

FCC PART 15.247

TEST REPORT

For

Shanghai Xiangcheng Communication Technology Co.,Ltd

6th Floor, Building 10, No.3000 Longdong Avenue, Pudong New District, Shanghai, China

FCC ID: 2A2UUP8S

Report Type:

Original Report

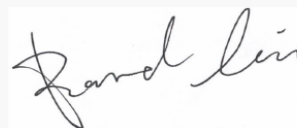
Product Name:

SumUp Terminal

Report Number: RKSA240808001-00C

Report Date: 2025-05-16

Reviewed By: Bard Liu



Approved By: Kyle Xu



Prepared By:

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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	RKSA240808001-00C	R1V1	2025-05-16	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	Shanghai Xiangcheng Communication Technology Co.,Ltd
Tested Model:	P8
Product Name:	SumUp Terminal
Power Supply:	DC 5V from adapter or DC 7.6V from battery
RF Function:	2.4G Wi-Fi; BLE
Maximum peak Output Power:	2.4G Wi-Fi: 802.11b: 18.73 dBm 802.11g: 16.26 dBm 802.11n20: 14.78 dBm 802.11n40: 13.19 dBm BLE(1Mbps): -2.18 dBm BLE(2Mbps): -2.1 dBm
Operating Band/Frequency:	2.4G Wi-Fi: 2412~2462 MHz(802.11b/g/n20), 2422~2452 MHz(802.11n40) BLE: 2402-2480 MHz
Channel Number:	2.4G Wi-Fi: 11(802.11b/g/n20), 7(802.11n40) BLE: 40
Channel Separation:	2.4G Wi-Fi: 5 MHz BLE: 2 MHz
Modulation Type:	2.4G Wi-Fi: DSSS, OFDM BLE: GFSK
Antenna Type:	2.4G Wi-Fi /BLE: FPC Antenna
★Maximum Antenna Gain:	2.4G Wi-Fi: 2.98 dBi BLE: 2.98 dBi

Adapter information

Model: TPA-418G050200UU01

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

Output: 5.0 V, 2.0 A, 10.0 W

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: RKSA240808001-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2024-08-08.)

Objective

This report is prepared for *Shanghai Xiangcheng Communication Technology Co.,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 C63.10-2013, 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℃
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

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

Mode	Data Rate	★Power Level		
		Low Channel	Middle Channel	High Channel
802.11b	1 Mbps	18	18	18
802.11g	6 Mbps	16	16	16
802.11n-HT20	MCS0	14	14	14
802.11n-HT40	MCS0	14	14	14

Mode	Data rate	★Power Level
BLE(1Mbps)	1Mbps	Default
BLE(2Mbps)	2Mbps	Default

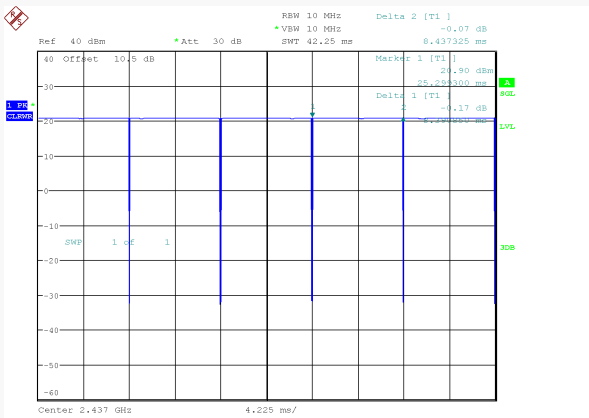
Note: The power level was declared by the applicant.

Environmental Conditions & Test Information

Test Item:	Duty Cycle
Test Date:	2025-02-11 to 2025-02-14
Temperature:	16.0-23 °C
Relative Humidity:	37-44 %
ATM Pressure:	101.2-102.9 kPa
Test Result:	/
Test Engineer:	Neil Zhou

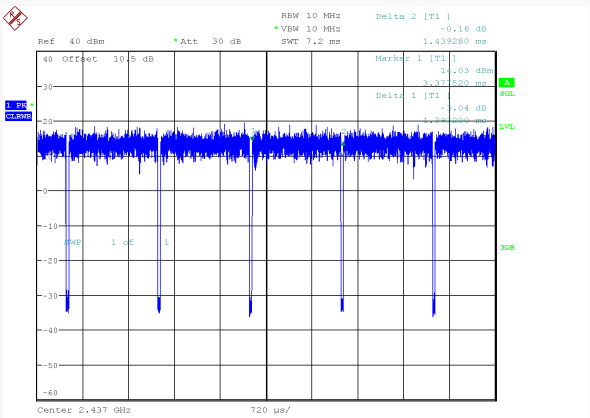
Duty Cycle:

802.11b Mode Middle Channel



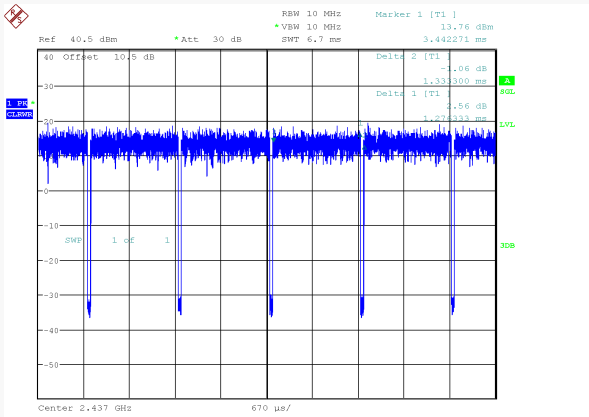
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:11:50

802.11g Mode Middle Channel



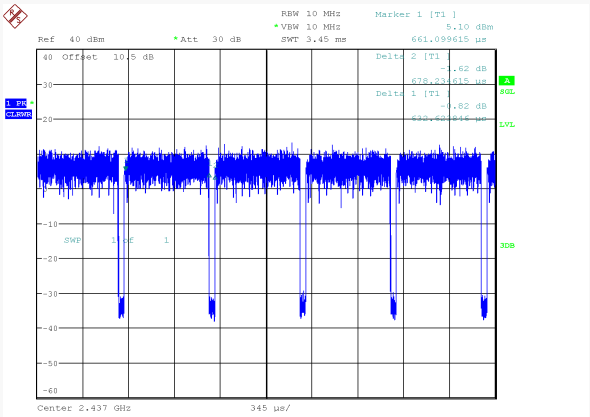
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802.11n-HT20 Mode Middle Channel

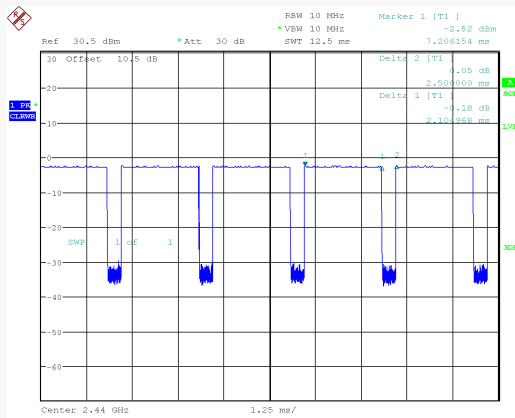


ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 09:19:40

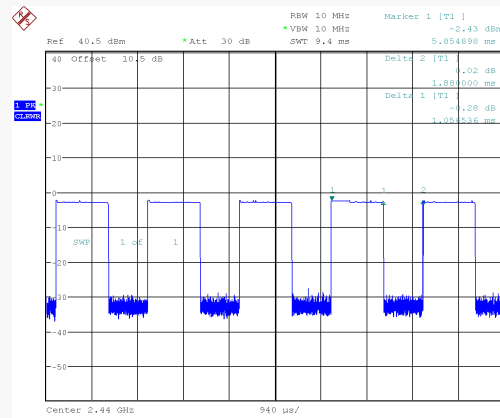
802.11n-HT40 Mode Middle Channel



ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 10:41:51

BLE(1Mbps) Mode Middle Channel

ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 11.FEB.2025 10:10:33

BLE(2Mbps) Mode Middle Channel

ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 11.FEB.2025 10:15:46

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	95.72	1.276	1.333	0.19
802.11n-HT40	93.36	0.633	0.678	0.30
BLE(1Mbps)	84.20	2.105	2.500	0.75
BLE(2Mbps)	56.22	1.057	1.880	2.50

Note: “x” means the Duty Cycle.

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

Support Equipment List and Details

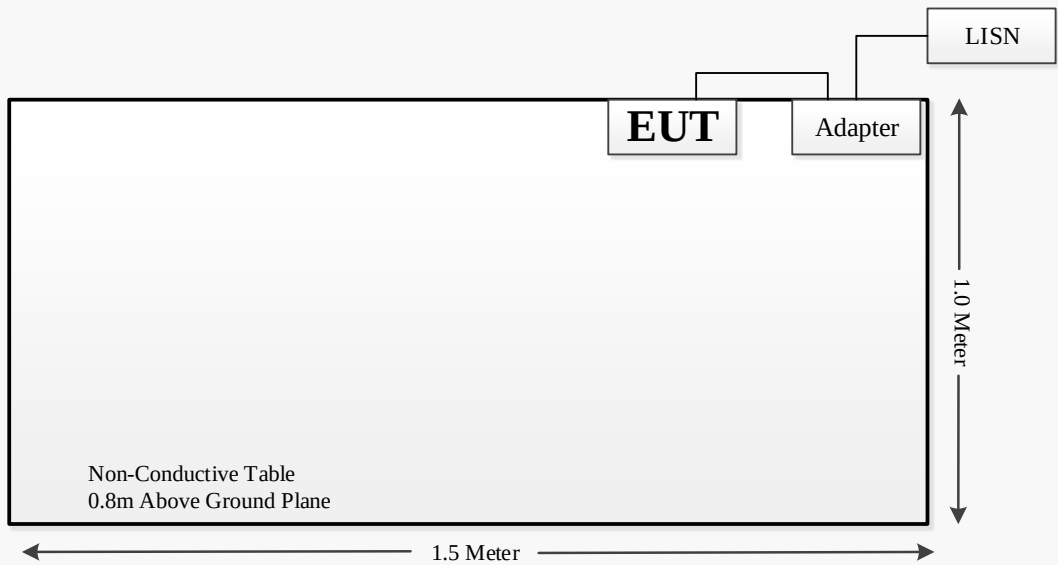
Manufacturer	Description	Model	Serial Number
/	/	/	/

External I/O Cable

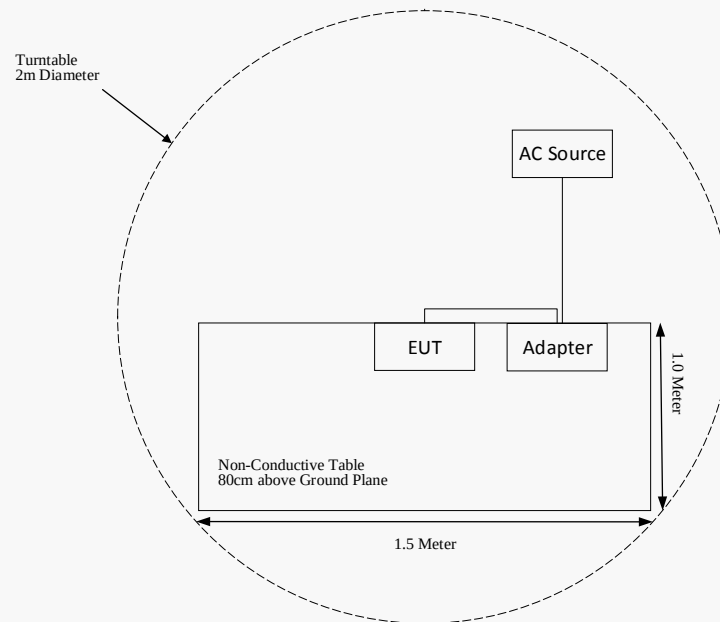
Cable Description	Length (m)	From Port	To
Power Cable 1	1.0	EUT	Adapter
Power Cable 2	1.0	Adapter	AC Source/LISN

Block Diagram of Test Setup

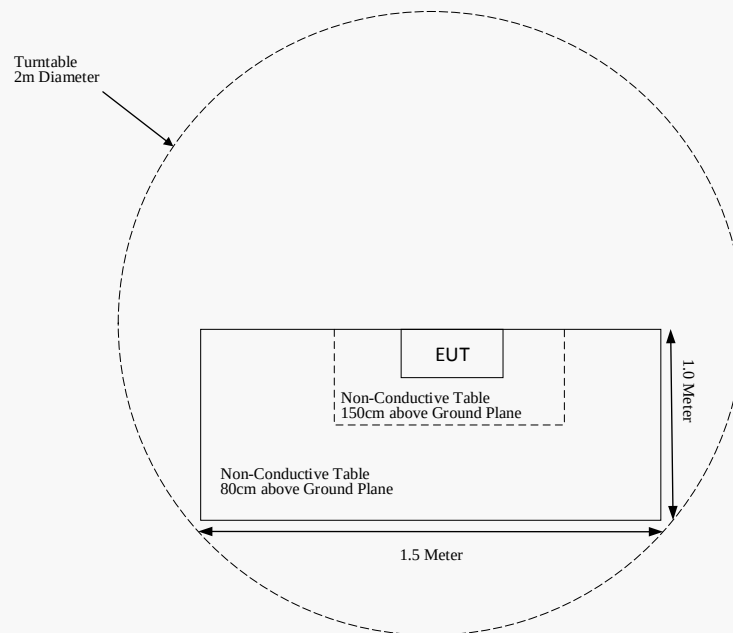
For Conducted Emissions:



For Radiated Emissions (Below 1GHz):



For Radiated Emissions (Above 1 GHz):



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§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	2024-04-23	2025-04-22
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	2024-04-23	2025-04-22
Rohde & Schwarz	Auto Test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-8	008	2024-04-25	2025-04-24
MICRO-COAX	Coaxial Cable	Cable-9	009	2024-04-23	2025-04-22
MICRO-COAX	Coaxial Cable	Cable-10	010	2024-04-23	2025-04-22
Radiated Emission Test (Chamber #2)					
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2024-04-25	2025-04-24
ETS-LINDGREN	Horn Antenna	3115	9207-3900	2024-11-03	2027-11-02
ETS-LINDGREN	Horn Antenna	3116	2516	2024-01-06	2025-01-05
A.H.Systems, inc	Amplifier	PAM-0118P	512	2024-04-25	2025-04-24
SELECTOR	Amplifier	EM18G40G	060726	2024-04-25	2025-04-24
MICRO-TRONICS	Band Reject Filter	BRM50702	G024	2024-04-25	2025-04-24
Narda	Attenuator	10dB	010	2024-04-25	2025-04-24
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-6	006	2024-04-25	2025-04-24
MICRO-COAX	Coaxial Cable	Cable-11	011	2024-04-25	2025-04-24
MICRO-COAX	Coaxial Cable	Cable-12	012	2024-04-25	2025-04-24
MICRO-COAX	Coaxial Cable	Cable-13	013	2024-04-25	2025-04-24
RF Conducted Test					
Rohde & Schwarz	Signal Analyzer	FSU26	200103	2024-04-24	2025-04-23
Rohde & Schwarz	Signal Analyzer	FSV40-N	103298	2024-04-24	2025-04-23
Narda	Attenuator	10 dB	N/A	2024-04-23	2025-04-22
Anritsu	Power Sensor	MA24418A	12621	2024-04-23	2025-04-22
XHFDZ	RG178 Coaxial Cable	SMA-178	XHF-1102	Each time	N/A
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 §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 has an FPC for 2.4G Wi-Fi & BLE, which is permanently attached to the unit, fulfill the requirement of this section. Please refer to the EUT photos.

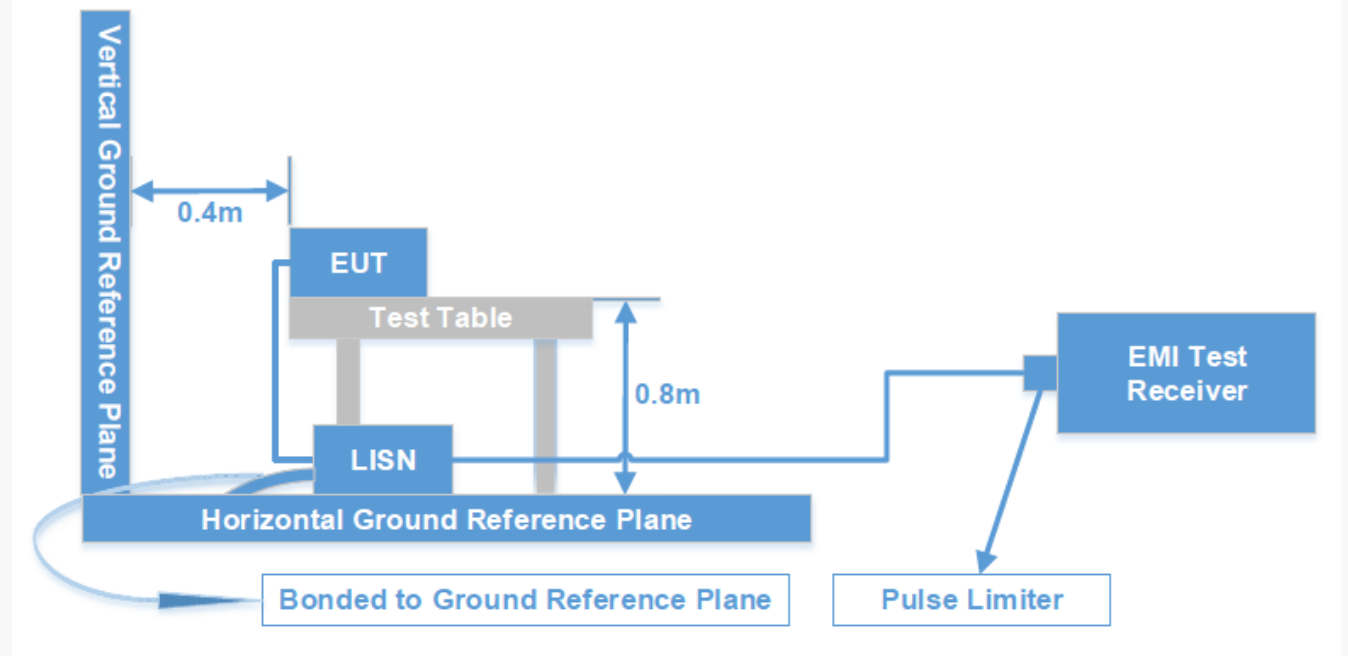
Result: Compliant.

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 C63.10-2013. The related limit was specified in FCC Part 15.207.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

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

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

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

Test Procedure

ANSI C63.10-2013 clause 6.2

During the conducted emission test, the EUT or adapter 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)

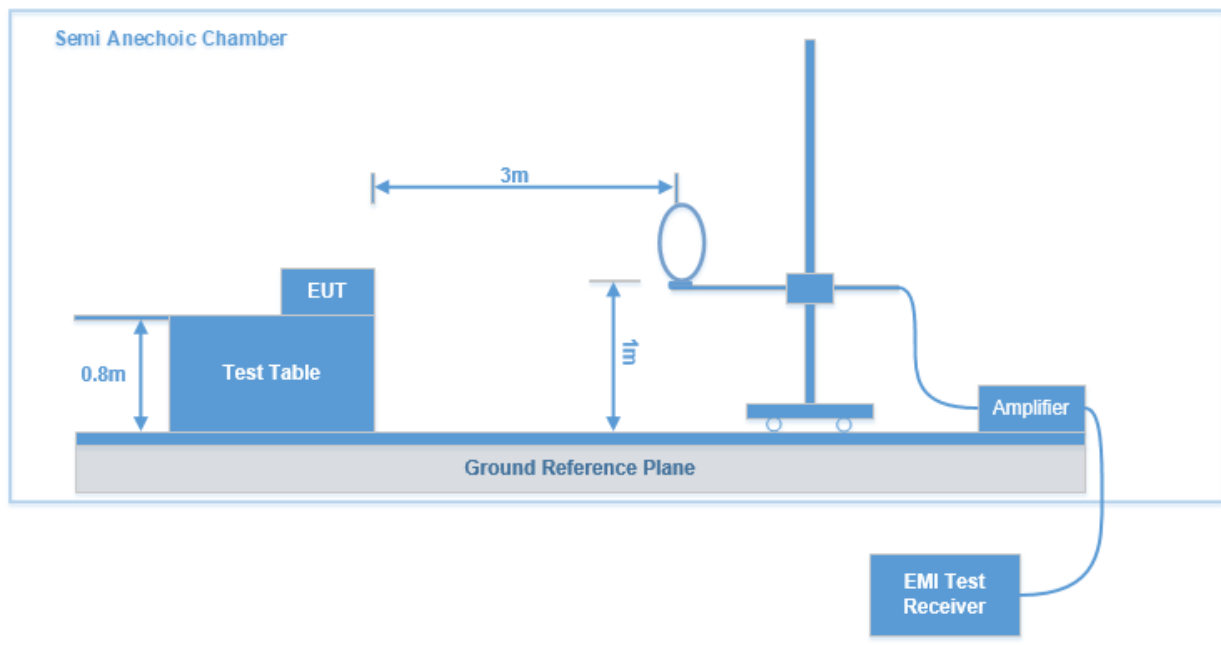
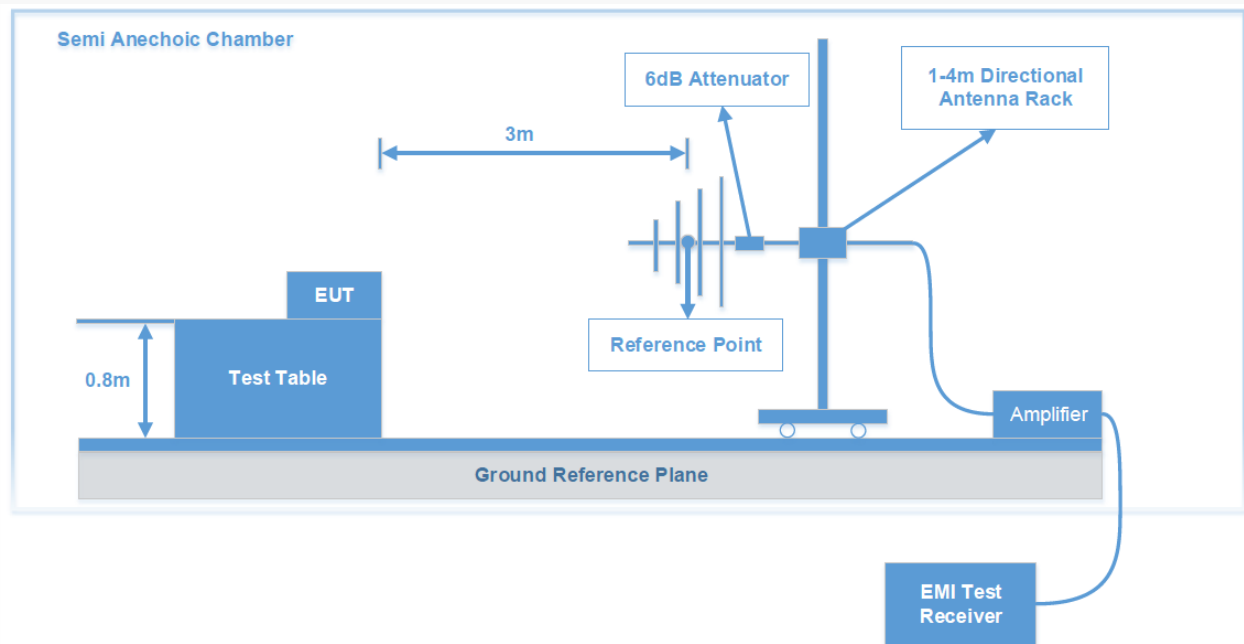
Test Results Summary

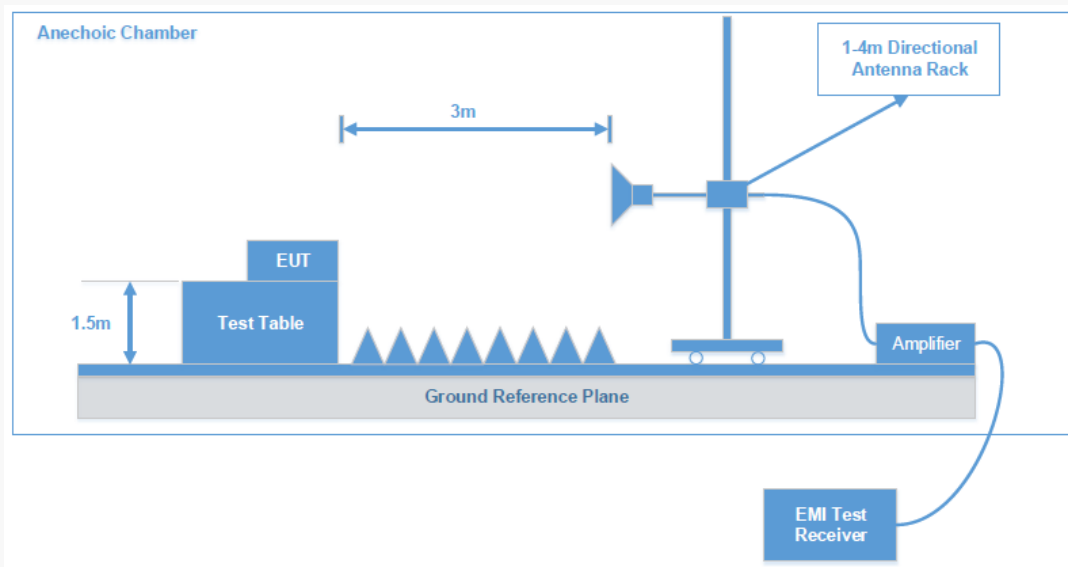
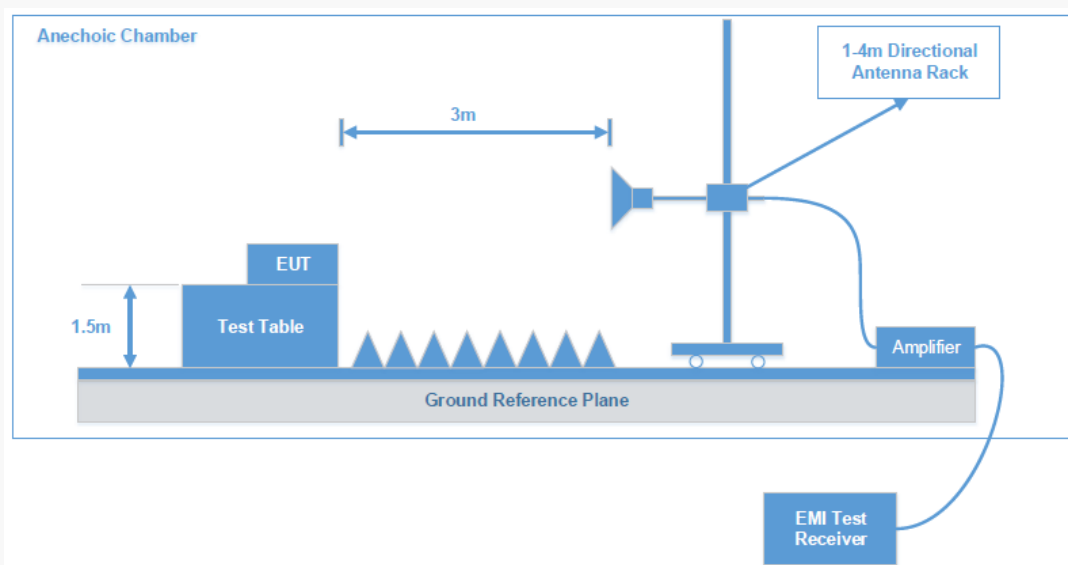
According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

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:**

1 GHz-18 GHz:**18 GHz-25 GHz:**

The radiated emission tests were performed in the 3 meters test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.247 limits.

EMI Test Receiver Setup

The system was investigated from 9 kHz to 25 GHz.

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

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.

Test Procedure

According to ANSI C63.10-2013 clause 6.5, 6.6 and 6.7.

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.

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 (dBμV/m) = Meter Reading (dBμV) + 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 (dBμV/m) – Corrected Amplitude (dBμV/m)

Test Results Summary

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

Test Data: See Appendix

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

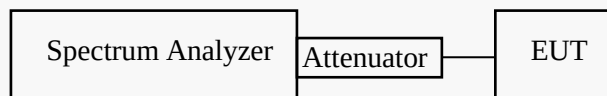
Applicable Standard

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 C63.10-2013 sub-clause 11.8.1

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) $\geq 3 * \text{RBW}$.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.



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

According to ANSI C63.10-2013 sub-clause 11.9.1.3

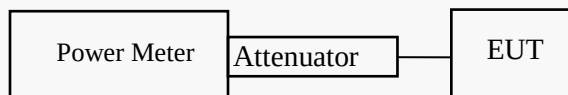
The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast-responding diode detector.

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.
3. Add a correction factor to the display.

11.9.2.3.2 Method AVGPM-G

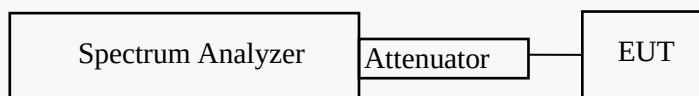
Method AVGPM-G is a measurement using a gated RF average power meter.

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:

1. Set the RBW $\geq$ DTS bandwidth.
2. Set VBW $\geq 3 * \text{RBW}$.
3. Set span $\geq 3 * \text{RBW}$
4. Sweep time = auto couple.
5. Detector = peak.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. 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

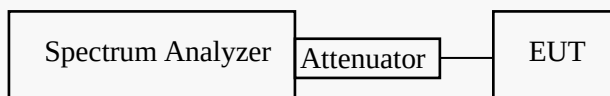
Applicable Standard

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 C63.10-2013 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

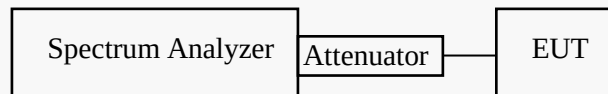
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of 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 C63.10-2013 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:

1. Set the RBW to: $3\text{kHz} \leq \text{RBW} \leq 100\text{ kHz}$.
2. Set the VBW $\geq 3 * \text{RBW}$.
3. Set the span to 1.5 times the DTS bandwidth.
4. Detector = peak.
5. Sweep time = auto couple.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. Use the peak marker function to determine the maximum amplitude level within the RBW.
9. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.



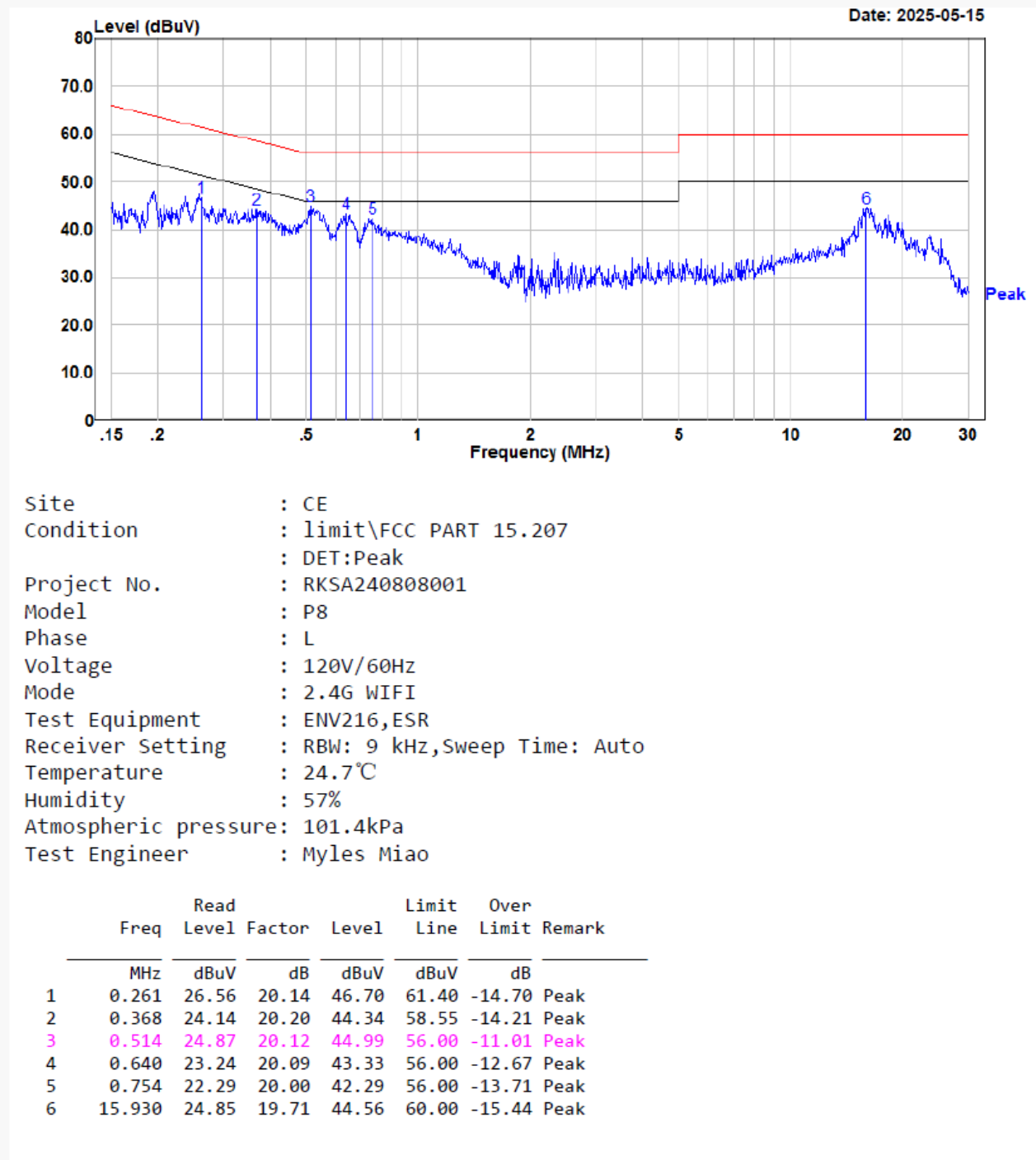
Note: Offset (10.5dB) = Attenuator(10dB) + Cable loss(0.5dB)

Test Data: See Appendix

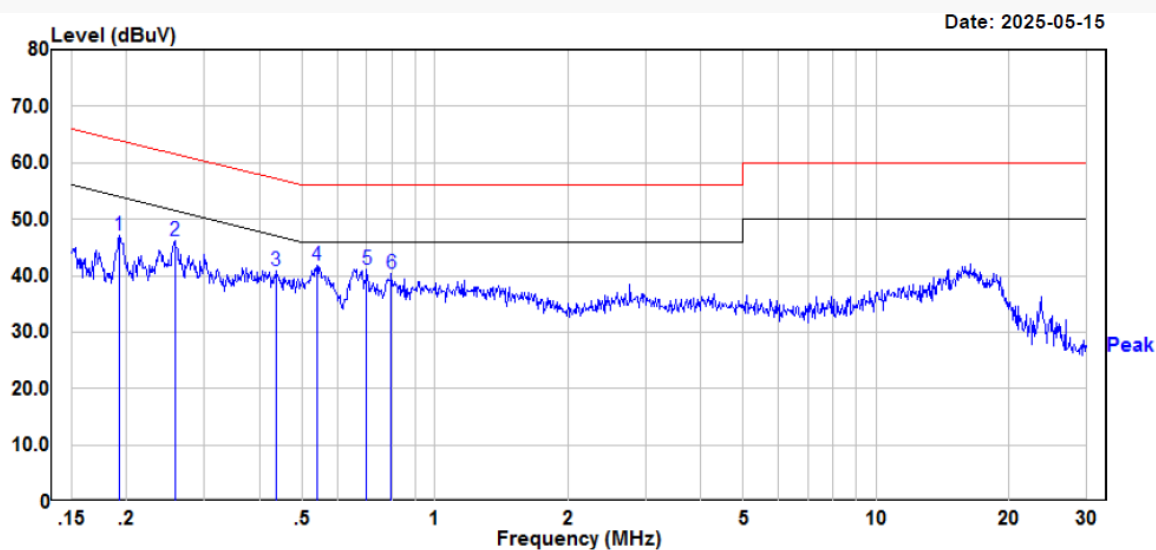
APPENDIX - TEST DATA

AC LINE CONDUCTED EMISSIONS**Environmental Conditions & Test Information**

Test Date:	2025-05-15
Temperature:	24.7 °C
Relative Humidity:	57 %
ATM Pressure:	101.4 kPa
Test Result:	Pass
Test Engineer:	Myles Miao

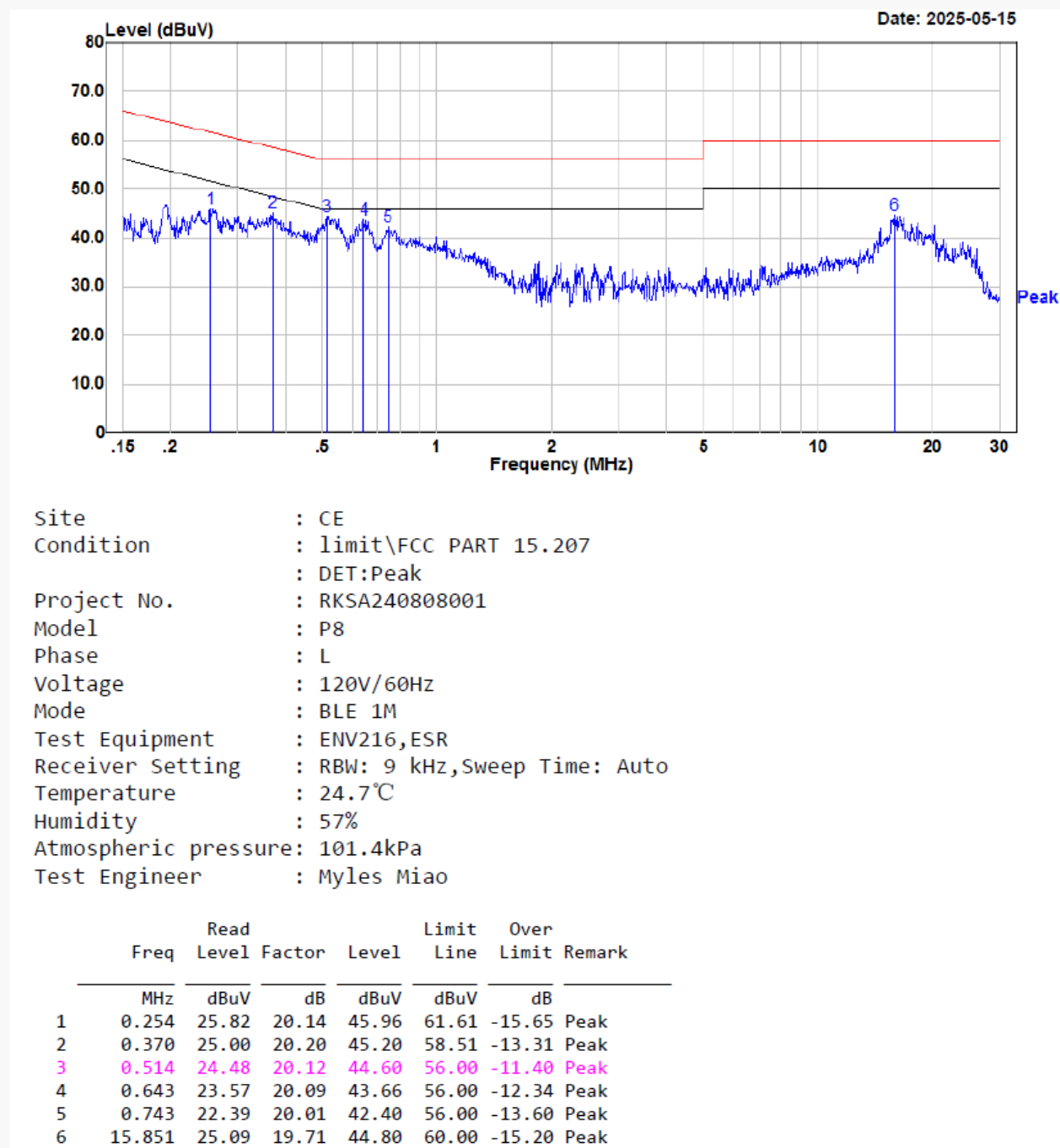
For Wi-Fi Mode:*EUT operation mode: Transmitting in maximum output power mode 802.11b mode low channel***Line:**

Neutral:

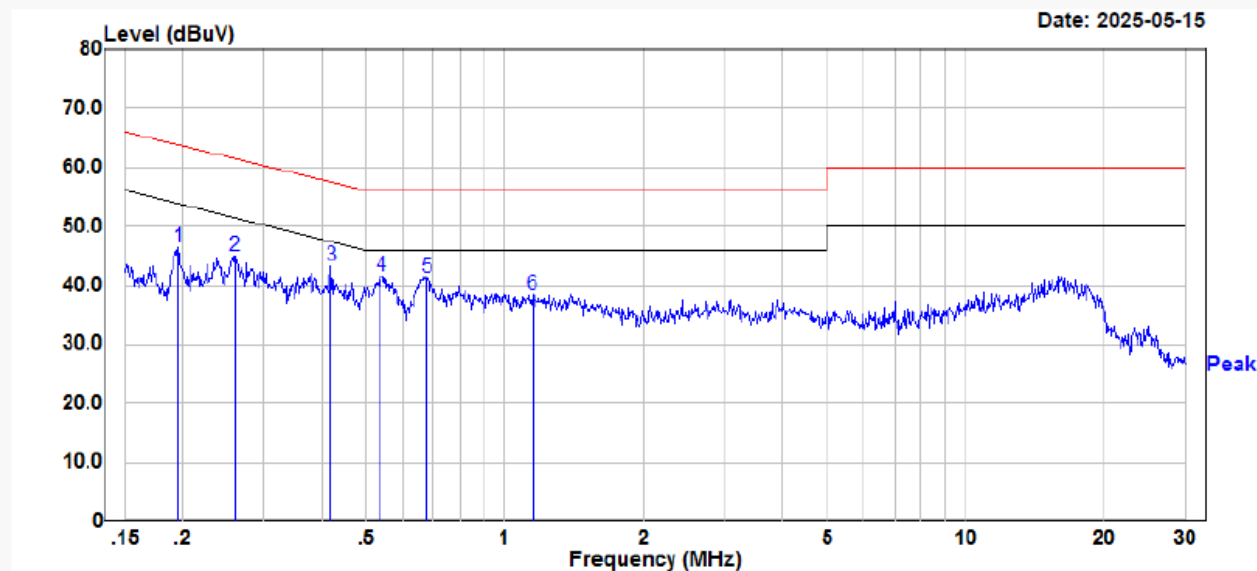


Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA240808001
Model : P8
Phase : N
Voltage : 120V/60Hz
Mode : 2.4G WIFI
Test Equipment : ENV216,ESR
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 24.7°C
Humidity : 57%
Atmospheric pressure: 101.4kPa
Test Engineer : Myles Miao

		Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.192	26.94	20.11	47.05	63.93	-16.88	Peak
2	0.257	25.97	20.14	46.11	61.53	-15.42	Peak
3	0.436	20.69	20.23	40.92	57.14	-16.22	Peak
4	0.540	21.61	20.12	41.73	56.00	-14.27	Peak
5	0.700	21.08	20.07	41.15	56.00	-14.85	Peak
6	0.797	20.48	19.94	40.42	56.00	-15.58	Peak

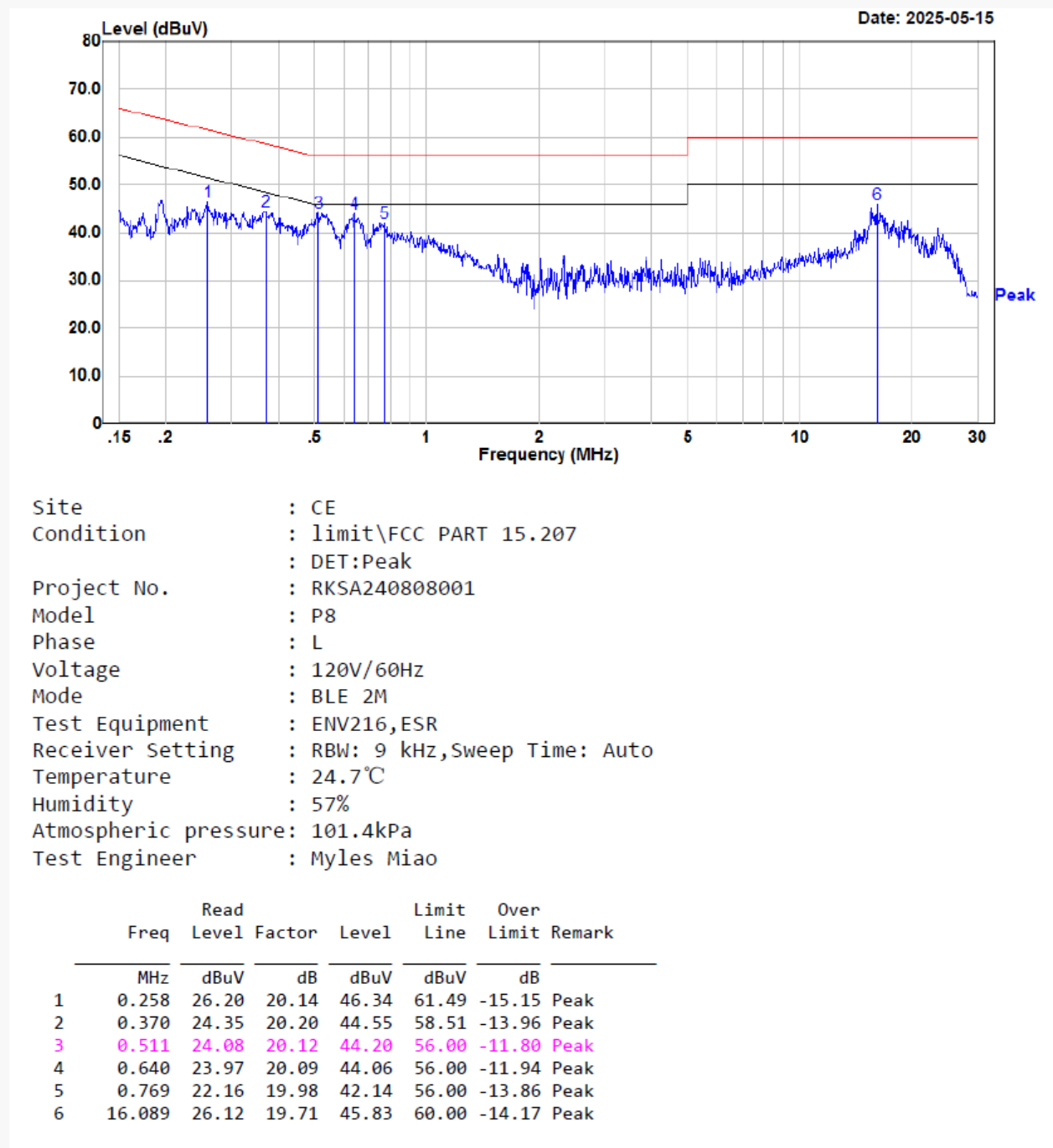
For BLE 1Mbps Mode:*EUT operation mode: Transmitting in maximum output power mode middle channel***Line**

Neutral

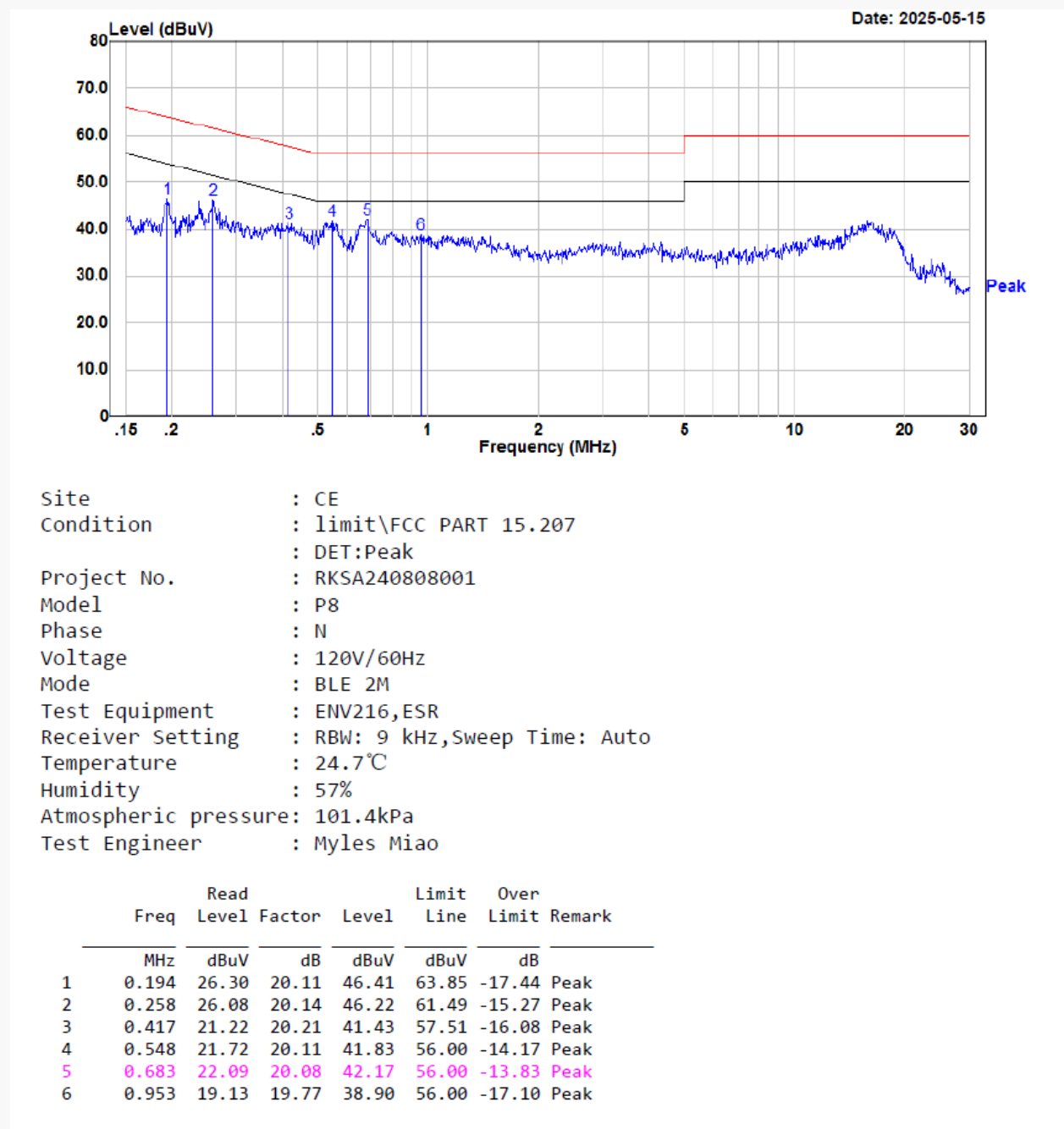


Site : CE
Condition : limit\FCC PART 15.207
Project No. : RKSA240808001
Model : P8
Phase : N
Voltage : 120V/60Hz
Mode : BLE 1M
Test Equipment : ENV216,ESR
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 24.7°C
Humidity : 57%
Atmospheric pressure: 101.4kPa
Test Engineer : Myles Miao

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.195	26.28	20.11	46.39	63.81	-17.42	Peak
2	0.260	24.94	20.14	45.08	61.45	-16.37	Peak
3	0.419	22.96	20.21	43.17	57.47	-14.30	Peak
4	0.537	21.54	20.12	41.66	56.00	-14.34	Peak
5	0.676	21.38	20.08	41.46	56.00	-14.54	Peak
6	1.146	18.71	19.81	38.52	56.00	-17.48	Peak

For BLE 2Mbps Mode:*EUT operation mode: Transmitting in maximum output power mode low channel***Line**

Neutral



SPURIOUS EMISSIONS**Environmental Conditions & Test Information**

Frequency Range:	9 kHz - 30 MHz	30 MHz - 1 GHz	1 GHz - 18 GHz	18 GHz - 25 GHz
Test Date:	2025-02-15 to 2025-02-17	2025-02-15	2025-02-17	2025-02-18
Temperature:	16.3-19 °C	16.3 °C	19 °C	22.5 °C
Relative Humidity:	39-42 %	39 %	42 %	45 %
ATM Pressure:	102.1-102.kPa	102.1 kPa	102.9 kPa	102.8 kPa
Test Result:	Pass	Pass	Pass	Pass
Test Engineer:	Jerry Yan	Jerry Yan	Destine Hu	Hugh Wu

Test Result: Compliant

EUT operation mode: Transmitting

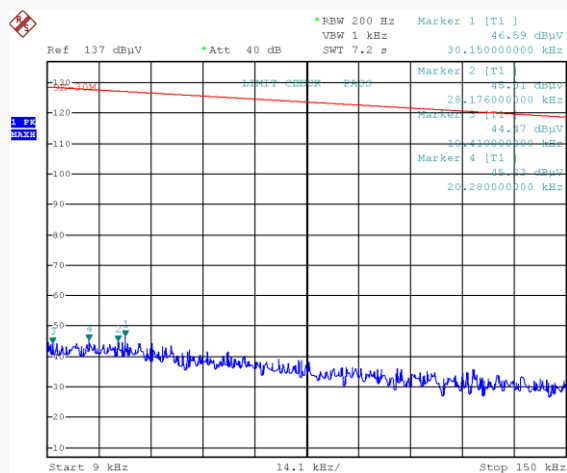
After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

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

Parallel(worst case)

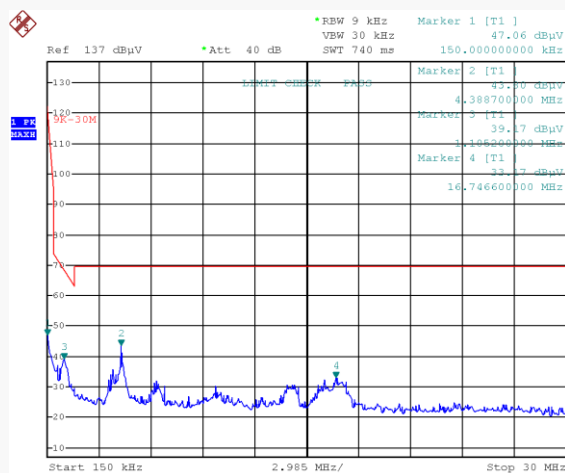
9kHz-150kHz

150kHz-30MHz



Project No. RKSA240808001
Date: 17.FEB.2025 16:57:18

Tester: Jerry Yan



Project No. RKSA240808001
Date: 15.FEB.2025 19:25:29

Tester: Jerry Yan

9 kHz - 150 kHz

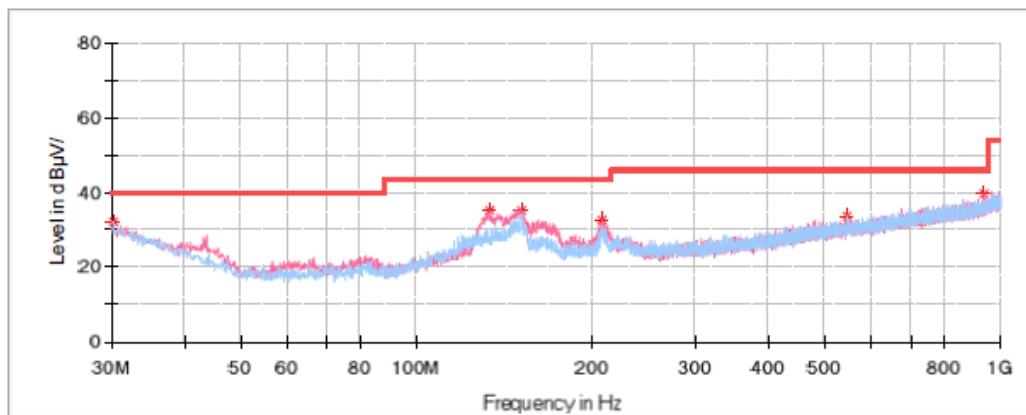
Frequency (kHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
10.41	44.47	PK	-0.51	127.26	82.79
20.28	45.23	PK	-0.56	121.46	76.23
28.18	45.01	PK	-0.56	118.61	73.60
30.15	46.59	PK	-0.63	118.02	71.43

150 kHz - 30 MHz

Frequency (kHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.15	47.06	PK	-11.34	104.08	57.02
1.11	39.17	PK	-27.97	66.70	27.53
4.39	43.80	PK	-31.97	69.54	25.74
16.75	33.17	PK	-33.17	69.54	36.37

For Wi-Fi Mode:**30MHz-1GHz (802.11b mode is worst case):****Low channel: 2412MHz****Common Information**

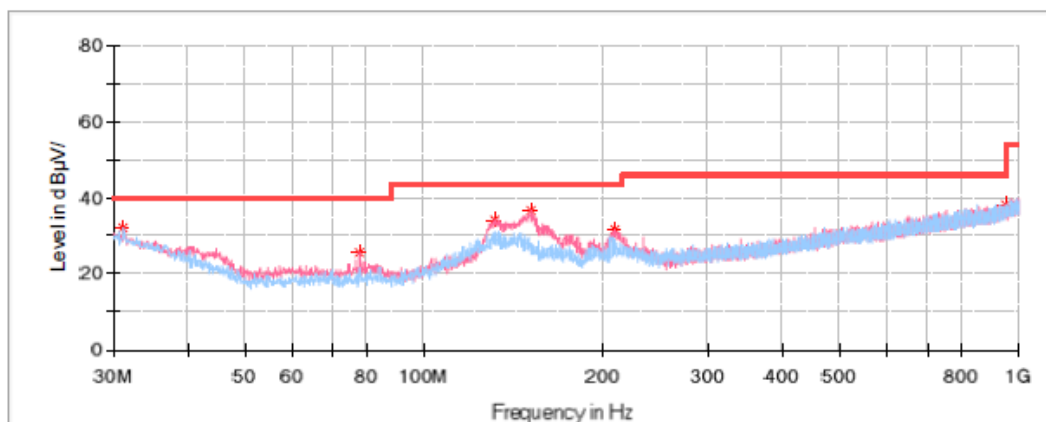
Project No: RKSA240808001
EUT Model: P8
Test Mode: 2.4G WIFI
Standard: FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.247
Test Equipment: ESCI, JB3, 310N
Receiver Setting: RBW: 100 kHz, VBW: 300 kHz, Sweep Time: Auto
Temperature: 16.3°C
Humidity: 39%
Barometric Pressure: 102.1kPa
Test Engineer: Jerry Yan
Test Date: 2025/2/15

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
30.121250	32.12	40.00	7.88	H	-4.8
133.305000	35.04	43.50	8.46	V	-11.1
151.007500	35.37	43.50	8.13	V	-11.7
207.146250	32.59	43.50	10.91	V	-12.5
547.737500	33.85	46.00	12.15	H	-4.7
939.011250	39.88	46.00	6.12	V	1.1

Middle channel: 2437MHz**Common Information**

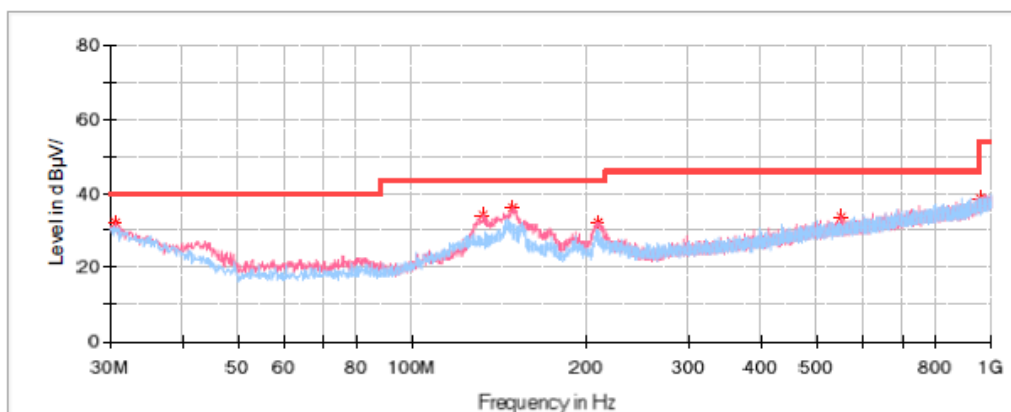
Project No: RKSA240808001
EUT Model: P8
Test Mode: 2.4G WIFI
Standard: FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.247
Test Equipment: ESCI, JB3, 310N
Receiver Setting: RBW: 100 kHz, VBW: 300 kHz, Sweep Time: Auto
Temperature: 16.3°C
Humidity: 39%
Barometric Pressure: 102.1kPa
Test Engineer: Jerry Yan
Test Date: 2025/2/15

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
31.212500	32.02	40.00	7.98	H	-5.5
78.015000	25.88	40.00	14.12	V	-17.0
131.243750	34.44	43.50	9.06	V	-11.1
151.128750	36.89	43.50	6.61	V	-11.7
209.692500	31.55	43.50	11.95	V	-12.7
947.983750	38.39	46.00	7.61	H	1.4

High Channel: 2462MHz**Common Information**

Project No: RKSA240808001
 EUT Model: P8
 Test Mode: 2.4G WIFI
 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: 16.3°C
 Humidity: 39%
 Barometric Pressure: 102.1kPa
 Test Engineer: Jerry Yan
 Test Date: 2025/2/15

**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
30.727500	32.02	40.00	7.98	V	-5.2
132.698750	34.23	43.50	9.27	V	-11.1
149.067500	36.24	43.50	7.26	V	-11.6
209.692500	32.17	43.50	11.33	V	-12.7
548.465000	33.83	46.00	12.17	V	-4.7
959.502500	38.83	46.00	7.17	V	1.7

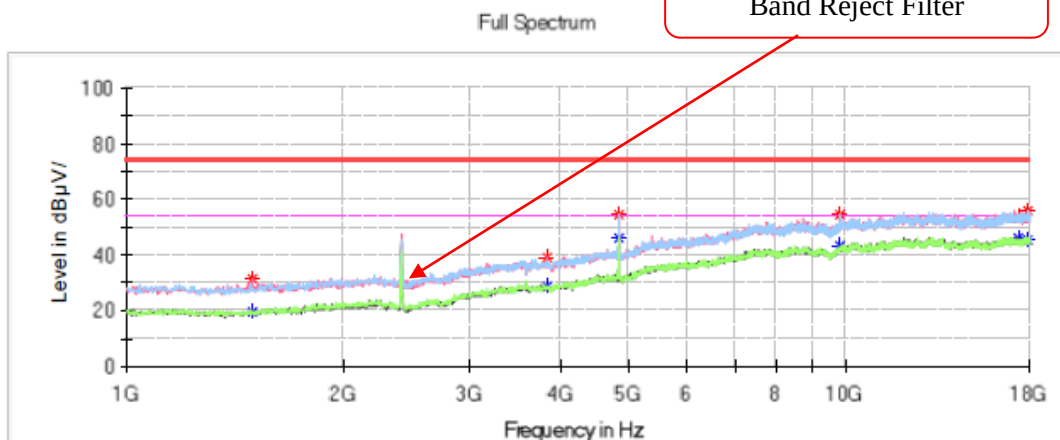
1GHz-18GHz:
802.11b Mode:

Low Channel: 2412MHz

Common Information

Project No.: RKSA240808001
Test Mode: 2.4G WIFI 802.11b mode 2412 channel
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

Fundamental Test with
Band Reject Filter

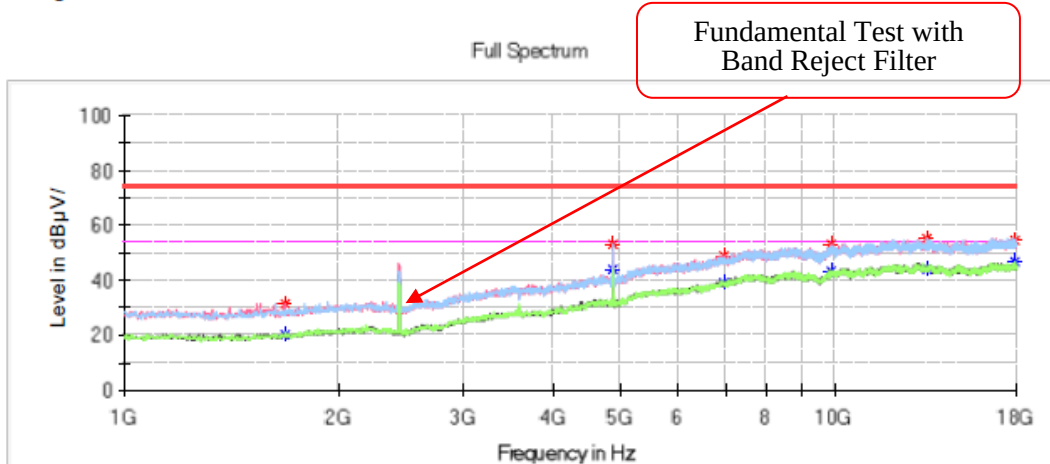


Critical Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1493.000000	---	19.38	54.00	34.62	V	-14.7
1493.000000	31.14	---	74.00	42.86	V	-14.7
3849.200000	---	28.98	54.00	25.02	V	-6.0
3849.200000	39.39	---	74.00	34.61	V	-6.0
4821.600000	---	45.81	54.00	8.19	H	-3.1
4821.600000	54.47	---	74.00	19.53	H	-3.1
9829.800000	---	43.18	54.00	10.82	V	6.6
9829.800000	54.81	---	74.00	19.19	V	6.6
17340.400000	---	46.40	54.00	7.60	V	11.8
17340.400000	54.04	---	74.00	19.96	V	11.8
17870.800000	---	45.73	54.00	8.27	H	11.8
17870.800000	56.11	---	74.00	17.89	H	11.8

Middle Channel: 2437MHz**Common Information**

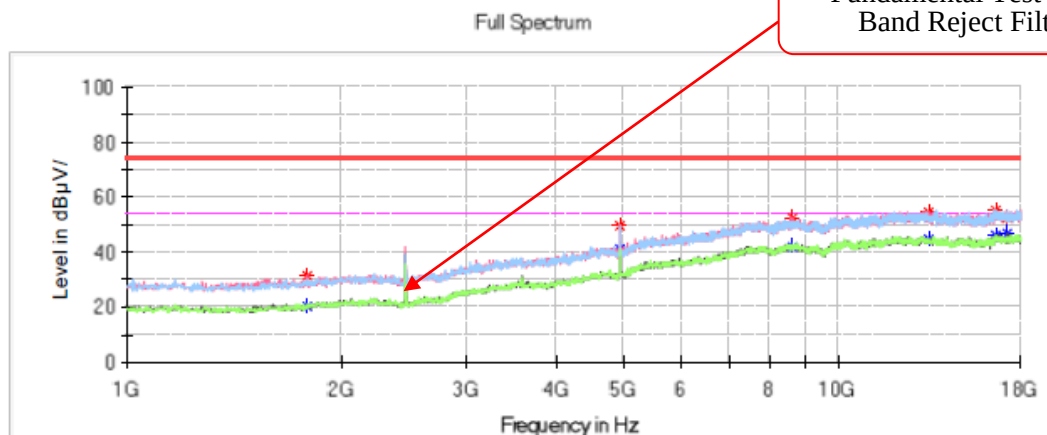
Project No.: RKSA240808001
 Test Mode: 2.4G WIFI 802.11b mode 2437 channel
 Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Test Engineer: Destine Hu

**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)
1680.000000	---	20.38	54.00	33.62	V	-13.7
1680.000000	31.70	---	74.00	42.30	V	-13.7
4872.600000	---	44.12	54.00	9.88	H	-2.9
4872.600000	53.03	---	74.00	20.97	H	-2.9
6977.200000	---	39.03	54.00	14.97	H	2.5
6977.200000	49.17	---	74.00	24.83	H	2.5
9846.800000	---	43.16	54.00	10.84	V	6.6
9846.800000	53.45	---	74.00	20.55	V	6.6
13457.600000	55.32	---	74.00	18.68	V	9.6
13457.600000	---	43.87	54.00	10.13	V	9.6
17915.000000	54.31	---	74.00	19.69	H	11.9
17915.000000	---	46.63	54.00	7.37	H	11.9

High Channel: 2462MHz**Common Information**

Project No.: RKSA240808001
Test Mode: 2.4G WIFI 802.11b mode 2462 channel
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

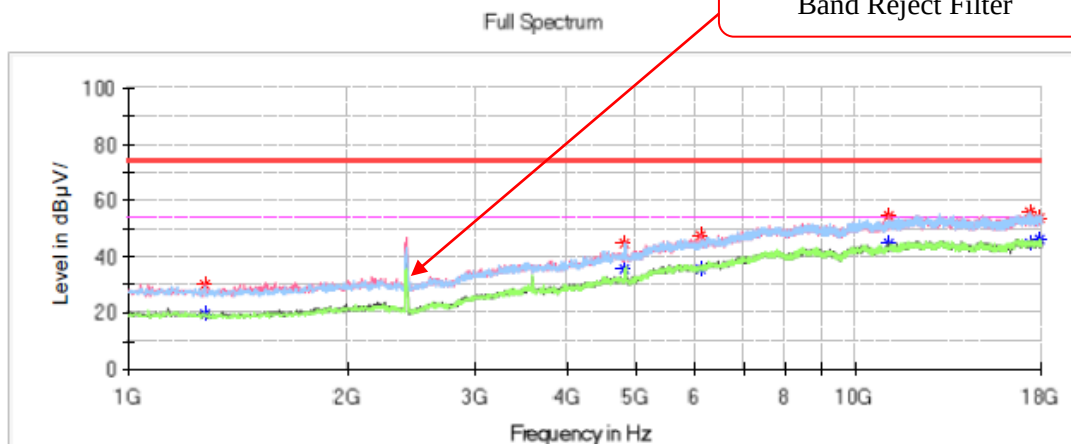
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1788.800000	---	20.56	54.00	33.44	V	-13.0
1788.800000	31.13	---	74.00	42.87	V	-13.0
4923.600000	---	41.11	54.00	12.89	H	-2.7
4923.600000	49.44	---	74.00	24.56	H	-2.7
8622.800000	---	41.65	54.00	12.35	V	5.4
8622.800000	52.34	---	74.00	21.66	V	5.4
13325.000000	---	44.78	54.00	9.22	V	9.6
13325.000000	54.40	---	74.00	19.60	V	9.6
16650.200000	55.47	---	74.00	18.53	H	11.2
16650.200000	---	45.81	54.00	8.19	H	11.2
17207.800000	52.37	---	74.00	21.63	V	12.0
17207.800000	---	46.61	54.00	7.39	V	12.0

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

Project No.: RKSA240808001
Test Mode: 2.4G WIFI 802.11g mode 2412 channel
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

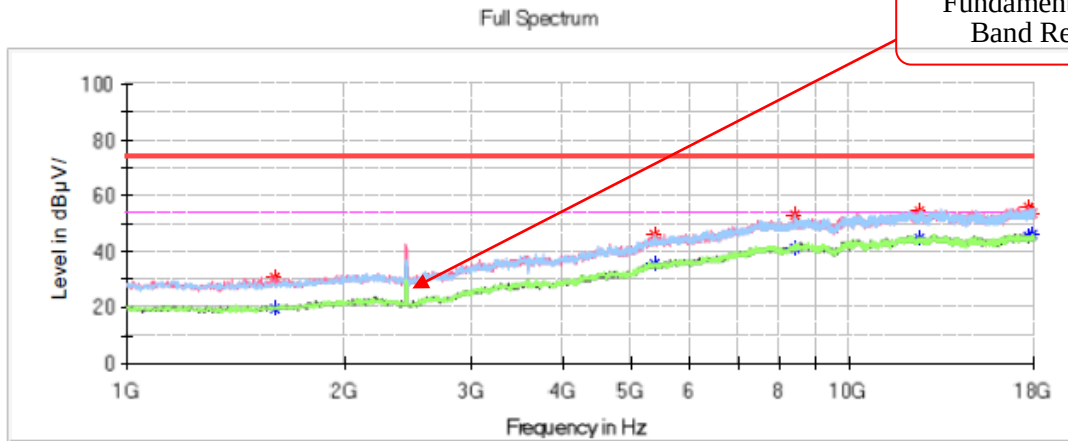
Fundamental Test with
Band Reject Filter

**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)
1275.400000	---	19.36	54.00	34.64	V	-15.1
1275.400000	30.24	---	74.00	43.76	V	-15.1
4814.800000	---	35.87	54.00	18.13	H	-3.1
4814.800000	44.61	---	74.00	29.39	H	-3.1
6106.800000	---	35.97	54.00	18.03	V	0.1
6106.800000	47.77	---	74.00	26.23	V	0.1
11128.600000	---	44.62	54.00	9.38	V	7.7
11128.600000	54.37	---	74.00	19.63	V	7.7
17360.800000	---	44.81	54.00	9.19	H	11.7
17360.800000	55.66	---	74.00	18.34	H	11.7
17921.800000	---	46.35	54.00	7.65	V	11.9
17921.800000	53.52	---	74.00	20.48	V	11.9

Middle Channel: 2437MHz**Common Information**

Project No.: RKSA240808001
Test Mode: 2.4G WIFI 802.11g mode 2437 channel
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

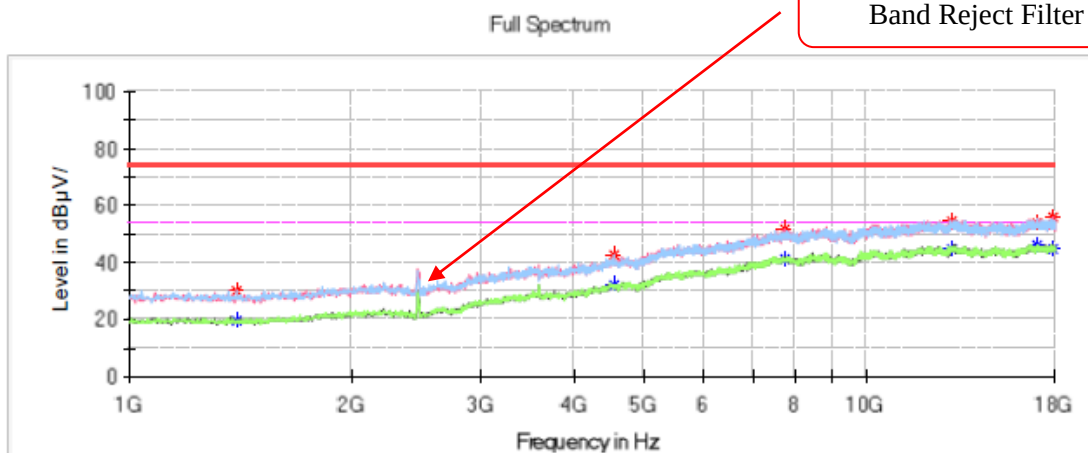
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1601.800000	---	19.74	54.00	34.26	H	-14.1
1601.800000	31.01	---	74.00	42.99	H	-14.1
5375.800000	---	35.69	54.00	18.31	V	-0.8
5375.800000	46.16	---	74.00	27.84	V	-0.8
8401.800000	---	41.52	54.00	12.48	H	5.1
8401.800000	53.08	---	74.00	20.92	H	5.1
12475.000000	---	44.60	54.00	9.40	V	9.6
12475.000000	54.35	---	74.00	19.65	V	9.6
17646.400000	56.20	---	74.00	17.80	V	11.7
17646.400000	---	45.43	54.00	8.57	V	11.7
17918.400000	53.77	---	74.00	20.23	H	11.9
17918.400000	---	46.31	54.00	7.69	H	11.9

High Channel: 2462MHz**Common Information**

Project No.: RKSA240808001
 Test Mode: 2.4G WIFI 802.11g mode 2462 channel
 Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Test Engineer: Destine Hu

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)
1397.800000	---	19.56	54.00	34.44	H	-14.9
1397.800000	30.35	---	74.00	43.65	H	-14.9
4539.400000	---	32.22	54.00	21.78	H	-4.1
4539.400000	42.62	---	74.00	31.38	H	-4.1
7749.000000	---	41.05	54.00	12.95	V	3.9
7749.000000	51.58	---	74.00	22.42	V	3.9
13056.400000	---	45.04	54.00	8.96	V	9.7
13056.400000	54.50	---	74.00	19.50	V	9.7
17075.200000	---	46.30	54.00	7.70	H	12.2
17075.200000	53.57	---	74.00	20.43	H	12.2
17867.400000	---	44.98	54.00	9.02	V	11.8
17867.400000	55.65	---	74.00	18.35	V	11.8

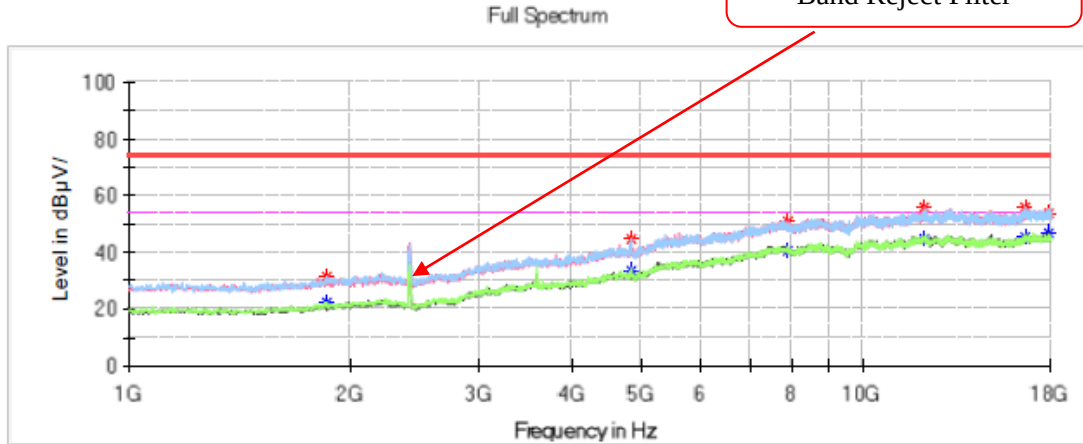
802.11n-HT20 Mode :

Low Channel: 2412MHz

Common Information

Project No.: RKSA240808001
 Test Mode: 2.4G WIFI 802.11n20 mode 2412 channel
 Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Test Engineer: Destine Hu

Fundamental Test with
Band Reject Filter



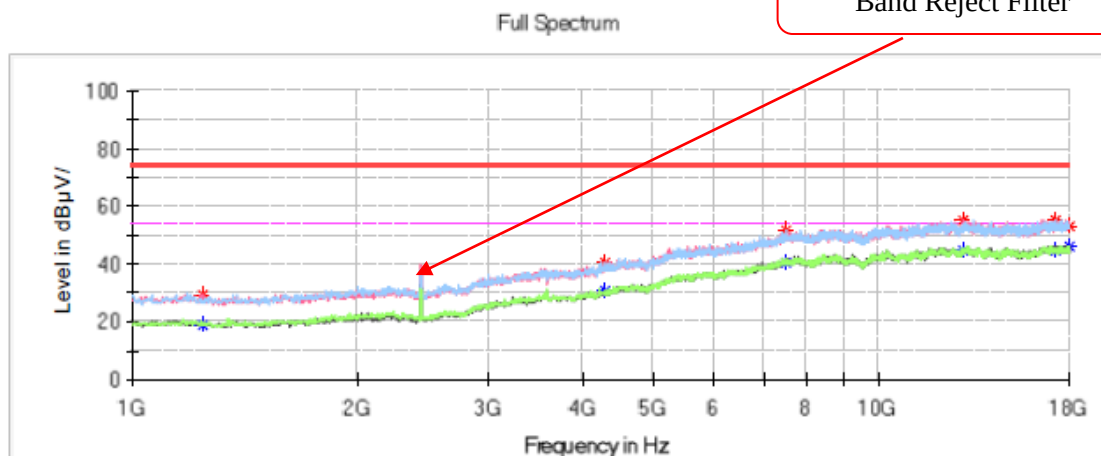
Critical Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1856.800000	---	22.51	54.00	31.49	H	-12.6
1856.800000	31.31	---	74.00	42.69	H	-12.6
4821.600000	---	33.75	54.00	20.25	H	-3.1
4821.600000	44.86	---	74.00	29.14	H	-3.1
7898.600000	---	40.79	54.00	13.21	V	3.9
7898.600000	50.87	---	74.00	23.13	V	3.9
12118.000000	---	44.79	54.00	9.21	H	9.1
12118.000000	55.86	---	74.00	18.14	H	9.1
16646.800000	56.04	---	74.00	17.96	V	11.2
16646.800000	---	45.51	54.00	8.49	V	11.2
17877.600000	53.94	---	74.00	20.06	V	11.9
17877.600000	---	46.70	54.00	7.30	V	11.9

Middle Channel: 2437MHz**Common Information**

Project No.: RKSA240808001
 Test Mode: 2.4G WIFI 802.11n20 mode 2437 channel
 Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Test Engineer: Destine Hu

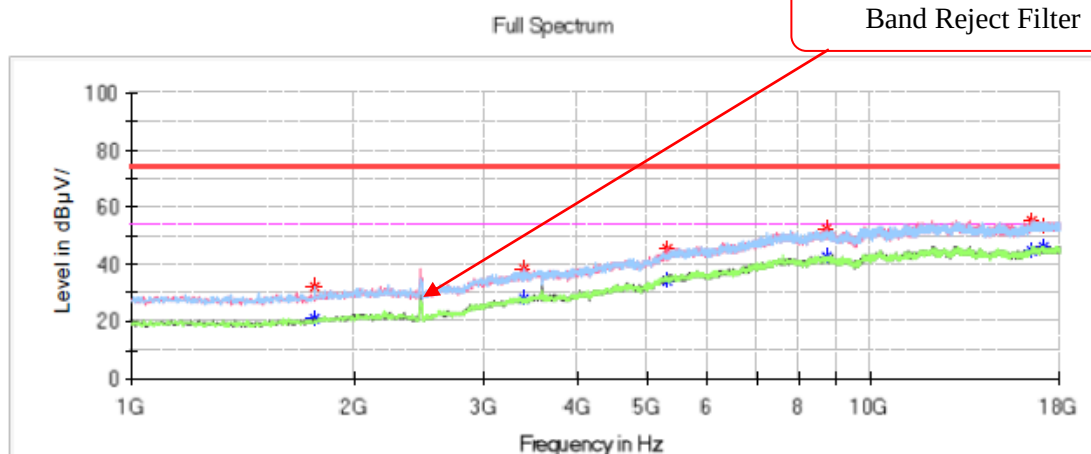
Fundamental Test with
Band Reject Filter

**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)
1244.800000	---	18.68	54.00	35.32	V	-15.1
1244.800000	29.28	---	74.00	44.72	V	-15.1
4294.600000	40.78	---	74.00	33.22	H	-4.9
4294.600000	---	30.53	54.00	23.47	H	-4.9
7517.800000	52.08	---	74.00	21.92	H	3.9
7517.800000	---	40.71	54.00	13.29	H	3.9
12991.800000	---	44.76	54.00	9.24	V	9.7
12991.800000	55.14	---	74.00	18.86	V	9.7
17194.200000	55.50	---	74.00	18.50	H	12.0
17194.200000	---	44.98	54.00	9.02	H	12.0
17945.600000	53.39	---	74.00	20.61	V	11.9
17945.600000	---	46.48	54.00	7.52	V	11.9

High Channel: 2462MHz**Common Information**

Project No.: RKSA240808001
Test Mode: 2.4G WIFI 802.11n20 mode 2462 channel
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

**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)
1768.400000	---	20.72	54.00	33.28	V	-13.1
1768.400000	31.92	---	74.00	42.08	V	-13.1
3393.600000	---	27.77	54.00	26.23	H	-6.8
3393.600000	38.20	---	74.00	35.80	H	-6.8
5307.800000	---	34.34	54.00	19.66	V	-1.1
5307.800000	45.26	---	74.00	28.74	V	-1.1
8701.000000	---	42.50	54.00	11.50	V	5.4
8701.000000	52.71	---	74.00	21.29	V	5.4
16517.600000	55.34	---	74.00	18.66	V	10.8
16517.600000	---	44.87	54.00	9.13	V	10.8
17109.200000	53.20	---	74.00	20.80	H	12.1
17109.200000	---	46.48	54.00	7.52	H	12.1

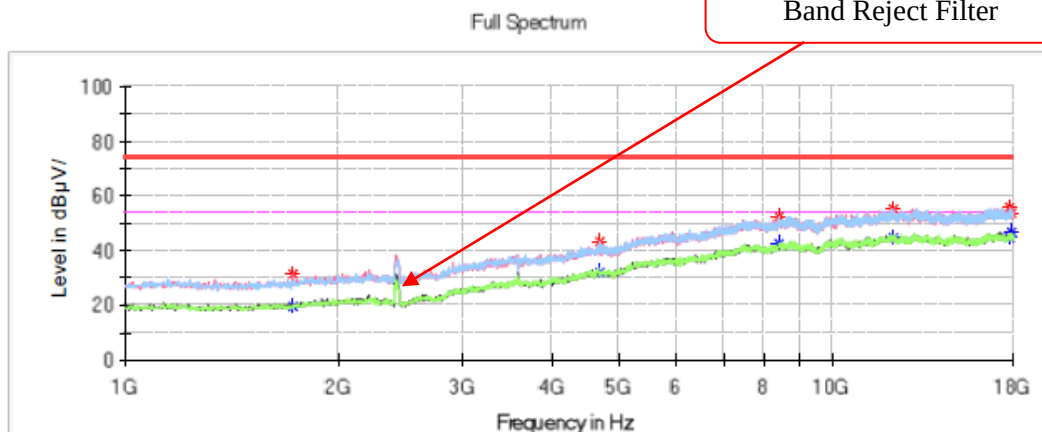
802.11n-HT40 Mode :

Low Channel: 2422MHz

Common Information

Project No.: RKSA240808001
 Test Mode: 2.4G WIFI 802.11n40 mode 2422 channel
 Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Test Engineer: Destine Hu

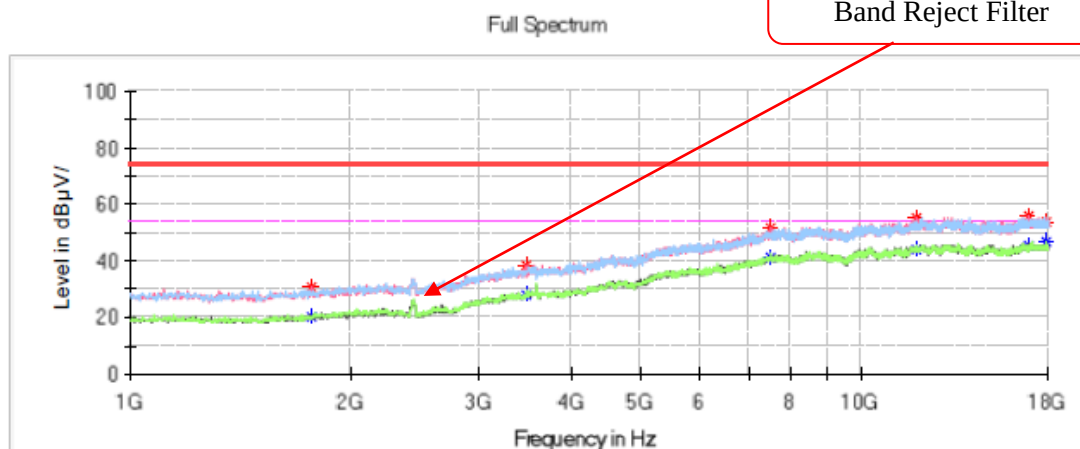
Fundamental Test with
Band Reject Filter

**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)
1724.200000	---	19.71	54.00	34.29	V	-13.4
1724.200000	31.33	---	74.00	42.67	V	-13.4
4672.000000	---	31.90	54.00	22.10	V	-3.6
4672.000000	43.53	---	74.00	30.47	V	-3.6
8408.600000	---	42.33	54.00	11.67	H	5.1
8408.600000	52.45	---	74.00	21.55	H	5.1
12169.000000	---	44.99	54.00	9.01	V	9.2
12169.000000	55.27	---	74.00	18.73	V	9.2
17789.200000	55.89	---	74.00	18.11	H	11.8
17789.200000	---	45.10	54.00	8.90	H	11.8
17918.400000	53.69	---	74.00	20.31	V	11.9
17918.400000	---	46.62	54.00	7.38	V	11.9

Middle Channel: 2437MHz**Common Information**

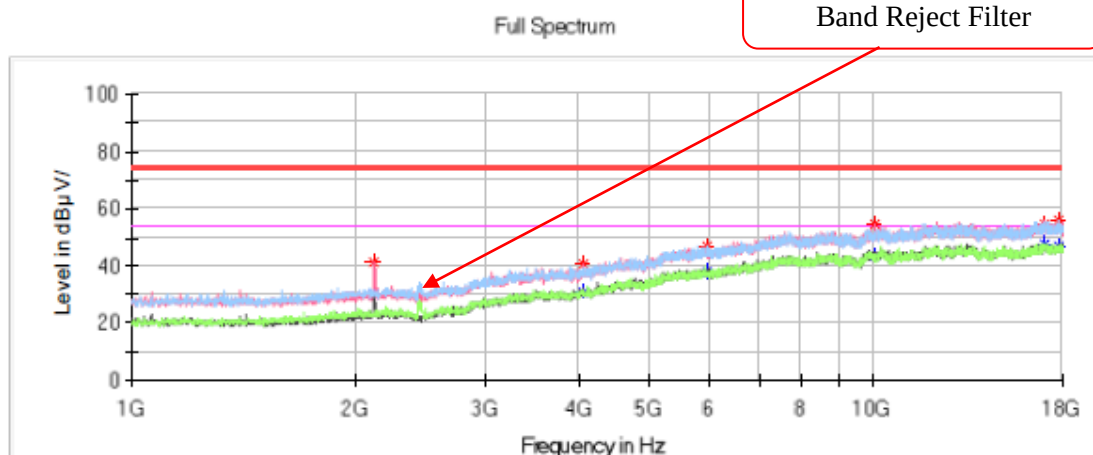
Project No.: RKSA240808001
Test Mode: 2.4G WIFI 802.11n40 mode 2437 channel
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

**Critical Freqs**

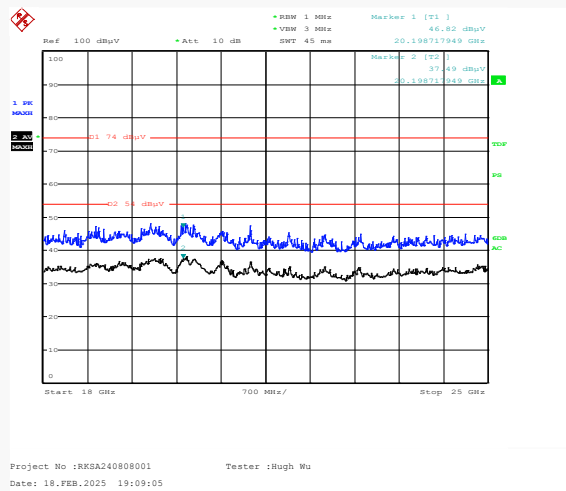
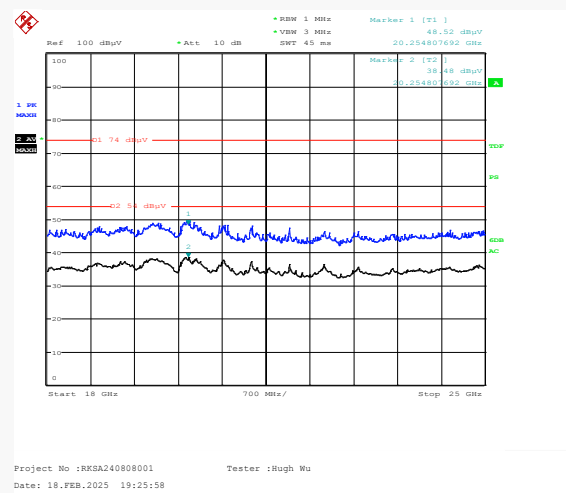
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1771.800000	---	20.50	54.00	33.50	V	-13.1
1771.800000	30.51	---	74.00	43.49	V	-13.1
3485.400000	---	27.90	54.00	26.10	V	-6.4
3485.400000	38.73	---	74.00	35.27	V	-6.4
7494.000000	---	41.40	54.00	12.60	V	3.9
7494.000000	51.60	---	74.00	22.40	V	3.9
11897.000000	---	43.78	54.00	10.22	V	8.9
11897.000000	55.50	---	74.00	18.50	V	8.9
16946.000000	56.21	---	74.00	17.79	H	12.1
16946.000000	---	45.27	54.00	8.73	H	12.1
17925.200000	53.71	---	74.00	20.29	H	11.9
17925.200000	---	46.68	54.00	7.32	H	11.9

High Channel: 2452MHz**Common Information**

Project No.: RKSA240906001
 Test Mode: Transmitting in 802.11n40 mode 2452 channel
 Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.247
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Test Engineer: Destine Hu

**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)
2123.700000	---	30.28	54.00	23.72	V	-11.3
2123.700000	41.35	---	74.00	32.65	V	-11.3
4053.200000	---	30.73	54.00	23.27	H	-5.7
4053.200000	40.51	---	74.00	33.49	H	-5.7
5977.600000	---	38.07	54.00	15.93	H	0.0
5977.600000	47.12	---	74.00	26.88	H	0.0
10027.000000	---	43.12	54.00	10.88	V	7.2
10027.000000	54.32	---	74.00	19.68	V	7.2
16998.700000	---	47.90	54.00	6.10	V	12.3
16998.700000	54.34	---	74.00	19.66	V	12.3
17773.900000	---	47.01	54.00	6.99	H	11.8
17773.900000	55.83	---	74.00	18.17	H	11.8

18GHz-25GHz:**Transmitting in maximum output power mode 802.11b mode low channel
Horizontal****Vertical**

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

Frequency (GHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
20.20	---	37.49	54	16.51	H	12.45
20.20	46.82	---	74	27.18	H	12.45
20.25	---	38.48	54	15.52	V	12.51
20.25	48.52	---	74	25.48	V	12.51

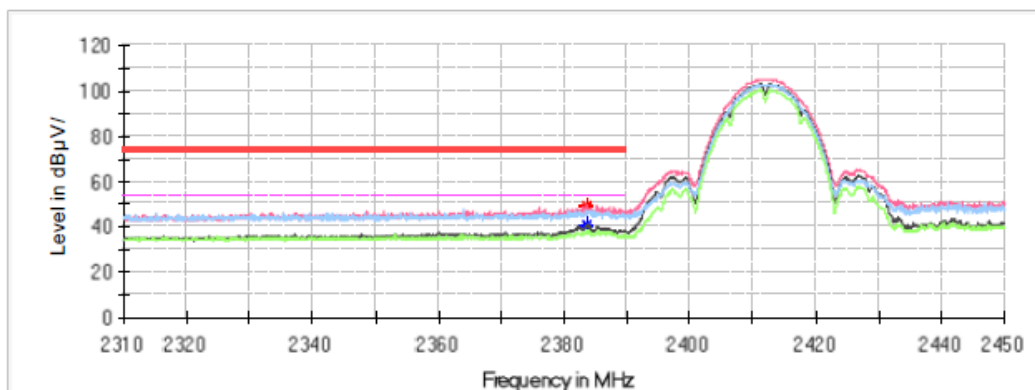
Band Edge:
802.11b Mode:

Low Channel

Common Information

Project No.:	RKSA240808001
Test Mode:	2.4G WIFI 802.11b mode 2412 channel
Standard:	FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer:	Destine Hu

Full Spectrum



Critical_Freqs

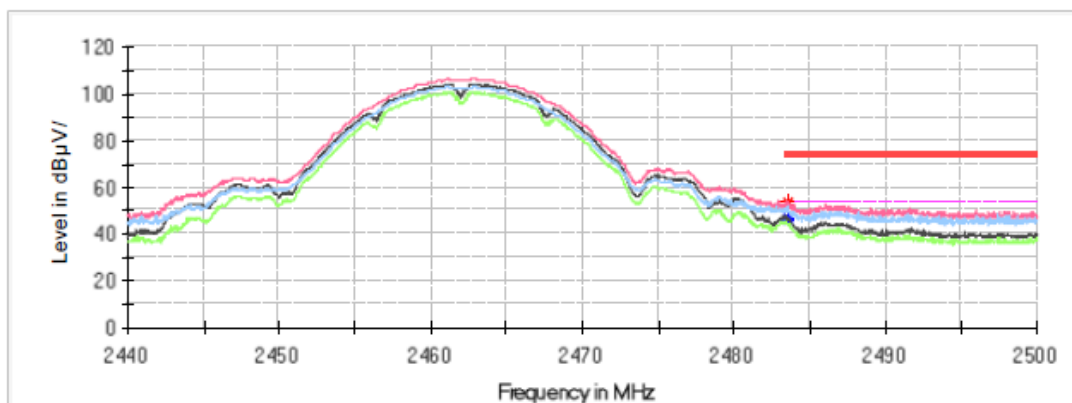
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2383.472000	---	40.95	54.00	13.05	V	-0.6
2383.472000	48.53	---	74.00	25.47	V	-0.6
2383.584000	---	40.00	54.00	14.00	V	-0.6
2383.584000	49.15	---	74.00	24.85	V	-0.6

High Channel

Common Information

Project No.: RKSA240808001
Test Mode: 2.4G WIFI 802.11b mode 2462 channel
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

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	53.36	---	74.00	20.64	V	-0.3
2483.560000	---	46.01	54.00	7.99	V	-0.3
2483.608000	52.85	---	74.00	21.15	V	-0.3
2483.608000	---	46.79	54.00	7.21	V	-0.3

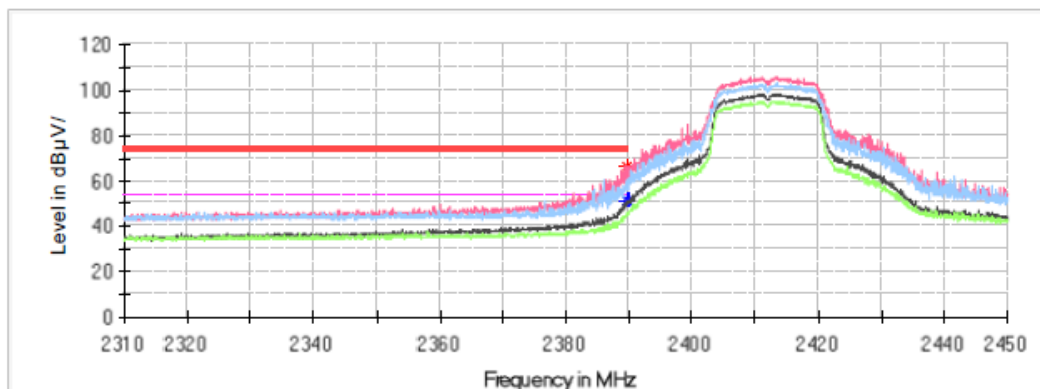
802.11g Mode :

Low Channel

Common Information

Project No.: RKSA240808001
Test Mode: 2.4G WIFI 802.11g mode 2412 channel
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

Full Spectrum



Critical Freqs

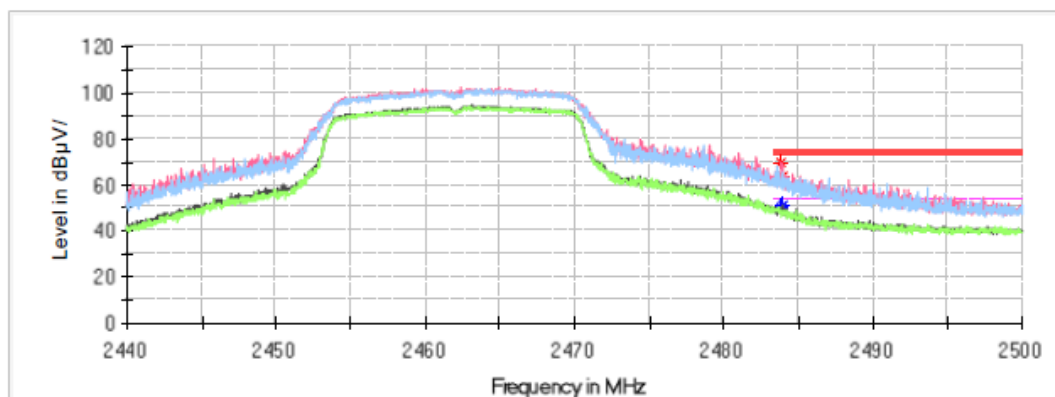
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2389.744000	66.63	---	74.00	7.37	V	-0.6
2389.744000	---	50.99	54.00	3.01	V	-0.6
2389.912000	62.22	---	74.00	11.78	V	-0.6
2389.912000	---	51.60	54.00	2.40	V	-0.6

High Channel

Common Information

Project No.: RKSA240808001
Test Mode: 2.4G WIFI 802.11g mode 2462 channel
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

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)
2483.896000	69.34	---	74.00	4.66	V	-0.3
2483.896000	---	50.54	54.00	3.46	V	-0.3
2483.992000	64.07	---	74.00	9.93	V	-0.3
2483.992000	---	50.84	54.00	3.16	V	-0.3

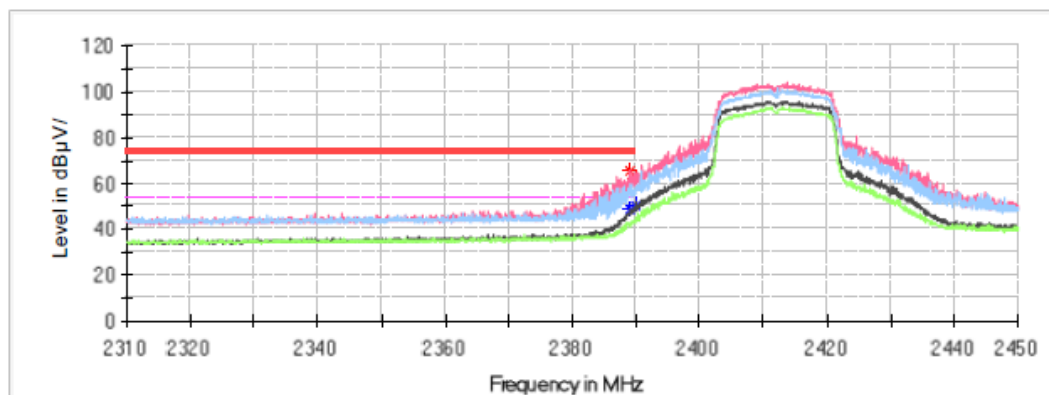
802.11n-HT20 Mode:

Low Channel

Common Information

Project No.: RKSA240808001
Test Mode: 2.4G WIFI 802.11n20 mode 2412 channel
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

Full Spectrum



Critical Freqs

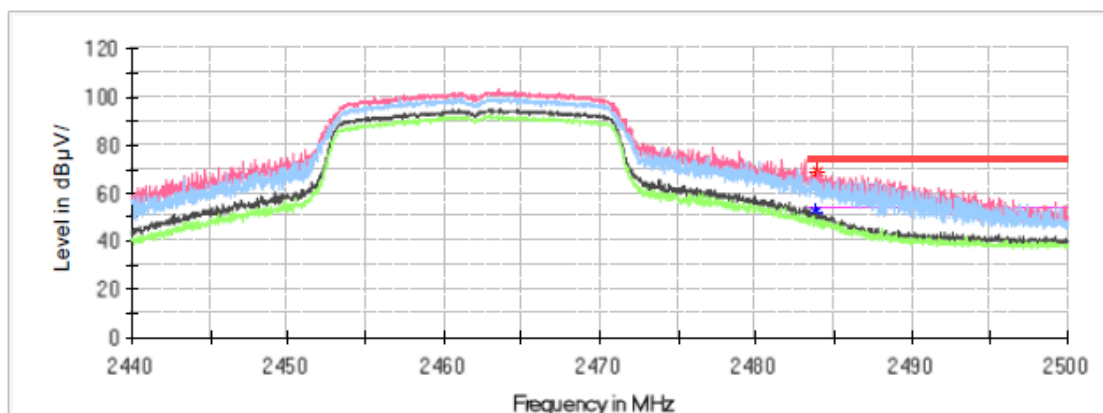
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2388.960000	65.22	---	74.00	8.78	V	-0.6
2388.960000	---	48.83	54.00	5.17	V	-0.6
2389.968000	62.14	---	74.00	11.86	V	-0.6
2389.968000	---	50.02	54.00	3.98	V	-0.6

High Channel

Common Information

Project No.: RKSA240808001
Test Mode: 2.4G WIFI 802.11n20 mode 2462 channel
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

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)
2483.800000	---	52.14	54.00	1.86	V	-0.3
2483.800000	65.64	---	74.00	8.36	V	-0.3
2484.016000	---	50.50	54.00	3.50	V	-0.3
2484.016000	68.80	---	74.00	5.20	V	-0.3

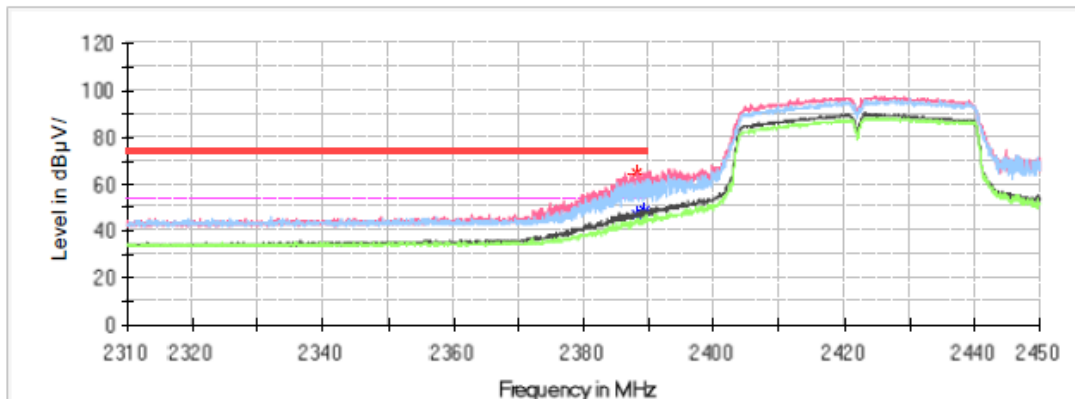
802.11n-HT40 Mode:

Low Channel

Common Information

Project No.: RKSA240808001
Test Mode: 2.4G WIFI 802.11n40 mode 2422 channel
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

Full Spectrum



Critical Freqs

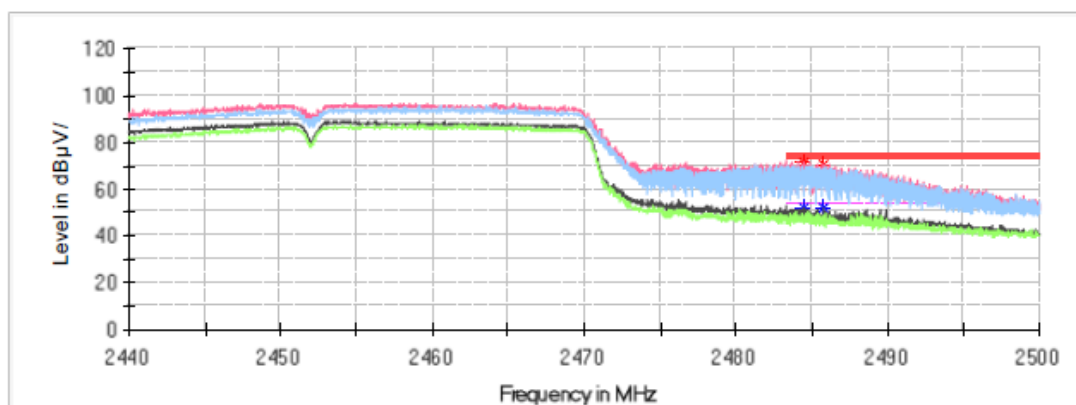
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2388.176000	64.51	---	74.00	9.49	V	-0.6
2388.176000	---	47.22	54.00	6.78	V	-0.6
2389.352000	60.34	---	74.00	13.66	V	-0.6
2389.352000	---	48.99	54.00	5.01	V	-0.6

High Channel

Common Information

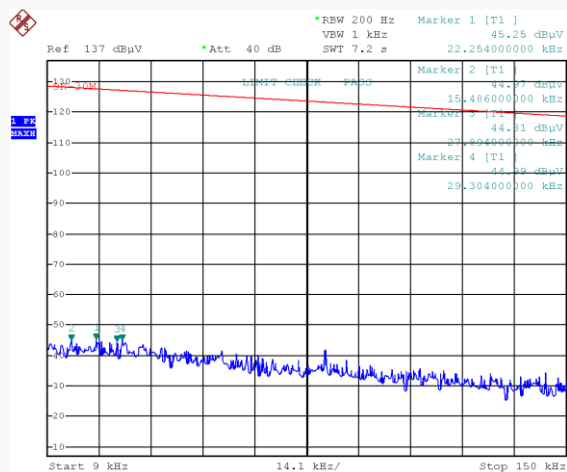
Project No.: RKSA240808001
Test Mode: 2.4G WIFI 802.11n40 mode 2452 channel
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

Full Spectrum



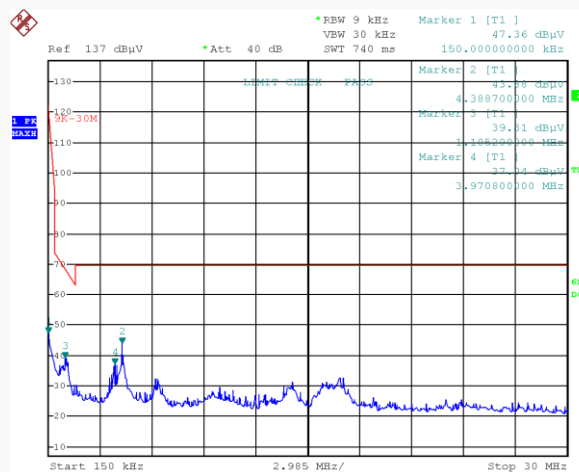
Critical Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2484.520000	71.69	---	74.00	2.31	V	-0.3
2484.520000	---	51.79	54.00	2.21	V	-0.3
2485.768000	70.34	---	74.00	3.66	V	-0.2
2485.768000	---	52.10	54.00	1.90	V	-0.2

For BLE 1Mbps Mode:**9 kHz-30 MHz: Transmitting in maximum output power mode Middle channel
Parallel(worst case)****9 kHz -150 kHz**

Project No.RKSA240808001
Date: 15.FEB.2025 19:00:54

Tester:Jerry Yan

150 kHz -30 MHz

Project No.RKSA240808001
Date: 15.FEB.2025 19:04:47

Tester:Jerry Yan

9 kHz-150 kHz

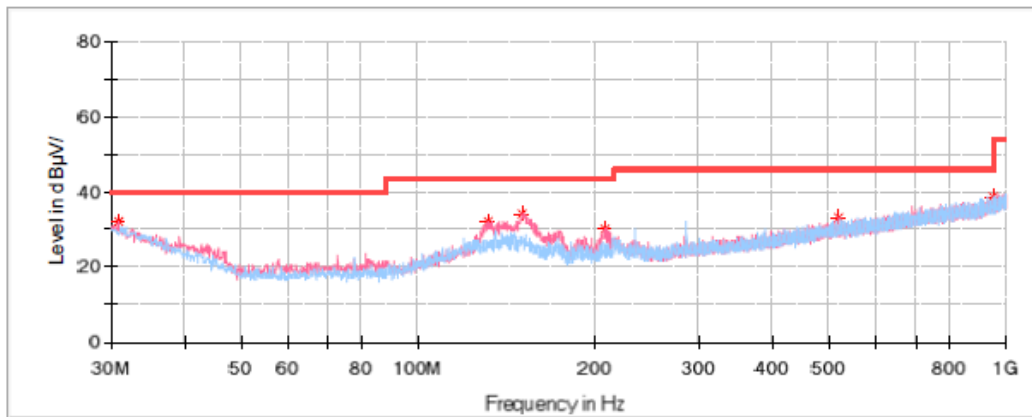
Frequency (kHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
15.49	44.97	PK	-0.54	123.80	78.83
22.25	45.25	PK	-0.57	120.66	75.41
27.89	44.81	PK	-0.60	118.70	73.89
29.30	44.99	PK	-0.61	118.27	73.28

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	47.36	PK	-11.34	104.08	56.72
1.11	39.31	PK	-27.97	66.70	27.39
3.97	37.04	PK	-31.90	69.54	32.50
4.39	43.88	PK	-31.97	69.54	25.66

30MHz-1GHz: Transmitting in maximum output power Middle channel**Common Information**

Project No: RKSA240808001
 EUT Model: P8
 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: 16.3°C
 Humidity: 39%
 Barometric Pressure: 102.1kPa
 Test Engineer: Jerry Yan
 Test Date: 2025/2/15

**Critical Freqs**

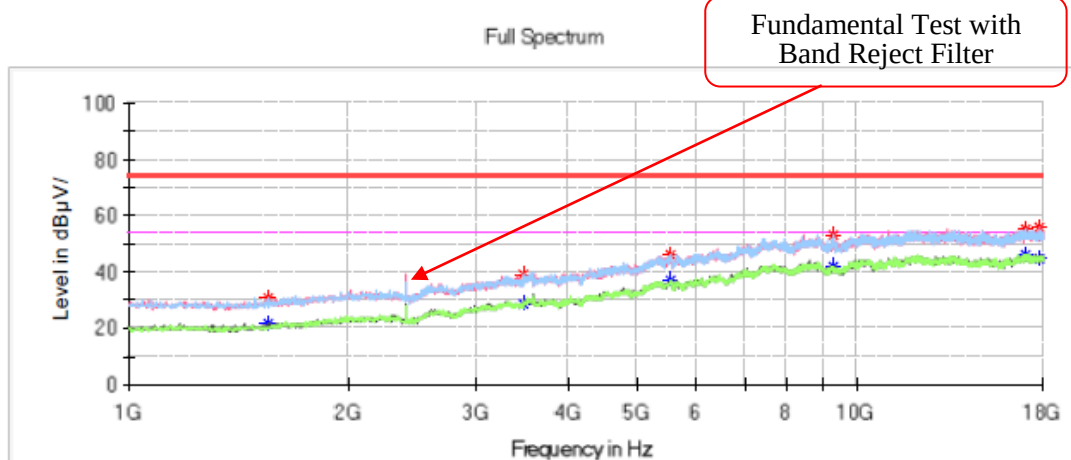
Frequency (MHz)	MaxPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
30.848750	32.06	40.00	7.94	V	-5.3
131.486250	32.29	43.50	11.21	V	-11.1
149.916250	34.32	43.50	9.18	V	-11.7
207.146250	30.35	43.50	13.15	V	-12.5
520.092500	33.12	46.00	12.88	V	-5.1
947.256250	38.99	46.00	7.01	H	1.4

1GHz-18GHz:

Low Channel: 2402MHz

Common Information

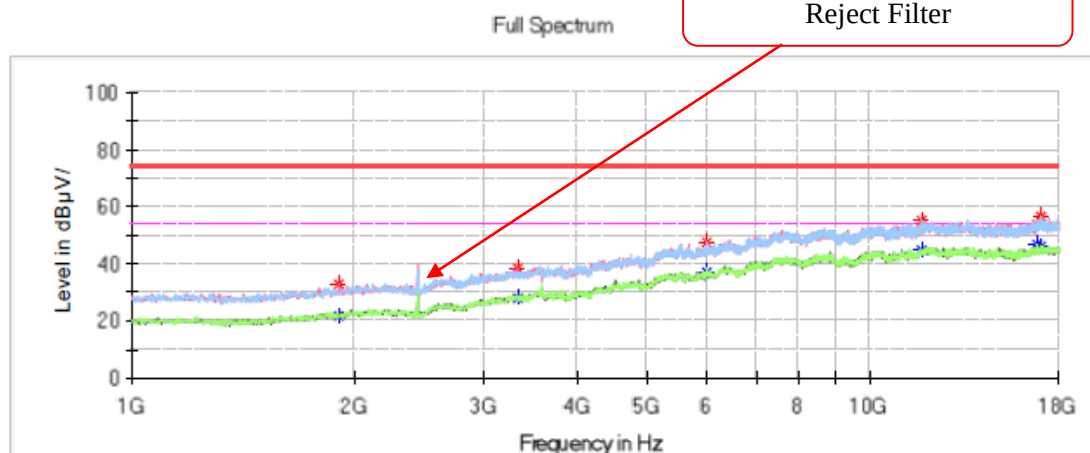
Project No.: RKSA240808001
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

**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)
1550.800000	30.98	---	74.00	43.02	V	-14.4
1550.800000	---	21.35	54.00	32.65	V	-14.4
3478.600000	---	28.66	54.00	25.34	H	-6.4
3478.600000	38.92	---	74.00	35.08	H	-6.4
5542.400000	---	37.01	54.00	16.99	H	-0.3
5542.400000	46.18	---	74.00	27.82	H	-0.3
9251.800000	---	41.67	54.00	12.33	H	5.4
9251.800000	52.97	---	74.00	21.03	H	5.4
17044.600000	---	46.45	54.00	7.55	H	12.2
17044.600000	55.36	---	74.00	18.64	H	12.2
17799.400000	55.74	---	74.00	18.26	V	11.8
17799.400000	---	44.56	54.00	9.44	V	11.8

Middle Channel: 2440MHz**Common Information**

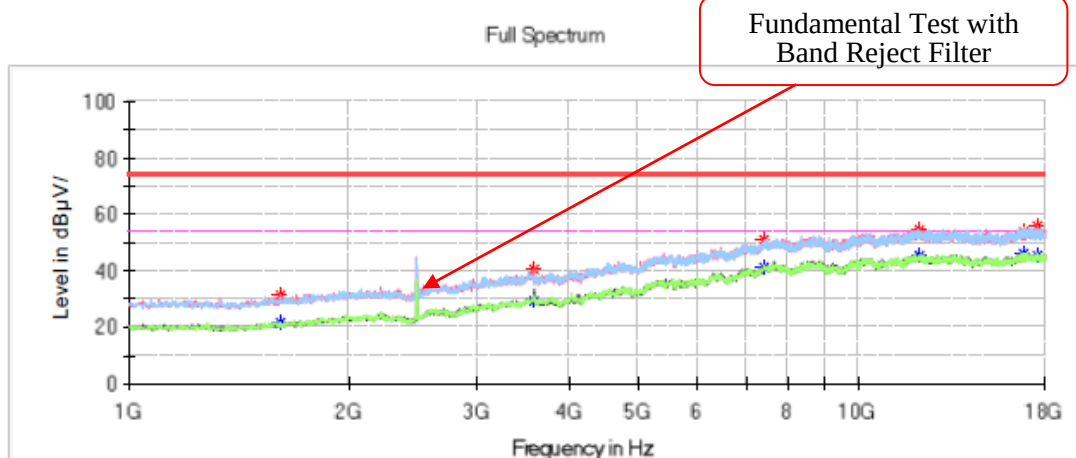
Project No.: RKSA240808001
 Test Mode: BLE
 Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Test Engineer: Destine Hu

**Critical Freqs**

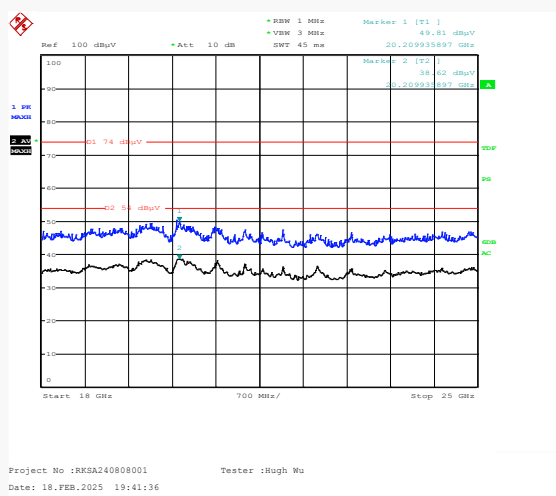
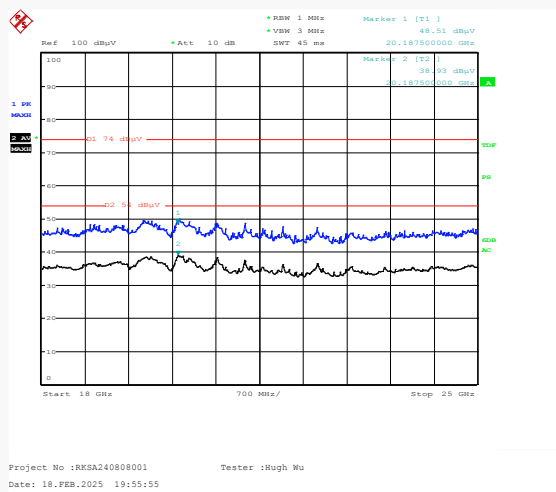
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1904.400000	---	21.99	54.00	32.01	V	-12.3
1904.400000	32.72	---	74.00	41.28	V	-12.3
3332.400000	---	28.23	54.00	25.77	H	-7.0
3332.400000	38.48	---	74.00	35.52	H	-7.0
6001.400000	---	37.22	54.00	16.78	V	0.0
6001.400000	47.77	---	74.00	26.23	V	0.0
11767.800000	---	44.61	54.00	9.39	V	8.9
11767.800000	55.47	---	74.00	18.53	V	8.9
16793.000000	---	46.94	54.00	7.06	H	11.7
16793.000000	53.67	---	74.00	20.33	H	11.7
16973.200000	---	46.16	54.00	7.84	H	12.2
16973.200000	56.56	---	74.00	17.44	H	12.2

High Channel: 2480MHz**Common Information**

Project No.: RKSA240808001
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

**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)
1608.600000	31.36	---	74.00	42.64	V	-14.1
1608.600000	---	21.70	54.00	32.30	V	-14.1
3587.400000	40.35	---	74.00	33.65	V	-6.3
3587.400000	---	29.62	54.00	24.38	V	-6.3
7419.200000	51.30	---	74.00	22.70	V	3.7
7419.200000	---	41.31	54.00	12.69	V	3.7
12084.000000	---	45.47	54.00	8.53	H	9.1
12084.000000	54.88	---	74.00	19.12	H	9.1
16789.600000	---	46.27	54.00	7.73	H	11.6
16789.600000	53.79	---	74.00	20.21	H	11.6
17585.200000	55.66	---	74.00	18.34	V	11.6
17585.200000	---	45.15	54.00	8.85	V	11.6

18GHz-25GHz:*Transmitting in maximum output power mode Middle Channel***Horizontal:****Vertical:**

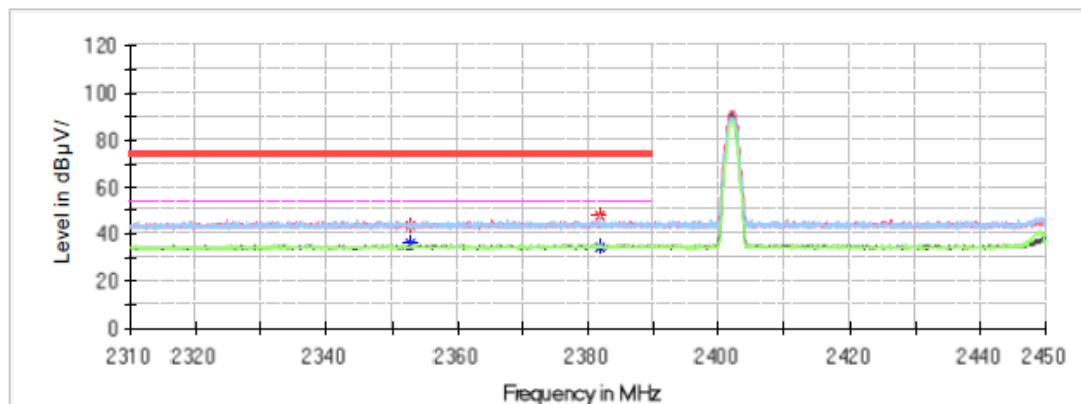
Note: The test distance is 3m. The limit is 74dBμV/m(Peak) and 54dBμV/m(Average).

Frequency (GHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
20.19	---	38.93	54	15.07	V	12.45
20.19	48.51	---	74	25.49	V	12.45
20.21	---	38.62	54	15.38	H	12.47
20.21	49.81	---	74	24.19	H	12.47

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

Project No.: RKSA240808001
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

Full Spectrum

**Critical Freqs**

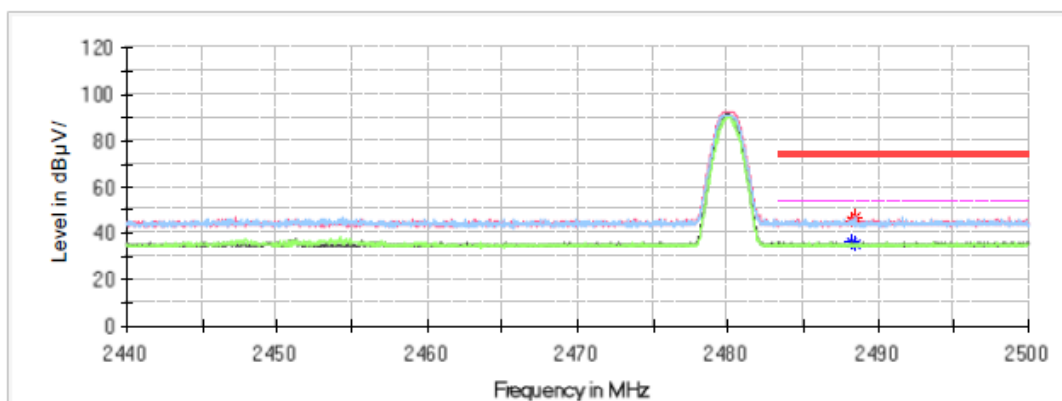
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2352.784000	---	35.83	54.00	18.17	V	-0.7
2352.784000	43.87	---	74.00	30.13	V	-0.7
2381.848000	---	34.60	54.00	19.40	H	-0.6
2381.848000	47.82	---	74.00	26.18	H	-0.6

High Channel

Common Information

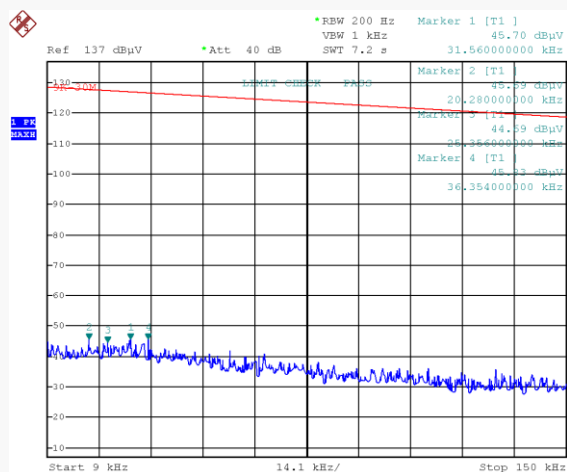
Project No.: RKSA240808001
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

Full Spectrum



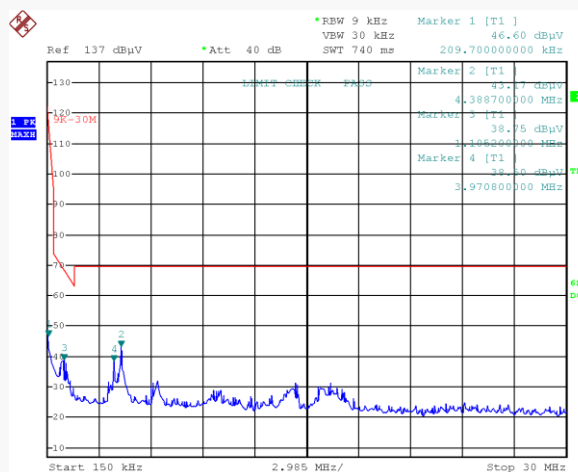
Critical Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2488.216000	---	36.26	54.00	17.74	V	-0.2
2488.216000	45.46	---	74.00	28.54	V	-0.2
2488.528000	---	35.24	54.00	18.76	V	-0.2
2488.528000	46.95	---	74.00	27.05	V	-0.2

For BLE 2Mbps Mode:**9 kHz-30 MHz: Transmitting in maximum output power mode low channel
Parallel(worst case)****9 kHz-150 kHz**

Project No. RKSA240808001
Date: 15.FEB.2025 19:09:13

Tester: Jerry Yan

150 kHz-30 MHz

Project No. RKSA240808001
Date: 15.FEB.2025 19:14:59

Tester: Jerry Yan

9 kHz-150 kHz

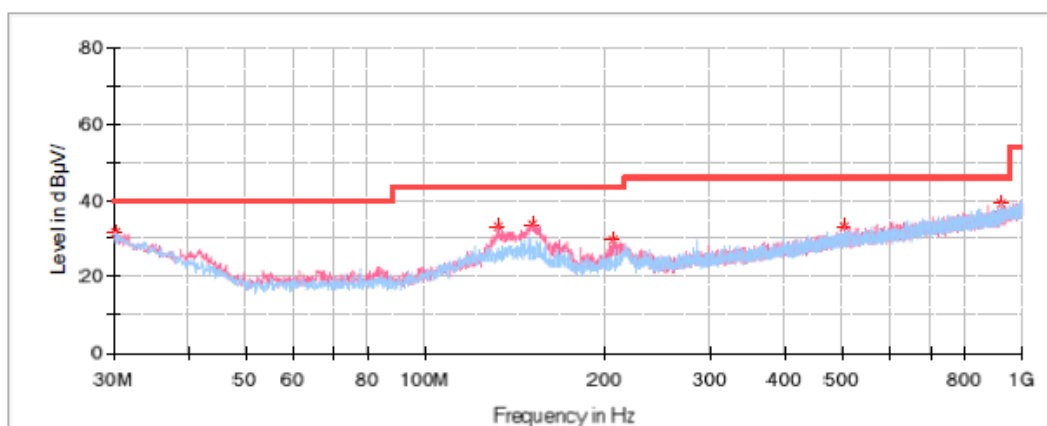
Frequency (kHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
20.28	45.69	PK	-0.56	121.46	75.77
25.36	44.69	PK	-0.59	119.52	74.83
31.56	45.70	PK	-0.86	117.62	71.92
36.35	45.83	PK	-1.63	116.39	70.56

150 kHz-30 MHz

Frequency (kHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.21	46.60	PK	-15.60	101.16	54.56
1.11	38.75	PK	-27.97	66.70	27.95
3.97	38.50	PK	-31.90	69.54	31.04
4.39	43.17	PK	-31.97	69.54	26.37

30MHz-1GHz: Transmitting in maximum output power mode low channel**Common Information**

Project No: RKSA240808001
EUT Model: P8
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: 16.3°C
Humidity: 39%
Barometric Pressure: 102.1kPa
Test Engineer: Jerry Yan
Test Date: 2025/2/15

**Critical Freqs**

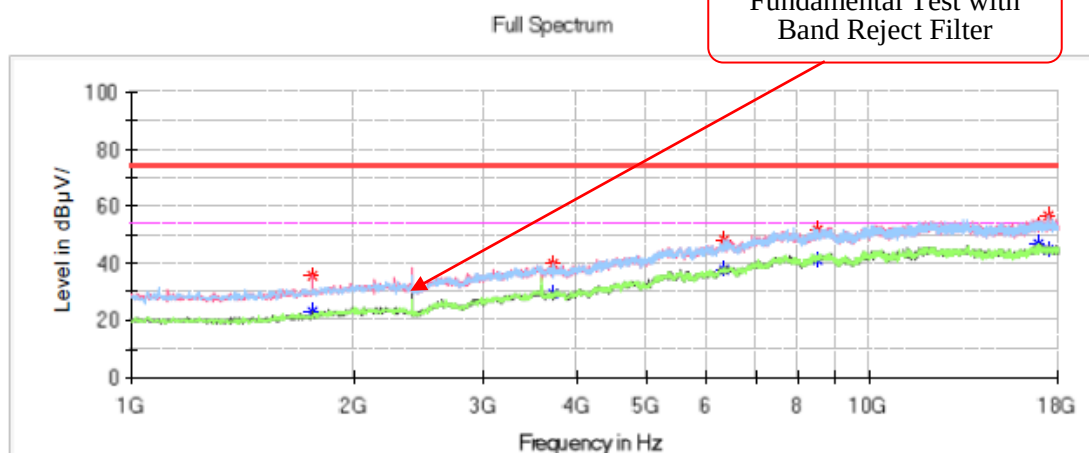
Frequency (MHz)	MaxPeak (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
30.121250	31.54	40.00	8.46	H	-4.8
131.850000	33.31	43.50	10.19	V	-11.1
150.886250	33.68	43.50	9.82	V	-11.7
206.661250	29.60	43.50	13.90	V	-12.5
503.117500	33.42	46.00	12.58	V	-5.3
924.218750	39.45	46.00	6.55	H	0.8

1GHz-18GHz:

Low Channel: 2402MHz

Common Information

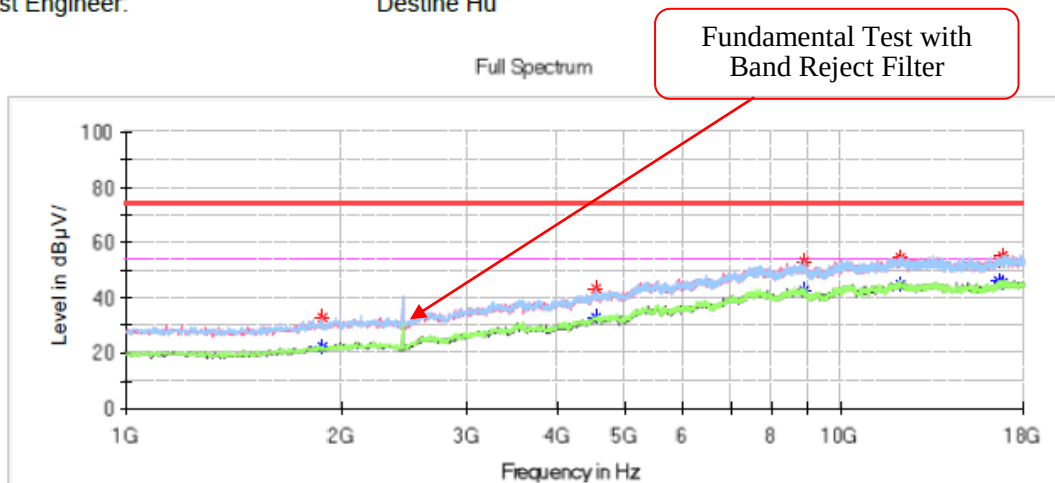
Project No.: RKSA240808001
 Test Mode: BLE
 Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Test Engineer: Destine Hu

**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)
1758.200000	---	22.89	54.00	31.11	V	-13.2
1758.200000	35.56	---	74.00	38.44	V	-13.2
3733.600000	---	29.70	54.00	24.30	H	-6.1
3733.600000	39.69	---	74.00	34.31	H	-6.1
6361.800000	---	37.81	54.00	16.19	H	0.4
6361.800000	48.20	---	74.00	25.80	H	0.4
8483.400000	---	41.44	54.00	12.56	H	5.4
8483.400000	52.03	---	74.00	21.97	H	5.4
16952.800000	---	46.80	54.00	7.20	V	12.1
16952.800000	53.21	---	74.00	20.79	V	12.1
17466.200000	---	44.52	54.00	9.48	H	11.6
17466.200000	56.32	---	74.00	17.68	H	11.6

Middle Channel: 2440MHz**Common Information**

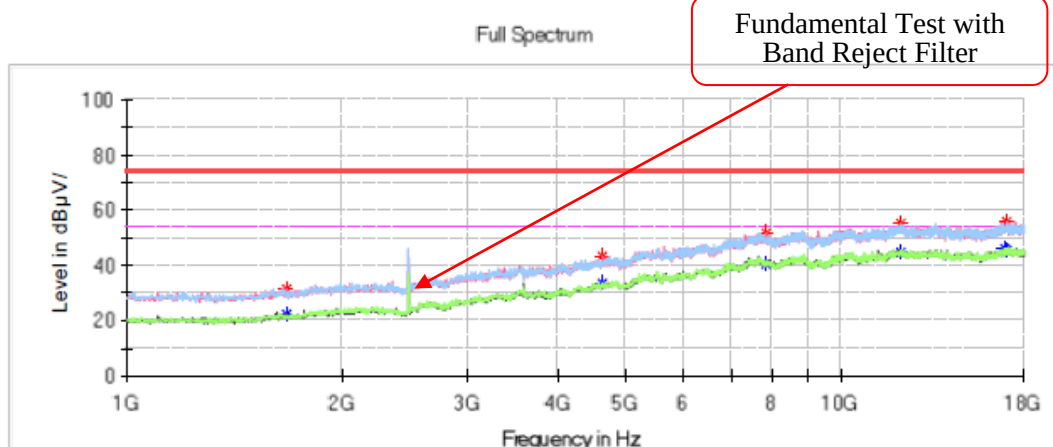
Project No.: RKSA240808001
 Test Mode: BLE
 Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Test Engineer: Destine Hu

**Critical Freqs**

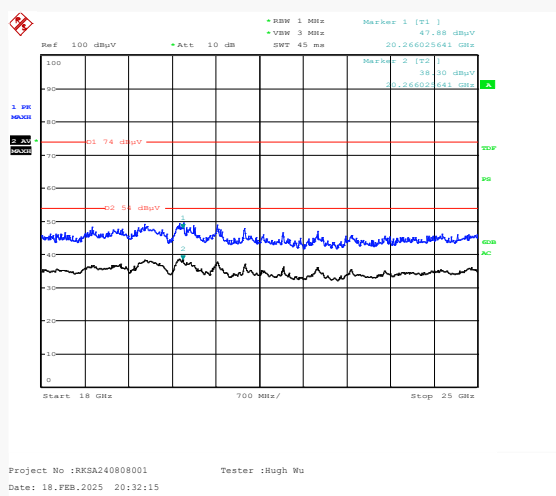
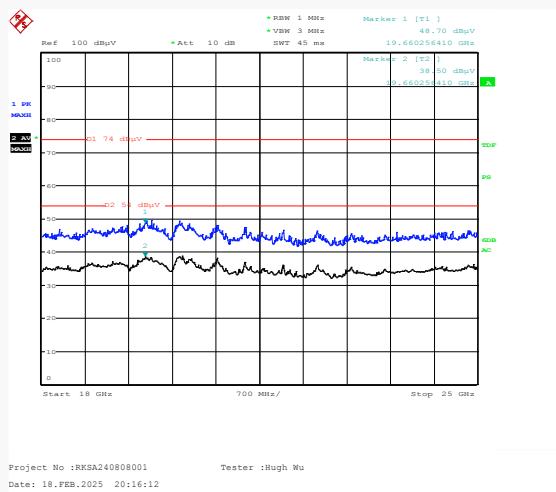
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1884.000000	32.58	---	74.00	41.42	V	-12.4
1884.000000	---	22.20	54.00	31.80	V	-12.4
4529.200000	43.03	---	74.00	30.97	V	-4.2
4529.200000	---	32.60	54.00	21.40	V	-4.2
8871.000000	---	42.59	54.00	11.41	H	5.4
8871.000000	53.18	---	74.00	20.82	H	5.4
12077.200000	---	44.88	54.00	9.12	H	9.1
12077.200000	54.63	---	74.00	19.37	H	9.1
16582.200000	53.41	---	74.00	20.59	V	11.0
16582.200000	---	46.36	54.00	7.64	V	11.0
16779.400000	---	45.29	54.00	8.71	H	11.6
16779.400000	55.21	---	74.00	18.79	H	11.6

High Channel: 2480MHz**Common Information**

Project No.: RKSA240808001
 Test Mode: BLE
 Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Test Engineer: Destine Hu

**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)
1669.800000	---	22.27	54.00	31.73	V	-13.7
1669.800000	31.45	---	74.00	42.55	V	-13.7
4641.400000	---	33.81	54.00	20.19	H	-3.7
4641.400000	43.30	---	74.00	30.70	H	-3.7
7847.600000	---	40.75	54.00	13.25	H	3.9
7847.600000	51.54	---	74.00	22.46	H	3.9
12087.400000	---	44.45	54.00	9.55	V	9.1
12087.400000	54.96	---	74.00	19.04	V	9.1
16969.800000	---	46.43	54.00	7.57	H	12.2
16969.800000	53.79	---	74.00	20.21	H	12.2
16993.600000	55.98	---	74.00	18.02	V	12.3
16993.600000	---	45.42	54.00	8.58	V	12.3

18GHz-25GHz:*Transmitting in maximum output power mode low channel***Horizontal:****Vertical:**

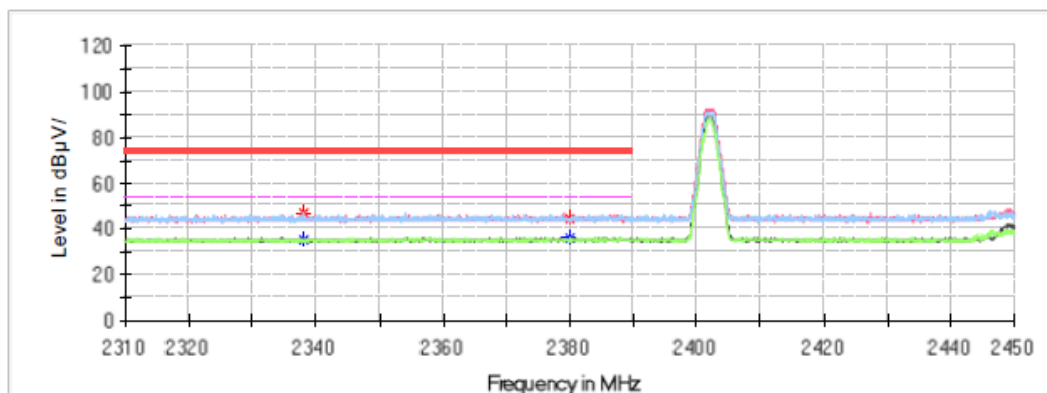
Note: The test distance is 3m. The limit is 74dBμV/m(Peak) and 54dBμV/m(Average).

Frequency (GHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
19.66	---	38.50	54	15.50	V	11.3
19.66	48.70	---	74	25.30	V	11.3
20.27	---	38.30	54	15.70	H	12.52
20.27	47.88	---	74	26.12	H	12.52

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

Project No.: RKSA240808001
Test Mode: BLE
Standard: FCC Part 15.247& FCC Part 15.205&FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

Full Spectrum

**Critical Freqs**

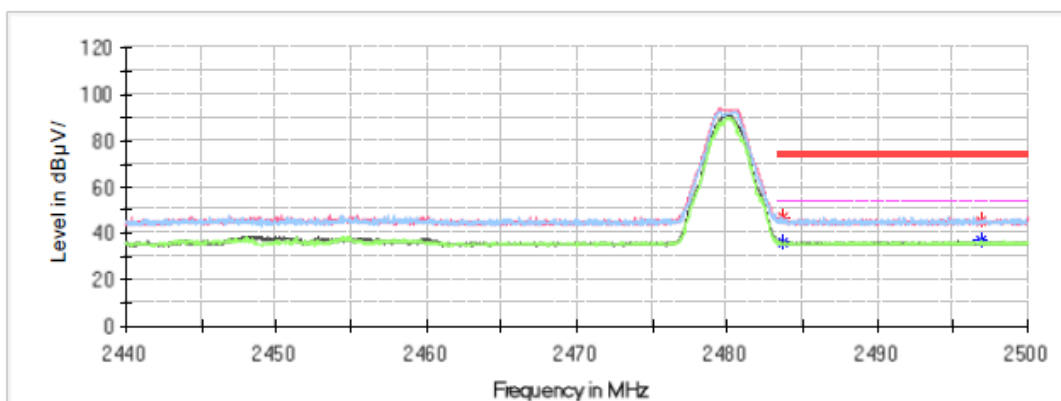
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2337.944000	46.89	---	74.00	27.11	H	-0.7
2337.944000	---	35.04	54.00	18.96	H	-0.7
2380.112000	44.53	---	74.00	29.47	H	-0.6
2380.112000	---	36.42	54.00	17.58	H	-0.6

High Channel

Common Information

Project No.: RKSA240808001
Test Mode: BLE
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

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)
2483.656000	47.02	---	74.00	26.98	V	-0.3
2483.656000	---	36.03	54.00	17.97	V	-0.3
2496.832000	45.45	---	74.00	28.55	H	-0.2
2496.832000	---	36.62	54.00	17.38	H	-0.2

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

Test Date:	2025-02-11 to 2025-02-14
Temperature:	16.0-23 °C
Relative Humidity:	37-44 %
ATM Pressure:	101.2-102.9 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

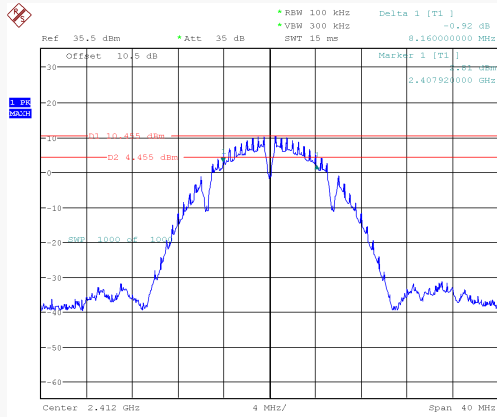
Test Result: Compliant.

EUT operation mode: Transmitting

For Wi-Fi Mode:

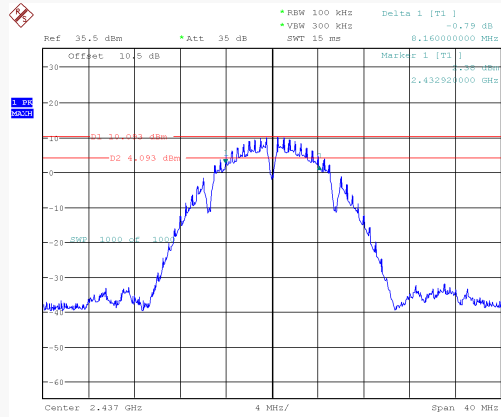
Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	Limit (MHz)
802.11b Mode			
Low	2412	8.160	≥ 0.5
Middle	2437	8.160	≥ 0.5
High	2462	8.160	≥ 0.5
802.11g Mode			
Low	2412	15.600	≥ 0.5
Middle	2437	15.400	≥ 0.5
High	2462	15.400	≥ 0.5
802.11n-HT20 Mode			
Low	2412	15.520	≥ 0.5
Middle	2437	15.200	≥ 0.5
High	2462	15.200	≥ 0.5
802.11n-HT40 Mode			
Low	2422	35.280	≥ 0.5
Middle	2437	35.360	≥ 0.5
High	2452	35.360	≥ 0.5

802.11b Mode Low Channel



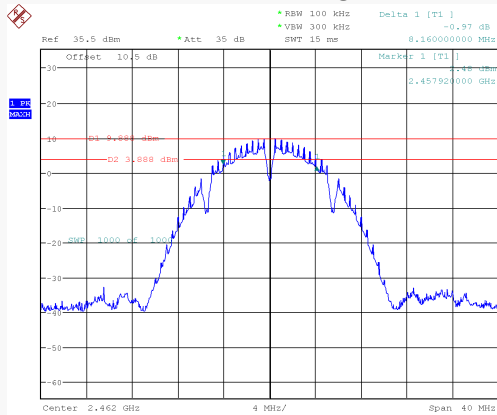
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:00:56

802.11b Mode Middle Channel



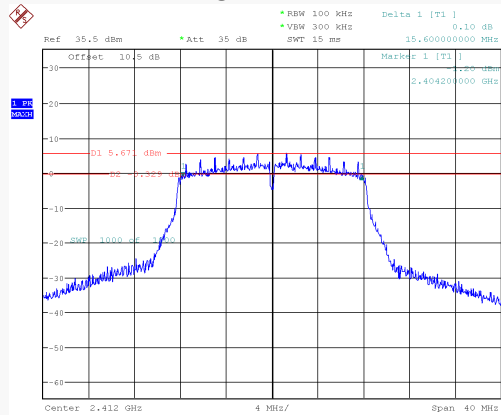
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:13:14

802.11b Mode High Channel



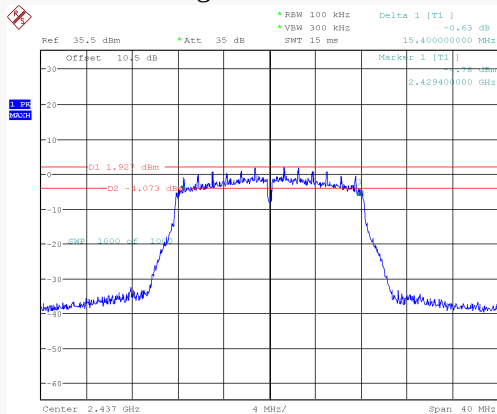
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:23:00

802.11g Mode Low Channel



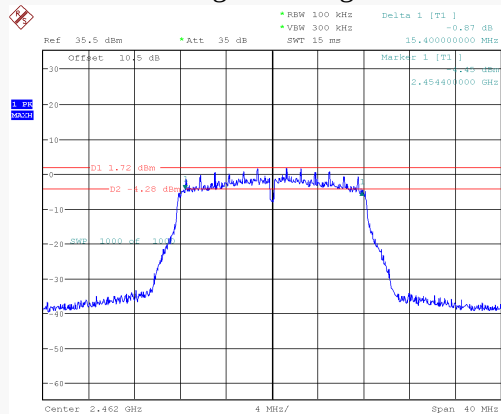
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:36:30

802.11g Mode Middle Channel



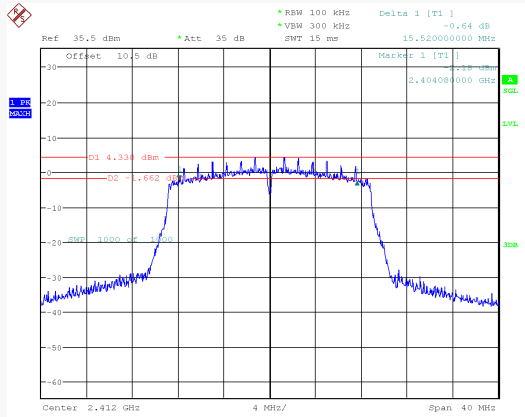
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:53:18

802.11g Mode High Channel



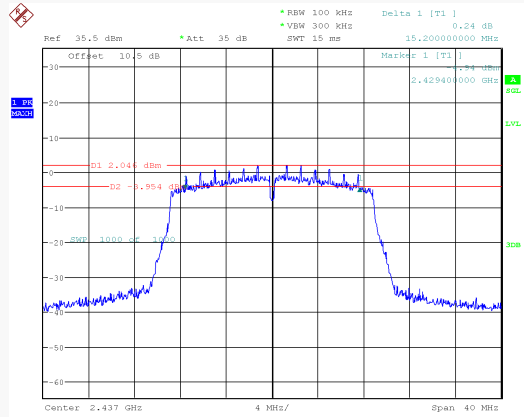
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 17:18:07

802.11n-HT20 Mode Low Channel



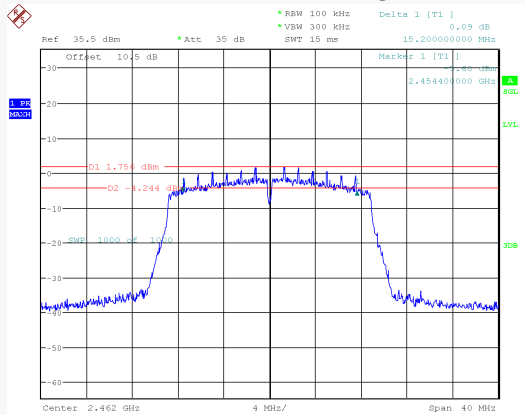
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 17:38:24

802.11n-HT20 Mode Middle Channel



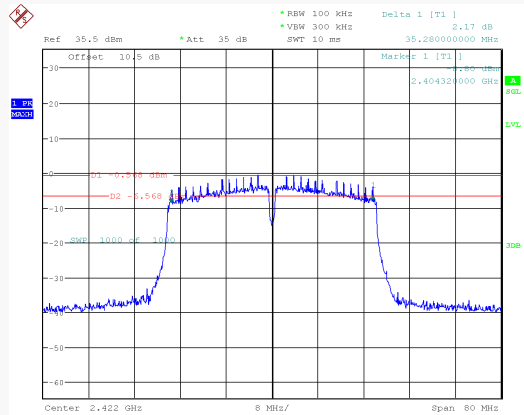
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 09:21:04

802.11n-HT20 Mode High Channel



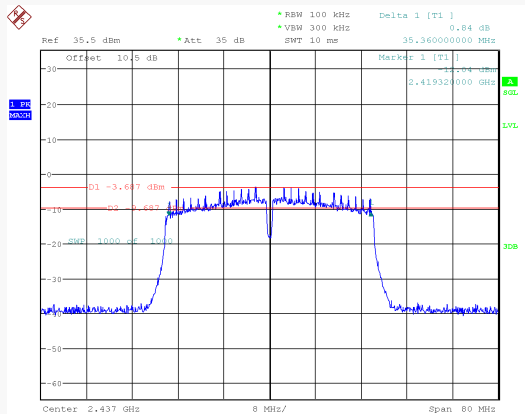
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 09:33:19

802.11n-HT40 Mode Low Channel



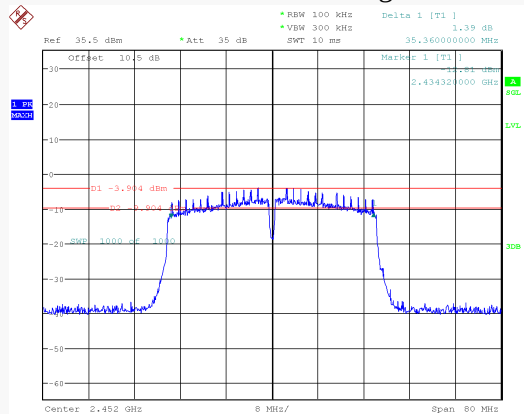
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 09:47:02

802.11n-HT40 Mode Middle Channel



ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 10:43:00

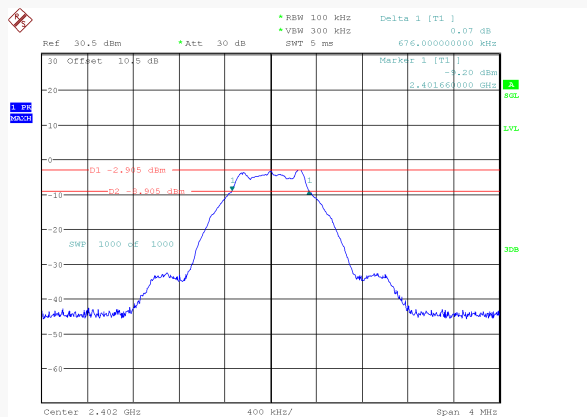
802.11n-HT40 Mode High Channel



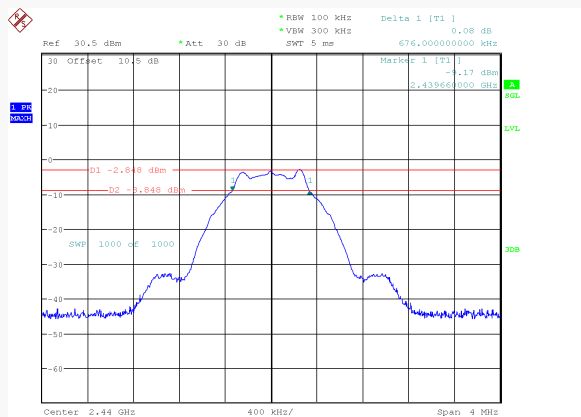
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 10:24:00

For BLE 1Mbps Mode:

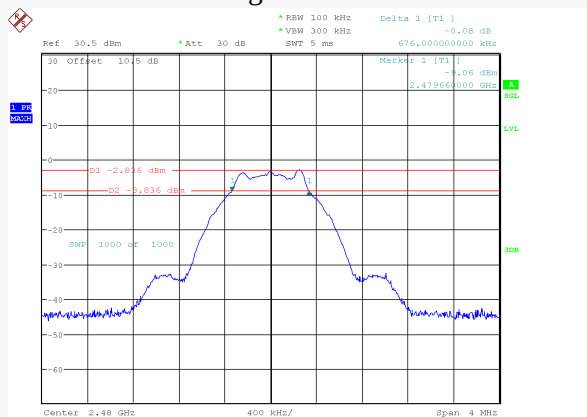
Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	Limit (MHz)
Low	2402	0.676	≥ 0.5
Middle	2440	0.676	≥ 0.5
High	2480	0.676	≥ 0.5

Low Channel

ProjectNo.: RKSA240808001 Tester: Neil Zhou
Date: 11.FEB.2025 10:21:36

Middle Channel

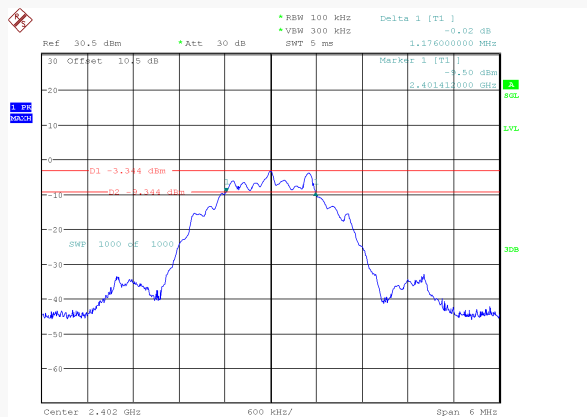
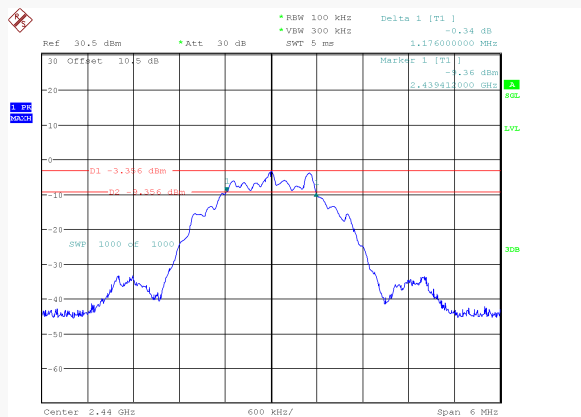
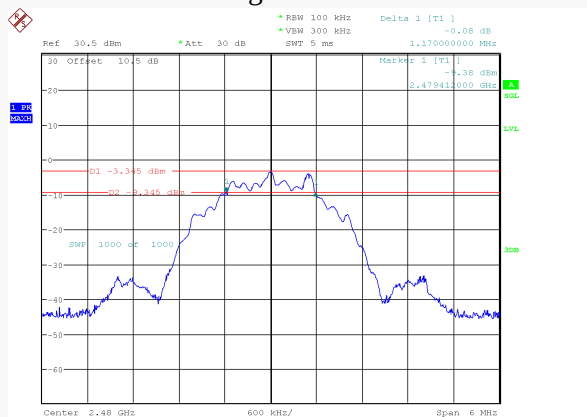
ProjectNo.: RKSA240808001 Tester: Neil Zhou
Date: 11.FEB.2025 10:28:37

High Channel

ProjectNo.: RKSA240808001 Tester: Neil Zhou
Date: 11.FEB.2025 10:36:33

For BLE 2Mbps Mode:

Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	Limit (MHz)
Low	2402	1.176	≥ 0.5
Middle	2440	1.176	≥ 0.5
High	2480	1.170	≥ 0.5

Low Channel**Middle Channel****High Channel**

OCCUPIED BANDWIDTH**Environmental Conditions & Test Information**

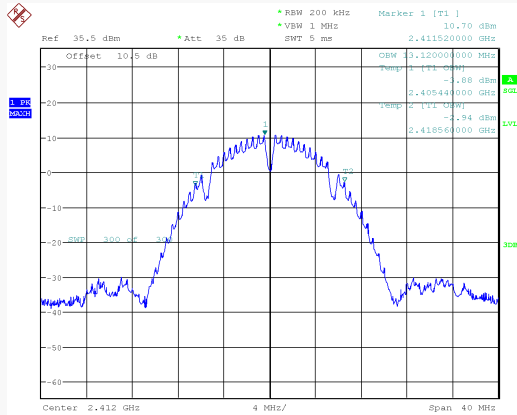
Test Date:	2025-02-11 to 2025-02-14
Temperature:	16.0-23 °C
Relative Humidity:	37-44 %
ATM Pressure:	101.2-102.9 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

EUT operation mode: Transmitting

For Wi-Fi Mode:

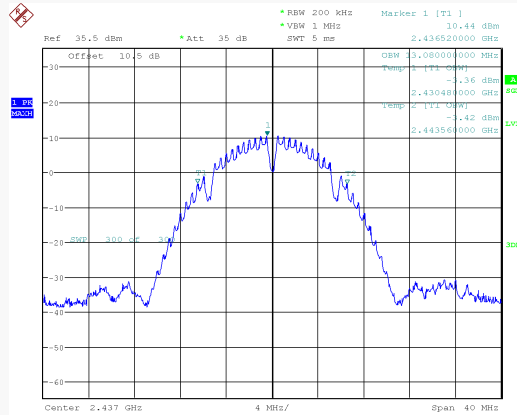
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)
802.11b Mode		
Low	2412	13.120
Middle	2437	13.080
High	2462	13.080
802.11g Mode		
Low	2412	16.560
Middle	2437	16.520
High	2462	16.520
802.11n-HT20 mode		
Low	2412	17.640
Middle	2437	17.640
High	2462	17.640
802.11n-HT40 mode		
Low	2422	36.240
Middle	2437	36.240
High	2452	36.240

802.11b Mode Low Channel



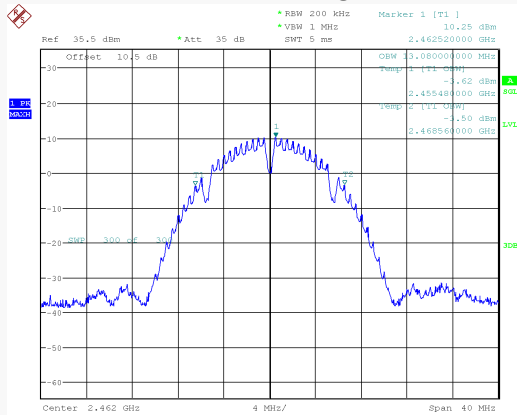
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 15:59:42

802.11b Mode Middle Channel



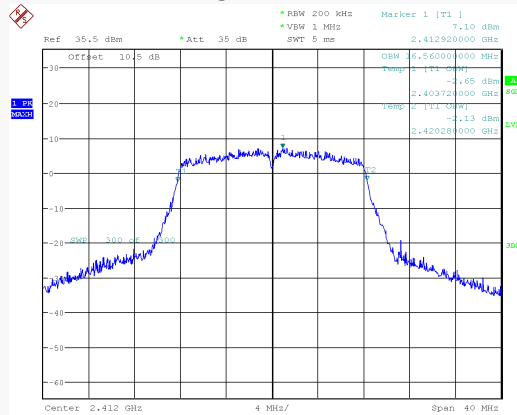
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:12:13

802.11b Mode High Channel



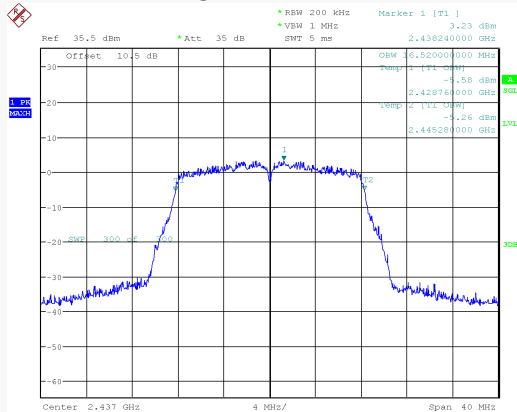
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:21:27

802.11g Mode Low Channel



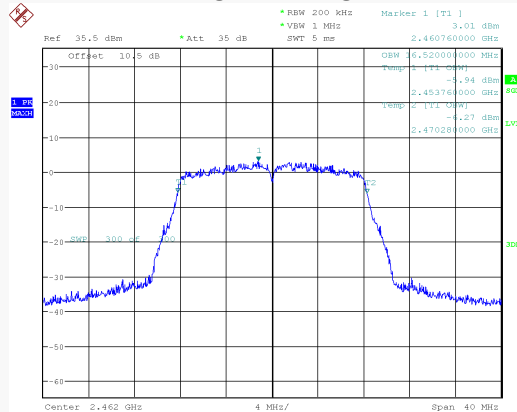
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:35:16

802.11g Mode Middle Channel



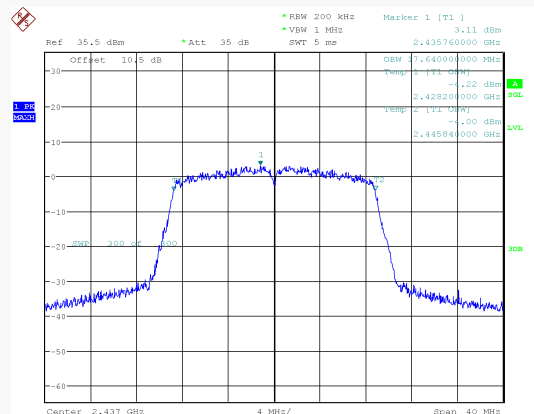
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:52:16

802.11g Mode High Channel



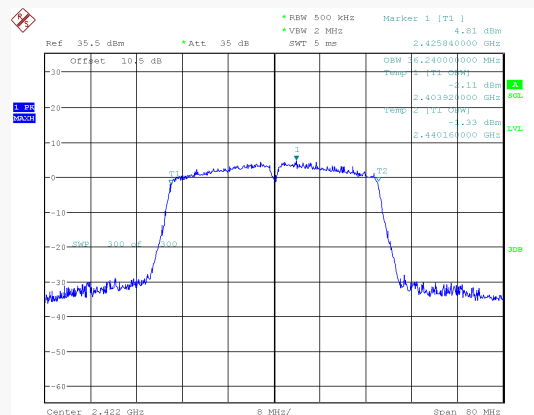
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 17:16:33

802.11n-HT20 Mode Middle Channel



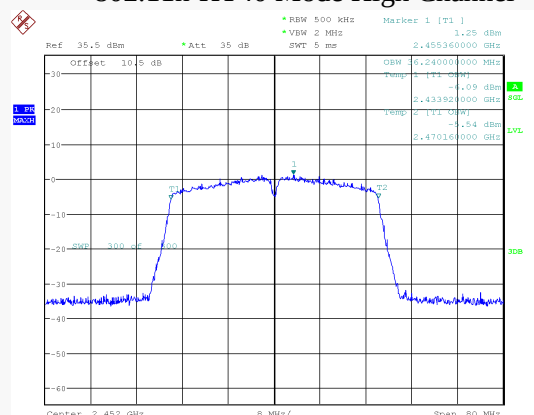
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 09:20:03

802.11n-HT40 Mode Low Channel



ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 09:46:14

802.11n-HT40 Mode High Channel

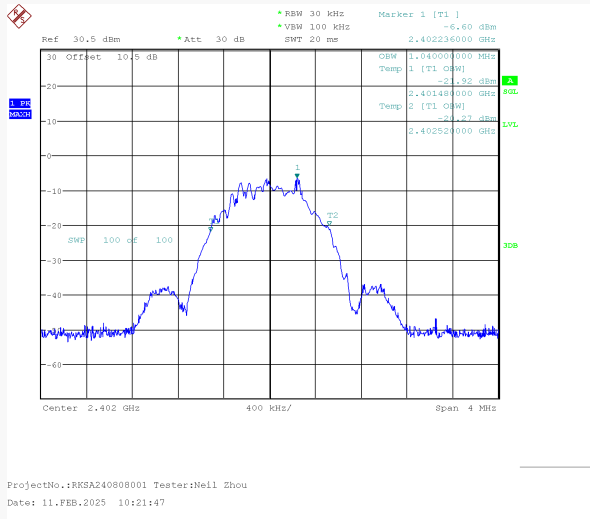


ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 10:23:20

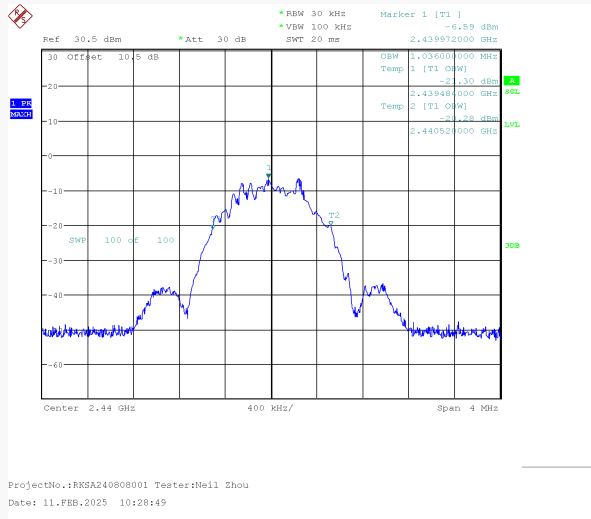
For BLE 1Mbps Mode:

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)
Low	2402	1.040
Middle	2440	1.036
High	2480	1.036

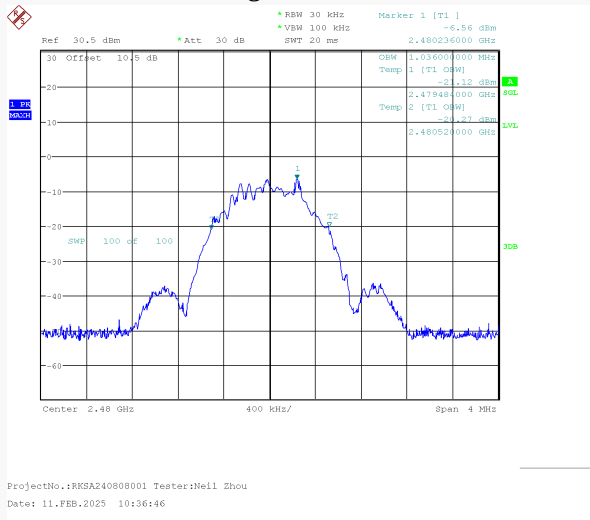
Low Channel



Middle Channel



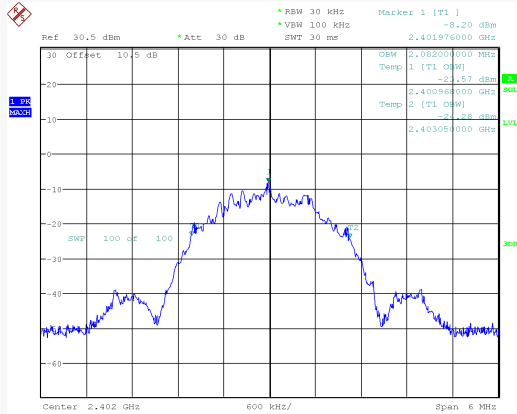
High Channel



For BLE 2Mbps Mode:

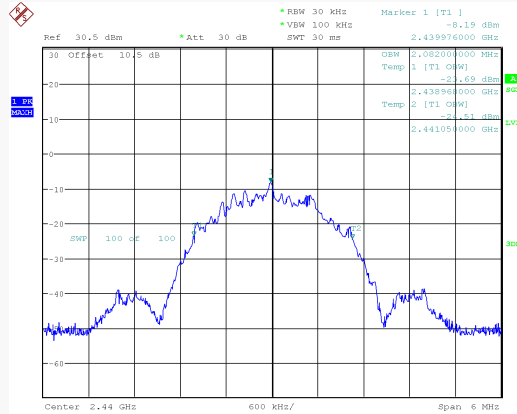
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)
Low	2402	2.082
Middle	2440	2.082
High	2480	2.076

Low Channel



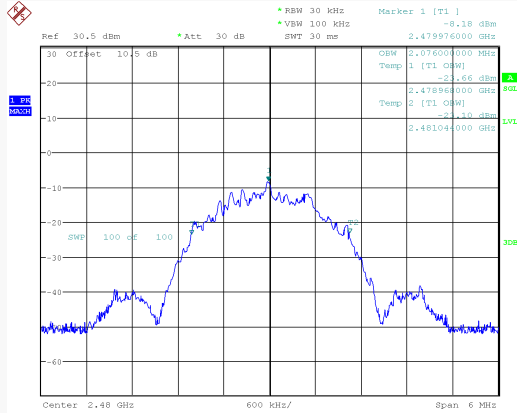
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 11.FEB.2025 10:44:37

Middle Channel



ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 11.FEB.2025 11:12:17

High Channel



ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 11.FEB.2025 11:21:46

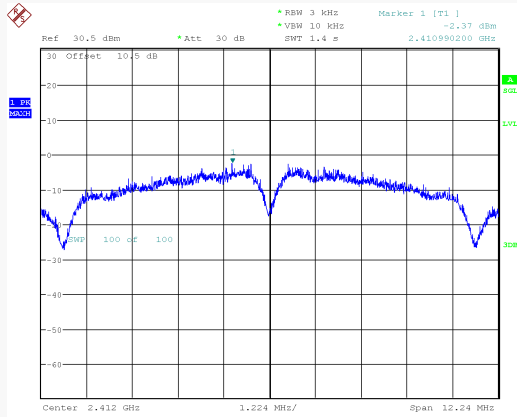
POWER SPECTRAL DENSITY**Environmental Conditions & Test Information**

Test Date:	2025-02-11 to 2025-02-14
Temperature:	16.0-23 °C
Relative Humidity:	37-44 %
ATM Pressure:	101.2-102.9 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

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

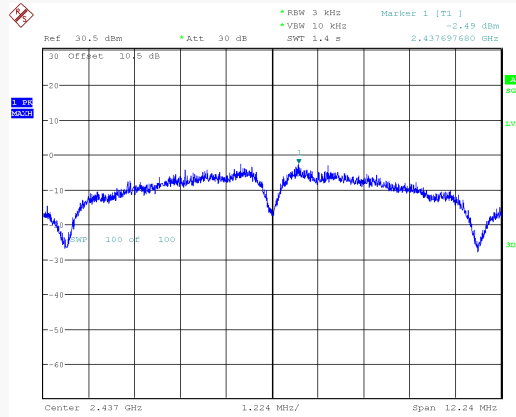
Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)
802.11b Mode			
Low	2412	-2.37	≤8
Middle	2437	-2.49	≤8
High	2462	-3.33	≤8
802.11g Mode			
Low	2412	-7.32	≤8
Middle	2437	-9.94	≤8
High	2462	-11.71	≤8
802.11n-HT20 mode			
Low	2412	-9.40	≤8
Middle	2437	-11.48	≤8
High	2462	-11.57	≤8
802.11n-HT40 mode			
Low	2422	-13.69	≤8
Middle	2437	-17.07	≤8
High	2452	-17.35	≤8

802.11b Low Channel



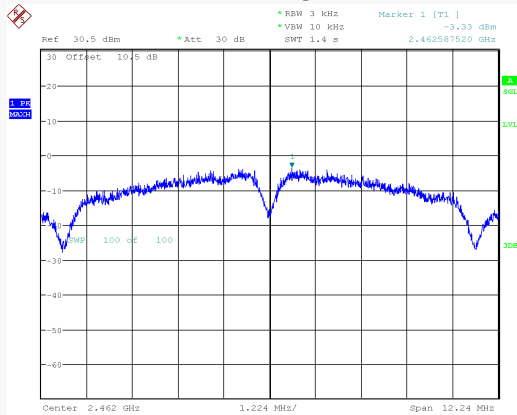
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:09:32

802.11b Middle Channel



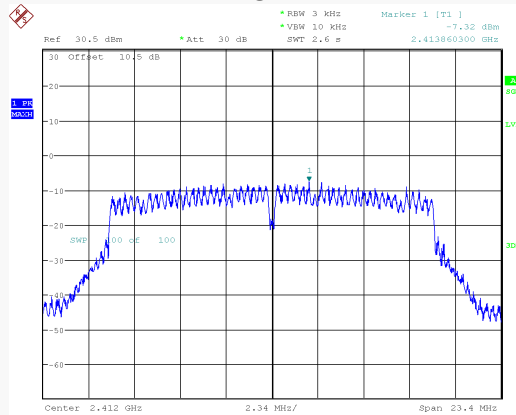
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:20:20

802.11b High Channel



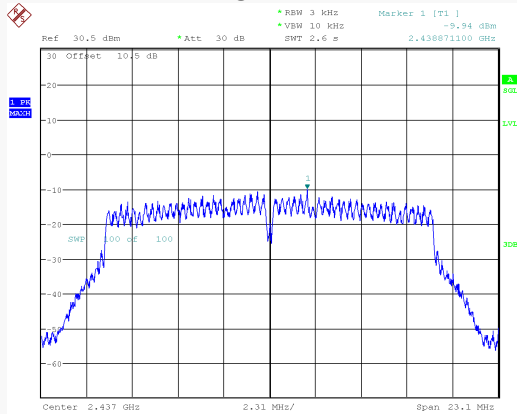
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:30:55

802.11g Low Channel



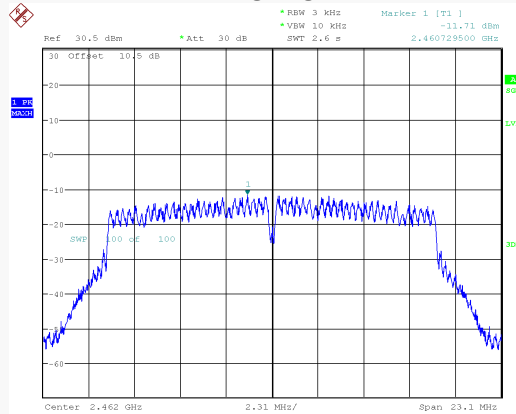
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:46:25

802.11g Middle Channel



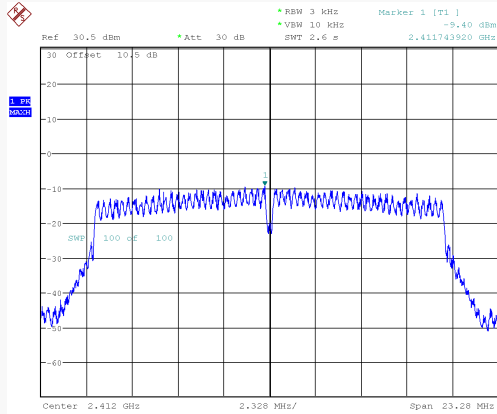
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 17:02:23

802.11g High Channel



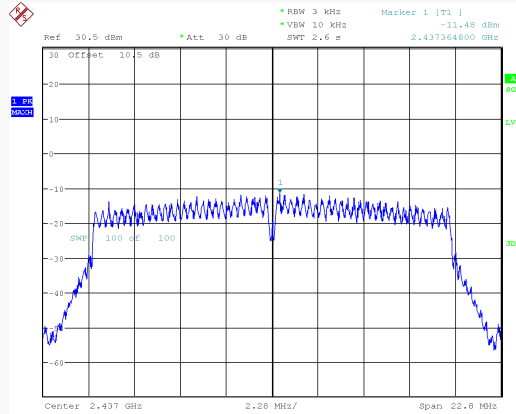
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 17:28:02

802.11n-HT20 Low Channel



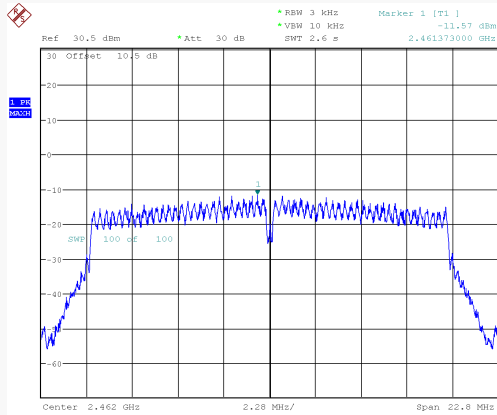
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 17:48:20

802.11n-HT20 Middle Channel



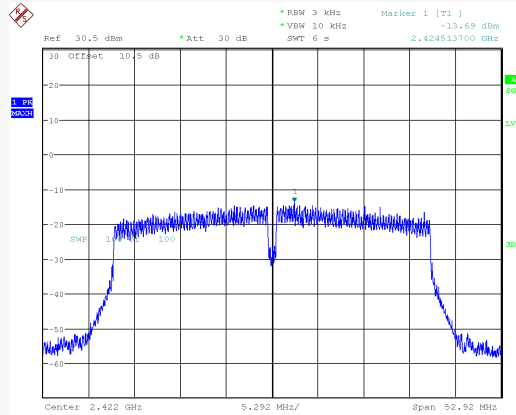
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 09:30:09

802.11n-HT20 High Channel



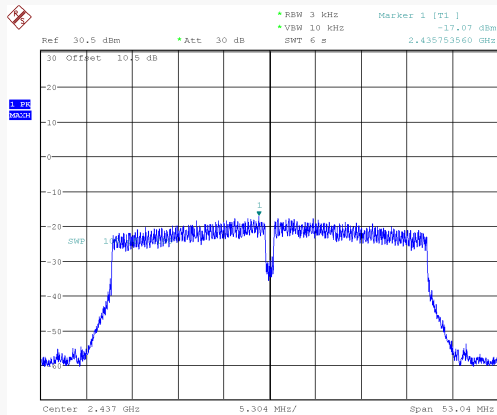
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 09:43:17

802.11n-HT40 Low Channel



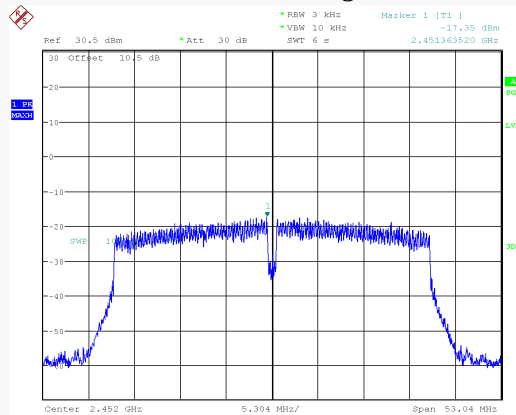
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 10:02:37

802.11n-HT40 Middle Channel



ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 10:57:47

802.11n-HT40 High Channel

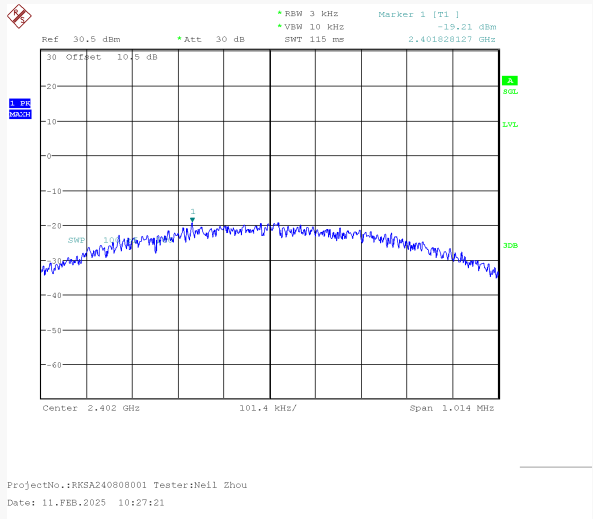


ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 10:39:38

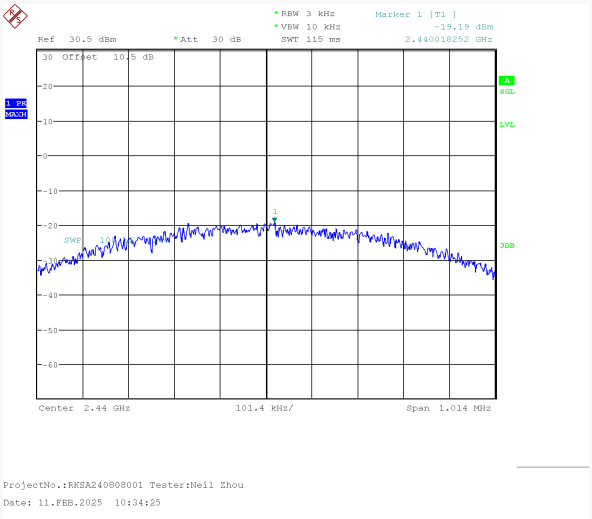
For BLE 1Mbps Mode:

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)
Low	2402	-19.21	≤8
Middle	2440	-19.19	≤8
High	2480	-19.19	≤8

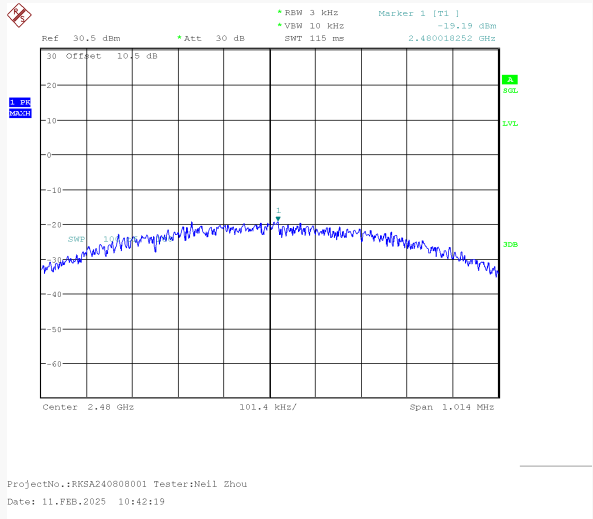
Low Channel



Middle Channel



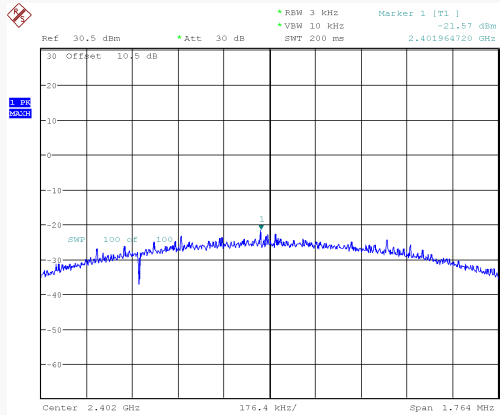
High Channel



For BLE 2Mbps Mode:

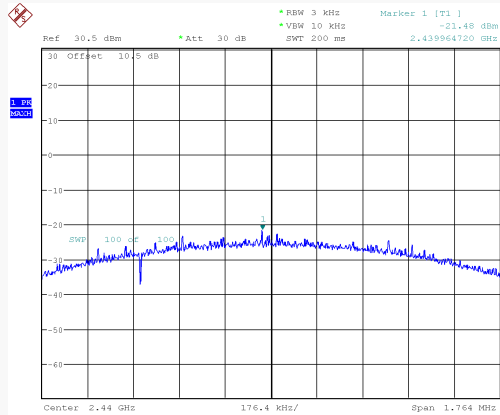
Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)
Low	2402	-21.57	≤8
Middle	2440	-21.48	≤8
High	2480	-21.53	≤8

Low Channel



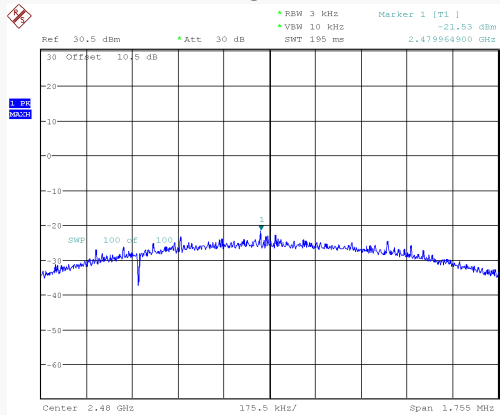
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 11.FEB.2025 10:50:19

Middle Channel



ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 11.FEB.2025 11:17:59

High Channel



ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 11.FEB.2025 11:27:27

TRANSMITTER OUTPUT POWER MEASUREMENT**Environmental Conditions & Test Information**

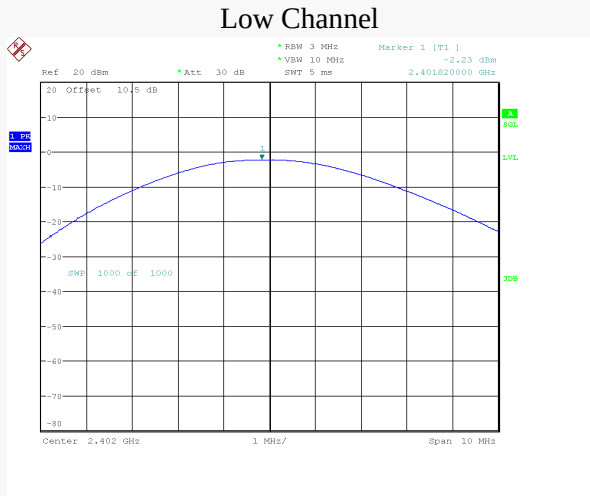
Test Date:	2025-02-11
Temperature:	22 °C
Relative Humidity:	44 %
ATM Pressure:	102.0kPa
Test Result:	Pass
Test Engineer:	Loki Shi

For Wi-Fi Mode:

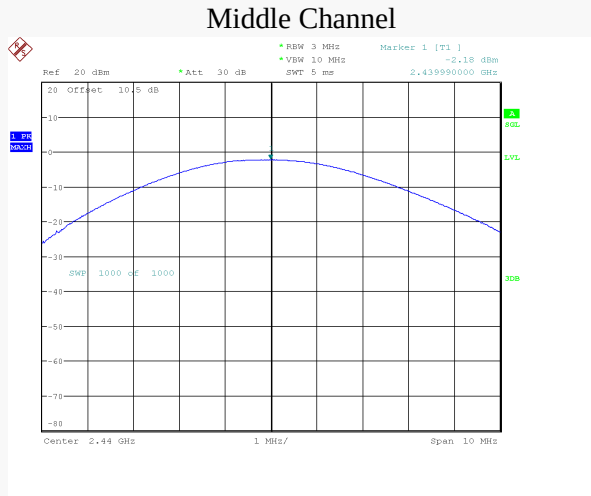
Channel	Frequency (MHz)	Max Conducted Peak Output Power (dBm)	Max Conducted Average Output Power (dBm)	Limit (dBm)
802.11b Mode				
Low	2412	18.73	16.68	≤30
Middle	2437	18.4	16.15	≤30
High	2462	18.31	16.04	≤30
802.11g Mode				
Low	2412	16.26	10.12	≤30
Middle	2437	14.08	7.78	≤30
High	2462	14.06	7.57	≤30
802.11n-HT20 Mode				
Low	2412	14.78	7.63	≤30
Middle	2437	12.75	5.76	≤30
High	2462	12.67	5.52	≤30
802.11n-HT40 Mode				
Low	2422	13.19	6.97	≤30
Middle	2437	11.17	5.04	≤30
High	2452	11.11	4.87	≤30

For BLE 1Mbps Mode:

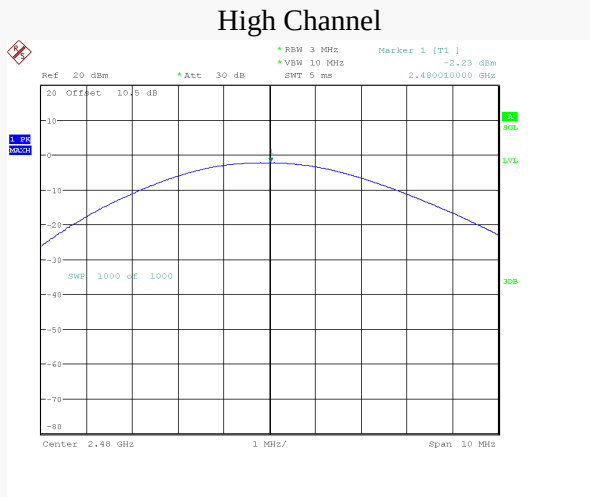
Channel	Frequency (MHz)	Max Conducted Peak Output Power (dBm)	Peak Output Power Limit (dBm)
Low	2402	-2.23	≤30
Middle	2440	-2.18	≤30
High	2480	-2.23	≤30



ProjectNo.:RKSA240808001 Tester:Neil Zhou
 Date: 11.FEB.2025 10:27:01



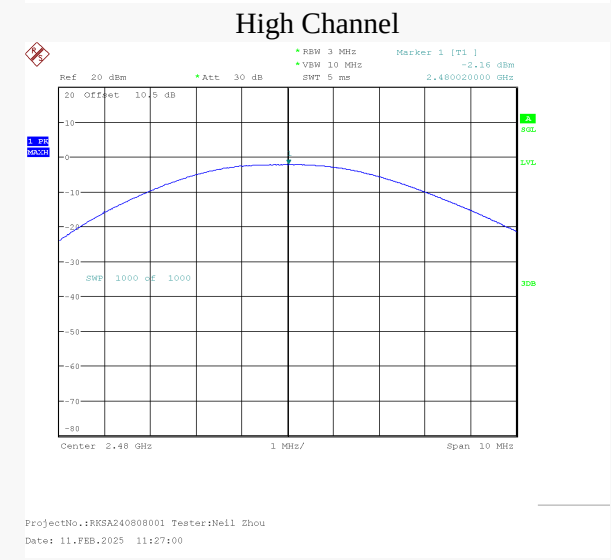
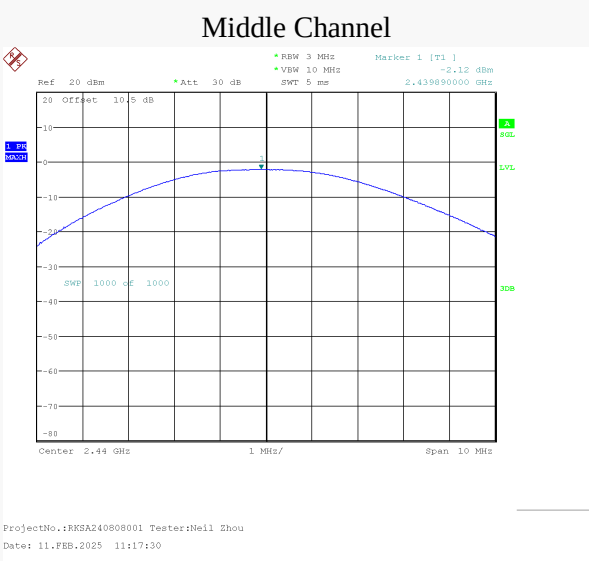
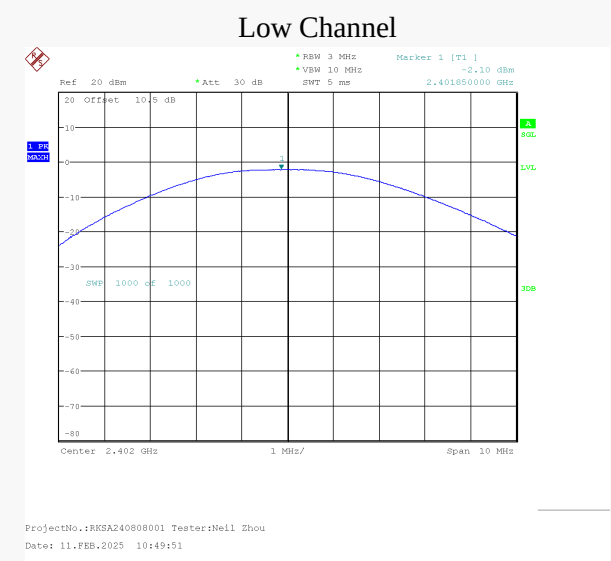
ProjectNo.:RKSA240808001 Tester:Neil Zhou
 Date: 11.FEB.2025 10:34:05



ProjectNo.:RKSA240808001 Tester:Neil Zhou
 Date: 11.FEB.2025 10:41:59

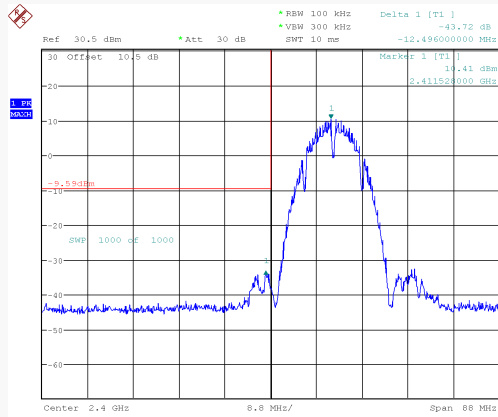
For BLE 2Mbps Mode:

Channel	Frequency (MHz)	Max Conducted Peak Output Power (dBm)	Peak Output Power Limit (dBm)
Low	2402	-2.10	≤30
Middle	2440	-2.12	≤30
High	2480	-2.16	≤30

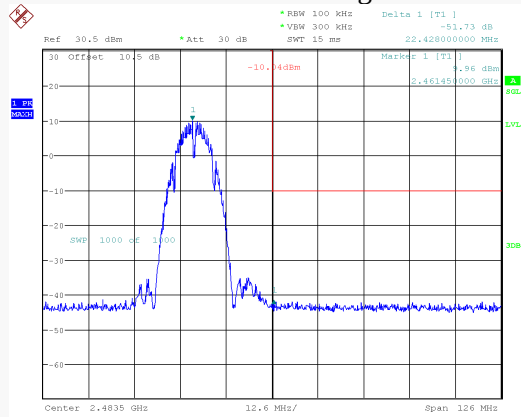


OUT OF BAND EMISSIONS**Environmental Conditions & Test Information**

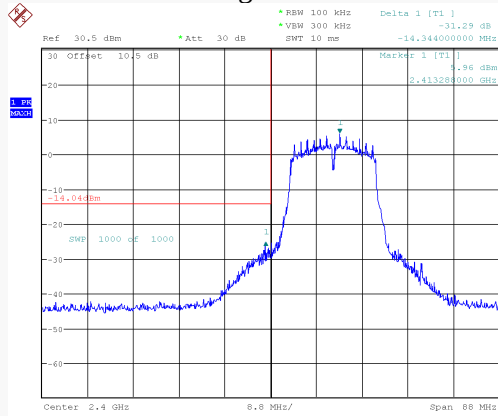
Test Date:	2025-02-11 to 2025-02-14
Temperature:	16.0-23 °C
Relative Humidity:	37-44 %
ATM Pressure:	101.2-102.9 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

**EUT operation mode: Transmitting
For Wi-Fi Mode:****802.11b Mode Left Side**

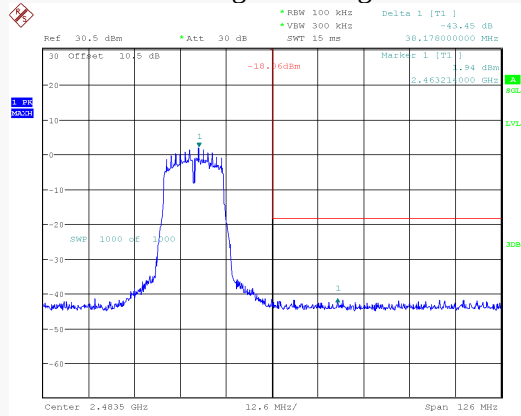
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:02:27

802.11b Mode Right Side

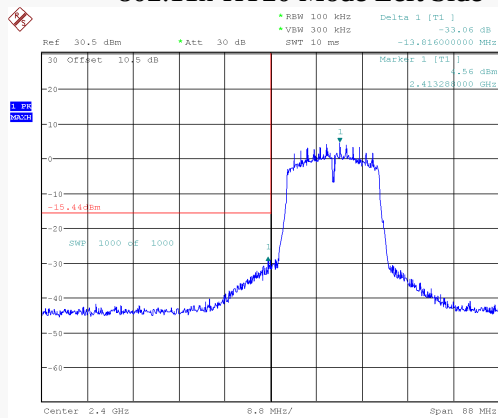
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:23:49

802.11g Mode Left Side

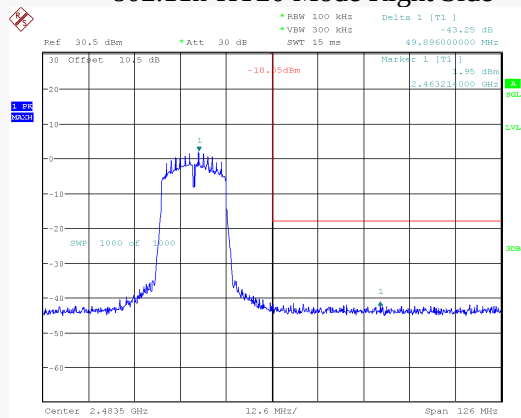
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 16:37:19

802.11g Mode Right Side

ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 17:18:56

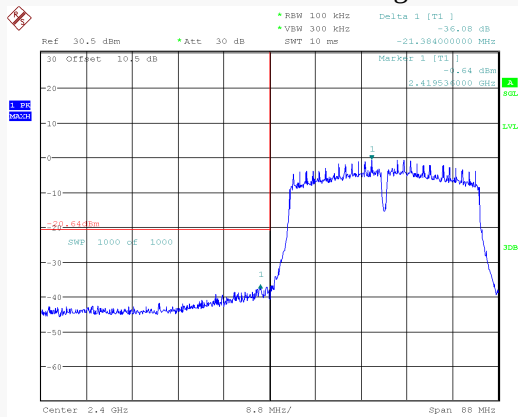
802.11n-HT20 Mode Left Side

ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 13.FEB.2025 17:39:13

802.11n-HT20 Mode Right Side

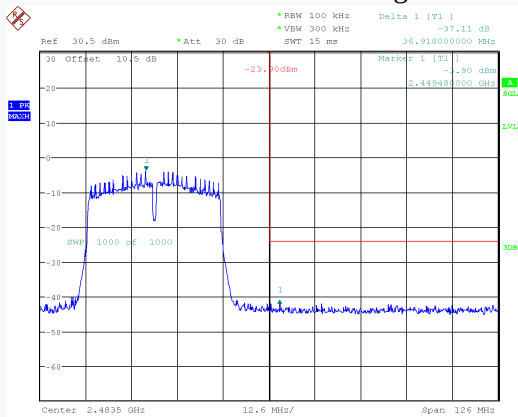
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 09:34:12

802.11n-HT40 Mode Right Side



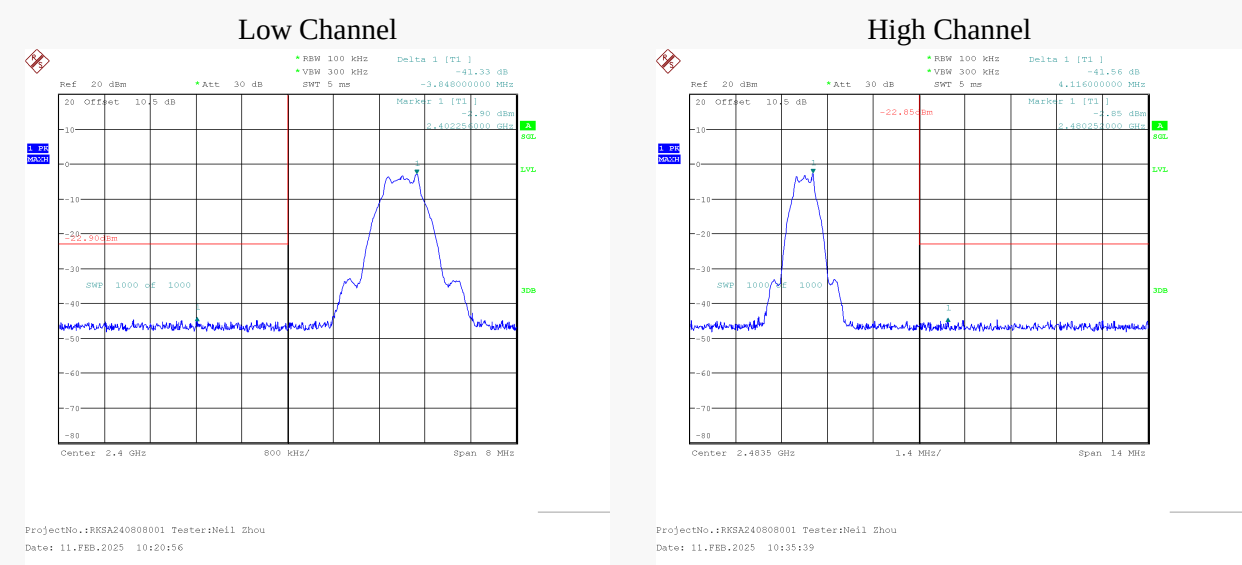
ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 09:47:51

802.11n-HT40 Mode Right Side

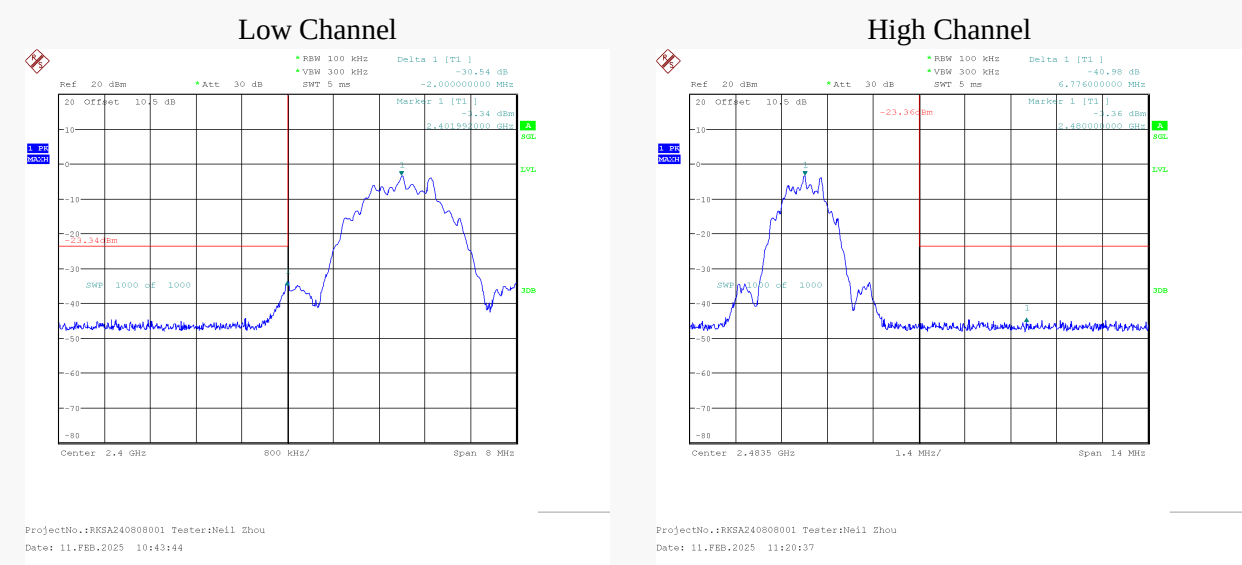


ProjectNo.:RKSA240808001 Tester:Neil Zhou
Date: 14.FEB.2025 10:24:50

For BLE 1Mbps Mode:



For BLE 2Mbps Mode:



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 *******