中认信通
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)

ACCREDITED
TESTING LABORATORY
CERTIFICATE # 6356.01

TEST REPORT

Applicant: **Xiamen Milesight IoT Co., Ltd.**

Address: Building C09, Software Park Phase III, Xiamen 361024, Fujian, China

FCC ID: **2AYHY-UG63V2**

Product Name: **LoRaWAN Gateway**

Standard(s): **47 CFR Part 15, Subpart C(15.247)**
ANSI C63.10-2013
KDB 558074 D01 15.247 Meas Guidance v05r02

The above device has been tested and found compliant with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

Report Number: **CR231167606-00A**

Date Of Issue: **2024/1/29**

Reviewed By: **Julie Tan** Julie Tan

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Title: Manager

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Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang 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. : 442868, the FCC Designation No. : CN1314.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "▲". Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR231167606-00A	Original Report	2024/1/29

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	LoRaWAN Gateway
EUT Model:	UG63-L09NA-915M
Operation Frequency:	2412-2462MHz (802.11b/g/n ht20), 2422-2452MHz (802.11n ht40)
Maximum Peak Output Power (Conducted):	20.35dBm
Modulation Type:	802.11b:DSSS-DBPSK, DQPSK, CCK 802.11g/n: OFDM-BPSK, QPSK, 16QAM, 64QAM
Rated Input Voltage:	DC 12V from Adapter or DC 5V from Adapter by USB or DC 5V from PoE Splitter
Serial Number:	2DY0-3(For RF Conducted Test) 2DY0-1(For RE/CE Test)
EUT Received Date:	2023/11/21
EUT Received Status:	Good

Operation Frequency Detail:
For 802.11b/g/n ht20:

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	/	/

Per section 15.31(m), the below frequencies were performed the test as below:

Test Channel	Frequency (MHz)
Lowest	2412
Middle	2437
Highest	2462

For 802.11n ht40:

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

Per section 15.31(m), the below frequencies were performed the test as below:

Test Channel	Frequency (MHz)
Lowest	2422
Middle	2437
Highest	2452

Antenna Information Detail▲:

Antenna Manufacturer	Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain (dBi)
Espressif System (Shanghai) Co.,Ltd	PCB	50	2.402~2.502GHz	3.17

The Method of §15.203 Compliance:

☒Antenna was permanently attached to the unit.

☐Antenna use a unique type of connector to attach to the EUT.

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

Accessory Information:

Accessory Description	Manufacturer	Model	Parameters
Adapter #1	DONG GUAN ORIENTAL HERO ELECTRICAL FACTORY	OH-1015A0502000U4U-UL	Input: 100-240Vac~50/60Hz 0.5A Output: DC5V, 2A
Adapter #2	HUIZHOU FUJIAAPPLIANCE TECH,CO.,LTD.	FJ-SW2120502000U	Input: 100-240Vac~50/60Hz 0.4A Max Output: DC5V, 2A
Adapter #3	HUIZHOU FUJIAAPPLIANCE TECH,CO.,LTD.	FJ-SW2050501000U	Input: 100-240Vac~50/60Hz 0.25A Max Output: DC5V, 1A
PoE Splitter	Unknown	TYPEC0502	Input: DC37-57V Output: DC5V, 2.4A

1.2 Description of Test Configuration

1.2.1 EUT Operation Condition:

For 802.11b/g/n:

EUT Operation Mode:	The system was configured for testing in Engineering Mode, which was provided by the manufacturer. Test Mode: M1: Transmitting & Powered by Adapter 1# M2: Transmitting & Powered by Adapter 2# M3: Transmitting & Powered by Adapter 3# M4: Transmitting & Powered by Adapter(AE) DC12V M5: Transmitting & Powered by POE Splitter
Equipment Modifications:	No
EUT Exercise Software:	EspRFTestTool_v2.8_Manual.exe

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	0	0	0
802.11g	6Mbps	0	0	0
802.11n ht20	MCS0	0	0	0
802.11n ht40	MCS0	0	0	0

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.

1.2.2 Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Qihoo	Adapter(DC 12V output)	SK05T-2400200C	ZB1911120300180
Lenovo	Laptop	G510	CB30920865
Metke Skycom	POE	S213M-5	MT21090063

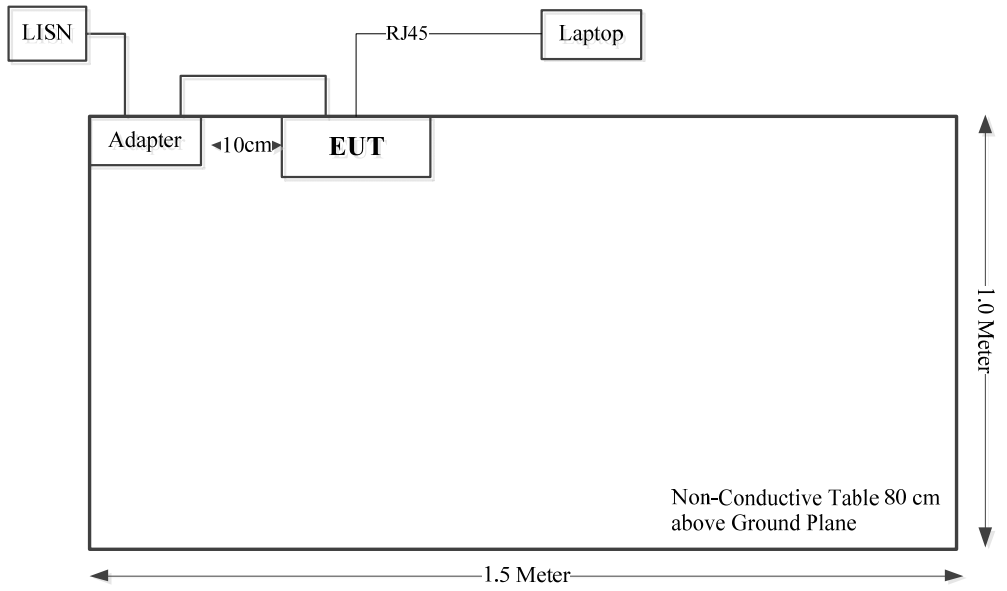
1.2.3 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
USB Cable	No	No	1.2	Adapter #1	EUT
USB Cable	No	No	1.2	Adapter #2	EUT
USB Cable	No	No	1.2	Adapter #3	EUT
DC Cable	No	No	1	Adapter(DC 12V output)	EUT
RJ45 Cable	No	No	3	Laptop	EUT
RJ45 Cable	No	No	10	POE	Laptop
RJ45 Cable	No	No	1	POE	PoE Splitter
RJ45 Cable	No	No	0.13	PoE Splitter	EUT
Type-C Cable	No	No	0.13	PoE Splitter	EUT

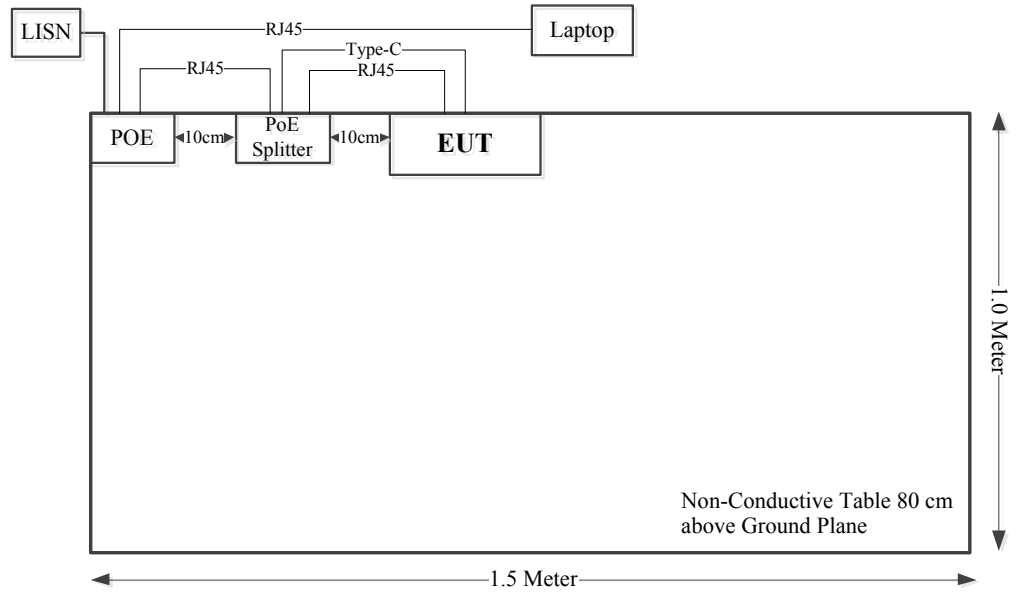
1.2.4 Block Diagram of Test Setup

AC Line Conducted Emissions :

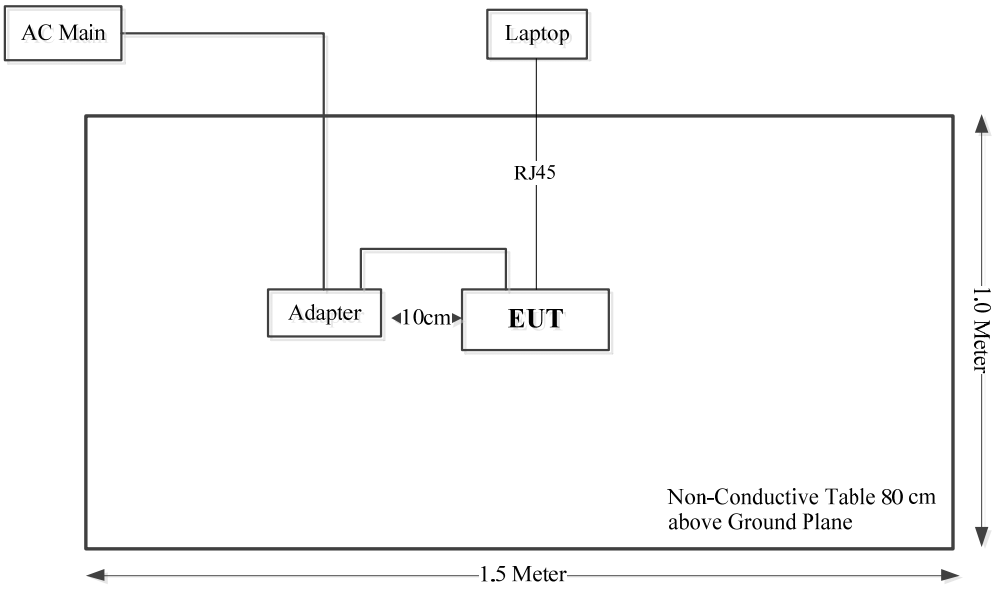
M1/M2/M3/M4:



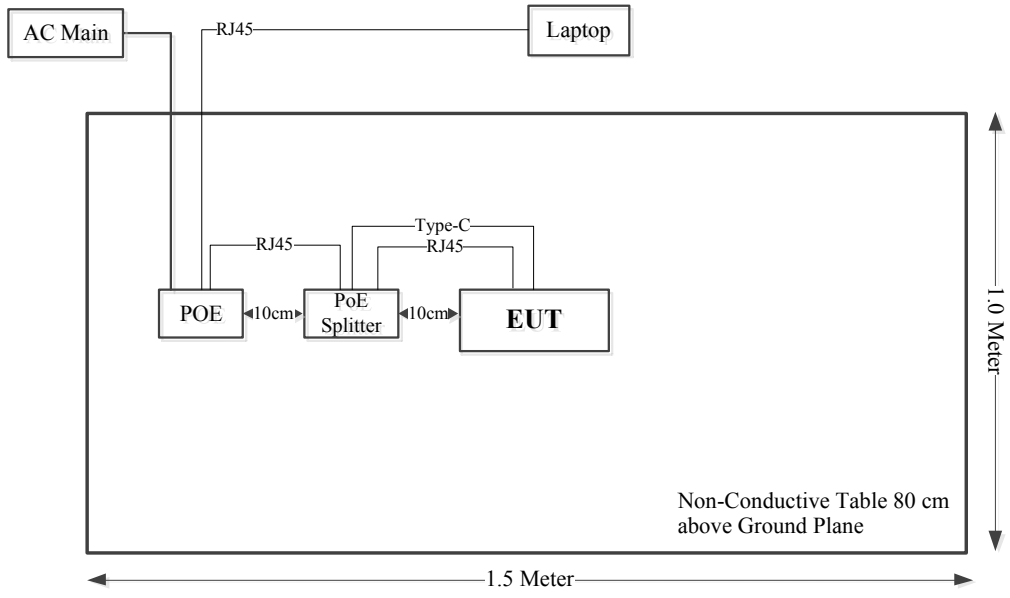
M5:



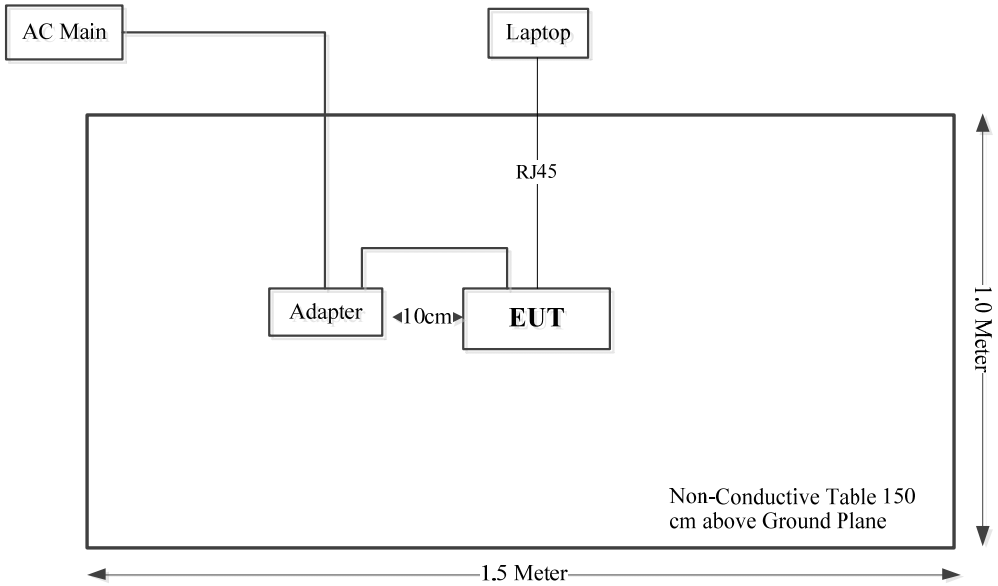
Radiation Spurious Emissions:
Below 1G:
M1/M2/M3/M4:



M5:



Above 1G:
M2:


AC Main
Laptop
RJ45
Adapter
10cm
EUT
1.0 Meter
Non-Conductive Table 150
cm above Ground Plane
1.5 Meter

1.3 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	9k~30MHz:4.12dB, 30M~200MHz: 4.15 dB,200M~1GHz: 5.61 dB,1G~6GHz: 5.14 dB, 6G~18GHz: 5.93 dB,18G~26.5G:5.47 dB,26.5G~40G:5.63 dB
Unwanted Emissions, conducted	±1.26 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

2. SUMMARY OF TEST RESULTS

Standard(s) Section	Test Items	Result
§15.207(a)	AC Line Conducted Emissions	Compliant
§15.205, §15.209, §15.247(d)	Radiation Spurious Emissions	Compliant
§15.247 (a)(2)	Minimum 6 dB Bandwidth	Compliant
§15.247(b)(3)	Maximum Conducted Output Power	Compliant
§15.247(d)	100 kHz Bandwidth Of Frequency Band Edge	Compliant
§15.247(e)	Power Spectral Density	Compliant
§15.203	Antenna Requirement	Compliant

3. REQUIREMENTS AND TEST PROCEDURES

3.1 AC Line Conducted Emissions

3.1.1 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:

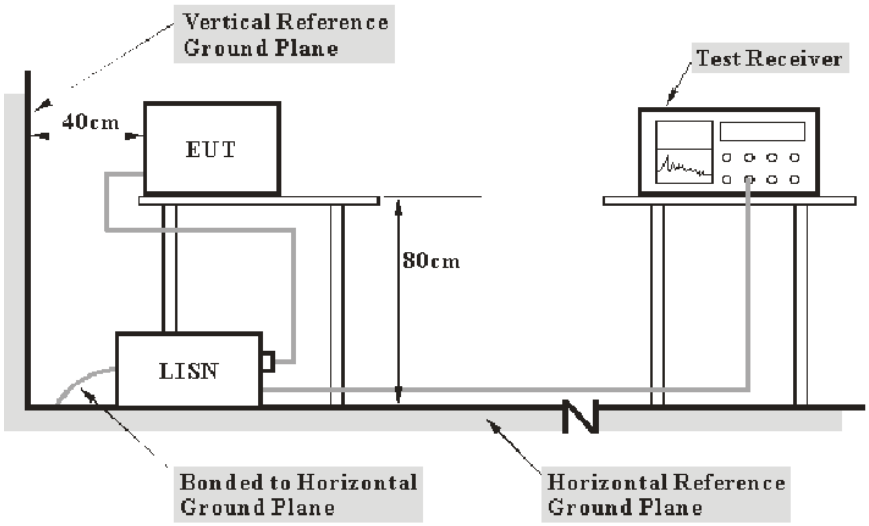
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(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.

3.1.2 EUT Setup



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

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

The spacing between the peripherals was 10 cm.

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

3.1.3 EMI Test Receiver Setup

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

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

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

3.1.4 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.

3.1.5 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

3.2 Radiation Spurious Emissions

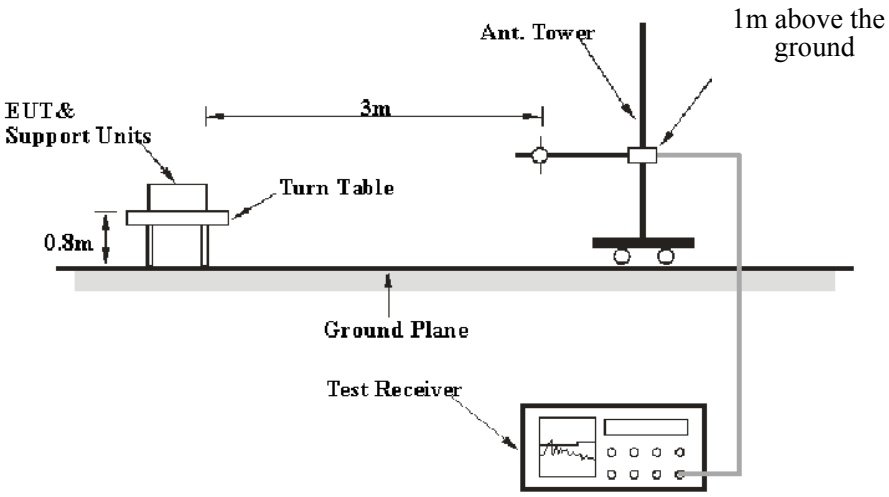
3.2.1 Applicable Standard

FCC §15.247 (d);

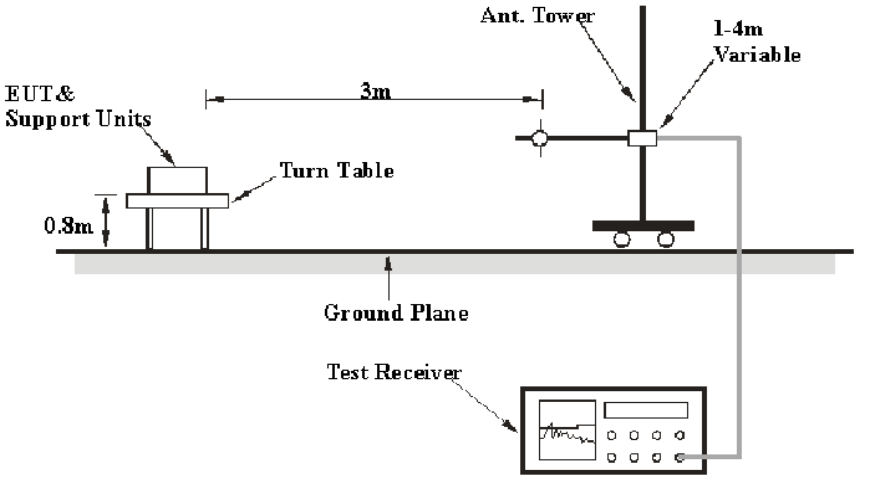
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the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

3.2.2 EUT Setup

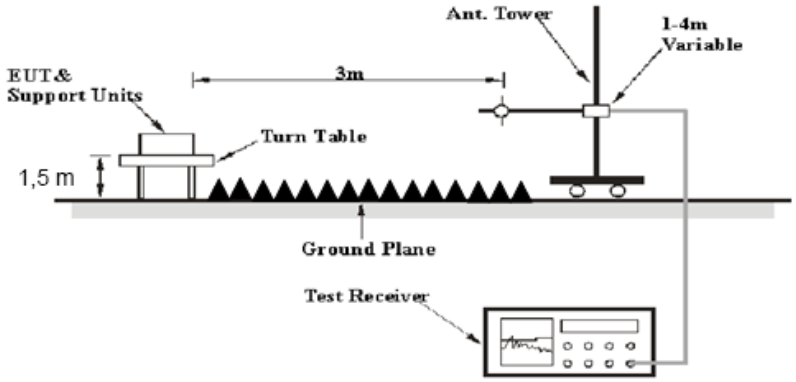
9 kHz-30MHz:



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 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

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

3.2.3 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:

9 kHz -1000 MHz:

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

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/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

3.2.4 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.

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

3.2.5 Corrected Amplitude & 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

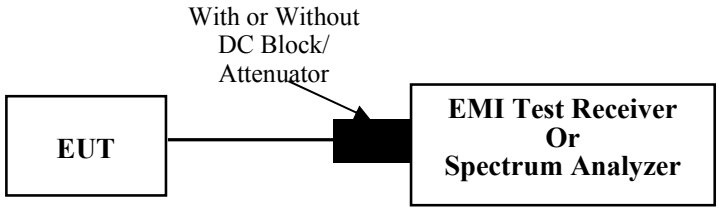
3.3 Minimum 6 dB Emission Bandwidth

3.3.1 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.

3.3.2 EUT Setup



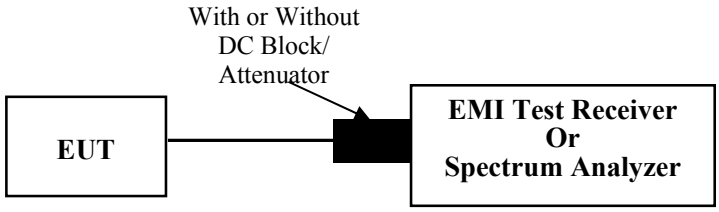
3.3.3 Test Procedure

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.

3.4 99% Occupied Bandwidth

3.4.1 EUT Setup



3.4.2 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 may be reported in addition to the plot(s).

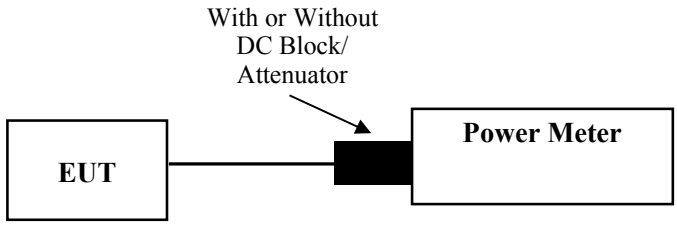
3.5 Maximum Conducted Output Power

3.5.1 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.

3.5.2 EUT Setup



3.5.3 Test Procedure

According to ANSI C63.10-2013 Section 11.9.2.3.2

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

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

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.

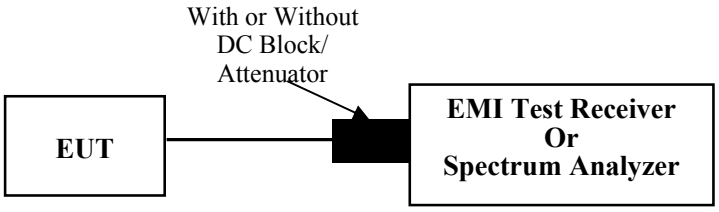
3.6 Maximum Power Spectral Density

3.6.1 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.

3.6.2 EUT Setup



3.6.3 Test Procedure

According to ANSI C63.10-2013 Section 11.10.2

a) Set analyzer center frequency to DTS channel center frequency.
b) Set the span to 1.5 times the DTS bandwidth.
c) Set the RBW to 3 kHz ≤ RBW ≤ 100 kHz.
d) Set the 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.

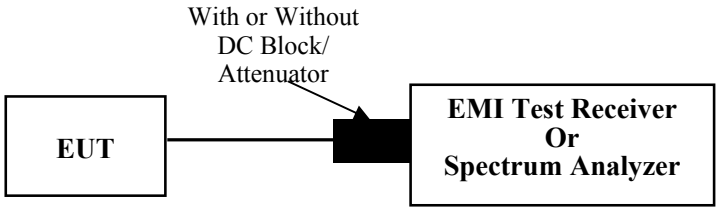
3.7 100 kHz Bandwidth of Frequency Band Edge

3.7.1 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)).

3.7.2 EUT Setup



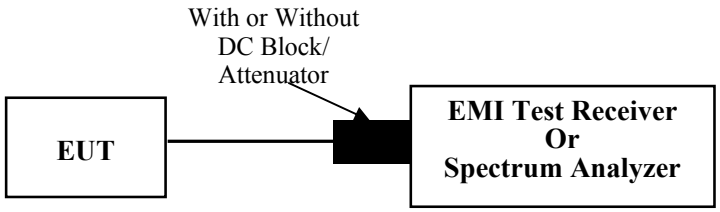
3.7.3 Test Procedure

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.

3.8 Duty Cycle

3.8.1 EUT Setup



3.8.2 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 OFF times 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.)

3.9 Antenna Requirement

3.9.1 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.

3.9.2 Judgment

Compliant. Please refer to the Antenna Information detail in Section 1.

4. Test DATA AND RESULTS

4.1 AC Line Conducted Emissions

Serial Number:	2DY0-1	Test Date:	2023/12/27~2023/12/28
Test Site:	CE	Test Mode:	Transmitting(maximum output power mode(802.11g mode Low channel) was tested)
Tester:	David Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (℃)	21.6~23.2	Relative Humidity: (%)	32~45	ATM Pressure: (kPa)	101.6~101.9

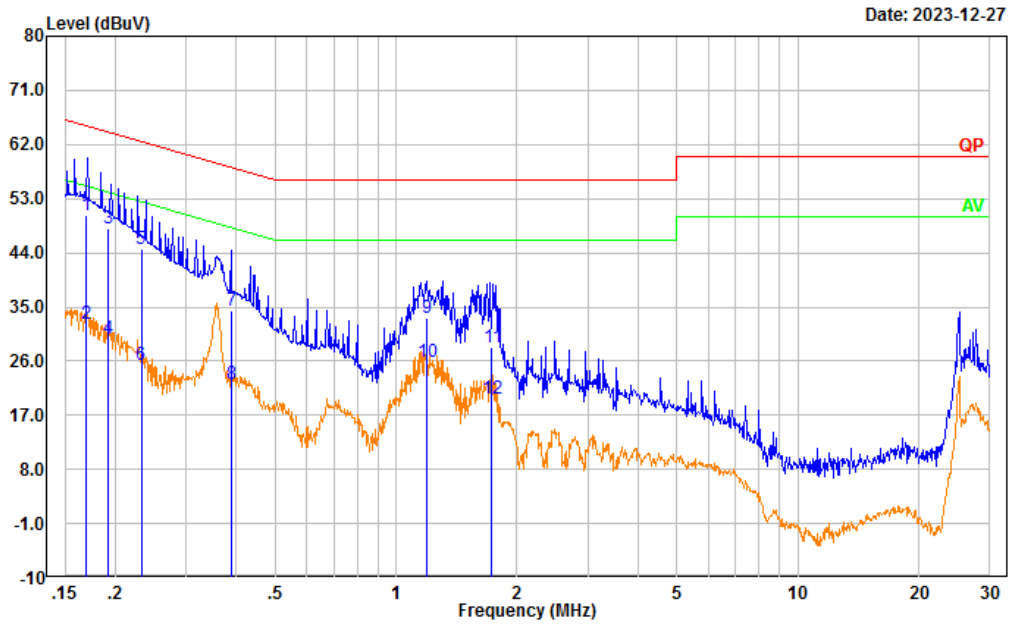
Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101134	2023/3/31	2024/3/30
R&S	EMI Test Receiver	ESR3	102726	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2023/8/6	2024/8/5
Audix	Test Software	E3	190306 (V9)	N/A	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

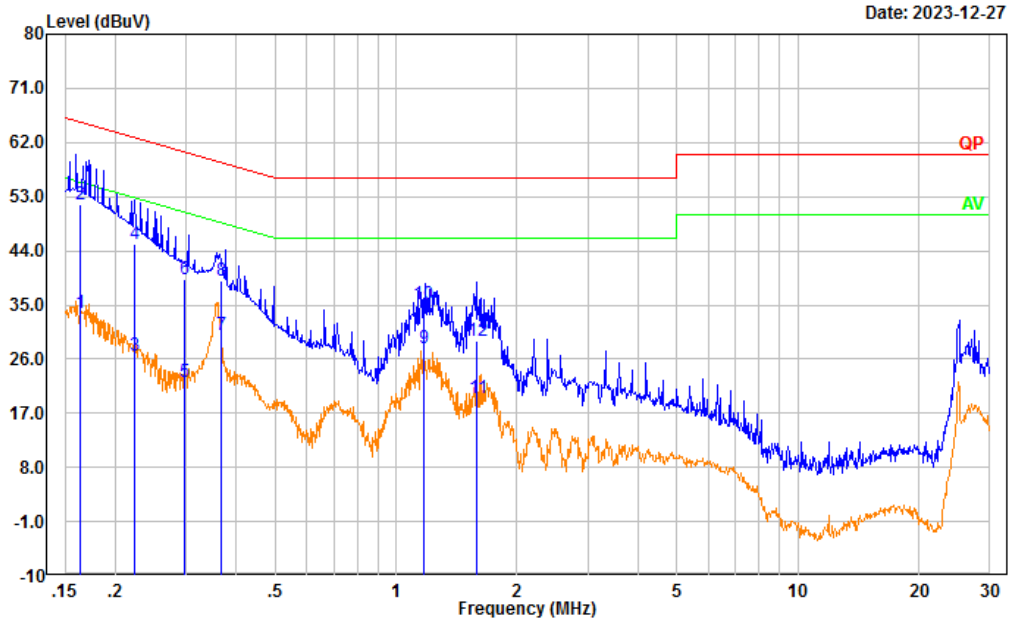
M1:

Project No.: CR231167606 -RF
Tester: David Huang
Port: Line
Note: Transmitting(2.4G WIFI Adapter 1#)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.170	40.71	9.61	50.32	64.96	14.64	QP
2	0.170	22.52	9.61	32.13	54.96	22.83	Average
3	0.192	38.38	9.61	47.99	63.94	15.95	QP
4	0.192	20.18	9.61	29.79	53.94	24.15	Average
5	0.232	34.91	9.61	44.52	62.37	17.85	QP
6	0.232	15.83	9.61	25.44	52.37	26.93	Average
7	0.389	24.84	9.61	34.45	58.09	23.64	QP
8	0.389	12.57	9.61	22.18	48.09	25.91	Average
9	1.189	23.66	9.62	33.28	56.00	22.72	QP
10	1.189	16.12	9.62	25.74	46.00	20.26	Average
11	1.729	18.77	9.63	28.40	56.00	27.60	QP
12	1.729	10.18	9.63	19.81	46.00	26.19	Average

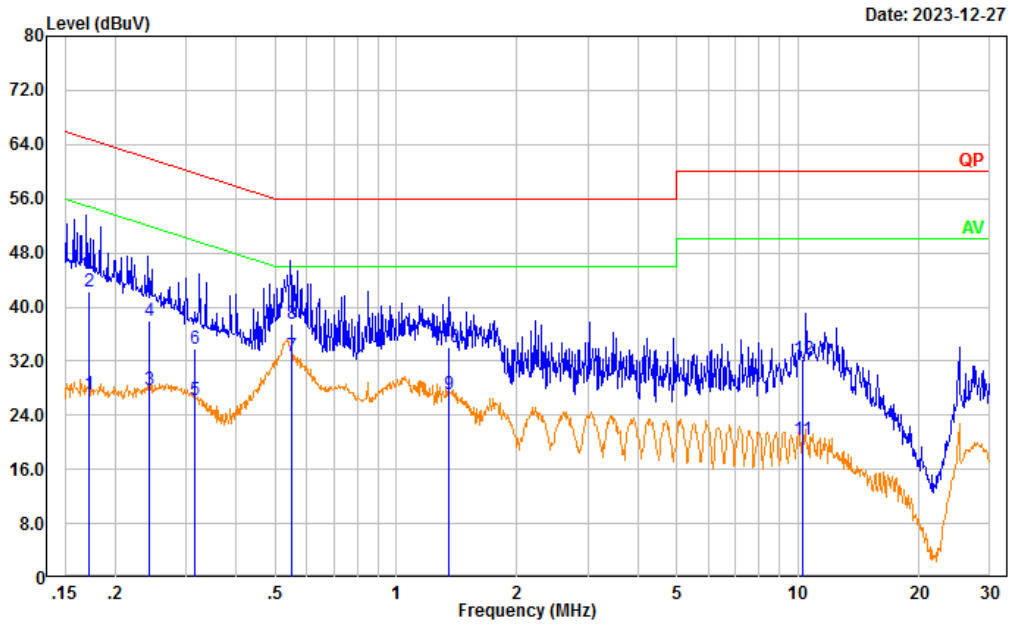
Project No.: CR231167606 -RF
Tester: David Huang
Port: neutral
Note: Transmitting(2.4G WIFI Adapter 1#)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.164	24.04	9.61	33.65	55.25	21.60	Average
2	0.164	42.13	9.61	51.74	65.25	13.51	QP
3	0.224	17.02	9.61	26.63	52.68	26.05	Average
4	0.224	35.58	9.61	45.19	62.68	17.49	QP
5	0.297	12.65	9.61	22.26	50.33	28.07	Average
6	0.297	29.57	9.61	39.18	60.33	21.15	QP
7	0.367	20.39	9.61	30.00	48.58	18.58	Average
8	0.367	29.44	9.61	39.05	58.58	19.53	QP
9	1.168	18.28	9.62	27.90	46.00	18.10	Average
10	1.168	25.61	9.62	35.23	56.00	20.77	QP
11	1.590	9.85	9.63	19.48	46.00	26.52	Average
12	1.590	19.45	9.63	29.08	56.00	26.92	QP

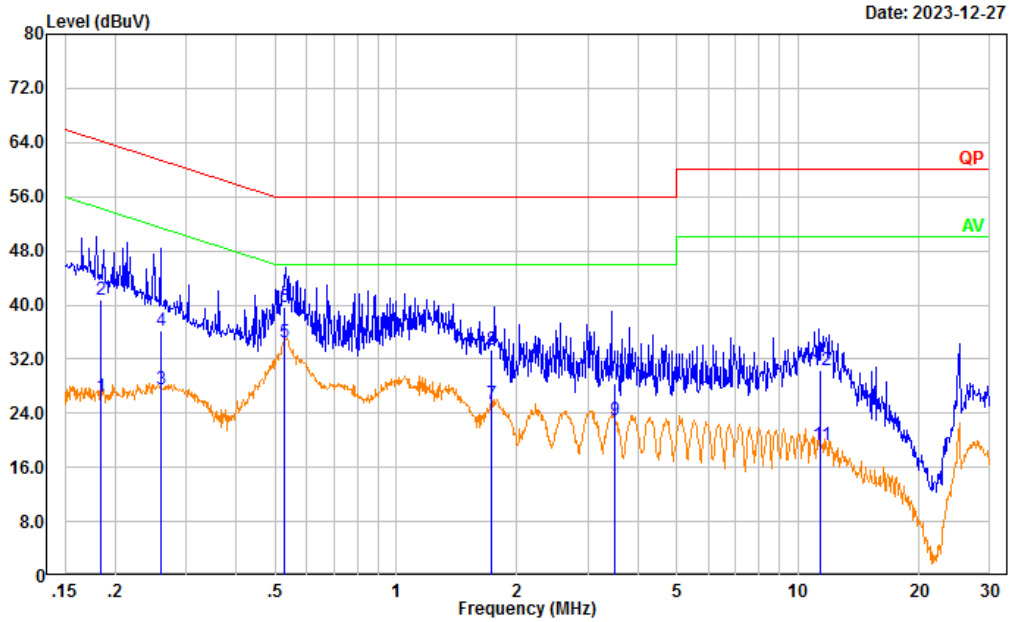
M2:

Project No.: CR231167606 -RF
Tester: David Huang
Port: Line
Note: Transmitting(2.4G WIFI Adapter 2#)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.172	17.43	9.61	27.04	54.84	27.80	Average
2	0.172	32.67	9.61	42.28	64.84	22.56	QP
3	0.243	18.08	9.61	27.69	51.99	24.30	Average
4	0.243	28.34	9.61	37.95	61.99	24.04	QP
5	0.316	16.65	9.61	26.26	49.81	23.55	Average
6	0.316	24.19	9.61	33.80	59.81	26.01	QP
7	0.551	23.13	9.62	32.75	46.00	13.25	Average
8	0.551	27.92	9.62	37.54	56.00	18.46	QP
9	1.349	17.54	9.62	27.16	46.00	18.84	Average
10	1.349	24.47	9.62	34.09	56.00	21.91	QP
11	10.239	10.67	9.67	20.34	50.00	29.66	Average
12	10.239	22.61	9.67	32.28	60.00	27.72	QP

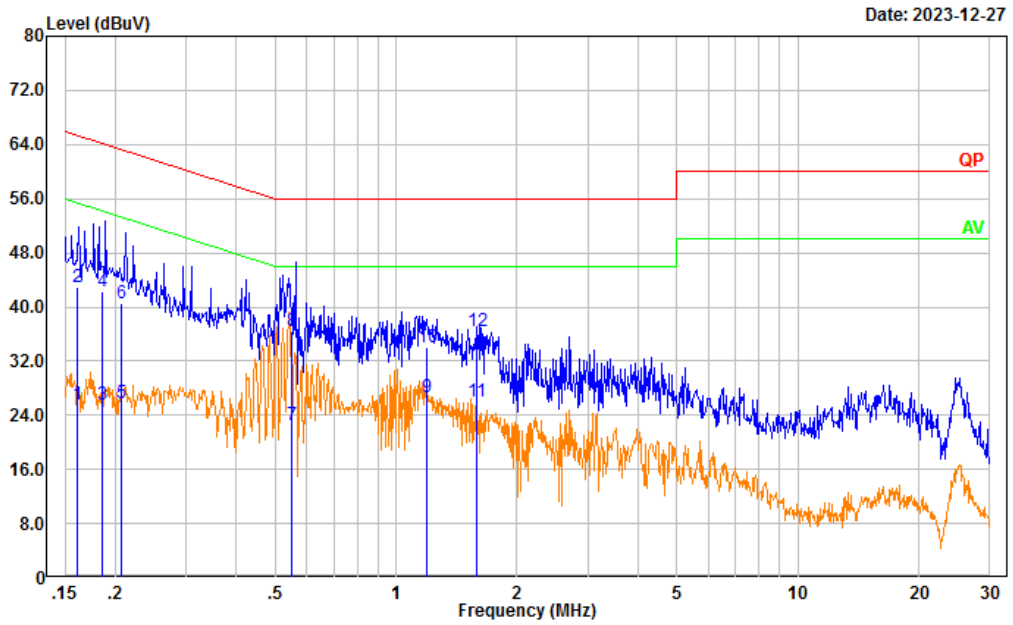
Project No.: CR231167606 -RF
Tester: David Huang
Port: neutral
Note: Transmitting(2.4G WIFI Adapter 2#)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.185	16.83	9.61	26.44	54.27	27.83	Average
2	0.185	31.25	9.61	40.86	64.27	23.41	QP
3	0.259	17.99	9.61	27.60	51.46	23.86	Average
4	0.259	26.61	9.61	36.22	61.46	25.24	QP
5	0.527	24.94	9.61	34.55	46.00	11.45	Average
6	0.527	30.06	9.61	39.67	56.00	16.33	QP
7	1.721	15.71	9.63	25.34	46.00	20.66	Average
8	1.721	23.81	9.63	33.44	56.00	22.56	QP
9	3.506	13.26	9.65	22.91	46.00	23.09	Average
10	3.506	18.67	9.65	28.32	56.00	27.68	QP
11	11.401	9.57	9.67	19.24	50.00	30.76	Average
12	11.401	20.69	9.67	30.36	60.00	29.64	QP

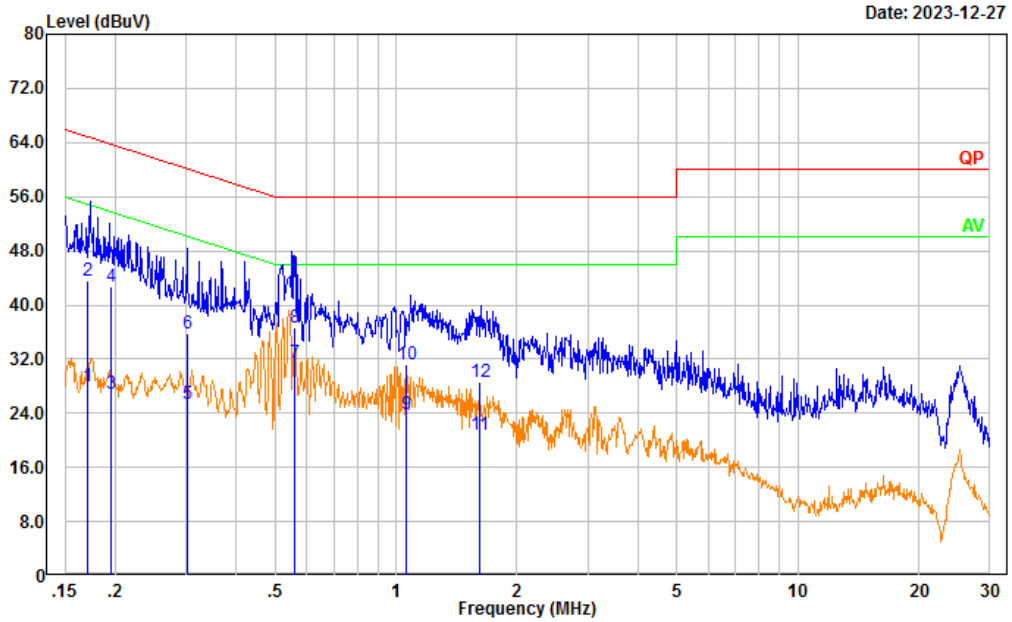
M3:

Project No.: CR231167606 -RF
Tester: David Huang
Port: Line
Note: Transmitting(2.4G WIFI Adapter 3#)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.161	15.94	9.61	25.55	55.39	29.84	Average
2	0.161	33.35	9.61	42.96	65.39	22.43	QP
3	0.186	15.89	9.61	25.50	54.22	28.72	Average
4	0.186	32.57	9.61	42.18	64.22	22.04	QP
5	0.208	16.29	9.61	25.90	53.30	27.40	Average
6	0.208	30.95	9.61	40.56	63.30	22.74	QP
7	0.552	12.95	9.62	22.57	46.00	23.43	Average
8	0.552	26.84	9.62	36.46	56.00	19.54	QP
9	1.192	17.05	9.62	26.67	46.00	19.33	Average
10	1.192	24.40	9.62	34.02	56.00	21.98	QP
11	1.589	16.38	9.63	26.01	46.00	19.99	Average
12	1.589	26.69	9.63	36.32	56.00	19.68	QP

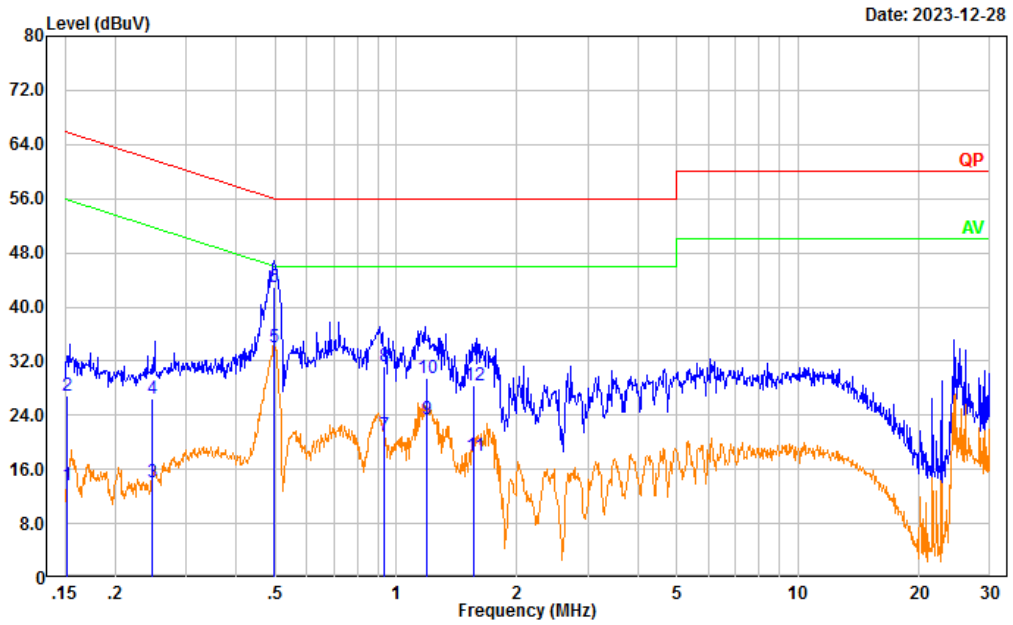
Project No.: CR231167606 -RF
Tester: David Huang
Port: neutral
Note: Transmitting(2.4G WIFI Adapter 3#)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.171	18.38	9.61	27.99	54.93	26.94	Average
2	0.171	33.87	9.61	43.48	64.93	21.45	QP
3	0.195	17.29	9.61	26.90	53.82	26.92	Average
4	0.195	33.15	9.61	42.76	63.82	21.06	QP
5	0.302	15.66	9.61	25.27	50.19	24.92	Average
6	0.302	26.17	9.61	35.78	60.19	24.41	QP
7	0.560	21.90	9.62	31.52	46.00	14.48	Average
8	0.560	26.93	9.62	36.55	56.00	19.45	QP
9	1.059	14.33	9.62	23.95	46.00	22.05	Average
10	1.059	21.53	9.62	31.15	56.00	24.85	QP
11	1.615	11.14	9.63	20.77	46.00	25.23	Average
12	1.615	19.08	9.63	28.71	56.00	27.29	QP

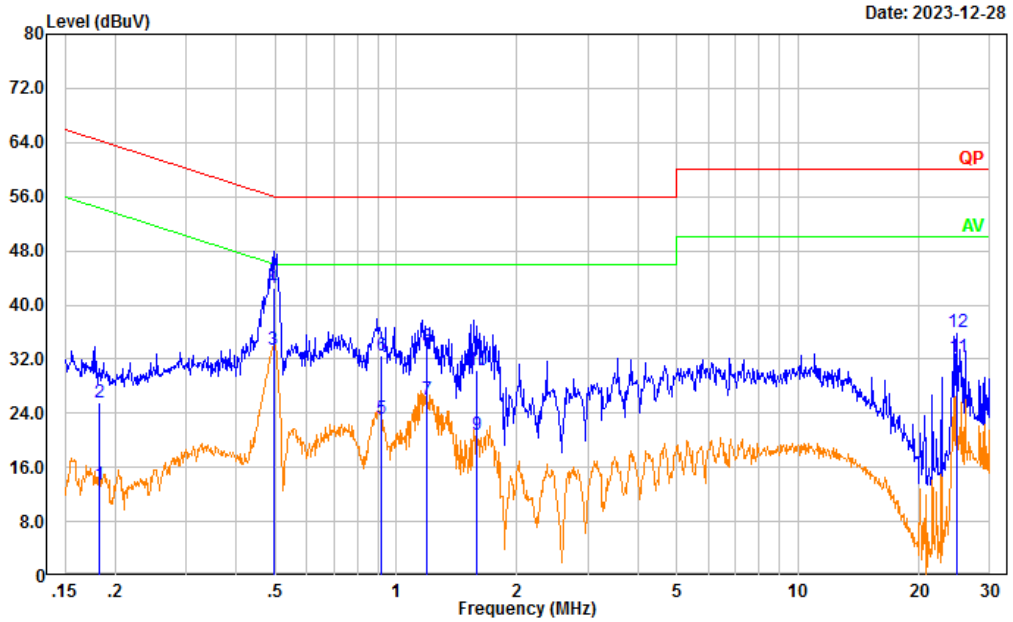
M4:

Project No.: CR231167606 -RF
Tester: David Huang
Port: Line
Note: Transmitting(2.4G WIFI Adapter(AE))



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.152	3.97	9.61	13.58	55.91	42.33	Average
2	0.152	17.20	9.61	26.81	65.91	39.10	QP
3	0.248	4.53	9.61	14.14	51.82	37.68	Average
4	0.248	16.89	9.61	26.50	61.82	35.32	QP
5	0.499	24.35	9.61	33.96	46.02	12.06	Average
6	0.499	33.21	9.61	42.82	56.02	13.20	QP
7	0.933	11.49	9.62	21.11	46.00	24.89	Average
8	0.933	21.54	9.62	31.16	56.00	24.84	QP
9	1.194	13.85	9.62	23.47	46.00	22.53	Average
10	1.194	19.94	9.62	29.56	56.00	26.44	QP
11	1.566	8.41	9.63	18.04	46.00	27.96	Average
12	1.566	18.86	9.63	28.49	56.00	27.51	QP

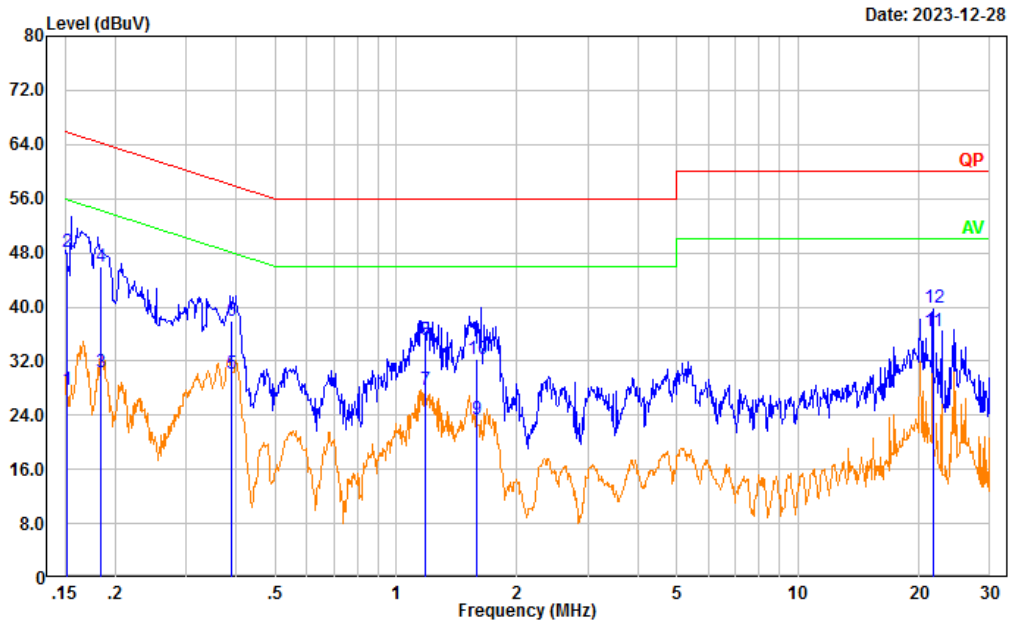
Project No.: CR231167606 -RF
Tester: David Huang
Port: neutral
Note: Transmitting(2.4G WIFI Adapter(AE))



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.182	3.80	9.61	13.41	54.38	40.97	Average
2	0.182	15.98	9.61	25.59	64.38	38.79	QP
3	0.495	23.86	9.61	33.47	46.08	12.61	Average
4	0.495	32.88	9.61	42.49	56.08	13.59	QP
5	0.916	13.51	9.62	23.13	46.00	22.87	Average
6	0.916	22.83	9.62	32.45	56.00	23.55	QP
7	1.188	16.41	9.62	26.03	46.00	19.97	Average
8	1.188	24.27	9.62	33.89	56.00	22.11	QP
9	1.590	11.21	9.63	20.84	46.00	25.16	Average
10	1.590	20.81	9.63	30.44	56.00	25.56	QP
11	24.899	22.57	9.76	32.33	50.00	17.67	Average
12	24.899	26.28	9.76	36.04	60.00	23.96	QP

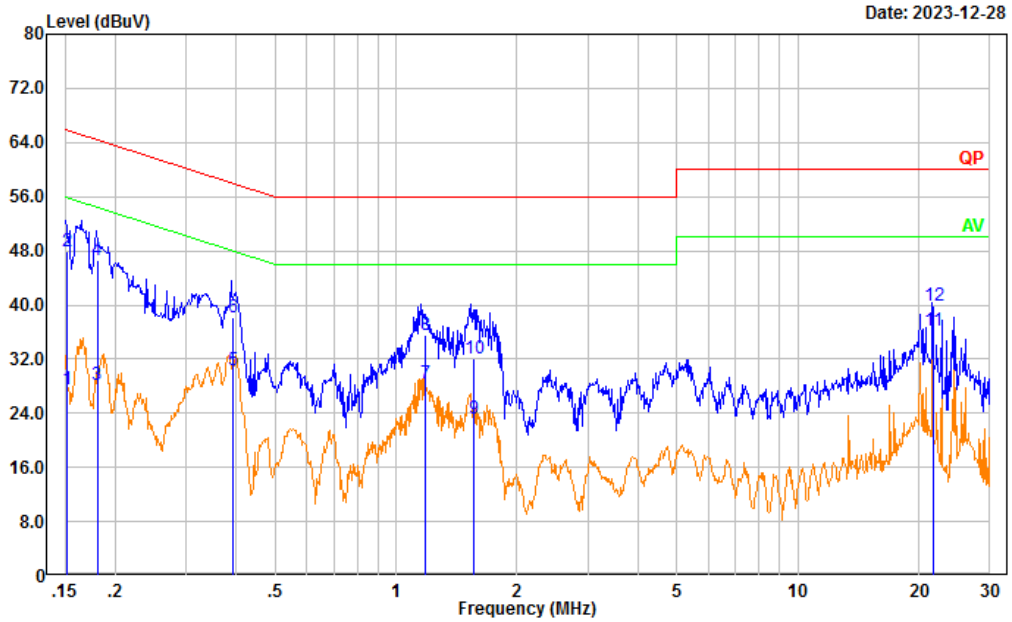
M5:

Project No.: CR231167606 -RF
Tester: David Huang
Port: Line
Note: Transmitting(2.4G WIFI POE)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.151	18.07	9.61	27.68	55.93	28.25	Average
2	0.151	38.62	9.61	48.23	65.93	17.70	QP
3	0.184	20.78	9.61	30.39	54.30	23.91	Average
4	0.184	36.42	9.61	46.03	64.30	18.27	QP
5	0.390	20.60	9.61	30.21	48.06	17.85	Average
6	0.390	28.32	9.61	37.93	58.06	20.13	QP
7	1.179	18.13	9.62	27.75	46.00	18.25	Average
8	1.179	25.45	9.62	35.07	56.00	20.93	QP
9	1.589	13.70	9.63	23.33	46.00	22.67	Average
10	1.589	22.67	9.63	32.30	56.00	23.70	QP
11	21.663	26.51	9.81	36.32	50.00	13.68	Average
12	21.663	30.08	9.81	39.89	60.00	20.11	QP

Project No.: CR231167606 -RF
Tester: David Huang
Port: neutral
Note: Transmitting(2.4G WIFI POE)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.151	17.96	9.61	27.57	55.93	28.36	Average
2	0.151	38.19	9.61	47.80	65.93	18.13	QP
3	0.180	18.54	9.61	28.15	54.47	26.32	Average
4	0.180	36.90	9.61	46.51	64.47	17.96	QP
5	0.393	20.64	9.61	30.25	47.99	17.74	Average
6	0.393	28.56	9.61	38.17	57.99	19.82	QP
7	1.178	18.81	9.62	28.43	46.00	17.57	Average
8	1.178	26.00	9.62	35.62	56.00	20.38	QP
9	1.560	13.59	9.63	23.22	46.00	22.78	Average
10	1.560	22.47	9.63	32.10	56.00	23.90	QP
11	21.663	26.50	9.73	36.23	50.00	13.77	Average
12	21.663	30.21	9.73	39.94	60.00	20.06	QP

4.2 Radiation Spurious Emissions

Serial Number:	2DY0-1	Test Date:	2024/1/2~2024/1/15
Test Site:	966-1, 966-2	Test Mode:	Transmitting
Tester:	Vic Du, Tao Zhu	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	25.3~26.2	Relative Humidity: (%)	43~67	ATM Pressure: (kPa)	101.3~101.5

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-5	2023/12/1	2026/11/30
BACL	Loop Antenna	1313-1A	3110611	2023/12/4	2026/12/3
Daruikang	Coaxial Cable	BNC-JJ-RG58	C-0300-01	2024/1/11	2025/1/10
Daruikang	Coaxial Cable	BNC-JJ-RG58	C-0500-01	2024/1/11	2025/1/10
R&S	EMI Test Receiver	ESR3	102724	2023/3/31	2024/3/30
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2023/7/16	2024/7/15
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2023/7/16	2024/7/15
Sonoma	Amplifier	310N	186165	2023/7/16	2024/7/15
Audix	Test Software	E3	201021 (V9)	N/A	N/A
AH	Double Ridge Guide Horn Antenna	SAS-571	1394	2023/2/22	2026/2/21
R&S	Spectrum Analyzer	FSV40	101591	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2023/8/6	2024/8/5
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2023/8/6	2024/8/5
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2023/11/8	2024/11/7
PASTERNACK	Horn Antenna	PE9852/2F-20	112002	2021/2/5	2024/2/4
Quinstar	Preamplifier	QLW-18405536-JO	15964001005	2023/9/15	2024/9/14
MICRO-COAX	Coaxial Cable	UFB142A-1-2362-200200	235772-001	2023/8/6	2024/8/5
E-Microwave	Band Rejection Filter	2400-2483.5MHz	OE01902424	2023/8/6	2024/8/5
Mini Circuits	High Pass Filter	VHF-6010+	31119	2023/8/6	2024/8/5

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

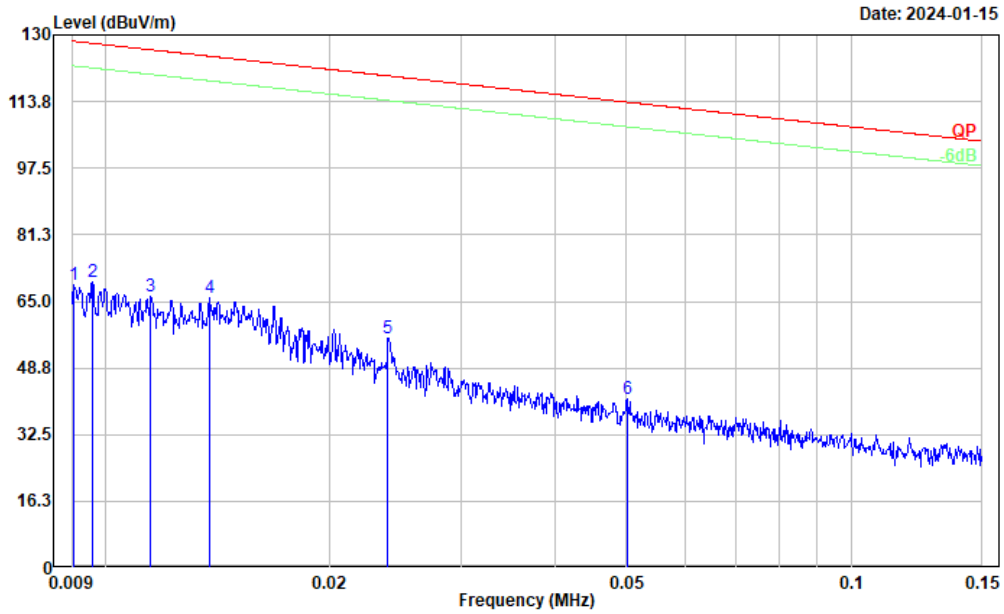
Test Data:

Please refer to the below table and plots.

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

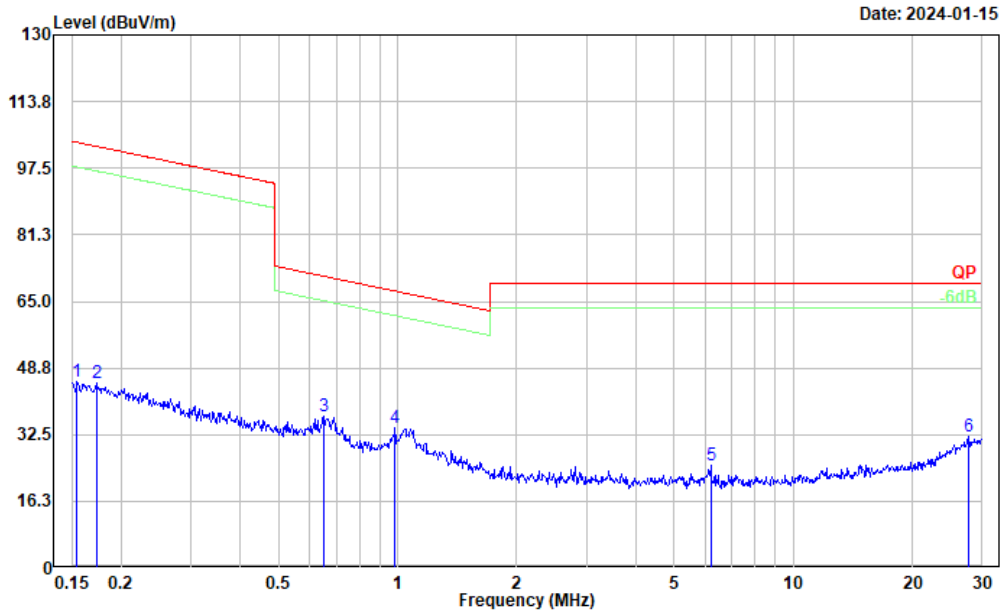
1) 9KHz-30MHz(maximum output power mode(802.11g mode Low channel) was tested):
M1:

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Parallel
Note: Transmitting 2.4G WiFi



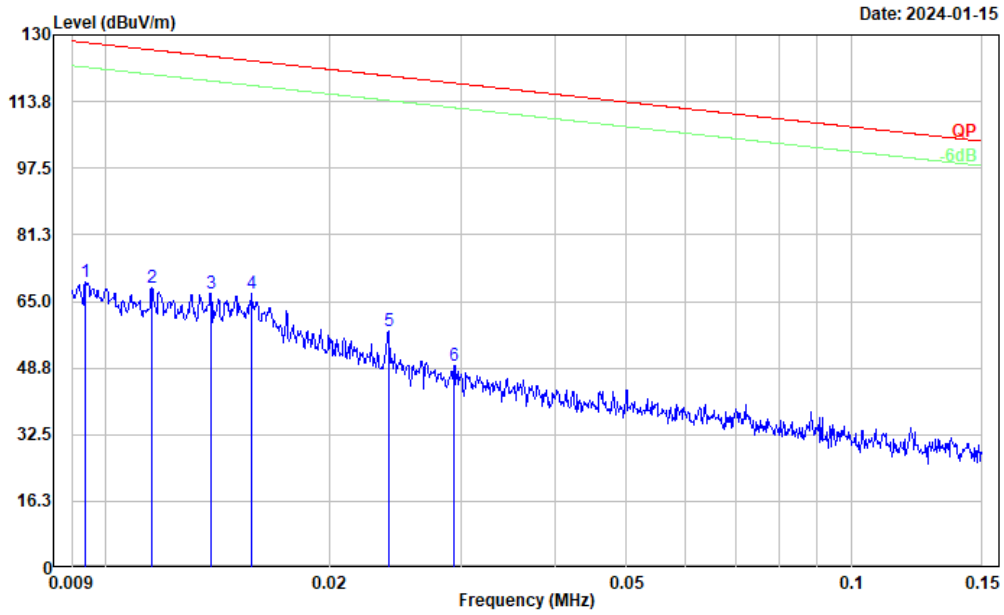
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.009	33.56	35.63	69.19	128.45	59.26	Peak
2	0.010	34.84	34.95	69.79	127.96	58.17	Peak
3	0.011	32.67	33.70	66.37	126.39	60.02	Peak
4	0.014	33.35	32.59	65.94	124.83	58.89	Peak
5	0.024	28.48	27.62	56.10	120.04	63.94	Peak
6	0.050	20.76	20.42	41.18	113.61	72.43	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Parallel
Note: Transmitting 2.4G WiFi



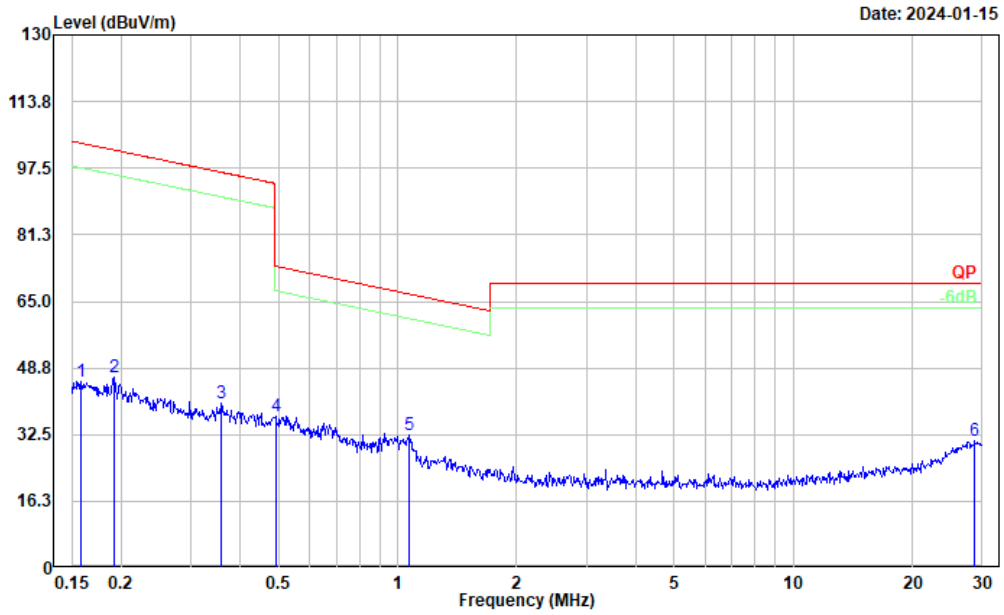
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.155	33.40	12.09	45.49	103.81	58.32	Peak
2	0.174	33.89	11.20	45.09	102.79	57.70	Peak
3	0.651	37.78	-0.79	36.99	71.28	34.29	Peak
4	0.984	38.37	-4.07	34.30	67.62	33.32	Peak
5	6.186	33.97	-8.91	25.06	69.54	44.48	Peak
6	27.708	39.36	-7.45	31.91	69.54	37.63	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Perpendicular
Note: Transmitting 2.4G WiFi



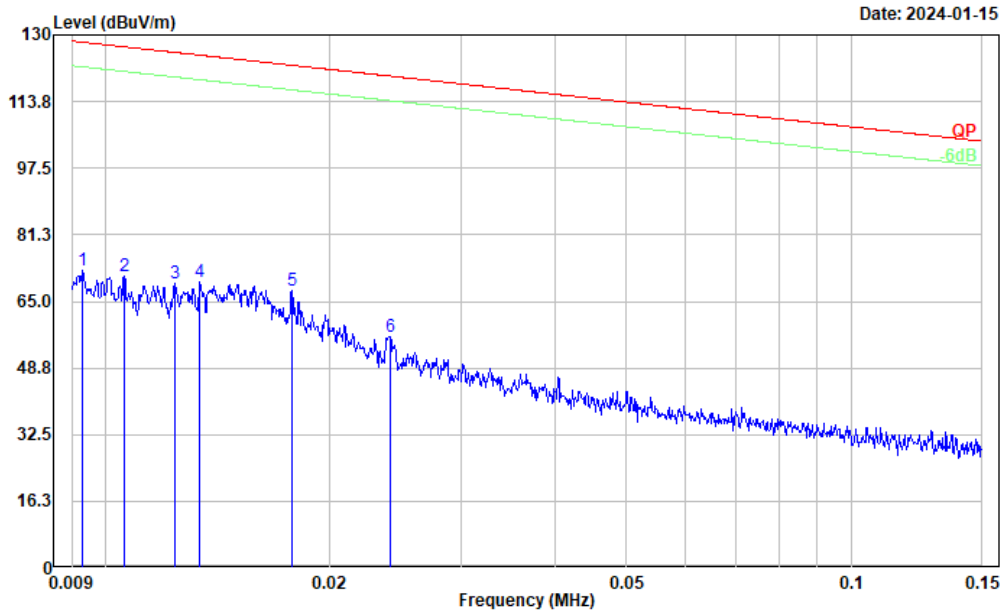
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.009	34.40	35.23	69.63	128.15	58.52	Peak
2	0.012	34.79	33.68	68.47	126.37	57.90	Peak
3	0.014	34.45	32.55	67.00	124.78	57.78	Peak
4	0.016	35.14	31.63	66.77	123.68	56.91	Peak
5	0.024	30.20	27.59	57.79	120.02	62.23	Peak
6	0.029	24.51	24.95	49.46	118.26	68.80	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Perpendicular
Note: Transmitting 2.4G WiFi



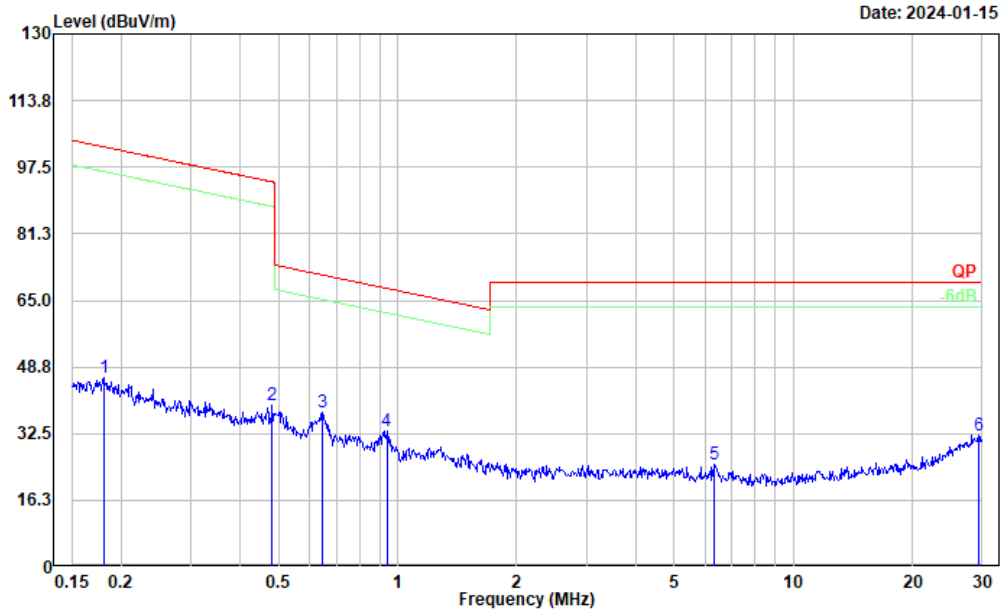
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.158	33.44	11.94	45.38	103.62	58.24	Peak
2	0.191	35.97	10.39	46.36	101.97	55.61	Peak
3	0.358	35.91	4.08	39.99	96.53	56.54	Peak
4	0.492	35.82	1.15	36.97	73.77	36.80	Peak
5	1.071	36.86	-4.47	32.39	66.86	34.47	Peak
6	28.755	38.23	-7.31	30.92	69.54	38.62	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Ground-parallel
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.009	37.31	35.33	72.64	128.23	55.59	Peak
2	0.011	36.88	34.14	71.02	127.10	56.08	Peak
3	0.012	36.01	33.25	69.26	125.73	56.47	Peak
4	0.013	37.03	32.77	69.80	125.07	55.27	Peak
5	0.018	36.97	30.62	67.59	122.61	55.02	Peak
6	0.024	28.94	27.52	56.46	119.97	63.51	Peak

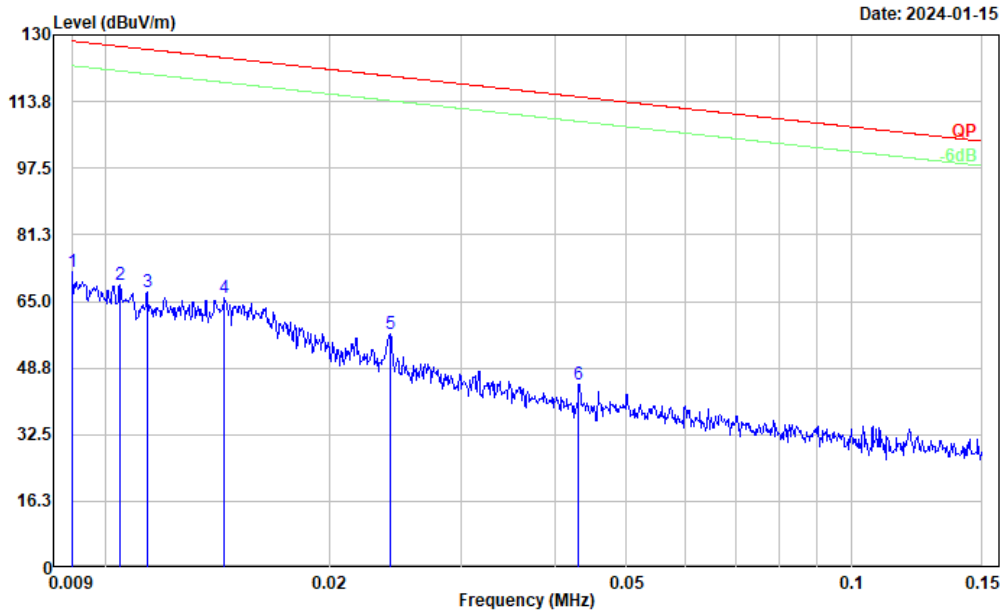
Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Ground-parallel
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.181	35.32	10.89	46.21	102.47	56.26	Peak
2	0.481	38.10	1.37	39.47	93.96	54.49	Peak
3	0.647	38.58	-0.75	37.83	71.33	33.50	Peak
4	0.938	36.75	-3.68	33.07	68.04	34.97	Peak
5	6.285	33.87	-8.89	24.98	69.54	44.56	Peak
6	29.371	39.29	-7.21	32.08	69.54	37.46	Peak

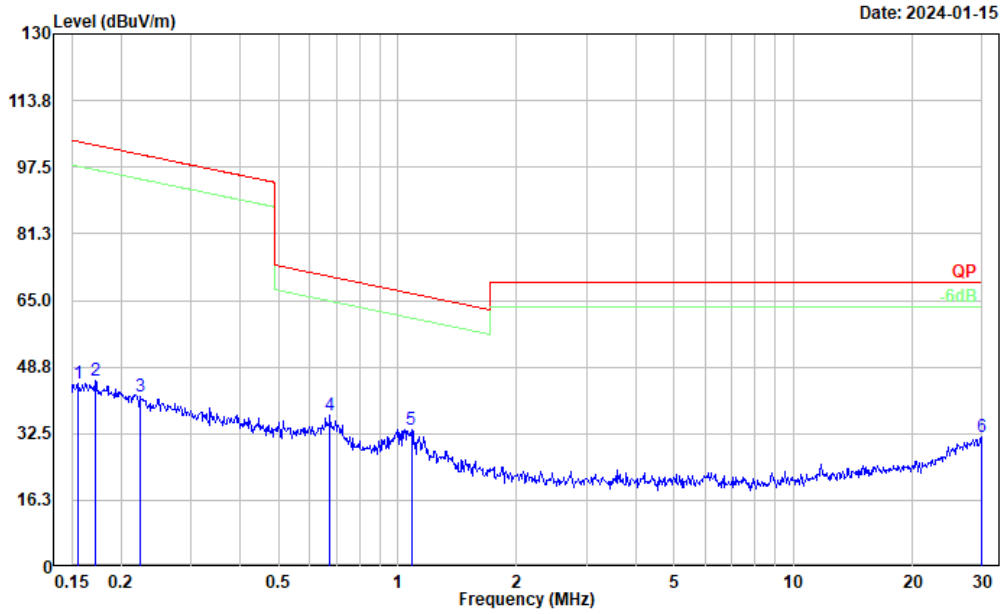
M2:

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Parallel
Note: Transmitting 2.4G WiFi



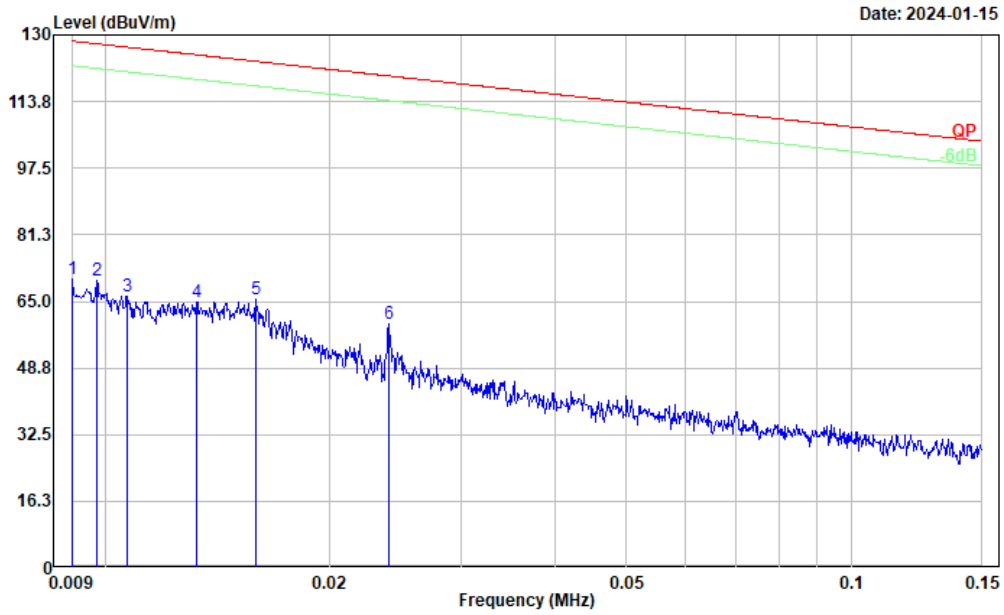
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.009	36.41	35.73	72.14	128.52	56.38	Peak
2	0.010	34.85	34.21	69.06	127.22	58.16	Peak
3	0.011	33.36	33.76	67.12	126.49	59.37	Peak
4	0.014	33.56	32.26	65.82	124.41	58.59	Peak
5	0.024	29.55	27.52	57.07	119.97	62.90	Peak
6	0.043	22.83	21.87	44.70	114.91	70.21	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Parallel
Note: Transmitting 2.4G WiFi



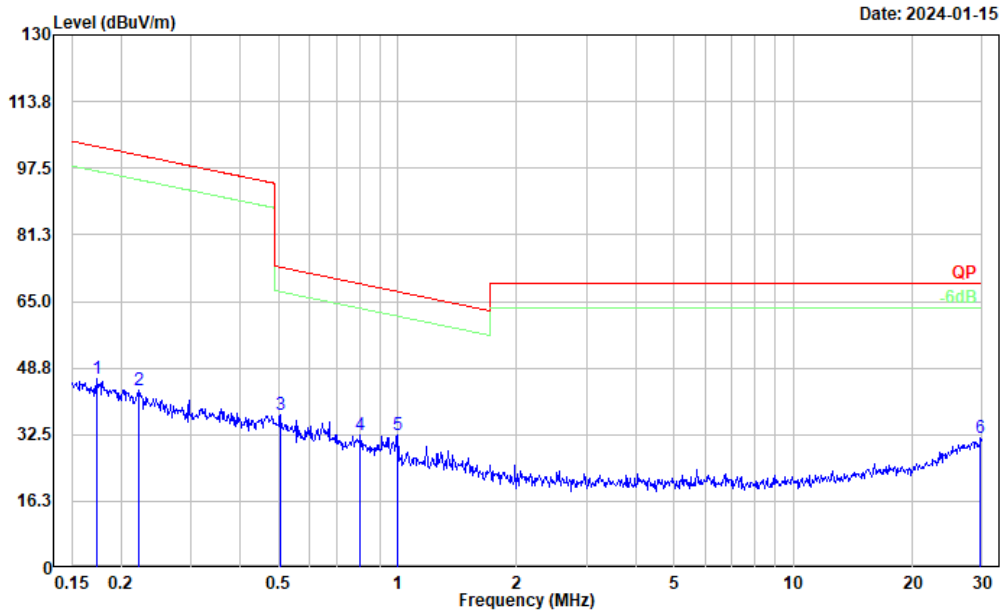
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.156	32.78	12.05	44.83	103.76	58.93	Peak
2	0.172	34.17	11.28	45.45	102.89	57.44	Peak
3	0.224	32.67	8.86	41.53	100.58	59.05	Peak
4	0.675	38.24	-1.08	37.16	70.95	33.79	Peak
5	1.082	37.99	-4.51	33.48	66.77	33.29	Peak
6	29.841	38.90	-7.13	31.77	69.54	37.77	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Perpendicular
Note: Transmitting 2.4G WiFi



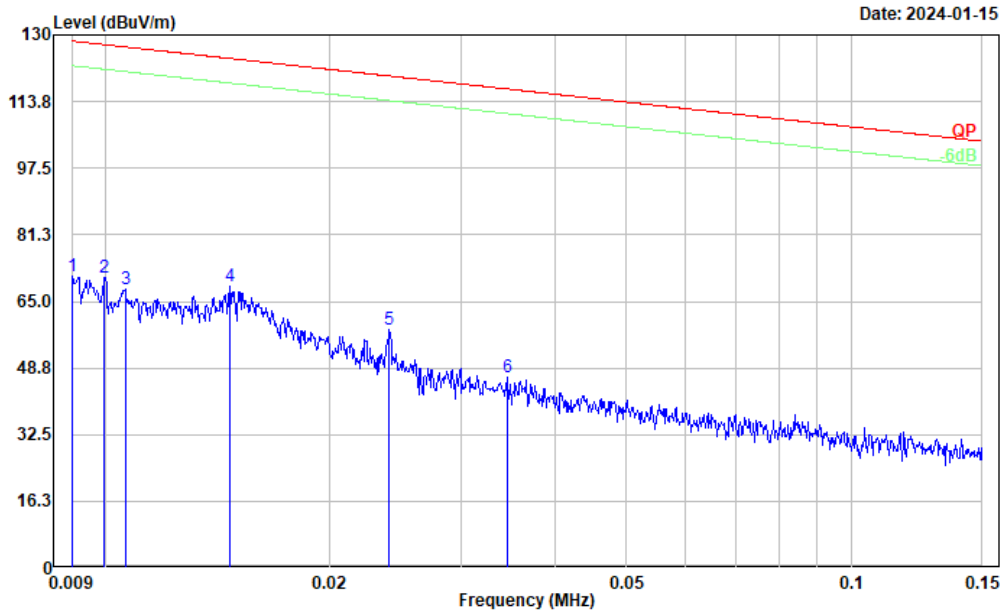
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.009	34.80	35.73	70.53	128.52	57.99	Peak
2	0.010	35.33	34.77	70.10	127.84	57.74	Peak
3	0.011	32.05	34.09	66.14	127.03	60.89	Peak
4	0.013	32.10	32.85	64.95	125.17	60.22	Peak
5	0.016	34.15	31.52	65.67	123.56	57.89	Peak
6	0.024	32.02	27.59	59.61	120.02	60.41	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Perpendicular
Note: Transmitting 2.4G WiFi



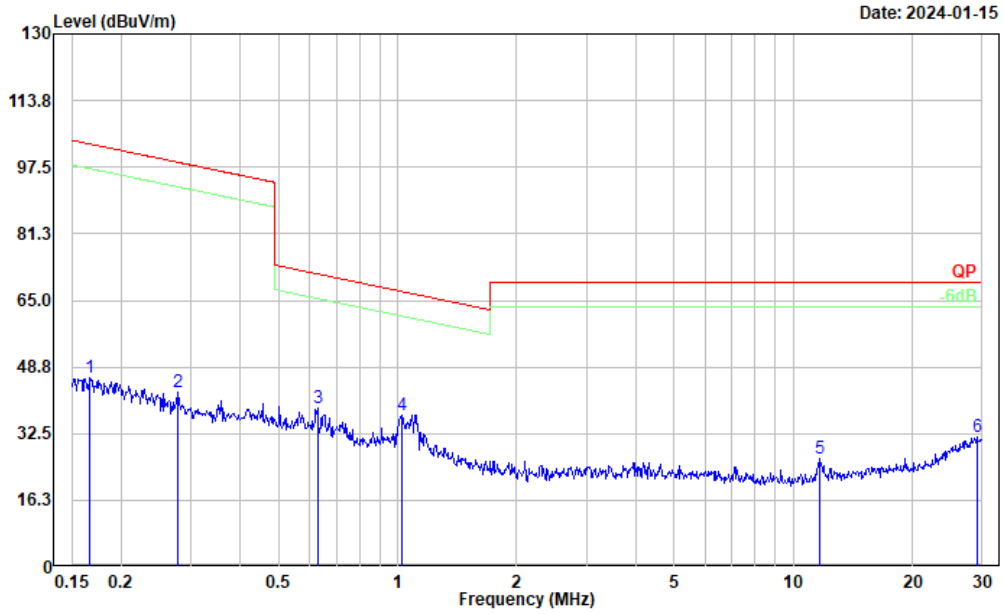
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.173	35.06	11.24	46.30	102.84	56.54	Peak
2	0.221	34.19	9.02	43.21	100.72	57.51	Peak
3	0.505	36.52	0.91	37.43	73.54	36.11	Peak
4	0.804	35.09	-2.56	32.53	69.40	36.87	Peak
5	1.000	36.61	-4.21	32.40	67.48	35.08	Peak
6	29.684	38.82	-7.16	31.66	69.54	37.88	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Ground-parallel
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.009	35.53	35.73	71.26	128.52	57.26	Peak
2	0.010	36.40	34.48	70.88	127.64	56.76	Peak
3	0.011	33.77	34.12	67.89	127.08	59.19	Peak
4	0.015	36.65	32.13	68.78	124.27	55.49	Peak
5	0.024	30.55	27.56	58.11	119.99	61.88	Peak
6	0.035	22.91	23.68	46.59	116.84	70.25	Peak

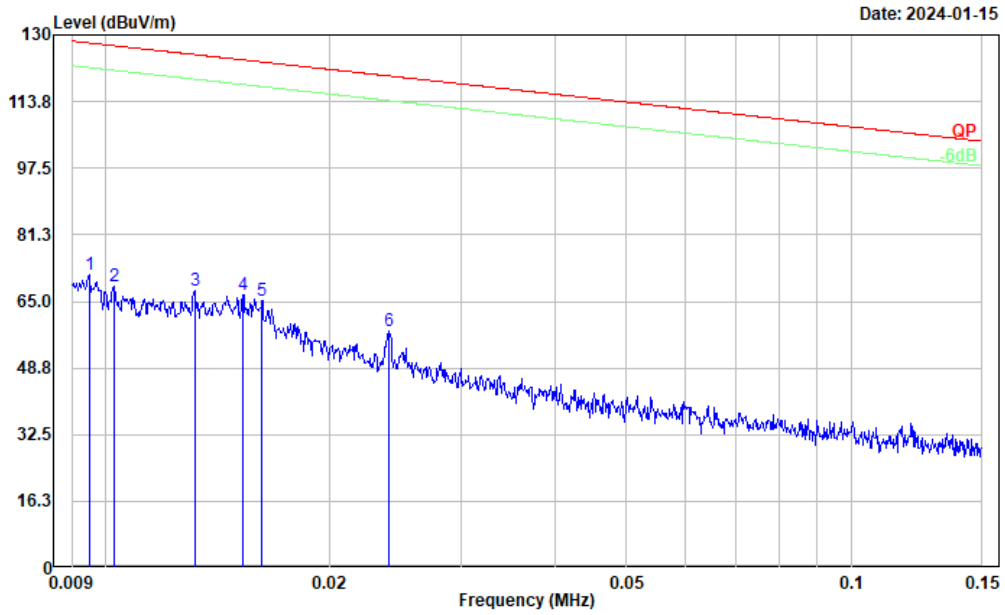
Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Ground-parallel
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.167	34.47	11.54	46.01	103.16	57.15	Peak
2	0.277	36.28	6.40	42.68	98.74	56.06	Peak
3	0.627	39.10	-0.51	38.59	71.61	33.02	Peak
4	1.021	41.43	-4.29	37.14	67.29	30.15	Peak
5	11.621	34.27	-8.00	26.27	69.54	43.27	Peak
6	29.061	39.14	-7.26	31.88	69.54	37.66	Peak

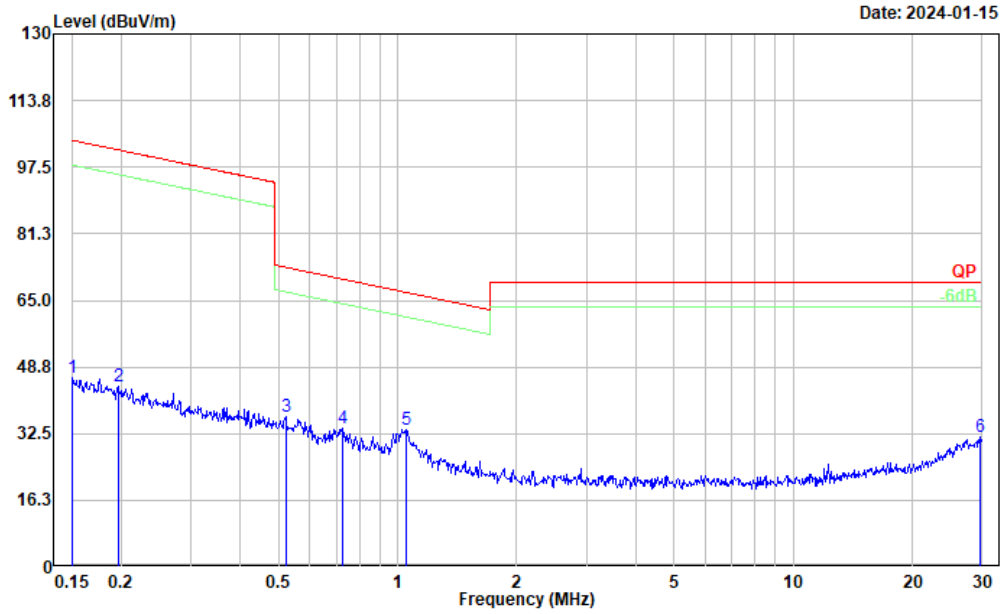
M3:

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Parallel
Note: Transmitting 2.4G WiFi



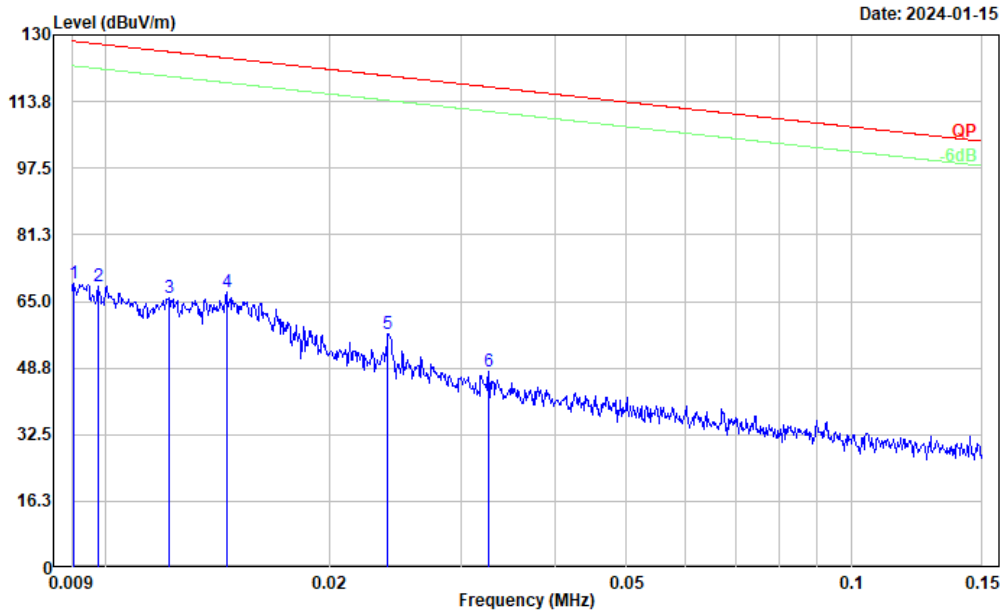
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.009	36.43	35.09	71.52	128.06	56.54	Peak
2	0.010	34.31	34.31	68.62	127.40	58.78	Peak
3	0.013	34.72	32.88	67.60	125.22	57.62	Peak
4	0.015	34.89	31.85	66.74	123.93	57.19	Peak
5	0.016	33.96	31.39	65.35	123.41	58.06	Peak
6	0.024	30.23	27.56	57.79	119.99	62.20	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Parallel
Note: Transmitting 2.4G WiFi



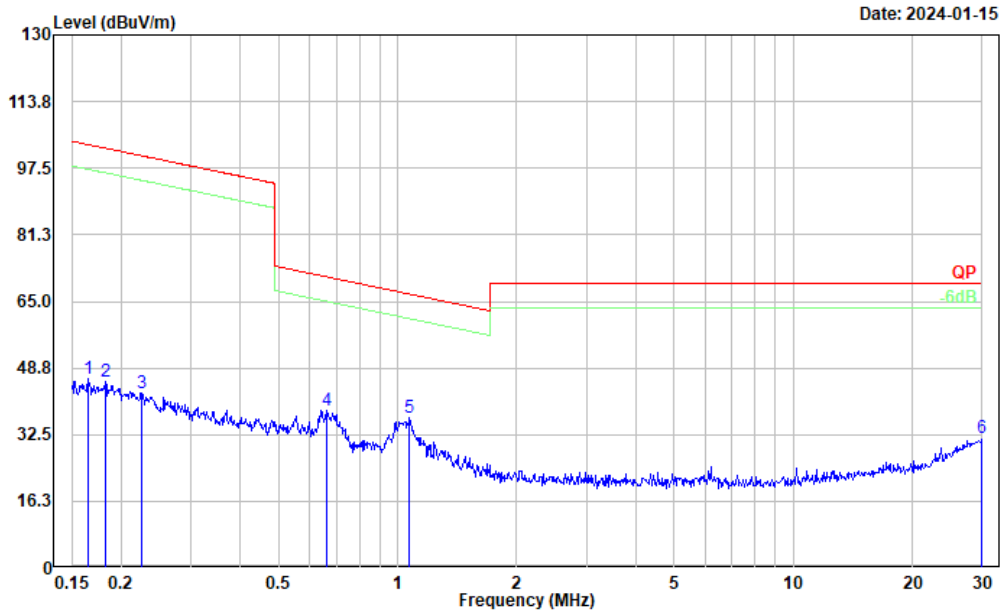
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.150	33.96	12.32	46.28	104.08	57.80	Peak
2	0.197	34.01	10.15	44.16	101.74	57.58	Peak
3	0.521	35.82	0.72	36.54	73.26	36.72	Peak
4	0.724	35.58	-1.64	33.94	70.34	36.40	Peak
5	1.054	37.81	-4.40	33.41	67.01	33.60	Peak
6	29.684	38.75	-7.16	31.59	69.54	37.95	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Perpendicular
Note: Transmitting 2.4G WiFi



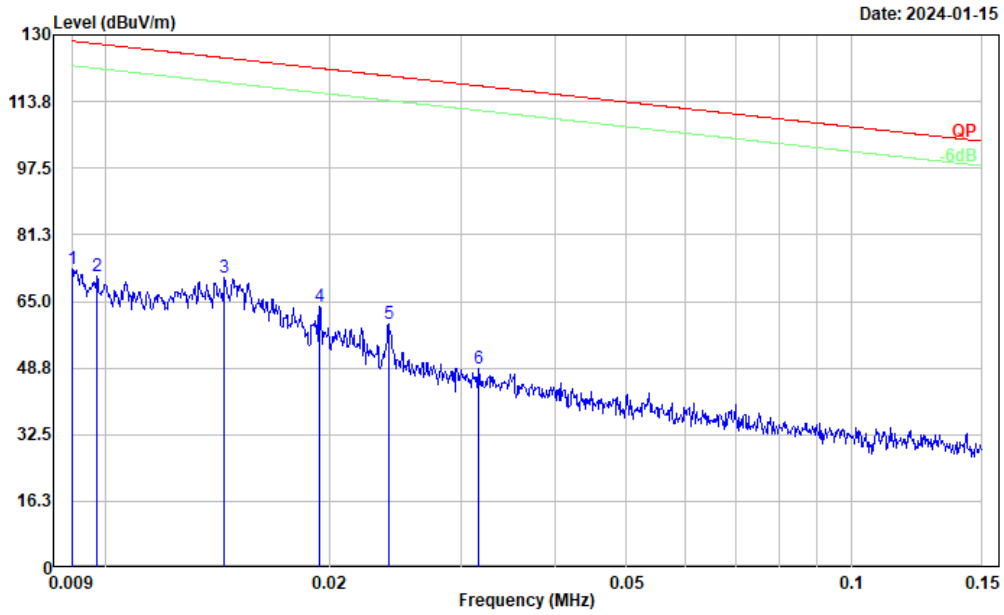
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.009	33.90	35.66	69.56	128.47	58.91	Peak
2	0.010	33.98	34.74	68.72	127.81	59.09	Peak
3	0.012	32.50	33.37	65.87	125.91	60.04	Peak
4	0.015	35.09	32.22	67.31	124.37	57.06	Peak
5	0.024	29.52	27.62	57.14	120.04	62.90	Peak
6	0.033	23.91	24.07	47.98	117.33	69.35	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Perpendicular
Note: Transmitting 2.4G WiFi



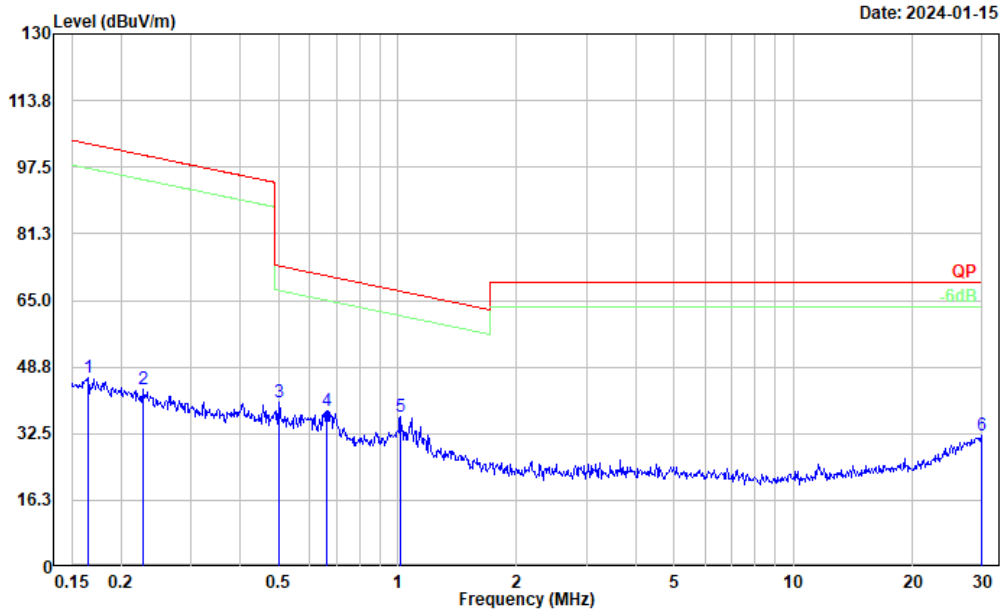
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.165	34.55	11.62	46.17	103.25	57.08	Peak
2	0.182	34.54	10.80	45.34	102.38	57.04	Peak
3	0.226	33.81	8.80	42.61	100.54	57.93	Peak
4	0.661	39.40	-0.91	38.49	71.14	32.65	Peak
5	1.071	41.14	-4.47	36.67	66.86	30.19	Peak
6	30.000	38.97	-7.11	31.86	69.54	37.68	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Ground-parallel
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.009	37.23	35.73	72.96	128.52	55.56	Peak
2	0.010	36.35	34.77	71.12	127.84	56.72	Peak
3	0.014	38.39	32.26	70.65	124.41	53.76	Peak
4	0.019	33.91	29.85	63.76	121.87	58.11	Peak
5	0.024	32.00	27.59	59.59	120.02	60.43	Peak
6	0.032	24.45	24.28	48.73	117.60	68.87	Peak

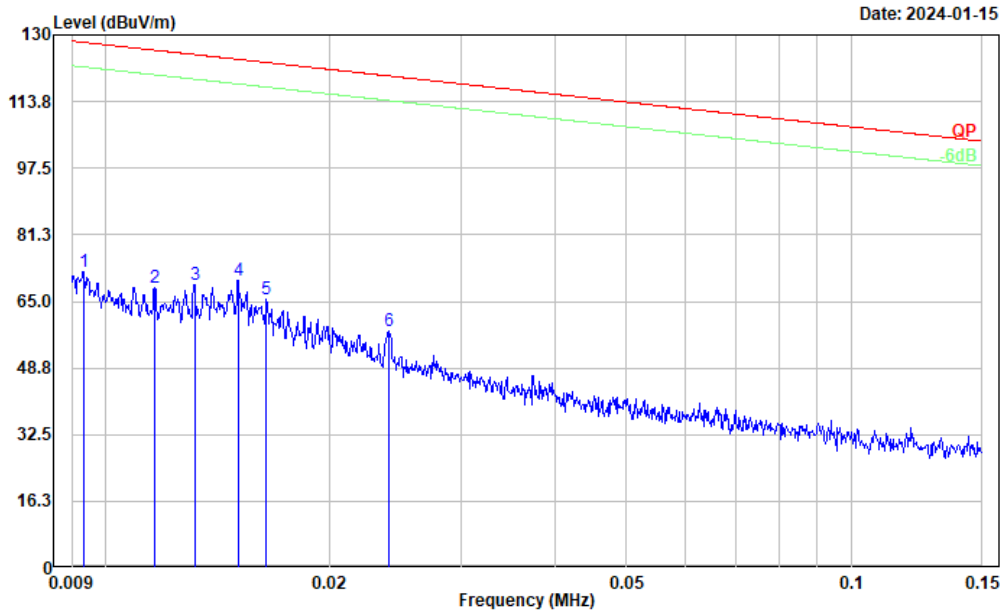
Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Ground-parallel
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.165	34.57	11.62	46.19	103.25	57.06	Peak
2	0.227	34.50	8.75	43.25	100.49	57.24	Peak
3	0.502	39.14	0.94	40.08	73.58	33.50	Peak
4	0.661	39.13	-0.91	38.22	71.14	32.92	Peak
5	1.016	40.94	-4.27	36.67	67.33	30.66	Peak
6	29.841	39.05	-7.13	31.92	69.54	37.62	Peak

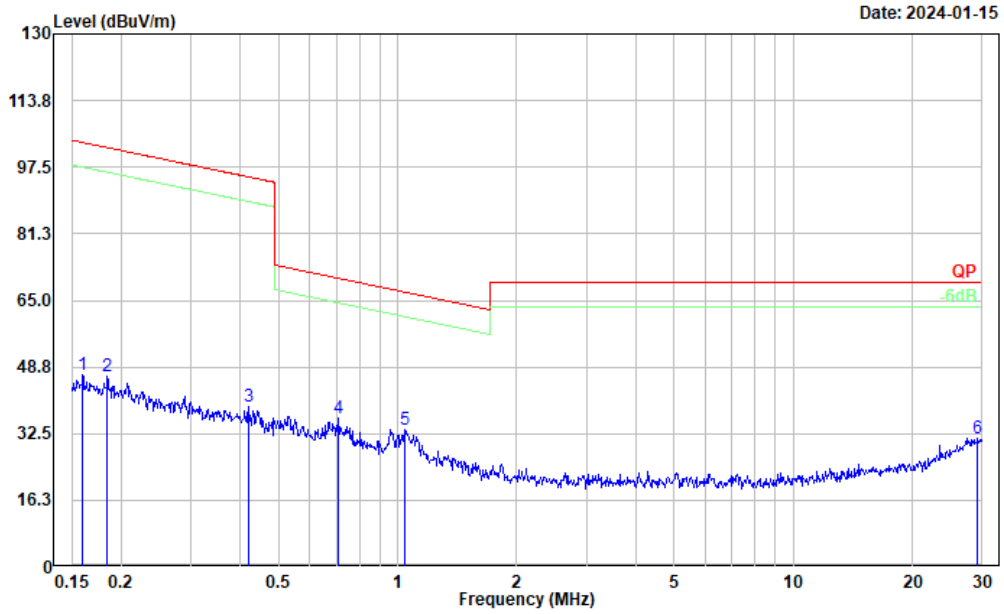
M4:

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Parallel
Note: Transmitting 2.4G WiFi



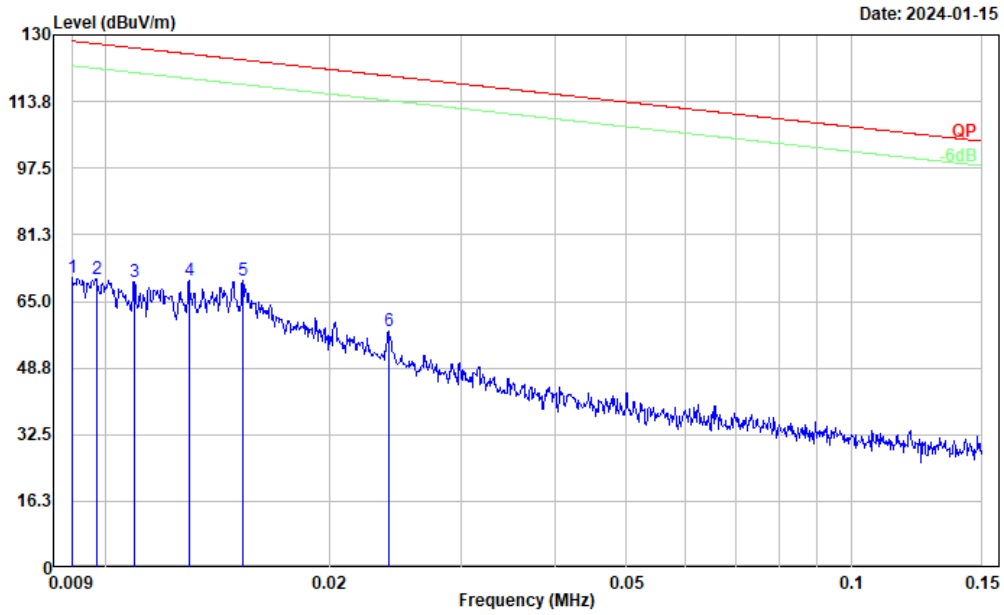
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.009	36.93	35.29	72.22	128.20	55.98	Peak
2	0.012	34.86	33.63	68.49	126.30	57.81	Peak
3	0.013	36.09	32.88	68.97	125.22	56.25	Peak
4	0.015	38.18	31.95	70.13	124.05	53.92	Peak
5	0.016	34.32	31.28	65.60	123.29	57.69	Peak
6	0.024	30.24	27.59	57.83	120.02	62.19	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Parallel
Note: Transmitting 2.4G WiFi



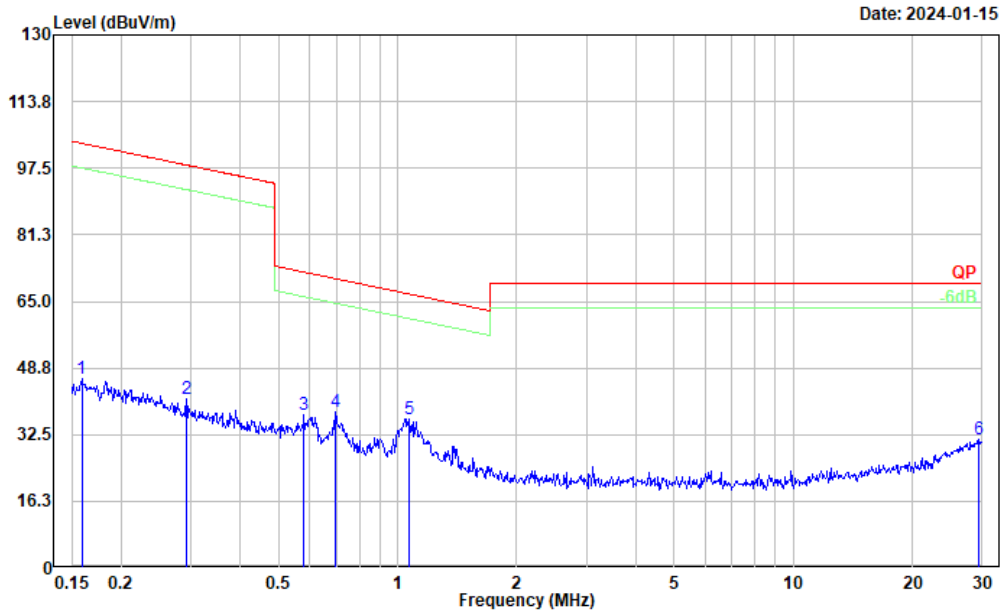
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.160	35.07	11.86	46.93	103.53	56.60	Peak
2	0.184	35.75	10.71	46.46	102.29	55.83	Peak
3	0.421	36.54	2.68	39.22	95.11	55.89	Peak
4	0.708	37.65	-1.46	36.19	70.53	34.34	Peak
5	1.043	37.96	-4.36	33.60	67.10	33.50	Peak
6	29.216	38.61	-7.24	31.37	69.54	38.17	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Perpendicular
Note: Transmitting 2.4G WiFi



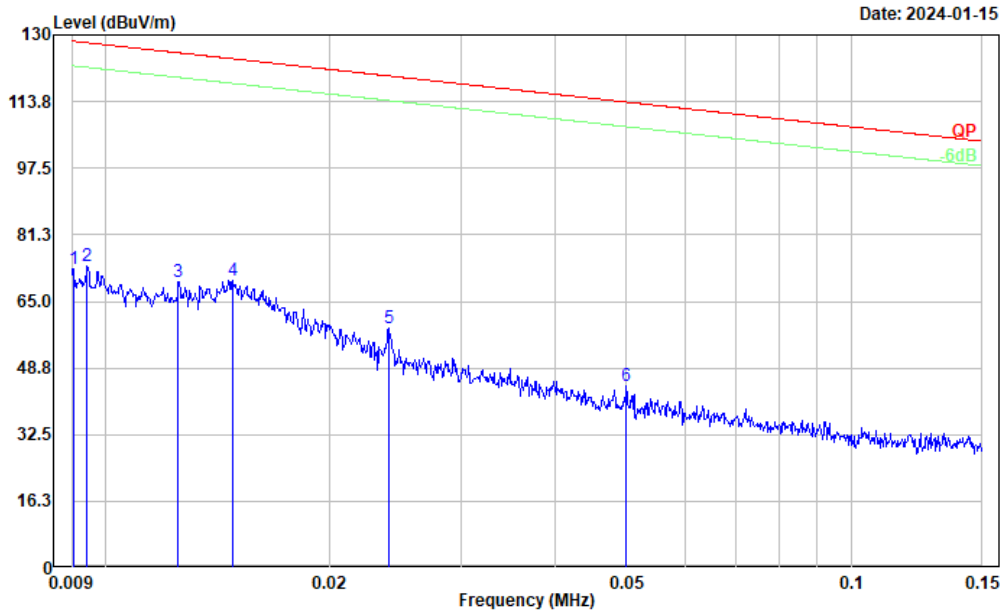
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.009	35.04	35.73	70.77	128.52	57.75	Peak
2	0.010	35.65	34.81	70.46	127.86	57.40	Peak
3	0.011	35.87	33.98	69.85	126.83	56.98	Peak
4	0.013	37.08	32.99	70.07	125.37	55.30	Peak
5	0.015	38.13	31.85	69.98	123.93	53.95	Peak
6	0.024	30.32	27.59	57.91	120.02	62.11	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Perpendicular
Note: Transmitting 2.4G WiFi



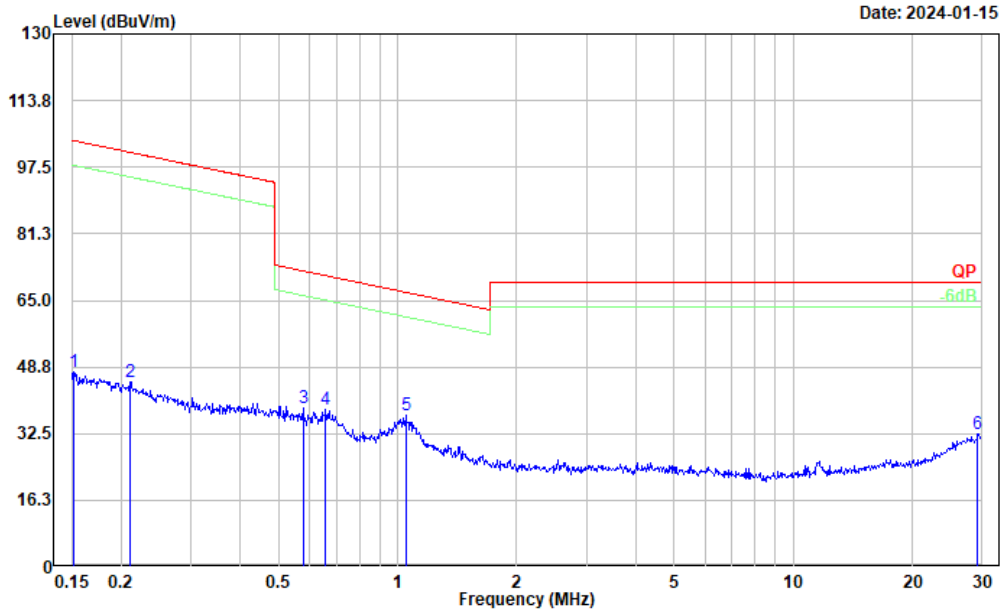
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.159	34.16	11.90	46.06	103.58	57.52	Peak
2	0.292	35.37	5.70	41.07	98.28	57.21	Peak
3	0.579	37.14	0.05	37.19	72.32	35.13	Peak
4	0.697	39.50	-1.33	38.17	70.67	32.50	Peak
5	1.071	40.78	-4.47	36.31	66.86	30.55	Peak
6	29.371	38.69	-7.21	31.48	69.54	38.06	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Ground-parallel
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.009	37.38	35.66	73.04	128.47	55.43	Peak
2	0.009	38.33	35.16	73.49	128.10	54.61	Peak
3	0.013	36.48	33.20	69.68	125.66	55.98	Peak
4	0.015	38.03	32.07	70.10	124.19	54.09	Peak
5	0.024	30.74	27.59	58.33	120.02	61.69	Peak
6	0.050	23.97	20.45	44.42	113.64	69.22	Peak

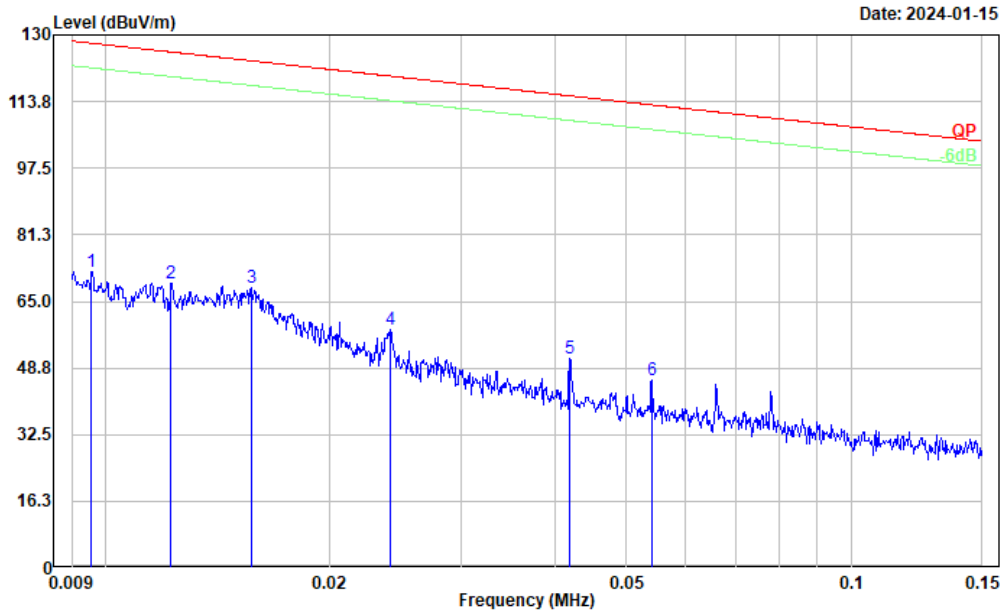
Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Ground-parallel
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.152	35.48	12.24	47.72	103.99	56.27	Peak
2	0.211	35.62	9.50	45.12	101.14	56.02	Peak
3	0.576	38.60	0.08	38.68	72.36	33.68	Peak
4	0.658	39.34	-0.87	38.47	71.19	32.72	Peak
5	1.049	41.53	-4.38	37.15	67.05	29.90	Peak
6	29.216	39.81	-7.24	32.57	69.54	36.97	Peak

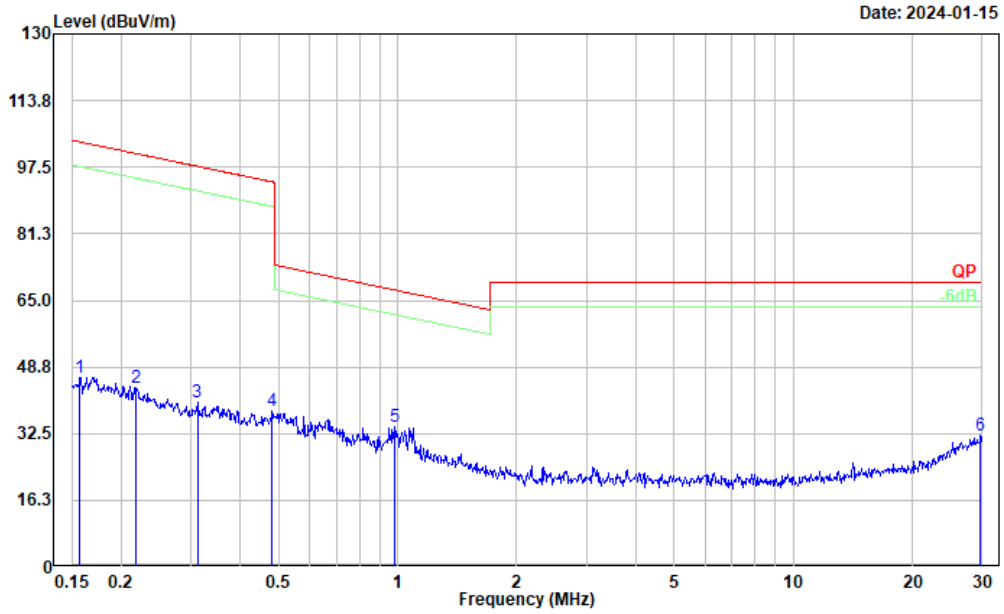
M5:

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Parallel
Note: Transmitting 2.4G WiFi



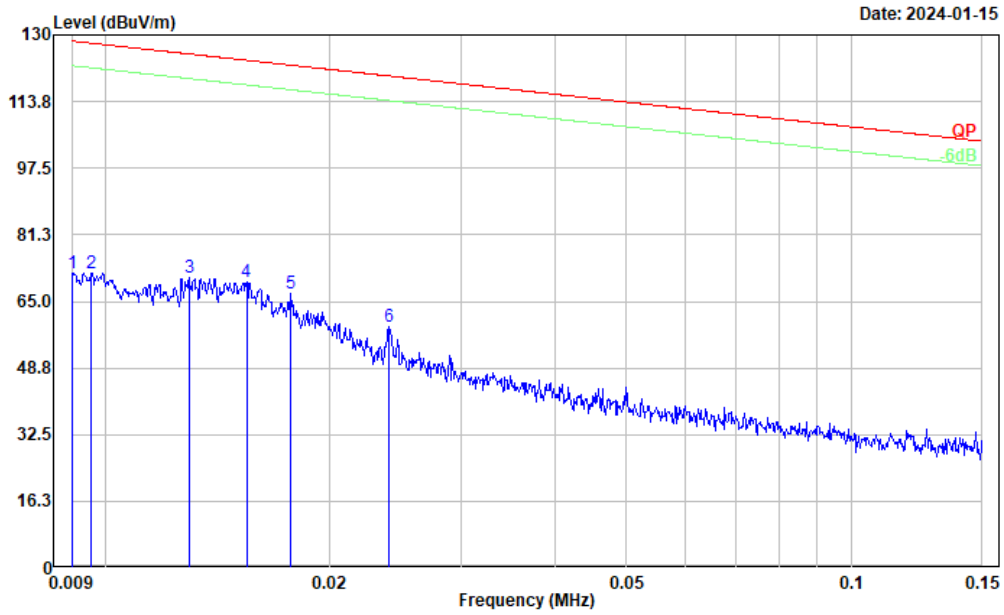
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.010	37.18	34.98	72.16	127.98	55.82	Peak
2	0.012	36.19	33.34	69.53	125.86	56.33	Peak
3	0.016	36.77	31.65	68.42	123.71	55.29	Peak
4	0.024	30.65	27.52	58.17	119.97	61.80	Peak
5	0.042	28.85	22.12	50.97	115.15	64.18	Peak
6	0.054	25.78	19.88	45.66	112.95	67.29	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Parallel
Note: Transmitting 2.4G WiFi



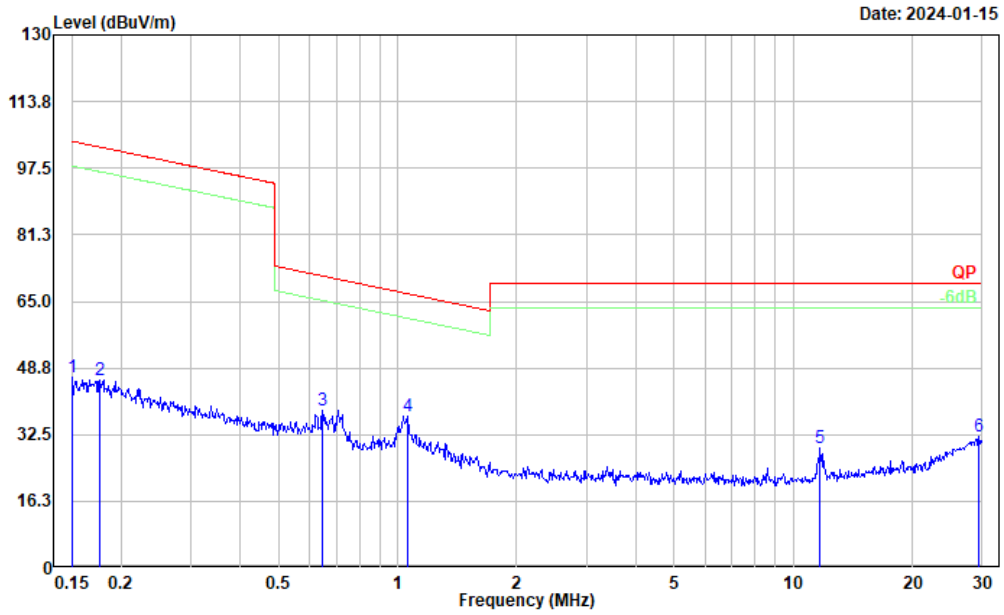
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.157	34.22	11.97	46.19	103.67	57.48	Peak
2	0.219	34.71	9.13	43.84	100.81	56.97	Peak
3	0.312	35.01	5.09	40.10	97.73	57.63	Peak
4	0.481	36.58	1.37	37.95	93.96	56.01	Peak
5	0.979	38.23	-4.03	34.20	67.66	33.46	Peak
6	29.684	39.36	-7.16	32.20	69.54	37.34	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Perpendicular
Note: Transmitting 2.4G WiFi



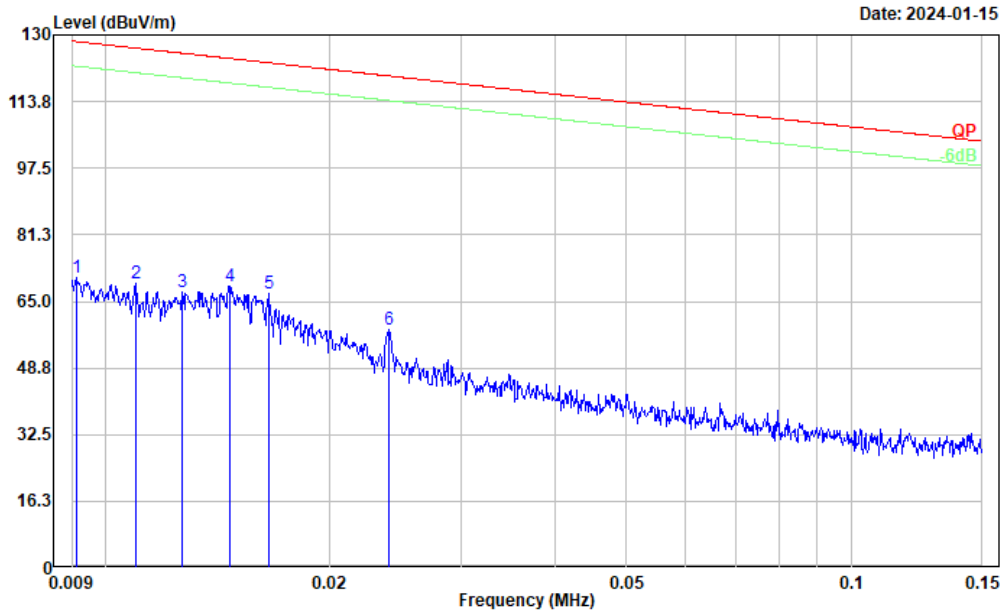
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.009	36.33	35.70	72.03	128.50	56.47	Peak
2	0.010	36.92	34.98	71.90	127.98	56.08	Peak
3	0.013	37.66	32.99	70.65	125.37	54.72	Peak
4	0.015	37.84	31.76	69.60	123.83	54.23	Peak
5	0.018	36.25	30.64	66.89	122.63	55.74	Peak
6	0.024	31.21	27.59	58.80	120.02	61.22	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Perpendicular
Note: Transmitting 2.4G WiFi



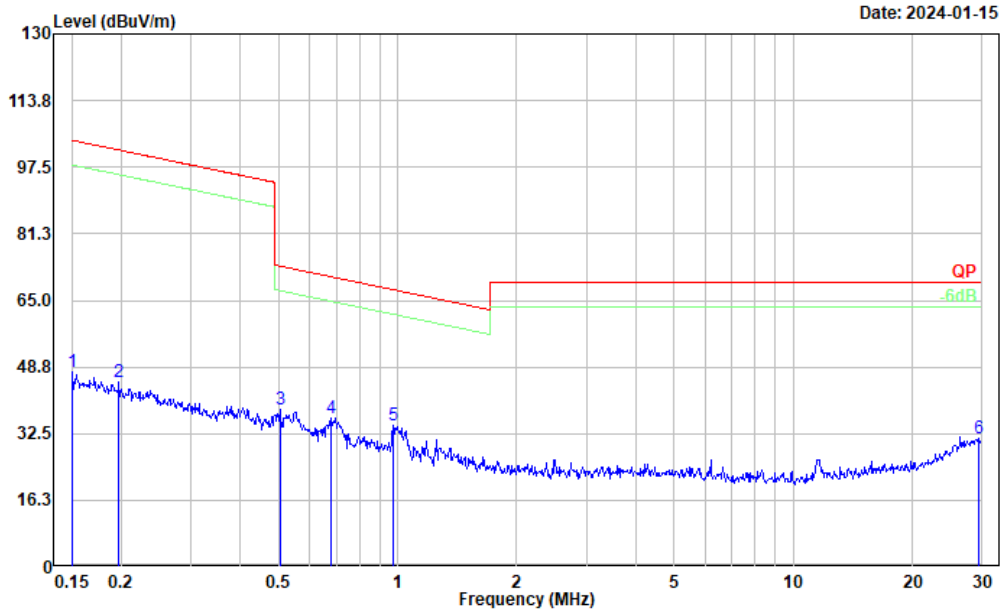
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.150	34.30	12.32	46.62	104.08	57.46	Peak
2	0.177	34.89	11.07	45.96	102.66	56.70	Peak
3	0.647	39.05	-0.75	38.30	71.33	33.03	Peak
4	1.060	41.51	-4.42	37.09	66.96	29.87	Peak
5	11.683	37.08	-7.99	29.09	69.54	40.45	Peak
6	29.371	39.26	-7.21	32.05	69.54	37.49	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Ground-parallel
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.009	35.22	35.56	70.78	128.40	57.62	Peak
2	0.011	35.32	33.96	69.28	126.81	57.53	Peak
3	0.013	34.29	33.11	67.40	125.54	58.14	Peak
4	0.015	36.53	32.16	68.69	124.29	55.60	Peak
5	0.017	35.66	31.23	66.89	123.24	56.35	Peak
6	0.024	30.49	27.56	58.05	119.99	61.94	Peak

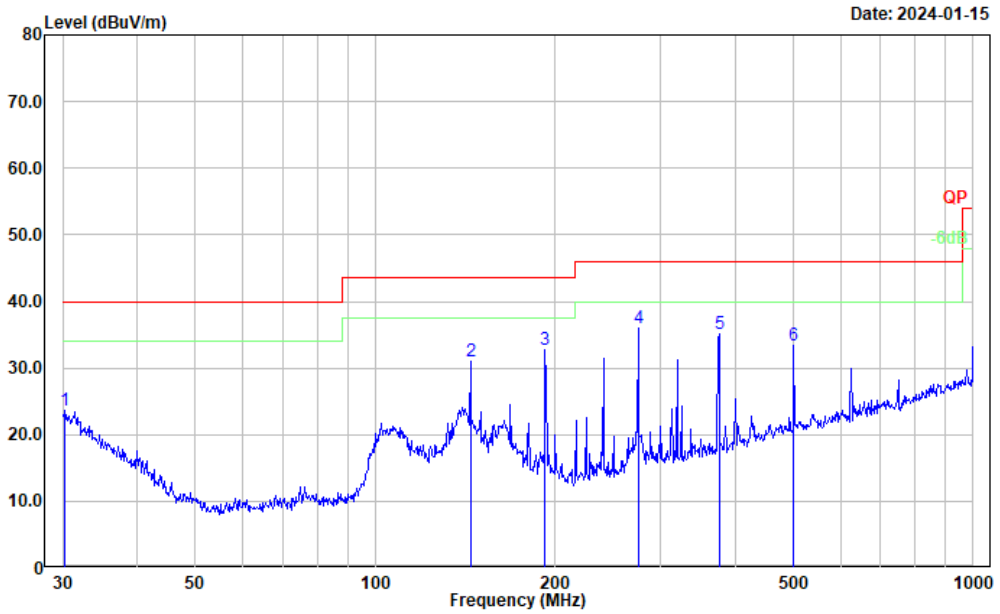
Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: Ground-parallel
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	0.150	35.14	12.32	47.46	104.08	56.62	Peak
2	0.198	35.01	10.10	45.11	101.69	56.58	Peak
3	0.505	37.45	0.91	38.36	73.54	35.18	Peak
4	0.679	37.29	-1.12	36.17	70.91	34.74	Peak
5	0.974	38.67	-3.99	34.68	67.71	33.03	Peak
6	29.371	38.61	-7.21	31.40	69.54	38.14	Peak

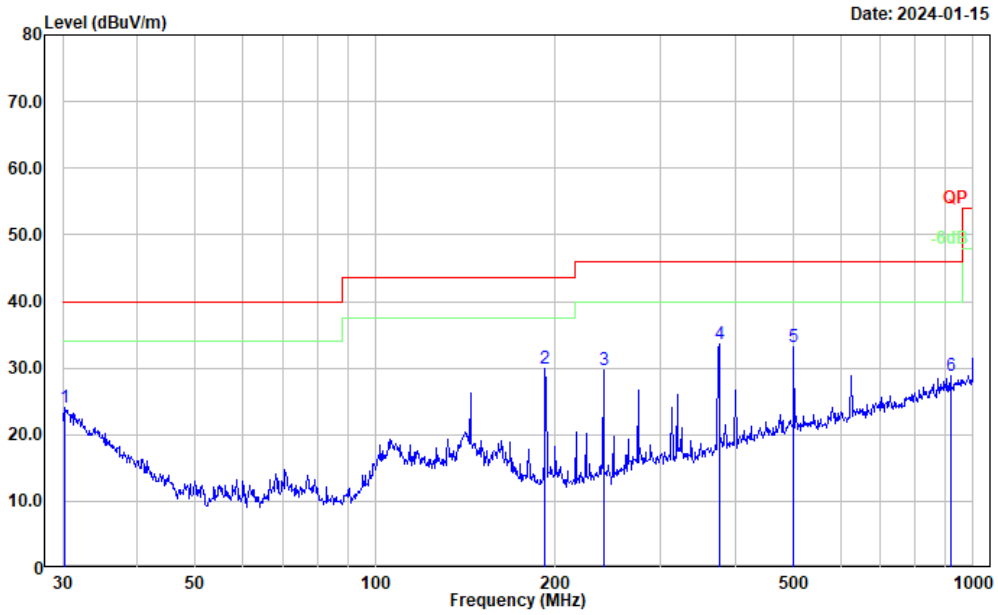
2) 30MHz-1GHz(maximum output power mode(802.11g mode Low channel) was tested):
M1:

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: horizontal
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.317	27.67	-4.06	23.61	40.00	16.39	Peak
2	144.335	43.19	-12.09	31.10	43.50	12.40	Peak
3	192.419	46.35	-13.51	32.84	43.50	10.66	Peak
4	275.157	46.79	-10.88	35.91	46.00	10.09	Peak
5	375.939	44.07	-8.97	35.10	46.00	10.90	Peak
6	501.179	39.14	-5.85	33.29	46.00	12.71	Peak

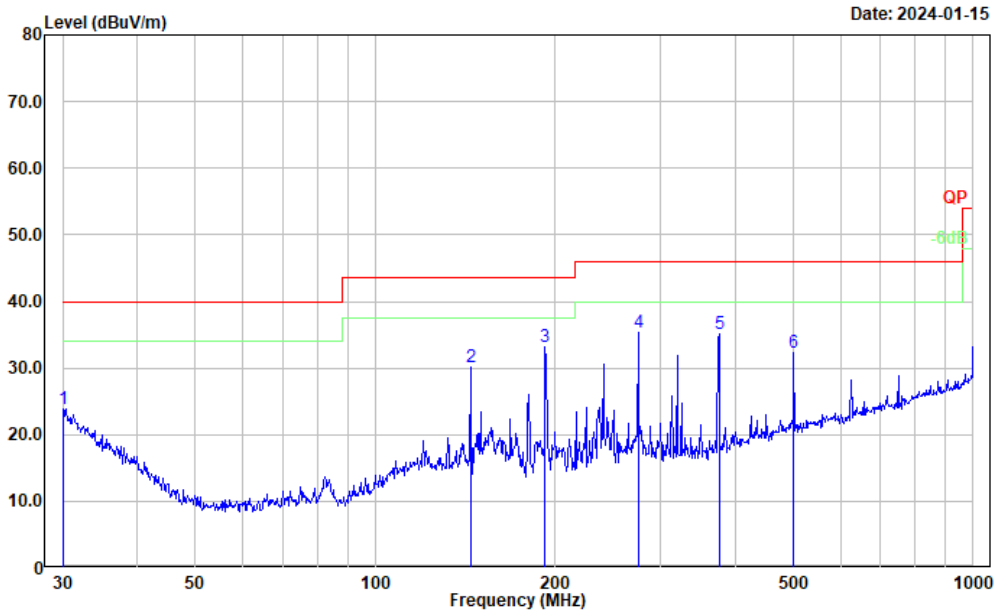
Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: vertical
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.317	28.17	-4.06	24.11	40.00	15.89	Peak
2	192.419	43.44	-13.51	29.93	43.50	13.57	Peak
3	240.830	42.53	-12.82	29.71	46.00	16.29	Peak
4	375.939	42.63	-8.97	33.66	46.00	12.34	Peak
5	501.179	38.92	-5.85	33.07	46.00	12.93	Peak
6	916.069	28.42	0.46	28.88	46.00	17.12	Peak

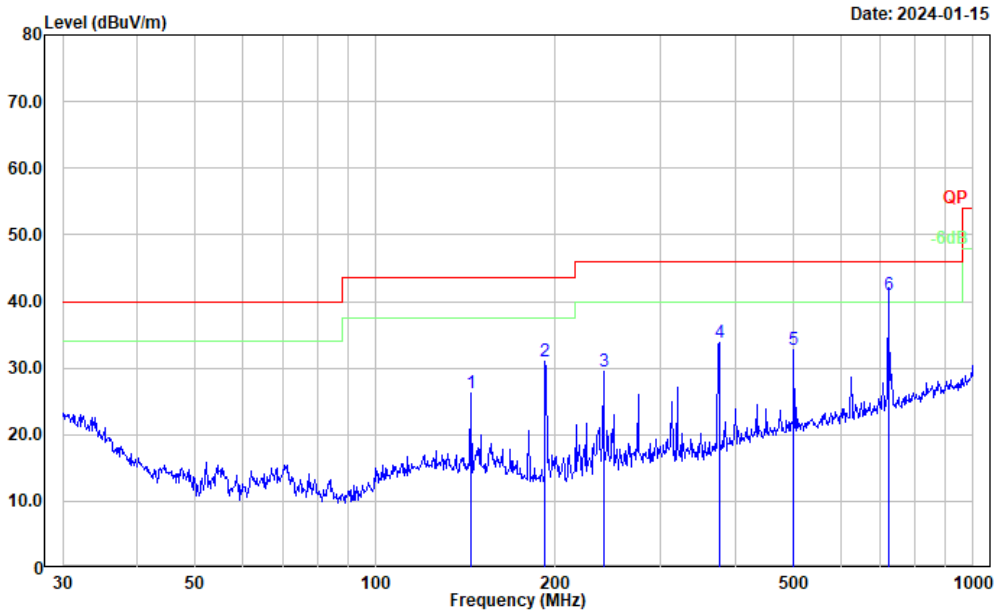
M2:

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: horizontal
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.000	27.66	-3.87	23.79	40.00	16.21	Peak
2	144.335	42.18	-12.09	30.09	43.50	13.41	Peak
3	192.419	46.62	-13.51	33.11	43.50	10.39	Peak
4	275.157	46.27	-10.88	35.39	46.00	10.61	Peak
5	375.939	44.09	-8.97	35.12	46.00	10.88	Peak
6	501.179	38.05	-5.85	32.20	46.00	13.80	Peak

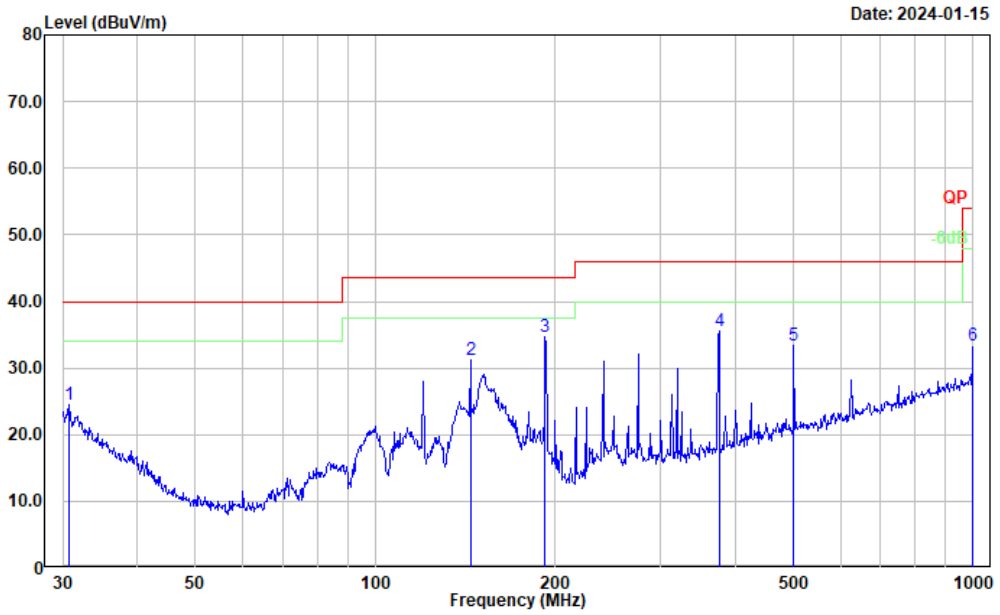
Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: vertical
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	144.335	38.32	-12.09	26.23	43.50	17.27	Peak
2	192.419	44.43	-13.51	30.92	43.50	12.58	Peak
3	240.830	42.22	-12.82	29.40	46.00	16.60	Peak
4	375.939	42.85	-8.97	33.88	46.00	12.12	Peak
5	501.179	38.52	-5.85	32.67	46.00	13.33	Peak
6	721.726	43.71	-2.74	40.97	46.00	5.03	QP

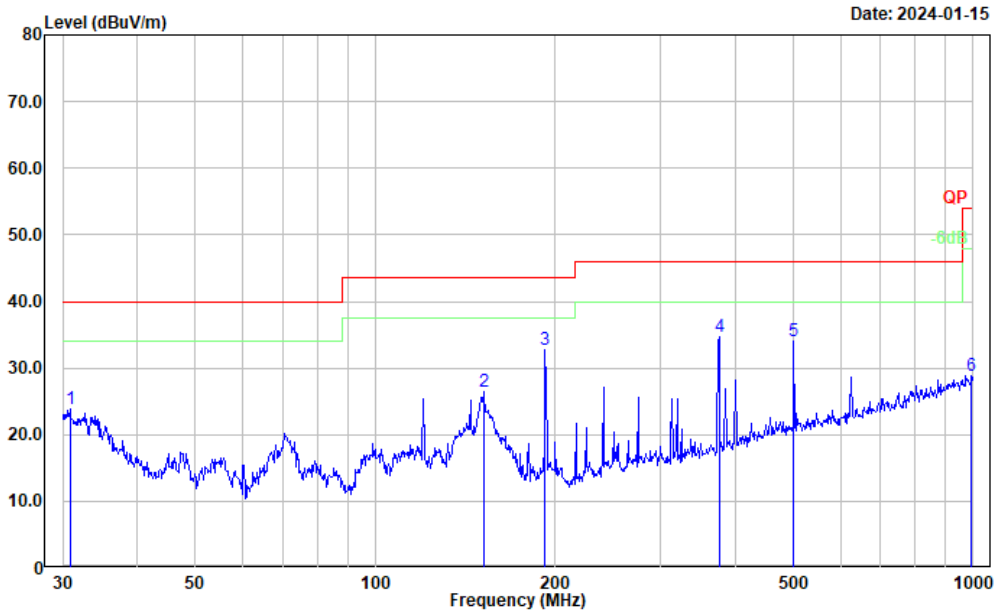
M3:

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: horizontal
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.745	28.72	-4.31	24.41	40.00	15.59	Peak
2	144.335	43.22	-12.09	31.13	43.50	12.37	Peak
3	192.419	48.17	-13.51	34.66	43.50	8.84	Peak
4	375.939	44.63	-8.97	35.66	46.00	10.34	Peak
5	501.179	39.31	-5.85	33.46	46.00	12.54	Peak
6	1000.000	31.86	1.44	33.30	54.00	20.70	Peak

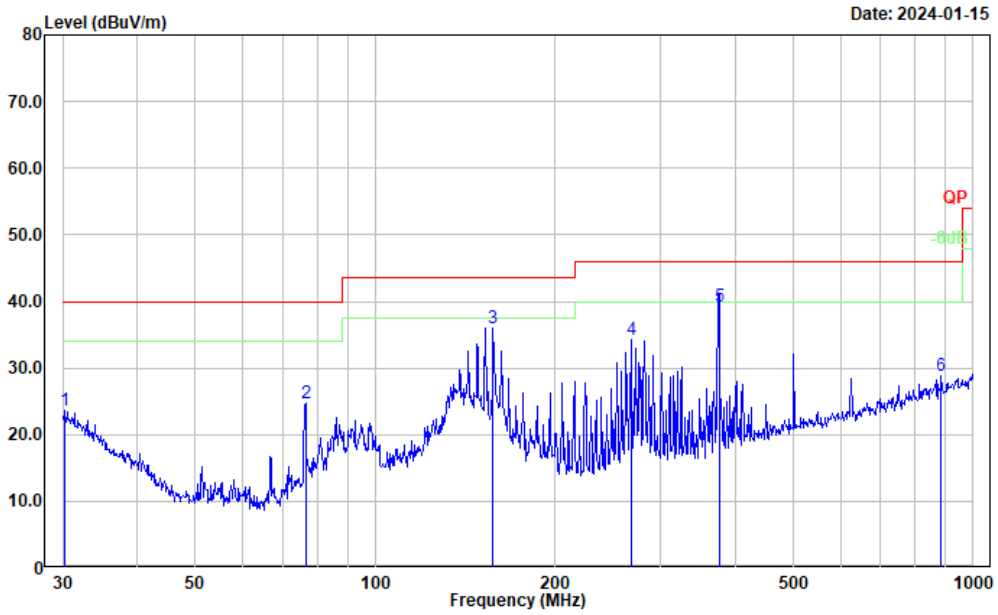
Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: vertical
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.853	28.22	-4.37	23.85	40.00	16.15	Peak
2	151.597	38.61	-12.18	26.43	43.50	17.07	Peak
3	192.419	46.26	-13.51	32.75	43.50	10.75	Peak
4	375.939	43.76	-8.97	34.79	46.00	11.21	Peak
5	501.179	39.82	-5.85	33.97	46.00	12.03	Peak
6	993.011	27.41	1.50	28.91	54.00	25.09	Peak

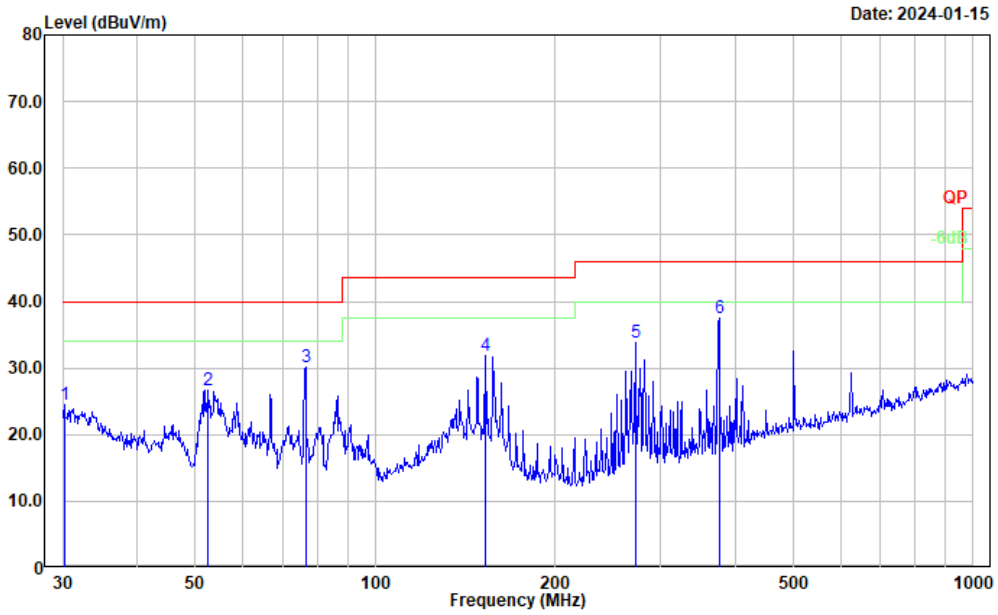
M4:

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: horizontal
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.317	27.69	-4.06	23.63	40.00	16.37	Peak
2	76.512	41.86	-17.07	24.79	40.00	15.21	Peak
3	157.559	47.90	-11.86	36.04	43.50	7.46	Peak
4	267.546	45.36	-11.01	34.35	46.00	11.65	Peak
5	375.939	48.22	-8.97	39.25	46.00	6.75	QP
6	884.503	29.24	-0.32	28.92	46.00	17.08	Peak

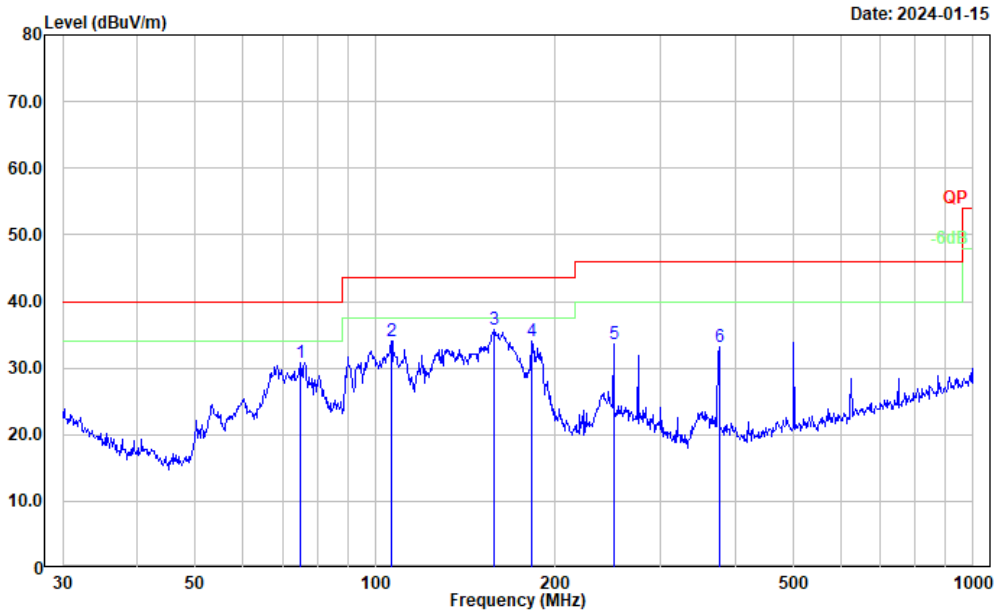
Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: vertical
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.211	28.53	-4.00	24.53	40.00	15.47	Peak
2	52.575	44.19	-17.56	26.63	40.00	13.37	Peak
3	76.512	47.10	-17.07	30.03	40.00	9.97	Peak
4	152.664	43.96	-12.17	31.79	43.50	11.71	Peak
5	272.278	44.61	-10.89	33.72	46.00	12.28	Peak
6	375.939	46.57	-8.97	37.60	46.00	8.40	Peak

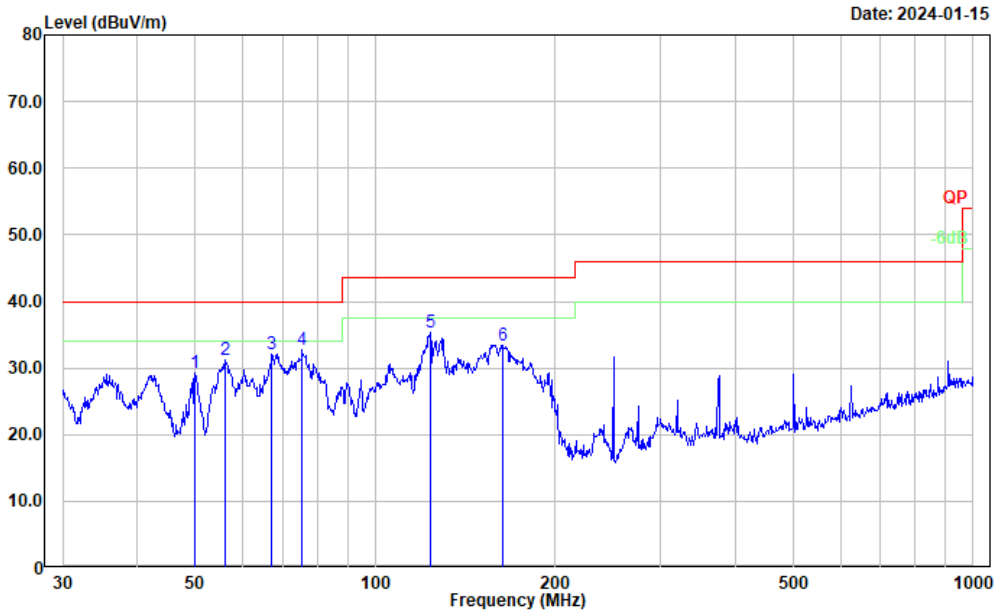
M5:

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: horizontal
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	74.919	48.03	-17.18	30.85	40.00	9.15	Peak
2	106.385	46.97	-12.88	34.09	43.50	9.41	Peak
3	158.112	47.56	-11.87	35.69	43.50	7.81	Peak
4	182.559	47.61	-13.64	33.97	43.50	9.53	Peak
5	250.301	46.52	-12.94	33.58	46.00	12.42	Peak
6	375.939	42.25	-8.97	33.28	46.00	12.72	Peak

Project No.: CR231167606 -RF
Tester: Vic Du
Polarization: vertical
Note: Transmitting 2.4G WiFi



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	49.881	46.18	-16.93	29.25	40.00	10.75	Peak
2	56.001	48.96	-17.75	31.21	40.00	8.79	Peak
3	67.202	49.42	-17.28	32.14	40.00	7.86	Peak
4	75.446	49.90	-17.14	32.76	40.00	7.24	Peak
5	123.699	46.31	-10.89	35.42	43.50	8.08	Peak
6	163.755	45.59	-12.15	33.44	43.50	10.06	Peak

3) 1-25GHz:

Tests was performed with the Powered by Adapter 2# mode:

802.11b Mode

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel:				2412	MHz		
2390.000	29.75	PK	H	31.71	61.46	74.00	12.54
2390.000	17.43	AV	H	31.71	49.14	54.00	4.86
2390.000	30.67	PK	V	31.71	62.38	74.00	11.62
2390.000	18.86	AV	V	31.71	50.57	54.00	3.43
4824.000	38.17	PK	H	11.26	49.43	74.00	24.57
4824.000	25.11	AV	H	11.26	36.37	54.00	17.63
4824.000	38.28	PK	V	11.26	49.54	74.00	24.46
4824.000	25.24	AV	V	11.26	36.50	54.00	17.50
7236.000	33.23	PK	H	15.24	48.47	74.00	25.53
7236.000	20.17	AV	H	15.24	35.41	54.00	18.59
7236.000	33.48	PK	V	15.24	48.72	74.00	25.28
7236.000	20.35	AV	V	15.24	35.59	54.00	18.41
Middle Channel:				2437	MHz		
4874.000	38.43	PK	H	11.45	49.88	74.00	24.12
4874.000	25.46	AV	H	11.45	36.91	54.00	17.09
4874.000	38.76	PK	V	11.45	50.21	74.00	23.79
4874.000	25.69	AV	V	11.45	37.14	54.00	16.86
7311.000	33.34	PK	H	15.58	48.92	74.00	25.08
7311.000	20.16	AV	H	15.58	35.74	54.00	18.26
7311.000	33.63	PK	V	15.58	49.21	74.00	24.79
7311.000	20.40	AV	V	15.58	35.98	54.00	18.02
High Channel:				2462	MHz		
2483.500	30.15	PK	H	32.19	62.34	74.00	11.66
2483.500	19.54	AV	H	32.19	51.73	54.00	2.27
2483.500	31.87	PK	V	32.19	64.06	74.00	9.94
2483.500	20.72	AV	V	32.19	52.91	54.00	1.09
4924.000	38.36	PK	H	11.67	50.03	74.00	23.97
4924.000	25.47	AV	H	11.67	37.14	54.00	16.86
4924.000	38.68	PK	V	11.67	50.35	74.00	23.65
4924.000	25.86	AV	V	11.67	37.53	54.00	**16.47**
7386.000	33.46	PK	H	15.63	49.09	74.00	24.91
7386.000	20.25	AV	H	15.63	35.88	54.00	18.12
7386.000	33.63	PK	V	15.63	49.26	74.00	24.74
7386.000	20.88	AV	V	15.63	36.51	54.00	17.49

802.11g Mode

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 2412 MHz							
2390.000	34.52	PK	H	31.71	66.23	74.00	7.77
2390.000	17.65	AV	H	31.71	49.36	54.00	4.64
2390.000	35.47	PK	V	31.71	67.18	74.00	6.82
2390.000	18.32	AV	V	31.71	50.03	54.00	3.97
4824.000	35.14	PK	H	11.26	46.40	74.00	27.60
4824.000	22.08	AV	H	11.26	33.34	54.00	20.66
4824.000	34.78	PK	V	11.26	46.04	74.00	27.96
4824.000	21.53	AV	V	11.26	32.79	54.00	21.21
7236.000	33.46	PK	H	15.24	48.70	74.00	25.30
7236.000	20.61	AV	H	15.24	35.85	54.00	18.15
7236.000	33.73	PK	V	15.24	48.97	74.00	25.03
7236.000	20.52	AV	V	15.24	35.76	54.00	18.24
Middle Channel: 2437 MHz							
4874.000	35.04	PK	H	11.45	46.49	74.00	27.51
4874.000	22.09	AV	H	11.45	33.54	54.00	20.46
4874.000	35.02	PK	V	11.45	46.47	74.00	27.53
4874.000	21.94	AV	V	11.45	33.39	54.00	20.61
7311.000	33.37	PK	H	15.58	48.95	74.00	25.05
7311.000	20.36	AV	H	15.58	35.94	54.00	18.06
7311.000	33.49	PK	V	15.58	49.07	74.00	24.93
7311.000	20.22	AV	V	15.58	35.80	54.00	18.20
High Channel: 2462 MHz							
2483.500	38.75	PK	H	32.19	70.94	74.00	3.06
2483.500	19.02	AV	H	32.19	51.21	54.00	2.79
2483.500	39.19	PK	V	32.19	71.38	74.00	2.62
2483.500	19.58	AV	V	32.19	51.77	54.00	2.23
4924.000	34.21	PK	H	11.67	45.88	74.00	28.12
4924.000	21.35	AV	H	11.67	33.02	54.00	20.98
4924.000	34.63	PK	V	11.67	46.30	74.00	27.70
4924.000	21.17	AV	V	11.67	32.84	54.00	21.16
7386.000	33.35	PK	H	15.63	48.98	74.00	25.02
7386.000	20.75	AV	H	15.63	36.38	54.00	17.62
7386.000	33.64	PK	V	15.63	49.27	74.00	24.73
7386.000	20.76	AV	V	15.63	36.39	54.00	17.61

802.11n ht20 Mode:

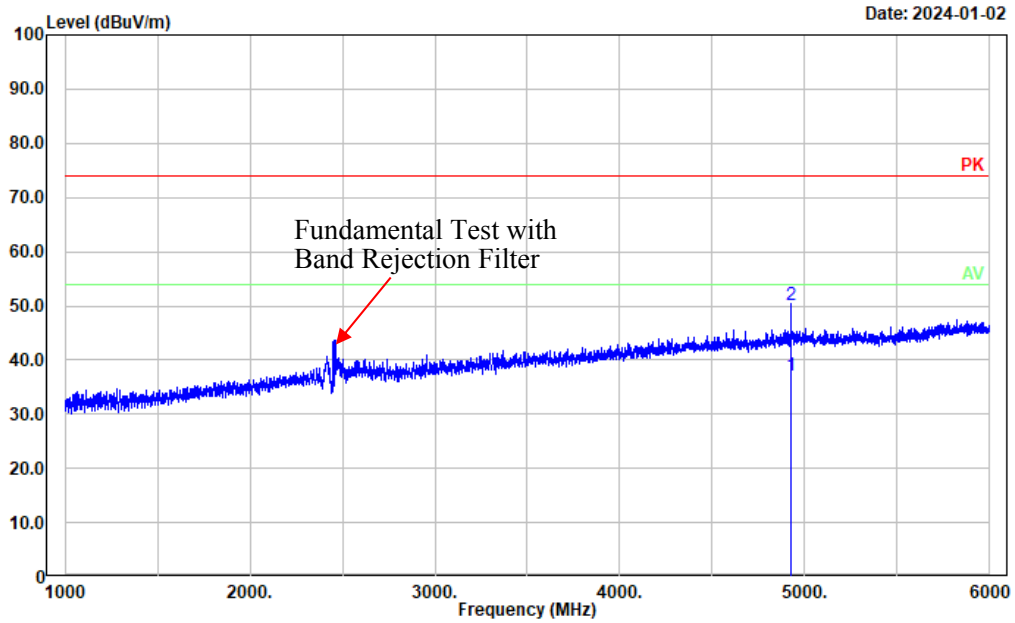
Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 2412 MHz							
2390.000	30.64	PK	H	31.71	62.35	74.00	11.65
2390.000	16.12	AV	H	31.71	47.83	54.00	6.17
2390.000	32.50	PK	V	31.71	64.21	74.00	9.79
2390.000	17.19	AV	V	31.71	48.90	54.00	5.10
4824.000	34.21	PK	H	11.26	45.47	74.00	28.53
4824.000	21.22	AV	H	11.26	32.48	54.00	21.52
4824.000	34.28	PK	V	11.26	45.54	74.00	28.46
4824.000	21.30	AV	V	11.26	32.56	54.00	21.44
7236.000	33.53	PK	H	15.24	48.77	74.00	25.23
7236.000	20.41	AV	H	15.24	35.65	54.00	18.35
7236.000	33.65	PK	V	15.24	48.89	74.00	25.11
7236.000	20.47	AV	V	15.24	35.71	54.00	18.29
Middle Channel: 2437 MHz							
4874.000	33.97	PK	H	11.45	45.42	74.00	28.58
4874.000	21.20	AV	H	11.45	32.65	54.00	21.35
4874.000	34.13	PK	V	11.45	45.58	74.00	28.42
4874.000	21.26	AV	V	11.45	32.71	54.00	21.29
7311.000	33.65	PK	H	15.58	49.23	74.00	24.77
7311.000	20.45	AV	H	15.58	36.03	54.00	17.97
7311.000	33.68	PK	V	15.58	49.26	74.00	24.74
7311.000	20.49	AV	V	15.58	36.07	54.00	17.93
High Channel: 2462 MHz							
2483.500	30.77	PK	H	32.19	62.96	74.00	11.04
2483.500	15.78	AV	H	32.19	47.97	54.00	6.03
2483.500	35.81	PK	V	32.19	68.00	74.00	6.00
2483.500	18.74	AV	V	32.19	50.93	54.00	3.07
4924.000	34.25	PK	H	11.67	45.92	74.00	28.08
4924.000	20.46	AV	H	11.67	32.13	54.00	21.87
4924.000	34.33	PK	V	11.67	46.00	74.00	28.00
4924.000	20.53	AV	V	11.67	32.20	54.00	21.80
7386.000	33.58	PK	H	15.63	49.21	74.00	24.79
7386.000	20.41	AV	H	15.63	36.04	54.00	17.96
7386.000	33.64	PK	V	15.63	49.27	74.00	24.73
7386.000	20.51	AV	V	15.63	36.14	54.00	17.86

802.11n ht40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 2422 MHz							
2390.000	30.58	PK	H	31.71	62.29	74.00	11.71
2390.000	16.62	AV	H	31.71	48.33	54.00	5.67
2390.000	31.87	PK	V	31.71	63.58	74.00	10.42
2390.000	17.73	AV	V	31.71	49.44	54.00	4.56
4844.000	34.25	PK	H	11.31	45.56	74.00	28.44
4844.000	21.14	AV	H	11.31	32.45	54.00	21.55
4844.000	34.56	PK	V	11.31	45.87	74.00	28.13
4844.000	21.20	AV	V	11.31	32.51	54.00	21.49
7266.000	33.68	PK	H	15.43	49.11	74.00	24.89
7266.000	20.41	AV	H	15.43	35.84	54.00	18.16
7266.000	33.72	PK	V	15.43	49.15	74.00	24.85
7266.000	20.46	AV	V	15.43	35.89	54.00	18.11
Middle Channel: 2437 MHz							
4874.000	33.87	PK	H	11.45	45.32	74.00	28.68
4874.000	21.07	AV	H	11.45	32.52	54.00	21.48
4874.000	34.02	PK	V	11.45	45.47	74.00	28.53
4874.000	21.13	AV	V	11.45	32.58	54.00	21.42
7311.000	33.55	PK	H	15.58	49.13	74.00	24.87
7311.000	20.43	AV	H	15.58	36.01	54.00	17.99
7311.000	33.67	PK	V	15.58	49.25	74.00	24.75
7311.000	20.46	AV	V	15.58	36.04	54.00	17.96
High Channel: 2452 MHz							
2483.500	34.61	PK	H	32.19	66.80	74.00	7.20
2483.500	16.18	AV	H	32.19	48.37	54.00	5.63
2483.500	37.81	PK	V	32.19	70.00	74.00	4.00
2483.500	18.35	AV	V	32.19	50.54	54.00	3.46
4904.000	34.18	PK	H	11.58	45.76	74.00	28.24
4904.000	21.46	AV	H	11.58	33.04	54.00	20.96
4904.000	34.26	PK	V	11.58	45.84	74.00	28.16
4904.000	21.58	AV	V	11.58	33.16	54.00	20.84
7356.000	33.69	PK	H	15.55	49.24	74.00	24.76
7356.000	20.64	AV	H	15.55	36.19	54.00	17.81
7356.000	33.78	PK	V	15.55	49.33	74.00	24.67
7356.000	20.36	AV	V	15.55	35.91	54.00	18.09

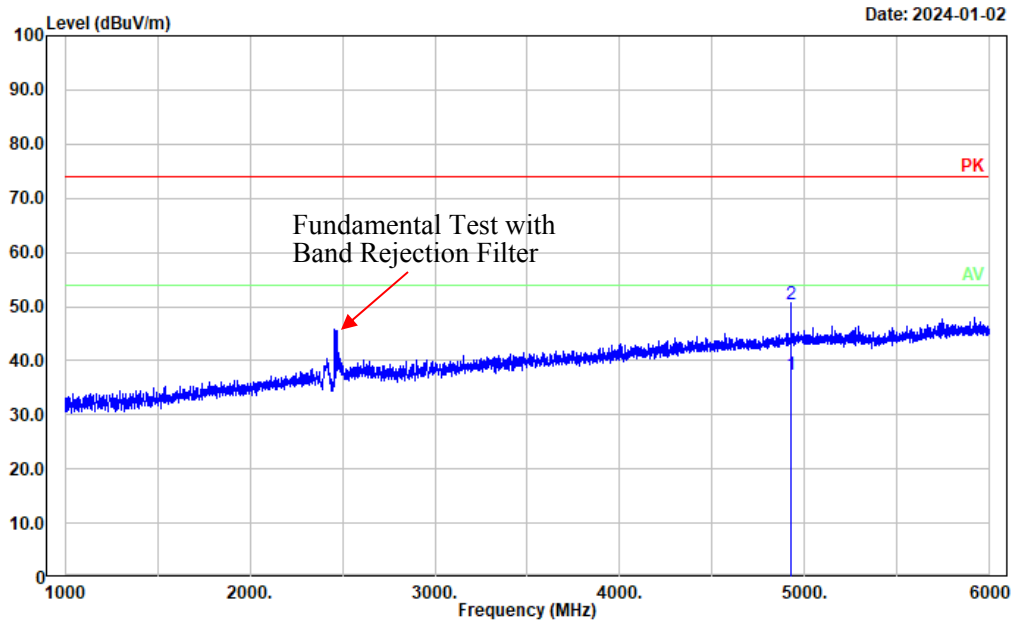
Worst radiation spurious emissions margin test plots (802.11b Mode High channel)

Project No.: CR231167606 -RF
Tester: Tao Zhu
Polarization: horizontal
Note:



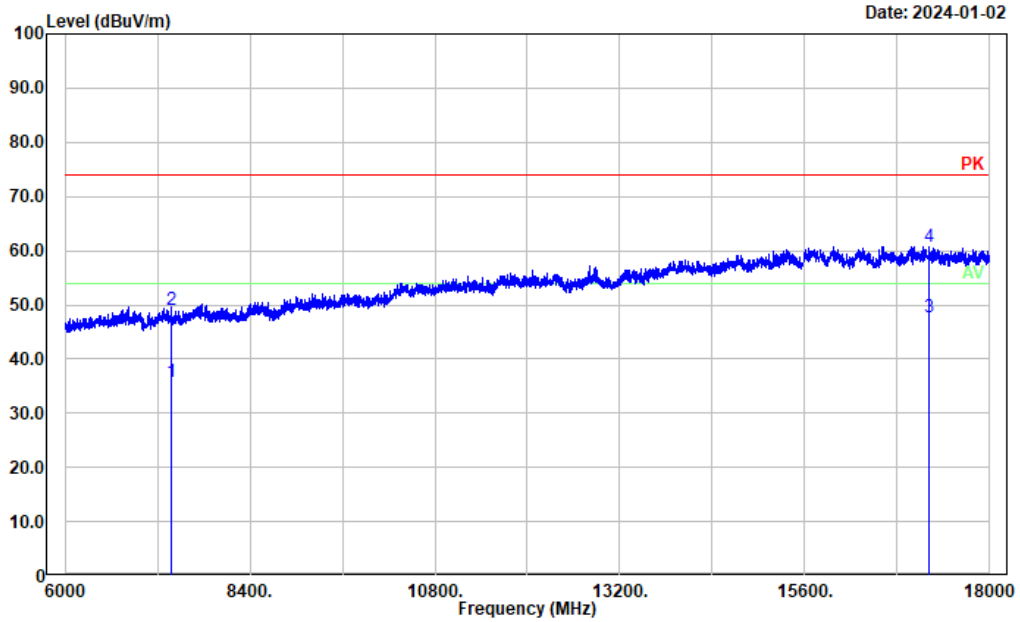
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4924.000	25.47	11.67	37.14	54.00	16.86	Average
2	4924.000	38.36	11.67	50.03	74.00	23.97	Peak

Project No.: CR231167606 -RF
Tester: Tao Zhu
Polarization: vertical
Note:



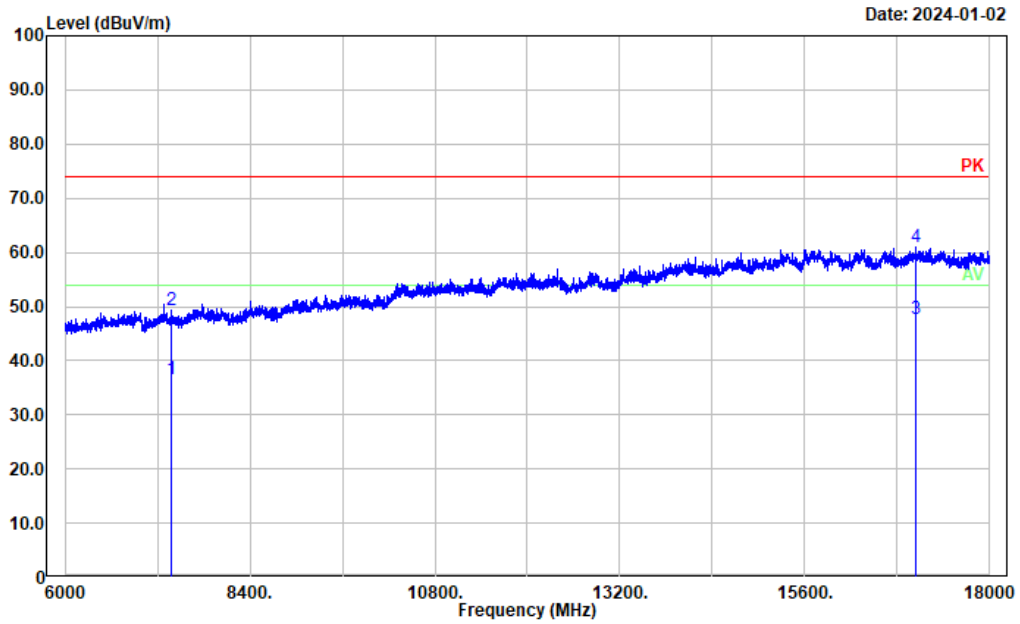
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4924.000	25.86	11.67	37.53	54.00	16.47	Average
2	4924.000	38.68	11.67	50.35	74.00	23.65	Peak

Project No.: CR231167606 -RF
Tester: Tao Zhu
Polarization: horizontal
Note:



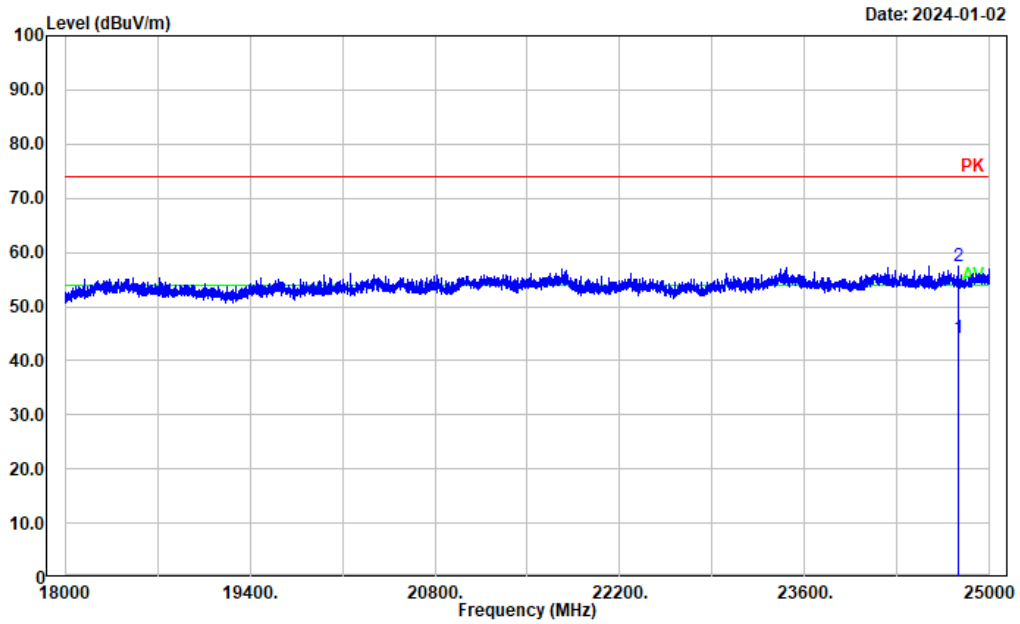
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7386.000	20.25	15.63	35.88	54.00	18.12	Average
2	7386.000	33.46	15.63	49.09	74.00	24.91	Peak
3	17220.000	18.98	28.66	47.64	54.00	6.36	Average
4	17220.000	32.12	28.66	60.78	74.00	13.22	Peak

Project No.: CR231167606 -RF
Tester: Tao Zhu
Polarization: vertical
Note:



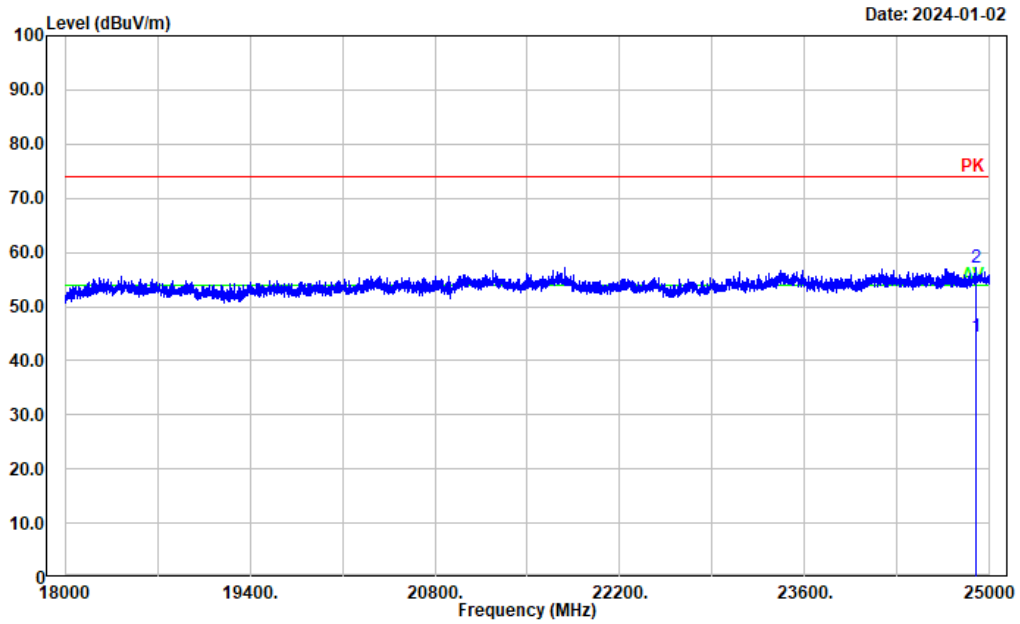
No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7386.000	20.88	15.63	36.51	54.00	17.49	Average
2	7386.000	33.63	15.63	49.26	74.00	24.74	Peak
3	17047.200	19.35	28.28	47.63	54.00	6.37	Average
4	17047.200	32.57	28.28	60.85	74.00	13.15	Peak

Project No.: CR231167606 -RF
Tester: Tao Zhu
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	24757.800	38.82	5.46	44.28	54.00	9.72	Average
2	24757.800	52.07	5.46	57.53	74.00	16.47	Peak

Project No.: CR231167606 -RF
Tester: Tao Zhu
Polarization: Vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	24892.200	38.14	6.21	44.35	54.00	9.65	Average
2	24892.200	51.06	6.21	57.27	74.00	16.73	Peak

4.3 Minimum 6 dB Emission Bandwidth

Serial Number:	2DY0-3	Test Date:	2023/12/13
Test Site:	RF	Test Mode:	Transmitting
Tester:	Jim Wei	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	25.3	Relative Humidity: (%)	46	ATM Pressure: (kPa)	101.3

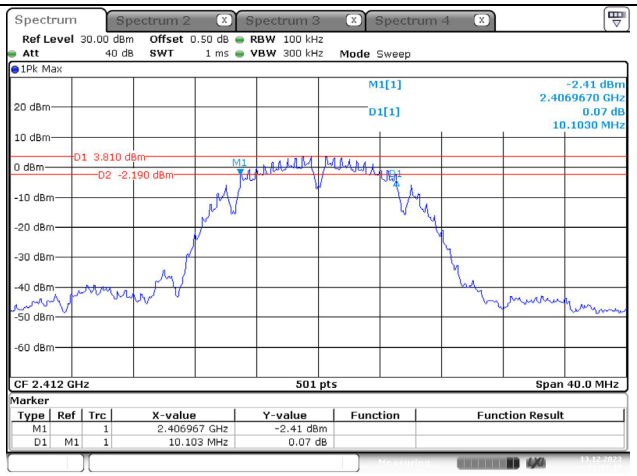
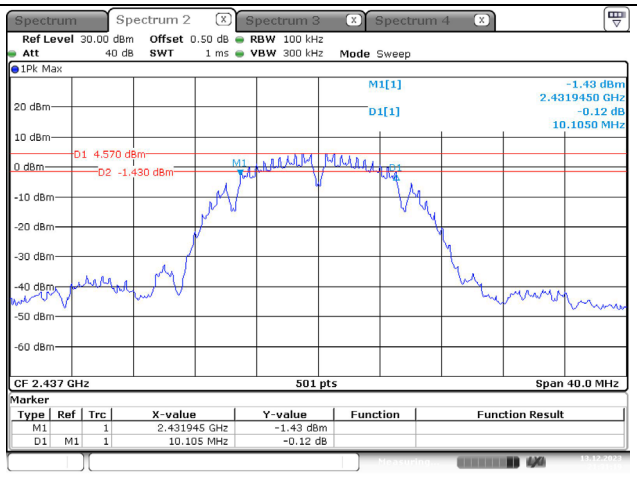
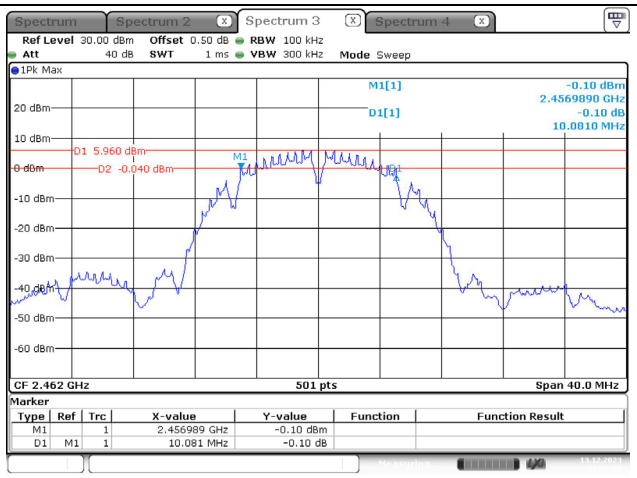
Test Equipment List and Details:

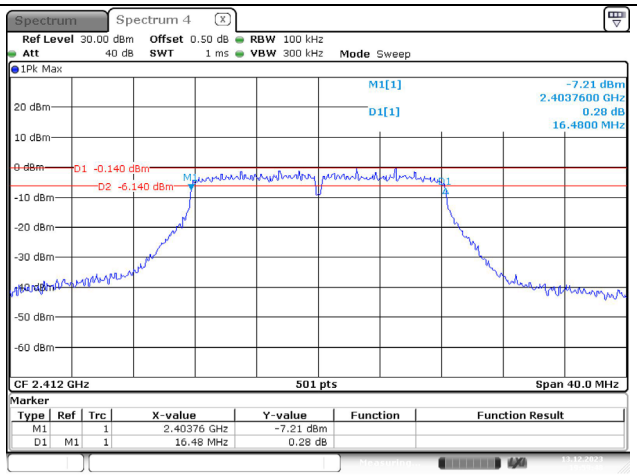
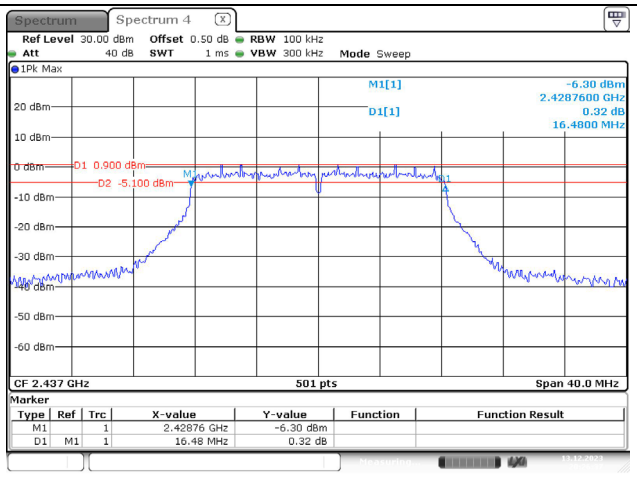
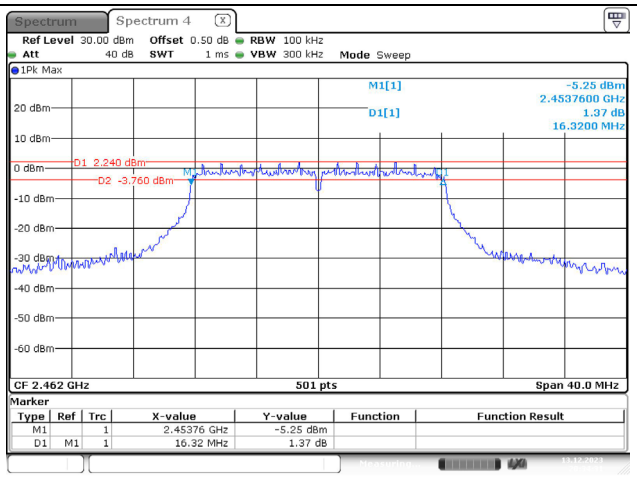
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101943	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554403	Each time	N/A

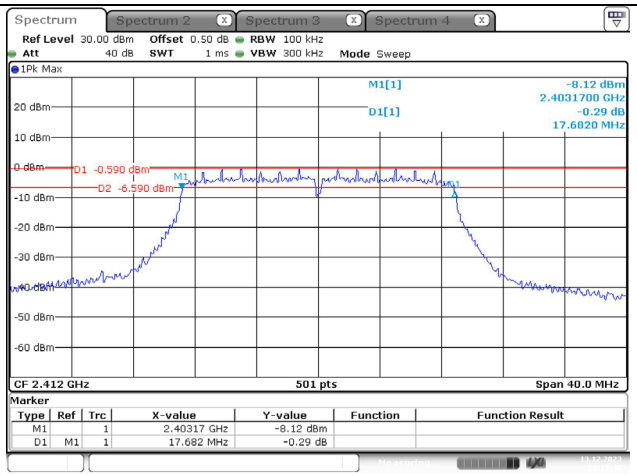
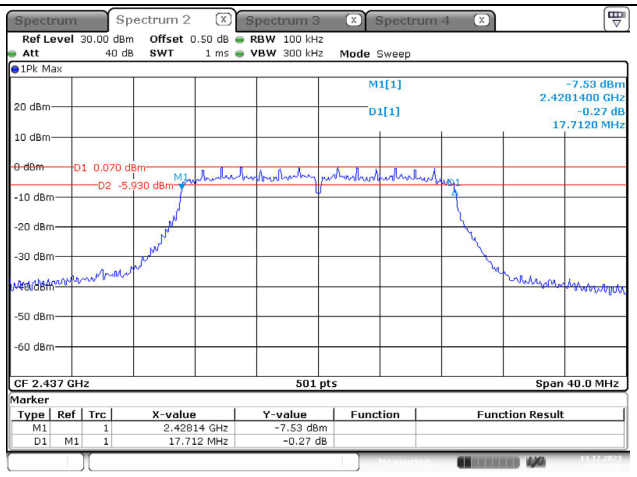
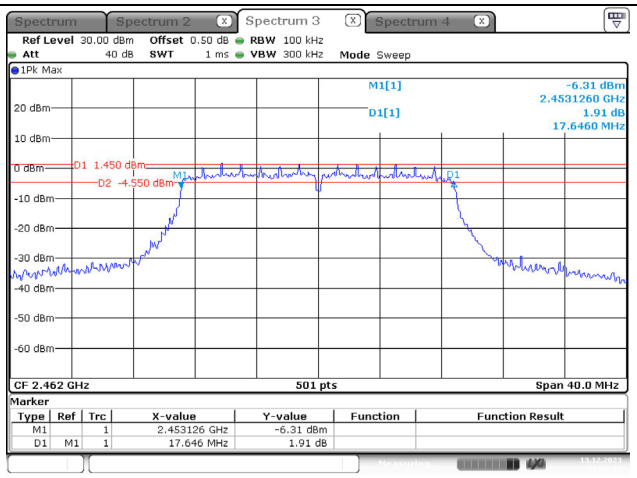
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

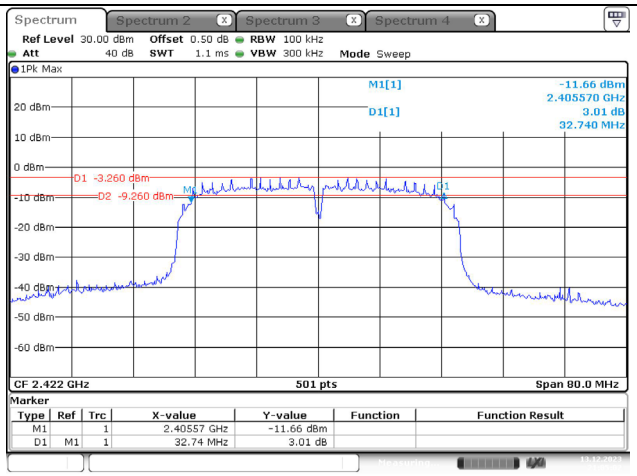
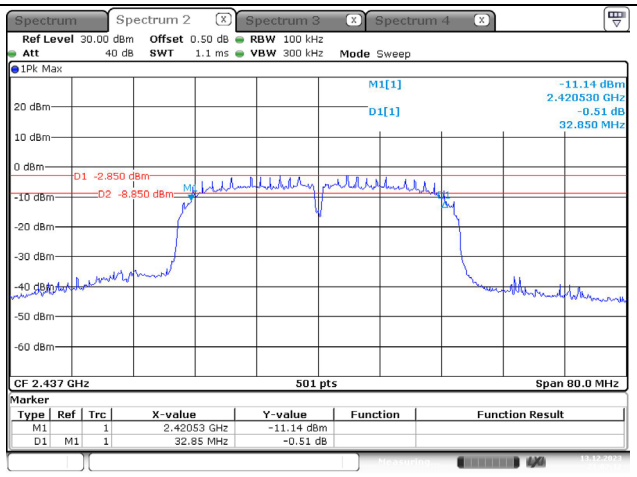
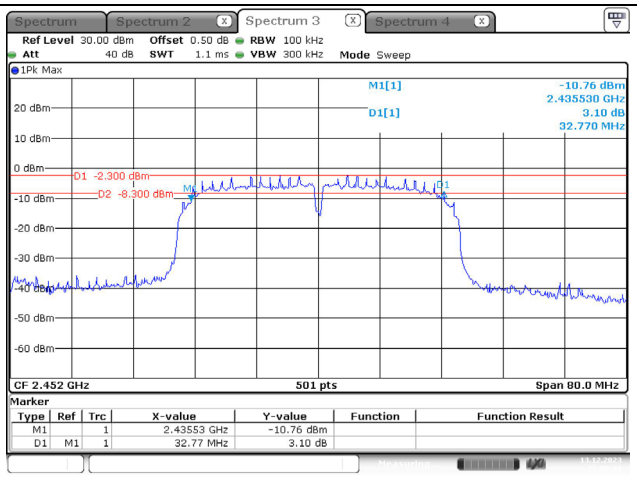
Test Data:

Test Modes	Test Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)
802.11b	2412	10.10	0.5
	2437	10.11	0.5
	2462	10.08	0.5
802.11g	2412	16.48	0.5
	2437	16.48	0.5
	2462	16.32	0.5
802.11n ht20	2412	17.68	0.5
	2437	17.71	0.5
	2462	17.65	0.5
802.11n ht40	2422	32.74	0.5
	2437	32.85	0.5
	2452	32.77	0.5

6dB Emission Bandwidth	
802.11b Lowest Channel	
802.11b Middle Channel	
802.11b Highest Channel	

6dB Emission Bandwidth	
802.11g Lowest Channel	
802.11g Middle Channel	
802.11g Highest Channel	

6dB Emission Bandwidth	
802.11n ht20 Lowest Channel	
802.11n ht20 Middle Channel	
802.11n ht20 Highest Channel	

6dB Emission Bandwidth	
802.11n ht40 Lowest Channel	
802.11n ht40 Middle Channel	
802.11n ht40 Highest Channel	

4.4 99% Occupied Bandwidth

Serial Number:	2DY0-3	Test Date:	2023/12/13
Test Site:	RF	Test Mode:	Transmitting
Tester:	Jim Wei	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	25.3	Relative Humidity: (%)	46	ATM Pressure: (kPa)	101.3

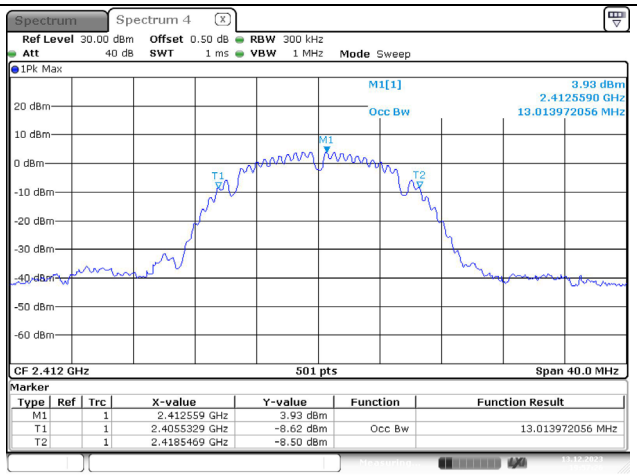
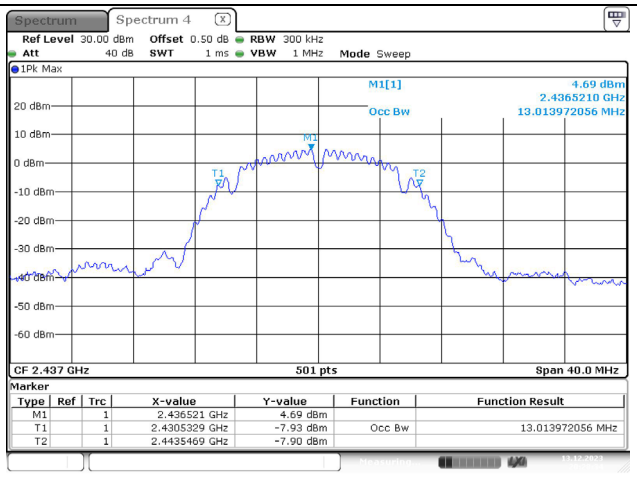
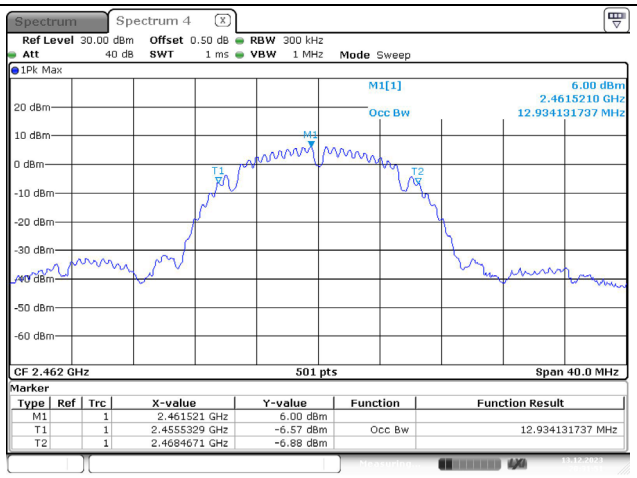
Test Equipment List and Details:

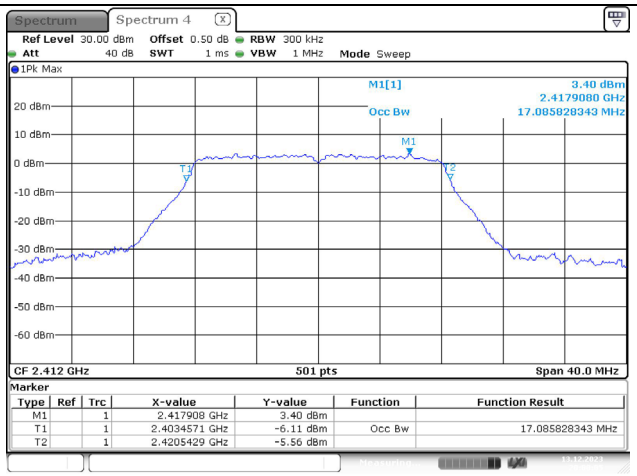
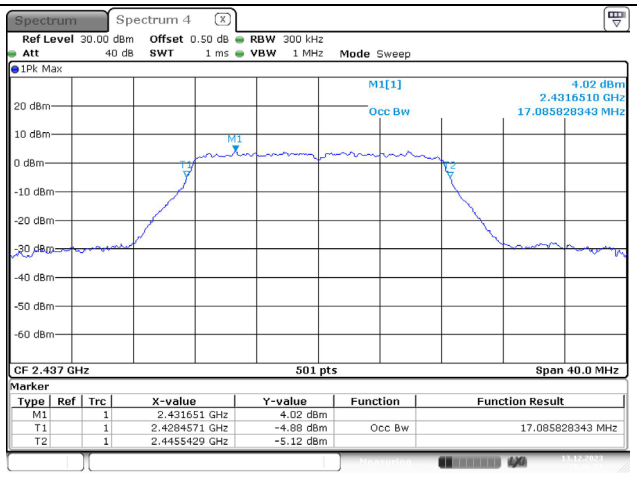
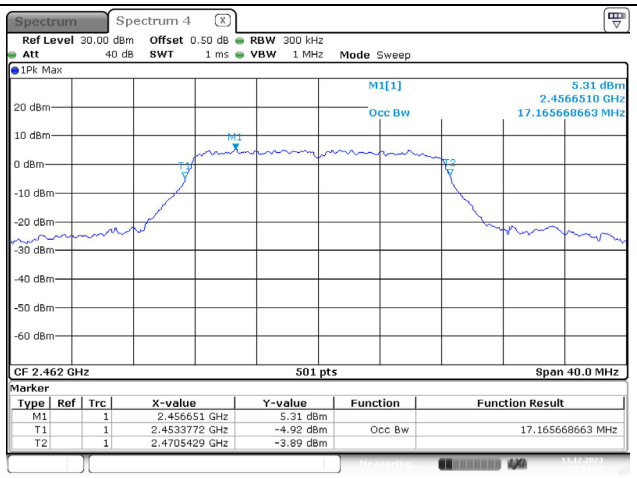
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101943	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554403	Each time	N/A

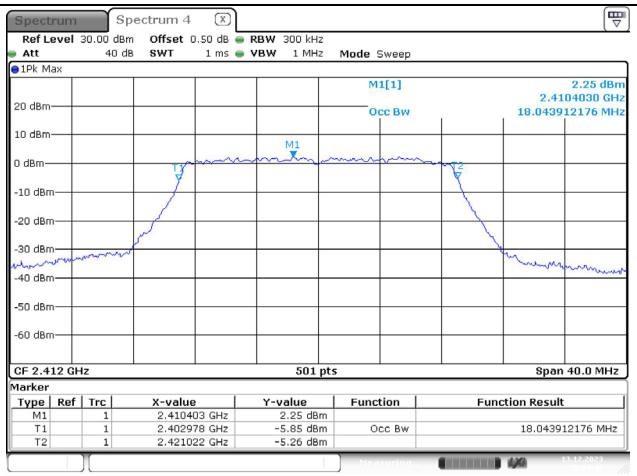
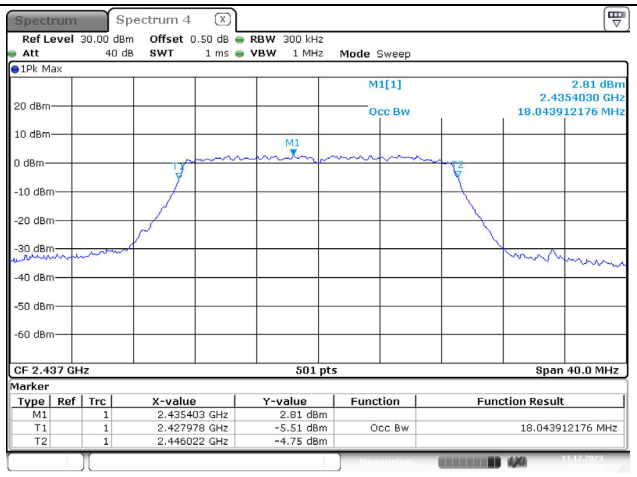
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

Test Modes	Test Channel	Test Frequency (MHz)	99% Occupied Bandwidth (MHz)
802.11b	Lowest	2412	13.014
	Middle	2437	13.014
	Highest	2462	12.934
802.11g	Lowest	2412	17.086
	Middle	2437	17.086
	Highest	2462	17.166
802.11n ht20	Lowest	2412	18.044
	Middle	2437	18.044
	Highest	2462	18.044
802.11n ht40	Lowest	2422	34.491
	Middle	2437	34.491
	Highest	2452	34.491

99% Occupied Bandwidth	
802.11b Lowest Channel	
802.11b Middle Channel	
802.11b Highest Channel	

99% Occupied Bandwidth	
802.11g Lowest Channel	
802.11g Middle Channel	
802.11g Highest Channel	

99% Occupied Bandwidth	
802.11n ht20 Lowest Channel	
802.11n ht20 Middle Channel	
802.11n ht20 Highest Channel