

FCC PART 15.247

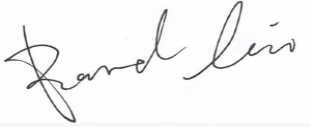
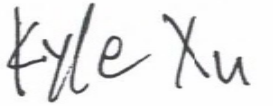
TEST REPORT

For

ComNav Technology Ltd.

Building 2, No.618 Chengliu Middle Rd. shanghai, China

FCC ID: 2ACHBR80

Report Type: Original Report	Product Name: Data Collector
Report Number: <u>RKSA250820001-00B</u>	
Report Date: <u>2025-11-06</u>	
Reviewed By: <u>Bard Liu</u>	
Approved By: <u>Kyle Xu</u>	
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Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Kunshan). This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, or any agency of the U.S. Government.

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REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RKSA250820001-00B	R1V1	2025-11-06	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	ComNav Technology Ltd.
Tested Model:	R80
Product Name:	Data Collector
Power Supply:	DC 3.85V from battery or DC 3.6-6V/6-9V/9-12V from adapter
Sample/EUT Status	Good condition
RF Function:	2.4G Wi-Fi; BLE
Operating Band/Frequency:	2.4G Wi-Fi: 2412~2462 MHz(802.11b/g/n20), 2422~2452 MHz(802.11n40) BLE(1 Mbps/2 Mbps):2402-2480 MHz
Maximum Peak Output Power:	2.4G Wi-Fi: 802.11b: 16.089 dBm 802.11g: 19.851 dBm 802.11n20: 19.773 dBm 802.11n40: 18.742 dBm BLE(1 Mbps): -3.35 dBm BLE(2 Mbps): -3.27 dBm
Channel Number:	2.4G Wi-Fi: 11(802.11b/g/n20), 7(802.11n40) BLE(1 Mbps/2 Mbps): 40
Channel Separation:	2.4G Wi-Fi: 5 MHz BLE: 2 MHz
Modulation Type:	2.4G Wi-Fi: DSSS, OFDM BLE: GFSK
★Maximum Antenna Gain:	2.4G Wi-Fi & BLE: -0.68 dBi

Adapter Information:

Model: TPA-10S120150UU01

Input: 100-240V, 50/60Hz, 0.6A

Output: 3.6-6V, 3A

6-9V, 2A

9-12V, 1.5A

Note: The maximum antenna gain was declared by the manufacturer.

All measurement and test data in this report was gathered from production sample serial number: RKSA250820001-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2025-08-20.)

Objective

This report is prepared for *ComNav Technology Ltd.* in accordance with Part 2-Subpart J, Part 15-Subparts A and C of the Federal Communication Commissions' rules.

The tests were performed in order to determine Compliant with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2020, American National Standard of Procedures for Compliant Testing of Unlicensed Wireless Devices and FCC 558074 D01 15.247 Meas Guidance v05r02.

Measurement Uncertainty

Item		Uncertainty
AC Power Lines Conducted Emissions		3.19dB
RF conducted test with spectrum		0.9dB
RF Output Power with Power meter		0.5dB
Radiated emission	9 kHz~150 kHz	3.8dB
	150 kHz~30 MHz	3.4dB
	30MHz~1GHz	6.11dB
	1GHz~6GHz	4.45dB
	6GHz~18GHz	5.23dB
	18GHz~40GHz	5.65dB
Occupied Bandwidth		0.5kHz
Temperature		1.0°C
Humidity		6%

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road, Kunshan, Jiangsu Province, China.

Bay Area Compliance Laboratories Corp. (Kunshan) is accredited in accordance with ISO/IEC 17025:2017 by NVLAP (Lab code: 600338-0), and the lab has been recognized as the FCC accredited lab under the KDB 974614 D01, the FCC Designation No.: CN5055.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

Channel List for BLE mode:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	14	2430	28	2458
1	2404	15	2432	29	2460
2	2406	16	2434	30	2462
3	2408	17	2436	31	2464
4	2410	18	2438	32	2466
5	2412	19	2440	33	2468
6	2414	20	2442	34	2470
7	2416	21	2444	35	2472
8	2418	22	2446	36	2474
9	2420	23	2448	37	2476
10	2422	24	2450	38	2478
11	2424	25	2452	39	2480
12	2426	26	2454	/	/
13	2428	27	2456	/	/

For BLE (1 Mbps/2 Mbps) mode, EUT was tested with channel 0, 19 and 39.

Channel List for Wi-Fi Mode:

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

For 802.11b, 802.11g and 802.11n-HT20 mode, EUT was tested with Channel 1, 6 and 11.

For 802.11n-HT40 mode, EUT was tested with Channel 3, 6 and 9.

Equipment Modifications

No modification was made to the EUT tested.

EUT Exercise Software

The system was configured for testing in an engineering mode, which was provided by manufacturer.

RF test software: engineering mode

Pre-scan with all the data rates, and the worst case was performed as below:

Mode	Data Rate	Channel	★Power Level
802.11b	1 Mbps	Low	19.5
		Middle	19.5
		High	19.5
802.11g	6 Mbps	Low	17.5
		Middle	17.5
		High	15
802.11n-HT20	MCS0	Low	15.5
		Middle	15.5
		High	15.5
802.11n-HT40	MCS0	Low	13
		Middle	13
		High	12.5
BLE(1Mbps)	1Mbps	Low	Default
		Middle	Default
		High	Default
BLE(2Mbps)	2Mbps	Low	Default
		Middle	Default
		High	Default

Note: The power level was declared by the applicant.

Environmental Conditions & Test Information

Test Date:	2025-09-18 to 2025-09-20
Temperature:	24-26.5 °C
Relative Humidity:	51-55 %
ATM Pressure:	100.2-101.5 kPa
Test Engineer:	Neil Zhou

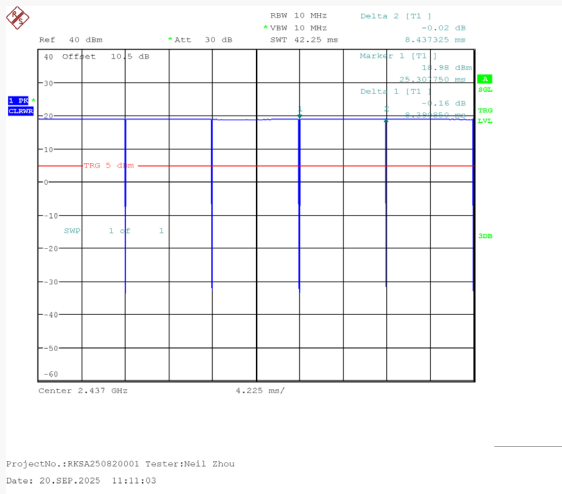
Mode	Duty Cycle (%)	Ton(ms)	Ton+off(ms)	10log(1/x) (dB)
802.11b	99.45	8.391	8.437	/
802.11g	96.80	1.393	1.439	0.14
802.11n-HT20	96.58	1.299	1.345	0.15
802.11n-HT40	92.54	0.645	0.697	0.34
BLE(1Mbps)	83.52	2.098	2.512	0.78
BLE(2Mbps)	56.60	1.067	1.885	2.47

Note:

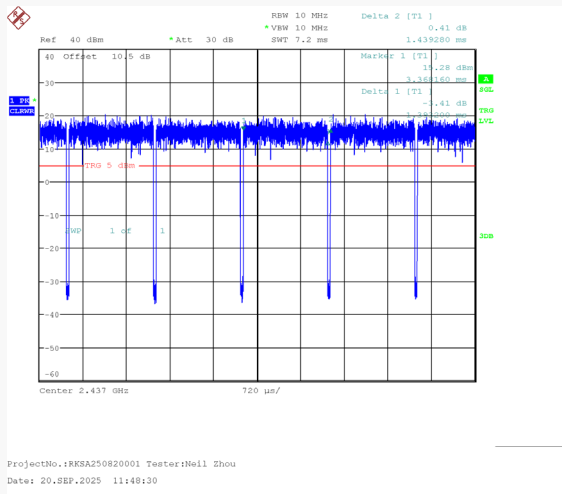
1. “x” means the Duty Cycle.
2. Note: Offset (10.5dB) = Attenuator (10dB) + Cable Loss (0.5dB)

Duty Cycle:

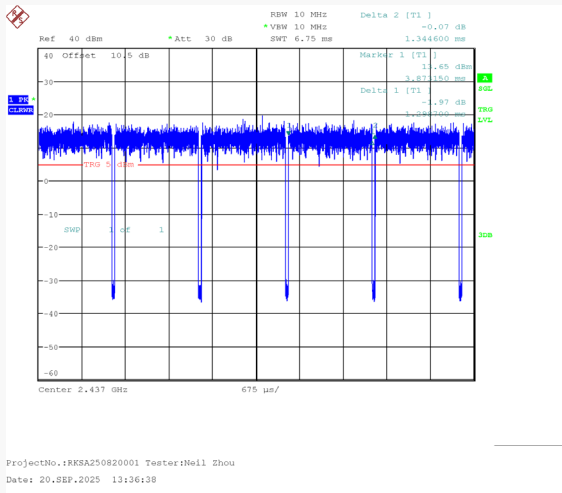
802.11b Mode Middle Channel



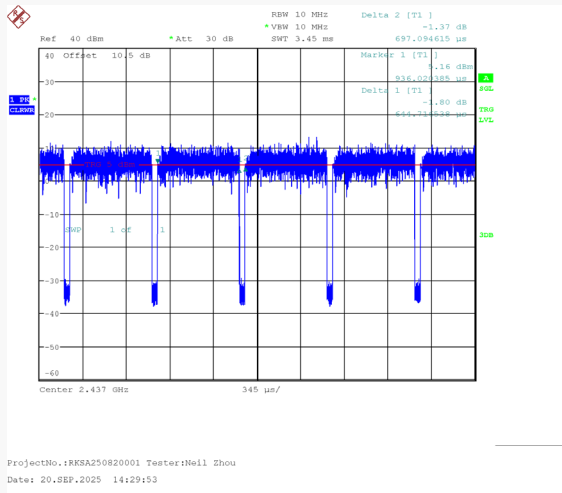
802.11g Mode Middle Channel



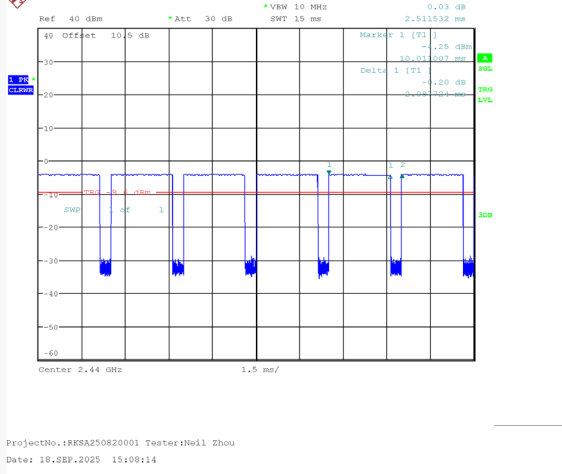
802.11n-HT20 Mode Middle Channel



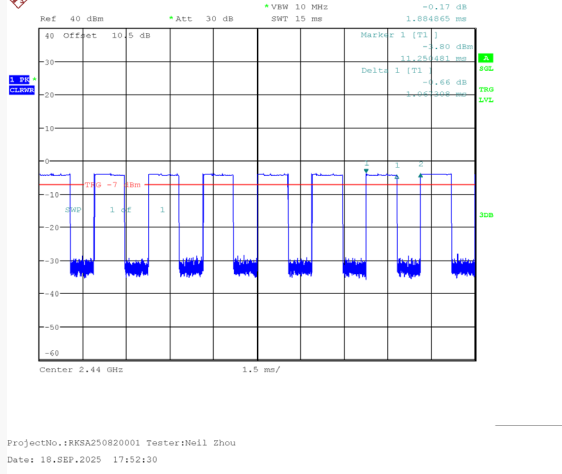
802.11n-HT40 Mode Middle Channel



BLE(1Mbps) Mode Middle Channel



BLE(2Mbps) Mode Middle Channel

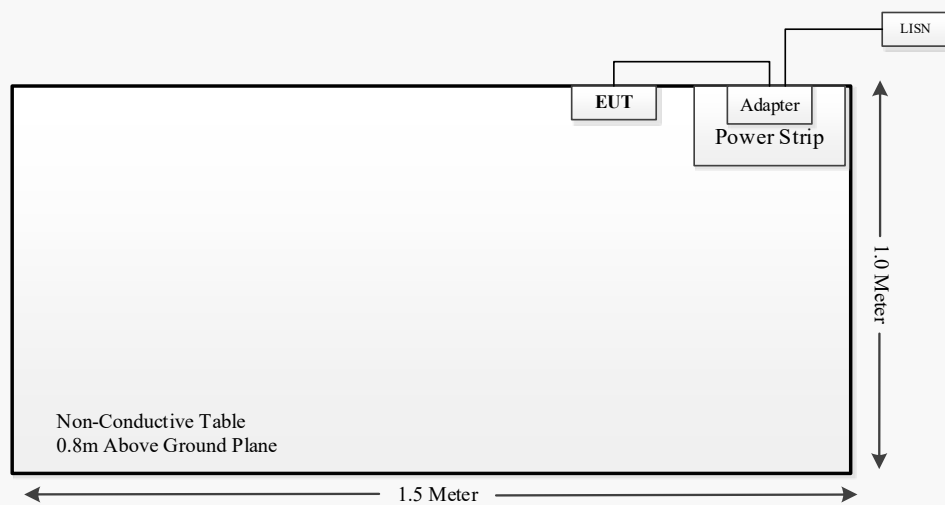


Support Equipment List and Details

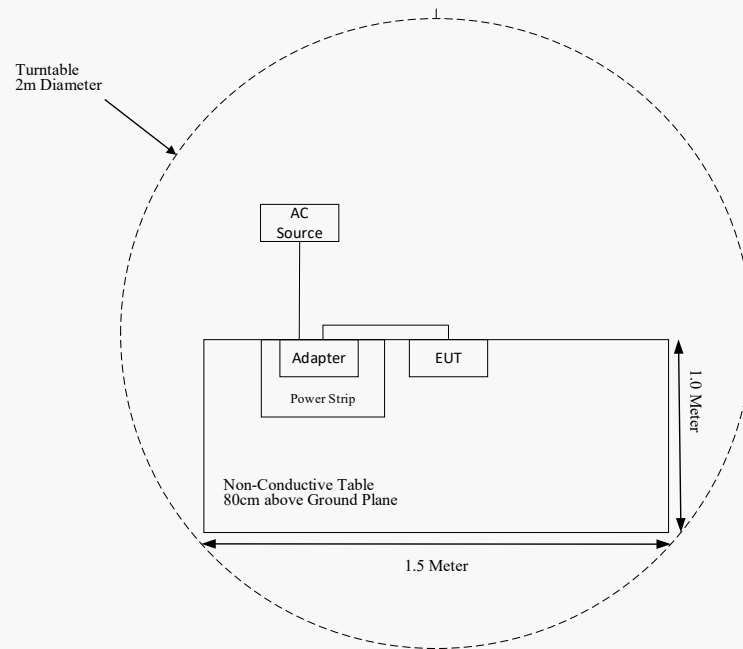
Manufacturer	Description	Model	Serial Number
/	Power Strip	/	/

External I/O Cable

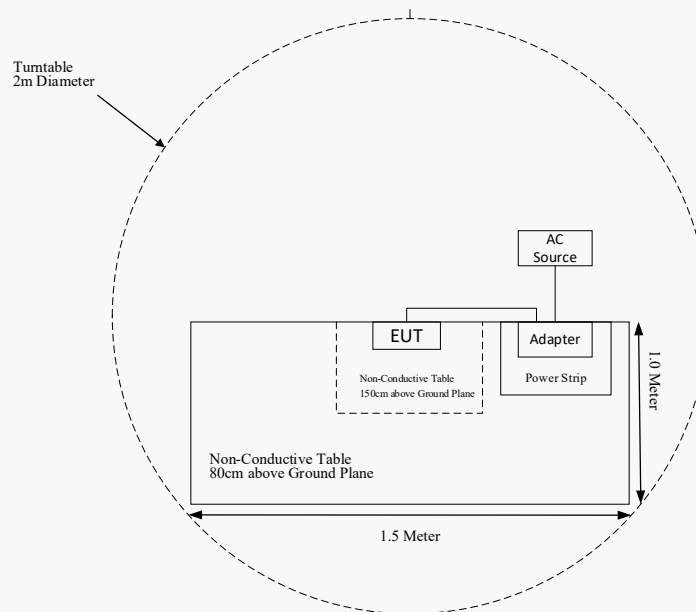
Cable Description	Length (m)	From Port	To Port
Power Cable	1.0	AC Source	Power Strip
USB Cable	1.0	Adapter	EUT

Block Diagram of Test Setup**For Conducted Emissions:**

For Radiated Emissions (Below 1GHz):



For Radiated Emissions (Above 1GHz):



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1307(b)(1)& §2.1093	RF EXPOSURE	Compliant
§15.203	Antenna Requirement	Compliant
§15.207 (a)	AC Line Conducted Emissions	Compliant
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliant
§15.247 (a)(2)	6 dB Emission Bandwidth	Compliant
§15.247(b)(3)	Maximum Conducted Output Power	Compliant
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliant
§15.247(d)	Conducted Spurious Emission	Compliant
§15.247(e)	Power Spectral Density	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test (Chamber #1)					
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2025-04-09	2026-04-08
Sunol Sciences	Broadband Antenna	JB3	A090314-1	2024-11-08	2027-11-07
Narda	6dB Attenuator	773-6	10690812-2-1	2024-11-08	2027-11-07
BACL	Active Loop Antenna	1313-1A	4041511	2024-11-22	2027-11-21
Sonoma Instrument	Pre-amplifier	310N	171205	2025-04-09	2026-04-08
Rohde & Schwarz	Auto Test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-8	008	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-9	009	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-10	010	2025-04-09	2026-04-08
Radiated Emission Test (Chamber #2)					
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2025-04-09	2026-04-08
ETS-LINDGREN	Horn Antenna	3115	9311-4159	2024-12-02	2025-12-01
ETS-LINDGREN	Horn Antenna	3116	2516	2024-12-12	2027-12-11
A.H.Systems, inc	Amplifier	PAM-0118P	512	2025-04-09	2026-04-08
SELECTOR	Amplifier	EM18G40G	060726	2025-04-09	2026-04-08
MICRO-TRONICS	Band Reject Filter	BRM50702	G024	2025-04-08	2026-04-07
Narda	Attenuator	10dB	010	2025-04-08	2026-04-07
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-6	006	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-11	011	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-12	012	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-13	013	2025-04-09	2026-04-08
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSU26	200103	2025-04-09	2026-04-08
Narda	Attenuator	10dB	010	2025-04-08	2026-04-07
XHFDZ	RG316 Coaxial Cable	SMA-316	XHF-1175	Each time	N/A
Anritsu	Power Sensor	MA24418A	12621	2025-04-09	2026-04-08

Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR	1316.3003K03-101746-zn	2025-04-09	2026-04-08
Rohde & Schwarz	LISN	ENV216	101115	2025-04-08	2026-04-07
Audix	Test Software	e3	V9	N/A	N/A
Rohde & Schwarz	Pulse limiter	ESH3-Z2	100552	2025-04-08	2026-04-07
MICRO-COAX	Coaxial Cable	Cable-15	015	2025-04-08	2026-04-07

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

FCC §1.1307(b) & §2.1093 - RF EXPOSURE

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:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] [\sqrt{f(\text{GHz})}]$
 ≤ 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.

Measurement Result

Mode	★Max Tune-up Conducted Power		Calculated Distance (mm)	Calculated Value	Threshold (1-g SAR)	SAR Test Exclusion
	(dBm)	(mW)				
BLE	-3.0	0.5	5.0	0.2	3.0	Yes

Note:

1. For the above tune up power were declared by the manufacturer.
2. For 2.4G Wi-Fi, please reference report RKSA250820001-20B.

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

According to § 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 user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine Compliant with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.
- c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.247 (b), if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Antenna Connector Construction

The EUT have an FPC antenna which permanently attached to the unit. fulfill the requirement of this section. Please refer to the EUT photos.

Result: Compliant.

Test Procedure

ANSI C63.10-2020 clause 6.2

During the conducted emission test, the EUT was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

If the maximum peak value of the emissions is below the average limit, the QP value and average value measurement will not need to be performed and only record the maximum peak measured value to meet the requirements.

Level & Over Limit Calculation

The Level is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation from the Meter Reading. The basic equation is as follows:

Factor (dB) = LISN VDF (dB) + Cable Loss (dB) + Transient Limiter Attenuation (dB)

Level (dBμV) = Read level (dBμV) + Factor (dB)

The “**Over Limit**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit of 7 dB means the emission is 7 dB above the limit. The equation for Over Limit calculation is as follows:

Over Limit (dB) = Level (dBμV) - Limit (dBμV)

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

Test Data: See Appendix

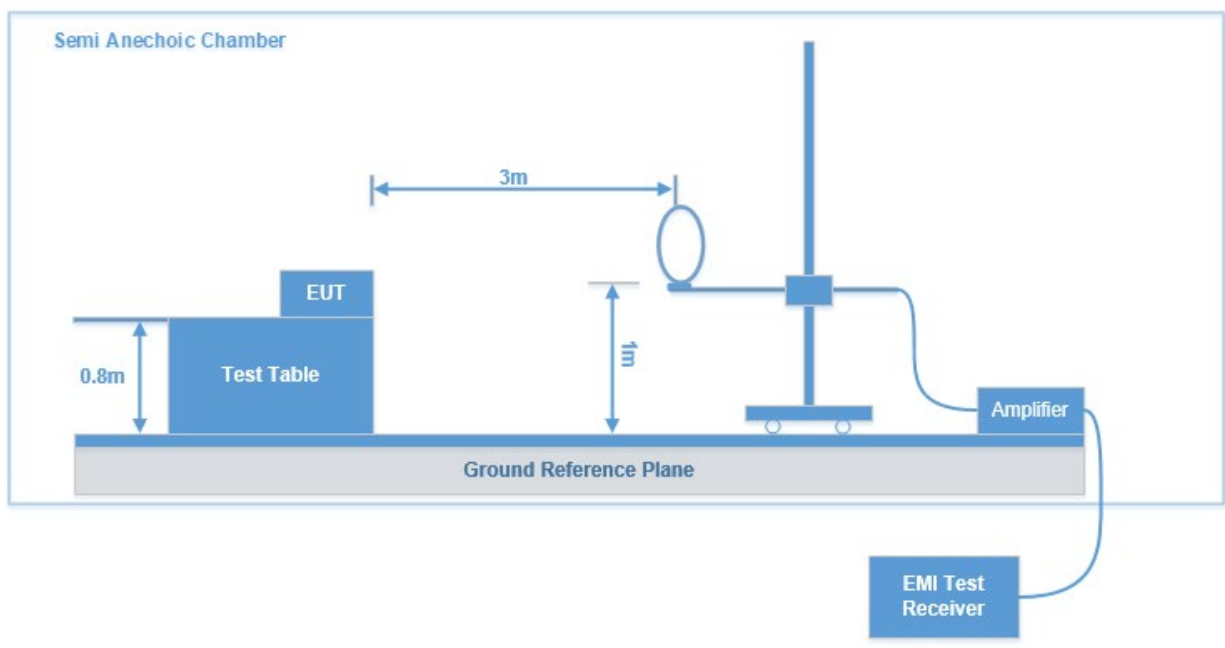
FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS

Applicable Standard

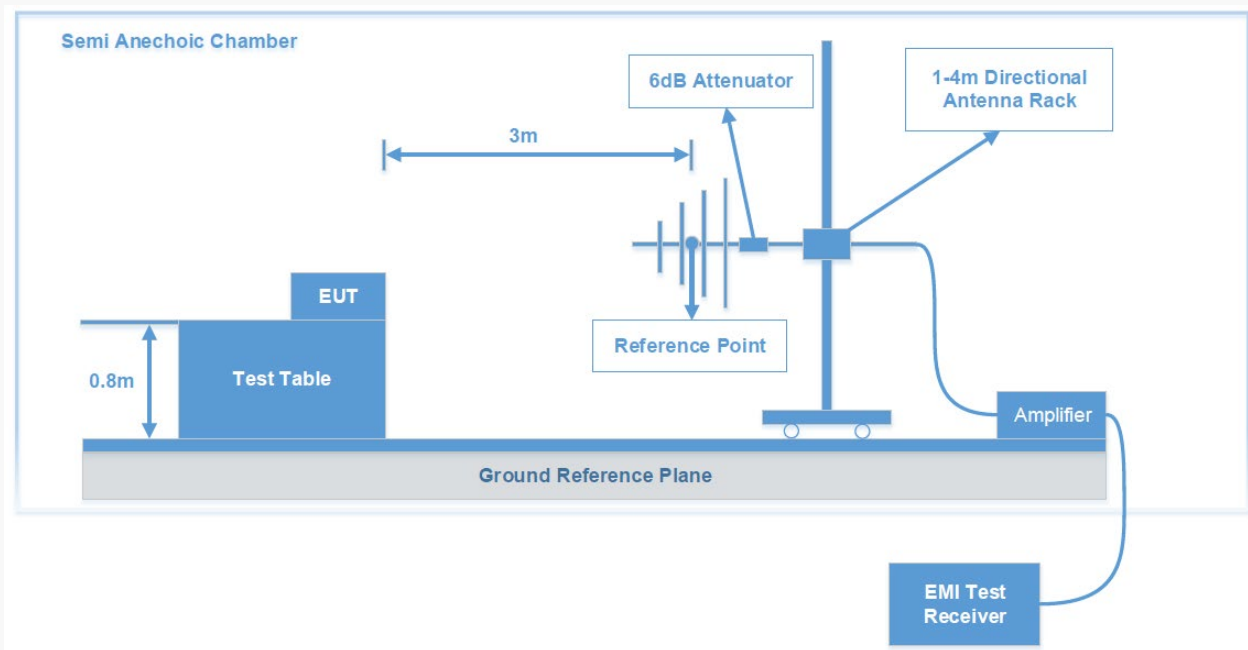
FCC §15.247 (d); §15.209; §15.205;

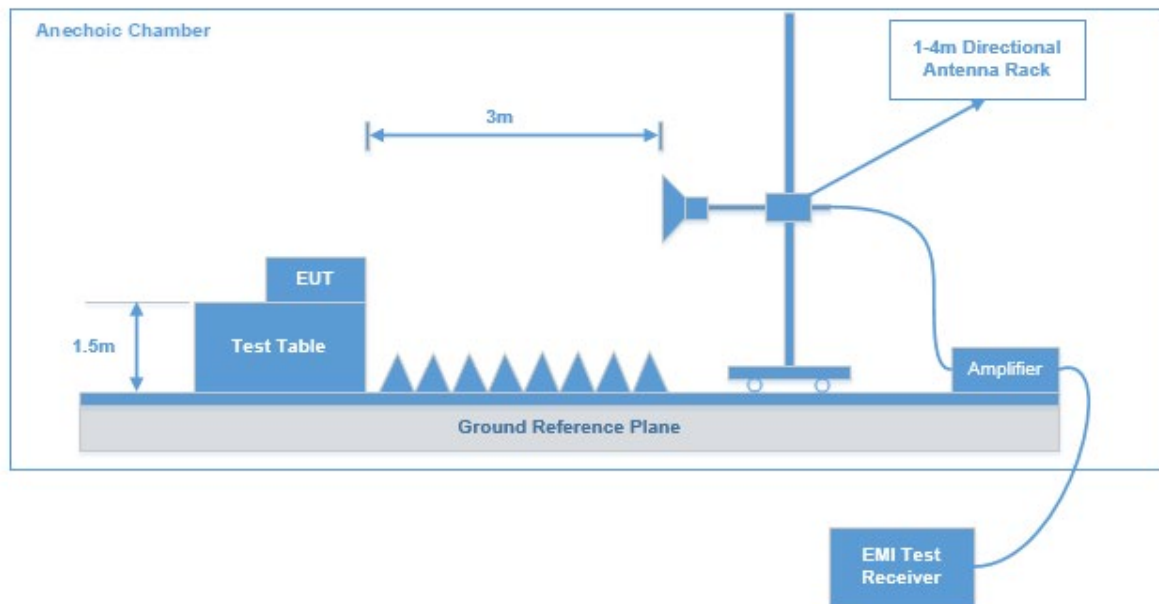
Test System Setup

9 kHz-30 MHz:



30 MHz-1 GHz:



Above 1 GHz:

The radiated emission tests were performed in the 3 meters test site, using the setup accordance with the ANSI C63.10-2020. The specification used was the FCC 15.209, and FCC 15.247 limits.

EMI Test Receiver Setup

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

Frequency Range	RBW	VBW	IF B/W	Measurement	Detector
9 kHz - 150 kHz	200 Hz	1 kHz	200 Hz	Peak/QP/Average	Peak/QP/Average
150 kHz - 30 MHz	9 kHz	30 kHz	9 kHz	Peak/QP/Average	Peak/QP/Average
30 MHz - 1000 MHz	100 kHz	300 kHz	/	Peak	Peak
	/	/	120 kHz	QP	QP
Above 1GHz	1MHz	3 MHz	/	Peak	Peak
	1MHz	3 MHz	/	Average	Average

Test Procedure

According to ANSI C63.10-2020 clause 6.4, 6.5 and 6.6.

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

If the measured peak level of the emissions that the measuring receiver reading level plus corrected factor is at least 6 dB below the QP emission limit, there's no need to record the measured QP level of the emissions in the report.

For 9 kHz-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.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude (dB μ V/m) = Meter Reading (dB μ V) + Antenna Factor (dB/m) + Cable Loss (dB) - Amplifier Gain (dB)

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin (dB) = Limit (dB μ V/m) – Corrected Amplitude (dB μ V/m)

Note: The QuasiPeak (dB μ V/m), MaxPeak (dB μ V/m), Average (dB μ V/m) which shown in the data table are all Corrected Amplitude.

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, and Subpart C, section 15.205, 15.209 and 15.247.

Test Data: See Appendix

FCC §15.247(A) (2) - 6 DB EMISSION BANDWIDTH

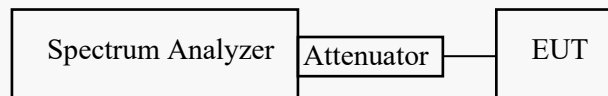
Applicable Standard

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.

Test Procedure

According to ANSI C63.10-2020 sub-clause 11.8.1

- 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.



Note: Offset (10.5dB) = Attenuator (10dB) + Cable Loss (0.5dB)

Test Data: See Appendix

FCC §15.247(B) (3) - MAXIMUM CONDUCTED OUTPUT POWER

Applicable Standard

According to 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, Compliant 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.

Test Procedure

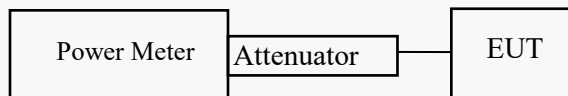
For 2.4G Wi-Fi:

According to ANSI C63.10-2020 sub-clause 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.

11.9.2.3.2 Method AVGPM-G

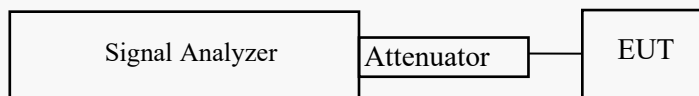
Method AVGPM-G is a measurement using a gated RF average power meter. Alternatively, measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level.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



For BLE:

According to ANSI C63.10-2020 sub-clause 11.9.1.1

- a) Set the RBW $\geq$ DTS bandwidth.
- b) Set VBW $\geq [3 \times \text{RBW}]$.
- c) Set span $\geq [3 \times \text{RBW}]$.
- d) Sweep time = No faster than coupled (auto) time.
- e) Detector = peak.
- f) Trace mode = max-hold.
- g) Allow trace to fully stabilize.
- h) Use peak marker function to determine the peak amplitude level.



Note: Offset (10.5dB) = Attenuator (10dB) + Cable Loss (0.5dB)

Test Data: See Appendix

FCC §15.247(D) – 100 KHZ BANDWIDTH OF FREQUENCY BAND EDGE & CONDUCTED SPURIOUS EMISSION

Band Edges

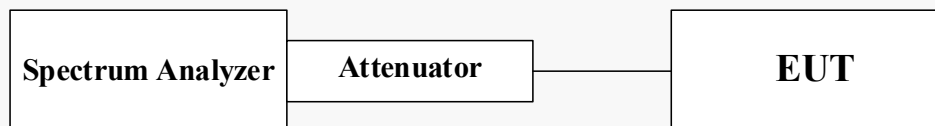
Applicable Standard

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 Compliant 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)).

Test Procedure

According to ANSI C63.10-2020 sub-clause 6.10.

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.



Note: Offset (10.5dB) = Attenuator (10dB) + Cable Loss (0.5dB)

Conducted Spurious Emission

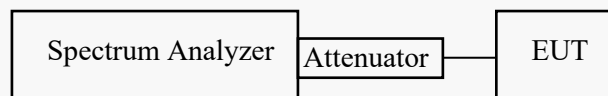
Applicable Standard

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)).

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
 - 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.



Note: Offset (11dB) = Attenuator (10dB) + Cable Loss (1.0dB)

Test Data: See Appendix

FCC §15.247(E) - POWER SPECTRAL DENSITY

Applicable Standard

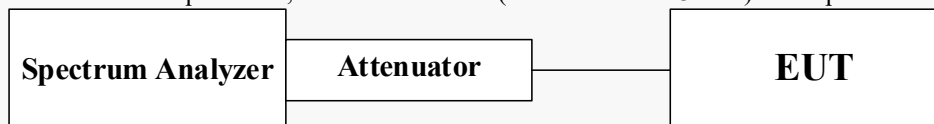
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of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

Test Procedure

According to ANSI C63.10-2020 sub-clause 11.10.2

The following procedure shall be used if maximum peak conducted output power was used to determine Compliant, and it is optional if the maximum conducted (average) output power was used to determine Compliant:

- 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.



Note: Offset (10.5dB) = Attenuator (10dB) + Cable Loss (0.5dB)

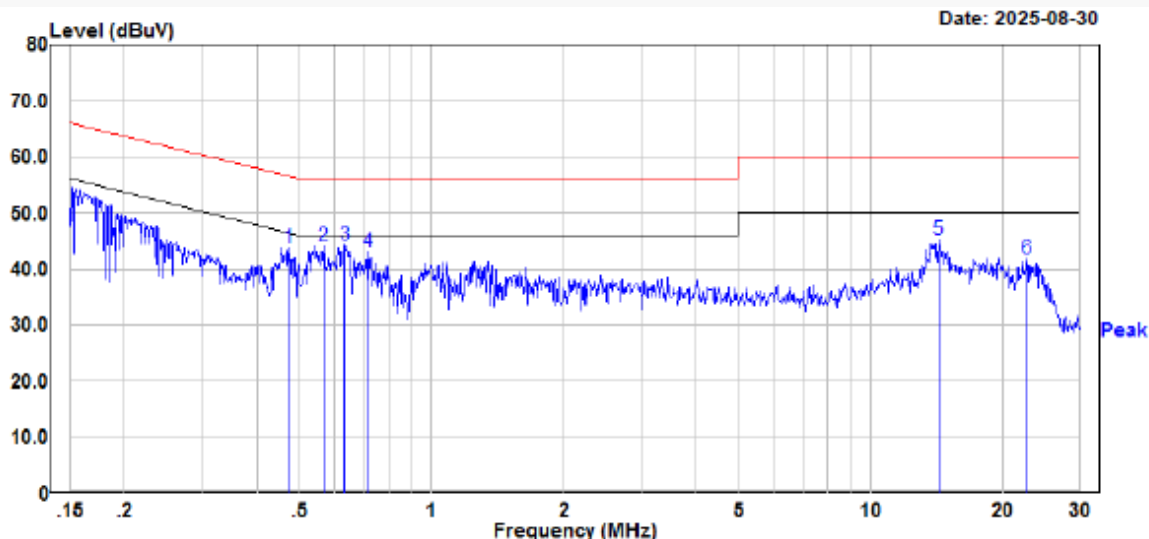
Test Data: See Appendix

APPENDIX - TEST DATA

AC LINE CONDUCTED EMISSIONS

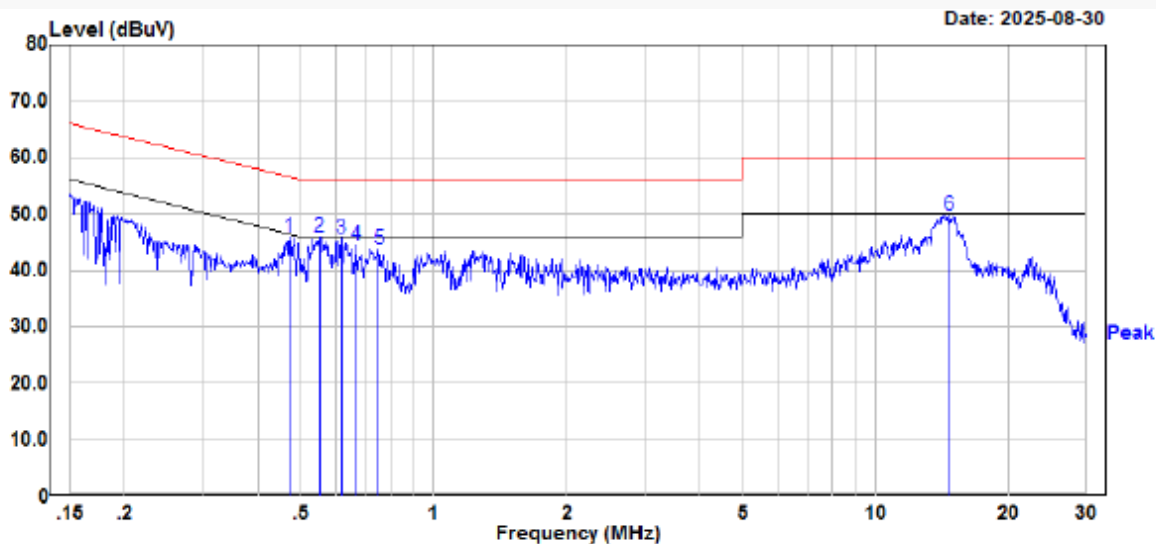
Environmental Conditions & Test Information

Test Date:	2025-08-30
Temperature:	26.4 °C
Relative Humidity:	51 %
ATM Pressure:	101.2 kPa
Test Result:	Pass
Test Engineer:	Carto Sun

For Wi-Fi Mode:*EUT operation mode: Transmitting in maximum output power mode and 802.11g mode middle channel*

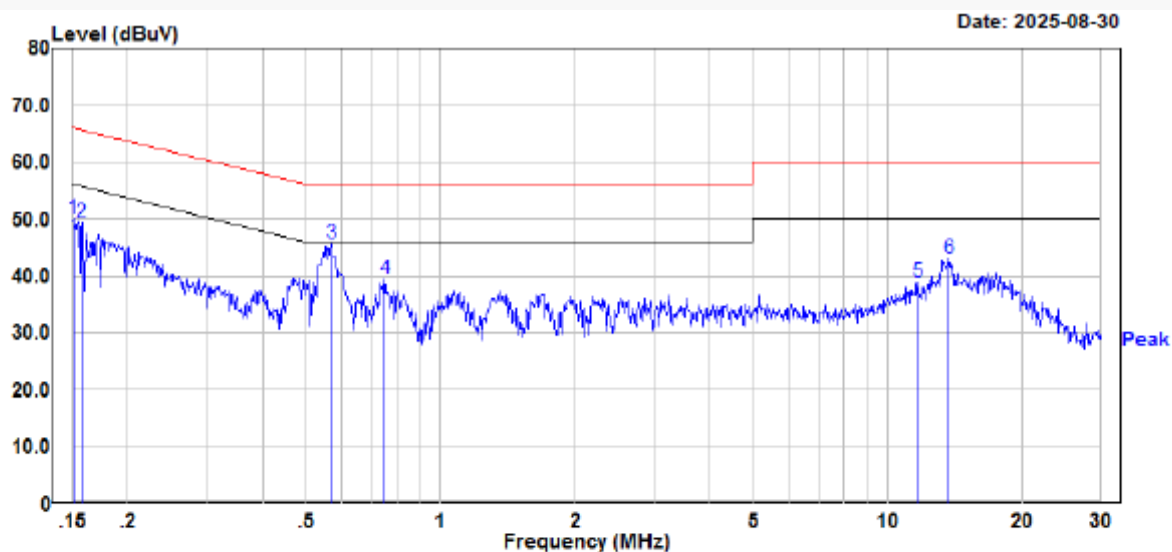
Site : CE
Condition : limit\FCC PART 15.207\FCC 15.207 QP.csv Line
: DET:Peak
Project No. : RKSA250820001
Model : R80
Phase : L
Voltage : 120V/60Hz
Mode : 2.4G WIFI
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz, Sweep Time: Auto
Temperature : 26.4°C
Humidity : 51%
Atmospheric pressure: 101.2kPa
Test Engineer : Carto Sun

		Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.474	23.66	20.22	43.88	56.44	-12.56	Peak
2	0.568	23.89	20.22	44.11	56.00	-11.89	Peak
3	0.633	23.90	20.26	44.16	56.00	-11.84	Peak
4	0.714	22.71	20.29	43.00	56.00	-13.00	Peak
5	14.275	24.70	20.46	45.16	60.00	-14.84	Peak
6	22.693	21.19	20.67	41.86	60.00	-18.14	Peak



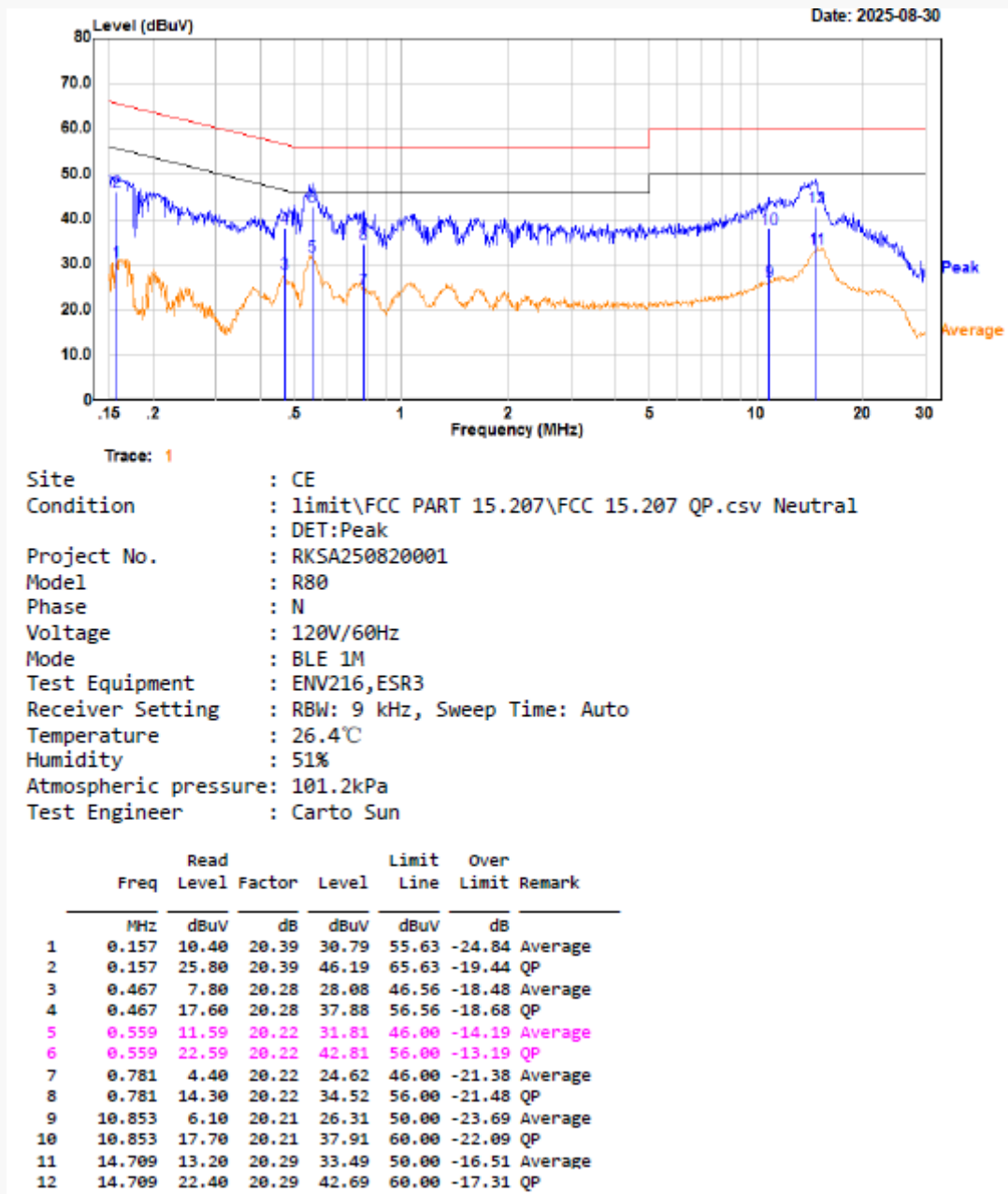
Site : CE
Condition : limit\FCC PART 15.207\FCC 15.207 QP.csv Neutral
Project No. : RKSA250820001
Model : R80
Phase : N
Voltage : 120V/60Hz
Mode : 2.4G WIFI
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz, Sweep Time: Auto
Temperature : 26.4°C
Humidity : 51%
Atmospheric pressure: 101.2kPa
Test Engineer : Carto Sun

		Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.472	25.59	20.27	45.86	56.48	-10.62	Peak
2	0.551	25.69	20.22	45.91	56.00	-10.09	Peak
3	0.618	25.49	20.21	45.70	56.00	-10.30	Peak
4	0.666	24.22	20.22	44.44	56.00	-11.56	Peak
5	0.750	23.61	20.22	43.83	56.00	-12.17	Peak
6	14.636	29.55	20.29	49.84	60.00	-10.16	Peak

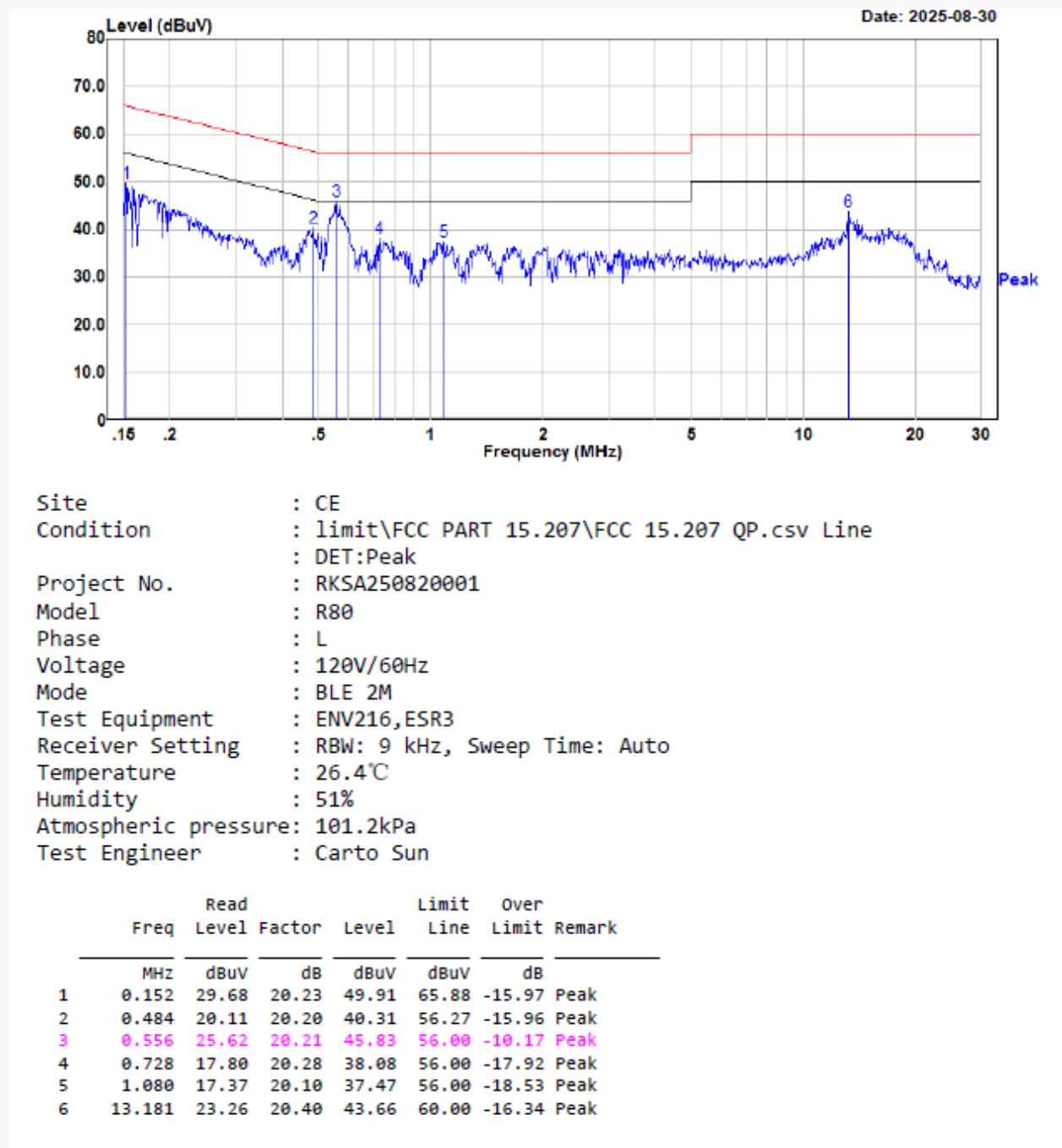
For BLE Mode:*EUT operation mode: Transmitting in BLE (1 Mbps) low channel (maximum output power)*

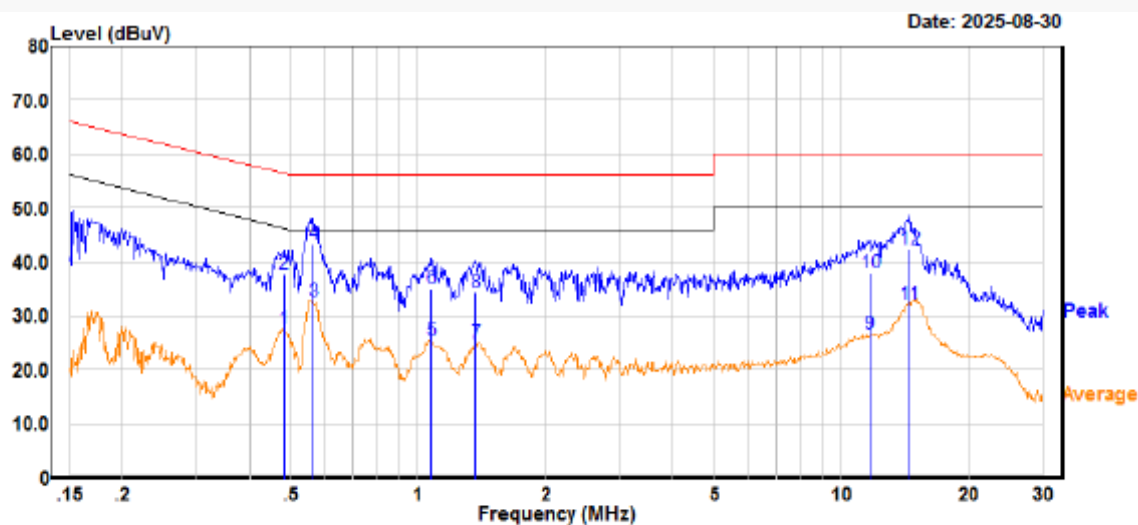
Site : CE
Condition : limit\FCC PART 15.207\FCC 15.207 QP.csv Line
Project No. : RKSA250820001
Model : R80
Phase : L
Voltage : 120V/60Hz
Mode : BLE 1M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz, Sweep Time: Auto
Temperature : 26.4℃
Humidity : 51%
Atmospheric pressure: 101.2kPa
Test Engineer : Carto Sun

		Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.151	29.85	20.23	50.08	65.96	-15.88	Peak
2	0.158	29.12	20.22	49.34	65.59	-16.25	Peak
3	0.570	25.55	20.22	45.77	56.00	-10.23	Peak
4	0.750	19.14	20.26	39.40	56.00	-16.60	Peak
5	11.637	18.63	20.31	38.94	60.00	-21.06	Peak
6	13.717	22.57	20.43	43.00	60.00	-17.00	Peak



EUT operation mode: Transmitting in BLE (2 Mbps) low channel (maximum output power)





Trace: 1

Site : CE
Condition : limit\FCC PART 15.207\FCC 15.207 QP.csv Neutral
: DET:Peak
Project No. : RKSA250820001
Model : R80
Phase : N
Voltage : 120V/60Hz
Mode : BLE 2M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz, Sweep Time: Auto
Temperature : 26.4℃
Humidity : 51%
Atmospheric pressure: 101.2kPa
Test Engineer : Carto Sun

		Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.482	7.31	20.24	27.55	46.31	-18.76	Average
2	0.482	17.51	20.24	37.75	56.31	-18.56	QP
3	0.565	12.49	20.22	32.71	46.00	-13.29	Average
4	0.565	22.99	20.22	43.21	56.00	-12.79	QP
5	1.074	5.09	20.24	25.33	46.00	-20.67	Average
6	1.074	14.79	20.24	35.03	56.00	-20.97	QP
7	1.365	4.60	20.24	24.84	46.00	-21.16	Average
8	1.365	14.00	20.24	34.24	56.00	-21.76	QP
9	11.695	6.40	20.23	26.63	50.00	-23.37	Average
10	11.695	17.80	20.23	38.03	60.00	-21.97	QP
11	14.490	11.90	20.29	32.19	50.00	-17.81	Average
12	14.490	22.10	20.29	42.39	60.00	-17.61	QP

SPURIOUS EMISSIONS

Environmental Conditions & Test Information

Test Item:	SPURIOUS EMISSIONS			
	9kHz – 30MHz	30MHz - 1GHz	1 GHz - 18 GHz	18 GHz - 25 GHz
Test Date:	2025-08-29	2025-08-29	2025-08-26 to 2025-09-02	2025-09-22
Temperature:	24.1 °C	24.1 °C	25.5-26.3 °C	25.6 °C
Relative Humidity:	36 %	36 %	51-54 %	54 %
ATM Pressure:	101.5 kPa	101.5 kPa	101.1-101.5 kPa	101.3 kPa
Test Result:	Pass	Pass	Pass	Pass
Test Engineer:	Link Xia	Link Xia	Destine Hu	Hugh Wu

Test Result: Compliant

EUT operation mode: Transmitting

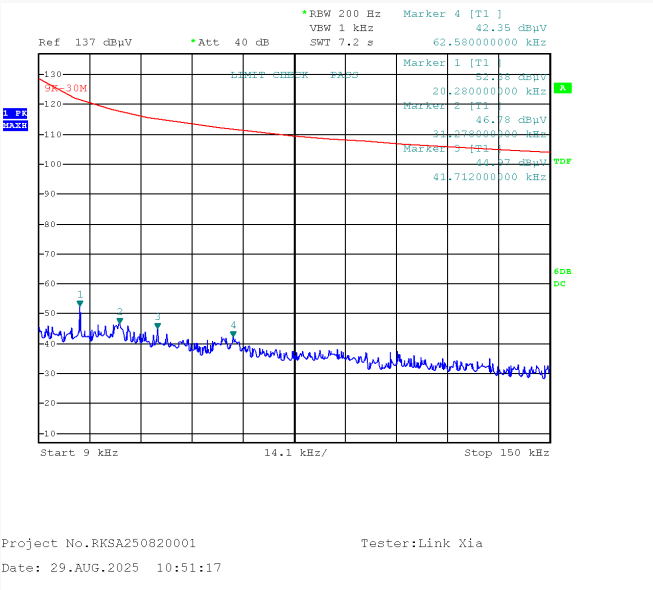
After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

For Wi-Fi Mode:

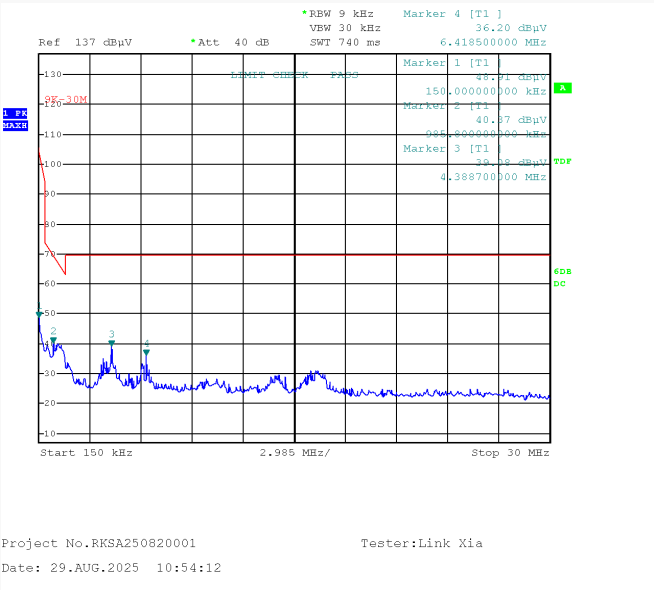
9 kHz-30MHz: (Transmitting in maximum output power mode and 802.11g mode middle channel)

Parallel(worst case)

9kHz-150kHz



150kHz-30MHz



9kHz-150kHz

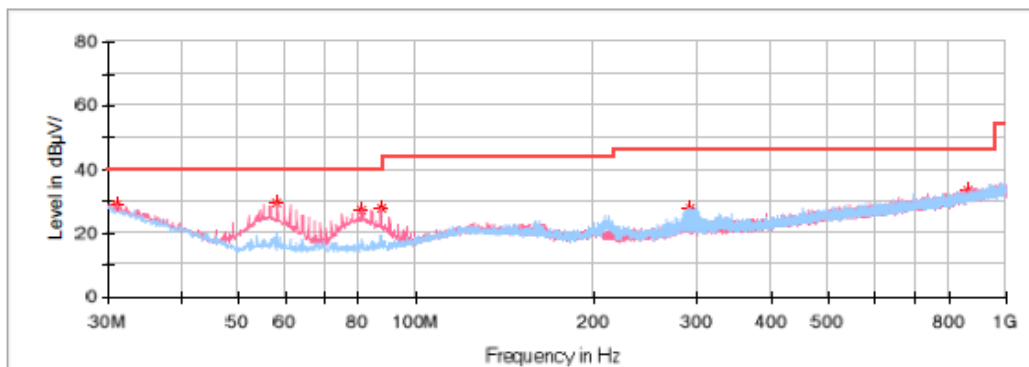
Frequency (kHz)	Corrected Amplitude (dB μ V/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dB μ V/m) @3m	Margin (dB)
20.28	52.38	PK	-0.56	121.46	69.08
31.28	46.78	PK	-0.82	117.70	70.92
44.97	41.71	PK	-3.00	114.55	72.84
62.58	42.35	PK	-5.28	111.68	69.33

150kHz-30MHz

Frequency (MHz)	Corrected Amplitude (dB μ V/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dB μ V/m) @3m	Margin (dB)
0.15	48.91	PK	-11.34	104.08	55.17
0.99	40.37	PK	-27.54	67.69	27.32
4.39	39.08	PK	-31.97	69.54	30.46
6.42	36.2	PK	-32.27	69.54	33.34

30MHz-1GHz (Transmitting in maximum output power 802.11g mode and middle channel):**Middle Channel: 2437MHz****Common Information**

Project No: RKSA250820001
EUT Model: R80
Test Mode: Transmitting in 802.11n-HT20 mode middle channel
Standard: FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.247
Test Equipment: ESCI, JB3, 310N
Receiver Setting: RBW: 100 kHz, VBW: 300 kHz, Sweep Time: Auto
Temperature: 24.1°C
Humidity: 36%
Barometric Pressure: 101.5kPa
Test Engineer: Link Xia
Test Date: 2025/8/29

**Critical_Freqs**

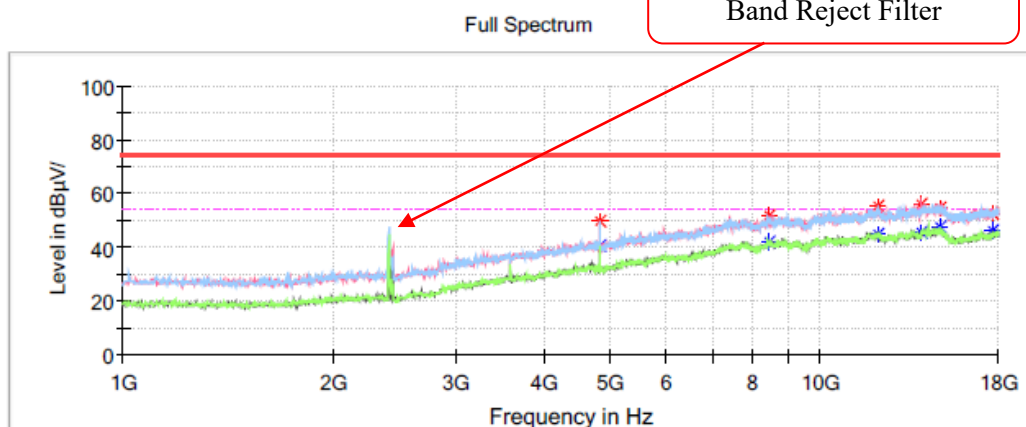
Frequency (MHz)	MaxPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
31.091250	28.73	40.00	11.27	V	-5.4
58.130000	29.42	40.00	10.58	V	-17.1
81.046250	27.10	40.00	12.90	V	-17.1
87.230000	27.83	40.00	12.17	V	-16.9
292.021250	27.98	46.00	18.02	H	-10.3
862.866250	33.59	46.00	12.41	V	0.4

1GHz-18GHz:
802.11b Mode:

Low Channel: 2412MHz

Common Information

Project No.:	RKSA250820001
EUT Model:	R80
Test Mode:	2.4G WIFI 802.11b mode Low Channel
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	26.3°C
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/8/26



Critical Freqs

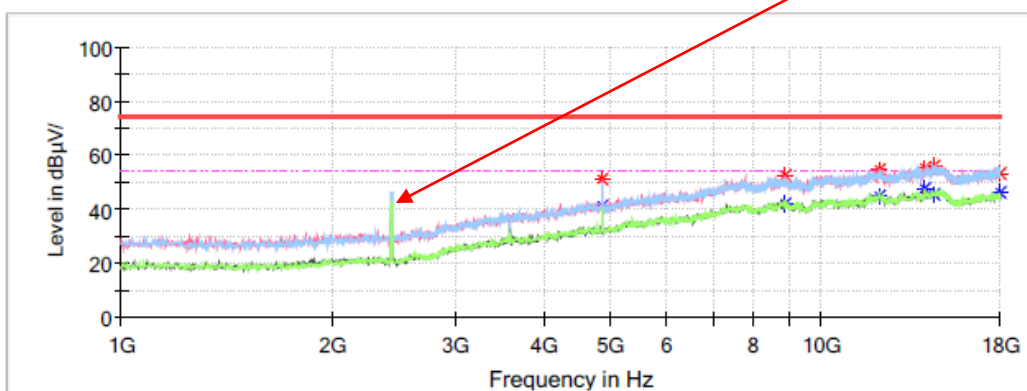
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
4824.000000	---	40.41	54.00	13.59	H	-3.4
4824.000000	49.57	---	74.00	24.43	H	-3.4
8425.600000	---	41.81	54.00	12.19	V	4.5
8425.600000	51.56	---	74.00	22.44	V	4.5
12077.200000	---	44.92	54.00	9.08	H	9.0
12077.200000	55.23	---	74.00	18.77	H	9.0
13998.200000	---	45.72	54.00	8.28	H	11.1
13998.200000	56.07	---	74.00	17.93	H	11.1
14865.200000	---	47.39	54.00	6.61	H	10.7
14865.200000	54.85	---	74.00	19.15	H	10.7
17663.400000	52.50	---	74.00	21.50	V	10.9
17663.400000	---	46.24	54.00	7.76	V	10.9

Middle Channel: 2437MHz**Common Information**

Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11b mode Middle Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3°C
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

Fundamental Test with
Band Reject Filter

Full Spectrum

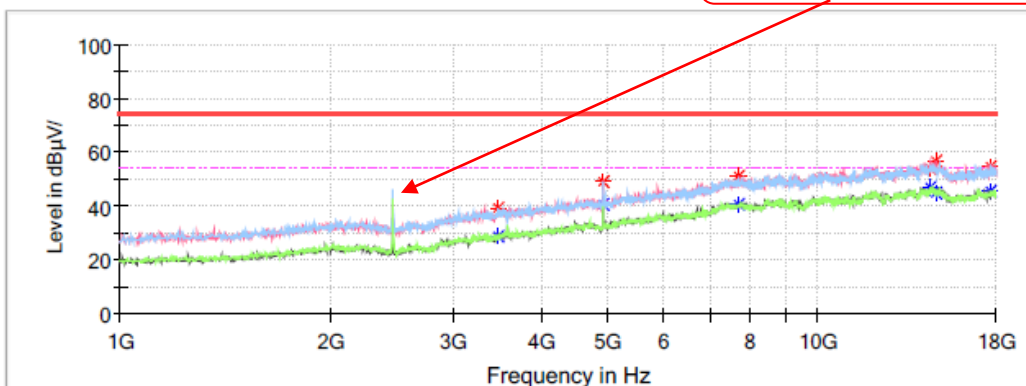
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
4874.000000	---	41.30	54.00	12.70	V	-3.2
4874.000000	50.78	---	74.00	23.22	V	-3.2
8874.400000	---	42.27	54.00	11.73	V	4.7
8874.400000	52.26	---	74.00	21.74	V	4.7
12087.400000	---	45.00	54.00	9.00	H	9.0
12087.400000	54.86	---	74.00	19.14	H	9.0
14079.800000	---	47.47	54.00	6.53	H	11.2
14079.800000	55.34	---	74.00	18.66	H	11.2
14460.600000	---	45.55	54.00	8.45	H	11.9
14460.600000	55.75	---	74.00	18.25	H	11.9
17966.000000	52.94	---	74.00	21.06	V	11.7
17966.000000	---	46.19	54.00	7.81	V	11.7

High Channel: 2462MHz**Common Information**

Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11b mode High Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3℃
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

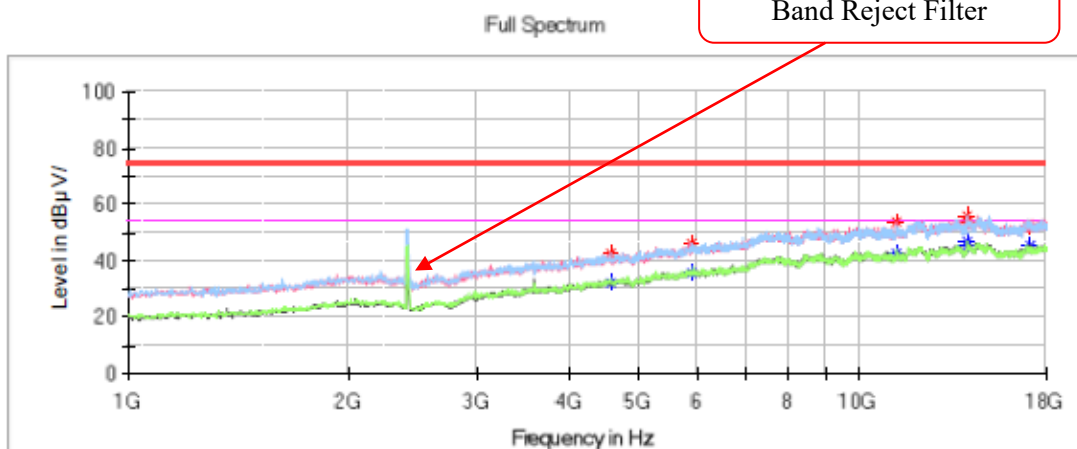
Full Spectrum

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
3475.200000	---	28.45	54.00	25.55	V	-6.4
3475.200000	39.38	---	74.00	34.62	V	-6.4
4924.000000	---	40.28	54.00	13.72	H	-3.1
4924.000000	49.02	---	74.00	24.98	H	-3.1
7694.600000	---	40.29	54.00	13.71	V	3.1
7694.600000	50.89	---	74.00	23.11	V	3.1
14470.800000	---	46.73	54.00	7.27	V	11.9
14470.800000	54.01	---	74.00	19.99	V	11.9
14797.200000	---	45.08	54.00	8.92	V	11.0
14797.200000	56.55	---	74.00	17.45	V	11.0
17714.400000	54.24	---	74.00	19.76	V	11.0
17714.400000	---	45.76	54.00	8.24	V	11.0

802.11g Mode:**Low Channel: 2412MHz****Common Information**

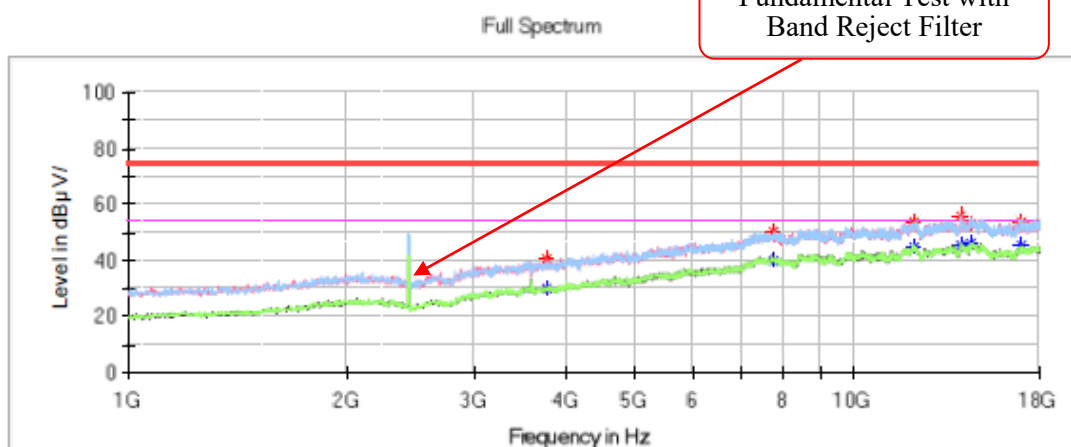
Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11g mode Low Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3℃
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
4580.200000	---	32.22	54.00	21.78	H	-4.0
4580.200000	42.36	---	74.00	31.64	H	-4.0
5885.800000	46.29	---	74.00	27.71	V	-0.9
5885.800000	---	35.77	54.00	18.23	V	-0.9
11254.400000	54.01	---	74.00	19.99	V	7.4
11254.400000	---	42.76	54.00	11.24	V	7.4
14011.800000	53.75	---	74.00	20.25	V	11.1
14011.800000	---	46.64	54.00	7.36	V	11.1
14049.200000	55.76	---	74.00	18.24	H	11.2
14049.200000	---	45.34	54.00	8.66	H	11.2
17095.600000	52.05	---	74.00	21.95	V	10.9
17095.600000	---	45.50	54.00	8.50	V	10.9

Middle Channel: 2437MHz**Common Information**

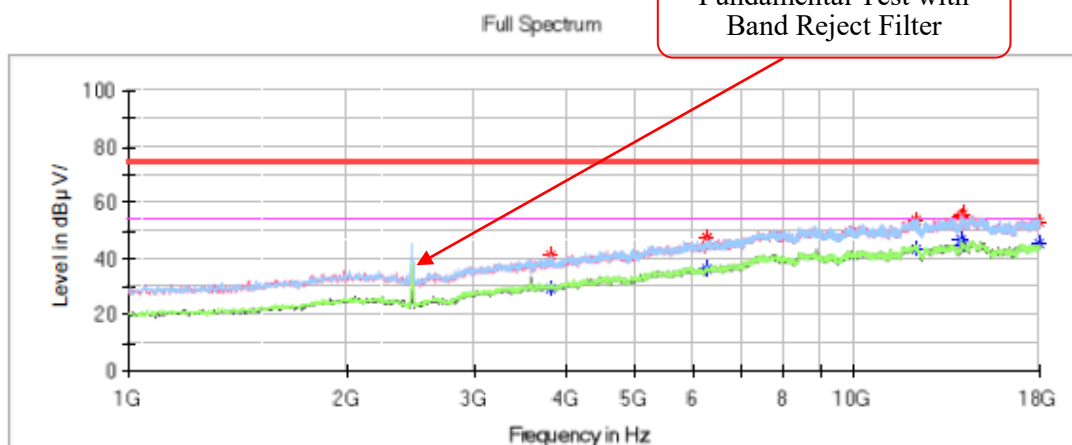
Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11g mode Middle Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3°C
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
3760.800000	---	30.05	54.00	23.95	H	-5.6
3760.800000	40.35	---	74.00	33.65	H	-5.6
7728.600000	---	40.03	54.00	13.97	V	3.1
7728.600000	50.67	---	74.00	23.33	V	3.1
12097.600000	---	44.49	54.00	9.51	V	9.0
12097.600000	53.88	---	74.00	20.12	V	9.0
14039.000000	---	45.26	54.00	8.74	H	11.2
14039.000000	56.16	---	74.00	17.84	H	11.2
14518.400000	---	46.14	54.00	7.86	H	11.9
14518.400000	52.83	---	74.00	21.17	H	11.9
16980.000000	53.67	---	74.00	20.33	V	10.9
16980.000000	---	45.35	54.00	8.65	V	10.9

High Channel: 2462MHz**Common Information**

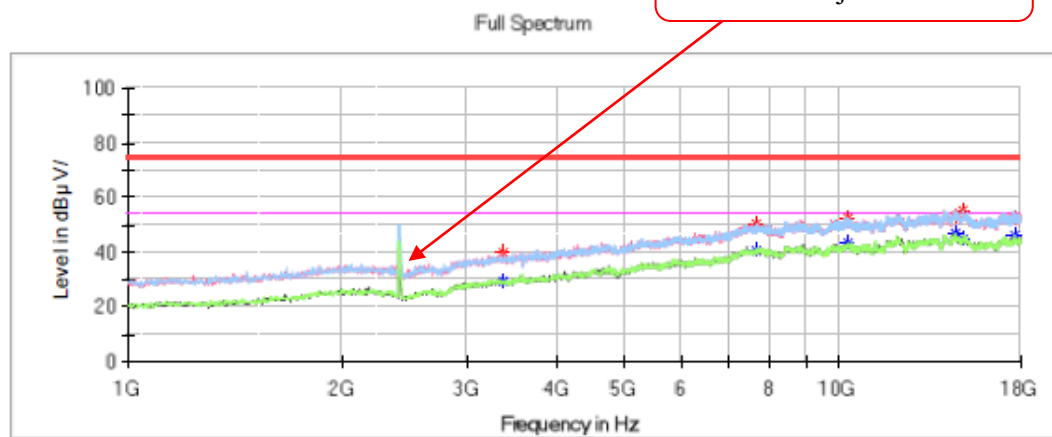
Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11g mode High Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3℃
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
3828.800000	41.19	---	74.00	32.81	H	-5.4
3828.800000	---	29.33	54.00	24.67	H	-5.4
6280.200000	47.22	---	74.00	26.78	V	-0.7
6280.200000	---	36.27	54.00	17.73	V	-0.7
12155.400000	---	43.67	54.00	10.33	V	9.0
12155.400000	54.03	---	74.00	19.97	V	9.0
14052.600000	54.94	---	74.00	19.06	H	11.2
14052.600000	---	46.58	54.00	7.42	H	11.2
14107.000000	55.67	---	74.00	18.33	V	11.3
14107.000000	---	44.48	54.00	9.52	V	11.3
17993.200000	---	45.38	54.00	8.62	V	11.8
17993.200000	53.42	---	74.00	20.58	V	11.8

802.11n-HT20 Mode :**Low Channel: 2412MHz****Common Information**

Project No.: RKSA250820001
 EUT Model: R80
 Test Mode: 2.4G WIFI 802.11n20 mode Low Channel
 Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
 Test Equipment: ESU40,3115,PAM-0118P
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Temperature: 26.3°C
 Humidity: 54%
 Atmospheric Pressure: 101.5kPa
 Test Engineer: Destine Hu
 Test Date: 2025/8/26

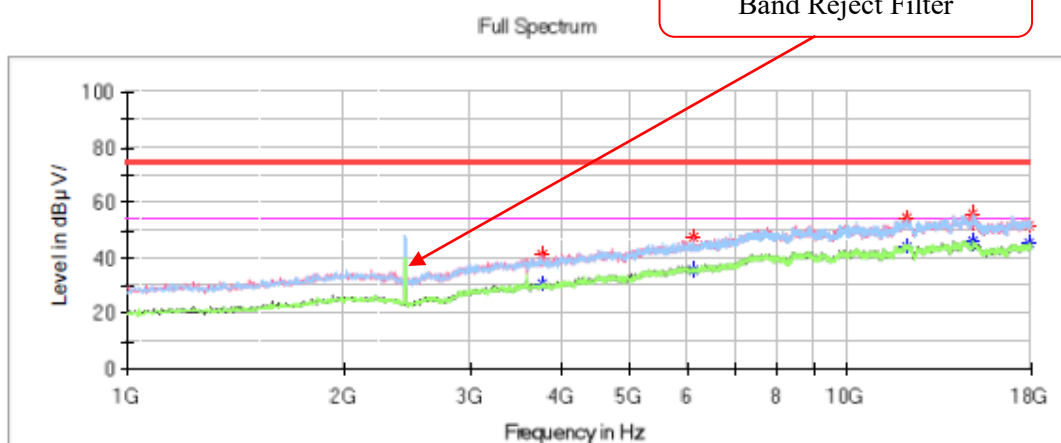
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μV/m)	Average (dB μV/m)	Limit (dB μV/m)	Margin (dB)	Pol	Corr. (dB/m)
3369.800000	---	29.12	54.00	24.88	V	-6.7
3369.800000	39.71	---	74.00	34.29	V	-6.7
7643.600000	---	40.47	54.00	13.53	V	3.1
7643.600000	50.29	---	74.00	23.71	V	3.1
10316.000000	---	43.09	54.00	10.91	H	6.6
10316.000000	52.55	---	74.00	21.45	H	6.6
14579.600000	53.27	---	74.00	20.73	H	11.7
14579.600000	---	46.68	54.00	7.32	H	11.7
14953.600000	55.30	---	74.00	18.70	H	10.4
14953.600000	---	44.83	54.00	9.17	H	10.4
17629.400000	52.49	---	74.00	21.51	H	10.8
17629.400000	---	46.10	54.00	7.90	H	10.8

Middle Channel: 2437MHz**Common Information**

Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11n20 mode Middle Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3°C
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

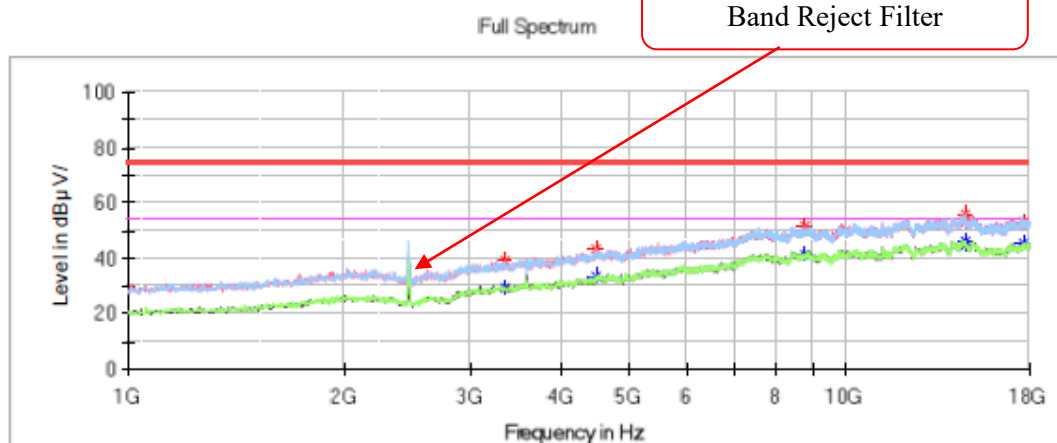
Fundamental Test with
Band Reject Filter

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μV/m)	Average (dB μV/m)	Limit (dB μV/m)	Margin (dB)	Pol	Corr. (dB/m)
3777.800000	41.43	---	74.00	32.57	V	-5.6
3777.800000	---	30.85	54.00	23.15	V	-5.6
6113.600000	47.25	---	74.00	26.75	V	-0.7
6113.600000	---	35.75	54.00	18.25	V	-0.7
12111.200000	---	43.74	54.00	10.26	V	9.0
12111.200000	54.29	---	74.00	19.71	V	9.0
14940.000000	---	46.45	54.00	7.55	H	10.5
14940.000000	52.38	---	74.00	21.62	H	10.5
14950.200000	---	44.70	54.00	9.30	H	10.4
14950.200000	55.62	---	74.00	18.38	H	10.4
17908.200000	---	45.65	54.00	8.35	V	11.5
17908.200000	51.71	---	74.00	22.29	V	11.5

High Channel: 2462MHz**Common Information**

Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11n20 mode High Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3℃
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

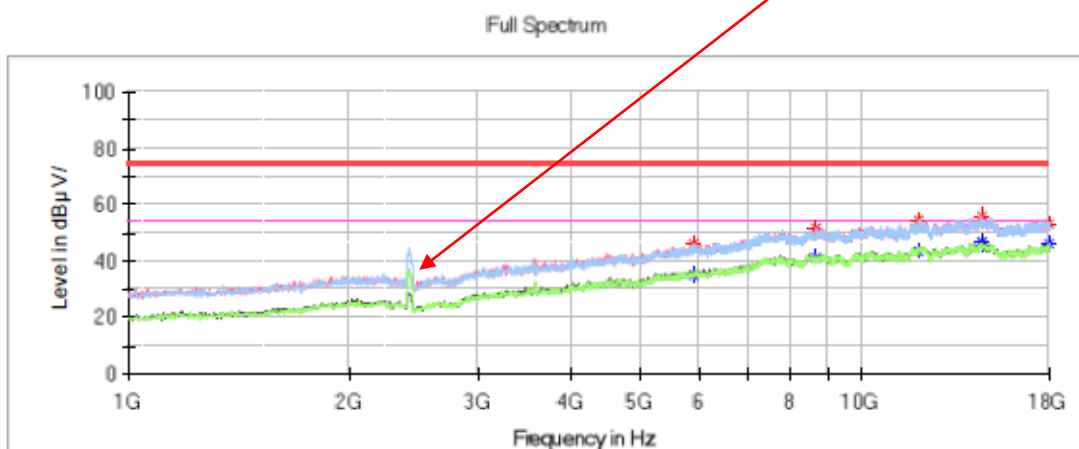
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
3346.000000	---	29.29	54.00	24.71	V	-6.8
3346.000000	39.45	---	74.00	34.55	V	-6.8
4491.800000	43.48	---	74.00	30.52	H	-4.2
4491.800000	---	33.75	54.00	20.25	H	-4.2
8758.800000	---	41.59	54.00	12.41	V	4.7
8758.800000	51.61	---	74.00	22.39	V	4.7
14640.800000	53.47	---	74.00	20.53	H	11.5
14640.800000	---	46.39	54.00	7.61	H	11.5
14695.200000	---	44.69	54.00	9.31	V	11.3
14695.200000	55.67	---	74.00	18.33	V	11.3
17680.400000	---	45.39	54.00	8.61	V	10.9
17680.400000	53.24	---	74.00	20.76	V	10.9

802.11n-HT40 Mode :**Low Channel: 2422MHz****Common Information**

Project No.: RKSA250820001
 EUT Model: R80
 Test Mode: 2.4G WIFI 802.11n40 mode Low Channel
 Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
 Test Equipment: ESU40,3115,PAM-0118P
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Temperature: 26.3°C
 Humidity: 54%
 Atmospheric Pressure: 101.5kPa
 Test Engineer: Destine Hu
 Test Date: 2025/8/26

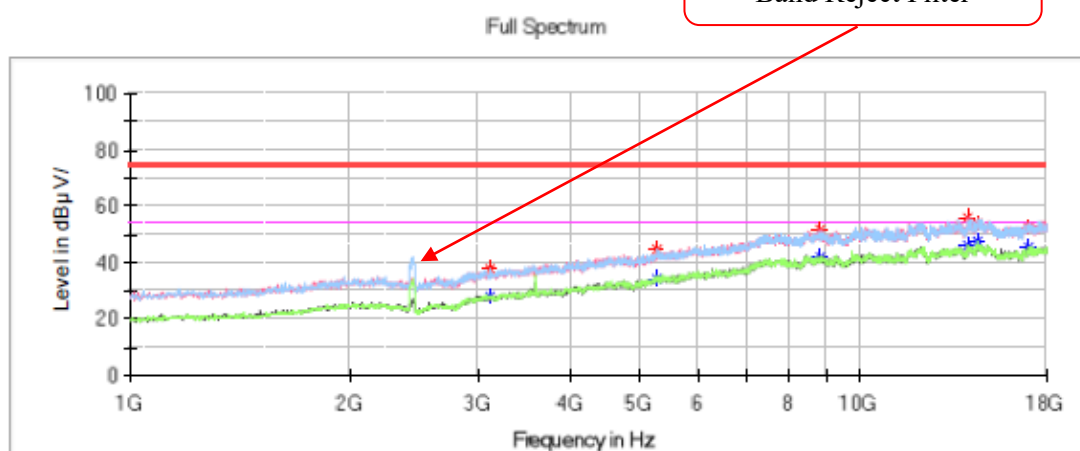
Fundamental Test with
Band Reject Filter

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5892.600000	---	34.97	54.00	19.03	V	-0.9
5892.600000	46.28	---	74.00	27.72	V	-0.9
8680.600000	52.03	---	74.00	21.97	H	4.7
8680.600000	---	41.51	54.00	12.49	H	4.7
11985.400000	54.63	---	74.00	19.37	H	9.0
11985.400000	---	43.65	54.00	10.35	H	9.0
14542.200000	---	45.72	54.00	8.28	V	11.8
14542.200000	56.02	---	74.00	17.98	V	11.8
14545.600000	---	46.68	54.00	7.32	V	11.8
14545.600000	54.09	---	74.00	19.91	V	11.8
17976.200000	---	45.99	54.00	8.01	H	11.7
17976.200000	52.98	---	74.00	21.02	H	11.7

Middle Channel: 2437MHz**Common Information**

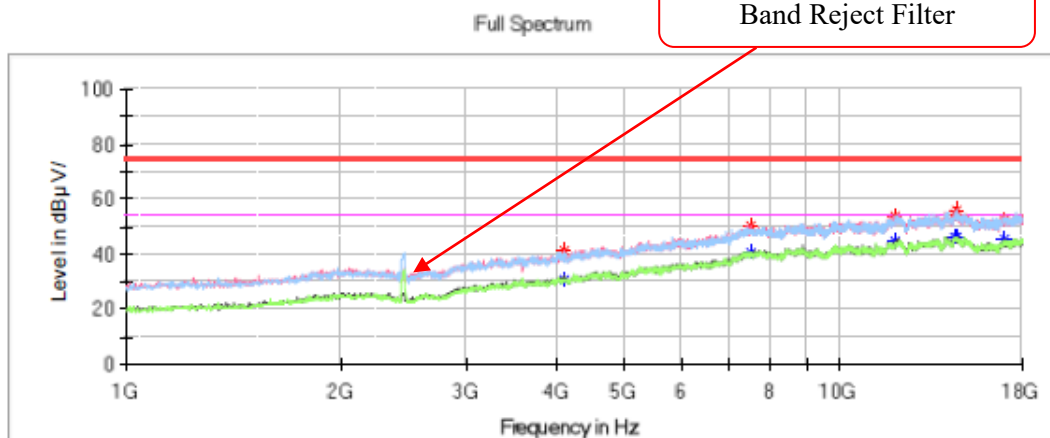
Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11n40 mode Middle Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3℃
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
3114.800000	---	27.71	54.00	26.29	H	-7.6
3114.800000	37.46	---	74.00	36.54	H	-7.6
5263.600000	---	34.50	54.00	19.50	V	-2.3
5263.600000	44.70	---	74.00	29.30	V	-2.3
8847.200000	---	41.88	54.00	12.12	H	4.7
8847.200000	51.60	---	74.00	22.40	H	4.7
14015.200000	---	45.87	54.00	8.13	H	11.1
14015.200000	55.79	---	74.00	18.21	H	11.1
14494.600000	---	47.21	54.00	6.79	H	12.0
14494.600000	53.69	---	74.00	20.31	H	12.0
17068.400000	52.38	---	74.00	21.62	V	10.9
17068.400000	---	45.48	54.00	8.52	V	10.9

High Channel: 2452MHz**Common Information**

Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11n40 mode High Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3°C
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
4111.000000	41.01	---	74.00	32.99	V	-4.8
4111.000000	---	30.63	54.00	23.37	V	-4.8
7504.200000	50.11	---	74.00	23.89	V	3.0
7504.200000	---	40.45	54.00	13.55	V	3.0
11982.000000	---	45.04	54.00	8.96	V	9.0
11982.000000	54.15	---	74.00	19.85	V	9.0
14528.600000	---	46.44	54.00	7.56	H	11.9
14528.600000	54.70	---	74.00	19.30	H	11.9
14559.200000	---	45.82	54.00	8.18	H	11.8
14559.200000	55.99	---	74.00	18.01	H	11.8
16976.600000	52.45	---	74.00	21.55	V	10.9
16976.600000	---	45.56	54.00	8.44	V	10.9

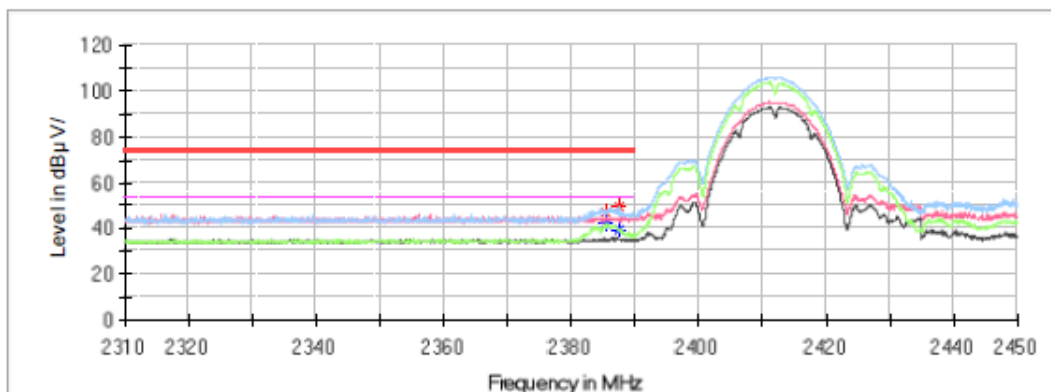
Band Edge:
802.11b Mode:

Low Channel

Common Information

Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11b mode Low Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3°C
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

Full Spectrum



Critical Freqs

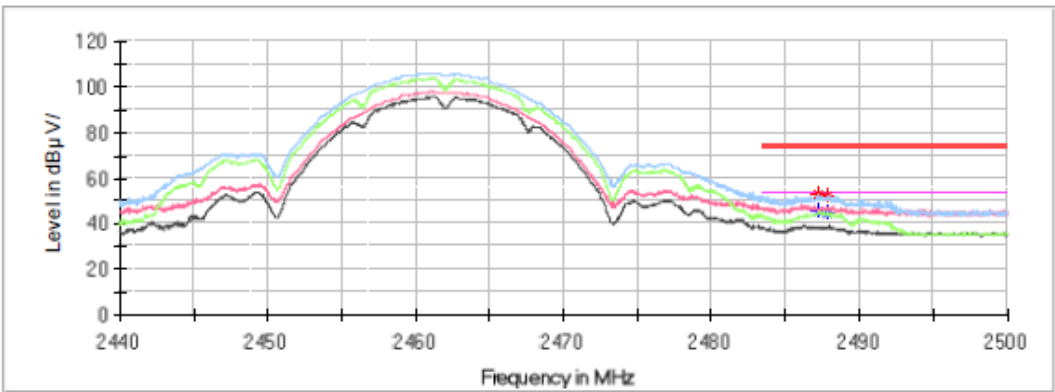
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2385.320000	---	41.76	54.00	12.24	H	0.2
2385.320000	47.35	---	74.00	26.65	H	0.2
2387.448000	---	39.59	54.00	14.41	H	0.2
2387.448000	49.24	---	74.00	24.76	H	0.2

High Channel

Common Information

Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11b mode High Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3℃
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2487.256000	---	45.56	54.00	8.44	H	0.4
2487.256000	52.54	---	74.00	21.46	H	0.4
2487.808000	---	44.52	54.00	9.48	H	0.4
2487.808000	52.41	---	74.00	21.59	H	0.4

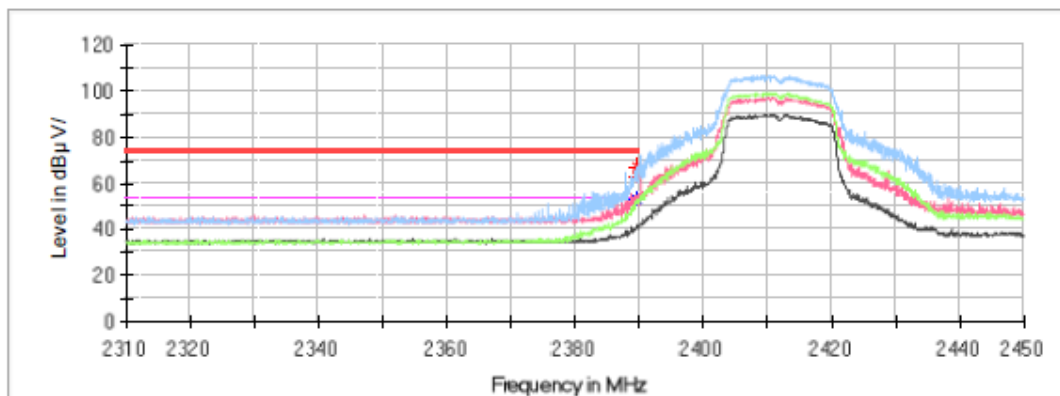
802.11g Mode :

Low Channel

Common Information

Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11g mode Low Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3℃
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

Full Spectrum



Critical Freqs

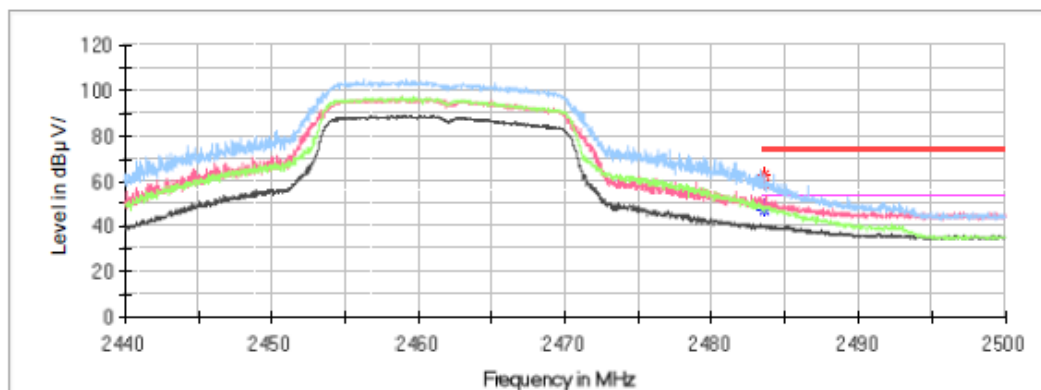
Frequency (MHz)	MaxPeak (dB μV/m)	Average (dB μV/m)	Limit (dB μV/m)	Margin (dB)	Pol	Corr. (dB/m)
2389.688000	---	52.76	54.00	1.24	H	0.2
2389.688000	63.13	---	74.00	10.87	H	0.2
2389.800000	---	52.68	54.00	1.32	H	0.2
2389.800000	66.82	---	74.00	7.18	H	0.2

High Channel

Common Information

Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11g mode High Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3°C
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2483.584000	63.15	---	74.00	10.85	H	0.4
2483.584000	---	46.99	54.00	7.01	H	0.4
2483.632000	59.03	---	74.00	14.97	H	0.4
2483.632000	---	49.06	54.00	4.94	H	0.4

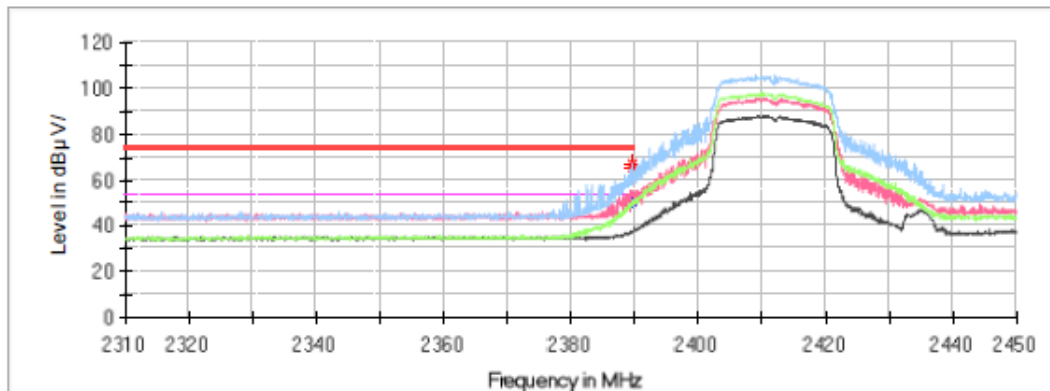
802.11n-HT20 Mode:

Low Channel

Common Information

Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11n20 mode Low Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3℃
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

Full Spectrum



Critical Freqs

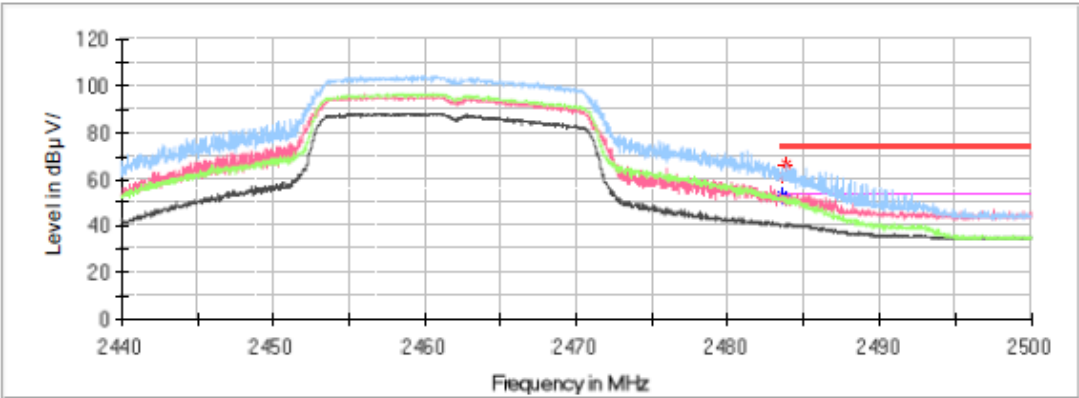
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2389.632000	---	50.30	54.00	3.70	H	0.2
2389.632000	67.55	---	74.00	6.45	H	0.2
2389.688000	---	51.14	54.00	2.86	H	0.2
2389.688000	65.08	---	74.00	8.92	H	0.2

High Channel

Common Information

Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11n20 mode High Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3℃
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

Full Spectrum



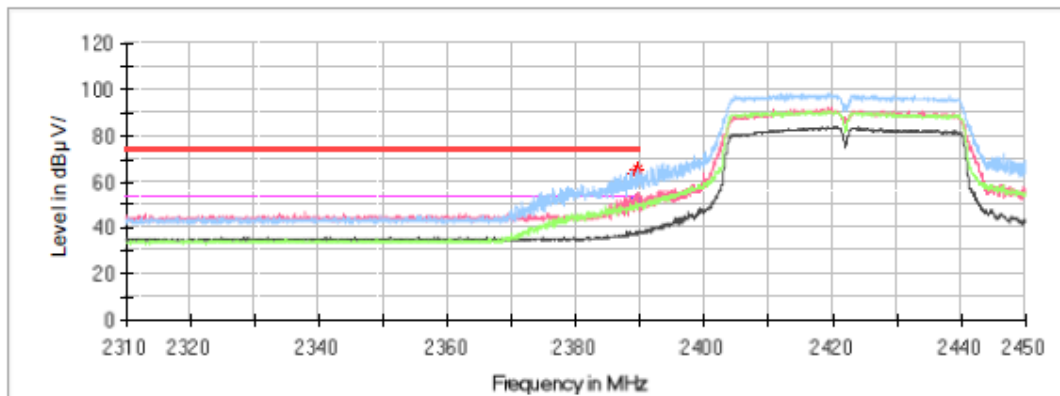
Critical_Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2483.560000	61.63	---	74.00	12.37	H	0.4
2483.560000	---	52.59	54.00	1.41	H	0.4
2483.896000	---	51.26	54.00	2.74	H	0.4
2483.896000	66.21	---	74.00	7.79	H	0.4

802.11n-HT40 Mode:**Low Channel****Common Information**

Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11n40 mode Low Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3℃
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

Full Spectrum

**Critical Freqs**

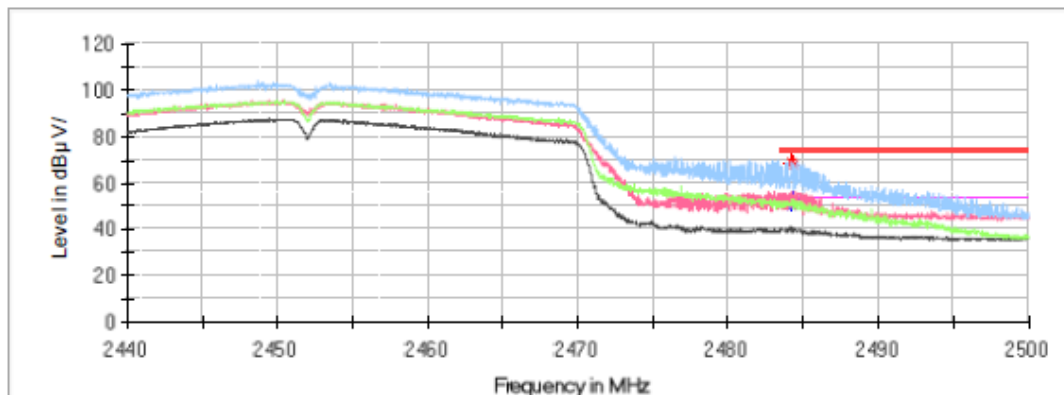
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2389.352000	64.09	---	74.00	9.91	H	0.2
2389.352000	---	51.55	54.00	2.45	H	0.2
2389.800000	---	50.13	54.00	3.87	H	0.2
2389.800000	65.85	---	74.00	8.15	H	0.2

High Channel

Common Information

Project No.: RKSA250820001
EUT Model: R80
Test Mode: 2.4G WIFI 802.11n40 mode High Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 26.3°C
Humidity: 54%
Atmospheric Pressure: 101.5kPa
Test Engineer: Destine Hu
Test Date: 2025/8/26

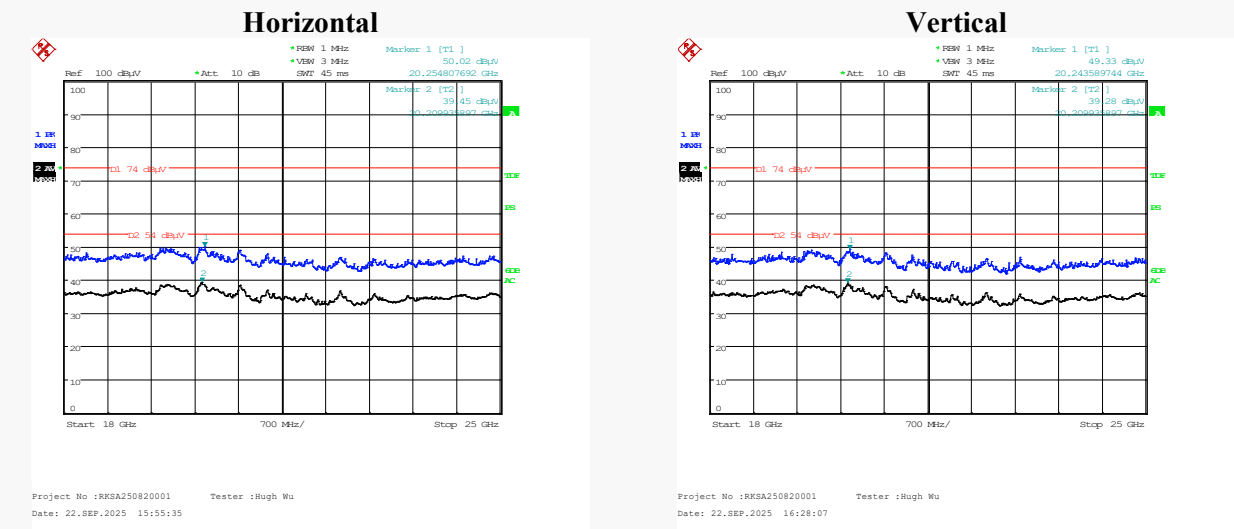
Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dB µV/m)	Average (dB µV/m)	Limit (dB µV/m)	Margin (dB)	Pol	Corr. (dB/m)
2484.184000	69.22	---	74.00	4.78	H	0.4
2484.184000	---	50.39	54.00	3.61	H	0.4
2484.400000	68.24	---	74.00	5.76	H	0.4
2484.400000	---	52.59	54.00	1.41	H	0.4

18GHz-25GHz: Transmitting in maximum output power mode and 802.11g mode middle channel

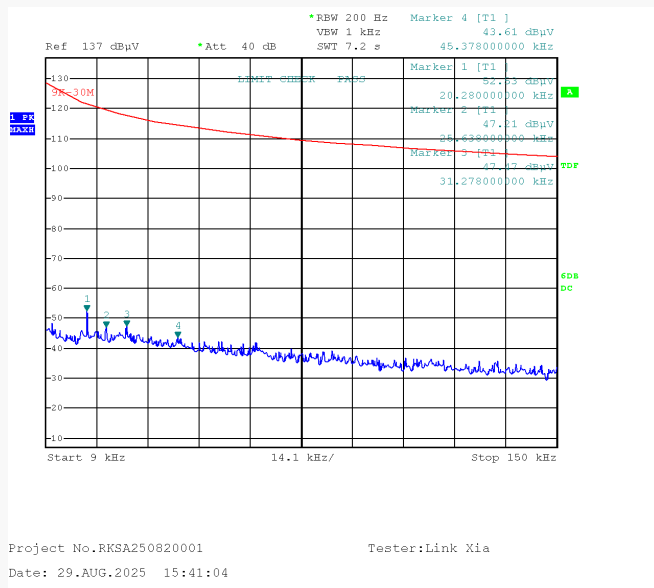
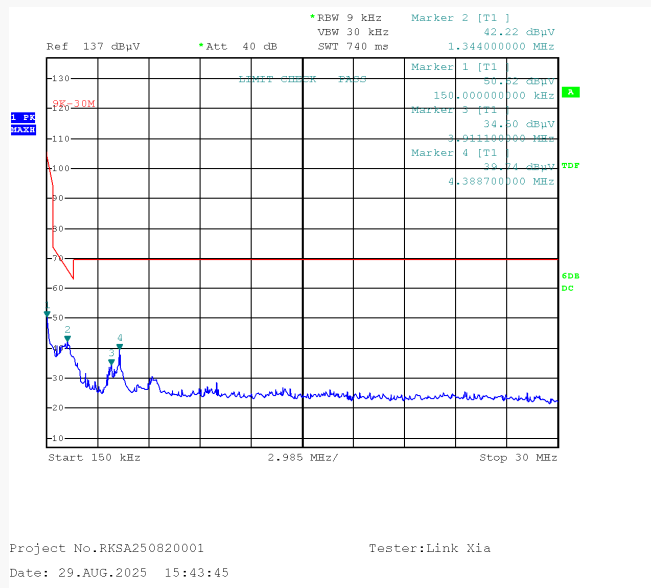


Frequency (GHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
20.21	---	39.28	54	14.72	V	12.47
20.24	49.33	---	74	24.67	V	12.5
20.21	---	39.45	54	14.55	H	12.47
20.25	50.02	---	74	23.98	H	12.51

Note: The test distance is 3m. The limit is 74dBμV/m (Peak) and 54dBμV/m (Average).

For BLE Mode:

9 kHz-30MHz: Transmitting in maximum output power mode BLE (2 Mbps) low channel
Parallel(worst case)

9kHz-150kHz**150kHz-30MHz****9 kHz-150 kHz**

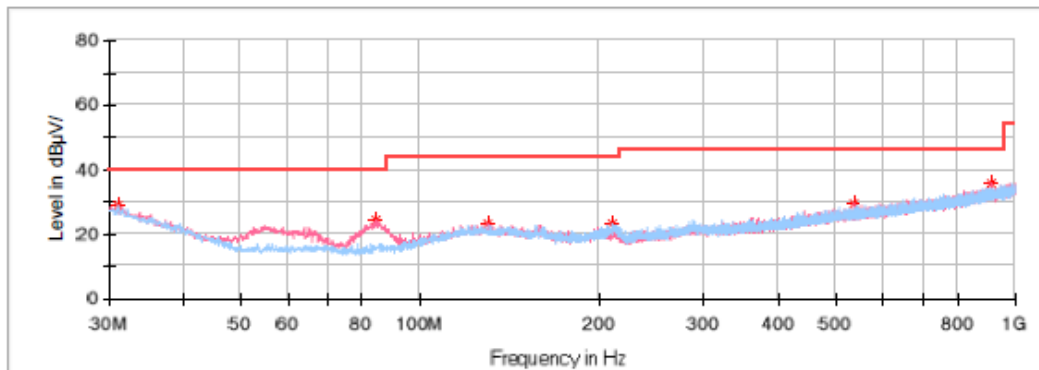
Frequency (kHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
20.58	52.53	PK	-0.56	121.34	68.81
25.64	47.21	PK	-0.59	119.43	72.22
31.28	47.47	PK	-0.82	117.70	70.23
45.38	43.61	PK	-3.07	114.47	70.86

150 kHz-30 MHz

Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.15	50.52	PK	-11.34	104.08	53.56
1.34	42.22	PK	-28.73	65.06	22.84
3.91	34.5	PK	-31.87	69.54	35.04
4.39	39.74	PK	-31.97	69.54	29.80

BLE (1 Mbps) (Transmitting in maximum output power BLE (1 Mbps) low channel)
30MHz-1GHz**Low Channel: 2402MHz****Common Information**

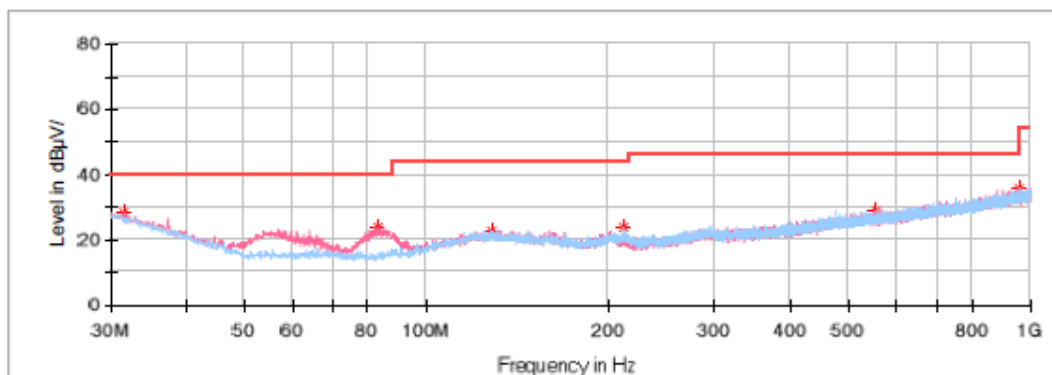
Project No: RKSA250820001
EUT Model: R80
Test Mode: Transmitting in BLE 1M mode low channel
Standard: FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.247
Test Equipment: ESCI, JB3, 310N
Receiver Setting: RBW: 100 kHz, VBW: 300 kHz, Sweep Time: Auto
Temperature: 24.1°C
Humidity: 36%
Barometric Pressure: 101.5kPa
Test Engineer: Link Xia
Test Date: 2025/8/29

**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
31.091250	28.66	40.00	11.34	H	-5.4
84.320000	24.30	40.00	15.70	V	-17.0
130.395000	23.48	43.50	20.02	V	-11.0
210.541250	23.19	43.50	20.31	H	-12.8
534.521250	29.51	46.00	16.49	V	-4.9
913.185000	35.54	46.00	10.46	V	1.2

BLE (2 Mbps) (Transmitting in maximum output power BLE (2 Mbps) low channel)
30MHz-1GHz**low Channel: 2404MHz****Common Information**

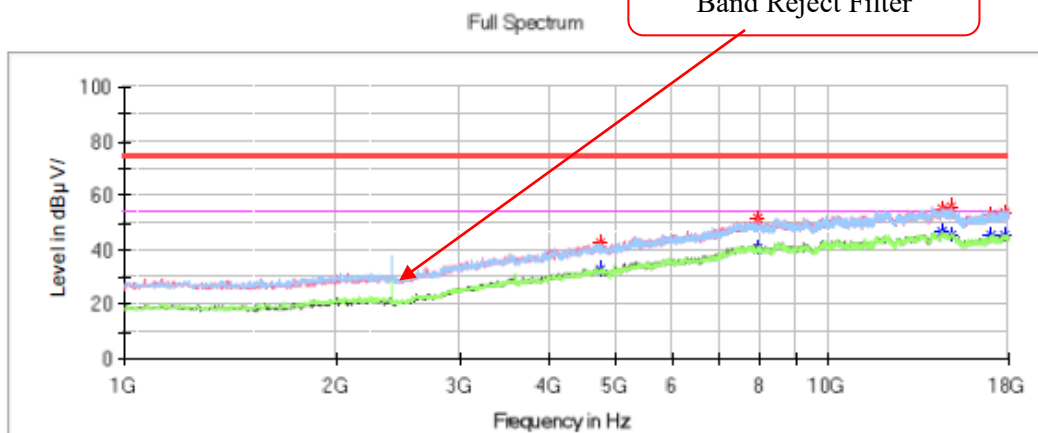
Project No:	RKSA250820001
EUT Model:	R80
Test Mode:	Transmitting in BLE 2M mode low channel
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.247
Test Equipment:	ESCI, JB3, 310N
Receiver Setting:	RBW: 100 kHz, VBW: 300 kHz, Sweep Time: Auto
Temperature:	24.1°C
Humidity:	36%
Barometric Pressure:	101.5kPa
Test Engineer:	Link Xia
Test Date:	2025/8/29

**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
31.576250	28.22	40.00	11.78	V	-5.8
82.986250	23.82	40.00	16.18	V	-17.1
128.576250	22.73	43.50	20.77	H	-11.0
212.238750	24.05	43.50	19.45	H	-12.9
553.921250	29.20	46.00	16.80	H	-4.6
956.107500	35.63	46.00	10.37	H	1.9

**BLE (1 Mbps)
1GHz-18GHz:****Low Channel: 2402MHz****Common Information**

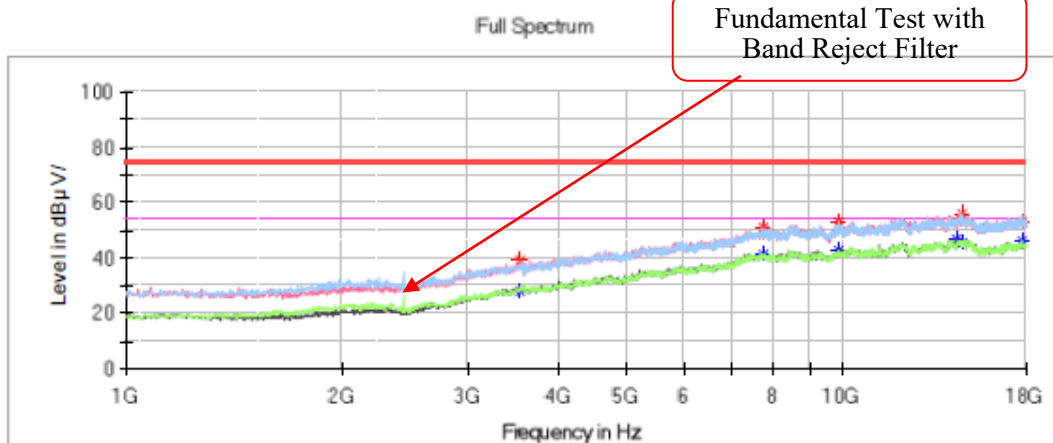
Project No.:	RKSA250820001
EUT Model:	R80
Test Mode:	Transmitting in BLE-1M Low Channel
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.5℃
Humidity:	51%
Atmospheric Pressure:	101.1kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/2

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
4753.600000	---	32.62	54.00	21.38	V	-3.5
4753.600000	42.94	---	74.00	31.06	V	-3.5
7959.800000	---	40.61	54.00	13.39	V	3.3
7959.800000	51.61	---	74.00	22.39	V	3.3
14515.000000	55.15	---	74.00	18.85	H	11.9
14515.000000	---	47.09	54.00	6.91	H	11.9
14926.400000	56.24	---	74.00	17.76	V	10.5
14926.400000	---	45.56	54.00	8.44	V	10.5
17044.600000	53.46	---	74.00	20.54	V	10.9
17044.600000	---	45.64	54.00	8.36	V	10.9
17813.000000	53.66	---	74.00	20.34	V	11.3
17813.000000	---	45.62	54.00	8.38	V	11.3

Middle Channel: 2440MHz**Common Information**

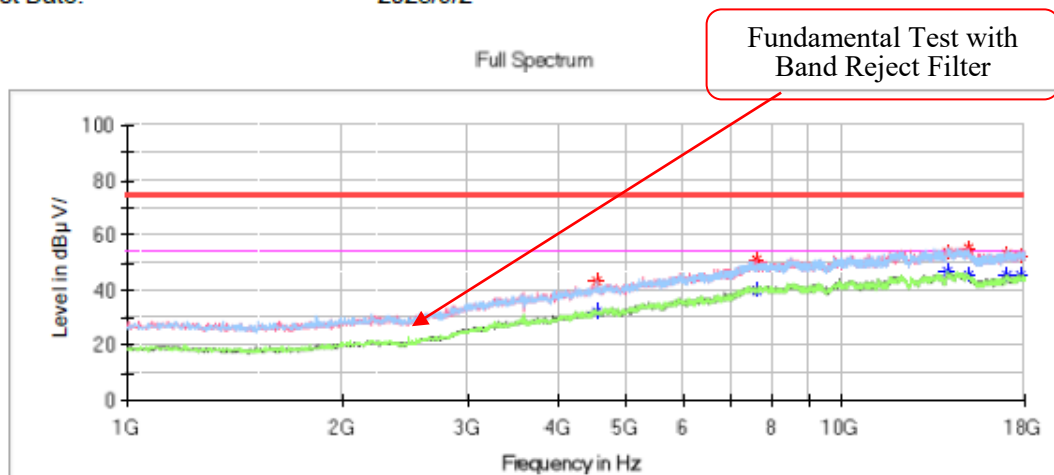
Project No.: RKSA250820001
EUT Model: R80
Test Mode: Transmitting in BLE-1M Middle Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 25.5°C
Humidity: 51%
Atmospheric Pressure: 101.1kPa
Test Engineer: Destine Hu
Test Date: 2025/9/2

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
3539.800000	---	28.11	54.00	25.89	V	-6.2
3539.800000	39.33	---	74.00	34.67	V	-6.2
7752.400000	---	41.18	54.00	12.82	H	3.1
7752.400000	51.07	---	74.00	22.93	H	3.1
9853.600000	---	42.41	54.00	11.59	H	5.9
9853.600000	53.46	---	74.00	20.54	H	5.9
14426.600000	53.14	---	74.00	20.86	V	11.8
14426.600000	---	46.58	54.00	7.42	V	11.8
14712.200000	55.80	---	74.00	18.20	V	11.3
14712.200000	---	45.36	54.00	8.64	V	11.3
17762.000000	53.36	---	74.00	20.64	H	11.1
17762.000000	---	46.20	54.00	7.80	H	11.1

High Channel: 2480MHz**Common Information**

Project No.: RKSA250820001
EUT Model: R80
Test Mode: Transmitting in BLE-1M High Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 25.5℃
Humidity: 51%
Atmospheric Pressure: 101.1kPa
Test Engineer: Destine Hu
Test Date: 2025/9/2

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
4539.400000	---	32.22	54.00	21.78	H	-4.1
4539.400000	43.32	---	74.00	30.68	H	-4.1
7585.800000	---	39.92	54.00	14.08	V	3.0
7585.800000	50.78	---	74.00	23.22	V	3.0
14011.800000	---	47.03	54.00	6.97	H	11.1
14011.800000	53.71	---	74.00	20.29	H	11.1
15011.400000	---	45.11	54.00	8.89	H	10.2
15011.400000	55.58	---	74.00	18.42	H	10.2
17014.000000	---	45.73	54.00	8.27	V	10.9
17014.000000	52.84	---	74.00	21.16	V	10.9
17796.000000	52.70	---	74.00	21.30	V	11.2
17796.000000	---	45.68	54.00	8.32	V	11.2

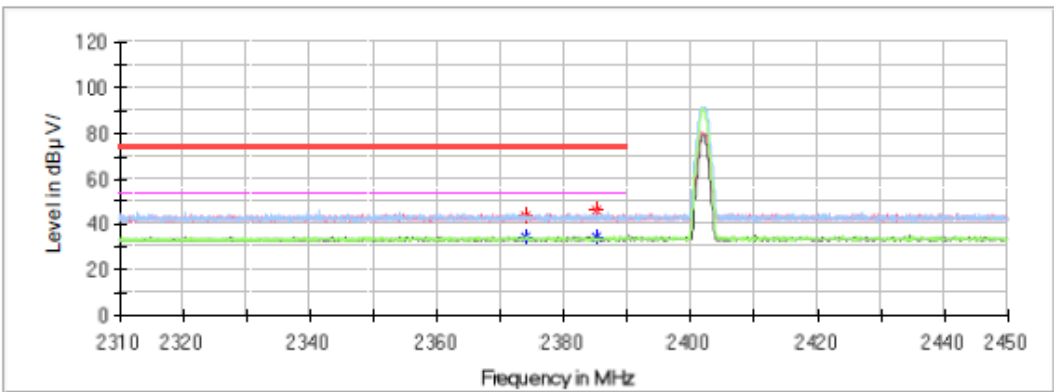
Band Edge:

Low Channel

Common Information

Project No.: RKSA250820001
EUT Model: R80
Test Mode: Transmitting in BLE-1M Low Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 25.5℃
Humidity: 51%
Atmospheric Pressure: 101.1kPa
Test Engineer: Destine Hu
Test Date: 2025/9/2

Full Spectrum



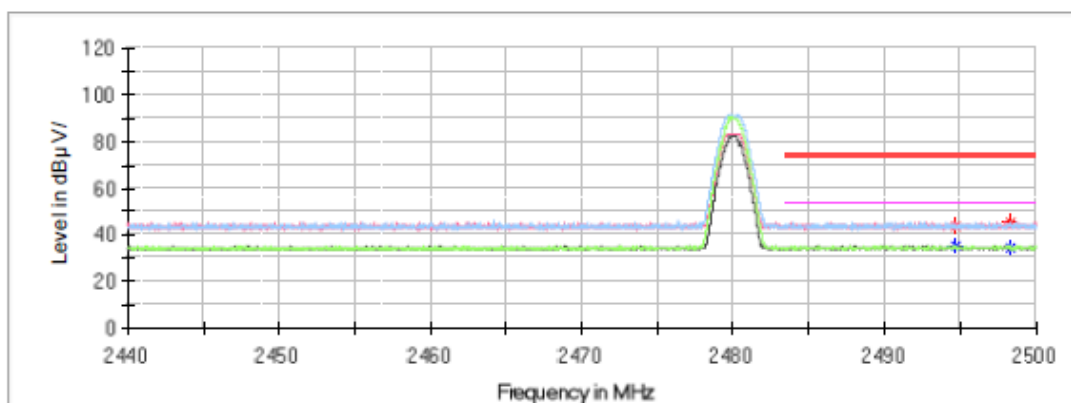
Critical Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2374.008000	---	34.67	54.00	19.33	H	0.2
2374.008000	44.03	---	74.00	29.97	H	0.2
2385.096000	---	34.05	54.00	19.95	V	0.2
2385.096000	46.06	---	74.00	27.94	V	0.2

High Channel**Common Information**

Project No.: RKSA250820001
EUT Model: R80
Test Mode: Transmitting in BLE-1M High Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 25.5°C
Humidity: 51%
Atmospheric Pressure: 101.1kPa
Test Engineer: Destine Hu
Test Date: 2025/9/2

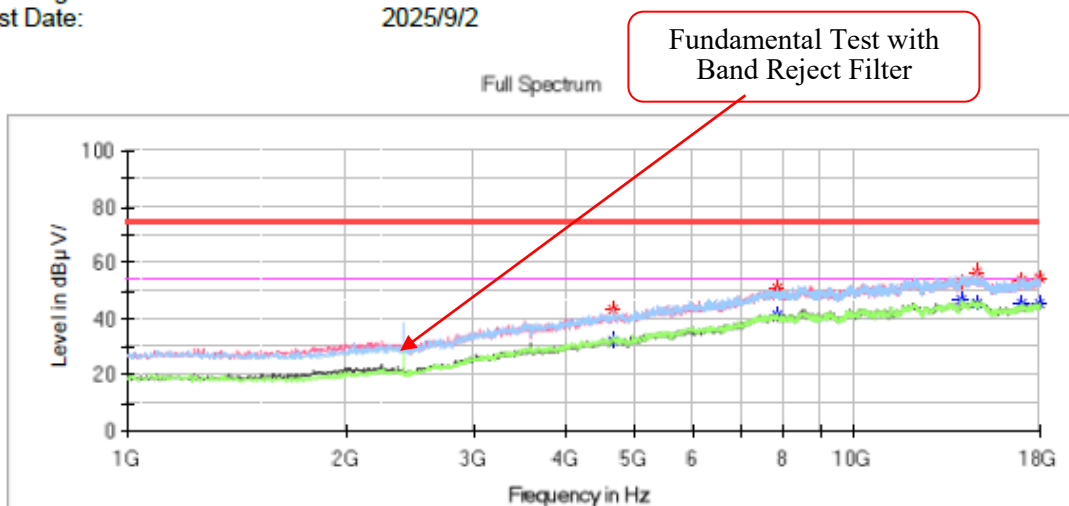
Full Spectrum

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2494.648000	---	35.51	54.00	18.49	H	0.4
2494.648000	43.41	---	74.00	30.59	H	0.4
2498.344000	---	34.54	54.00	19.46	V	0.4
2498.344000	45.53	---	74.00	28.47	V	0.4

BLE (2 Mbps)**1GHz-18GHz:****Low Channel: 2402MHz****Common Information**

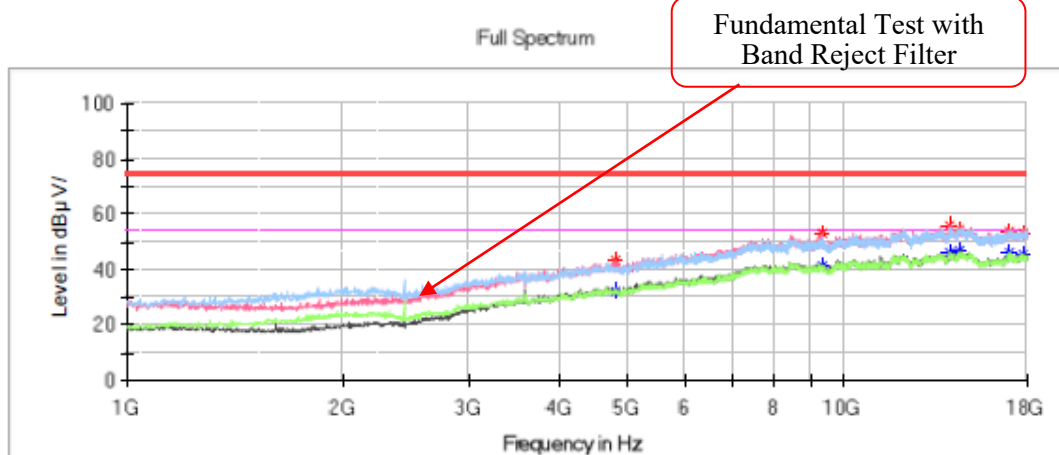
Project No.: RKSA250820001
 EUT Model: R80
 Test Mode: Transmitting in BLE-2M Low Channel
 Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
 Test Equipment: ESU40,3115,PAM-0118P
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Temperature: 25.5℃
 Humidity: 51%
 Atmospheric Pressure: 101.1kPa
 Test Engineer: Destine Hu
 Test Date: 2025/9/2

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
4661.800000	---	32.48	54.00	21.52	H	-3.8
4661.800000	43.09	---	74.00	30.91	H	-3.8
7857.800000	---	40.91	54.00	13.09	H	3.2
7857.800000	51.29	---	74.00	22.71	H	3.2
14086.600000	---	46.69	54.00	7.31	H	11.2
14086.600000	53.39	---	74.00	20.61	H	11.2
14800.600000	---	45.15	54.00	8.85	V	11.0
14800.600000	56.48	---	74.00	17.52	V	11.0
17044.600000	---	45.75	54.00	8.25	H	10.9
17044.600000	53.53	---	74.00	20.47	H	10.9
17966.000000	54.65	---	74.00	19.35	V	11.7
17966.000000	---	45.67	54.00	8.33	V	11.7

Middle Channel: 2440MHz**Common Information**

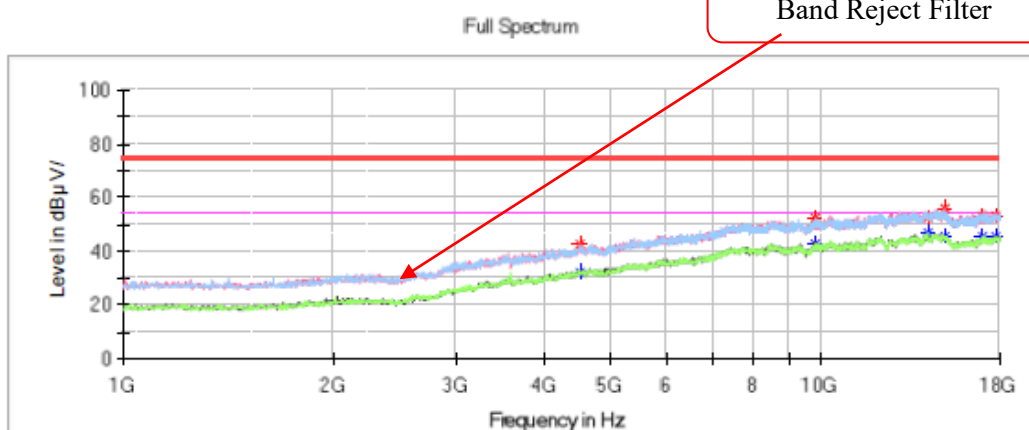
Project No.: RKSA250820001
EUT Model: R80
Test Mode: Transmitting in BLE-2M Middle Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 25.5°C
Humidity: 51%
Atmospheric Pressure: 101.1kPa
Test Engineer: Destine Hu
Test Date: 2025/9/2

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μV/m)	Average (dB μV/m)	Limit (dB μV/m)	Margin (dB)	Pol	Corr. (dB/m)
4791.000000	---	32.35	54.00	21.65	V	-3.4
4791.000000	43.13	---	74.00	30.87	V	-3.4
9306.200000	---	41.60	54.00	12.40	V	4.7
9306.200000	52.81	---	74.00	21.19	V	4.7
14025.400000	55.62	---	74.00	18.38	H	11.1
14025.400000	---	45.83	54.00	8.17	H	11.1
14525.200000	54.37	---	74.00	19.63	V	11.9
14525.200000	---	47.17	54.00	6.83	V	11.9
17044.600000	---	45.93	54.00	8.07	V	10.9
17044.600000	53.82	---	74.00	20.18	V	10.9
17789.200000	53.18	---	74.00	20.82	V	11.2
17789.200000	---	45.78	54.00	8.22	V	11.2

High Channel: 2480MHz**Common Information**

Project No.: RKSA250820001
 EUT Model: R80
 Test Mode: Transmitting in BLE-2M High Channel
 Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
 Test Equipment: ESU40,3115,PAM-0118P
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Temperature: 25.5℃
 Humidity: 51%
 Atmospheric Pressure: 101.1kPa
 Test Engineer: Destine Hu
 Test Date: 2025/9/2



Fundamental Test with
Band Reject Filter

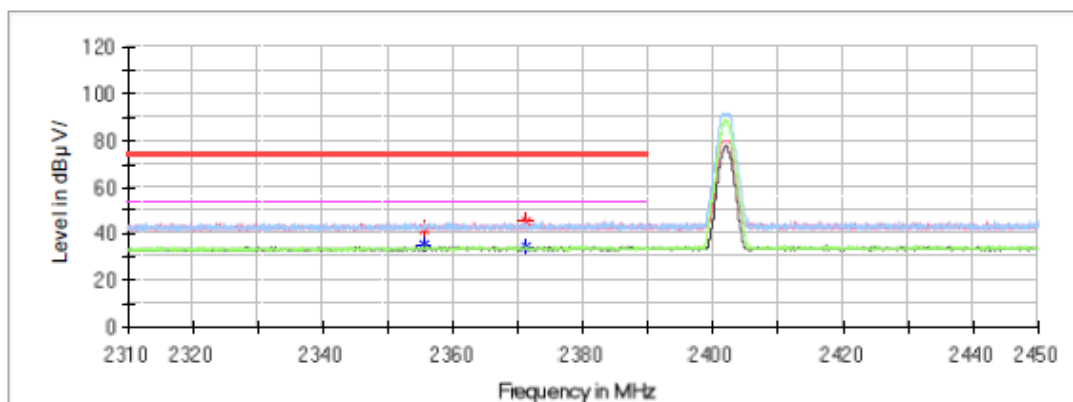
Critical Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
4505.400000	---	32.18	54.00	21.82	V	-4.2
4505.400000	42.89	---	74.00	31.11	V	-4.2
9819.600000	---	42.52	54.00	11.48	V	5.8
9819.600000	52.75	---	74.00	21.25	V	5.8
14212.400000	52.54	---	74.00	21.46	H	11.5
14212.400000	---	46.56	54.00	7.44	H	11.5
15048.800000	56.19	---	74.00	17.81	H	10.1
15048.800000	---	45.52	54.00	8.48	H	10.1
17003.800000	52.82	---	74.00	21.18	V	11.0
17003.800000	---	45.77	54.00	8.23	V	11.0
17779.000000	53.43	---	74.00	20.57	H	11.2
17779.000000	---	45.50	54.00	8.50	H	11.2

Band Edge:**Low Channel****Common Information**

Project No.: RKSA250820001
EUT Model: R80
Test Mode: Transmitting in BLE-2M Low Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 25.5℃
Humidity: 51%
Atmospheric Pressure: 101.1kPa
Test Engineer: Destine Hu
Test Date: 2025/9/2

Full Spectrum

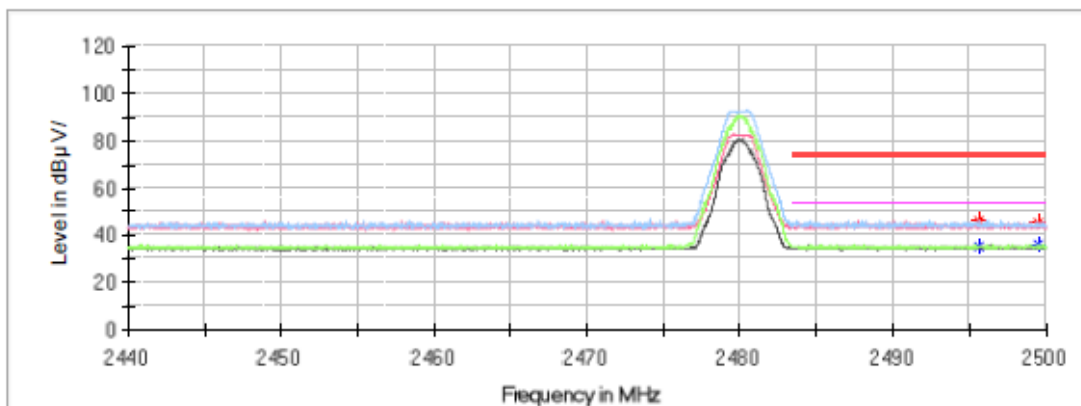
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2355.640000	---	34.90	54.00	19.10	V	0.2
2355.640000	42.08	---	74.00	31.92	V	0.2
2371.264000	---	34.03	54.00	19.97	H	0.2
2371.264000	45.40	---	74.00	28.60	H	0.2

High Channel**Common Information**

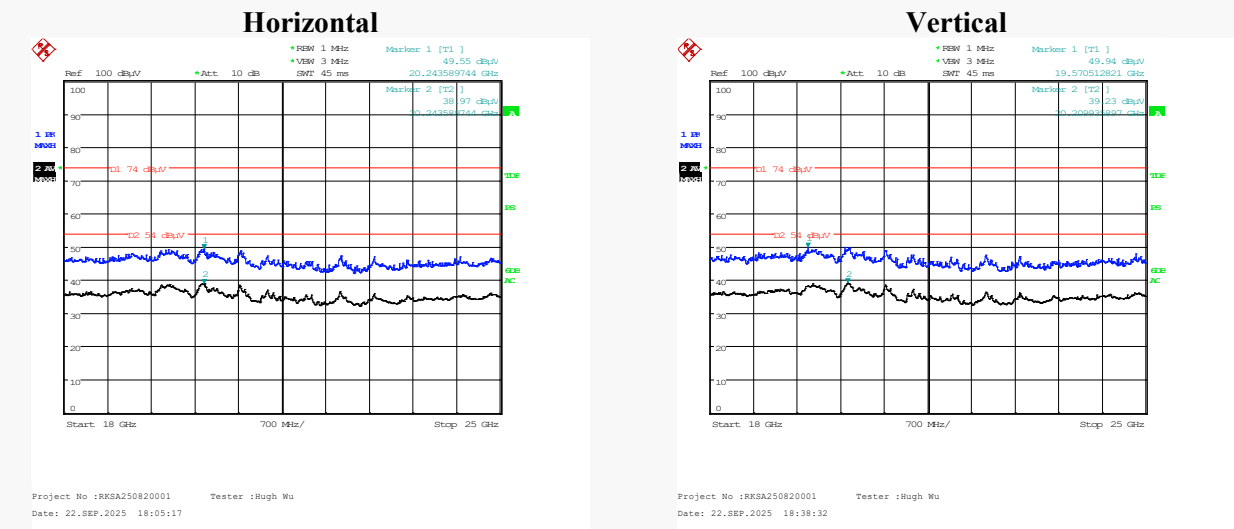
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EUT Model: R80
Test Mode: Transmitting in BLE-2M High Channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 25.5°C
Humidity: 51%
Atmospheric Pressure: 101.1kPa
Test Engineer: Destine Hu
Test Date: 2025/9/2

Full Spectrum

**Critical Freqs**

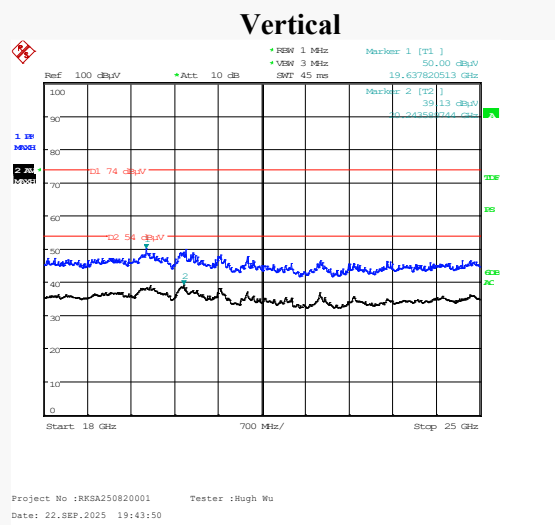
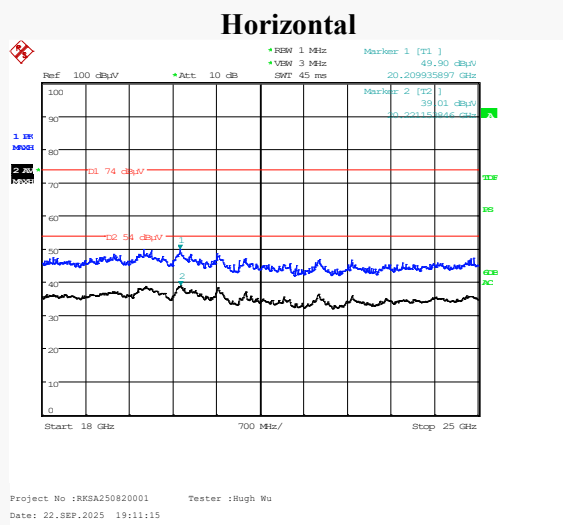
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2495.560000	46.47	---	74.00	27.53	H	0.4
2495.560000	---	34.93	54.00	19.07	H	0.4
2499.472000	45.48	---	74.00	28.52	H	0.4
2499.472000	---	36.01	54.00	17.99	H	0.4

18GHz-25GHz: Transmitting in maximum output power mode and BLE 1M low channel



Frequency (GHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
20.21	---	39.23	54	14.77	V	12.47
19.57	49.94	---	74	24.06	V	11.04
20.24	---	38.97	54	15.03	H	12.5
20.24	49.55	---	74	24.45	H	12.5

Note: The test distance is 3m. The limit is 74dBμV/m(Peak) and 54dBμV/m(Average).

18GHz-25GHz: Transmitting in maximum output power mode and BLE 2M low channel

Frequency (GHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
20.24	---	39.13	54	14.87	V	12.5
19.64	50.00	---	74	24	V	11.23
20.22	---	39.01	54	14.99	H	12.48
20.21	49.9	---	74	24.1	H	12.47

Note: The test distance is 3m. The limit is 74dB μ V/m(Peak) and 54dB μ V/m(Average).

6 dB EMISSION BANDWIDTH**Environmental Conditions & Test Information**

Test Date:	2025-09-18 to 2025-09-20
Temperature:	24-26.5 °C
Relative Humidity:	51-55 %
ATM Pressure:	100.2-101.5 kPa
Test Engineer:	Neil Zhou

Test Result: Compliant.*EUT operation mode: Transmitting***For Wi-Fi Mode:**

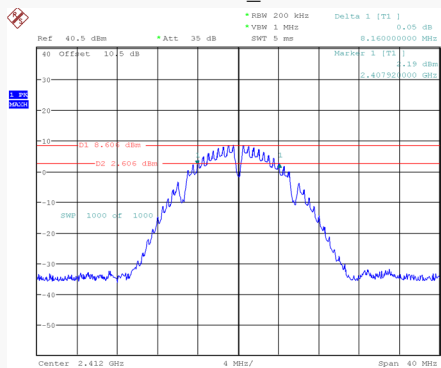
Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	Limit (MHz)	Result
802.11b Mode				
Low	2412	8.160	≥ 0.5	Pass
Middle	2437	8.680	≥ 0.5	Pass
High	2462	8.640	≥ 0.5	Pass
802.11g Mode				
Low	2412	15.840	≥ 0.5	Pass
Middle	2437	16.280	≥ 0.5	Pass
High	2462	15.760	≥ 0.5	Pass
802.11n-HT20 Mode				
Low	2412	16.880	≥ 0.5	Pass
Middle	2437	17.440	≥ 0.5	Pass
High	2462	16.560	≥ 0.5	Pass
802.11n-HT40 Mode				
Low	2422	32.080	≥ 0.5	Pass
Middle	2437	36.640	≥ 0.5	Pass
High	2452	27.600	≥ 0.5	Pass

For BLE Mode:

Mode	Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	Limit (MHz)	Result
BLE (1 Mbps)	Low	2402	0.672	≥ 0.5	Pass
	Middle	2440	0.676	≥ 0.5	Pass
	High	2480	0.676	≥ 0.5	Pass
BLE (2 Mbps)	Low	2402	1.176	≥ 0.5	Pass
	Middle	2440	1.176	≥ 0.5	Pass
	High	2480	1.182	≥ 0.5	Pass

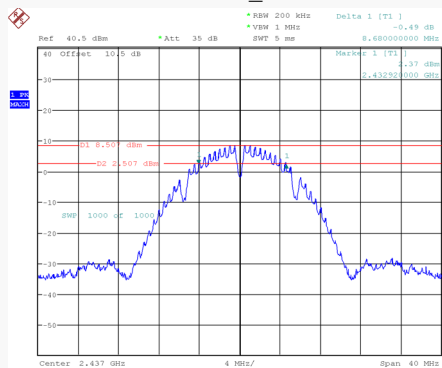
For Wi-Fi Mode:

802.11b_2412MHz



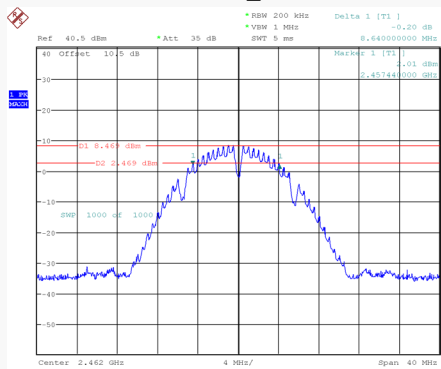
ProjectNo.:RKSA250820001 Tester:Neil Zhou
Date: 20.SEP.2025 10:53:25

802.11b_2437MHz



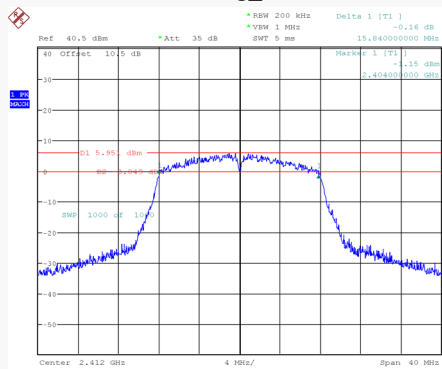
ProjectNo.:RKSA250820001 Tester:Neil Zhou
Date: 20.SEP.2025 11:12:19

802.11b_2462MHz



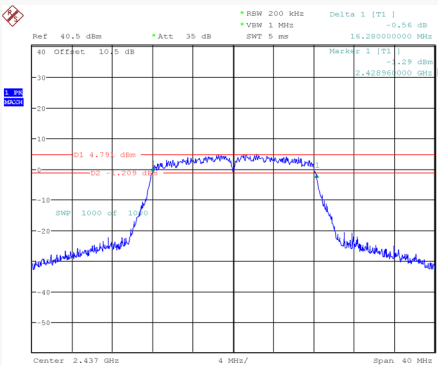
ProjectNo.:RKSA250820001 Tester:Neil Zhou
Date: 20.SEP.2025 11:25:03

802.11g_2412MHz



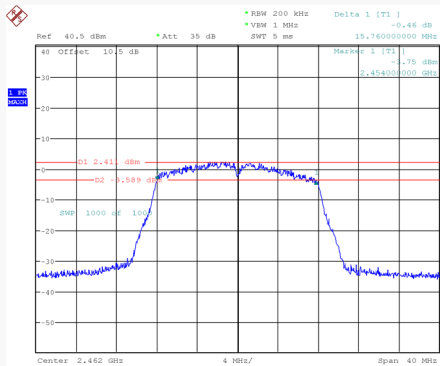
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Date: 20.SEP.2025 11:35:59

802.11g_2437MHz



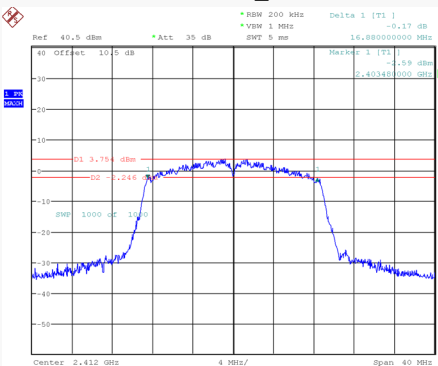
ProjectNo.:RKSA250820001 Tester:Neil Zhou
Date: 20.SEP.2025 11:49:47

802.11g_2462MHz



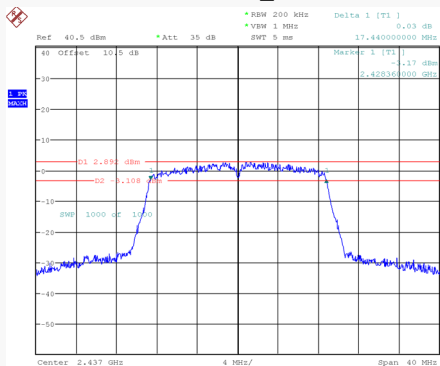
ProjectNo.:RKSA250820001 Tester:Neil Zhou
Date: 20.SEP.2025 13:08:46

802.11n20_2412MHz



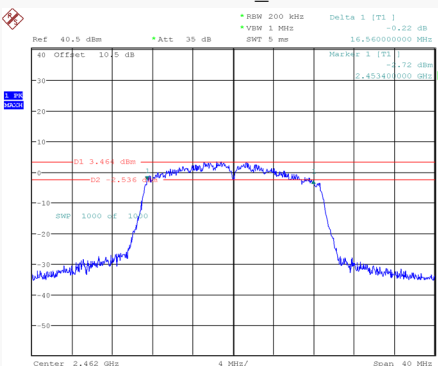
ProjectNo.:RKSA250820001 Tester:Neil Zhou
Date: 20.SEP.2025 13:23:38

802.11n20_2437MHz



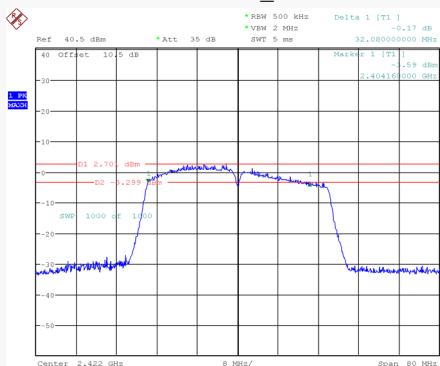
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Date: 20.SEP.2025 13:37:55

802.11n20_2462MHz



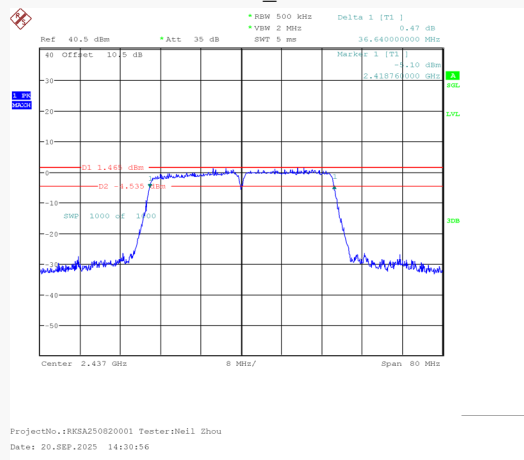
ProjectNo.:RKSA250820001 Tester:Neil Zhou
Date: 20.SEP.2025 13:52:03

802.11n40_2422MHz

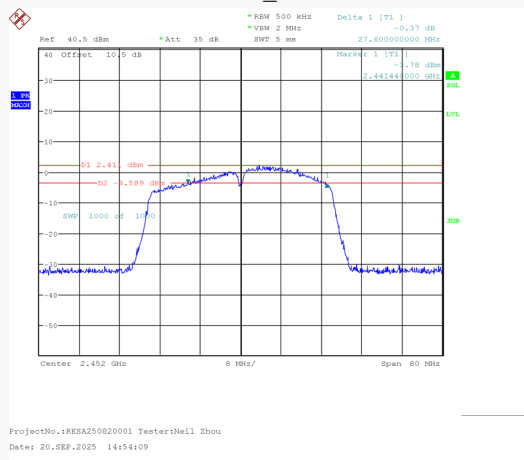


ProjectNo.:RKSA250820001 Tester:Neil Zhou
Date: 20.SEP.2025 14:08:53

802.11n40_2437MHz

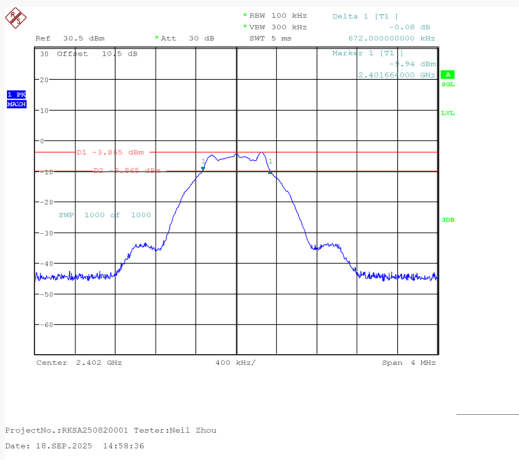


802.11n40_2452MHz

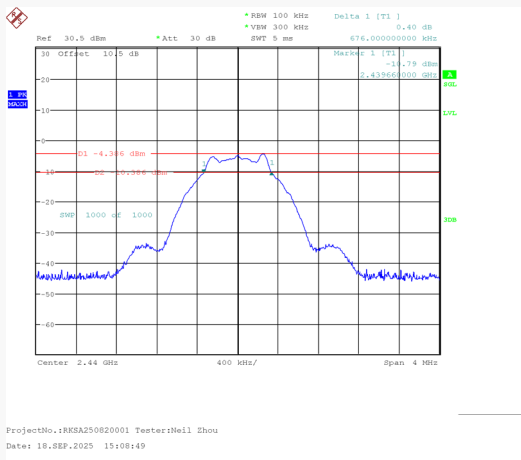


For BLE Mode:
BLE (1 Mbps)

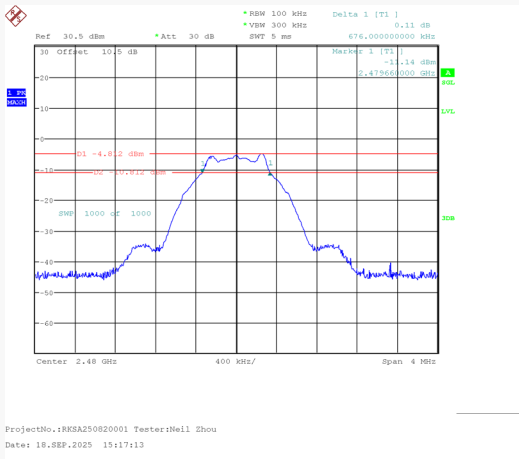
Low Channel



Middle Channel

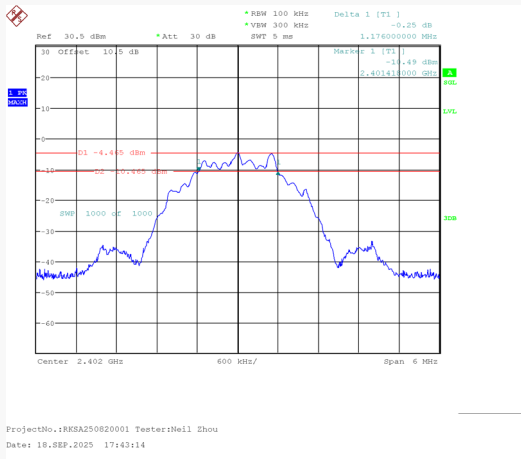


High Channel

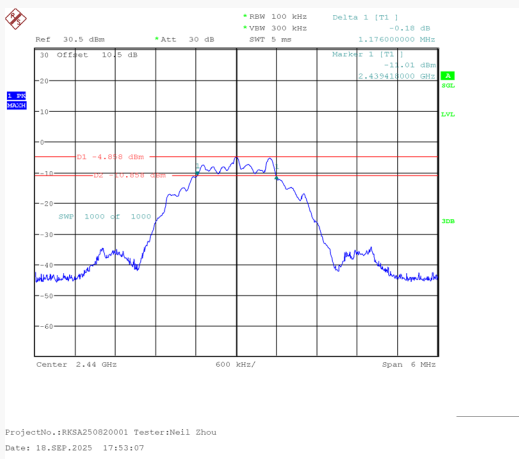


BLE (2 Mbps)

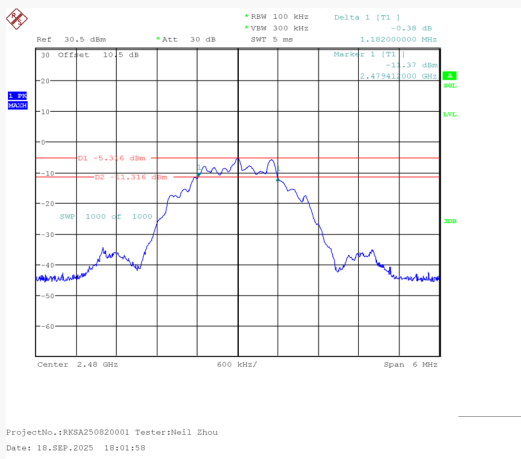
Low Channel



Middle Channel



High Channel



MAXIMUM CONDUCTED OUTPUT POWER**Environmental Conditions & Test Information**

Test Date:	2025-09-18
Temperature:	24 °C
Relative Humidity:	51 %
ATM Pressure:	100.2 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

Test Result: Compliant.

EUT operation mode: Transmitting

For Wi-Fi Mode:

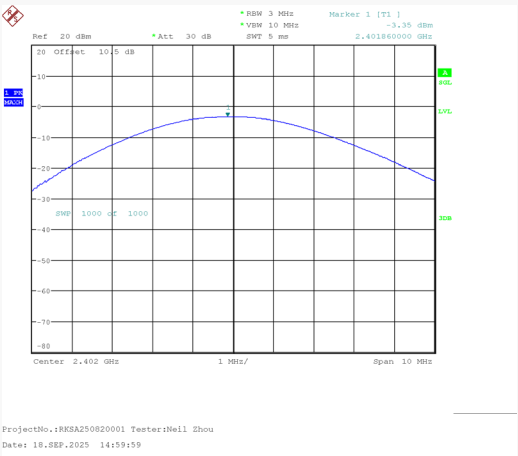
Channel	Frequency (MHz)	Average Output Power(dBm)	Peak Output Power(dBm)	Peak Output Power Limit (dBm)
802.11b Mode				
Low	2412	13.547	15.839	≤30
Middle	2437	13.889	16.089	≤30
High	2462	13.534	15.758	≤30
802.11g Mode				
Low	2412	11.474	19.738	≤30
Middle	2437	11.780	19.851	≤30
High	2462	9.136	18.864	≤30
802.11n-HT20 Mode				
Low	2412	9.765	19.747	≤30
Middle	2437	9.864	19.773	≤30
High	2462	9.604	19.287	≤30
802.11n-HT40 Mode				
Low	2422	7.619	18.742	≤30
Middle	2437	7.658	18.569	≤30
High	2452	7.315	18.010	≤30

BLE Mode:

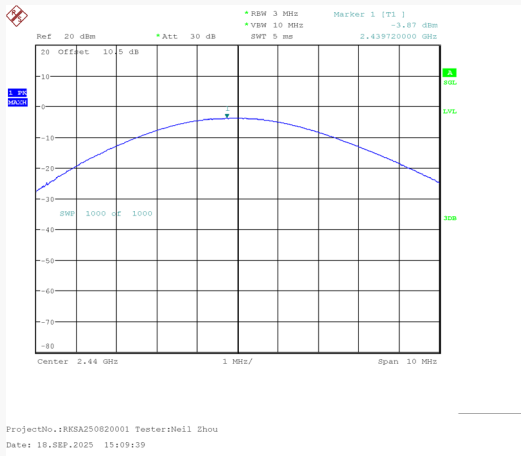
Mode	Channel	Frequency (MHz)	Max Conducted Peak Output Power (dBm)	Limit (dBm)	Result
BLE (1 Mbps)	Low	2402	-3.35	≤30	Pass
	Middle	2440	-3.87	≤30	Pass
	High	2480	-4.28	≤30	Pass
BLE (2 Mbps)	Low	2402	-3.27	≤30	Pass
	Middle	2440	-3.69	≤30	Pass
	High	2480	-4.14	≤30	Pass

BLE (1 Mbps)

Low Channel

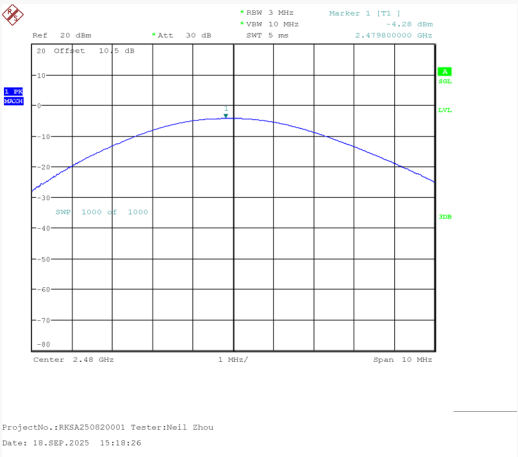


Middle Channel

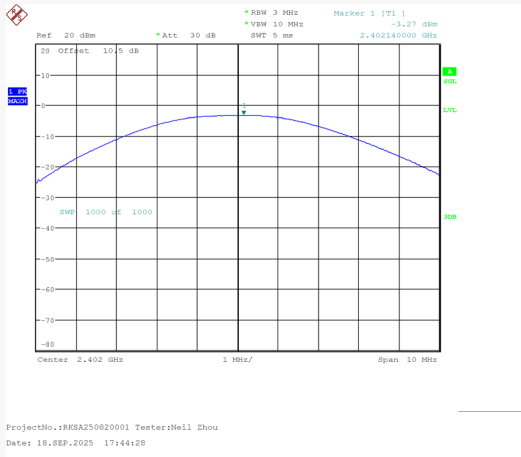


BLE (2 Mbps)

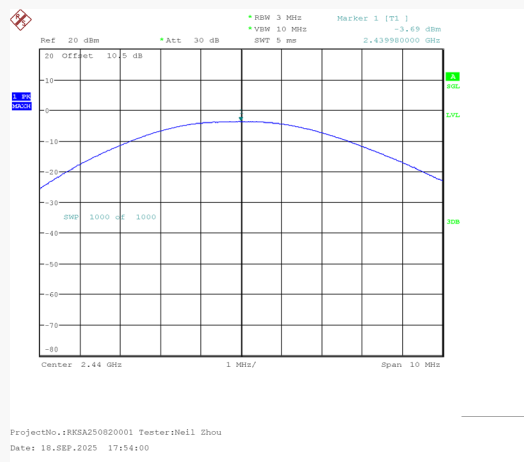
High Channel



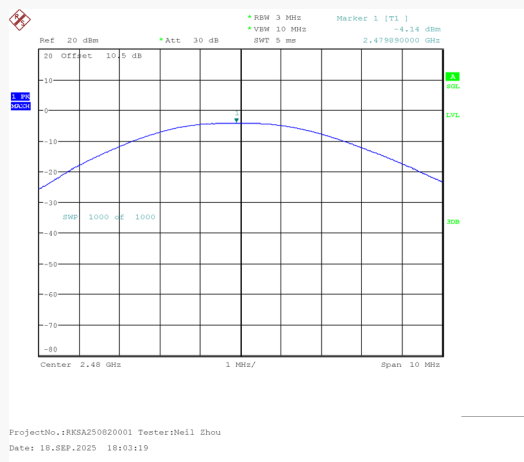
Low Channel



Middle Channel



High Channel



100 KHZ BANDWIDTH OF FREQUENCY BAND EDGE**Environmental Conditions & Test Information**

Test Date:	2025-09-18 to 2025-09-20
Temperature:	24-26.5 °C
Relative Humidity:	51-55 %
ATM Pressure:	100.2-101.5 kPa
Test Engineer:	Neil Zhou

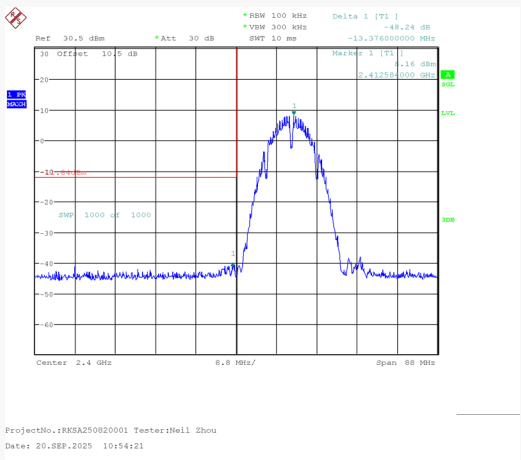
*EUT operation mode: Transmitting***Test Result:** Compliant

Mode	Channel	Test Frequency (MHz)	Result (dB)	Limit (dB)
802.11b	Low	2412	48.24	20
	High	2462	50.07	20
802.11g	Low	2412	34.65	20
	High	2462	42.81	20
802.11n20	Low	2412	38.53	20
	High	2462	43.17	20
802.11n40	Low	2422	36.26	20
	High	2452	38.66	20

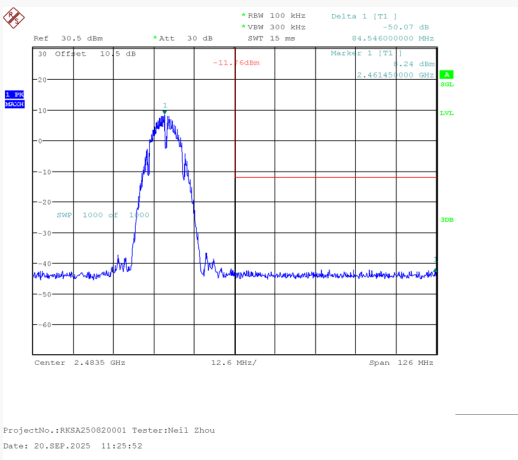
Mode	Channel	Frequency (MHz)	Result (dB)	Limit (dB)
BLE (1 Mbps)	Low	2402	40.36	20
	High	2480	39.86	
BLE (2 Mbps)	Low	2402	30.40	20
	High	2480	38.73	

For Wi-Fi Mode:

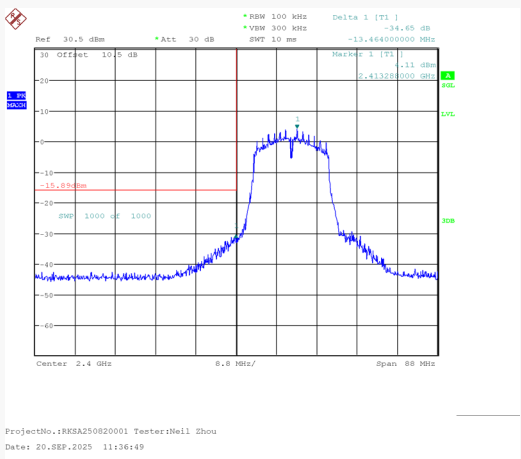
802.11b Mode Left Side



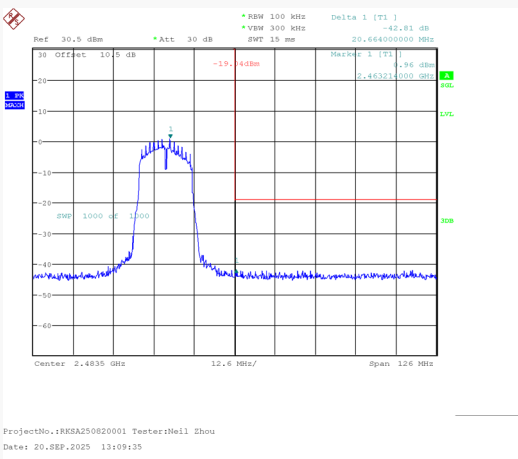
802.11b Mode Right Side



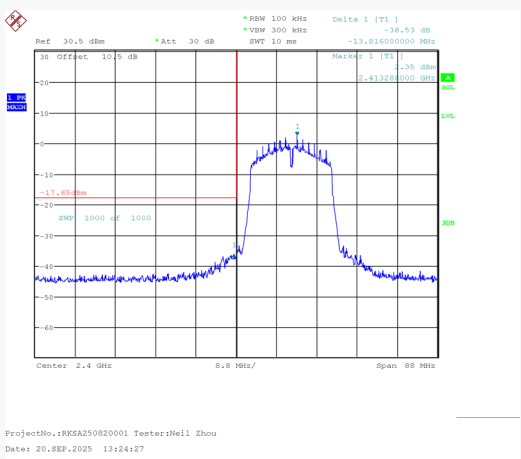
802.11g Mode Left Side



802.11g Mode Right Side



802.11n-HT20 Mode Left Side



802.11n-HT20 Mode Right Side

