



TEST REPORT

Applicant: Shenzhen Xinguodu Technology Co., Ltd.

Address: 17B JinSong Mansion, Terra Industrial & Trade Park
Chegongmiao, Futian District, Shenzhen, Guangdong, China.

Product Name: POS TERMINAL

FCC ID: XDQN62-01

47 CFR Part 15, Subpart E(15.407)

Standard(s): ANSI C63.10-2013
KDB 789033 D02 General U-NII Test Procedures New Rules
v02r01

Report Number: 2402W89350E-RF-00DA1

Report Date: 2024/9/24

The above device has been tested and found compliant with the requirement of the relative standards by Bay Area Compliance Laboratories Corp. (Dongguan).

Reviewed By: Gavin Xu

Title: RF Engineer

Approved By: Ivan Cao

Title: EMC Manager

Bay Area Compliance Laboratories Corp. (Dongguan)
No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China

Tel: +86-769-86858888

Fax: +86-769-86858891

www.baclcorp.com.cn

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	DG1240227-09527E-RF-00D	Original Report	2024/4/12
2.0	2402W89350E-RF-00DA1	Class II Permissive Change Report	2024/9/24

Note: This is Class II permissive change application which was based on the original report. The differences between them as following:

1. Change the Antenna (WWAN/Bluetooth/Wifi/GPS).
2. Changed the appearance of the product screen printing.
3. 5G Wifi Maximum Conducted Output Power was reduced.

The change between the previous equipment and the current equipment is stated and guaranteed by the applicant. According to the difference, RF Conducted power, Conducted emissions and Radiated spurious emission were tested, test photos and EUT photos was updated.

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	POS TERMINAL
EUT Model:	N62
Operation Frequency:	5150-5250 MHz: 5180-5240 MHz(802.11a/n ht20) 5190-5230 MHz(802.11n ht40) 5250-5350 MHz: 5260-5320 MHz (802.11a/n ht20) 5270-5310 MHz(802.11n ht40) 5470-5725 MHz: 5500-5720 MHz (802.11a/n ht20) 5510-5710 MHz(802.11n ht40) 5725-5850 MHz: 5745-5825 MHz (802.11a/n ht20) 5755-5795 MHz(802.11n ht40)
Maximum Average Output Power (Conducted):	14.95dBm in 5150-5250 MHz Band 15.59dBm in 5250-5350 MHz Band 12.95dBm in 5470-5725 MHz Band 16.33dBm in 5725-5850 MHz Band
Modulation Type:	802.11a/n:OFDM-BPSK, QPSK, 16QAM, 64QAM
Rated Input Voltage:	DC 3.8V from battery or DC 5.0V from adapter or DC 5.0V from Base
Serial Number:	RE/CE: 2PN1-1 RF Conducted: 2PN1-2
EUT Received Date:	2024/8/9
EUT Received Status:	Good

1.2 Accessory Information

Accessory Description	Manufacturer	Model	Parameters
Adapter 1#	Jiangxi Jian Aohai Technology Co.,Ltd.	A319-050200U-US2	Input: 100-240Vac~50-60Hz 0.3A MAX Output: 5.0Vdc 2000mA
Adapter 2#	RUIJING	RJ49-W050100US	Input: 100-240Vac~50-60Hz 250mA Output: 5.0Vdc 1000mA
Adapter 3#	Dongguan Aohai Technology Co.,Ltd.	A806A-050100U-EU1	Input: 100-240Vac~50-60Hz 0.2A Output: 5.0Vdc 1.0A 5.0W
Adapter 4#	RUIJING	RJ49-W050100EU	Input: 100-240Vac~50-60Hz 250mA Output: 5.0Vdc 1A 5.0W
Adapter 5#	SHENZHEN HONOR ELECTRONIC CO.,LTD.	ADS-6MA-06 05050EPG	Input: 100-240Vac~50-60Hz 0.3A MAX Output: 5.0Vdc 1.0A 5.0W

1.3 Antenna Information Detail▲

Antenna Manufacturer	Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain
Sunny Way Technology(China) Co., Ltd.	LDS	50	5.15~5.25GHz	1.61 dBi
			5.25~5.35GHz	1.36 dBi
			5.47~5.725GHz	2.15 dBi
			5.725~5.85GHz	-0.41 dBi

The design of compliance with §15.203:

- | |
|--|
| <input checked="" type="checkbox"/> Unit uses a permanently attached antenna. |
| <input type="checkbox"/> Unit uses a unique coupling to the intentional radiator. |
| <input type="checkbox"/> Unit was professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit. |

1.4 Equipment Modifications

No modifications are made to the EUT during all test items.

2. SUMMARY OF TEST RESULTS

Standard(s) Section	Test Items	Result
§15.207(a)	AC line conducted emissions	Compliant
FCC§15.205& §15.209 &§15.407(b)	Radiated Spurious Emissions	Compliant
FCC§15.407(a) (e)	Emission Bandwidth	Compliant*
FCC§15.407(a)	Maximum Conducted Output Power	Compliant
FCC§15.407 (a)	Power Spectral Density	Compliant*
§15.407(h)(2)	Dynamic Frequency Selection(DFS)	Compliant**
§15.203	Antenna Requirement	Compliant

Note 1: For AC line conducted emissions, the maximum output power mode and channel was tested.
Note 2: For Radiated Spurious Emissions 9kHz~ 1GHz, the maximum output power mode and channel was tested.
Note 3: Per DG1240227-09527E-RF-00D report, Powered by Adapter 1# was the worst for AC line conducted emissions and Radiated Spurious Emissions.
Note 4: Maximum Conducted Output Power was reduced.

Compliant*: The test data please refer to the original report DG1240227-09527E-RF-00D.
Compliant**: The test data please refer to the original report DG1240227-09527E-RF-00G.

3. DESCRIPTION OF TEST CONFIGURATION

3.1 Operation Frequency Detail

For 802.11a/n ht20:

5150-5250MHz Band		5250-5350 MHz Band		5470-5725 MHz Band		5725-5850MHz Band	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	52	5260	100	5500	149	5745
40	5200	56	5280	104	5520	153	5765
44	5220	60	5300	108	5540	157	5785
48	5240	64	5320	112	5560	161	5805
/	/	/	/	116	5580	165	5825
/	/	/	/	120	5600	/	/
/	/	/	/	124	5620	/	/
/	/	/	/	128	5640	/	/
/	/	/	/	132	5660	/	/
/	/	/	/	136	5680	/	/
/	/	/	/	140	5700	/	/
/	/	/	/	144	5720 ^{Note}	/	/

For 802.11n ht40:

5150-5250MHz Band		5250-5350 MHz Band		5470-5725 MHz Band		5725-5850MHz Band	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	54	5270	102	5510	151	5755
46	5230	62	5310	110	5550	159	5795
	/	/	/	118	5590		
	/	/	/	126	5630		
/	/	/	/	134	5670	/	/
/	/	/	/	142	5710 ^{Note}	/	/

Note: Additional channels cross the band 5470-5725MHz and 5725-5850 MHz, Conducted output power/ Power Spectral Density/bandwidth test with the additional channel to compliance with stricter limit of the two bands(5470-5725MHz more stricter).

3.2 EUT Operation Condition

The system was configured for testing in Engineering Mode, which was provided by the manufacturer. The EUT configuration is below:

EUT Exercise Software:		Engineering mode		
The software was provided by manufacturer. The maximum power was configured as below, that was provided by the manufacturer▲:				
5150-5250 MHz Band:				
Test Modes	Data Rate	Power Level Setting		
		Low Channel	Middle Channel	High Channel
802.11a	6Mbps	18	18	18
802.11n ht20	6Mbps	18	18	18
802.11n ht40	MCS0	15	/	15

5250-5350 MHz Band:

Test Modes	Data Rate	Power Level Setting		
		Low Channel	Middle Channel	High Channel
802.11a	6Mbps	18	18	18
802.11n ht20	6Mbps	18	18	18
802.11n ht40	MCS0	16	/	16

5470-5725 MHz Band:

Test Modes	Data Rate	Power Level Setting			
		Low Channel	Middle Channel	High Channel	Cross Channel
802.11a	6Mbps	16	16	16	16
802.11n ht20	6Mbps	16	16	16	16
802.11n ht40	MCS0	16	16	16	16

5725-5850 MHz Band:

Test Modes	Data Rate	Power Level Setting		
		Low Channel	Middle Channel	High Channel
802.11a	6Mbps	20	20	20
802.11n ht20	6Mbps	20	20	20
802.11n ht40	MCS0	20	/	20

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.

3.3 Support Equipment List and Details

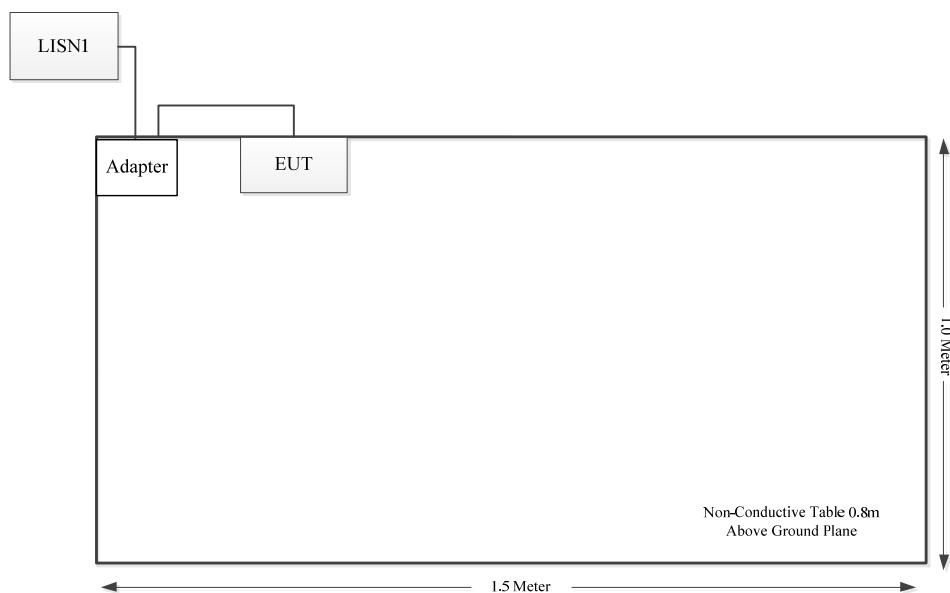
Manufacturer	Description	Model	Serial Number
/	/	/	/

3.4 Support Cable List and Details

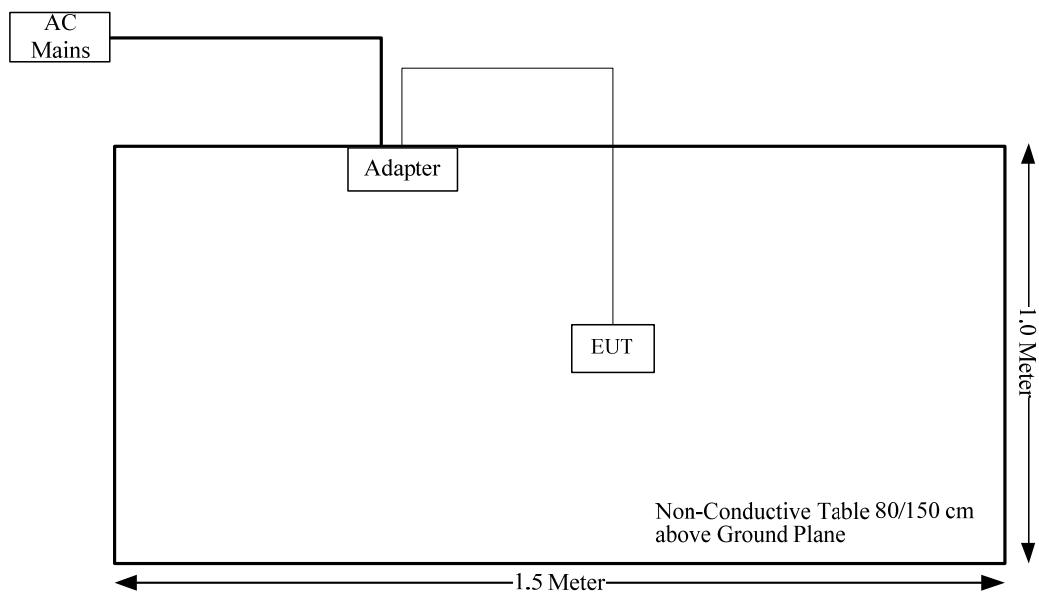
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
USB Cable	no	no	0.8	Adapter	EUT

3.5 Block Diagram of Test Setup

AC Power Lines Conducted Emission:



Radiated Spurious Emissions:



3.6 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, 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. : 829273, the FCC Designation No. : CN5044.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0022.

3.7 Measurement Uncertainty

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

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	9kHz~30MHz: 3.3dB, 30MHz~200MHz: 4.55 dB, 200MHz~1GHz: 5.92 dB, 1GHz~6GHz: 4.98 dB, 6GHz~18GHz: 5.89 dB, 18GHz~26.5GHz: 5.47 dB, 26.5GHz~40GHz: 5.63 dB
Unwanted Emissions, conducted	±2.47 dB
Temperature	±1°C
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	3.11 dB (150 kHz to 30 MHz)

4. REQUIREMENTS AND TEST PROCEDURES

4.1 AC Line Conducted Emissions

4.1.1 Applicable Standard

FCC§15.207(a).

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators on frequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

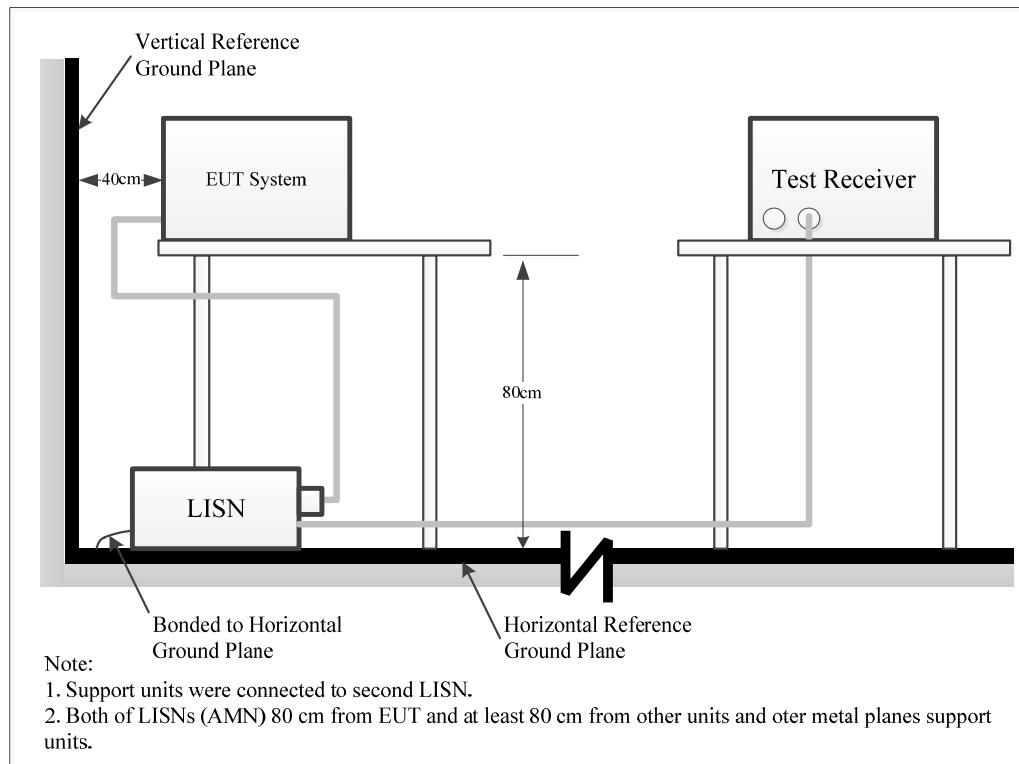
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000 μ V within the frequency band 535-1705 kHz, as measured using a 50 μ H/50 ohms LISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits in §15.205, §15.209, §15.221, §15.223, or §15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtainig their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

4.1.2 EUT Setup



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.

The adapter or EUT was connected to the main LISN with a 120 V/60 Hz AC power source.

4.1.3 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

4.1.4 Test Procedure

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit, measured over all the current-carrying conductors of the EUT power cords, and the operating frequency or frequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are more than 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carried out only on each of the phase (“hot”) line(s) and (if used) on the neutral line(s), but not on the ground [protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noise level of the measuring instrument at representative frequencies should be reported. The specific conductor of the power-line cord for each of the reported emissions should be identified. Measure the six highest emissions with respect to the limit on each current-carrying conductor of each power cord associated with the EUT (but not the power cords of associated or peripheral equipment that are part of the test configuration). Then, report the six highest emissions with respect to the limit from among all the measurements identifying the frequency and specific current-carrying conductor identified with the emission. The six highest emissions should be reported for each of the current-carrying conductors, or the six highest emissions may be reported over all the current-carrying conductors.

4.1.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

Factor = attenuation caused by cable loss + voltage division factor of AMN

The “Margin” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

4.1.6 Test Result

Please refer to section 5.1.

4.2 Radiation Spurious Emissions

4.2.1 Applicable Standard

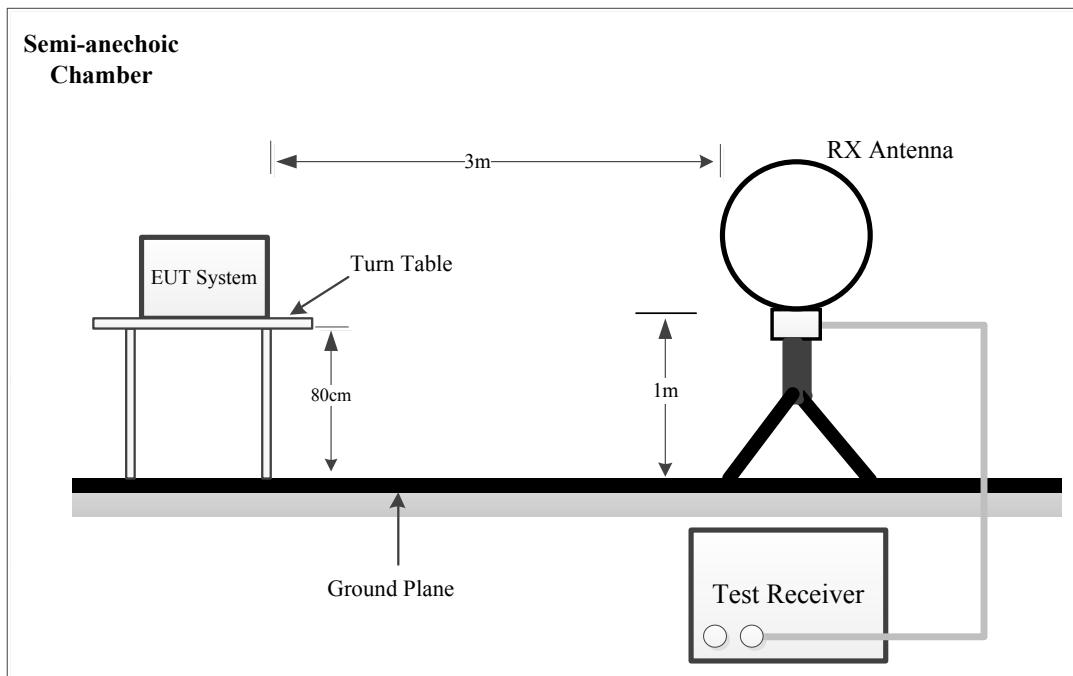
FCC §15.407 (b);

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:

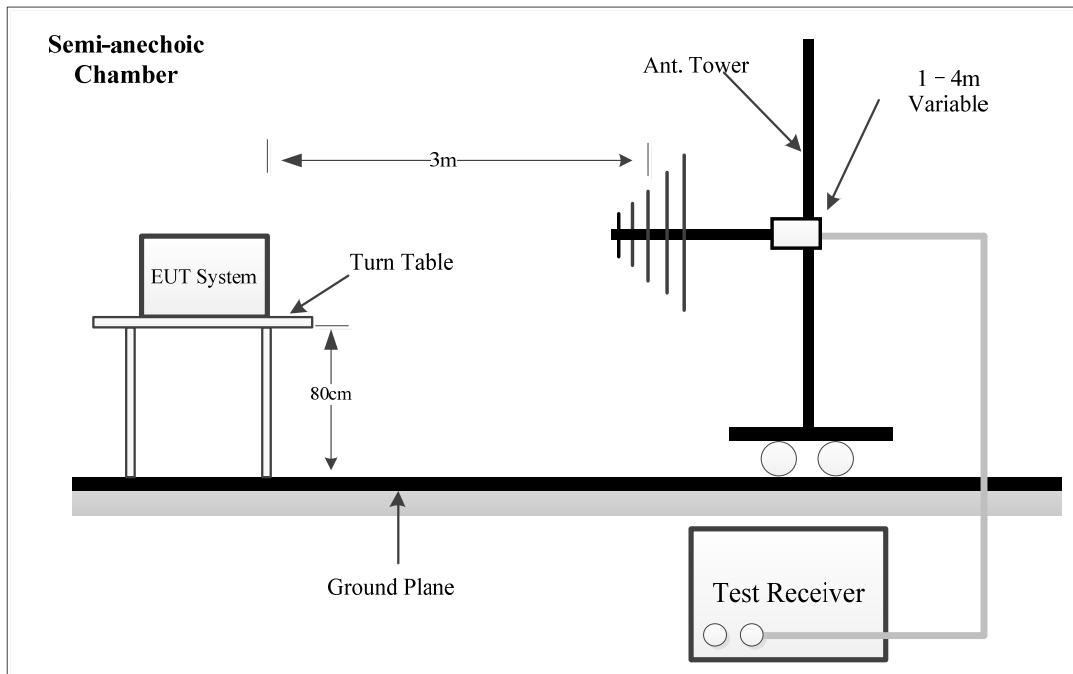
- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of - 27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of - 27 dBm/MHz.
- (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 solely in the 5.725-5.850 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.
 - (ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.
- (8) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
- (9) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in § 15.207.
- (10) The provisions of § 15.205 apply to intentional radiators operating under this section.
- (11) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.
- (c) The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

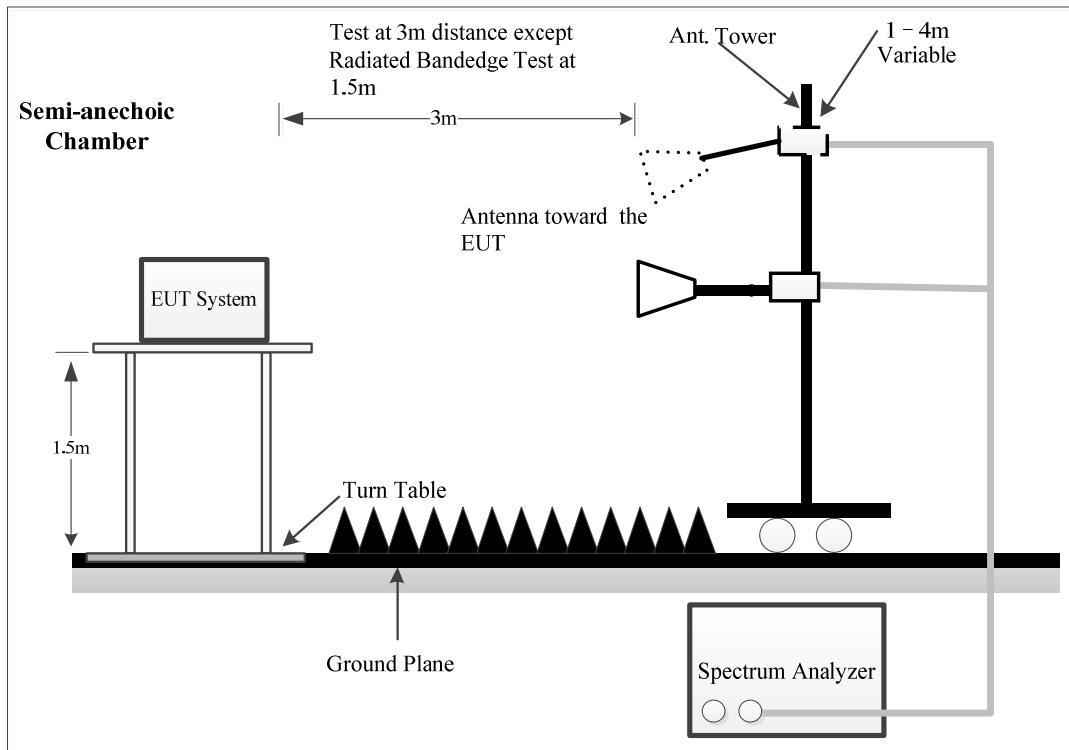
4.2.2 EUT Setup

9kHz~30MHz:



30MHz~1GHz:



Above 1GHz:

The radiated emission tests were performed in the semi-anechoic chamber, using the setup accordance with the ANSI C63.10-2013. The specification used was FCC 15.209, 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.

The spacing between the peripherals was 10 cm.

For 9kHz-30MHz test, the lowest height of the magnetic antenna shall be 1 m above the ground and three antenna orientations (parallel, perpendicular, and ground-parallel) shall be measured.

4.2.3 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:

9kHz-1000MHz:

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

1GHz- 40GHz:

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

Note: T is minimum transmission duration

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

If the maximized peak measured value is under the average limit, then it is unnecessary to perform an QP measurement.

4.2.4 Test Procedure

Data was recorded in Quasi-peak detection mode for frequency range of 9 kHz -1 GHz, except 9-90 kHz, 110-490 kHz, employing an average detector, peak and Average detection modes for frequencies above 1 GHz.

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, emission shall be computed as: $E [dB\mu V/m] = EIRP[dBm] + 95.2$, for $d = 3$ meters.

For Radiated Bandedge test, which was performed at 1.5 m distance, according to C63.10, the test result shall be extrapolated to the specified distance using an extrapolation Factor of 20dB/decade from 3m to 1.5m

Distance extrapolation Factor = $20 \log (\text{specific distance [3m]}/\text{test distance [1.5m]})$ dB = 6.0dB

4.2.5 Corrected Result & Margin Calculation

The basic equation except radiated bandedge test is as follows:

Factor = Antenna Factor + Cable Loss- Amplifier Gain

Result = Reading + Factor

For Radiated Bandedge test:

Factor = Antenna Factor + Cable Loss-Distance extrapolation Factor

Result = Reading + Factor

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

4.2.6 Test Result

Please refer to section 5.2.

4.3 Maximum Conducted Output Power

4.3.1 Applicable Standard

FCC §15.407(a) (1)(iv)

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.

FCC §15.407(a) (2)

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, 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.

FCC §15.407(a) (3)(i)

For the band 5.725-5.850 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.

4.3.2 EUT Setup



A short RF cable with low cable loss connected to the EUT antenna port, which was provided by manufacturer. The cable loss of this RF cable was offset into the setting of test equipment, which was provided by manufacturer▲.

4.3.3 Test Procedure

According to ANSI C63.10-2013 Section 12.3.3.1

Method PM-G is measurement using a gated RF average power meter.

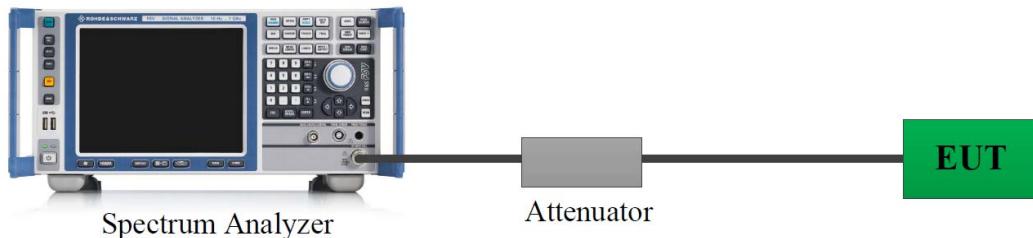
Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Because the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

4.3.4 Test Result

Please refer to section 5.3.

4.4 Duty Cycle

4.4.1 EUT Setup



A short RF cable with low cable loss connected to the EUT antenna port, which was provided by manufacturer.

4.4.2 Test Procedure

According to ANSI C63.10-2013 Section 12.2

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the ON and OFF times of the transmitted signal:

- 1) Set the center frequency of the instrument to the center frequency of the transmission.
- 2) Set $RBW \geq OBW$ if possible; otherwise, set RBW to the largest available value.
- 3) Set $VBW \geq RBW$. Set detector = peak or average.
- 4) The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$ and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring the duty cycle shall not be used if $T \leq 16.7 \mu s$.)

4.4.3 Judgment

Report Only. Please refer to section 5.4.

4.5 Antenna Requirement

4.5.1 Applicable Standard

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. This requirement does not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or §15.236. 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.

4.5.2 Judgment

Compliant. Please refer to the Antenna Information detail in Section 1.3.

5. Test DATA AND RESULTS

5.1 AC Line Conducted Emissions

Serial Number:	2PN1-1	Test Date:	2024/8/18
Test Site:	CE	Test Mode:	Transmitting
Tester:	Lane Sun	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	23.6	Relative Humidity: (%)	69	ATM Pressure: (kPa)	100.6

Test Equipment List and Details:

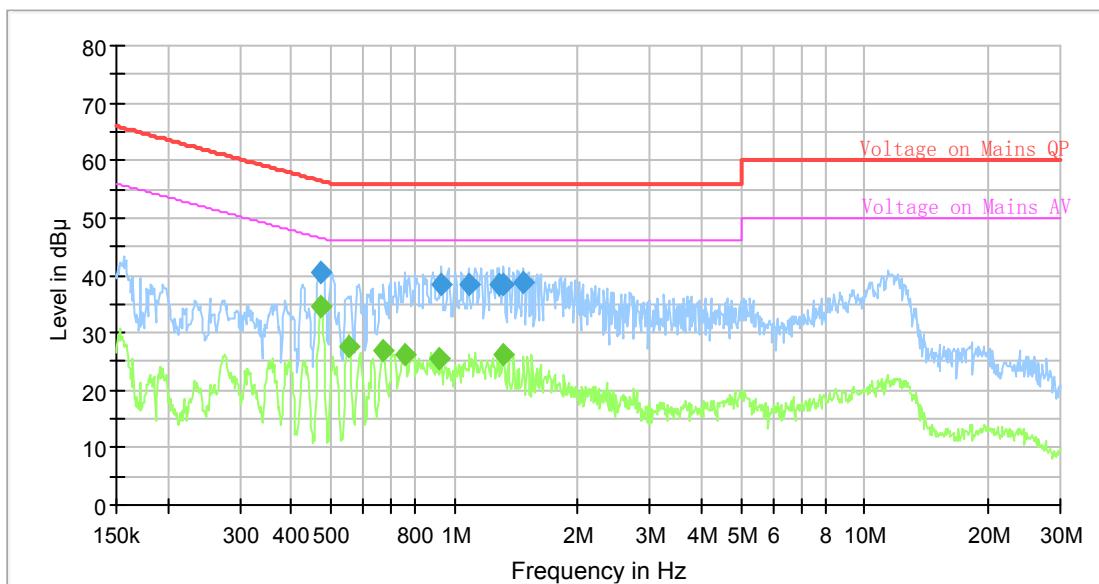
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101614	2023/10/18	2024/10/17
MICRO-COAX	Coaxial Cable	C-NJNJ-50	C-0200-01	2023/9/7	2024/9/6
R&S	EMI Test Receiver	ESCI	100035	2024/8/18	2025/8/17
R&S	Test Software	EMC32	V9.10.00	N/A	N/A

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

Test Data:

Note: the maximum output power channel was tested.

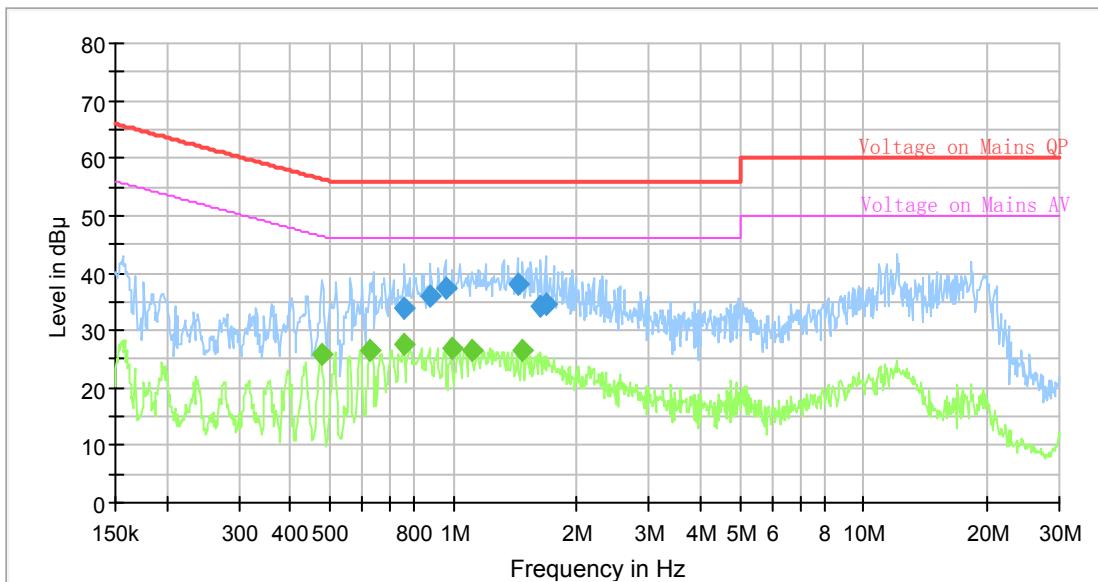
Project No: 2402W89350E-RF-A1
 Test Engineer: Lane Sun
 Test Date: 2024-8-18
 Port: L
 Test Mode: Transmitting
 Power Source: AC 120V/60Hz
 Note: 802.11a 5745MHz



Final_Result

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Limit (dB μ V)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.472373	40.69	---	56.47	15.78	9.000	L1	10.8
0.474735	---	34.58	46.43	11.85	9.000	L1	10.8
0.554114	---	27.66	46.00	18.34	9.000	L1	10.8
0.666413	---	26.95	46.00	19.05	9.000	L1	10.8
0.754910	---	26.28	46.00	19.72	9.000	L1	10.9
0.912443	---	25.51	46.00	20.49	9.000	L1	10.9
0.930829	38.33	---	56.00	17.67	9.000	L1	10.9
1.086470	38.49	---	56.00	17.51	9.000	L1	10.8
1.280849	38.39	---	56.00	17.61	9.000	L1	10.8
1.313192	---	26.04	46.00	19.96	9.000	L1	10.8
1.319758	38.48	---	56.00	17.52	9.000	L1	10.8
1.472813	38.93	---	56.00	17.07	9.000	L1	10.8

Project No: 2402W89350E-RF-A1
 Test Engineer: Lane Sun
 Test Date: 2024-8-18
 Port: N
 Test Mode: Transmitting
 Power Source: AC 120V/60Hz
 Note: 802.11a 5745MHz



Final_Result

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Limit (dB μ V)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.477109	---	25.89	46.39	20.50	9.000	N	10.7
0.627698	---	26.42	46.00	19.58	9.000	N	10.7
0.758685	---	27.70	46.00	18.30	9.000	N	10.8
0.758685	34.02	---	56.00	21.98	9.000	N	10.8
0.876753	35.95	---	56.00	20.05	9.000	N	10.8
0.959105	37.28	---	56.00	18.72	9.000	N	10.8
0.993182	---	26.87	46.00	19.13	9.000	N	10.8
1.108363	---	26.42	46.00	19.58	9.000	N	10.9
1.436538	37.97	---	56.00	18.03	9.000	N	10.9
1.472813	---	26.70	46.00	19.30	9.000	N	10.9
1.635441	34.16	---	56.00	21.84	9.000	N	10.9
1.676738	34.75	---	56.00	21.25	9.000	N	10.9

5.2 Radiation Spurious Emissions

Serial Number:	2PN1-1	Test Date:	Below 1GHz: 2024/8/16 Above 1GHz: 2024/8/18
Test Site:	Chamber 10m, Chamber B	Test Mode:	Transmitting
Tester:	Zoo Zou, Colin Yang	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	26.4~27.8	Relative Humidity: (%)	50~53	ATM Pressure: (kPa)	100.5~100.6

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
9kHz~1000MHz					
EMCO	Passive Loop Antenna	6512	9706-1206	2023/10/21	2026/10/20
Sunol Sciences	Hybrid Antenna	JB3	A060611-1	2023/9/6	2026/9/5
Narda	Coaxial Attenuator	779-6dB	04269	2023/9/6	2026/9/5
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2024/8/1	2025/7/31
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2024/8/1	2025/7/31
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2024/8/1	2025/7/31
Sonoma	Amplifier	310N	185914	2024/8/1	2025/7/31
R&S	EMI Test Receiver	ESCI	101121	2023/10/18	2024/10/17
Audix	Test Software	E3	191218 V9	N/A	N/A
Above 1GHz					
ETS-Lindgren	Horn Antenna	3115	000 527 35	2023/9/7	2026/9/6
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-02 1304	2023/2/22	2026/2/21
Ducommun Technologies	Horn Antenna	ARH-2823-02	1007726-01 1302	2023/2/22	2026/2/21
Xinhang Macrowave	Coaxial Cable	XH750A-N/J-SMA/J-10M	20231117004 #0001	2023/11/17	2024/11/16
Xinhang Macrowave	Coaxial Cable	XH360A-2.92/J-2.92/J-6M-A	20231208001 #0001	2023/12/11	2024/12/10
AH	Preamplifier	PAM-0118P	469	2023/8/19	2024/8/18
AH	Preamplifier	PAM-1840VH	191	2023/9/7	2024/9/6
R&S	Spectrum Analyzer	FSV40	101944	2023/10/18	2024/10/17
Audix	Test Software	E3	191218 (V9)	N/A	N/A
Sinoscite	Band Rejection Filter	BSF5150-5850MN	0899003	2024/2/21	2025/2/20
Mini-Circuits	High Pass Filter	VHF-6010+	31118	2023/12/1	2024/11/30

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

Test Data:

Please refer to the below table and plots.

After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

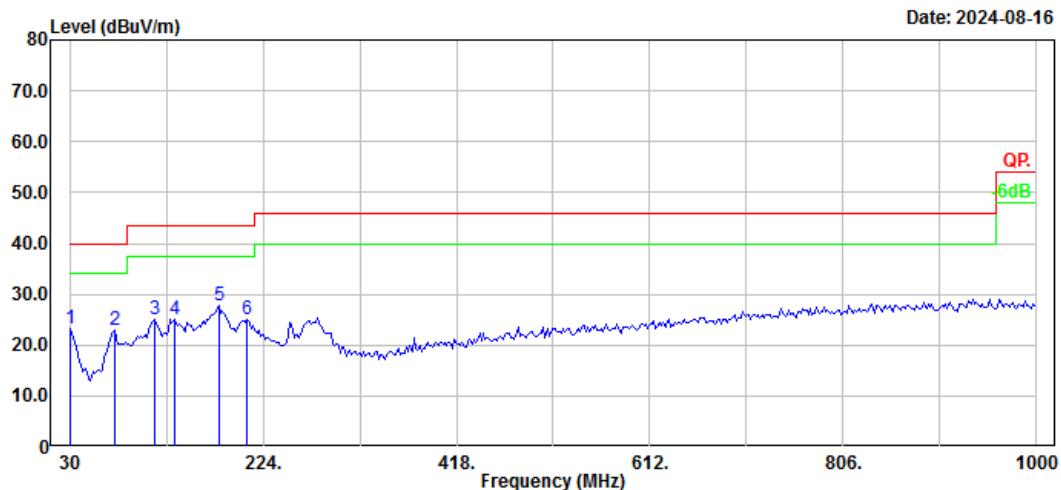
1) 9kHz~30MHz

802.11a 5745MHz was tested, the amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

2) 30MHz-1GHz:

Project No.: 2402W89350E-RF-A1
Polarization: Horizontal
Test Mode: Transmitting
Note: 802.11a 5745Mhz

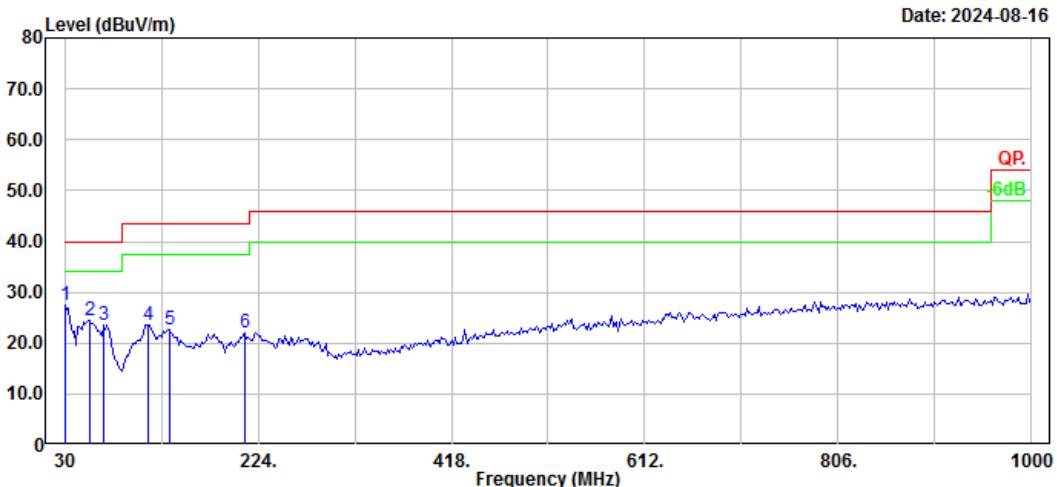
Serial No.: 2PN1-1
Tester: Zoo Zou



No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	30.00	26.95	-3.80	23.15	40.00	16.85	Peak
2	74.62	39.18	-16.14	23.04	40.00	16.96	Peak
3	115.36	35.65	-10.60	25.05	43.50	18.45	Peak
4	134.76	35.33	-10.14	25.19	43.50	18.31	Peak
5	179.38	40.00	-12.32	27.68	43.50	15.82	Peak
6	208.48	37.39	-12.40	24.99	43.50	18.51	Peak

Project No.: 2402W89350E-RF-A1
Polarization: Vertical
Test Mode: Transmitting
Note: 802.11a 5745Mhz

Serial No.: 2PN1-1
Tester: Zoo Zou



No.	Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	30.00	31.14	-3.80	27.34	40.00	12.66	Peak
2	55.22	41.13	-16.55	24.58	40.00	15.42	Peak
3	68.80	39.87	-16.33	23.54	40.00	16.46	Peak
4	113.42	34.50	-10.87	23.63	43.50	19.87	Peak
5	134.76	32.87	-10.14	22.73	43.50	20.77	Peak
6	210.42	34.63	-12.57	22.06	43.50	21.44	Peak

3) 1-40GHz:

802.11a_U-NII-1

Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dB μ V	PK/QP/AV	H/V	dB/m	dB μ V/m	dB μ V/m	dB
Low channel				5180	MHz		
5150.00	37.24	PK	H	34.76	66.00	74.00	8.00
5150.00	21.74	AV	H	34.76	50.50	54.00	3.50
5150.00	36.73	PK	V	34.76	65.49	74.00	8.51
5150.00	22.08	AV	V	34.76	50.84	54.00	3.16
10360.00	47.62	PK	H	0.33	47.95	68.20	20.25
10360.00	47.33	PK	V	0.33	47.66	68.20	20.54
15540.00	47.51	PK	H	0.6	48.11	74.00	25.89
15540.00	35.47	AV	H	0.6	36.07	54.00	17.93
15540.00	47.89	PK	V	0.6	48.49	74.00	25.51
15540.00	35.22	AV	V	0.6	35.82	54.00	18.18
Middle channel				5200	MHz		
10400.00	47.19	PK	H	0.4	47.59	68.20	20.61
10400.00	47.85	PK	V	0.4	48.25	68.20	19.95
15600.00	47.43	PK	H	0.58	48.01	74.00	25.99
15600.00	35.44	AV	H	0.58	36.02	54.00	17.98
15600.00	47.19	PK	V	0.58	47.77	74.00	26.23
15600.00	35.36	AV	V	0.58	35.94	54.00	18.06
High channel				5240	MHz		
5350.00	30.64	PK	H	35.15	59.79	74.00	14.21
5350.00	18.43	AV	H	35.15	47.58	54.00	6.42
5350.00	30.57	PK	V	35.15	59.72	74.00	14.28
5350.00	18.15	AV	V	35.15	47.30	54.00	6.70
10480.00	47.88	PK	H	0.56	48.44	68.20	19.76
10480.00	47.51	PK	V	0.56	48.07	68.20	20.13
15720.00	47.24	PK	H	0.55	47.79	74.00	26.21
15720.00	35.16	AV	H	0.55	35.71	54.00	18.29
15720.00	47.49	PK	V	0.55	48.04	74.00	25.96
15720.00	35.41	AV	V	0.55	35.96	54.00	18.04

802.11n20_U-NII-1

Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dB μ V	PK/QP/AV	H/V	dB/m	dB μ V/m	dB μ V/m	dB
Low channel				5180	MHz		
5150.00	37.07	PK	H	34.76	65.83	74.00	8.17
5150.00	21.75	AV	H	34.76	50.51	54.00	3.49
5150.00	32.60	PK	V	34.76	61.36	74.00	12.64
5150.00	20.89	AV	V	34.76	49.65	54.00	4.35
10360.00	47.29	PK	H	0.33	47.62	68.20	20.58
10360.00	47.38	PK	V	0.33	47.71	68.20	20.49
15540.00	47.81	PK	H	0.6	48.41	74.00	25.59
15540.00	35.52	AV	H	0.6	36.12	54.00	17.88
15540.00	47.79	PK	V	0.6	48.39	74.00	25.61
15540.00	36.10	AV	V	0.6	36.70	54.00	17.30
Middle channel				5200	MHz		
10400.00	47.15	PK	H	0.4	47.55	68.20	20.65
10400.00	47.84	PK	V	0.4	48.24	68.20	19.96
15600.00	47.66	PK	H	0.58	48.24	74.00	25.76
15600.00	35.31	AV	H	0.58	35.89	54.00	18.11
15600.00	47.92	PK	V	0.58	48.50	74.00	25.50
15600.00	35.16	AV	V	0.58	35.74	54.00	18.26
High channel				5240	MHz		
5350.00	30.61	PK	H	35.15	59.76	74.00	14.24
5350.00	18.43	AV	H	35.15	47.58	54.00	6.42
5350.00	30.75	PK	V	35.15	59.90	74.00	14.10
5350.00	18.26	AV	V	35.15	47.41	54.00	6.59
10480.00	47.69	PK	H	0.56	48.25	68.20	19.95
10480.00	47.51	PK	V	0.56	48.07	68.20	20.13
15720.00	47.85	PK	H	0.55	48.40	74.00	25.60
15720.00	35.32	AV	H	0.55	35.87	54.00	18.13
15720.00	47.95	PK	V	0.55	48.50	74.00	25.50
15720.00	35.67	AV	V	0.55	36.22	54.00	17.78

802.11n40_U-NII-1

Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dB μ V	PK/QP/AV	H/V	dB/m	dB μ V/m	dB μ V/m	dB
Low channel				5190	MHz		
5150.00	35.16	PK	H	34.76	63.92	74.00	10.08
5150.00	21.59	AV	H	34.76	50.35	54.00	3.65
5150.00	32.77	PK	V	34.76	61.53	74.00	12.47
5150.00	21.75	AV	V	34.76	50.51	54.00	3.49
10380.00	47.15	PK	H	0.37	47.52	68.20	20.68
10380.00	47.86	PK	V	0.37	48.23	68.20	19.97
15570.00	47.69	PK	H	0.59	48.28	74.00	25.72
15570.00	35.78	AV	H	0.59	36.37	54.00	17.63
15570.00	47.22	PK	V	0.59	47.81	74.00	26.19
15570.00	35.95	AV	V	0.59	36.54	54.00	17.46
High channel				5230	MHz		
5350.00	30.58	PK	H	35.15	59.73	74.00	14.27
5350.00	18.13	AV	H	35.15	47.28	54.00	6.72
5350.00	30.74	PK	V	35.15	59.89	74.00	14.11
5350.00	18.29	AV	V	35.15	47.44	54.00	6.56
10460.00	47.86	PK	H	0.51	48.37	68.20	19.83
10460.00	47.49	PK	V	0.51	48.00	68.20	20.20
15690.00	47.81	PK	H	0.56	48.37	74.00	25.63
15690.00	35.67	AV	H	0.56	36.23	54.00	17.77
15690.00	47.98	PK	V	0.56	48.54	74.00	25.46
15690.00	35.77	AV	V	0.56	36.33	54.00	17.67

802.11a_U-NII-2A

Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dB μ V	PK/QP/AV	H/V	dB/m	dB μ V/m	dB μ V/m	dB
Low channel			5260	MHz			
5150.00	30.68	PK	H	34.76	59.44	74.00	14.56
5150.00	18.27	AV	H	34.76	47.03	54.00	6.97
5150.00	30.91	PK	V	34.76	59.67	74.00	14.33
5150.00	18.56	AV	V	34.76	47.32	54.00	6.68
10520.00	47.98	PK	H	0.6	48.58	68.20	19.62
10520.00	47.68	PK	V	0.6	48.28	68.20	19.92
15780.00	47.82	PK	H	0.55	48.37	74.00	25.63
15780.00	35.16	AV	H	0.55	35.71	54.00	18.29
15780.00	47.22	PK	V	0.55	47.77	74.00	26.23
15780.00	35.19	AV	V	0.55	35.74	54.00	18.26
Middle channel			5280	MHz			
10560.00	46.97	PK	H	0.61	47.58	68.20	20.62
10560.00	47.02	PK	V	0.61	47.63	68.20	20.57
15840.00	47.36	PK	H	0.54	47.90	74.00	26.10
15840.00	35.46	AV	H	0.54	36.00	54.00	18.00
15840.00	47.28	PK	V	0.54	47.82	74.00	26.18
15840.00	35.11	AV	V	0.54	35.65	54.00	18.35
High channel			5320	MHz			
5350.00	35.79	PK	H	35.15	64.94	74.00	9.06
5350.00	21.79	AV	H	35.15	50.94	54.00	3.06
5350.00	30.15	PK	V	35.15	59.30	74.00	14.70
5350.00	18.62	AV	V	35.15	47.77	54.00	6.23
10640.00	48.72	PK	H	0.62	49.34	74.00	24.66
10640.00	36.59	AV	H	0.62	37.21	54.00	16.79
10640.00	49.71	PK	V	0.62	50.33	74.00	23.67
10640.00	37.13	AV	V	0.62	37.75	54.00	16.25
15960.00	47.41	PK	H	0.5	47.91	74.00	26.09
15960.00	35.26	AV	H	0.5	35.76	54.00	18.24
15960.00	48.33	PK	V	0.5	48.83	74.00	25.17
15960.00	36.24	AV	V	0.5	36.74	54.00	17.26

802.11n20_U-NII-2A

Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dB μ V	PK/QP/AV	H/V	dB/m	dB μ V/m	dB μ V/m	dB
Low channel			5260	MHz			
5150.00	30.47	PK	H	34.76	59.23	74.00	14.77
5150.00	18.29	AV	H	34.76	47.05	54.00	6.95
5150.00	30.76	PK	V	34.76	59.52	74.00	14.48
5150.00	18.52	AV	V	34.76	47.28	54.00	6.72
10520.00	47.86	PK	H	0.6	48.46	68.20	19.74
10520.00	47.39	PK	V	0.6	47.99	68.20	20.21
15780.00	47.22	PK	H	0.55	47.77	74.00	26.23
15780.00	35.68	AV	H	0.55	36.23	54.00	17.77
15780.00	47.19	PK	V	0.55	47.74	74.00	26.26
15780.00	35.09	AV	V	0.55	35.64	54.00	18.36
Middle channel			5280	MHz			
10560.00	47.19	PK	H	0.61	47.80	68.20	20.40
10560.00	47.29	PK	V	0.61	47.90	68.20	20.30
15840.00	47.64	PK	H	0.54	48.18	74.00	25.82
15840.00	35.19	AV	H	0.54	35.73	54.00	18.27
15840.00	47.51	PK	V	0.54	48.05	74.00	25.95
15840.00	35.37	AV	V	0.54	35.91	54.00	18.09
High channel			5320	MHz			
5350.00	38.46	PK	H	35.15	67.61	74.00	6.39
5350.00	21.42	AV	H	35.15	50.57	54.00	3.43
5350.00	38.46	PK	V	35.15	67.61	74.00	6.39
5350.00	21.43	AV	V	35.15	50.58	54.00	3.42
10640.00	47.84	PK	H	0.62	48.46	74.00	25.54
10640.00	35.79	AV	H	0.62	36.41	54.00	17.59
10640.00	48.11	PK	V	0.62	48.73	74.00	25.27
10640.00	35.73	AV	V	0.62	36.35	54.00	17.65
15960.00	47.27	PK	H	0.5	47.77	74.00	26.23
15960.00	35.16	AV	H	0.5	35.66	54.00	18.34
15960.00	47.39	PK	V	0.5	47.89	74.00	26.11
15960.00	35.43	AV	V	0.5	35.93	54.00	18.07

802.11n40_U-NII-2A

Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dB μ V	PK/QP/AV	H/V	dB/m	dB μ V/m	dB μ V/m	dB
Low channel				5270	MHz		
5150.00	30.75	PK	H	34.76	59.51	74.00	14.49
5150.00	18.45	AV	H	34.76	47.21	54.00	6.79
5150.00	30.68	PK	V	34.76	59.44	74.00	14.56
5150.00	18.32	AV	V	34.76	47.08	54.00	6.92
10540.00	47.69	PK	H	0.59	48.28	68.20	19.92
10540.00	47.42	PK	V	0.59	48.01	68.20	20.19
15810.00	47.81	PK	H	0.54	48.35	74.00	25.65
15810.00	35.63	AV	H	0.54	36.17	54.00	17.83
15810.00	47.23	PK	V	0.54	47.77	74.00	26.23
15810.00	35.21	AV	V	0.54	35.75	54.00	18.25
High channel				5310	MHz		
5350.00	36.84	PK	H	35.15	65.99	74.00	8.01
5350.00	21.18	AV	H	35.15	50.33	54.00	3.67
5350.00	35.64	PK	V	35.15	64.79	74.00	9.21
5350.00	21.57	AV	V	35.15	50.72	54.00	3.28
10620.00	47.95	PK	H	0.62	48.57	74.00	25.43
10620.00	35.68	AV	H	0.62	36.30	54.00	17.70
10620.00	48.37	PK	V	0.62	48.99	74.00	25.01
10620.00	36.24	AV	V	0.62	36.86	54.00	17.14
15930.00	47.18	PK	H	0.51	47.69	74.00	26.31
15930.00	35.24	AV	H	0.51	35.75	54.00	18.25
15930.00	47.44	PK	V	0.51	47.95	74.00	26.05
15930.00	35.38	AV	V	0.51	35.89	54.00	18.11

802.11a_U-NII-2C

Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dB μ V	PK/QP/AV	H/V	dB/m	dB μ V/m	dB μ V/m	dB
Low channel			5500	MHz			
5460.00	30.60	PK	H	35.34	59.94	74.00	14.06
5460.00	18.24	AV	H	35.34	47.58	54.00	6.42
5460.00	30.71	PK	V	35.34	60.05	74.00	13.95
5460.00	18.31	AV	V	35.34	47.65	54.00	6.35
5470.00	35.25	PK	H	35.36	64.61	68.20	3.59
5470.00	34.53	PK	V	35.36	63.89	68.20	4.31
11000.00	50.47	PK	H	0.72	51.19	74.00	22.81
11000.00	40.26	AV	H	0.72	40.98	54.00	13.02
11000.00	47.53	PK	V	0.72	48.25	74.00	25.75
11000.00	37.25	AV	V	0.72	37.97	54.00	16.03
16500.00	46.69	PK	H	1.1	47.79	68.20	20.41
16500.00	46.37	PK	V	1.1	47.47	68.20	20.73
Middle channel			5580	MHz			
11160.00	49.63	PK	H	1	50.63	74.00	23.37
11160.00	38.76	AV	H	1	39.76	54.00	14.24
11160.00	47.19	PK	V	1	48.19	74.00	25.81
11160.00	37.53	AV	V	1	38.53	54.00	15.47
16740.00	46.83	PK	H	2.42	49.25	68.20	18.95
16740.00	46.74	PK	V	2.42	49.16	68.20	19.04
High channel			5700	MHz			
5725.00	34.42	PK	H	35.81	64.23	68.20	3.97
5725.00	33.69	PK	V	35.81	63.50	68.20	4.70
11400.00	47.62	PK	H	1.4	49.02	74.00	24.98
11400.00	37.16	AV	H	1.4	38.56	54.00	15.44
11400.00	47.52	PK	V	1.4	48.92	74.00	25.08
11400.00	37.15	AV	V	1.4	38.55	54.00	15.45
17100.00	46.68	PK	H	4	50.68	68.20	17.52
17100.00	46.38	PK	V	4	50.38	68.20	17.82

802.11n20_U-NII-2C

Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dB μ V	PK/QP/AV	H/V	dB/m	dB μ V/m	dB μ V/m	dB
Low channel				5500	MHz		
5460.00	30.94	PK	H	35.34	60.28	74.00	13.72
5460.00	18.26	AV	H	35.34	47.60	54.00	6.40
5460.00	30.86	PK	V	35.34	60.20	74.00	13.80
5460.00	18.13	AV	V	35.34	47.47	54.00	6.53
5470.00	35.34	PK	H	35.36	64.70	68.20	3.50
5470.00	32.42	PK	V	35.36	61.78	68.20	6.42
11000.00	47.62	PK	H	0.72	48.34	74.00	25.66
11000.00	37.41	AV	H	0.72	38.13	54.00	15.87
11000.00	47.18	PK	V	0.72	47.90	74.00	26.10
11000.00	37.26	AV	V	0.72	37.98	54.00	16.02
16500.00	46.98	PK	H	1.1	48.08	68.20	20.12
16500.00	46.37	PK	V	1.1	47.47	68.20	20.73
Middle channel				5580	MHz		
11160.00	47.81	PK	H	1	48.81	74.00	25.19
11160.00	37.35	AV	H	1	38.35	54.00	15.65
11160.00	47.16	PK	V	1	48.16	74.00	25.84
11160.00	37.04	AV	V	1	38.04	54.00	15.96
16740.00	46.78	PK	H	2.42	49.20	68.20	19.00
16740.00	47.12	PK	V	2.42	49.54	68.20	18.66
High channel				5700	MHz		
5725.00	34.87	PK	H	35.81	64.68	68.20	3.52
5725.00	34.23	PK	V	35.81	64.04	68.20	4.16
11400.00	47.22	PK	H	1.4	48.62	74.00	25.38
11400.00	37.16	AV	H	1.4	38.56	54.00	15.44
11400.00	47.94	PK	V	1.4	49.34	74.00	24.66
11400.00	37.31	AV	V	1.4	38.71	54.00	15.29
17100.00	46.87	PK	H	4	50.87	68.20	17.33
17100.00	46.36	PK	V	4	50.36	68.20	17.84

802.11n40_U-NII-2C

Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dB μ V	PK/QP/AV	H/V	dB/m	dB μ V/m	dB μ V/m	dB
Low channel				5510	MHz		
5460.00	30.76	PK	H	35.34	60.10	74.00	13.90
5460.00	18.34	AV	H	35.34	47.68	54.00	6.32
5460.00	30.50	PK	V	35.34	59.84	74.00	14.16
5460.00	18.26	AV	V	35.34	47.60	54.00	6.40
5470.00	35.76	PK	H	35.36	65.12	68.20	3.08
5470.00	33.12	PK	V	35.36	62.48	68.20	5.72
11020.00	47.51	PK	H	0.75	48.26	74.00	25.74
11020.00	36.38	AV	H	0.75	37.13	54.00	16.87
11020.00	47.28	PK	V	0.75	48.03	74.00	25.97
11020.00	36.11	AV	V	0.75	36.86	54.00	17.14
16530.00	46.37	PK	H	1.27	47.64	68.20	20.56
16530.00	46.52	PK	V	1.27	47.79	68.20	20.41
Middle channel				5550	MHz		
11100.00	47.15	PK	H	0.89	48.04	74.00	25.96
11100.00	36.32	AV	H	0.89	37.21	54.00	16.79
11100.00	47.12	PK	V	0.89	48.01	74.00	25.99
11100.00	36.23	AV	V	0.89	37.12	54.00	16.88
16650.00	46.87	PK	H	1.93	48.80	68.20	19.40
16650.00	46.79	PK	V	1.93	48.72	68.20	19.48
High channel				5670	MHz		
5725.00	35.04	PK	H	35.81	64.85	68.20	3.35
5725.00	33.48	PK	V	35.81	63.29	68.20	4.91
11340.00	47.52	PK	H	1.29	48.81	74.00	25.19
11340.00	36.42	AV	H	1.29	37.71	54.00	16.29
11340.00	47.19	PK	V	1.29	48.48	74.00	25.52
11340.00	36.25	AV	V	1.29	37.54	54.00	16.46
17010.00	46.57	PK	H	3.87	50.44	68.20	17.76
17010.00	46.82	PK	V	3.87	50.69	68.20	17.51

802.11a_U-NII-3

Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dB μ V	PK/QP/AV	H/V	dB/m	dB μ V/m	dB μ V/m	dB
Low channel				5745	MHz		
5725.00	52.10	PK	H	35.81	81.91	122.20	40.29
5720.00	44.28	PK	H	35.8	74.08	110.80	36.72
5700.00	31.27	PK	H	35.77	61.04	105.20	44.16
5650.00	31.15	PK	H	35.69	60.84	68.20	7.36
5725.00	49.30	PK	V	35.81	79.11	122.20	43.09
5720.00	43.16	PK	V	35.8	72.96	110.80	37.84
5700.00	31.03	PK	V	35.77	60.80	105.20	44.40
5650.00	31.08	PK	V	35.69	60.77	68.20	7.43
11490.00	54.03	PK	H	1.55	55.58	74.00	18.42
11490.00	44.15	AV	H	1.55	45.70	54.00	8.30
11490.00	48.12	PK	V	1.55	49.67	74.00	24.33
11490.00	37.69	AV	V	1.55	39.24	54.00	14.76
17235.00	51.31	PK	H	4.2	55.51	68.20	12.69
17235.00	47.85	PK	V	4.2	52.05	68.20	16.15
Middle channel				5785	MHz		
11570.00	53.49	PK	H	1.59	55.08	74.00	18.92
11570.00	43.98	AV	H	1.59	45.57	54.00	8.43
11570.00	49.90	PK	V	1.59	51.49	74.00	22.51
11570.00	40.21	AV	V	1.59	41.80	54.00	12.20
17355.00	52.78	PK	H	4.37	57.15	68.20	11.05
17355.00	48.92	PK	V	4.37	53.29	68.20	14.91
High channel				5825	MHz		
5850.00	46.54	PK	H	36	76.54	122.20	45.66
5855.00	40.36	PK	H	36.01	70.37	110.80	40.43
5875.00	32.14	PK	H	36.04	62.18	105.20	43.02
5925.00	30.67	PK	H	36.12	60.79	68.20	7.41
5850.00	39.37	PK	V	36	69.37	122.20	52.83
5855.00	34.81	PK	V	36.01	64.82	110.80	45.98
5875.00	31.16	PK	V	36.04	61.20	105.20	44.00
5925.00	30.47	PK	V	36.12	60.59	68.20	7.61
11650.00	48.69	PK	H	1.59	50.28	74.00	23.72
11650.00	38.36	AV	H	1.59	39.95	54.00	14.05
11650.00	51.28	PK	V	1.59	52.87	74.00	21.13
11650.00	42.62	AV	V	1.59	44.21	54.00	9.79
17475.00	50.65	PK	H	4.56	55.21	68.20	12.99
17475.00	48.25	PK	V	4.56	52.81	68.20	15.39

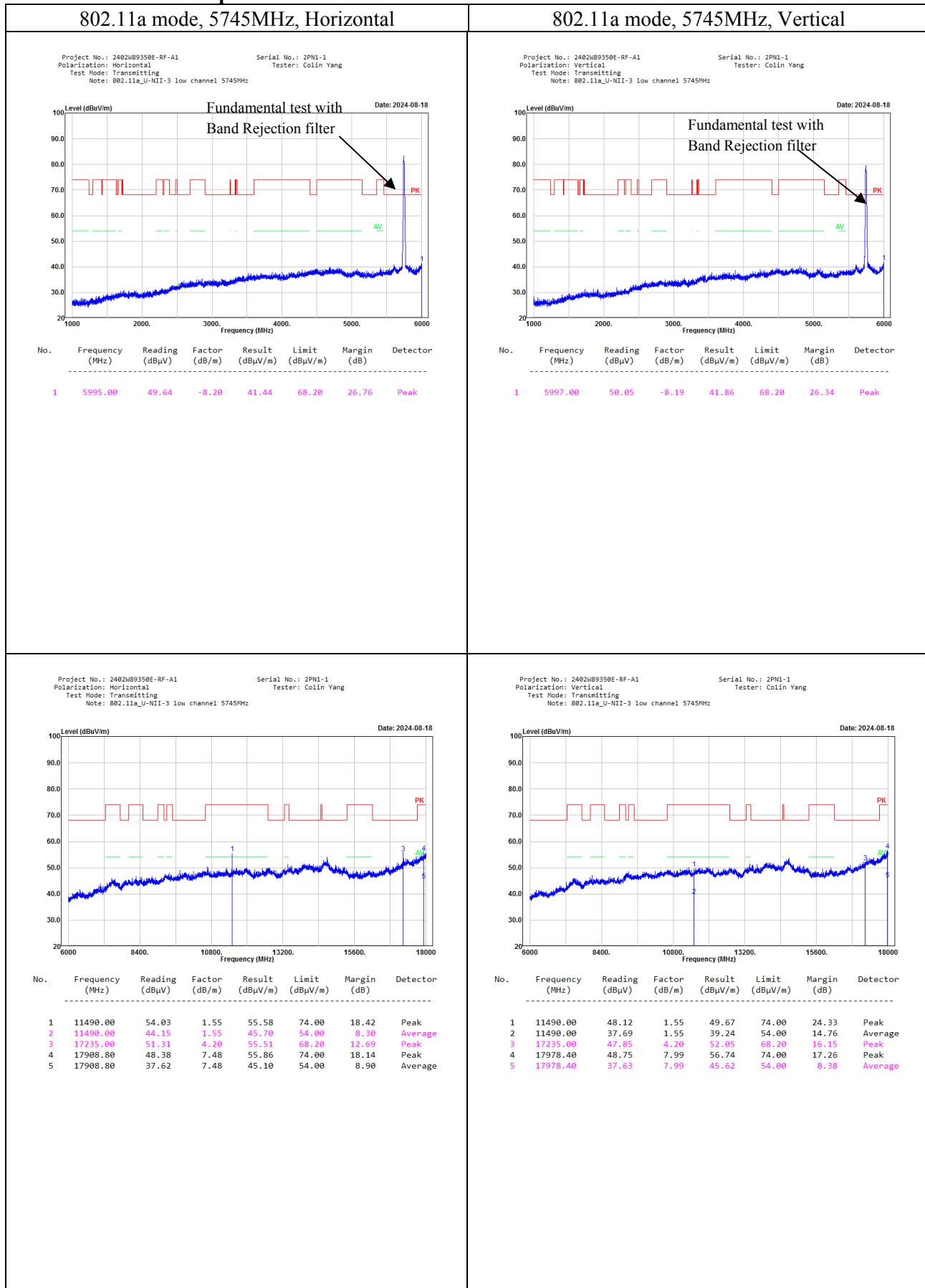
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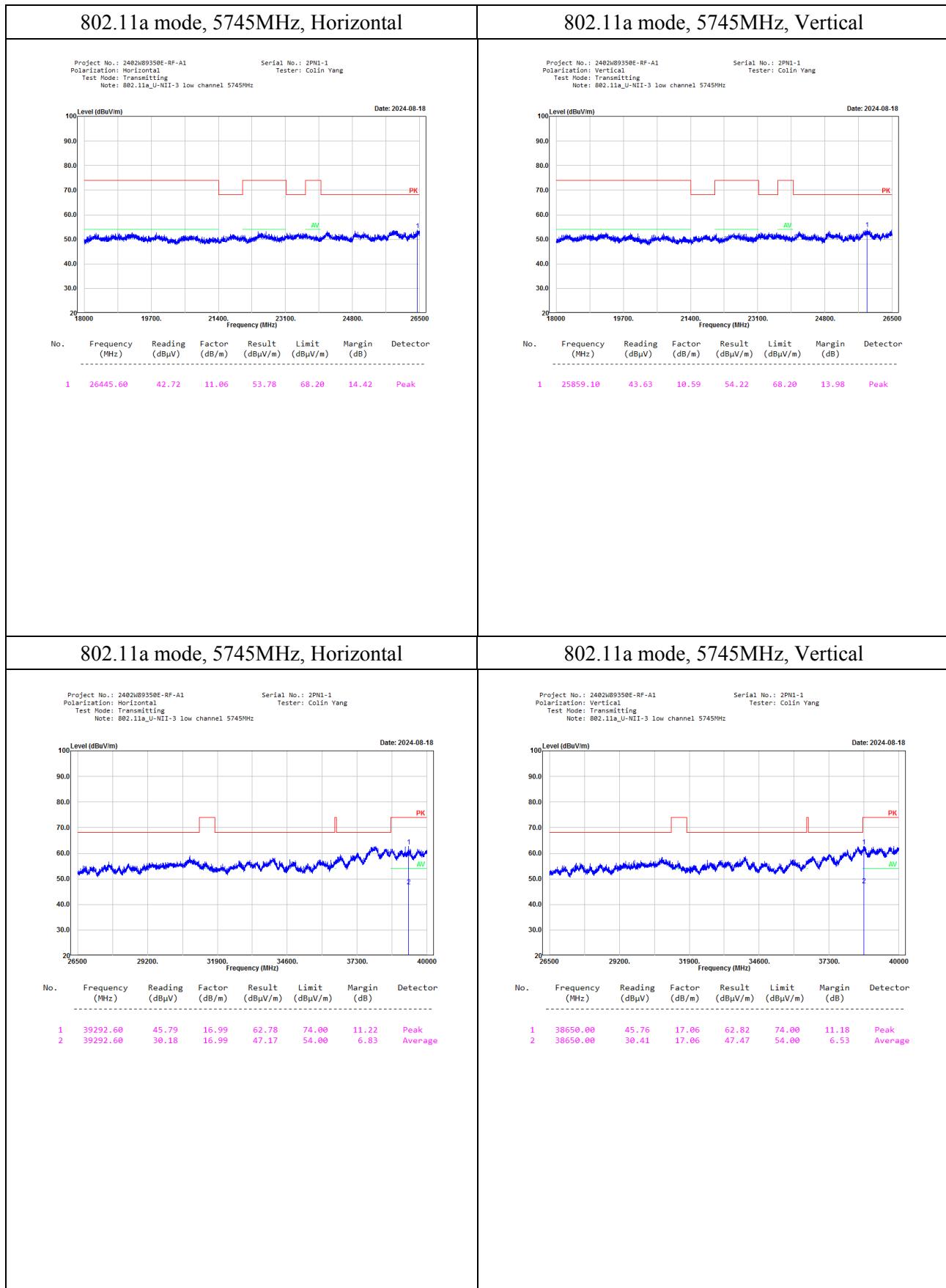
Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dB μ V	PK/QP/AV	H/V	dB/m	dB μ V/m	dB μ V/m	dB
Low channel				5745	MHz		
5725.00	52.07	PK	H	35.81	81.88	122.20	40.32
5720.00	46.38	PK	H	35.8	76.18	110.80	34.62
5700.00	31.46	PK	H	35.77	61.23	105.20	43.97
5650.00	30.89	PK	H	35.69	60.58	68.20	7.62
5725.00	49.68	PK	V	35.81	79.49	122.20	42.71
5720.00	40.68	PK	V	35.8	70.48	110.80	40.32
5700.00	32.02	PK	V	35.77	61.79	105.20	43.41
5650.00	31.86	PK	V	35.69	61.55	68.20	6.65
11490.00	52.44	PK	H	1.55	53.99	74.00	20.01
11490.00	42.77	AV	H	1.55	44.32	54.00	9.68
11490.00	49.26	PK	V	1.55	50.81	74.00	23.19
11490.00	39.60	AV	V	1.55	41.15	54.00	12.85
17235.00	51.58	PK	H	4.2	55.78	68.20	12.42
17235.00	47.74	PK	V	4.2	51.94	68.20	16.26
Middle channel				5785	MHz		
11570.00	50.62	PK	H	1.59	52.21	74.00	21.79
11570.00	40.78	AV	H	1.59	42.37	54.00	11.63
11570.00	50.27	PK	V	1.59	51.86	74.00	22.14
11570.00	40.13	AV	V	1.59	41.72	54.00	12.28
17355.00	52.95	PK	H	4.37	57.32	68.20	10.88
17355.00	47.47	PK	V	4.37	51.84	68.20	16.36
High channel				5825	MHz		
5850.00	45.87	PK	H	36	75.87	122.20	46.33
5855.00	41.52	PK	H	36.01	71.53	110.80	39.27
5875.00	31.61	PK	H	36.04	61.65	105.20	43.55
5925.00	31.42	PK	H	36.12	61.54	68.20	6.66
5850.00	43.51	PK	V	36	73.51	122.20	48.69
5855.00	38.95	PK	V	36.01	68.96	110.80	41.84
5875.00	32.14	PK	V	36.04	62.18	105.20	43.02
5925.00	31.63	PK	V	36.12	61.75	68.20	6.45
11650.00	49.29	PK	H	1.59	50.88	74.00	23.12
11650.00	39.48	AV	H	1.59	41.07	54.00	12.93
11650.00	48.18	PK	V	1.59	49.77	74.00	24.23
11650.00	38.17	AV	V	1.59	39.76	54.00	14.24
17475.00	51.38	PK	H	4.56	55.94	68.20	12.26
17475.00	48.84	PK	V	4.56	53.40	68.20	14.80

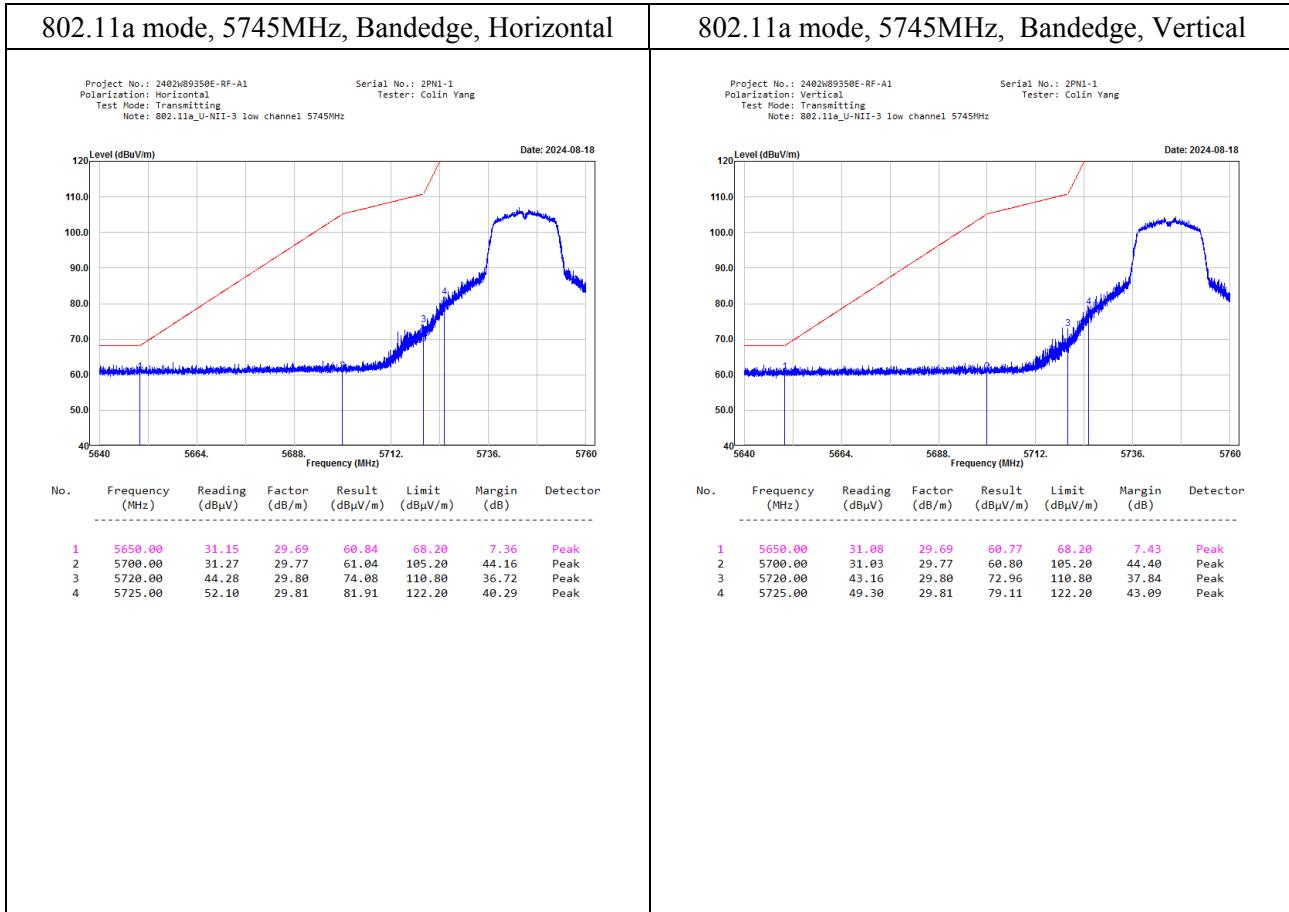
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Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dB μ V	PK/QP/AV	H/V	dB/m	dB μ V/m	dB μ V/m	dB
Low channel				5755	MHz		
5725.00	52.63	PK	H	35.81	82.44	122.20	39.76
5720.00	50.14	PK	H	35.8	79.94	110.80	30.86
5700.00	40.36	PK	H	35.77	70.13	105.20	35.07
5650.00	31.12	PK	H	35.69	60.81	68.20	7.39
5725.00	50.87	PK	V	35.81	80.68	122.20	41.52
5720.00	48.61	PK	V	35.8	78.41	110.80	32.39
5700.00	37.15	PK	V	35.77	66.92	105.20	38.28
5650.00	30.78	PK	V	35.69	60.47	68.20	7.73
11510.00	51.09	PK	H	1.57	52.66	74.00	21.34
11510.00	41.27	AV	H	1.57	42.84	54.00	11.16
11510.00	47.68	PK	V	1.57	49.25	74.00	24.75
11510.00	37.13	AV	V	1.57	38.70	54.00	15.30
17265.00	50.08	PK	H	4.24	54.32	68.20	13.88
17265.00	47.26	PK	V	4.24	51.50	68.20	16.70
High channel				5795	MHz		
5850.00	40.63	PK	H	36	70.63	122.20	51.57
5855.00	37.45	PK	H	36.01	67.46	110.80	43.34
5875.00	32.31	PK	H	36.04	62.35	105.20	42.85
5925.00	31.15	PK	H	36.12	61.27	68.20	6.93
5850.00	37.05	PK	V	36	67.05	122.20	55.15
5855.00	34.62	PK	V	36.01	64.63	110.80	46.17
5875.00	32.03	PK	V	36.04	62.07	105.20	43.13
5925.00	31.74	PK	V	36.12	61.86	68.20	6.34
11590.00	50.80	PK	H	1.58	52.38	74.00	21.62
11590.00	40.75	AV	H	1.58	42.33	54.00	11.67
11590.00	48.14	PK	V	1.58	49.72	74.00	24.28
11590.00	38.23	AV	V	1.58	39.81	54.00	14.19
17385.00	50.52	PK	H	4.42	54.94	68.20	13.26
17385.00	48.10	PK	V	4.42	52.52	68.20	15.68

Worst Channel Test plots:







5.3 Spot Check With Maximum Conducted Output Power

Serial No.:	2PN1-2	Test Date:	2024/9/6
Test Site:	RF	Test Mode:	Transmitting
Tester:	Jeff Wei	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.5	Relative Humidity: (%)	56	ATM Pressure: (kPa)	99.5
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Anritsu	Microwave Peak Power Sensor	MA24418A	12618	2023/9/4	2024/9/3
Eastsheep	Coaxial Attenuator	5W-N-JK-6G-10dB	F-08-EM504	2024/6/7	2025/6/6

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

Test Data:**5150-5250 MHz:**

Mode	Average Conducted Output Power (dBm)	Limit (dBm)	Result
a_5180MHz_Chain 0	14.46	24	Pass
a_5200MHz_Chain 0	14.71	24	Pass
a_5240MHz_Chain 0	15.22	24	Pass
n20_5180MHz_Chain 0	14.16	24	Pass
n20_5200MHz_Chain 0	14.41	24	Pass
n20_5240MHz_Chain 0	14.95	24	Pass
n40_5190MHz_Chain 0	13.18	24	Pass
n40_5230MHz_Chain 0	13.23	24	Pass

5250-5350 MHz:

Mode	Average Conducted Output Power (dBm)	Limit (dBm)	Result
a_5260MHz_Chain 0	14.53	24	Pass
a_5280MHz_Chain 0	14.8	24	Pass
a_5320MHz_Chain 0	15.59	24	Pass
n20_5260MHz_Chain 0	14.18	24	Pass
n20_5280MHz_Chain 0	14.51	24	Pass
n20_5320MHz_Chain 0	15.1	24	Pass
n40_5270MHz_Chain 0	13.51	24	Pass
n40_5310MHz_Chain 0	13.79	24	Pass

5470-5725 MHz:

Mode	Average Conducted Output Power (dBm)	Limit (dBm)	Result
a_5500MHz_Chain 0	12.19	24	Pass
a_5580MHz_Chain 0	12.39	24	Pass
a_5700MHz_Chain 0	12.66	24	Pass
a_5720MHz_Chain 0	12.95	24	Pass
n20_5500MHz_Chain 0	12.67	24	Pass
n20_5580MHz_Chain 0	12.38	24	Pass
n20_5700MHz_Chain 0	12.82	24	Pass
n20_5720MHz_Chain 0	12.65	24	Pass
n40_5510MHz_Chain 0	12.73	24	Pass
n40_5550MHz_Chain 0	12.44	24	Pass
n40_5670MHz_Chain 0	12.24	24	Pass
n40_5710MHz_Chain 0	12.94	24	Pass

5725-5850 MHz

Mode	Average Conducted Output Power (dBm)	Limit (dBm)	Result
a_5745MHz_Chain 0	16.33	30	Pass
a_5785MHz_Chain 0	15.78	30	Pass
a_5825MHz_Chain 0	15.21	30	Pass
n20_5745MHz_Chain 0	16.01	30	Pass
n20_5785MHz_Chain 0	15.45	30	Pass
n20_5825MHz_Chain 0	15.15	30	Pass
n40_5755MHz_Chain 0	15.44	30	Pass
n40_5795MHz_Chain 0	15.73	30	Pass

5.4 Duty Cycle

Serial No.:	2PN1-2	Test Date:	2024/9/18
Test Site:	RF	Test Mode:	Transmitting
Tester:	Jeff Wei	Test Result:	/

Environmental Conditions:

Temperature: (°C):	26.1	Relative Humidity: (%)	51	ATM Pressure: (kPa)	99.8
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101589	2023/10/18	2024/10/17
Eastsheep	Coaxial Attenuator	5W-N-JK-6G-10dB	F-08-EM503	2024/6/7	2025/6/6

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

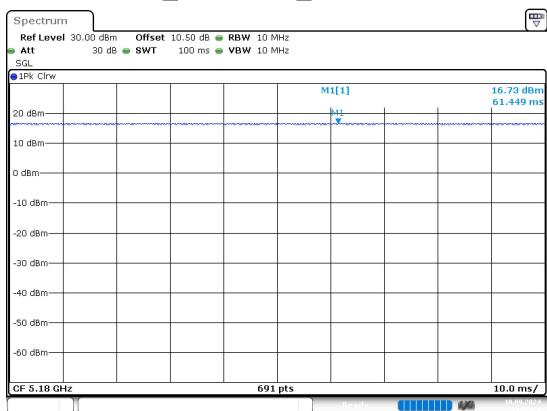
5.2G

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)	1/Ton (Hz)	VBW Setting (kHz)
a_5200MHz_Chain 0	100	100	100.00	0	10	0.010
n20_5200MHz_Chain 0	100	100	100.00	0	10	0.010
n40_5190MHz_Chain 0	100	100	100.00	0	10	0.010

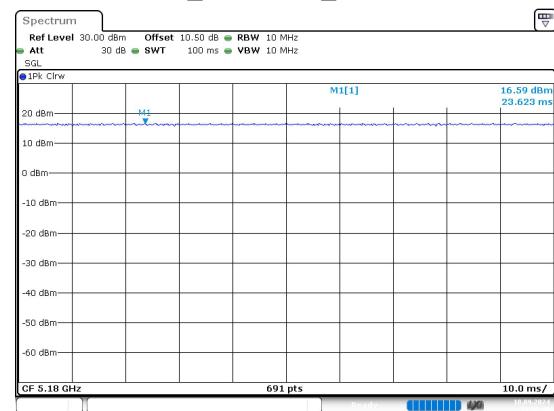
Duty Cycle = Ton/(Ton+Toff)*100%

5.2G

a_5200MHz_Chain 0



n20_5200MHz_Chain 0



n40_5190MHz_Chain 0

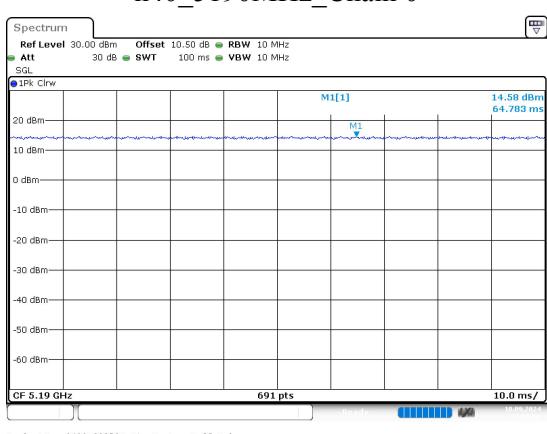


EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the attachment 2402W89350E-RF-A1-EXP EUT EXTERNAL PHOTOGRAPHS and 2402W89350E-RF-A1-INP EUT INTERNAL PHOTOGRAPHS.

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2402W89350E-RF-00DA1-TSP TEST SETUP PHOTOGRAPHS.

===== END OF REPORT =====