	74.41	PK	20	2.1	H	-1.97	72.44	110.8	-38.36
5725	77.18	PK	79	2.5	H	-1.96	75.22	122.2	-46.98
5650	65.73	PK	254	1.4	V	-1.95	63.78	68.2	-4.42
5700	69.47	PK	102	1.8	V	-2.02	67.45	105.2	-37.75
5720	79.74	PK	349	2.4	V	-1.97	77.77	110.8	-33.03
5725	83.1	PK	278	1.7	V	-1.96	81.14	122.2	-41.06
11510	43.9	PK	336	2.3	H	6.59	50.49	74	-23.51
11510	44.24	PK	222	1.1	V	6.59	50.83	74	-23.17
5795 MHz									
5850	68.9	PK	79	1.3	H	-1.81	67.09	122.2	-55.11
5855	68.07	PK	122	1.3	H	-1.82	66.25	110.8	-44.55
5875	66.9	PK	294	2.2	H	-1.84	65.06	105.2	-40.14
5925	66.64	PK	272	1.1	H	-1.82	64.82	68.2	-3.38
5850	70.87	PK	60	2.1	V	-1.81	69.06	122.2	-53.14
5855	68.75	PK	97	2.1	V	-1.82	66.93	110.8	-43.87
5875	66.99	PK	179	1.1	V	-1.84	65.15	105.2	-40.05
5925	66.71	PK	27	1.9	V	-1.82	64.89	68.2	-3.31
11590	44.79	PK	125	1.1	H	6.57	51.36	74	-22.64
11590	44.51	PK	255	1.6	V	6.57	51.08	74	-22.92

Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11AC20									
5745 MHz									
5650	65.57	PK	221	1.6	H	-1.95	63.62	68.2	-4.58
5700	66.56	PK	224	1.9	H	-2.02	64.54	105.2	-40.66
5720	71.6	PK	57	2.5	H	-1.97	69.63	110.8	-41.17
5725	76.77	PK	12	1.3	H	-1.96	74.81	122.2	-47.39
5650	65.7	PK	70	2.3	V	-1.95	63.75	68.2	-4.45
5700	66.7	PK	132	1.6	V	-2.02	64.68	105.2	-40.52
5720	76.23	PK	214	2.3	V	-1.97	74.26	110.8	-36.54
5725	81.88	PK	78	1.7	V	-1.96	79.92	122.2	-42.28
11490	43.21	PK	24	2.1	H	6.63	49.84	74	-24.16
11490	43.38	PK	281	1.9	V	6.63	50.01	74	-23.99
5785 MHz									
11570	44.54	PK	192	1.8	H	6.59	51.13	74	-22.87
11570	44.81	PK	159	1.2	V	6.59	51.4	74	-22.6
5825 MHz									
5850	71.12	PK	81	1.6	H	-1.81	69.31	122.2	-52.89
5855	71.61	PK	310	1.9	H	-1.82	69.79	110.8	-41.01
5875	67.88	PK	72	2	H	-1.84	66.04	105.2	-39.16
5925	66.64	PK	205	2.3	H	-1.82	64.82	68.2	-3.38
5850	74.35	PK	352	2.3	V	-1.81	72.54	122.2	-49.66
5855	71.61	PK	79	1.3	V	-1.82	69.79	110.8	-41.01
5875	68.6	PK	92	1.2	V	-1.84	66.76	105.2	-38.44
5925	66.73	PK	298	1.7	V	-1.82	64.91	68.2	-3.29
11650	42.66	PK	262	2.1	H	6.77	49.43	74	-24.57
11650	42.88	PK	325	1.9	V	6.77	49.65	74	-24.35

Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11AC40									
5755 MHz									
5650	65.66	PK	111	1.6	H	-1.95	63.71	68.2	-4.49
5700	67.24	PK	113	1.6	H	-2.02	65.22	105.2	-39.98
5720	74.41	PK	229	1.6	H	-1.97	72.44	110.8	-38.36
5725	76.73	PK	156	2.2	H	-1.96	74.77	122.2	-47.43
5650	65.82	PK	186	1.3	V	-1.95	63.87	68.2	-4.33
5700	68.98	PK	183	2.4	V	-2.02	66.96	105.2	-38.24
5720	78.6	PK	287	2.1	V	-1.97	76.63	110.8	-34.17
5725	82.27	PK	48	2.5	V	-1.96	80.31	122.2	-41.89
11510	43.87	PK	183	1.6	H	6.59	50.46	74	-23.54
11510	44.26	PK	71	1.6	V	6.59	50.85	74	-23.15
5795 MHz									
5850	68.72	PK	330	1.3	H	-1.81	66.91	122.2	-55.29
5855	67.64	PK	53	2	H	-1.82	65.82	110.8	-44.98
5875	67.07	PK	22	2.2	H	-1.84	65.23	105.2	-39.97
5925	66.71	PK	89	2.4	H	-1.82	64.89	68.2	-3.31
5850	70.51	PK	102	1.7	V	-1.81	68.7	122.2	-53.5
5855	68.97	PK	163	2.1	V	-1.82	67.15	110.8	-43.65
5875	67.13	PK	168	1.1	V	-1.84	65.29	105.2	-39.91
5925	66.8	PK	8	1.4	V	-1.82	64.98	68.2	-3.22
11590	44.4	PK	28	1.5	H	6.57	50.97	74	-23.03
11590	44.65	PK	77	2.5	V	6.57	51.22	74	-22.78

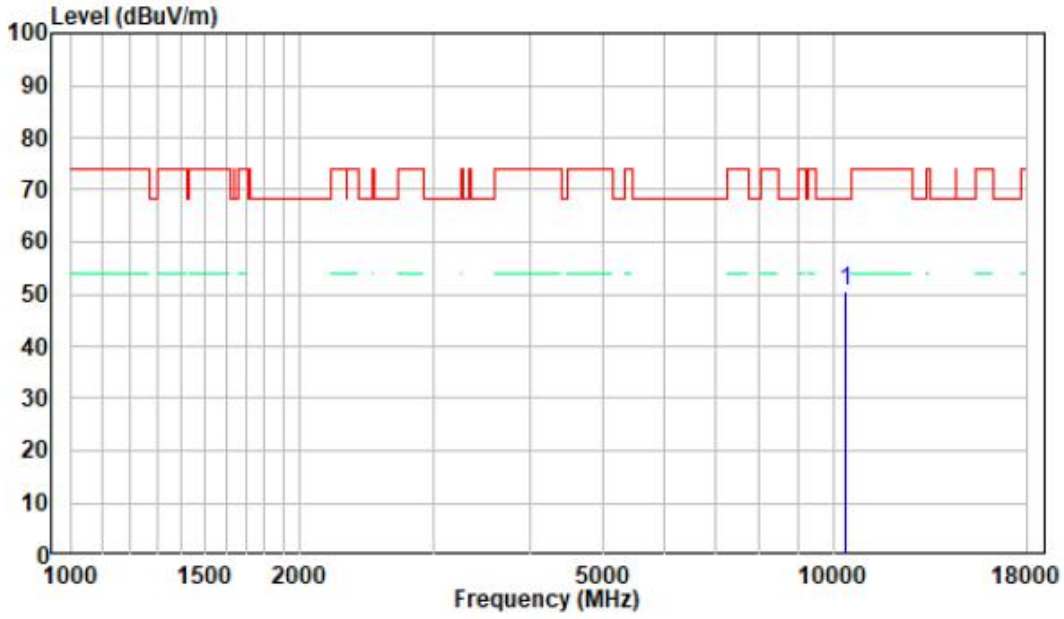
Frequency (MHz)	Receiver		Turn-Table	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m)	FCC Part 15.407	
	Reading (dBμV)	Detector (PK/QP/Ave.)	Angle Degree	Height (m)	Polar (H / V)			Limit (dBμV/m)	Margin (dB)
802.11AC80									
5775 MHz									
5650	65.81	PK	5	1	H	-1.95	63.86	68.2	-4.34
5700	69.24	PK	157	1.7	H	-2.02	67.22	105.2	-37.98
5720	72.11	PK	236	1.5	H	-1.97	70.14	110.8	-40.66
5725	74.31	PK	175	2.5	H	-1.96	72.35	122.2	-49.85
5650	66.93	PK	41	1.3	V	-1.95	64.98	68.2	-3.22
5700	73.13	PK	351	1.8	V	-2.02	71.11	105.2	-34.09
5720	76.9	PK	321	1.5	V	-1.97	74.93	110.8	-35.87
5725	79.73	PK	46	1.3	V	-1.96	77.77	122.2	-44.43
5850	71.74	PK	225	1.7	H	-1.81	69.93	122.2	-52.27
5855	69.88	PK	205	1.8	H	-1.82	68.06	110.8	-42.74
5875	67.96	PK	145	2	H	-1.84	66.12	105.2	-39.08
5925	66.77	PK	8	1.2	H	-1.82	64.95	68.2	-3.25
5850	76.11	PK	336	2.2	V	-1.81	74.3	122.2	-47.9
5855	72.64	PK	152	1.5	V	-1.82	70.82	110.8	-39.98
5875	69.19	PK	113	2.1	V	-1.84	67.35	105.2	-37.85
5925	66.91	PK	190	2	V	-1.82	65.09	68.2	-3.11
11650	43.92	PK	330	1.5	H	6.77	50.69	74	-23.31
11650	44.2	PK	22	2.1	V	6.77	50.97	74	-23.03

Note:
Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Absolute Level (Corrected Amplitude)= Factor + Reading
Margin = Absolute Level (Corrected Amplitude) - Limit
The other spurious emission which is 20dB below to the limit or in the noise floor was not recorded.
The test result of peak was less than the limit of average, so just peak values were recorded.

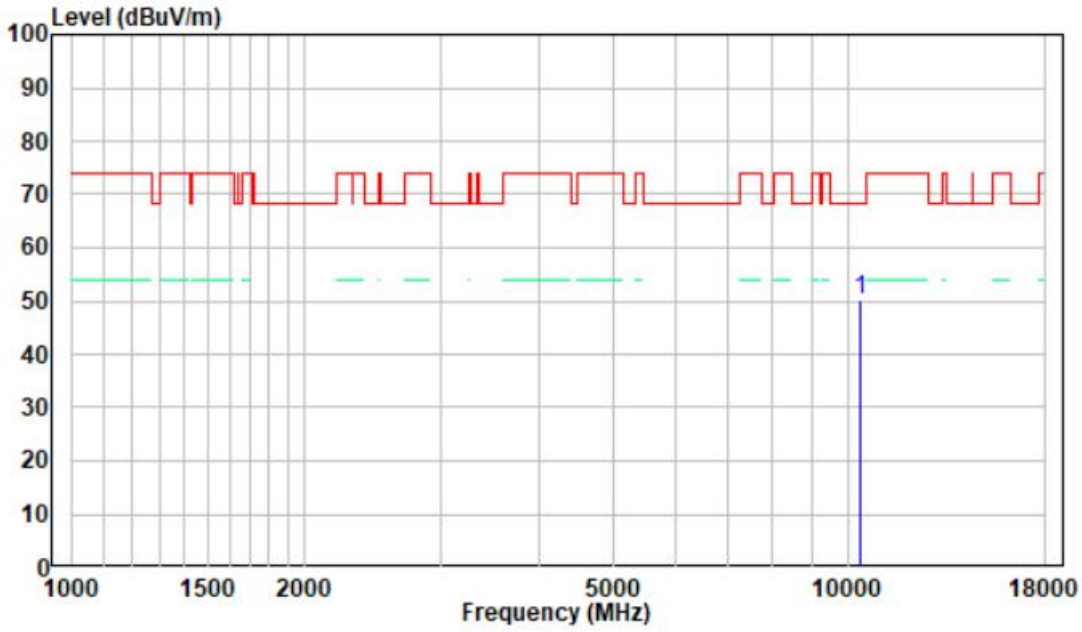
1-18 GHz:

Pre-scan Plots:

802.11 a 5200MHz
Horizontal



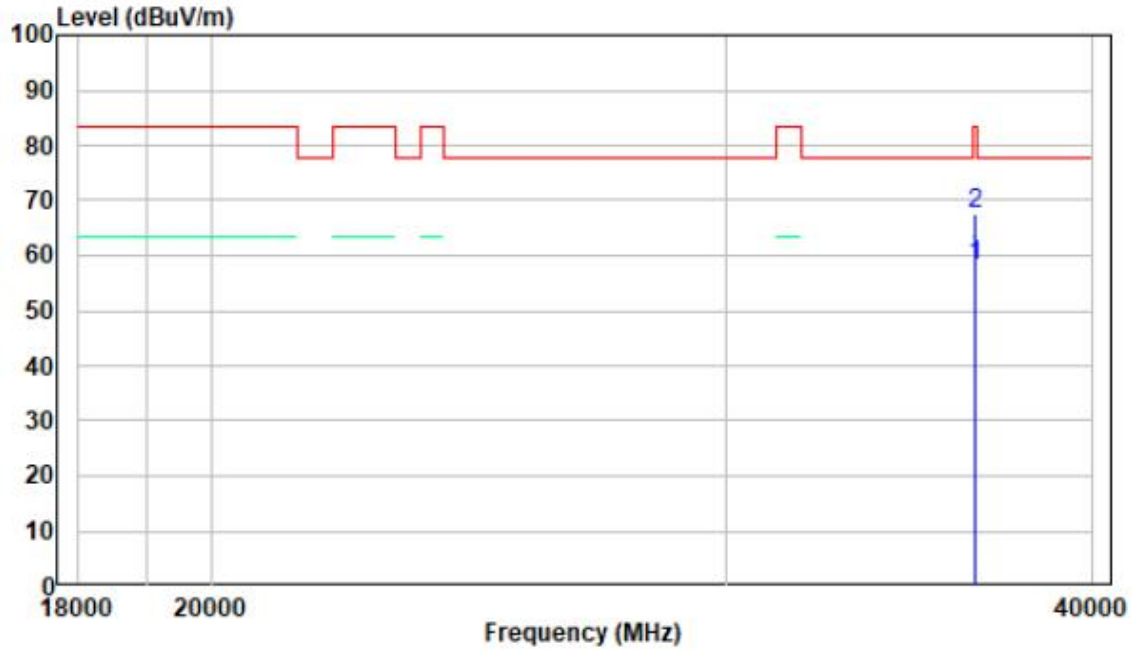
Vertical



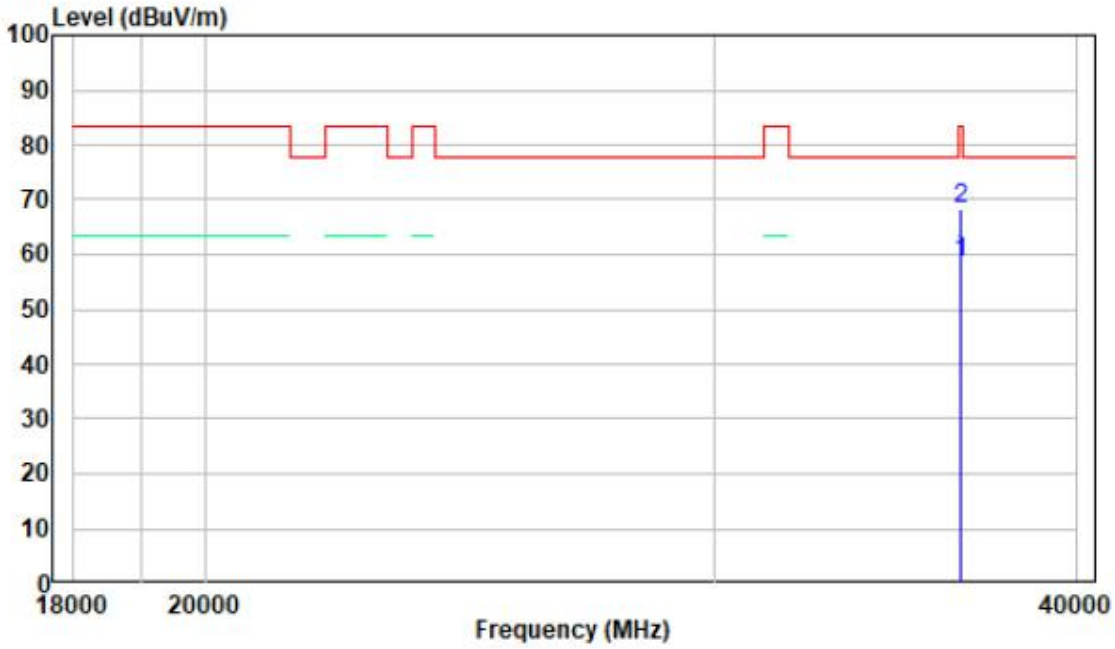
18 -40GHz:

Pre-scan Plots:

802.11 a 5200MHz
Horizontal



Vertical



FCC §15.407(a),(e) – 26 dB & 6dB EMISSION BANDWIDTH

Applicable Standard

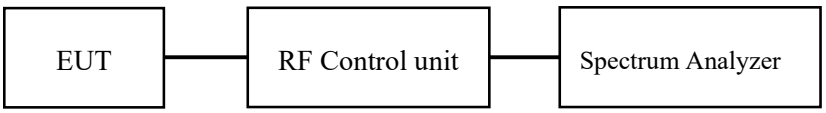
The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

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

Test Procedure

1. Emission Bandwidth (EBW)
a) Set RBW = approximately 1% of the emission bandwidth.
b) Set the VBW > RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) 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 5.725-5.85 GHz. The following procedure shall be used for measuring this bandwidth:
a) Set RBW = 100 kHz.
b) Set the video bandwidth (VBW) ≥ 3 × 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.



Test Data

Environmental Conditions

Temperature:	26.7℃
Relative Humidity:	57 %
ATM Pressure:	101.0 kPa

The testing was performed by Key Pei on 2022-04-19.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the Appendix.

FCC §15.407(a) – CONDUCTED TRANSMITTER OUTPUT POWER

Applicable Standard

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 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.

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.

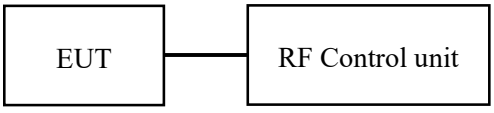
For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum 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.

Test Procedure

d. Place the EUT on a bench and set it in transmitting mode.

e. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.

f. Add a correction factor to the display.



Note: the RF control unit has built-in power sensor.

Test Data

Environmental Conditions

Temperature:	26.7℃
Relative Humidity:	57 %
ATM Pressure:	101.0 kPa

The testing was performed by Key Pei on 2022-04-19.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the Appendix.

FCC §15.407(a) - POWER SPECTRAL DENSITY

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 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.

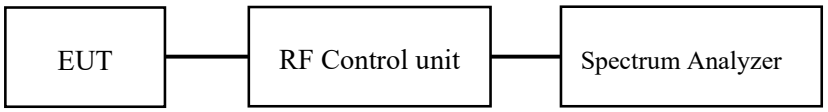
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 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.

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.

Test Procedure

For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, "provided that the measured power is integrated over the full reference bandwidth" to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:

a) Set RBW $\geqslant$ 1/T, where T is defined in section II.B.l.a).
b) Set VBW $\geqslant$ 3 RBW.
c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10 log (500 kHz/RBW) to the measured result, whereas RBW (< 500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add 10 log (1MHz/RBW) to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.
e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.



Test Data

Environmental Conditions

Temperature:	26.7℃
Relative Humidity:	57 %
ATM Pressure:	101.0 kPa

The testing was performed by Key Pei on 2022-04-19.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the Appendix.

APPENDIX

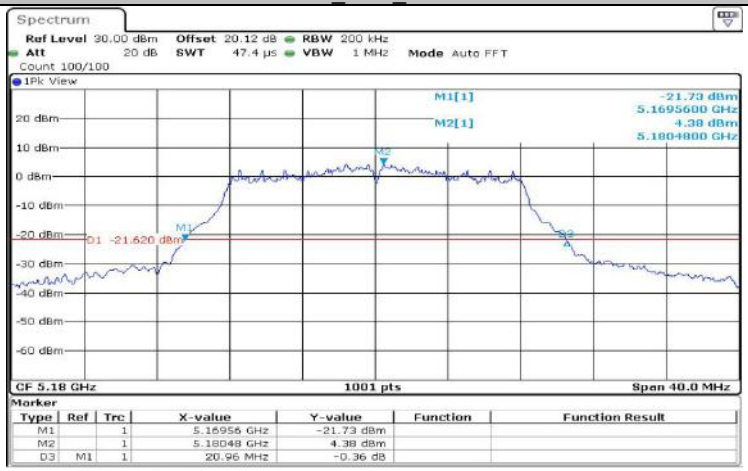
Appendix A1: Emission Bandwidth

Test Result

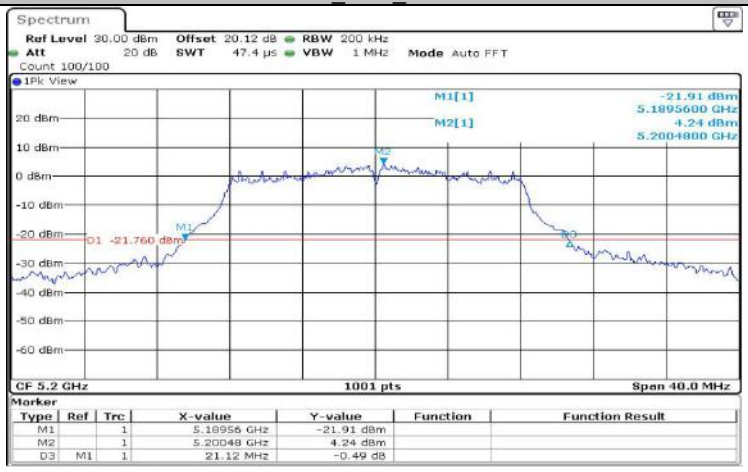
Test Mode	Antenna	Channel	26db EBW [MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	20.96	---	---
		5200	21.12	---	---
		5240	21.00	---	---
		5260	21.00	---	---
		5280	21.00	---	---
		5320	20.96	---	---
		5500	20.92	---	---
		5580	20.88	---	---
		5700	21.04	---	---
11N20SISO	Ant1	5180	21.56	---	---
		5200	21.48	---	---
		5240	21.48	---	---
		5260	21.64	---	---
		5280	21.40	---	---
		5320	21.36	---	---
		5500	21.56	---	---
		5580	21.40	---	---
		5700	21.36	---	---
11N40SISO	Ant1	5190	40.08	---	---
		5230	40.16	---	---
		5270	41.20	---	---
		5310	40.32	---	---
		5510	40.08	---	---
		5550	40.00	---	---
		5670	39.92	---	---
11AC20SISO	Ant1	5180	21.28	---	---
		5200	21.68	---	---
		5240	21.48	---	---
		5260	21.28	---	---
		5280	21.12	---	---
		5320	21.40	---	---
		5500	21.28	---	---
		5580	24.32	---	---
		5700	21.20	---	---
11AC40SISO	Ant1	5190	40.00	---	---
		5230	40.08	---	---
		5270	46.24	---	---
		5310	40.16	---	---
		5510	39.92	---	---
		5550	40.16	---	---
		5670	40.08	---	---
11AC80SISO	Ant1	5210	81.60	---	---
		5290	81.28	---	---
		5530	81.60	---	---
		5610	81.60	---	---

Test Graphs

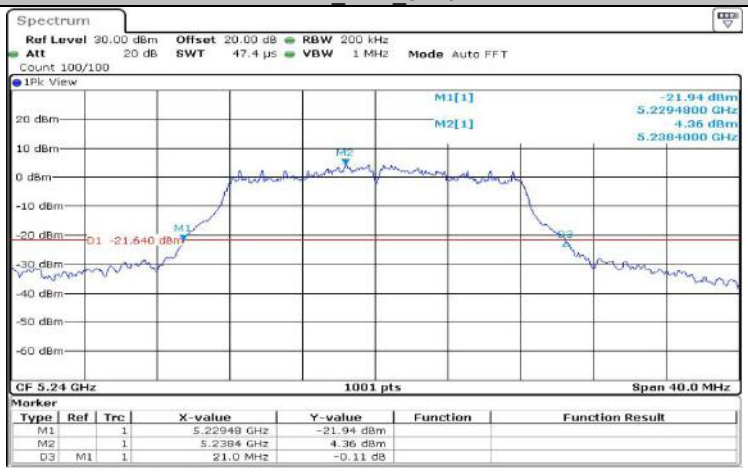
11A_Ant1_5180



11A_Ant1_5200

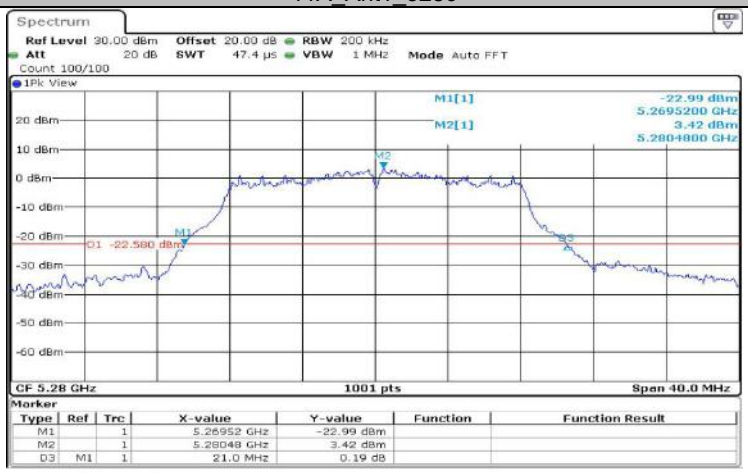


11A_Ant1_5240

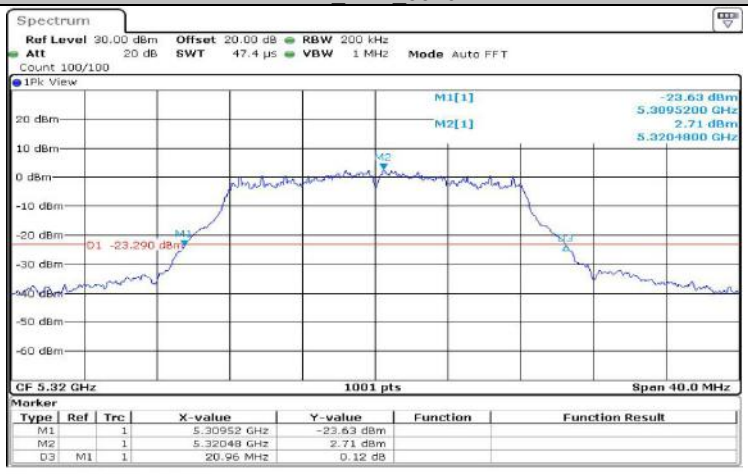


11A_Ant1_5260

11A_Ant1_5280



11A_Ant1_5320



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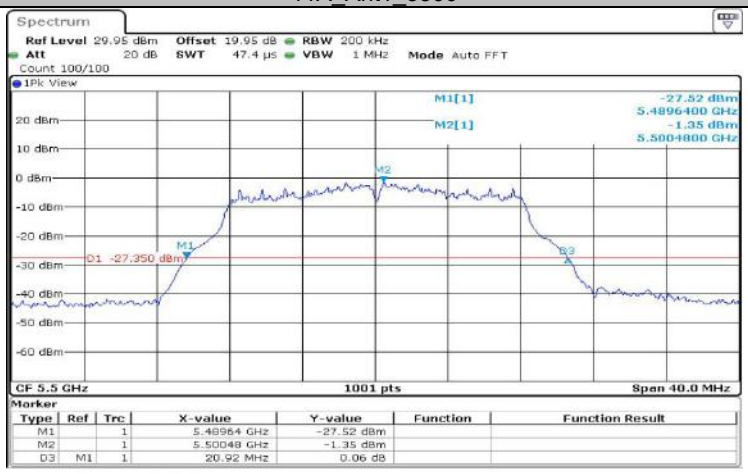
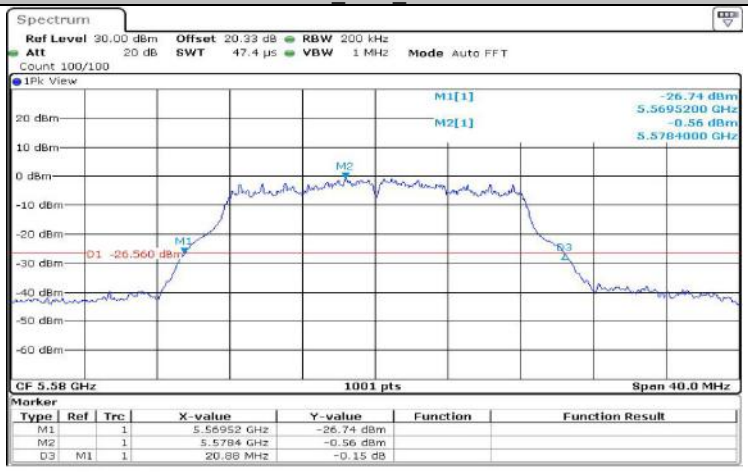


11A_Ant1_5580



11A_Ant1_5700