

TEST REPORT

Applicant Name: YEALINK(XIAMEN) NETWORK TECHNOLOGY CO.,LTD.
Address: No.666 Hu'an Rd. Huli District Xiamen City, Fujian, P.R. China
Report Number: 2401T36383E-RF-00
FCC ID: T2C-M900

Test Standard (s)

FCC PART 15.407

Sample Description

Product Type: Video Conferencing Endpoint
Model No.: MeetingEye 900
Multiple Model(s) No.: N/A
Trade Mark: **Yealink**
Date Received: 2024/05/17
Issue Date: 2024/11/22

Test Result:

Pass[▲]

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

Prepared and Checked By:

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Jojo Guo
RF Engineer

Approved By:

Nancy Wang

Nancy Wang
RF Supervisor

Note: The information marked # is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2401T36383E-RF-00	Original Report	2024/11/22

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	Video Conferencing Endpoint
Tested Model	MeetingEye 900
Multiple Model(s)	N/A
Frequency Range	5G Wi-Fi: 5150-5250MHz; 5250-5350MHz; 5470-5725MHz; 5725-5850MHz
Mode	802.11a/n20/n40/ac20/ac40/ac80/ax20/ax40/ax80
Maximum Conducted Average Output Power	5150-5250MHz: 10.70dBm 5250-5350MHz: 10.50dBm 5470-5725MHz: 9.60dBm 5725-5850MHz: 8.80dBm
Modulation Technique	OFDM, OFDMA
Antenna Specification [#]	ANT 0: 4.95dBi; ANT 1:4.95dBi (provided by the applicant)
Voltage Range	AC 120V
Sample serial number	2LBP-2 for Conducted and Radiated Emissions Test 2LBP-1 for RF Conducted Test (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Adapter Information	N/A

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 Bay Area Compliance Laboratories Corp. (Shenzhen). 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 Frequency		213.55 Hz(k=2, 95% level of confidence)
RF output power, conducted		0.72 dB(k=2, 95% level of confidence)
Unwanted Emission, conducted		1.75 dB(k=2, 95% level of confidence)
AC Power Lines Conducted Emissions	9kHz-150kHz	3.94dB(k=2, 95% level of confidence)
	150kHz-30MHz	3.84dB(k=2, 95% level of confidence)
Radiated Emissions	9kHz - 30MHz	3.30dB(k=2, 95% level of confidence)
	30MHz~200MHz (Horizontal)	4.48dB(k=2, 95% level of confidence)
	30MHz~200MHz (Vertical)	4.55dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Horizontal)	4.85dB(k=2, 95% level of confidence)
	200MHz~1000MHz (Vertical)	5.05dB(k=2, 95% level of confidence)
	1GHz - 6GHz	5.35dB(k=2, 95% level of confidence)
	6GHz - 18GHz	5.44dB(k=2, 95% level of confidence)
	18GHz - 40GHz	5.16dB(k=2, 95% level of confidence)
Temperature		±1°C
Humidity		±1%
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 Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West) , 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 715558, the FCC Designation No. : CN5045.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in an engineering mode, which was provided by manufacturer.

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/ac20/ax20 mode: channel 36, 40, 48 were tested;

For 802.11ac40/ax40 mode: channel 38, 46 were tested;

For 802.11ac80/ax80 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/ac20/ax20 mode: channel 52, 56, 64 were tested;

For 802.11ac40/ax40 mode: channel 54, 62 were tested;

For 802.11ac80/ax80 mode, channel 58 was tested.

For 5470-5725MHz Band, 12 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	112	5560
102	5510	116	5580
104	5520	132	5660
106	5530	134	5670
108	5540	136	5680
110	5550	140	5700

For 802.11a/ac20/ax20 mode: channel 100, 116, 140 were tested;

For 802.11ac40/ax40 mode: channel 102, 110, 134 were tested;

For 802.11ac80/ax80 mode, channel 106 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/ac20/ax20 mode: channel 149, 157, 165 were tested;

For 802.11ac40/ax40 mode: channel 151, 159 were tested;

For 802.11ac80/ax80 mode, channel 155 was tested.

EUT Exercise Software

“AuthenticationTool.exe”[#] software was used and power level as below. The software and power level was provided by the applicant. The device was tested with the worst case was performed as below:

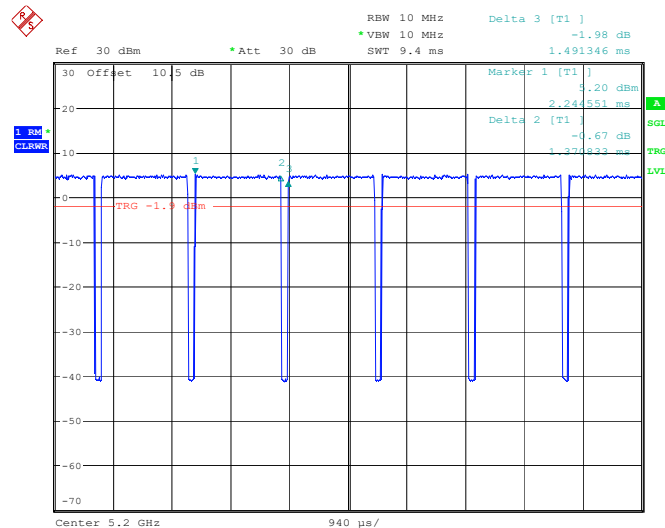
5150-5250 MHz Band:					
Test Modes	Test Channels	Test Frequency (MHz)	Data rate	Power Level Setting[#]	
				ANT 0	ANT 1
802.11a	Lowest	5180	6Mbps	11	11
	Middle	5200	6Mbps	11	11
	Highest	5240	6Mbps	11	11
802.11ac-VHT20	Lowest	5180	MCS0	11	11
	Middle	5200	MCS0	11	11
	Highest	5240	MCS0	11	11
802.11ac-VHT40	Lowest	5190	MCS0	11	11
	Highest	5230	MCS0	11	11
802.11ac-VHT80	Middle	5210	MCS0	11	11
802.11ax-HE20	Lowest	5180	MCS0	11	11
	Middle	5200	MCS0	11	11
	Highest	5240	MCS0	11	11
802.11ax-HE40	Lowest	5190	MCS0	9	9
	Highest	5230	MCS0	9	9
802.11ax-HE80	Middle	5210	MCS0	9	9
5250-5350 MHz Band:					
Test Modes	Test Channels	Test Frequency (MHz)	Data rate	Power Level Setting[#]	
				ANT 0	ANT 1
802.11a	Lowest	5260	6Mbps	11	11
	Middle	5280	6Mbps	11	11
	Highest	5320	6Mbps	11	11
802.11ac-VHT20	Lowest	5260	MCS0	11	11
	Middle	5280	MCS0	11	11
	Highest	5320	MCS0	11	11
802.11ac-VHT40	Lowest	5270	MCS0	11	11
	Highest	5310	MCS0	11	11
802.11ac-VHT80	Middle	5290	MCS0	11	11
802.11ac-VHT20	Lowest	5260	MCS0	11	11
	Middle	5280	MCS0	11	11
	Highest	5320	MCS0	11	11
802.11ac-VHT40	Lowest	5270	MCS0	9	9
	Highest	5310	MCS0	9	9
802.11ac-VHT80	Middle	5290	MCS0	9	9

5470-5725 MHz Band:					
Test Modes	Test Channels	Test Frequency (MHz)	Data rate	Power Level Setting[#]	
				ANT 0	ANT 1
802.11a	Lowest	5500	6Mbps	10	10
	Middle	5580	6Mbps	10	10
	Highest	5700	6Mbps	10	10
802.11ac-VHT20	Lowest	5500	MCS0	11	11
	Middle	5580	MCS0	11	11
	Highest	5700	MCS0	11	11
802.11ac-VHT40	Lowest	5510	MCS0	10	10
	Middle	5550	MCS0	10	10
	Highest	5670	MCS0	10	10
802.11ac-VHT80	Lowest	5530	MCS0	10	10
802.11ax-HE20	Lowest	5500	MCS0	9	9
	Middle	5580	MCS0	9	9
	Highest	5700	MCS0	9	9
802.11ax-HE40	Lowest	5510	MCS0	8	8
	Middle	5550	MCS0	8	8
	Highest	5670	MCS0	8	8
802.11ax-HE80	Lowest	5530	MCS0	8	8
5725-5850 MHz Band:					
Test Modes	Test Channels	Test Frequency (MHz)	Data rate	Power Level Setting[#]	
				ANT 0	ANT 1
802.11a	Lowest	5745	6Mbps	11	11
	Middle	5785	6Mbps	11	11
	Highest	5825	6Mbps	11	11
802.11ac-VHT20	Lowest	5745	MCS0	11	11
	Middle	5785	MCS0	11	11
	Highest	5825	MCS0	11	11
802.11ac-VHT40	Lowest	5755	MCS0	11	11
	Highest	5795	MCS0	11	11
802.11ac-VHT80	Middle	5775	MCS0	11	11
802.11ax-HE20	Lowest	5745	MCS0	11	11
	Middle	5785	MCS0	11	11
	Highest	5825	MCS0	11	11
802.11ax-HE40	Lowest	5755	MCS0	11	11
	Highest	5795	MCS0	11	11
802.11ax-HE80	Middle	5775	MCS0	11	11
1. The above are the worst-case data rates, which are determined for each mode based upon investigations by measuring the average power and PSD across all data rates, bandwidths, and modulations. 2. The device supports SISO in all modes, and MIMO 2T2R in 802.11n/ac/ax modes, per pretest, 2T2R mode was the worst mode and reported for 802.11n/ac/ax modes. 3. The n20/n40 mode was reduced test as identical parameter with ac20/ac40 mode. 4. For 802.11 ax modes, the device not support partial RU mode.					

Duty cycle

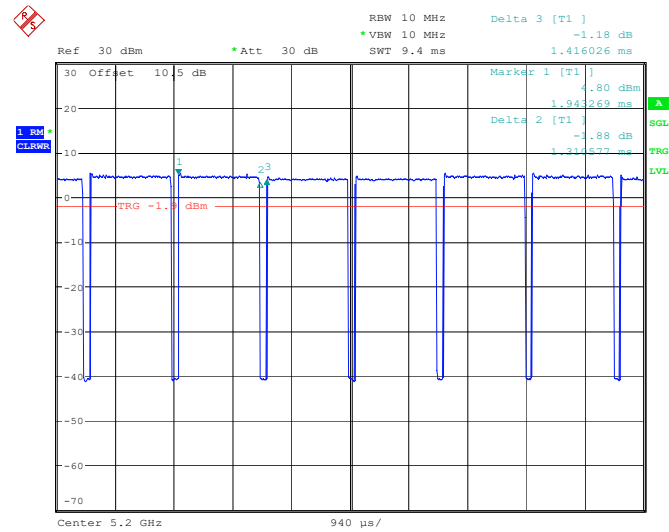
Test Modes	Ton (ms)	Ton+off (ms)	Duty cycle (%)	Duty Cycle Factor (dB)	1/T (Hz)	VBW Setting (kHz)
802.11a	1.371	1.491	91.95	0.36	729	1
802.11ac-VHT20	1.311	1.416	92.58	0.33	763	1
802.11ac-VHT40	0.649	0.761	85.28	0.69	1541	2
802.11ac-VHT80	0.321	0.425	75.53	1.22	3115	4
802.11ax-HE20	1.010	1.122	90.02	0.46	990	1
802.11ax-HE40	0.529	0.641	82.53	0.83	1890	2
802.11ax-HE80	0.288	0.393	73.28	1.35	3472	4

Note: Test only was performed at ANT 0.

802.11a

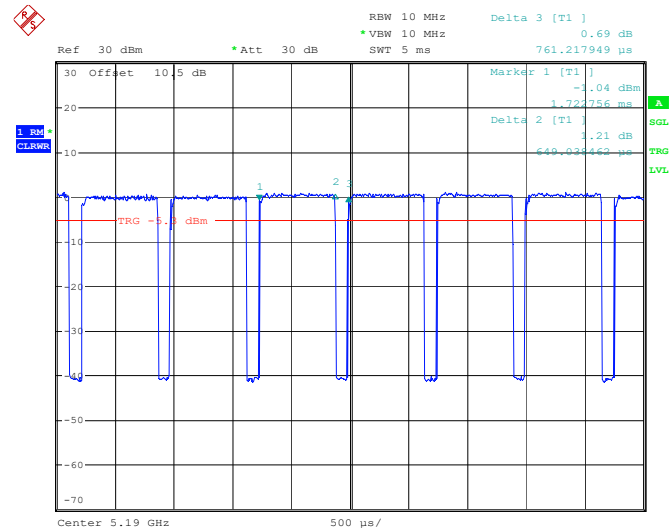
ProjectNo.:2401T36383E-RF Tester:Rainbow Zhu
 Date: 25.SEP.2024 15:20:03

802.11ac 20



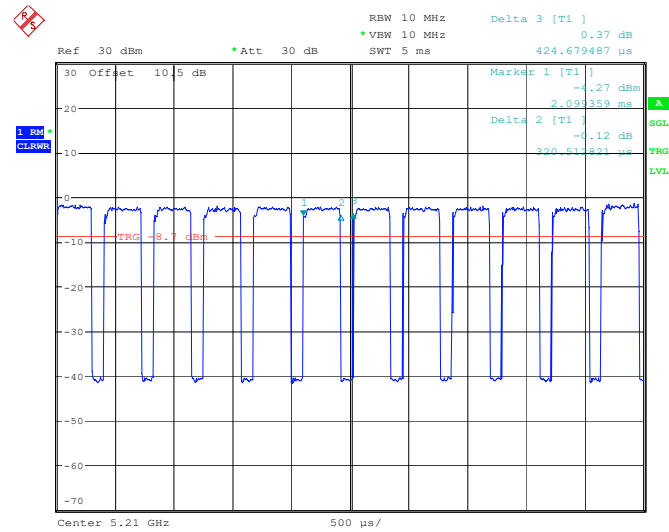
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Date: 25.SEP.2024 15:21:46

802.11ac 40



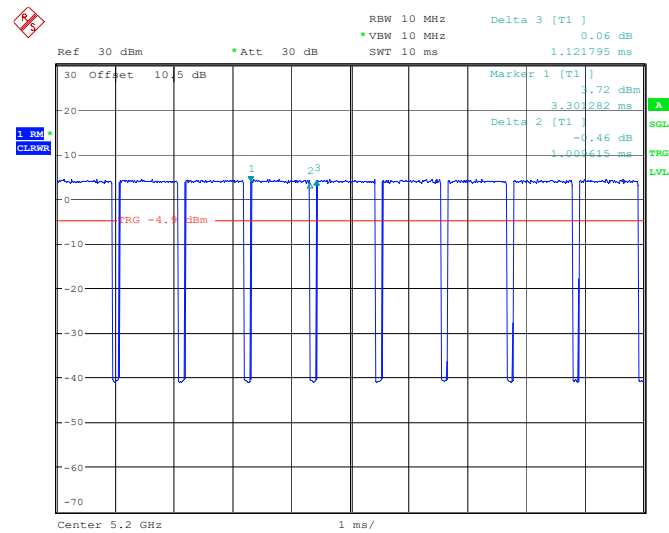
ProjectNo.:2401T36383E-RF Tester:Rainbow Zhu
Date: 25.SEP.2024 15:26:06

802.11ac 80

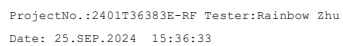
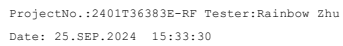


ProjectNo.:2401T36383E-RF Tester:Rainbow Zhu
Date: 25.SEP.2024 15:29:25

802.11ax 20



ProjectNo.:2401T36383E-RF Tester:Rainbow Zhu
Date: 25.SEP.2024 15:31:29



Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

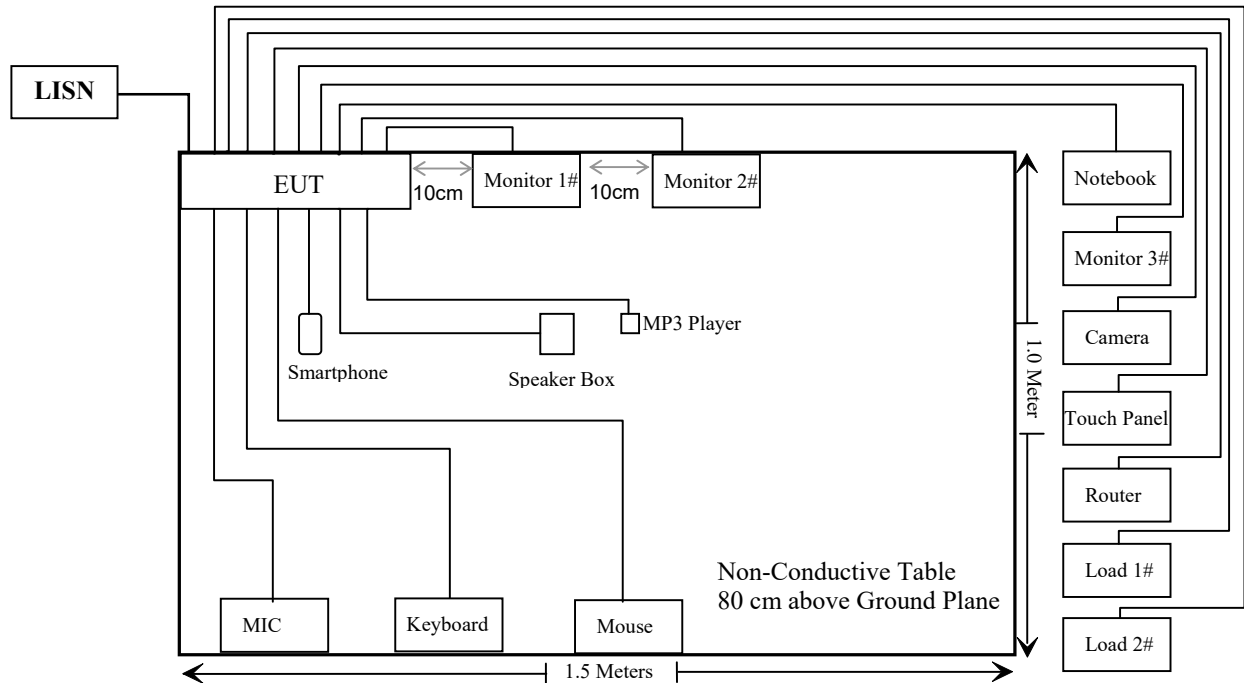
Manufacturer	Description	Model	Serial Number
ZIGUANG	Speaker box	SE-200	Unknown
NICE	MP3 player	JS-02	Unknown
itel	Smartphone	A667LP	Unknown
NEWMEN	Keyboard	KM-201	Unknown
Rapoo	Mouse	N100	A2602N1200069844
Yealink	MIC	VCM34	Unknown
Redmi	Monitor 1#	A22FAB-RA	47366/206100029128
Redmi	Monitor 2#	A22FAB-RA	47366/107100090589
Redmi	Monitor 3#	A22FAB-RA	47366/206100029106
DELL	Notebook	Latitude E7280	9RVYFH2
Yealink	Camera	UVC85	Unknown
Yealink	Touch Panel	M Touch plus	Unknown
HIKVISION	Router	DS-3WR03	10021642429
Bacl	Load 1#	Unknown	Unknown
Bacl	Load 2#	Unknown	Unknown
Sandisk	U disk *2	Unknown	Unknown
Bull	Receptacle	Unknown	Unknown

External I/O Cable

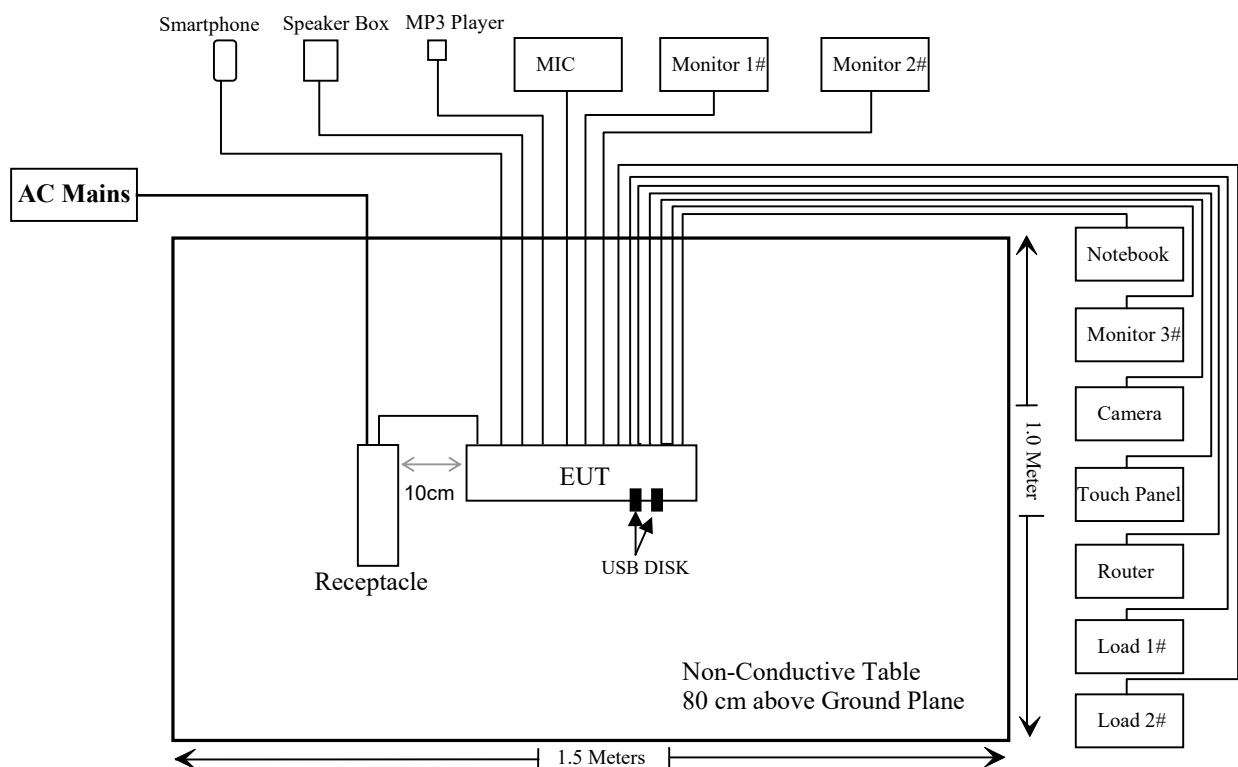
Cable Description	Length (m)	From Port	To
Shielded Un-Detachable AC cable	1.5	AC Mains	Receptacle
Un-shielded Detachable AC cable	1.2	LISN/ Receptacle	EUT
Shielded Detachable Audio cable	1.0	EUT	MP3 player
Shielded Detachable Audio cable	3.5	EUT	MP3 player
Shielded Detachable Audio cable	1.0	EUT	Smartphone
Shielded Detachable Audio cable	3.5	EUT	Smartphone
Un-Shielded Detachable Audio cable	1.6	EUT	Speaker box
Un-Shielded Detachable Audio cable	3.5	EUT	Speaker box
Unshielded Detachable RJ45 cable	1.2	EUT	MIC
Unshielded Detachable RJ45 cable	8.0	EUT	MIC
Un-Shielded Un-detachable USB cable	1.5	Keyboard	EUT
Un-Shielded Un-detachable USB cable	1.2	Mouse	EUT
Shielded Detachable HDMI Cable	1.6	EUT	Monitor 1#
Shielded Detachable HDMI Cable	3.0	EUT	Monitor 1#
Shielded Detachable HDMI Cable	1.6	EUT	Monitor 2#
Shielded Detachable HDMI Cable	3.0	EUT	Monitor 1#
Shielded Detachable HDMI Cable	3.0	EUT	Monitor 3#
Shielded Detachable HDMI Cable	3.0	EUT	Notebook
Un-shielded Detachable RJ45 cable	3.0	EUT	Camera
Un-shielded Detachable RJ45 cable	5.0	EUT	Touch panel
Un-shielded Detachable RJ45 cable *2	5.0	EUT	Router
Un-shielded Detachable DC Cable	5.0	EUT	Load 1#
Un-shielded Detachable DC Cable	5.0	EUT	Load 2#

Block Diagram of Test Setup

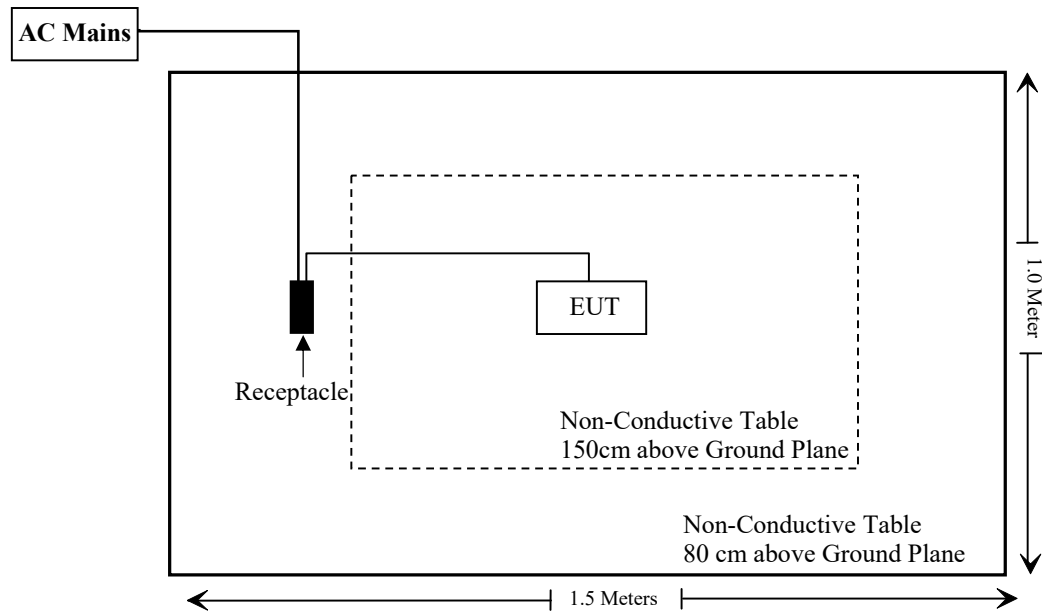
For Conducted Emissions:



For Radiated Emissions (Below 1GHz):



For Radiated Emissions (Above 1GHz):



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1307 (b) & §2.1091	MPE-Based Exemption	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*

Compliant*: Please refer to the DFS report 2401T36383E-RFB.

Not Applicable: For 5250-5350MHz/5470-5725MHz, the maximum EIRP is 15.45dBm<27dBm (500mW).

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emissions Test					
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	2024/01/16	2025/01/15
Rohde & Schwarz	LISN	ENV216	101613	2024/01/16	2025/01/15
Rohde & Schwarz	Transient Limiter	ESH3Z2	DE25985	2024/05/21	2025/05/20
Unknown	CE Cable	Unknown	UF A210B-1-0720-504504	2024/05/21	2025/05/20
Audix	EMI Test software	E3	191218(V9)	NCR	NCR
Radiated Emissions Test					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2024/01/16	2025/01/15
Sonoma instrument	Pre-amplifier	310 N	186238	2024/05/21	2025/05/20
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Unknown	Cable	Chamber A Cable 1	N/A	2024/06/18	2025/06/17
Unknown	Cable	XH500C	J-10M-A	2024/06/18	2025/06/17
BACL	Active Loop Antenna	1313-1A	4031911	2024/05/14	2027/05/13
Rohde & Schwarz	Spectrum Analyzer	FSV40	101605	2024/03/27	2025/03/26
COM-POWER	Pre-amplifier	PA-122	181919	2024/06/18	2025/06/17
Schwarzbeck	Horn Antenna	BBHA9120D(1201)	1143	2023/07/26	2026/07/25
Unknown	RF Cable	KMSE	735	2024/06/18	2025/06/17
Unknown	RF Cable	UFA147	219661	2024/06/18	2025/06/17
SNSD	5G Band Reject filter	BSF5150-5850MN-0899-004	5G filter	2023/08/03	2024/08/02
A.H.System	Pre-amplifier	PAM-1840VH	190	2024/06/18	2025/06/17
Electro-Mechanics Co	Horn Antenna	3116	9510-2270	2023/09/18	2026/09/17
UTIFLEX	RF Cable	NO. 13	232308-001	2023/08/03	2024/08/02
Audix	EMI Test software	E3	191218(V9)	NCR	NCR

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde & Schwarz	SPECTRUM ANALYZER	FSU26	200982	2023/12/18	2024/12/17
R&S	SPECTRUM ANALYZER	FSV40-N	102259	2024/01/16	2025/01/15
ANRITSU	Microwave peak power sensor	MA24418A	12622	2024/05/21	2025/05/20
MARCONI	10dB Attenuator	6534/3	2942	2023/07/04	2024/07/03
MARCONI	10dB Attenuator	6534/3	2942	2024/06/27	2025/06/26

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC 1.1307 (B) & §2.1091- MPE-BASED EXEMPTION

Applicable Standard

According to subpart 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.

According to KDB 447498 D04 Interim General RF Exposure Guidance

MPE-Based Exemption:

General frequency and separation-distance dependent MPE-based effective radiated power (ERP) thresholds are in Table B.1 [Table 1 of § 1.1307(b)(1)(i)(C)] to support an exemption from further evaluation from 300 kHz through 100 GHz.

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	$1,920 R^2$.
1.34-30	$3,450 R^2/f^2$.
30-300	$3.83 R^2$.
300-1,500	$0.0128 R^2 f$.
1,500-100,000	$19.2 R^2$.

R is the minimum separation distance in meters

f = frequency in MHz

Result

Mode	Frequency (MHz)	Tune up conducted power [#]	Antenna Gain [#]		ERP		Evaluation Distance (m)	ERP Limit (mW)
		(dBm)	(dBi)	(dBd)	(dBm)	(mW)		
2.4G Wi-Fi	2412-2462	24.5	4.45	2.30	26.80	478.63	0.2	768
5.2G Wi-Fi	5180-5240	11.0	4.95	2.80	13.80	23.99	0.2	768
5.3G Wi-Fi	5260-5320	11.0	4.95	2.80	13.80	23.99	0.2	768
5.6G Wi-Fi	5500-5700	10.0	4.95	2.80	12.80	19.05	0.2	768
5.8G Wi-Fi	5745-5825	9.0	4.95	2.80	11.80	15.14	0.2	768

Note 1: The tune-up power and antenna gain was declared by the applicant.

Note 2: 0dBd=2.15dBi.

Note 3: the 2.4G and 5G Wi-Fi cannot transmit at same time

Result: Compliant

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

According to FCC § 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 use of a standard antenna jack or electrical connector is prohibited.

Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

Antenna Connector Construction

The EUT has two external antennas with unique antenna connector and the antenna gain[#] is 4.95dBi, fulfill the requirement of this section. Please refer to the EUT photos.

Mode	Antenna Type	Antenna Gain [#]	Impedance
ANT 0	External	4.95dBi	50Ω
ANT 1	External	4.95dBi	50Ω

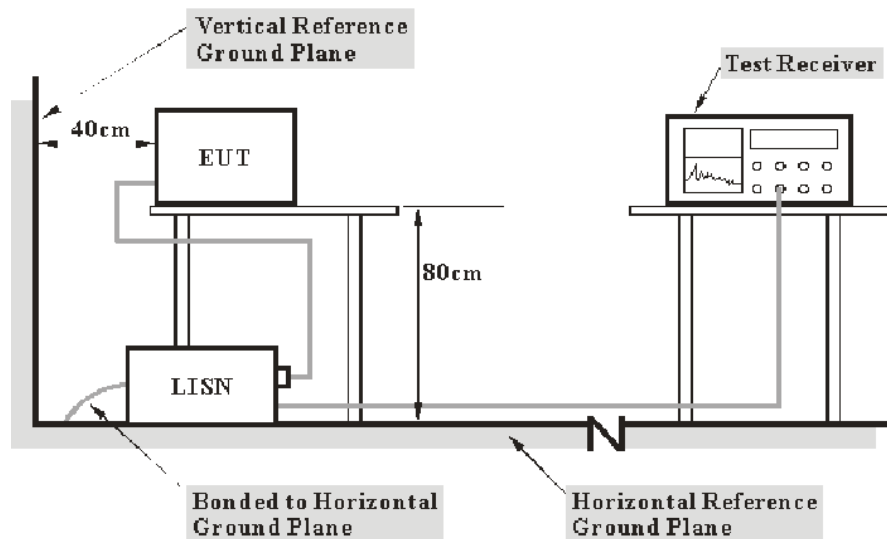
Result: Compliant

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.

Factor & Over Limit Calculation

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

$$\text{Factor} = \text{LISN VDF} + \text{Cable Loss}$$

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 calculation is as follows:

$$\begin{aligned}\text{Over Limit} &= \text{Level} - \text{Limit} \\ \text{Level} &= \text{Read Level} + \text{Factor}\end{aligned}$$

Note: The term "cable loss" refers to the combination of a cable and a 10dB transient limiter (attenuator).

Test Data

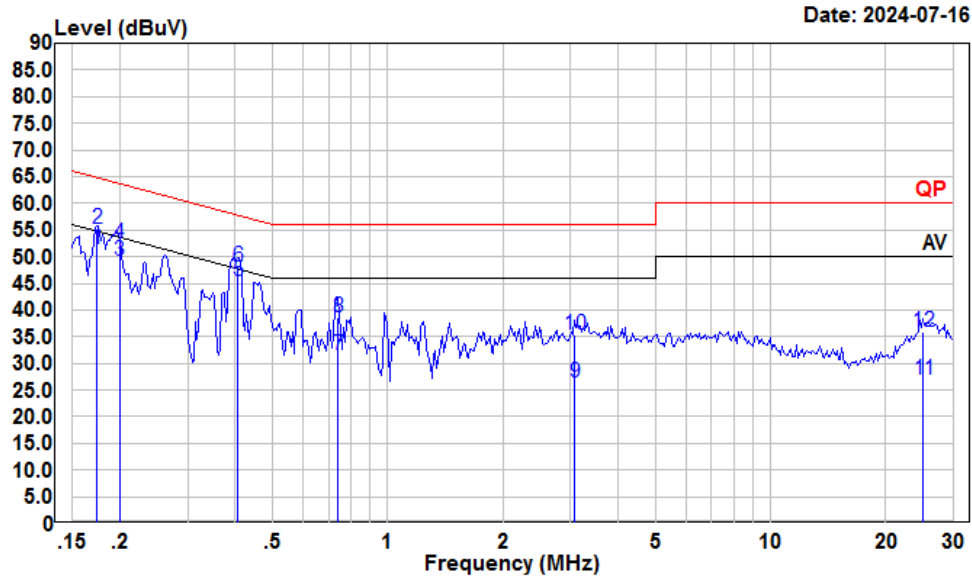
Environmental Conditions

Temperature:	26 °C
Relative Humidity:	69 %
ATM Pressure:	101.0 kPa

The testing was performed by Macy Shi on 2024-07-16.

EUT operation mode: Transmitting (Maximum output power mode, 802.11ac20 5200MHz)

AC 120V/60 Hz, Line



Condition: Line

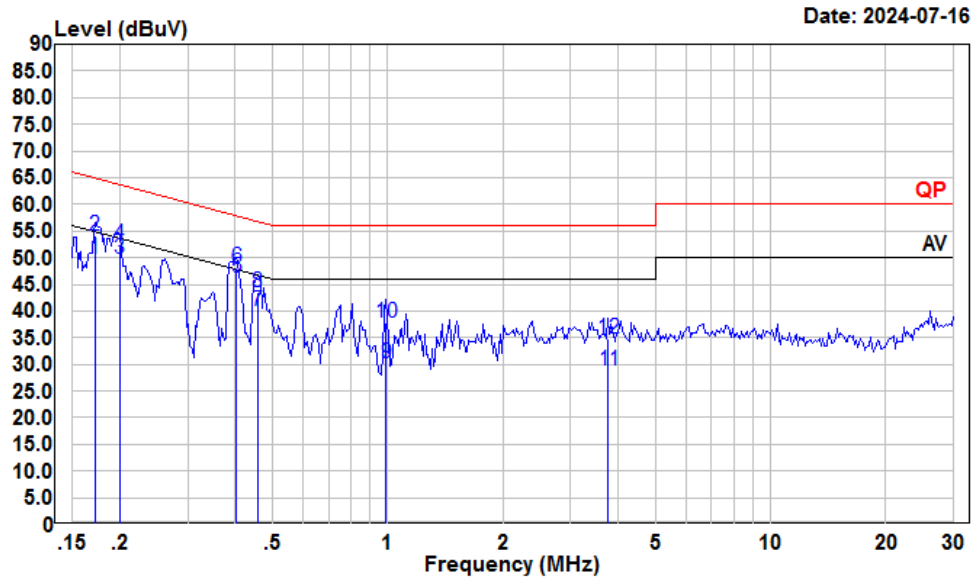
Project : 2401T36383E-RF

tester : Macy.shi

Note : 5G WIFI

	Freq	Read Level	LISN Level	LISN Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.17	30.87	51.37	10.40	10.10	54.77	-3.40	Average
2	0.17	34.67	55.17	10.40	10.10	64.77	-9.60	QP
3	0.20	28.79	49.28	10.40	10.09	53.62	-4.34	Average
4	0.20	31.97	52.46	10.40	10.09	63.62	-11.16	QP
5	0.41	24.97	45.32	10.25	10.10	47.73	-2.41	Average
6	0.41	27.67	48.02	10.25	10.10	57.73	-9.71	QP
7	0.74	10.99	31.56	10.43	10.14	46.00	-14.44	Average
8	0.74	18.13	38.70	10.43	10.14	56.00	-17.30	QP
9	3.07	5.95	26.49	10.36	10.18	46.00	-19.51	Average
10	3.07	14.75	35.29	10.36	10.18	56.00	-20.71	QP
11	25.05	6.10	26.93	10.64	10.19	50.00	-23.07	Average
12	25.05	14.94	35.77	10.64	10.19	60.00	-24.23	QP

AC 120V/60 Hz, Neutral



Condition: Neutral

Project : 2401T36383E-RF

tester : Macy.shi

Note : 5G WIFI

		Read		LISN	Cable	Limit	Over	
	Freq	Level	Level	Factor	Loss	Line	Limit	Remark
	MHz	dBuV	dBuV	dB	dB	dBuV	dB	
1	0.17	29.25	49.74	10.39	10.10	54.86	-5.12	Average
2	0.17	33.50	53.99	10.39	10.10	64.86	-10.87	QP
3	0.20	29.06	49.75	10.60	10.09	53.62	-3.87	Average
4	0.20	31.91	52.60	10.60	10.09	63.62	-11.02	QP
5	0.40	25.45	46.30	10.75	10.10	47.81	-1.51	Average
6	0.40	27.39	48.24	10.75	10.10	57.81	-9.57	QP
7	0.46	19.00	39.90	10.78	10.12	46.76	-6.86	Average
8	0.46	22.50	43.40	10.78	10.12	56.76	-13.36	QP
9	0.99	9.71	30.13	10.31	10.11	46.00	-15.87	Average
10	0.99	17.36	37.78	10.31	10.11	56.00	-18.22	QP
11	3.76	8.35	28.92	10.37	10.20	46.00	-17.08	Average
12	3.76	14.12	34.69	10.37	10.20	56.00	-21.31	QP

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

Applicable Standard

FCC §15.407 (b); §15.209; §15.205;

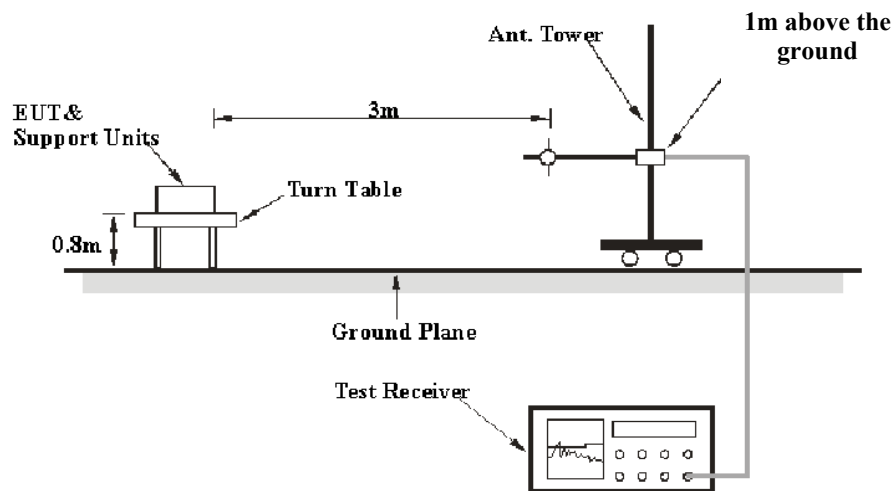
(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

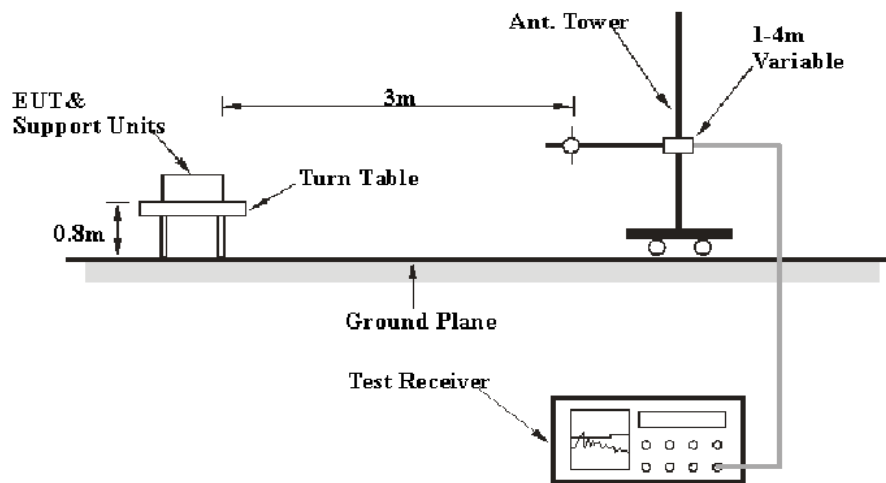
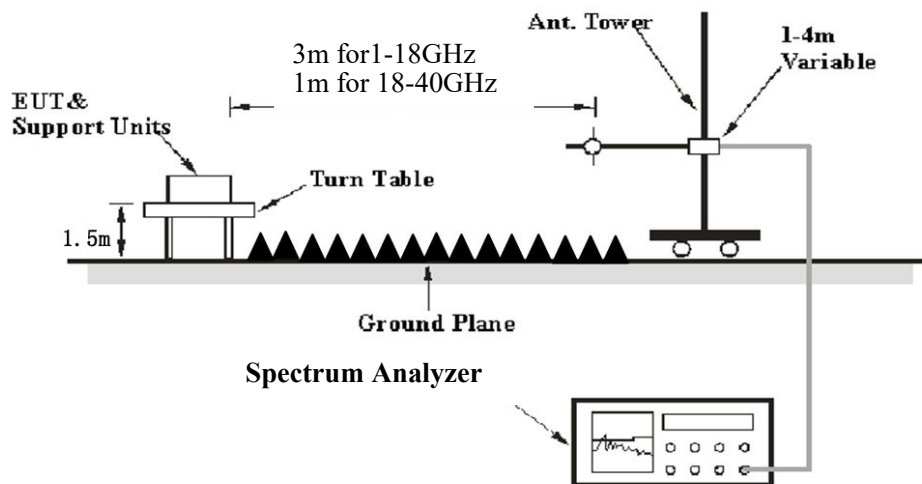
- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (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

9 kHz-30MHz:



30MHz-1GHz:**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 9 kHz to 40 GHz.

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

9 kHz-1GHz:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
9 kHz – 150 kHz	/	/	200 Hz	QP
	300 Hz	1 kHz	/	PK
150 kHz – 30 MHz	/	/	9 kHz	QP
	10 kHz	30 kHz	/	PK
30 MHz – 1000 MHz	/	/	120 kHz	QP
	100 kHz	300 kHz	/	PK

1-40GHz:

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
AV	>98%	1MHz	10 Hz
	<98%	1MHz	≥1/Ton

Note: Ton is minimum transmission duration

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

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.

All final data was recorded in Quasi-peak detection mode except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz, average detection modes for frequency bands 9–90 kHz and 110–490 kHz, peak and average detection modes for frequencies above 1 GHz.

For 9 kHz-30MHz, the report shall list the six emissions with the smallest margin relative to the limit, for each of the three antenna orientations (parallel, perpendicular, and ground-parallel) unless the margin is greater than 20 dB.

All emissions under the average limit and under the noise floor have not recorded in the report.

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;

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

where

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

So the extrapolation factor of 1m is $20 \cdot \log(1/3) = -9.5$ 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.

Factor & Over Limit/Margin Calculation

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

$$\text{Factor} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

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

$$\begin{aligned} \text{Over Limit} &= \text{Level} - \text{Limit}; \text{Margin} = \text{Limit} - \text{Corrected Amplitude} \\ \text{Level / Corrected Amplitude} &= \text{Read Level} + \text{Factor} \end{aligned}$$

Test Data

Environmental Conditions

Temperature:	22~25 °C
Relative Humidity:	50~54 %
ATM Pressure:	101 kPa

The testing was performed by Anson Su on 2024-07-16 for below 1GHz and Zenos Qiao from 2024-06-19 to 2024-06-21 for above 1GHz.

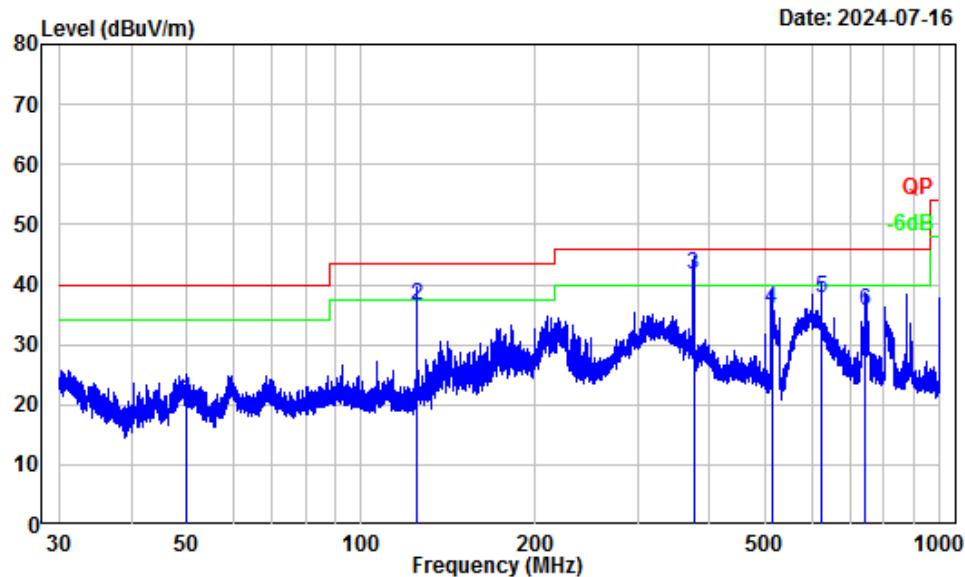
EUT operation mode: Transmitting

9 kHz-30MHz: *(Maximum output power mode, 802.11ac20 5200MHz)*

The amplitude of spurious emissions attenuated more than 20 dB below the limit was not recorded.

30 MHz–1 GHz: (Maximum output power mode, 802.11ac20 5200MHz)

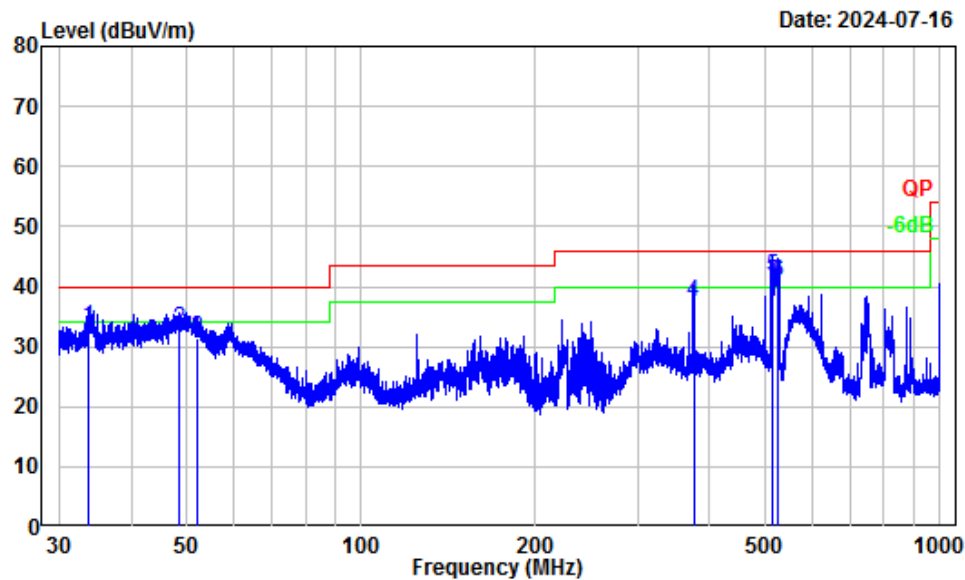
Horizontal



Site : Chamber A
Condition : 3m Horizontal
Project Number: 2401T36383E-RF
Test Mode : 5G WIFI
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	49.99	-17.80	38.69	20.89	40.00	-19.11	QP
2	125.01	-12.21	48.63	36.42	43.50	-7.08	QP
3	375.12	-11.29	52.88	41.59	46.00	-4.41	QP
4	511.84	-8.19	44.19	36.00	46.00	-10.00	QP
5	625.08	-7.48	45.08	37.60	46.00	-8.40	QP
6	742.58	-5.63	41.20	35.57	46.00	-10.43	QP

Vertical



Site : Chamber A
Condition : 3m Vertical
Project Number: 2401T36383E-RF
Test Mode : 5G WIFI
Tester : Anson Su

	Freq Factor		Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	33.80	-9.03	42.20	33.17	40.00	-6.83	QP
2	48.42	-17.73	50.59	32.86	40.00	-7.14	QP
3	52.12	-18.66	50.00	31.34	40.00	-8.66	QP
4	375.12	-11.54	48.90	37.36	46.00	-8.64	QP
5	514.76	-8.41	50.00	41.59	46.00	-4.41	QP
6	525.94	-8.36	49.00	40.64	46.00	-5.36	QP

Above 1GHz:**5150-5250 MHz:**

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11a (ANT 0)							
5180MHz							
5149.53	58.15	PK	H	2.71	60.86	74	-13.14
5149.53	42.41	AV	H	2.71	45.12	54	-8.88
5149.80	59.34	PK	V	2.71	62.05	74	-11.95
5149.80	42.86	AV	V	2.71	45.57	54	-8.43
10360.00	44.68	PK	H	13.07	57.75	68.2	-10.45
10360.00	44.95	PK	V	13.07	58.02	68.2	-10.18
5200MHz							
10400.00	44.89	PK	H	13.12	58.01	68.2	-10.19
10400.00	45.07	PK	V	13.12	58.19	68.2	-10.01
5240MHz							
5351.72	55.63	PK	H	2.90	58.53	74	-15.47
5351.72	41.28	AV	H	2.90	44.18	54	-9.82
5352.63	56.04	PK	V	2.90	58.94	74	-15.06
5352.63	41.52	AV	V	2.90	44.42	54	-9.58
10480.00	45.11	PK	H	13.07	58.18	68.2	-10.02
10480.00	45.32	PK	V	13.07	58.39	68.2	-9.81

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11a (ANT 1)							
5180MHz							
5149.16	65.65	PK	H	2.71	68.36	74	-5.64
5149.16	45.73	AV	H	2.71	48.44	54	-5.56
5148.89	66.98	PK	V	2.71	69.69	74	-4.31
5148.89	46.12	AV	V	2.71	48.83	54	-5.17
10360.00	45.01	PK	H	13.07	58.08	68.2	-10.12
10360.00	45.19	PK	V	13.07	58.26	68.2	-9.94
5200MHz							
10400.00	45.26	PK	H	13.12	58.38	68.2	-9.82
10400.00	45.47	PK	V	13.12	58.59	68.2	-9.61
5240MHz							
5350.94	56.13	PK	H	2.90	59.03	74	-14.97
5350.94	41.55	AV	H	2.90	44.45	54	-9.55
5351.87	56.64	PK	V	2.90	59.54	74	-14.46
5351.87	41.96	AV	V	2.90	44.86	54	-9.14
10480.00	45.56	PK	H	13.07	58.63	68.2	-9.57
10480.00	45.78	PK	V	13.07	58.85	68.2	-9.35
802.11ac20							
5180MHz							
5149.58	59.28	PK	H	2.71	61.99	74	-12.01
5149.58	43.97	AV	H	2.71	46.68	54	-7.32
5149.83	60.51	PK	V	2.71	63.22	74	-10.78
5149.83	44.34	AV	V	2.71	47.05	54	-6.95
10360.00	44.73	PK	H	13.07	57.80	68.2	-10.40
10360.00	44.96	PK	V	13.07	58.03	68.2	-10.17
5200MHz							
10400.00	45.04	PK	H	13.12	58.16	68.2	-10.04
10400.00	45.25	PK	V	13.12	58.37	68.2	-9.83
5240MHz							
5353.87	55.45	PK	H	2.90	58.35	74	-15.65
5353.87	41.52	AV	H	2.90	44.42	54	-9.58
5355.49	55.96	PK	V	2.90	58.86	74	-15.14
5355.49	41.83	AV	V	2.90	44.73	54	-9.27
10480.00	45.38	PK	H	13.07	58.45	68.2	-9.75
10480.00	45.57	PK	V	13.07	58.64	68.2	-9.56

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ac40							
5190MHz							
5149.48	60.63	PK	H	2.71	63.34	74	-10.66
5149.48	46.32	AV	H	2.71	49.03	54	-4.97
5149.17	61.88	PK	V	2.71	64.59	74	-9.41
5149.17	46.75	AV	V	2.71	49.46	54	-4.54
10380.00	44.79	PK	H	13.09	57.88	68.2	-10.32
10380.00	44.94	PK	V	13.09	58.03	68.2	-10.17
5230MHz							
5352.69	56.09	PK	H	2.90	58.99	74	-15.01
5352.69	42.38	AV	H	2.90	45.28	54	-8.72
5353.10	56.51	PK	V	2.90	59.41	74	-14.59
5353.10	42.87	AV	V	2.90	45.77	54	-8.23
10460.00	45.32	PK	H	13.09	58.41	68.2	-9.79
10460.00	45.58	PK	V	13.09	58.67	68.2	-9.53
802.11ac80							
5210MHz							
5149.64	59.19	PK	H	2.71	61.90	74	-12.10
5149.64	47.24	AV	H	2.71	49.95	54	-4.05
5149.83	60.36	PK	V	2.71	63.07	74	-10.93
5149.83	47.77	AV	V	2.71	50.48	54	-3.52
5352.35	56.39	PK	H	2.90	59.29	74	-14.71
5352.35	44.23	AV	H	2.90	47.13	54	-6.87
5351.12	56.92	PK	V	2.90	59.82	74	-14.18
5351.12	44.64	AV	V	2.90	47.54	54	-6.46
10420.00	45.15	PK	H	13.12	58.27	68.2	-9.93
10420.00	45.34	PK	V	13.12	58.46	68.2	-9.74

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ax20							
5180MHz							
5148.99	63.31	PK	H	2.71	66.02	74	-7.98
5148.99	46.25	AV	H	2.71	48.96	54	-5.04
5149.72	64.54	PK	V	2.71	67.25	74	-6.75
5149.72	46.73	AV	V	2.71	49.44	54	-4.56
10360.00	45.13	PK	H	13.07	58.20	68.2	-10.00
10360.00	45.29	PK	V	13.07	58.36	68.2	-9.84
5200MHz							
10400.00	45.38	PK	H	13.12	58.50	68.2	-9.70
10400.00	45.57	PK	V	13.12	58.69	68.2	-9.51
5240MHz							
5353.54	55.44	PK	H	2.90	58.34	74	-15.66
5353.54	41.51	AV	H	2.90	44.41	54	-9.59
5352.15	55.97	PK	V	2.90	58.87	74	-15.13
5352.15	41.86	AV	V	2.90	44.76	54	-9.24
10480.00	45.64	PK	H	13.07	58.71	68.2	-9.49
10480.00	45.82	PK	V	13.07	58.89	68.2	-9.31

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ax40							
5190MHz							
5149.08	61.55	PK	H	2.71	64.26	74	-9.74
5149.08	47.64	AV	H	2.71	50.35	54	-3.65
5149.32	62.71	PK	V	2.71	65.42	74	-8.58
5149.32	48.19	AV	V	2.71	50.90	54	-3.10
10380.00	45.08	PK	H	13.09	58.17	68.2	-10.03
10380.00	45.24	PK	V	13.09	58.33	68.2	-9.87
5230MHz							
5352.36	55.65	PK	H	2.90	58.55	74	-15.45
5352.36	42.03	AV	H	2.90	44.93	54	-9.07
5351.19	56.12	PK	V	2.90	59.02	74	-14.98
5351.19	42.36	AV	V	2.90	45.26	54	-8.74
10460.00	45.47	PK	H	13.09	58.56	68.2	-9.64
10460.00	45.69	PK	V	13.09	58.78	68.2	-9.42
802.11ax80							
5210MHz							
5147.39	59.98	PK	H	2.71	62.69	74	-11.31
5147.39	47.69	AV	H	2.71	50.40	54	-3.60
5146.84	60.54	PK	V	2.71	63.25	74	-10.75
5146.84	48.23	AV	V	2.71	50.94	54	-3.06
5353.48	56.05	PK	H	2.90	58.95	74	-15.05
5353.48	43.87	AV	H	2.90	46.77	54	-7.23
5352.95	56.52	PK	V	2.90	59.42	74	-14.58
5352.95	44.34	AV	V	2.90	47.24	54	-6.76
10420.00	44.72	PK	H	13.12	57.84	68.2	-10.36
10420.00	44.89	PK	V	13.12	58.01	68.2	-10.19

5250-5350MHz:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11a (ANT 0)							
5260MHz							
5148.69	56.32	PK	H	2.71	59.03	74	-14.97
5148.69	42.49	AV	H	2.71	45.20	54	-8.80
5147.16	56.65	PK	V	2.71	59.36	74	-14.64
5147.16	42.83	AV	V	2.71	45.54	54	-8.46
10520.00	45.52	PK	H	13.05	58.57	68.2	-9.63
10520.00	45.75	PK	V	13.05	58.80	68.2	-9.40
5280MHz							
10560.00	45.78	PK	H	13.02	58.80	68.2	-9.40
10560.00	46.03	PK	V	13.02	59.05	68.2	-9.15
5320MHz							
5350.59	65.24	PK	H	2.90	68.14	74	-5.86
5350.59	47.13	AV	H	2.90	50.03	54	-3.97
5350.22	66.38	PK	V	2.90	69.28	74	-4.72
5350.22	48.10	AV	V	2.90	51.00	54	-3.00
10640.00	46.11	PK	H	13.19	59.30	74	-14.70
10640.00	32.58	AV	H	13.19	45.77	54	-8.23
10640.00	46.36	PK	V	13.19	59.55	74	-14.45
10640.00	32.75	AV	V	13.19	45.94	54	-8.06

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11a (ANT 1)							
5260MHz							
5145.95	55.72	PK	H	2.71	58.43	74	-15.57
5145.95	42.01	AV	H	2.71	44.72	54	-9.28
5144.68	56.28	PK	V	2.71	58.99	74	-15.01
5144.68	42.35	AV	V	2.71	45.06	54	-8.94
10520.00	45.75	PK	H	13.05	58.80	68.2	-9.40
10520.00	45.98	PK	V	13.05	59.03	68.2	-9.17
5280MHz							
10560.00	46.32	PK	H	13.02	59.34	68.2	-8.86
10560.00	46.57	PK	V	13.02	59.59	68.2	-8.61
5320MHz							
5350.87	66.35	PK	H	2.90	69.25	74	-4.75
5350.87	47.49	AV	H	2.90	50.39	54	-3.61
5350.56	67.53	PK	V	2.90	70.43	74	-3.57
5350.56	48.06	AV	V	2.90	50.96	54	-3.04
10640.00	46.81	PK	H	13.19	60.00	74	-14.00
10640.00	33.27	AV	H	13.19	46.46	54	-7.54
10640.00	47.05	PK	V	13.19	60.24	74	-13.76
10640.00	33.52	AV	V	13.19	46.71	54	-7.29
802.11ac20							
5260MHz							
5148.39	58.04	PK	H	2.71	60.75	74	-13.25
5148.39	45.49	AV	H	2.71	48.20	54	-5.80
5147.50	58.57	PK	V	2.71	61.28	74	-12.72
5147.50	45.98	AV	V	2.71	48.69	54	-5.31
10520.00	45.16	PK	H	13.05	58.21	68.2	-9.99
10520.00	45.39	PK	V	13.05	58.44	68.2	-9.76
5280MHz							
10560.00	45.73	PK	H	13.02	58.75	68.2	-9.45
10560.00	45.94	PK	V	13.02	58.96	68.2	-9.24
5320MHz							
5350.87	62.25	PK	H	2.90	65.15	74	-8.85
5350.87	46.87	AV	H	2.90	49.77	54	-4.23
5350.72	64.54	PK	V	2.90	67.44	74	-6.56
5350.72	47.39	AV	V	2.90	50.29	54	-3.71
10640.00	46.35	PK	H	13.19	59.54	74	-14.46
10640.00	32.78	AV	H	13.19	45.97	54	-8.03
10640.00	46.52	PK	V	13.19	59.71	74	-14.29
10640.00	32.94	AV	V	13.19	46.13	54	-7.87

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ac40							
5270MHz							
5144.35	55.84	PK	H	2.71	58.55	74	-15.45
5144.35	42.29	AV	H	2.71	45.00	54	-9.00
5140.58	56.37	PK	V	2.71	59.08	74	-14.92
5140.58	42.75	AV	V	2.71	45.46	54	-8.54
10540.00	45.32	PK	H	13.03	58.35	68.2	-9.85
10540.00	45.54	PK	V	13.03	58.57	68.2	-9.63
5310MHz							
5350.54	61.42	PK	H	2.90	64.32	74	-9.68
5350.54	47.39	AV	H	2.90	50.29	54	-3.71
5350.18	62.64	PK	V	2.90	65.54	74	-8.46
5350.18	47.96	AV	V	2.90	50.86	54	-3.14
10620.00	45.79	PK	H	13.09	58.88	74	-15.12
10620.00	32.93	AV	H	13.09	46.02	54	-7.98
10620.00	46.08	PK	V	13.09	59.17	74	-14.83
10620.00	33.16	AV	V	13.09	46.25	54	-7.75
802.11ac80							
5290MHz							
5145.57	55.75	PK	H	2.71	58.46	74	-15.54
5145.57	43.18	AV	H	2.71	45.89	54	-8.11
5146.20	56.36	PK	V	2.71	59.07	74	-14.93
5146.20	43.73	AV	V	2.71	46.44	54	-7.56
5350.96	59.89	PK	H	2.90	62.79	74	-11.21
5350.96	46.91	AV	H	2.90	49.81	54	-4.19
5350.78	61.04	PK	V	2.90	63.94	74	-10.06
5350.78	47.37	AV	V	2.90	50.27	54	-3.73
10580.00	45.48	PK	H	13.00	58.48	68.2	-9.72
10580.00	45.71	PK	V	13.00	58.71	68.2	-9.49

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ax20							
5260MHz							
5148.52	55.97	PK	H	2.71	58.68	74	-15.32
5148.52	42.03	AV	H	2.71	44.74	54	-9.26
5149.46	56.48	PK	V	2.71	59.19	74	-14.81
5149.46	42.51	AV	V	2.71	45.22	54	-8.78
10520.00	45.48	PK	H	13.05	58.53	68.2	-9.67
10520.00	45.73	PK	V	13.05	58.78	68.2	-9.42
5280MHz							
10560.00	45.97	PK	H	13.02	58.99	68.2	-9.21
10560.00	45.21	PK	V	13.02	58.23	68.2	-9.97
5320MHz							
5350.49	63.59	PK	H	2.90	66.49	74	-7.51
5350.49	47.08	AV	H	2.90	49.98	54	-4.02
5350.88	64.84	PK	V	2.90	67.74	74	-6.26
5350.88	47.67	AV	V	2.90	50.57	54	-3.43
10640.00	46.54	PK	H	13.19	59.73	74	-14.27
10640.00	32.71	AV	H	13.19	45.90	54	-8.10
10640.00	46.69	PK	V	13.19	59.88	74	-14.12
10640.00	32.87	AV	V	13.19	46.06	54	-7.94

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ax40							
5270MHz							
5144.73	55.25	PK	H	2.71	57.96	74	-16.04
5144.73	42.38	AV	H	2.71	45.09	54	-8.91
5142.08	55.82	PK	V	2.71	58.53	74	-15.47
5142.08	42.91	AV	V	2.71	45.62	54	-8.38
10540.00	45.17	PK	H	13.03	58.20	68.2	-10.00
10540.00	45.38	PK	V	13.03	58.41	68.2	-9.79
5310MHz							
5350.92	62.15	PK	H	2.90	65.05	74	-8.95
5350.92	47.56	AV	H	2.90	50.46	54	-3.54
5350.67	63.38	PK	V	2.90	66.28	74	-7.72
5350.67	47.99	AV	V	2.90	50.89	54	-3.11
10620.00	45.65	PK	H	13.09	58.74	74	-15.26
10620.00	33.16	AV	H	13.09	46.25	54	-7.75
10620.00	45.87	PK	V	13.09	58.96	74	-15.04
10620.00	33.33	AV	V	13.09	46.42	54	-7.58
802.11ax80							
5290MHz							
5142.42	55.95	PK	H	2.71	58.66	74	-15.34
5142.42	43.63	AV	H	2.71	46.34	54	-7.66
5140.77	56.48	PK	V	2.71	59.19	74	-14.81
5140.77	44.06	AV	V	2.71	46.77	54	-7.23
5351.54	60.39	PK	H	2.90	63.29	74	-10.71
5351.54	47.64	AV	H	2.90	50.54	54	-3.46
5352.63	61.51	PK	V	2.90	64.41	74	-9.59
5352.63	47.54	AV	V	2.90	50.44	54	-3.56
10580.00	45.57	PK	H	13.00	58.57	68.2	-9.63
10580.00	45.84	PK	V	13.00	58.84	68.2	-9.36

5470-5725MHz:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11a (ANT 0)							
5500MHz							
5460.00	55.72	PK	H	3.59	59.31	74	-14.69
5460.00	41.38	AV	H	3.59	44.97	54	-9.03
5460.00	56.15	PK	V	3.59	59.74	74	-14.26
5460.00	41.69	AV	V	3.59	45.28	54	-8.72
5469.25	59.54	PK	H	3.69	63.23	68.2	-4.97
5469.78	60.16	PK	V	3.69	63.85	68.2	-4.35
11000.00	44.85	PK	H	13.98	58.83	74	-15.17
11000.00	30.98	AV	H	13.98	44.96	54	-9.04
11000.00	45.04	PK	V	13.98	59.02	74	-14.98
11000.00	31.19	AV	V	13.98	45.17	54	-8.83
5580MHz							
11160.00	45.36	PK	H	13.62	58.98	74	-15.02
11160.00	31.47	AV	H	13.62	45.09	54	-8.91
11160.00	45.54	PK	V	13.62	59.16	74	-14.84
11160.00	31.68	AV	V	13.62	45.30	54	-8.70
5700MHz							
5727.07	57.63	PK	H	4.09	61.72	68.2	-6.48
5725.84	58.19	PK	V	4.09	62.28	68.2	-5.92
11400.00	45.79	PK	H	14.08	59.87	74	-14.13
11400.00	32.14	AV	H	14.08	46.22	54	-7.78
11400.00	46.07	PK	V	14.08	60.15	74	-13.85
11400.00	32.32	AV	V	14.08	46.40	54	-7.60

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11a (ANT 1)							
5500MHz							
5460.00	54.47	PK	H	3.59	58.06	74	-15.94
5460.00	41.36	AV	H	3.59	44.95	54	-9.05
5460.00	54.95	PK	V	3.59	58.54	74	-15.46
5460.00	41.72	AV	V	3.59	45.31	54	-8.69
5469.36	57.89	PK	H	3.69	61.58	68.2	-6.62
5468.29	58.53	PK	V	3.69	62.22	68.2	-5.98
11000.00	44.84	PK	H	13.98	58.82	74	-15.18
11000.00	31.03	AV	H	13.98	45.01	54	-8.99
11000.00	44.97	PK	V	13.98	58.95	74	-15.05
11000.00	31.25	AV	V	13.98	45.23	54	-8.77
5580MHz							
11160.00	45.39	PK	H	13.62	59.01	74	-14.99
11160.00	31.56	AV	H	13.62	45.18	54	-8.82
11160.00	45.61	PK	V	13.62	59.23	74	-14.77
11160.00	31.78	AV	V	13.62	45.40	54	-8.60
5700MHz							
5726.37	55.45	PK	H	4.09	59.54	68.2	-8.66
5727.54	55.98	PK	V	4.09	60.07	68.2	-8.13
11400.00	45.87	PK	H	14.08	59.95	74	-14.05
11400.00	32.08	AV	H	14.08	46.16	54	-7.84
11400.00	46.02	PK	V	14.08	60.10	74	-13.90
11400.00	32.31	AV	V	14.08	46.39	54	-7.61

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ac20							
5500MHz							
5460.00	56.04	PK	H	3.59	59.63	74	-14.37
5460.00	41.31	AV	H	3.59	44.90	54	-9.10
5460.00	56.45	PK	V	3.59	60.04	74	-13.96
5460.00	41.78	AV	V	3.59	45.37	54	-8.63
5469.14	60.39	PK	H	3.69	64.08	68.2	-4.12
5468.35	61.16	PK	V	3.69	64.85	68.2	-3.35
11000.00	44.52	PK	H	13.98	58.50	74	-15.50
11000.00	31.01	AV	H	13.98	44.99	54	-9.01
11000.00	44.73	PK	V	13.98	58.71	74	-15.29
11000.00	31.18	AV	V	13.98	45.16	54	-8.84
5580MHz							
11160.00	45.05	PK	H	13.62	58.67	74	-15.33
11160.00	31.52	AV	H	13.62	45.14	54	-8.86
11160.00	45.27	PK	V	13.62	58.89	74	-15.11
11160.00	31.74	AV	V	13.62	45.36	54	-8.64
5700MHz							
5725.58	58.65	PK	H	4.09	62.74	68.2	-5.46
5725.17	59.28	PK	V	4.09	63.37	68.2	-4.83
11400.00	45.68	PK	H	14.08	59.76	74	-14.24
11400.00	31.99	AV	H	14.08	46.07	54	-7.93
11400.00	45.87	PK	V	14.08	59.95	74	-14.05
11400.00	32.20	AV	V	14.08	46.28	54	-7.72

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ac40							
5510MHz							
5460.00	56.05	PK	H	3.59	59.64	74	-14.36
5460.00	42.13	AV	H	3.59	45.72	54	-8.28
5460.00	56.52	PK	V	3.59	60.11	74	-13.89
5460.00	42.49	AV	V	3.59	46.08	54	-7.92
5468.64	59.97	PK	H	3.69	63.66	68.2	-4.54
5469.23	60.78	PK	V	3.69	64.47	68.2	-3.73
11020.00	44.87	PK	H	13.89	58.76	74	-15.24
11020.00	31.42	AV	H	13.89	45.31	54	-8.69
11020.00	45.04	PK	V	13.89	58.93	74	-15.07
11020.00	31.59	AV	V	13.89	45.48	54	-8.52
5550MHz							
11100.00	45.24	PK	H	13.53	58.77	74	-15.23
11100.00	31.73	AV	H	13.53	45.26	54	-8.74
11100.00	45.42	PK	V	13.53	58.95	74	-15.05
11100.00	31.91	AV	V	13.53	45.44	54	-8.56
5670MHz							
5725.98	55.71	PK	H	4.09	59.80	68.2	-8.40
5726.45	56.24	PK	V	4.09	60.33	68.2	-7.87
11340.00	45.65	PK	H	13.99	59.64	74	-14.36
11340.00	32.06	AV	H	13.99	46.05	54	-7.95
11340.00	45.87	PK	V	13.99	59.86	74	-14.14
11340.00	32.23	AV	V	13.99	46.22	54	-7.78

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ac80							
5530MHz							
5460.00	56.87	PK	H	3.59	60.46	74	-13.54
5460.00	44.19	AV	H	3.59	47.78	54	-6.22
5460.00	57.36	PK	V	3.59	60.95	74	-13.05
5460.00	44.58	AV	V	3.59	48.17	54	-5.83
5465.89	59.72	PK	H	3.59	63.31	68.2	-4.89
5466.47	60.45	PK	V	3.59	64.04	68.2	-4.16
5732.69	55.66	PK	H	4.19	59.85	68.2	-8.35
5735.35	56.05	PK	V	4.19	60.24	68.2	-7.96
11060.00	44.51	PK	H	13.71	58.22	74	-15.78
11060.00	32.76	AV	H	13.71	46.47	54	-7.53
11060.00	44.68	PK	V	13.71	58.39	74	-15.61
11060.00	32.94	AV	V	13.71	46.65	54	-7.35

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ax20							
5500MHz							
5460.00	55.81	PK	H	3.59	59.40	74	-14.60
5460.00	41.42	AV	H	3.59	45.01	54	-8.99
5460.00	56.24	PK	V	3.59	59.83	74	-14.17
5460.00	41.89	AV	V	3.59	45.48	54	-8.52
5468.96	60.55	PK	H	3.69	64.24	68.2	-3.96
5469.45	61.36	PK	V	3.69	65.05	68.2	-3.15
11000.00	44.64	PK	H	13.98	58.62	74	-15.38
11000.00	31.03	AV	H	13.98	45.01	54	-8.99
11000.00	44.82	PK	V	13.98	58.80	74	-15.20
11000.00	31.18	AV	V	13.98	45.16	54	-8.84
5580MHz							
11160.00	45.08	PK	H	13.62	58.70	74	-15.30
11160.00	31.44	AV	H	13.62	45.06	54	-8.94
11160.00	45.25	PK	V	13.62	58.87	74	-15.13
11160.00	31.62	AV	V	13.62	45.24	54	-8.76
5700MHz							
5727.14	58.56	PK	H	4.09	62.65	68.2	-5.55
5725.60	59.25	PK	V	4.09	63.34	68.2	-4.86
11400.00	45.55	PK	H	14.08	59.63	74	-14.37
11400.00	31.98	AV	H	14.08	46.06	54	-7.94
11400.00	45.76	PK	V	14.08	59.84	74	-14.16
11400.00	32.17	AV	V	14.08	46.25	54	-7.75

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ax40							
5510MHz							
5460.00	56.16	PK	H	3.59	59.75	74	-14.25
5460.00	42.09	AV	H	3.59	45.68	54	-8.32
5460.00	56.77	PK	V	3.59	60.36	74	-13.64
5460.00	42.54	AV	V	3.59	46.13	54	-7.87
5469.27	60.45	PK	H	3.69	64.14	68.2	-4.06
5468.62	61.38	PK	V	3.69	65.07	68.2	-3.13
11020.00	44.38	PK	H	13.89	58.27	74	-15.73
11020.00	31.42	AV	H	13.89	45.31	54	-8.69
11020.00	44.57	PK	V	13.89	58.46	74	-15.54
11020.00	31.60	AV	V	13.89	45.49	54	-8.51
5550MHz							
11100.00	44.81	PK	H	13.53	58.34	74	-15.66
11100.00	31.78	AV	H	13.53	45.31	54	-8.69
11100.00	45.03	PK	V	13.53	58.56	74	-15.44
11100.00	31.95	AV	V	13.53	45.48	54	-8.52
5670MHz							
5726.54	57.27	PK	H	4.09	61.36	68.2	-6.84
5727.39	57.76	PK	V	4.09	61.85	68.2	-6.35
11340.00	45.26	PK	H	13.99	59.25	74	-14.75
11340.00	32.14	AV	H	13.99	46.13	54	-7.87
11340.00	45.48	PK	V	13.99	59.47	74	-14.53
11340.00	32.32	AV	V	13.99	46.31	54	-7.69

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ax80							
5530MHz							
5460.00	57.05	PK	H	3.59	60.64	74	-13.36
5460.00	44.91	AV	H	3.59	48.50	54	-5.50
5460.00	57.54	PK	V	3.59	61.13	74	-12.87
5460.00	45.38	AV	V	3.59	48.97	54	-5.03
5467.64	59.86	PK	H	3.59	63.45	68.2	-4.75
5468.45	60.69	PK	V	3.69	64.38	68.2	-3.82
5728.39	56.62	PK	H	4.09	60.71	68.2	-7.49
5730.86	57.14	PK	V	4.09	61.23	68.2	-6.97
11060.00	44.56	PK	H	13.71	58.27	74	-15.73
11060.00	32.68	AV	H	13.71	46.39	54	-7.61
11060.00	44.75	PK	V	13.71	58.46	74	-15.54
11060.00	32.93	AV	V	13.71	46.64	54	-7.36

5725-5850 MHz:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11a (ANT 0)							
5745MHz							
5650.00	55.52	PK	H	3.59	59.11	68.20	-9.09
5700.00	57.09	PK	H	4.09	61.18	105.20	-44.02
5720.00	63.41	PK	H	4.09	67.50	110.80	-43.30
5725.00	67.76	PK	H	4.09	71.85	122.20	-50.35
5650.00	55.78	PK	V	3.59	59.37	68.20	-8.83
5700.00	57.57	PK	V	4.09	61.66	105.20	-43.54
5720.00	64.94	PK	V	4.09	69.03	110.80	-41.77
5725.00	69.25	PK	V	4.09	73.34	122.20	-48.86
11490.00	44.33	PK	H	14.31	58.64	74	-15.36
11490.00	30.78	AV	H	14.31	45.09	54	-8.91
11490.00	44.54	PK	V	14.31	58.85	74	-15.15
11490.00	30.92	AV	V	14.31	45.23	54	-8.77
5785MHz							
11570.00	44.87	PK	H	14.05	58.92	74	-15.08
11570.00	31.26	AV	H	14.05	45.31	54	-8.69
11570.00	45.09	PK	V	14.05	59.14	74	-14.86
11570.00	31.45	AV	V	14.05	45.50	54	-8.50
5825MHz							
5850.00	63.16	PK	H	4.09	67.25	122.20	-54.95
5855.00	61.31	PK	H	4.09	65.40	110.80	-45.40
5875.00	57.54	PK	H	4.19	61.73	105.20	-43.47
5925.00	55.08	PK	H	4.69	59.77	68.20	-8.43
5850.00	64.27	PK	V	4.09	68.36	122.20	-53.84
5855.00	62.48	PK	V	4.09	66.57	110.80	-44.23
5875.00	58.09	PK	V	4.19	62.28	105.20	-42.92
5925.00	55.35	PK	V	4.69	60.04	68.20	-8.16
11650.00	45.39	PK	H	13.83	59.22	74	-14.78
11650.00	31.83	AV	H	13.83	45.66	54	-8.34
11650.00	45.65	PK	V	13.83	59.48	74	-14.52
11650.00	31.98	AV	V	13.83	45.81	54	-8.19

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11a (ANT 1)							
5745MHz							
5650.00	55.58	PK	H	3.59	59.17	68.20	-9.03
5700.00	58.84	PK	H	4.09	62.93	105.20	-42.27
5720.00	67.01	PK	H	4.09	71.10	110.80	-39.70
5725.00	70.23	PK	H	4.09	74.32	122.20	-47.88
5650.00	55.82	PK	V	3.59	59.41	68.20	-8.79
5700.00	59.95	PK	V	4.09	64.04	105.20	-41.16
5720.00	68.46	PK	V	4.09	72.55	110.80	-38.25
5725.00	71.77	PK	V	4.09	75.86	122.20	-46.34
11490.00	45.18	PK	H	14.31	59.49	74	-14.51
11490.00	30.95	AV	H	14.31	45.26	54	-8.74
11490.00	45.37	PK	V	14.31	59.68	74	-14.32
11490.00	31.13	AV	V	14.31	45.44	54	-8.56
5785MHz							
11570.00	45.72	PK	H	14.05	59.77	74	-14.23
11570.00	31.36	AV	H	14.05	45.41	54	-8.59
11570.00	45.89	PK	V	14.05	59.94	74	-14.06
11570.00	31.54	AV	V	14.05	45.59	54	-8.41
5825MHz							
5850.00	69.22	PK	H	4.09	73.31	122.20	-48.89
5855.00	64.47	PK	H	4.09	68.56	110.80	-42.24
5875.00	59.18	PK	H	4.19	63.37	105.20	-41.83
5925.00	55.53	PK	H	4.69	60.22	68.20	-7.98
5850.00	70.47	PK	V	4.09	74.56	122.20	-47.64
5855.00	65.93	PK	V	4.09	70.02	110.80	-40.78
5875.00	60.59	PK	V	4.19	64.78	105.20	-40.42
5925.00	55.75	PK	V	4.69	60.44	68.20	-7.76
11650.00	46.24	PK	H	13.83	60.07	74	-13.93
11650.00	31.76	AV	H	13.83	45.59	54	-8.41
11650.00	46.42	PK	V	13.83	60.25	74	-13.75
11650.00	31.97	AV	V	13.83	45.80	54	-8.20

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ac20							
5745MHz							
5650.00	56.08	PK	H	3.59	59.67	68.20	-8.53
5700.00	62.12	PK	H	4.09	66.21	105.20	-38.99
5720.00	70.94	PK	H	4.09	75.03	110.80	-35.77
5725.00	74.36	PK	H	4.09	78.45	122.20	-43.75
5650.00	56.39	PK	V	3.59	59.98	68.20	-8.22
5700.00	63.41	PK	V	4.09	67.50	105.20	-37.70
5720.00	72.50	PK	V	4.09	76.59	110.80	-34.21
5725.00	75.87	PK	V	4.09	79.96	122.20	-42.24
11490.00	44.55	PK	H	14.31	58.86	74	-15.14
11490.00	30.86	AV	H	14.31	45.17	54	-8.83
11490.00	44.68	PK	V	14.31	58.99	74	-15.01
11490.00	31.12	AV	V	14.31	45.43	54	-8.57
5785MHz							
11570.00	44.94	PK	H	14.05	58.99	74	-15.01
11570.00	31.27	AV	H	14.05	45.32	54	-8.68
11570.00	45.15	PK	V	14.05	59.20	74	-14.80
11570.00	31.48	AV	V	14.05	45.53	54	-8.47
5825MHz							
5850.00	67.87	PK	H	4.09	71.96	122.20	-50.24
5855.00	64.05	PK	H	4.09	68.14	110.80	-42.66
5875.00	58.24	PK	H	4.19	62.43	105.20	-42.77
5925.00	55.61	PK	H	4.69	60.30	68.20	-7.90
5850.00	69.19	PK	V	4.09	73.28	122.20	-48.92
5855.00	65.58	PK	V	4.09	69.67	110.80	-41.13
5875.00	59.06	PK	V	4.19	63.25	105.20	-41.95
5925.00	55.92	PK	V	4.69	60.61	68.20	-7.59
11650.00	45.38	PK	H	13.83	59.21	74	-14.79
11650.00	31.79	AV	H	13.83	45.62	54	-8.38
11650.00	45.57	PK	V	13.83	59.40	74	-14.60
11650.00	31.93	AV	V	13.83	45.76	54	-8.24

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ac40							
5755MHz							
5650.00	58.96	PK	H	3.59	62.55	68.20	-5.65
5700.00	62.83	PK	H	4.09	66.92	105.20	-38.28
5720.00	73.05	PK	H	4.09	77.14	110.80	-33.66
5725.00	74.27	PK	H	4.09	78.36	122.20	-43.84
5650.00	59.75	PK	V	3.59	63.34	68.20	-4.86
5700.00	64.20	PK	V	4.09	68.29	105.20	-36.91
5720.00	74.42	PK	V	4.09	78.51	110.80	-32.29
5725.00	75.39	PK	V	4.09	79.48	122.20	-42.72
11510.00	44.96	PK	H	14.29	59.25	74	-14.75
11510.00	31.89	AV	H	14.29	46.18	54	-7.82
11510.00	45.18	PK	V	14.29	59.47	74	-14.53
11510.00	32.07	AV	V	14.29	46.36	54	-7.64
5795MHz							
5850.00	64.69	PK	H	4.09	68.78	122.20	-53.42
5855.00	61.75	PK	H	4.09	65.84	110.80	-44.96
5875.00	60.16	PK	H	4.19	64.35	105.20	-40.85
5925.00	56.52	PK	H	4.69	61.21	68.20	-6.99
5850.00	66.07	PK	V	4.09	70.16	122.20	-52.04
5855.00	63.18	PK	V	4.09	67.27	110.80	-43.53
5875.00	61.63	PK	V	4.19	65.82	105.20	-39.38
5925.00	56.84	PK	V	4.69	61.53	68.20	-6.67
11590.00	45.64	PK	H	13.97	59.61	74	-14.39
11590.00	32.51	AV	H	13.97	46.48	54	-7.52
11590.00	45.83	PK	V	13.97	59.80	74	-14.20
11590.00	32.72	AV	V	13.97	46.69	54	-7.31

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ac80							
5775MHz							
5650.00	58.86	PK	H	3.59	62.45	68.20	-5.75
5700.00	63.78	PK	H	4.09	67.87	105.20	-37.33
5720.00	66.03	PK	H	4.09	70.12	110.80	-40.68
5725.00	68.17	PK	H	4.09	72.26	122.20	-49.94
5650.00	59.53	PK	V	3.59	63.12	68.20	-5.08
5700.00	65.25	PK	V	4.09	69.34	105.20	-35.86
5720.00	67.49	PK	V	4.09	71.58	110.80	-39.22
5725.00	69.64	PK	V	4.09	73.73	122.20	-48.47
5850.00	65.03	PK	H	4.09	69.12	122.20	-53.08
5855.00	63.32	PK	H	4.09	67.41	110.80	-43.39
5875.00	60.19	PK	H	4.19	64.38	105.20	-40.82
5925.00	58.24	PK	H	4.69	62.93	68.20	-5.27
5850.00	66.12	PK	V	4.09	70.21	122.20	-51.99
5855.00	64.81	PK	V	4.09	68.90	110.80	-41.90
5875.00	61.54	PK	V	4.19	65.73	105.20	-39.47
5925.00	58.78	PK	V	4.69	63.47	68.20	-4.73
11550.00	45.25	PK	H	14.13	59.38	74	-14.62
11550.00	33.78	AV	H	14.13	47.91	54	-6.09
11550.00	45.49	PK	V	14.13	59.62	74	-14.38
11550.00	33.96	AV	V	14.13	48.09	54	-5.91

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ax20							
5745MHz							
5650.00	57.95	PK	H	3.59	61.54	68.20	-6.66
5700.00	63.08	PK	H	4.09	67.17	105.20	-38.03
5720.00	71.42	PK	H	4.09	75.51	110.80	-35.29
5725.00	76.56	PK	H	4.09	80.65	122.20	-41.55
5650.00	58.48	PK	V	3.59	62.07	68.20	-6.13
5700.00	64.57	PK	V	4.09	68.66	105.20	-36.54
5720.00	72.96	PK	V	4.09	77.05	110.80	-33.75
5725.00	78.09	PK	V	4.09	82.18	122.20	-40.02
11490.00	45.07	PK	H	14.31	59.38	74	-14.62
11490.00	30.86	AV	H	14.31	45.17	54	-8.83
11490.00	45.25	PK	V	14.31	59.56	74	-14.44
11490.00	31.01	AV	V	14.31	45.32	54	-8.68
5785MHz							
11570.00	45.45	PK	H	14.05	59.50	74	-14.50
11570.00	31.28	AV	H	14.05	45.33	54	-8.67
11570.00	45.63	PK	V	14.05	59.68	74	-14.32
11570.00	31.51	AV	V	14.05	45.56	54	-8.44
5825MHz							
5850.00	75.78	PK	H	4.09	79.87	122.20	-42.33
5855.00	68.64	PK	H	4.09	72.73	110.80	-38.07
5875.00	61.83	PK	H	4.19	66.02	105.20	-39.18
5925.00	56.96	PK	H	4.69	61.65	68.20	-6.55
5850.00	77.24	PK	V	4.09	81.33	122.20	-40.87
5855.00	70.01	PK	V	4.09	74.10	110.80	-36.70
5875.00	63.15	PK	V	4.19	67.34	105.20	-37.86
5925.00	57.39	PK	V	4.69	62.08	68.20	-6.12
11650.00	45.89	PK	H	13.83	59.72	74	-14.28
11650.00	31.78	AV	H	13.83	45.61	54	-8.39
11650.00	46.07	PK	V	13.83	59.90	74	-14.10
11650.00	31.96	AV	V	13.83	45.79	54	-8.21

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ax40							
5755MHz							
5650.00	59.93	PK	H	3.59	63.52	68.20	-4.68
5700.00	64.57	PK	H	4.09	68.66	105.20	-36.54
5720.00	71.42	PK	H	4.09	75.51	110.80	-35.29
5725.00	73.76	PK	H	4.09	77.85	122.20	-44.35
5650.00	60.76	PK	V	3.59	64.35	68.20	-3.85
5700.00	66.05	PK	V	4.09	70.14	105.20	-35.06
5720.00	72.99	PK	V	4.09	77.08	110.80	-33.72
5725.00	75.24	PK	V	4.09	79.33	122.20	-42.87
11510.00	44.84	PK	H	14.29	59.13	74	-14.87
11510.00	31.75	AV	H	14.29	46.04	54	-7.96
11510.00	45.02	PK	V	14.29	59.31	74	-14.69
11510.00	31.93	AV	V	14.29	46.22	54	-7.78
5795MHz							
5850.00	64.27	PK	H	4.09	68.36	122.20	-53.84
5855.00	62.89	PK	H	4.09	66.98	110.80	-43.82
5875.00	59.91	PK	H	4.19	64.10	105.20	-41.10
5925.00	57.04	PK	H	4.69	61.73	68.20	-6.47
5850.00	65.75	PK	V	4.09	69.84	122.20	-52.36
5855.00	63.26	PK	V	4.09	67.35	110.80	-43.45
5875.00	61.04	PK	V	4.19	65.23	105.20	-39.97
5925.00	57.43	PK	V	4.69	62.12	68.20	-6.08
11590.00	45.32	PK	H	13.97	59.29	74	-14.71
11590.00	32.41	AV	H	13.97	46.38	54	-7.62
11590.00	45.54	PK	V	13.97	59.51	74	-14.49
11590.00	32.57	AV	V	13.97	46.54	54	-7.46

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/AV					
802.11ax80							
5775MHz							
5650.00	60.78	PK	H	3.59	64.37	68.20	-3.83
5700.00	68.84	PK	H	4.09	72.93	105.20	-32.27
5720.00	70.63	PK	H	4.09	74.72	110.80	-36.08
5725.00	72.91	PK	H	4.09	77.00	122.20	-45.20
5650.00	61.57	PK	V	3.59	65.16	68.20	-3.04
5700.00	70.39	PK	V	4.09	74.48	105.20	-30.72
5720.00	72.02	PK	V	4.09	76.11	110.80	-34.69
5725.00	74.15	PK	V	4.09	78.24	122.20	-43.96
5850.00	70.19	PK	H	4.09	74.28	122.20	-47.92
5855.00	67.48	PK	H	4.09	71.57	110.80	-39.23
5875.00	62.82	PK	H	4.19	67.01	105.20	-38.19
5925.00	59.53	PK	H	4.69	64.22	68.20	-3.98
5850.00	71.64	PK	V	4.09	75.73	122.20	-46.47
5855.00	68.97	PK	V	4.09	73.06	110.80	-37.74
5875.00	64.35	PK	V	4.19	68.54	105.20	-36.66
5925.00	60.16	PK	V	4.69	64.85	68.20	-3.35
11550.00	44.98	PK	H	14.13	59.11	74	-14.89
11550.00	33.52	AV	H	14.13	47.65	54	-6.35
11550.00	45.17	PK	V	14.13	59.30	74	-14.70
11550.00	33.69	AV	V	14.13	47.82	54	-6.18

Note:

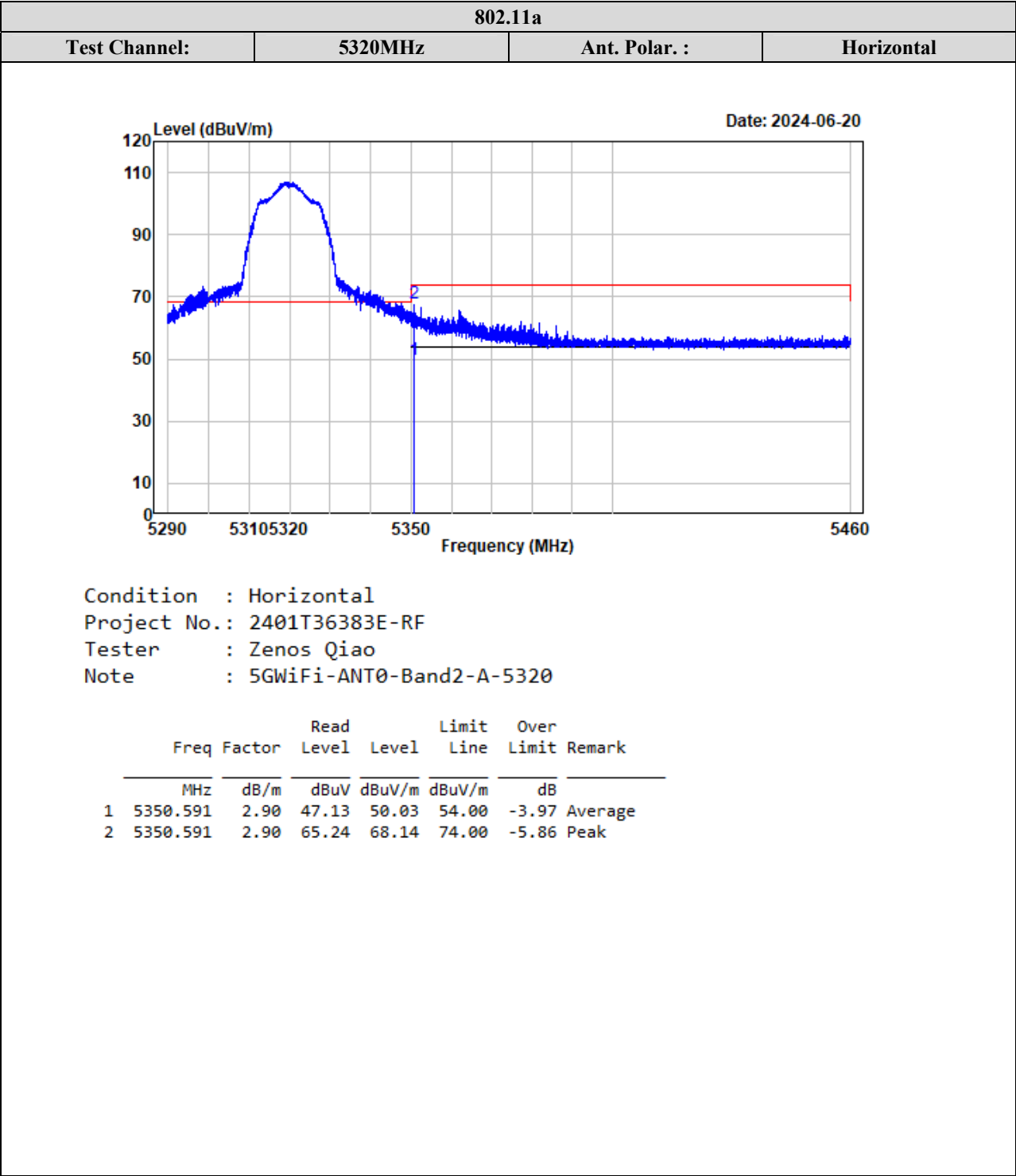
Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor

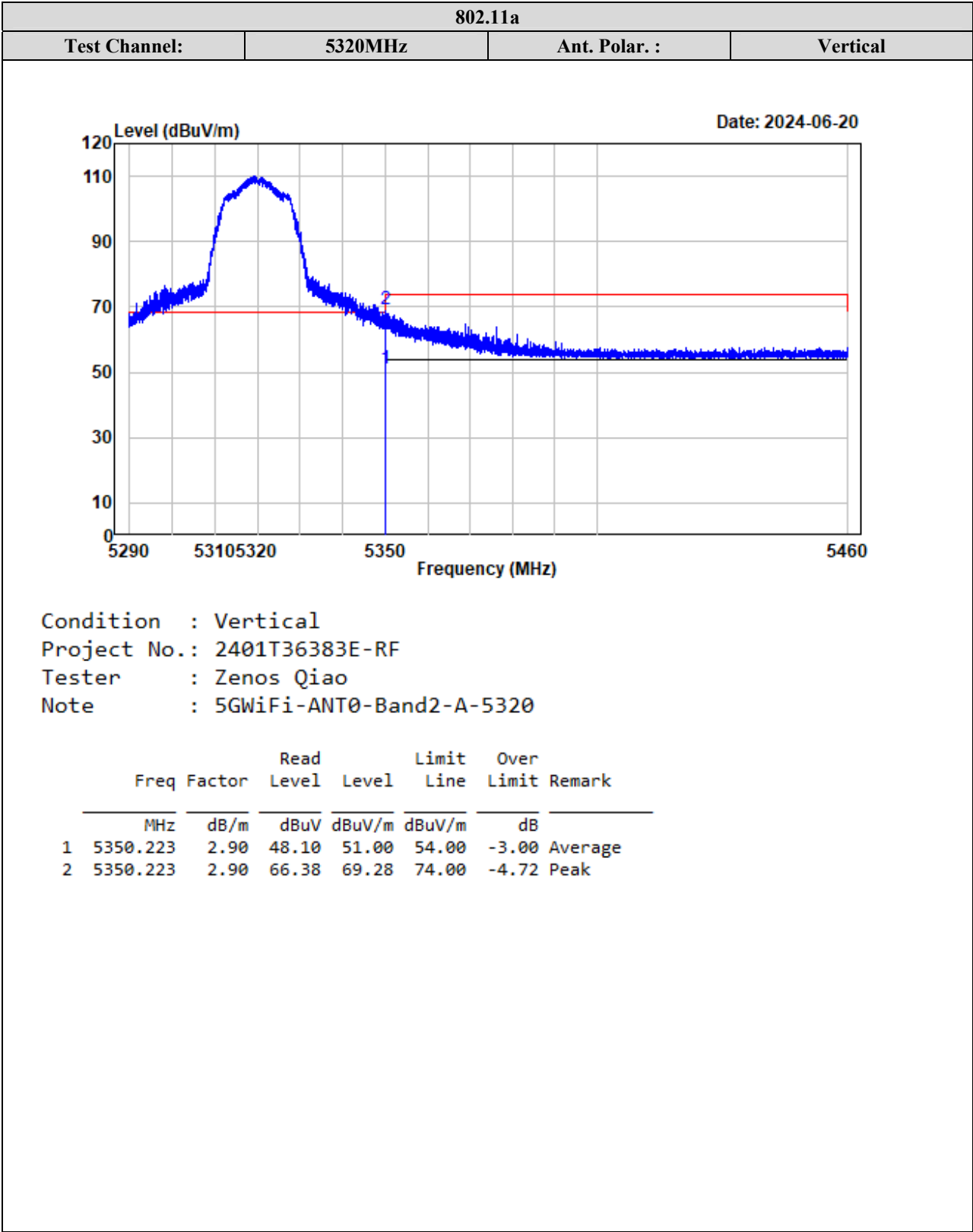
Corrected Amplitude = Factor + Reading

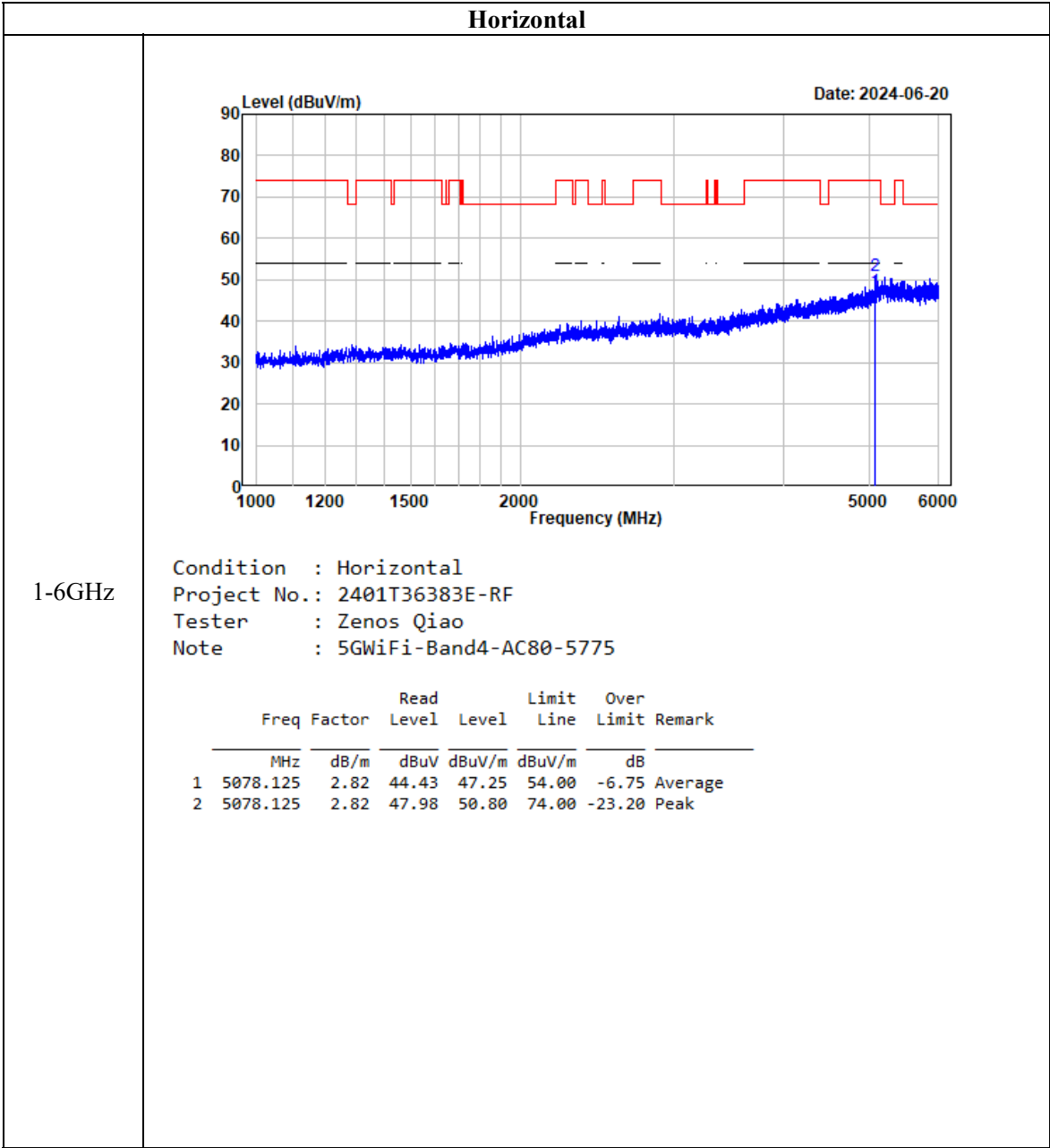
Margin = Corrected. Amplitude - Limit

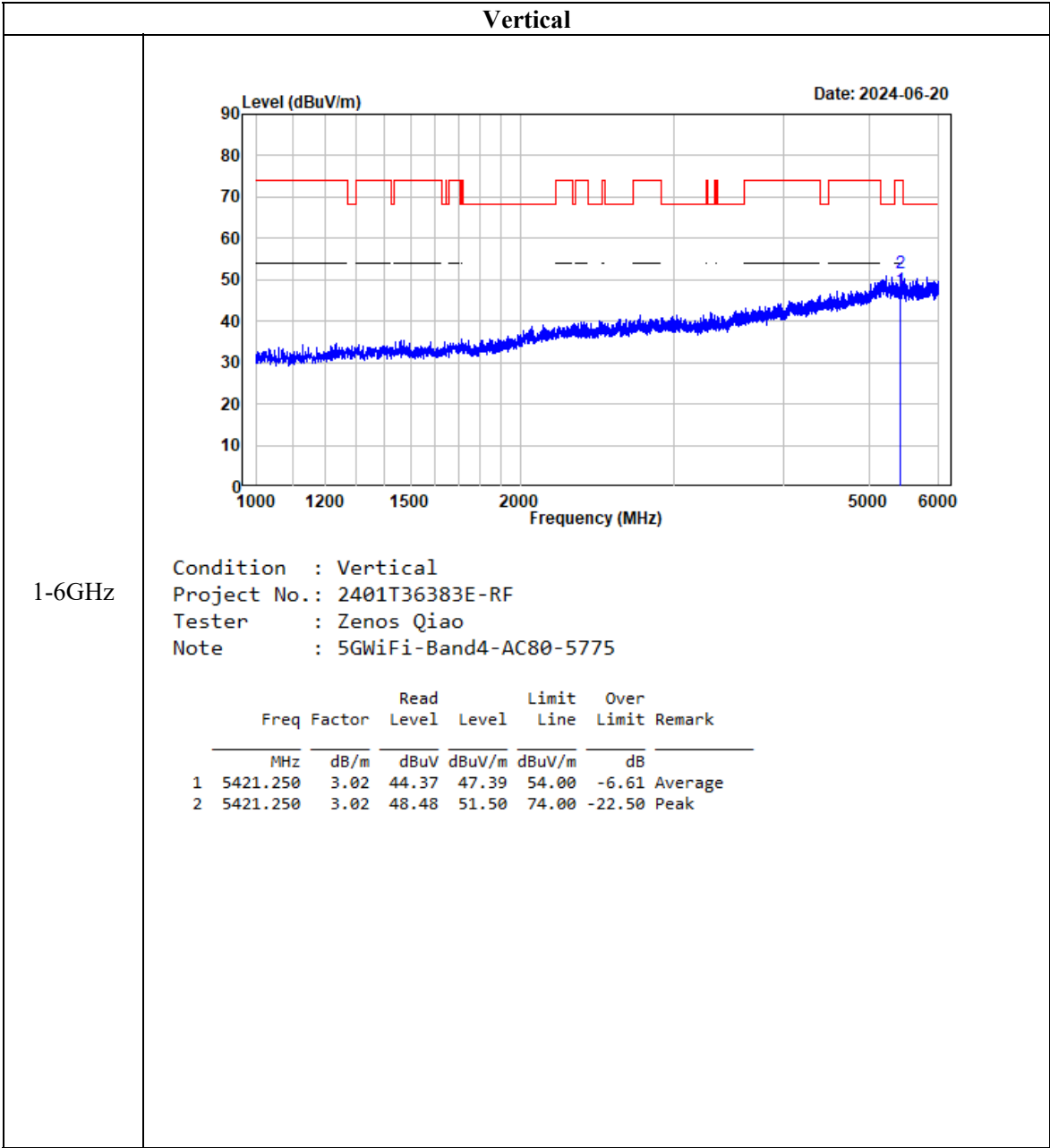
The other spurious emission which is in the noise floor level was not recorded.

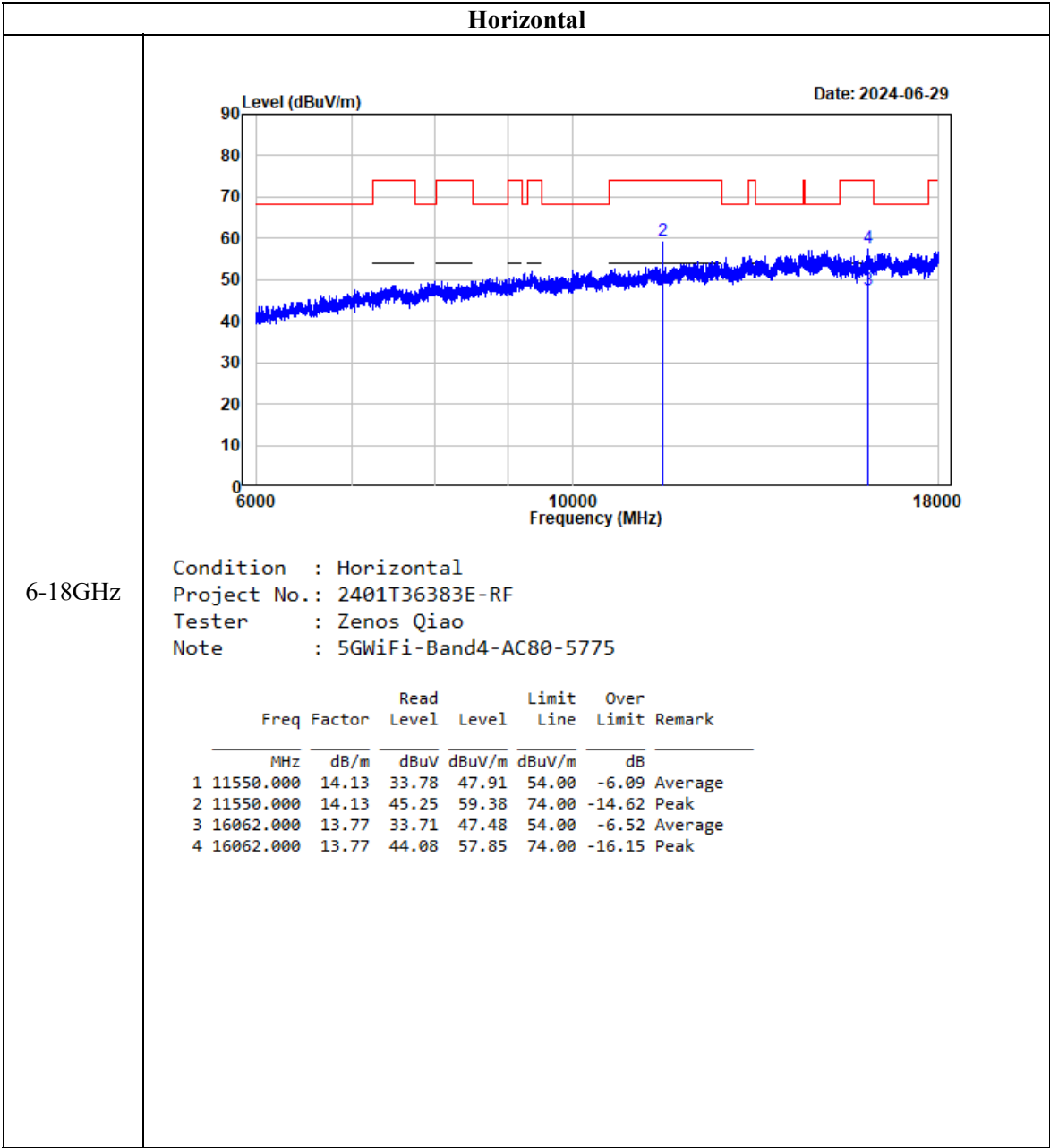
Test plots for Worst Band Edge Measurements (Radiated)

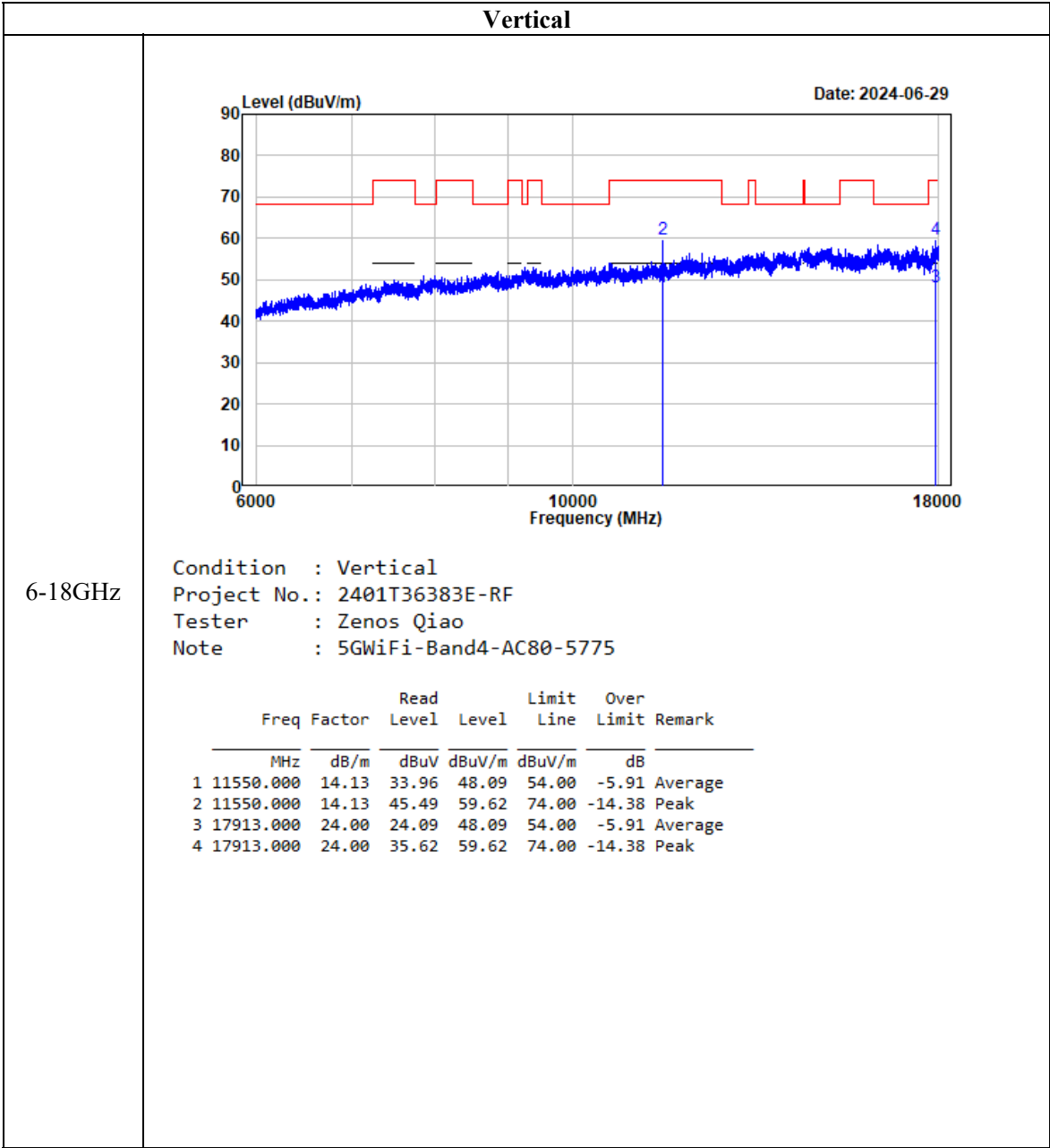


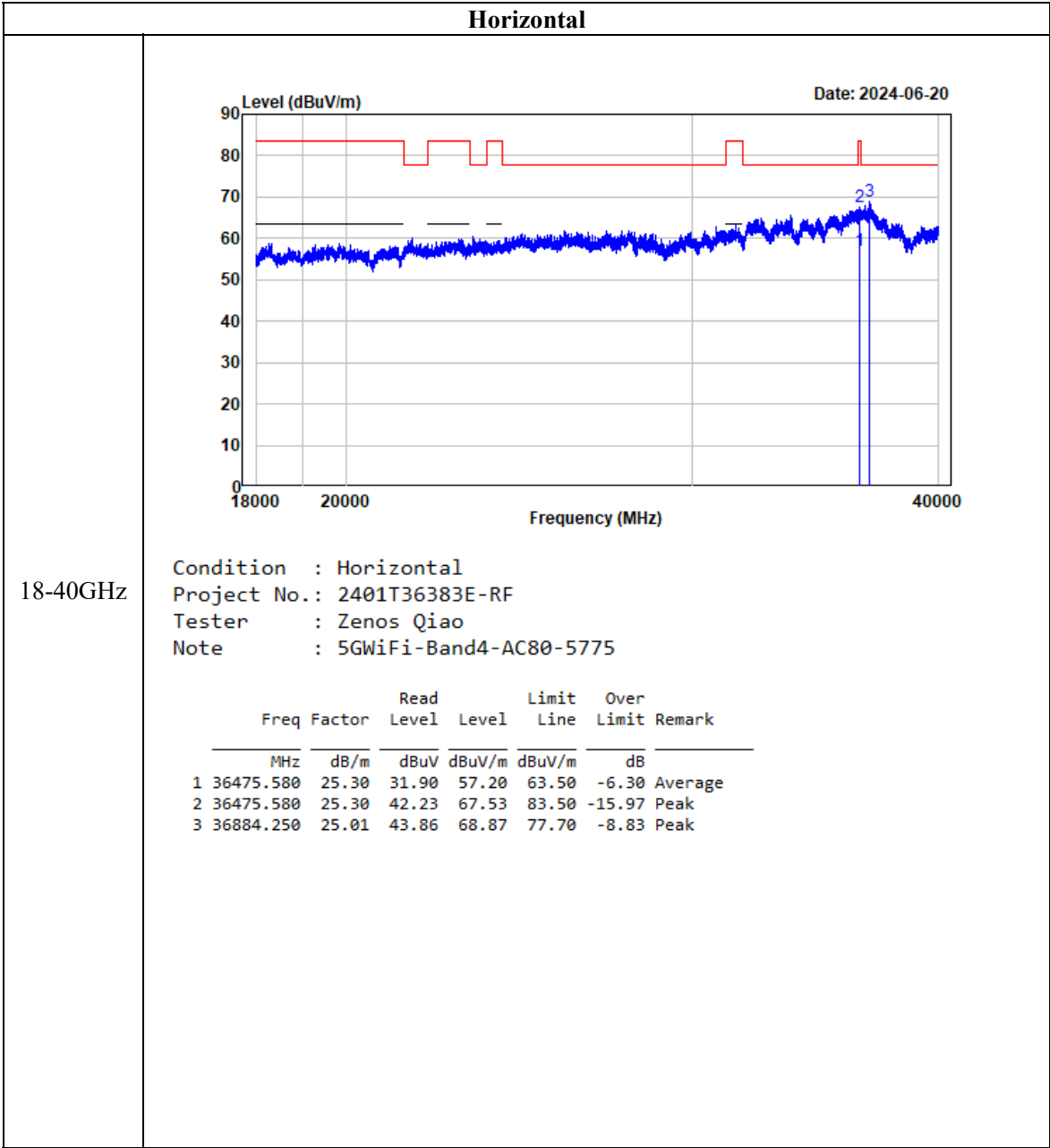


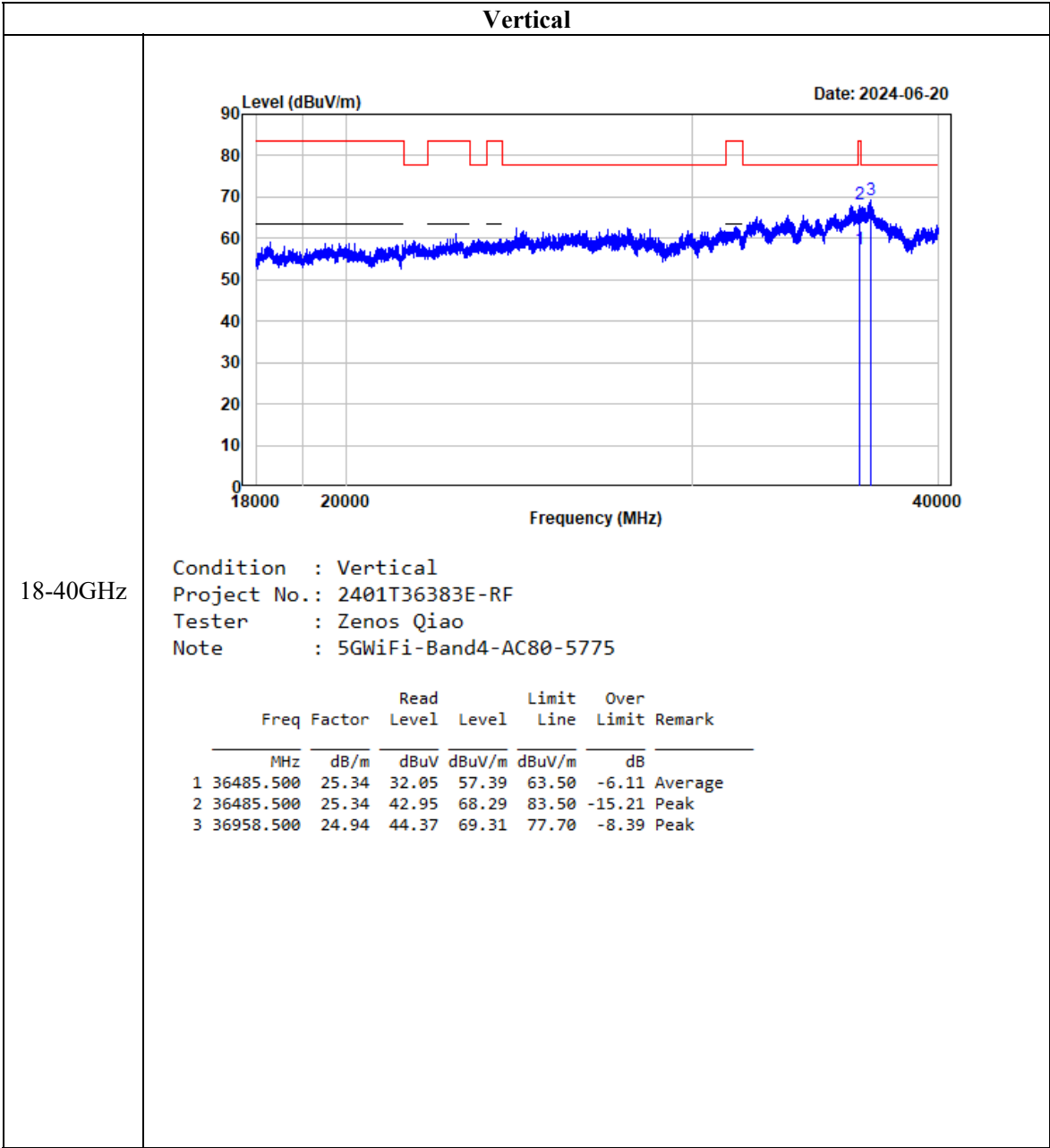












FCC §15.407(a), (e) - 26 dB & 6dB EMISSION BANDWIDTH

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

According to KDB789033 D02 section II.C and section II.D

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) $\geq 3 \times$ 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.

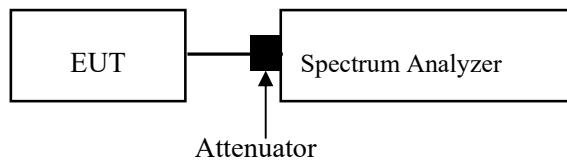
3. 99% Occupied Bandwidth:

According to ANSI C63.10-2013 Section 12.4.2&6.9.3

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

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.

- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (\text{OBW/RBW})]$ below the reference level. Specific guidance is given in 4.1.5.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) 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.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
- g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. 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% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).



Test Data

Environmental Conditions

Temperature:	23~26°C
Relative Humidity:	49~57 %
ATM Pressure:	101 kPa

The testing was performed by Bamboo Zhan from 2024-06-03 to 2024-06-04 and Rainbow Zhu on 2024-09-25.

EUT operation mode: Transmitting

Test Result: Compliant.

5150-5250MHz:

Test Modes	Test Frequency (MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180	21.400	16.823
	5200	21.500	16.823
	5240	21.440	16.823
802.11ac-VHT20	5180	21.720	17.982
	5200	21.800	17.942
	5240	21.750	17.942
802.11ac-VHT40	5190	39.840	36.044
	5230	40.050	36.124
802.11ac-VHT80	5210	81.600	75.604
802.11ax-HE20	5180	21.875	19.341
	5200	21.720	18.981
	5240	21.760	19.021
802.11ax-HE40	5190	40.640	37.642
	5230	40.720	37.642
802.11ax-HE80	5210	83.040	77.203
Note: Test only was performed at ANT 0. Note: The 99% Occupied Bandwidth have not fall into the band 5250-5350MHz, please refer to the test plots of 99% Occupied Bandwidth.			

5250-5350MHz:

Test Modes	Test Frequency (MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5260	21.440	16.903
	5280	21.480	16.783
	5320	21.400	16.783
802.11ac-VHT20	5260	21.760	17.982
	5280	21.600	17.942
	5320	21.640	17.942
802.11ac-VHT40	5270	40.000	36.124
	5310	40.000	36.124
802.11ac-VHT80	5290	81.760	75.445
802.11ax-HE20	5260	21.800	19.021
	5280	23.160	19.021
	5320	21.800	19.021
802.11ax-HE40	5270	40.800	37.642
	5310	40.640	37.642
802.11ax-HE80	5290	82.720	77.203
Note: Test only was performed at ANT 0.			

5470-5725MHz:

Test Modes	Test Frequency(MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5500	21.280	16.783
	5580	21.400	16.783
	5700	21.320	16.783
802.11ac-VHT20	5500	21.600	17.902
	5580	21.720	17.862
	5700	21.760	17.862
802.11ac-VHT40	5510	40.080	36.204
	5550	39.840	36.124
	5670	40.160	36.124
802.11ac-VHT80	5530	81.440	75.445
802.11ax-HE20	5500	21.720	19.021
	5580	21.680	18.981
	5700	21.800	18.981
802.11ax-HE40	5510	40.720	37.642
	5550	40.720	37.562
	5670	40.800	37.722
802.11ax-HE80	5530	82.400	77.203
Note: Test only was performed at ANT 0.			

5725-5850MHz:

Test Modes	Test Frequency (MHz)	6 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5745	15.240	16.783
	5785	15.240	16.783
	5825	15.240	16.783
802.11ac-VHT20	5745	15.240	17.862
	5785	15.240	17.822
	5825	15.240	17.862
802.11ac-VHT40	5755	35.360	36.123
	5795	35.360	36.044
802.11ac-VHT80	5775	75.520	75.604
802.11ax-HE20	5745	18.840	18.981
	5785	19.000	18.981
	5825	18.880	18.981
802.11ax-HE40	5755	37.920	37.562
	5795	37.680	37.562
802.11ax-HE80	5775	77.800	77.203
Note: 6dB Emission Bandwidth Limit: $\geq 0.5\text{MHz}$. The 99% Occupied Bandwidth have not fall into the band 5470-5725MHz, please refer to the test plots of 99% Occupied Bandwidth. Test only was performed at ANT 0.			

The test plots please refer to the Appendix A.

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 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.

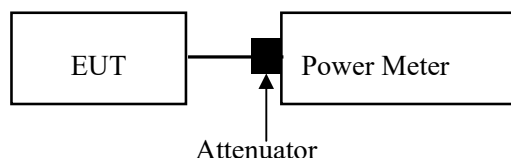
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not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

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method PM-G should be applied

- a. Place the EUT on a bench and set it in transmitting mode.
- b. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.



Test Data**Environmental Conditions**

Temperature:	23~26 °C
Relative Humidity:	49~57 %
ATM Pressure:	101 kPa

The testing was performed by Bamboo Zhan from 2024-06-03 to 2024-06-15.

EUT operation mode: Transmitting

Test Result: Compliant.

5150-5250 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)			
		ANT 0	ANT 1	Total	Limit
802.11a	5180	7.36	7.77	/	23.98
	5200	7.35	7.53	/	23.98
	5240	6.96	7.55	/	23.98
802.11ac-VHT20	5180	7.51	7.87	10.70	23.98
	5200	7.08	7.85	10.49	23.98
	5240	6.67	7.82	10.29	23.98
802.11ac-VHT40	5190	5.81	5.82	8.83	23.98
	5230	5.32	5.71	8.53	23.98
802.11ac-VHT80	5210	4.34	3.80	7.09	23.98
802.11ax-HE20	5180	7.93	5.41	9.86	23.98
	5200	7.43	4.73	9.30	23.98
	5240	6.46	4.49	8.60	23.98
802.11ax-HE40	5190	3.46	4.14	6.82	23.98
	5230	3.00	4.06	6.57	23.98
802.11ax-HE80	5210	2.60	2.53	5.58	23.98
Note: The device is a client unit. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices: Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$					
Antenna Gain:	4.95	dBi	Directional gain:	4.95	dBi

5250-5350 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)			
		ANT 0	ANT 1	Total	Limit
802.11a	5260	6.62	6.80	/	23.98
	5280	6.47	6.31	/	23.98
	5320	6.97	7.13	/	23.98
802.11ac-VHT20	5260	7.06	7.88	10.50	23.98
	5280	6.47	8.07	10.35	23.98
	5320	6.60	5.71	9.19	23.98
802.11ac-VHT40	5270	4.53	5.77	8.20	23.98
	5310	4.65	5.63	8.18	23.98
802.11ac-VHT80	5290	3.73	5.12	7.49	23.98
802.11ax-HE20	5260	6.30	4.13	8.36	23.98
	5280	6.52	3.77	8.37	23.98
	5320	6.40	3.08	8.06	23.98
802.11ax-HE40	5270	3.03	4.24	6.69	23.98
	5310	3.30	4.30	6.84	23.98
802.11ax-HE80	5290	2.37	1.90	5.15	23.98
Note: The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices: Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$					
Antenna Gain:	4.95	dBi	Directional gain:	4.95	dBi

5470-5725 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)			
		ANT 0	ANT 1	Total	Limit
802.11a	5500	4.02	2.06	/	23.98
	5580	5.58	2.07	/	23.98
	5700	3.41	0.64	/	23.98
802.11ac-VHT20	5500	5.84	6.80	9.36	23.98
	5580	6.54	6.63	9.60	23.98
	5700	5.12	4.96	8.05	23.98
802.11ac-VHT40	5510	2.57	3.05	5.83	23.98
	5550	3.11	3.36	6.25	23.98
	5670	2.05	2.41	5.24	23.98
802.11ac-VHT80	5530	3.98	2.82	6.45	23.98
802.11ax-HE20	5500	4.98	5.30	8.15	23.98
	5580	5.17	5.05	8.12	23.98
	5700	4.37	3.77	7.09	23.98
802.11ax-HE40	5510	1.31	2.48	4.94	23.98
	5550	1.22	2.10	4.69	23.98
	5670	0.88	1.46	4.19	23.98
802.11ax-HE80	5530	1.41	1.88	4.66	23.98
Note: The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices: Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$					
Antenna Gain:	4.95	dBi	Directional gain:	4.95	dBi

5725-5850 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)			
		ANT 0	ANT 1	Total	Limit
802.11a	5745	5.33	5.53	/	30
	5785	5.37	5.37	/	30
	5825	5.42	5.18	/	30
802.11ac-VHT20	5745	6.04	5.53	8.80	30
	5785	5.99	5.37	8.70	30
	5825	6.04	5.18	8.64	30
802.11ac-VHT40	5755	3.67	4.13	6.92	30
	5795	3.77	4.07	6.93	30
802.11ac-VHT80	5775	3.19	3.70	6.46	30
802.11ax-HE20	5745	6.07	3.33	7.92	30
	5785	6.12	3.04	7.86	30
	5825	6.16	3.08	7.90	30
802.11ax-HE40	5755	5.30	2.99	7.31	30
	5795	4.72	2.75	6.86	30
802.11ax-HE80	5775	5.49	2.36	7.21	30
Note: The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices: Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$					
Antenna Gain:	4.95	dB _i	Directional gain:	4.95	dB _i

FCC §15.407(a) - POWER SPECTRAL DENSITY

For 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.

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 $11 \text{ dBm} + 10 \log B$, 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

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Duty cycle $\geq 98\%$

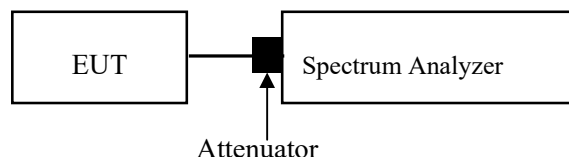
KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-1 should be applied.

Duty cycle $< 98\%$, duty cycle variations are less than $\pm 2\%$

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-2 should be applied.

Duty cycle $< 98\%$, duty cycle variations exceed $\pm 2\%$

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-3 should be applied.



Test Data**Environmental Conditions**

Temperature:	23~26 °C
Relative Humidity:	49~57 %
ATM Pressure:	101 kPa

The testing was performed by Bamboo Zhan and Rainbow Zhu from 2024-06-03 to 2024-10-09.

EUT operation mode: Transmitting

Test Result: Compliant.

5150-5250 MHz:

Test Modes	Test Frequency (MHz)	Reading (dBm/MHz)			Duty Cycle Factor (dB)	Maximum Power Spectral Density (dBm/MHz)	
		ANT0	ANT1	Total		Result	Limit
802.11a	5180	-1.86	-0.63	/	0.36	-0.27	11
	5200	-2.29	-1.02	/	0.36	-0.66	11
	5240	-2.10	-0.98	/	0.36	-0.62	11
802.11ac-VHT20	5180	-1.98	-1.31	1.38	0.33	1.71	9.05
	5200	-1.89	-1.25	1.45	0.33	1.78	9.05
	5240	-2.75	-1.26	1.07	0.33	1.40	9.05
802.11ac-VHT40	5190	-7.07	-5.76	-3.36	0.69	-2.67	9.05
	5230	-7.17	-5.80	-3.42	0.69	-2.73	9.05
802.11ac-VHT80	5210	-9.56	-9.22	-6.38	1.22	-5.16	9.05
802.11ax-HE20	5180	-2.22	-4.58	-0.23	0.46	0.23	9.05
	5200	-3.28	-5.75	-1.33	0.46	-0.87	9.05
	5240	-3.95	-6.21	-1.92	0.46	-1.46	9.05
802.11ax-HE40	5190	-12.37	-11.08	-8.67	0.83	-7.84	9.05
	5230	-11.82	-10.34	-8.01	0.83	-7.18	9.05
802.11ax-HE80	5210	-15.21	-14.21	-11.67	1.35	-10.32	9.05

Note:

- The device is a client.
- The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices:
Array Gain = $10 \log(N_{\text{ANT}}/N_{\text{SS}})$ dB
- Method SA-2 in KDB 789033 D02 General UNII Test Procedures New Rules v02r01 was used for PSD test.
- For 802.11a mode, $\text{PSD} = \text{Max}\{\text{Reading}_{\text{ANT1}}, \text{Reading}_{\text{ANT2}}\} + \text{Duty Cycle Factor}$
- For 802.11 ac/ax modes, $\text{PSD} = \text{Total} + \text{Duty Cycle Factor}$

Antenna Gain:	4.95	dBi	Directional Gain:	7.95	dBi
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5250-5350 MHz:

Test Modes	Test Frequency (MHz)	Reading (dBm/MHz)			Duty Cycle Factor (dB)	Maximum Power Spectral Density (dBm/MHz)	
		ANT0	ANT1	Total		Result	Limit
802.11a	5260	-1.98	-1.70	/	0.36	-1.34	11
	5280	-2.71	-2.46	/	0.36	-2.10	11
	5320	-2.15	-1.55	/	0.36	-1.19	11
802.11ac-VHT20	5260	-3.08	-1.19	0.98	0.33	1.31	9.05
	5280	-2.77	-1.05	1.18	0.33	1.51	9.05
	5320	-1.06	-3.13	1.04	0.33	1.37	9.05
802.11ac-VHT40	5270	-7.27	-5.99	-3.57	0.69	-2.88	9.05
	5310	-7.58	-5.89	-3.64	0.69	-2.95	9.05
802.11ac-VHT80	5290	-11.03	-9.37	-7.11	1.22	-5.89	9.05
802.11ax-HE20	5260	-5.00	-6.52	-2.68	0.46	-2.22	9.05
	5280	-3.70	-6.91	-2.00	0.83	-1.17	9.05
	5320	-4.65	-7.52	-2.84	1.35	-1.49	9.05
802.11ax-HE40	5270	-12.00	-10.73	-8.31	0.83	-7.48	9.05
	5310	-12.44	-11.75	-9.07	0.83	-8.24	9.05
802.11ax-HE80	5290	-16.12	-14.59	-12.28	1.35	-10.93	9.05
Note: 1. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices: Array Gain = $10 \log(N_{\text{ANT}}/N_{\text{SS}})$ dB 2. Method SA-2 in KDB 789033 D02 General UNII Test Procedures New Rules v02r01 was used for PSD test. 3. For 802.11a mode, PSD = $\text{Max}\{\text{Reading}_{\text{ANT1}}, \text{Reading}_{\text{ANT2}}\} + \text{Duty Cycle Factor}$ 4. For 802.11 ac/ax modes, PSD = Total + Duty Cycle Factor							
Antenna Gain:		4.95	dB	Directional Gain:		7.95	dB

5475-5725 MHz:

Test Modes	Test Frequency (MHz)	Reading (dBm/MHz)			Duty Cycle Factor (dB)	Maximum Power Spectral Density (dBm/MHz)	
		ANT0	ANT1	Total		Result	Limit
802.11a	5500	-5.44	-4.06	/	0.36	-3.70	11
	5580	-5.04	-4.38	/	0.36	-4.02	11
	5700	-6.15	-6.51	/	0.36	-5.79	11
802.11ac-VHT20	5500	-3.10	-2.00	0.50	0.33	0.83	9.05
	5580	-3.32	-2.62	0.05	0.33	0.38	9.05
	5700	-3.42	-3.84	-0.61	0.33	-0.28	9.05
802.11ac-VHT40	5510	-10.26	-9.06	-6.61	0.69	-5.92	9.05
	5550	-9.65	-9.03	-6.32	0.69	-5.63	9.05
	5670	-11.13	-9.93	-7.48	0.69	-6.79	9.05
802.11ac-VHT80	5530	-12.92	-12.19	-9.53	1.22	-8.31	9.05
802.11ax-HE20	5500	-8.39	-6.72	-4.46	0.46	-4.00	9.05
	5580	-8.39	-7.48	-4.90	0.46	-4.44	9.05
	5700	-9.27	-9.30	-6.27	0.46	-5.81	9.05
802.11ax-HE40	5510	-14.12	-14.69	-11.39	0.83	-10.56	9.05
	5550	-13.46	-14.92	-11.12	0.83	-10.29	9.05
	5670	-13.06	-14.30	-10.63	0.83	-9.80	9.05
802.11ax-HE80	5530	-16.39	-17.36	-13.84	1.35	-12.49	9.05
Note: 1. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices: Array Gain = $10 \log(N_{\text{ANT}}/N_{\text{SS}})$ dB 2. Method SA-2 in KDB 789033 D02 General UNII Test Procedures New Rules v02r01 was used for PSD test. 3. For 802.11a mode, $\text{PSD} = \text{Max}\{\text{Reading}_{\text{ANT1}}, \text{Reading}_{\text{ANT2}}\} + \text{Duty Cycle Factor}$ 4. For 802.11 ac/ax modes, $\text{PSD} = \text{Total} + \text{Duty Cycle Factor}$							
Antenna Gain:	4.95		dBi	Directional Gain:	7.95		dBi

5725-5850 MHz:

Test Modes	Test Frequency (MHz)	Reading (dBm/500kHz)			Duty Cycle Factor (dB)	Maximum Power Spectral Density (dBm/500kHz)	
		ANT0	ANT1	Total		Result	Limit
802.11a	5745	-5.60	-6.31	/	0.36	-5.24	30
	5785	-5.93	-6.01	/	0.36	-5.57	30
	5825	-5.63	-5.81	/	0.36	-5.27	30
802.11ac-VHT20	5745	-6.12	-5.57	-2.83	0.33	-2.50	28.05
	5785	-5.93	-5.76	-2.83	0.33	-2.50	28.05
	5825	-5.93	-5.91	-2.91	0.33	-2.58	28.05
802.11ac-VHT40	5755	-10.05	-10.03	-7.03	0.69	-6.34	28.05
	5795	-10.51	-9.94	-7.21	0.69	-6.52	28.05
802.11ac-VHT80	5775	-14.19	-13.48	-10.81	1.22	-9.59	28.05
802.11ax-HE20	5745	-7.52	-10.03	-5.59	0.46	-5.13	28.05
	5785	-6.85	-10.29	-5.23	0.46	-4.77	28.05
	5825	-7.38	-10.25	-5.57	0.46	-5.11	28.05
802.11ax-HE40	5755	-12.72	-14.93	-10.68	0.83	-9.85	28.05
	5795	-12.88	-14.79	-10.72	0.83	-9.89	28.05
802.11ax-HE80	5775	-16.00	-18.26	-13.97	1.35	-12.62	28.05
Note: 1. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices: Array Gain = $10 \log(N_{\text{ANT}}/N_{\text{SS}})$ dB 2. Method SA-2 in KDB 789033 D02 General UNII Test Procedures New Rules v02r01 was used for PSD test. 3. For 802.11a mode, PSD = $\text{Max}\{\text{Reading}_{\text{ANT1}}, \text{Reading}_{\text{ANT2}}\} + \text{Duty Cycle Factor}$ 4. For 802.11 ac/ax modes, PSD = Total + Duty Cycle Factor							
Antenna Gain:	4.95		dBi	Directional Gain:	7.95		dBi

The test plots please refer to the Appendix B.

EUT PHOTOGRAPHS

Please refer to the attachment 2401T36383E-RF External photo and 2401T36383E-RF Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2401T36383E-RFB Test Setup photo.

******* END OF REPORT *******