

FCC PART 15.247

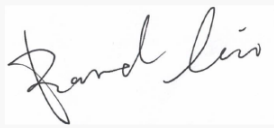
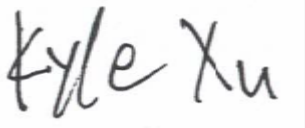
TEST REPORT

For

WISEASY TECHNOLOGY PTE. LTD.

70 Anson Road, #18-02, Hub Synergy Point, Singapore 079905

FCC ID: 2BFPOP5LPINPAD

Report Type: Original Report	Product Name: Retail Smart PIN Pad
Report Number: <u>RKSA250411002-00A</u>	
Report Date: <u>2025-07-14</u>	
Reviewed By: <u>Bard Liu</u>	
Approved By: <u>Kyle Xu</u>	
Test Laboratory: Bay Area Compliance Laboratories Corp. (Kunshan) No.248 Chenghu Road, Kunshan, Jiangsu Province, China Tel: +86-512-86175000 Fax: +86-512-88934268 www.baclcorp.com.cn	

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	RKSA250411002-00A	R1V1	2025-07-14	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant	WISEASY TECHNOLOGY PTE. LTD.
Tested Model	P5L-PINPad
Product Name	Retail Smart PIN Pad
Power Supply	DC 5V powered by adapter
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): 2402-2480 MHz
Maximum Peak Output Power:	2.4G Wi-Fi: 802.11b: 18.76 dBm 802.11g: 19.21 dBm 802.11n20: 18.33 dBm 802.11n40: 17.6 dBm BLE(1 Mbps): 6.72 dBm
Channel Number:	2.4G Wi-Fi: 11(802.11b/g/n20), 7(802.11n40) BLE(1Mbps): 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:	0.69 dBi

Adapter Information:

Model: TPA-418G050200UU01

Input: 100-240V, 50/60Hz, 0.3A

Output: 5.0V, 2.0A 10.0W

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: RKSA250411002-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2025-04-11.)

Objective

This report is prepared for *WISEASY TECHNOLOGY PTE. 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	/	/

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

RF test software: engineering mode

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

Mode	Data Rate	★Power Level
802.11b	1 Mbps	15
802.11g	6 Mbps	18
802.11n-HT20	MCS0	17
802.11n-HT40	MCS0	14
BLE(1Mbps)	1Mbps	Default

Note: The power level was declared by the applicant.

Environmental Conditions & Test Information

Test Date:	2025-04-25 to 2025-07-09
Temperature:	25.7-26.5℃
Relative Humidity:	49-52 %
ATM Pressure:	102.1-102.7 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

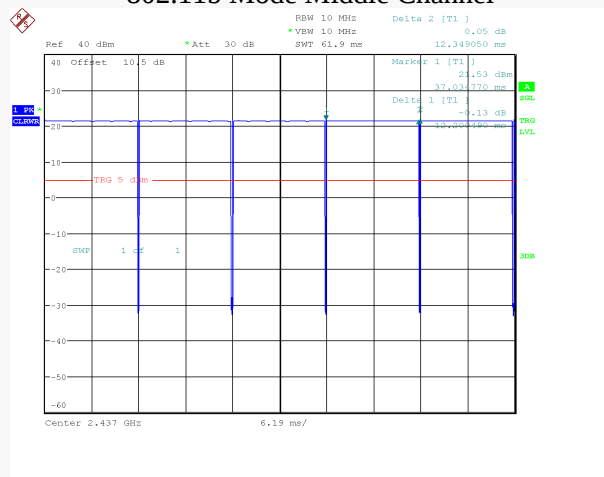
Mode	Duty Cycle (%)	Ton(ms)	Ton+off(ms)	10log(1/x) (dB)
802.11b	98.79	12.200	12.349	/
802.11g	98.12	2.033	2.072	/
802.11n-HT20	97.98	1.887	1.926	0.09
802.11n-HT40	94.69	0.927	0.979	0.24
BLE(1Mbps)	61.90	0.385	0.622	2.08

Note:

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

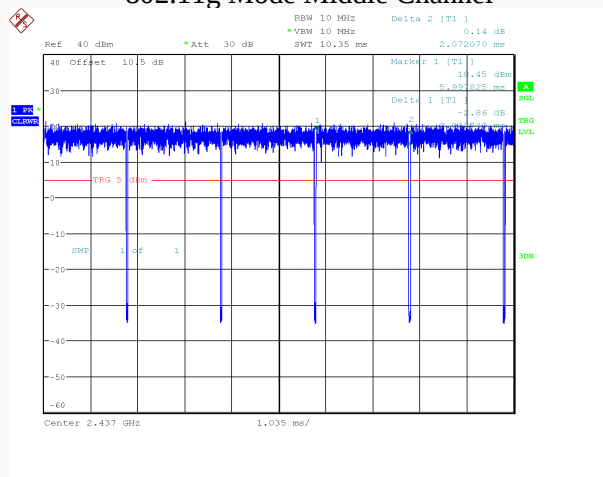
Duty Cycle:

802.11b Mode Middle Channel



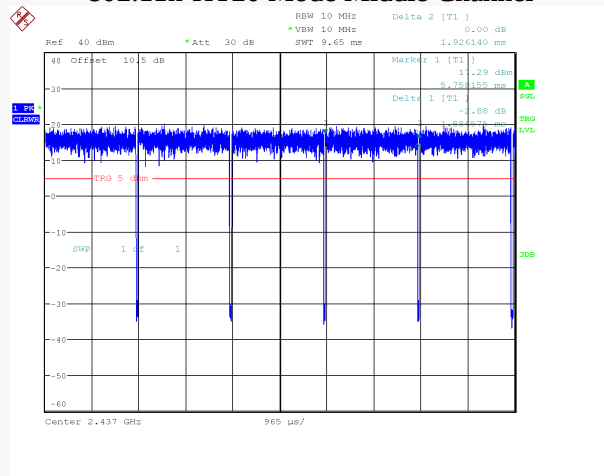
ProjectNo.:RKSA250411002 Tester:Neil Zhou
 Date: 3.JUL.2025 17:30:44

802.11g Mode Middle Channel



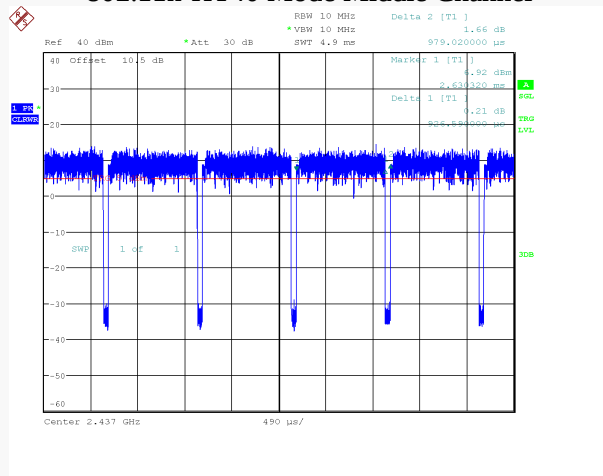
ProjectNo.:RKSA250411002 Tester:Neil Zhou
 Date: 9.JUL.2025 15:52:00

802.11n-HT20 Mode Middle Channel



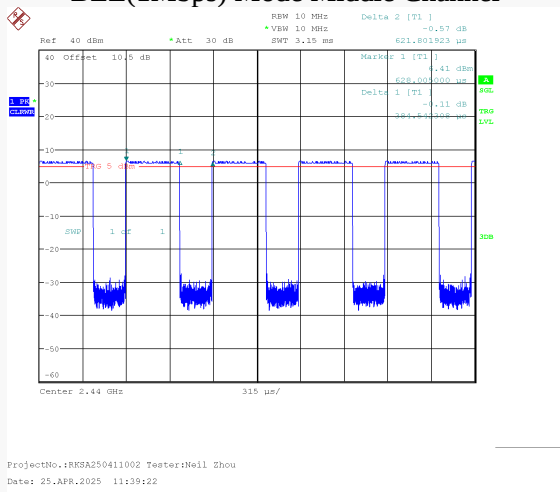
ProjectNo.:RKSA250411002 Tester:Neil Zhou
 Date: 9.JUL.2025 16:35:09

802.11n-HT40 Mode Middle Channel



ProjectNo.:RKSA250411002 Tester:Neil Zhou
 Date: 9.JUL.2025 17:24:50

BLE(1Mbps) Mode Middle Channel



ProjectNo.:RKSA250411002 Tester:Neil Zhou
 Date: 25.APR.2025 11:39:22

Support Equipment List and Details

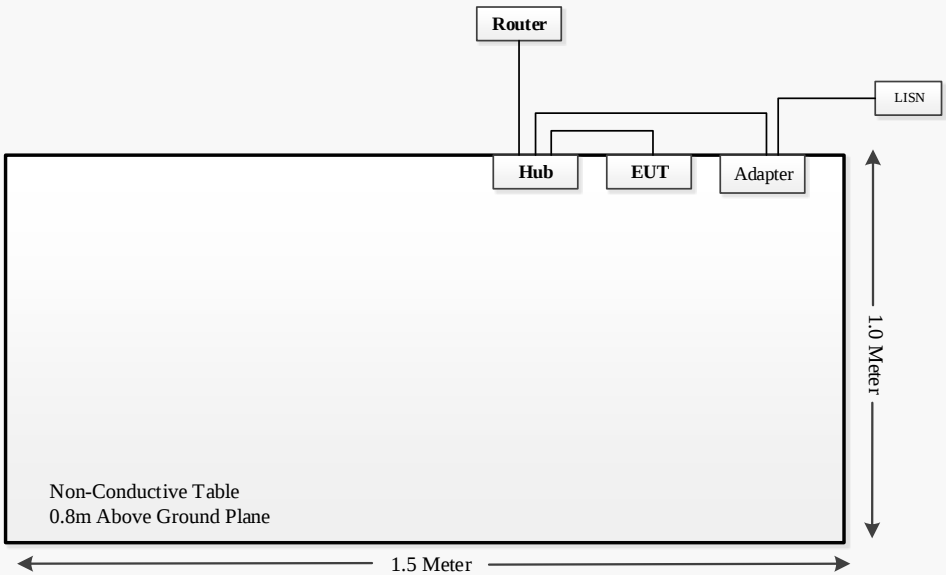
Manufacturer	Description	Model	Serial Number
/	Hub	/	/
TP-LINK	Router	TL-XDR3010	12373X0002080

External I/O Cable

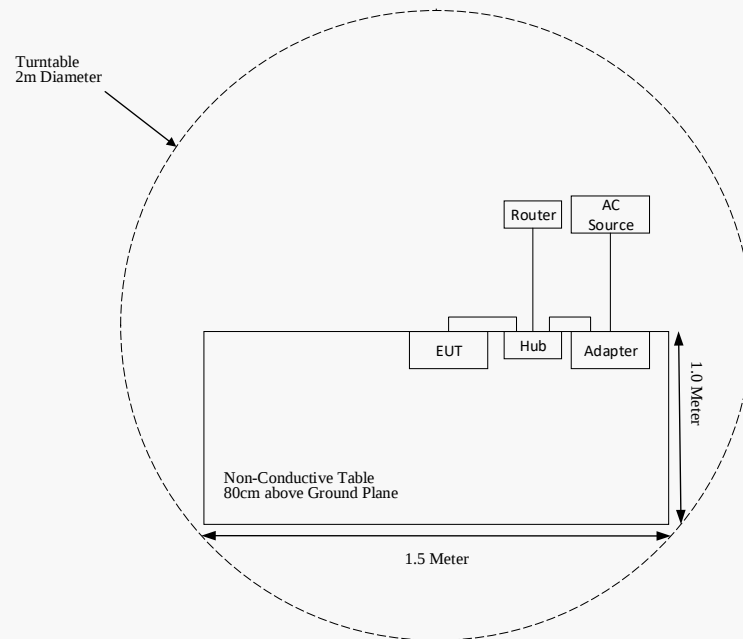
Cable Description	Length (m)	From Port	To Port
Power Cable 1	1.0	Hub	Adapter
Power Cable 2	1.0	Adapter	LISN
Data Cable	0.3	Hub	EUT
RJ45	5.0	Hub	Router

Block Diagram of Test Setup

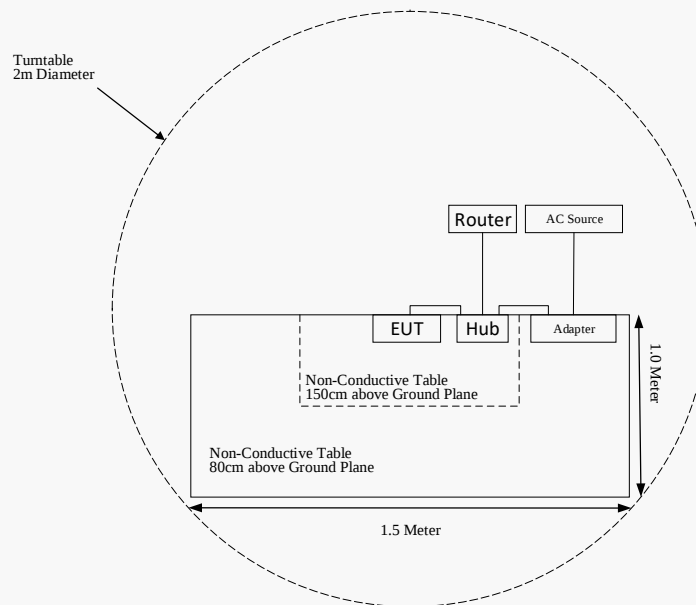
For Conducted Emissions:



For Radiated Emissions (Below 1GHz):



For Radiated Emissions (Above 1GHz):



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1310 & §2.1091	MAXIMUM PERMISSIBLE EXPOSURE (MPE)	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(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	2024-10-29	2027-10-28
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	2024-08-05	2025-08-04
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	2024-07-28	2025-07-27
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 §1.1310 & §2.1091 - MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart §2.1091 and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

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

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm²)	Averaging Time (minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

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

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

Calculated Formulary

Predication of MPE limit at a given distance

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

Calculated Data:

Mode	Frequency Range (MHz)	Antenna Gain		Tune-up Output Power*		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)	MPE ratio
		(dBi)	(numeric)	(dBm)	(mW)				
2.4G Wi-Fi	2412-2462	0.69	1.17	19.5	89.13	20	0.0207	1.00	0.0207
BLE	2402-2480	0.69	1.17	7.0	5.01	20	0.0012	1.00	0.0012
BT	2402-2480	0.69	1.17	10	10	20	0.0023	1.00	0.0023
5G Wi-Fi	5150-5250	0.96	1.25	17.0	50.12	20	0.0125	1.00	0.0125
	5725-5850	1.11	1.29	16.0	39.81	20	0.0102	1.00	0.0102
NFC	13.56	0	1.00	-20.5	0.0089	20	0.000002	0.98	0.000002

Note:

1. For the above tune up power were declared by the manufacturer.
2. For NFC, the power of EUT: E Field@3m is 74.35 dBuV/m = -20.85 dBm EIRP. That equal to antenna gain is 0 dBi and used the EIRP value as conducted power.
3. $E[\text{dB}\mu\text{V/m}] = \text{EIRP}[\text{dBm}] + 95.2$ for $d = 3$ m.
4. NFC and 2.4G Wi-Fi/5G WIFI/BT/BLE can transmit simultaneously.

$$\sum_i \frac{S_i}{S_{\text{Limit},i}}$$

$$= S_{\text{NFC}}/S_{\text{limitNFC}} + S_{2.4\text{G Wi-Fi}}/S_{\text{limit2.4G Wi-Fi}}$$

$$= 0.000002 + 0.0207$$

$$= 0.020702$$

$$< 1.0$$

Result: The device meets MPE at distance 20cm.

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.

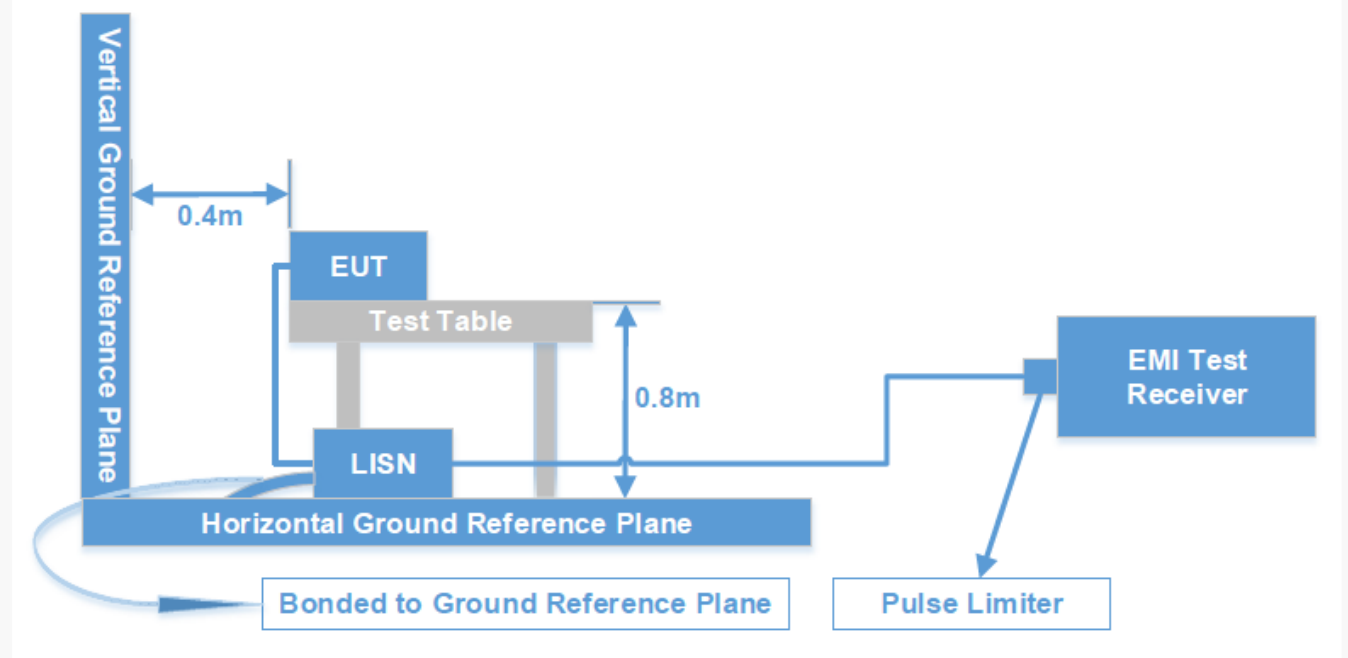
Result: Compliant.

FCC §15.207 (a) - AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207(a)

Test System Setup



The measurement procedure of EUT setup is according with ANSI C63.10-2020. The related limit was specified in FCC Part 15.207.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

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

Frequency Range	RBW	VBW
150 kHz - 30 MHz	9 kHz	30 kHz

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)

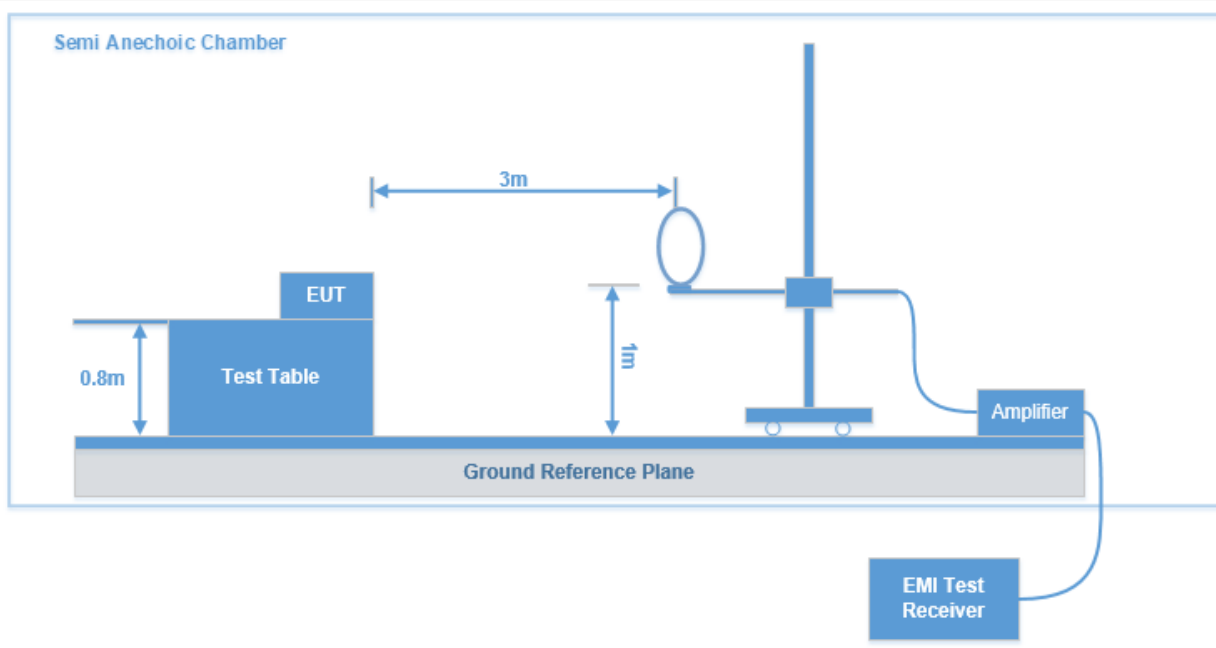
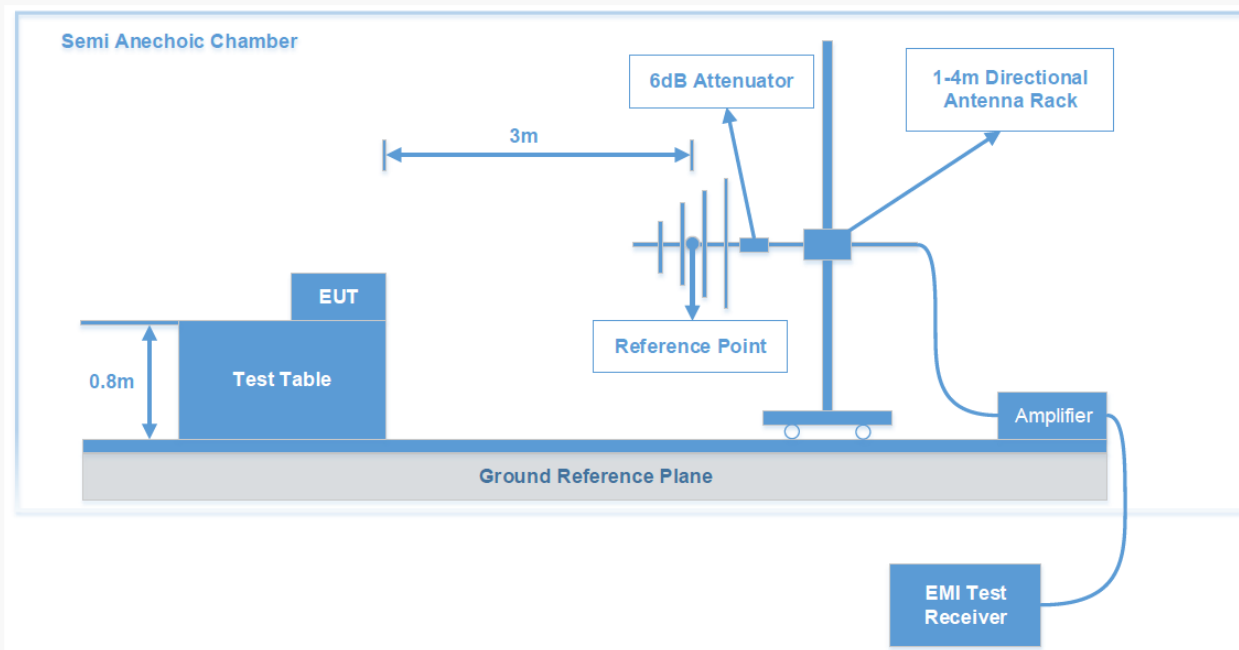
Test Results Summary

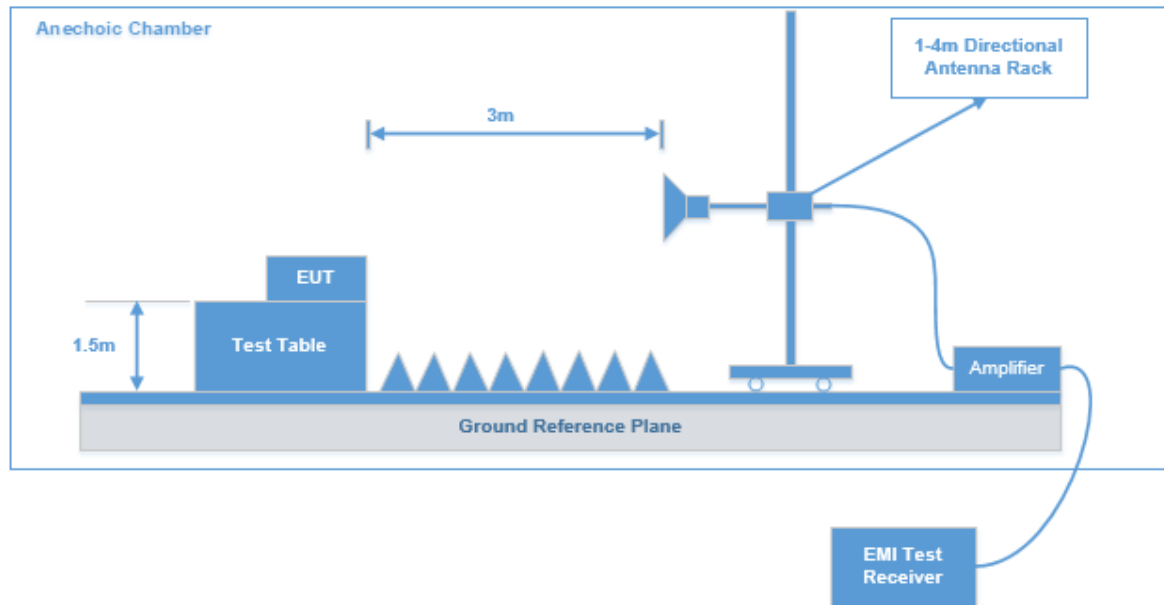
According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

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
9 kHz - 150 kHz	200 Hz	1 kHz	200 Hz	QP/Average
150 kHz - 30 MHz	9 kHz	30 kHz	9 kHz	QP/ Average
30 MHz - 1000 MHz	100 kHz	300 kHz	/	Peak
	/	/	120 kHz	QP
Above 1GHz	1MHz	3 MHz	/	Peak
	1MHz	3 MHz	/	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

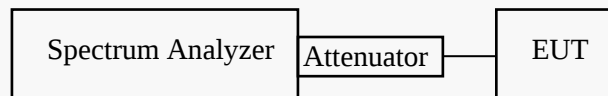
Applicable Standard

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

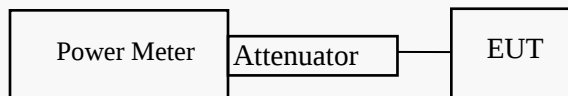
For 2.4G Wi-Fi:

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

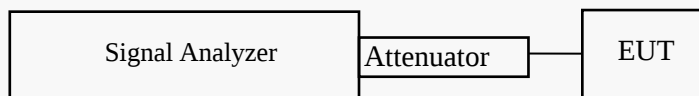
Method AVGPM-G is a measurement using a gated RF average power meter. Alternatively, measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. 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

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)

Test Data: See Appendix

FCC §15.247(E) - POWER SPECTRAL DENSITY

Applicable Standard

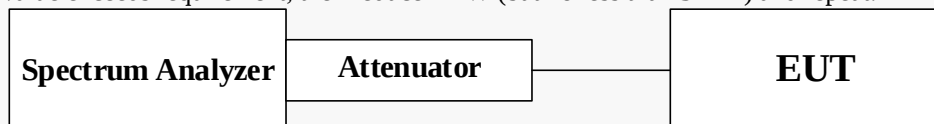
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of 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)

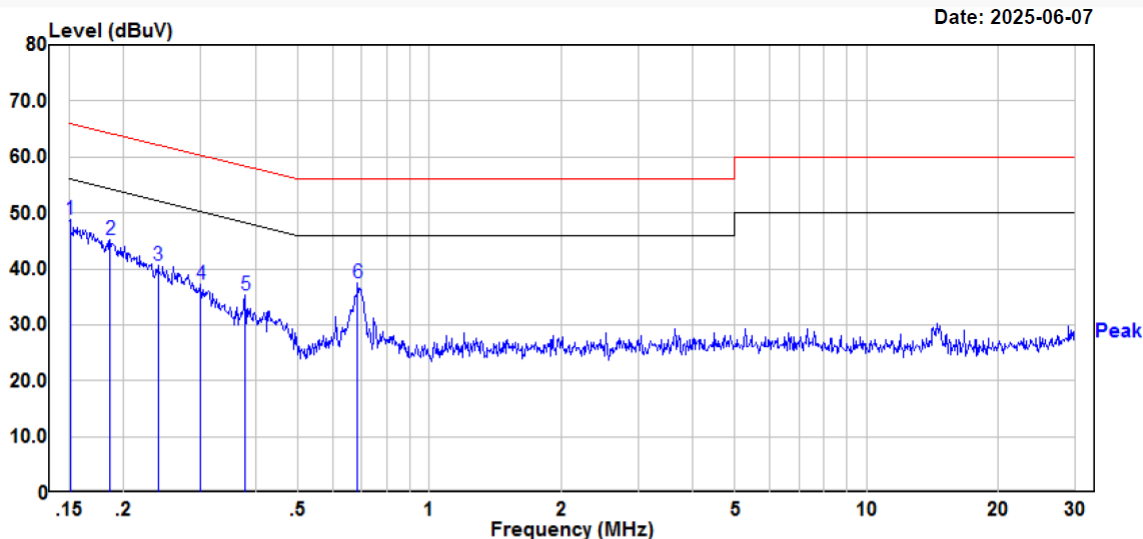
Test Data: See Appendix

APPENDIX - TEST DATA

AC LINE CONDUCTED EMISSIONS

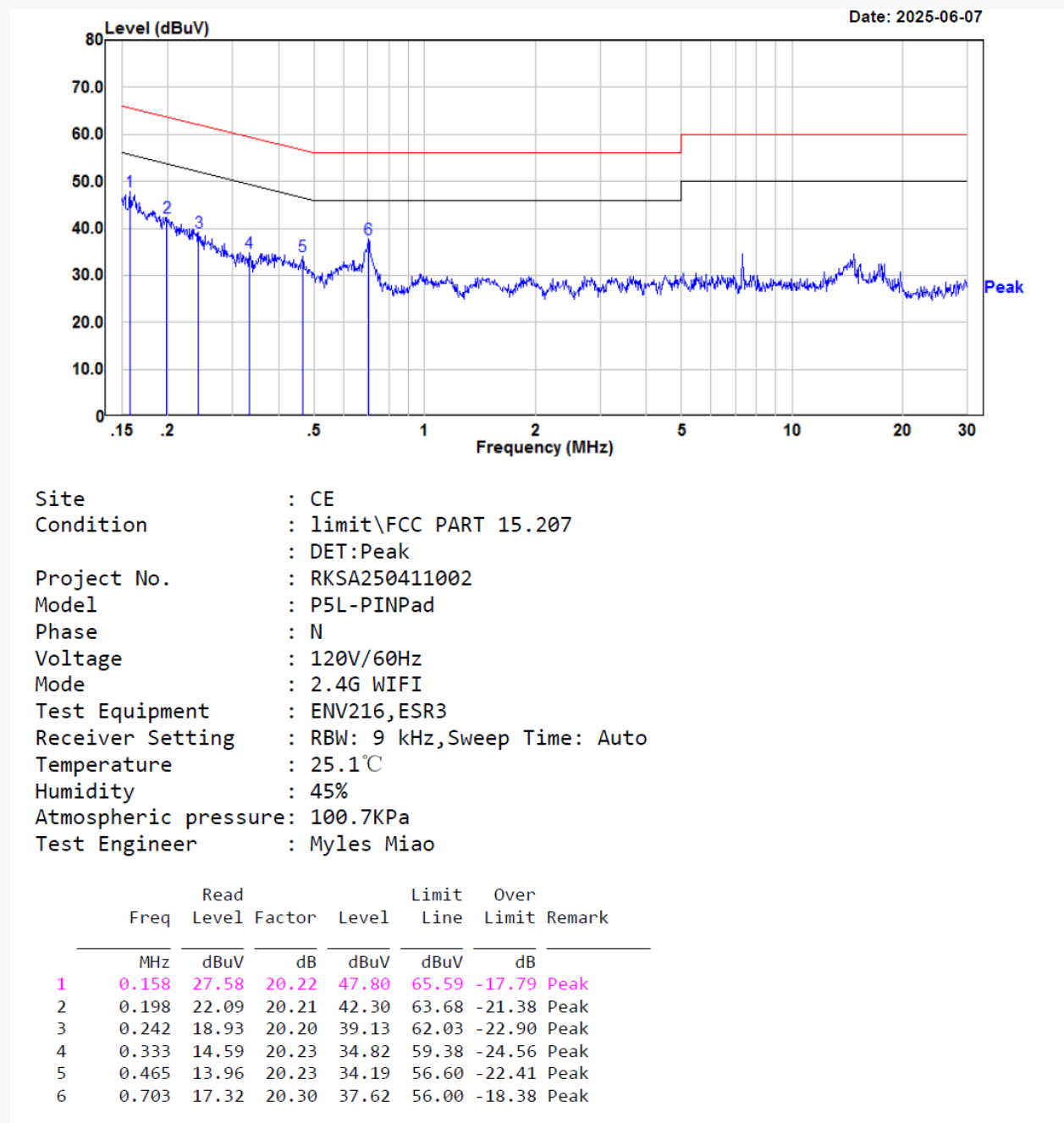
Environmental Conditions & Test Information

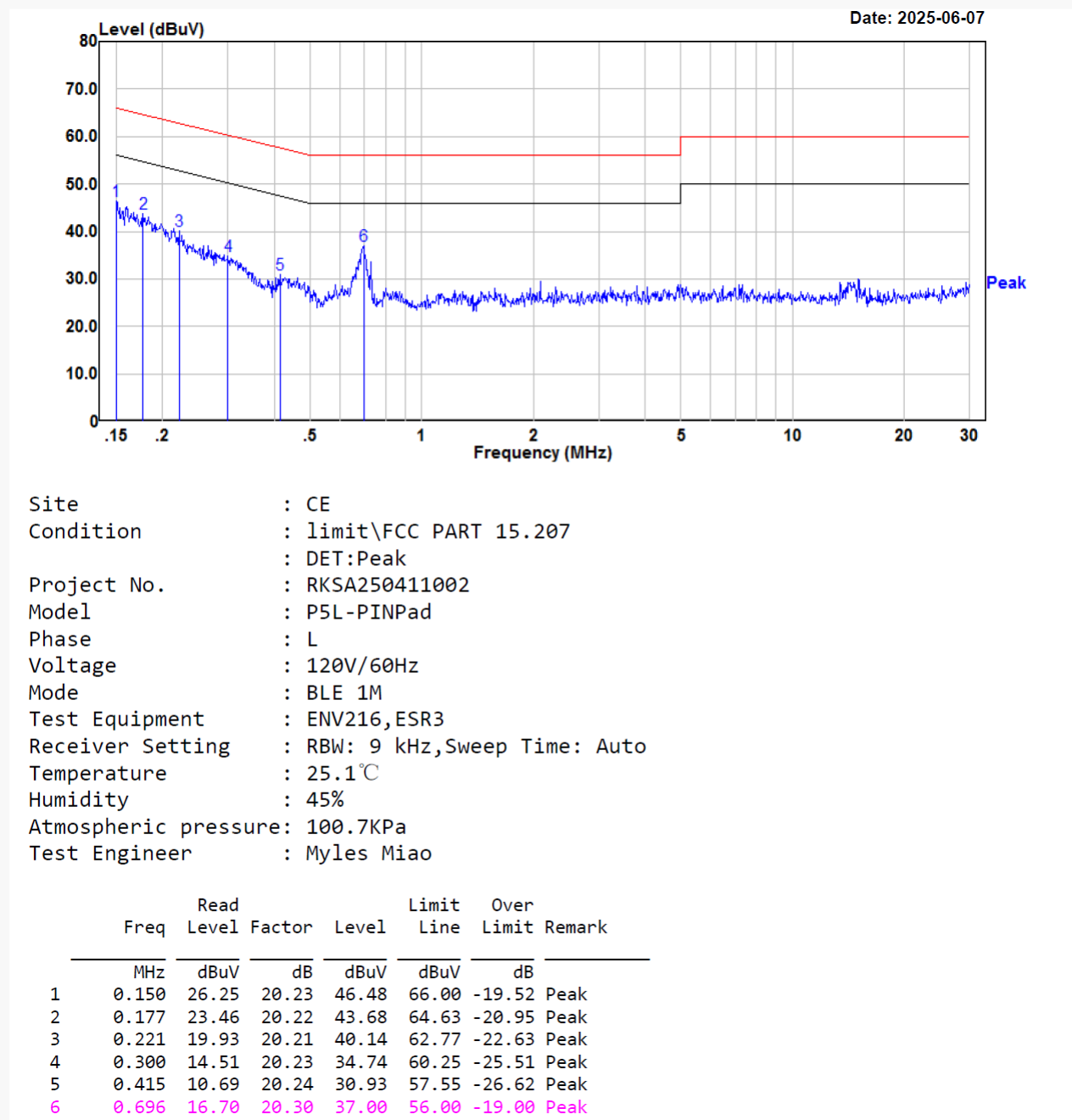
Test Date:	2025-06-07
Temperature:	25.1 °C
Relative Humidity:	45 %
ATM Pressure:	100.7 kPa
Test Result:	Pass
Test Engineer:	Myles Miao

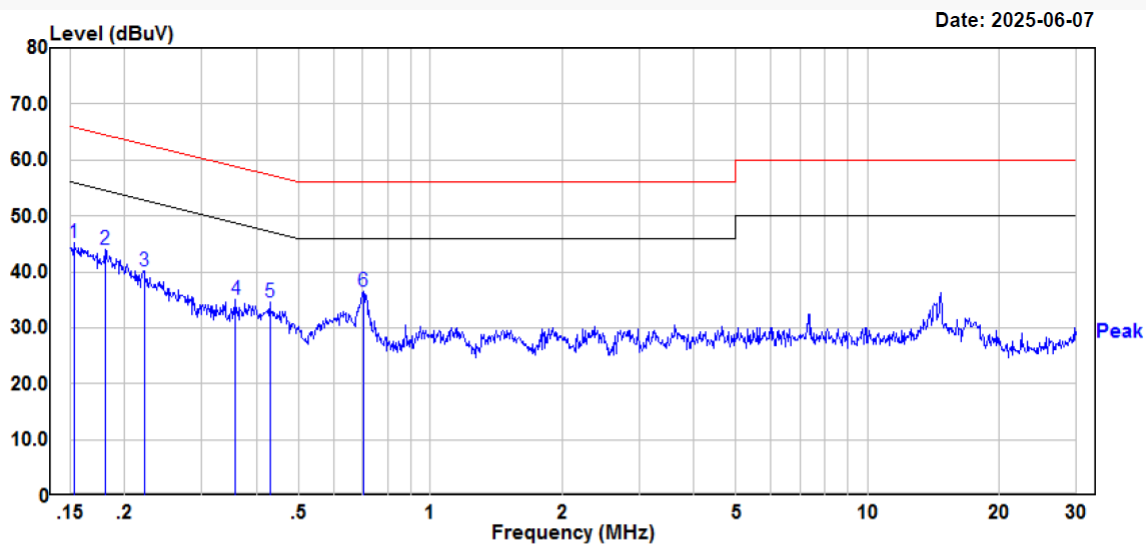
For Wi-Fi Mode:*EUT operation mode: Transmitting in maximum output power mode and 802.11g mode high channel*

Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA250411002
Model : P5L-PINPad
Phase : L
Voltage : 120V/60Hz
Mode : 2.4G WIFI
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 25.1℃
Humidity : 45%
Atmospheric pressure: 100.7KPa
Test Engineer : Myles Miao

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.151	28.69	20.23	48.92	65.96	-17.04	Peak
2	0.186	25.04	20.21	45.25	64.22	-18.97	Peak
3	0.240	20.48	20.20	40.68	62.11	-21.43	Peak
4	0.300	16.91	20.23	37.14	60.25	-23.11	Peak
5	0.379	15.03	20.23	35.26	58.30	-23.04	Peak
6	0.686	17.13	20.29	37.42	56.00	-18.58	Peak



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



Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA250411002
Model : P5L-PINPad
Phase : N
Voltage : 120V/60Hz
Mode : BLE 1M
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 25.1℃
Humidity : 45%
Atmospheric pressure: 100.7KPa
Test Engineer : Myles Miao

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.153	24.98	20.23	45.21	65.83	-20.62	Peak
2	0.180	23.76	20.21	43.97	64.47	-20.50	Peak
3	0.221	20.02	20.21	40.23	62.77	-22.54	Peak
4	0.359	14.81	20.24	35.05	58.76	-23.71	Peak
5	0.429	14.36	20.25	34.61	57.26	-22.65	Peak
6	0.703	16.12	20.30	36.42	56.00	-19.58	Peak

SPURIOUS EMISSIONS

Environmental Conditions & Test Information

Test Item:	SPURIOUS EMISSIONS			
	9kHz – 30MHz	30MHz - 1GHz	1 GHz - 18 GHz	18 GHz - 25 GHz
Test Date:	2025-05-28	2025-04-24 to 2025-04-27	2025-04-24 to 2025-07-08	2025-06-07
Temperature:	24.2 °C	22.6-25.5 °C	25.5-27.2 °C	25.1 °C
Relative Humidity:	51 %	45-46 %	46-54 %	45 %
ATM Pressure:	102.7 kPa	101.2-101.3 kPa	100.6-101.3 kPa	100.7 kPa
Test Result:	Pass	Pass	Pass	Pass
Test Engineer:	Jonathan	Jerry Yan	Destine Hu	Hugh Wu

Test Result: Compliant

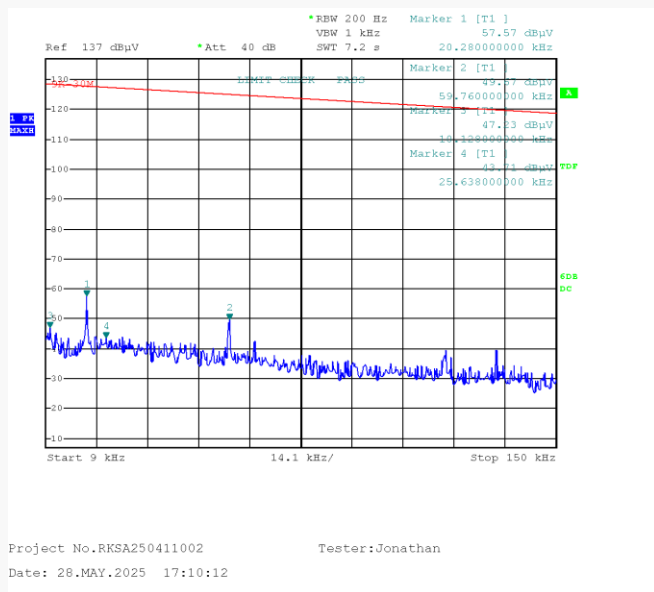
EUT operation mode: Transmitting

For Wi-Fi Mode:

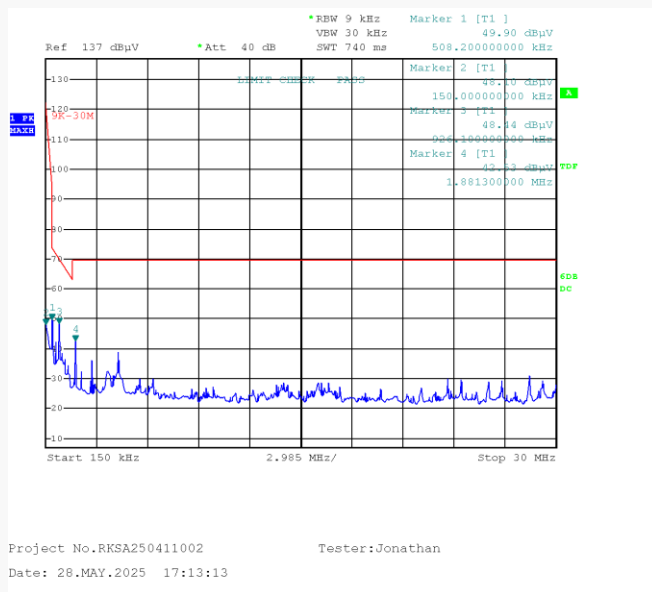
9 kHz-30MHz: (Transmitting in maximum output power mode and 802.11g mode high channel)

Parallel(worst case)

9kHz-150kHz



150kHz-30MHz



9kHz-150kHz

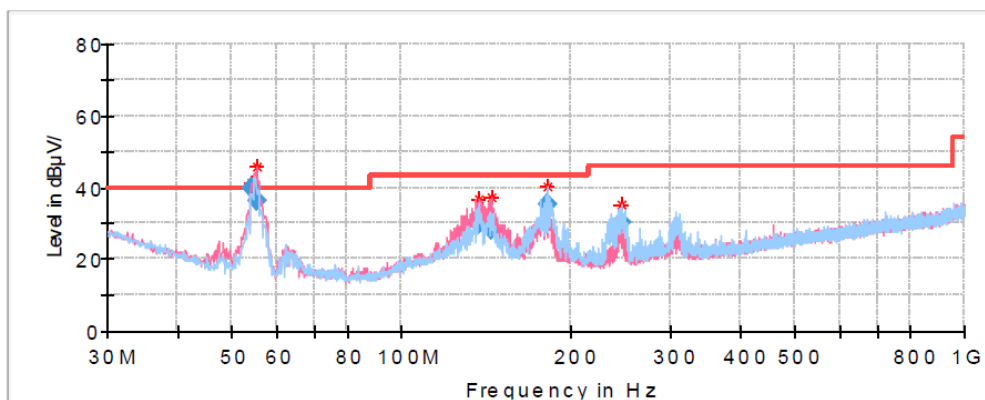
Frequency (MHz)	Corrected Amplitude (dB μ V/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dB μ V/m) @3m	Margin (dB)
0.010128	47.23	PK	-0.51	127.49	80.26
0.020280	57.57	PK	-0.56	121.46	63.89
0.025638	43.71	PK	-0.59	119.43	75.72
0.059760	49.67	PK	-4.95	112.08	62.41

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)
0.1500	48.10	PK	-11.34	104.08	55.98
0.5082	49.90	PK	-22.51	93.48	43.58
0.9261	48.44	PK	-27.09	68.27	19.83
1.8813	42.53	PK	-30.51	69.54	27.01

30MHz-1GHz (Transmitting in maximum output power mode and channel 802.11g mode):**High Channel: 2462MHz****Common Information**

Project No: RKSA250411002
EUT Model: P5L PINPad
Test Mode: Transmitting in 802.11g mode high 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: 25.5°C
Humidity: 46%
Barometric Pressure: 101.3kPa
Test Engineer: Jerry Yan
Test Date: 2025/4/24

**Final Result**

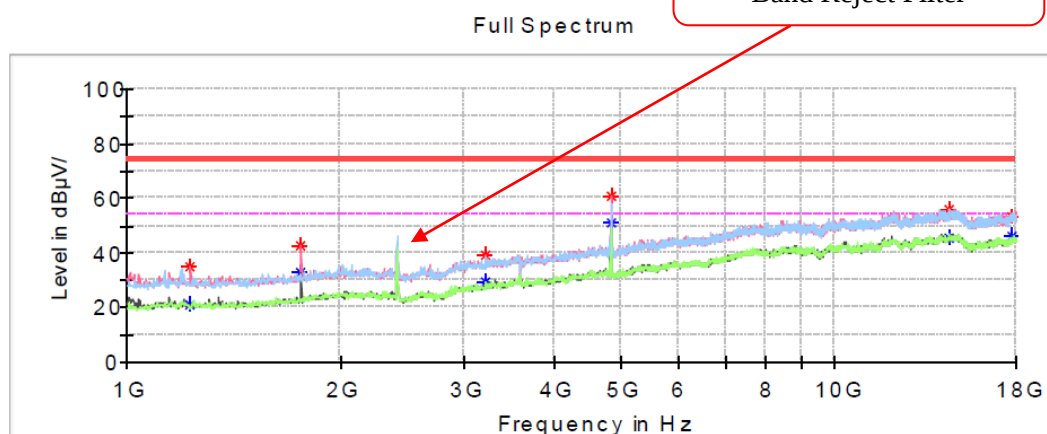
Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
54.094250	39.62	40.00	0.38	V	-17.0
55.367050	36.29	40.00	3.71	V	-17.0
136.946100	29.86	43.50	13.64	V	-11.2
144.467900	28.02	43.50	15.48	V	-11.5
181.199650	35.33	43.50	8.17	H	-12.8
246.557400	30.22	46.00	15.78	H	-12.2

1GHz-18GHz:
802.11b Mode:

Low Channel: 2412MHz

Common Information

Project No.:	RKSA250411002
EUT Model:	P5L-PINPad
Test Mode:	Transmitting in 802.11b mode 2412 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:	27.2°C
Humidity:	54%
Atmospheric Pressure:	100.6kPa
Test Engineer:	Destine Hu
Test Date:	2025/7/8



Critical_Freqs

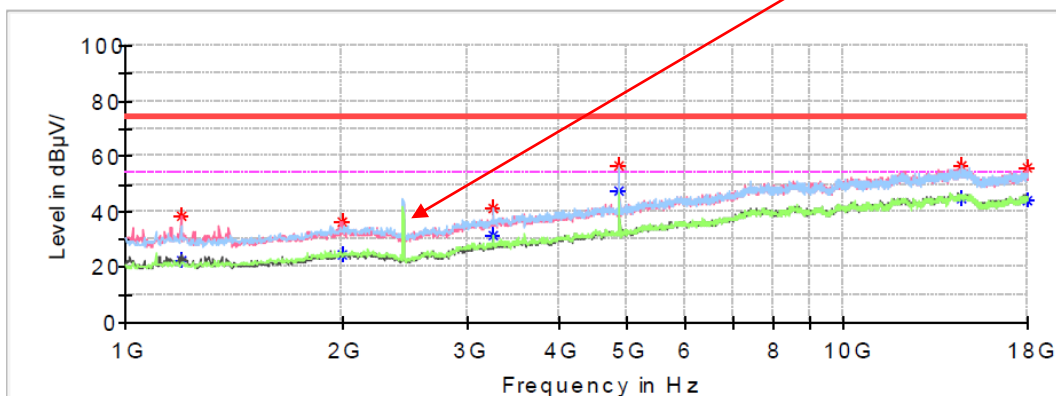
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1227.800000	---	20.92	54.00	33.08	V	-14.4
1227.800000	34.92	---	74.00	39.08	V	-14.4
1761.600000	---	33.03	54.00	20.97	V	-11.6
1761.600000	42.96	---	74.00	31.04	V	-11.6
3213.400000	39.46	---	74.00	34.54	V	-7.3
3213.400000	---	29.70	54.00	24.30	V	-7.3
4821.600000	---	51.06	54.00	2.94	V	-3.4
4821.600000	60.60	---	74.00	13.40	V	-3.4
14484.400000	---	45.45	54.00	8.55	H	11.9
14484.400000	55.80	---	74.00	18.20	H	11.9
17830.000000	---	45.87	54.00	8.13	V	11.3
17830.000000	53.42	---	74.00	20.58	V	11.3

Middle Channel: 2437MHz**Common Information**

Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11b mode 2437 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: 27.2°C
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

Fundamental Test with
Band Reject Filter

Full Spectrum

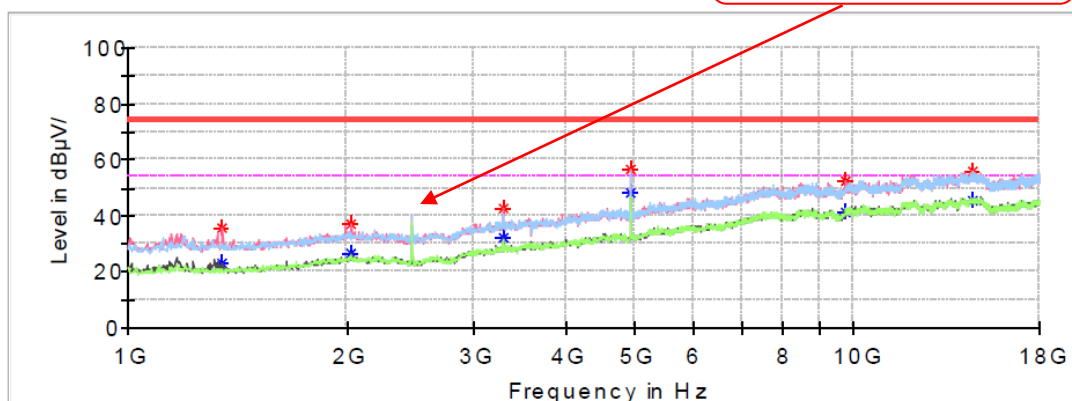
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1193.800000	38.71	---	74.00	35.29	V	-14.5
1193.800000	---	22.59	54.00	31.41	V	-14.5
1999.600000	36.59	---	74.00	37.41	V	-10.0
1999.600000	---	24.15	54.00	29.85	V	-10.0
3247.400000	41.04	---	74.00	32.96	H	-7.2
3247.400000	---	31.35	54.00	22.65	H	-7.2
4872.600000	---	47.68	54.00	6.32	V	-3.2
4872.600000	56.33	---	74.00	17.67	V	-3.2
14552.400000	---	45.01	54.00	8.99	H	11.8
14552.400000	56.87	---	74.00	17.13	H	11.8
17976.200000	56.07	---	74.00	17.93	V	11.7
17976.200000	---	44.00	54.00	10.00	V	11.7

High Channel: 2462MHz**Common Information**

Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11b mode 2462 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: 27.2°C
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

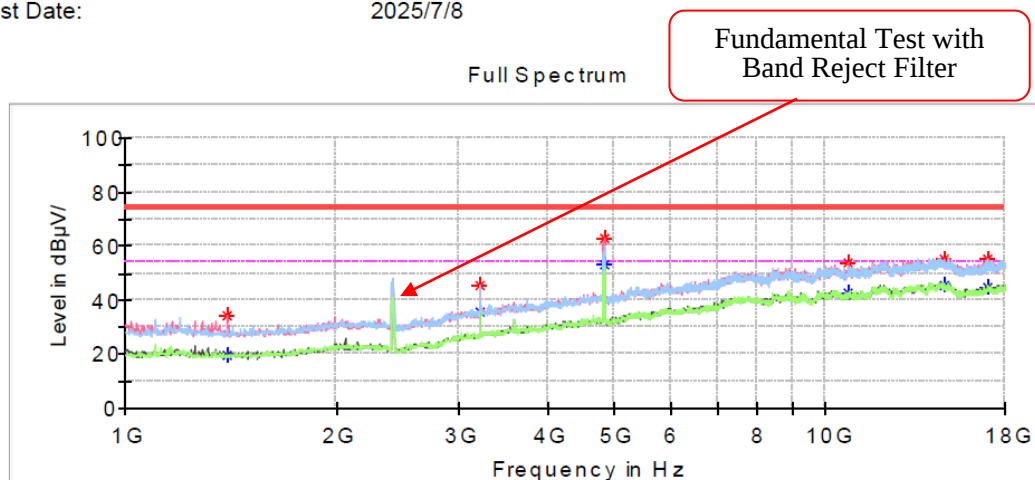
Full Spectrum

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)
1350.200000	---	22.81	54.00	31.19	V	-14.0
1350.200000	35.54	---	74.00	38.46	V	-14.0
2033.600000	---	26.41	54.00	27.59	V	-10.0
2033.600000	36.99	---	74.00	37.01	V	-10.0
3281.400000	---	32.41	54.00	21.59	V	-7.1
3281.400000	42.92	---	74.00	31.08	V	-7.1
4923.600000	---	47.91	54.00	6.09	V	-3.1
4923.600000	56.39	---	74.00	17.61	V	-3.1
9751.600000	---	41.31	54.00	12.69	V	5.6
9751.600000	52.60	---	74.00	21.40	V	5.6
14579.600000	---	45.41	54.00	8.59	H	11.7
14579.600000	55.63	---	74.00	18.37	H	11.7

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

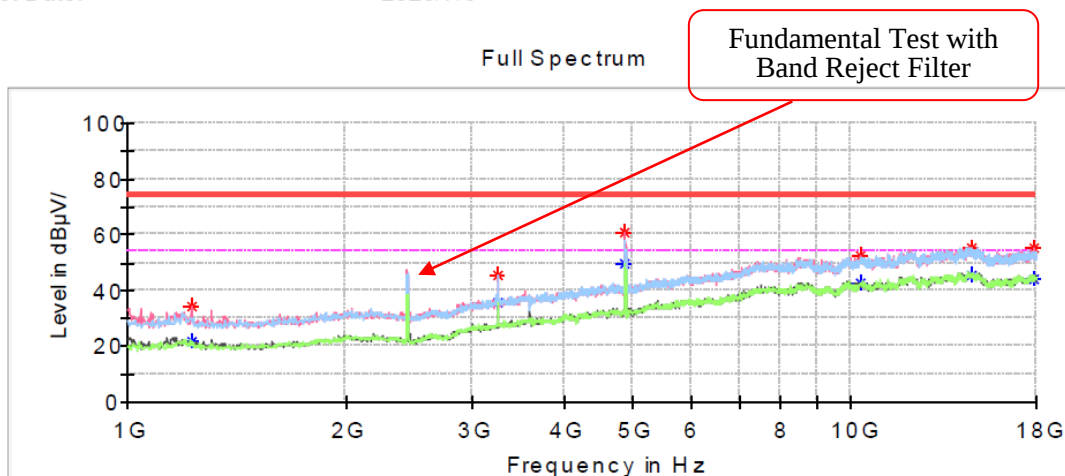
Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11g mode 2412 channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 27.2°C
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

**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)
1397.800000	---	19.52	54.00	34.48	V	-13.8
1397.800000	34.55	---	74.00	39.45	V	-13.8
3213.400000	---	35.74	54.00	18.26	H	-7.3
3213.400000	45.57	---	74.00	28.43	H	-7.3
4821.600000	---	53.21	54.00	0.79	V	-3.4
4821.600000	62.67	---	74.00	11.33	V	-3.4
10730.800000	---	42.80	54.00	11.20	V	6.7
10730.800000	54.10	---	74.00	19.90	V	6.7
14746.200000	---	45.54	54.00	8.46	H	11.1
14746.200000	55.56	---	74.00	18.44	H	11.1
17000.400000	---	44.59	54.00	9.41	H	11.0
17000.400000	55.11	---	74.00	18.89	H	11.0

Middle Channel: 2437MHz**Common Information**

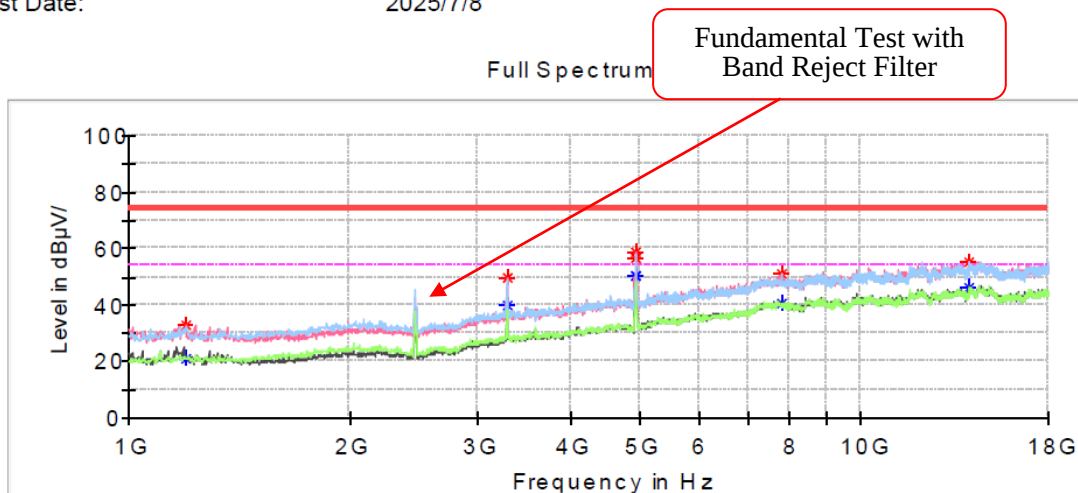
Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11g mode 2437 channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 27.2°C
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

**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)
1224.400000	---	21.37	54.00	32.63	V	-14.4
1224.400000	34.61	---	74.00	39.39	V	-14.4
3247.400000	---	35.55	54.00	18.45	H	-7.2
3247.400000	45.12	---	74.00	28.88	H	-7.2
4869.200000	---	49.41	54.00	4.59	V	-3.2
4869.200000	60.71	---	74.00	13.29	V	-3.2
10292.200000	---	42.95	54.00	11.05	V	6.6
10292.200000	52.64	---	74.00	21.36	V	6.6
14630.600000	---	45.63	54.00	8.37	H	11.5
14630.600000	55.51	---	74.00	18.49	H	11.5
17843.600000	---	44.27	54.00	9.73	V	11.3
17843.600000	55.13	---	74.00	18.87	V	11.3

High Channel: 2462MHz**Common Information**

Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11g mode 2462 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: 27.2°C
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

**Critical_Freqs**

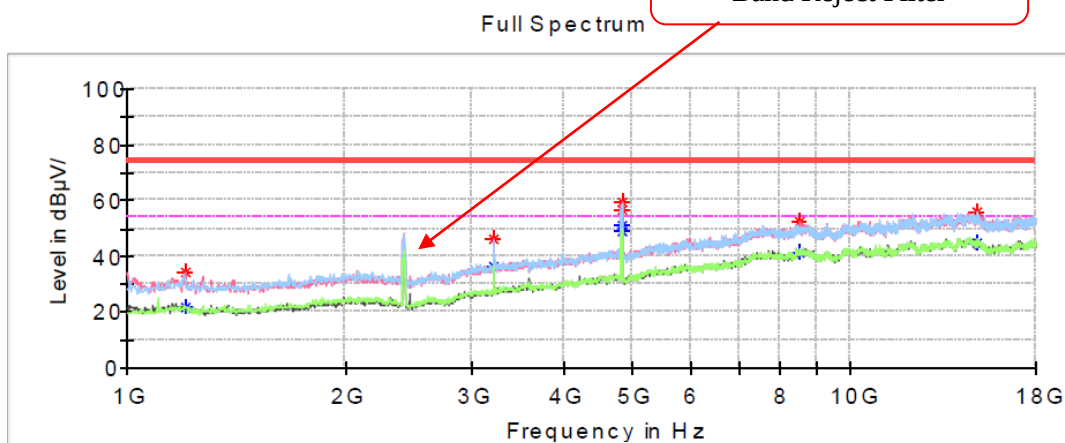
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1197.200000	---	21.28	54.00	32.72	H	-14.5
1197.200000	33.02	---	74.00	40.98	H	-14.5
3281.400000	---	39.98	54.00	14.02	V	-7.1
3281.400000	49.65	---	74.00	24.35	V	-7.1
4920.200000	---	50.42	54.00	3.58	V	-3.1
4920.200000	56.60	---	74.00	17.40	V	-3.1
4927.000000	---	50.25	54.00	3.75	V	-3.1
4927.000000	58.60	---	74.00	15.40	V	-3.1
7772.800000	---	40.37	54.00	13.63	H	3.1
7772.800000	51.11	---	74.00	22.89	H	3.1
14062.800000	---	45.98	54.00	8.02	V	11.2
14062.800000	55.56	---	74.00	18.44	V	11.2

802.11n-HT20 Mode :

Low Channel: 2412MHz

Common Information

Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11n20 mode 2412 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: 27.2°C
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

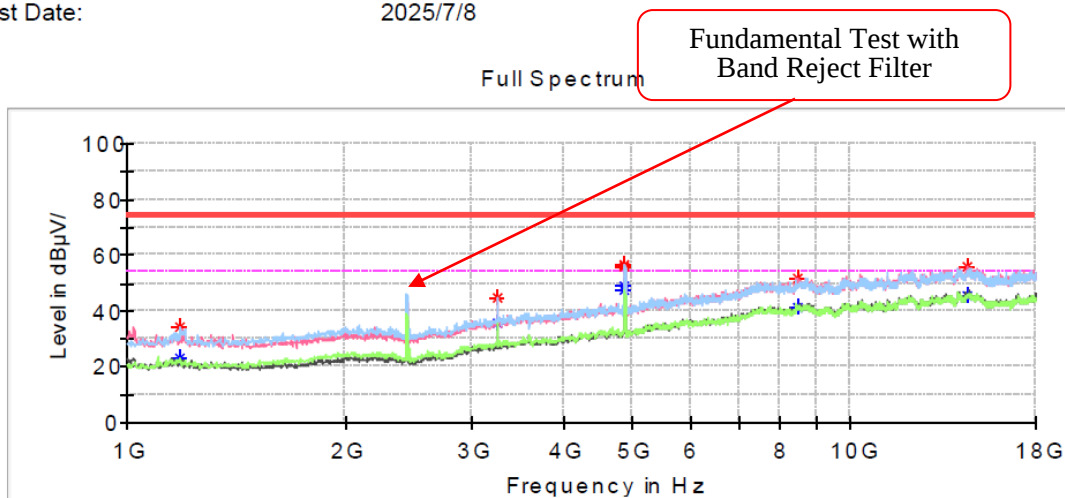


Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1204.000000	34.06	---	74.00	39.94	V	-14.5
1204.000000	---	21.57	54.00	32.43	V	-14.5
3213.400000	46.22	---	74.00	27.78	V	-7.3
3213.400000	---	36.08	54.00	17.92	V	-7.3
4818.200000	---	50.81	54.00	3.19	V	-3.4
4818.200000	56.77	---	74.00	17.23	V	-3.4
4821.600000	---	49.05	54.00	4.95	V	-3.4
4821.600000	59.76	---	74.00	14.24	V	-3.4
8503.800000	52.13	---	74.00	21.87	H	4.7
8503.800000	---	41.41	54.00	12.59	H	4.7
14987.600000	---	44.55	54.00	9.45	H	10.3
14987.600000	55.73	---	74.00	18.27	H	10.3

Middle Channel: 2437MHz**Common Information**

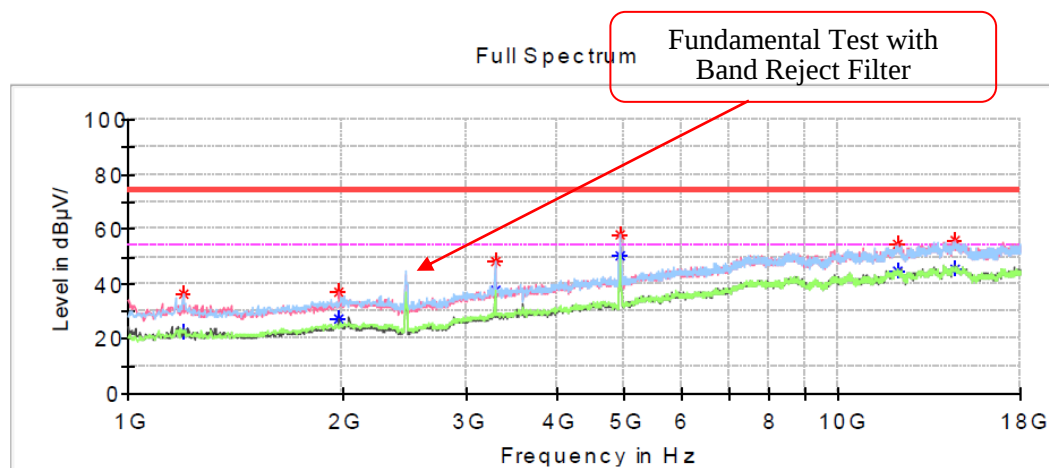
Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11n20 mode 2437 channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 27.2℃
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

**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)
1183.600000	---	23.13	54.00	30.87	V	-14.6
1183.600000	34.01	---	74.00	39.99	V	-14.6
3247.400000	44.72	---	74.00	29.28	V	-7.2
3247.400000	---	35.60	54.00	18.40	V	-7.2
4869.200000	55.75	---	74.00	18.25	V	-3.2
4869.200000	---	48.82	54.00	5.18	V	-3.2
4872.600000	56.47	---	74.00	17.53	H	-3.2
4872.600000	---	47.84	54.00	6.16	H	-3.2
8459.600000	---	41.56	54.00	12.44	V	4.6
8459.600000	51.78	---	74.00	22.22	V	4.6
14498.000000	---	45.67	54.00	8.33	V	12.0
14498.000000	56.04	---	74.00	17.96	V	12.0

High Channel: 2462MHz**Common Information**

Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11n20 mode 2462 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: 27.2°C
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

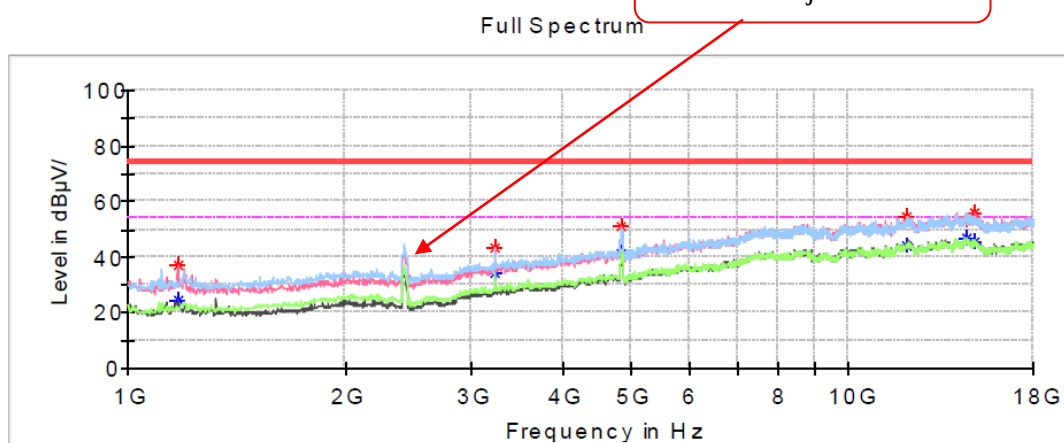
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB µV/m)	Average (dB µV/m)	Limit (dB µV/m)	Margin (dB)	Pol	Corr. (dB/m)
1193.800000	---	22.69	54.00	31.31	H	-14.5
1193.800000	36.51	---	74.00	37.49	H	-14.5
1982.600000	---	27.41	54.00	26.59	V	-10.1
1982.600000	36.89	---	74.00	37.11	V	-10.1
3281.400000	---	38.04	54.00	15.96	V	-7.1
3281.400000	47.92	---	74.00	26.08	V	-7.1
4923.600000	---	50.32	54.00	3.68	H	-3.1
4923.600000	58.11	---	74.00	15.89	H	-3.1
12087.400000	---	44.76	54.00	9.24	H	9.0
12087.400000	54.75	---	74.00	19.25	H	9.0
14542.200000	---	45.59	54.00	8.41	V	11.8
14542.200000	55.63	---	74.00	18.37	V	11.8

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

Project No.: RKSA250411002
 EUT Model: P5L-PINPad
 Test Mode: Transmitting in 802.11n40 mode 2422 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: 27.2°C
 Humidity: 54%
 Atmospheric Pressure: 100.6kPa
 Test Engineer: Destine Hu
 Test Date: 2025/7/8

Fundamental Test with
Band Reject Filter

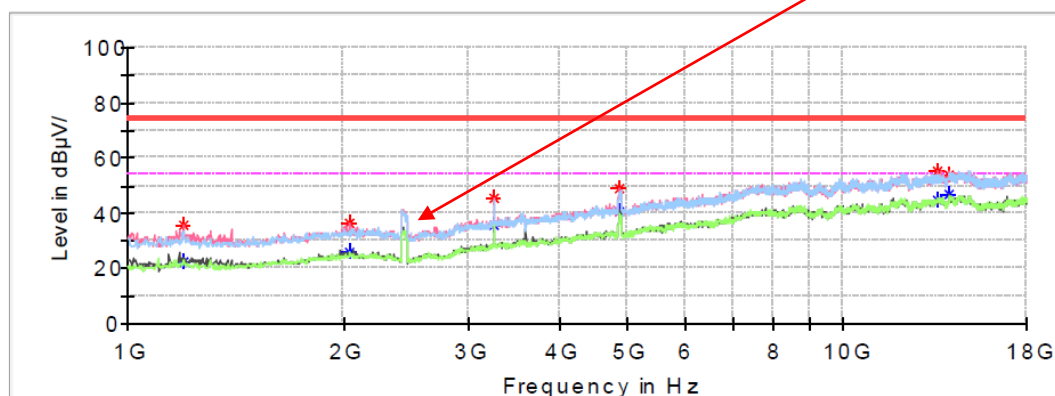
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1173.400000	---	24.35	54.00	29.65	V	-14.6
1173.400000	36.75	---	74.00	37.25	V	-14.6
3227.000000	43.43	---	74.00	30.57	V	-7.3
3227.000000	---	34.49	54.00	19.51	V	-7.3
4825.000000	---	40.91	54.00	13.09	V	-3.4
4825.000000	50.82	---	74.00	23.18	V	-3.4
12036.400000	---	43.77	54.00	10.23	H	9.0
12036.400000	54.84	---	74.00	19.16	H	9.0
14606.800000	---	46.56	54.00	7.44	H	11.6
14606.800000	53.22	---	74.00	20.78	H	11.6
14909.400000	---	45.54	54.00	8.46	V	10.6
14909.400000	55.96	---	74.00	18.04	V	10.6

Middle Channel: 2437MHz**Common Information**

Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11n40 mode 2437 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: 27.2°C
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

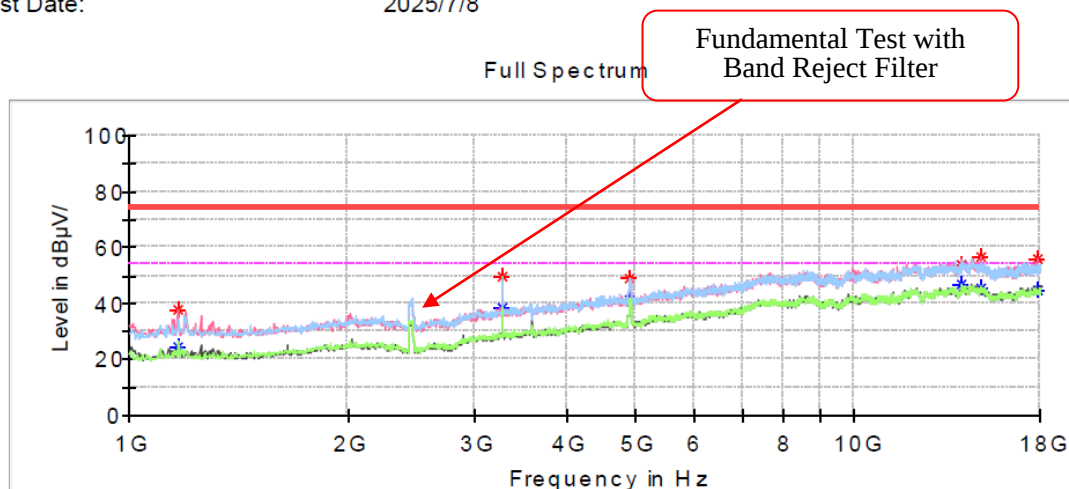
Full Spectrum

**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)
1197.200000	---	22.09	54.00	31.91	V	-14.5
1197.200000	35.47	---	74.00	38.53	V	-14.5
2043.800000	---	25.72	54.00	28.28	V	-10.0
2043.800000	36.42	---	74.00	37.58	V	-10.0
3247.400000	---	35.67	54.00	18.33	V	-7.2
3247.400000	45.20	---	74.00	28.80	V	-7.2
4869.200000	---	40.39	54.00	13.61	V	-3.2
4869.200000	49.05	---	74.00	24.95	V	-3.2
13518.800000	55.42	---	74.00	18.58	H	10.0
13518.800000	---	44.95	54.00	9.05	H	10.0
14018.600000	53.50	---	74.00	20.50	V	11.1
14018.600000	---	46.63	54.00	7.37	V	11.1

High Channel: 2452MHz**Common Information**

Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11n40 mode 2452 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: 27.2℃
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

**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)
1166.600000	---	24.54	54.00	29.46	V	-14.6
1166.600000	37.44	---	74.00	36.56	V	-14.6
3267.800000	---	38.71	54.00	15.29	H	-7.1
3267.800000	49.47	---	74.00	24.53	H	-7.1
4903.200000	---	41.42	54.00	12.58	V	-3.2
4903.200000	49.05	---	74.00	24.95	V	-3.2
14052.600000	---	46.66	54.00	7.34	H	11.2
14052.600000	54.17	---	74.00	19.83	H	11.2
14919.600000	---	45.70	54.00	8.30	H	10.6
14919.600000	56.44	---	74.00	17.56	H	10.6
17843.600000	---	44.82	54.00	9.18	V	11.3
17843.600000	55.77	---	74.00	18.23	V	11.3

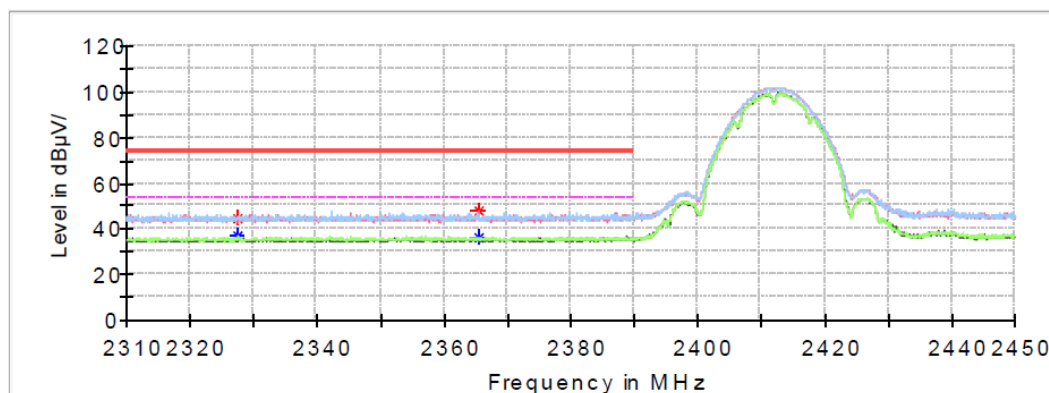
Band Edge:
802.11b Mode:

Low Channel

Common Information

Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11b mode 2412 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: 27.2°C
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

Full Spectrum



Critical_Freqs

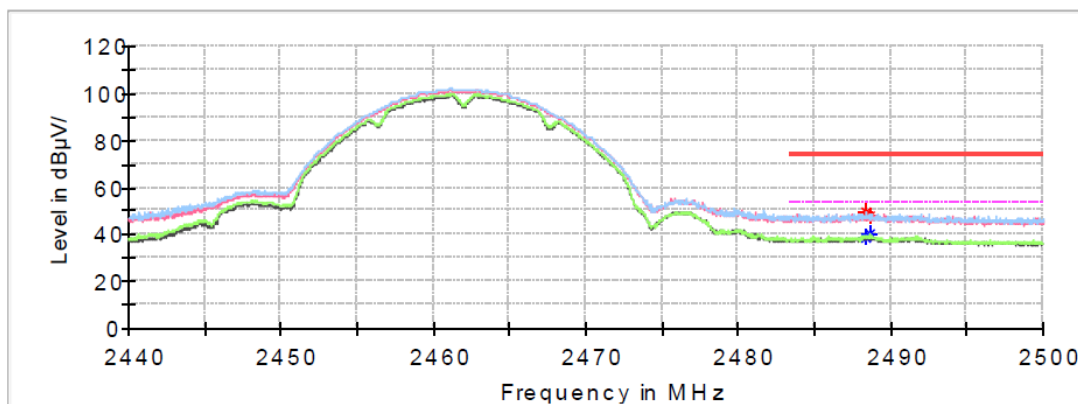
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2327.640000	44.45	---	74.00	29.55	H	0.2
2327.640000	---	36.94	54.00	17.06	H	0.2
2365.608000	---	35.96	54.00	18.04	V	0.2
2365.608000	47.86	---	74.00	26.14	V	0.2

High Channel

Common Information

Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11b mode 2462 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: 27.2°C
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

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)
2488.384000	49.40	---	74.00	24.60	V	0.4
2488.384000	---	38.81	54.00	15.19	V	0.4
2488.624000	47.99	---	74.00	26.01	H	0.4
2488.624000	---	39.88	54.00	14.12	H	0.4

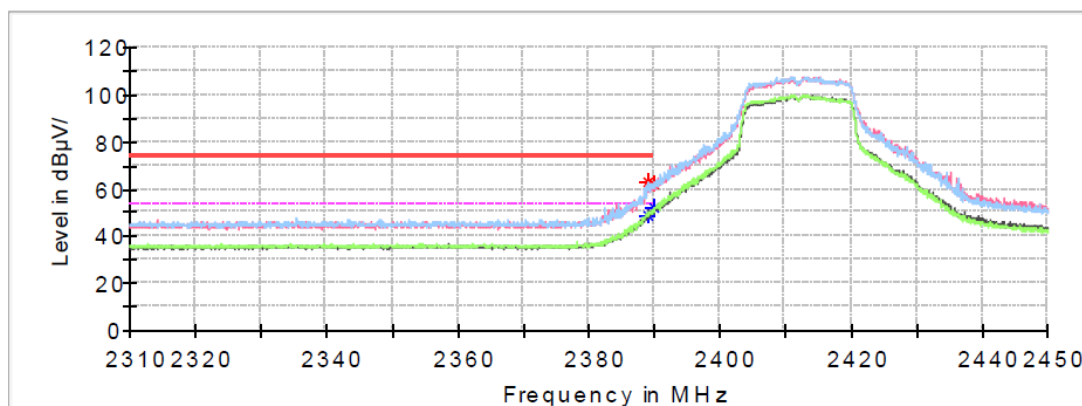
802.11g Mode :

Low Channel

Common Information

Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11g mode 2412 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: 27.2°C
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

Full Spectrum



Critical_Freqs

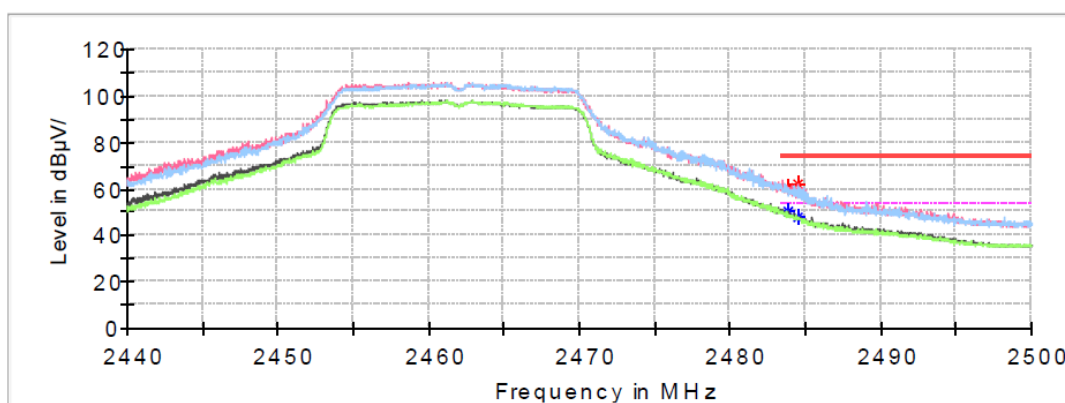
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2388.904000	62.74	---	74.00	11.26	H	0.2
2388.904000	---	49.01	54.00	4.99	H	0.2
2389.912000	62.33	---	74.00	11.67	H	0.2
2389.912000	---	51.64	54.00	2.36	H	0.2

High Channel

Common Information

Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11g mode 2462 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: 27.2°C
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

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)
2483.872000	---	50.48	54.00	3.52	H	0.4
2483.872000	60.06	---	74.00	13.94	H	0.4
2484.520000	---	48.16	54.00	5.84	V	0.4
2484.520000	62.16	---	74.00	11.84	V	0.4

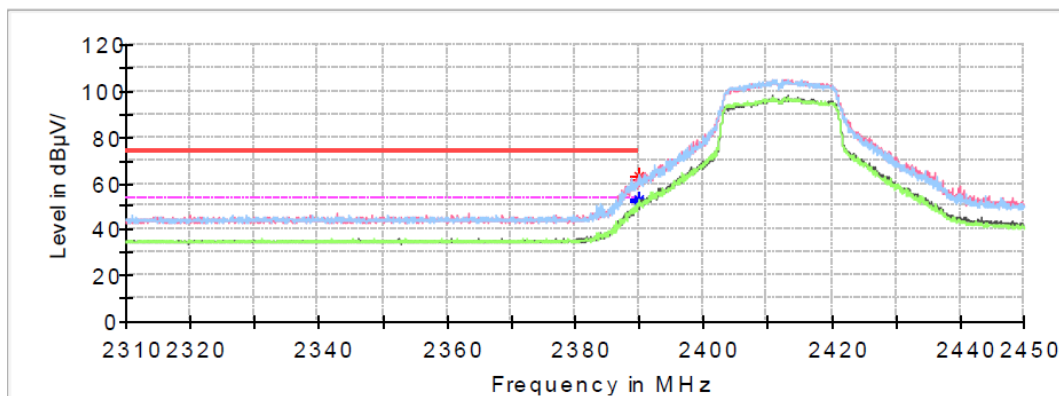
802.11n-HT20 Mode:

Low Channel

Common Information

Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11n20 mode 2412 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: 27.2°C
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

Full Spectrum

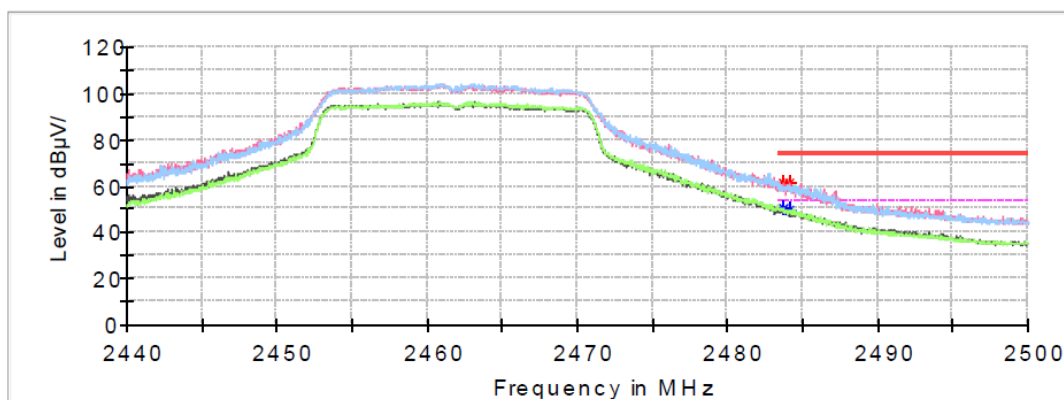


Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2389.856000	63.08	---	74.00	10.92	H	0.2
2389.856000	---	51.86	54.00	2.14	H	0.2
2389.968000	61.08	---	74.00	12.92	H	0.2
2389.968000	---	52.46	54.00	1.54	H	0.2

High Channel**Common Information**

Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11n20 mode 2462 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: 27.2°C
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

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)
2483.728000	---	50.40	54.00	3.60	H	0.4
2483.728000	61.28	---	74.00	12.72	H	0.4
2484.088000	---	49.16	54.00	4.84	V	0.4
2484.088000	61.29	---	74.00	12.71	V	0.4

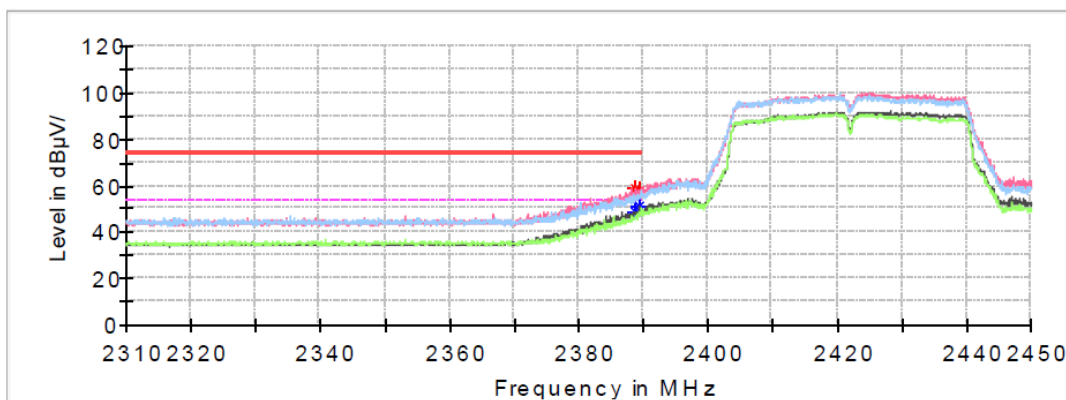
802.11n-HT40 Mode:

Low Channel

Common Information

Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11n40 mode 2422 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: 27.2°C
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

Full Spectrum



Critical_Freqs

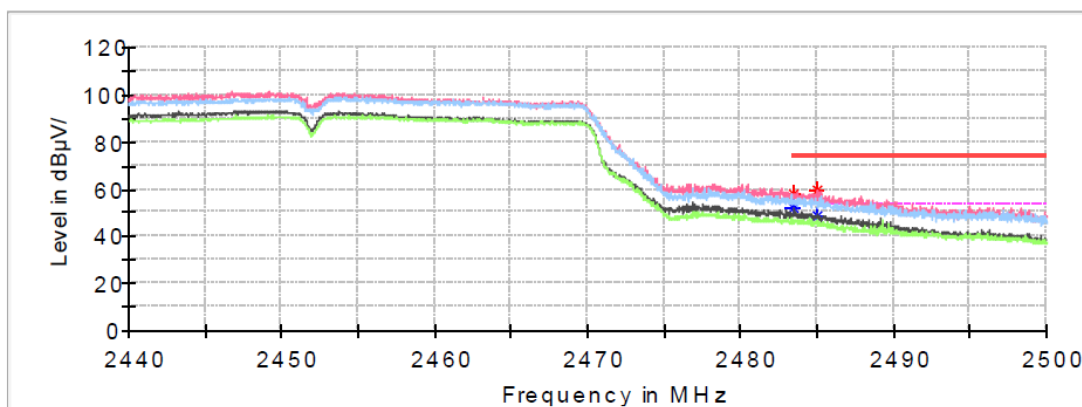
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2388.792000	58.63	---	74.00	15.37	V	0.2
2388.792000	---	48.73	54.00	5.27	V	0.2
2389.464000	57.72	---	74.00	16.28	V	0.2
2389.464000	---	51.20	54.00	2.80	V	0.2

High Channel

Common Information

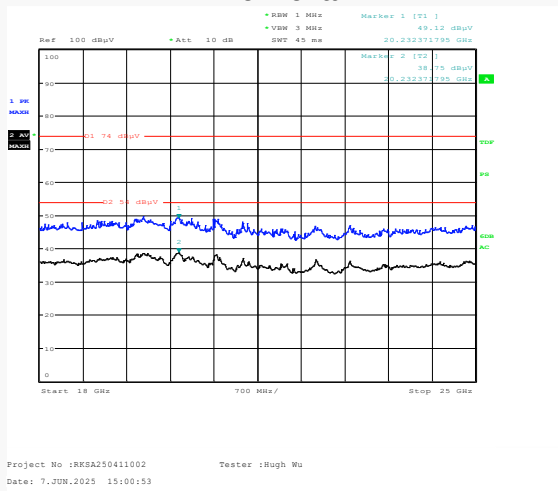
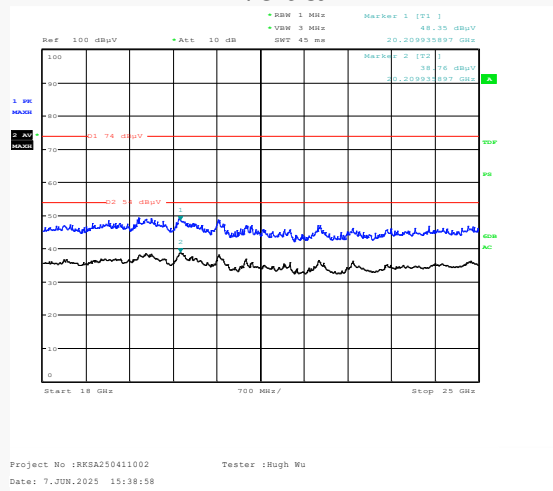
Project No.: RKSA250411002
EUT Model: P5L-PINPad
Test Mode: Transmitting in 802.11n40 mode 2452 channel
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 27.2°C
Humidity: 54%
Atmospheric Pressure: 100.6kPa
Test Engineer: Destine Hu
Test Date: 2025/7/8

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)
2483.512000	---	51.88	54.00	2.12	V	0.4
2483.512000	57.87	---	74.00	16.13	V	0.4
2484.952000	---	48.87	54.00	5.13	V	0.4
2484.952000	59.43	---	74.00	14.57	V	0.4

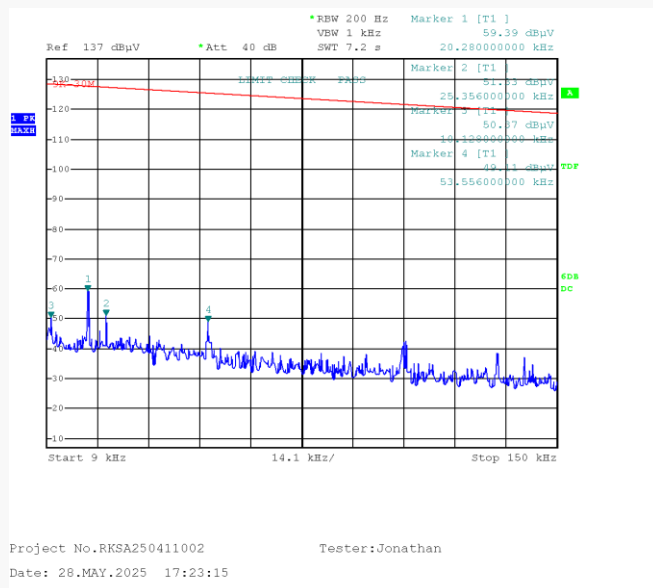
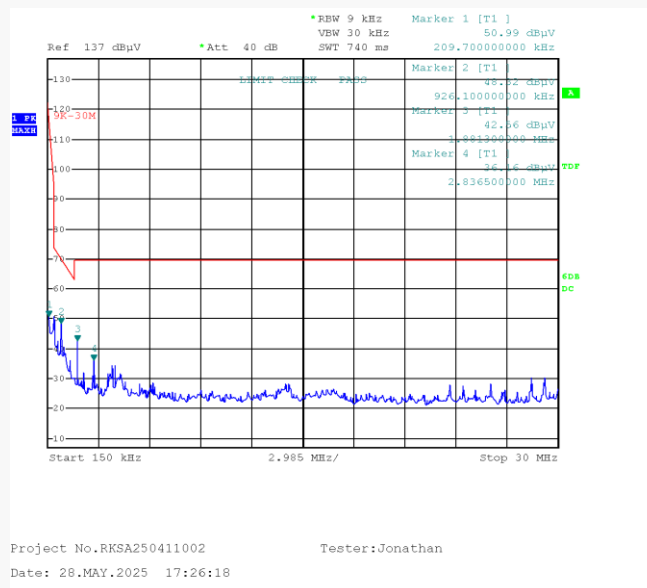
18GHz-25GHz: Transmitting in maximum output power mode and 802.11g mode high channel**Horizontal****Vertical**

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	---	38.76	54	15.24	V	12.47
20.21	48.35	---	74	25.65	V	12.47
20.23	---	38.75	54	15.25	H	12.49
20.23	49.12	---	74	24.88	H	12.49

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 (1 Mbps) middle channel
Parallel(worst case)

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

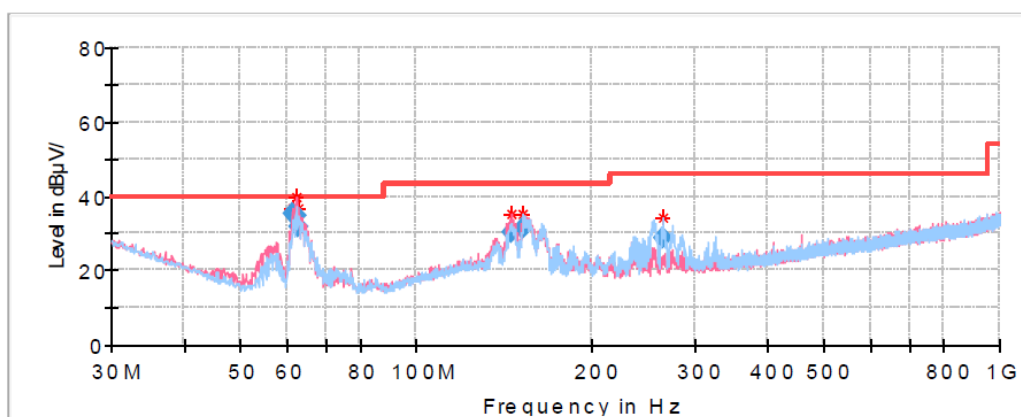
Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.010128	50.37	PK	-0.51	127.49	77.12
0.020280	59.39	PK	-0.56	121.46	62.07
0.025356	51.33	PK	-0.59	119.52	68.19
0.053556	49.11	PK	-4.23	13.03	-36.08

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)
0.2097	50.99	PK	-13.87	101.17	50.18
0.9261	48.32	PK	-27.09	68.27	19.95
1.8813	42.66	PK	-30.51	69.54	26.88
2.8365	36.16	PK	-31.33	69.54	33.38

BLE (1 Mbps) (Transmitting in maximum output power BLE (1 Mbps) middle channel)
30MHz-1GHz**Middle Channel: 2440MHz****Common Information**

Project No: RKSA250411002
EUT Model: P5L PINPad
Test Mode: Transmitting in BLE-1M 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: 22.6°C
Humidity: 45%
Barometric Pressure: 101.2kPa
Test Engineer: Jonathan
Test Date: 2025/4/27

**Final Result**

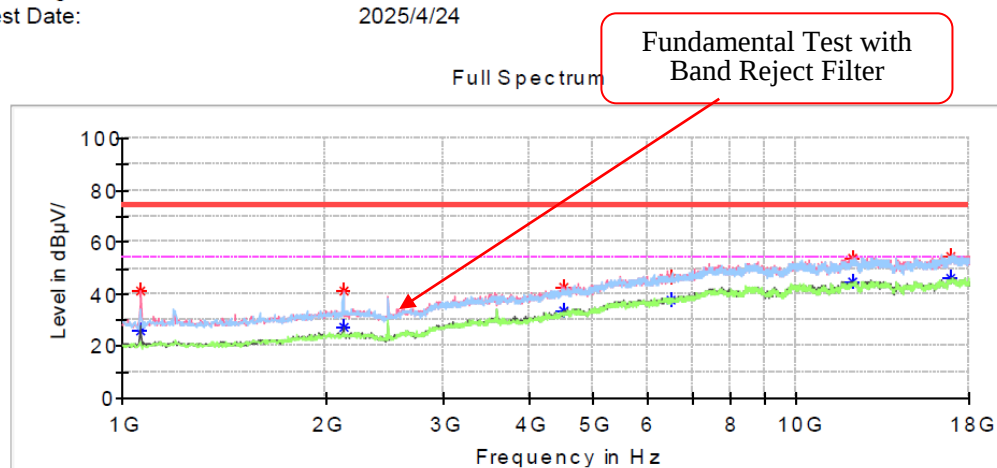
Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
61.286250	35.08	40.00	4.92	V	-17.0
62.136600	34.53	40.00	5.47	V	-16.9
62.850300	31.49	40.00	8.51	V	-16.9
145.911900	30.42	43.50	13.08	V	-11.5
152.584850	31.01	43.50	12.49	H	-11.8
264.493600	28.53	46.00	17.47	H	-11.6

BLE (1 Mbps)
1GHz-18GHz:

Low Channel: 2402MHz

Common Information

Project No.:	RKSA250411002
EUT Model:	P5L-PINPPad
Test Mode:	BLE
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:	46%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Destine Hu
Test Date:	2025/4/24

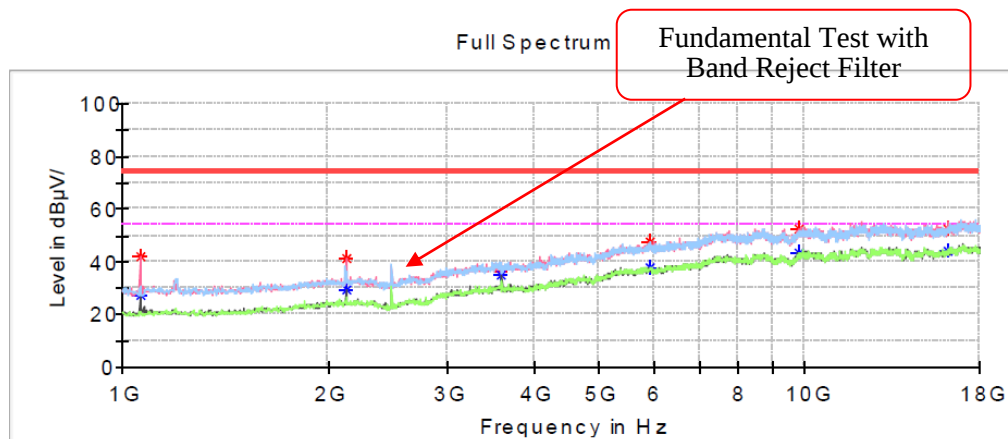


Critical Freqs

Frequency (MHz)	MaxPeak (dB µV/m)	Average (dB µV/m)	Limit (dB µV/m)	Margin (dB)	Pol	Corr. (dB/m)
1064.600000	---	25.92	54.00	28.08	V	-15.4
1064.600000	40.98	---	74.00	33.02	V	-15.4
2125.400000	---	27.02	54.00	26.98	V	-11.3
2125.400000	41.59	---	74.00	32.41	V	-11.3
4505.400000	---	33.76	54.00	20.24	V	-4.2
4505.400000	42.53	---	74.00	31.47	V	-4.2
6497.800000	---	37.73	54.00	16.27	H	0.5
6497.800000	46.29	---	74.00	27.71	H	0.5
12077.200000	---	44.50	54.00	9.50	V	9.1
12077.200000	53.91	---	74.00	20.09	V	9.1
16966.400000	---	46.43	54.00	7.57	V	12.2
16966.400000	54.49	---	74.00	19.51	V	12.2

Middle Channel: 2440MHz**Common Information**

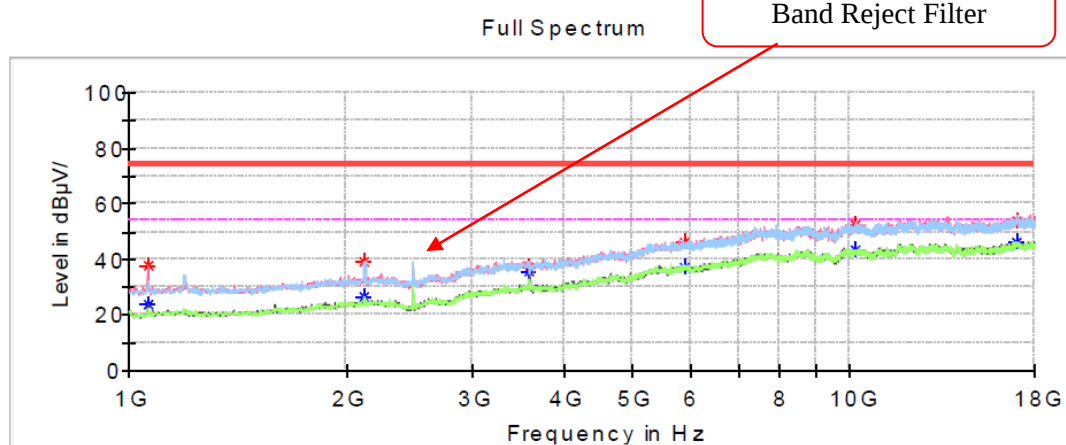
Project No.: RKSA250411002
EUT Model: P5L-PINPPad
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 25.5°C
Humidity: 46%
Atmospheric Pressure: 101.3kPa
Test Engineer: Destine Hu
Test Date: 2025/4/24

**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)
1061.200000	---	27.60	54.00	26.40	V	-15.4
1061.200000	42.12	---	74.00	31.88	V	-15.4
2125.400000	---	29.29	54.00	24.71	V	-11.3
2125.400000	40.96	---	74.00	33.04	V	-11.3
3597.600000	36.66	---	74.00	37.34	V	-6.3
3597.600000	---	35.00	54.00	19.00	V	-6.3
5916.400000	---	37.67	54.00	16.33	H	0.0
5916.400000	47.22	---	74.00	26.78	H	0.0
9829.800000	---	43.47	54.00	10.53	V	6.6
9829.800000	52.50	---	74.00	21.50	V	6.6
16198.000000	---	43.88	54.00	10.12	V	10.0
16198.000000	52.72	---	74.00	21.28	V	10.0

High Channel: 2480MHz**Common Information**

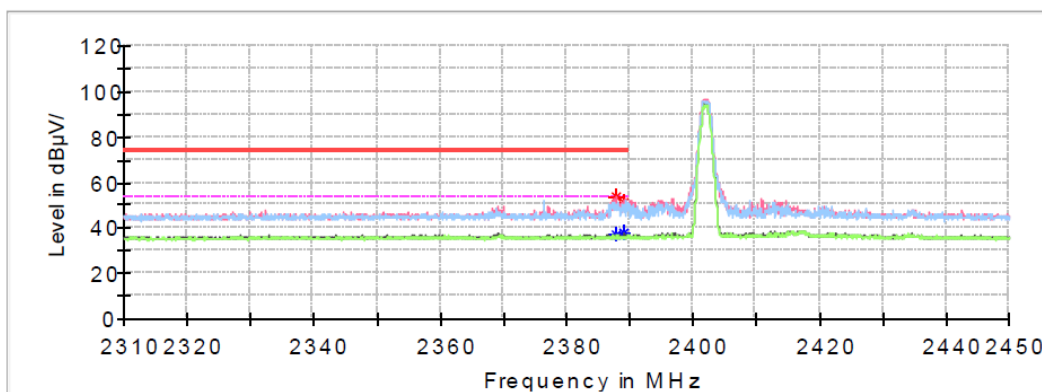
Project No.: RKSA250411002
EUT Model: P5L-PINPPad
Test Mode: BLE
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 25.5°C
Humidity: 46%
Atmospheric Pressure: 101.3kPa
Test Engineer: Destine Hu
Test Date: 2025/4/24

**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)
1061.200000	---	23.65	54.00	30.35	V	-15.4
1061.200000	37.45	---	74.00	36.55	V	-15.4
2122.000000	---	26.71	54.00	27.29	H	-11.4
2122.000000	39.20	---	74.00	34.80	H	-11.4
3597.600000	37.04	---	74.00	36.96	V	-6.3
3597.600000	---	35.65	54.00	18.35	V	-6.3
5885.800000	---	37.05	54.00	16.95	V	-0.1
5885.800000	45.93	---	74.00	28.07	V	-0.1
10183.400000	---	43.18	54.00	10.82	H	7.1
10183.400000	52.31	---	74.00	21.69	H	7.1
17037.800000	---	46.04	54.00	7.96	H	12.2
17037.800000	53.92	---	74.00	20.08	H	12.2

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

Project No.: RKSA250411002
EUT Model: P5L-PINPPad
Test Mode: BLE
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: 46%
Atmospheric Pressure: 101.3kPa
Test Engineer: Destine Hu
Test Date: 2025/4/24

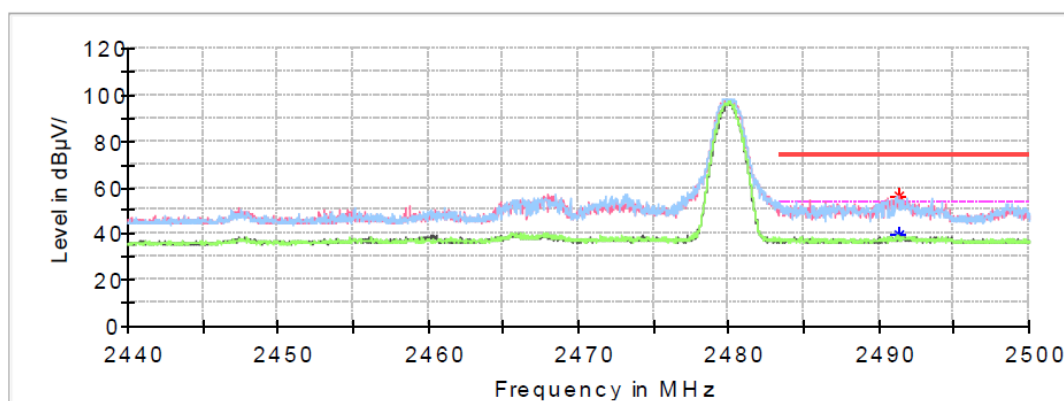
Full Spectrum**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2387.840000	---	37.29	54.00	16.71	V	-0.6
2387.840000	53.33	---	74.00	20.67	V	-0.6
2389.072000	---	37.55	54.00	16.45	V	-0.6
2389.072000	51.16	---	74.00	22.84	V	-0.6

High Channel**Common Information**

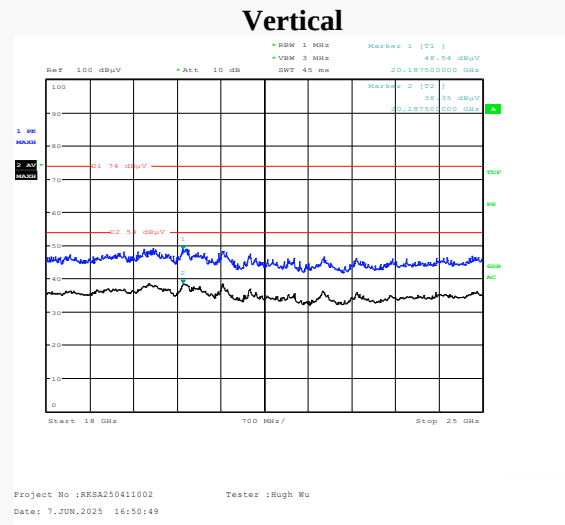
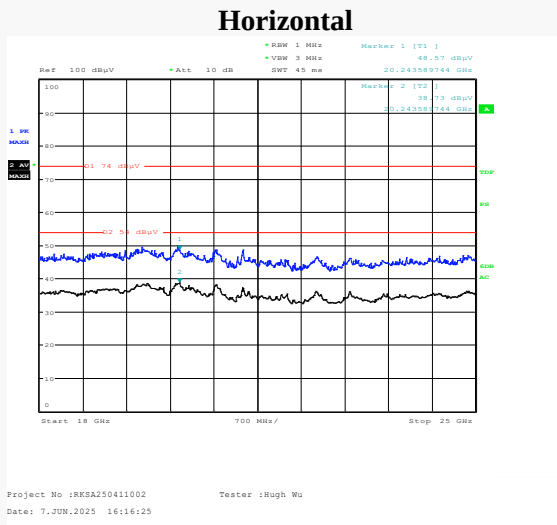
Project No.: RKSA250411002
EUT Model: P5L-PINPPad
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 25.5°C
Humidity: 46%
Atmospheric Pressure: 101.3kPa
Test Engineer: Destine Hu
Test Date: 2025/4/24

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)
2491.336000	---	39.40	54.00	14.60	V	-0.2
2491.336000	56.28	---	74.00	17.72	V	-0.2

18GHz-25GHz: Transmitting in maximum output power mode and BLE 1M 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)
20.19	---	38.35	54	15.65	V	12.45
20.19	48.54	---	74	25.46	V	12.45
20.24	---	38.73	54	15.27	H	12.5
20.24	48.57	---	74	25.43	H	12.5

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

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

Test Date:	2025-04-25 to 2025-07-09
Temperature:	25.7-26.5°C
Relative Humidity:	49-52 %
ATM Pressure:	102.1-102.7 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

Test Result: Compliant.

EUT operation mode: Transmitting

For Wi-Fi Mode:

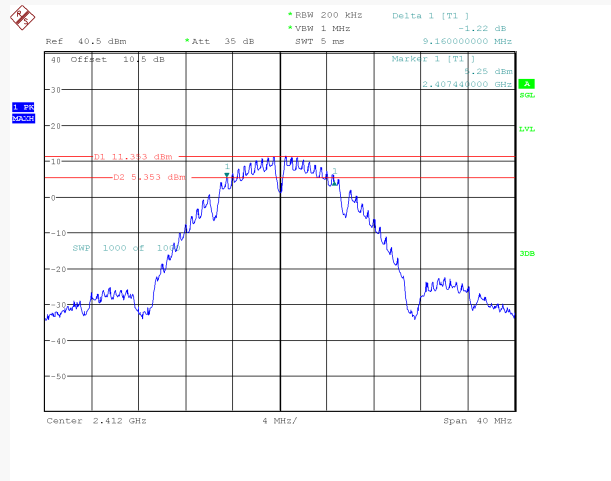
Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	Limit (MHz)	Result
802.11b Mode				
Low	2412	9.160	≥ 0.5	Pass
Middle	2437	9.160	≥ 0.5	Pass
High	2462	9.160	≥ 0.5	Pass
802.11g Mode				
Low	2412	16.160	≥ 0.5	Pass
Middle	2437	16.400	≥ 0.5	Pass
High	2462	16.160	≥ 0.5	Pass
802.11n-HT20 Mode				
Low	2412	17.200	≥ 0.5	Pass
Middle	2437	17.600	≥ 0.5	Pass
High	2462	17.240	≥ 0.5	Pass
802.11n-HT40 Mode				
Low	2422	35.760	≥ 0.5	Pass
Middle	2437	36.720	≥ 0.5	Pass
High	2452	36.080	≥ 0.5	Pass

For BLE Mode:

Mode	Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	Limit (MHz)	Result
BLE (1 Mbps)	Low	2402	0.668	≥ 0.5	Pass
	Middle	2440	0.668	≥ 0.5	Pass
	High	2480	0.672	≥ 0.5	Pass

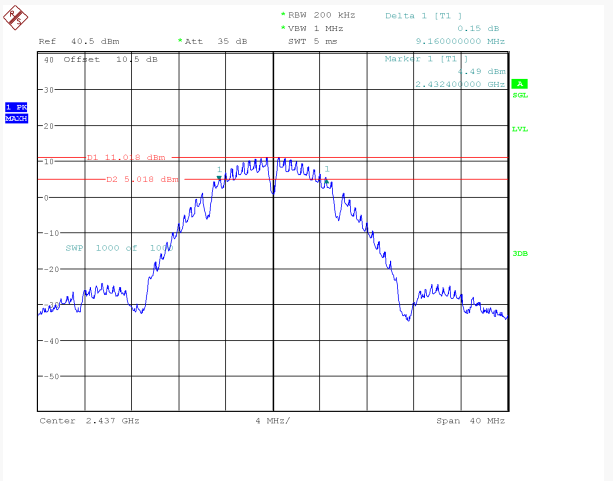
For Wi-Fi Mode:

802.11b_2412MHz



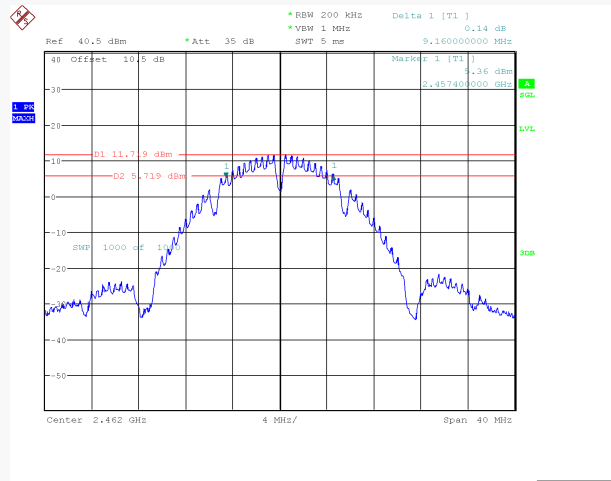
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 3.JUL.2025 17:12:28

802.11b_2437MHz



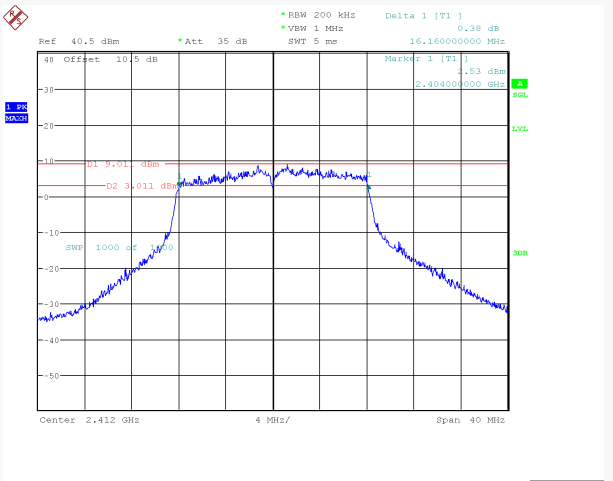
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 3.JUL.2025 17:32:01

802.11b_2462MHz



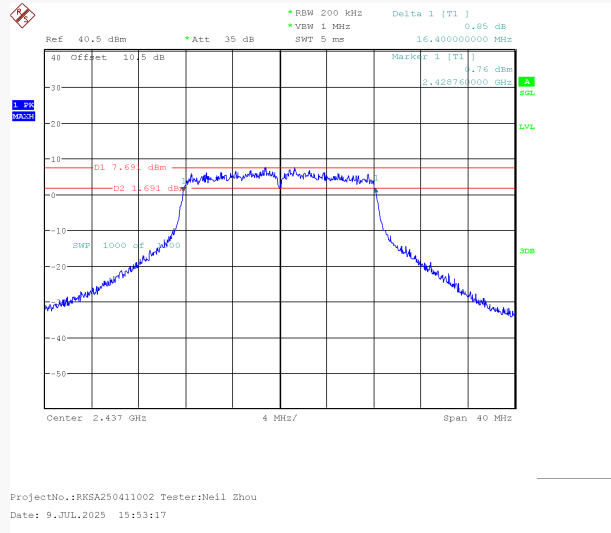
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 3.JUL.2025 17:43:57

802.11g_2412MHz

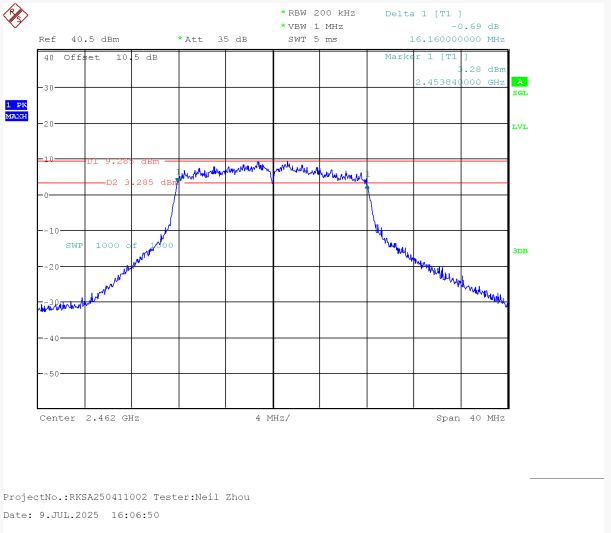


ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 9.JUL.2025 15:39:17

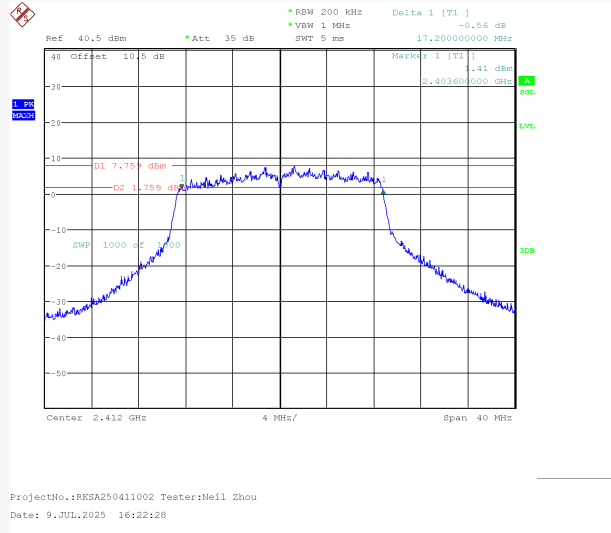
802.11g_2437MHz



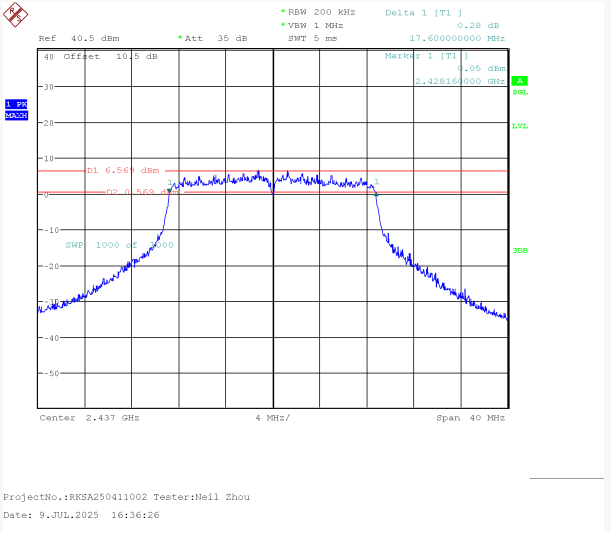
802.11g_2462MHz



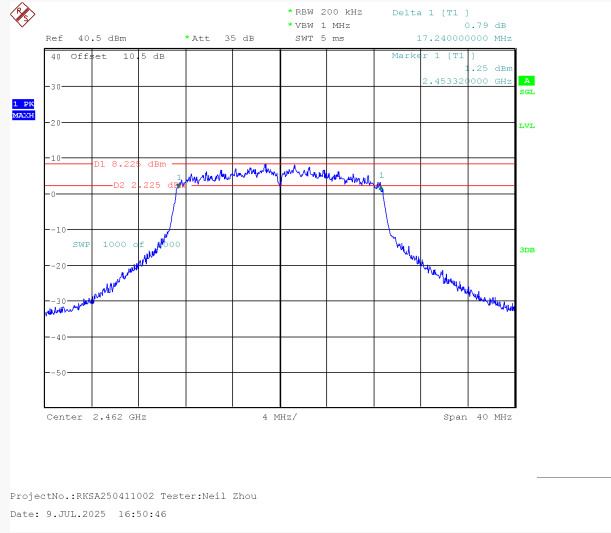
802.11n20_2412MHz



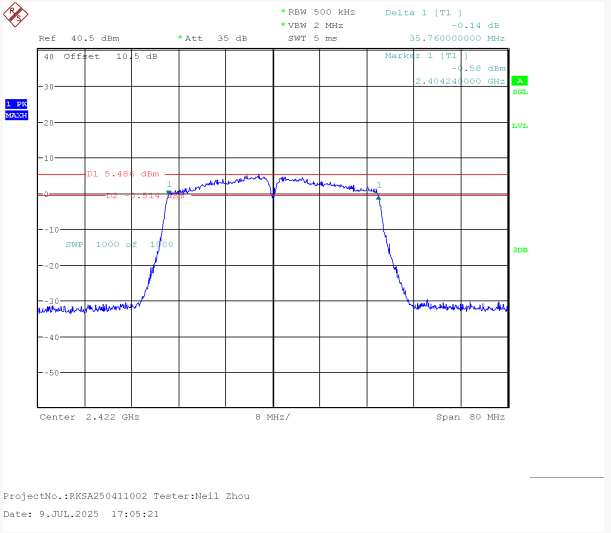
802.11n20_2437MHz

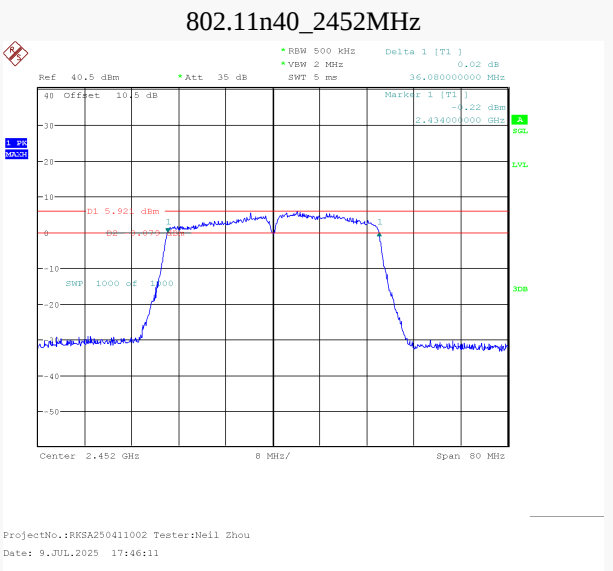
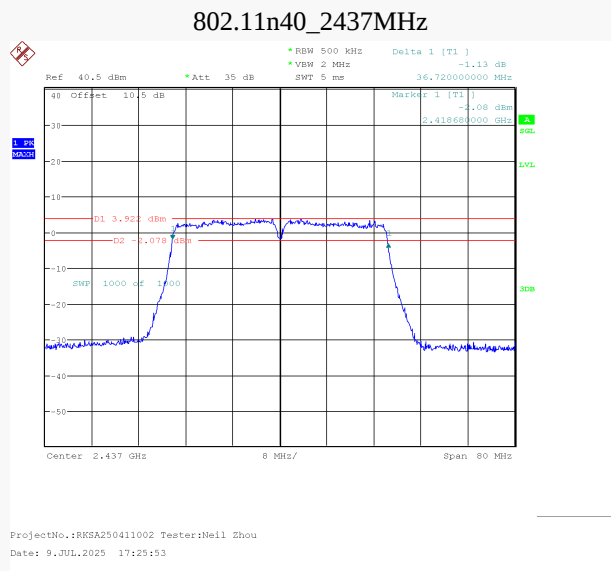


802.11n20_2462MHz



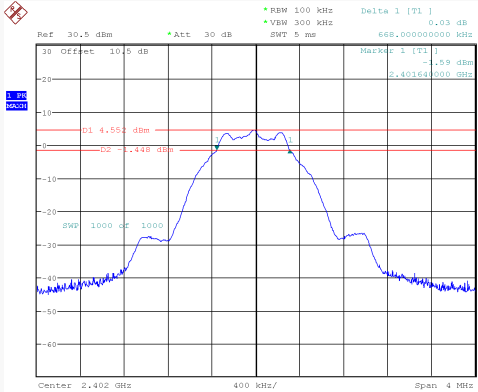
802.11n40_2422MHz





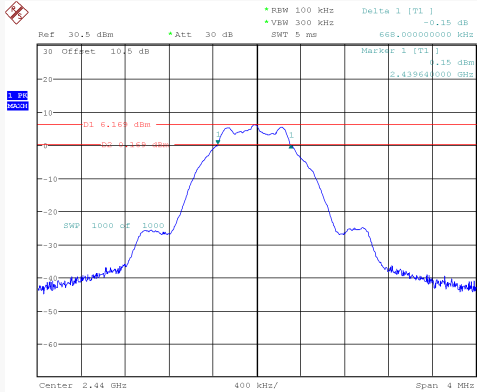
For BLE Mode:
BLE (1 Mbps)

Low Channel



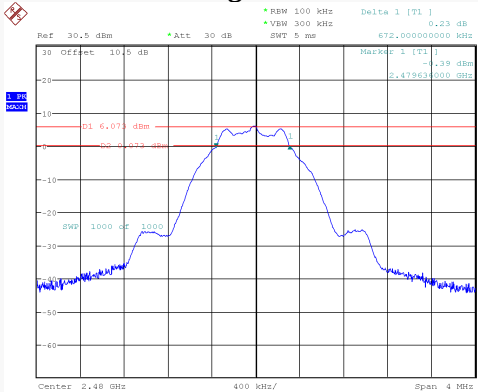
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 25.APR.2025 11:23:24

Middle Channel



ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 25.APR.2025 11:33:06

High Channel



ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 25.APR.2025 11:43:40

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

Test Date:	2025-04-25 to 2025-07-09
Temperature:	25.7-26.5°C
Relative Humidity:	49-52 %
ATM Pressure:	102.1-102.7 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

Test Result: Compliant.

EUT operation mode: Transmitting

For Wi-Fi Mode:

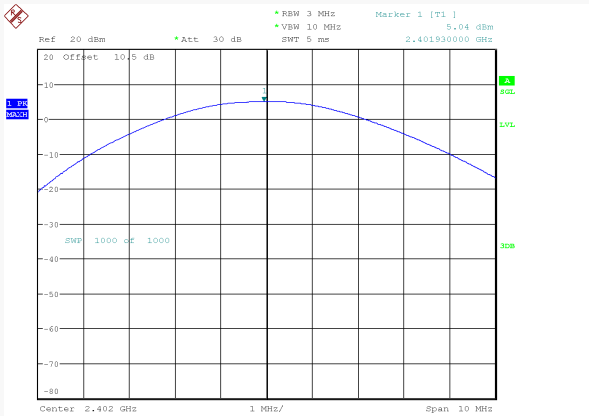
Channel	Frequency (MHz)	Max Conducted Peak Output Power (dBm)	Peak Output Power Limit (dBm)
802.11b Mode			
Low	2412	18.51	≤30
Middle	2437	17.73	≤30
High	2462	18.76	≤30
802.11g Mode			
Low	2412	18.80	≤30
Middle	2437	18.07	≤30
High	2462	19.21	≤30
802.11n-HT20 Mode			
Low	2412	17.93	≤30
Middle	2437	16.87	≤30
High	2462	18.33	≤30
802.11n-HT40 Mode			
Low	2422	16.69	≤30
Middle	2437	16.70	≤30
High	2452	17.60	≤30

BLE Mode:

Mode	Channel	Frequency (MHz)	Max Conducted Peak Output Power (dBm)	Limit (dBm)	Result
BLE (1 Mbps)	Low	2402	5.04	≤30	Pass
	Middle	2440	6.72	≤30	Pass
	High	2480	6.55	≤30	Pass

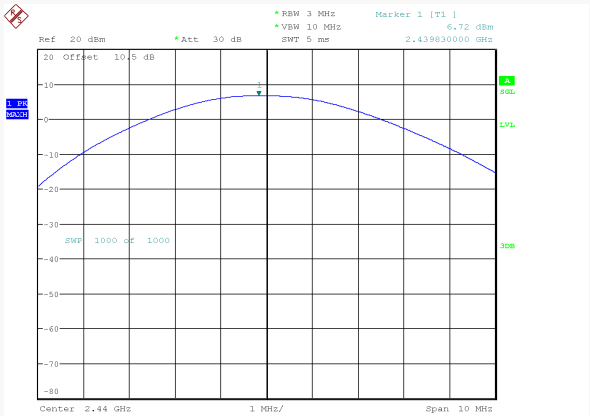
BLE (1 Mbps)

Low Channel



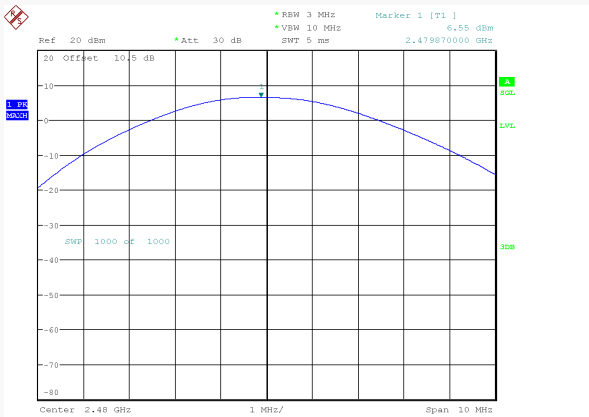
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 25.APR.2025 11:31:31

Middle Channel



ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 25.APR.2025 11:41:08

High Channel



ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 25.APR.2025 11:50:28

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

Test Date:	2025-04-25 to 2025-07-09
Temperature:	25.7-26.5°C
Relative Humidity:	49-52 %
ATM Pressure:	102.1-102.7 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

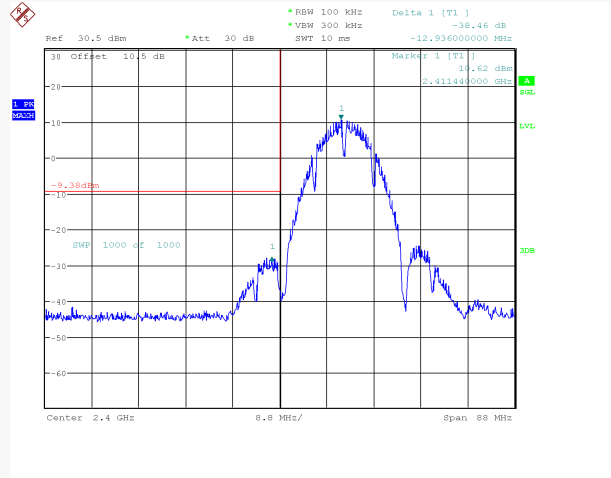
*EUT operation mode: Transmitting***Test Result:** Compliant

Mode	Channel	Test Frequency (MHz)	Result (dB)	Limit (dB)
802.11b	Low	2412	38.46	20
	High	2462	50.82	20
802.11g	Low	2412	32.57	20
	High	2462	44.77	20
802.11n20	Low	2412	31.05	20
	High	2462	44.99	20
802.11n40	Low	2422	38.16	20
	High	2452	41.34	20

Mode	Channel	Frequency (MHz)	Result (dB)	Limit (dB)
BLE (1 Mbps)	Low	2402	47.99	20
	High	2480	50.74	

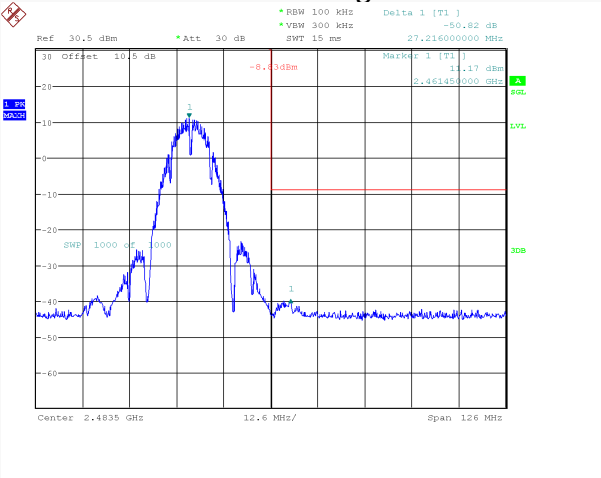
For Wi-Fi Mode:

802.11b Mode Left Side



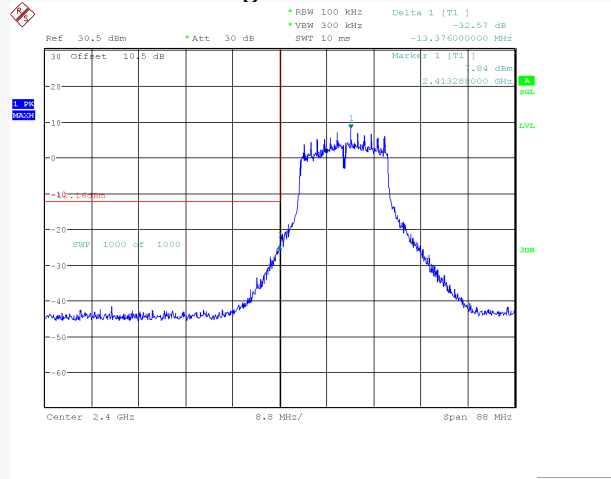
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 3.JUL.2025 17:18:04

802.11b Mode Right Side



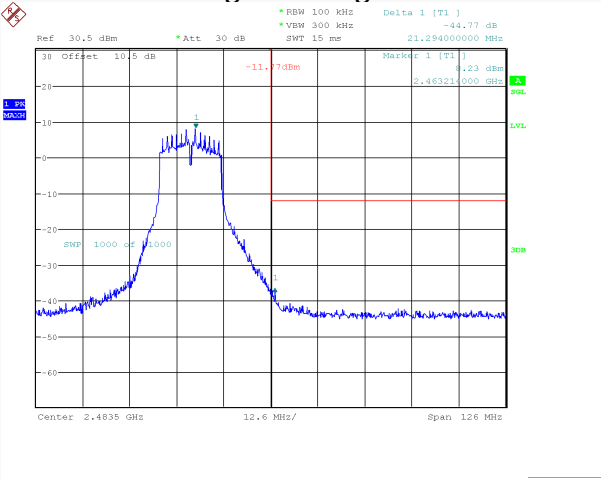
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 3.JUL.2025 17:44:49

802.11g Mode Left Side



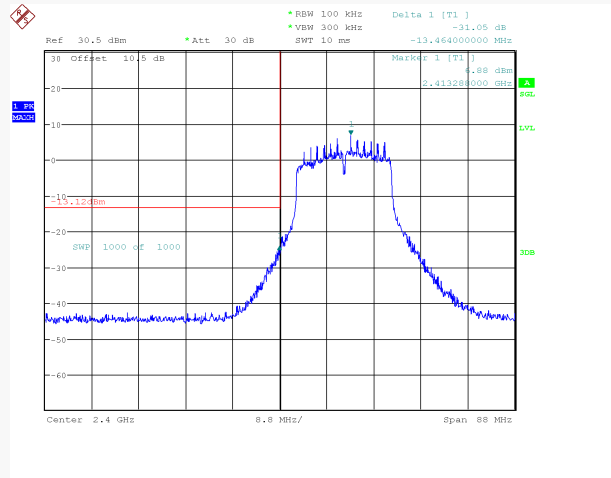
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 9.JUL.2025 15:40:44

802.11g Mode Right Side



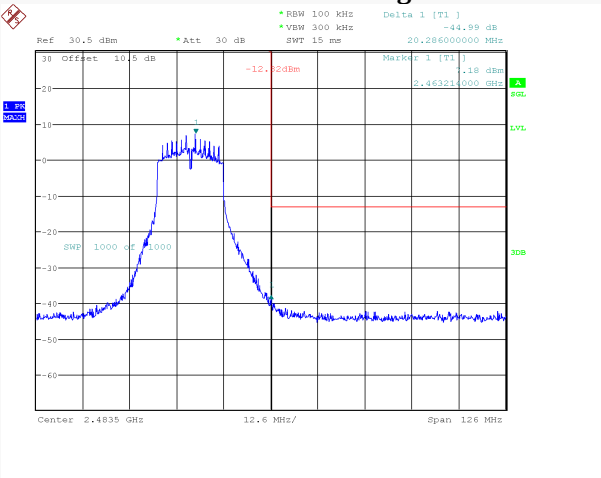
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 9.JUL.2025 16:07:39

802.11n-HT20 Mode Left Side



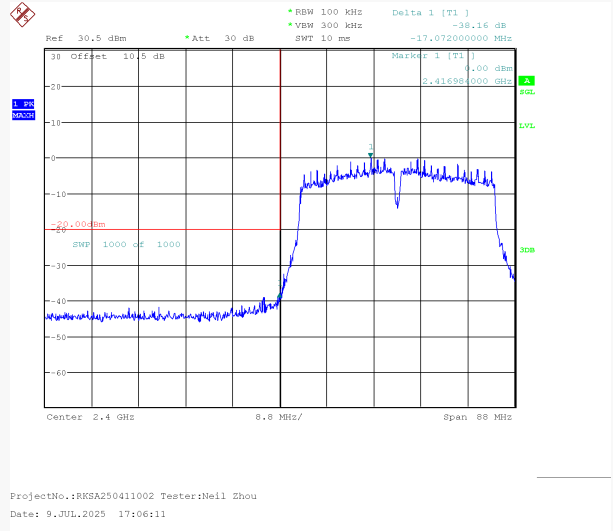
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 9.JUL.2025 16:23:17

802.11n-HT20 Mode Right Side

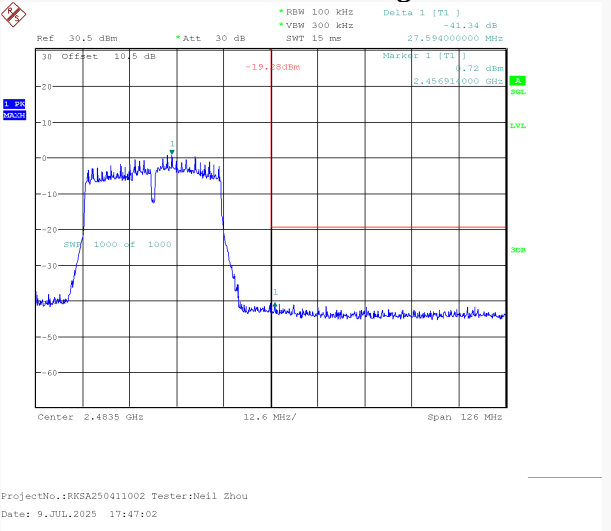


ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 9.JUL.2025 16:51:36

802.11n-HT40 Mode Left Side

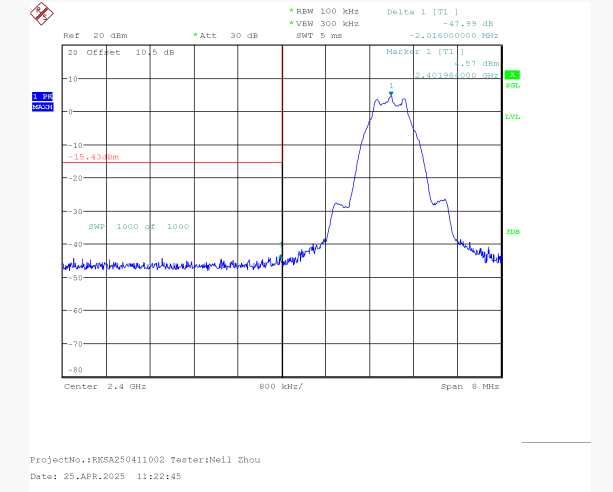


802.11n-HT40 Mode Right Side

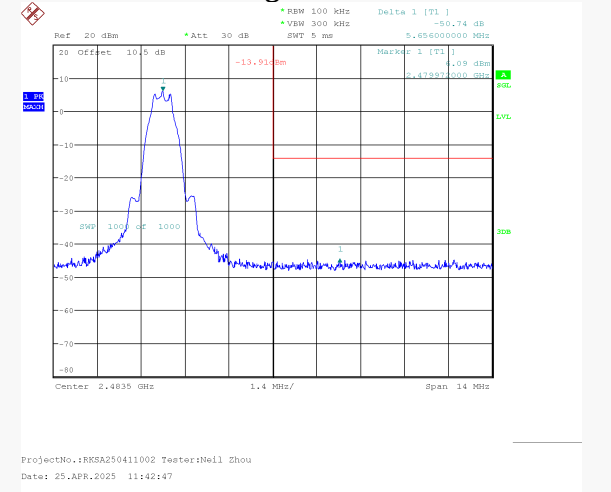


For BLE Mode:
BLE (1 Mbps)

Left Side



Right Side



POWER SPECTRAL DENSITY**Environmental Conditions & Test Information**

Test Date:	2025-04-25 to 2025-07-09
Temperature:	25.7-26.5℃
Relative Humidity:	49-52 %
ATM Pressure:	102.1-102.7 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

Test Result: Compliant.

EUT operation mode: Transmitting

For Wi-Fi Mode:

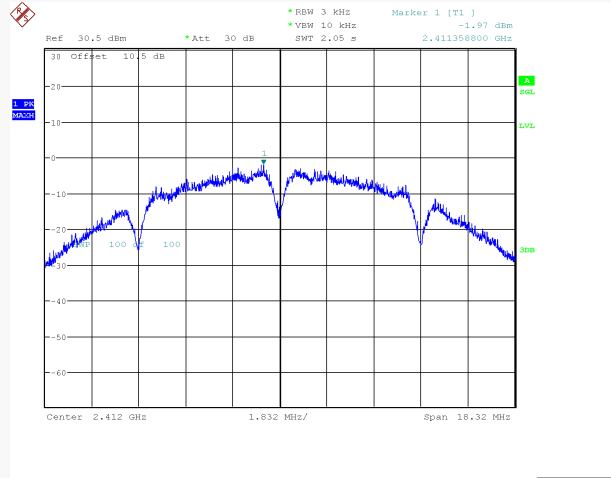
Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
802.11b Mode				
Low	2412	-1.97	≤8	Pass
Middle	2437	-2.43	≤8	Pass
High	2462	-1.63	≤8	Pass
802.11g Mode				
Low	2412	-5.93	≤8	Pass
Middle	2437	-7.79	≤8	Pass
High	2462	-5.86	≤8	Pass
802.11n-HT20 Mode				
Low	2412	-7.97	≤8	Pass
Middle	2437	-9.21	≤8	Pass
High	2462	-7.72	≤8	Pass
802.11n-HT40 Mode				
Low	2422	-13.26	≤8	Pass
Middle	2437	-14.92	≤8	Pass
High	2452	-12.82	≤8	Pass

For BLE Mode:

Mode	Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
BLE (1 Mbps)	Low	2402	-10.33	≤ 8	Pass
	Middle	2440	-8.63	≤ 8	Pass
	High	2480	-8.81	≤ 8	Pass

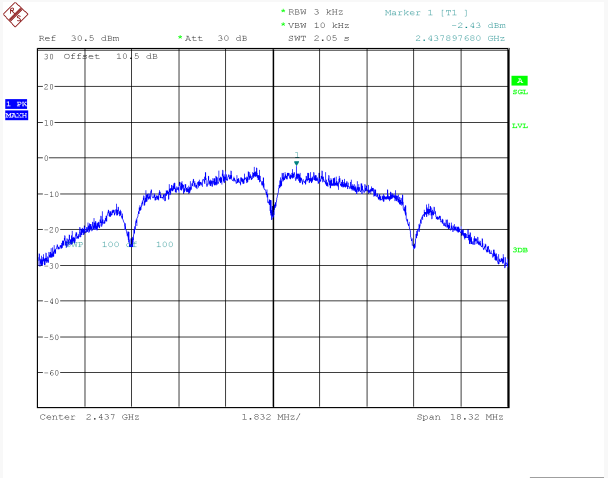
For Wi-Fi Mode:

802.11b_2412MHz



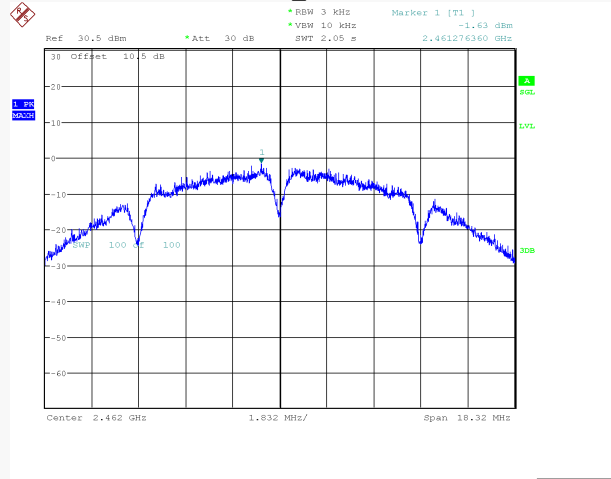
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 3.JUL.2025 17:28:14

802.11b_2437MHz



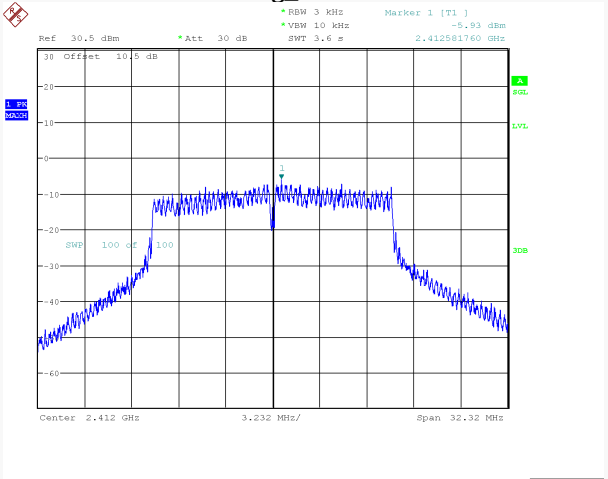
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 3.JUL.2025 17:40:58

802.11b_2462MHz



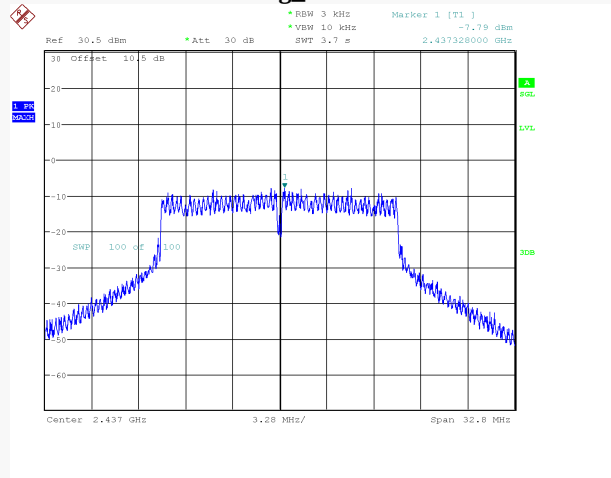
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 3.JUL.2025 17:55:08

802.11g_2412MHz



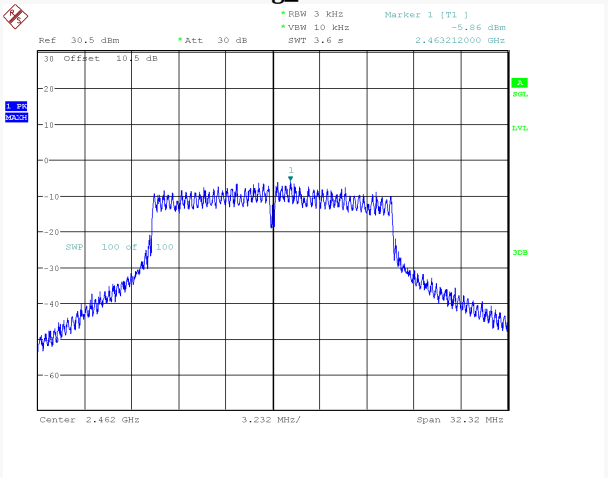
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 9.JUL.2025 15:51:29

802.11g_2437MHz



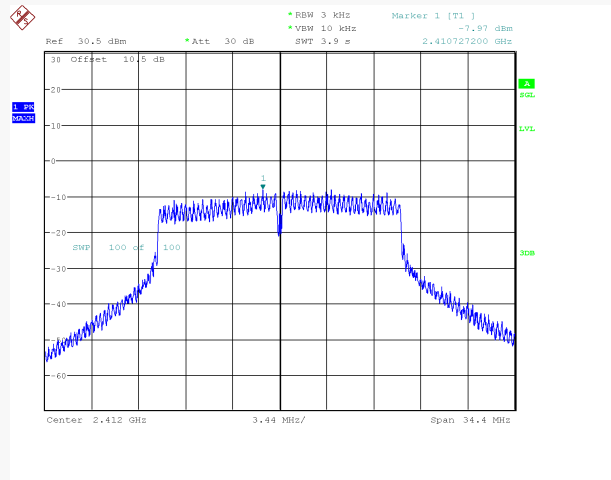
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 9.JUL.2025 16:04:12

802.11g_2462MHz



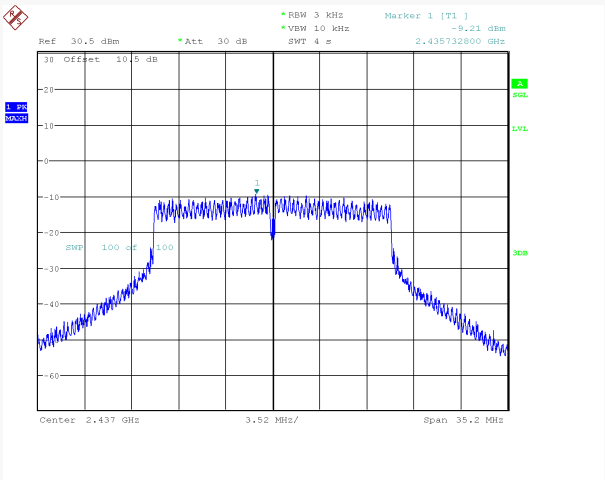
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 9.JUL.2025 16:18:24

802.11n20_2412MHz



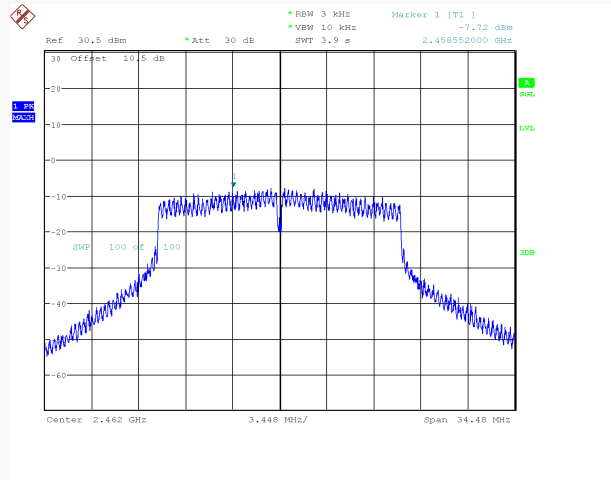
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 9.JUL.2025 16:34:32

802.11n20_2437MHz



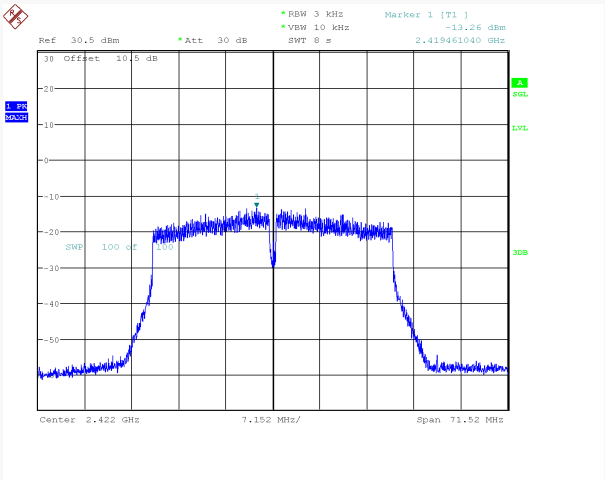
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 9.JUL.2025 16:47:51

802.11n20_2462MHz



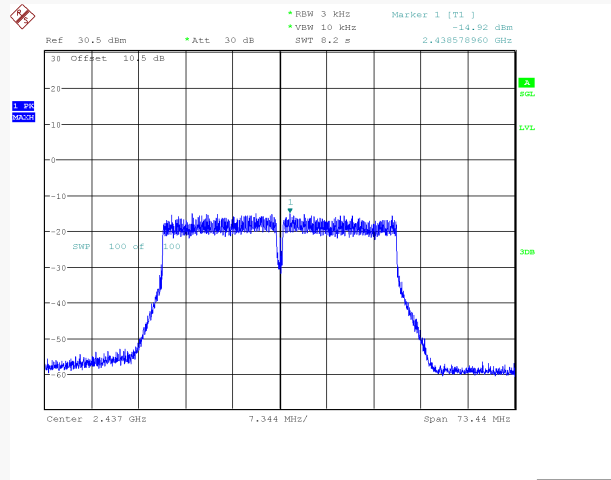
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 9.JUL.2025 17:02:54

802.11n40_2422MHz



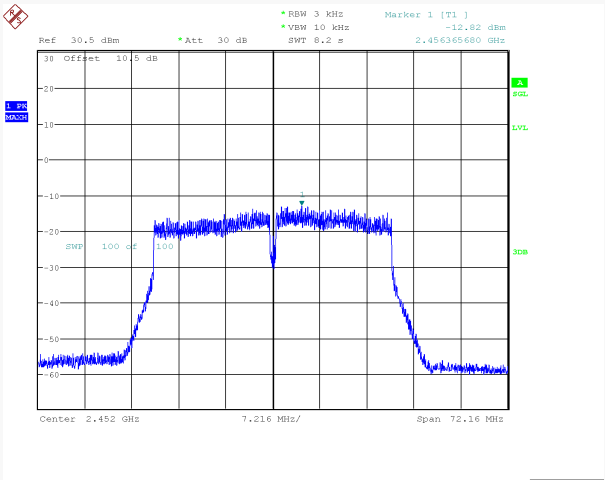
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 9.JUL.2025 17:24:18

802.11n40_2437MHz



ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 9.JUL.2025 17:44:23

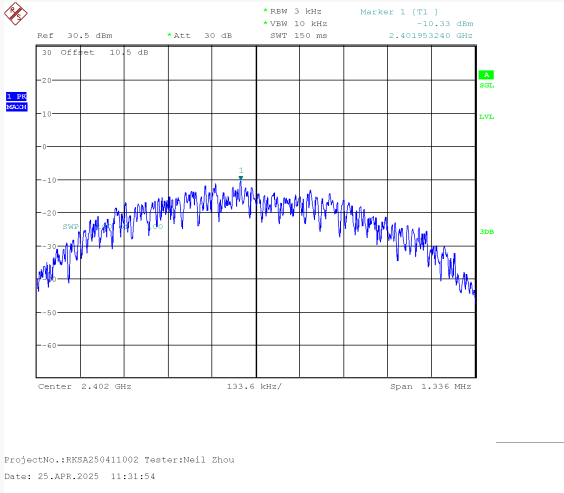
802.11n40_2452MHz



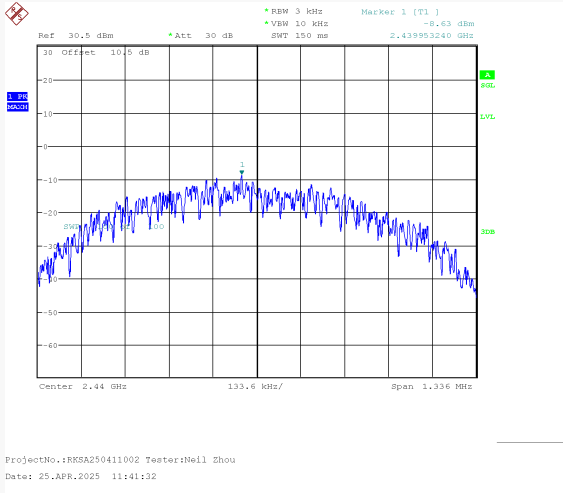
ProjectNo.:RKSA250411002 Tester:Neil Zhou
Date: 9.JUL.2025 18:05:33

For BLE Mode:
BLE (1 Mbps)

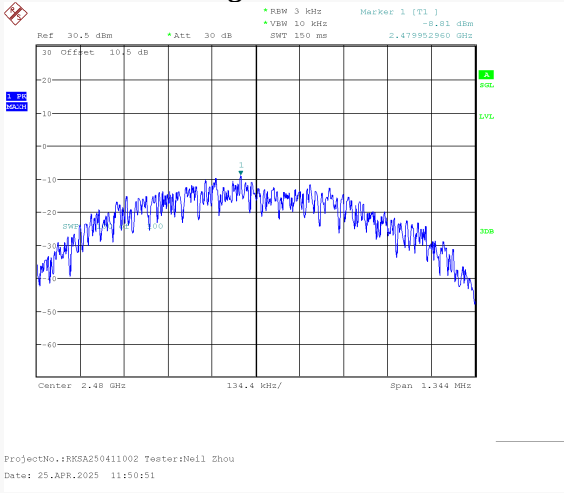
Low Channel



Middle Channel



High Channel



EUT PHOTOGRAPHS

Please refer to the attachment EXHIBIT A - EUT EXTERNAL PHOTOGRAPHS and EXHIBIT B - EUT INTERNAL PHOTOGRAPHS.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment EXHIBIT C - TEST SETUP PHOTOGRAPHS.

Declarations

1. The laboratory is not responsible for the authenticity of any information provided by the applicant. Information from the applicant that may affect test results is marked with “★” .
2. The test data was only valid for the test sample(s).
3. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.
4. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.
5. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor $k=2$ with the 95.45% confidence interval.

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