



TEST REPORT

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EVO Max 4T, EVO Max 4N, EVO Max 4T XE,
EVO Max 4T Pro

FCC ID: 2AGNTMDX600958C

47 CFR Part 15, Subpart C(15.247) Standard(s): ANSI C63.10-2013 KDB 558074 D01 15.247 Meas Guidance v05r02 Report Number: 2402A23350E-RF-00A

Report Date: 2025/2/18

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

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DOCUMENT REVISION HISTORY

Revision Number	Revision Number Do		Date of Revision
1.0	2402A23350E-RF-00A	Original Report	2025/2/18

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	EVO Max 4T, EVO Max 4N, EVO Max 4T XE, EVO Max 4T Pro
EUT Model:	MDX
Operation Frequency:	2412-2462MHz (802.11b/g/n ht20/ax he20)
Maximum Peak Output Power (Conducted):	19.19dBm
Modulation Type:	802.11b:DSSS-DBPSK, DQPSK, CCK 802.11g/n: OFDM-BPSK, QPSK, 16QAM, 64QAM 802.11ax: OFDMA-BPSK, QPSK, 16QAM, 64QAM,256QAM, 1024QAM
Rated Input Voltage:	DC 14.76V from battery or DC 14.88V from battery
Serial Number:	2WN8-1 (For RF Conducted Test) 2WN8-2 (For Radiated Spurious Emissions Test)
EUT Received Date:	2024/12/28
EUT Received Status:	Good
Note:	

The device can install difference Gimbal camera, test was only performed with Gimbal camera 3#(4T).

1.2 Accessory Information

Accessory Description	Manufacturer	Model	Parameters
Adapter	Shenzhen Esun Power Technology Co.,Ltd	MDX120W	Input:100-240Vac,50/60Hz,3.0A Output:Main:17Vdc.7.06A; USB-C:5.0V,3.0A;9.0V,3.0A;12.0V,2.5A Total Output Power:120.02W Max
Battery 1#	Xiamen Ampace Technology Limited	ABX40	DC 14.88V
Battery 2#	Xiamen Ampace Technology Limited	ABX41	DC 14.76V
Battery 3#	Xiamen Ampace Technology Limited	MDX_8070_1488	DC 14.88V

Note: Per 15B report, Powered by Battery 2# was the worst, so only performed it.

1.3 Antenna Information Detail

Antenna	Antenna Manufacturer	Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain
Chain 0 (Tx&Rx)	Dongguan YiJia Electronics	FPC	50	2400-2500MHz	2.1dBi
Chain 1 (Tx&Rx)	Communcication Technology Co.,Ltd	FPC	50	2400-2500MHz	2.2dBi
Note: The system supports 2T2R CDD modes at 802.11n/ax modes. Per KDB 662911 D01 Multiple Transmitter Output v02r01: For power measurements: CDD Mode: Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \le 4$					
directional gain=2.2dBi +0dB =2.2dBi for 2400-2500MHz For power spectral density (PSD) measurements: Array Gain = $10 \log(N_{ANT}/N_{SS}) dB$. directional gain=2.2dBi +3dB =5.3dBi for 2400-2500MHz The design of compliance with §15.203:					
\boxtimes	Unit uses a permanently attached antenna.				
	Unit uses a unique coupling to the intentional radiator.				
	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

FCC Rules	Description of Test	Result
FCC §15.203	Antenna Requirement	Compliant
FCC §15.207(a)	AC Line Conducted Emissions	Not applicable
FCC §15.205,§15.209,§15.247(d)	Radiated Spurious Emission	Compliant
FCC §15.207(a)(2)	6dB Emission Bandwidth	Compliant
FCC §15.247(b)(1)	Maximum Conducted Output Power	Compliant
FCC §15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliant
FCC §15.247(e)	Power Spectral Density	Compliant
Note 1. Not Applicable the device was p	owered by battery when operating	•

Note 1: Not Applicable, the device was powered by battery when operating. Note 2: For Radiated Spurious Emissions 9kHz~ 1GHz and 18~25GHz, the maximum peak output power mode and channel was tested.

3. DESCRIPTION OF TEST CONFIGURATION

3.1 Operation Frequency Detail

For 802.11b/g/n ht20/ax he20:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437	/	/

Note: The above frequencies in bold were performed the test.

3.2 EUT Operation Condition

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

EUT Exercise Software:	I ALIB exe	ADB.exe					
The software was provided by manufacturer. The maximum power was configured as below, that was provided by the manufacturer \blacktriangle :							
		Power Level Setting					
Test Modes	Data Rate	Lowest Channel		Middle Channel		Highest Channel	
		Chain 0	Chain 1	Chain 0	Chain 1	Chain 0	Chain 1
802.11b	1Mbps	14	14	14	14	14	14
802.11g	6Mbps	10	10	10	10	10	10
802.11n ht20	MCS0	7	7	7	7	7	7
802.11ax he20	MCS0	7	7	7	7	7	7
Note:	1	1	1	1	1	1	

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 2TX in 802.11n/ax modes, per pretest, 2TX mode was the worst mode and reported for 802.11n/ax modes.

3. For 802.11ax mode, the device not support partial RU mode.

3.3 Support Equipment List and Details

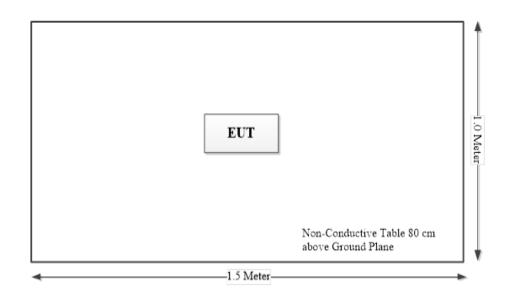
Manufacturer	Description	Model	Serial Number
/	/	/	1

3.4 Support Cable List and Details

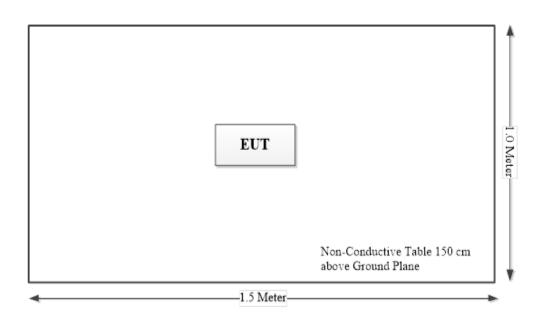
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	То
/	/	/	/	/	/

3.5 Block Diagram of Test Setup

Radiated Spurious Emissions: Below 1GHz:



Above 1GHz:



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	$\pm 5\%$
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.

	Conducted limit (dBµV)	
Frequency of emission (MHz)	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:

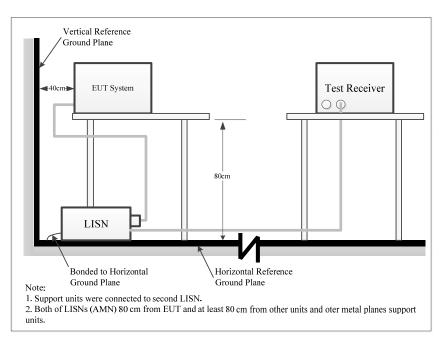
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(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, obtaining 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 10cm.

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 30MHz.

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

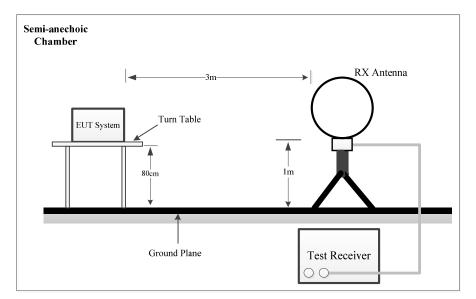
4.2.1 Applicable Standard

FCC §15.247 (d);

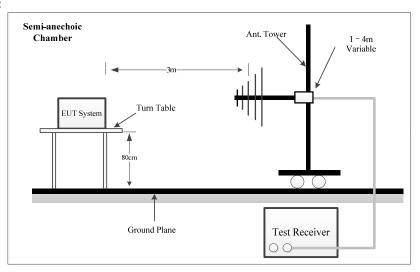
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

4.2.2 EUT Setup

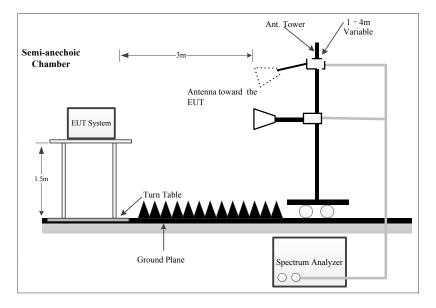
9kHz~30MHz:



30MHz~1GHz:



Above 1GHz:



The radiated emissions were performed in the 3 meters distance, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.247 limits.

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

The spacing between the peripherals was 10cm.

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 25 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	Detector
9 kHz – 150 kHz	QP/AV	300Hz	1 kHz	200 Hz	QP/AV
150 kHz – 30 MHz	QP/AV	10 kHz	30 kHz	9 kHz	QP/AV
20MHz 1000 MHz	PK	100 kHz	300 kHz	/	PK
30MHz – 1000 MHz	QP	/	/	120kHz	QP

1GHz-25GHz:

Pre-scan:

Measurement	Measurement Detector Duty cycle RBW		Video B/W	
РК	PK	Any	1MHz	3 MHz
Ave	DV	>98%	1MHz	5kHz
Ave.	РК	<98%	1MHz	5kHz

Final measurement for emission identified during the pre-scan:

Measurement	Ieasurement Detector Duty cycle RBW		Video B/W	
РК	PK	Any	1MHz	3 MHz
A	РК	>98%	1MHz	10 Hz
Ave.		<98%	1MHz	$\geq 1/T$

Note: T is minimum transmission duration

4.2.4 Test Procedure

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

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.

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

4.2.5 Corrected Result& Margin Calculation

 $E_{Log} = 20 \times log_{10}(E_{Linear})$

 E_{Linear} is the field strength of the emission, in $\mu V/m$ E_{Log} is the field strength of the emission, in dB $\mu V/m$

For 9kHz-30MHz test, test distance is 3m, extrapolation limit shall be calculated using Equation:

 $E_{limit-measure} = E_{limit-Standard} + 40 \times log_{10} (d_{standard}/d_{measure})$

The basic equation is as follows:

Result = Reading + Factor Factor= Antenna Factor + Cable Loss- Amplifier Gain

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.

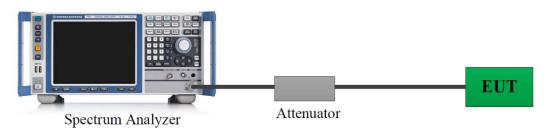
4.3 Minimum 6 dB Emission Bandwidth

4.3.1 Applicable Standard

FCC §15.247 (a)(2)

Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

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 insert loss of this RF cable/attenuator was offset into the setting of test equipment.

4.3.3 Test Procedure

According to ANSI C63.10-2013 Section 11.8

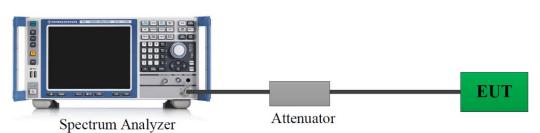
- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times RBW$.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two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

4.3.4 Test Result

Please refer to section 5.3.

4.4 99% Occupied Bandwidth

4.4.1 EUT Setup



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

4.4.2 Test Procedure

According to ANSI C63.10-2013 Section 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

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 (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 maybe reported in addition to the plot(s).

4.4.3 Test Result

Please refer to section 5.4.

4.5 Maximum Conducted Output Power

4.5.1 Applicable Standard

FCC §15.247 (b)(3)

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

4.5.2 EUT Setup



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

4.5.3 Test Procedure

According to ANSI C63.10-2013 Section 11.9.1.3

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast-responding diode detector.

a) Set the EUT in transmitting mode.

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

c) Add a correction factor to the display.

d) Set the power meter to test peak output power, record the result.

According to ANSI C63.10-2013 Section 11.9.2.3.2

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

Alternatively, 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.

4.5.4 Test Result

Report Template Version: FCC-Wi-Fi-V1.3

Please refer to section 5.5.

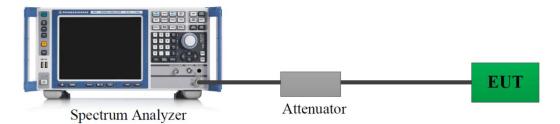
4.6 Maximum Power Spectral Density

4.6.1 Applicable Standard

FCC §15.247 (e)

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

4.6.2 EUT Setup



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

4.6.3 Test Procedure

According to ANSI C63.10-2013 Section 11.10.2

The following procedure shall be used if maximum peak conducted output power was used to determine compliance:

a) Set analyzer center frequency to DTS channel center frequency.

b) Set the span to 1.5 times the DTS bandwidth.

- c) Set RBW to: 3 kHz \leq RBW \leq 100 kHz.
- d) Set VBW \geq [3× RBW].
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.

4.6.4 Test Result

Please refer to section 5.6.

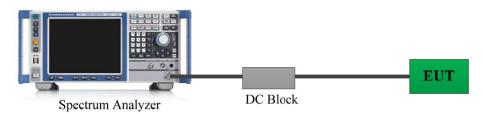
4.7 100 kHz Bandwidth of Frequency Band Edge

4.7.1 Applicable Standard

FCC §15.247 (d);

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

4.7.2 EUT Setup



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

4.7.3 Test Procedure

According to ANSI C63.10-2013 Section 11.11

a) Set the center frequency and span to encompass frequency range to be measured.

- b) Set the RBW = 100 kHz.
- c) Set the VBW \geq [3 × RBW].
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.

h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

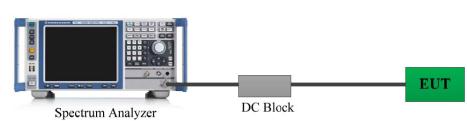
4.7.4 Test Result

Please refer to section 5.7.

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4.8 Duty Cycle

4.8.1 EUT Setup



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

4.8.2 Test Procedure

According to ANSI C63.10-2013 Section 11.6

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 OFFtimes of the transmitted signal:

1) Set the center frequency of the instrument to the center frequency of the transmission.

2) Set $RBW \ge OBW$ 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 $T \le 16.7$ µs.)

4.8.3 Judgment

Report Only. Please refer to section 5.8.

4.9 Antenna Requirement

4.9.1 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.

4.9.2 Judgment

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

5. Test DATA AND RESULTS

5.1 AC Line Conducted Emissions

Not applicable, the device was powered by battery when operating.

Report Template Version: FCC-Wi-Fi-V1.3

5.2 Radiation Spurious Emissions

1)9kHz - 1GHz

Serial Number:	2WN8-2	Test Date:	2025/1/13
Test Site:	Chamber 10m	Test Mode:	Transmitting
Tester:	Leesin Xiang	Test Result:	Pass

Environmental Conditions:						
Temperature:	10 /	Relative Humidity: 38	ATM Pressure:	101.8		
(°C)	17.4	(%)	(kPa)	101.8		

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
EMCO	Passive Loop Antenna	6512	9706-1206	2023/10/25	2026/10/24
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	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2024/7/1	2025/6/30
Sonoma	Amplifier	310N	185914	2024/8/26	2025/8/25
R&S	EMI Test Receiver	ESCI	100224	2024/8/26	2025/8/25
Audix	Test Software	E3	191218 V9	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:

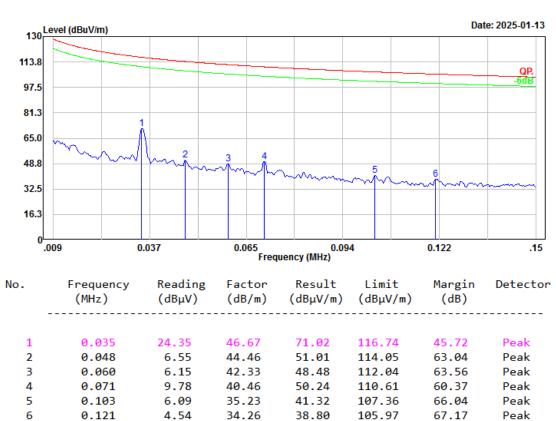
Please refer to the below table and plots.

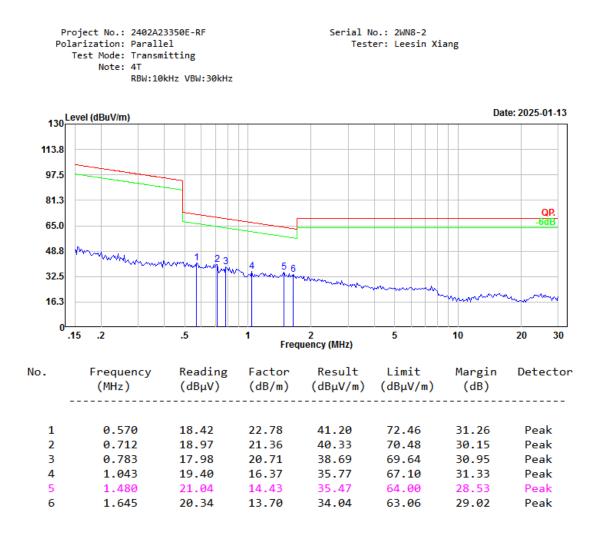
9kHz~30MHz(802.11ax20 Low channel was tested):

Three antenna orientations (parallel, perpendicular, and ground-parallel) was measured, the worst orientations was below:



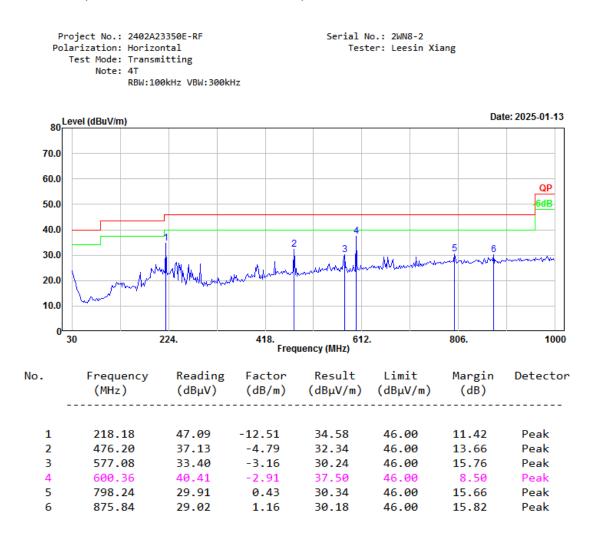
Serial No.: 2WN8-2 Tester: Leesin Xiang

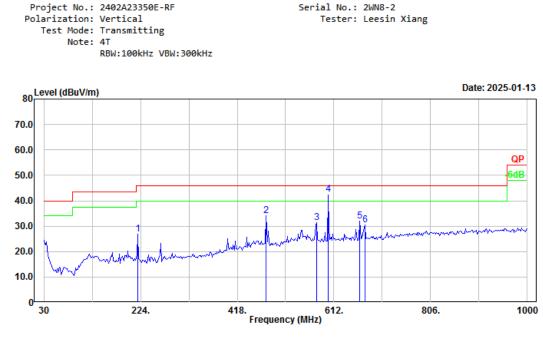




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30MHz-1GHz(802.11ax20 Low channel was tested):





No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	218.18	39.23	-12.51	26.72	46.00	19.28	Peak
2	476.20	38.81	-4.79	34.02	46.00	11.98	Peak
3	577.08	34.50	-3.16	31.34	46.00	14.66	Peak
4	600.36	45.40	-2.91	42.49	46.00	3.51	QP
5	664.38	33.60	-1.70	31.90	46.00	14.10	Peak
6	674.08	31.98	-1.59	30.39	46.00	15.61	Peak

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2) 1-25GHz:

Serial Number:	2WN8-2	Test Date:	2025/1/22-2025/1/23
Test Site:	Chamber B	Test Mode:	Transmitting
Tester:	Leo Xiao, Colin Yang	Test Result:	Pass

Environmental Conditions:						
Temperature: (°C)	20.1-21.4	Relative Humidity: (%)	35-55	ATM Pressure: (kPa)	101.1-101.2	

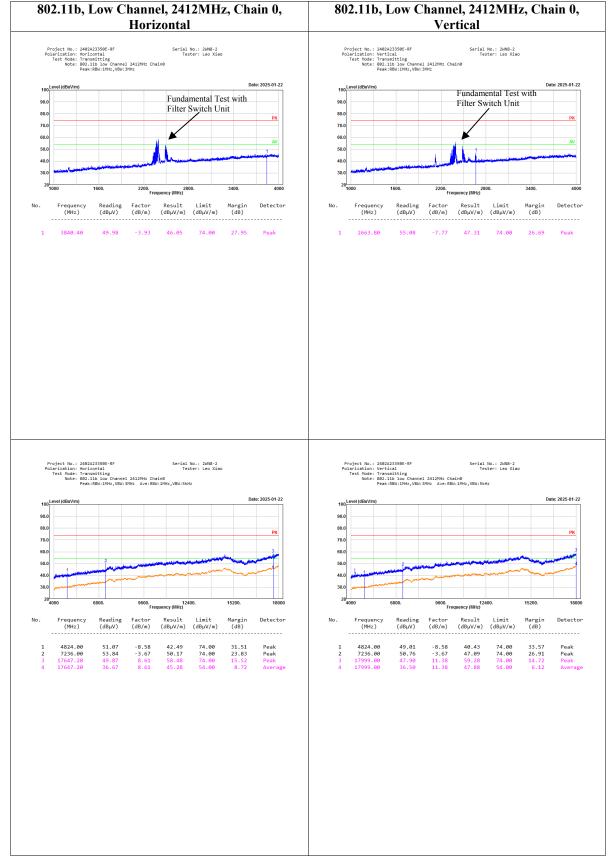
Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
ETS-Lindgren	Horn Antenna	3115	000 527 35	2023/9/7	2026/9/6
Xinhang Macrowave			20231117004 #0001	2024/11/17	2025/11/16
AH	Preamplifier	PAM-0118P	469	2024/4/15	2025/4/14
Audix	Test Software	E3	191218 V9	N/A	N/A
R&S	Spectrum Analyzer	FSV40	101944	2024/9/6	2025/9/5
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-02 1304	2023/2/22	2026/2/21
Xinhang Macrowave	Coaxial Cable	XH360A-2.92/J- 2.92/J-6M-A	20231208001 #0001	2024/12/9	2025/12/8
AH	Preamplifier	PAM-1840VH	191	2024/9/5	2025/9/4
Decentest	Multiplex Switch Test Control Set & Filter Switch Unit	DT7220SCU & DT7220FCU	DC79902 & DC79905	2024/8/27	2025/8/26

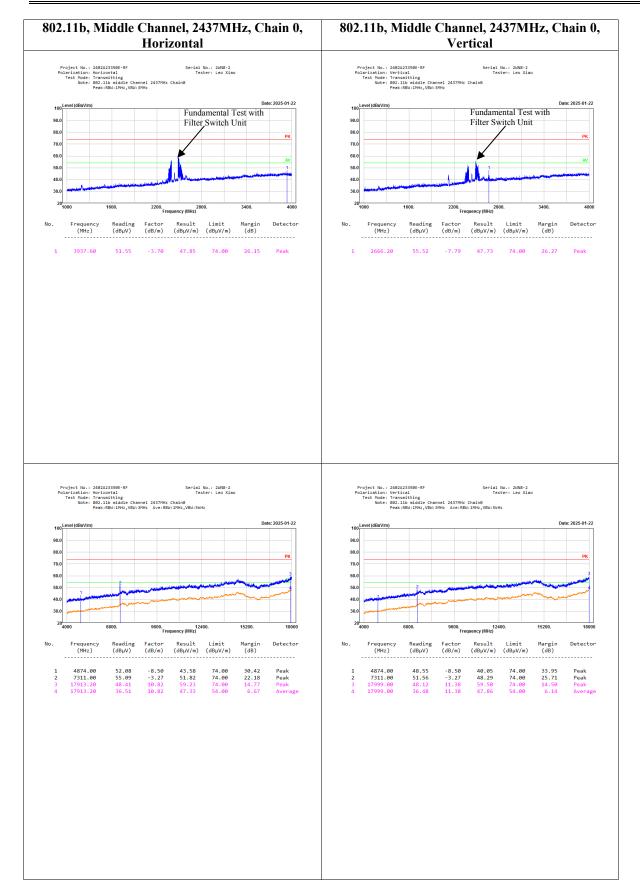
* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:

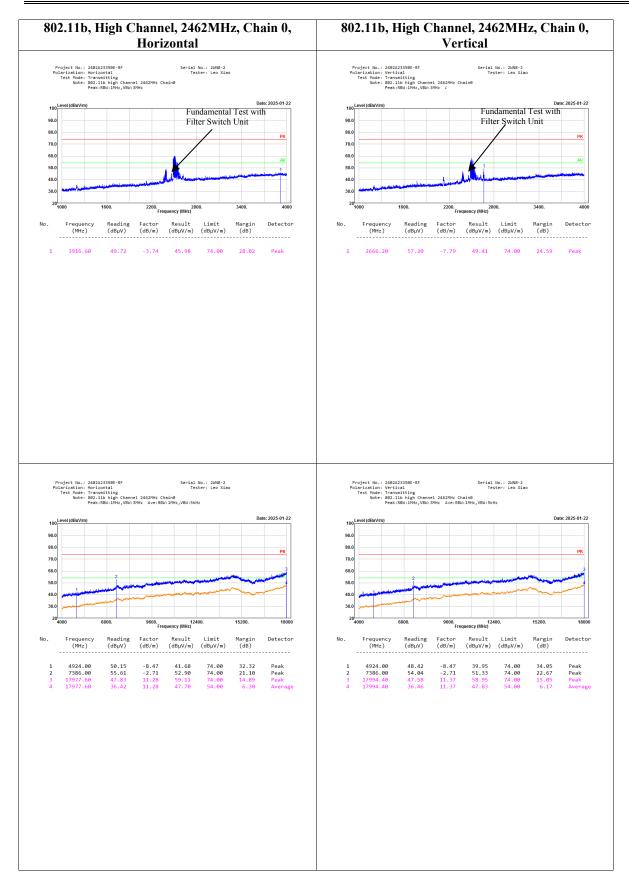
Please refer to the below table and plots.



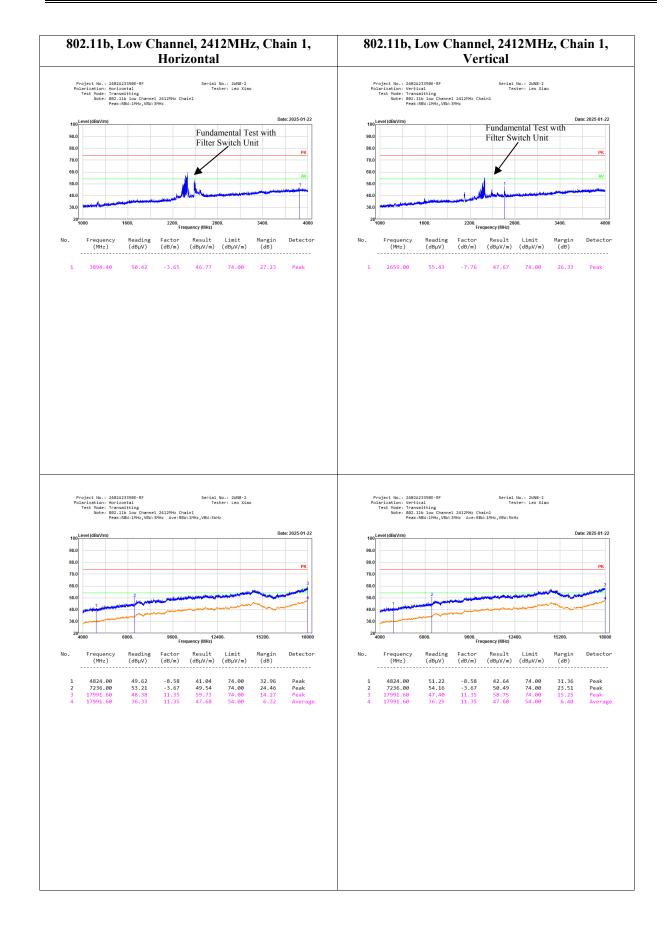
Test Plots for 1-18GHz:

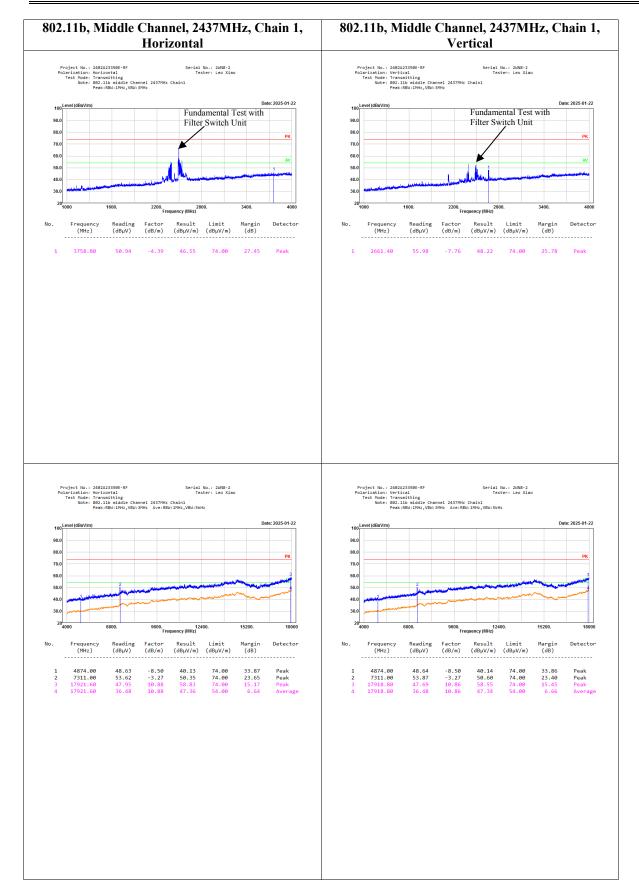


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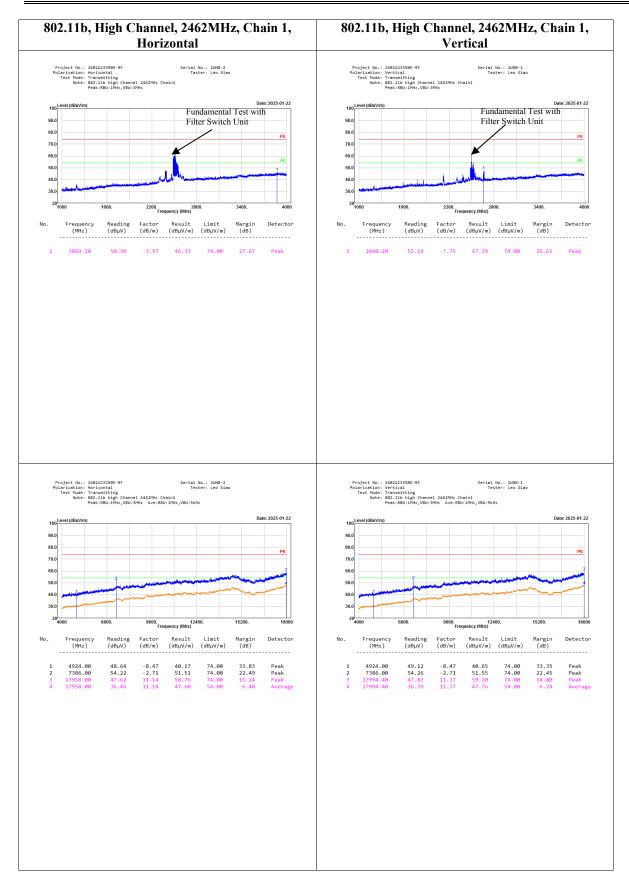


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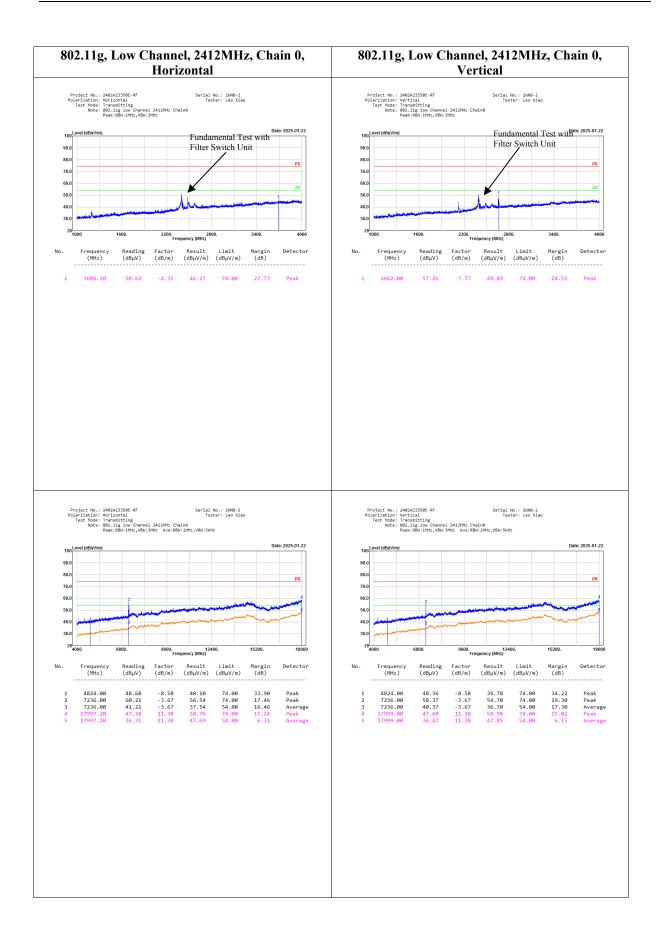


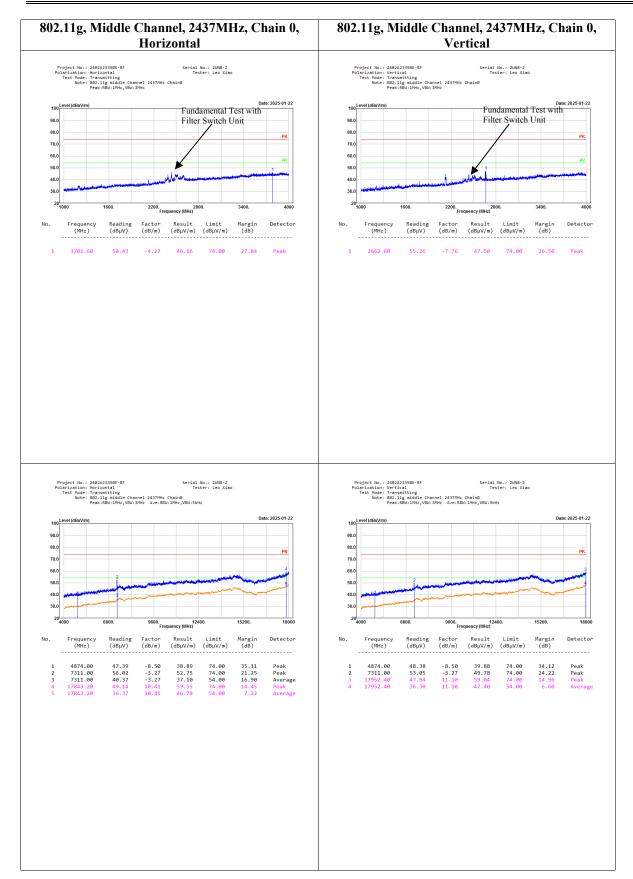


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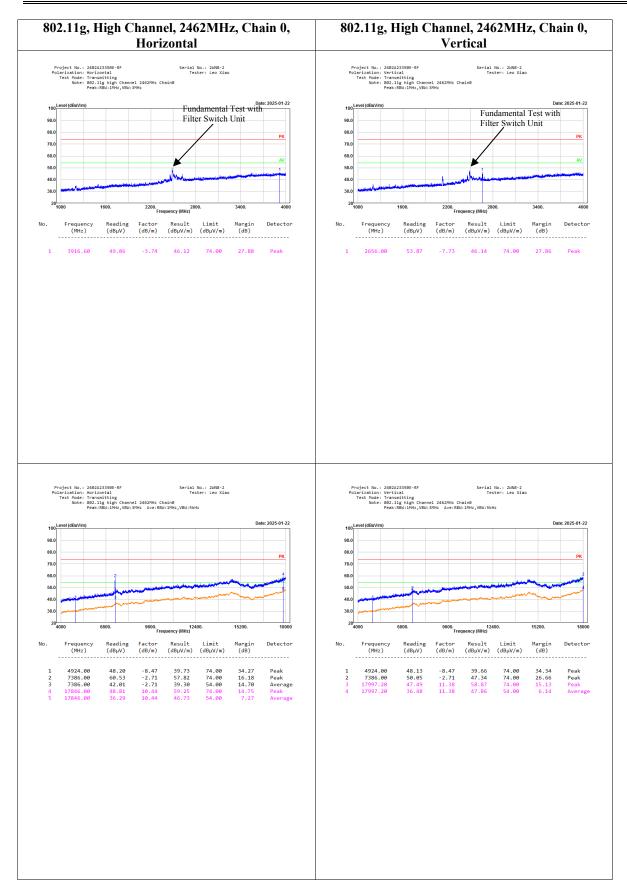


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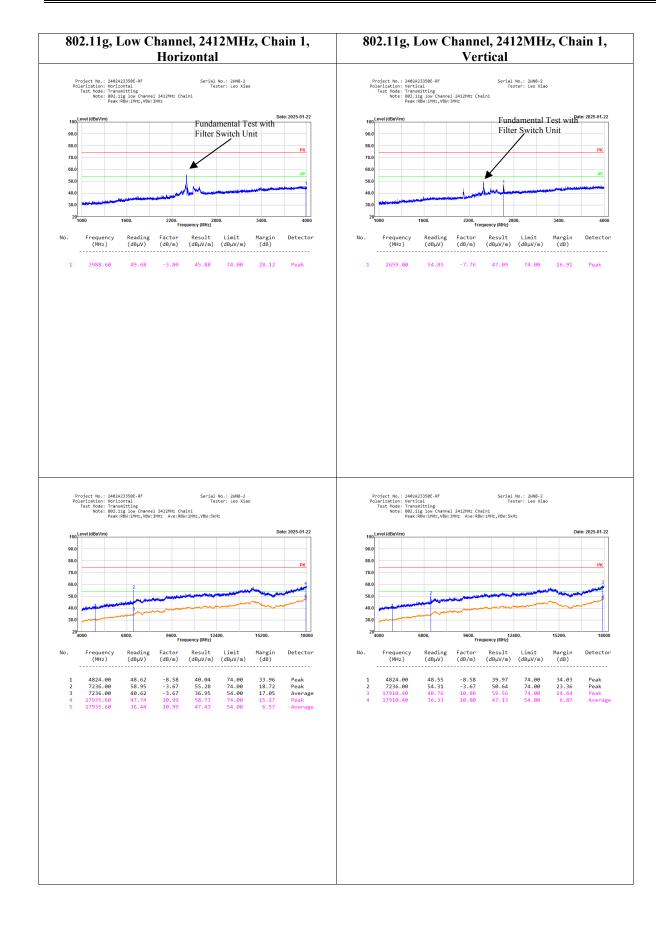




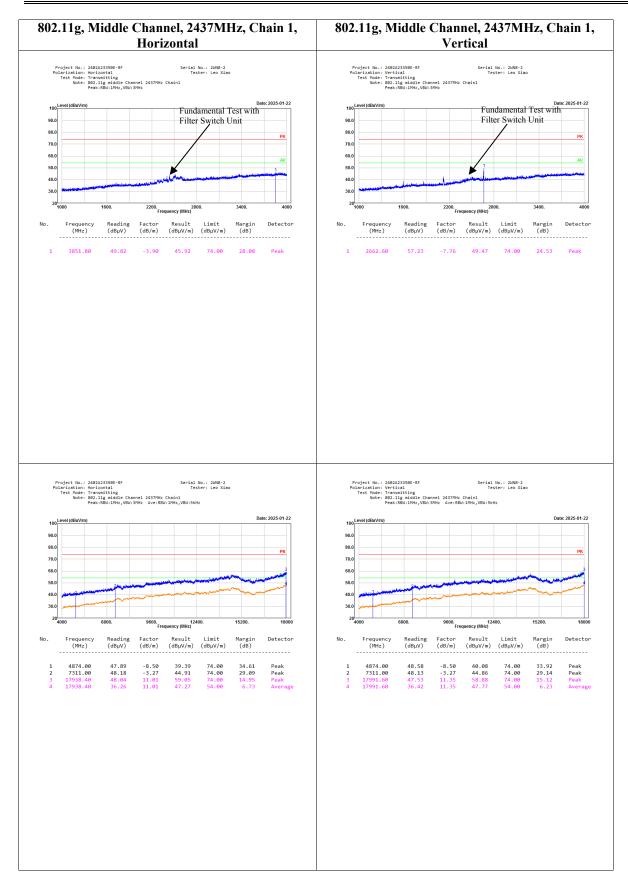
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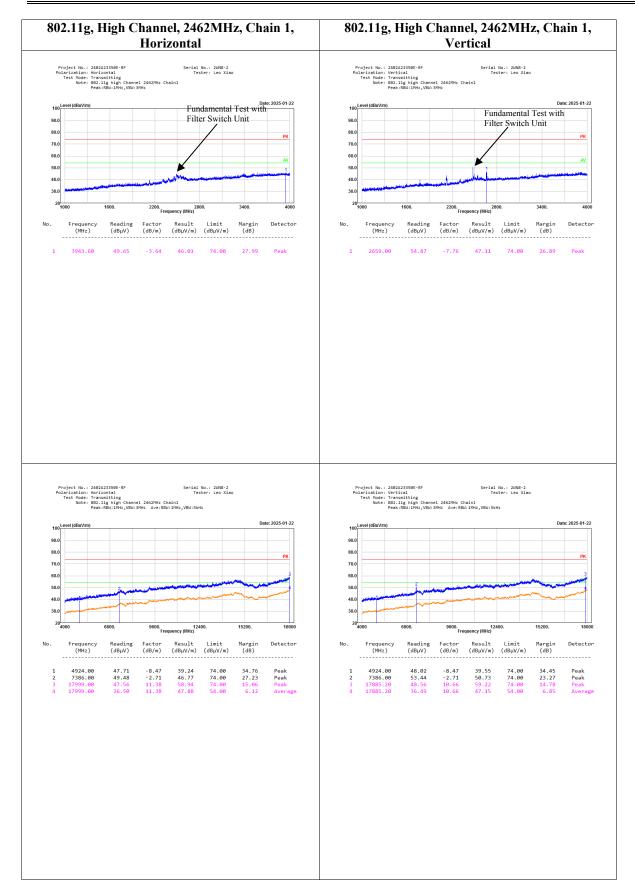
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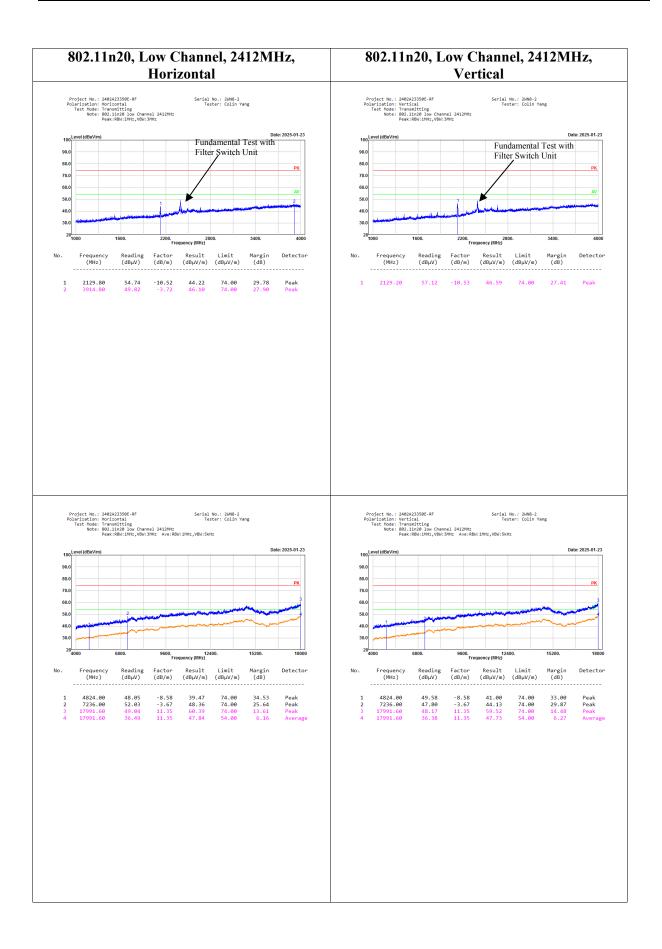
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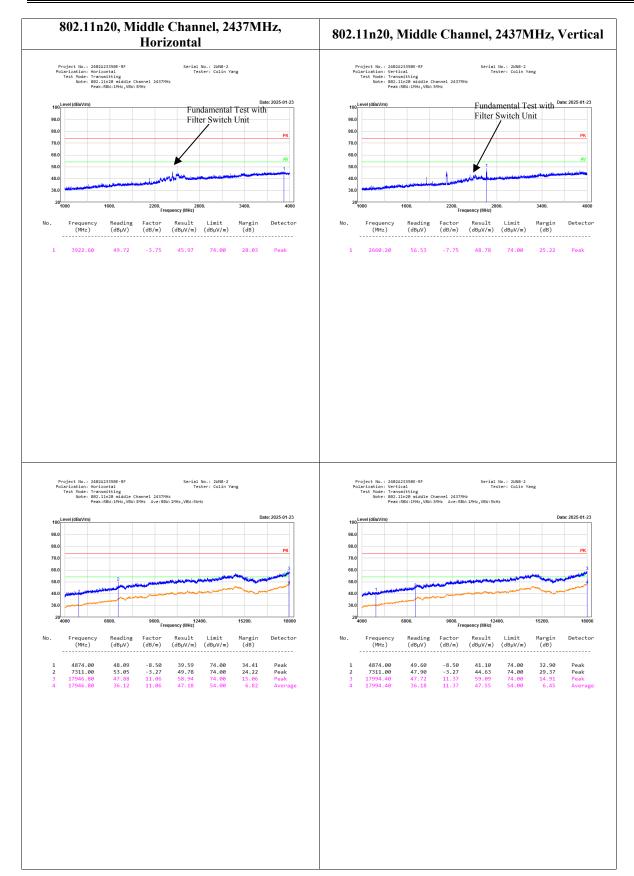


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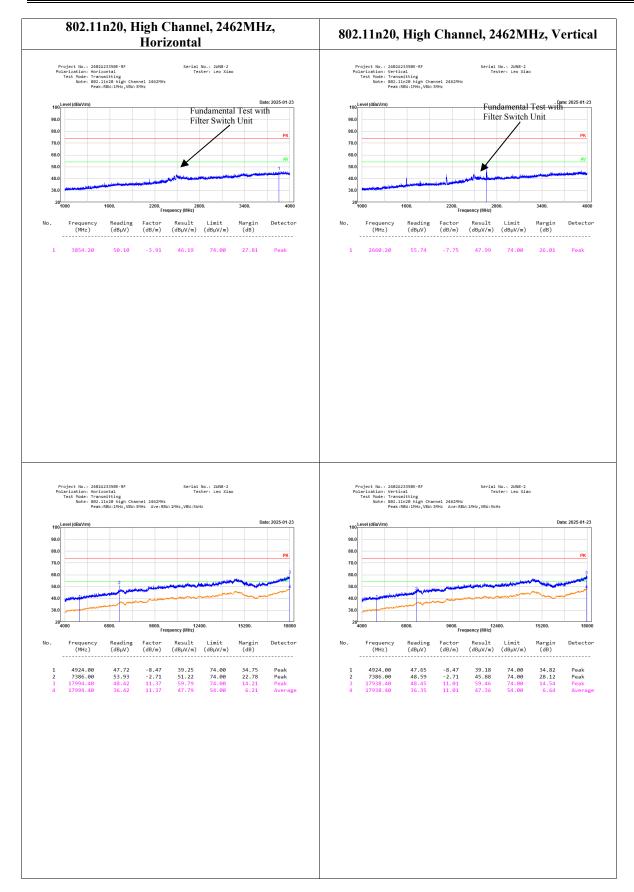


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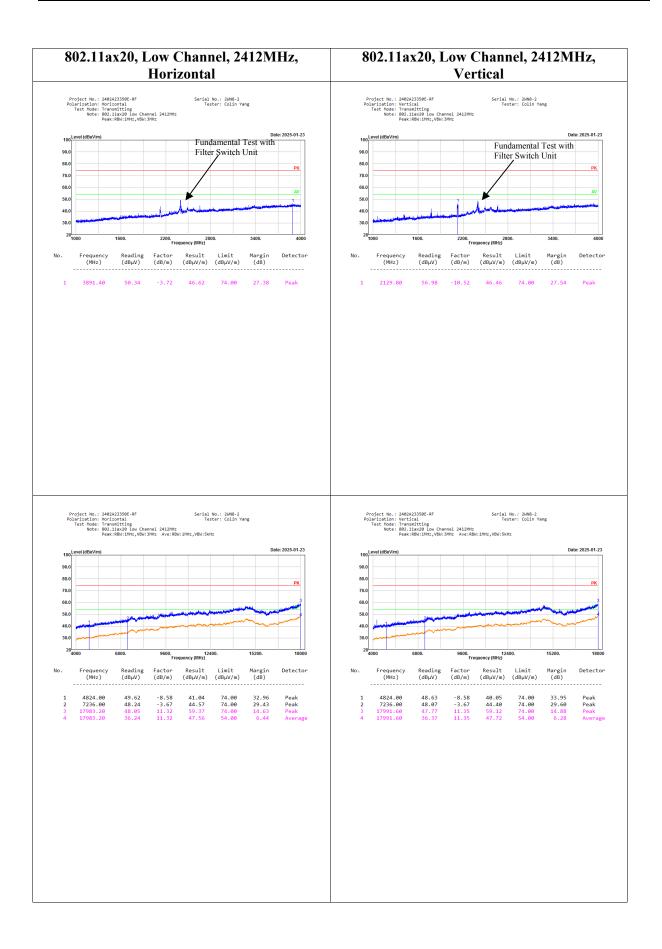


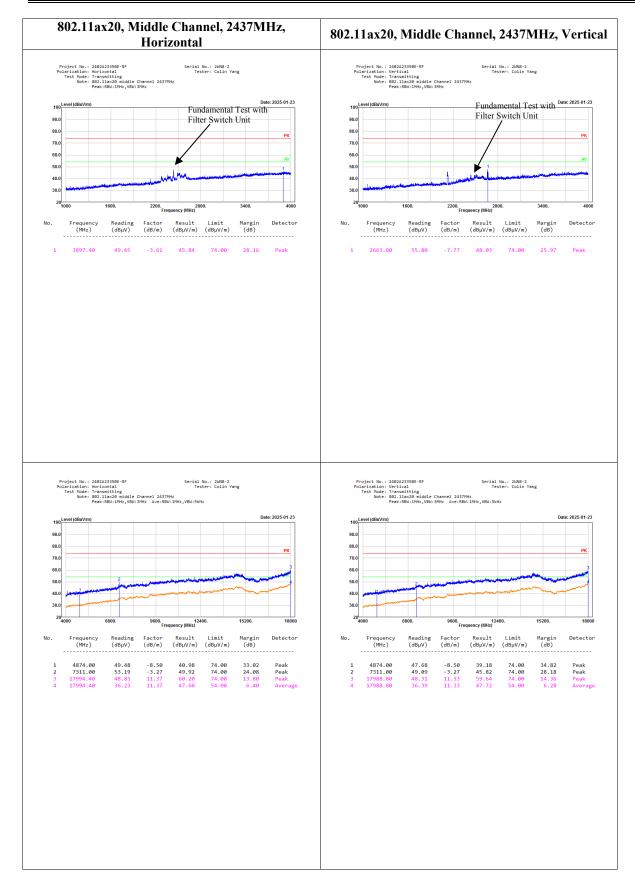


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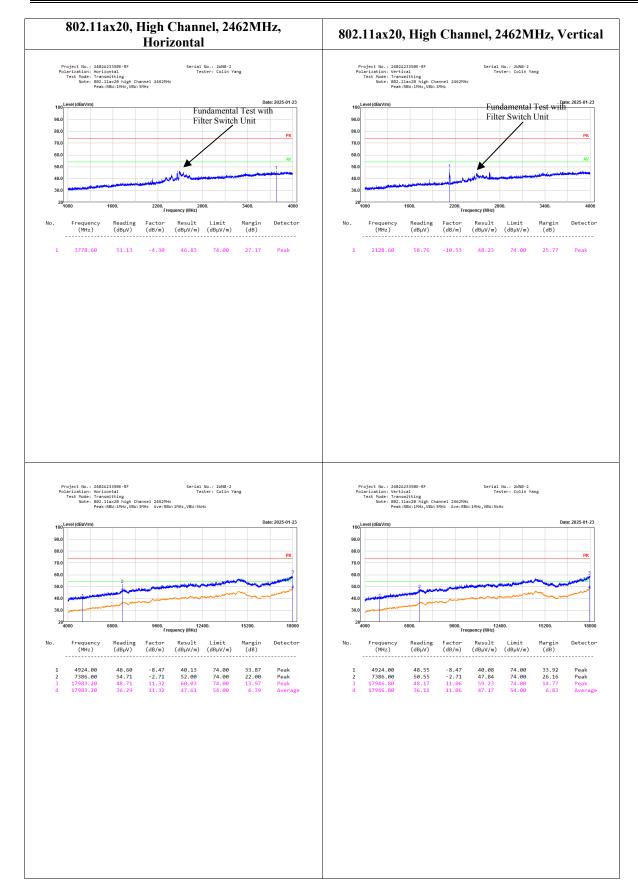


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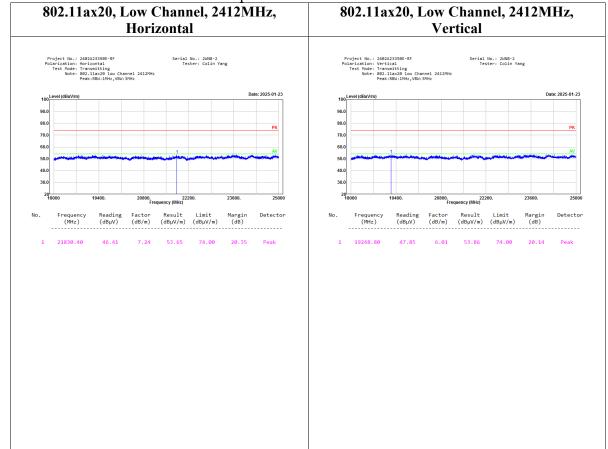
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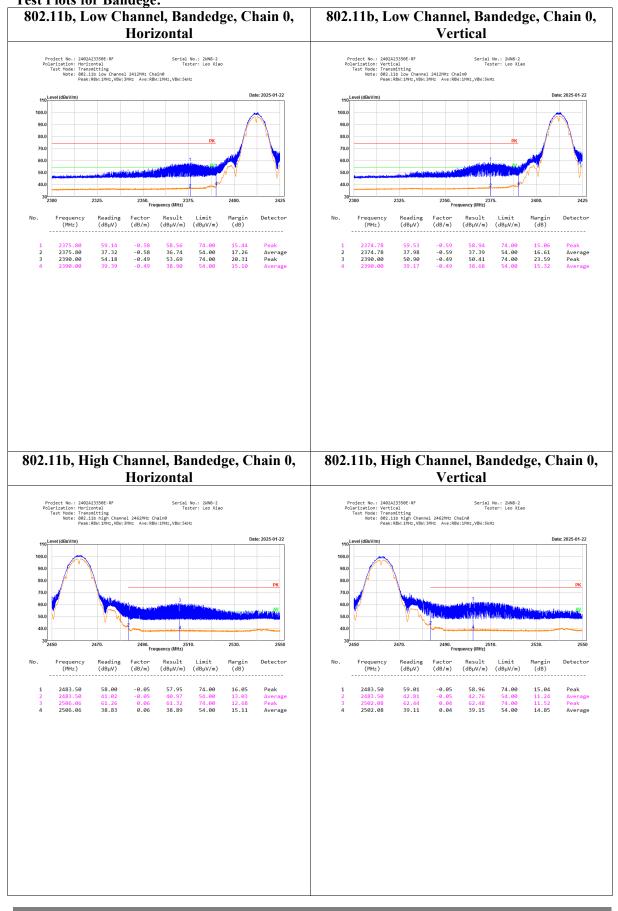


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Test Plots for 18GHz~25GHz:

No Emission was detected in the range 18-25GHz,test was performed on the mode and channel which with the maximum power.

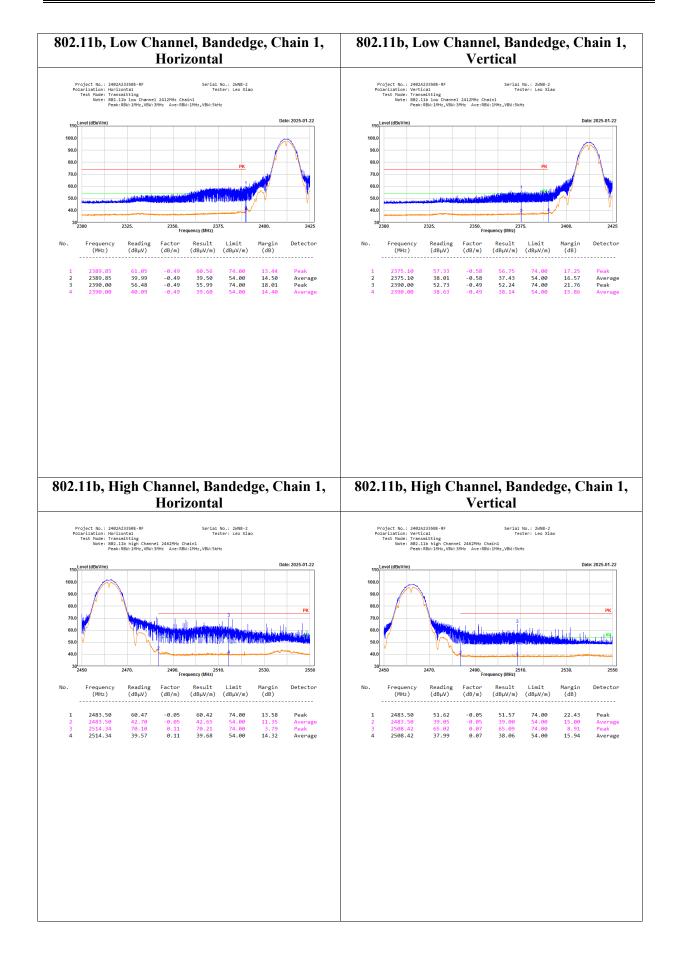




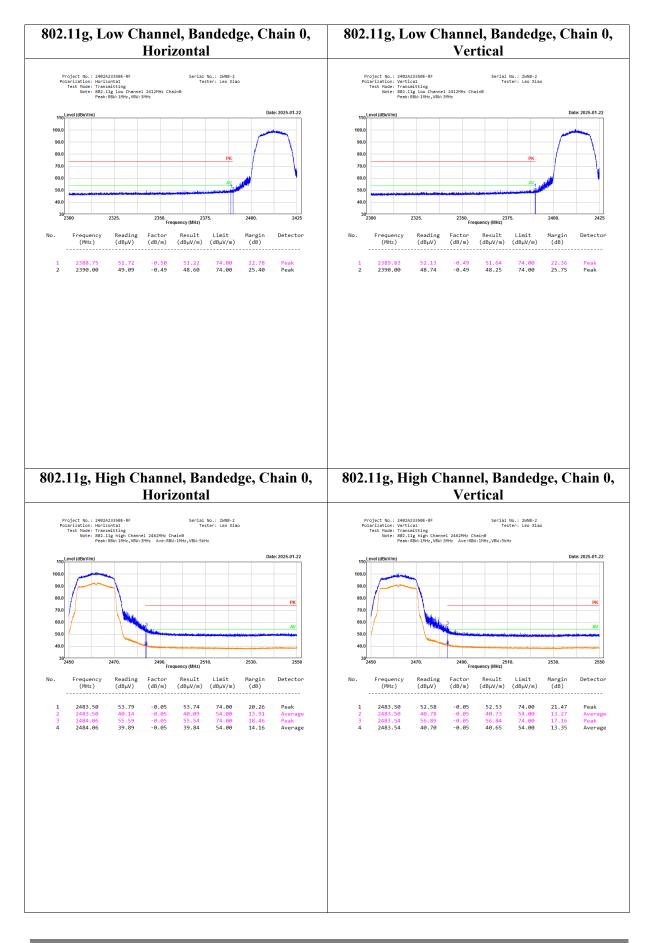
Test Plots for Bandege:

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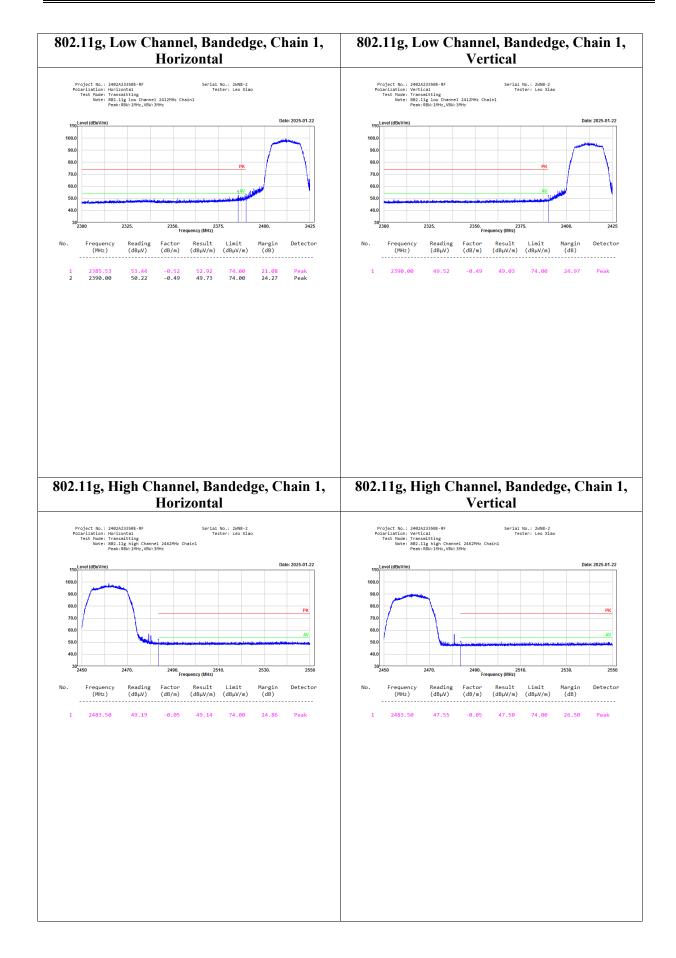
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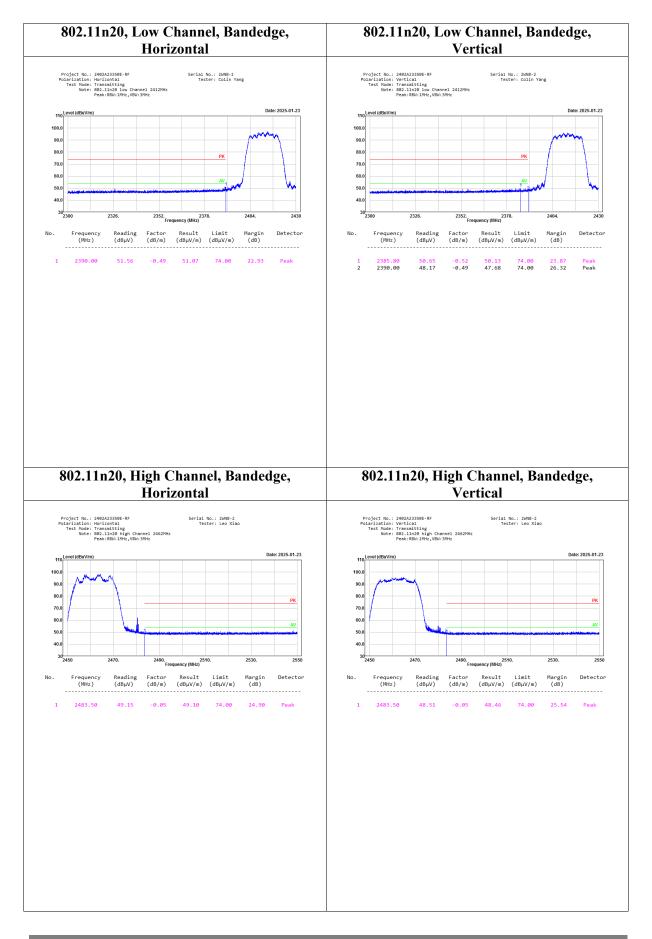


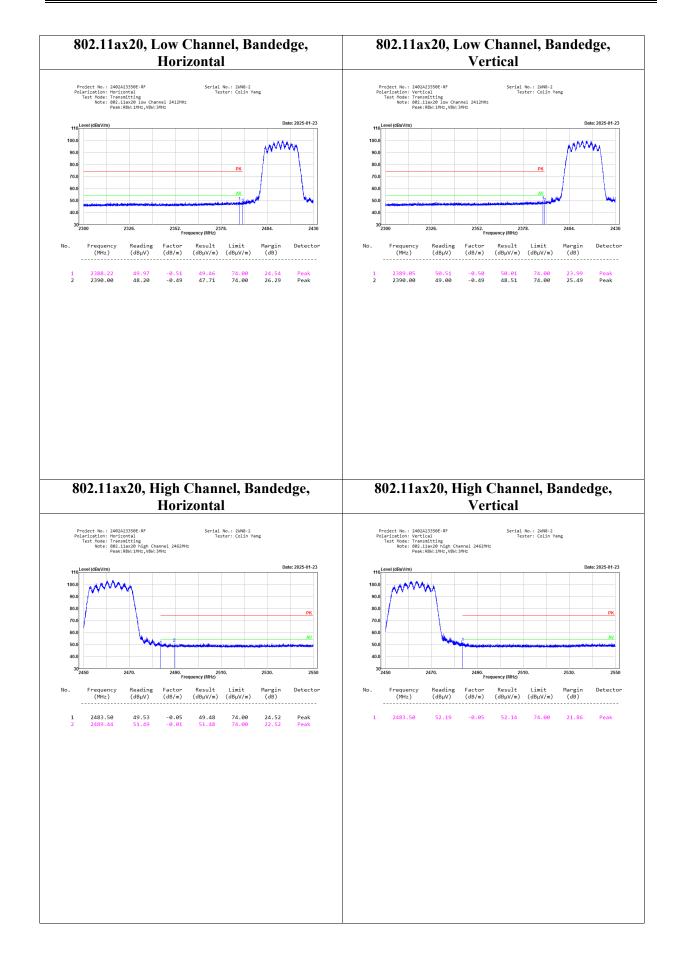
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5.3 6dB Emission Bandwidth

Test Information:

Serial No.:	2WN8-1	Test Date:	2025/01/16
Test Site:	RF	Test Mode:	Transmitting
Tester:	Karl Liang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C): 21		27	ATM Pressure: (kPa)	102.0
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Test Equipment List and Details:

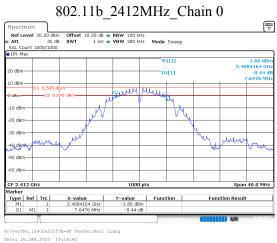
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Eastsheep	Coaxial Attenuator	5W-N-JK- 6G-10dB	F-08-EM502	2024/06/07	2025/06/06
R&S	Spectrum Analyzer	FSV40	101947	2024/09/05	2025/09/04

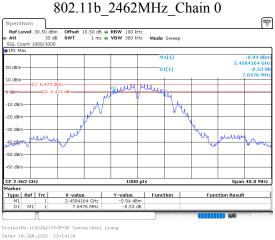
* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI). **Test Data:**

Note: Test only was performed at Chain 0.

Mode	Antenna	Test Frequency (MHz)	Result (MHz)	Limit (MHz)	Verdict
		2412	7.648	≥0.5	Pass
802.11b	Chain 0	2437	8.088	≥0.5	Pass
		2462	7.648	≥0.5	Pass
	Chain 0	2412	16.457	≥0.5	Pass
802.11g		2437	16.416	≥0.5	Pass
		2462	16.457	≥0.5	Pass
	Chain 0	2412	17.658	≥0.5	Pass
802.11n20		2437	17.658	≥0.5	Pass
		2462	17.658	≥0.5	Pass
		2412	19.059	≥0.5	Pass
802.11ax20_RU_Full	Chain 0	2437	18.819	≥0.5	Pass
		2462	18.939	≥0.5	Pass

2.4G

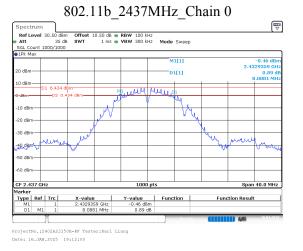


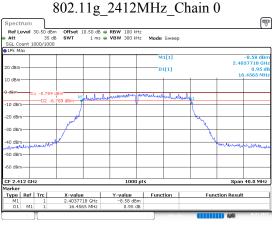


802.11g_2437MHz_Chain 0

Ref Level		Des Officiat	0.00.40.4	RBW 100 kHz					7
Att	30.50 a 35			RBW 100 kHz VBW 300 kHz					
SGL Count :			1 ms (• VOW 300 KH2	mode :	weep			
1Pk Max	.000/100	50							
AT & Mush		_			M1				-7.30 dBr
								2.43	288118 GH
20 dBm		_			D1	11			-0.52 d
								10	5.4164 MH
LO dBm							-	1	1
dBm-c	1 -0.77	o dem 🔣		monenting	MAN	8 a	1		
		-6.776 dBm	الجيهاديهالة	www.www.	L. or Basedon	ويطالعهموالية	P1911		
10 dBm				1			1		
		1 6					1		
20 dBm-		Nº 1					Mrs.		
		1					- N		
30 dBm		1					1		
		1					1		
40 dBm	month	nN'						Manmont	Mar march
50 dBm								1	
50 UBIII									
60 dBm									
F 2.437 GI				1000 p				0	40.0 MH
se z.437 G larker	1Z			1000 p	ts			spar	140.0 MH2
	Trc	X-value		Y-value	Functi	an 1	Fun	ction Resul	
M1	1	2.42881		-7.30 dBm	, uncu	011	Full	coon Resul	
D1 M1			54 MHz	-0.52 dB		-			

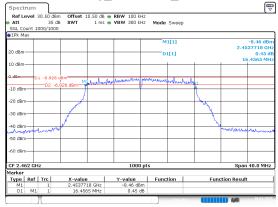
ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:14:56



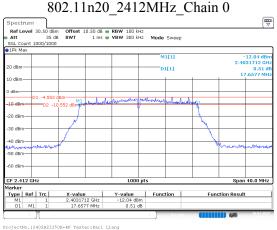


ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:19:10

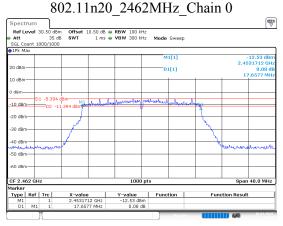
802.11g_2462MHz_Chain 0



ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:16:36

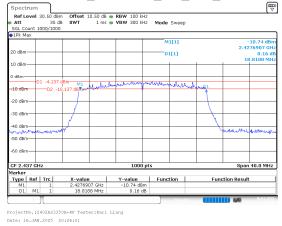


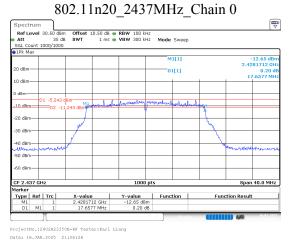
Date: 16.JAN.2025 21:06:17

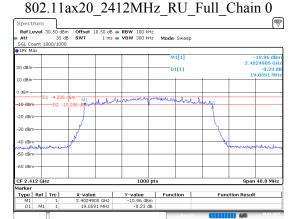


ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:10:08

802.11ax20_2437MHz_RU_Full_Chain 0







ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 20:30:35

802.11ax20_2462MHz_RU_Full_Chain 0



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5.4 99% Occupied Bandwidth

Test Information:

Serial No.:	2WN8-1	Test Date:	2025/01/16
Test Site:	RF	Test Mode:	Transmitting
Tester:	Karl Liang	Test Result:	N/A

Environmental Conditions:

Temperature: (°C):	21.2	Relative Humidity: (%)	27	ATM Pressure: (kPa)	102.0
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Test Equipment List and Details:

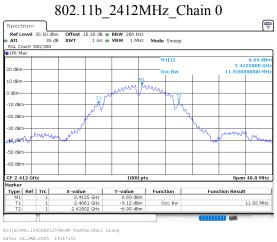
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Eastsheep	Coaxial Attenuator	5W-N-JK- 6G-10dB	F-08-EM502	2024/06/07	2025/06/06
R&S	Spectrum Analyzer	FSV40	101947	2024/09/05	2025/09/04

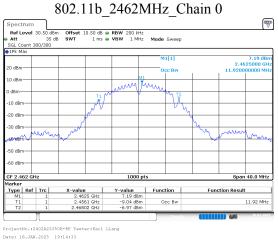
* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI). **Test Data:**

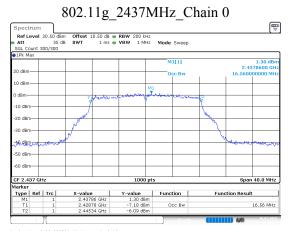
Note: Test only was performed at Chain 0.

Mode	Antenna	Test Frequency (MHz)	99% OBW (MHz)
		2412	11.920
802.11b	Chain 0	2437	11.920
		2462	11.920
		2412	16.600
802.11g	Chain 0	2437	16.560
		2462	16.600
		2412	17.720
802.11n20	Chain 0	2437	17.800
		2462	17.720
		2412	18.960
802.11ax20_RU_Full	Chain 0	2437	18.880
		2462	18.880

2.4G

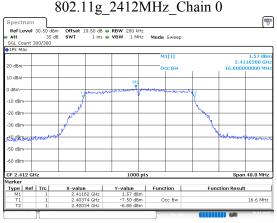




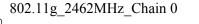


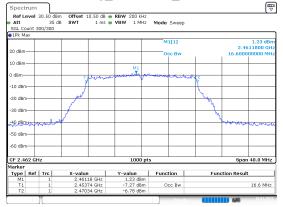
ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:15:13



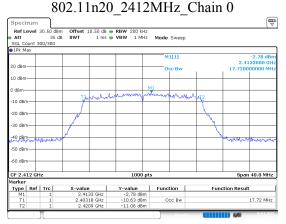


ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:19:30

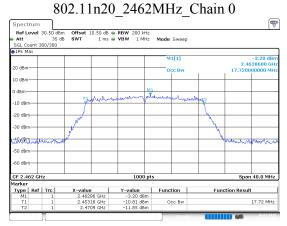




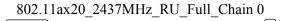
ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:16:54

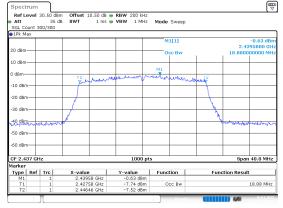


ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:06:36



ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:10:26





ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 20:26:19

Spectru
 Spectrum
 Ref Level 30.50 dBm
 Offset 10.50 dB (B) RBW 200 kHz

 Att
 35 dB
 SWT
 1 ms (B) VBW
 1 MHz
 Mode Sweep
 1Pk N -3.11 di 2.4378200 G 17.8000007 20 d8m-10 dBmdBr M1 July -10 dBm--20 dBm 30 dBm-40.d8m-60 dBm CF 2.437 1000 pts Span 40.0 MHz
 X-value
 Y-value
 Function

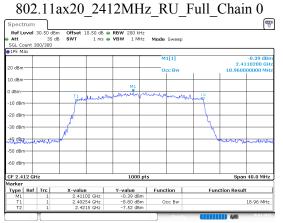
 2.43782
 GHz
 -3.11 dBm

 2.42814
 GHz
 -11.70 dBm
 Occ Bw

 2.44594
 GHz
 -11.26 dBm

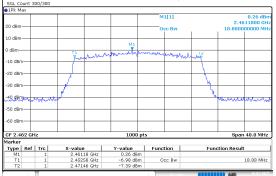
 Type Ref Trc Function Result 17.8 MHz

ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:08:43



ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 20:30:54

802.11ax20_2462MHz_RU_Full_Chain 0



ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 20:28:31

802.11n20_2437MHz_Chain 0

Report No.:2402A23350E-RF-00A

5.5 Maximum Conducted Output Power

Test Information:

Serial No.:	2WN8-1	Test Date:	2025/01/16
Test Site:	RF	Test Mode:	Transmitting
Tester:	Karl Liang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C):	21.2	Relative Humidity: (%)	27	ATM Pressure: (kPa)	102.0
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Eastsheep	Coaxial Attenuator	5W-N-JK-6G- 10dB	F-08- EM502	2024/06/07	2025/06/06
Anritsu	Microwave Peak Power Sensor	MA24418A	12618	2024/08/27	2025/08/26

* 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:

Mode	Antenna	Test Frequency (MHz)	Peak Output Power(dBm)	Average Output Power(dBm)	Limit (dBm)	Verdict
		2412	17.13	14.00	30	Pass
	Chain 0	2437	17.27	14.14	30	Pass
902 111		2462	17.57	14.21	30	Pass
802.11b		2412	16.17	13.47	30	Pass
	Chain 1	2437	16.44	13.44	30	Pass
		2462	16.64	13.64	30	Pass
		2412	18.8	11.28	30	Pass
	Chain 0	2437	18.62	11.33	30	Pass
902 11-		2462	18.45	11.34	30	Pass
802.11g		2412	17.79	10.20	30	Pass
	Chain 1	2437	17.76	10.40	30	Pass
		2462	17.75	10.33	30	Pass
	Chain 0	2412	14.70	7.34	30	Pass
		2437	14.21	6.99	30	Pass
		2462	14.09	6.80	30	Pass
-		2412	14.02	5.62	30	Pass
802.11n20	Chain 1	2437	13.46	6.03	30	Pass
		2462	13.60	5.55	30	Pass
-		2412	17.38	9.57	30 30	Pass
	Chain 0 +Chain 1	2437	16.86	9.55	30	Pass
	Chun I	2462	16.86	9.23	30 30	Pass
		2412	16.27	7.60	30	Pass
	Chain 0	2437	15.94	7.53	30	Pass
		2462	15.72	7.32	30	Pass
-		2412	16.08	7.56	30	Pass
802.11ax20_RU_Full	Chain 1	2437	14.62	6.39	30	Pass
		2462	14.48	6.12	30	Pass
		2412	19.19	10.59	30	Pass
	Chain 0 +Chain 1	2437	18.34	10.01	30	Pass
	· Chuin 1	2462	18.15	9.77	30	Pass

5.6 Power Spectral Density

Test Information:

Serial No.:	2WN8-1	Test Date:	2025/01/16
Test Site:	RF	Test Mode:	Transmitting
Tester:	Karl Liang	Test Result:	Pass

Environmental Conditions:

Г	Cemperature: (°C):	21.2	Relative Humidity: (%)	27	ATM Pressure: (kPa)	102.0
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Test Equipment List and Details:

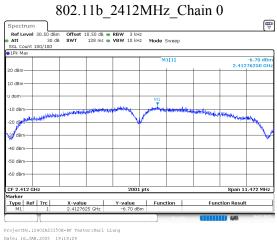
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Eastsheep	Coaxial Attenuator	5W-N-JK- 6G-10dB	F-08-EM502	2024/06/07	2025/06/06
R&S	Spectrum Analyzer	FSV40	101947	2024/09/05	2025/09/04

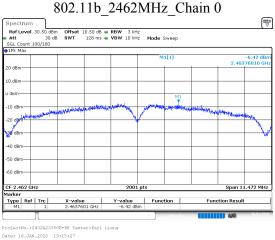
* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:

Mode	Antenna	Test Frequency (MHz)	Result (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
		2412	-6.70	8	Pass
	Chain 0	2437	-6.14	8	Pass
90 2 11b		2462	-6.42	8	Pass
802.11b		2412	-7.85	8	Pass
	Chain 1	2437	-6.79	8	Pass
		2462	-8.02	8	Pass
		2412	-12.29	8	Pass
	Chain 0	2437	-13.20	8	Pass
90 2 11 a		2462	-12.66	8	Pass
802.11g		2412	-13.19	8	Pass
	Chain 1	2437	-13.18	8	Pass
		2462	-13.55	8	Pass
		2412	-17.04	8	Pass
	Chain 0	2437	-16.77	8	Pass
		2462	-17.90	8	Pass
-		2412	-18.25	8 8 8	Pass
802.11n20	Chain 1	2437	-16.65	8	Pass
		2462	-17.81	8	Pass
-		2412	-14.59	8	Pass
	Chain 0 +Chain 1	2437	-13.70	8	Pass
	Chun 1	2462	-14.84	8	Pass
		2412	-17.10	8	Pass
	Chain 0	2437	-16.31	8	Pass
		2462	-17.00	8	Pass
-		2412	-15.64	8	Pass
802.11ax20_RU_Full	Chain 1	2437	-17.06	8	Pass
		2462	-17.61	8	Pass
		2412	-13.30	8	Pass
	Chain 0 +Chain 1	2437	-13.66	8	Pass
	· Chuin 1	2462	-14.28	8	Pass

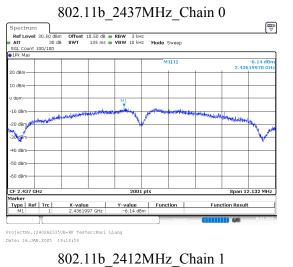
2.4G

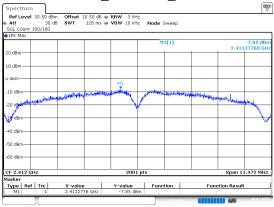




802.11b_2437MHz_Chain 1 Spectrum Ref Level 30.50 Att 3 Offset 10.50 dB RBW 3 kHz SWT 127 ms VBW 10 kHz Mode Sweep -6.79 dE M1[1] 20 dBm 10 dBm M1 Y -10 dBm No and 50 dBm 50 dBm Span 11.412 MHz Type Ref Trc M1 1 X-value Y-value Function 2.4379809 GHz -6.79 dBm -6.79 dBm Function Result 40

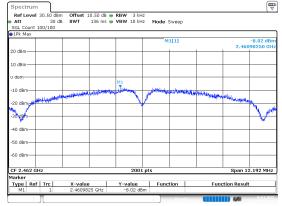
ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 19:29:29



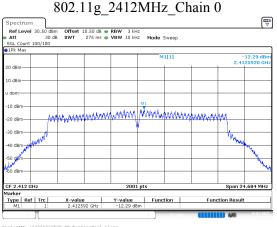


ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 19:28:06

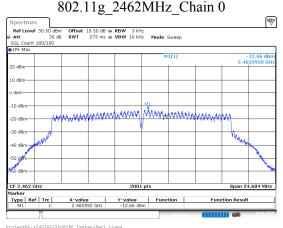
802.11b_2462MHz_Chain 1



ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 19:31:15

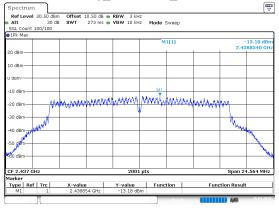


ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:21:04



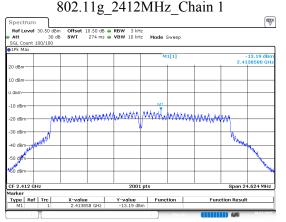
ProjectNo.:2402A23350E-RF Te: Date: 16.JAN.2025 21:18:03



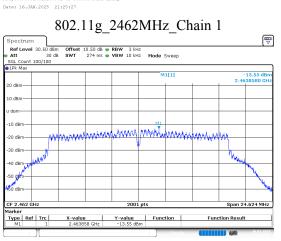


ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:28:03
 Spectrum
 Image: Constraint of the section of the section

ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:16:02







ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:30:38

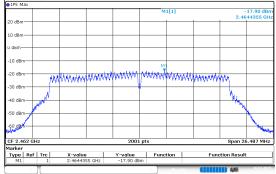
802.11g_2437MHz_Chain 0

Report No.:2402A23350E-RF-00A

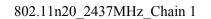


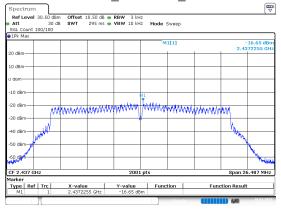
ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:07:49





ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:11:37





ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 20:57:18

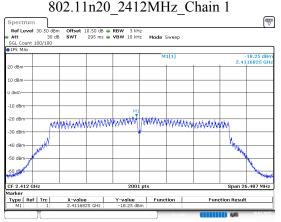
Spectrum RefLevel 30.50 dBm Offset 10.50 dB ● RBW 3 kHz Att 30 dB SWT 295 ms ● VBW 10 kHz Mode Sweep SGL-Count 100/100 IPk N -16.77 dE 20 dBm 10 dBm--10 dBm when when the second se -20 dBm--30 dBm-40 dBm -50 dBr -60 dBm-F 2.437 187 MH
 Marker
 Type
 Ref
 Trc
 X-value
 Y-value
 Function

 M1
 1
 2.4372915 GHz
 -16.77 dBm

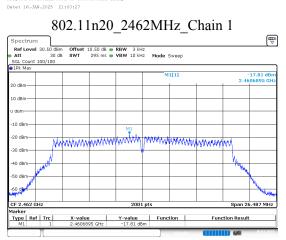
 Function Result

802.11n20_2437MHz_Chain 0

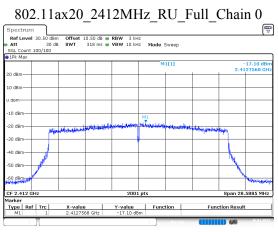
ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:09:34



ProjectNo.:2402A23350E-RF Tester:Karl Liang

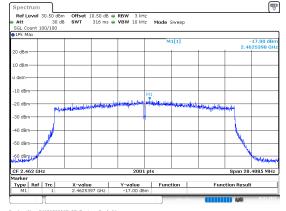


ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:01:11

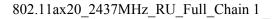


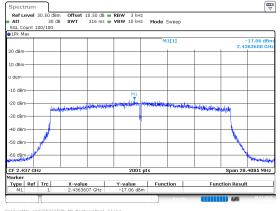
ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 20:32:05

802.11ax20_2462MHz_RU_Full_Chain 0

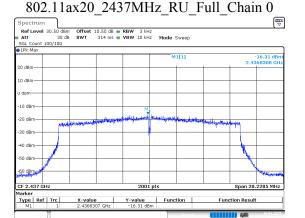


ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 20:29:43

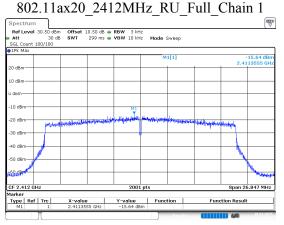




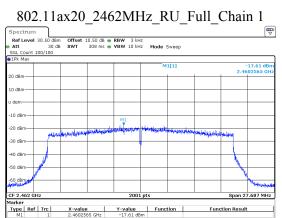
ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 20:37:11



ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 20:27:13



ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 20:35:26



ProjectNo.:2402A23350E-RF Tester:Karl Liang

Date: 16.JAN.2025 20:39:34

5.7 100 kHz Bandwidth of Frequency Band Edge

Test Information:

Serial No.:	2WN8-1	Test Date:	2025/01/16
Test Site:	RF	Test Mode:	Transmitting
Tester:	Karl Liang	Test Result:	Pass

Environmental Conditions:

	Temperature: (°C):	21.2	Relative Humidity: (%)	27	ATM Pressure: (kPa)	102.0
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Test Equipment List and Details:

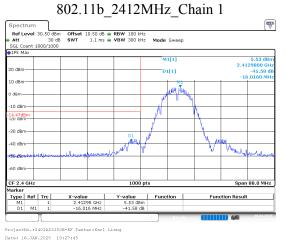
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Eastsheep	Coaxial Attenuator	5W-N-JK- 6G-10dB	F-08-EM502	2024/06/07	2025/06/06
R&S	Spectrum Analyzer	FSV40	101947	2024/09/05	2025/09/04

* 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).

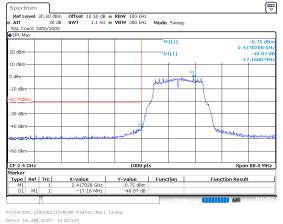
Test Data:

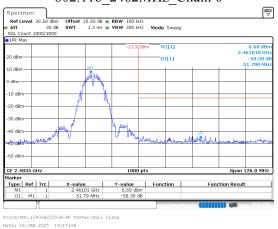
2.4G

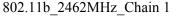


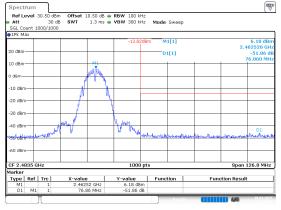


802.11g_2412MHz_Chain 0

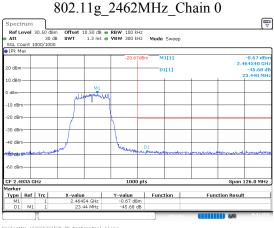






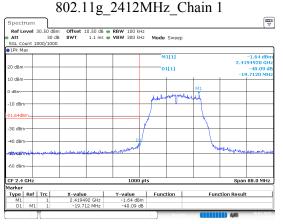


ProjectNo.:2402A23350E-RF Teste Date: 16.JAN.2025 19:30:53

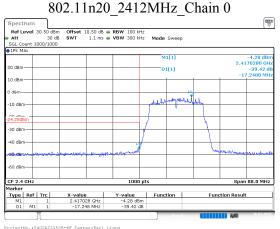


ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:17:24

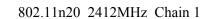
802.11b_2462MHz_Chain 0

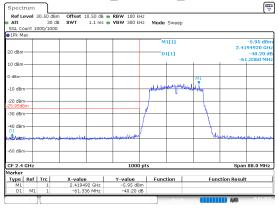


ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:24:47



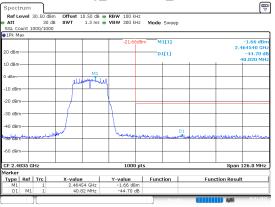
Date: 16.JAN.2025 21:07:08





ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:02:45

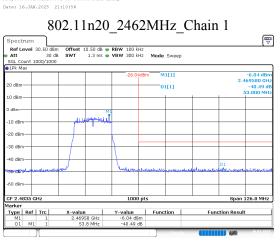
802.11g_2462MHz_Chain 1



ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:29:58

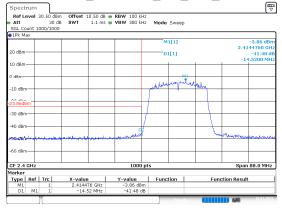
802.11n20 2462MHz Chain 0 Ref Level 30.5 Att SGL Count 1000/) 1Pk Max Offset 10.50 dB RBW 100 kHz SWT 1.3 ms VBW 300 kHz Mode Sweep 2000 30.50 dBm 2000 30 dB 2000 1000/1000 -5.14 di 2.467060 M1[1] n dBm D1[1] 10 dBmdBm allouguiter -10 dBm-20 dBm 30 dBm 40 dBm--60 dBm CF 2.4835 GHz 1000 pts Span 126.0 MHz Marker Type Ref Trc M1 1 D1 M1 1 X-value Y-value 2.46706 GHz -5.14 dBm 66.4 MHz -40.81 dB Function Function Result

ProjectNo.:2402A23350E-RF Tester:Karl Liang



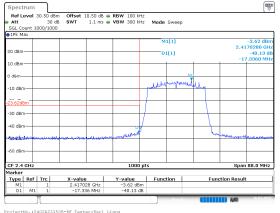
ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:00:29

802.11ax20_2412MHz_RU_Full_Chain 0



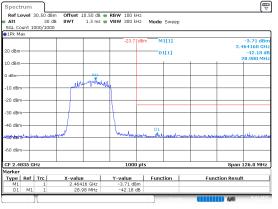
ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 20:31:22

802.11ax20_2412MHz_RU_Full_Chain 1



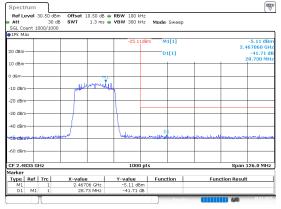
ProjectNo.:2402A23350E-RF Test Date: 16.JAN.2025 20:34:46

802.11ax20_2462MHz_RU_Full_Chain 0



ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 20:28:59

802.11ax20_2462MHz_RU_Full_Chain 1



ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 20:38:52

5.8 Duty Cycle

Test Information:

Serial No.:	2WN8-1	Test Date:	2025/01/16
Test Site:	RF	Test Mode:	Transmitting
Tester:	Karl Liang	Test Result:	N/A

Environmental Conditions:

Temperature: (°C):	21.2	Relative Humidity: (%)	27	ATM Pressure: (kPa)	102.0
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Eastsheep	Coaxial Attenuator	5W-N-JK- 6G-10dB	F-08-EM502	2024/06/07	2025/06/06
R&S	Spectrum Analyzer	FSV40	101947	2024/09/05	2025/09/04

* 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).

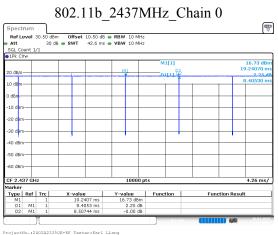
Test Data:

Note: Test only was performed at Chain 0.

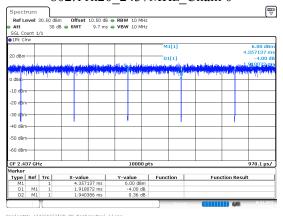
Mode	Antenna	Test Frequency (MHz)	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	1/Ton (Hz)	VBW Setting (kHz)
802.11b	Chain 0	2437	8.405	8.507	98.80	/	0.010
802.11g	Chain 0	2437	2.061	2.094	98.42	/	0.010
802.11n20	Chain 0	2437	1.918	1.940	98.87	/	0.010
802.11ax20_RU_Full	Chain 0	2437	0.834	0.936	89.10	1199	2

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

2.4G



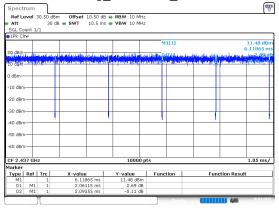
ProjectNo.:2402A23350E-RF Tester:) Date: 16.JAN.2025 19:10:47



ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 20:55:28

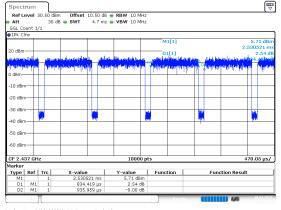
802.11n20_2437MHz_Chain 0

802.11g 2437MHz Chain 0



ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 21:14:18

802.11ax20_2437MHz_RU_Full_Chain 0



ProjectNo.:2402A23350E-RF Tester:Karl Liang Date: 16.JAN.2025 20:25:21

EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the attachment 2402A23350E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2402A23350E-RF-INP EUT INTERNAL PHOTOGRAPHS.

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2402A23350E-RF-00A-TSP TEST SETUP PHOTOGRAPHS.

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