

FCC PART 15.247

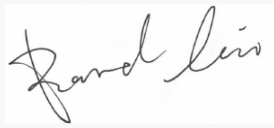
TEST REPORT

For

WISEASY TECHNOLOGY PTE. LTD.

51 GOLDHILL PLAZA #18-05 SINGAPORE (308900)

FCC ID: 2BFPO-T201

Report Type: Original Report	Product Name: Smart Payment Tablet
Report Number: <u>RKSA240327005-00C</u>	
Report Date: <u>2024-07-12</u>	
Reviewed By: <u>Bard Liu</u>	
Approved By: <u>Kyle Xu</u>	
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Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Kunshan). This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, or any agency of the U.S.Government.

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REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RKSA240327005-00C	R1V1	2024-07-12	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant	WISEASY TECHNOLOGY PTE. LTD.
Tested Model	Smart Payment Tablet
Product Name	T2
HVIN:	P2_1XX_30_XX
Power Supply	DC 3.87V powered by battery and DC 5V/9V/12V charging 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(1Mbps): 2402-2480 MHz
Maximum Peak Output Power:	2.4G Wi-Fi: 802.11b: 17.27dBm 802.11g: 23.98dBm 802.11n20: 24.18dBm 802.11n40: 23.72dBm BLE(1Mbps): 6.13dBm
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 /BLE: 1.31dBi

Adapter Information:

Model: 235A-020A-1A1C

Input: AC100-240V 50/60Hz 600mA

Output: USB-C 5.0V-3.0A, 9.0V-2.0A, 12.0V-1.67A

USB-A 5.0V-3.0A, 9.0V-2.0A, 12.0V-1.5A

USB-A+C Total 5.0V-3.0A

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: RKSA240327005-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2024-03-27.)

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 C63.10-2013, 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°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: QSPR

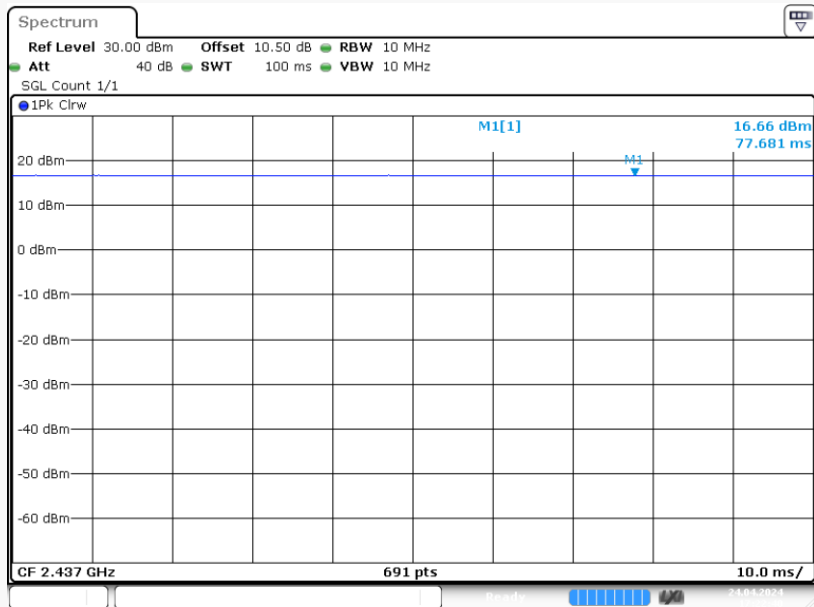
Pre-scan with all the data rates, and the worst case was performed as below:

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

Note: The power level was declared by the applicant.

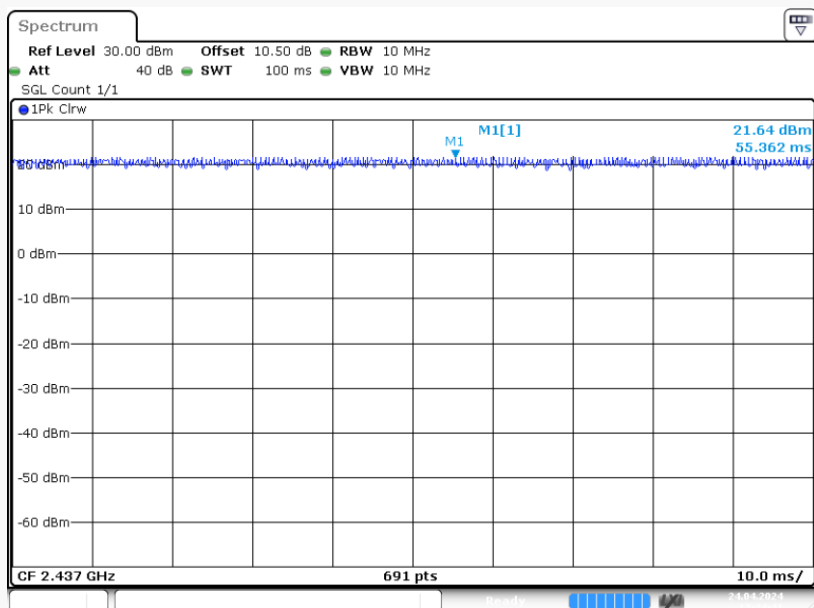
Duty Cycle:

802.11b Mode Middle Channel



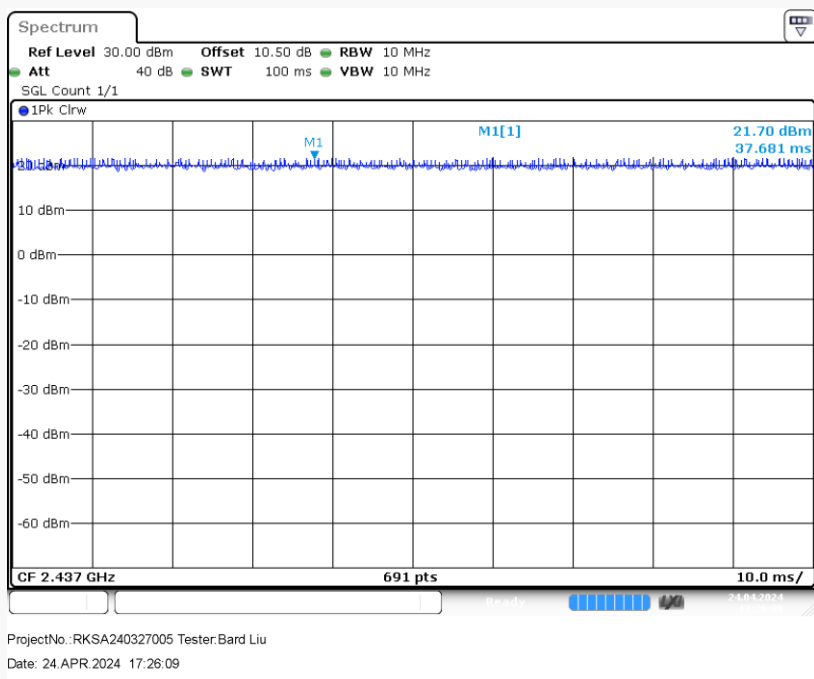
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802.11g Mode Middle Channel

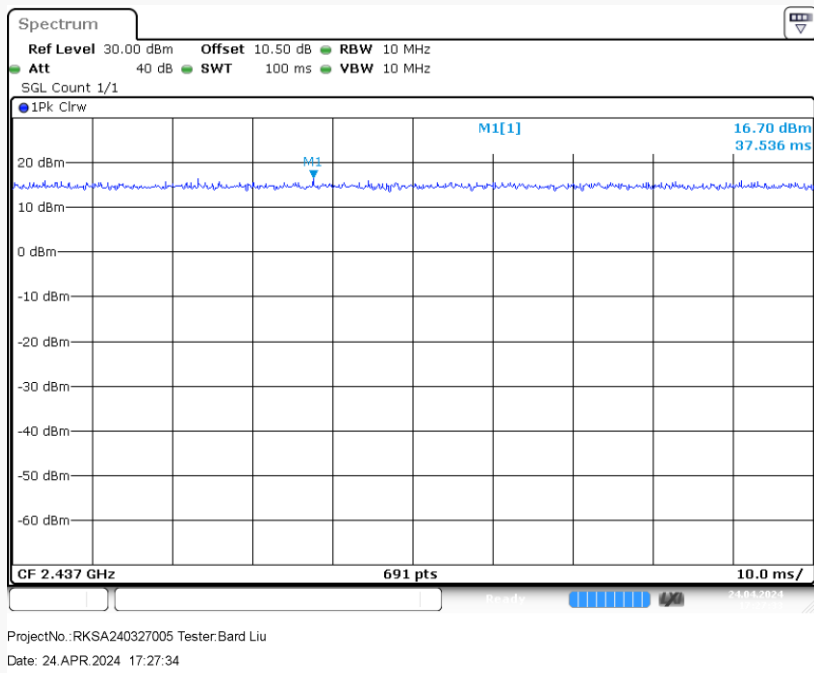


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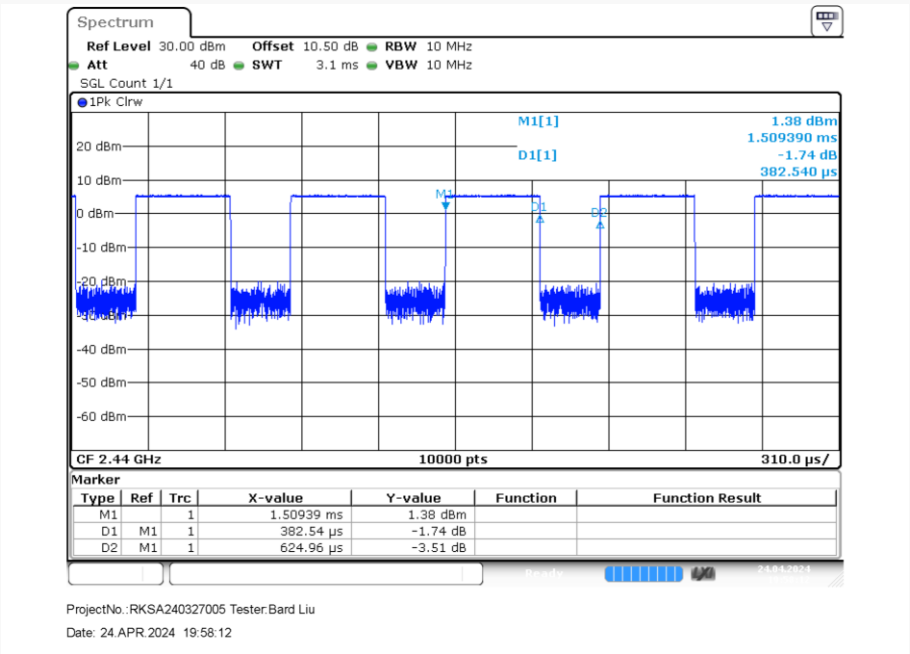
802.11n-HT20 Mode Middle Channel



802.11n-HT40 Mode Middle Channel



BLE(1Mbps) Mode Middle Channel



Mode	Duty Cycle (%)	Ton(ms)	Ton+off(ms)	10log(1/x)
802.11b	100	100	100	0
802.11g	100	100	100	0
802.11n-HT20	100	100	100	0
802.11n-HT40	100	100	100	0
BLE(1Mbps)	61.28	0.383	0.625	2.13

Note: “x” means the Duty Cycle.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
/	/	/	/

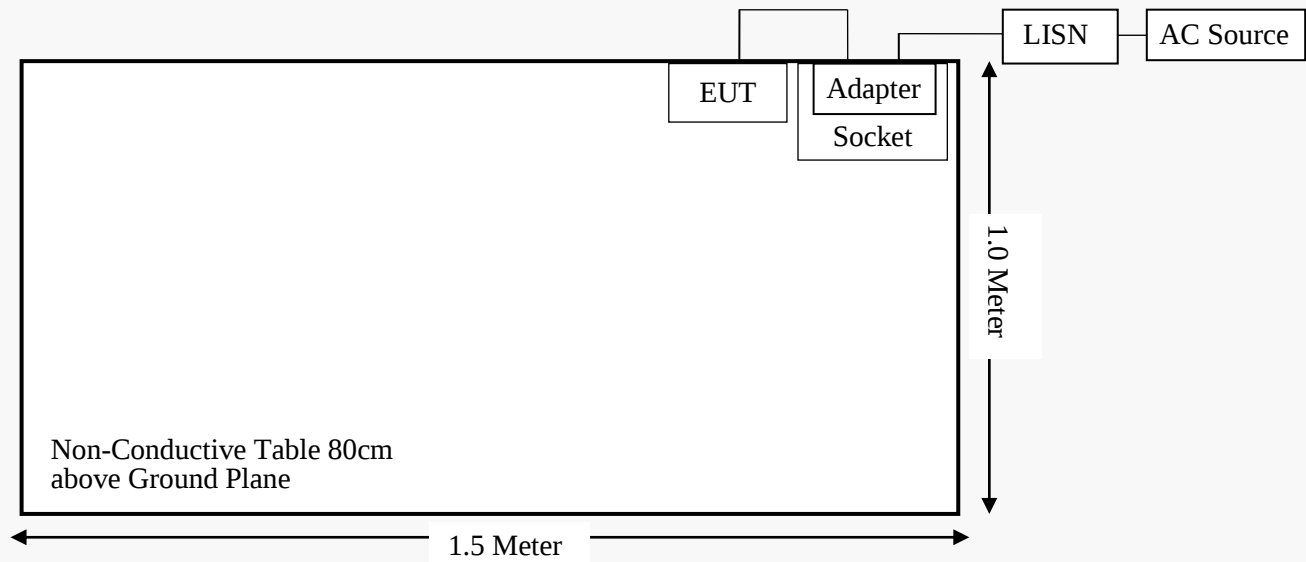
External I/O Cable

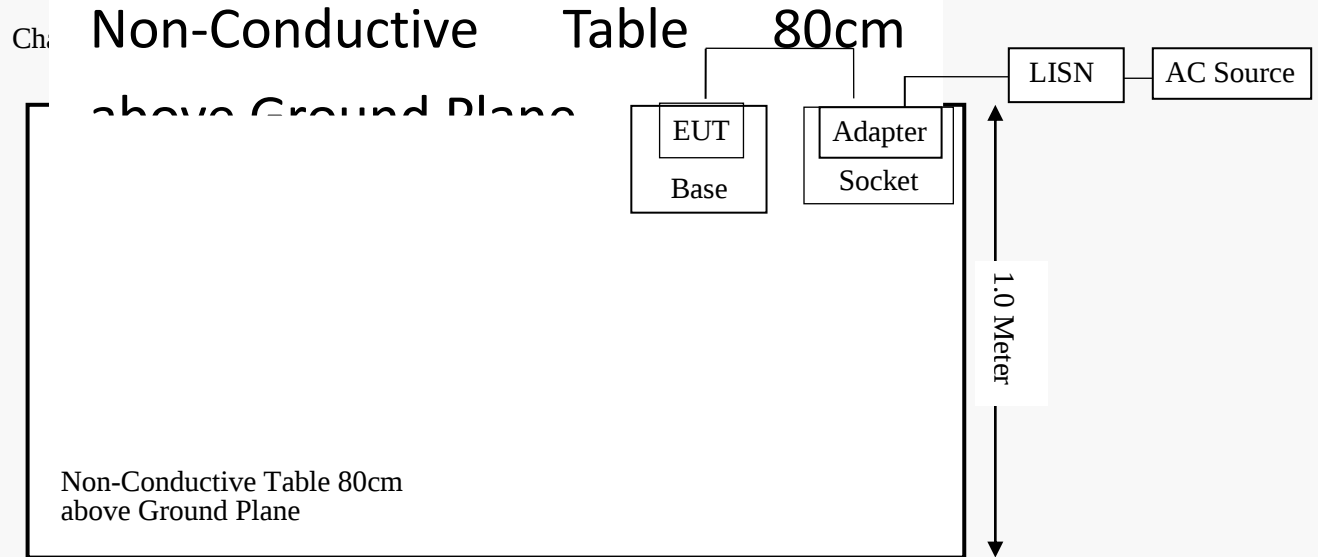
Cable Description	Length (m)	From Port	To
USB Cable	1.0	EUT/Base	Adapter
Power Cable	1.0	Adapter	LISN/AC Source

Block Diagram of Test Setup

For Conducted Emissions:

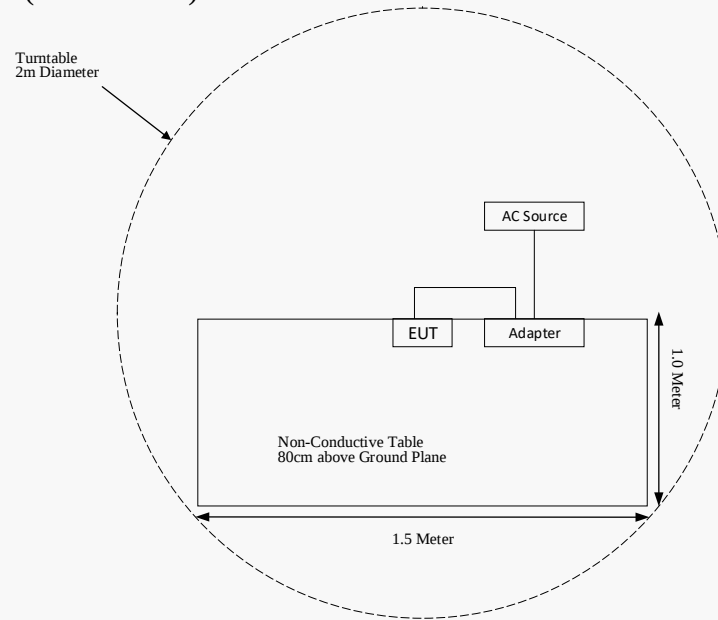
Charging by adapter:



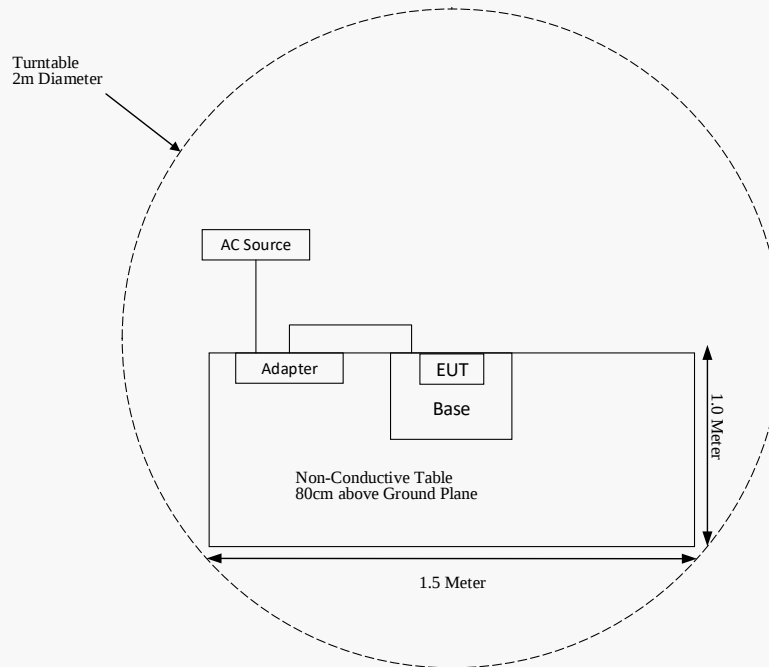


Charging by Adapter:

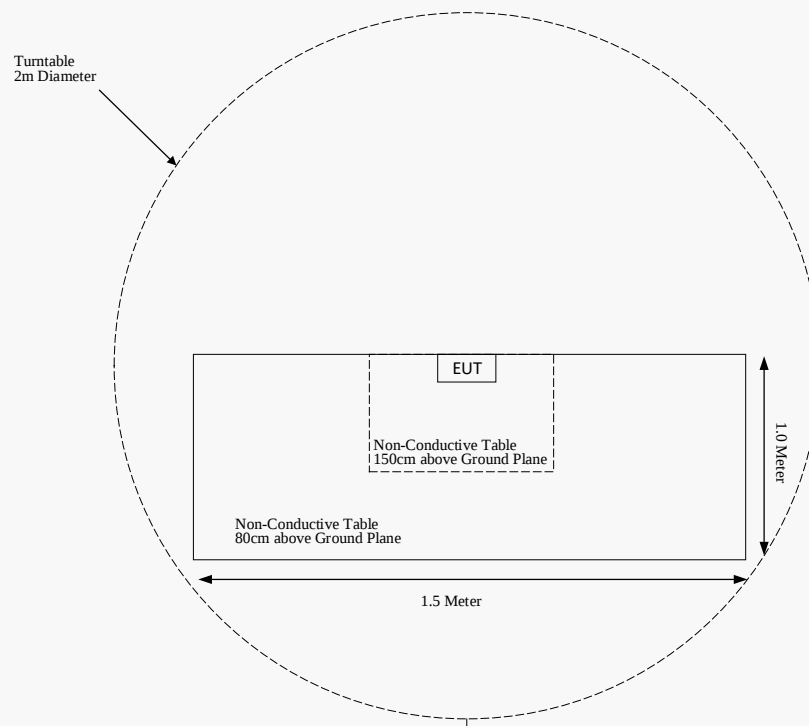
For Radiated Emissions (Below 1GHz):



Charging by Base:



For Radiated Emissions (1GHz – 25GHz):



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
§15.247 (I), §1.1310 & §2.1091	Maximum Permissible Exposure (MPE)	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	2023-11-11	2024-11-10
Narda	6dB Attenuator	773-6	10690812-2-1	2023-11-11	2024-11-10
ETS-LINDGREN	Loop Antenna	6512	108100	2023-11-09	2024-11-08
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	2024-04-23	2025-04-22
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	2023-05-19	2024-05-18
ETS-LINDGREN	Horn Antenna	3115	9311-4159	2023-12-02	2024-12-01
ETS-LINDGREN	Horn Antenna	3116	2516	2023-12-08	2024-12-07
A.H.Systems, inc	Amplifier	PAM-0118P	512	2023-05-23	2024-05-22
SELECTOR	Amplifier	EM18G40G	060726	2023-05-23	2024-05-22
MICRO-TRONICS	Band Reject Filter	BRM50702	G024	2023-08-05	2024-08-04
Narda	Attenuator	10dB	010	2023-08-15	2024-08-14
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-6	006	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-11	011	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-12	012	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-13	013	2023-05-23	2024-05-22
RF Conducted Test					
Rohde & Schwarz	Signal Analyzer	FSV40-N	103298	2024-04-24	2025-04-23
Narda	Attenuator	10dB	010	2024-04-23	2025-04-22
Anritsu	Power Sensor	MA24418A	12621	2023-09-27	2024-09-26
Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR	1316.3003K03-101746-zn	2023-07-28	2024-07-27
Rohde & Schwarz	LISN	ENV216	101115	2024-04-23	2025-04-22
Audix	Test Software	e3	V9	N/A	N/A
Rohde & Schwarz	Pulse limiter	ESH3-Z2	100552	2024-04-24	2025-04-23
MICRO-COAX	Coaxial Cable	Cable-15	015	2024-04-23	2025-04-22

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/cm ²)	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:

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

Calculation 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)				
BT	2402-2480	1.31	1.35	11.5	14.13	20	0.0038	1.0	0.0038
BLE		1.31	1.35	6.5	4.47	20	0.0012	1.0	0.0012
2.4G Wi-Fi	2412-2462	1.31	1.35	24.5	281.84	20	0.0757	1.0	0.0757
5G Wi-Fi	5150-5250	2.87	2.42	14.5	28.18	20	0.0109	1.0	0.0109
	5725-5850	4.09	2.42	13.5	22.39	20	0.0114	1.0	0.0114
GSM850 (GPRS/EGPRS)	824-849	-1.46	0.71	26.24	420.73	20	0.0598	0.5493	0.1089
PCS1900 (GPRS/EGPRS)	1850-1910	0.38	1.09	22.74	187.93	20	0.0407	1.0	0.0407
WCDMA Band II	1850-1910	0.38	1.09	23	199.53	20	0.0433	1.0	0.0433
WCDMA Band IV	1710-1755	1.33	1.36	23	199.53	20	0.0540	1.0	0.0540
WCDMA Band V	824-849	-1.46	0.71	23	199.53	20	0.0284	0.5493	0.0517
LTE Band 2	1850-1910	0.38	1.09	22.5	177.83	20	0.0386	1.0	0.0386
LTE Band 4	1710-1755	1.33	1.36	23	199.53	20	0.0540	1.0	0.0540
LTE Band 5	824-849	-1.46	0.71	22.5	177.83	20	0.0253	0.5493	0.0461
LTE Band 7	2500-2570	1.51	1.42	24	251.19	20	0.0710	1.0	0.0710
LTE Band 12	699-716	-4.98	0.32	23	199.53	20	0.0126	0.466	0.0270
LTE Band 13	777-787	-3.1	0.49	22.5	177.83	20	0.0173	0.518	0.0334
LTE Band 14	788-798	-3.06	0.49	22.5	177.83	20	0.0175	0.5253	0.0333
LTE Band 17	704-716	-4.98	0.32	23.5	223.87	20	0.0141	0.4693	0.0300
LTE Band 25	1850-1915	0.38	1.09	23.5	223.87	20	0.0485	1.0	0.0485
LTE Band 26	814-849	-1.46	0.71	23	199.53	20	0.0284	0.5427	0.0523
LTE Band 66	1710-1780	1.33	1.36	23	199.53	20	0.0540	1.0	0.0540
LTE Band 71	663-698	-6	0.25	22.5	177.83	20	0.0089	0.442	0.0201
LTE Band 38	2570-2620	0.81	1.21	23	199.53	20	0.0480	1.0	0.0480
LTE Band 41	2535-2655	1.41	1.38	23	199.53	20	0.0548	1.0	0.0548
NFC	13.56	0.00	1.00	-13.92	0.04	20	<0.0001	0.98	<0.0001

NFC field strength is 81.28dBμV/m = -13.92dBm (0.04mW) EIRP. That equal to antenna gain is 0dBi and used the EIRP value as conducted power.

Note:

1. For the above tune up power were declared by the manufacturer.
2. For NFC: EIRP[dBm] = E[dBμV/m]- 95.2 for d = 3 m.

GSM850: Maximum Tune-up output power with 1 slot is 33dBm, 2 slot is 32.00 dBm, 3 slot is 30.50 dBm, 4 slot is 29.00 dBm so the max tune-up time based Ave. power compared to slot Ave. power is 4slot 26.24dBm

PCS1900: Maximum Tune-up output power with 1 slot is 29.50 dBm, 2 slot is 29.0 dBm, 3 slot is 27.0 dBm, 4 slot is 25.5 dBm so the max tune-up time based Ave. power compared to slot Ave. power is 22.74dBm

Number of Time slot	1	2	3	4
Duty Cycle	1:8	1:4	1:2.66	1:2
Time based Ave. power compared to slotted Ave. power	-9 dB	-6 dB	-4.26 dB	-3 dB

Note:

1. For the above tune up power were declared by the manufacturer.
2. 2.4G Wi-Fi , GSM850 and NFC can transmit simultaneously (worst case) .

$$\sum_i \frac{S_i}{S_{Limit,i}} = 0.0757 + 0.1089 + 0.0001 = 0.1847 < 1.0$$

Result: The device meet FCC MPE at 20 cm distance.

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, and the antenna gain is 1.31 dBi, fulfill the requirement of this section. Please refer to the EUT photos.

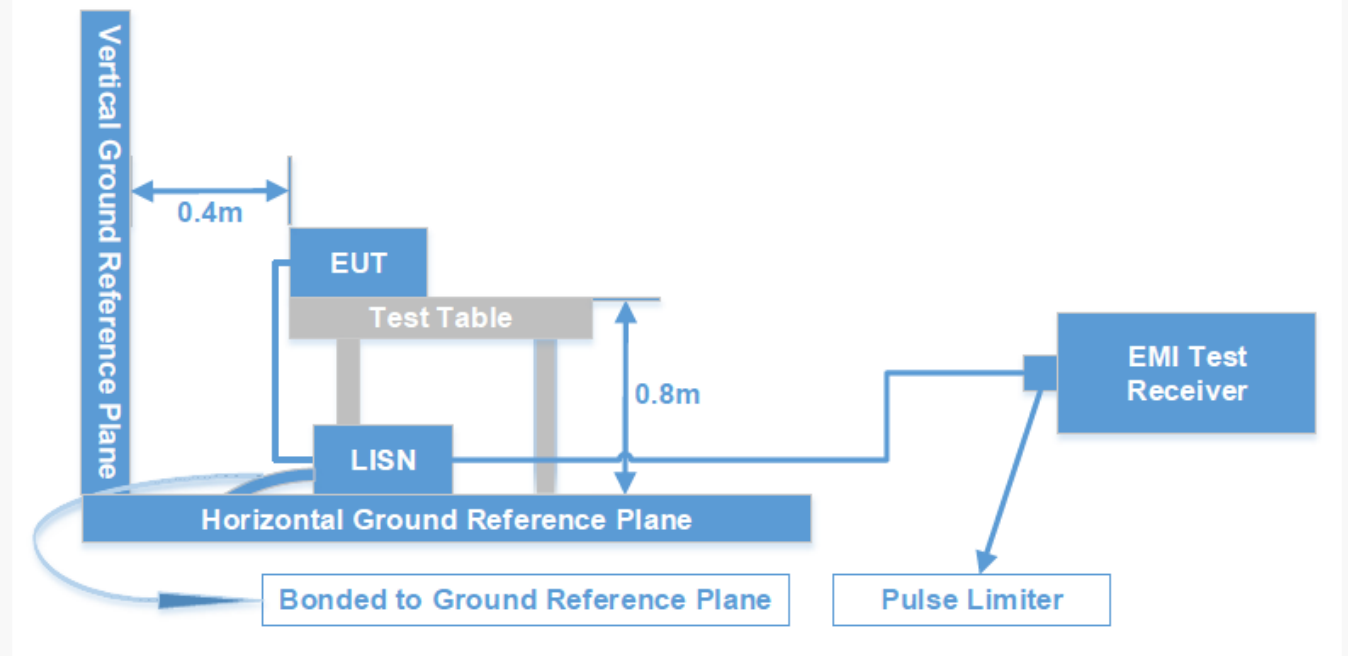
Result: Compliant.

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 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)

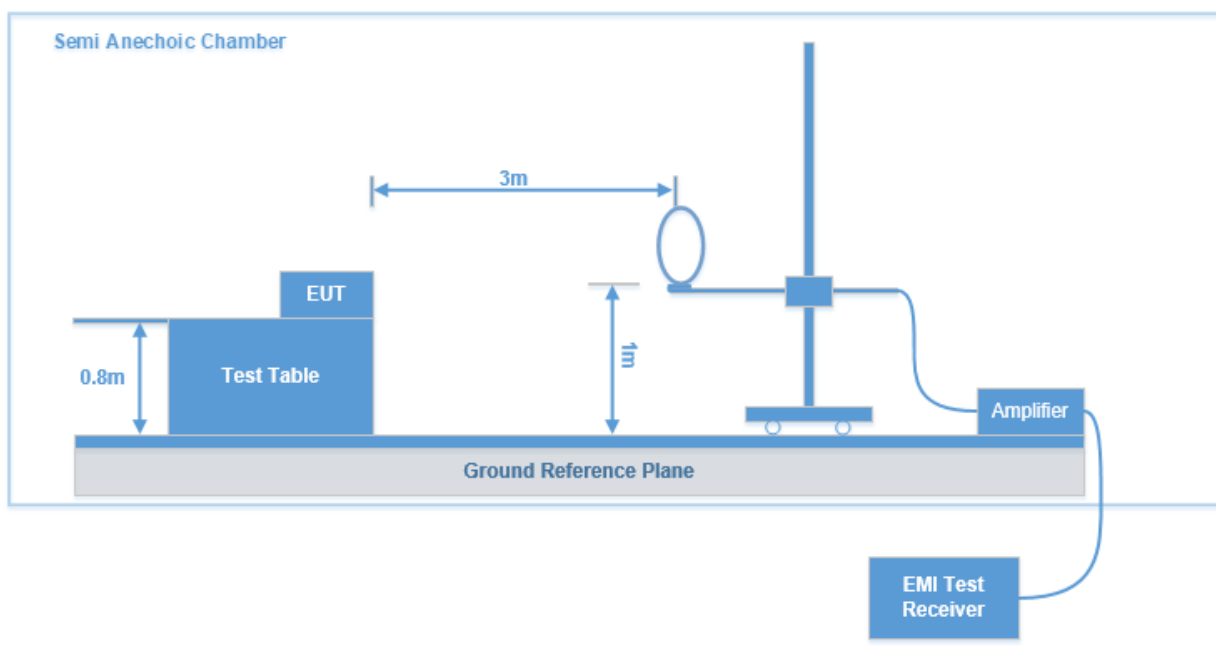
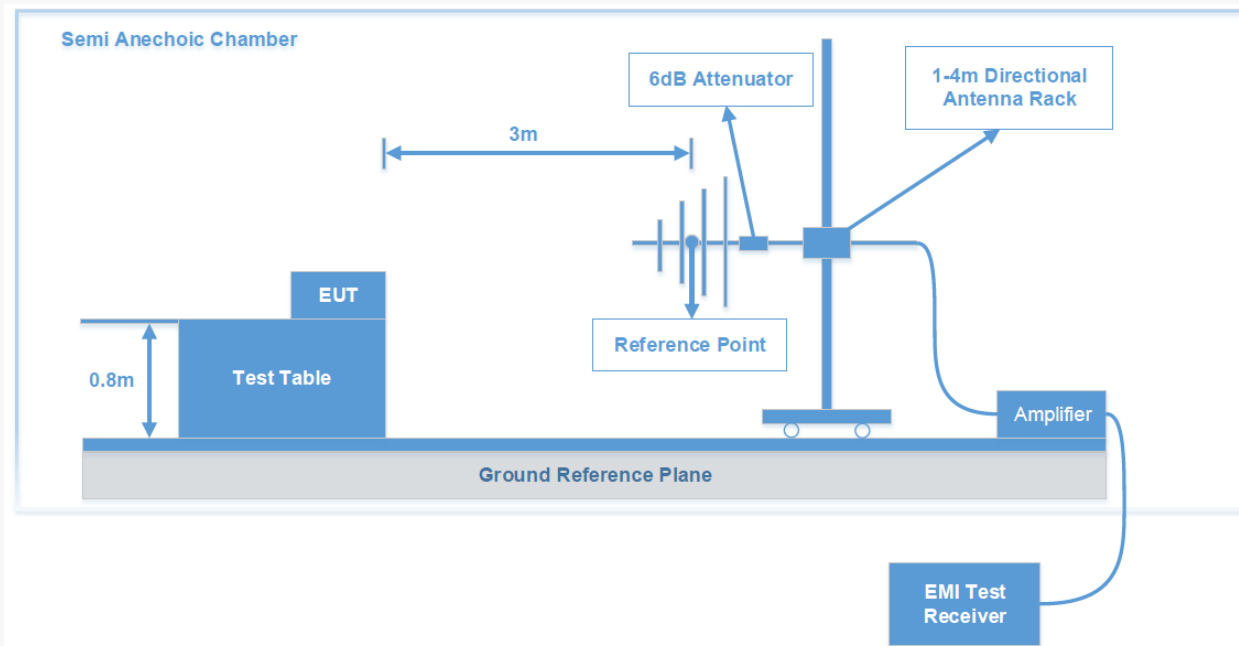
Test Results Summary

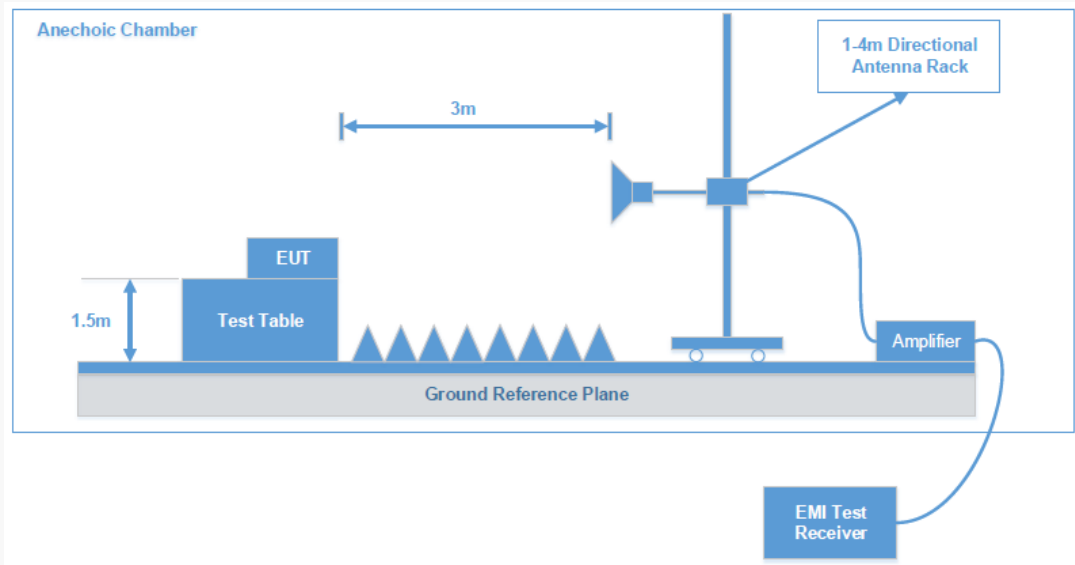
According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

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-30MHz:****30MHz-1GHz:**

Above 1GHz:

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	Detector
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 C63.10-2013 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 10 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)

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

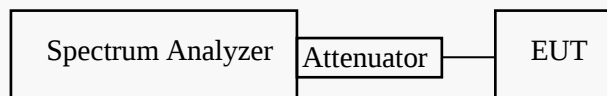
Applicable Standard

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.



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.

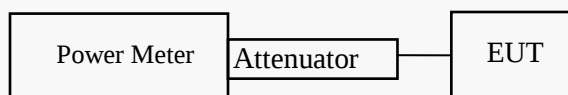
Test Procedure

For 2.4G Wi-Fi:

According to ANSI C63.10-2013 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.

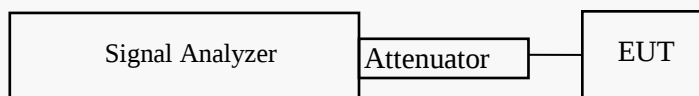
1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.
3. Add a correction factor to the display.



For BLE:

According to ANSI C63.10-2013 sub-clause 11.9.1.1

1. Set the RBW $\geq$ DTS bandwidth.
2. Set VBW $\geq 3 \times$ RBW.
3. Set span $\geq 3 \times$ 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.



Test Data: See Appendix

FCC §15.247(D) – 100 KHZ BANDWIDTH OF FREQUENCY BAND EDGE

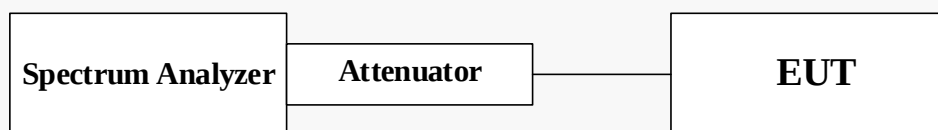
Applicable Standard

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.



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.



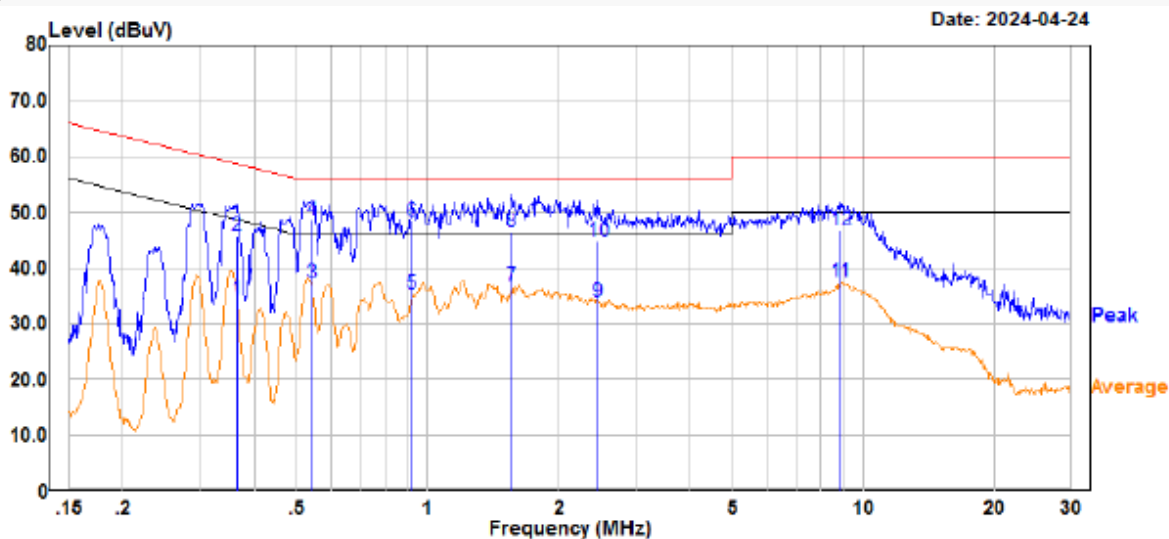
Test Data: See Appendix

Appendix - TEST DATA

Environmental Conditions & Test Information

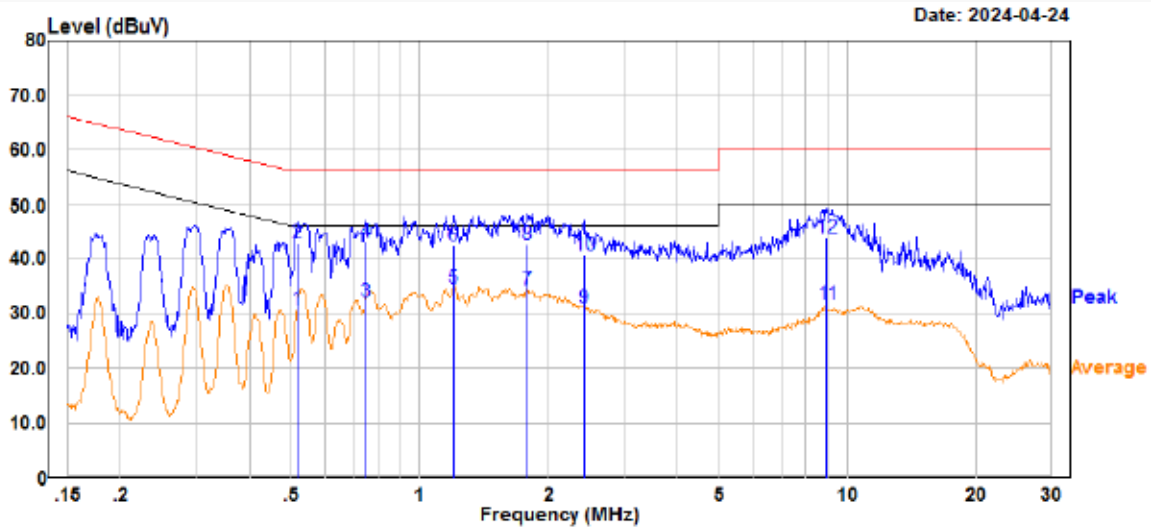
Test Item:	DUTY CYCLE	AC LINE CONDUCTED EMISSIONS		RADIATED EMISSIONS		
				30 kHz-1 GHz	1 GHz - 18 GHz	18 GHz -25 GHz
Test Date:	2024-04-24	2024-04-24	2024-06-18	2024-04-28 to 2024-06-14	2024-04-13 ~ 2024-04-14	2024-04-17
Temperature:	21.4 °C	21.4 °C	25.5 °C	20-24.2 °C	23-24.5 °C	24.3 °C
Relative Humidity:	57 %	57 %	48 %	55-72%	53-57 %	45 %
ATM Pressure:	101.3kPa	101.3kPa	100.8kPa	100.3-101.0kPa	101.1-101.7 kPa	101.4kPa
Test Result:	Pass	Pass	Pass	Pass	Pass	Pass
Test Engineer:	Bard Liu	Frank Liu	Joe Zhang	Leah Li	Peter Wang	Peter Wang

Test Item:	6 DB EMISSION BANDWIDTH	OCCUPIED BANDWIDTH	POWER SPECTRAL DENSITY	TRANSMITTER OUTPUT POWER MEASUREMENT	OUT OF BAND EMISSIONS
Test Date:	2024-04-23 ~ 2024-04-24	2024-04-23 ~ 2024-04-24	2024-04-24	2024-04-24	2024-04-23
Temperature:	21.4-22.3 °C	21.4-22.3 °C	21.4 °C	21.4 °C	22.3 °C
Relative Humidity:	43-57%	43-57%	57 %	57 %	43-
ATM Pressure:	101.3-101.7kPa	101.3-101.7kPa	101.3kPa	101.3kPa	101.7kPa
Test Result:	Pass	Pass	Pass	Pass	Pass
Test Engineer:	Bard Liu	Bard Liu	Bard Liu	Bard Liu	Bard Liu

AC LINE CONDUCTED EMISSIONS*Charging by Adapter:***For Wi-Fi Mode:***EUT operation mode: Transmitting in maximum output power mode 802.11n20 mode Middle channel***Line:**

Site : CE
Condition : FCC Part 15.207
Project No. : RKAS240327005
Model : T2
Phase : L
Voltage : 120V/60Hz
Mode : 2.4G WIFI
Test Equipment : ENV216,ESR
Temperature : 21.4℃
Humidity : 57%
Atmospheric pressure: 101.3kPa
Test Engineer : Frank Liu

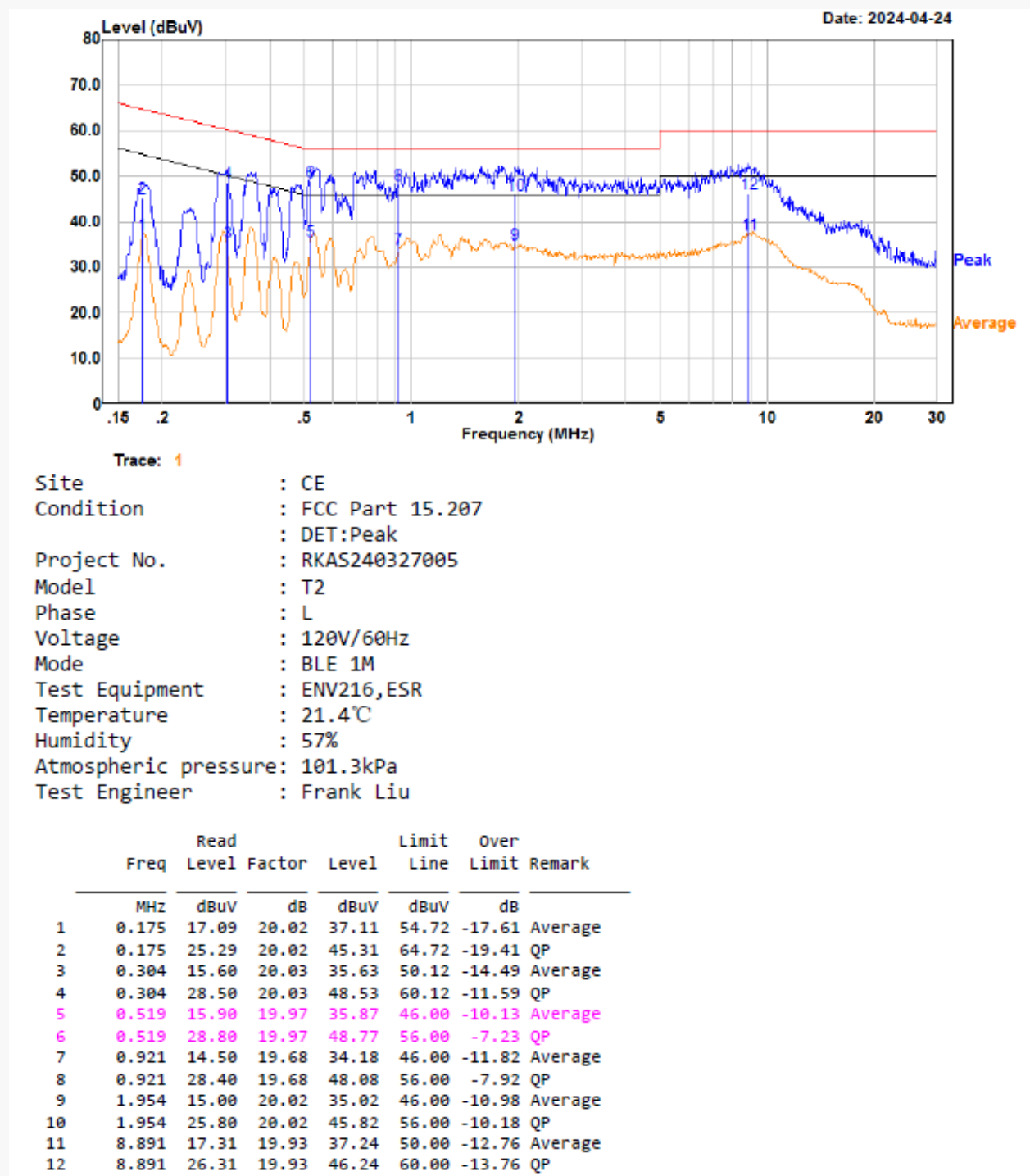
	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.364	14.20	20.02	34.22	48.63	-14.41	Average
2	0.364	25.60	20.02	45.62	58.63	-13.01	QP
3	0.543	17.20	19.97	37.17	46.00	-8.83	Average
4	0.543	28.50	19.97	48.47	56.00	-7.53	QP
5	0.921	15.70	19.68	35.38	46.00	-10.62	Average
6	0.921	28.60	19.68	48.28	56.00	-7.72	QP
7	1.561	16.90	19.88	36.78	46.00	-9.22	Average
8	1.561	26.50	19.88	46.38	56.00	-9.62	QP
9	2.457	13.79	20.06	33.85	46.00	-12.15	Average
10	2.457	24.59	20.06	44.65	56.00	-11.35	QP
11	8.847	17.60	19.94	37.54	50.00	-12.46	Average
12	8.847	26.80	19.94	46.74	60.00	-13.26	QP

Neutral:

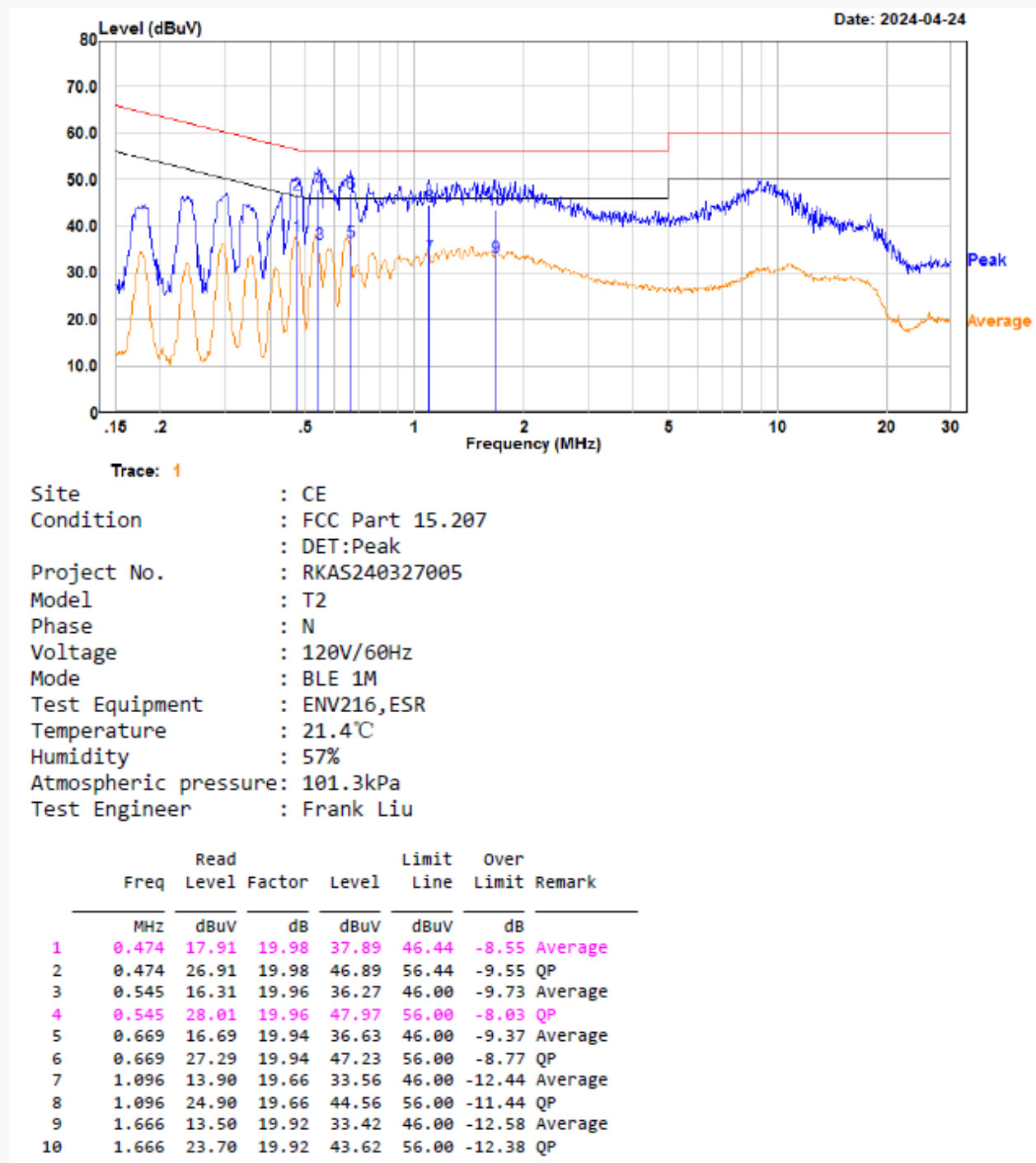
Site : CE
 Condition : FCC Part 15.207
 : DET:Peak
 Project No. : RKAS240327005
 Model : T2
 Phase : N
 Voltage : 120V/60Hz
 Mode : 2.4G WIFI
 Test Equipment : ENV216,ESR
 Temperature : 21.4℃
 Humidity : 57%
 Atmospheric pressure: 101.3kPa
 Test Engineer : Frank Liu

	Read			Limit	Over	
Freq	Level	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.516	10.70	19.97	30.67	46.00	-15.33 Average
2	0.516	22.70	19.97	42.67	56.00	-13.33 QP
3	0.747	12.30	19.87	32.17	46.00	-13.83 Average
4	0.747	23.10	19.87	42.97	56.00	-13.03 QP
5	1.199	14.80	19.71	34.51	46.00	-11.49 Average
6	1.199	22.60	19.71	42.31	56.00	-13.69 QP
7	1.786	14.30	19.96	34.26	46.00	-11.74 Average
8	1.786	22.60	19.96	42.56	56.00	-13.44 QP
9	2.421	11.00	20.05	31.05	46.00	-14.95 Average
10	2.421	20.50	20.05	40.55	56.00	-15.45 QP
11	8.935	11.80	19.93	31.73	50.00	-18.27 Average
12	8.935	23.90	19.93	43.83	60.00	-16.17 QP

For BLE Mode: (Transmitting in maximum output power high channel)
Line



Neutral

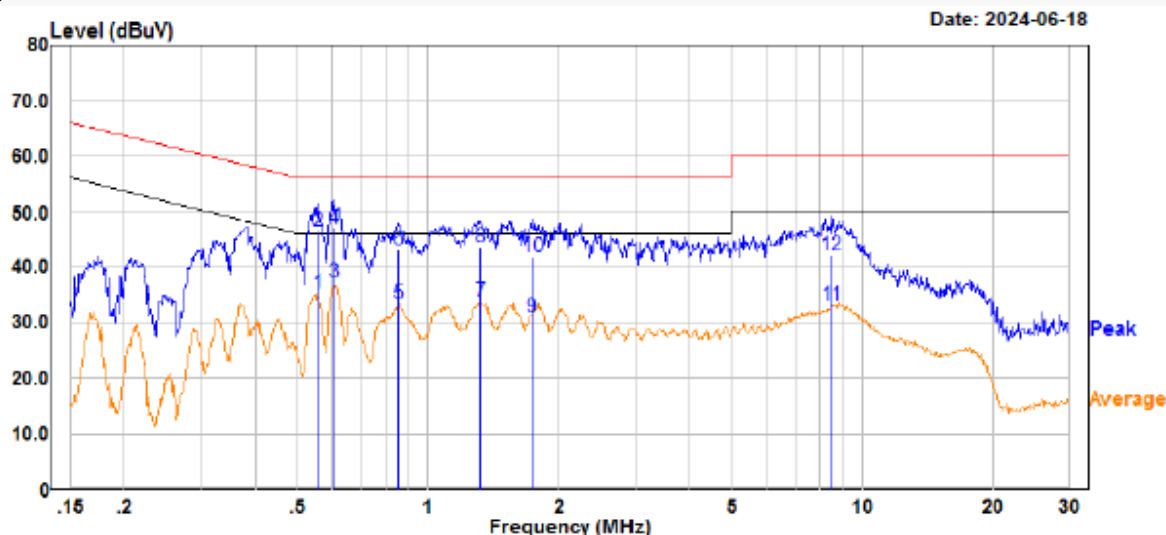


Charging by Base:

For Wi-Fi Mode:

EUT operation mode: Transmitting in maximum output power mode 802.11n20 mode Middle channel.

Line:

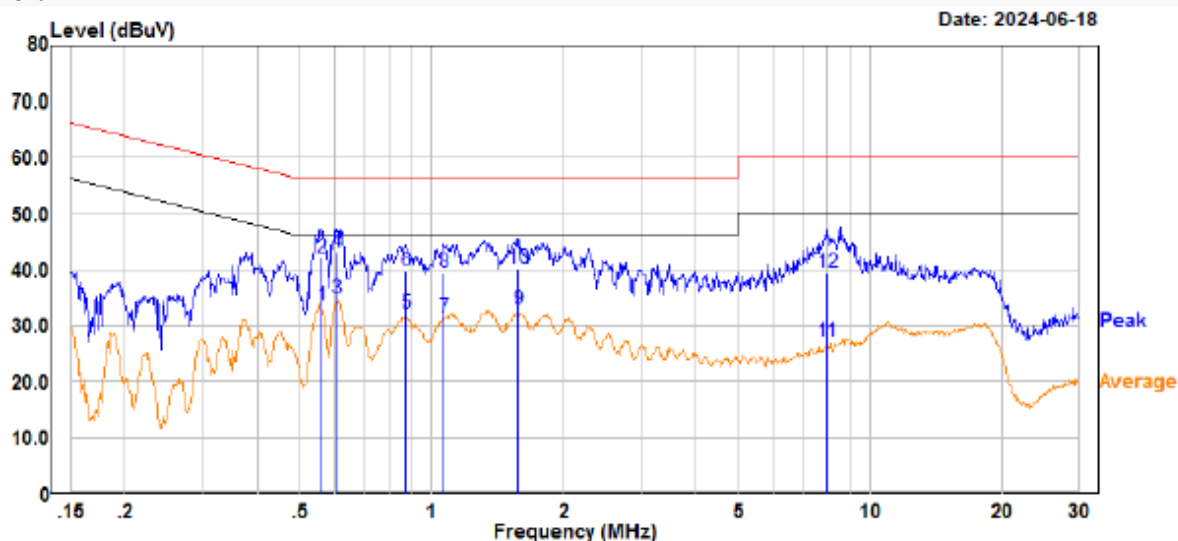


Trace: 1

Site : CE
Condition : FCC Part 15.207
Project No. : RKAS240327005
Model : T2
Phase : L
Voltage : 120V/60Hz
Mode : 2.4G WIFI
Test Equipment : ENV216,ESR
Temperature : 25.5°C
Humidity : 48%
Atmospheric pressure: 100.8kPa
Test Engineer : Joe Zhang

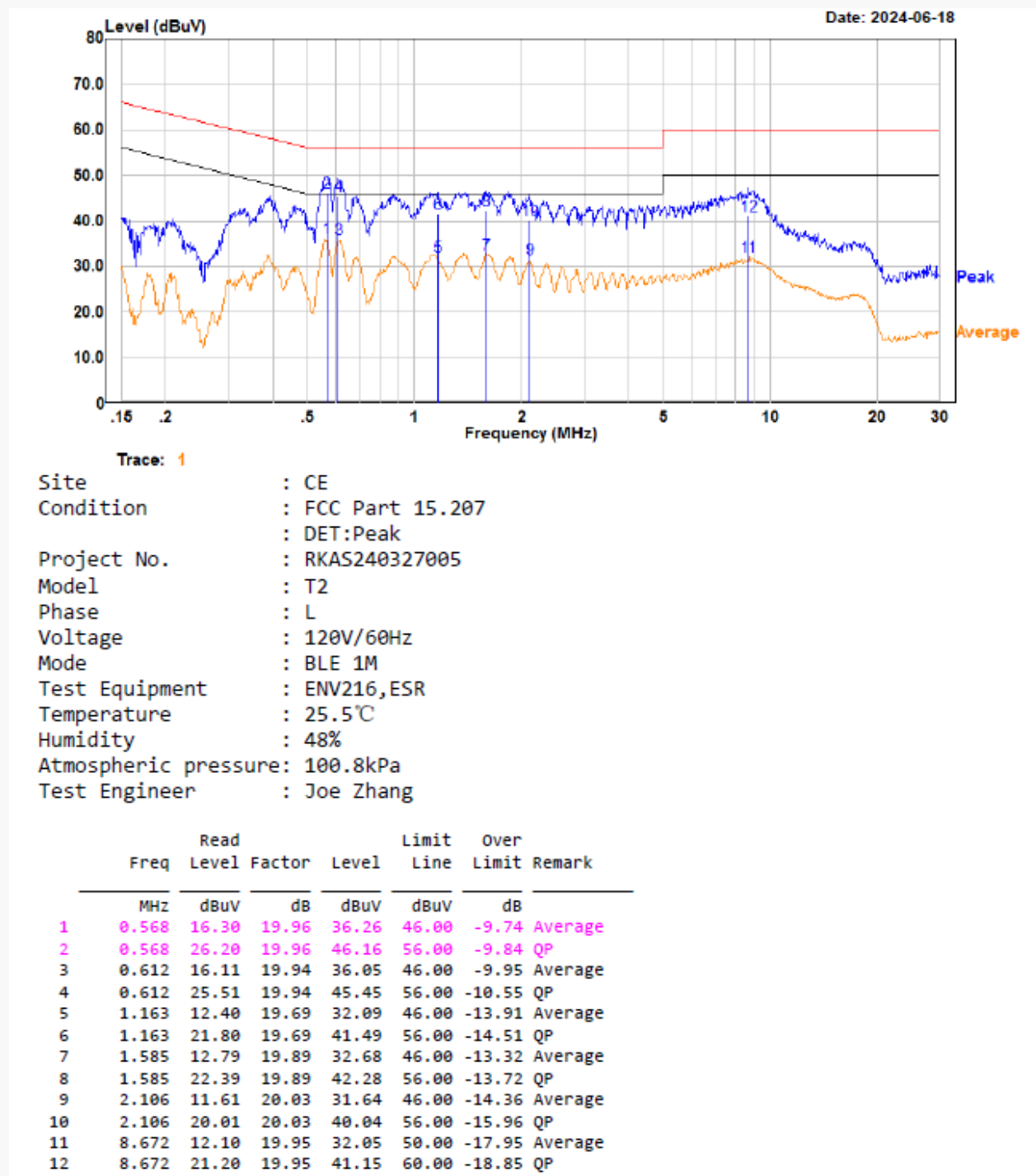
	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.559	15.40	19.96	35.36	46.00	-10.64	Average
2	0.559	26.40	19.96	46.36	56.00	-9.64	QP
3	0.609	17.41	19.94	37.35	46.00	-8.65	Average
4	0.609	26.91	19.94	46.85	56.00	-9.15	QP
5	0.854	13.70	19.74	33.44	46.00	-12.56	Average
6	0.854	23.20	19.74	42.94	56.00	-13.06	QP
7	1.318	14.00	19.77	33.77	46.00	-12.23	Average
8	1.318	23.70	19.77	43.47	56.00	-12.53	QP
9	1.734	11.00	19.94	30.94	46.00	-15.06	Average
10	1.734	21.90	19.94	41.84	56.00	-14.16	QP
11	8.459	13.10	19.96	33.06	50.00	-16.94	Average
12	8.459	22.20	19.96	42.16	60.00	-17.84	QP

Neutral:

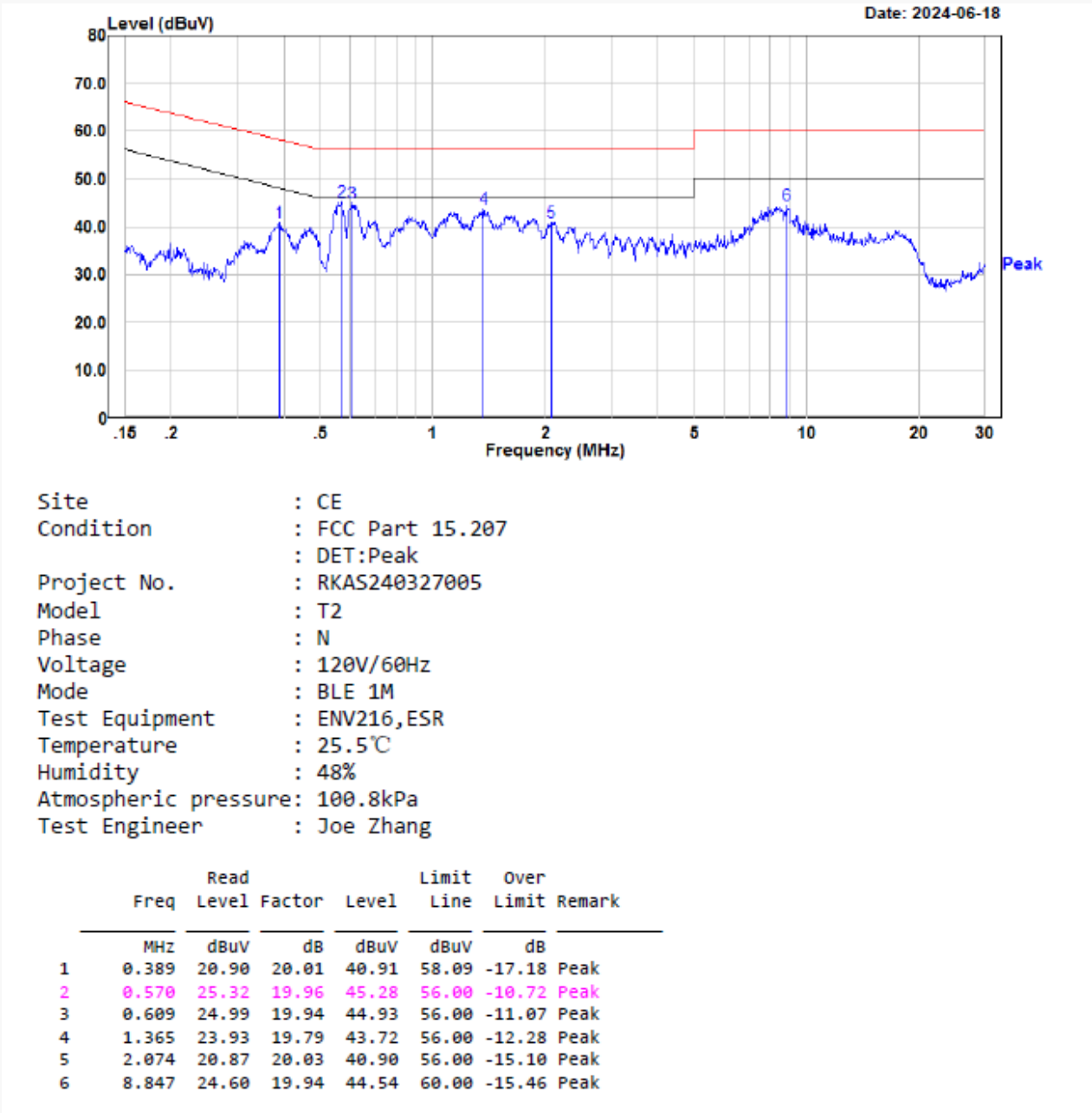


Site : CE
Condition : FCC Part 15.207
Project No. : RKAS240327005
Model : T2
Phase : N
Voltage : 120V/60Hz
Mode : 2.4G WIFI
Test Equipment : ENV216,ESR
Temperature : 25.5°C
Humidity : 48%
Atmospheric pressure: 100.8kPa
Test Engineer : Joe Zhang

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.562	13.60	19.96	33.56	46.00	-12.44	Average
2	0.562	22.10	19.96	42.06	56.00	-13.94	QP
3	0.609	14.91	19.94	34.85	46.00	-11.15	Average
4	0.609	23.11	19.94	43.05	56.00	-12.95	QP
5	0.871	12.51	19.72	32.23	46.00	-13.77	Average
6	0.871	19.81	19.72	39.53	56.00	-16.47	QP
7	1.064	11.90	19.64	31.54	46.00	-14.46	Average
8	1.064	19.70	19.64	39.34	56.00	-16.66	QP
9	1.577	12.89	19.89	32.78	46.00	-13.22	Average
10	1.577	20.19	19.89	40.08	56.00	-15.92	QP
11	7.968	7.00	20.00	27.00	50.00	-23.00	Average
12	7.968	19.30	20.00	39.30	60.00	-20.70	QP

For BLE Mode: (Transmitting in maximum output power mode high channel)**Line**

Neutral



SPURIOUS EMISSIONS

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 802.11n20 mode middle channel (maximum output power mode)

The amplitude of spurious emissions attenuated more than 20 dB below the limit was not be recorded.

For Wi-Fi Mode:

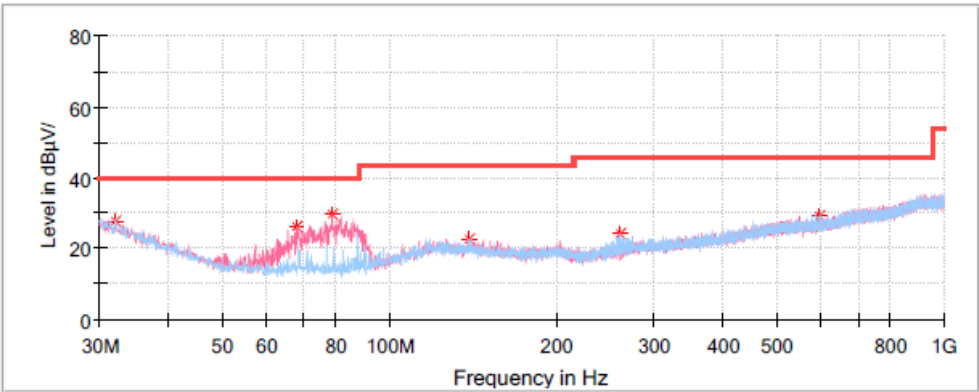
30MHz-1GHz (802.11n20 mode is worst case) :

Charging by Adapter:

Low channel: 2412MHz

Common Information

Project No:	RKSA240327005
EUT Model:	T2
Test Mode:	2.4G WIFI
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESCI, JB3, 310N
Temperature:	20℃
Humidity:	72%
Barometric Pressure:	101.0kPa
Test Engineer:	Leah Li
Test Date:	2024/4/28



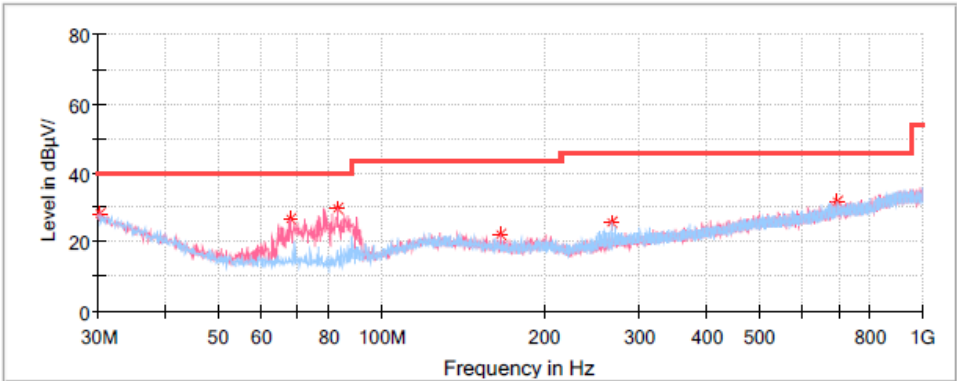
Critical Freqs

Frequency (MHz)	MaxPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
32.061250	27.82	40.00	12.18	H	-5.8
68.193750	26.10	40.00	13.90	V	-16.9
78.863750	29.70	40.00	10.30	V	-17.5
138.882500	22.55	43.50	20.95	H	-11.5
261.102500	23.91	46.00	22.09	H	-12.3
595.752500	29.43	46.00	16.57	H	-4.8

Middle channel: 2437MHz

Common Information

Project No: RKSA240327005
EUT Model: T2
Test Mode: 2.4G WIFI
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment: ESCI, JB3, 310N
Temperature: 20°C
Humidity: 72%
Barometric Pressure: 101.0kPa
Test Engineer: Leah Li
Test Date: 2024/4/28



Critical Freqs

Frequency (MHz)	MaxPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
30.121250	27.94	40.00	12.06	V	-4.5
67.830000	26.59	40.00	13.41	V	-16.9
83.107500	29.79	40.00	10.21	V	-17.4
166.163750	21.91	43.50	21.59	V	-12.8
266.316250	25.42	46.00	20.58	H	-11.9
695.056250	31.62	46.00	14.38	H	-2.5

High Channel: 2462MHz

Common Information

Project No:RKSA240327005

EUT Model:T2

Test Mode:2.4G WIFI

Standard:FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209

Test Equipment:ESCI、JB3、310N

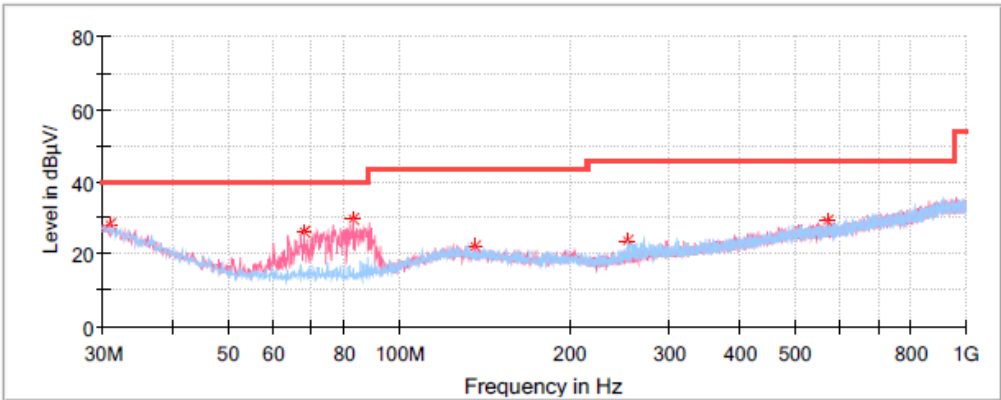
Temperature:20℃

Humidity:72%

Barometric Pressure:101.0kPa

Test Engineer:Leah Li

Test Date:2024/4/28



Critical Freqs

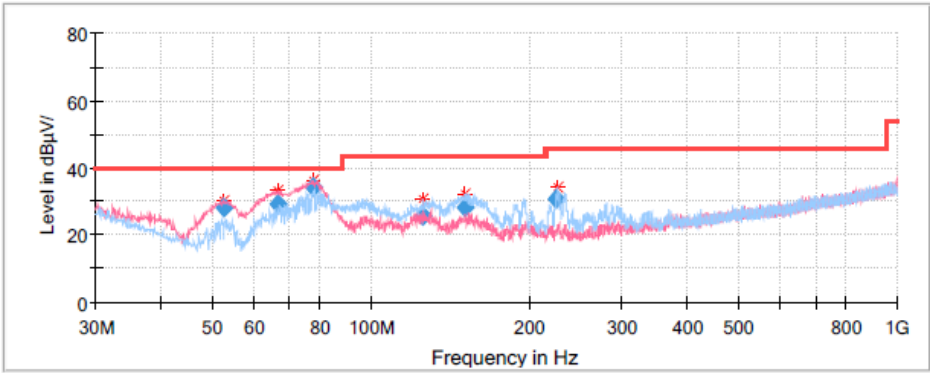
Frequency (MHz)	MaxPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
30.970000	27.93	40.00	12.07	V	-5.1
67.951250	26.24	40.00	13.76	V	-16.9
82.865000	29.82	40.00	10.18	V	-17.4
135.851250	22.17	43.50	21.33	V	-11.5
252.857500	23.85	46.00	22.15	H	-12.6
570.168750	29.37	46.00	16.63	V	-5.1

Charging by Base:

Low channel: 2412MHz

Common Information

Project No: RKSA240327005
 EUT Model: T2
 Test Mode: 2.4G WIFI
 Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
 Test Equipment: ESCI, JB3, 310N
 Temperature: 24.2°C
 Humidity: 55%
 Barometric Pressure: 100.3kPa
 Test Engineer: Leah Li
 Test Date: 2024/6/14

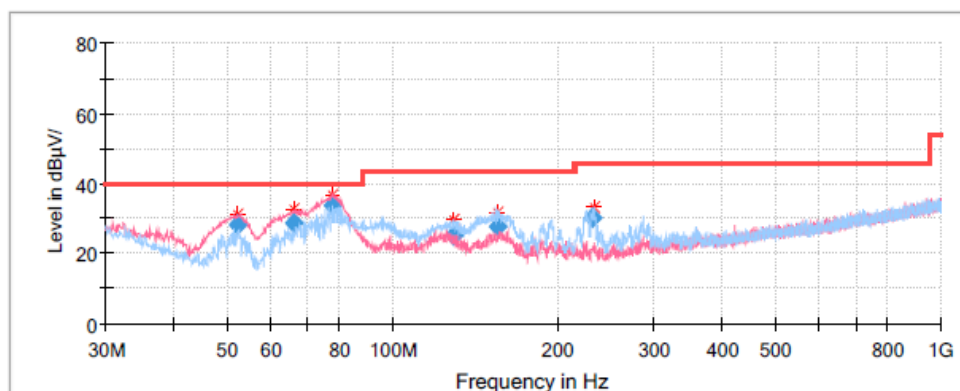


Final Result

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
52.515250	28.05	40.00	11.95	V	-17.0
66.558750	29.35	40.00	10.65	V	-17.2
77.880550	34.31	40.00	5.69	V	-17.3
125.502050	25.42	43.50	18.08	H	-11.0
150.630300	28.17	43.50	15.33	H	-11.8
225.761600	30.91	46.00	15.09	H	-13.2

Middle channel: 2437MHz**Common Information**

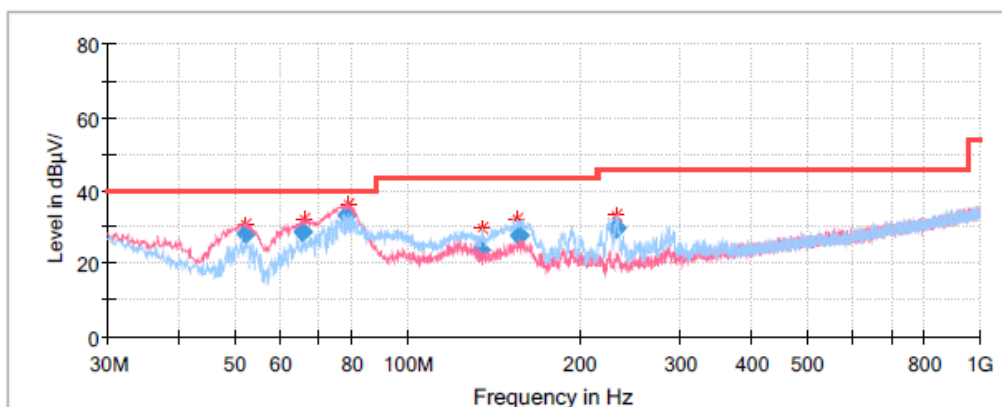
Project No:	RKSA240327005
EUT Model:	T2
Test Mode:	2.4G WIFI
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESCI, JB3, 310N
Temperature:	24.2°C
Humidity:	55%
Barometric Pressure:	100.3kPa
Test Engineer:	Leah Li
Test Date:	2024/6/14

**Final Result**

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
52.073500	27.96	40.00	12.04	V	-16.9
66.170100	28.66	40.00	11.34	V	-17.2
77.609500	33.61	40.00	6.39	V	-17.3
129.544700	25.07	43.50	18.43	H	-11.1
155.702900	27.56	43.50	15.94	H	-12.0
232.198900	30.30	46.00	15.70	H	-13.0

High Channel: 2462MHz**Common Information**

Project No: RKSA240327005
EUT Model: T2
Test Mode: 2.4G WIFI
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment: ESCI, JB3, 310N
Temperature: 24.2°C
Humidity: 55%
Barometric Pressure: 100.3kPa
Test Engineer: Leah Li
Test Date: 2024/6/14

**Final Result**

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
52.067500	27.97	40.00	12.03	V	-16.9
65.810550	28.64	40.00	11.36	V	-17.3
78.436950	33.38	40.00	6.62	V	-17.3
134.284100	23.72	43.50	19.78	H	-11.3
156.510600	27.86	43.50	15.64	H	-12.0
231.672350	29.84	46.00	16.16	H	-13.0

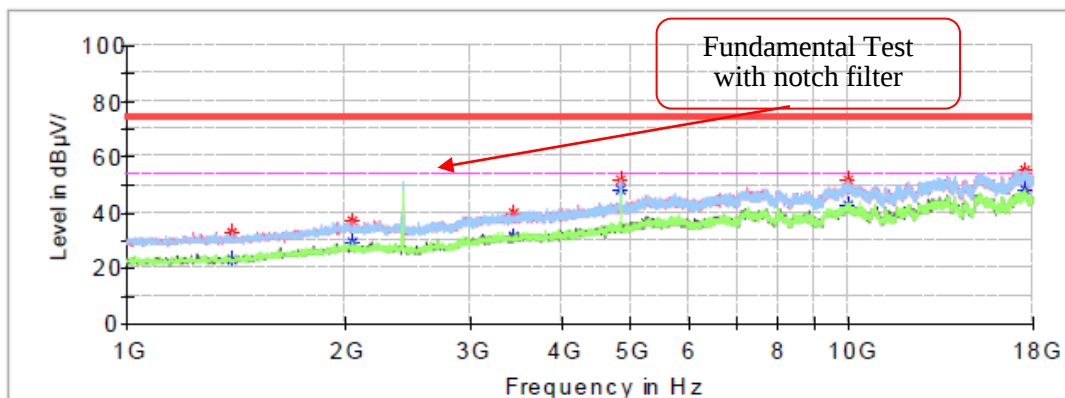
1GHz-18GHz:
802.11b Mode:

Low Channel: 2412MHz

Common Information

Project No.:	RKAS240327005
Test Mode:	2.4G WiFi
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer:	Peter Wang

Full Spectrum

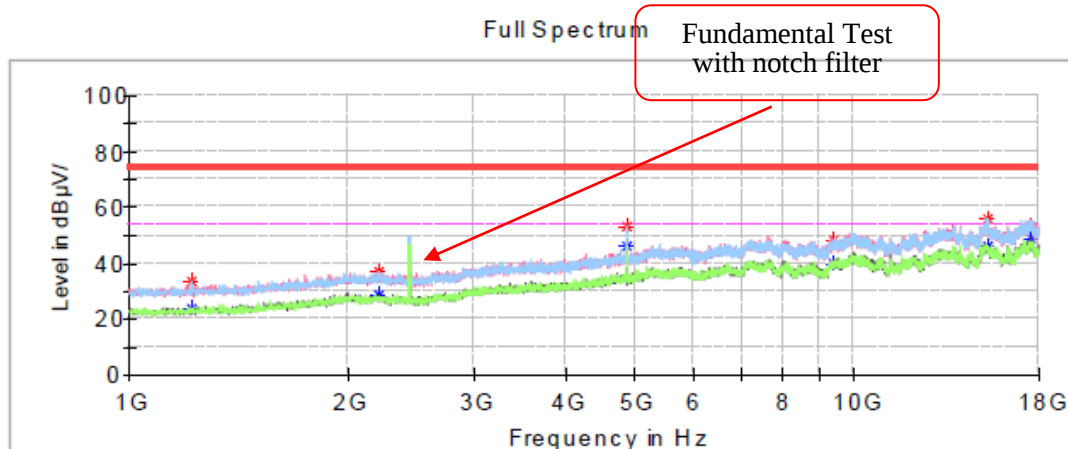


Critical Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1399.500000	---	23.10	54.00	30.90	V	-14.2
1399.500000	32.55	---	74.00	41.45	V	-14.2
2047.200000	---	29.27	54.00	24.73	H	-10.5
2047.200000	36.75	---	74.00	37.25	H	-10.5
3431.000000	---	31.66	54.00	22.34	V	-6.4
3431.000000	40.05	---	74.00	33.95	V	-6.4
4823.300000	---	48.50	54.00	5.50	H	-2.1
4823.300000	51.48	---	74.00	22.52	H	-2.1
10008.300000	51.56	---	74.00	22.44	H	7.8
10008.300000	---	42.52	54.00	11.48	H	7.8
17600.500000	---	48.17	54.00	5.83	H	13.2
17600.500000	55.48	---	74.00	18.52	H	13.2

Middle Channel: 2437MHz**Common Information**

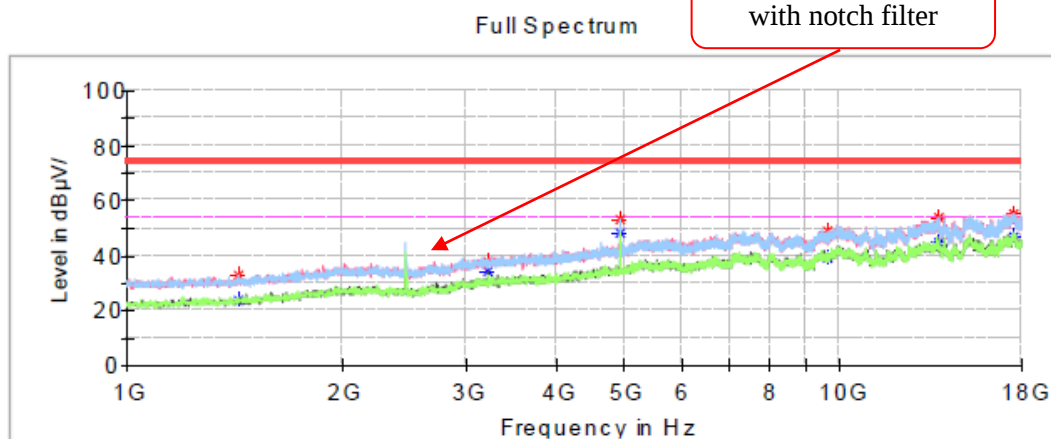
Project No.: RKAS240327005
Test Mode: 2.4G WiFi
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

**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)
1215.900000	33.34	---	74.00	40.66	H	-14.8
1215.900000	---	24.09	54.00	29.91	H	-14.8
2205.300000	37.02	---	74.00	36.98	V	-10.2
2205.300000	---	28.42	54.00	25.58	V	-10.2
4872.600000	53.16	---	74.00	20.84	H	-1.9
4872.600000	---	45.93	54.00	8.07	H	-1.9
9362.300000	48.39	---	74.00	25.61	V	5.5
9362.300000	---	39.66	54.00	14.34	V	5.5
15283.400000	---	46.47	54.00	7.53	V	11.1
15283.400000	56.10	---	74.00	17.90	V	11.1
17573.300000	53.26	---	74.00	20.74	H	13.3
17573.300000	---	48.67	54.00	5.33	H	13.3

High Channel: 2462MHz**Common Information**

Project No.: RKAS240327005
Test Mode: 2.4G WiFi
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

**Critical Freqs**

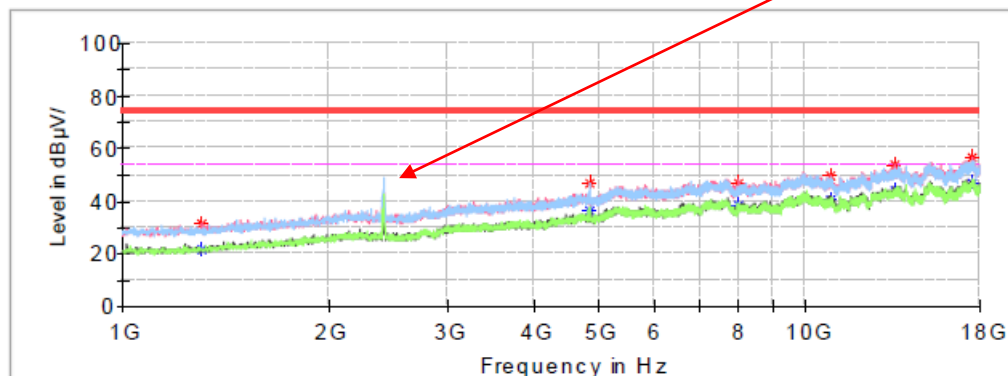
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1435.200000	---	23.86	54.00	30.14	H	-14.1
1435.200000	33.08	---	74.00	40.92	H	-14.1
3211.700000	---	34.11	54.00	19.89	V	-7.2
3211.700000	37.89	---	74.00	36.11	V	-7.2
4923.600000	---	48.55	54.00	5.45	H	-1.6
4923.600000	52.98	---	74.00	21.02	H	-1.6
9605.400000	---	39.05	54.00	14.95	V	6.6
9605.400000	49.13	---	74.00	24.87	V	6.6
13746.600000	53.63	---	74.00	20.37	H	10.8
13748.300000	---	44.97	54.00	9.03	H	10.8
17556.300000	---	47.16	54.00	6.84	H	13.4
17556.300000	55.30	---	74.00	18.70	H	13.4

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

Project No.: RKAS240327005
 Test Mode: 2.4G WiFi
 Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
 Test Engineer: Peter Wang

Fundamental Test
with notch 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)
1309.400000	---	21.93	54.00	32.07	H	-14.5
1309.400000	31.19	---	74.00	42.81	H	-14.5
4821.600000	---	36.52	54.00	17.48	H	-2.1
4821.600000	46.81	---	74.00	27.19	H	-2.1
8010.800000	---	38.23	54.00	15.77	V	3.8
8010.800000	46.69	---	74.00	27.31	V	3.8
10912.700000	---	40.60	54.00	13.40	V	6.5
10912.700000	49.44	---	74.00	24.56	V	6.5
13520.500000	---	43.89	54.00	10.11	V	11.0
13520.500000	53.76	---	74.00	20.24	V	11.0
17556.300000	---	47.12	54.00	6.88	V	13.4
17556.300000	56.96	---	74.00	17.04	V	13.4

Middle Channel: 2437MHz**Common Information**

Project No.:

RKAS240327005

Test Mode:

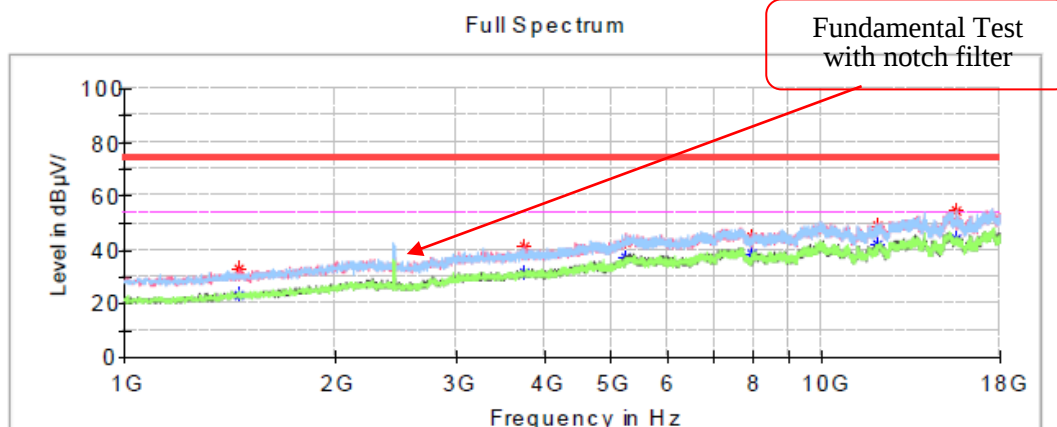
2.4G WiFi

Standard:

FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209

Test Engineer:

Peter Wang

**Critical_Freqs**

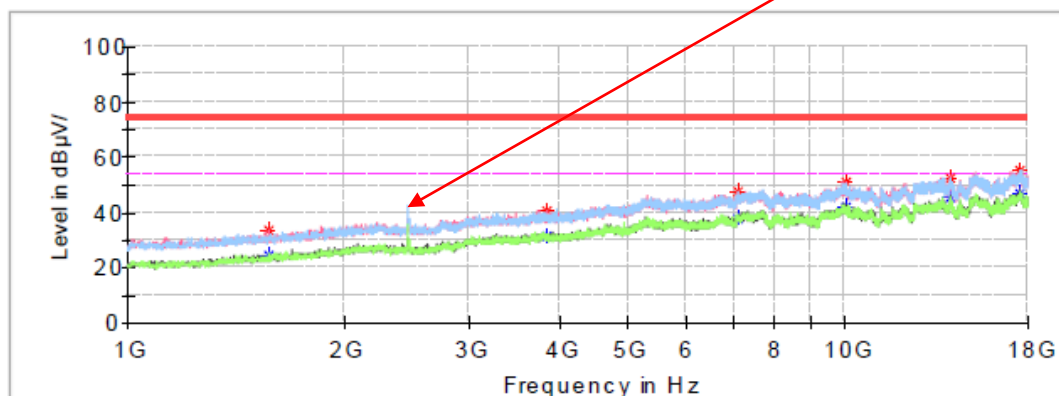
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1464.100000	32.77	---	74.00	41.23	H	-14.0
1464.100000	---	23.01	54.00	30.99	H	-14.0
3752.300000	41.42	---	74.00	32.58	V	-5.6
3752.300000	---	31.55	54.00	22.45	V	-5.6
5248.300000	42.99	---	74.00	31.01	V	-0.2
5248.300000	---	37.00	54.00	17.00	V	-0.2
7954.700000	---	38.19	54.00	15.81	H	3.9
7954.700000	45.09	---	74.00	28.91	H	3.9
12055.100000	---	41.63	54.00	12.37	V	7.0
12055.100000	48.82	---	74.00	25.18	V	7.0
15589.400000	---	43.94	54.00	10.06	H	11.2
15589.400000	54.34	---	74.00	19.66	H	11.2

High Channel: 2462MHz**Common Information**

Project No.: RKAS240327005
 Test Mode: 2.4G WiFi
 Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
 Test Engineer: Peter Wang

Fundamental Test
with notch 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)
1571.200000	---	24.28	54.00	29.72	V	-13.5
1571.200000	33.42	---	74.00	40.58	V	-13.5
3832.200000	---	31.65	54.00	22.35	H	-5.4
3832.200000	40.36	---	74.00	33.64	H	-5.4
7082.600000	---	37.70	54.00	16.30	V	3.9
7082.600000	47.58	---	74.00	26.42	V	3.9
10020.200000	---	42.23	54.00	11.77	V	7.8
10020.200000	50.81	---	74.00	23.19	V	7.8
14001.600000	---	45.21	54.00	8.79	H	10.5
14001.600000	52.13	---	74.00	21.87	H	10.5
17549.500000	---	46.56	54.00	7.44	V	13.4
17549.500000	55.34	---	74.00	18.66	V	13.4

802.11n-HT20 Mode :

Low Channel: 2412MHz

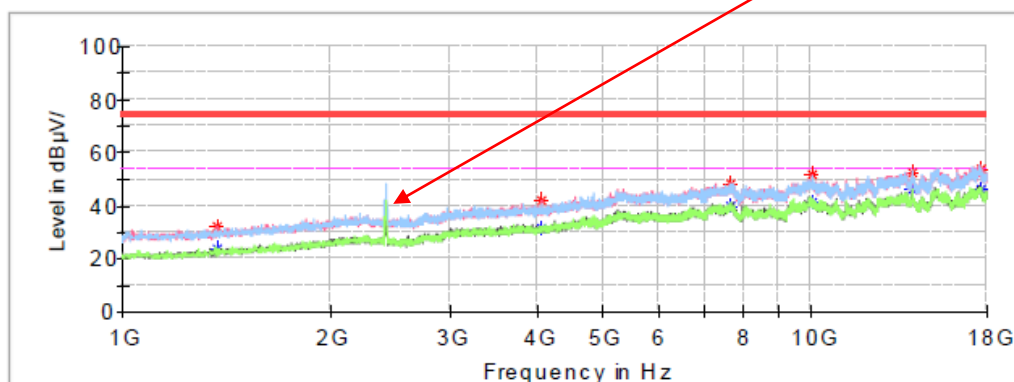
Common Information

Project No.:
Test Mode:
Standard:
Test Engineer:

RKAS240327005
2.4G WiFi
FCC Part 15.247 & FCC Part 15.209 & FCC Part 15.209
Peter Wang

Fundamental Test
with notch filter

Full Spectrum

**Critical Freqs**

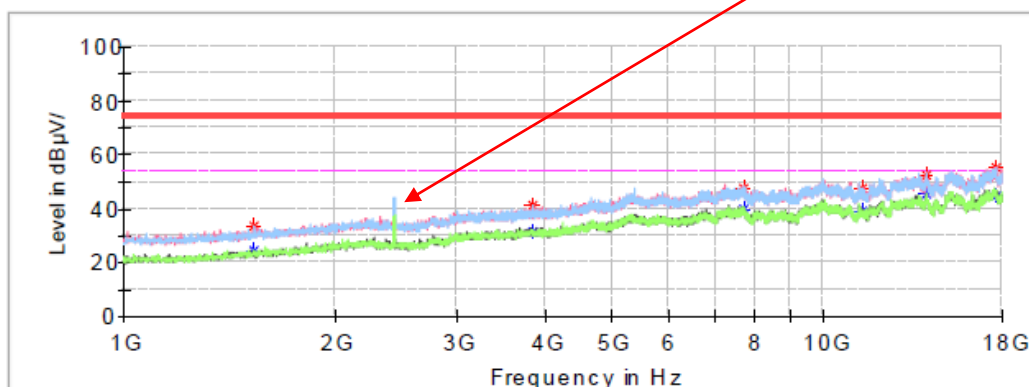
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1374.000000	---	23.92	54.00	30.08	V	-14.3
1374.000000	32.47	---	74.00	41.53	V	-14.3
4063.400000	41.83	---	74.00	32.17	V	-4.9
4063.400000	---	31.51	54.00	22.49	V	-4.9
7635.100000	---	39.76	54.00	14.24	H	4.1
7635.100000	48.20	---	74.00	25.80	H	4.1
10038.900000	---	41.21	54.00	12.79	V	7.8
10038.900000	51.50	---	74.00	22.50	V	7.8
14001.600000	---	46.00	54.00	8.00	V	10.5
14001.600000	52.47	---	74.00	21.53	V	10.5
17677.000000	---	46.45	54.00	7.55	V	12.9
17677.000000	54.10	---	74.00	19.90	V	12.9

Middle Channel: 2437MHz**Common Information**

Project No.:
Test Mode:
Standard:
Test Engineer:

RKAS240327005
2.4G WiFi
FCC Part 15.247 & FCC Part 15.209 & FCC Part 15.209
Peter Wang

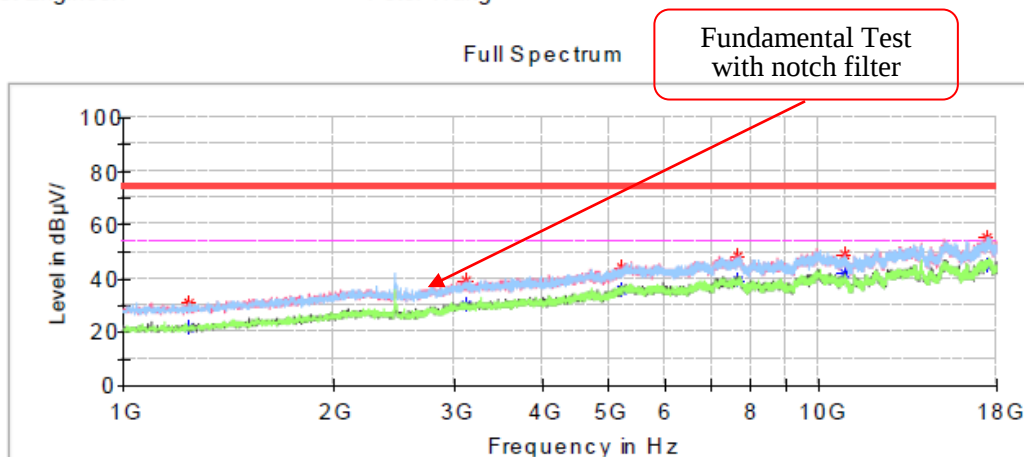
Fundamental Test
with notch filter

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)
1538.900000	---	24.82	54.00	29.18	H	-13.7
1538.900000	33.28	---	74.00	40.72	H	-13.7
3849.200000	---	31.54	54.00	22.46	H	-5.4
3849.200000	41.41	---	74.00	32.59	H	-5.4
7704.800000	---	39.58	54.00	14.42	H	4.0
7704.800000	47.66	---	74.00	26.34	H	4.0
11375.100000	---	38.83	54.00	15.17	H	7.1
11375.100000	47.33	---	74.00	26.67	H	7.1
14001.600000	---	45.70	54.00	8.30	V	10.5
14001.600000	52.27	---	74.00	21.73	V	10.5
17673.600000	---	45.04	54.00	8.96	V	12.9
17673.600000	55.32	---	74.00	18.68	V	12.9

High Channel: 2462MHz**Common Information**

Project No.: RKAS240327005
Test Mode: 2.4G WiFi
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

**Critical Freqs**

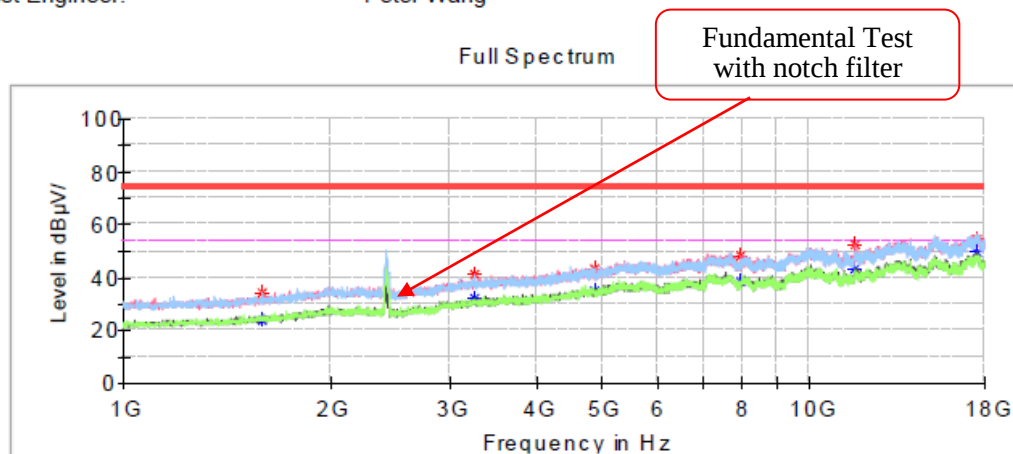
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1244.800000	---	21.36	54.00	32.64	H	-14.7
1244.800000	30.66	---	74.00	43.34	H	-14.7
3111.400000	---	29.77	54.00	24.23	V	-7.6
3111.400000	38.98	---	74.00	35.02	V	-7.6
5202.400000	---	35.91	54.00	18.09	V	-0.4
5202.400000	43.96	---	74.00	30.04	V	-0.4
7645.300000	---	39.21	54.00	14.79	V	4.1
7645.300000	48.59	---	74.00	25.41	V	4.1
10863.400000	---	42.09	54.00	11.91	V	6.6
10863.400000	49.02	---	74.00	24.98	V	6.6
17459.400000	---	45.01	54.00	8.99	H	13.5
17459.400000	55.51	---	74.00	18.49	H	13.5

802.11n-HT40 Mode :

Low Channel: 2422MHz

Common Information

Project No.: RKAS240327005
Test Mode: 2.4G WiFi
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

**Critical Freqs**

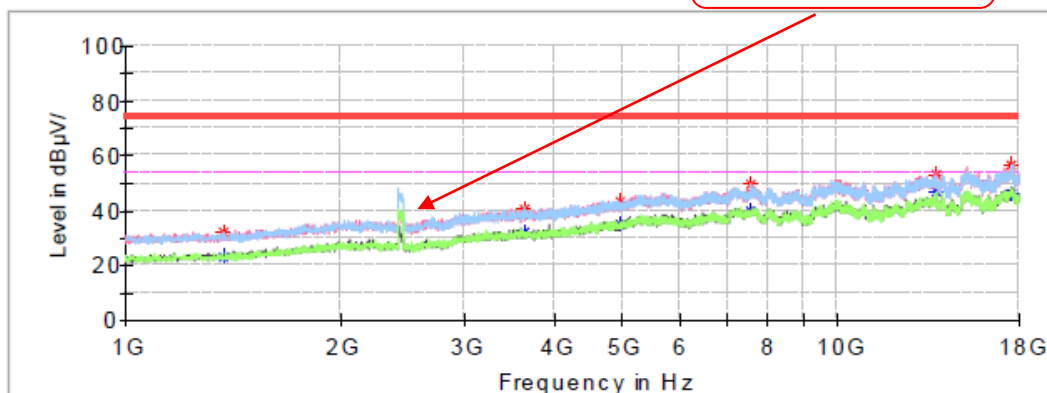
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1589.900000	34.16	---	74.00	39.84	H	-13.3
1589.900000	---	23.73	54.00	30.27	H	-13.3
3250.800000	41.14	---	74.00	32.86	V	-7.1
3250.800000	---	32.12	54.00	21.88	V	-7.1
4853.900000	43.09	---	74.00	30.91	H	-2.0
4853.900000	---	35.25	54.00	18.75	H	-2.0
7956.400000	48.10	---	74.00	25.90	V	3.9
7956.400000	---	38.61	54.00	15.39	V	3.9
11687.900000	---	43.48	54.00	10.52	V	7.1
11687.900000	52.10	---	74.00	21.90	V	7.1
17593.700000	54.79	---	74.00	19.21	V	13.2
17593.700000	---	49.72	54.00	4.28	V	13.2

Middle Channel: 2437MHz**Common Information**

Project No.: RKAS240327005
 Test Mode: 2.4G WiFi
 Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
 Test Engineer: Peter Wang

Full Spectrum

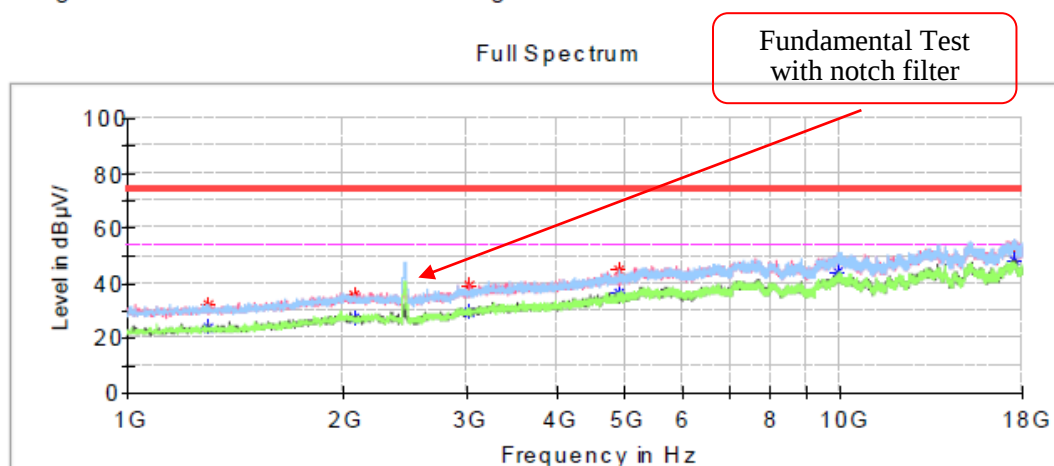
Fundamental Test
with notch filter

**Critical Freqs**

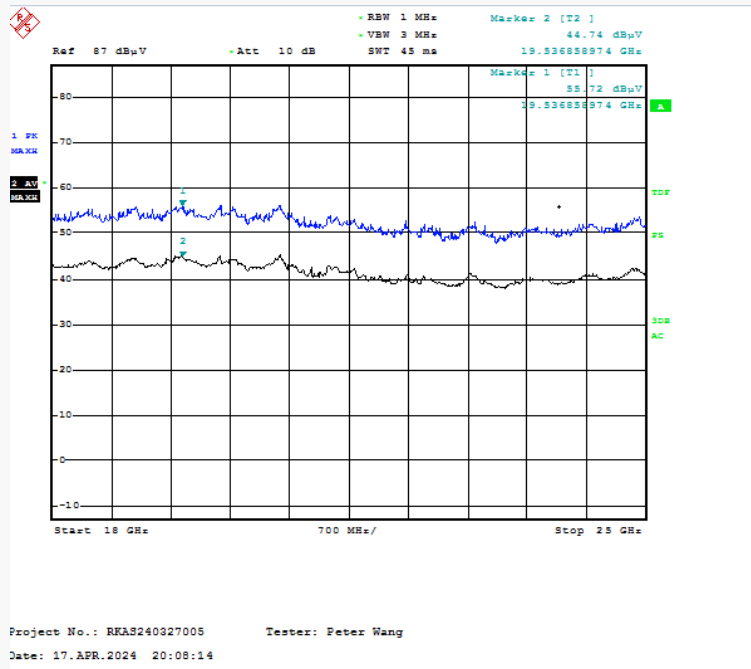
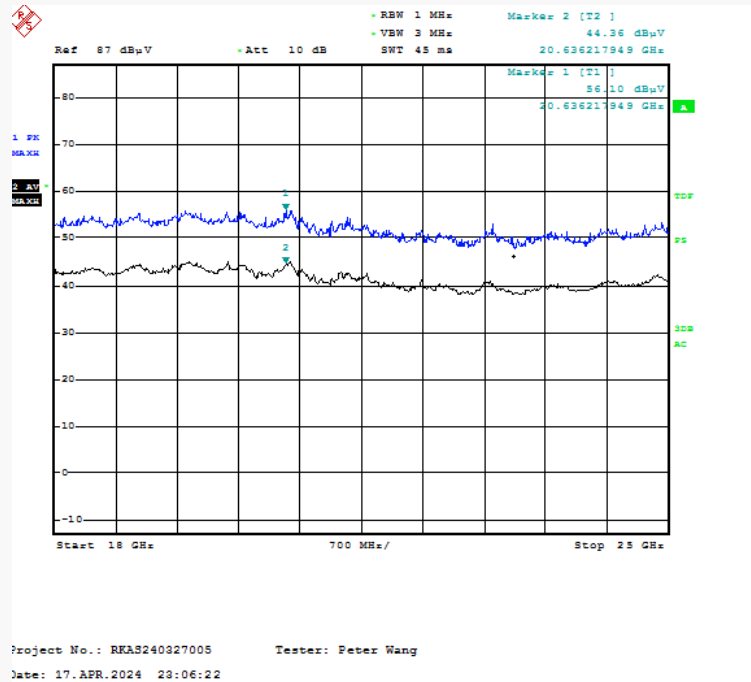
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1375.700000	---	23.35	54.00	30.65	H	-14.3
1375.700000	32.40	---	74.00	41.60	H	-14.3
3635.000000	---	32.18	54.00	21.82	V	-5.8
3635.000000	40.88	---	74.00	33.12	V	-5.8
4961.000000	---	34.95	54.00	19.05	H	-1.4
4961.000000	43.47	---	74.00	30.53	H	-1.4
7550.100000	---	39.79	54.00	14.21	H	4.2
7550.100000	49.67	---	74.00	24.33	H	4.2
13753.400000	---	46.95	54.00	7.05	V	10.8
13753.400000	52.83	---	74.00	21.17	V	10.8
17552.900000	---	46.46	54.00	7.54	H	13.4
17552.900000	56.77	---	74.00	17.23	H	13.4

High Channel: 2452MHz**Common Information**

Project No.: RKAS240327005
Test Mode: 2.4G WiFi
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

**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)
1300.900000	---	23.56	54.00	30.44	H	-14.6
1300.900000	31.84	---	74.00	42.16	H	-14.6
2084.600000	---	27.31	54.00	26.69	H	-10.4
2084.600000	35.58	---	74.00	38.42	H	-10.4
3019.600000	---	29.61	54.00	24.39	V	-7.9
3019.600000	39.35	---	74.00	34.65	V	-7.9
4906.600000	---	36.63	54.00	17.37	H	-1.7
4906.600000	44.90	---	74.00	29.10	H	-1.7
9942.000000	48.20	---	74.00	25.80	V	7.6
9942.000000	---	43.71	54.00	10.29	V	7.6
17517.200000	---	48.35	54.00	5.65	V	13.5
17517.200000	53.25	---	74.00	20.75	V	13.5

18GHz-25GHz:**Transmitting in 802.11n20 mode Middle channel is worst case
Horizontal****Vertical**

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

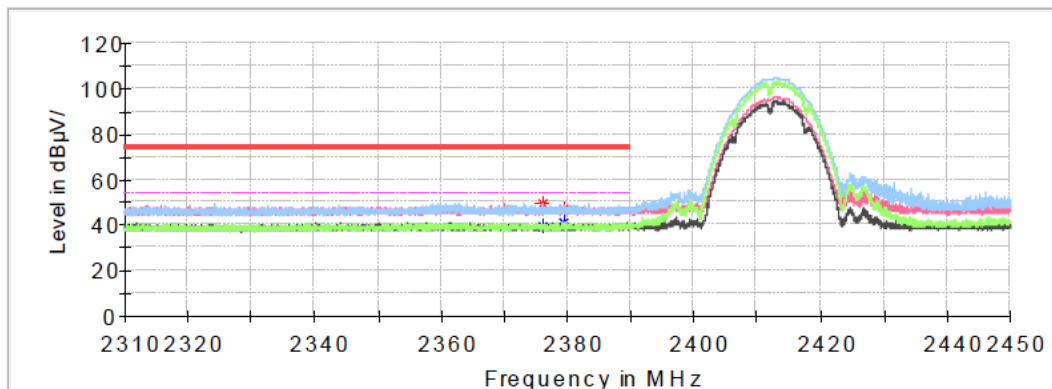
Band Edge:
802.11b Mode:

Low Channel

Common Information

Project No.: RKAS240327005
Test Mode: 2.4G WIFI
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

Full Spectrum



Critical_Freqs

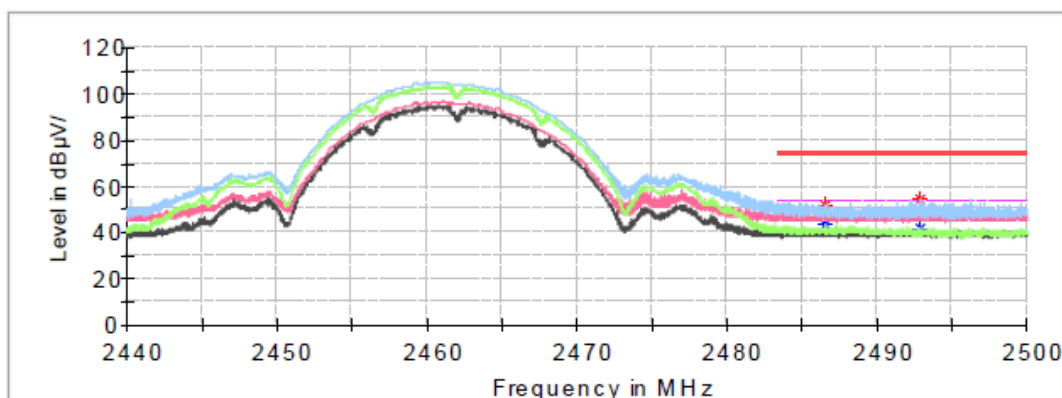
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2376.066000	49.86	---	74.00	24.14	H	0.0
2376.066000	---	39.85	54.00	14.15	H	0.0

High Channel

Common Information

Project No.: RKAS240327005
Test Mode: 2.4G WiFi
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

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)
2486.596000	---	43.28	54.00	10.72	H	0.2
2486.596000	52.32	---	74.00	21.68	H	0.2
2492.860000	---	41.79	54.00	12.21	H	0.2
2492.860000	54.95	---	74.00	19.05	H	0.2

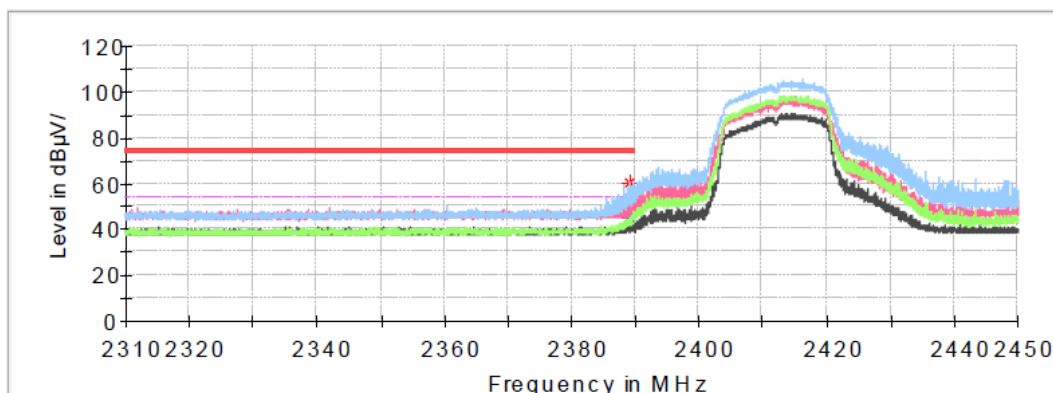
802.11g Mode :

Low Channel

Common Information

Project No.: RKAS240327005
Test Mode: 2.4G WiFi
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

Full Spectrum



Critical_Freqs

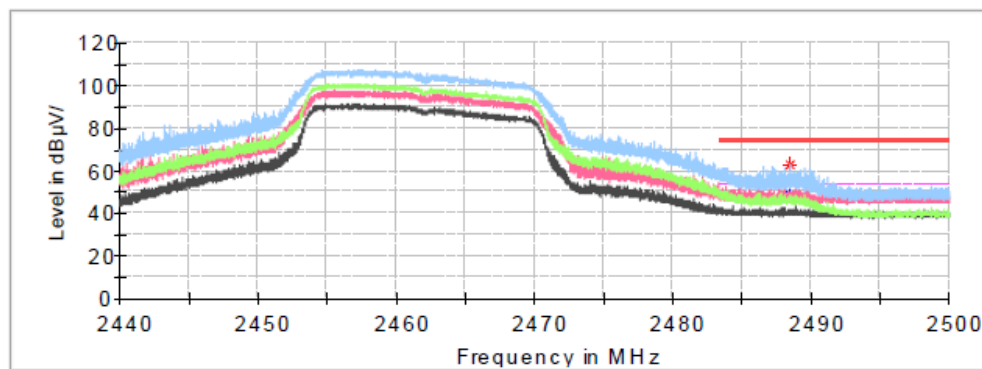
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2389.058000	60.35	---	74.00	13.65	H	0.1
2389.058000	---	45.15	54.00	8.85	H	0.1
2389.716000	54.78	---	74.00	19.22	H	0.1
2389.716000	---	48.10	54.00	5.90	H	0.1

High Channel

Common Information

Project No.: RKAS240327005
Test Mode: 2.4G WiFi
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

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)
2488.456000	---	48.60	54.00	5.40	H	0.2
2488.456000	62.78	---	74.00	11.22	H	0.2

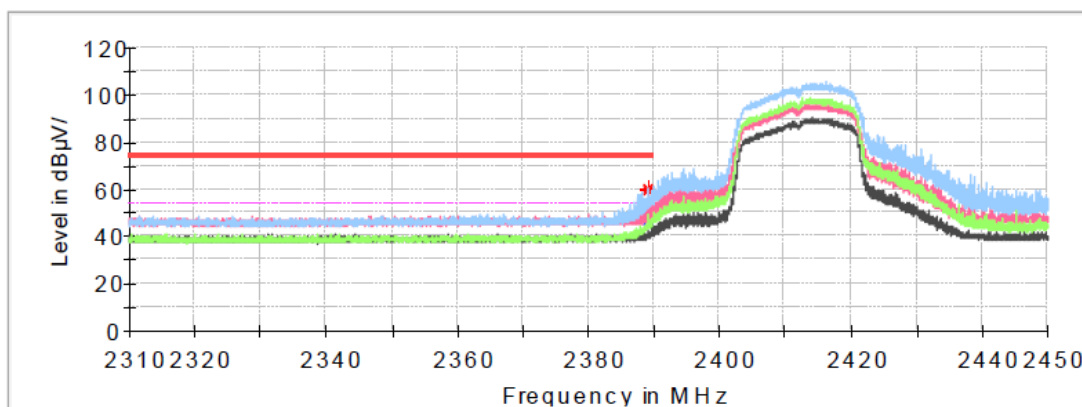
802.11n-HT20 Mode:

Low Channel

Common Information

Project No.:	RKAS240327005
Test Mode:	2.4G WiFi
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer:	Peter Wang

Full Spectrum



Critical_Freqs

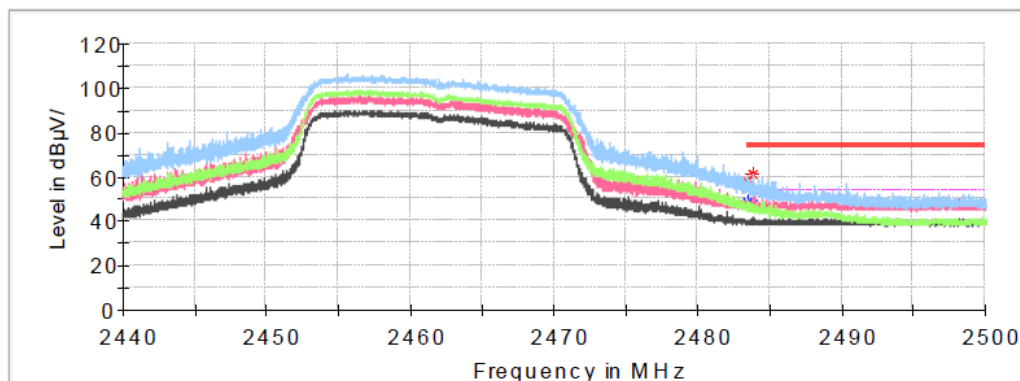
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2388.988000	---	49.36	54.00	4.64	H	0.1
2388.988000	59.51	---	74.00	14.49	H	0.1
2389.058000	---	46.62	54.00	7.38	H	0.1
2389.058000	60.16	---	74.00	13.84	H	0.1

High Channel

Common Information

Project No.: RKAS240327005
Test Mode: 2.4G WiFi
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

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)
2483.506000	---	48.80	54.00	5.20	H	0.2
2483.506000	57.63	---	74.00	16.37	H	0.2
2483.860000	---	47.50	54.00	6.50	H	0.2
2483.860000	61.08	---	74.00	12.92	H	0.2

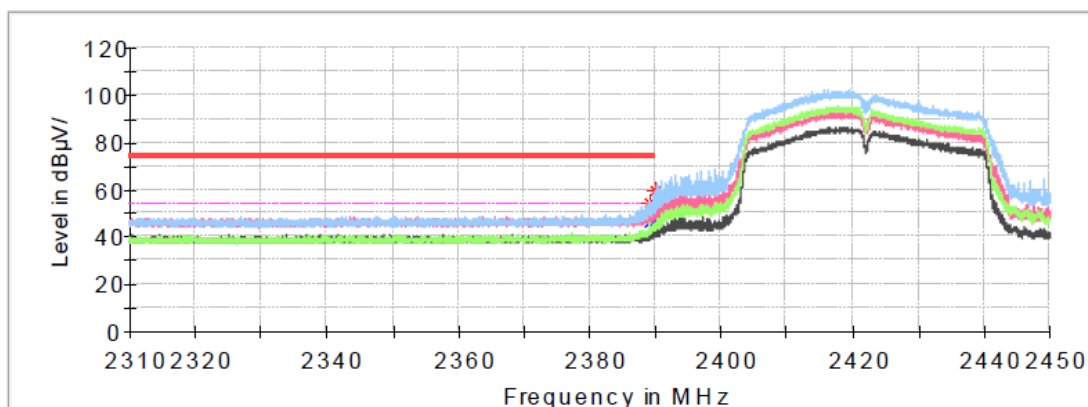
802.11n-HT40 Mode:

Low Channel

Common Information

Project No.: RKAS240327005
Test Mode: 2.4G WiFi
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

Full Spectrum



Critical_Freqs

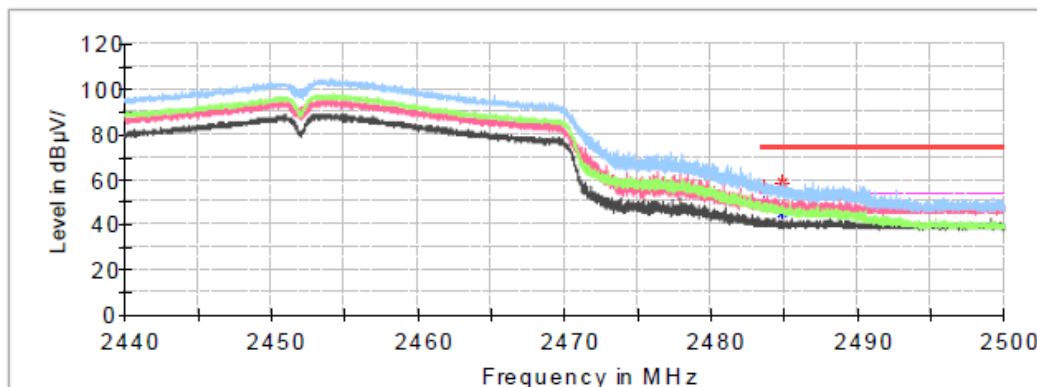
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB)
2389.128000	---	46.07	54.00	7.93	H	0.1
2389.128000	54.89	---	74.00	19.11	H	0.1
2389.870000	---	46.07	54.00	7.93	H	0.1
2389.870000	59.26	---	74.00	14.74	H	0.1

High Channel

Common Information

Project No.: RKAS240327005
Test Mode: 2.4G WiFi
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

Full Spectrum



Critical Freqs

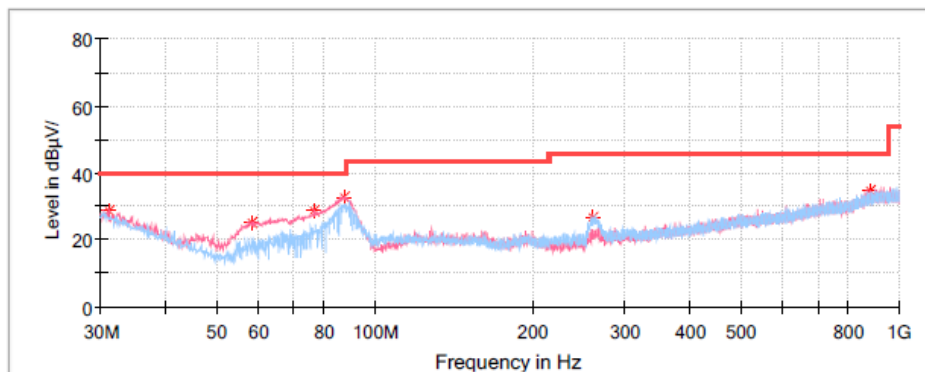
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2483.596000	56.41	---	74.00	17.59	H	0.2
2483.596000	---	49.82	54.00	4.18	H	0.2
2484.826000	58.85	---	74.00	15.15	H	0.2
2484.826000	---	45.66	54.00	8.34	H	0.2

For BLE Mode:
Charging by Adapter:
30MHz-1GHz

Low Channel: 2402MHz

Common Information

Project No:	RKSA240327005
EUT Model:	T2
Test Mode:	BLE 1M
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESCI, JB3, 310N
Temperature:	20°C
Humidity:	72%
Barometric Pressure:	101.0kPa
Test Engineer:	Leah Li
Test Date:	2024/4/28



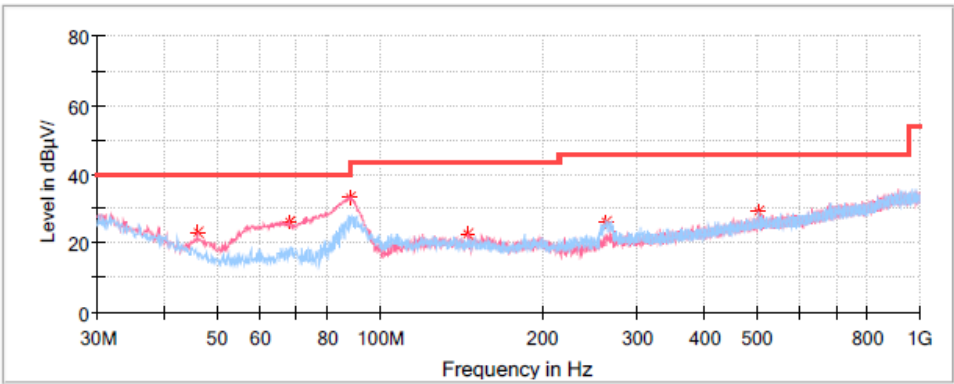
Critical_Freqs

Frequency (MHz)	MaxPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
31.091250	28.52	40.00	11.48	V	-5.2
58.251250	25.37	40.00	14.63	V	-17.4
76.802500	28.61	40.00	11.39	V	-17.3
87.472500	32.75	40.00	7.25	V	-17.2
260.375000	26.66	46.00	19.34	H	-12.3
881.053750	34.72	46.00	11.28	V	0.8

Middle Channel: 2440MHz

Common Information

Project No:	RKSA240327005
EUT Model:	T2
Test Mode:	BLE 1M
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESCI, JB3, 310N
Temperature:	20°C
Humidity:	72%
Barometric Pressure:	101.0kPa
Test Engineer:	Leah Li
Test Date:	2024/4/28



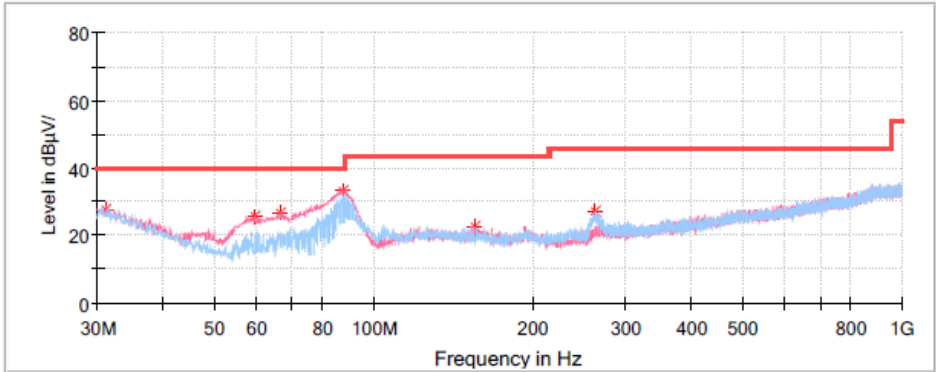
Critical Freqs

Frequency (MHz)	MaxPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
46.005000	22.93	40.00	17.07	V	-14.5
68.193750	26.34	40.00	13.66	V	-16.9
87.836250	33.24	40.00	6.76	V	-17.2
145.793750	22.60	43.50	20.90	V	-11.8
262.921250	26.34	46.00	19.66	H	-12.2
502.511250	29.14	46.00	16.86	H	-5.7

High Channel: 2480MHz

Common Information

Project No: RKSA240327005
EUT Model: T2
Test Mode: BLE 1M
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment: ESCI, JB3, 310N
Temperature: 20°C
Humidity: 72%
Barometric Pressure: 101.0kPa
Test Engineer: Leah Li
Test Date: 2024/4/28



Critical Freqs

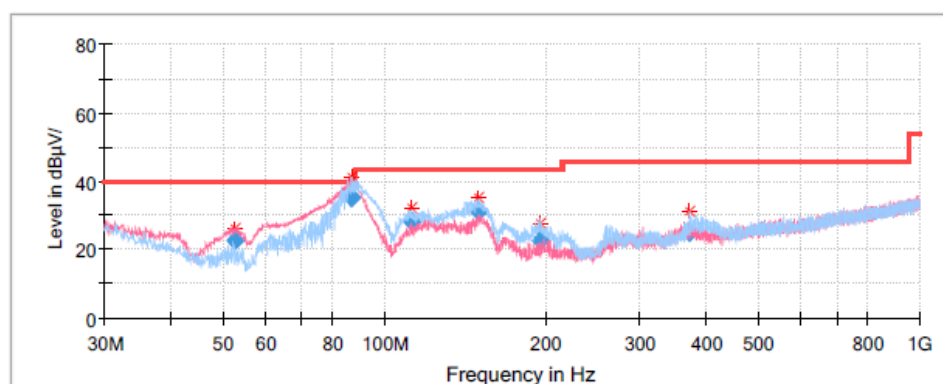
Frequency (MHz)	MaxPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
31.091250	27.77	40.00	12.23	V	-5.2
59.463750	25.42	40.00	14.58	V	-17.5
66.738750	26.55	40.00	13.45	V	-17.0
87.715000	33.35	40.00	6.65	V	-17.2
155.130000	22.52	43.50	20.98	V	-12.3
262.315000	27.26	46.00	18.74	H	-12.2

Charging by Base:
30MHz-1GHz

Low Channel: 2402MHz

Common Information

Project No: RKSA240327005
EUT Model: T2
Test Mode: BLE 1M
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment: ESCI, JB3, 310N
Temperature: 25.8°C
Humidity: 65%
Barometric Pressure: 100.7kPa
Test Engineer: Leah Li
Test Date: 2024/6/17

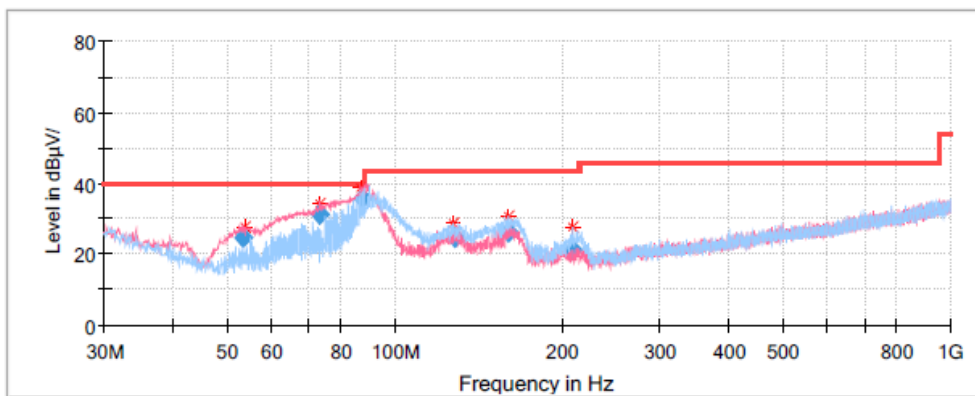


Final Result

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
52.454150	22.41	40.00	17.59	V	-17.0
87.100000	35.19	43.50	8.31	H	-17.0
112.578400	28.17	43.50	15.33	H	-12.2
150.028800	31.31	43.50	12.19	H	-11.8
196.238600	22.75	43.50	20.75	H	-12.4
372.012850	25.00	46.00	21.00	H	-8.7

Middle Channel: 2440MHz**Common Information**

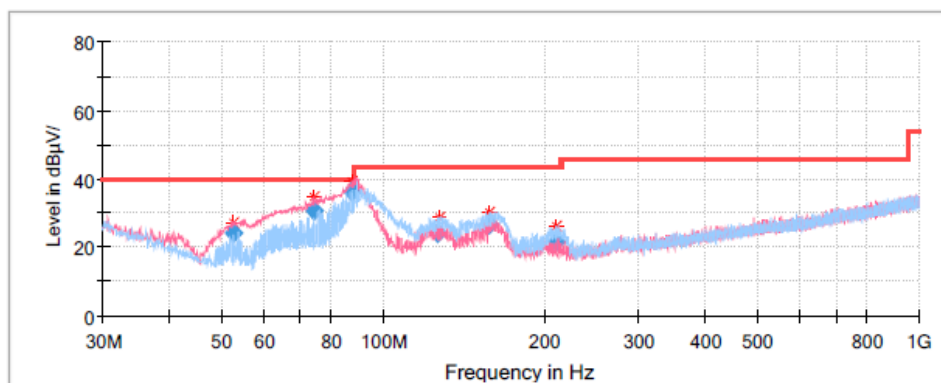
Project No: RKSA240327005
EUT Model: T2
Test Mode: BLE 1M
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment: ESCI, JB3, 310N
Temperature: 25.8°C
Humidity: 65%
Barometric Pressure: 100.7kPa
Test Engineer: Leah Li
Test Date: 2024/6/17

**Final Result**

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
53.511200	24.52	40.00	15.48	V	-17.0
73.520000	31.36	40.00	8.64	V	-17.2
87.340350	35.75	40.00	4.25	V	-17.0
128.442150	24.58	43.50	18.92	H	-11.1
159.870100	26.39	43.50	17.11	H	-12.2
208.870600	20.90	43.50	22.60	H	-12.8

High Channel: 2480MHz**Common Information**

Project No: RKSA240327005
EUT Model: T2
Test Mode: BLE 1M
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment: ESCI, JB3, 310N
Temperature: 25.8°C
Humidity: 65%
Barometric Pressure: 100.7kPa
Test Engineer: Leah Li
Test Date: 2024/6/17

**Final Result**

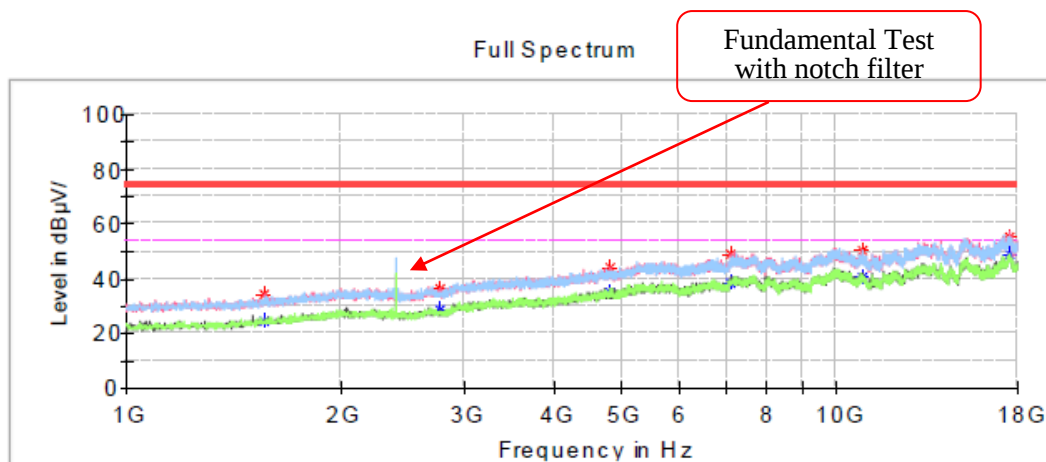
Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
52.410000	23.91	40.00	16.09	V	-17.0
74.490000	30.77	40.00	9.23	V	-17.2
87.674050	36.42	40.00	3.58	V	-17.0
126.112600	24.05	43.50	19.45	H	-11.0
157.980050	26.43	43.50	17.07	H	-12.1
209.978800	21.44	43.50	22.06	H	-12.8

1GHz-18GHz:

Low Channel: 2402MHz

Common Information

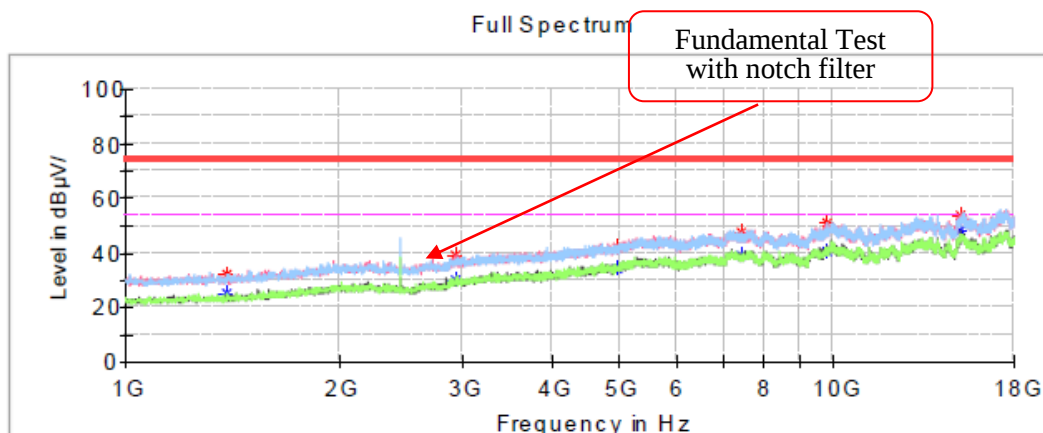
Project No.: RKAS240327005
 Test Mode: BLE 1M
 Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
 Test Engineer: Peter Wang

**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)
1562.700000	34.57	---	74.00	39.43	V	-13.5
1562.700000	---	24.70	54.00	29.30	V	-13.5
2768.000000	---	29.00	54.00	25.00	V	-8.8
2768.000000	36.14	---	74.00	37.86	V	-8.8
4808.000000	43.80	---	74.00	30.20	V	-2.2
4808.000000	---	35.12	54.00	18.88	V	-2.2
7106.400000	48.70	---	74.00	25.30	V	3.9
7106.400000	---	38.53	54.00	15.47	H	3.9
10880.400000	---	40.87	54.00	13.13	H	6.5
10880.400000	50.06	---	74.00	23.94	H	6.5
17532.500000	54.91	---	74.00	19.09	V	13.5
17532.500000	---	49.01	54.00	4.99	H	13.5

Middle Channel: 2440MHz**Common Information**

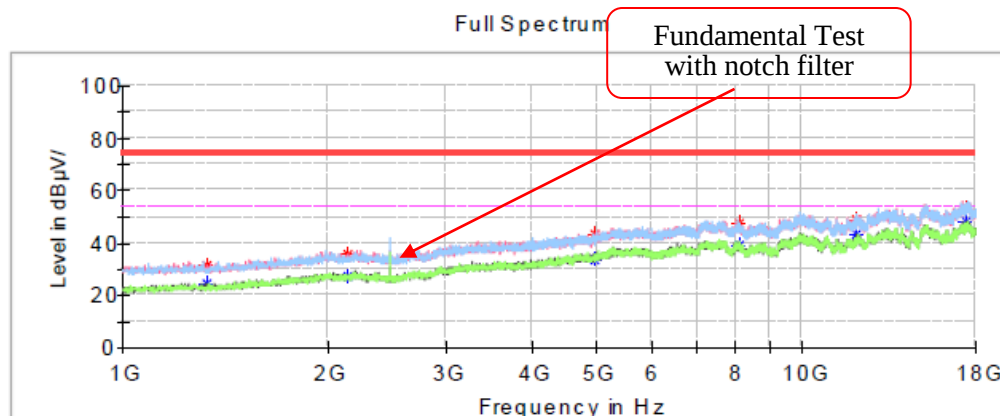
Project No.: RKAS240327005
Test Mode: BLE 1M
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

**Critical_Freqs**

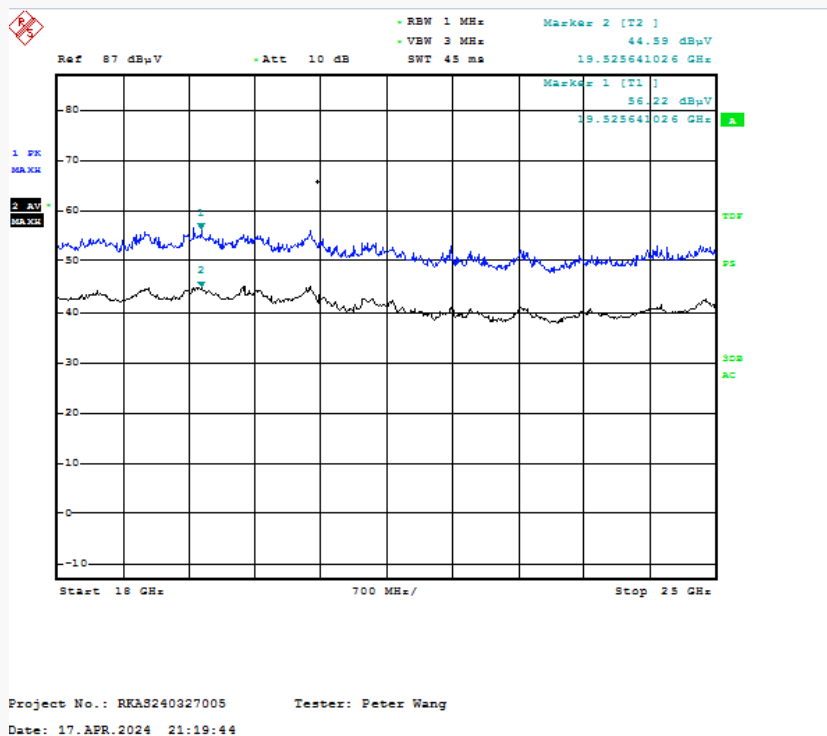
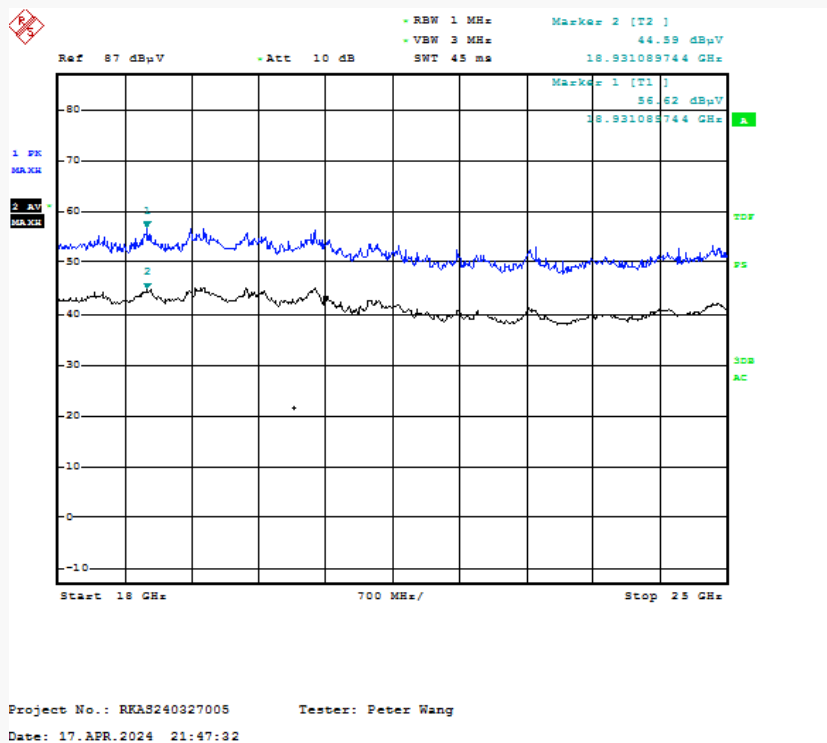
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1392.700000	32.15	---	74.00	41.85	H	-14.3
1392.700000	---	25.04	54.00	28.96	H	-14.3
2929.500000	39.34	---	74.00	34.66	V	-8.3
2929.500000	---	29.77	54.00	24.23	V	-8.3
4942.300000	42.07	---	74.00	31.93	V	-1.5
4942.300000	---	34.49	54.00	19.51	V	-1.5
7393.700000	---	39.41	54.00	14.59	H	4.1
7393.700000	47.44	---	74.00	26.56	H	4.1
9806.000000	51.03	---	74.00	22.97	H	7.2
9806.000000	---	40.60	54.00	13.40	V	7.2
15154.200000	54.17	---	74.00	19.83	V	10.6
15154.200000	---	48.37	54.00	5.63	V	10.6

High Channel: 2480MHz**Common Information**

Project No.: RKAS240327005
Test Mode: BLE 1M
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

**Critical_Freqs**

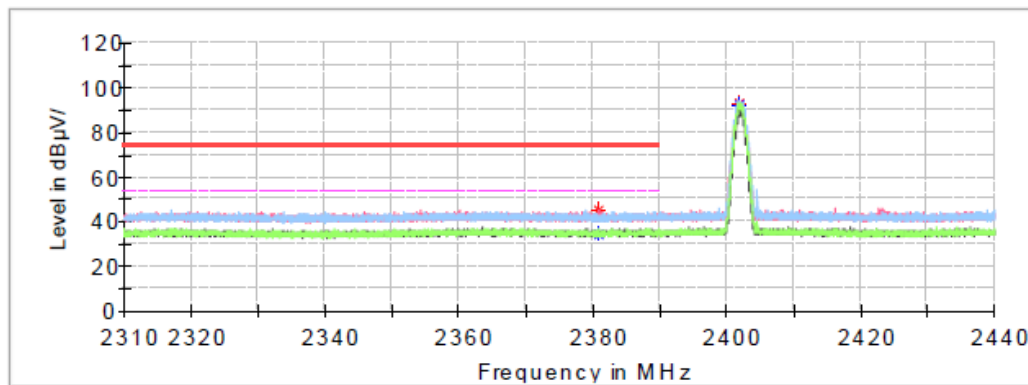
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1329.800000	31.34	---	74.00	42.66	V	-14.5
1329.800000	---	24.35	54.00	29.65	V	-14.5
2142.400000	35.90	---	74.00	38.10	V	-10.3
2142.400000	---	27.22	54.00	26.78	V	-10.3
4966.100000	43.23	---	74.00	30.77	V	-1.4
4966.100000	---	33.90	54.00	20.10	V	-1.4
8092.400000	47.84	---	74.00	26.16	H	3.8
8092.400000	---	39.08	54.00	14.92	H	3.8
12063.600000	---	43.40	54.00	10.60	V	7.0
12063.600000	48.65	---	74.00	25.35	V	7.0
17501.900000	53.45	---	74.00	20.55	V	13.6
17501.900000	---	48.31	54.00	5.69	V	13.6

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

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

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

Project No.: RKAS240327005
Test Mode: BLE 1M
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

Full Spectrum**Critical Freqs**

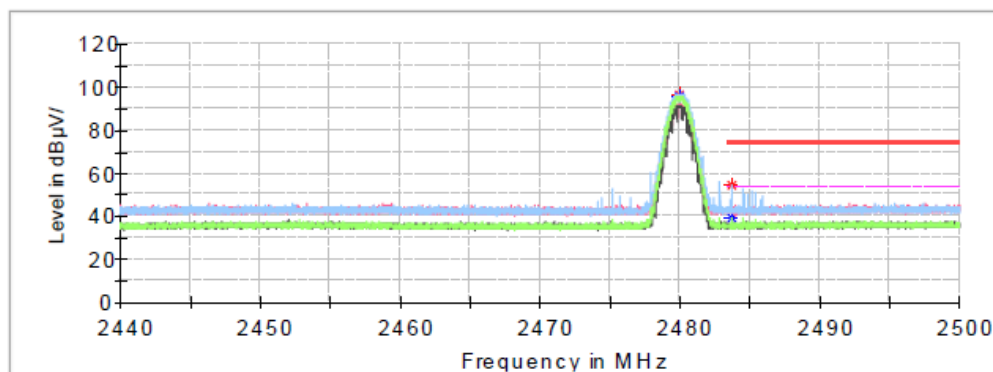
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2380.889000	45.34	---	74.00	28.66	V	0.0
2380.889000	---	34.69	54.00	19.31	V	0.0

High Channel

Common Information

Project No.: RKAS240327005
Test Mode: BLE 1M
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

Full Spectrum



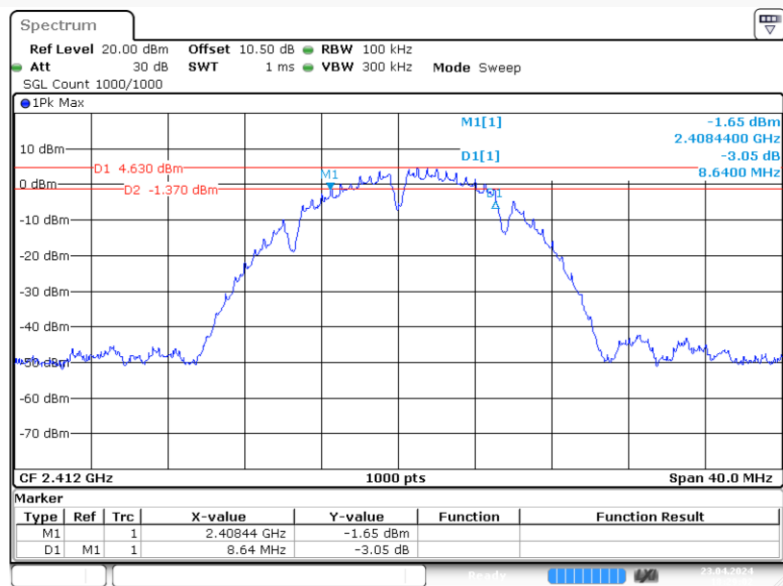
Critical Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2483.734000	---	39.79	54.00	14.21	H	0.2
2483.734000	54.62	---	74.00	19.38	H	0.2

6 dB EMISSION BANDWIDTH**Test Result:** Compliant.*EUT operation mode: Transmitting***For Wi-Fi Mode:**

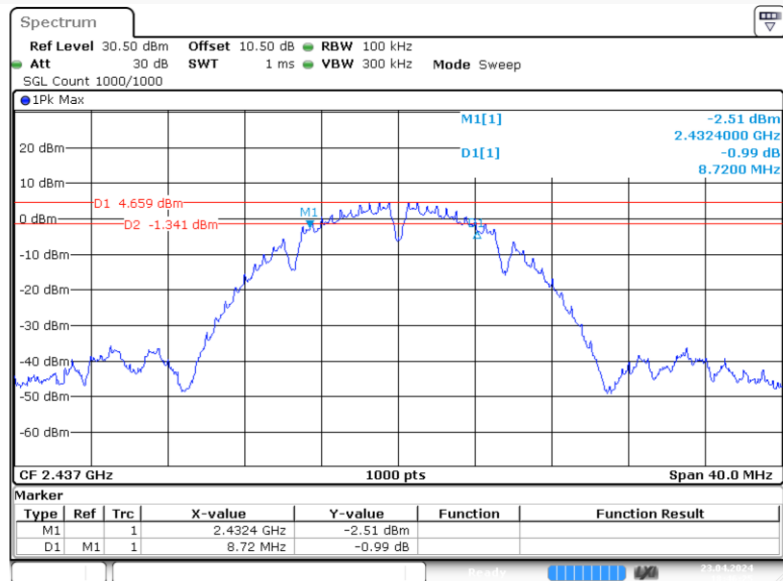
Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	Limit (MHz)
802.11b Mode			
Low	2412	8.640	≥ 0.5
Middle	2437	8.720	≥ 0.5
High	2462	8.160	≥ 0.5
802.11g Mode			
Low	2412	14.280	≥ 0.5
Middle	2437	16.000	≥ 0.5
High	2462	12.880	≥ 0.5
802.11n-HT20 Mode			
Low	2412	14.880	≥ 0.5
Middle	2437	17.240	≥ 0.5
High	2462	13.040	≥ 0.5
802.11n-HT40 Mode			
Low	2422	15.280	≥ 0.5
Middle	2437	35.920	≥ 0.5
High	2452	21.520	≥ 0.5

802.11b Mode Low Channel



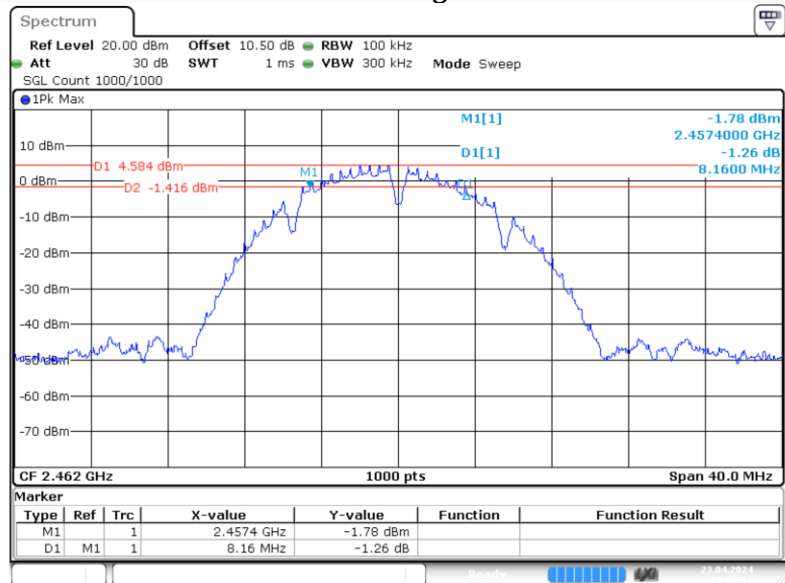
ProjectNo.:RKSA240327005 Tester:Bard Liu
Date: 23.APR.2024 18:29:03

802.11b Mode Middle Channel



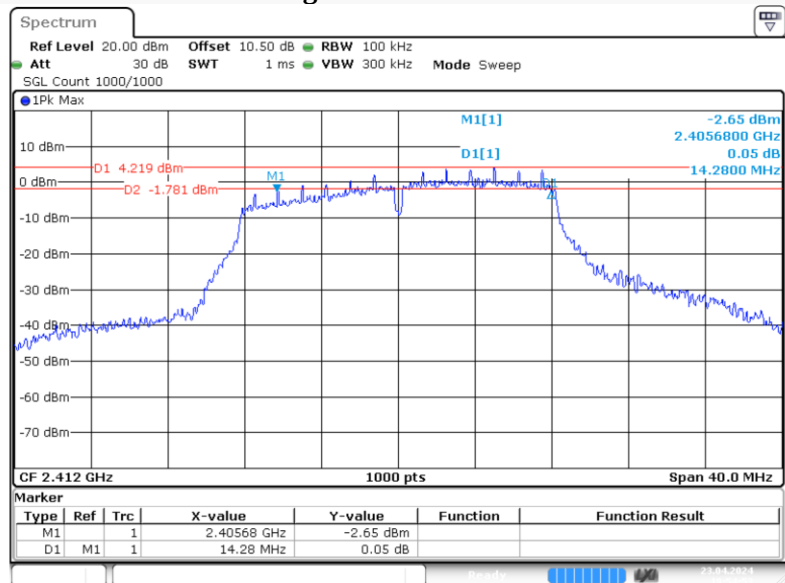
ProjectNo.:RKSA240327005 Tester:Bard Liu
Date: 23.APR.2024 18:46:25

802.11b Mode High Channel



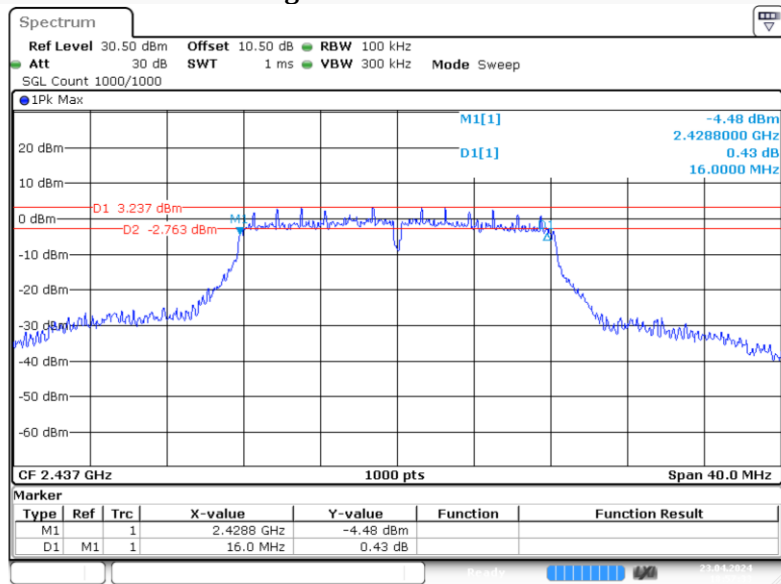
ProjectNo.:RKSA240327005 Tester:Bard Liu
Date: 23 APR 2024 18:52:17

802.11g Mode Low Channel



ProjectNo.:RKSA240327005 Tester:Bard Liu
Date: 23 APR 2024 18:54:53

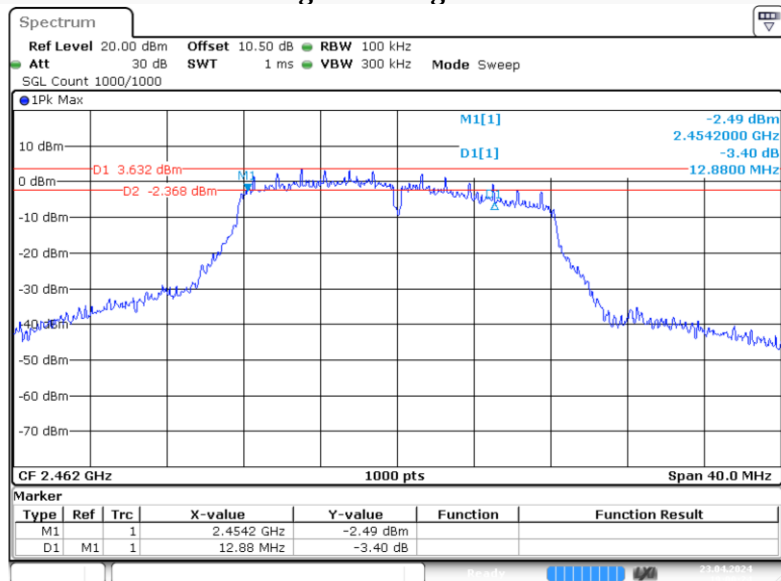
802.11g Mode Middle Channel



ProjectNo.: RKSA240327005 Tester: Bard Liu

Date: 23 APR 2024 18:57:33

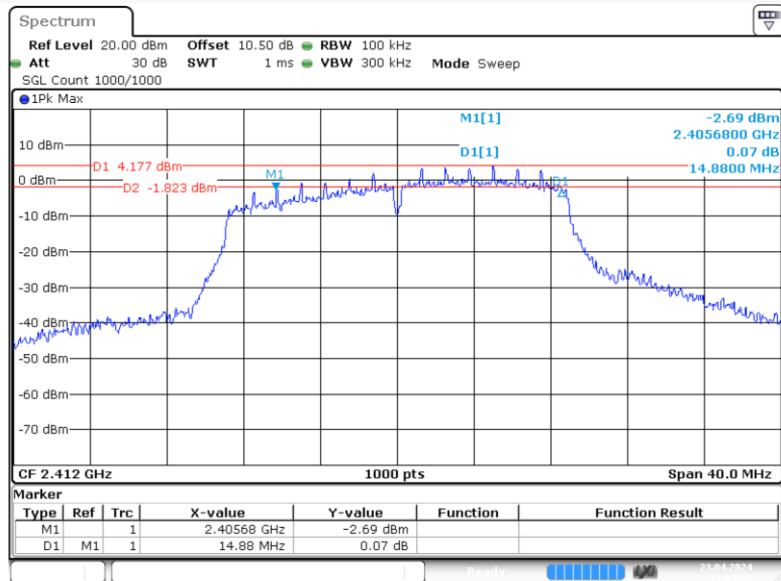
802.11g Mode High Channel



ProjectNo.: RKSA240327005 Tester: Bard Liu

Date: 23 APR 2024 19:00:24

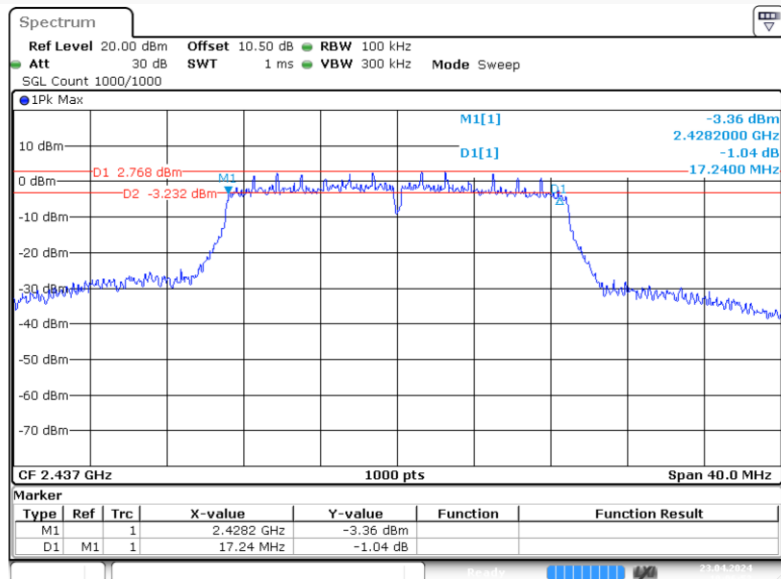
802.11n-HT20 Mode Low Channel



ProjectNo.: RKSA240327005 Tester: Bard Liu

Date: 23 APR 2024 19:03:10

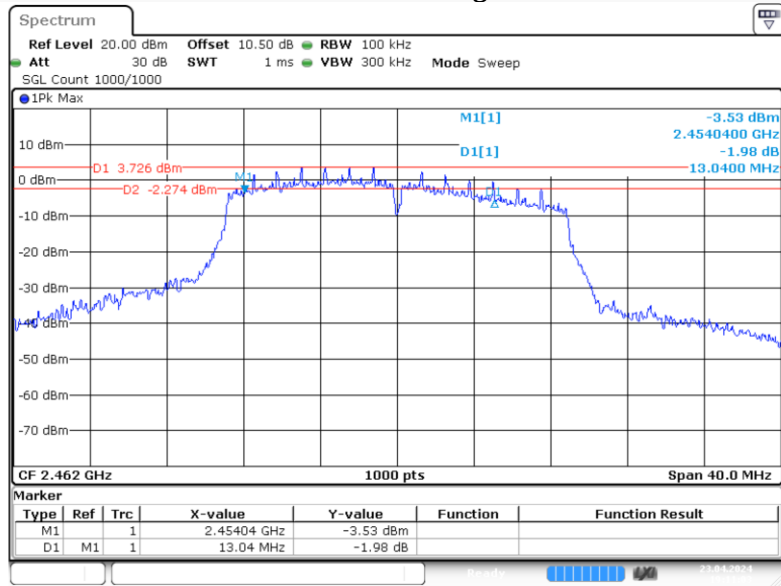
802.11n-HT20 Mode Middle Channel



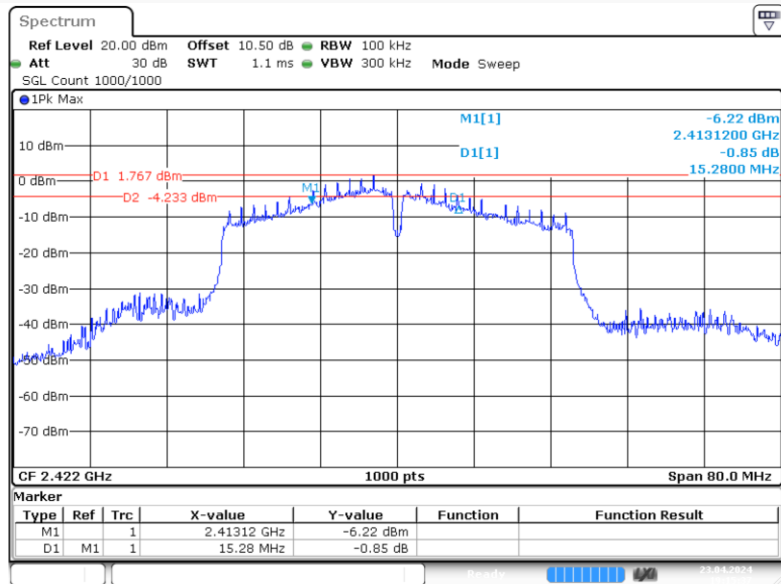
ProjectNo.: RKSA240327005 Tester: Bard Liu

Date: 23 APR 2024 19:06:53

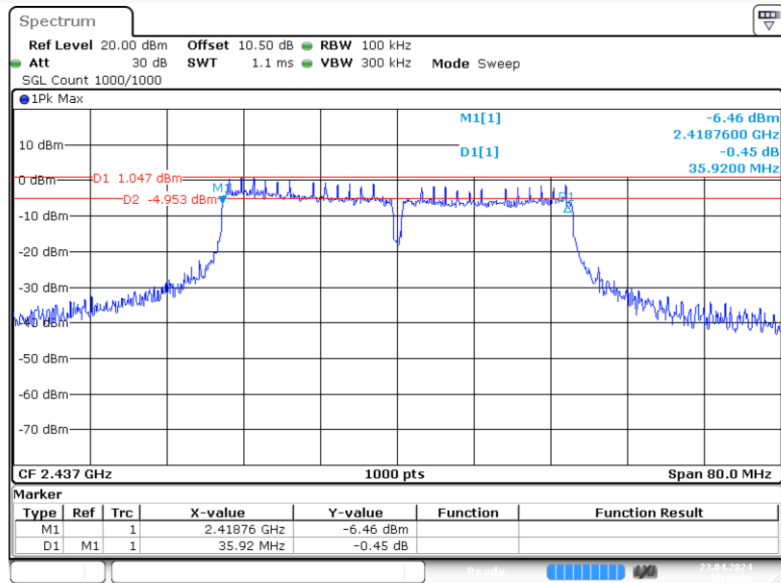
802.11n-HT20 Mode High Channel



802.11n-HT40 Mode Low Channel



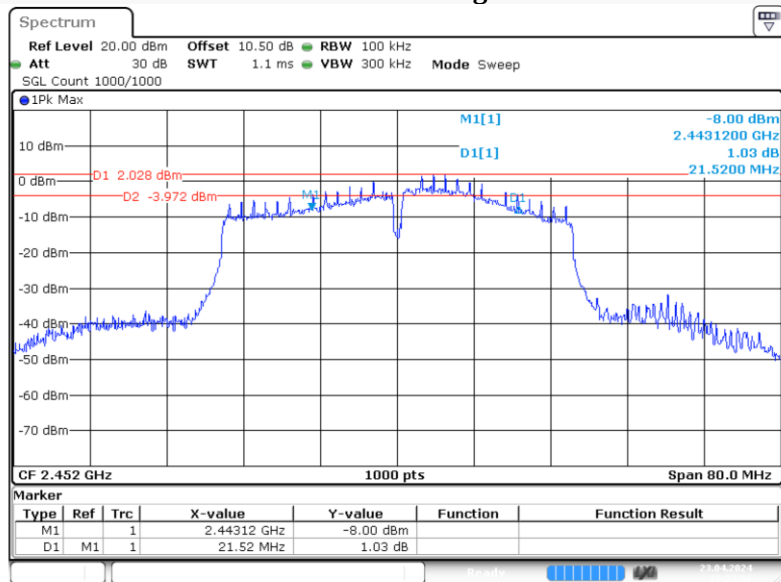
802.11n-HT40 Mode Middle Channel



ProjectNo.: RKSA240327005 Tester: Bard Liu

Date: 23.APR.2024 19:19:12

802.11n-HT40 Mode High Channel

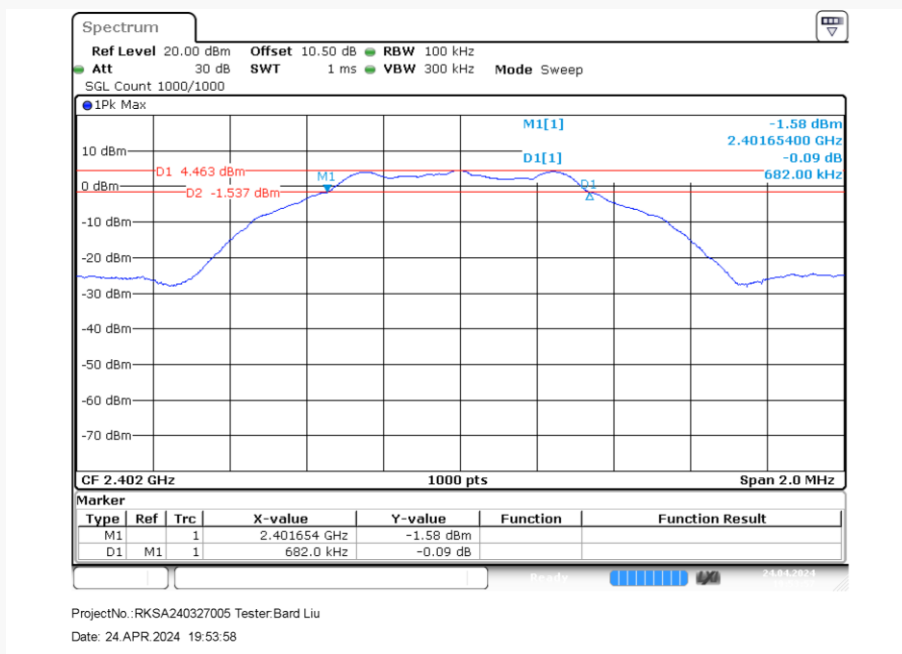


ProjectNo.: RKSA240327005 Tester: Bard Liu

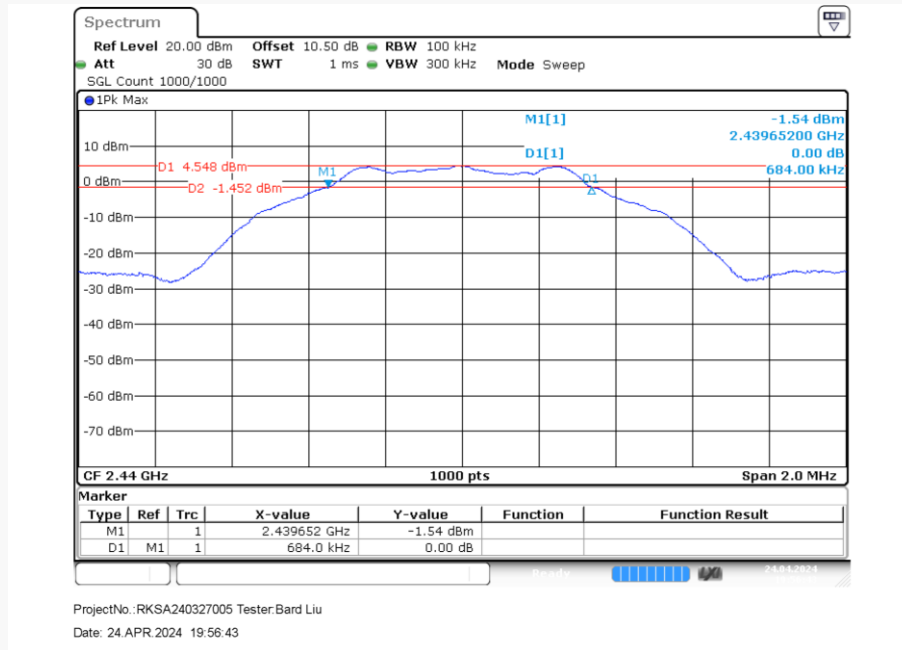
Date: 23.APR.2024 19:23:06

For BLE Mode:

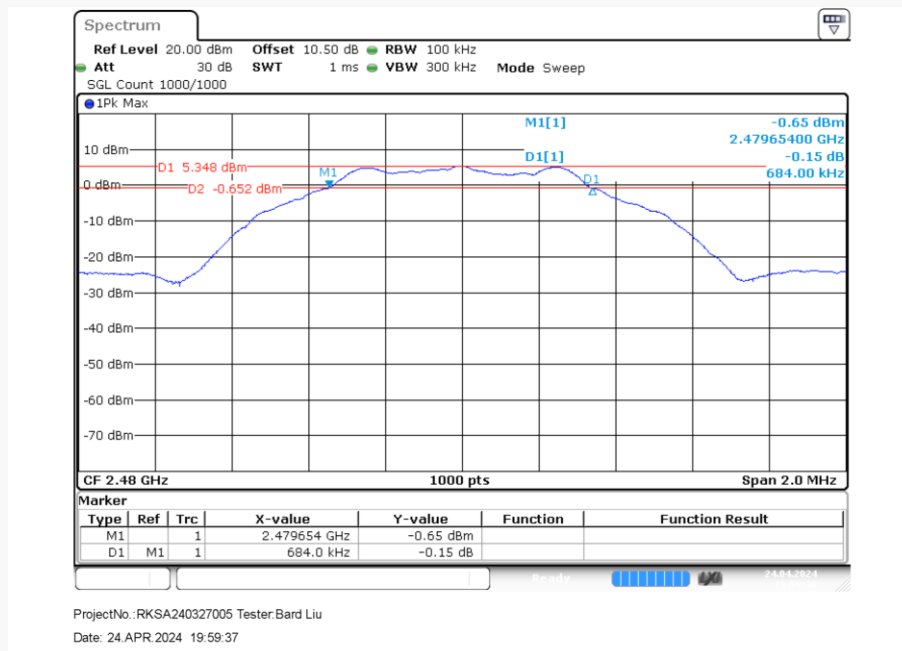
Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	Limit (MHz)
Low	2402	0.682	≥ 0.5
Middle	2440	0.684	≥ 0.5
High	2480	0.684	≥ 0.5

Low Channel

Middle Channel



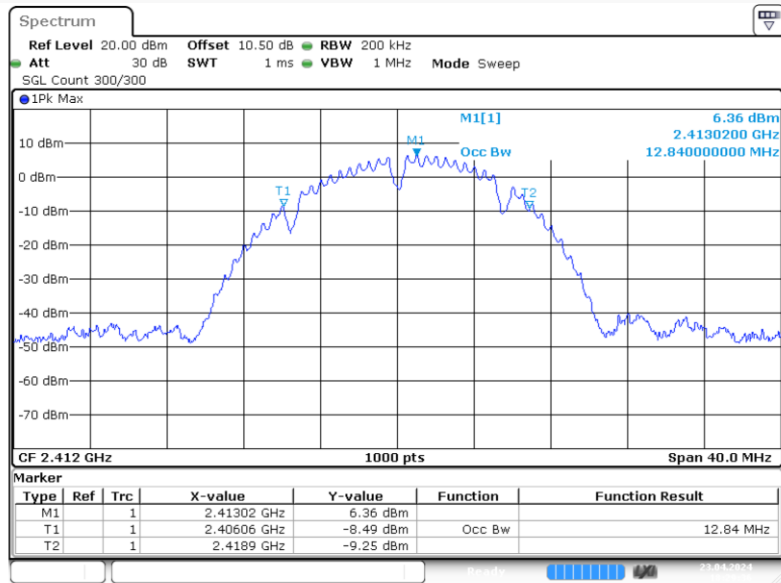
High Channel



OCCUPIED BANDWIDTH*EUT operation mode: Transmitting***For Wi-Fi Mode:**

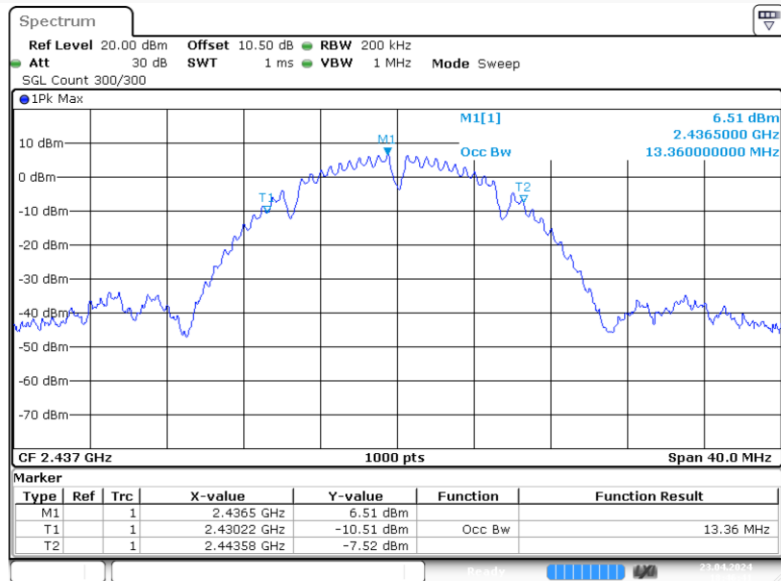
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)
802.11b Mode		
Low	2412	12.840
Middle	2437	13.360
High	2462	12.680
802.11g Mode		
Low	2412	16.440
Middle	2437	16.720
High	2462	16.320
802.11n-HT20 mode		
Low	2412	17.520
Middle	2437	17.760
High	2462	17.400
802.11n-HT40 mode		
Low	2422	35.280
Middle	2437	36.960
High	2452	35.440

802.11b Mode Low Channel



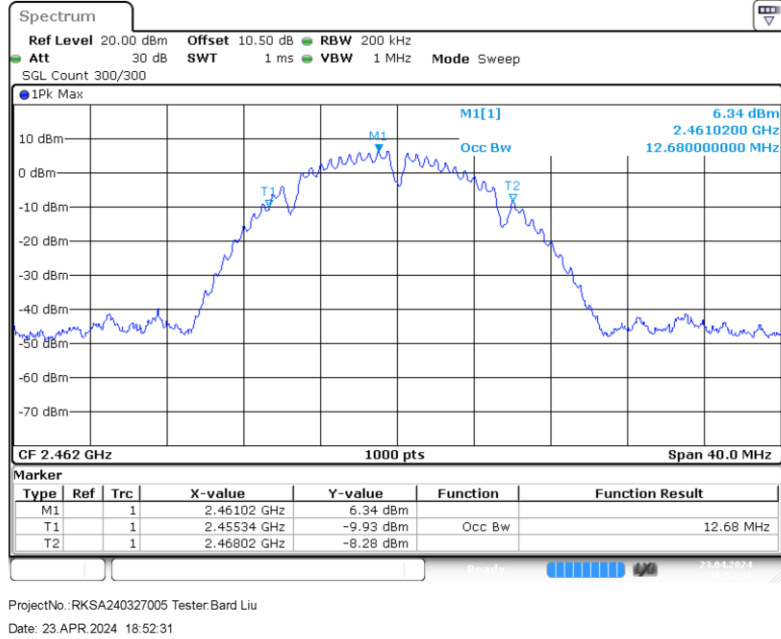
ProjectNo.:RKSA240327005 Tester:Bard Liu
 Date: 23.APR.2024 18:29:36

802.11b Mode Middle Channel



ProjectNo.:RKSA240327005 Tester:Bard Liu
 Date: 23.APR.2024 18:46:41

802.11b Mode High Channel



802.11g Mode Low Channel

