NVLAP TESTING
NVLAP LAB CODE 600341-0

BACL Bay Area Compliance Labs Corp.

TEST REPORT

Applicant:	**SHENZHEN TENDA TECHNOLOGY CO.,LTD.**
Address:	**6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052**
Product Name:	**5MP Security Pan/Tilt Camera**
FCC ID:	**V7TCP7V2**
Standard(s):	**47 CFR Part 15, Subpart C(15.247) ANSI C63.10-2013 KDB 558074 D01 15.247 Meas Guidance v05r02**
Report Number:	**2402W91664E-RF-00A**
Report Date:	**2024/10/23**

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: Pedro Yun	**Approved By:** Ivan Cao
Title: Project Engineer	Title: EMC Manager

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2402W91664E-RF-00A	Original Report	2024/10/23

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	5MP Security Pan/Tilt Camera
EUT Model:	CP7
Multiple Model:	RP7, CP7 Pro,RP7 Pro
Operation Frequency:	2412-2462 MHz(802.11b/g/n ht20/ax he20) 2422-2452 MHz(802.11n ht40/ax he40)
Maximum Peak Output Power (Conducted):	25.94dBm
Modulation Type:	802.11b:DSSS-DBPSK, DQPSK, CCK 802.11g/n: OFDM-BPSK, QPSK, 16QAM, 64QAM 802.11ax:OFDMA-QPSK, 16QAM, 64QAM,256QAM,1024QAM
Rated Input Voltage:	DC 5V from adapter
Serial Number:	2QI5-1 (for RF Conducted test) 2QI5-3 (for Radiated Spurious Emission Above 1G test) 2QI5-5 (for Radiated Spurious Emission Below 1G and AC Line Conducted Emissions test)
EUT Received Date:	2024/8/24
EUT Received Status:	Good
Note: The multiple models are electrically identical with the test model. Please refer to the declaration letter for more detail, which was provided by manufacturer.	

1.2 Accessory Information

Accessory Description	Manufacturer	Model	Parameters
Adapter	Dong Guan City GangQi Electronic Co.,Ltd	GQ12-050100-ZU	Input:100-240Vac 50/60Hz 0.4A MAX Output:5.0Vdc 1.0A

1.3 Antenna Information Detail▲

Antenna Manufacturer	Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain
SHENZHEN TENDA TECHNOLOGY CO.,LTD.	PCB	50	2.4~2.5GHz	1.94dBi
The design of compliance with §15.203:				
☒ 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	Compliant
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(d)	Power Spectral Density	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.		

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**	/	/

For 802.11n ht40/ax he40:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	**2422**	7	2442
4	2427	8	2447
5	2432	9	**2452**
6	**2437**	/	/

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:	SecureCRT		
The software was provided by manufacturer. The maximum power was configured as below, that was provided by the manufacturer▲:			
Test Modes	Data Rate	Power Level Setting		
		Lowest Channel	Middle Channel	Highest Channel
802.11b	1Mbps	23	23	23
802.11g	6Mbps	11	11	11
802.11n ht20	MCS0	11	11	11
802.11n ht40	MCS0	13	13	13
802.11 ax20	MCS0	10	10	10
802.11 ax40	MCS0	13	13	13
Note: 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. For 802.11ax mode, the device not support partial RU mode.				

3.3 Support Equipment List and Details

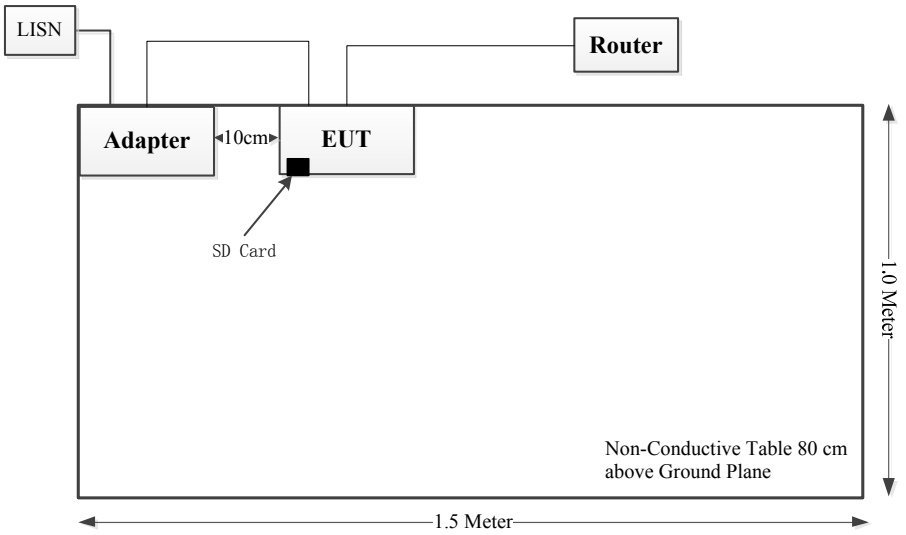
Manufacturer	Description	Model	Serial Number
SanDisk	SD Card	UHS-I-16G	9292DVDSV0XZ
TENDA	Router	F6	E6895010048000097

3.4 Support Cable List and Details

Manufacturer	Shielding Type	Ferrite Core	Length (m)	From Port	To
DC Cable	No	No	1.5	EUT	Adapter
RJ45 Cable	No	No	5	EUT	Router

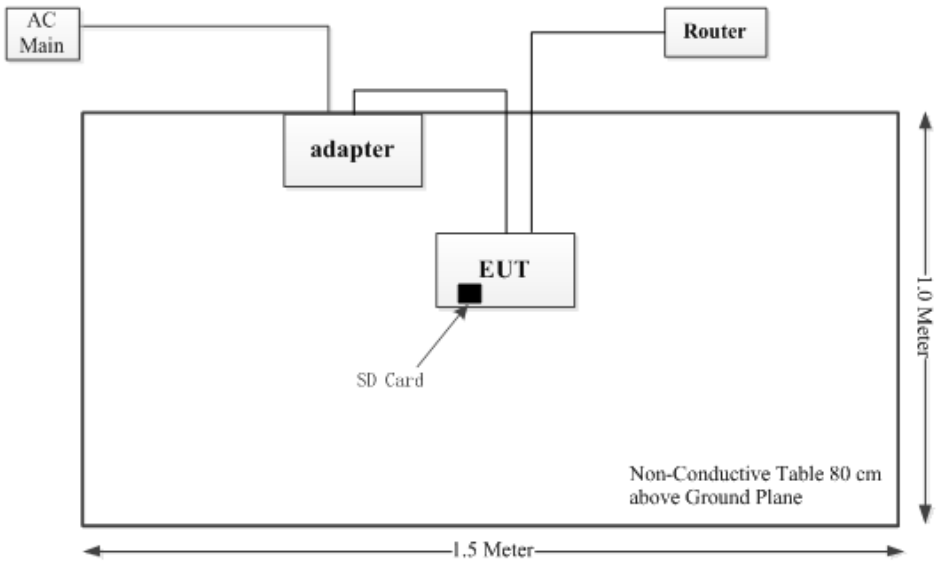
3.5 Block Diagram of Test Setup

AC line conducted emissions:

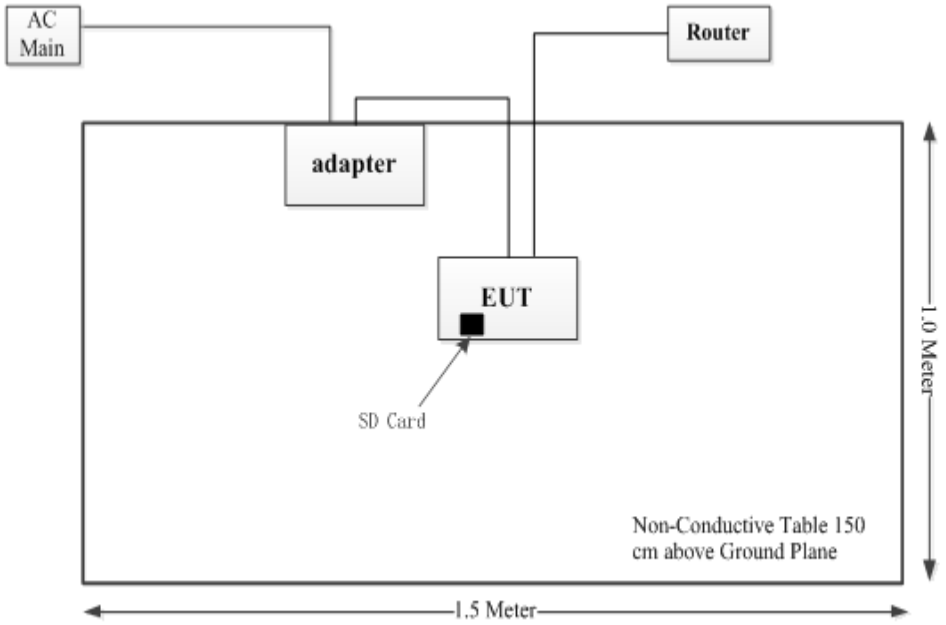


Spurious Emissions:

Below 1GHz:



Above 1GHz:


AC
Main
Router
adapter
EUT
SD Card
1.0 Meter
Non-Conductive Table 150
cm above Ground Plane
1.5 Meter

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℃
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 μH/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:

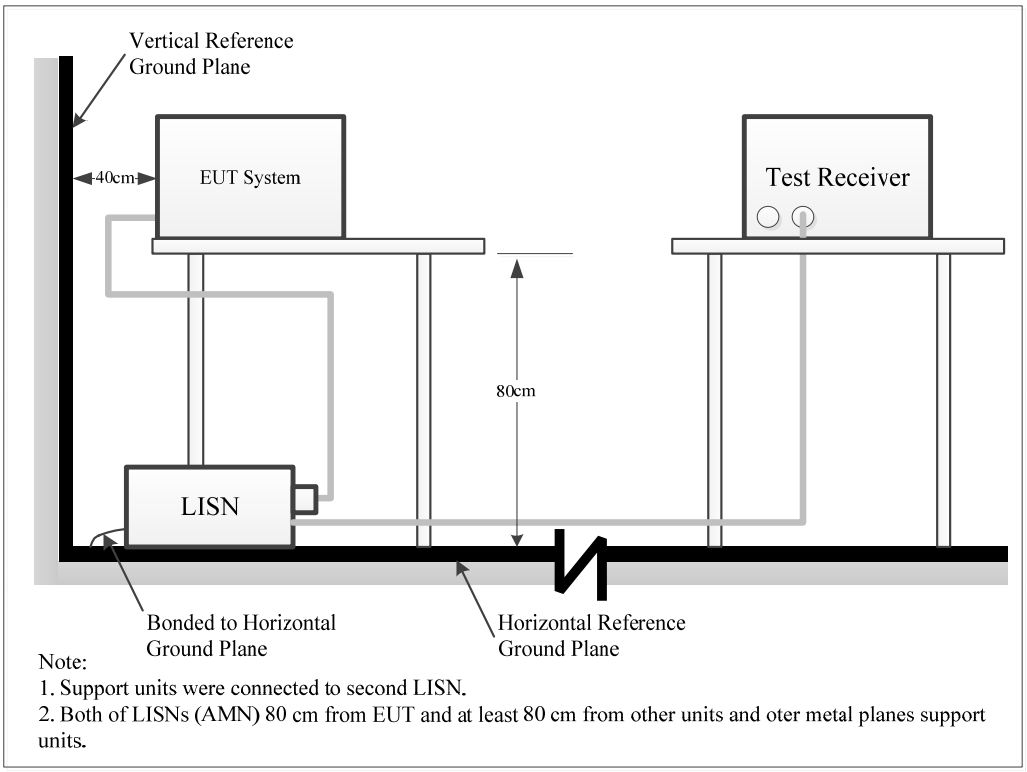
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000 μV within the frequency band 535-1705 kHz, as measured using a 50 μH/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



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

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

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

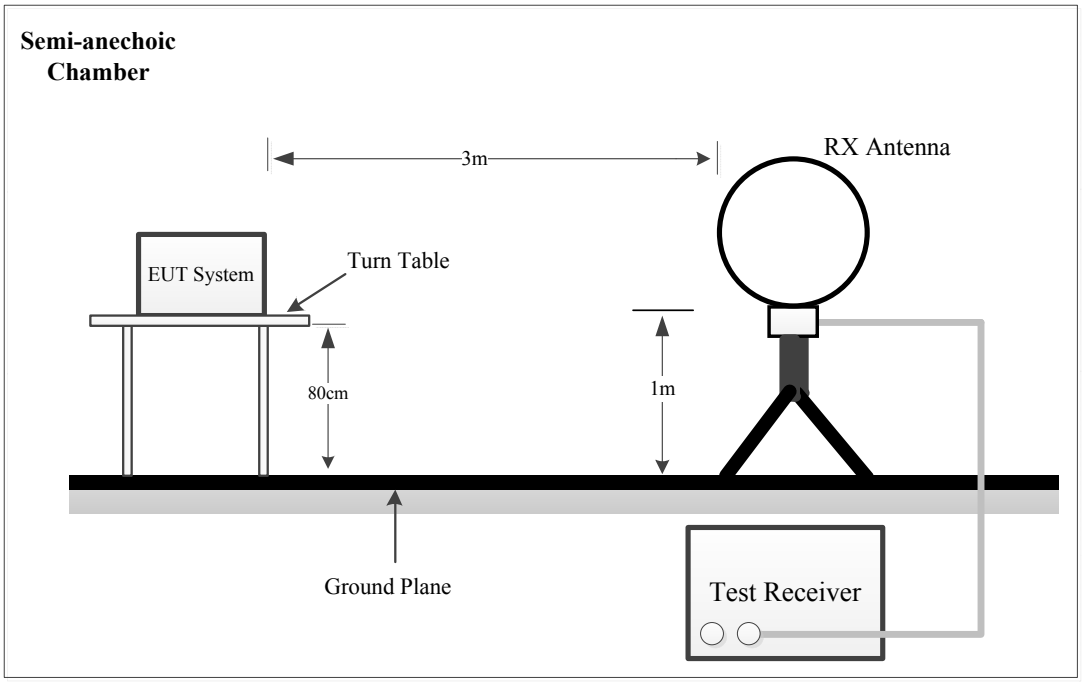
4.2.1 Applicable Standard

FCC §15.247 (d);

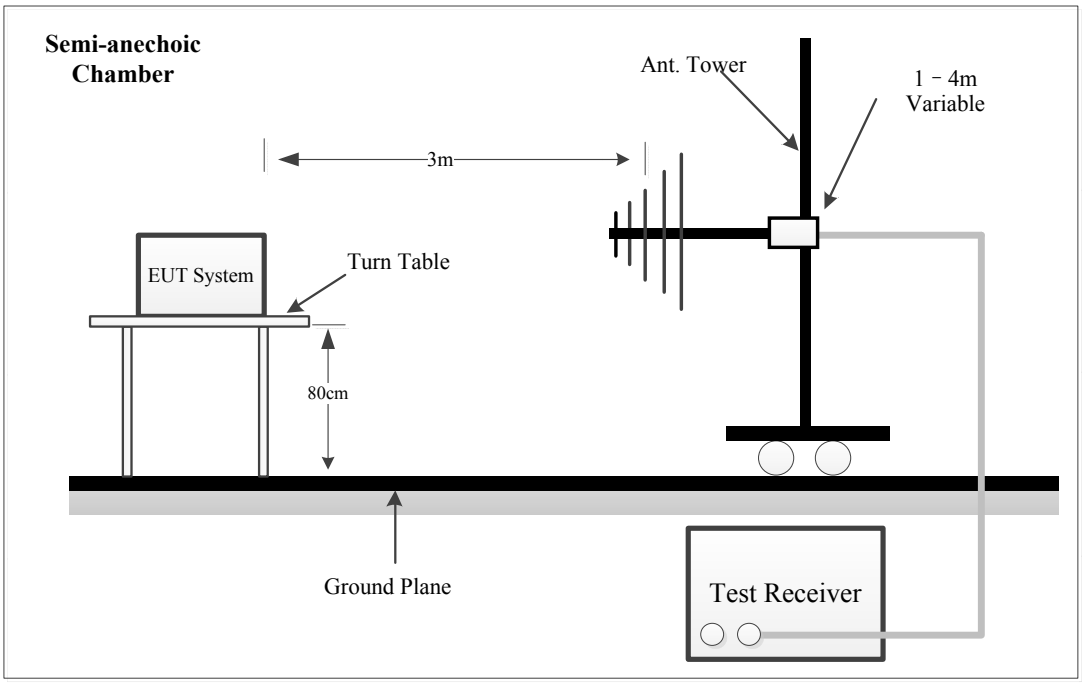
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the 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

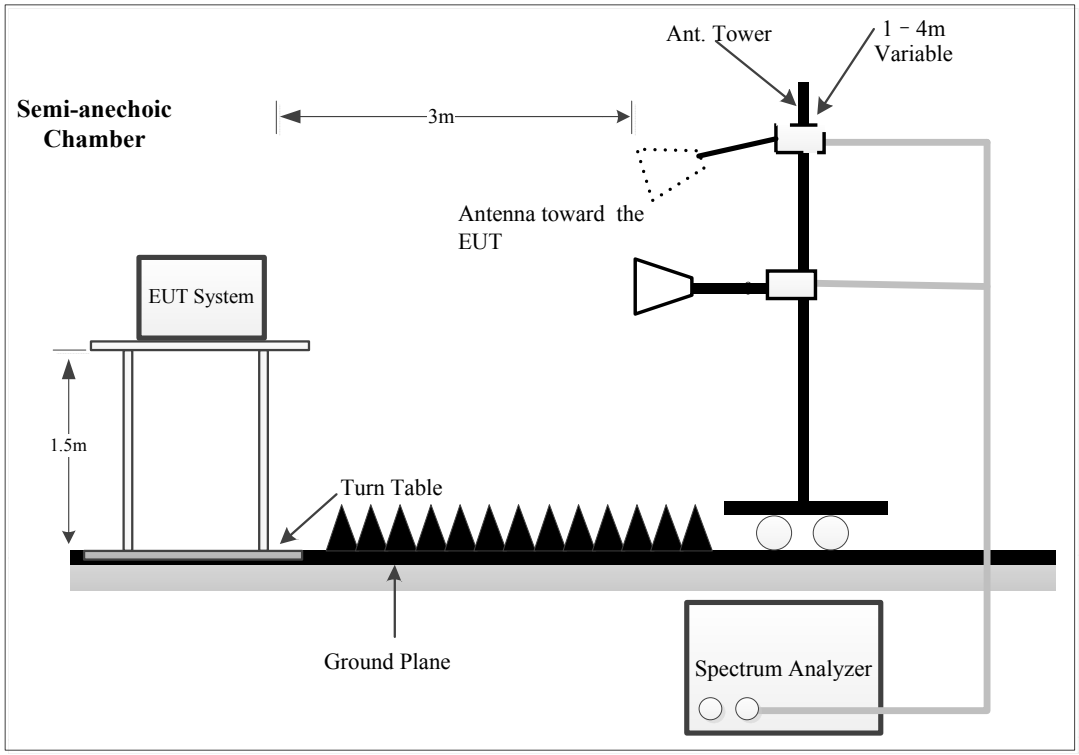
9kHz~30MHz:



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

1GHz- 25GHz:

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

Note: T is minimum transmission duration

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

If the maximized peak measured value complies with under the Average limit, then it is unnecessary to perform an Average measurement.

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.

4.2.5 Corrected Result& Margin Calculation

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.

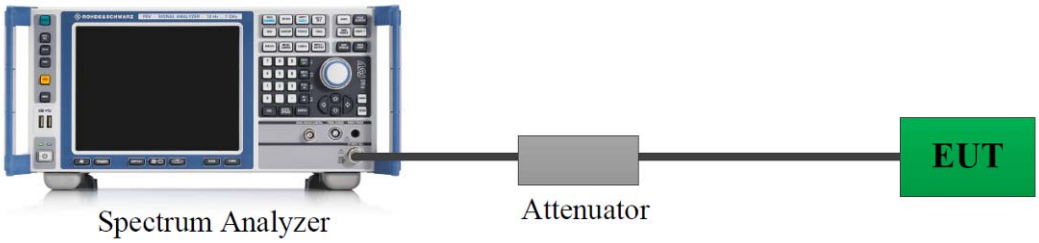
4.3 Minimum 6 dB Emission Bandwidth

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.

4.3.3 Test Procedure

According to ANSI C63.10-2013 Section 11.8

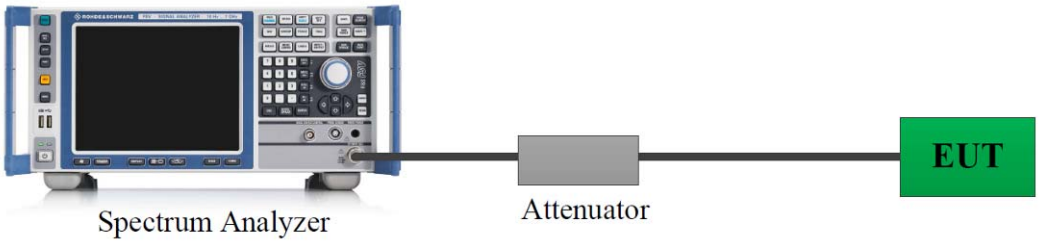
a) Set RBW = 100 kHz.
b) Set the video bandwidth (VBW) ≥ 3×RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.
g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points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

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.

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 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.

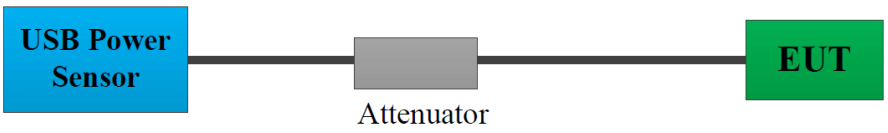
4.5 Maximum Conducted Output Power

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 cable loss of this RF cable was offset into the setting of test equipment, which was provided by manufacturer▲.

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.

4.5.4 Test Result

Please refer to section 5.5.

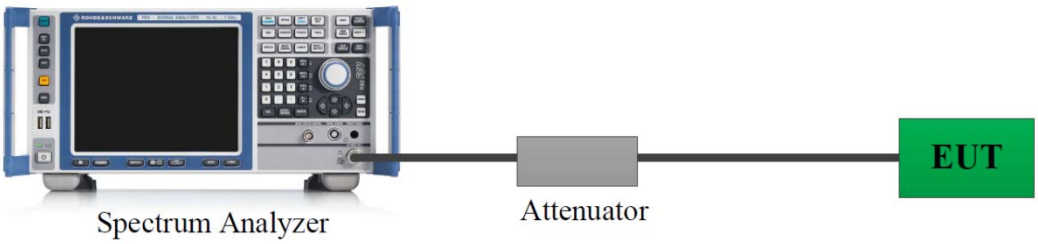
4.6 Maximum Power Spectral Density

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 cable loss of this RF cable was offset into the setting of test equipment, which was provided by manufacturer▲.

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 ≤ RBW ≤ 100 kHz.
d) Set VBW ≥ [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.

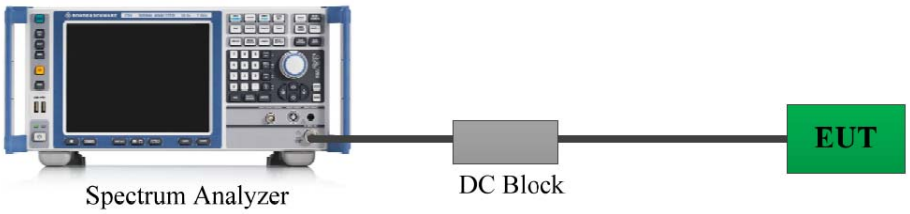
4.7 100 kHz Bandwidth of Frequency Band Edge

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.

4.7.3 Test Procedure

According to ANSI C63.10-2013 Section 11.11

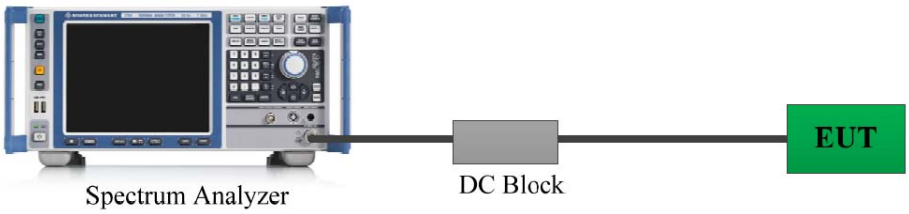
a) Set the center frequency and span to encompass frequency range to be measured.
b) Set the RBW = 100 kHz.
c) Set the VBW ≥ [3 × RBW].
d) Detector = peak.
e) Sweep time = auto couple.
f) Trace mode = max hold.
g) Allow trace to fully stabilize.
h) Use the peak marker function to determine the maximum 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.

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.

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 ≥ OBW if possible; otherwise, set RBW to the largest available value.
3) Set VBW ≥ 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 ≤ 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

Serial Number:	2QI5-5	Test Date:	2024/09/05
Test Site:	CE	Test Mode:	Transmitting
Tester:	Yukin Qiu	Test Result:	Pass

Environmental Conditions:

Temperature: (℃)	26.4	Relative Humidity: (%)	60	ATM Pressure: (kPa)	99.4

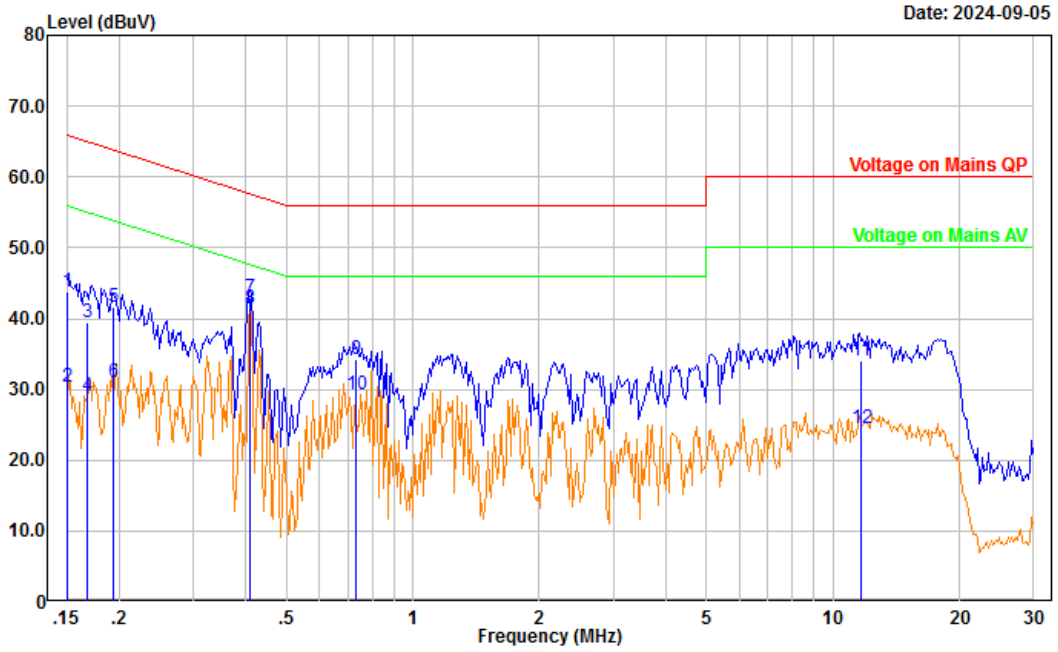
Test Equipment List and Details:

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	2024/8/26	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).*

Project No.: 2402W91664E-RF
Port: Line
Test Mode: Transmitting
Note: 2.4G Wifi 802.11 b High channel

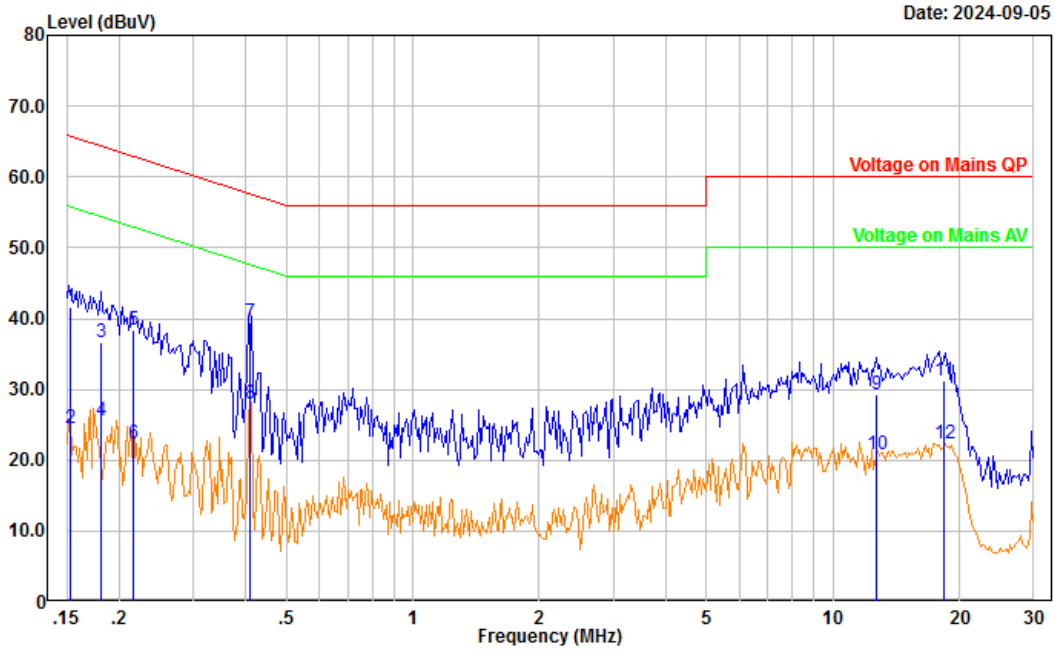
Serial No.: 2QI5-5
Tester: Yukin Qiu



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.150	33.07	10.75	43.82	65.98	22.16	QP
2	0.150	19.50	10.75	30.25	55.98	25.73	Average
3	0.168	28.58	10.79	39.37	65.04	25.67	QP
4	0.168	18.25	10.79	29.04	55.04	26.00	Average
5	0.194	30.76	10.84	41.60	63.87	22.27	QP
6	0.194	20.25	10.84	31.09	53.87	22.78	Average
7	0.409	32.18	10.84	43.02	57.67	14.65	QP
8	0.409	30.61	10.84	41.45	47.67	6.22	Average
9	0.734	23.35	10.86	34.21	56.00	21.79	QP
10	0.734	18.39	10.86	29.25	46.00	16.75	Average
11	11.637	23.15	10.78	33.93	60.00	26.07	QP
12	11.637	13.70	10.78	24.48	50.00	25.52	Average

Project No.: 2402W91664E-RF
Port: neutral
Test Mode: Transmitting
Note: 2.4G Wifi 802.11 b High channel

Serial No.: 2QI5-5
Tester: Yukin Qiu



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.153	30.70	10.85	41.55	65.84	24.29	QP
2	0.153	13.66	10.85	24.51	55.84	31.33	Average
3	0.181	25.72	10.85	36.57	64.44	27.87	QP
4	0.181	14.75	10.85	25.60	54.44	28.84	Average
5	0.216	27.63	10.84	38.47	62.96	24.49	QP
6	0.216	11.51	10.84	22.35	52.96	30.61	Average
7	0.410	28.64	10.77	39.41	57.66	18.25	QP
8	0.410	17.29	10.77	28.06	47.66	19.60	Average
9	12.653	18.46	10.86	29.32	60.00	30.68	QP
10	12.653	9.85	10.86	20.71	50.00	29.29	Average
11	18.335	20.35	10.86	31.21	60.00	28.79	QP
12	18.335	11.44	10.86	22.30	50.00	27.70	Average

5.2 Radiation Spurious Emissions

1)9kHz - 1GHz

Serial Number:	2QI5-5	Test Date:	2024/8/29
Test Site:	Chamber 10m	Test Mode:	Transmitting
Tester:	Leesin Xiang	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	30.7	Relative Humidity: (%)	62	ATM Pressure: (kPa)	99.9

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
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	100224	2024/8/18	2025/8/17
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:

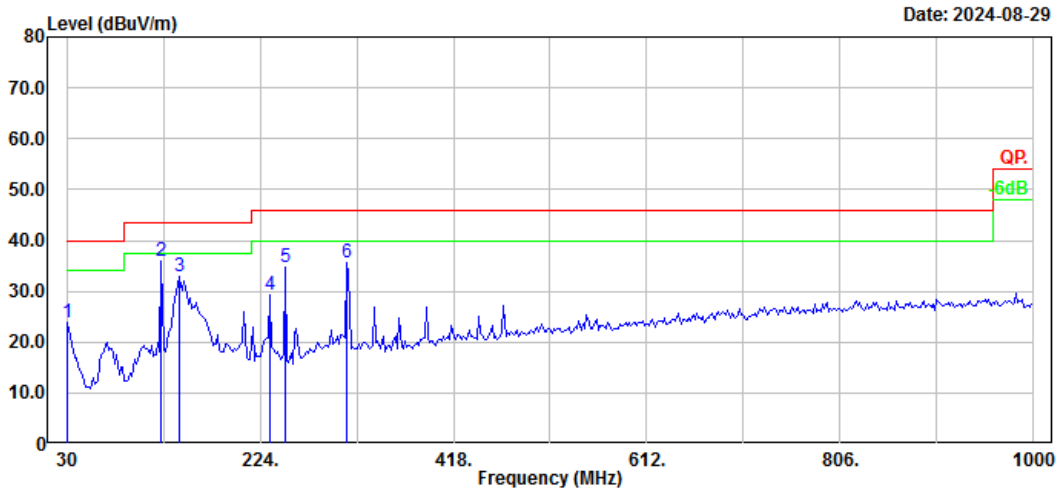
Please refer to the below table and plots.
After pre-scan in the X, Y and Z axes of orientation, the worst case is refer to table and plots.

9kHz~30MHz

The 802.11b High channel was tested. The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

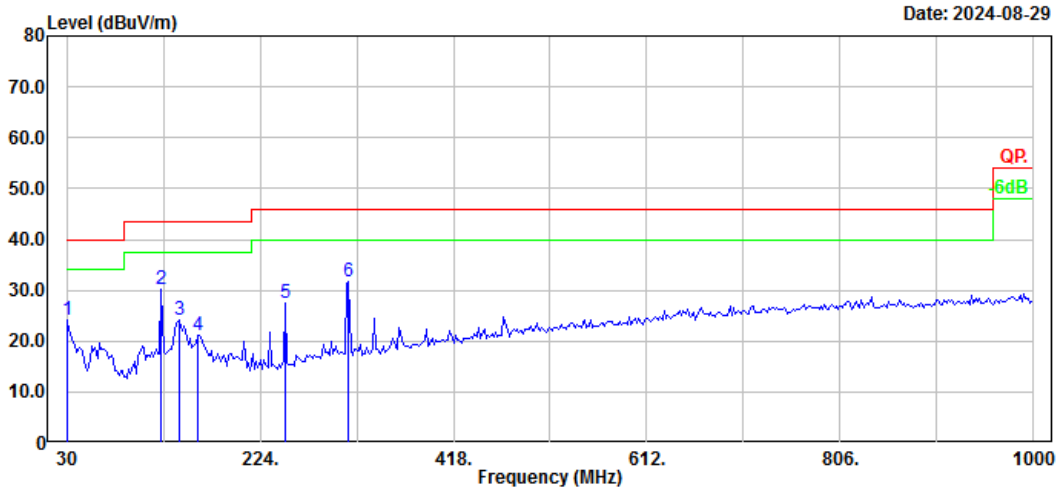
30MHz-1GHz

Project No.: 2402W91664E-RF Serial No.: 2QI5-5
Polarization: Horizontal Tester: Leesin Xiang
Test Mode: Transmitting
Note: 2.4G Wifi 802.11 b High channel



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.00	27.77	-3.80	23.97	40.00	16.03	Peak
2	125.06	45.87	-9.91	35.96	43.50	7.54	Peak
3	142.52	43.50	-10.61	32.89	43.50	10.61	Peak
4	233.70	41.24	-12.05	29.19	46.00	16.81	Peak
5	249.22	46.31	-11.46	34.85	46.00	11.15	Peak
6	311.30	44.84	-9.27	35.57	46.00	10.43	Peak

Project No.: 2402W91664E-RF Serial No.: 2QI5-5
Polarization: Vertical Tester: Leesin Xiang
Test Mode: Transmitting
Note: 2.4G Wifi 802.11 b High channel



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.00	27.90	-3.80	24.10	40.00	15.90	Peak
2	125.06	40.06	-9.91	30.15	43.50	13.35	Peak
3	142.52	34.86	-10.61	24.25	43.50	19.25	Peak
4	161.92	32.32	-11.27	21.05	43.50	22.45	Peak
5	249.22	39.08	-11.46	27.62	46.00	18.38	Peak
6	313.24	40.80	-9.23	31.57	46.00	14.43	Peak

2) 1-25GHz:

Serial Number:	2QI5-3	Test Date:	2024/8/30~2024/8/31
Test Site:	Chamber B	Test Mode:	Transmitting
Tester:	Nat Zhou	Test Result:	Pass

Environmental Conditions:

Temperature: (℃)	25.4	Relative Humidity: (%)	40~45	ATM Pressure: (kPa)	100.7~100.8

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	2024/9/6
R&S	Spectrum Analyzer	FSV40	101944	2023/10/18	2024/10/17
Xinhang Macrowave	Coaxial Cable	XH750A-N/J-SMA/J-10M	20231117004 #0001	2023/11/17	2024/11/16
Audix	Test Software	E3	191218 (V9)	N/A	N/A
AH	Preamplifier	PAM-0118P	469	2024/4/15	2025/4/15
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-03 1304	2023/2/22	2026/2/21
Xinhang Macrowave	Coaxial Cable	XH360A-2.92/J-2.92/J-6M-A	20231208001 #0001	2023/12/11	2024/12/10
AH	Preamplifier	PAM-1840VH	191	2023/9/7	2024/9/6
E-Microwave	Band Rejection Filter	OBSF-2400-2483.5-S	OE01601525	2024/2/21	2025/2/20
Micro-tronics	High Pass Filter	HPM50111	G217	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:

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

802.11b

Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dBµV	PK/QP/AV	H/V	dB/m	dBµV/m	dBµV/m	dB
Low Channel				**2412**	**MHz**		
2390.00	34.54	PK	H	28.57	63.11	74.00	10.89
2390.00	17.74	AV	H	28.57	46.31	54.00	7.69
2390.00	35.07	PK	V	28.57	63.64	74.00	10.36
2390.00	18.44	AV	V	28.57	47.01	54.00	6.99
4824.00	58.47	PK	H	-10.09	48.38	74.00	25.62
4824.00	55.69	AV	H	-10.09	45.60	54.00	**8.40**
4824.00	58.27	PK	V	-10.09	48.18	74.00	25.82
4824.00	55.11	AV	V	-10.09	45.02	54.00	8.98
7236.00	49.24	PK	H	-5.38	43.86	74.00	30.14
7236.00	39.31	AV	H	-5.38	33.93	54.00	20.07
7236.00	48.85	PK	V	-5.38	43.47	74.00	30.53
7236.00	38.92	AV	V	-5.38	33.54	54.00	20.46
Middle Channel				**2437**	**MHz**		
4874.00	56.48	PK	H	-10.02	46.46	74.00	27.54
4874.00	53.13	AV	H	-10.02	43.11	54.00	10.89
4874.00	57.31	PK	V	-10.02	47.29	74.00	26.71
4874.00	54.11	AV	V	-10.02	44.09	54.00	9.91
7311.00	50.21	PK	H	-5.05	45.16	74.00	28.84
7311.00	40.17	AV	H	-5.05	35.12	54.00	18.88
7311.00	50.46	PK	V	-5.05	45.41	74.00	28.59
7311.00	40.27	AV	V	-5.05	35.22	54.00	18.78
High Channel				**2462**	**MHz**		
2483.50	38.25	PK	H	28.95	67.20	74.00	6.80
2483.50	18.17	AV	H	28.95	47.12	54.00	6.88
2483.50	37.98	PK	V	28.95	66.93	74.00	7.07
2483.50	18.61	AV	V	28.95	47.56	54.00	6.44
4924.00	56.67	PK	H	-9.99	46.68	74.00	27.32
4924.00	52.98	AV	H	-9.99	42.99	54.00	11.01
4924.00	57.58	PK	V	-9.99	47.59	74.00	26.41
4924.00	54.67	AV	V	-9.99	44.68	54.00	9.32
7386.00	50.67	PK	H	-4.74	45.93	74.00	28.07
7386.00	40.58	AV	H	-4.74	35.84	54.00	18.16
7386.00	50.31	PK	V	-4.74	45.57	74.00	28.43
7386.00	40.22	AV	V	-4.74	35.48	54.00	18.52

802.11g

Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dBµV	PK/QP/AV	H/V	dB/m	dBµV/m	dBµV/m	dB
Low Channel				**2412**	**MHz**		
2390.00	27.24	PK	H	28.57	55.81	74.00	18.19
2390.00	16.68	AV	H	28.57	45.25	54.00	8.75
2390.00	27.68	PK	V	28.57	56.25	74.00	17.75
2390.00	17.09	AV	V	28.57	45.66	54.00	8.34
4824.00	49.64	PK	H	-10.09	39.55	74.00	34.45
4824.00	39.32	AV	H	-10.09	29.23	54.00	24.77
4824.00	49.73	PK	V	-10.09	39.64	74.00	34.36
4824.00	39.43	AV	V	-10.09	29.34	54.00	24.66
7236.00	49.36	PK	H	-5.38	43.98	74.00	30.02
7236.00	38.81	AV	H	-5.38	33.43	54.00	20.57
7236.00	49.31	PK	V	-5.38	43.93	74.00	30.07
7236.00	38.60	AV	V	-5.38	33.22	54.00	20.78
Middle Channel				**2437**	**MHz**		
4874.00	49.41	PK	H	-10.02	39.39	74.00	34.61
4874.00	39.22	AV	H	-10.02	29.20	54.00	24.80
4874.00	49.58	PK	V	-10.02	39.56	74.00	34.44
4874.00	39.31	AV	V	-10.02	29.29	54.00	24.71
7311.00	49.36	PK	H	-5.05	44.31	74.00	29.69
7311.00	38.47	AV	H	-5.05	33.42	54.00	20.58
7311.00	49.44	PK	V	-5.05	44.39	74.00	29.61
7311.00	38.58	AV	V	-5.05	33.53	54.00	20.47
High Channel				**2462**	**MHz**		
2483.50	34.96	PK	H	28.95	63.91	74.00	10.09
2483.50	17.22	AV	H	28.95	46.17	54.00	7.83
2483.50	35.53	PK	V	28.95	64.48	74.00	9.52
2483.50	17.39	AV	V	28.95	46.34	54.00	7.66
4924.00	49.33	PK	H	-9.99	39.34	74.00	34.66
4924.00	39.19	AV	H	-9.99	29.20	54.00	24.80
4924.00	49.40	PK	V	-9.99	39.41	74.00	34.59
4924.00	39.11	AV	V	-9.99	29.12	54.00	24.88
7386.00	49.13	PK	H	-4.74	44.39	74.00	29.61
7386.00	38.28	AV	H	-4.74	33.54	54.00	20.46
7386.00	49.29	PK	V	-4.74	44.55	74.00	29.45
7386.00	38.41	AV	V	-4.74	33.67	54.00	20.33

802.11n20

Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dBµV	PK/QP/AV	H/V	dB/m	dBµV/m	dBµV/m	dB
Low Channel				**2412**	**MHz**		
2390.00	28.42	PK	H	28.57	56.99	74.00	17.01
2390.00	16.57	AV	H	28.57	45.14	54.00	8.86
2390.00	28.61	PK	V	28.57	57.18	74.00	16.82
2390.00	16.83	AV	V	28.57	45.40	54.00	8.60
4824.00	49.56	PK	H	-10.09	39.47	74.00	34.53
4824.00	39.61	AV	H	-10.09	29.52	54.00	24.48
4824.00	49.78	PK	V	-10.09	39.69	74.00	34.31
4824.00	39.58	AV	V	-10.09	29.49	54.00	24.51
7236.00	49.22	PK	H	-5.38	43.84	74.00	30.16
7236.00	38.36	AV	H	-5.38	32.98	54.00	21.02
7236.00	49.13	PK	V	-5.38	43.75	74.00	30.25
7236.00	38.41	AV	V	-5.38	33.03	54.00	20.97
Middle Channel				**2437**	**MHz**		
4874.00	49.57	PK	H	-10.02	39.55	74.00	34.45
4874.00	39.44	AV	H	-10.02	29.42	54.00	24.58
4874.00	49.69	PK	V	-10.02	39.67	74.00	34.33
4874.00	39.32	AV	V	-10.02	29.30	54.00	24.70
7311.00	49.25	PK	H	-5.05	44.20	74.00	29.80
7311.00	38.48	AV	H	-5.05	33.43	54.00	20.57
7311.00	49.09	PK	V	-5.05	44.04	74.00	29.96
7311.00	38.18	AV	V	-5.05	33.13	54.00	20.87
High Channel				**2462**	**MHz**		
2483.50	33.48	PK	H	28.95	62.43	74.00	11.57
2483.50	17.24	AV	H	28.95	46.19	54.00	7.81
2483.50	35.69	PK	V	28.95	64.64	74.00	9.36
2483.50	17.84	AV	V	28.95	46.79	54.00	7.21
4924.00	49.69	PK	H	-9.99	39.70	74.00	34.30
4924.00	39.41	AV	H	-9.99	29.42	54.00	24.58
4924.00	49.70	PK	V	-9.99	39.71	74.00	34.29
4924.00	39.47	AV	V	-9.99	29.48	54.00	24.52
7386.00	49.31	PK	H	-4.74	44.57	74.00	29.43
7386.00	38.57	AV	H	-4.74	33.83	54.00	20.17
7386.00	49.05	PK	V	-4.74	44.31	74.00	29.69
7386.00	38.64	AV	V	-4.74	33.90	54.00	20.10

802.11n40

Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dBµV	PK/QP/AV	H/V	dB/m	dBµV/m	dBµV/m	dB
Low Channel				**2422**	**MHz**		
2390.00	36.58	PK	H	28.57	65.15	74.00	8.85
2390.00	20.95	AV	H	28.57	49.52	54.00	4.48
2390.00	35.62	PK	V	28.57	64.19	74.00	9.81
2390.00	19.88	AV	V	28.57	48.45	54.00	5.55
4844.00	50.11	PK	H	-10.05	40.06	74.00	33.94
4844.00	39.89	AV	H	-10.05	29.84	54.00	24.16
4844.00	50.05	PK	V	-10.05	40.00	74.00	34.00
4844.00	39.86	AV	V	-10.05	29.81	54.00	24.19
7266.00	49.64	PK	H	-5.25	44.39	74.00	29.61
7266.00	38.68	AV	H	-5.25	33.43	54.00	20.57
7266.00	49.57	PK	V	-5.25	44.32	74.00	29.68
7266.00	38.75	AV	V	-5.25	33.50	54.00	20.50
Middle Channel				**2437**	**MHz**		
4874.00	49.64	PK	H	-10.02	39.62	74.00	34.38
4874.00	39.41	AV	H	-10.02	29.39	54.00	24.61
4874.00	49.55	PK	V	-10.02	39.53	74.00	34.47
4874.00	39.29	AV	V	-10.02	29.27	54.00	24.73
7311.00	49.34	PK	H	-5.05	44.29	74.00	29.71
7311.00	38.15	AV	H	-5.05	33.10	54.00	20.90
7311.00	49.27	PK	V	-5.05	44.22	74.00	29.78
7311.00	38.41	AV	V	-5.05	33.36	54.00	20.64
High Channel				**2452**	**MHz**		
2483.50	34.20	PK	H	28.95	63.15	74.00	10.85
2483.50	20.05	AV	H	28.95	49.00	54.00	5.00
2483.50	34.88	PK	V	28.95	63.83	74.00	10.17
2483.50	20.46	AV	V	28.95	49.41	54.00	4.59
4904.00	49.76	PK	H	-9.99	39.77	74.00	34.23
4904.00	39.52	AV	H	-9.99	29.53	54.00	24.47
4904.00	49.89	PK	V	-9.99	39.90	74.00	34.10
4904.00	39.63	AV	V	-9.99	29.64	54.00	24.36
7356.00	49.15	PK	H	-4.87	44.28	74.00	29.72
7356.00	38.39	AV	H	-4.87	33.52	54.00	**20.48**
7356.00	49.05	PK	V	-4.87	44.18	74.00	29.82
7356.00	38.17	AV	V	-4.87	33.30	54.00	20.70

802.11ax20

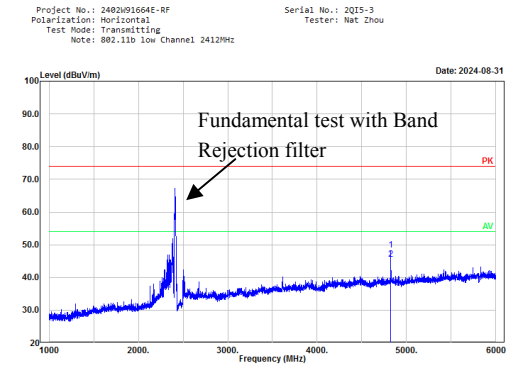
Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dBµV	PK/QP/AV	H/V	dB/m	dBµV/m	dBµV/m	dB
Low Channel				**2412**	**MHz**		
2390.00	29.43	PK	H	28.57	58.00	74.00	16.00
2390.00	17.14	AV	H	28.57	45.71	54.00	8.29
2390.00	29.12	PK	V	28.57	57.69	74.00	16.31
2390.00	17.10	AV	V	28.57	45.67	54.00	8.33
4824.00	49.61	PK	H	-10.09	39.52	74.00	34.48
4824.00	39.40	AV	H	-10.09	29.31	54.00	24.69
4824.00	49.50	PK	V	-10.09	39.41	74.00	34.59
4824.00	39.37	AV	V	-10.09	29.28	54.00	24.72
7236.00	49.21	PK	H	-5.38	43.83	74.00	30.17
7236.00	38.43	AV	H	-5.38	33.05	54.00	20.95
7236.00	49.17	PK	V	-5.38	43.79	74.00	30.21
7236.00	38.33	AV	V	-5.38	32.95	54.00	21.05
Middle Channel				**2437**	**MHz**		
4874.00	49.55	PK	H	-10.02	39.53	74.00	34.47
4874.00	39.41	AV	H	-10.02	29.39	54.00	24.61
4874.00	49.64	PK	V	-10.02	39.62	74.00	34.38
4874.00	39.48	AV	V	-10.02	29.46	54.00	24.54
7311.00	49.47	PK	H	-5.05	44.42	74.00	29.58
7311.00	38.39	AV	H	-5.05	33.34	54.00	20.66
7311.00	49.14	PK	V	-5.05	44.09	74.00	29.91
7311.00	38.22	AV	V	-5.05	33.17	54.00	20.83
High Channel				**2462**	**MHz**		
2483.50	34.17	PK	H	28.95	63.12	74.00	10.88
2483.50	17.34	AV	H	28.95	46.29	54.00	7.71
2483.50	34.27	PK	V	28.95	63.22	74.00	10.78
2483.50	17.21	AV	V	28.95	46.16	54.00	7.84
4924.00	49.38	PK	H	-9.99	39.39	74.00	34.61
4924.00	39.18	AV	H	-9.99	29.19	54.00	24.81
4924.00	49.29	PK	V	-9.99	39.30	74.00	34.70
4924.00	39.05	AV	V	-9.99	29.06	54.00	24.94
7386.00	49.36	PK	H	-4.74	44.62	74.00	29.38
7386.00	38.58	AV	H	-4.74	33.84	54.00	20.16
7386.00	49.11	PK	V	-4.74	44.37	74.00	29.63
7386.00	38.24	AV	V	-4.74	33.50	54.00	20.50

802.11ax40

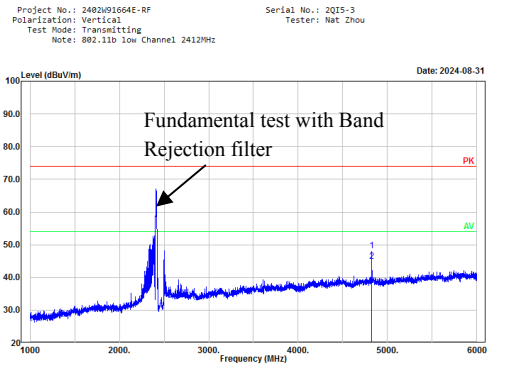
Frequency	Reading	Detector	Polar	Factor	Corrected Amplitude	Limit	Margin
MHz	dBµV	PK/QP/AV	H/V	dB/m	dBµV/m	dBµV/m	dB
Low Channel				**2422**	**MHz**		
2390.00	36.28	PK	H	28.57	64.85	74.00	9.15
2390.00	18.59	AV	H	28.57	47.16	54.00	6.84
2390.00	35.64	PK	V	28.57	64.21	74.00	9.79
2390.00	18.58	AV	V	28.57	47.15	54.00	6.85
4844.00	49.38	PK	H	-10.05	39.33	74.00	34.67
4844.00	39.12	AV	H	-10.05	29.07	54.00	24.93
4844.00	49.32	PK	V	-10.05	39.27	74.00	34.73
4844.00	39.11	AV	V	-10.05	29.06	54.00	24.94
7266.00	49.67	PK	H	-5.25	44.42	74.00	29.58
7266.00	38.73	AV	H	-5.25	33.48	54.00	20.52
7266.00	49.71	PK	V	-5.25	44.46	74.00	29.54
7266.00	38.82	AV	V	-5.25	33.57	54.00	20.43
Middle Channel				**2437**	**MHz**		
4874.00	49.21	PK	H	-10.02	39.19	74.00	34.81
4874.00	39.06	AV	H	-10.02	29.04	54.00	24.96
4874.00	49.32	PK	V	-10.02	39.30	74.00	34.70
4874.00	39.13	AV	V	-10.02	29.11	54.00	24.89
7311.00	49.47	PK	H	-5.05	44.42	74.00	29.58
7311.00	38.54	AV	H	-5.05	33.49	54.00	20.51
7311.00	49.28	PK	V	-5.05	44.23	74.00	29.77
7311.00	38.39	AV	V	-5.05	33.34	54.00	20.66
High Channel				**2452**	**MHz**		
2483.50	35.12	PK	H	28.95	64.07	74.00	9.93
2483.50	18.16	AV	H	28.95	47.11	54.00	6.89
2483.50	36.17	PK	V	28.95	65.12	74.00	8.88
2483.50	18.36	AV	V	28.95	47.31	54.00	6.69
4904.00	49.11	PK	H	-9.99	39.12	74.00	34.88
4904.00	39.02	AV	H	-9.99	29.03	54.00	24.97
4904.00	49.35	PK	V	-9.99	39.36	74.00	34.64
4904.00	39.02	AV	V	-9.99	29.03	54.00	24.97
7356.00	49.57	PK	H	-4.87	44.70	74.00	29.30
7356.00	38.67	AV	H	-4.87	33.80	54.00	20.20
7356.00	49.39	PK	V	-4.87	44.52	74.00	29.48
7356.00	38.51	AV	V	-4.87	33.64	54.00	20.36

Worst Channel Test plots:

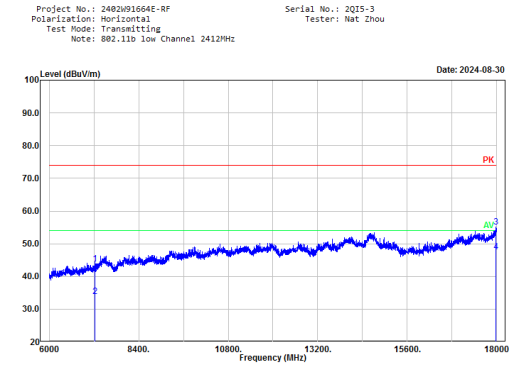
802.11b, Low Channel, Horizontal	802.11b, Low Channel, Vertical



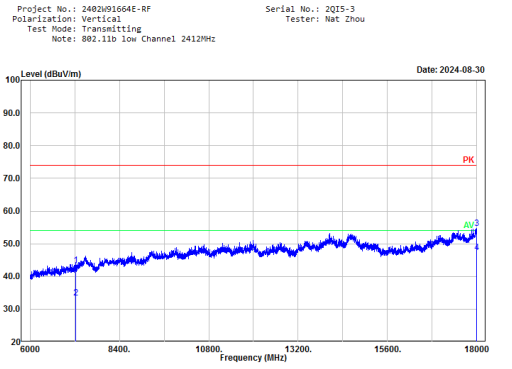
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4824.00	58.47	-10.09	48.38	74.00	25.62	Peak
2	4824.00	55.69	-10.09	45.60	54.00	8.40	Average



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4824.00	58.27	-10.09	48.18	74.00	25.82	Peak
2	4824.00	55.11	-10.09	45.02	54.00	8.98	Average



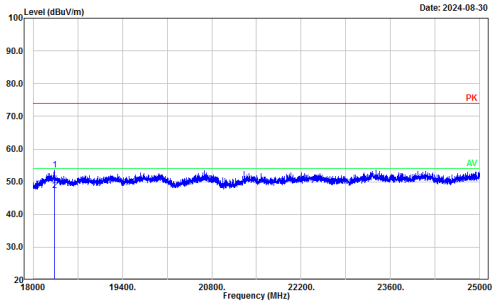
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7236.00	49.24	-5.38	43.86	74.00	30.14	Peak
2	7236.00	39.31	-5.38	33.93	54.00	20.07	Average
3	17966.40	47.13	7.89	55.02	74.00	18.98	Peak
4	17966.40	39.66	7.89	47.55	54.00	6.45	Average



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7236.00	48.85	-5.38	43.47	74.00	30.53	Peak
2	7236.00	38.92	-5.38	33.54	54.00	20.46	Average
3	17992.80	46.59	8.09	54.68	74.00	19.32	Peak
4	17992.80	39.30	8.09	47.39	54.00	6.61	Average

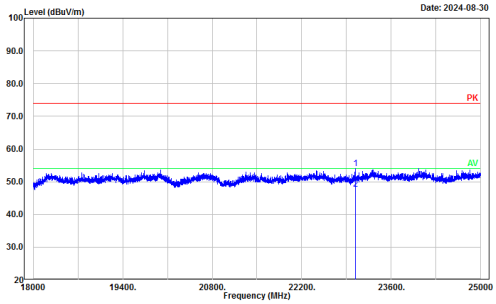
802.11b, Low Channel, Horizontal	802.11b, Low Channel, Vertical

Project No.: 2402W91664E-RF Serial No.: 2QI5-3
Polarization: Horizontal Tester: Nat Zhou
Test Mode: Transmitting
Note: 802.11b low Channel 2412MHz



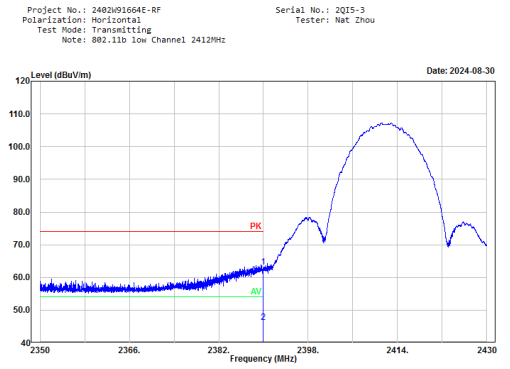
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	18340.20	46.88	6.66	53.54	74.00	20.46	Peak
2	18340.20	40.63	6.66	47.29	54.00	6.71	Average

Project No.: 2402W91664E-RF Serial No.: 2QI5-3
Polarization: Vertical Tester: Nat Zhou
Test Mode: Transmitting
Note: 802.11b low Channel 2412MHz

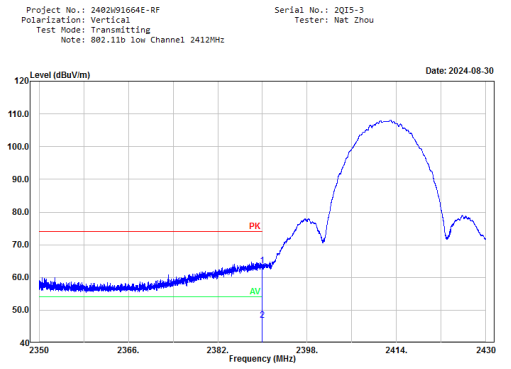


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	23035.80	45.42	8.66	54.08	74.00	19.92	Peak
2	23035.80	39.02	8.66	47.68	54.00	6.32	Average

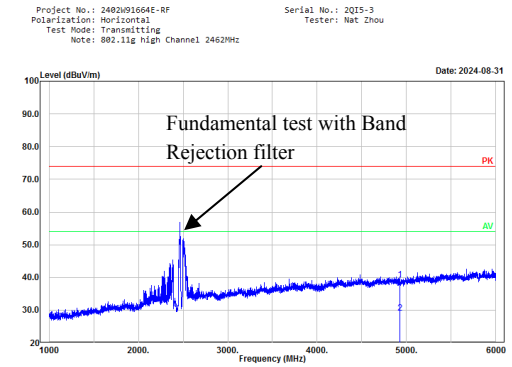
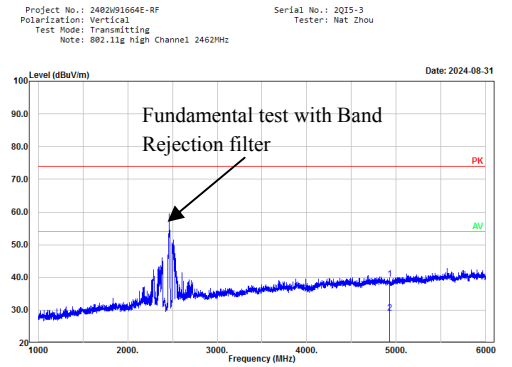
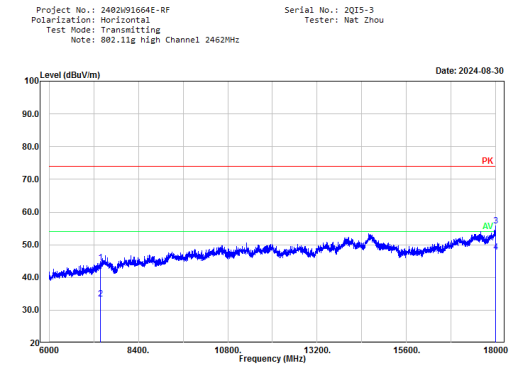
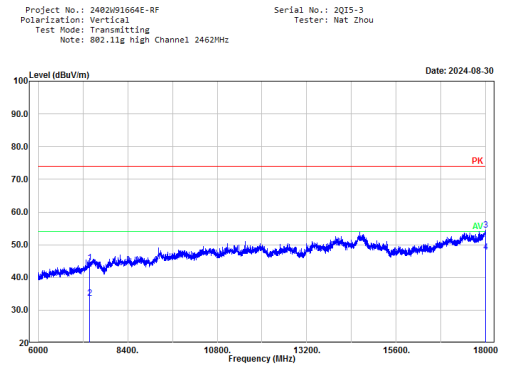
802.11b, Low Channel, Bandedge, Horizontal	802.11b, Low Channel, Bandedge, Vertical



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	2390.00	34.54	28.57	63.11	74.00	10.89	Peak
2	2390.00	17.74	28.57	46.31	54.00	7.69	Average



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	2390.00	35.07	28.57	63.64	74.00	10.36	Peak
2	2390.00	18.44	28.57	47.01	54.00	6.99	Average

802.11g, High Channel, Horizontal	802.11 g, High Channel, Vertical
	
	

No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4924.00	49.33	-9.99	39.34	74.00	34.66	Peak
2	4924.00	39.19	-9.99	29.20	54.00	24.80	Average

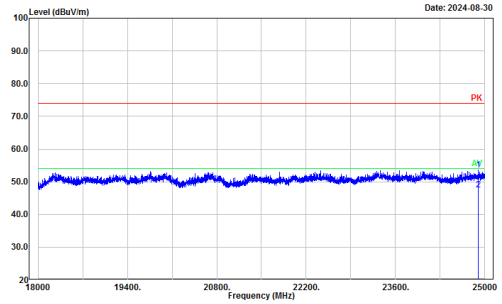
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4924.00	49.40	-9.99	39.41	74.00	34.59	Peak
2	4924.00	39.11	-9.99	29.12	54.00	24.88	Average

No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7386.00	49.13	-4.74	44.39	74.00	29.61	Peak
2	7386.00	38.28	-4.74	33.54	54.00	20.46	Average
3	17995.20	47.62	8.10	55.72	74.00	18.28	Peak
4	17995.20	39.68	8.10	47.78	54.00	6.22	Average

No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7386.00	49.29	-4.74	44.55	74.00	29.45	Peak
2	7386.00	38.41	-4.74	33.67	54.00	20.33	Average
3	17997.60	46.41	8.12	54.53	74.00	19.47	Peak
4	17997.60	39.57	8.12	47.69	54.00	6.31	Average

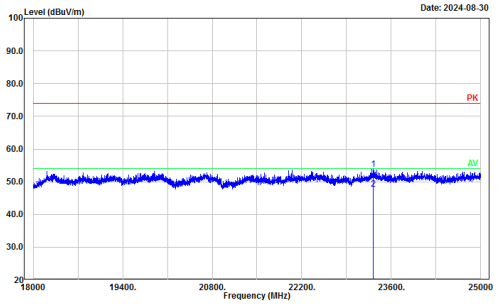
802.11g, High Channel, Horizontal	802.11 g, High Channel, Vertical

Project No.: 2402W91664E-RF Serial No.: 2QI5-3
Polarization: Horizontal Tester: Nat Zhou
Test Mode: Transmitting
Note: 802.11g high Channel 2462MHz



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	24893.60	44.07	9.49	53.56	74.00	20.44	Peak
2	24893.60	38.05	9.49	47.54	54.00	6.46	Average

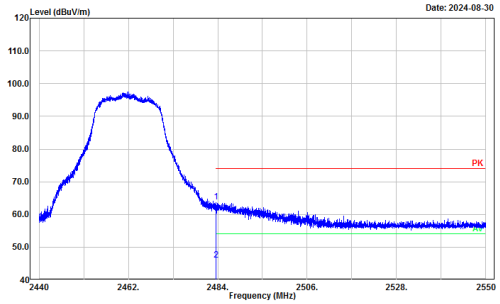
Project No.: 2402W91664E-RF Serial No.: 2QI5-3
Polarization: Vertical Tester: Nat Zhou
Test Mode: Transmitting
Note: 802.11g high Channel 2462MHz



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	23313.00	45.22	8.70	53.92	74.00	20.08	Peak
2	23313.00	39.06	8.70	47.76	54.00	6.24	Average

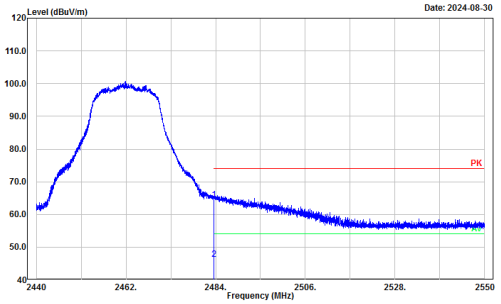
802.11g, High Channel, Bandedge, Horizontal	802.11 g, High Channel, Bandedge, Vertical

Project No.: 2402W91664E-RF
Polarization: Horizontal
Test Mode: Transmitting
Note: 802.11g high Channel 2462MHz
Serial No.: 2QI5-3
Tester: Nat Zhou

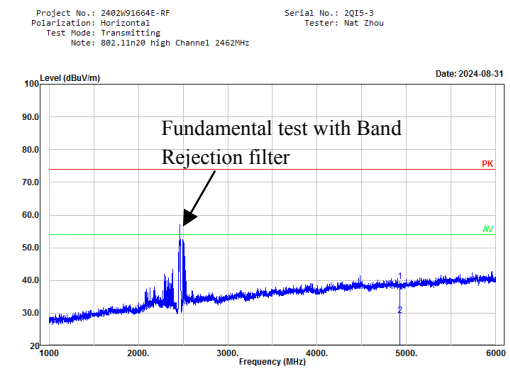
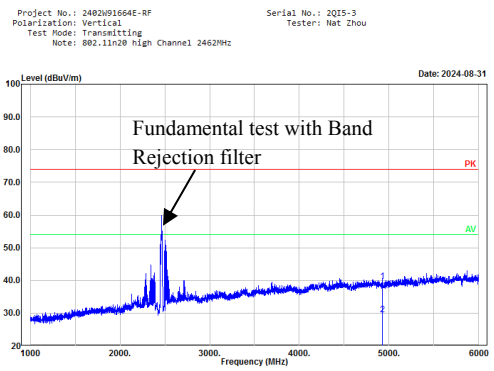
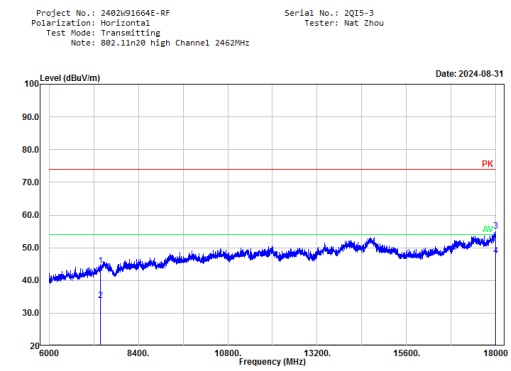
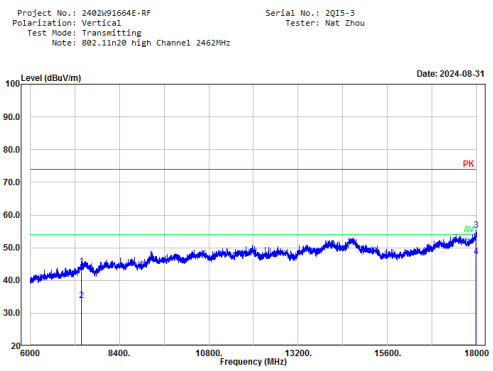


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	2483.50	34.96	28.95	63.91	74.00	10.09	Peak
2	2483.50	17.22	28.95	46.17	54.00	7.83	Average

Project No.: 2402W91664E-RF
Polarization: Vertical
Test Mode: Transmitting
Note: 802.11g high Channel 2462MHz
Serial No.: 2QI5-3
Tester: Nat Zhou



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	2483.50	35.53	28.95	64.48	74.00	9.52	Peak
2	2483.50	17.39	28.95	46.34	54.00	7.66	Average

802.11n20, High Channel, Horizontal	802.11 n20, High Channel, Vertical
	
	

No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4924.00	49.69	-9.99	39.70	74.00	34.30	Peak
2	4924.00	39.41	-9.99	29.42	54.00	24.58	Average

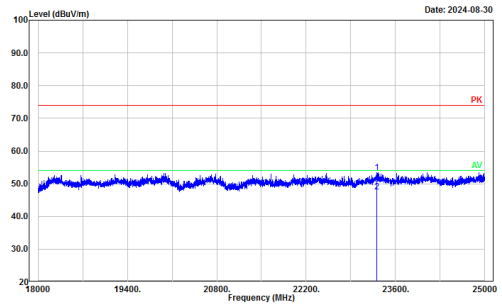
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4924.00	49.70	-9.99	39.71	74.00	34.29	Peak
2	4924.00	39.47	-9.99	29.48	54.00	24.52	Average

No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7386.00	49.31	-4.74	44.57	74.00	29.43	Peak
2	7386.00	38.57	-4.74	33.83	54.00	20.17	Average
3	18000.00	46.89	8.13	55.02	74.00	18.98	Peak
4	18000.00	39.36	8.13	47.49	54.00	6.51	Average

No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7386.00	49.05	-4.74	44.31	74.00	29.69	Peak
2	7386.00	38.64	-4.74	33.90	54.00	20.10	Average
3	17980.80	47.36	8.00	55.36	74.00	18.64	Peak
4	17980.80	39.37	8.00	47.37	54.00	6.63	Average

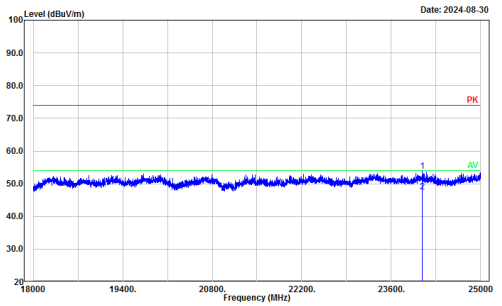
802.11 n20, High Channel, Horizontal	802.11 n20, High Channel, Vertical

Project No.: 2402W91664E-RF Serial No.: 2QI5-3
Polarization: Horizontal Tester: Nat Zhou
Test Mode: Transmitting
Note: 802.11n20 high Channel 2462MHz



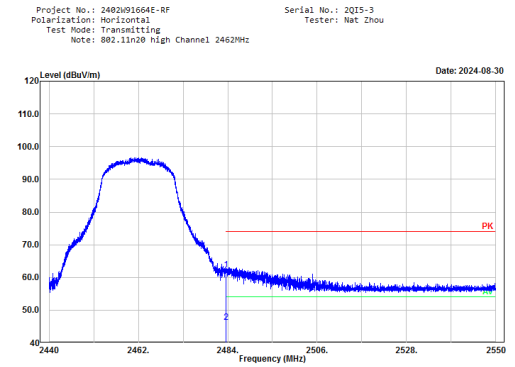
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	23306.00	44.68	8.69	53.37	74.00	20.63	Peak
2	23306.00	38.79	8.69	47.48	54.00	6.52	Average

Project No.: 2402W91664E-RF Serial No.: 2QI5-3
Polarization: Vertical Tester: Nat Zhou
Test Mode: Transmitting
Note: 802.11n20 high Channel 2462MHz

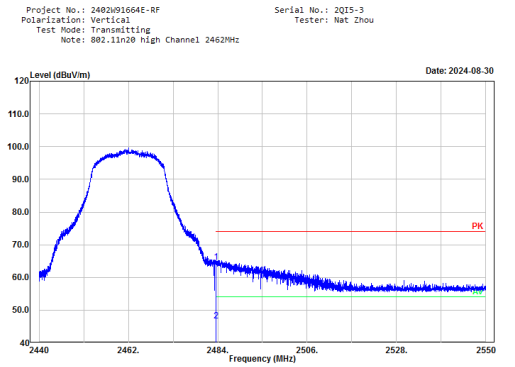


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	24083.00	45.05	8.81	53.86	74.00	20.14	Peak
2	24083.00	38.70	8.81	47.51	54.00	6.49	Average

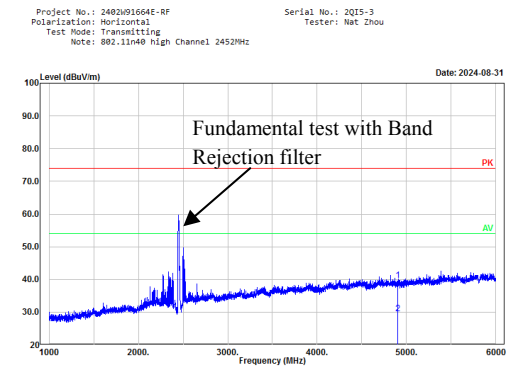
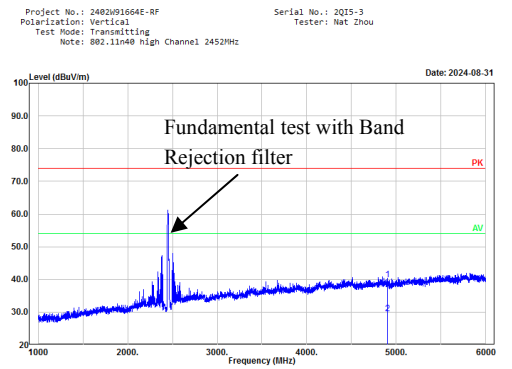
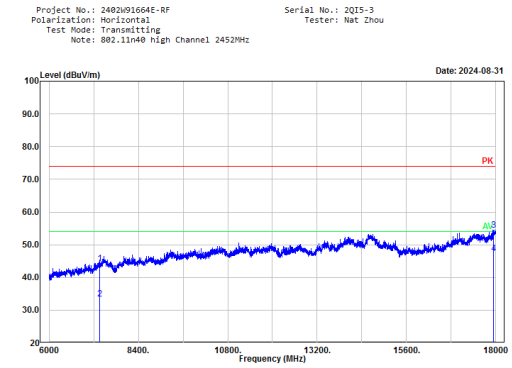
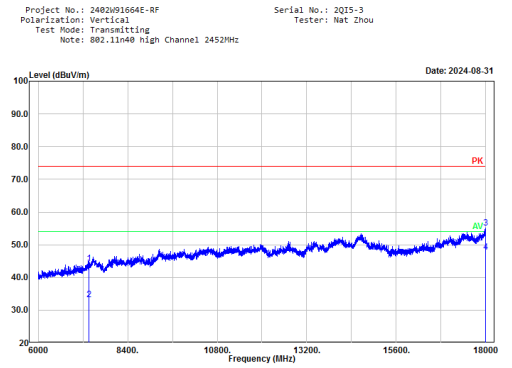
802.11 n20, High Channel, Bandedge, Horizontal	802.11n20, High Channel, Bandedge, Vertical



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	2483.50	33.48	28.95	62.43	74.00	11.57	Peak
2	2483.50	17.24	28.95	46.19	54.00	7.81	Average



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	2483.50	35.69	28.95	64.64	74.00	9.36	Peak
2	2483.50	17.84	28.95	46.79	54.00	7.21	Average

802.11 n40, High Channel, Horizontal	802.11 n40, High Channel, Vertical
	
	

No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4904.00	49.76	-9.99	39.77	74.00	34.23	Peak
2	4904.00	39.52	-9.99	29.53	54.00	24.47	Average

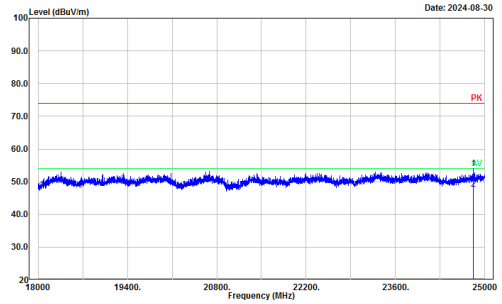
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4904.00	49.89	-9.99	39.90	74.00	34.10	Peak
2	4904.00	39.63	-9.99	29.64	54.00	24.36	Average

No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7356.00	49.15	-4.87	44.28	74.00	29.72	Peak
2	7356.00	38.39	-4.87	33.52	54.00	20.48	Average
3	17935.20	46.78	7.68	54.46	74.00	19.54	Peak
4	17935.20	39.59	7.68	47.27	54.00	6.73	Average

No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7356.00	49.05	-4.87	44.18	74.00	29.82	Peak
2	7356.00	38.17	-4.87	33.30	54.00	20.70	Average
3	17988.00	47.13	8.05	55.18	74.00	18.82	Peak
4	17988.00	39.70	8.05	47.75	54.00	6.25	Average

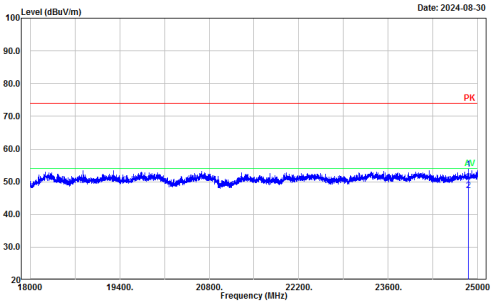
802.11 n40, High Channel, Horizontal	802.11 n40, High Channel, Vertical

Project No.: 2402W91664E-RF Serial No.: 2QI5-3
Polarization: Horizontal Tester: Nat Zhou
Test Mode: Transmitting
Note: 802.11n40 high Channel 2452MHz



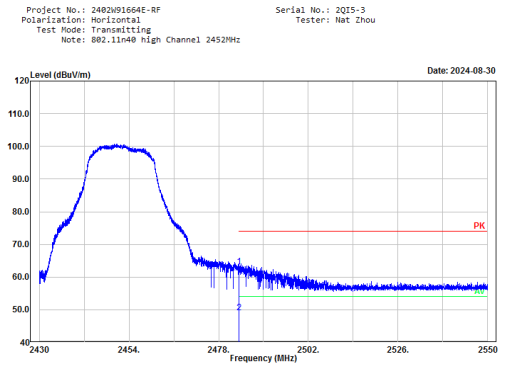
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	24820.80	44.53	9.41	53.94	74.00	20.06	Peak
2	24820.80	38.25	9.41	47.66	54.00	6.34	Average

Project No.: 2402W91664E-RF Serial No.: 2QI5-3
Polarization: Vertical Tester: Nat Zhou
Test Mode: Transmitting
Note: 802.11n40 high Channel 2452MHz

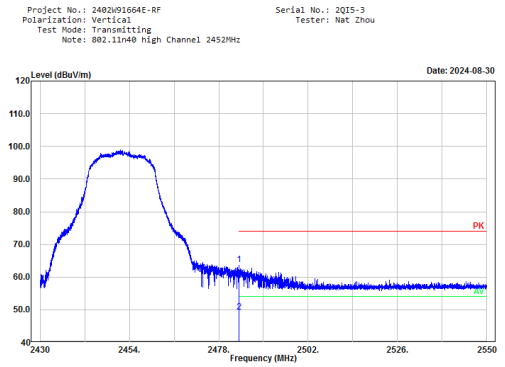


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	24847.40	44.36	9.44	53.80	74.00	20.20	Peak
2	24847.40	37.84	9.44	47.28	54.00	6.72	Average

802.11 n40, High Channel, Bandedge, Horizontal	802.11 n40, High Channel, Bandedge, Vertical

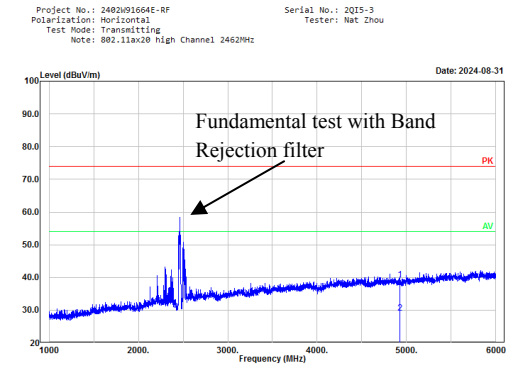


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	2483.50	34.20	28.95	63.15	74.00	10.85	Peak
2	2483.50	20.05	28.95	49.00	54.00	5.00	Average

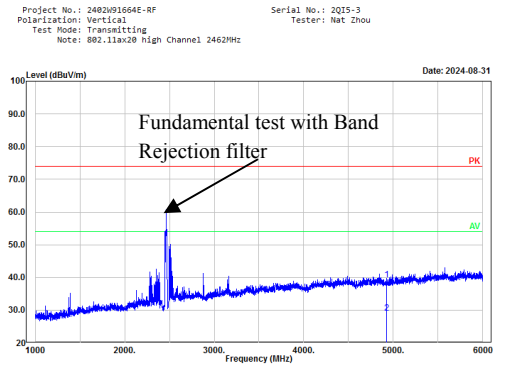


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	2483.50	34.88	28.95	63.83	74.00	10.17	Peak
2	2483.50	20.46	28.95	49.41	54.00	4.59	Average

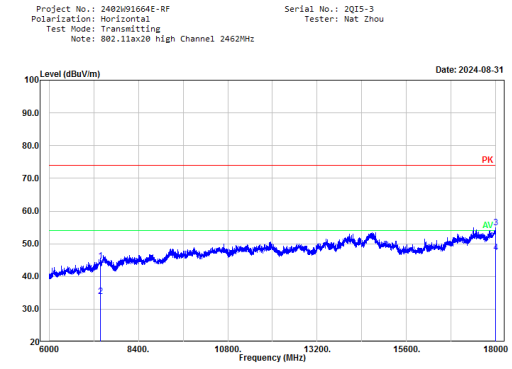
802.11 ax20, High Channel, Horizontal	802.11 ax20, High Channel, Vertical



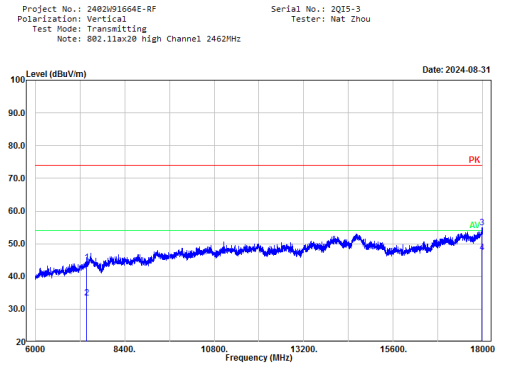
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4924.00	49.38	-9.99	39.39	74.00	34.61	Peak
2	4924.00	39.18	-9.99	29.19	54.00	24.81	Average



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4924.00	49.29	-9.99	39.30	74.00	34.70	Peak
2	4924.00	39.05	-9.99	29.06	54.00	24.94	Average



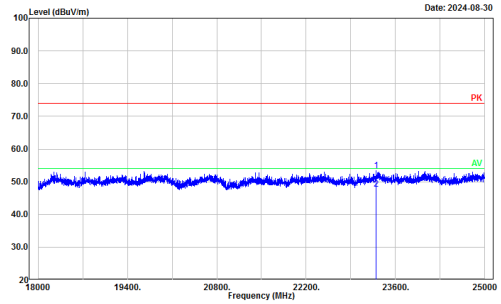
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7386.00	49.36	-4.74	44.62	74.00	29.38	Peak
2	7386.00	38.58	-4.74	33.84	54.00	20.16	Average
3	17990.40	46.78	8.06	54.84	74.00	19.16	Peak
4	17990.40	39.20	8.06	47.26	54.00	6.74	Average



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7386.00	49.11	-4.74	44.37	74.00	29.63	Peak
2	7386.00	38.24	-4.74	33.50	54.00	20.50	Average
3	17968.80	46.97	7.91	54.88	74.00	19.12	Peak
4	17968.80	39.45	7.91	47.36	54.00	6.64	Average

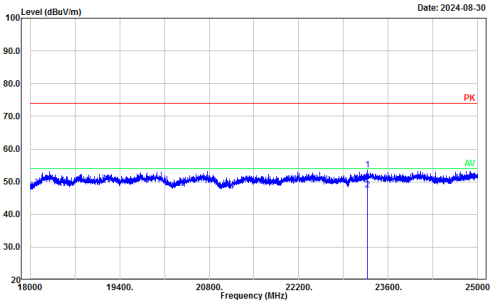
802.11 ax20, High Channel, Horizontal	802.11 ax20, High Channel, Vertical

Project No.: 2402W91664E-RF Serial No.: 2QI5-3
Polarization: Horizontal Tester: Nat Zhou
Test Mode: Transmitting
Note: 802.11ax20 high Channel 2462MHz



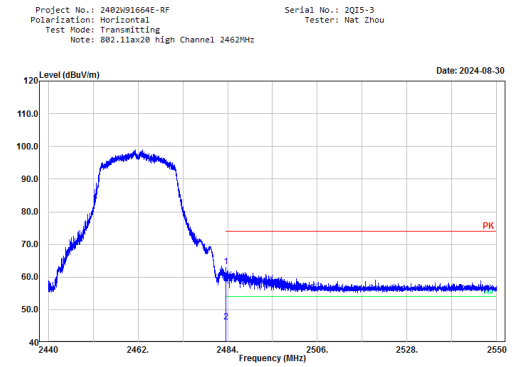
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	23300.40	44.61	8.69	53.30	74.00	20.70	Peak
2	23300.40	39.13	8.69	47.82	54.00	6.18	Average

Project No.: 2402W91664E-RF Serial No.: 2QI5-3
Polarization: Vertical Tester: Nat Zhou
Test Mode: Transmitting
Note: 802.11ax20 high Channel 2462MHz

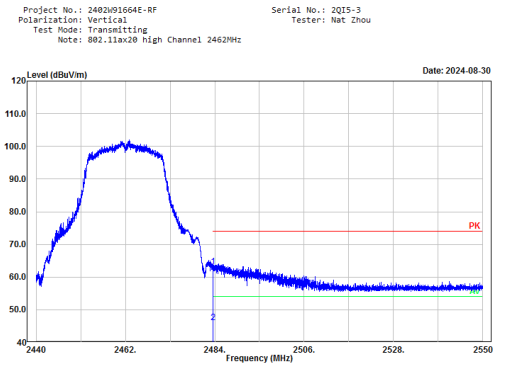


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	23275.20	44.92	8.70	53.62	74.00	20.38	Peak
2	23275.20	38.85	8.70	47.55	54.00	6.45	Average

802.11 ax20, High Channel, Bandedge, Horizontal	802.11 ax20, High Channel, Bandedge, Vertical

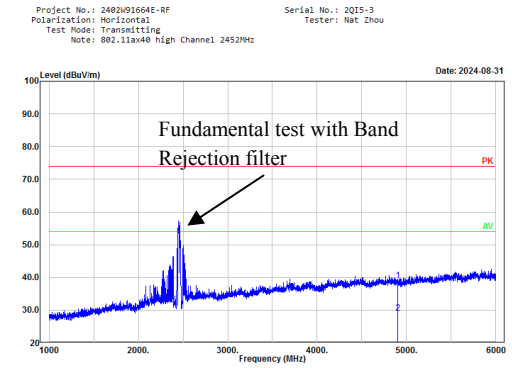


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	2483.50	34.17	28.95	63.12	74.00	10.88	Peak
2	2483.50	17.34	28.95	46.29	54.00	7.71	Average

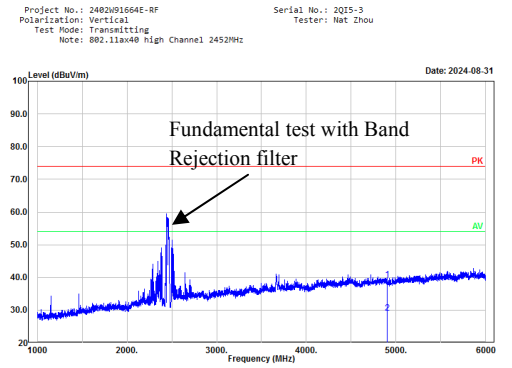


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	2483.50	34.27	28.95	63.22	74.00	10.78	Peak
2	2483.50	17.21	28.95	46.16	54.00	7.84	Average

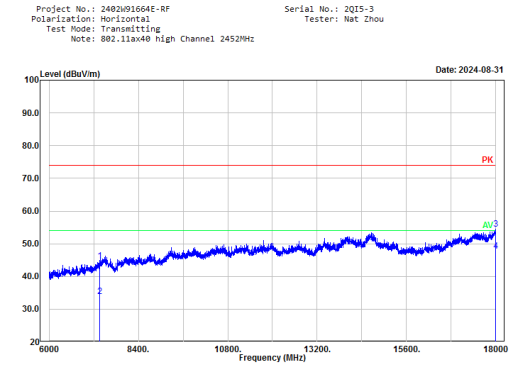
802.11 ax40, High Channel, Horizontal	802.11 ax40, High Channel, Vertical



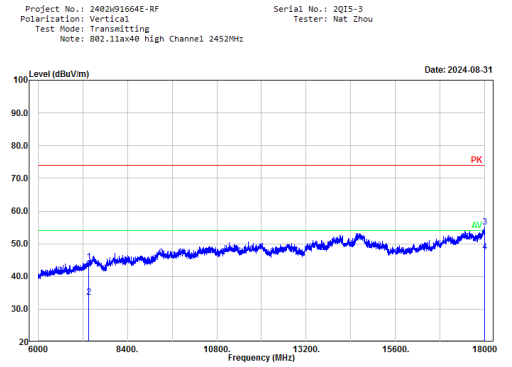
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4904.00	49.11	-9.99	39.12	74.00	34.88	Peak
2	4904.00	39.02	-9.99	29.03	54.00	24.97	Average



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4904.00	49.35	-9.99	39.36	74.00	34.64	Peak
2	4904.00	39.02	-9.99	29.03	54.00	24.97	Average



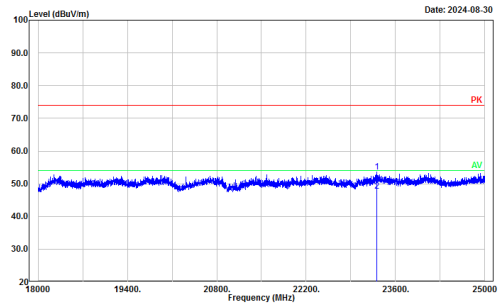
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7356.00	49.57	-4.87	44.70	74.00	29.30	Peak
2	7356.00	38.67	-4.87	33.80	54.00	20.20	Average
3	17997.60	46.41	8.12	54.53	74.00	19.47	Peak
4	17997.60	39.59	8.12	47.71	54.00	6.29	Average



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7356.00	49.39	-4.87	44.52	74.00	29.48	Peak
2	7356.00	38.51	-4.87	33.64	54.00	20.36	Average
3	17985.60	47.02	8.03	55.05	74.00	18.95	Peak
4	17985.60	39.52	8.03	47.55	54.00	6.45	Average

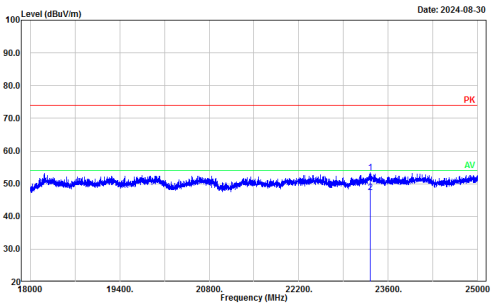
802.11 ax40, High Channel, Horizontal	802.11 ax40, High Channel, Vertical

Project No.: 2402W91664E-RF Serial No.: 2QI5-3
Polarization: Horizontal Tester: Nat Zhou
Test Mode: Transmitting
Note: 802.11ax40 high Channel 2452MHz

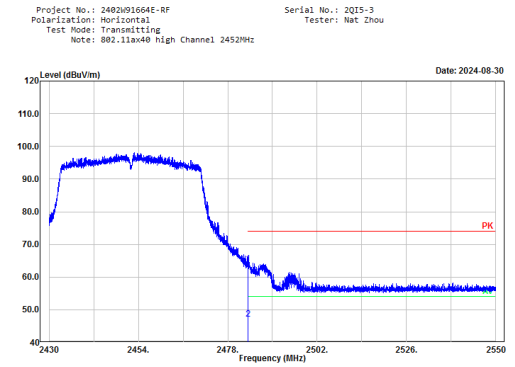
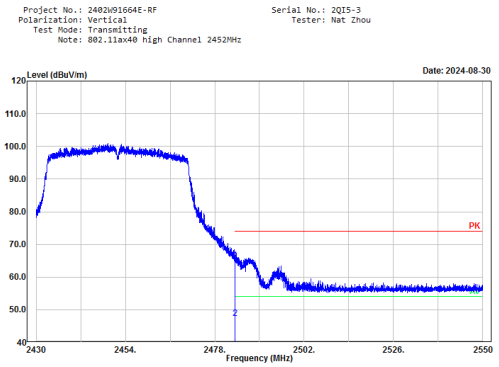


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	23311.60	44.95	8.70	53.65	74.00	20.35	Peak
2	23311.60	39.06	8.70	47.76	54.00	6.24	Average

Project No.: 2402W91664E-RF Serial No.: 2QI5-3
Polarization: Vertical Tester: Nat Zhou
Test Mode: Transmitting
Note: 802.11ax40 high Channel 2452MHz



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	23321.40	44.63	8.69	53.32	74.00	20.68	Peak
2	23321.40	38.68	8.69	47.37	54.00	6.63	Average

802.11 ax40, High Channel, Bandedge, Horizontal	802.11 ax40, High Channel, Bandedge, Vertical
	

No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	2483.50	35.12	28.95	64.07	74.00	9.93	Peak
2	2483.50	18.16	28.95	47.11	54.00	6.89	Average

No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	2483.50	36.17	28.95	65.12	74.00	8.88	Peak
2	2483.50	18.36	28.95	47.31	54.00	6.69	Average

5.3 6dB Emission Bandwidth

Test Information:

Serial No.:	2QI5-1	**Test Date:**	2024/09/18~2024/10/23
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Jeff Wei	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C):	26-26.6	**Relative Humidity: (%)**	38-45	**ATM Pressure: (kPa)**	99.8-101.5

Test Equipment List and Details:

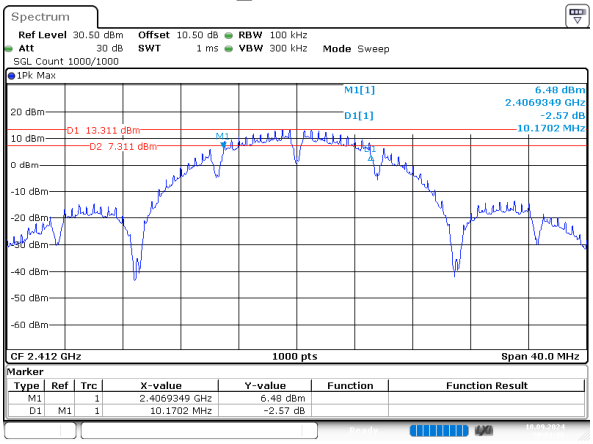
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101589	2024/09/05	2025/09/04
Eastsheep	Coaxial Attenuator	5W-N-JK-6G-10dB	F-08-EM503	2024/06/07	2025/06/07

** 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:

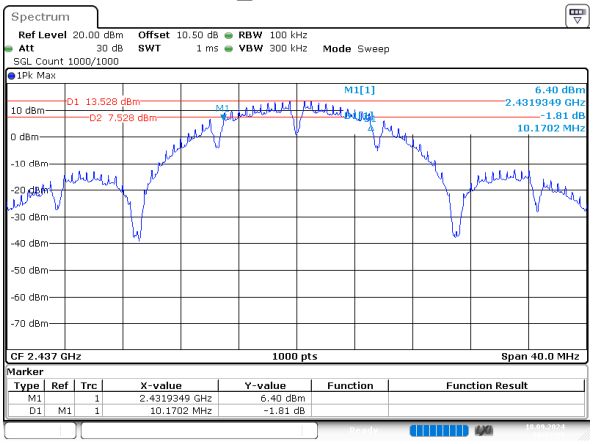
Mode	Value (MHz)	Limit (MHz)	Result
b_2412MHz	10.170	≥0.5	Pass
b_2437MHz	10.170	≥0.5	Pass
b_2462MHz	10.130	≥0.5	Pass
g_2412MHz	15.215	≥0.5	Pass
g_2437MHz	15.375	≥0.5	Pass
g_2462MHz	15.215	≥0.5	Pass
n20_2412MHz	15.215	≥0.5	Pass
n20_2437MHz	15.736	≥0.5	Pass
n20_2462MHz	15.215	≥0.5	Pass
n40_2422MHz	35.315	≥0.5	Pass
n40_2437MHz	35.315	≥0.5	Pass
n40_2452MHz	34.034	≥0.5	Pass
ax20_2412MHz_RU_Full	16.457	≥0.5	Pass
ax20_2437MHz_RU_Full	15.776	≥0.5	Pass
ax20_2462MHz_RU_Full	16.977	≥0.5	Pass
ax40_2422MHz_RU_Full	36.276	≥0.5	Pass
ax40_2437MHz_RU_Full	36.356	≥0.5	Pass
ax40_2452MHz_RU_Full	35.636	≥0.5	Pass

b_2412MHz



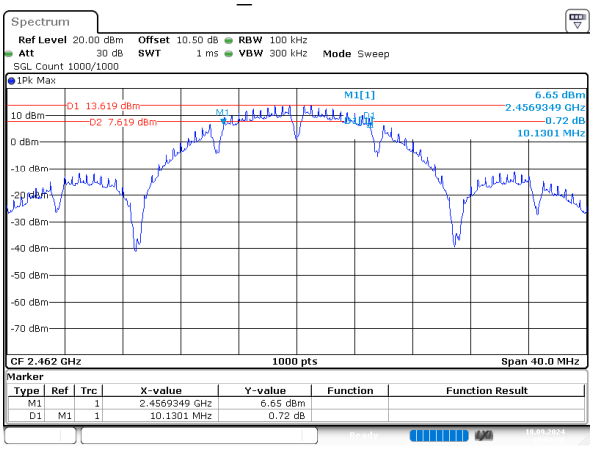
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:01:16

b_2437MHz



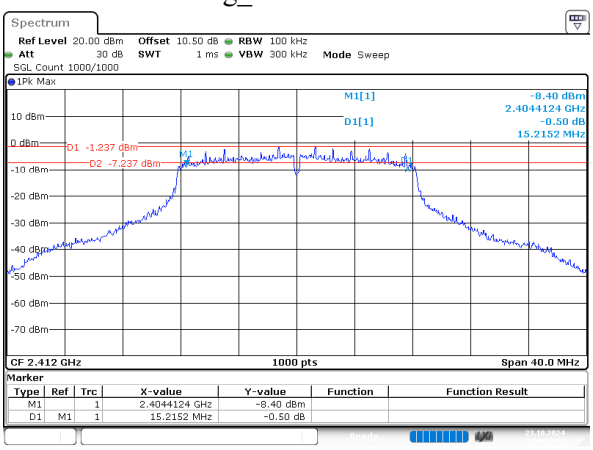
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:03:26

b_2462MHz



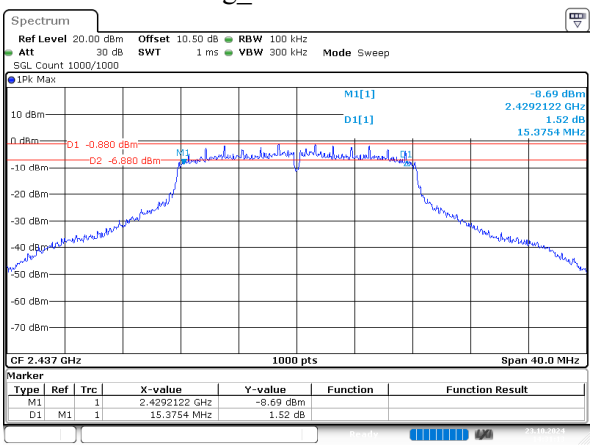
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:04:58

g_2412MHz



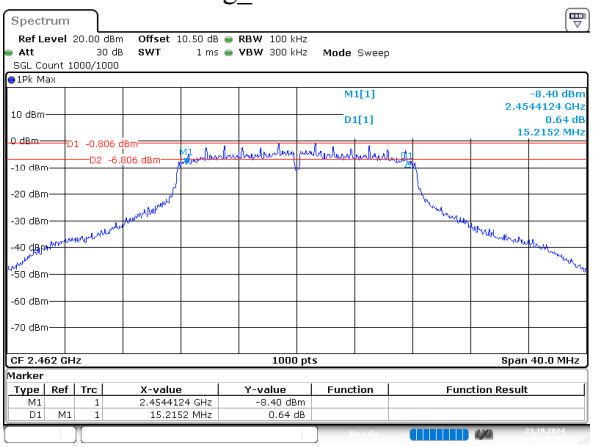
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 23.OCT.2024 14:27:52

g_2437MHz



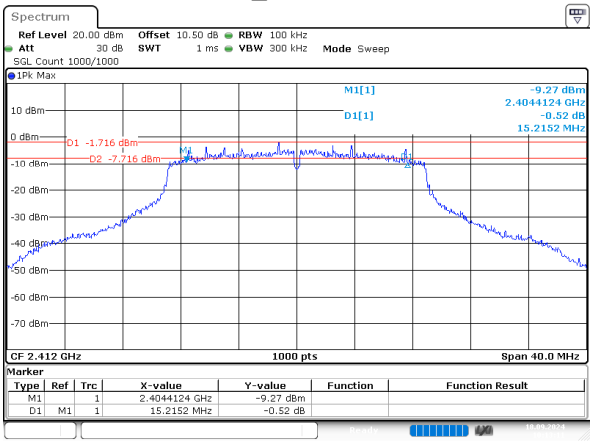
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 23.OCT.2024 14:31:14

g_2462MHz



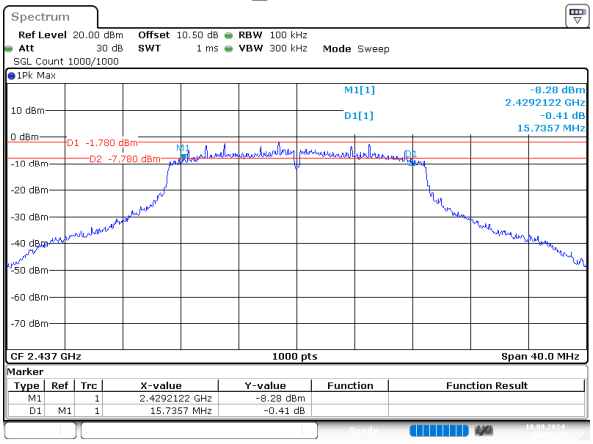
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 23.OCT.2024 14:35:07

n20_2412MHz



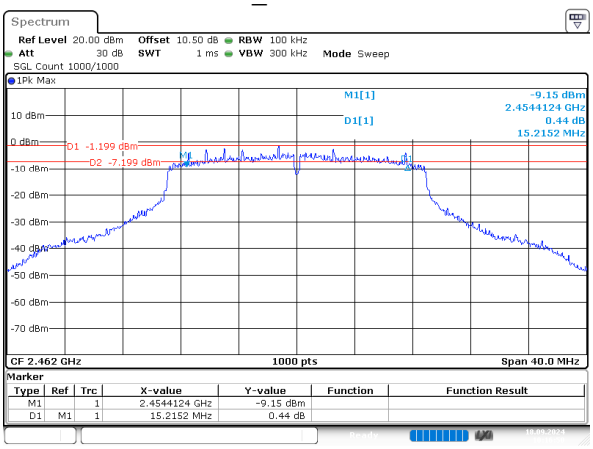
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:13:11

n20_2437MHz



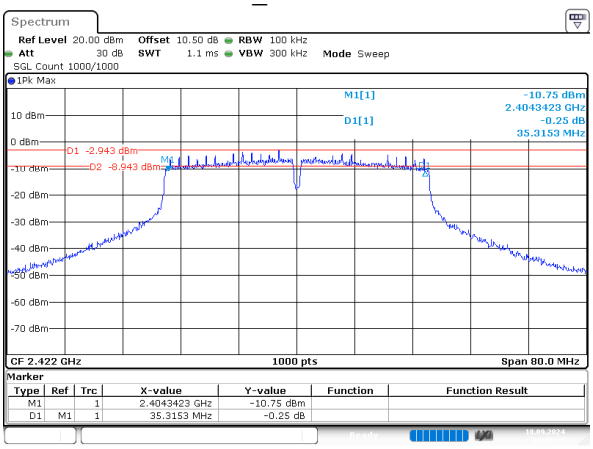
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:15:16

n20_2462MHz



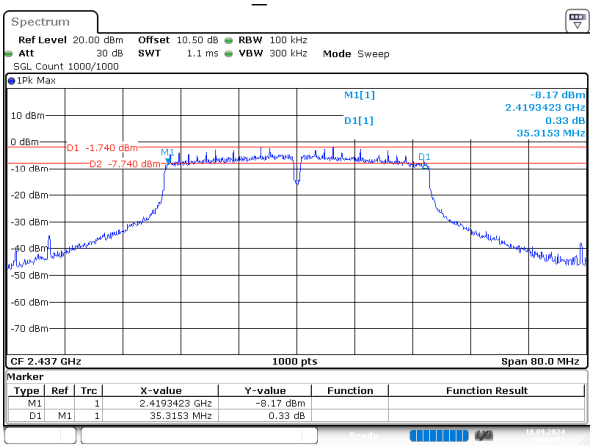
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:16:51

n40_2422MHz



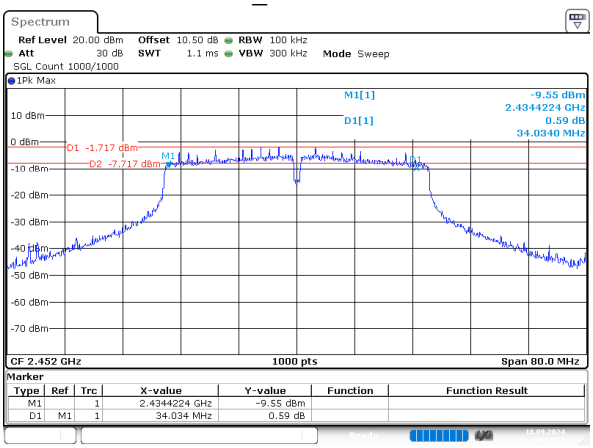
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:18:28

n40_2437MHz



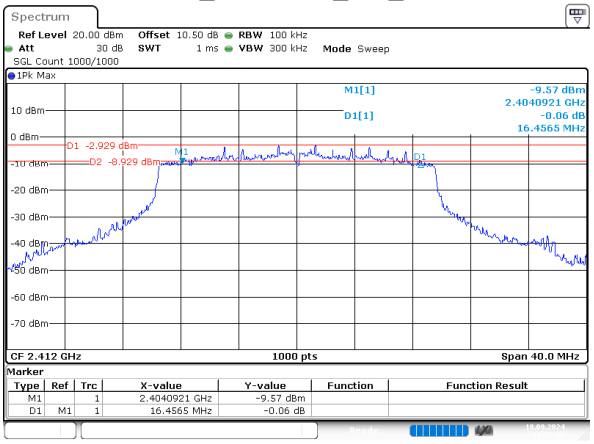
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:20:41

n40_2452MHz



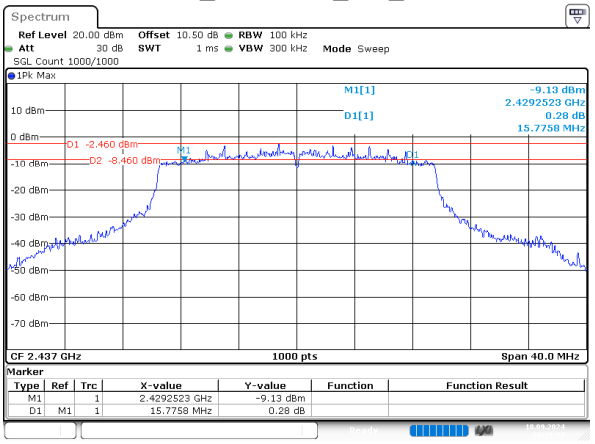
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:22:34

ax20_2412MHz_RU_Full



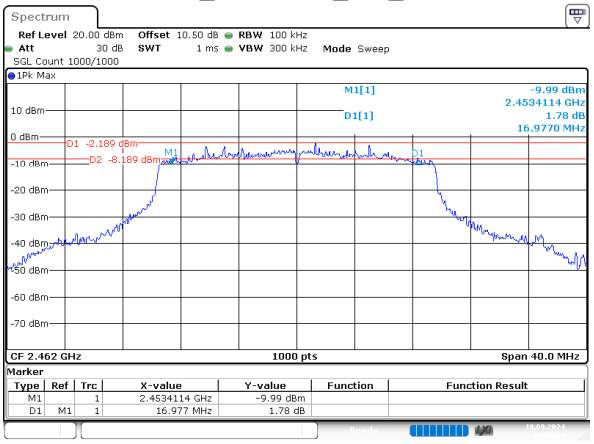
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:25:06

ax20_2437MHz_RU_Full



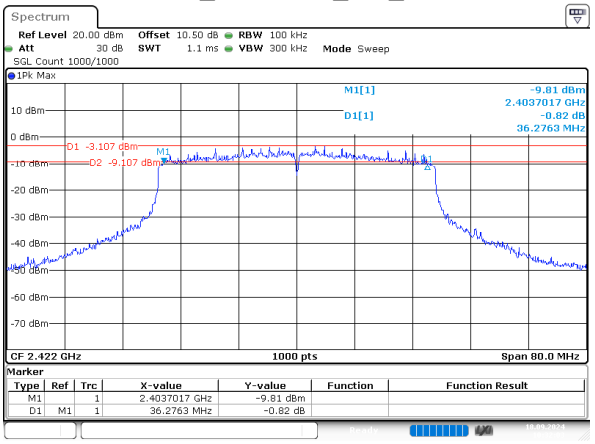
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:28:35

ax20_2462MHz_RU_Full



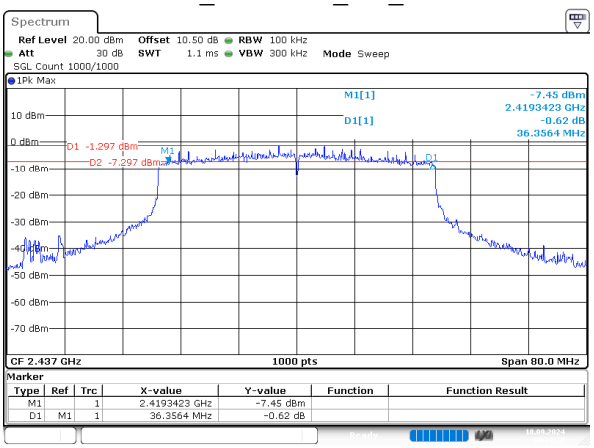
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:30:14

ax40_2422MHz_RU_Full



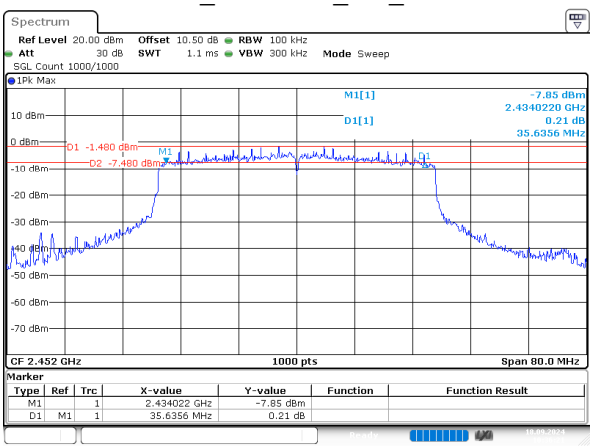
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:32:03

ax40_2437MHz_RU_Full



ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:34:20

ax40_2452MHz_RU_Full



ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:36:21

5.4 99% Occupied Bandwidth

Test Information:

Serial No.:	2QI5-1	**Test Date:**	2024/09/18~2024/10/23
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Jeff Wei	**Test Result:**	/

Environmental Conditions:

Temperature: (°C):	26-26.6	**Relative Humidity: (%)**	38-45	**ATM Pressure: (kPa)**	99.8-101.5

Test Equipment List and Details:

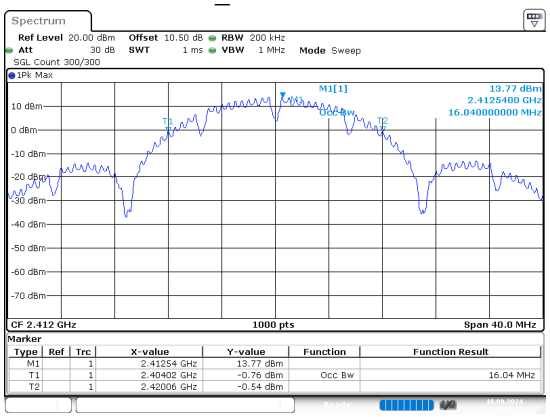
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101589	2024/09/05	2025/09/04
Eastsheep	Coaxial Attenuator	5W-N-JK-6G-10dB	F-08-EM503	2024/06/07	2025/06/07

** 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).*

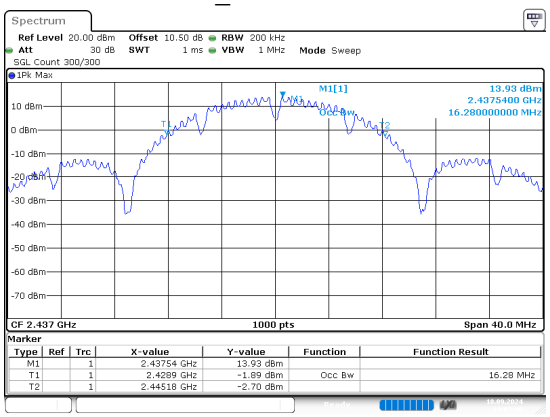
Test Data:

Mode	99% OBW (MHz)
b_2412MHz	16.040
b_2437MHz	16.280
b_2462MHz	16.440
g_2412MHz	16.600
g_2437MHz	16.560
g_2462MHz	16.560
n20_2412MHz	17.760
n20_2437MHz	17.760
n20_2462MHz	17.800
n40_2422MHz	36.880
n40_2437MHz	36.880
n40_2452MHz	36.800
ax20_2412MHz_RU_Full	18.960
ax20_2437MHz_RU_Full	19
ax20_2462MHz_RU_Full	19
ax40_2422MHz_RU_Full	37.920
ax40_2437MHz_RU_Full	37.920
ax40_2452MHz_RU_Full	37.920

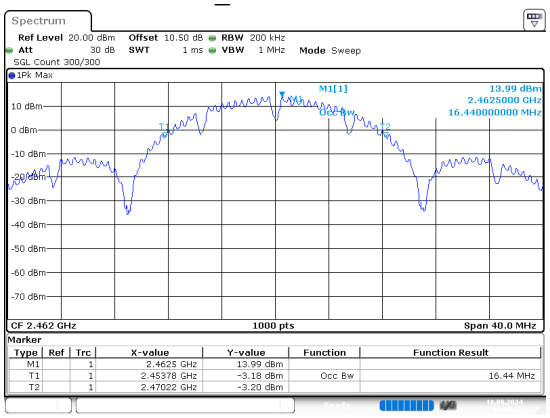
b_2412MHz



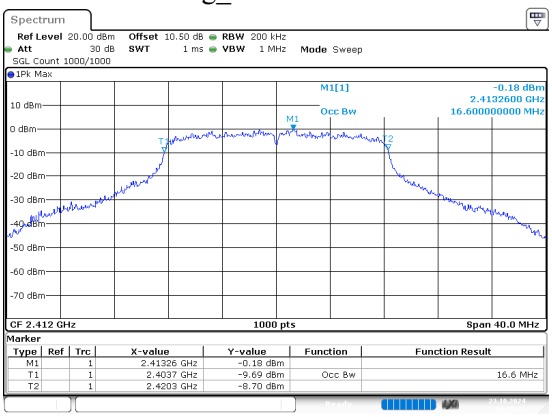
b_2437MHz



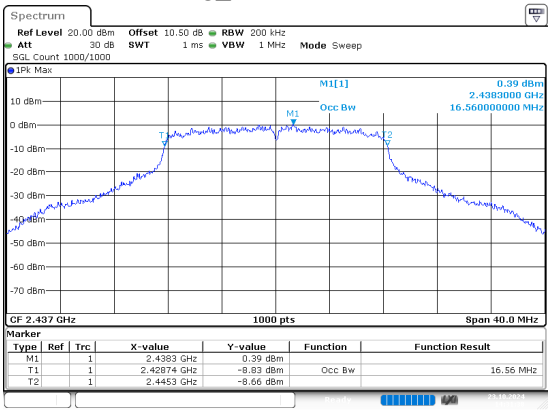
b_2462MHz



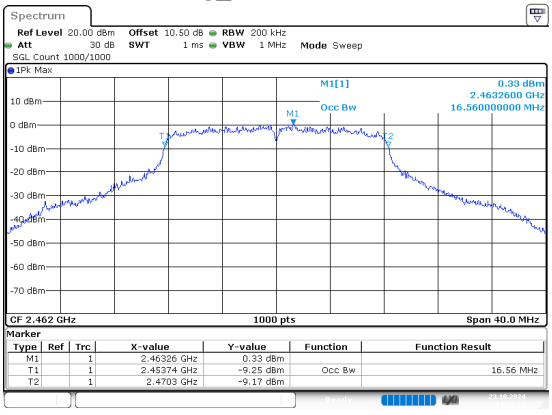
g_2412MHz



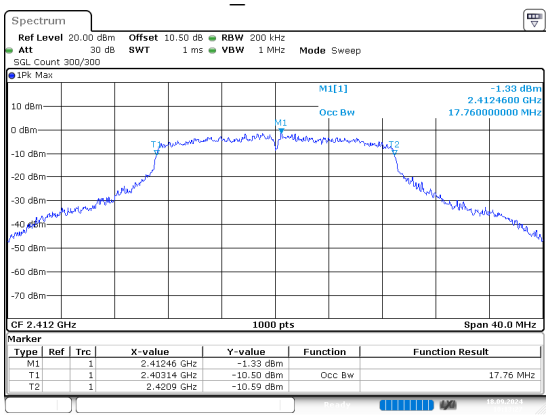
g_2437MHz



g_2462MHz

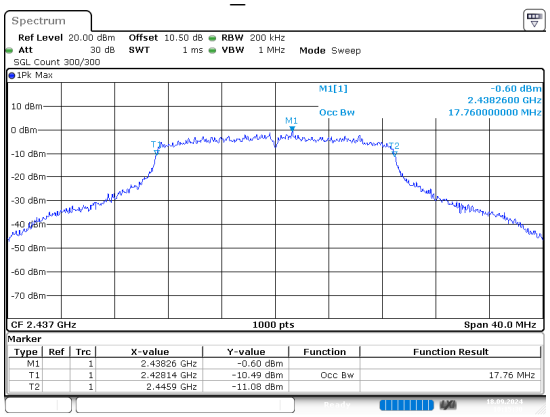


n20_2412MHz



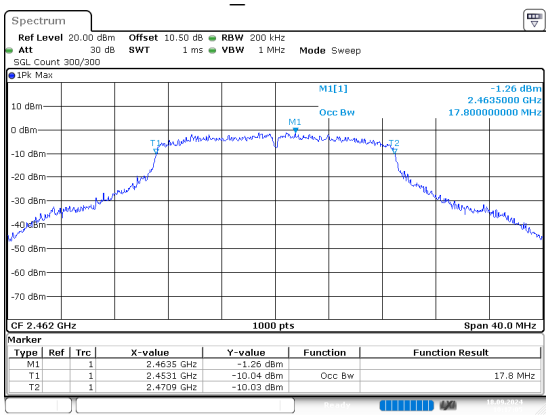
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:13:27

n20_2437MHz



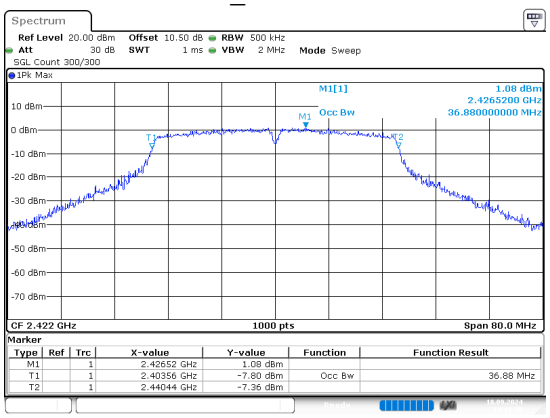
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:15:30

n20_2462MHz



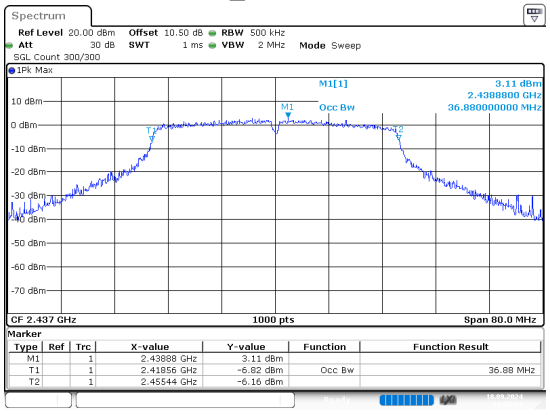
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:17:06

n40_2422MHz



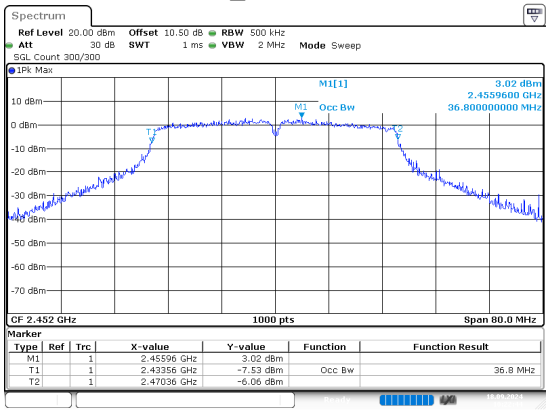
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:18:39

n40_2437MHz



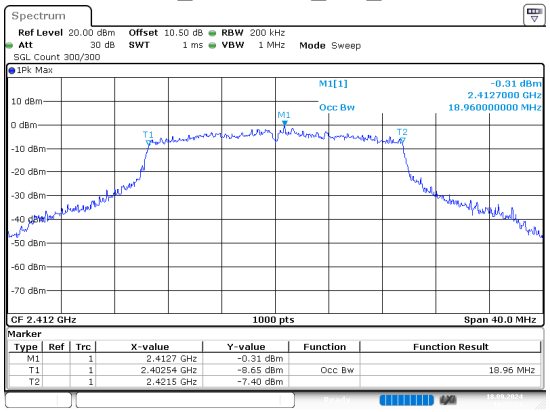
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:20:52

n40_2452MHz



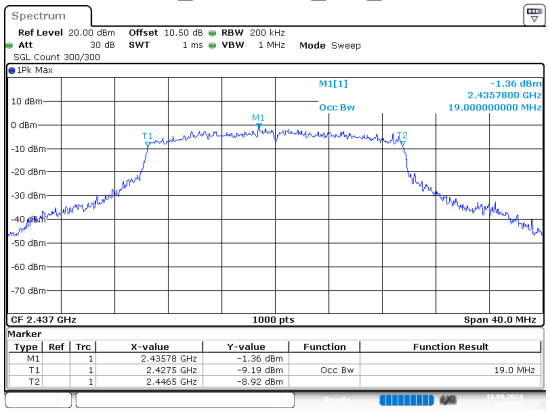
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:22:44

ax20_2412MHz_RU_Full



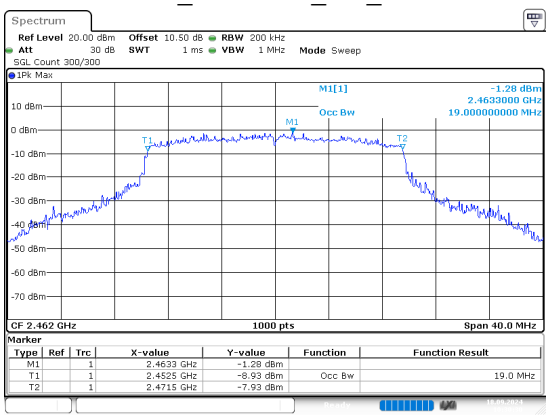
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:25:21

ax20_2437MHz_RU_Full



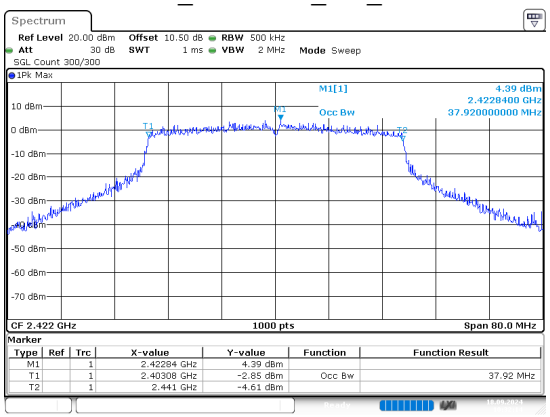
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:28:50

ax20_2462MHz_RU_Full



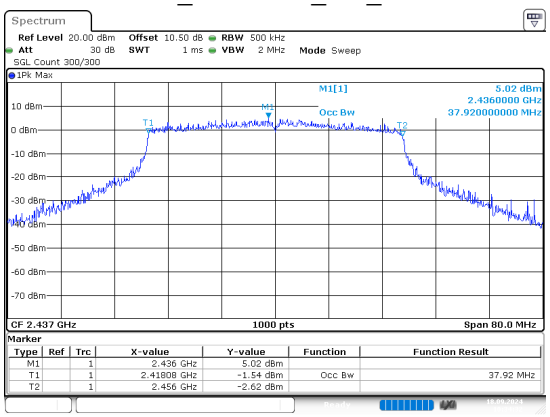
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:30:30

ax40_2422MHz_RU_Full



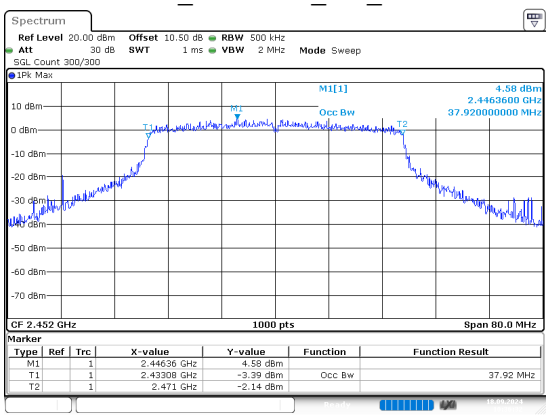
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:32:15

ax40_2437MHz_RU_Full



ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:34:32

ax40_2452MHz_RU_Full



ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:36:33

5.5 Maximum Conducted Output Power

Serial No.:	2QI5-1	Test Date:	2024/09/18~2024/10/23
Test Site:	RF	Test Mode:	Transmitting
Tester:	Jeff Wei	Test Result:	Pass

Environmental Conditions:

Temperature: (°C):	26-26.6	Relative Humidity: (%)	38-45	ATM Pressure: (kPa)	99.8-101.5

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-EM504	2024/06/07	2025/06/07
Anritsu	Microwave Peak Power Sensor	MA24418A	12618	2024/09/04	2025/09/03

** 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	Peak Output Power (dBm)	Limit (dBm)	Result
b_2412MHz	25.73	30	Pass
b_2437MHz	25.91	30	Pass
b_2462MHz	**25.94**	30	Pass
g_2412MHz	16.95	30	Pass
g_2437MHz	17.21	30	Pass
g_2462MHz	17.14	30	Pass
n20_2412MHz	18.22	30	Pass
n20_2437MHz	17.79	30	Pass
n20_2462MHz	18.09	30	Pass
n40_2422MHz	21.11	30	Pass
n40_2437MHz	22.77	30	Pass
n40_2452MHz	22.02	30	Pass
ax20_2412MHz_RU_Full	17.73	30	Pass
ax20_2437MHz_RU_Full	17.30	30	Pass
ax20_2462MHz_RU_Full	17.42	30	Pass
ax40_2422MHz_RU_Full	24.16	30	Pass
ax40_2437MHz_RU_Full	24.68	30	Pass
ax40_2452MHz_RU_Full	24.23	30	Pass

5.6 Power Spectral Density

Test Information:

Serial No.:	2QI5-1	**Test Date:**	2024/09/18~2024/10/23
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Jeff Wei	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C):	26-26.6	**Relative Humidity: (%)**	38-45	**ATM Pressure: (kPa)**	99.8-101.5

Test Equipment List and Details:

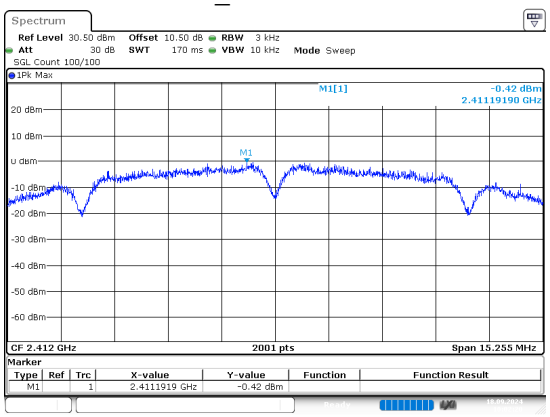
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101589	2024/09/05	2025/09/04
Eastsheep	Coaxial Attenuator	5W-N-JK-6G-10dB	F-08-EM503	2024/06/07	2025/06/07

** 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:

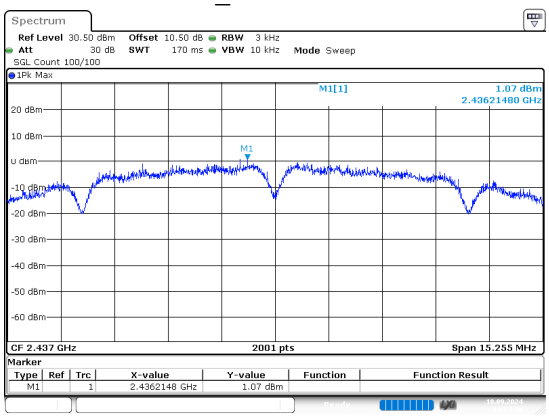
Mode	Value (dBm/3kHz)	Limit (dBm/3kHz)	Result
b_2412MHz	-0.42	8	Pass
b_2437MHz	1.07	8	Pass
b_2462MHz	0.35	8	Pass
g_2412MHz	-15.36	8	Pass
g_2437MHz	-14.46	8	Pass
g_2462MHz	-14.42	8	Pass
n20_2412MHz	-14.06	8	Pass
n20_2437MHz	-14.83	8	Pass
n20_2462MHz	-13.76	8	Pass
n40_2422MHz	-16.14	8	Pass
n40_2437MHz	-14.08	8	Pass
n40_2452MHz	-15.43	8	Pass
ax20_2412MHz_RU_Full	-16.43	8	Pass
ax20_2437MHz_RU_Full	-16.55	8	Pass
ax20_2462MHz_RU_Full	-17.23	8	Pass
ax40_2422MHz_RU_Full	-17.47	8	Pass
ax40_2437MHz_RU_Full	-15.93	8	Pass
ax40_2452MHz_RU_Full	-16.17	8	Pass

b_2412MHz



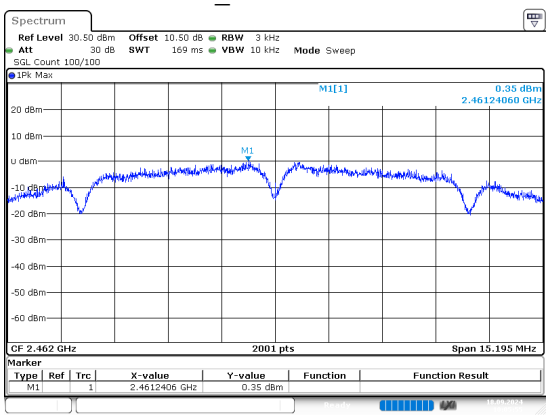
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:02:21

b_2437MHz



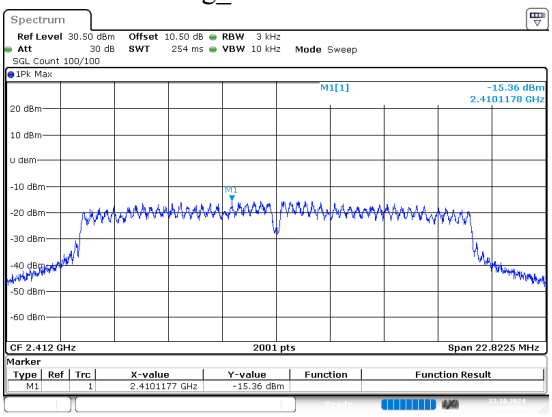
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:04:06

b_2462MHz



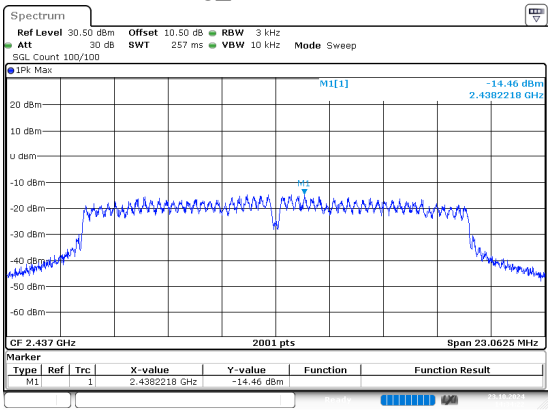
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:05:55

g_2412MHz



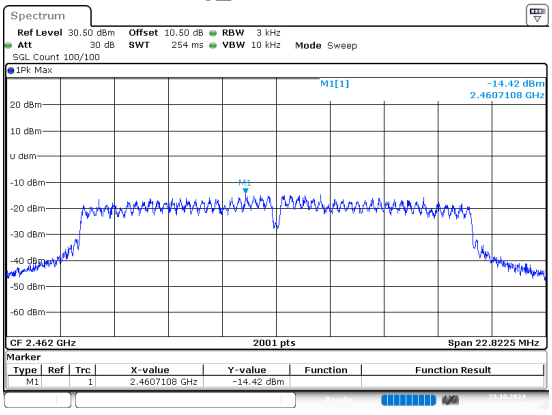
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 23.OCT.2024 14:30:44

g_2437MHz



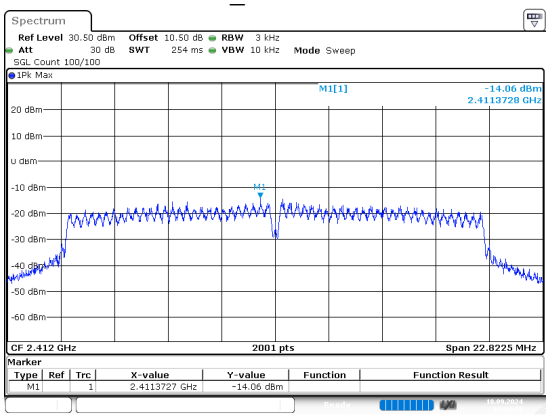
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 23.OCT.2024 14:34:23

g_2462MHz



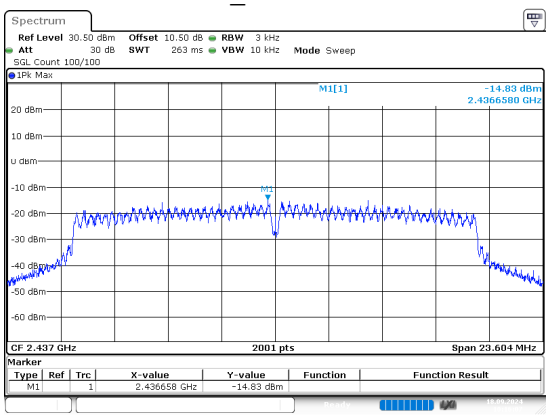
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 23.OCT.2024 14:38:23

n20_2412MHz



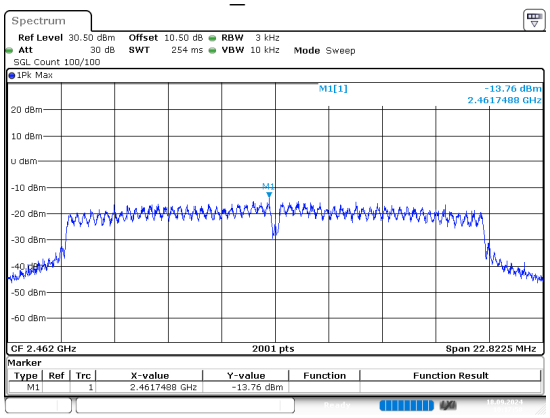
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:14:21

n20_2437MHz



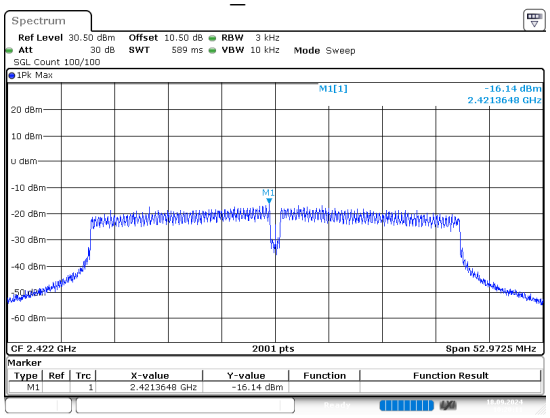
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:16:07

n20_2462MHz



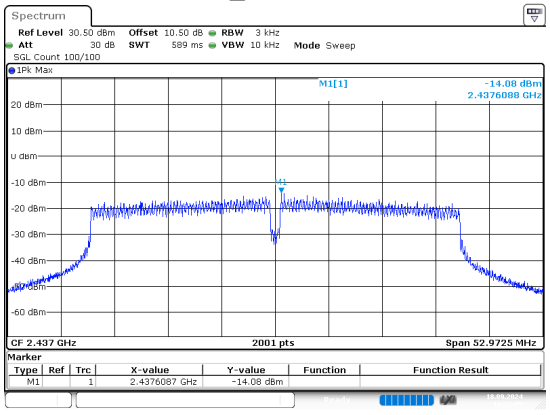
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:17:58

n40_2422MHz



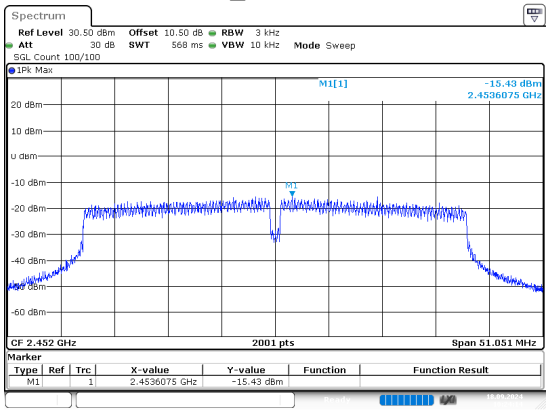
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:20:11

n40_2437MHz



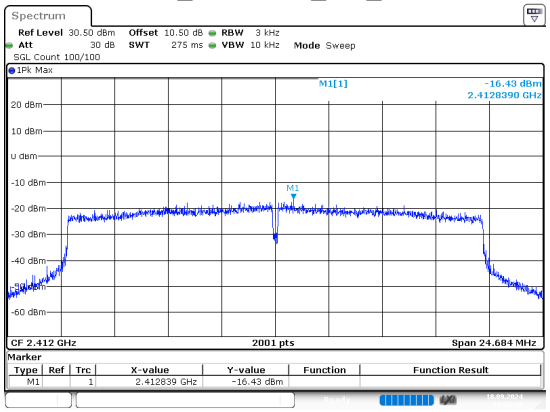
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:22:06

n40_2452MHz



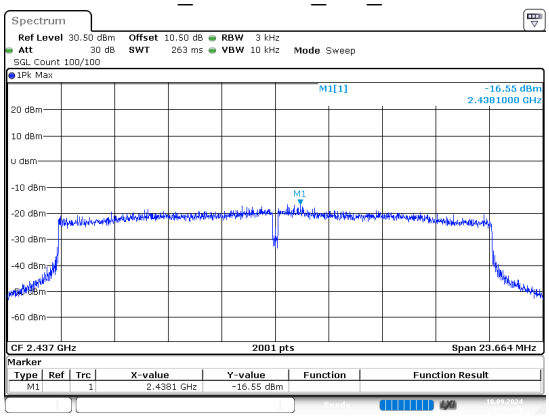
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:24:14

ax20_2412MHz_RU_Full



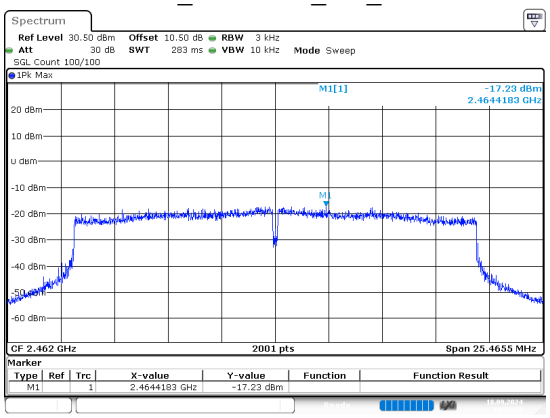
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:26:20

ax20_2437MHz_RU_Full



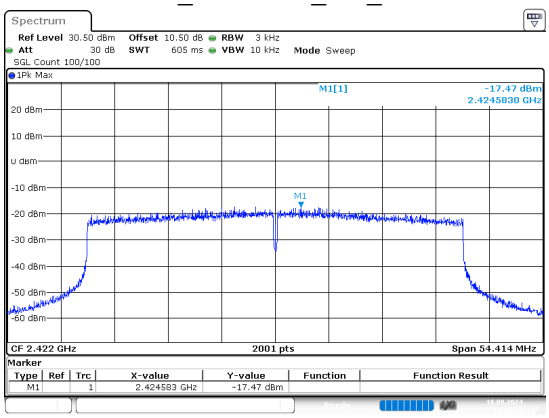
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:29:27

ax20_2462MHz_RU_Full



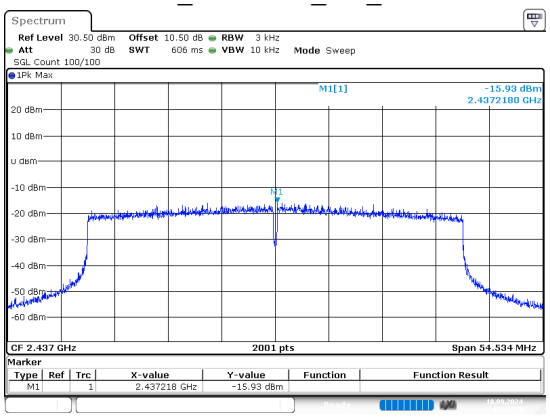
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:31:28

ax40_2422MHz_RU_Full



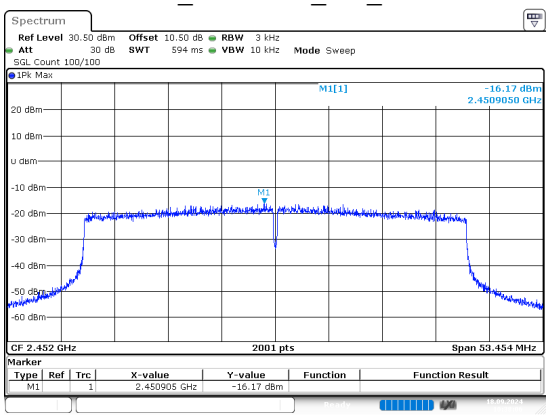
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:33:52

ax40_2437MHz_RU_Full



ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:35:49

ax40_2452MHz_RU_Full



ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:38:06

5.7 100 kHz Bandwidth of Frequency Band Edge

Test Information:

Serial No.:	2QI5-1	**Test Date:**	2024/09/18~2024/10/23
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Jeff Wei	**Test Result:**	Pass

Environmental Conditions:

Temperature: (°C):	26-26.6	**Relative Humidity: (%)**	38-45	**ATM Pressure: (kPa)**	99.8-101.5

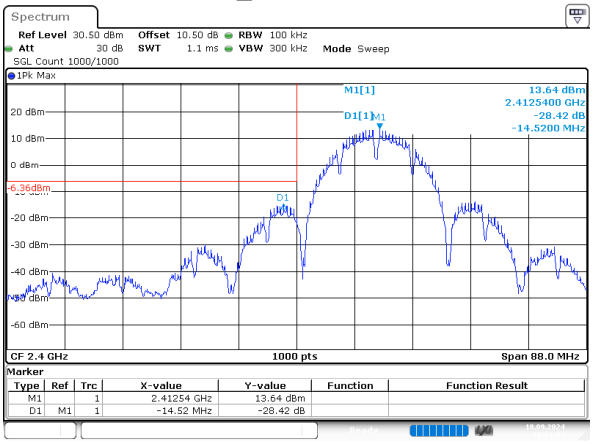
Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101589	2024/09/05	2025/09/04
Eastsheep	Coaxial Attenuator	5W-N-JK-6G-10dB	F-08-EM503	2024/06/07	2025/06/07

** 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).*

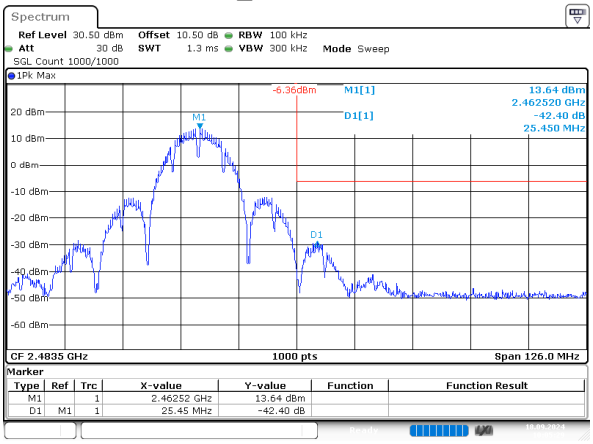
Test Data:

b_2412MHz



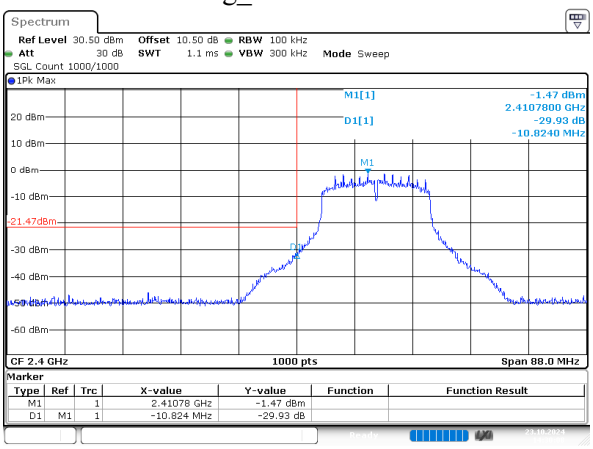
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:01:54

b_2462MHz



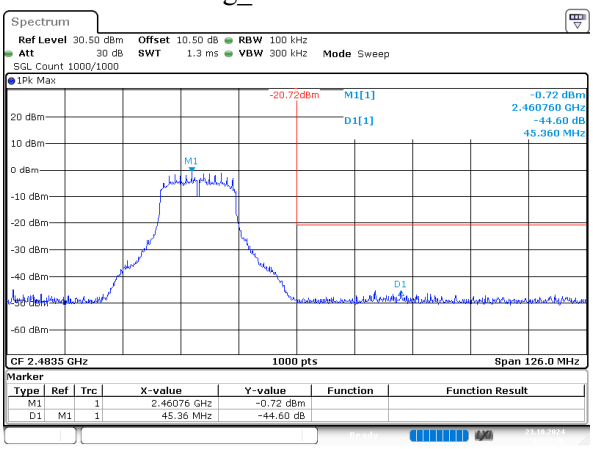
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:05:29

g_2412MHz



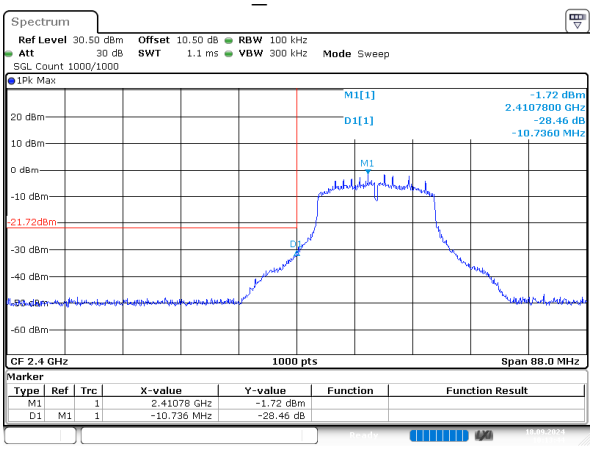
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 23.OCT.2024 14:30:08

g_2462MHz



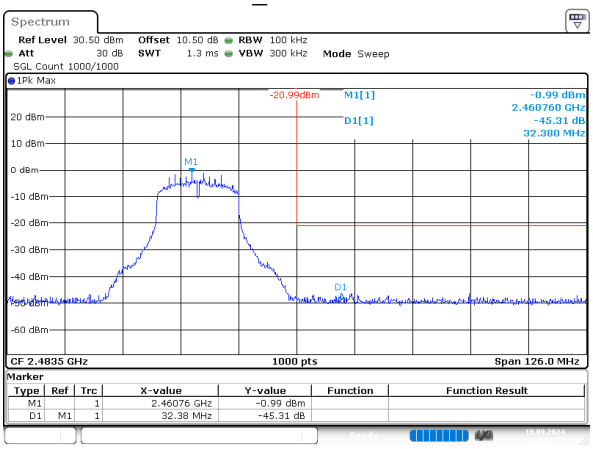
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 23.OCT.2024 14:37:46

n20_2412MHz



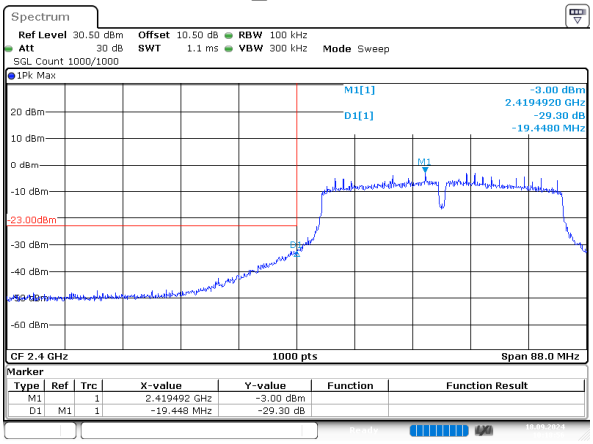
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:13:45

n20_2462MHz



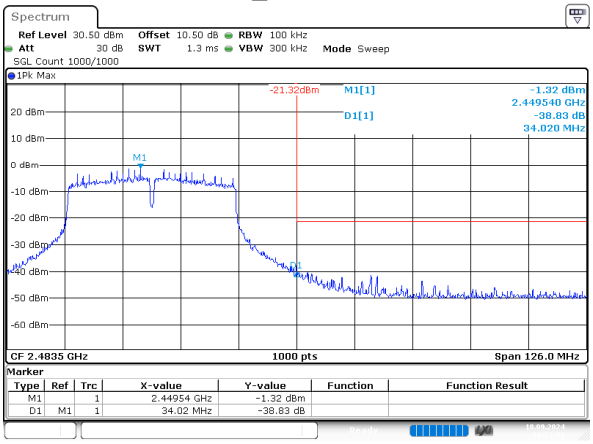
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:17:22

n40_2422MHz



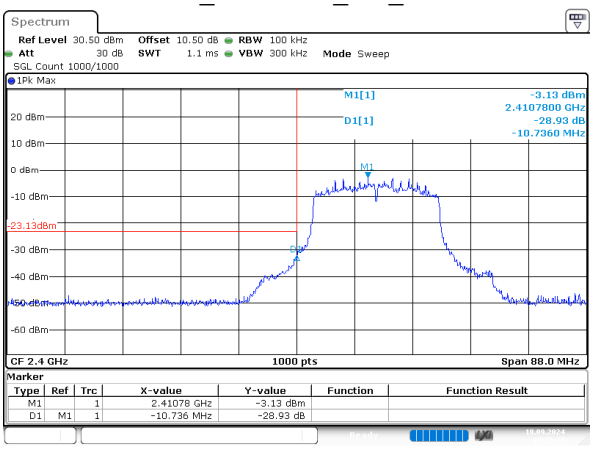
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:18:56

n40_2452MHz



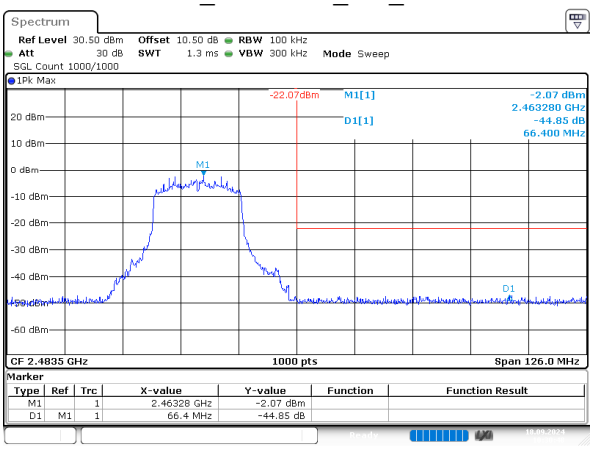
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:23:02

ax20_2412MHz_RU_Full



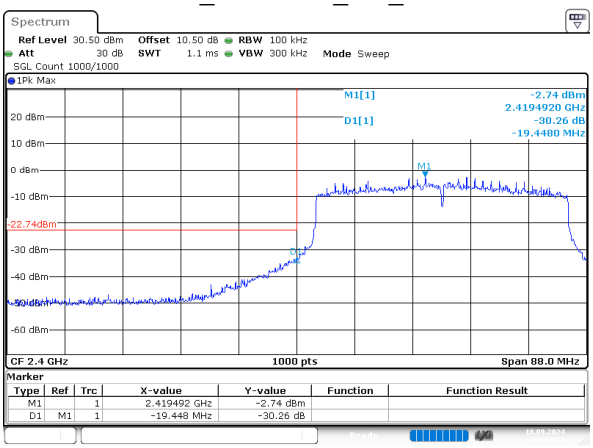
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:25:41

ax20_2462MHz_RU_Full



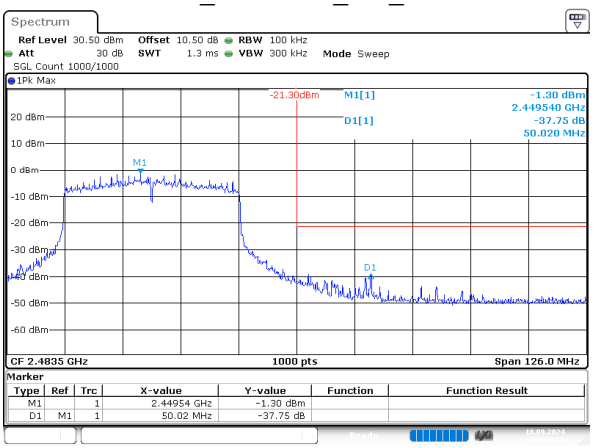
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:30:48

ax40_2422MHz_RU_Full



ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:32:34

ax40_2452MHz_RU_Full



ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 10:36:50

5.8 Duty Cycle

Test Information:

Serial No.:	2QI5-1	**Test Date:**	2024/09/18~2024/10/23
Test Site:	RF	**Test Mode:**	Transmitting
Tester:	Jeff Wei	**Test Result:**	/

Environmental Conditions:

Temperature: (°C):	26-26.6	**Relative Humidity: (%)**	38-45	**ATM Pressure: (kPa)**	99.8-101.5

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101589	2024/09/05	2025/09/04
Eastsheep	Coaxial Attenuator	5W-N-JK-6G-10dB	F-08-EM503	2024/06/07	2025/06/07

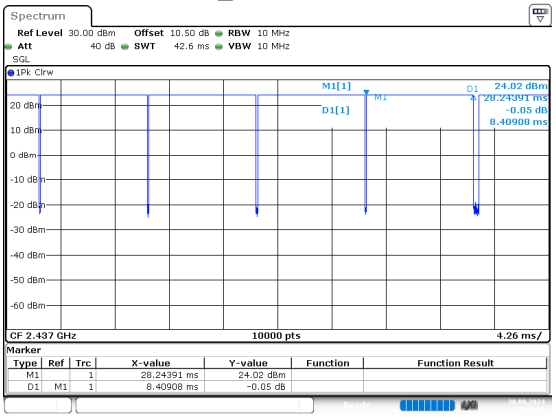
** Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	1/Ton (Hz)	VBW Setting (kHz)
b_2437MHz	8.409	NA	Not constant	119	0.2
g_2437MHz	1.395	NA	Not constant	717	1.0
n20_2437MHz	5.041	NA	Not constant	198	0.2
n40_2437MHz	4.858	NA	Not constant	206	0.3
ax20_2437MHz_RU_Full	3.835	NA	Not constant	261	0.3
ax40_2437MHz_RU_Full	3.768	NA	Not constant	265	0.3

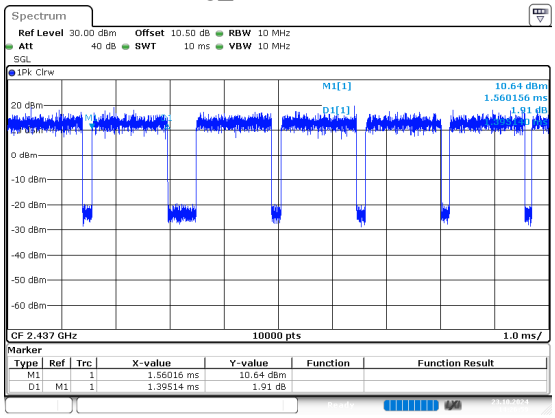
Duty Cycle = Ton/(Ton+Toff)*100%

b_2437MHz



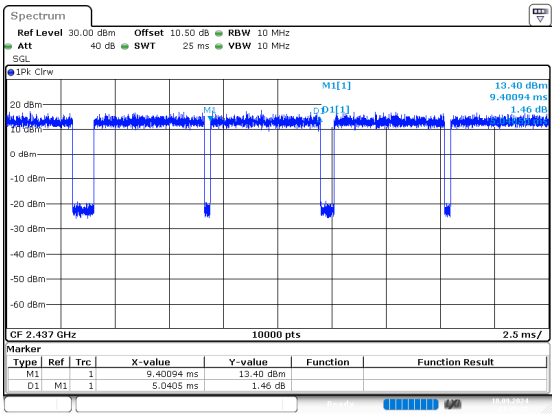
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 30.SEP.2024 15:22:51

g_2437MHz



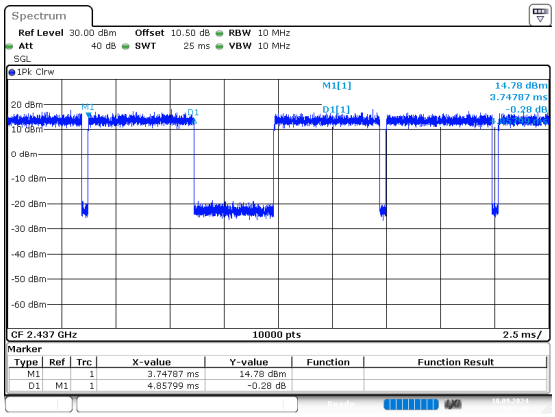
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 23.OCT.2024 14:26:59

n20_2437MHz



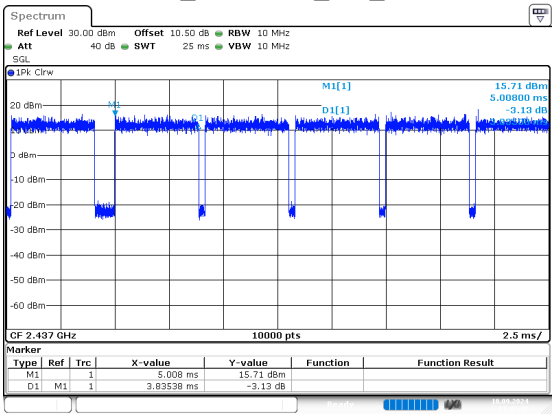
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 11:35:29

n40_2437MHz



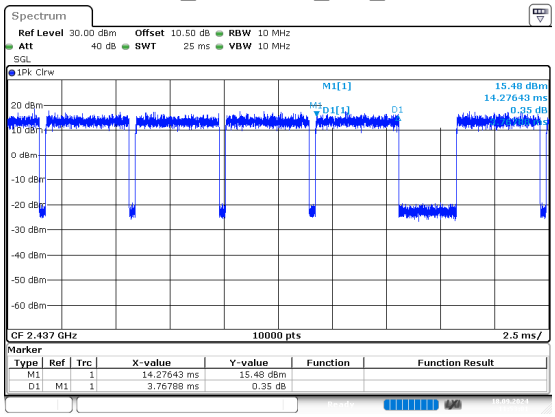
ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 11:37:46

ax20_2437MHz_RU_Full



ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 11:47:42

ax40_2437MHz_RU_Full



ProjectNo.:2402W91664E-RF Tester:Jeff Wei
Date: 18.SEP.2024 11:53:01

EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the attachment 2402W91664E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2402W91664E-RF-INP EUT INTERNAL PHOTOGRAPHS.

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2402W91664E-RF-00A-TSP TEST SETUP PHOTOGRAPHS.

EXHIBIT C - RF EXPOSURE EVALUATION

Maximum Permissible Exposure (MPE)

Applicable Standard

According to subpart §1.1310,15.247(i) systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (V/m)**	**Magnetic Field Strength (A/m)**	**Power Density (mW/cm^2)**	**Averaging Time (minutes)**
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f²)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

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

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculation formula:

Prediction of power density at the distance of the applicable MPE limit
$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm^2);
P = power input to the antenna (in appropriate units, e.g., mW);
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

Calculated Data:

Mode	**Frequency (MHz)**	**Antenna Gain**		**Conducted output power including Tune-up Tolerance**		**Evaluation Distance (cm)**	**Power Density (mW/cm^2)**	**MPE Limit (mW/cm^2)**
		(dBi)	**(numeric)**	**(dBm)**	**(mW)**			
WiFi	2412-2462	1.94	1.56	26	398.11	20.00	0.124	1.0

Note:
The Conducted output power including Tune-up Tolerance provided by manufacturer

Result: The device meet FCC MPE at 20 cm distance

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