



中认信通

CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)



TEST REPORT

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Address: 101,NO.48,Xiashijia Road,Gongming Town,Guangming Dist.,Shenzhen,
China

FCC ID: 2AXUI-104S

Product Name: 10.1 INCHES LTE TABLET PC

Standard(s): 47 CFR Part 15, Subpart C(15.247)

ANSI C63.10-2020

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: 2403A45479E-RF-00C

Date Of Issue: 2025/3/31

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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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Each test item follows the test standard(s) without deviation.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2403A45479E-RF-00C	Original Report	2025/3/31

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

1.1.1 General

EUT Name:	10.1 INCHES LTE TABLET PC
Trade Name:	hatch
EUT Model:	104S
Operation Frequency:	2412-2462 MHz (802.11b/g/n ht20) 2422-2452 MHz (802.11n ht40)
Maximum Peak Output Power (Conducted):	15.60 dBm
Modulation Type:	802.11b: DSSS-DBPSK, DQPSK, CCK 802.11g/n: OFDM-BPSK, QPSK, 16QAM, 64QAM
Rated Input Voltage:	3.7Vdc from battery or 5V dc from Adapter
Sample Number:	2W1V-1 (for RF Conducted Test) 2W1V-2 (for Conducted Emissions & Radiated Spurious Emissions Test)
EUT Received Date:	2024/12/17
EUT Received Status:	Good

1.1.2 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
6	2437	/	/

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

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

1.1.3 Antenna Information Detail▲

Antenna Type	input impedance (Ohm)	Frequency Range (MHz)	Antenna Gain (dBi)
FPC	50	2400-2500	3.65

The Method of §15.203 Compliance either:

- ☒ 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.

1.1.4 Accessory Information

Accessory Description	Manufacturer	Model
Adapter	SHENZHEN TIANYIN ELECTRONICS CO.,LTD.	TPA-203C050300UF01

1.2 Description of Test Configuration

1.2.1 EUT Operation Condition:

EUT Operation Mode:	The system was configured for testing in Engineering Mode, which was provided by the manufacturer.
Equipment Modifications:	No
EUT Exercise Software:	Engineer Mode

The software was provided by manufacturer. The maximum power was configured as below, that was provided by the manufacturer ▲ :

Test Modes	Test Frequency (MHz)	Data Rate	Power Level Setting
802.11b	2412	1Mbps	11
	2437	1Mbps	11
	2462	1Mbps	11
802.11g	2412	6Mbps	10
	2437	6Mbps	10
	2462	6Mbps	10
802.11n ht20	2412	MCS0	10
	2437	MCS0	10
	2462	MCS0	10
802.11n ht40	2422	MCS0	10
	2437	MCS0	10
	2452	MCS0	10

Note: The above are the worst-case data rates, which are determined for each mode based upon investigations by measuring the power and PSD across all data rates, bandwidths, and modulations.

1.2.2 Support Equipment List and Details

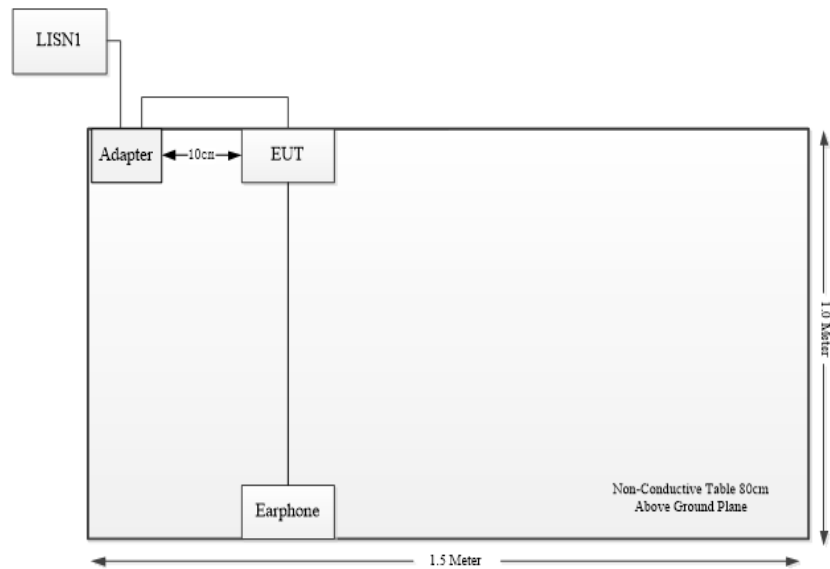
Manufacturer	Description	Model	Serial Number
IPRO	Earphone	Phonenix 5.0s	EP221126001
CLC	Earphone	Whiteview5.0	EP21106054

1.2.3 Support Cable List and Details

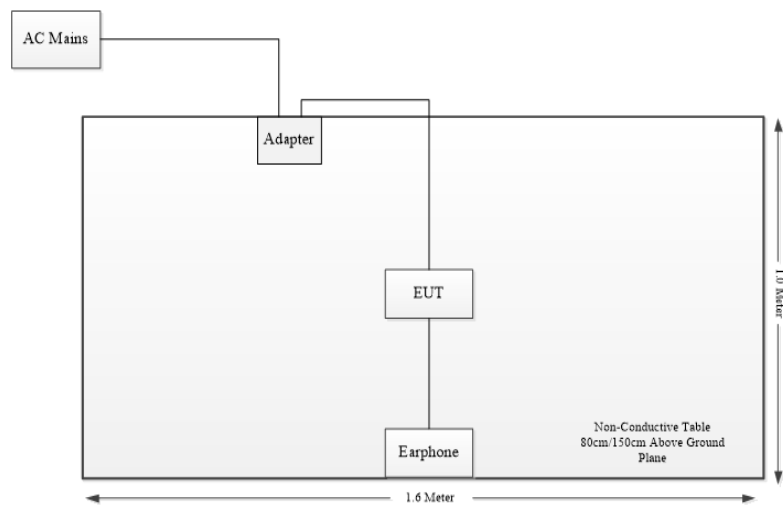
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
Earphone Cable	No	No	1.2	EUT	Earphone
USB Cable	No	No	1.6	Adapter	EUT

1.2.4 Block Diagram of Test Setup

AC line conducted emissions:



Spurious Emissions:



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	$\pm 5\%$
RF output power, conducted	$\pm 0.61\text{dB}$
Power Spectral Density, conducted	$\pm 0.61\text{ dB}$
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	$\pm 1.26\text{ dB}$
Temperature	$\pm 1^\circ\text{C}$
Humidity	$\pm 5\%$
DC and low frequency voltages	$\pm 0.4\%$
Duty Cycle	1%
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

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), C63.10 §6.9.3	6dB Emission Bandwidth & 99% Occupied Bandwidth	Compliant
FCC §15.247(b)(1)	Maximum Conducted Output Power	Compliant
FCC §15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliant
FCC §15.247(e)	Power Spectral Density	Compliant
C63.10 §11.6	Duty Cycle	Compliant
FCC §1.1307&§2.1093&§15.247 (i)	RF Exposure	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 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

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

*Decreases with the logarithm of the frequency.

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

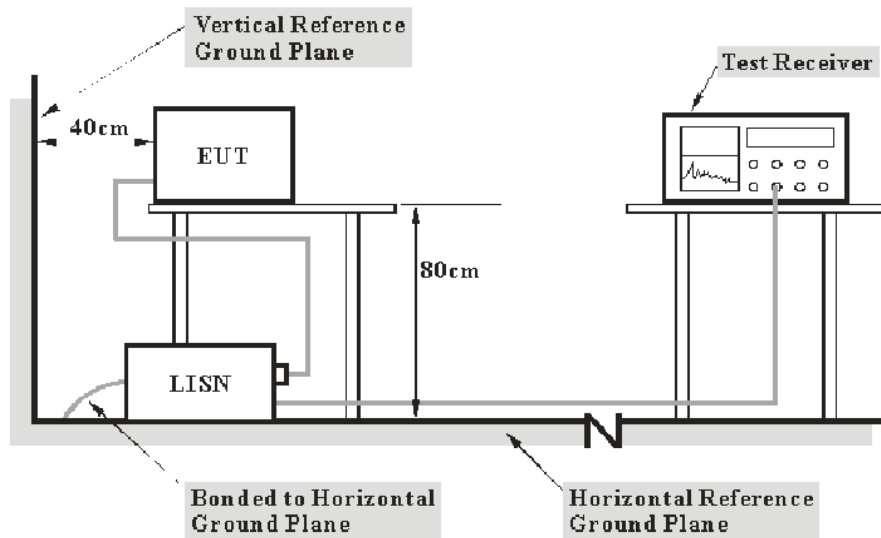
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

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

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

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtaining 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 C63.10-2020 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

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

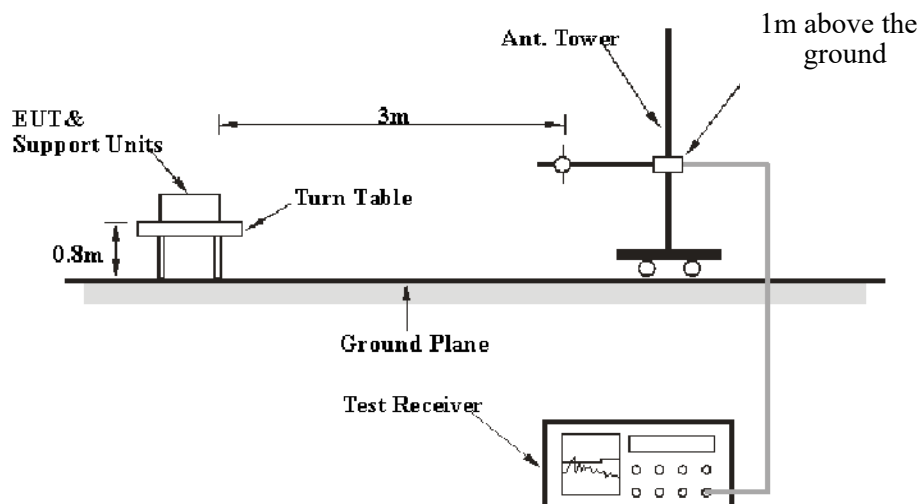
3.2.1 Applicable Standard

FCC §15.247 (d);

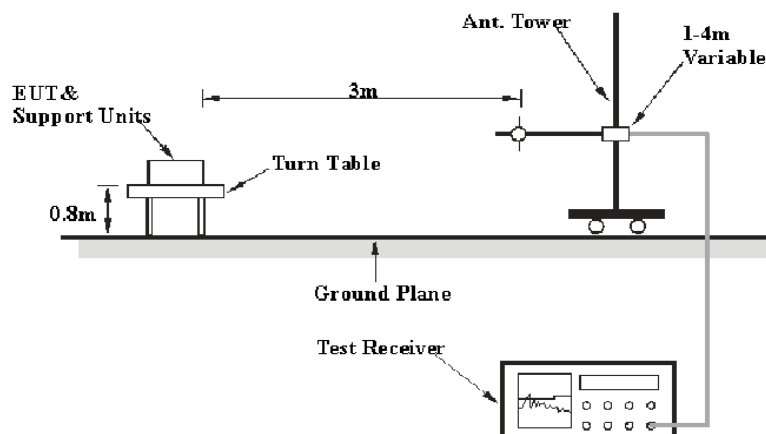
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the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

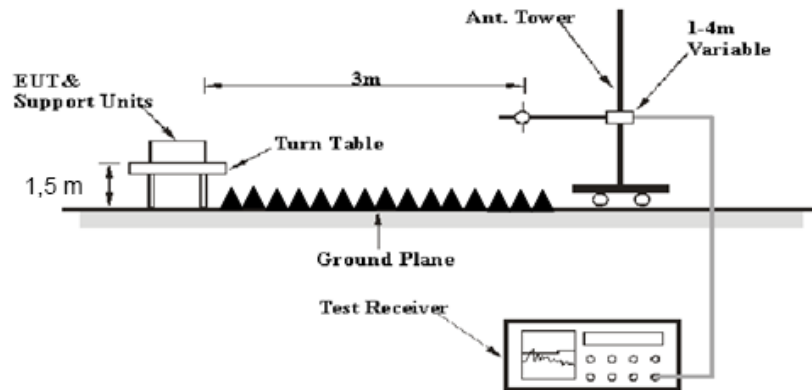
3.2.2 EUT Setup

9kHz - 30MHz:



30M~1GHz:



Above 1GHz:

The radiated emissions were performed in the 3 meters distance, using the setup accordance with the ANSI C63.10-2020. 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:

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

1GHz- 25GHz:

Pre-scan:

Measurement	Duty cycle	RBW	Video B/W	Detector
PK	Any	1MHz	3 MHz	Peak
Ave.	>98%	1MHz	5 kHz	Peak
	<98%	1MHz	$\geq 1/T$, not less than 5 kHz	Peak

Note: T is minimum transmission duration

Final measurement for emission identified during the pre-scan:

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

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

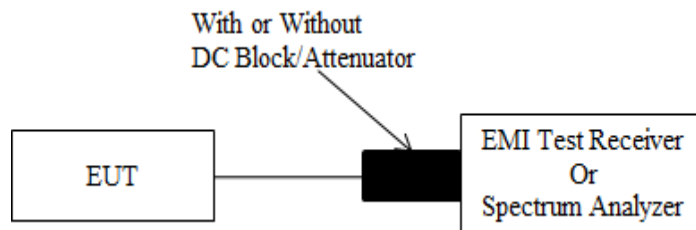
3.3 Minimum 6 dB Emission Bandwidth

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



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

3.3.3 Test Procedure

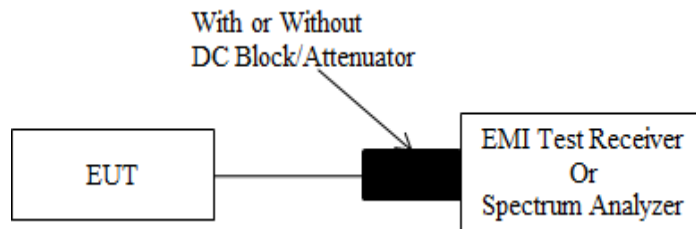
According to ANSI C63.10-2020 Section 11.8

- a) Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.
- b) Set the VBW $\geq [3 \times \text{RBW}]$.
- c) Detector = peak.
- d) Trace mode = max-hold.
- e) Sweep = No faster than coupled (auto) time.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission by placing two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “-6 dB down amplitude”. If a marker is below this “-6 dB down amplitude” value, then it shall be as close as possible to this value.

3.4 99% Occupied Bandwidth

3.4.1 Applicable Standard

3.4.2 EUT Setup



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

3.4.3 Test Procedure

According to ANSI C63.10-2020 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 at least 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 4.1.6.2.
- 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 spectral 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).

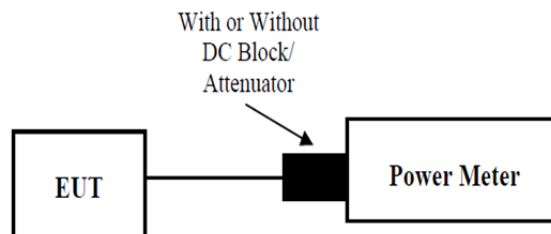
3.5 Maximum Conducted Output Power

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



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

3.5.3 Test Procedure

According to ANSI C63.10-2020 Section 11.9.1.2

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.

- Set the EUT in transmitting mode.
- Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to test equipment.
- Add a correction factor to the display.
- Set the power meter to test peak output power, record the result.

According to ANSI C63.10-2020 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.

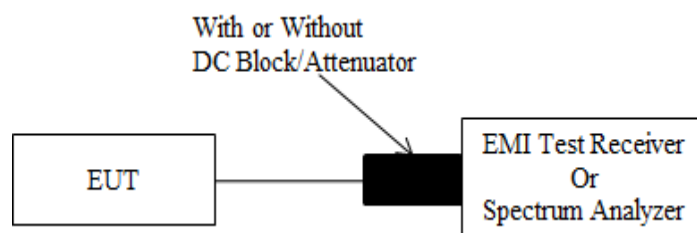
3.6 Maximum Power Spectral Density

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



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

3.6.3 Test Procedure

According to ANSI C63.10-2020 Section 11.10.2

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span > 1.5 times the DTS bandwidth.
- c) Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW $\geq [3 \times \text{RBW}]$.
- e) Detector = peak.
- f) Sweep time = No faster than coupled (auto) time.
- 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.

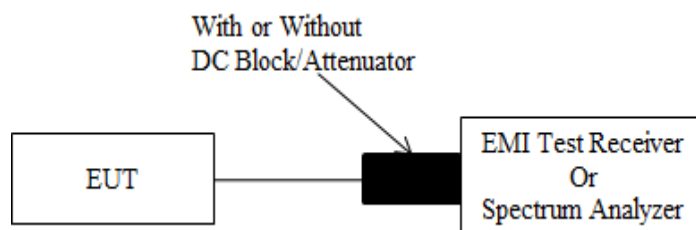
3.7 100 kHz Bandwidth of Frequency Band Edge

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



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

3.7.3 Test Procedure

According to ANSI C63.10-2020 Section 11.11

a) Set the center frequency and span to encompass frequency range to be measured. Note that the frequency range might need to be divided into multiple frequency ranges to retain frequency resolution.

NOTE—the number of points can also be increased for large spans to retain frequency resolution

b) Set the RBW = 100 kHz.

c) Set the VBW $\geq [3 \times \text{RBW}]$.

d) Detector = peak.

e) Sweep time = No faster than coupled (auto) time.

f) Trace mode = max-hold.

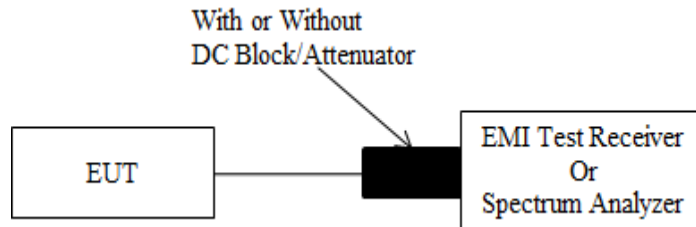
g) Allow trace to fully stabilize.

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



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

3.8.2 Test Procedure

According to ANSI C63.10-2020 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 $RBW \geq OBW$ if possible; otherwise, set RBW to the largest available value.
- 3) Set $VBW \geq RBW$. Set detector = peak or average.
- 4) The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$ and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring the duty cycle shall not be used if $T \leq 16.7 \mu s$.)

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

Sample Number:	2W1V-2	Test Date:	2024/12/18
Test Site:	CE	Test Mode:	Transmitting (maximum output power mode, 802.11n ht40 high channel)
Tester:	David Huang	Test Result:	Pass

Environmental Conditions:

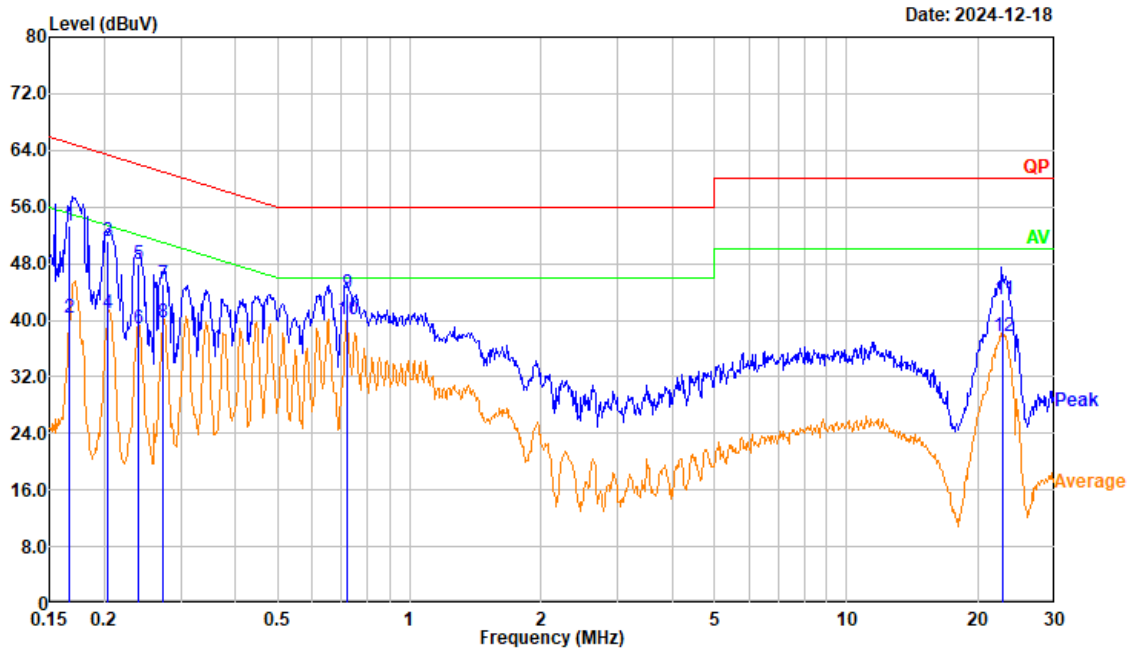
Temperature: (°C)	23.5	Relative Humidity: (%)	27	ATM Pressure: (kPa)	101.9
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101132	2024/4/1	2025/3/31
R&S	EMI Test Receiver	ESR3	103104	2024/5/10	2025/5/9
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2024/1/15	2025/1/14
Audix	Test Software	E3	191218 (V9)	N/A	N/A

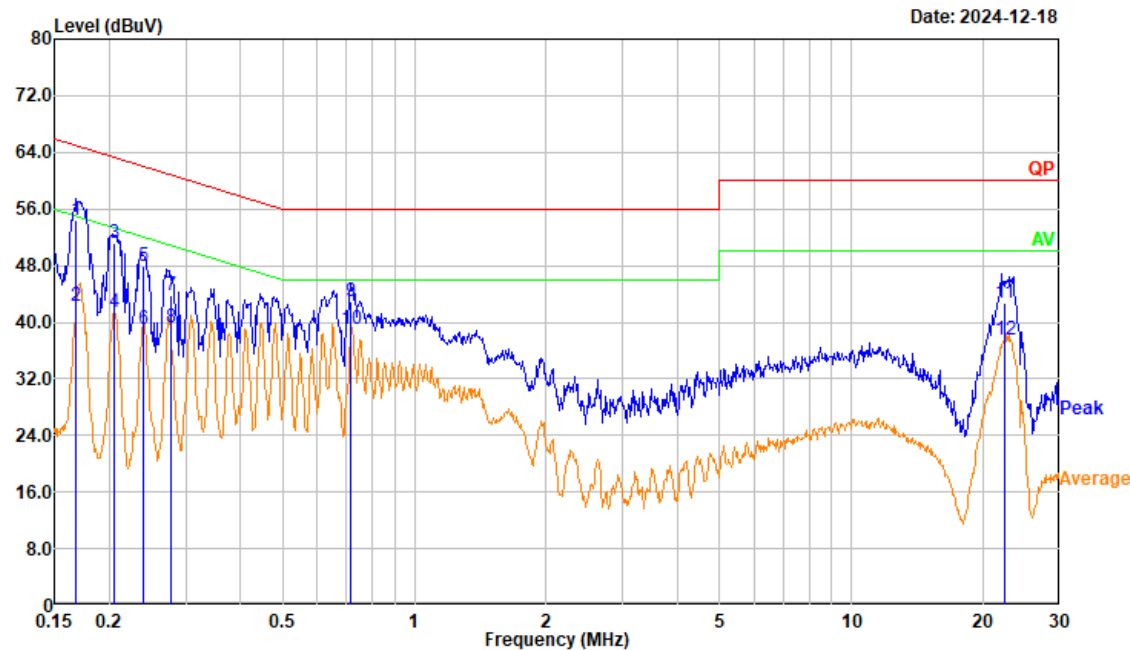
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Project No.: 2403A45479E-RF
Tester: David Huang
Condition: IFBW:9 kHz Meas Time:0.025sec
Port: Line
Note: Transmitting(2.4G WIFI)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.167	43.02	10.27	53.29	65.10	11.81	QP
2	0.167	30.06	10.27	40.33	55.10	14.77	Average
3	0.205	41.18	10.02	51.20	63.41	12.21	QP
4	0.205	31.00	10.02	41.02	53.41	12.39	Average
5	0.239	37.88	10.07	47.95	62.13	14.18	QP
6	0.239	28.82	10.07	38.89	52.13	13.24	Average
7	0.273	34.97	10.13	45.10	61.02	15.92	QP
8	0.273	29.57	10.13	39.70	51.02	11.32	Average
9	0.720	33.18	10.70	43.88	56.00	12.12	QP
10	0.720	29.47	10.70	40.17	46.00	5.83	Average
11	22.847	33.13	9.89	43.02	60.00	16.98	QP
12	22.847	27.94	9.89	37.83	50.00	12.17	Average

Project No.: 2403A45479E-RF
 Tester: David Huang
 Condition: IFBW:9 kHz Meas Time:0.025sec
 Port: neutral
 Note: Transmitting(2.4G WIFI)



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.168	43.98	10.44	54.42	65.04	10.62	QP
2	0.168	31.90	10.44	42.34	55.04	12.70	Average
3	0.206	40.78	10.31	51.09	63.36	12.27	QP
4	0.206	31.17	10.31	41.48	53.36	11.88	Average
5	0.239	37.52	10.34	47.86	62.13	14.27	QP
6	0.239	28.69	10.34	39.03	52.13	13.10	Average
7	0.277	33.51	10.36	43.87	60.91	17.04	QP
8	0.277	28.83	10.36	39.19	50.91	11.72	Average
9	0.717	32.78	10.23	43.01	56.00	12.99	QP
10	0.717	28.81	10.23	39.04	46.00	6.96	Average
11	22.402	32.40	10.21	42.61	60.00	17.39	QP
12	22.402	27.22	10.21	37.43	50.00	12.57	Average

4.2 Radiation Spurious Emissions

4.2.1 9 kHz – 1 GHz

Sample Number:	2W1V-2	Test Date:	2024/12/25
Test Site:	966-2	Test Mode:	Transmitting (maximum output power mode, 802.11n ht40 high channel)
Tester:	Roinin Fu	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	24.6	Relative Humidity: (%)	57	ATM Pressure: (kPa)	101.8
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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	2024/2/29	2025/2/28
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0100-03	2024/12/3	2025/12/2
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0370-01	2024/12/3	2025/12/2
XQY	Coaxial Cable	XQY-CMR400UF-NJ-NJ-7M	24056379	2024/6/11	2025/6/10
Sonoma	Amplifier	310N	186165	2024/12/3	2025/12/2
Audix	Test Software	E3	191218 (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).

Test Data:

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

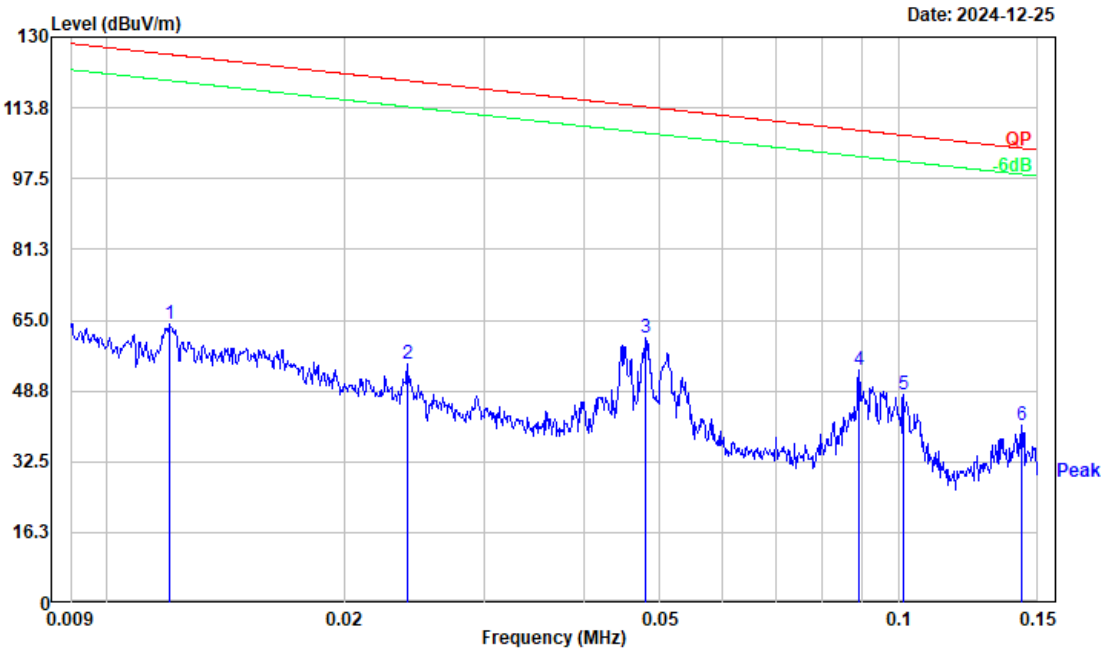
Project No.: 2403A45479E-RF

Tester: Roinin Fu

Condition: RBW:0.3 kHz VBW:1 kHz SWT:0.1 sec

Polarization: Parallel

Note: Transmitting



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.012	30.74	33.44	64.18	126.00	61.82	Peak
2	0.024	27.32	27.59	54.91	120.02	65.11	Peak
3	0.048	40.15	20.88	61.03	114.00	52.97	Peak
4	0.089	38.13	15.55	53.68	108.60	54.92	Peak
5	0.101	33.34	14.57	47.91	107.48	59.57	Peak
6	0.143	28.34	12.64	40.98	104.50	63.52	Peak

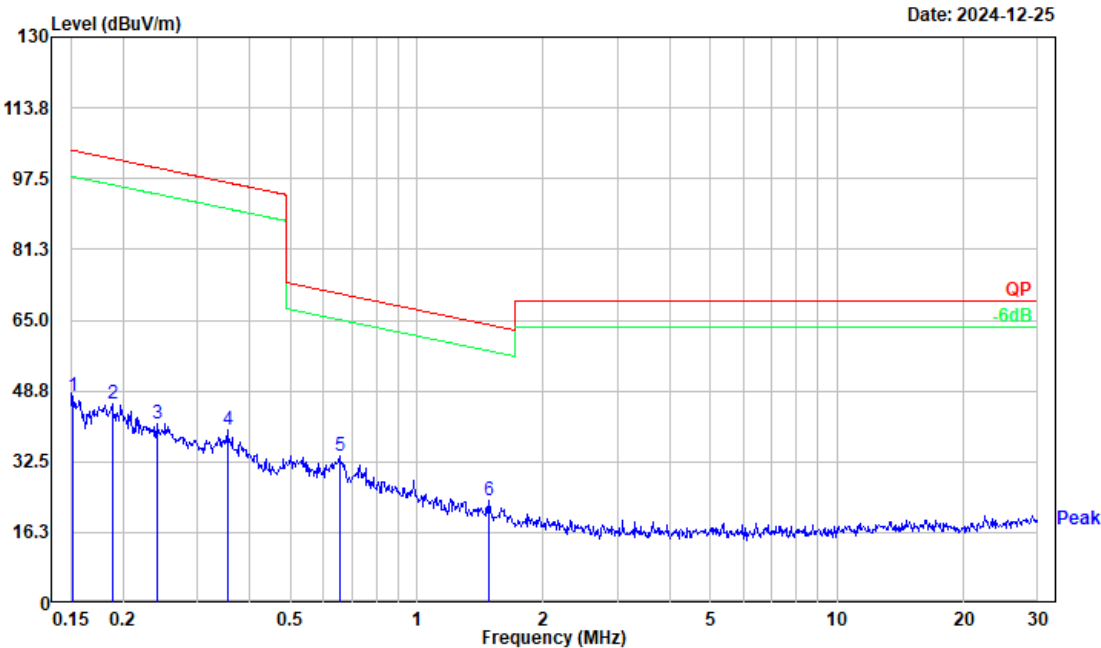
Project No.: 2403A45479E-RF

Tester: Roinin Fu

Condition: RBW:10 kHz VBW:30 kHz SWT:0.1 sec

Polarization: Parallel

Note: Transmitting



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.152	35.24	12.20	47.44	103.94	56.50	Peak
2	0.188	35.21	10.53	45.74	102.10	56.36	Peak
3	0.240	33.08	8.11	41.19	99.99	58.80	Peak
4	0.354	35.79	4.16	39.95	96.63	56.68	Peak
5	0.654	34.77	-0.83	33.94	71.24	37.30	Peak
6	1.480	29.66	-5.92	23.74	64.00	40.26	Peak

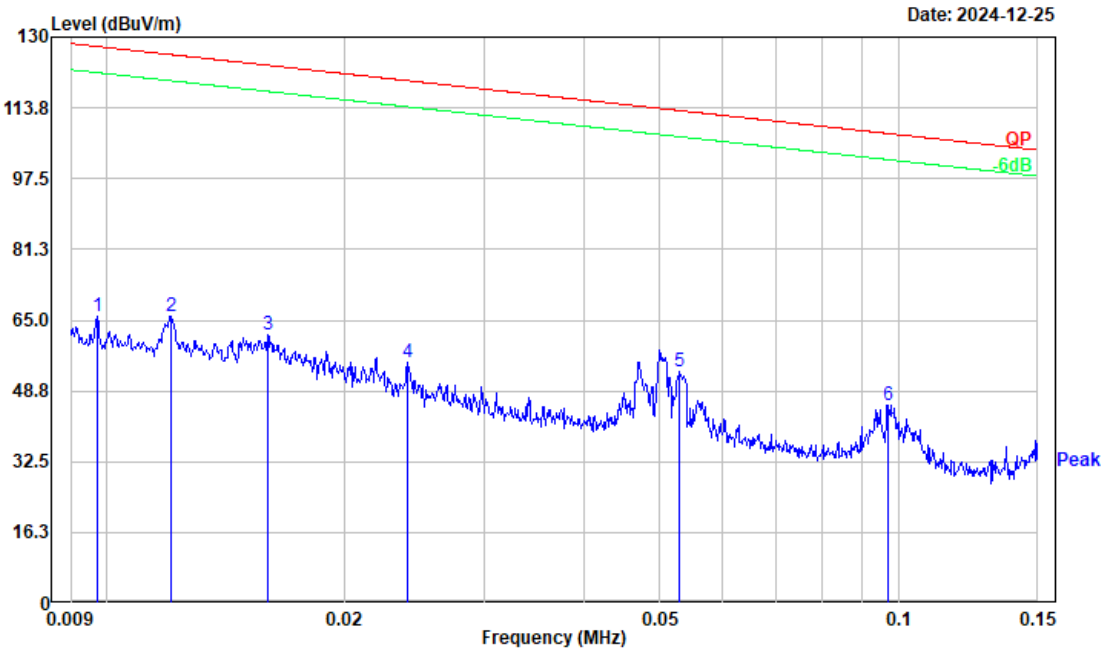
Project No.: 2403A45479E-RF

Tester: Roinin Fu

Condition: RBW:0.3 kHz VBW:1 kHz SWT:0.1 sec

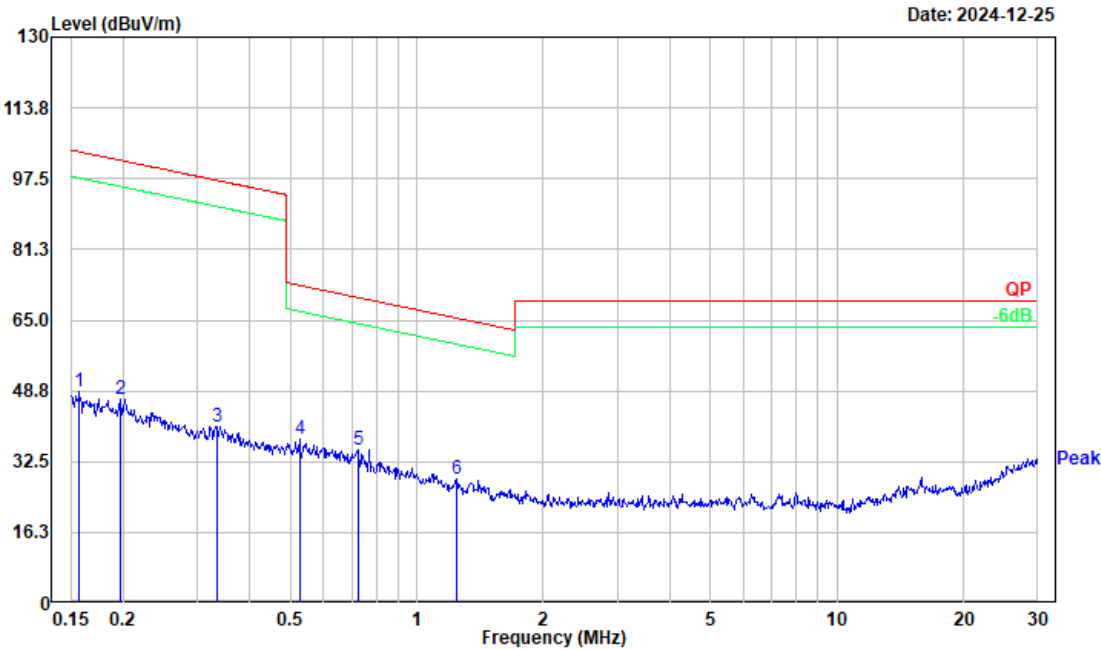
Polarization: Perpendicular

Note: Transmitting



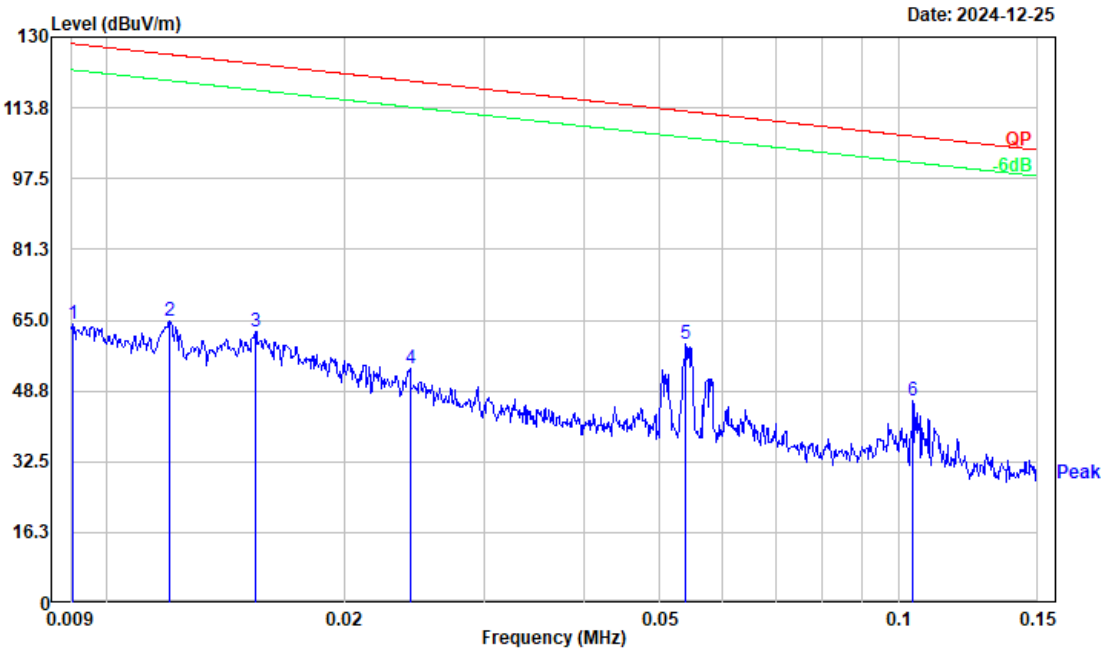
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.010	30.91	34.81	65.72	127.86	62.14	Peak
2	0.012	32.41	33.42	65.83	125.98	60.15	Peak
3	0.016	30.06	31.50	61.56	123.53	61.97	Peak
4	0.024	27.58	27.59	55.17	120.02	64.85	Peak
5	0.053	33.06	20.02	53.08	113.12	60.04	Peak
6	0.097	30.70	14.90	45.60	107.87	62.27	Peak

Project No.: 2403A45479E-RF
 Tester: Roinin Fu
 Condition: RBW:10 kHz VBW:30 kHz SWT:0.1 sec
 Polarization: Perpendicular
 Note: Transmitting



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.157	36.54	11.97	48.51	103.67	55.16	Peak
2	0.197	36.85	10.15	47.00	101.74	54.74	Peak
3	0.334	36.06	4.61	40.67	97.13	56.46	Peak
4	0.527	36.88	0.65	37.53	73.16	35.63	Peak
5	0.724	36.98	-1.64	35.34	70.34	35.00	Peak
6	1.242	33.70	-5.07	28.63	65.55	36.92	Peak

Project No.: 2403A45479E-RF
 Tester: Roinin Fu
 Condition: RBW:0.3 kHz VBW:1 kHz SWT:0.1 sec
 Polarization: Ground-parallel
 Note: Transmitting



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.009	28.51	35.63	64.14	128.45	64.31	Peak
2	0.012	31.48	33.44	64.92	126.00	61.08	Peak
3	0.015	30.73	31.78	62.51	123.85	61.34	Peak
4	0.024	26.42	27.49	53.91	119.94	66.03	Peak
5	0.054	39.46	19.90	59.36	112.98	53.62	Peak
6	0.104	31.90	14.44	46.34	107.23	60.89	Peak

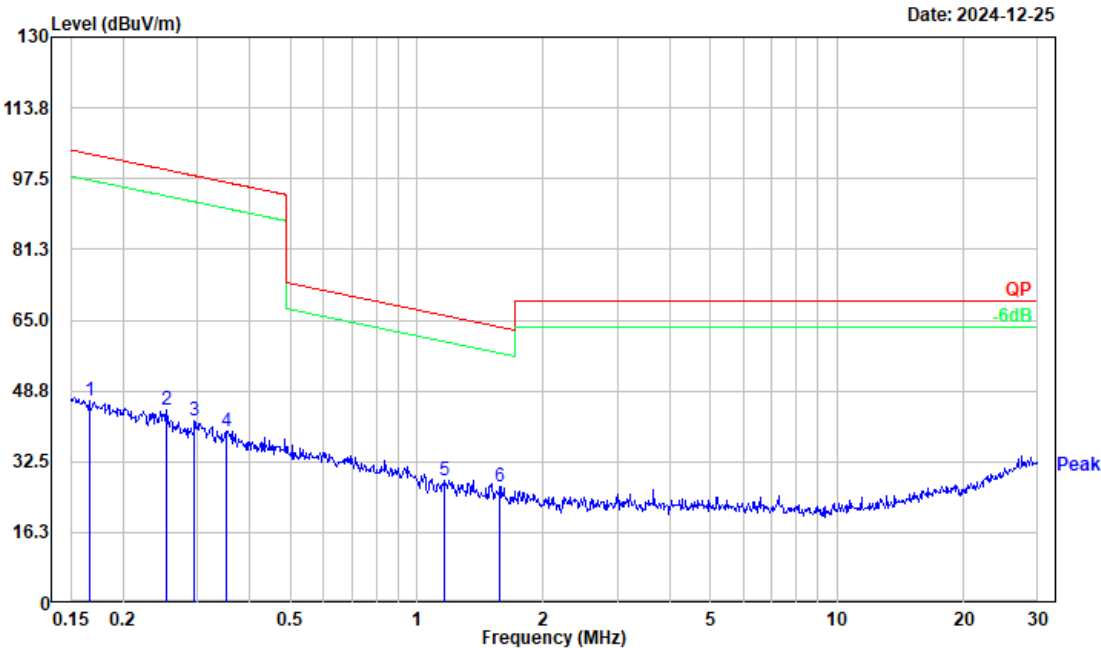
Project No.: 2403A45479E-RF

Tester: Roinin Fu

Condition: RBW:10 kHz VBW:30 kHz SWT:0.1 sec

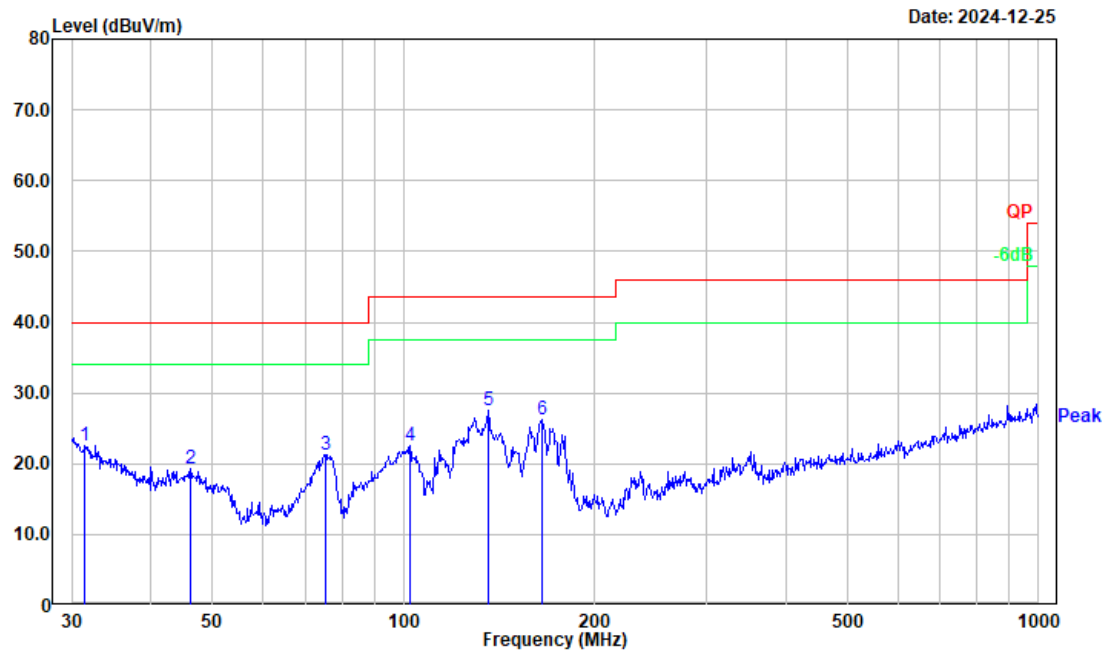
Polarization: Ground-parallel

Note: Transmitting



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	0.166	34.80	11.58	46.38	103.21	56.83	Peak
2	0.253	36.71	7.51	44.22	99.53	55.31	Peak
3	0.296	36.24	5.56	41.80	98.19	56.39	Peak
4	0.352	35.37	4.21	39.58	96.67	57.09	Peak
5	1.166	33.08	-4.80	28.28	66.11	37.83	Peak
6	1.577	33.09	-6.26	26.83	63.43	36.60	Peak

Project No.: 2403A45479E-RF
Tester: Roinin Fu
Condition: RBW:100 kHz VBW:300 kHz SWT:0.1 sec
Polarization: horizontal
Note: Transmitting



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	31.510	27.44	-4.86	22.58	40.00	17.42	Peak
2	46.178	34.71	-15.33	19.38	40.00	20.62	Peak
3	75.446	38.45	-17.19	21.26	40.00	18.74	Peak
4	102.360	36.47	-13.83	22.64	43.50	20.86	Peak
5	135.982	39.19	-11.64	27.55	43.50	15.95	Peak
6	164.908	38.50	-12.26	26.24	43.50	17.26	Peak

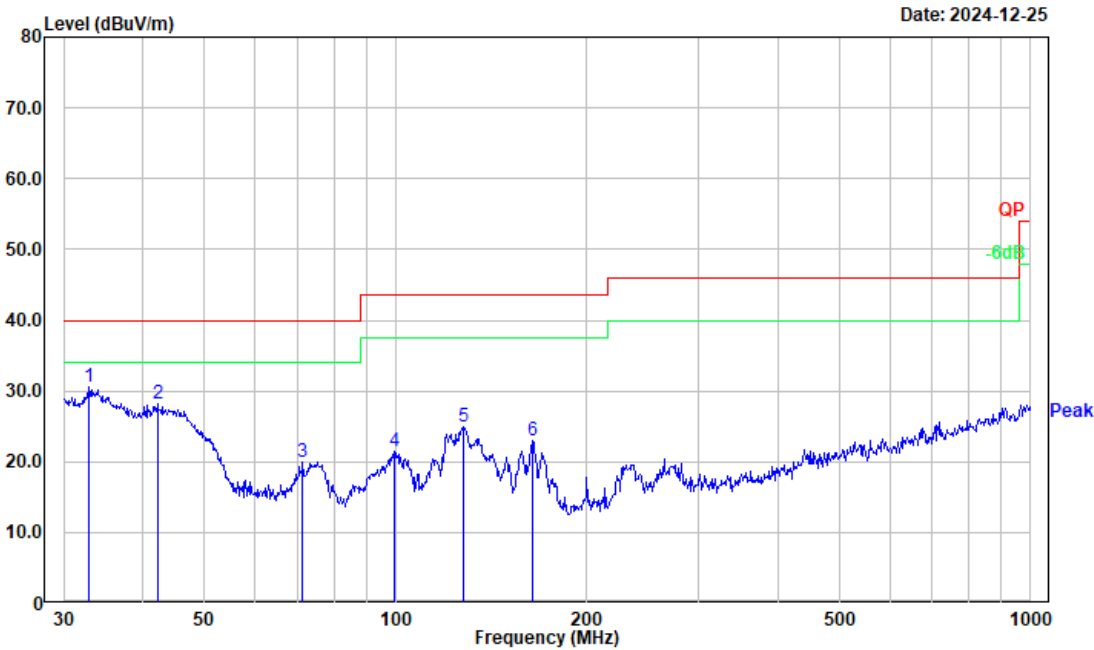
Project No.: 2403A45479E-RF

Tester: Roinin Fu

Condition: RBW:100 kHz VBW:300 kHz SWT:0.1 sec

Polarization: vertical

Note: Transmitting



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	32.864	36.53	-5.92	30.61	40.00	9.39	Peak
2	42.154	41.09	-12.81	28.28	40.00	11.72	Peak
3	71.330	37.10	-17.22	19.88	40.00	20.12	Peak
4	99.528	36.22	-14.65	21.57	43.50	21.93	Peak
5	127.665	36.06	-11.10	24.96	43.50	18.54	Peak
6	164.330	35.26	-12.22	23.04	43.50	20.46	Peak

4.2.2 1 GHz – 25 GHz

Sample Number	2W1V-2	Test Date:	2025/3/16
Test Site:	966-1	Test Mode:	Transmitting
Tester:	Tao Zhu	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.8	Relative Humidity: (%)	58	ATM Pressure: (kPa)	101.2
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
ETS-Lindgren	Horn Antenna	3115	9912-5985	2023/12/6	2026/12/5
R&S	Spectrum Analyzer	FSV40	101591	2024/4/1	2025/3/31
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2025/1/10	2026/1/9
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2025/1/10	2026/1/9
A.H	Preamplifier	PAM-0118P	628	2025/2/21	2026/2/20
Audix	Test Software	E3	191218 (V9)	N/A	N/A
PASTERNAK	Horn Antenna	PE9852/2F-20	112002	2024/2/4	2027/2/3
Quinstar	Preamplifier	QLW-18405536-JO	15964001005	2025/1/6	2026/1/5
MICRO-COAX	Coaxial Cable	UFB142A-1-2362-200200	235772-001	2025/1/6	2026/1/5
JD	Multiplex Switch Test Control Set	DT7220SCU	DQ77925	2024/8/5	2025/8/4
JD	Filter Switch Unit	DT7220FSU	DQ77928	2024/8/5	2025/8/4

** 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:

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

802.11b Mode

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Remark					
Low Channel: 2412 MHz							
4824.000	46.29	PK	H	-5.26	41.03	74.00	32.97
4824.000	34.17	AV	H	-5.26	28.91	54.00	25.09
4824.000	46.36	PK	V	-5.26	41.10	74.00	32.90
4824.000	35.41	AV	V	-5.26	30.15	54.00	23.85
7236.000	47.24	PK	H	-1.68	45.56	74.00	28.44
7236.000	35.46	AV	H	-1.68	33.78	54.00	20.22
7236.000	47.21	PK	V	-1.68	45.53	74.00	28.47
7236.000	35.26	AV	V	-1.68	33.58	54.00	20.42
Middle Channel: 2437 MHz							
4874.000	46.15	PK	H	-5.26	40.89	74.00	33.11
4874.000	34.28	AV	H	-5.26	29.02	54.00	24.98
4874.000	46.33	PK	V	-5.26	41.07	74.00	32.93
4874.000	35.51	AV	V	-5.26	30.25	54.00	23.75
7311.000	47.20	PK	H	-1.32	45.88	74.00	28.12
7311.000	35.16	AV	H	-1.32	33.84	54.00	20.16
7311.000	47.27	PK	V	-1.32	45.95	74.00	28.05
7311.000	35.23	AV	V	-1.32	33.91	54.00	20.09
High Channel: 2462 MHz							
4924.000	46.27	PK	H	-5.36	40.91	74.00	33.09
4924.000	34.05	AV	H	-5.36	28.69	54.00	25.31
4924.000	46.41	PK	V	-5.36	41.05	74.00	32.95
4924.000	35.05	AV	V	-5.36	29.69	54.00	24.31
7386.000	47.34	PK	H	-1.02	46.32	74.00	27.68
7386.000	35.62	AV	H	-1.02	34.60	54.00	19.40
7386.000	47.08	PK	V	-1.02	46.06	74.00	27.94
7386.000	35.60	AV	V	-1.02	34.58	54.00	19.42

802.11g Mode

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Remark					
Low Channel:				2412	MHz		
4824.000	47.15	PK	H	-5.26	41.89	74.00	32.11
4824.000	35.22	AV	H	-5.26	29.96	54.00	24.04
4824.000	46.49	PK	V	-5.26	41.23	74.00	32.77
4824.000	34.37	AV	V	-5.26	29.11	54.00	24.89
7236.000	47.26	PK	H	-1.68	45.58	74.00	28.42
7236.000	35.15	AV	H	-1.68	33.47	54.00	20.53
7236.000	47.20	PK	V	-1.68	45.52	74.00	28.48
7236.000	35.58	AV	V	-1.68	33.90	54.00	20.10
Middle Channel:				2437	MHz		
4874.000	47.17	PK	H	-5.26	41.91	74.00	32.09
4874.000	35.25	AV	H	-5.26	29.99	54.00	24.01
4874.000	46.36	PK	V	-5.26	41.10	74.00	32.90
4874.000	34.48	AV	V	-5.26	29.22	54.00	24.78
7311.000	47.29	PK	H	-1.32	45.97	74.00	28.03
7311.000	35.32	AV	H	-1.32	34.00	54.00	20.00
7311.000	47.40	PK	V	-1.32	46.08	74.00	27.92
7311.000	35.31	AV	V	-1.32	33.99	54.00	20.01
High Channel:				2462	MHz		
4924.000	47.13	PK	H	-5.36	41.77	74.00	32.23
4924.000	35.10	AV	H	-5.36	29.74	54.00	24.26
4924.000	46.86	PK	V	-5.36	41.50	74.00	32.50
4924.000	34.74	AV	V	-5.36	29.38	54.00	24.62
7386.000	47.07	PK	H	-1.02	46.05	74.00	27.95
7386.000	35.23	AV	H	-1.02	34.21	54.00	19.79
7386.000	47.45	PK	V	-1.02	46.43	74.00	27.57
7386.000	35.71	AV	V	-1.02	34.69	54.00	19.31

802.11n ht20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Remark					
Low Channel:				2412	MHz		
4824.000	47.11	PK	H	-5.26	41.85	74.00	32.15
4824.000	34.26	AV	H	-5.26	29.00	54.00	25.00
4824.000	46.28	PK	V	-5.26	41.02	74.00	32.98
4824.000	34.70	AV	V	-5.26	29.44	54.00	24.56
7236.000	46.51	PK	H	-1.68	44.83	74.00	29.17
7236.000	35.23	AV	H	-1.68	33.55	54.00	20.45
7236.000	46.30	PK	V	-1.68	44.62	74.00	29.38
7236.000	35.17	AV	V	-1.68	33.49	54.00	20.51
Middle Channel:				2437	MHz		
4874.000	47.22	PK	H	-5.26	41.96	74.00	32.04
4874.000	34.05	AV	H	-5.26	28.79	54.00	25.21
4874.000	46.23	PK	V	-5.26	40.97	74.00	33.03
4874.000	34.44	AV	V	-5.26	29.18	54.00	24.82
7311.000	46.35	PK	H	-1.32	45.03	74.00	28.97
7311.000	35.29	AV	H	-1.32	33.97	54.00	20.03
7311.000	46.43	PK	V	-1.32	45.11	74.00	28.89
7311.000	35.23	AV	V	-1.32	33.91	54.00	20.09
High Channel:				2462	MHz		
4924.000	47.07	PK	H	-5.36	41.71	74.00	32.29
4924.000	34.00	AV	H	-5.36	28.64	54.00	25.36
4924.000	46.52	PK	V	-5.36	41.16	74.00	32.84
4924.000	34.98	AV	V	-5.36	29.62	54.00	24.38
7386.000	46.60	PK	H	-1.02	45.58	74.00	28.42
7386.000	35.54	AV	H	-1.02	34.52	54.00	19.48
7386.000	46.62	PK	V	-1.02	45.60	74.00	28.40
7386.000	35.43	AV	V	-1.02	34.41	54.00	19.59

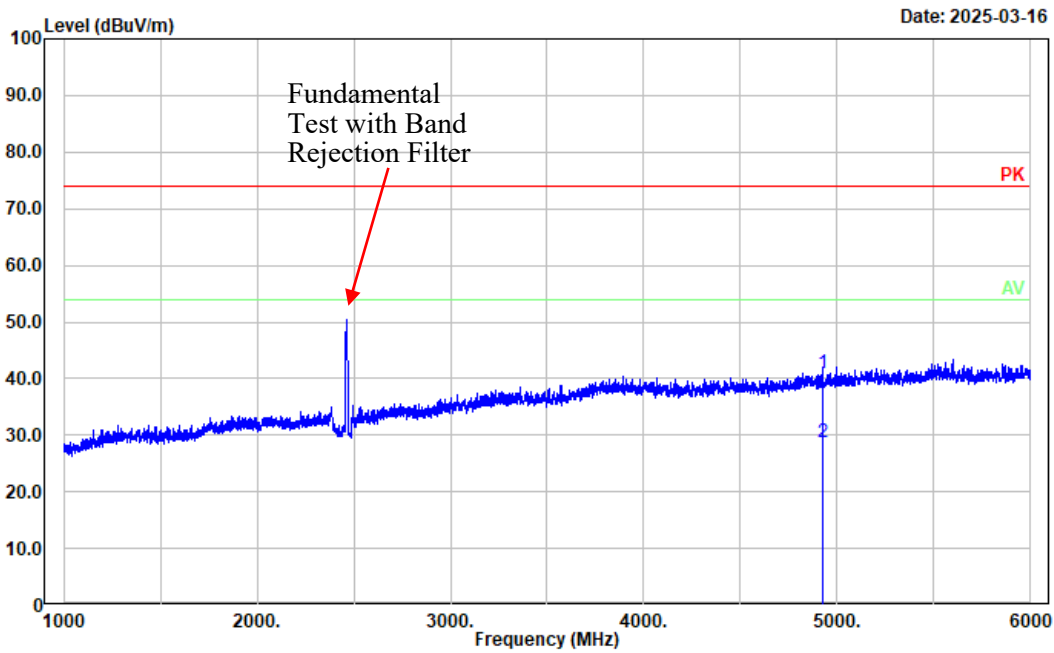
802.11n ht40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Remark					
Low Channel:				2422	MHz		
4844.000	46.47	PK	H	-5.21	41.26	74.00	32.74
4844.000	34.12	AV	H	-5.21	28.91	54.00	25.09
4844.000	46.54	PK	V	-5.21	41.33	74.00	32.67
4844.000	34.28	AV	V	-5.21	29.07	54.00	24.93
7266.000	46.40	PK	H	-1.49	44.91	74.00	29.09
7266.000	35.29	AV	H	-1.49	33.80	54.00	20.20
7266.000	47.14	PK	V	-1.49	45.65	74.00	28.35
7266.000	35.25	AV	V	-1.49	33.76	54.00	20.24
Middle Channel:				2437	MHz		
4874.000	46.33	PK	H	-5.26	41.07	74.00	32.93
4874.000	34.21	AV	H	-5.26	28.95	54.00	25.05
4874.000	46.54	PK	V	-5.26	41.28	74.00	32.72
4874.000	34.36	AV	V	-5.26	29.10	54.00	24.90
7311.000	46.41	PK	H	-1.32	45.09	74.00	28.91
7311.000	35.21	AV	H	-1.32	33.89	54.00	20.11
7311.000	47.01	PK	V	-1.32	45.69	74.00	28.31
7311.000	35.21	AV	V	-1.32	33.89	54.00	20.11
High Channel:				2452	MHz		
4904.000	46.67	PK	H	-5.33	41.34	74.00	32.66
4904.000	34.04	AV	H	-5.33	28.71	54.00	25.29
4904.000	46.89	PK	V	-5.33	41.56	74.00	32.44
4904.000	34.84	AV	V	-5.33	29.51	54.00	24.49
7356.000	46.55	PK	H	-0.86	45.69	74.00	28.31
7356.000	35.40	AV	H	-0.86	34.54	54.00	19.46
7356.000	47.16	PK	V	-0.86	46.30	74.00	27.70
7356.000	35.38	AV	V	-0.86	34.52	54.00	19.48

Worst radiation spurious emissions margin test plots for each mode

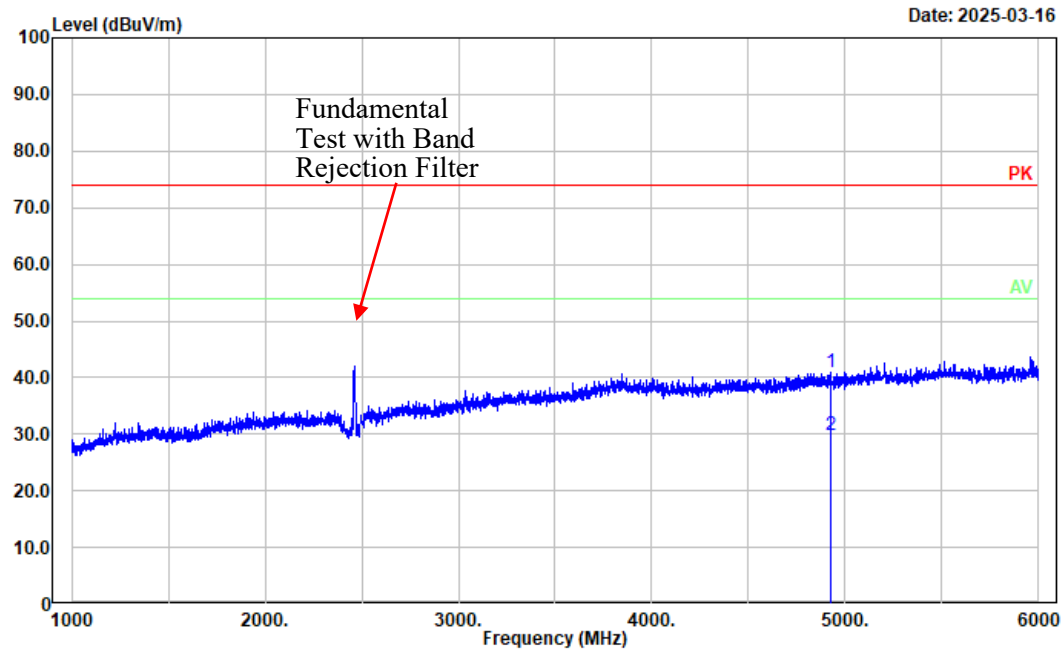
Note: for 18 – 25 GHz range, only report the worst case mode

Project No.: 2403A45479E-RF
 Tester: Tao Zhu
 Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
 Polarization: horizontal
 Note: b High Channel 2462MHz



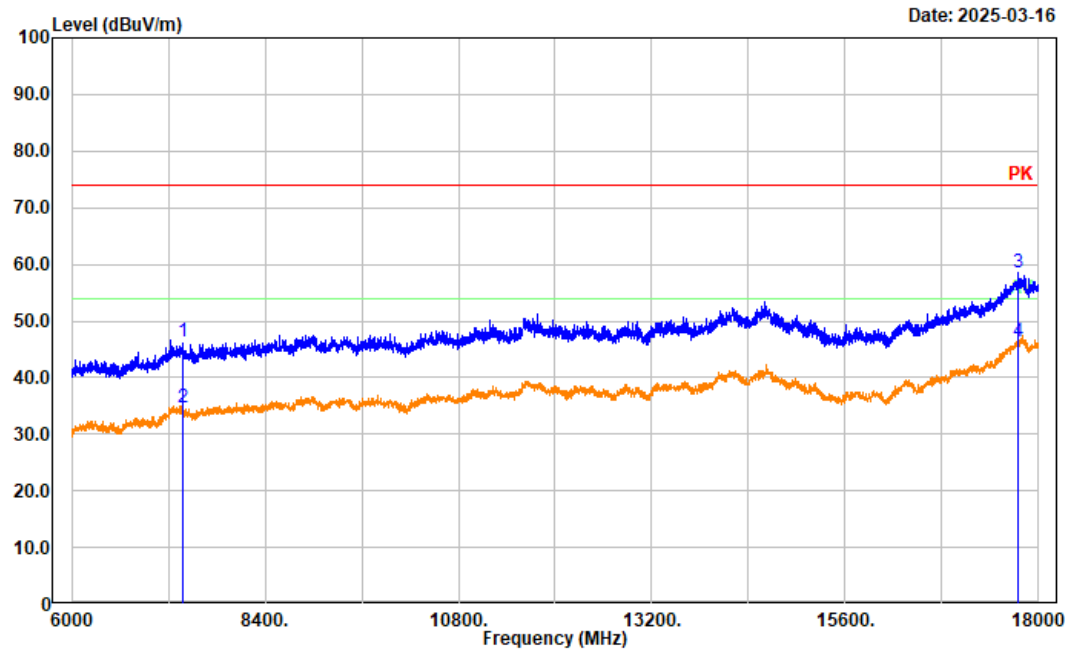
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	4924.000	46.27	-5.36	40.91	74.00	33.09	Peak
2	4924.000	34.05	-5.36	28.69	54.00	25.31	Average

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: vertical
Note: b High Channel 2462MHz



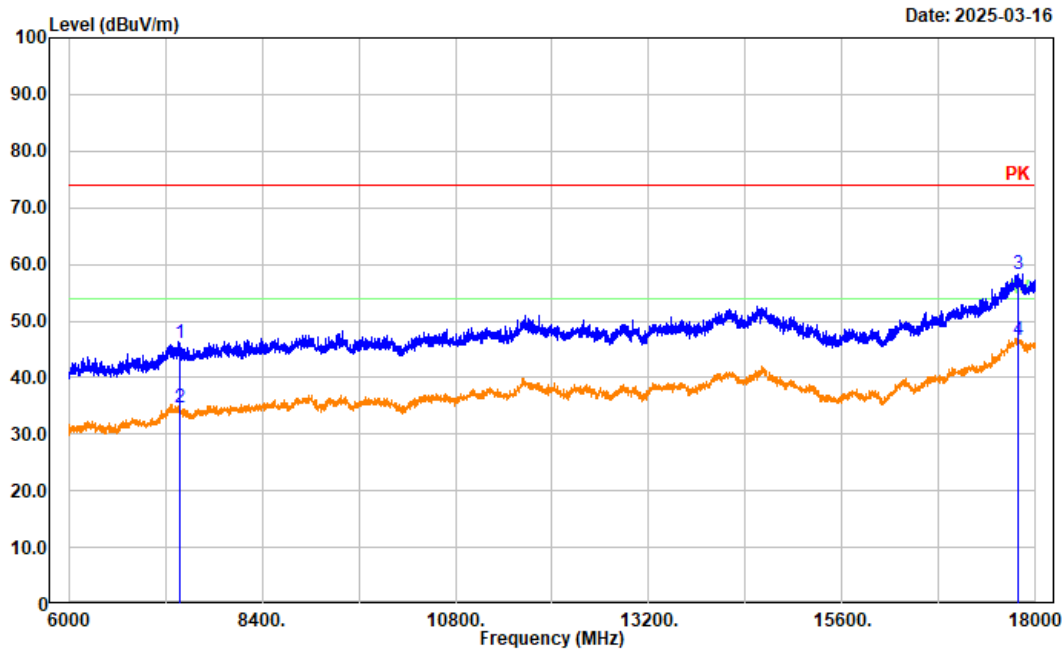
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	4924.000	46.41	-5.36	41.05	74.00	32.95	Peak
2	4924.000	35.05	-5.36	29.69	54.00	24.31	Average

Project No.: 2403A45479E-RF
 Tester: Tao Zhu
 Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec AV trace RBW:1MHz; VBW:5kHz; SWT:auto
 Polarization: horizontal
 Note: b High Channel 2462MHz



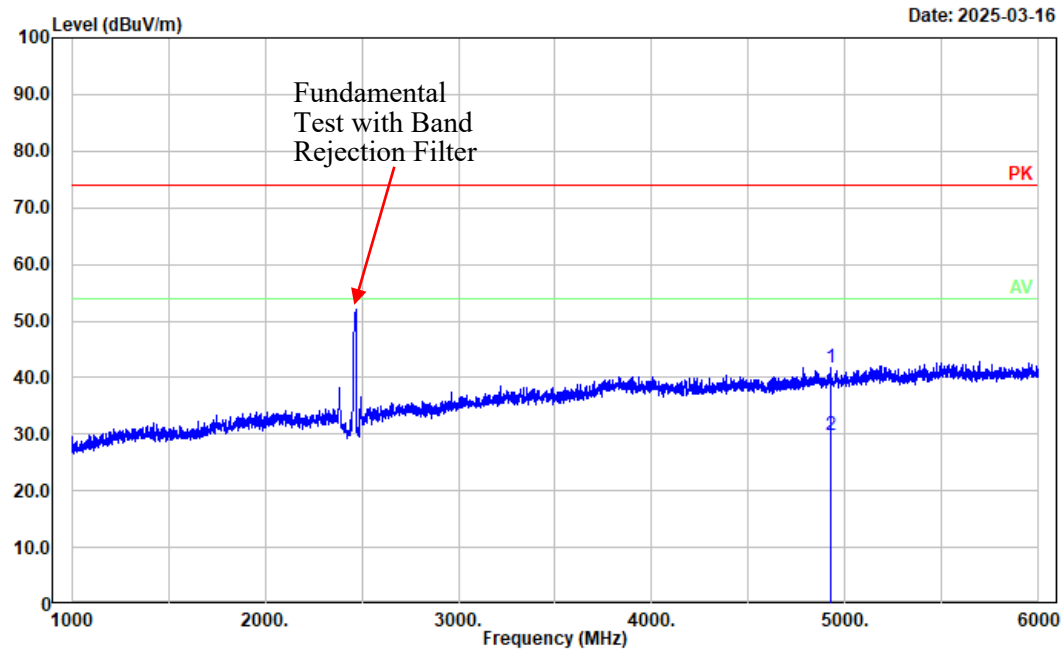
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	7386.000	47.34	-1.02	46.32	74.00	27.68	Peak
2	7386.000	35.62	-1.02	34.60	54.00	19.40	Average
3	17738.400	45.27	13.26	58.53	74.00	15.47	Peak
4	17738.400	33.09	13.26	46.35	54.00	7.65	Average

Project No.: 2403A45479E-RF
 Tester: Tao Zhu
 Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec AV trace RBW:1MHz; VBW:5kHz; SWT:auto
 Polarization: vertical
 Note: b High Channel 2462MHz



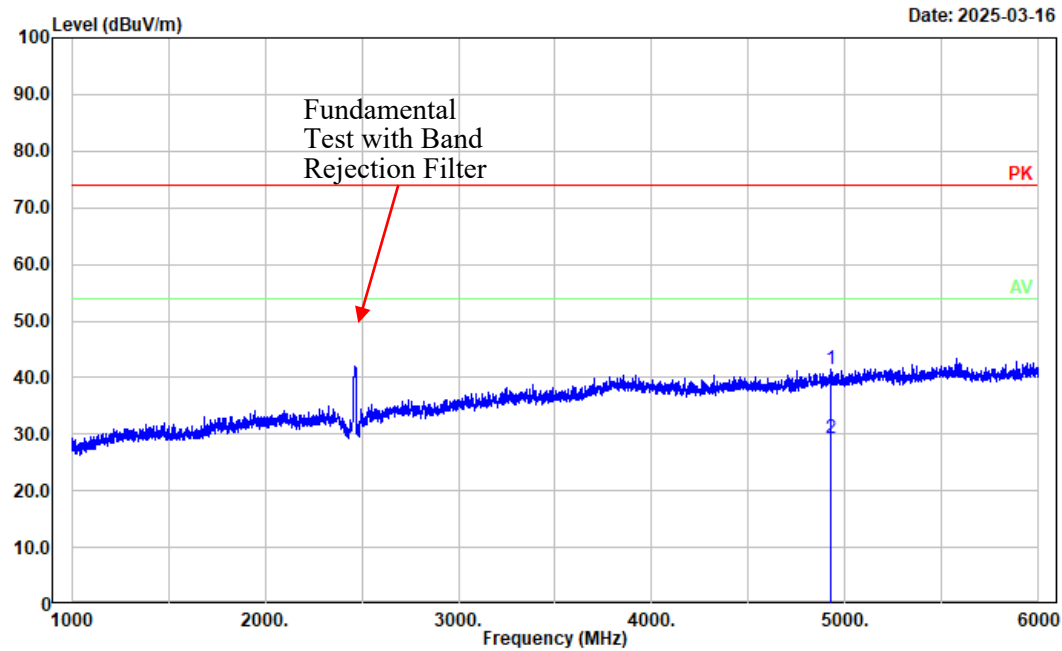
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	7386.000	47.08	-1.02	46.06	74.00	27.94	Peak
2	7386.000	35.60	-1.02	34.58	54.00	19.42	Average
3	17788.800	44.88	13.50	58.38	74.00	15.62	Peak
4	17788.800	33.01	13.50	46.51	54.00	7.49	Average

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: horizontal
Note: g High Channel 2462MHz



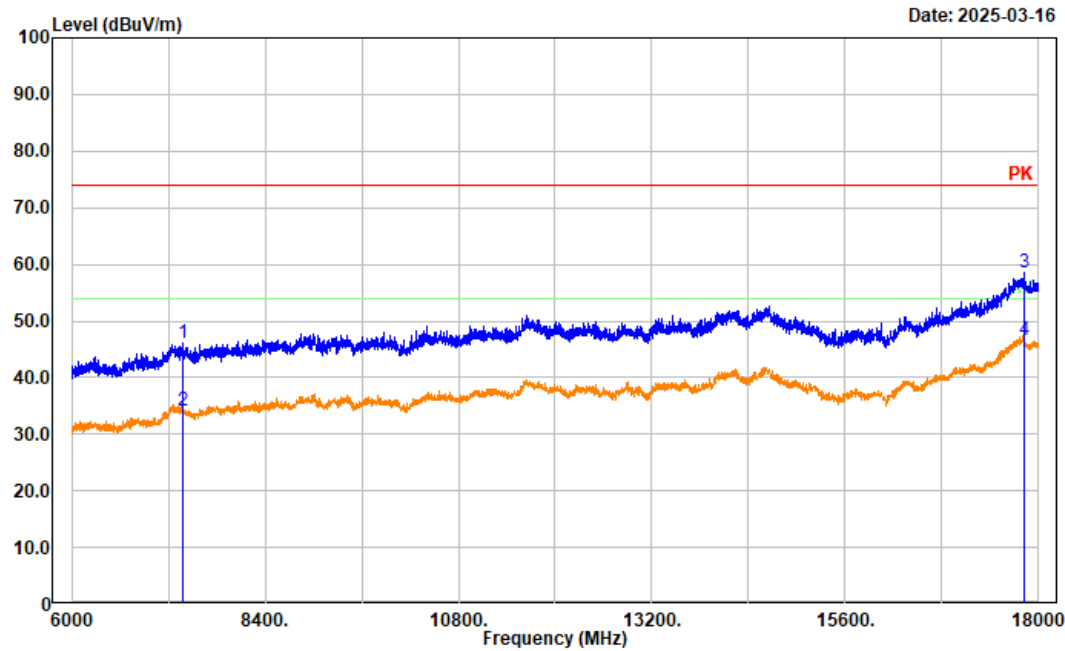
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	4924.000	47.13	-5.36	41.77	74.00	32.23	Peak
2	4924.000	35.10	-5.36	29.74	54.00	24.26	Average

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: vertical
Note: g High Channel 2462MHz



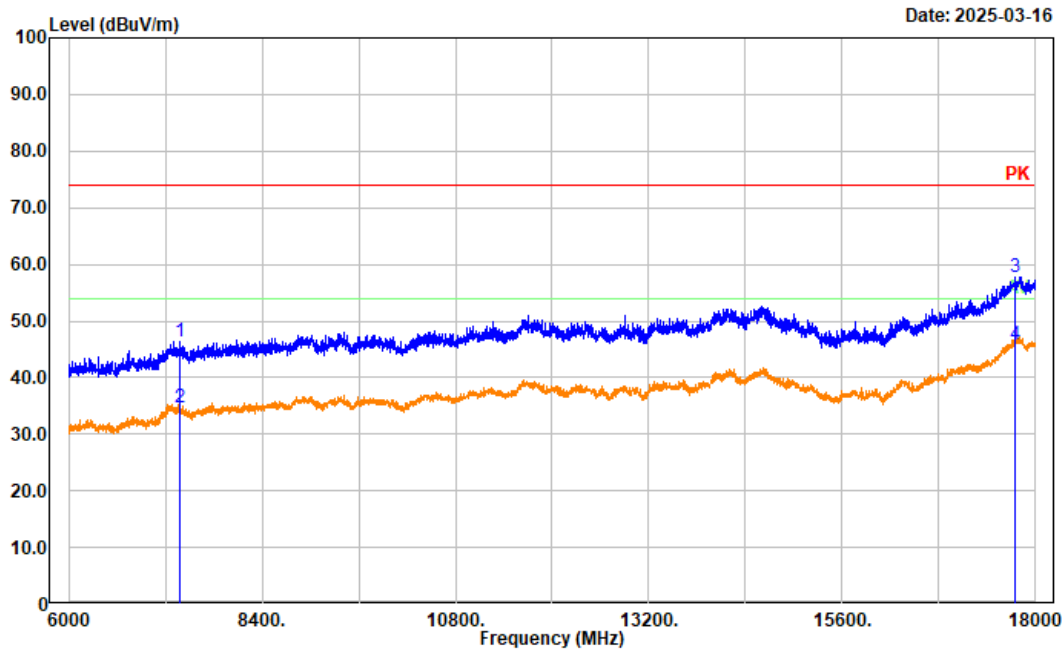
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	4924.000	46.86	-5.36	41.50	74.00	32.50	Peak
2	4924.000	34.74	-5.36	29.38	54.00	24.62	Average

Project No.: 2403A45479E-RF
 Tester: Tao Zhu
 Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec AV trace RBW:1MHz; VBW:5kHz; SWT:auto
 Polarization: horizontal
 Note: g High Channel 2462MHz



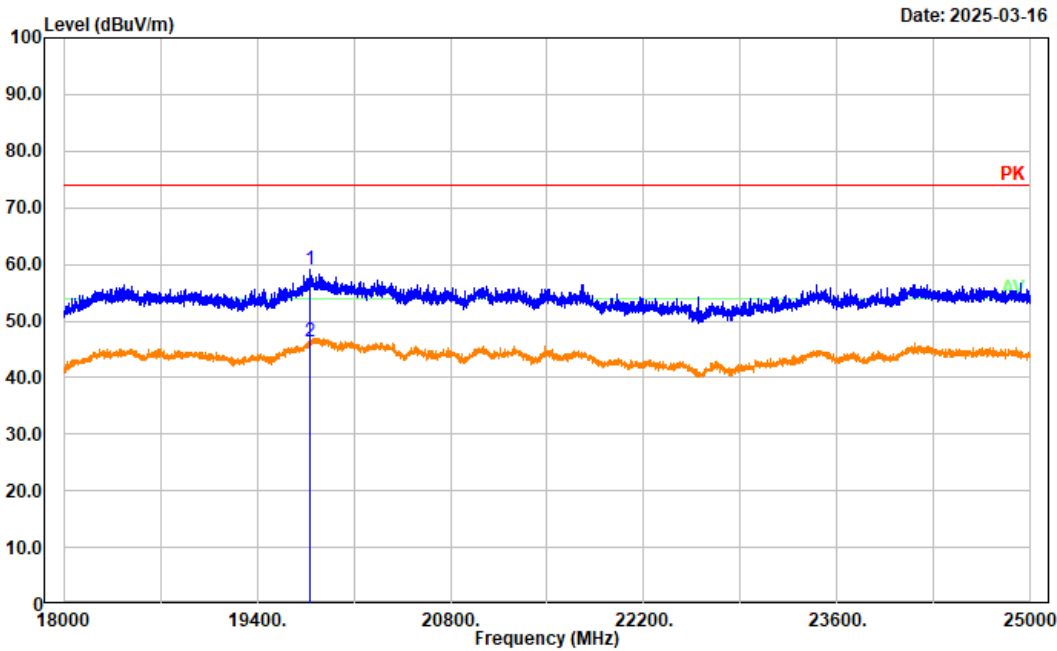
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	7386.000	47.07	-1.02	46.05	74.00	27.95	Peak
2	7386.000	35.23	-1.02	34.21	54.00	19.79	Average
3	17829.600	44.88	13.54	58.42	74.00	15.58	Peak
4	17829.600	33.05	13.54	46.59	54.00	7.41	Average

Project No.: 2403A45479E-RF
 Tester: Tao Zhu
 Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec AV trace RBW:1MHz; VBW:5kHz; SWT:auto
 Polarization: vertical
 Note: g High Channel 2462MHz



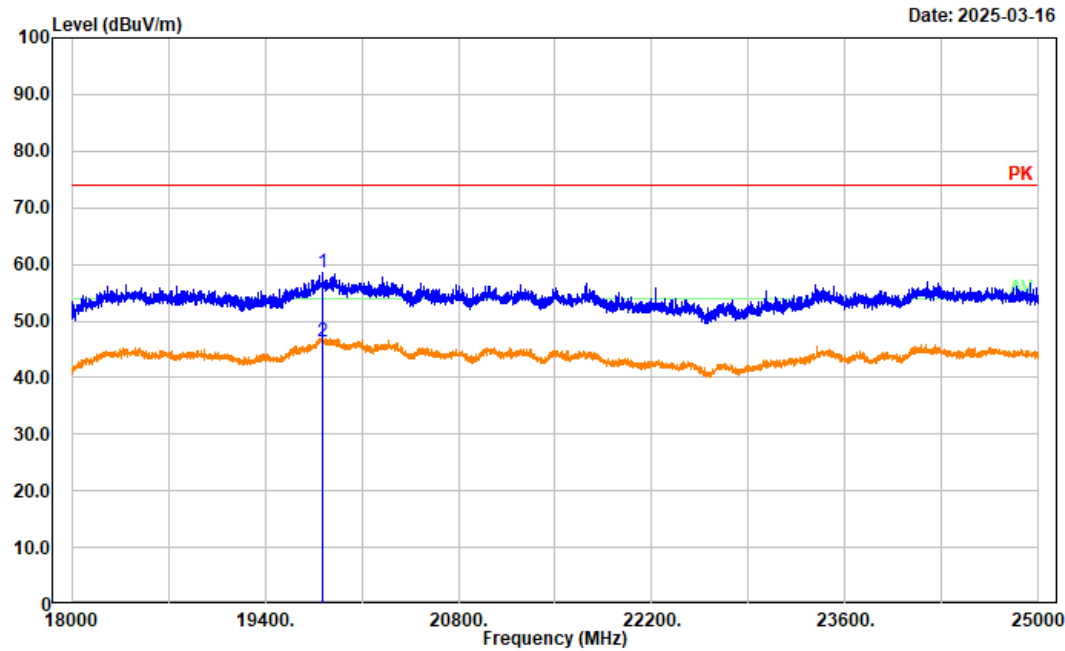
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	7386.000	47.45	-1.02	46.43	74.00	27.57	Peak
2	7386.000	35.71	-1.02	34.69	54.00	19.31	Average
3	17743.200	44.53	13.27	57.80	74.00	16.20	Peak
4	17743.200	32.47	13.27	45.74	54.00	8.26	Average

Project No.: 2403A45479E-RF
 Tester: Tao Zhu
 Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec AV trace RBW:1MHz; VBW:5kHz; SWT:auto
 Polarization: Horizontal
 Note: g High Channel 2462MHz



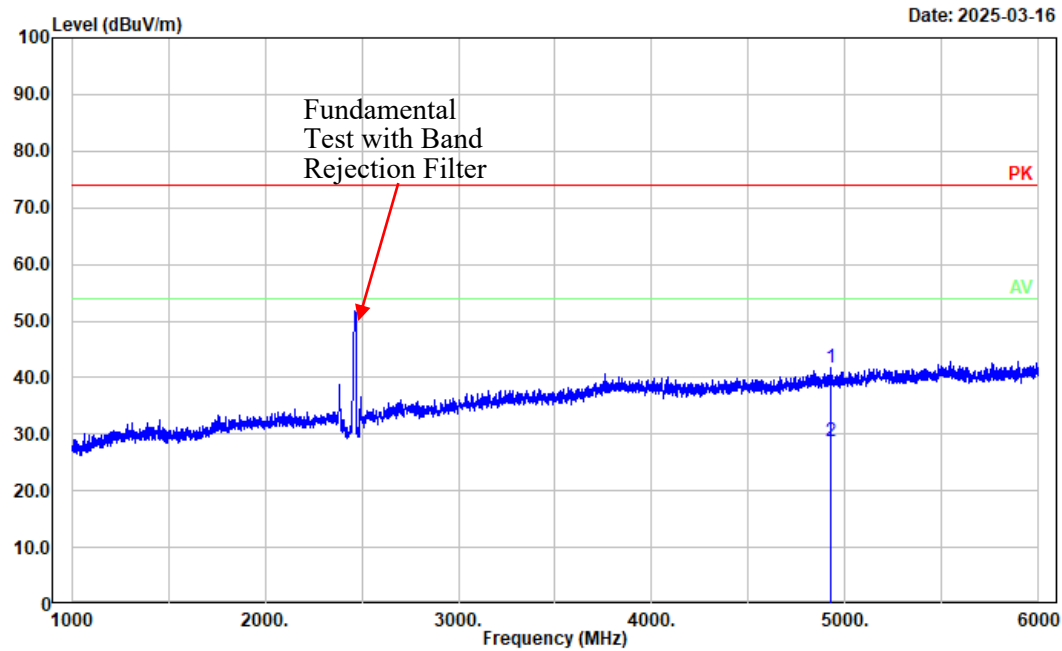
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	19783.600	51.39	7.79	59.18	74.00	14.82	Peak
2	19783.600	38.57	7.79	46.36	54.00	7.64	Average

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec AV trace RBW:1MHz; VBW:5kHz; SWT:auto
Polarization: vertical
Note: g High Channel 2462MHz



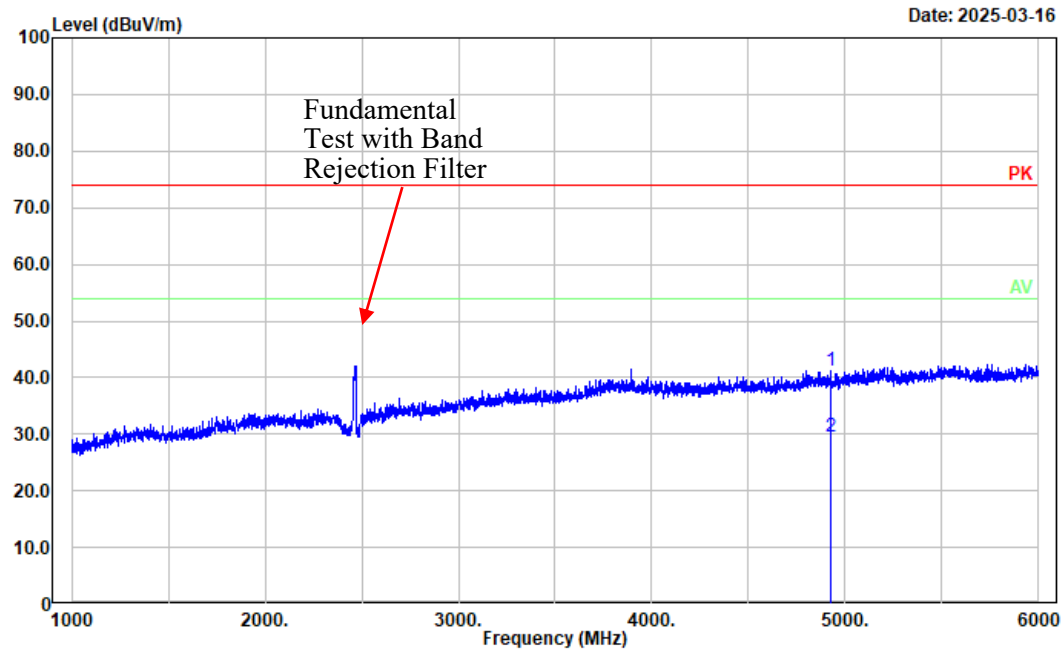
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	19815.800	50.67	7.94	58.61	74.00	15.39	Peak
2	19815.800	38.33	7.94	46.27	54.00	7.73	Average

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: horizontal
Note: n20 High Channel 2462MHz



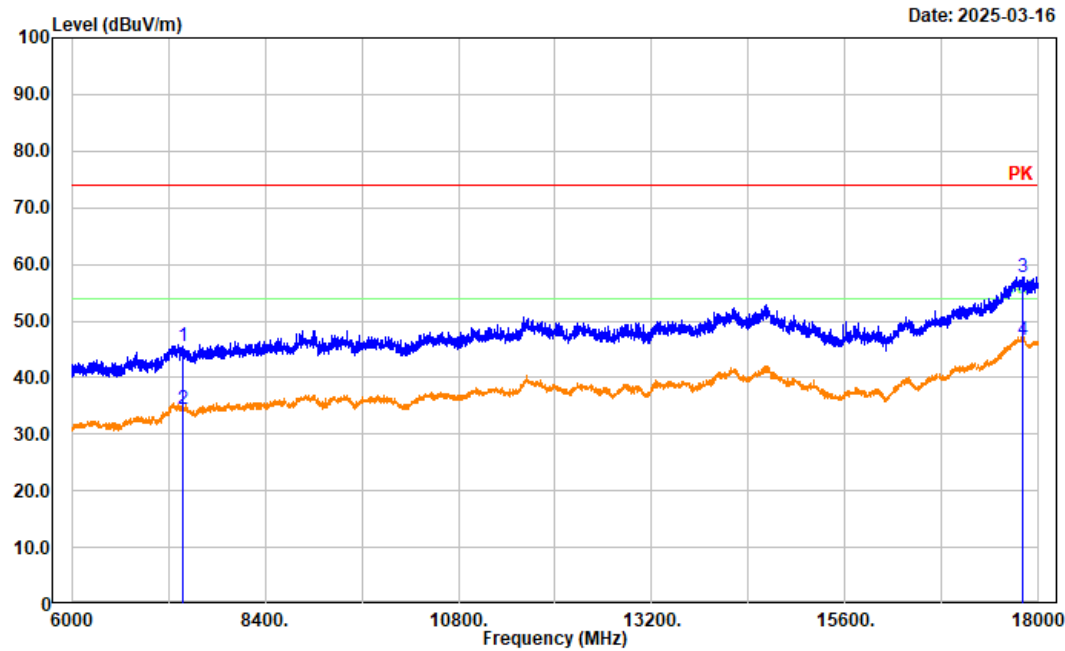
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	4924.000	47.07	-5.36	41.71	74.00	32.29	Peak
2	4924.000	34.00	-5.36	28.64	54.00	25.36	Average

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: vertical
Note: n20 High Channel 2462MHz



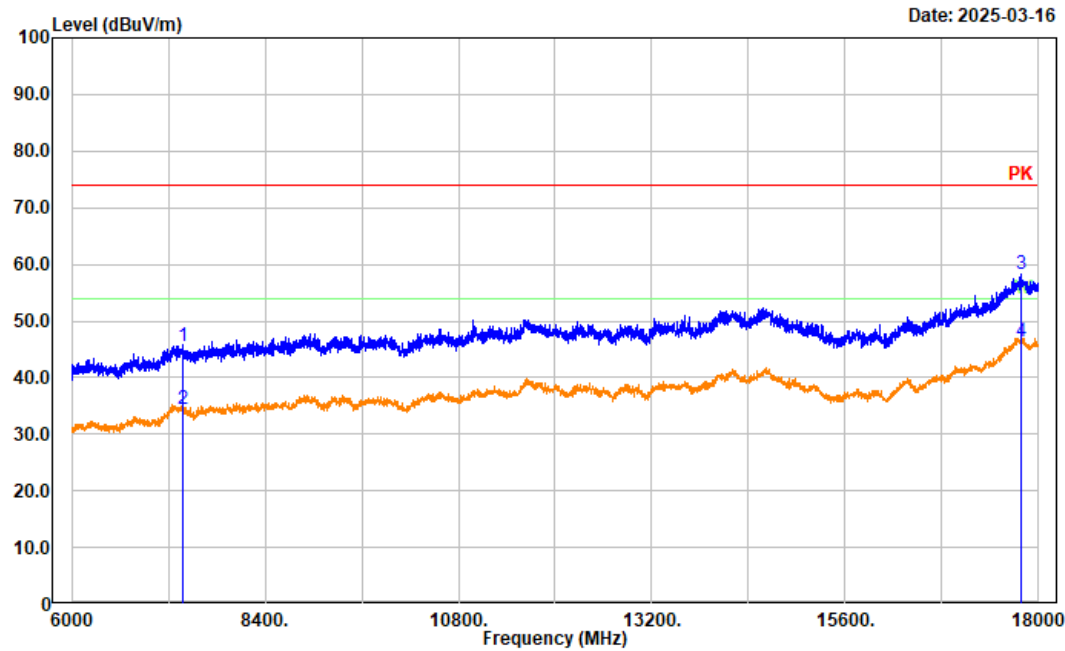
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	4924.000	46.52	-5.36	41.16	74.00	32.84	Peak
2	4924.000	34.98	-5.36	29.62	54.00	24.38	Average

Project No.: 2403A45479E-RF
 Tester: Tao Zhu
 Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec AV trace RBW:1MHz; VBW:5kHz; SWT:auto
 Polarization: horizontal
 Note: n20 High Channel 2462MHz



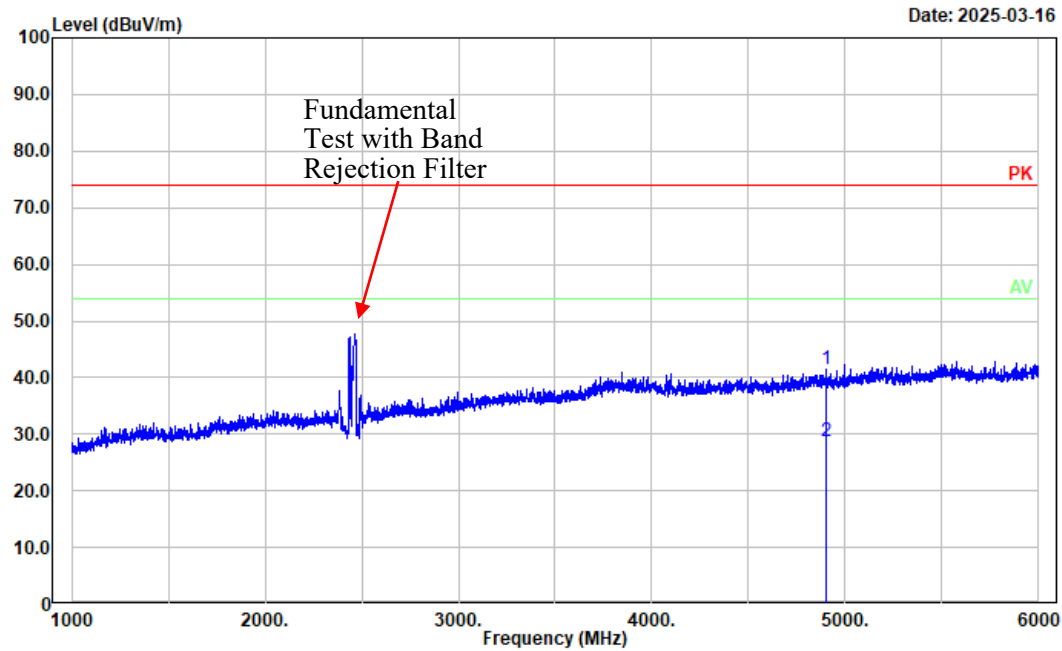
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	7386.000	46.60	-1.02	45.58	74.00	28.42	Peak
2	7386.000	35.54	-1.02	34.52	54.00	19.48	Average
3	17796.000	44.22	13.54	57.76	74.00	16.24	Peak
4	17796.000	33.01	13.54	46.55	54.00	7.45	Average

Project No.: 2403A45479E-RF
 Tester: Tao Zhu
 Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec AV trace RBW:1MHz; VBW:5kHz; SWT:auto
 Polarization: vertical
 Note: n20 High Channel 2462MHz



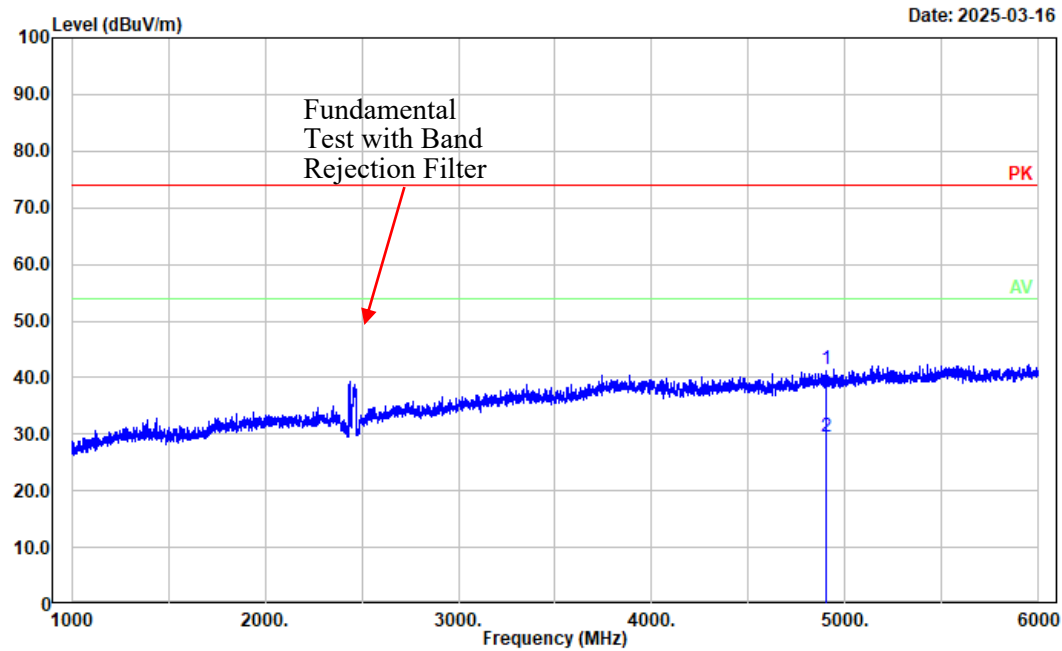
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	7386.000	46.62	-1.02	45.60	74.00	28.40	Peak
2	7386.000	35.43	-1.02	34.41	54.00	19.59	Average
3	17784.000	44.69	13.47	58.16	74.00	15.84	Peak
4	17784.000	32.81	13.47	46.28	54.00	7.72	Average

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: horizontal
Note: n40 High Channel 2452MHz



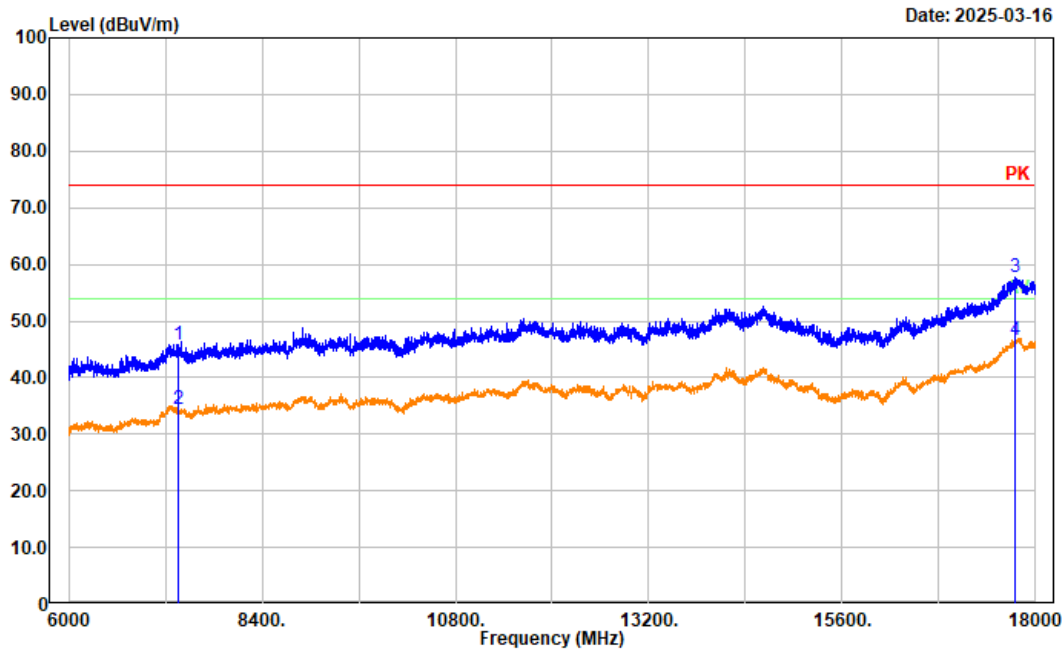
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	4904.000	46.67	-5.33	41.34	74.00	32.66	Peak
2	4904.000	34.04	-5.33	28.71	54.00	25.29	Average

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: vertical
Note: n40 High Channel 2452MHz



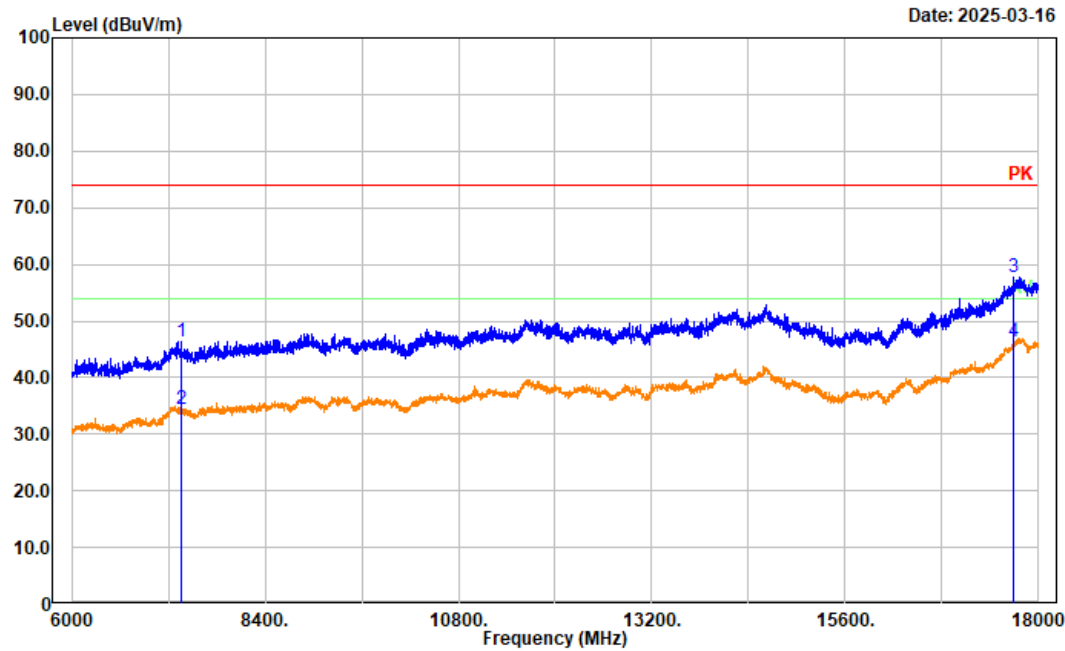
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	4904.000	46.89	-5.33	41.56	74.00	32.44	Peak
2	4904.000	34.84	-5.33	29.51	54.00	24.49	Average

Project No.: 2403A45479E-RF
 Tester: Tao Zhu
 Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec AV trace RBW:1MHz; VBW:5kHz; SWT:auto
 Polarization: horizontal
 Note: n40 High Channel 2452MHz



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	7356.000	46.55	-0.86	45.69	74.00	28.31	Peak
2	7356.000	35.40	-0.86	34.54	54.00	19.46	Average
3	17743.200	44.38	13.27	57.65	74.00	16.35	Peak
4	17743.200	33.26	13.27	46.53	54.00	7.47	Average

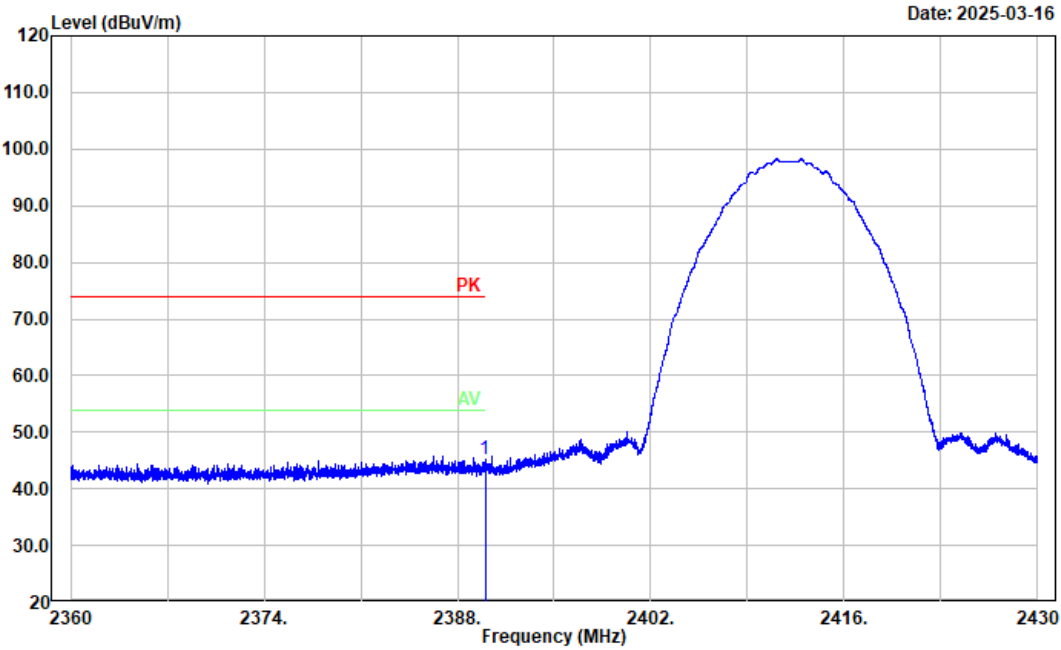
Project No.: 2403A45479E-RF
 Tester: Tao Zhu
 Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec AV trace RBW:1MHz; VBW:5kHz; SWT:auto
 Polarization: vertical
 Note: n40 High Channel 2452MHz



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	7356.000	47.16	-0.86	46.30	74.00	27.70	Peak
2	7356.000	35.38	-0.86	34.52	54.00	19.48	Average
3	17690.400	44.76	12.98	57.74	74.00	16.26	Peak
4	17690.400	33.34	12.98	46.32	54.00	7.68	Average

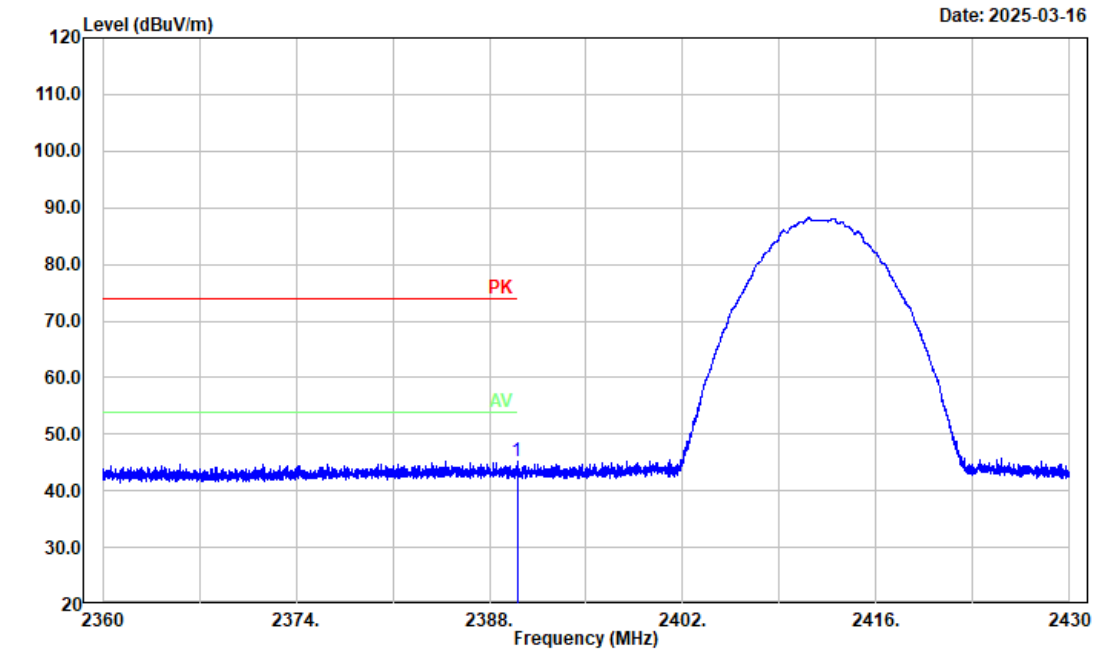
Band edge test plots

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: Horizontal
Note: b Low Channel 2412MHz



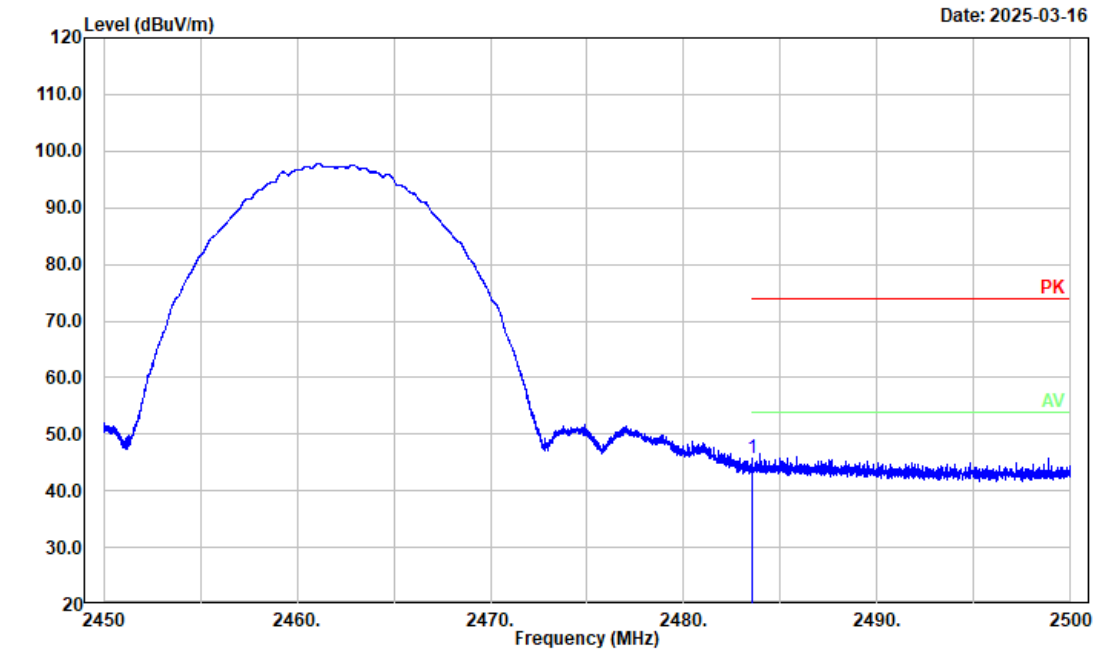
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	2390.000	55.53	-10.30	45.23	74.00	28.77	Peak

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: Vertical
Note: b Low Channel 2412MHz



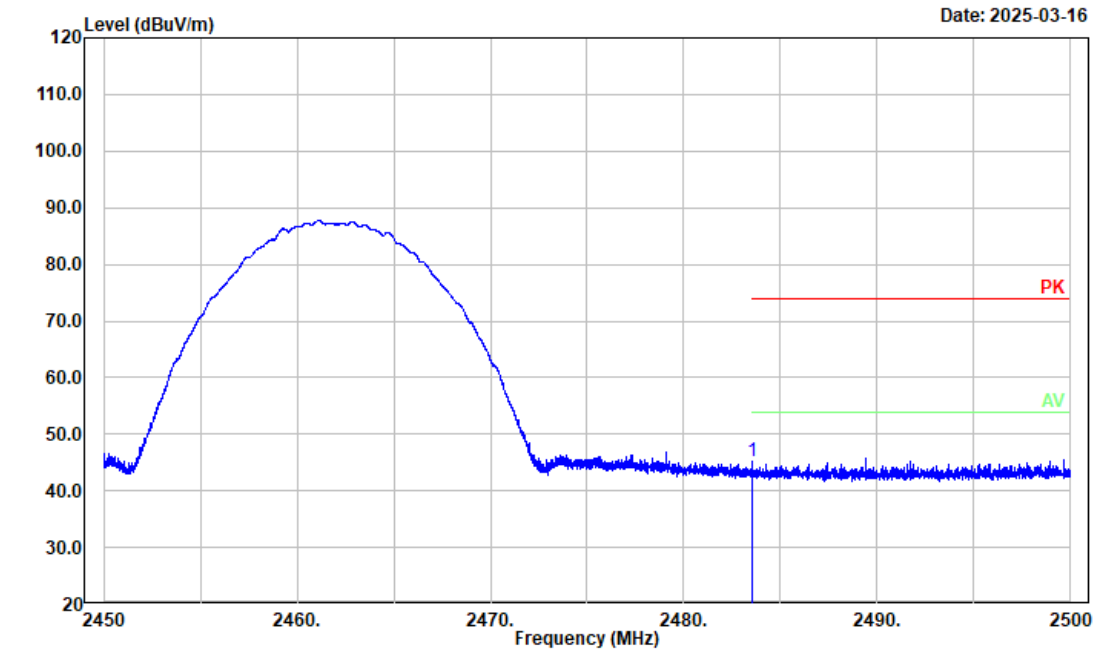
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	2390.000	55.42	-10.30	45.12	74.00	28.88	Peak

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: Horizontal
Note: b High Channel 2462MHz



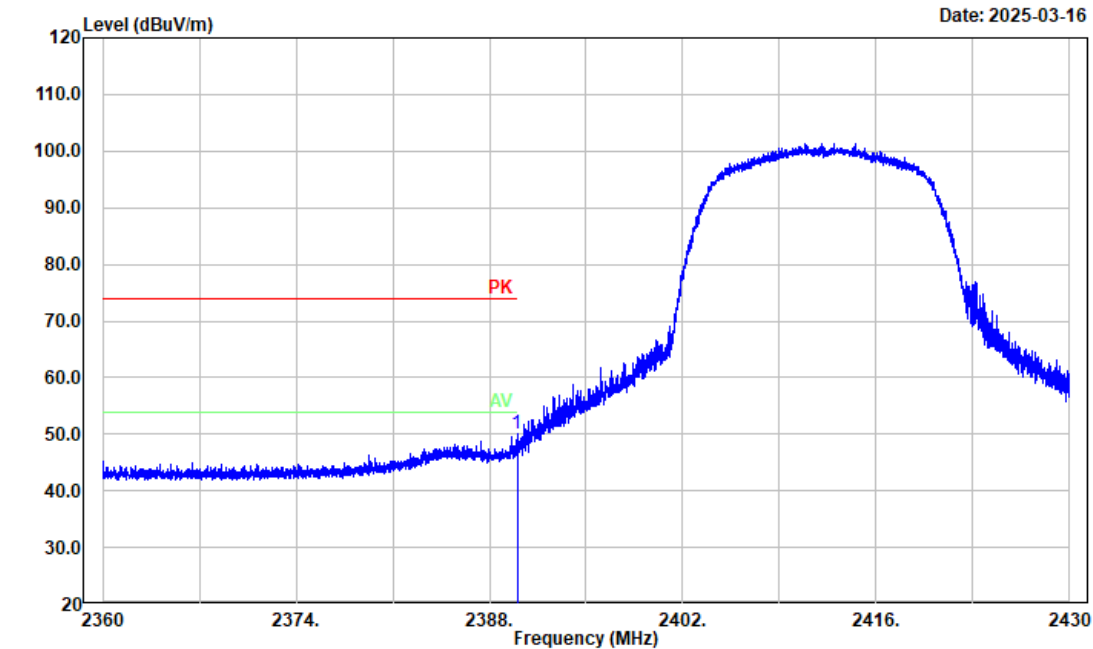
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	2483.500	56.02	-10.40	45.62	74.00	28.38	Peak

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: Vertical
Note: b High Channel 2462MHz



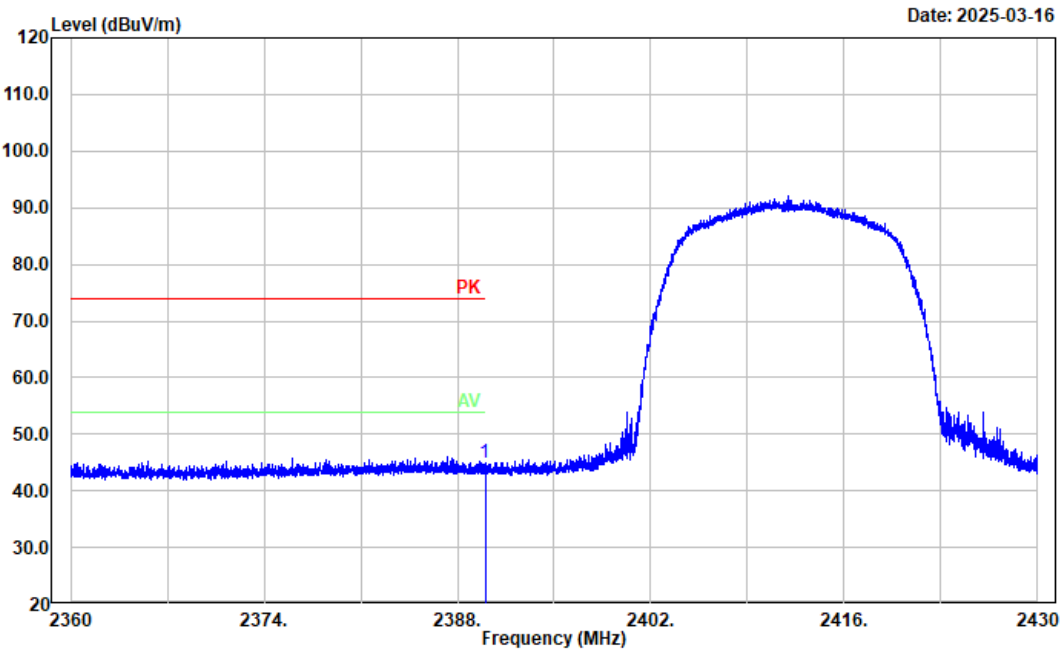
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	2483.500	55.70	-10.40	45.30	74.00	28.70	Peak

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: Horizontal
Note: g Low Channel 2412MHz



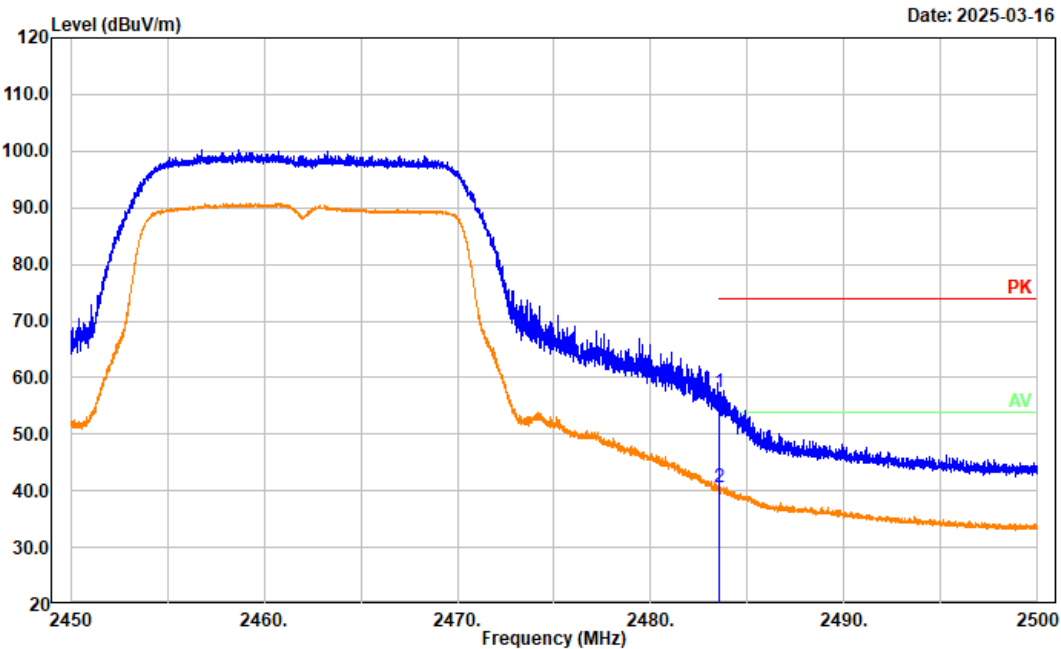
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	2390.000	60.51	-10.30	50.21	74.00	23.79	Peak

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: Vertical
Note: g Low Channel 2412MHz



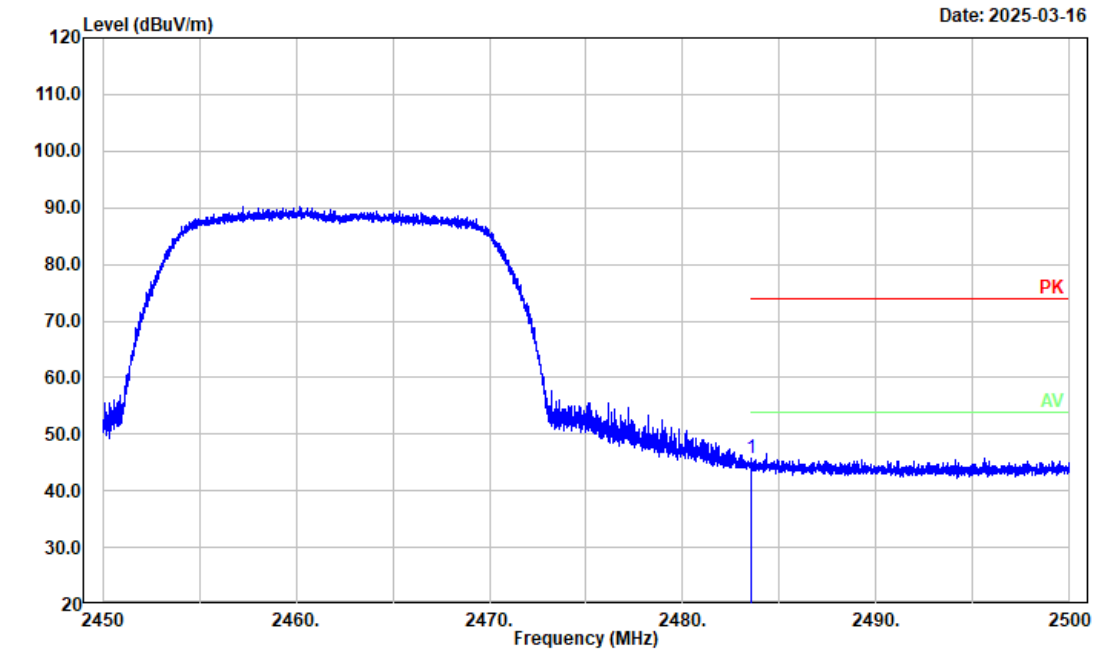
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	2390.000	55.34	-10.30	45.04	74.00	28.96	Peak

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec AV trace RBW:1MHz; VBW:5kHz; SWT:auto
Polarization: Horizontal
Note: g High Channel 2462MHz



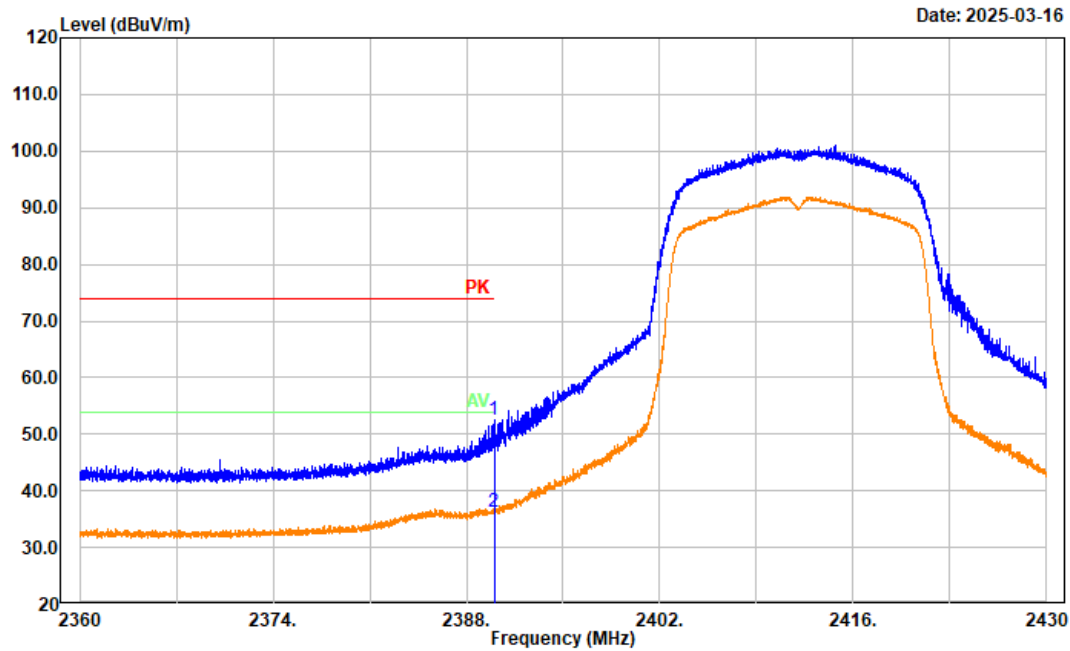
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	2483.500	67.88	-10.40	57.48	74.00	16.52	Peak
2	2483.500	50.98	-10.40	40.58	54.00	13.42	Average

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: Vertical
Note: g High Channel 2462MHz



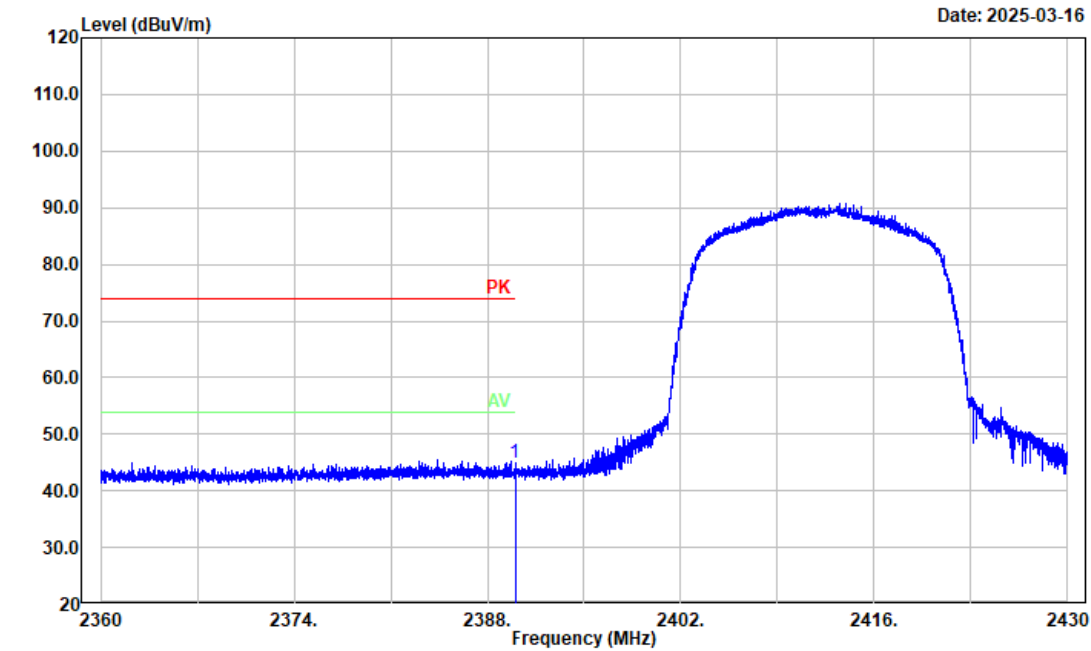
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	2483.500	56.07	-10.40	45.67	74.00	28.33	Peak

Project No.: 2403A45479E-RF
 Tester: Tao Zhu
 Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec AV trace RBW:1MHz; VBW:5kHz; SWT:auto
 Polarization: Horizontal
 Note: n20 Low Channel 2412MHz



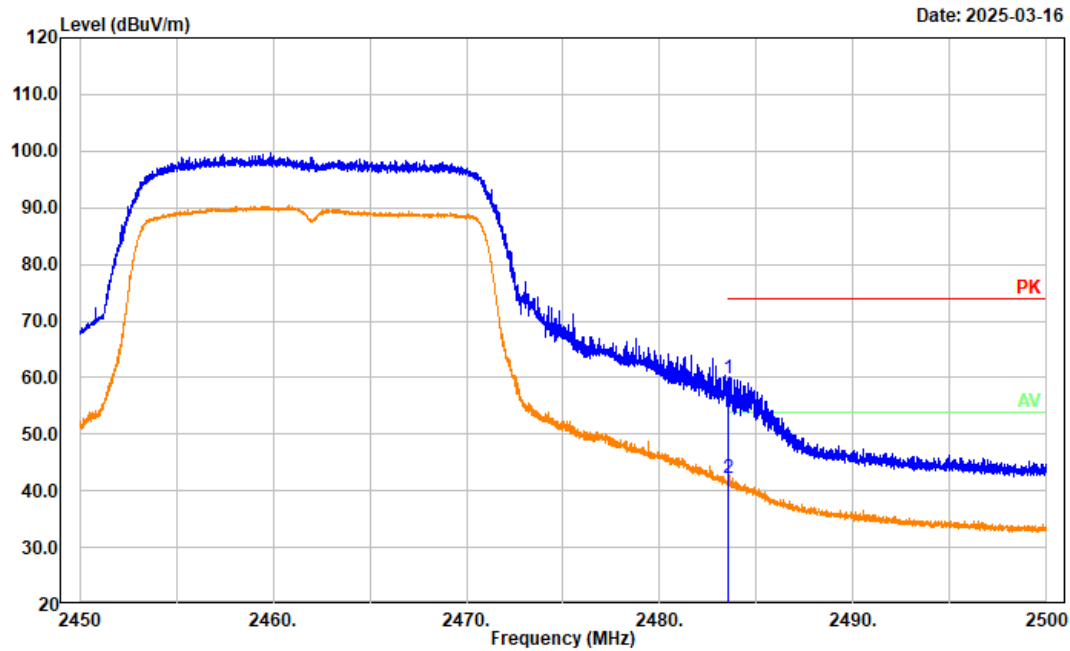
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	2390.000	62.78	-10.30	52.48	74.00	21.52	Peak
2	2390.000	46.55	-10.30	36.25	54.00	17.75	Average

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: Vertical
Note: n20 Low Channel 2412MHz



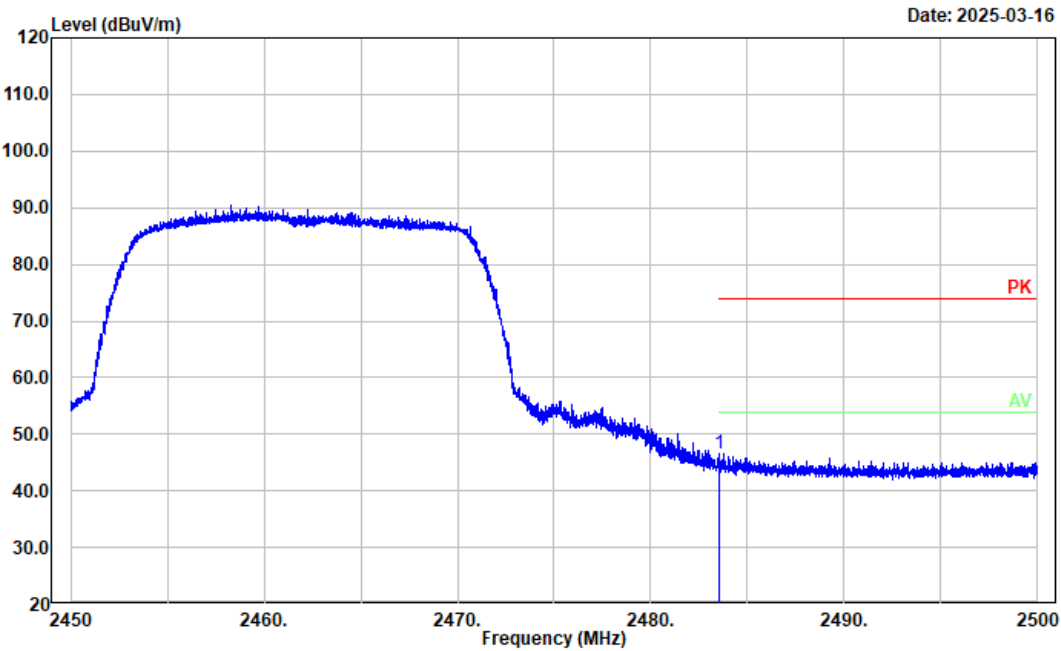
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	2390.000	55.35	-10.30	45.05	74.00	28.95	Peak

Project No.: 2403A45479E-RF
 Tester: Tao Zhu
 Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec AV trace RBW:1MHz; VBW:5kHz; SWT:auto
 Polarization: Horizontal
 Note: n20 High Channel 2462MHz



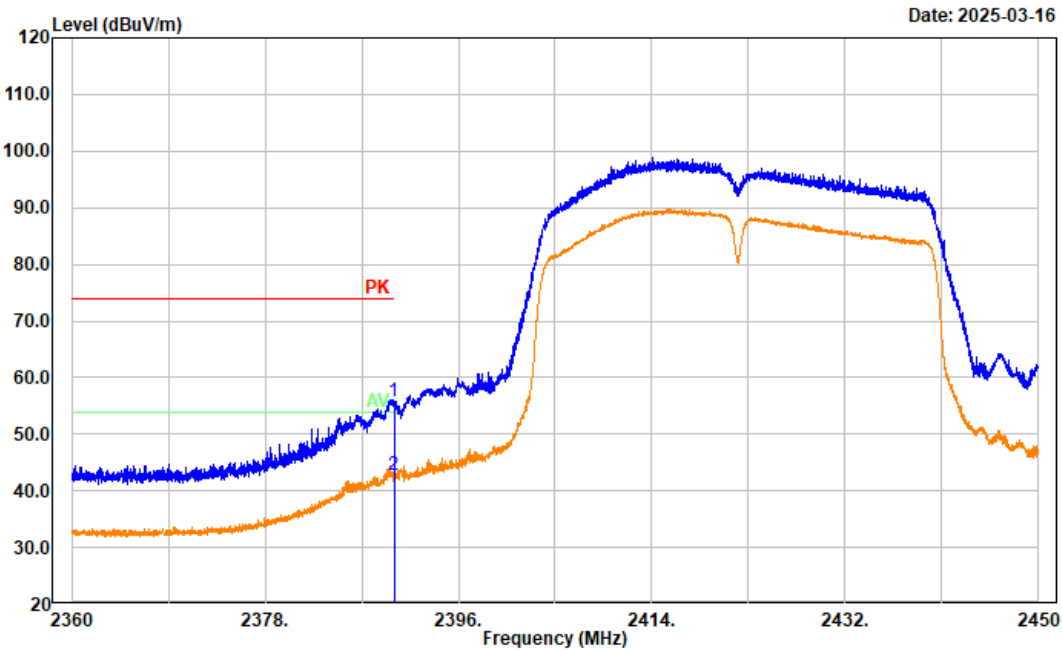
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	2483.500	70.37	-10.40	59.97	74.00	14.03	Peak
2	2483.500	52.61	-10.40	42.21	54.00	11.79	Average

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: Vertical
Note: n20 High Channel 2462MHz



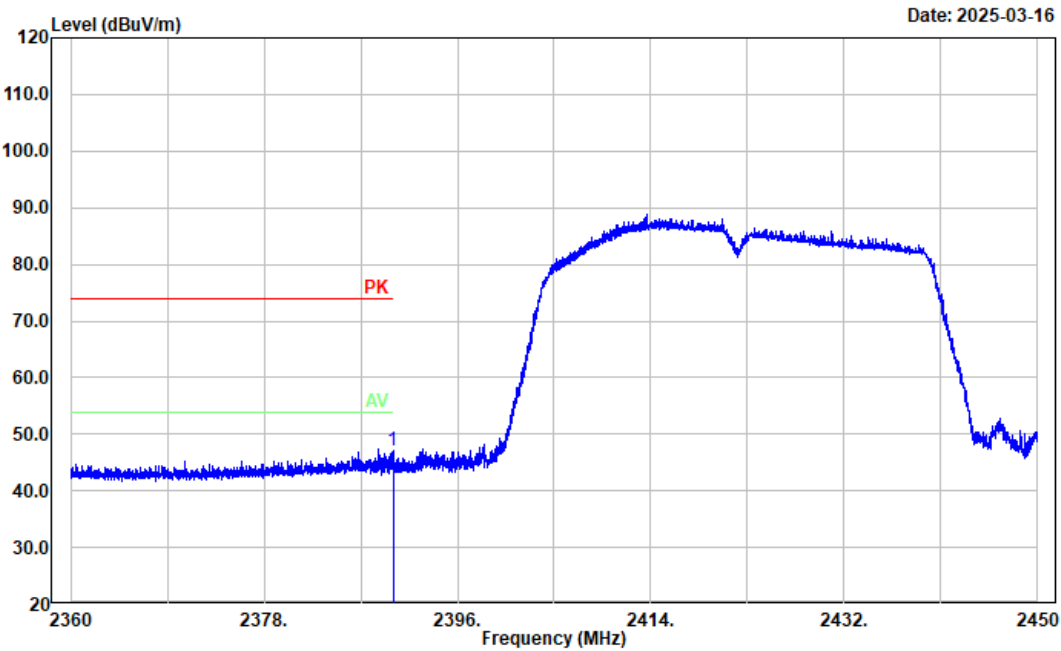
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	2483.500	56.92	-10.40	46.52	74.00	27.48	Peak

Project No.: 2403A45479E-RF
 Tester: Tao Zhu
 Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec AV trace RBW:1MHz; VBW:5kHz; SWT:auto
 Polarization: Horizontal
 Note: n40 Low Channel 2422MHz



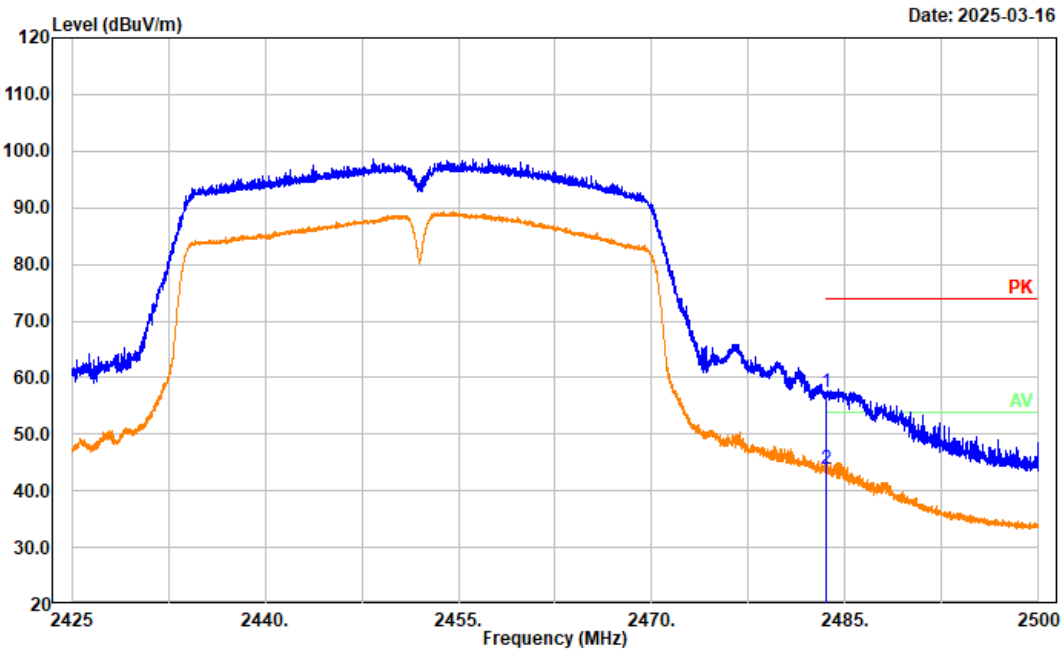
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	2390.000	66.10	-10.30	55.80	74.00	18.20	Peak
2	2390.000	53.17	-10.30	42.87	54.00	11.13	Average

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: Vertical
Note: n40 Low Channel 2422MHz



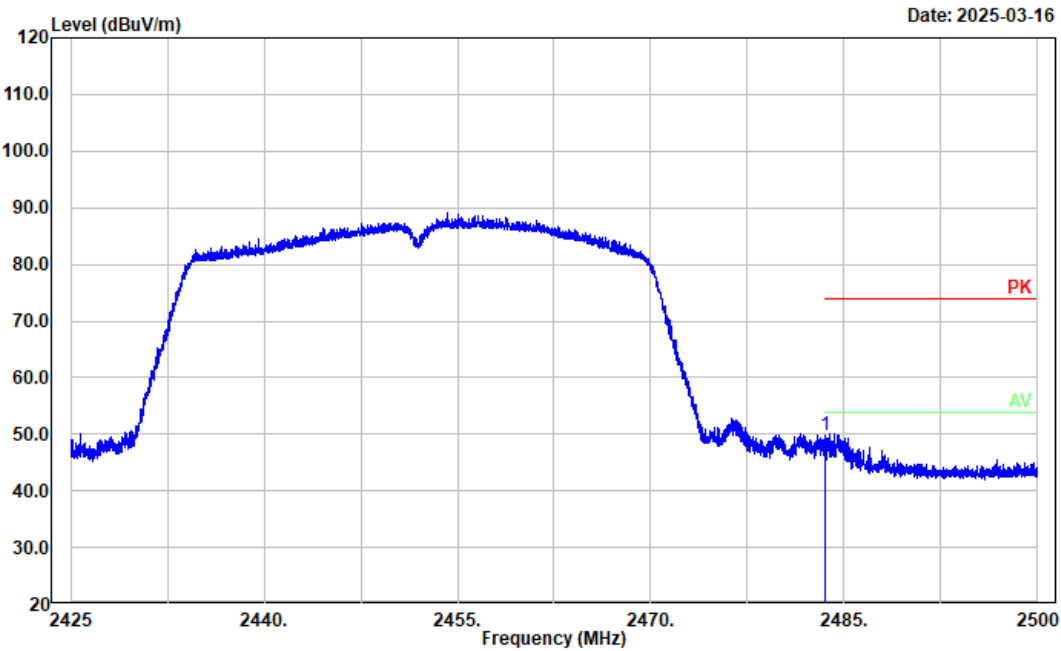
No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	2390.000	57.48	-10.30	47.18	74.00	26.82	Peak

Project No.: 2403A45479E-RF
 Tester: Tao Zhu
 Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec AV trace RBW:1MHz; VBW:5kHz; SWT:auto
 Polarization: Horizontal
 Note: n40 High Channel 2452MHz



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	2483.500	67.87	-10.40	57.47	74.00	16.53	Peak
2	2483.500	54.17	-10.40	43.77	54.00	10.23	Average

Project No.: 2403A45479E-RF
Tester: Tao Zhu
Condition: PK trace RBW:1MHz; VBW:3MHz; SWT:0.3sec
Polarization: Vertical
Note: n40 High Channel 2452MHz



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
1	2483.500	60.08	-10.40	49.68	74.00	24.32	Peak

4.3 6dB Emission Bandwidth

Test Information:

Sample No.:	2W1V-1	Test Date:	2025/3/26
Test Site:	RF	Test Mode:	Transmitting
Tester:	Leo Li	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.8	Relative Humidity: (%)	54	ATM Pressure: (kPa)	101.5
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2024/04/01	2025/03/31
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

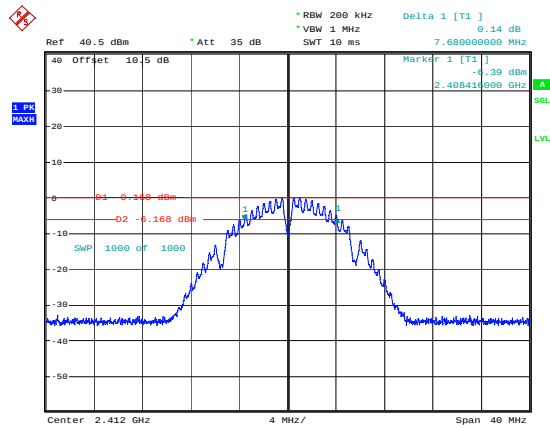
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

Mode	Test Frequency (MHz)	Result (MHz)	Limit (MHz)	Verdict
802.11b	2412	7.680	≥ 0.5	Pass
	2437	8.640	≥ 0.5	Pass
	2462	8.192	≥ 0.5	Pass
802.11g	2412	16.128	≥ 0.5	Pass
	2437	16.096	≥ 0.5	Pass
	2462	16.064	≥ 0.5	Pass
802.11n20	2412	17.312	≥ 0.5	Pass
	2437	17.440	≥ 0.5	Pass
	2462	17.440	≥ 0.5	Pass
802.11n40	2422	31.488	≥ 0.5	Pass
	2437	36.416	≥ 0.5	Pass
	2452	36.160	≥ 0.5	Pass

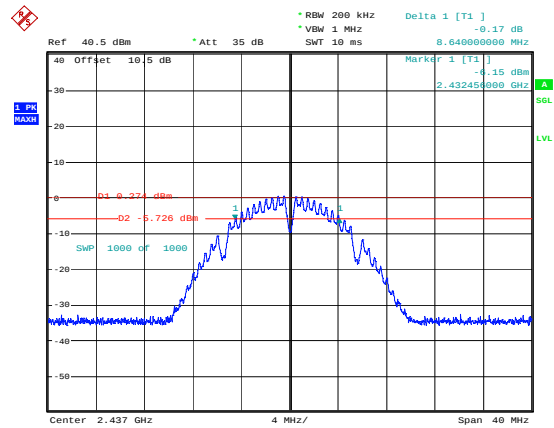
2.4G

802.11b_2412MHz



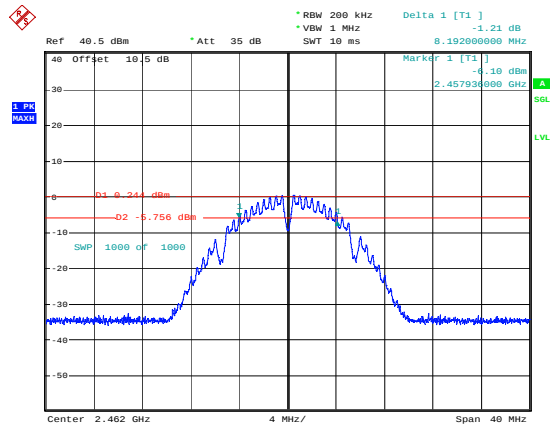
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:02:47

802.11b_2437MHz



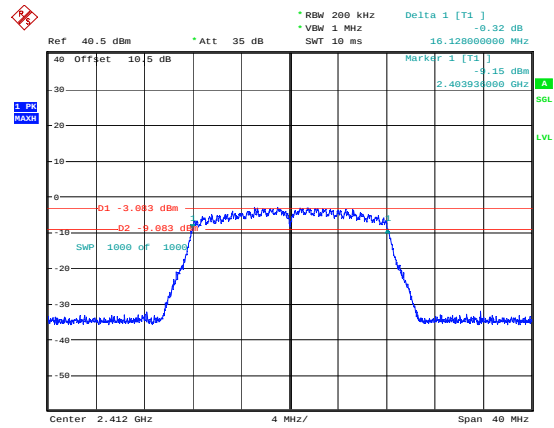
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:07:47

802.11b_2462MHz



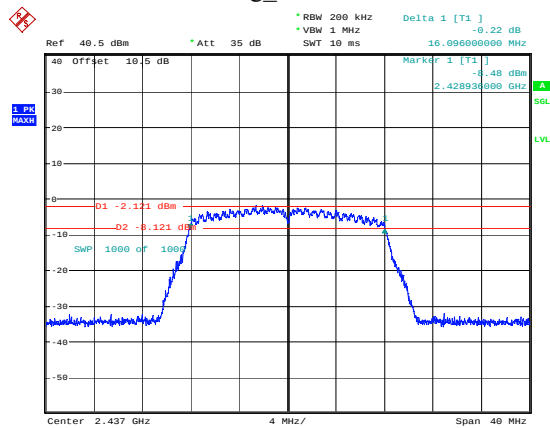
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:11:26

802.11g_2412MHz



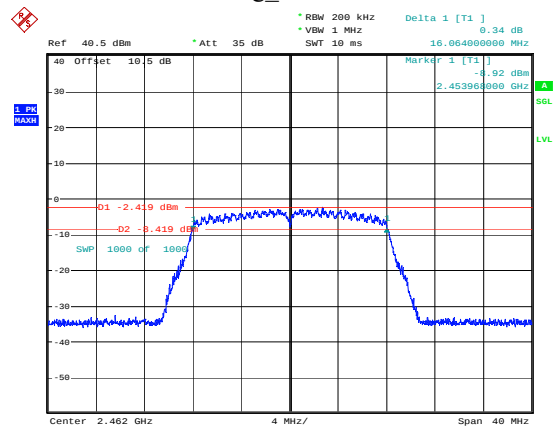
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:16:06

802.11g_2437MHz



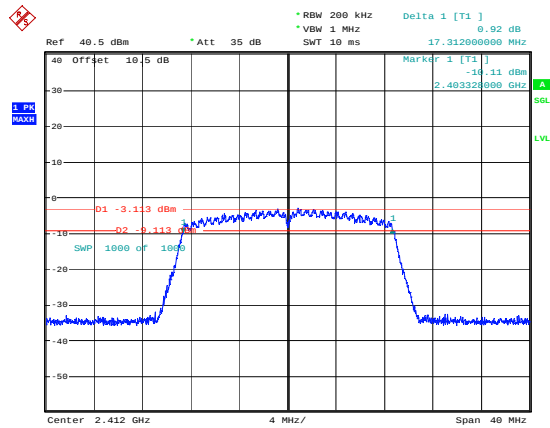
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:23:01

802.11g_2462MHz



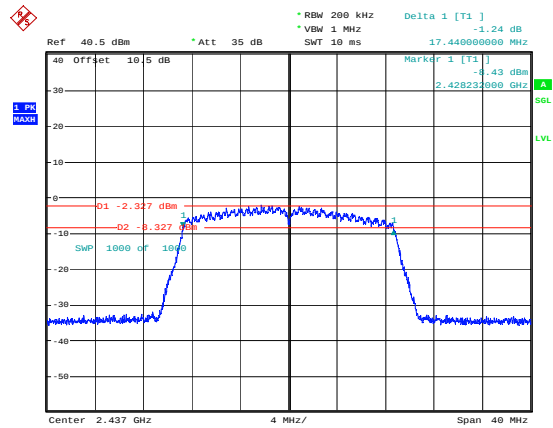
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:27:06

802.11n20_2412MHz



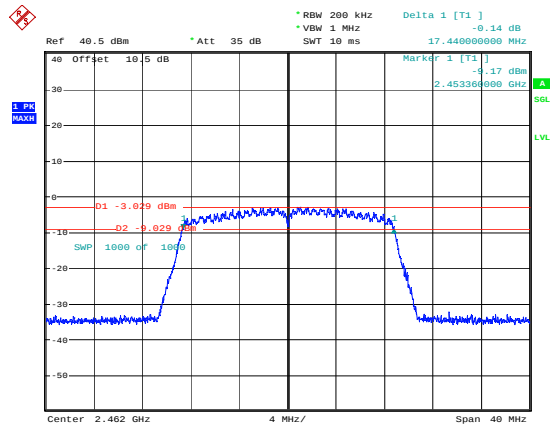
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:34:45

802.11n20_2437MHz



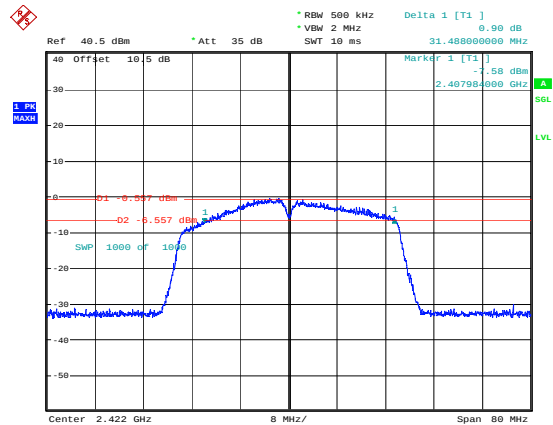
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:49:29

802.11n20_2462MHz



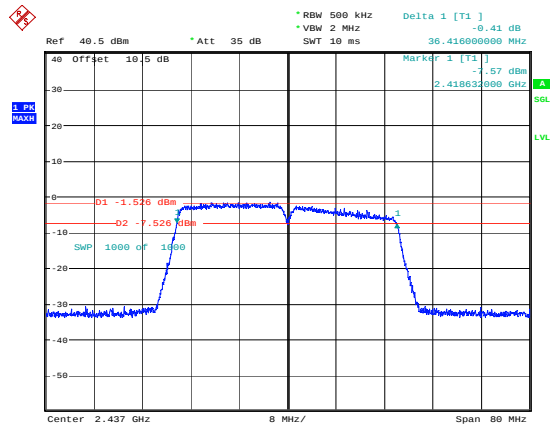
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:53:28

802.11n40_2422MHz



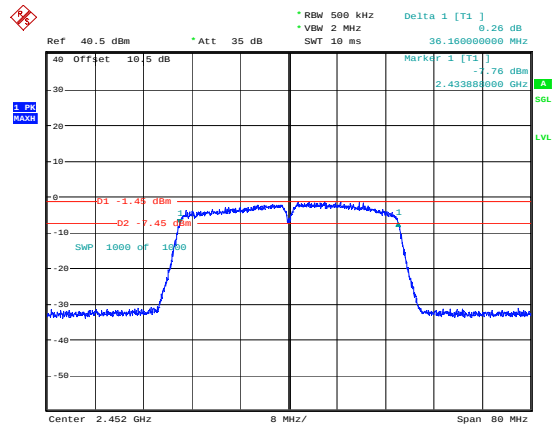
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:58:20

802.11n40_2437MHz



Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 11:53:47

802.11n40_2452MHz



Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 11:21:02

4.4 99% Occupied Bandwidth

Test Information:

Sample No.:	2W1V-1	Test Date:	2025/3/26
Test Site:	RF	Test Mode:	Transmitting
Tester:	Leo Li	Test Result:	N/A

Environmental Conditions:

Temperature: (°C)	25.8	Relative Humidity: (%)	54	ATM Pressure: (kPa)	101.5
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2024/04/01	2025/03/31
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

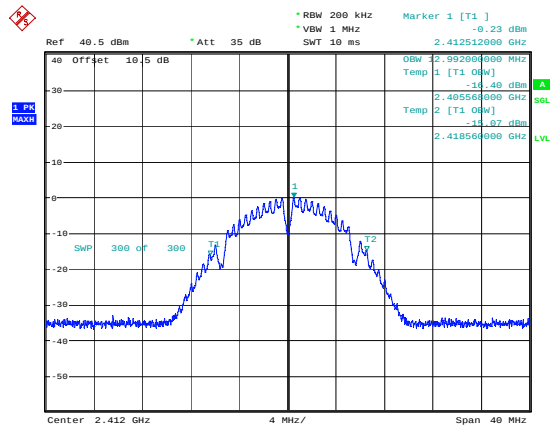
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

Mode	Test Frequency (MHz)	99% OBW (MHz)
802.11b	2412	12.992
	2437	13.280
	2462	13.088
802.11g	2412	16.640
	2437	16.672
	2462	16.704
802.11n20	2412	17.728
	2437	17.728
	2462	17.760
802.11n40	2422	35.840
	2437	36.736
	2452	36.544

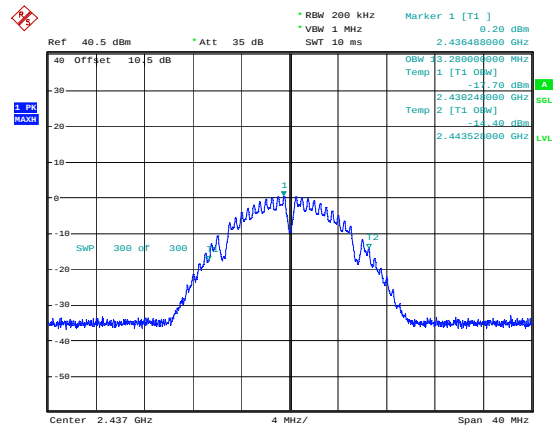
2.4G

802.11b_2412MHz



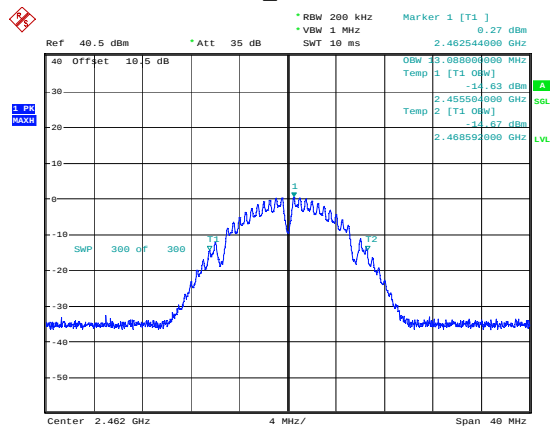
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:03:25

802.11b_2437MHz



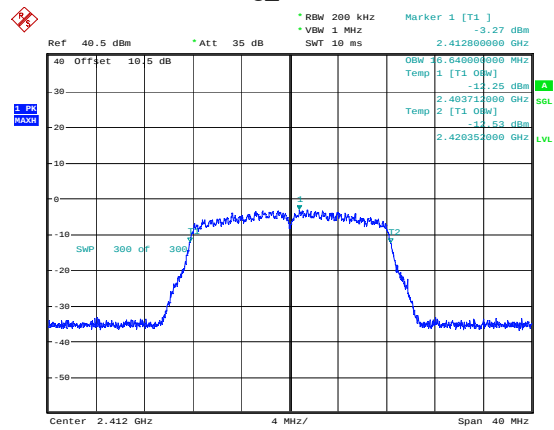
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:08:24

802.11b_2462MHz



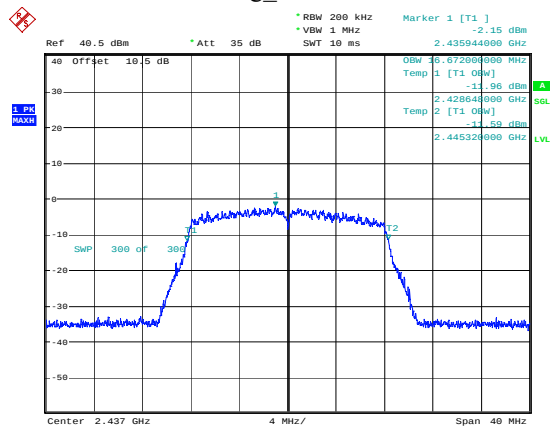
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:12:02

802.11g_2412MHz



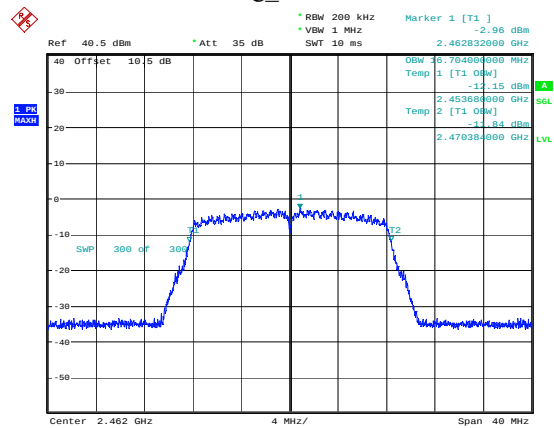
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:16:44

802.11g_2437MHz



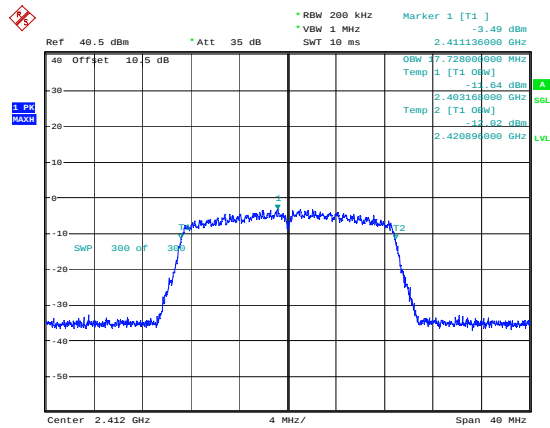
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:23:37

802.11g_2462MHz



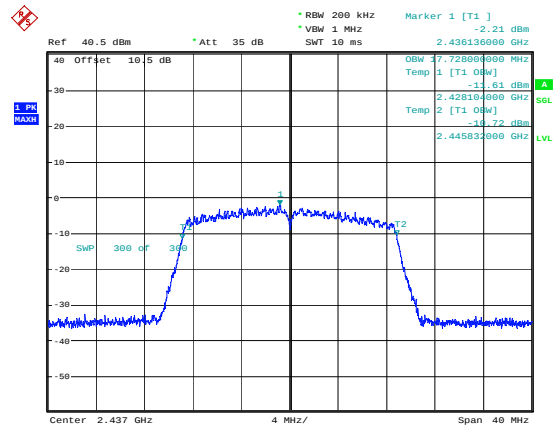
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:27:43

802.11n20_2412MHz



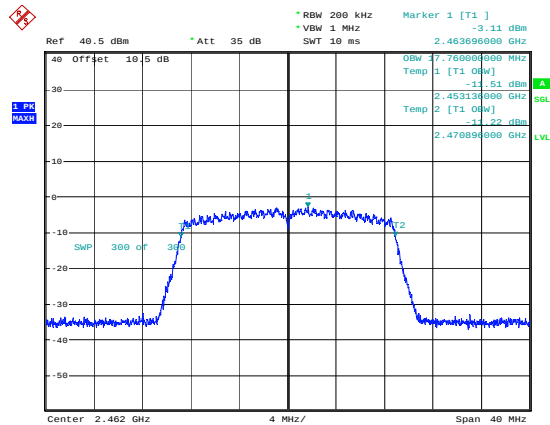
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:35:22

802.11n20_2437MHz



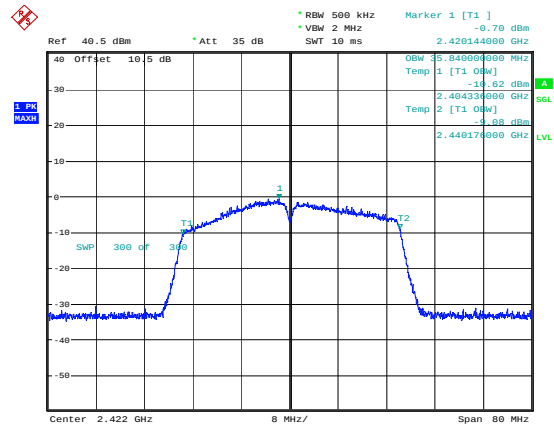
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:50:05

802.11n20_2462MHz



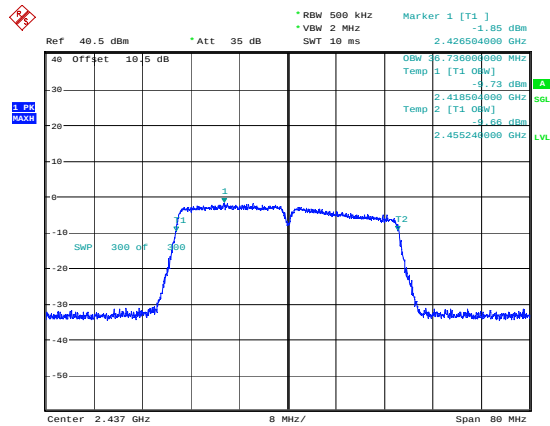
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:54:03

802.11n40_2422MHz



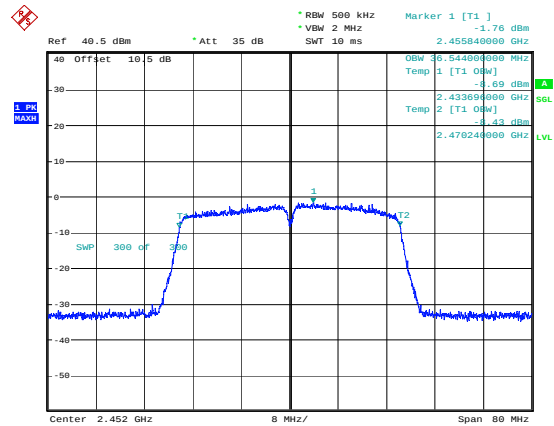
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:58:57

802.11n40_2437MHz



Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 11:16:27

802.11n40_2452MHz



Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 11:21:39

4.5 Maximum Conducted Output Power

Test Information:

Sample No.:	2W1V-1	Test Date:	2025/3/26
Test Site:	RF	Test Mode:	Transmitting
Tester:	Leo Li	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.8	Relative Humidity: (%)	54	ATM Pressure: (kPa)	101.5
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Anritsu	Pulse Power Sensor	MA2411A	10780	2024/08/03	2025/08/02
Anritsu	Power Meter	ML2495A	1106009	2024/08/03	2025/08/02
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	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:

Mode	Test Frequency (MHz)	Peak Output Power(dBm)	Average Output Power(dBm)	Limit (dBm)	Verdict
802.11b	2412	11.62	6.79	30	Pass
	2437	11.28	7.46	30	Pass
	2462	11.12	7.40	30	Pass
802.11g	2412	14.28	5.77	30	Pass
	2437	15.07	6.47	30	Pass
	2462	14.90	6.18	30	Pass
802.11n20	2412	14.31	5.63	30	Pass
	2437	14.82	6.33	30	Pass
	2462	15.04	6.15	30	Pass
802.11n40	2422	15.20	6.10	30	Pass
	2437	14.95	6.30	30	Pass
	2452	15.60	6.38	30	Pass

4.6 Power Spectral Density

Test Information:

Sample No.:	2W1V-1	Test Date:	2025/3/26
Test Site:	RF	Test Mode:	Transmitting
Tester:	Leo Li	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.8	Relative Humidity: (%)	54	ATM Pressure: (kPa)	101.5
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2024/04/01	2025/03/31
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

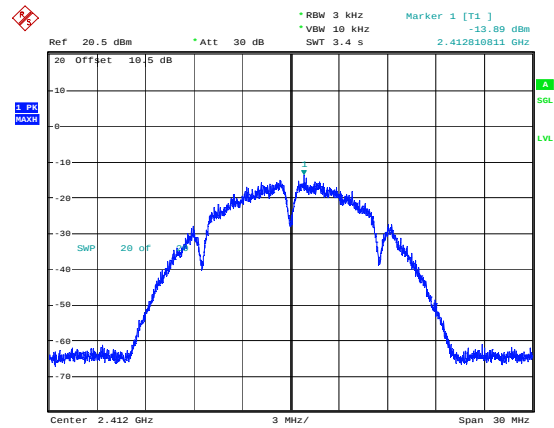
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

Mode	Test Frequency (MHz)	Result (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
802.11b	2412	-13.89	8	Pass
	2437	-13.49	8	Pass
	2462	-14.53	8	Pass
802.11g	2412	-18.53	8	Pass
	2437	-17.76	8	Pass
	2462	-18.06	8	Pass
802.11n20	2412	-18.79	8	Pass
	2437	-16.96	8	Pass
	2462	-17.91	8	Pass
802.11n40	2422	-19.41	8	Pass
	2437	-20.80	8	Pass
	2452	-20.68	8	Pass

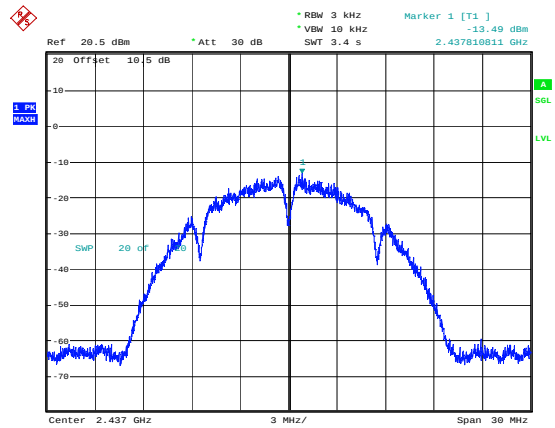
2.4G

802.11b_2412MHz



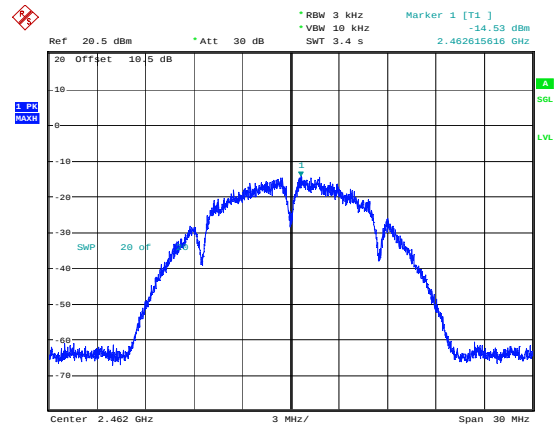
Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 10:06:21

802.11b_2437MHz



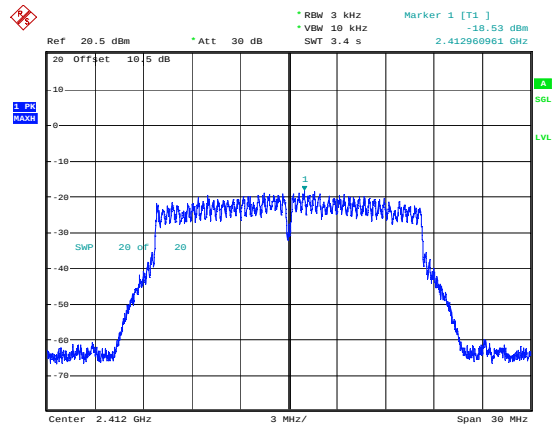
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802.11b_2462MHz



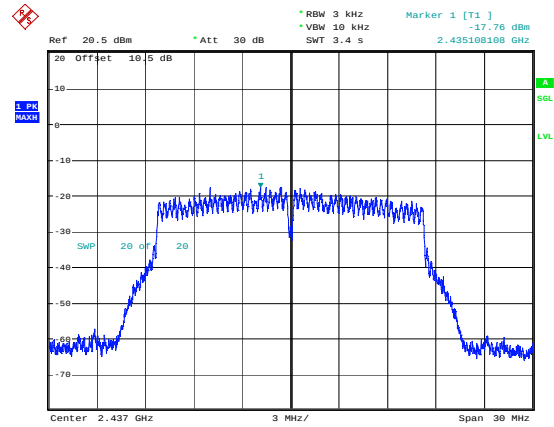
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Date: 26.MAR.2025 10:14:34

802.11g_2412MHz



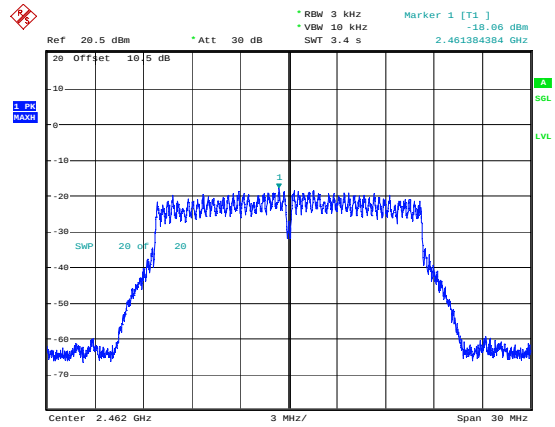
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Date: 26.MAR.2025 10:19:38

802.11g_2437MHz



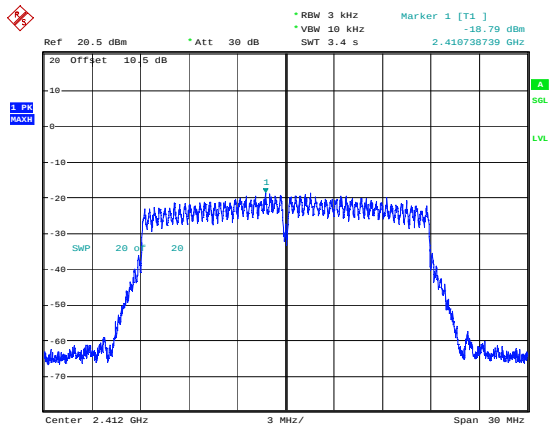
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802.11g_2462MHz



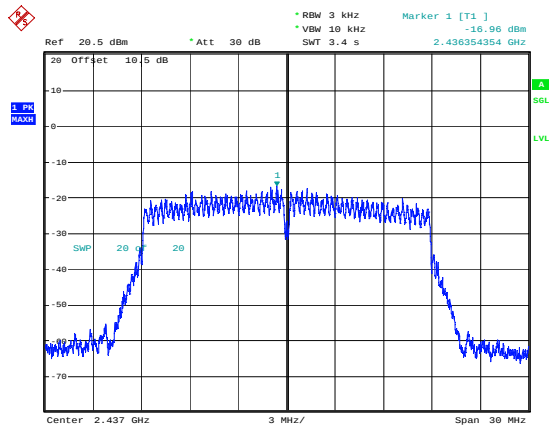
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Date: 26.MAR.2025 10:33:09

802.11n20_2412MHz



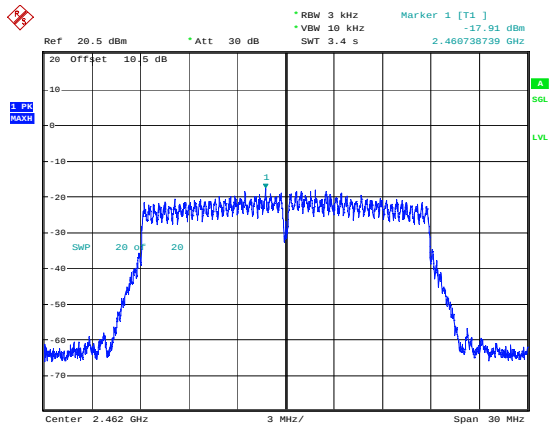
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Date: 26.MAR.2025 10:47:52

802.11n20_2437MHz



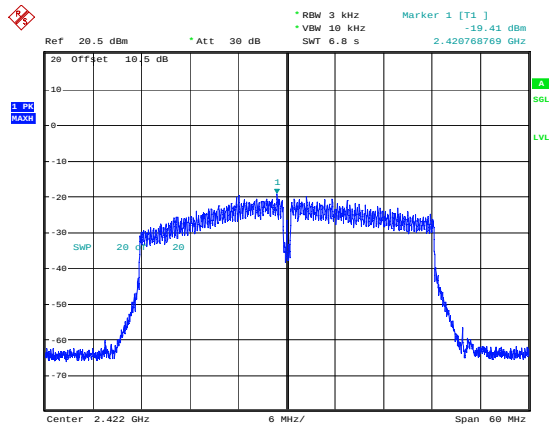
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Date: 26.MAR.2025 10:51:38

802.11n20_2462MHz



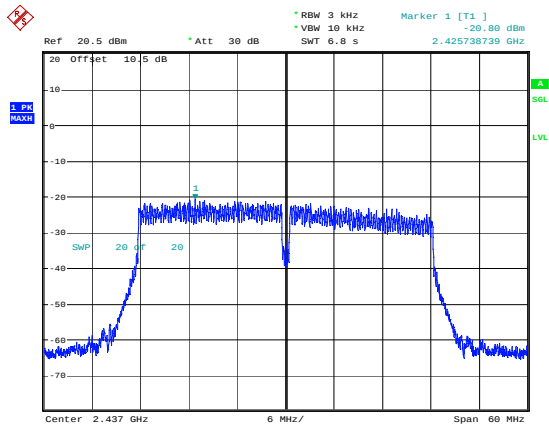
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Date: 26.MAR.2025 10:56:36

802.11n40_2422MHz



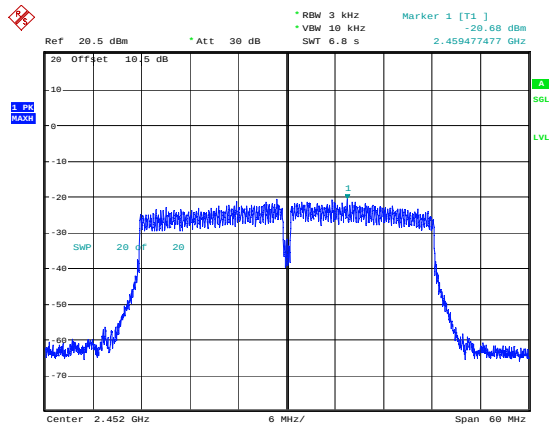
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802.11n40_2437MHz



Comment: ProjectNo.:2403A45479E-RF Tester:Leo L1
Date: 26.MAR.2025 11:19:30

802.11n40_2452MHz



Comment: ProjectNo.:2403A45479E-RF Tester:Leo L1
Date: 26.MAR.2025 11:26:28

4.7 100 kHz Bandwidth of Frequency Band Edge

Test Information:

Sample No.:	2W1V-1	Test Date:	2025/3/26
Test Site:	RF	Test Mode:	Transmitting
Tester:	Leo Li	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.8	Relative Humidity: (%)	54	ATM Pressure: (kPa)	101.5
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2024/04/01	2025/03/31
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

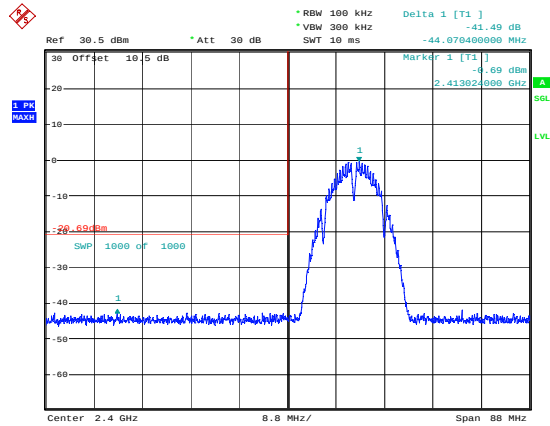
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

Mode	Test Frequency (MHz)	Result (dB)	Limit (dB)	Verdict
802.11b	2412	41.49	20	Pass
	2462	41.81	20	Pass
802.11g	2412	35.81	20	Pass
	2462	36.12	20	Pass
802.11n20	2412	34.33	20	Pass
	2462	35.96	20	Pass
802.11n40	2422	35.07	20	Pass
	2452	32.33	20	Pass

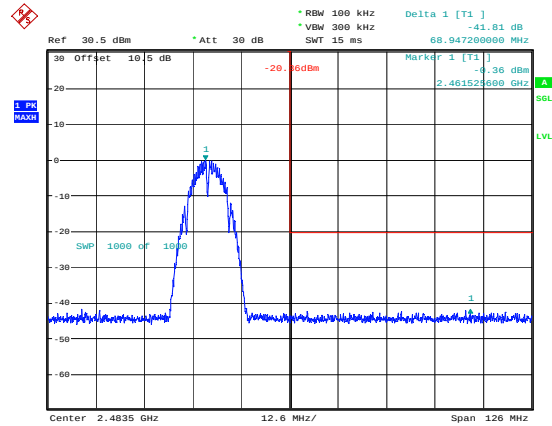
2.4G

802.11b_2412MHz



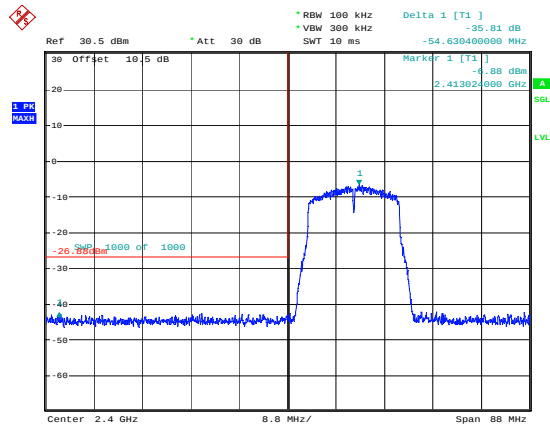
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Date: 26.MAR.2025 11:30:39

802.11b_2462MHz



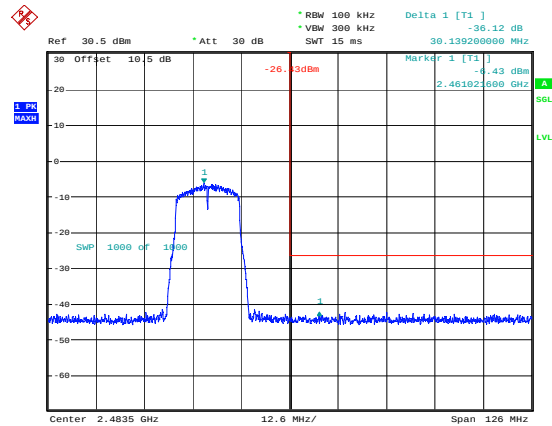
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Date: 26.MAR.2025 11:31:52

802.11g_2412MHz



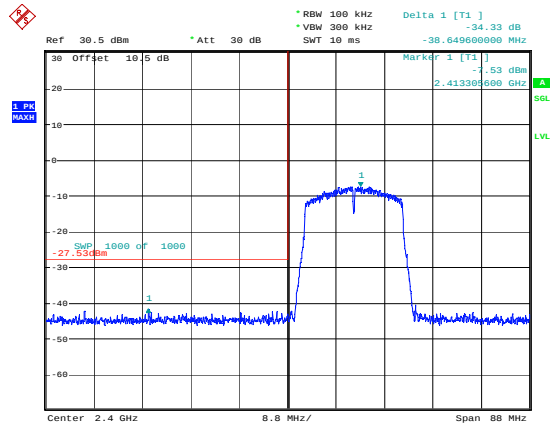
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802.11g_2462MHz



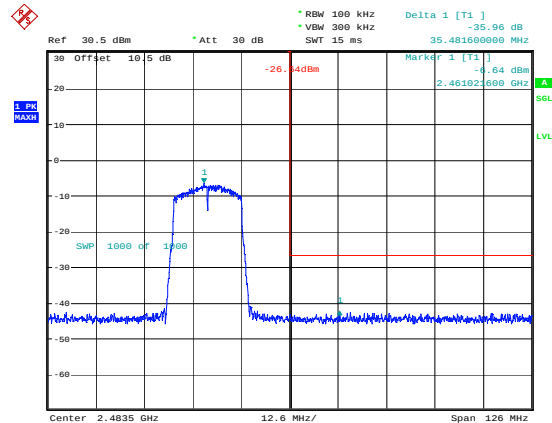
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Date: 26.MAR.2025 11:34:32

802.11n20_2412MHz



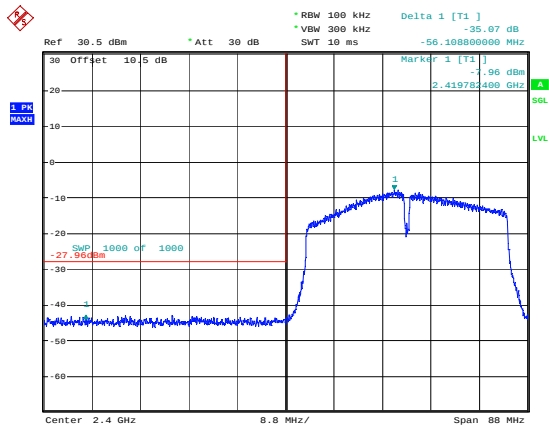
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802.11n20_2462MHz



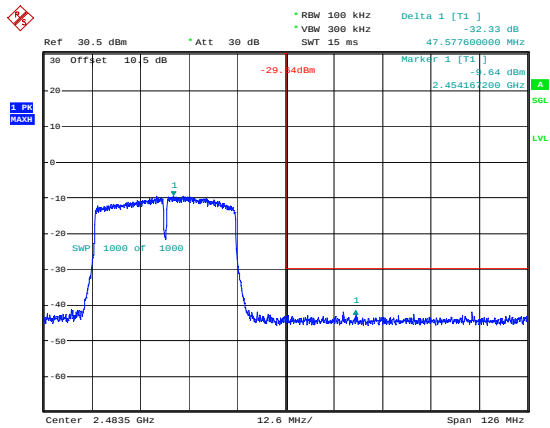
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Date: 26.MAR.2025 11:37:32

802.11n40_2422MHz



Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 11:39:59

802.11n40_2452MHz



Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 11:42:10

4.8 Duty Cycle

Test Information:

Sample No.:	2W1V-1	Test Date:	2025/3/26
Test Site:	RF	Test Mode:	Transmitting
Tester:	Leo Li	Test Result:	N/A

Environmental Conditions:

Temperature: (°C)	25.8	Relative Humidity: (%)	54	ATM Pressure: (kPa)	101.5
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	100147	2024/04/01	2025/03/31
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	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).*

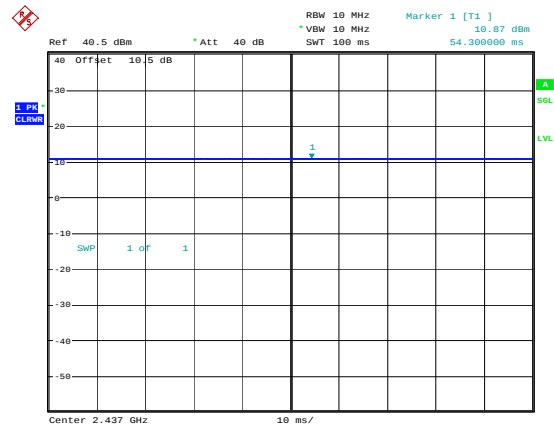
Test Data:

Mode	Test Frequency (MHz)	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor(dB)	1/Ton (Hz)	VBW Setting (kHz)
802.11b	2437	100	100	100	0	NA	0.010
802.11g	2437	100	100	100	0	NA	0.010
802.11n20	2437	100	100	100	0	NA	0.010
802.11n40	2437	100	100	100	0	NA	0.010

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

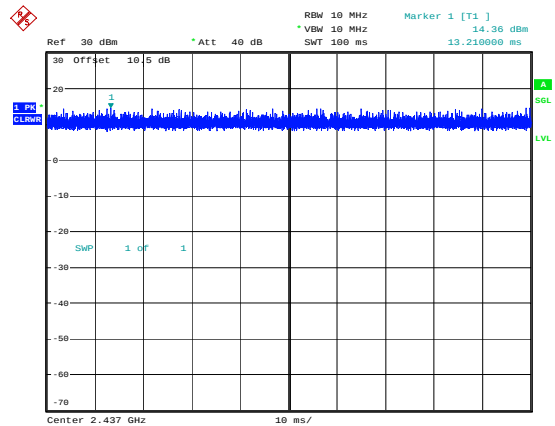
2.4G

802.11b_2437MHz



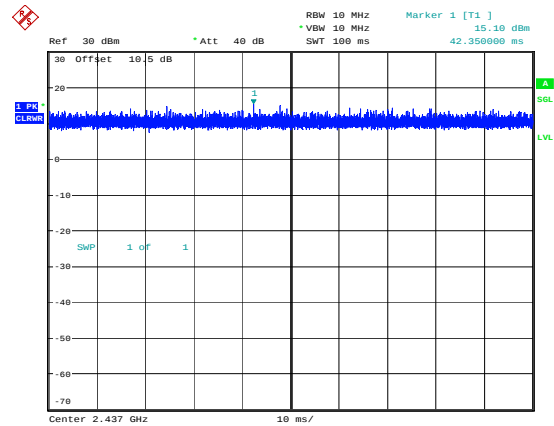
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802.11g_2437MHz



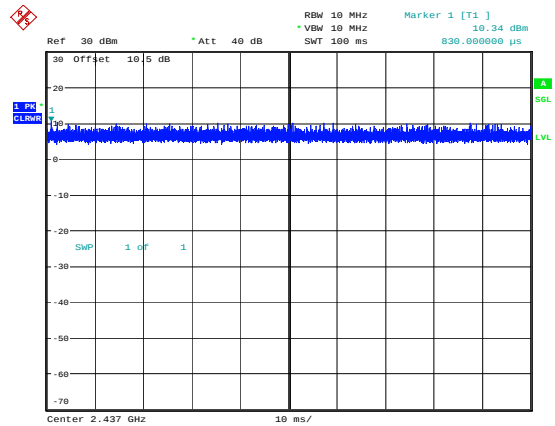
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Date: 26.MAR.2025 09:49:21

802.11n20_2437MHz



Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 09:49:56

802.11n40_2437MHz



Comment: ProjectNo.:2403A45479E-RF Tester:Leo Li
Date: 26.MAR.2025 09:50:38

5. RF EXPOSURE EVALUATION

5.1 Applicable Standard

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

According to KDB447498 D01 General RF Exposure Guidance v06:

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

5.2 Measurement Result

Frequency (MHz)	Conducted Output Power Including Tolerance		Distance (mm)	Calculated value	Threshold (1-g)	SAR Test Exclusion
	(dBm)	(mW)				
2412-2462	7.6	5.75	5	1.8	3	Yes

Note: The Maximum Conducted Power including Tune-up Tolerance was declared by manufacturer.

Result: Compliant. The stand-alone SAR test is not necessary.

6. EUT PHOTOGRAPHS

Please refer to the attachment 2403A45479E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2403A45479E-RF-INP EUT INTERNAL PHOTOGRAPHS

7. TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2403A45479E-RF-00C-TSP TEST SETUP PHOTOGRAPHS.

==== END OF REPORT ====