NVLAP TESTING
NVLAP LAB CODE 600338-0

BACL Bay Area Compliance Labs Corp.

FCC PART 15.249
TEST REPORT

For

Qingdao Wintec IoT Co.,Ltd.

Room 201, Workshop 1, No.28, xinye Road, High-tech Zone, Qingdao, Shandong 266000, China

FCC ID: 2BPP6-AP2400S

Report Type:	**Product Name:**
Original Report	AP STATION

Report Number:	RSHA241022001-00B
Report Date:	2025-09-26
Reviewed By:	Bard Liu
Approved By:	Kyle Xu
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REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RSHA241022001-00B	R1V1	2025-09-26	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	Qingdao Wintec IoT Co.,Ltd.
Tested Model:	AP2400S
Product Name:	AP STATION
Power Supply:	DC 12V
RF Function:	SRD
Operating Band/Frequency:	2402-2481 MHz
Maximum Field Strength of Fundamental:	76.55 dBμV/m @3m
Modulation Type:	FSK
Antenna Type:	Rod Antenna
★Maximum Antenna Gain:	3.54 dBi

Note: The maximum antenna gain is provided by the applicant.

All measurement and test data in this report was gathered from production sample serial number: RSHA241022001-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2024-10-22.)

Objective

This type approval report is prepared for *Qingdao Wintec IoT Co.,Ltd.* in accordance with Part 2-Subpart J, and Part 15-Subparts A and C of the Federal Communication Commission rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.209, 15.215, 15.207 and 15.249 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2020 + Cor.1-2023, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

Measurement Uncertainty

Item		Uncertainty
AC Power Lines Conducted Emissions		3.19 dB
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

Justification

Operation Frequency Details:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2402	25	2426	49	2450	73	2474
2	2403	26	2427	50	2451	74	2475
3	2404	27	2428	51	2452	75	2476
4	2405	28	2429	52	2453	76	2477
5	2406	29	2430	53	2454	77	2478
6	2407	30	2431	54	2455	78	2479
7	2408	31	2432	55	2456	79	2480
8	2409	32	2433	56	2457	80	2481
9	2410	33	2434	57	2458	/	/
10	2411	34	2435	58	2459	/	/
11	2412	35	2436	59	2460	/	/
12	2413	36	2437	60	2461	/	/
13	2414	37	2438	61	2462	/	/
14	2415	38	2439	62	2463	/	/
15	2416	39	2440	63	2464	/	/
16	2417	40	2441	64	2465	/	/
17	2418	41	2442	65	2466	/	/
18	2419	42	2443	66	2467	/	/
19	2420	43	2444	67	2468	/	/
20	2421	44	2445	68	2469	/	/
21	2422	45	2446	69	2470	/	/
22	2423	46	2447	70	2471	/	/
23	2424	47	2448	71	2472	/	/
24	2425	48	2449	72	2473	/	/

EUT was tested with Channel 1, 39 and 80.

Equipment Modifications

No modification was made to the EUT tested.

EUT Exercise Software

Operating mode: Engineering Mode, “website” was used during the test.

★Power level: Default

Note: The power level was declared by the applicant.

Support Equipment List and Details

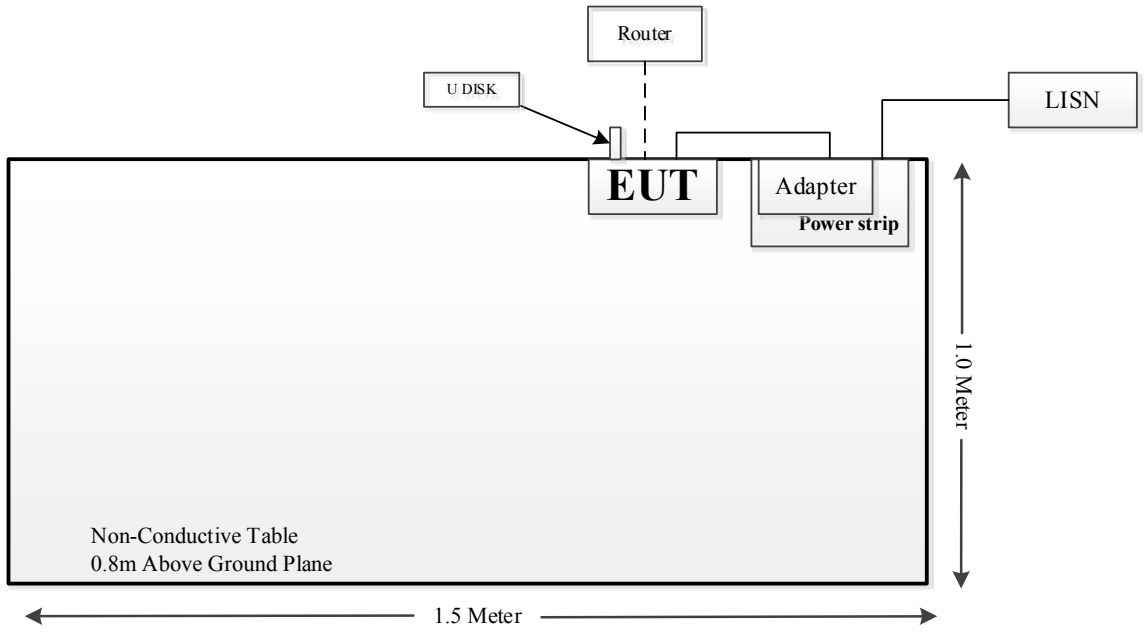
Manufacturer	Description	Model	Serial Number
TP-LINK	Router	TL-XDR3010	12373X0002080
Kingston	U DISK	32G	/
Ming Wei enterprise co., ltd	Adapter	GSM60A12	/

External I/O Cable

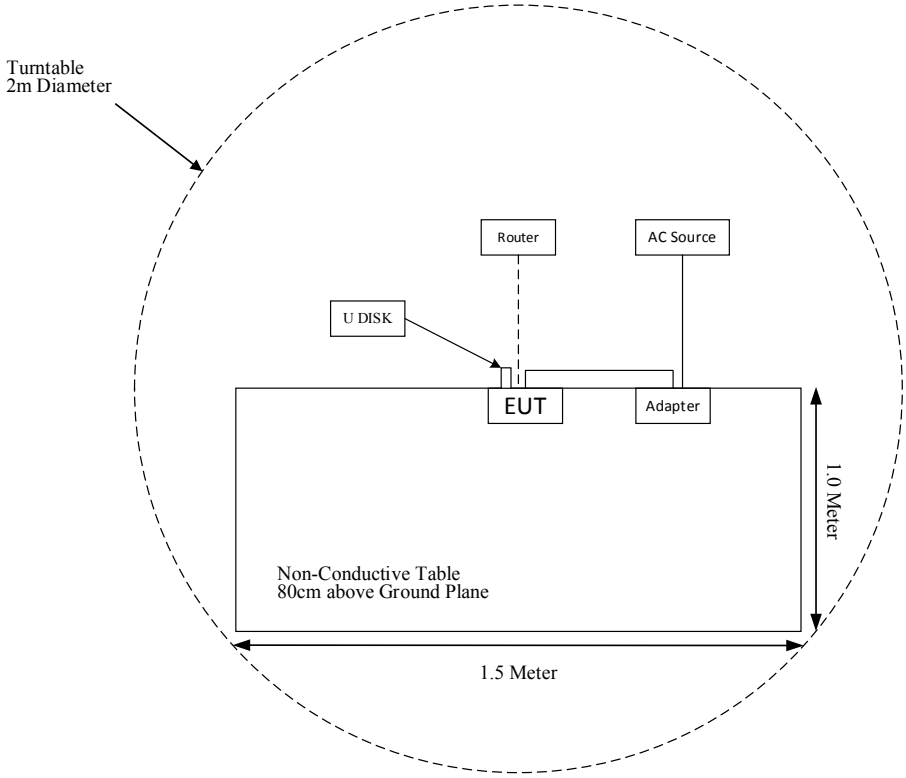
Cable Description	Length (m)	From Port	To Port
Power Cable 1	1.0	AC Source/LISN	Adapter/Power strip
Power Cable 2	3.0	Adapter	EUT
RJ45 Cable	3.0	EUT	Router

Block Diagram of Test Setup

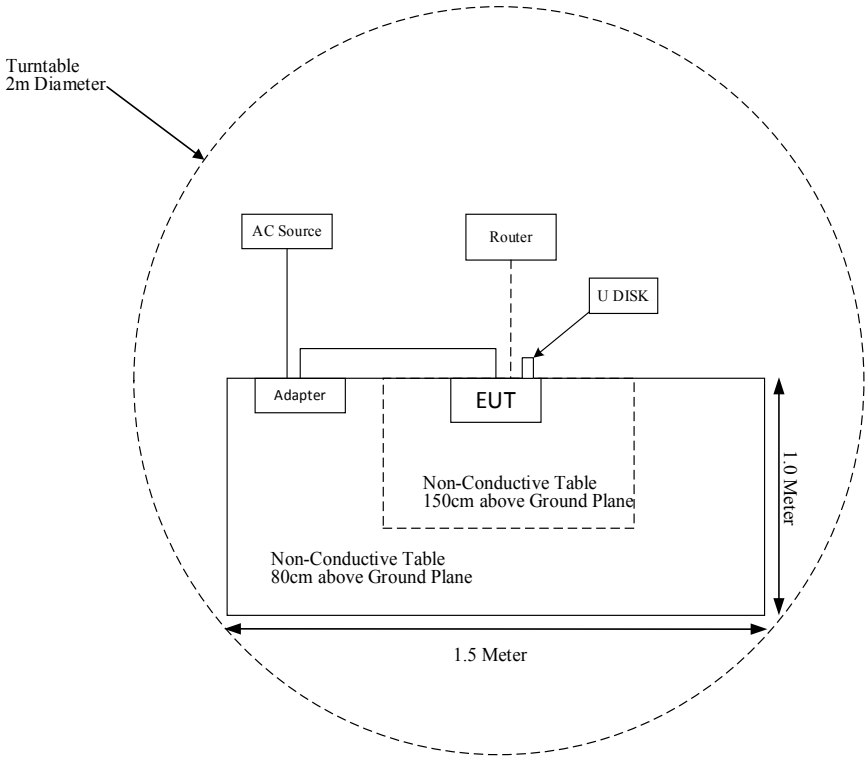
For Conducted Emissions:



For Radiated Emissions(Below 1GHz):



For Radiated Emissions (Above 1GHz):



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1310 & §2.1091	MAXIMUM PERMISSIBLE EXPOSURE (MPE)	Compliant
§15.203	Antenna Requirement	Compliant
§15.207(a)	AC Line Conducted Emissions	Compliant
15.205, §15.209, §15.249	Radiated Emissions & Out of Band Emission	Compliant
§15.215 (c)	20 dB Bandwidth	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	Hybrid Antenna	JB3	A090314-1	2024-11-08	2027-11-07
BACL	Active Loop Antenna	1313-1A	4041511	2024-11-22	2027-11-21
Sonoma Instrument	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
Narda	6dB Attenuator	773-6	10690812-2-1	2024-11-08	2027-11-07
Radiated Emission Test (Chamber #2)					
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2024-04-25	2025-04-24
				2025-04-09	2026-04-08
ETS-LINDGREN	Horn Antenna	3115	9311-4159	2024-12-02	2025-12-01
A.H.Systems, inc	Amplifier	PAM-0118P	512	2025-04-09	2026-04-08
Narda	Attenuator	10dB	010-01	2025-04-08	2026-04-07
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-6	006	2024-04-23	2025-04-22
				2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-11	011	2024-04-25	2025-04-24
				2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-12	012	2024-04-25	2025-04-24
				2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-13	013	2024-04-25	2025-04-24
				2025-04-09	2026-04-08
ETS-LINDGREN	Horn Antenna	3116	2516	2023-12-08	2026-12-07
SELECTOR	Amplifier	EM18G40G	60726	2024-04-25	2025-04-24
MICRO-COAX	Coaxial Cable	Cable-7	007	2024-04-25	2025-04-24
				2025-04-09	2026-04-08
MICRO-TRONICS	Band Reject Filter	BRM50702	G024	2024-04-25	2025-04-24
				2025-04-08	2026-04-07
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSU26	200103	2024-04-24	2025-04-23
				2025-04-09	2026-04-08
N/A	Attenuator	10 dB	N/A	2024-04-23	2025-04-22
				2025-04-08	2026-04-07
XHFDZ	RG316 Coaxial Cable	SMA-316	XHF-1175	Each time	N/A
Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR	101746	2024-04-23	2025-04-22
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	0357.8810.54	2024-04-23	2025-04-22
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§15.203 - ANTENNA REQUIREMENT

Applicable Standard

For intentional device, 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.

Antenna Connector Construction

The EUT has four Rod antenna for SRD, which use a unique type of connector to attach to the EUT., antenna gain is 3.54 dBi, fulfill the requirement of this section, please refer to the EUT photos.

Result: Compliant.

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/cm^2);
P = power input to the antenna (in appropriate units, e.g., mW);
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

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

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

Calculated Data:

Mode	Antenna	Frequency Range (MHz)	Antenna Gain		★Tune-up Conducted Output Power		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
			(dBi)	(numeric)	(dBm)	(mW)			
SRD	Antenna 1	2402-2481	3.54	2.26	-22	0.006	20	0.000003	1.0
	Antenna 2	2402-2481	3.54	2.26	-22	0.006	20	0.000003	1.0
	Antenna 3	2402-2481	3.54	2.26	-22	0.006	20	0.000003	1.0
	Antenna 4	2402-2481	3.54	2.26	-22	0.006	20	0.000003	1.0

Note:
1. For the above tune up power were declared by the manufacturer.
2. For 2.4G SRD, this maximum E-Field level is 76.55 dBμV/m at 3m, so the EIRP is -18.65 dBm. The antenna gain is 3.54dBi. The conducted power is -22.19 dBm
3. EIRP (dBm) = Field Strength of Fundamental (dBuV/m)-95.2, d=3m
   Conducted Power(dBm)=EIRP(dBm)-antenna gain(dBi)

Antenna 1, Antenna 2, Antenna 3 and Antenna 4 can transmit simultaneously:

$$\sum_i \frac{S_i}{S_{Limit,i}}$$ =0.000003/1.0+0.000003/1.0+0.000003/1.0+0.000003/1.0= 0.000012 < 1.0

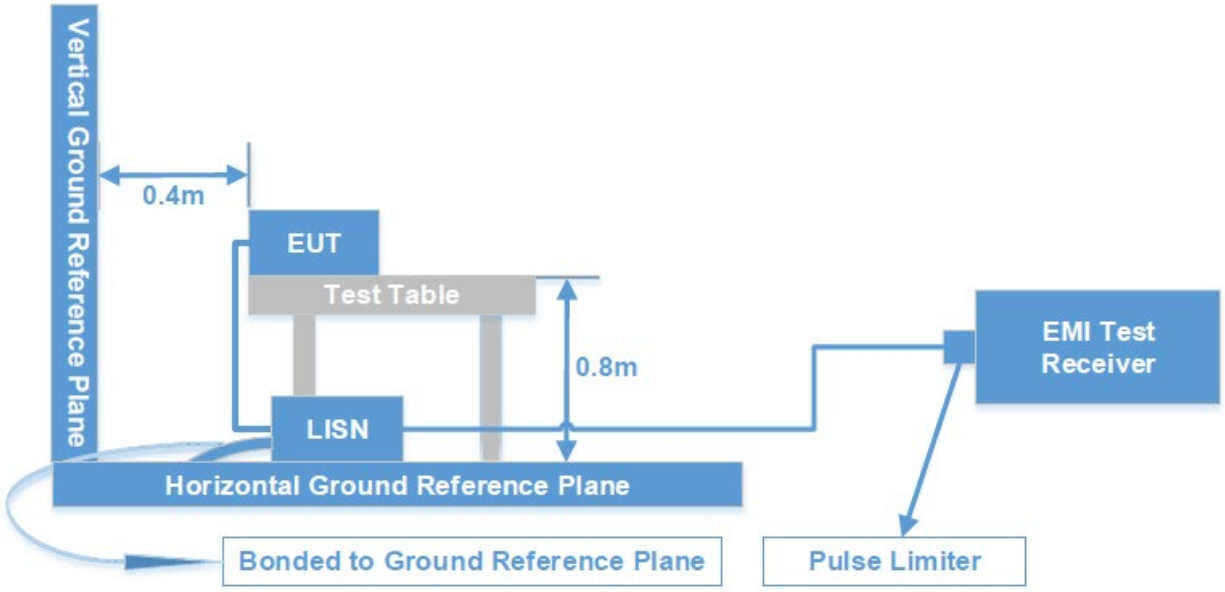
Result: The device meet FCC MPE at 20 cm distance.

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207(a)

Test System Setup



The measurement procedure of EUT setup is according with ANSI C63.10-2020 + Cor.1-2023. The related limit was specified in FCC Part 15.207.

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 C63.10-2020 + Cor.1-2023 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§15.205, §15.209&§15.249 - RADIATED EMISSIONS& OUT OF BAND EMISSION

Applicable Standard

As per FCC§15.249 (a), except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

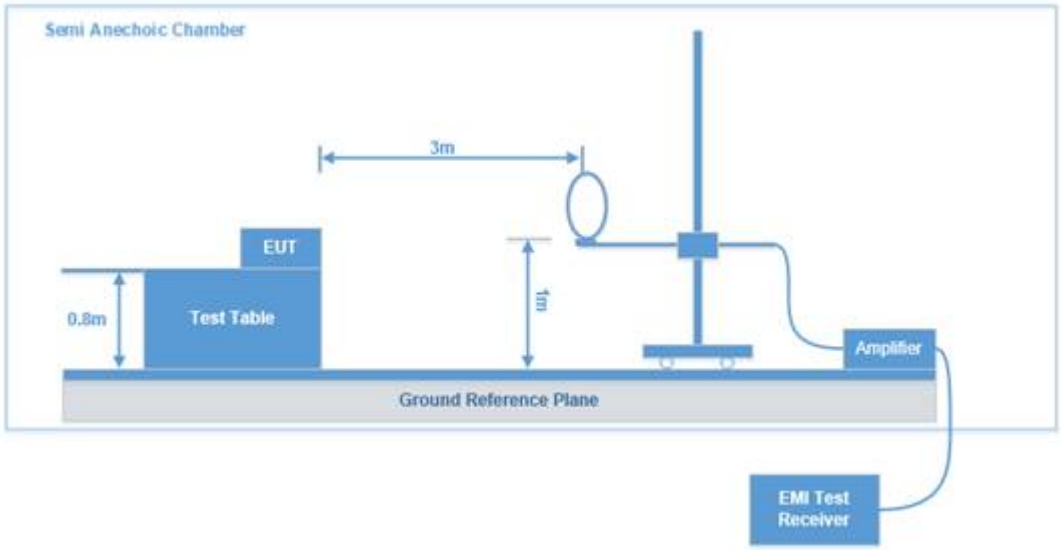
Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24GHz-24.25GHz	250	2500

As per FCC§15.249 (c), Field strength limits are specified at a distance of 3 meters.

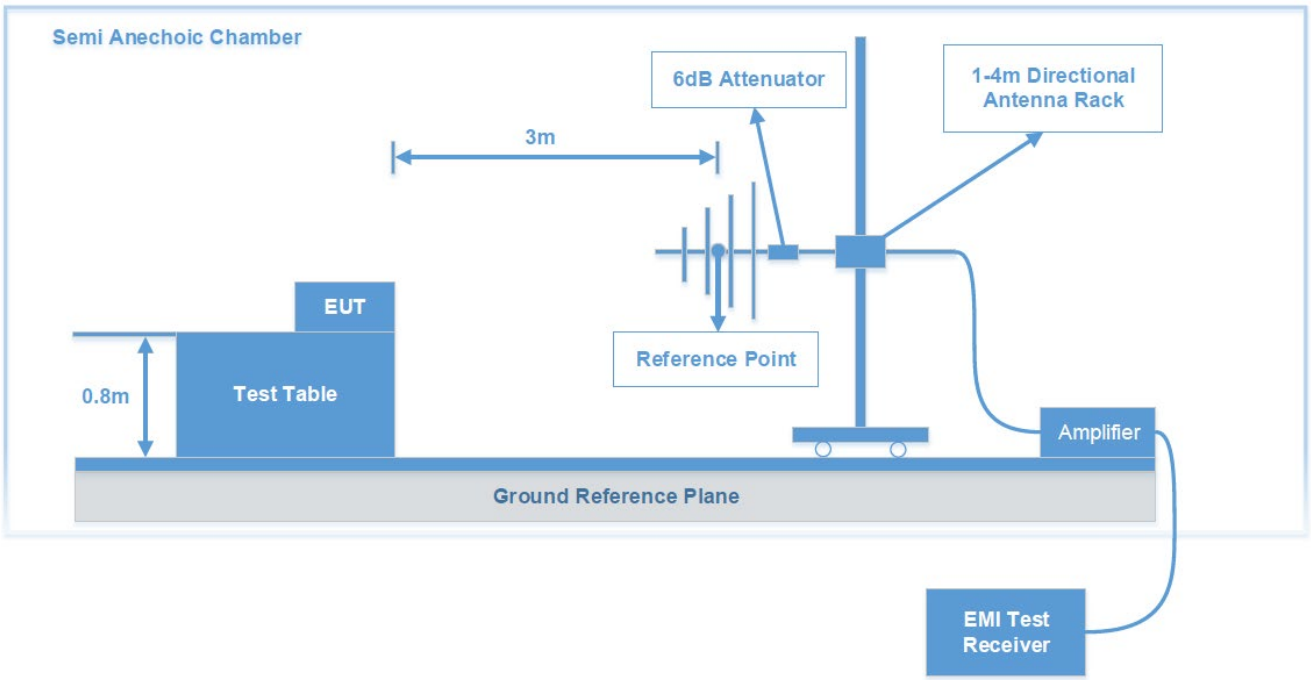
(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

Test System Setup

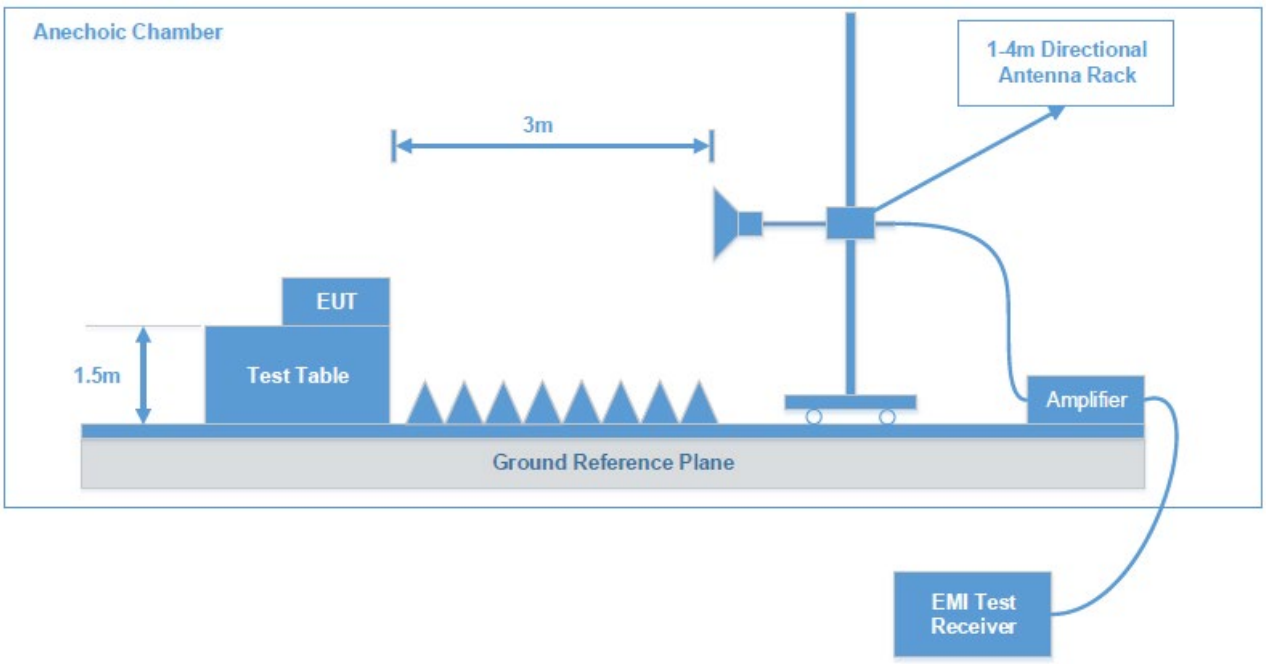
9 kHz - 30 MHz:



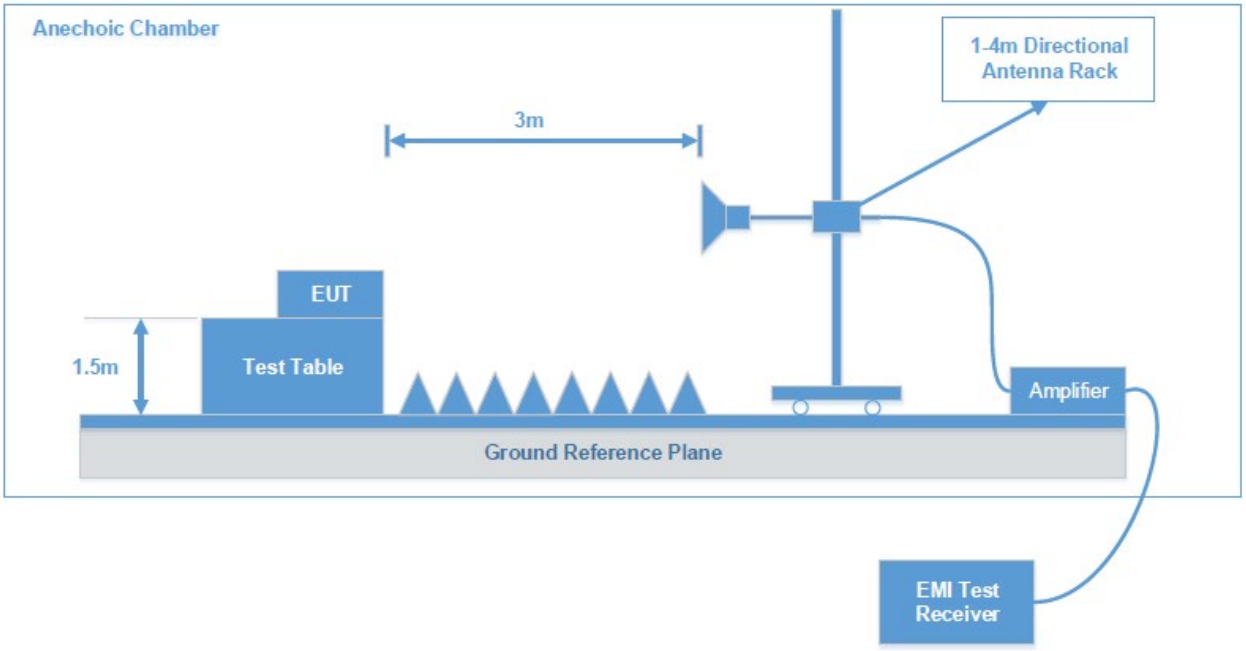
30 MHz - 1 GHz:



1 GHz-18GHz:



18-25GHz：



The radiated emission tests were performed in the 3 meters, using the setup accordance with the ANSI C63.10-2020 + Cor.1-2023. The specification used was the FCC 15.209/15.205 and FCC 15.249 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

Test Equipment Setup

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

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

Note: If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform a QP/Average measurement.

Test Procedure

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 (dBμV/m) = Meter Reading (dBμV) + Antenna Factor (dB/m) + Cable Loss (dB) - Amplifier Gain (dB)

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

The "**Margin/ Over Limit**" 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)
Over Limit (dB) = Level (dBμV/m) - Limit (dBμV/m)

Test Results Summary

According to the data in the following table, the EUT complied with the FCC Part 15.209 &15.205 & 15.249.

Test Data: See Appendix

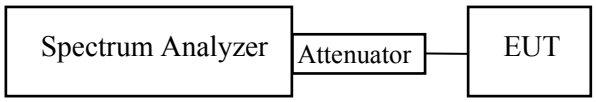
FCC §15.215(c) - 20 dB BANDWIDTH TESTING

Applicable Standard

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

Test Procedure

1. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
2. Repeat above procedures until all frequencies measured were complete.



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

Test Data: See Appendix

APPENDIX - TEST DATA

AC LINE CONDUCTED EMISSIONS

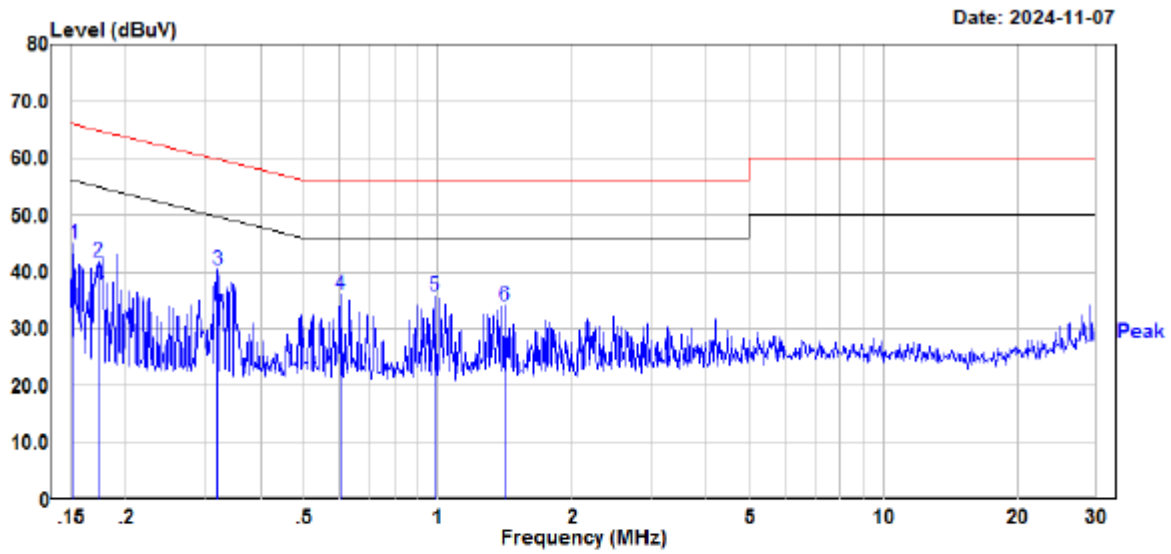
Environmental Conditions & Test Information

Test Date:	2024-11-07
Temperature:	19.8 ℃
Relative Humidity:	49 %
ATM Pressure:	103.1 kPa
Test Result:	Pass
Test Engineer:	Myles Miao

For SRD Mode:

EUT operation mode: Transmitting in maximum output power antenna 2 mode and high channel

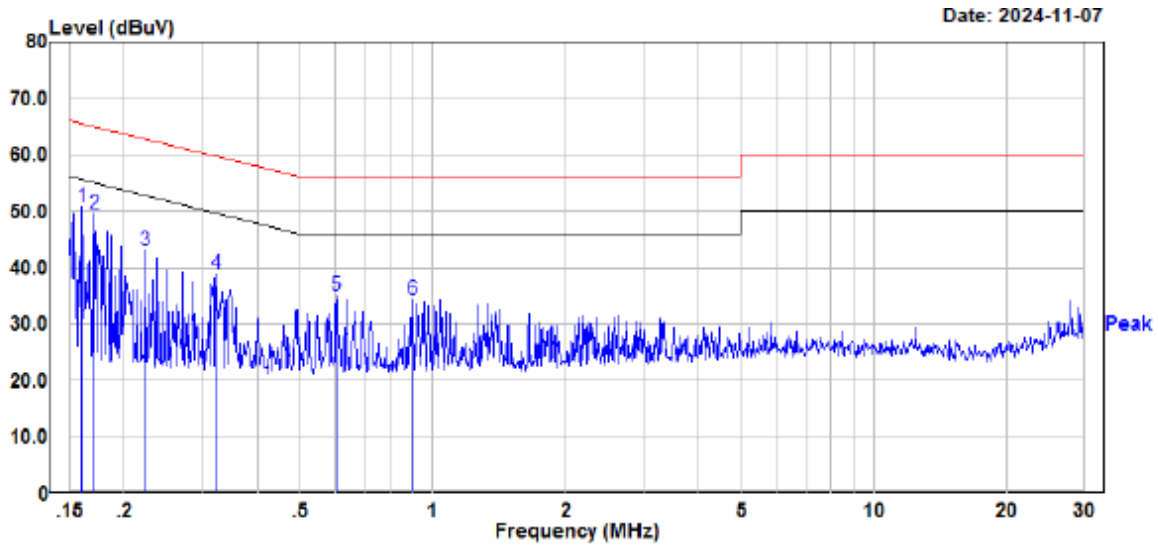
Line:




```
Site                : CE
Condition           : limit\FCC PART 15.207
                    : DET:Peak
Project No.         : RSHA241022001
Model               : AP2400S
Phase               : L
Voltage             : 120V/60Hz
Mode                : SRD
Test Equipment      : ENV216,ESR
Receiver Setting    : RBW: 9 kHz, Sweep Time: Auto
Temperature         : 19.8℃
Humidity            : 49%
Atmospheric pressure: 103.1kPa
Test Engineer       : Myles Miao
```

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.152	24.82	20.23	45.05	65.88	-20.83	Peak
2	0.172	21.58	20.22	41.80	64.84	-23.04	Peak
3	0.320	20.11	20.23	40.34	59.71	-19.37	Peak
4	0.606	15.72	20.24	35.96	56.00	-20.04	Peak
5	0.982	15.57	20.10	35.67	56.00	-20.33	Peak
6	1.413	14.01	20.12	34.13	56.00	-21.87	Peak

Neutral:




```
Site                : CE
Condition           : limit\FCC PART 15.207
                    : DET:Peak
Project No.         : RSHA241022001
Model               : AP2400S
Phase               : N
Voltage             : 120V/60Hz
Mode                : SRD
Test Equipment      : ENV216,ESR
Receiver Setting    : RBW: 9 kHz, Sweep Time: Auto
Temperature         : 19.8℃
Humidity            : 49%
Atmospheric pressure: 103.1kPa
Test Engineer       : Myles Miao
```

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.160	30.64	20.22	50.86	65.46	-14.60	Peak
2	0.171	29.28	20.22	49.50	64.92	-15.42	Peak
3	0.222	22.76	20.21	42.97	62.73	-19.76	Peak
4	0.322	18.71	20.23	38.94	59.67	-20.73	Peak
5	0.606	14.80	20.24	35.04	56.00	-20.96	Peak
6	0.898	14.21	20.15	34.36	56.00	-21.64	Peak

RADIATED EMISSIONS& OUT OF BAND EMISSION

Environmental Conditions & Test Information

Frequency range:	9 kHz – 30MHz	30MHz – 1 GHz	1 GHz – 18 GHz	18 GHz – 25 GHz
Test Date:	2025-01-06	2024-11-19	2025-09-10	2024-11-22
Temperature:	17.2 ℃	18.2 ℃	25.3 ℃	18.7 ℃
Relative Humidity:	49 %	55 %	54 %	51 %
ATM Pressure:	103.1 kPa	103.2 kPa	101.5 kPa	102.4 kPa
Test Result:	Pass	Pass	Pass	Pass
Test Engineer:	Jerry Yan	Jerry Yan	Destine Hu	Hugh Wu

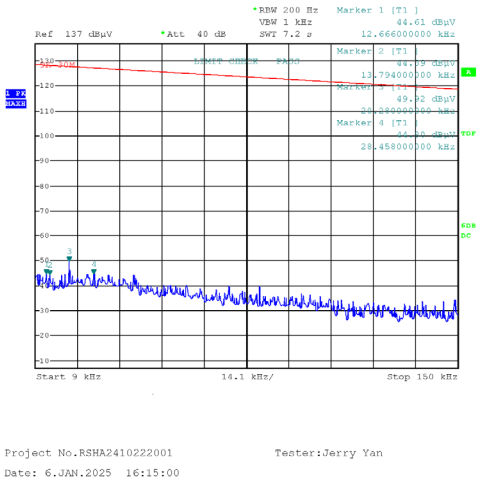
Test Result: Compliant.

Test mode: Transmitting

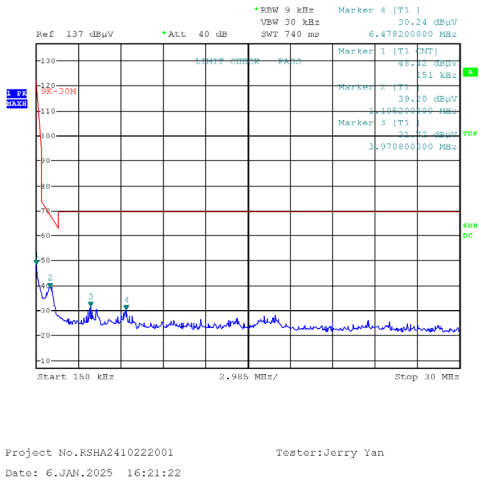
After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

9 kHz-30 MHz (Transmitting in maximum output power antenna 2 mode and high channel)
Parallel(worst case)

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



Project No.RSHA2410222001 Tester:Jerry Yan
Date: 6.JAN.2025 16:15:00



Project No.RSHA2410222001 Tester:Jerry Yan
Date: 6.JAN.2025 16:21:22

9kHz-150kHz

Frequency (MHz)	Corrected Amplitude (dBµV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
0.012666	44.61	PK	-0.52	125.55	80.94
0.013794	44.39	PK	-0.53	124.81	80.42
0.02028	49.92	PK	-0.56	121.46	71.54
0.028458	44.80	PK	-0.60	118.52	73.72

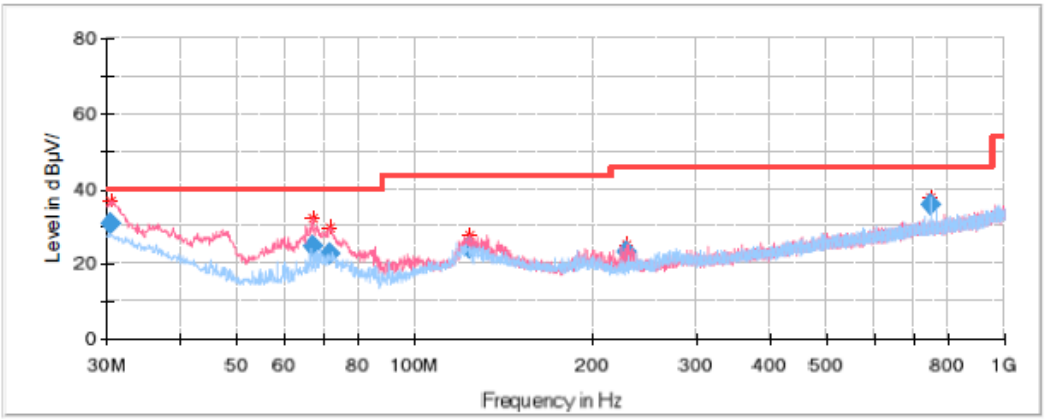
150kHz-30MHz

Frequency (MHz)	Corrected Amplitude (dBµV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
0.15100	48.42	PK	-11.38	104.03	55.61
1.10520	39.20	PK	-27.96	66.73	27.54
3.97080	31.72	PK	-31.90	69.54	37.82
6.47820	30.24	PK	-32.28	69.54	39.30

30MHz - 1GHz: (Transmitting in maximum output power antenna 2 mode)
Low Channel

Common Information

Project No:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting in SRD mode Low channel
Standard:	FCC Part 15.205 &FCC Part 15.209&FCC Part 15.249
Test Equipment:	ESCI, JB3, 310N
Temperature:	18.2℃
Humidity:	55%
Barometric Pressure:	103.2kPa
Test Engineer:	Jerry Yan
Test Date:	2024/11/19



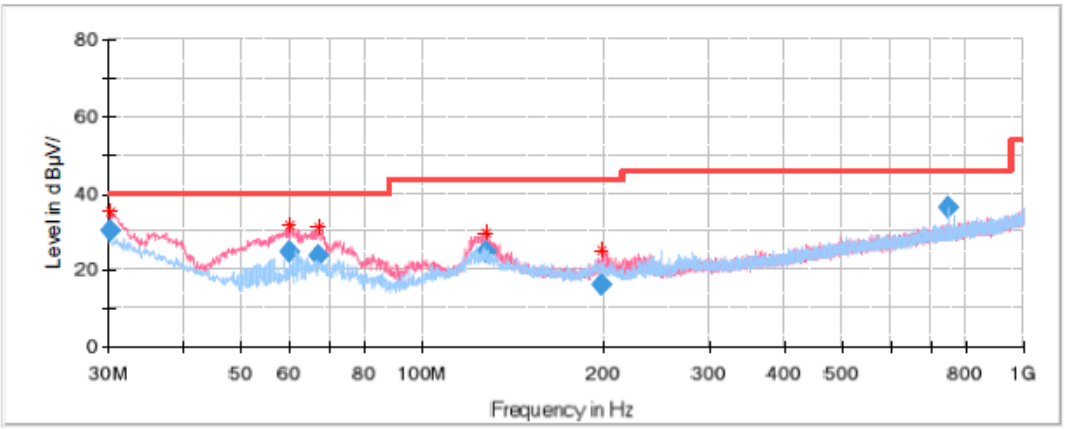
Final_Result

Frequency (MHz)	QuasiPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
30.458570	30.64	40.00	9.36	V	-5.1
66.879400	24.80	40.00	15.20	V	-16.7
71.589491	22.61	40.00	17.39	V	-16.7
123.720633	24.05	43.50	19.45	V	-10.9
228.840100	23.29	46.00	22.71	V	-12.9
750.005300	35.83	46.00	10.17	H	-1.5

Middle Channel

Common Information

Project No:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting in SRD mode middle channel
Standard:	FCC Part 15.205 &FCC Part 15.209&FCC Part 15.249
Test Equipment:	ESCI, JB3, 310N
Temperature:	18.2℃
Humidity:	55%
Barometric Pressure:	103.2kPa
Test Engineer:	Jerry Yan
Test Date:	2024/11/19



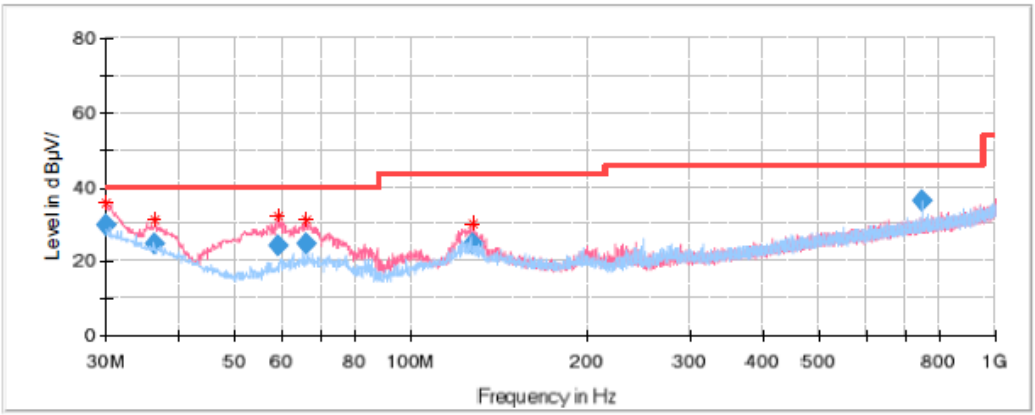
Final_Result

Frequency (MHz)	QuasiPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
30.240546	30.16	40.00	9.84	V	-4.8
60.196284	24.67	40.00	15.33	V	-17.0
67.236079	23.55	40.00	16.45	V	-16.7
127.665700	24.61	43.50	18.89	V	-11.0
198.209700	16.31	43.50	27.19	V	-12.1
750.002000	36.14	46.00	9.86	H	-1.5

High Channel

Common Information

Project No:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting in SRD mode high channel
Standard:	FCC Part 15.205 &FCC Part 15.209&FCC Part 15.249
Test Equipment:	ESCI, JB3, 310N
Temperature:	18.2℃
Humidity:	55%
Barometric Pressure:	103.2kPa
Test Engineer:	Jerry Yan
Test Date:	2024/11/19



Final_Result

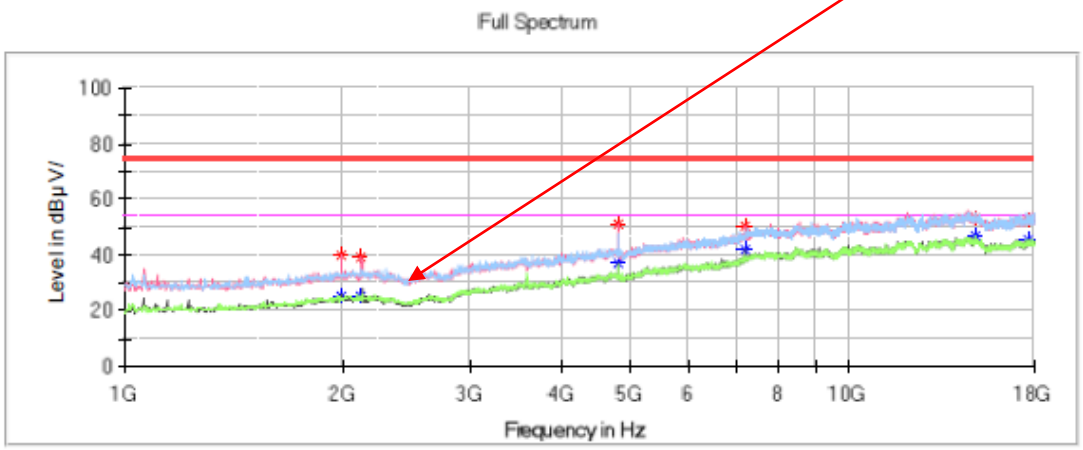
Frequency (MHz)	QuasiPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
30.000000	29.65	40.00	10.35	V	-4.9
36.422850	24.65	40.00	15.35	V	-8.7
59.054650	24.14	40.00	15.86	V	-17.1
66.048700	24.89	40.00	15.11	V	-16.7
127.606100	24.87	43.50	18.63	V	-11.0
749.995450	36.02	46.00	9.98	H	-1.5

Antenna 1
1 GHz - 18 GHz:
Low Channel

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10

Fundamental Test with Band Reject Filter



Critical_Freqs

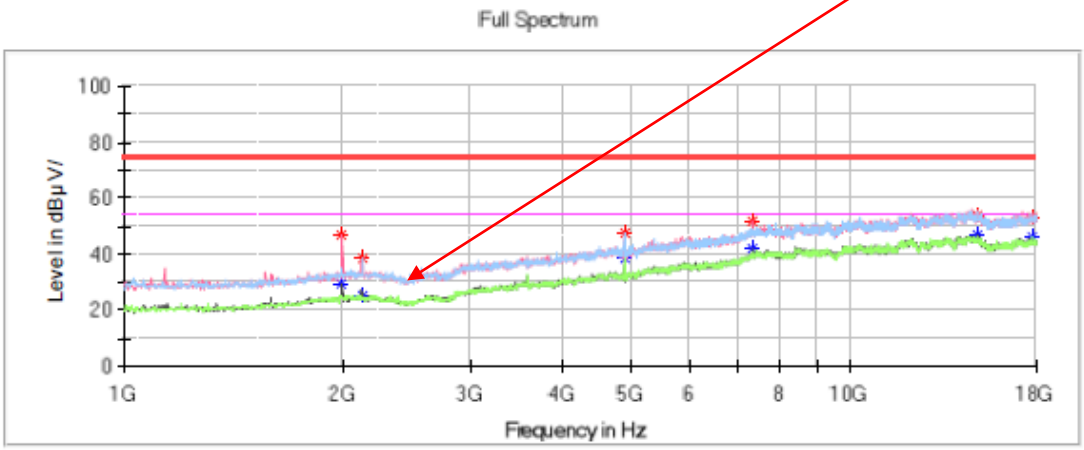
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1989.400000	---	24.98	54.00	29.02	V	-10.1
1989.400000	39.72	---	74.00	34.28	V	-10.1
2122.000000	38.83	---	74.00	35.17	V	-9.9
2122.000000	---	25.25	54.00	28.75	V	-9.9
4804.600000	---	37.13	54.00	16.87	V	-3.4
4804.600000	51.11	---	74.00	22.89	V	-3.4
7205.000000	50.56	---	74.00	23.44	V	2.1
7205.000000	---	42.12	54.00	11.88	V	2.1
14933.200000	53.29	---	74.00	20.71	H	10.5
14933.200000	---	46.75	54.00	7.25	H	10.5
17680.400000	---	45.45	54.00	8.55	V	10.9
17680.400000	52.62	---	74.00	21.38	V	10.9

Middle Channel

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10

Fundamental Test with Band Reject Filter



Critical_Freqs

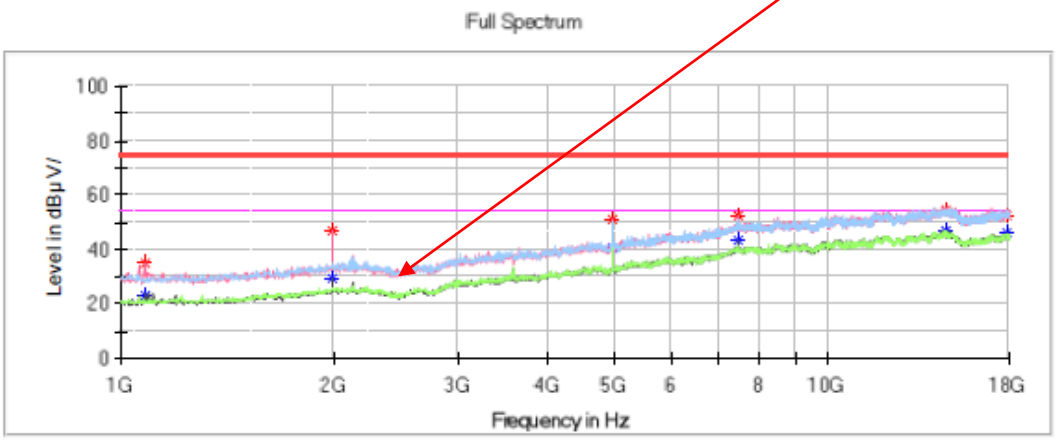
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1996.200000	46.84	---	74.00	27.16	V	-10.0
1996.200000	---	29.62	54.00	24.38	V	-10.0
2128.800000	---	25.23	54.00	28.77	H	-9.9
2128.800000	38.17	---	74.00	35.83	H	-9.9
4879.400000	47.82	---	74.00	26.18	V	-3.2
4879.400000	---	38.55	54.00	15.45	V	-3.2
7320.600000	51.67	---	74.00	22.33	V	2.4
7320.600000	---	41.71	54.00	12.29	V	2.4
14923.000000	---	46.74	54.00	7.26	V	10.5
14923.000000	53.82	---	74.00	20.18	V	10.5
17823.200000	---	46.01	54.00	7.99	H	11.3
17823.200000	52.83	---	74.00	21.17	H	11.3

High Channel

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10

Fundamental Test with Band Reject Filter



Critical_Freqs

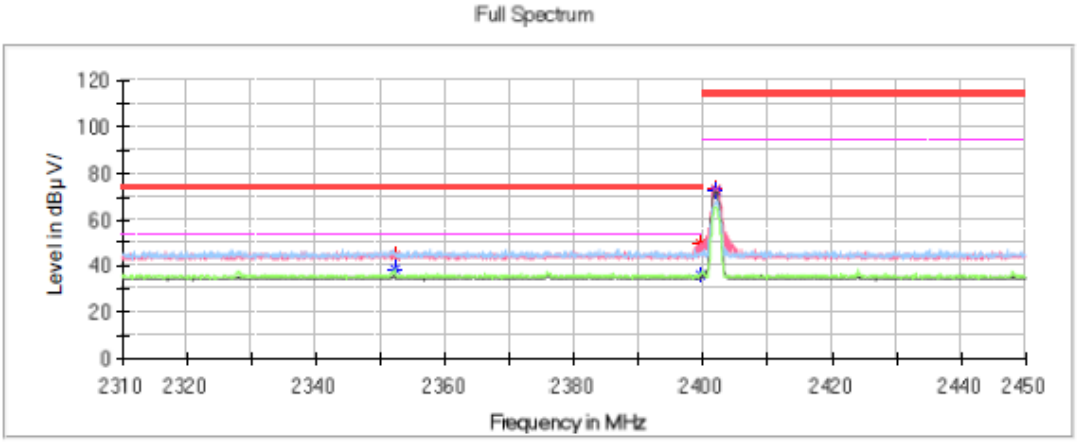
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1081.600000	34.69	---	74.00	39.31	V	-14.9
1081.600000	---	22.97	54.00	31.03	V	-14.9
1992.800000	47.14	---	74.00	26.86	V	-10.1
1992.800000	---	29.07	54.00	24.93	V	-10.1
4961.000000	50.77	---	74.00	23.23	H	-3.0
4961.000000	---	40.88	54.00	13.12	H	-3.0
7443.000000	52.74	---	74.00	21.26	V	2.8
7443.000000	---	43.52	54.00	10.48	V	2.8
14627.200000	54.78	---	74.00	19.22	H	11.5
14627.200000	---	47.06	54.00	6.94	H	11.5
17887.800000	---	45.96	54.00	8.04	V	11.5
17887.800000	52.69	---	74.00	21.31	V	11.5

Fundamental and Band edge:

Low Channel: 2402MHz

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10



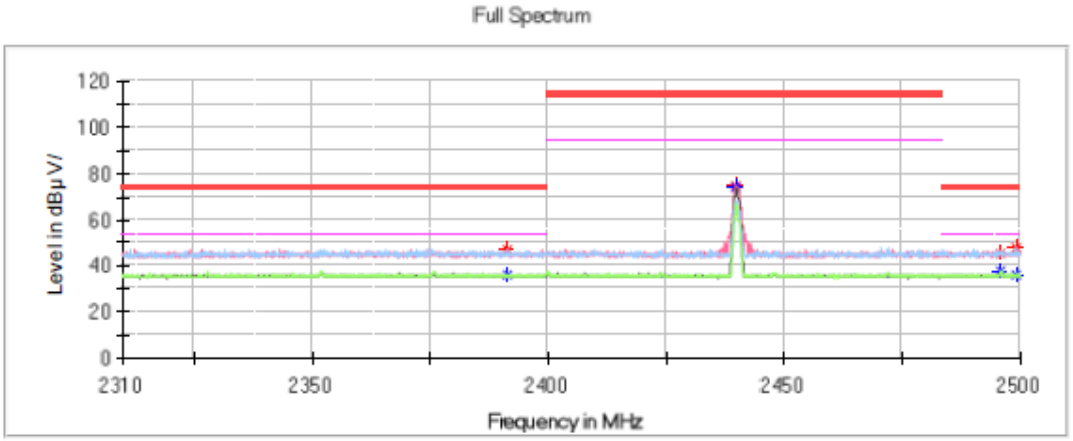
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2352.168000	44.50	---	74.00	29.50	H	0.2
2352.168000	---	38.48	54.00	15.52	H	0.2
2399.656000	49.72	---	74.00	24.28	V	0.3
2399.656000	---	36.10	54.00	17.90	V	0.3
2402.120000	---	72.31	94.00	21.69	V	0.3
2402.120000	73.09	---	114.00	40.91	V	0.3

Middle Channel: 2440MHz

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10



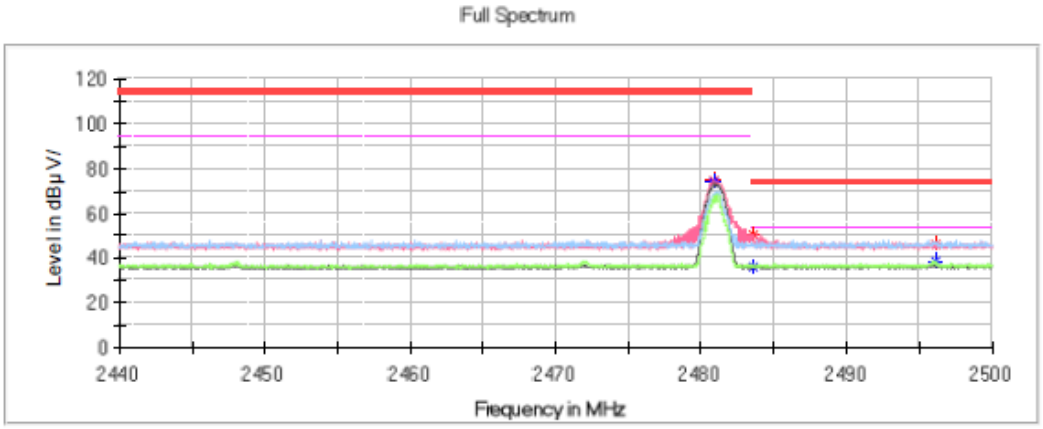
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2391.548000	---	36.46	54.00	17.54	H	0.2
2391.548000	47.02	---	74.00	26.98	H	0.2
2439.960000	---	73.64	94.00	20.36	V	0.3
2439.960000	74.41	---	114.00	39.59	V	0.3
2495.896000	45.43	---	74.00	28.57	V	0.4
2495.896000	---	37.75	54.00	16.25	V	0.4
2499.012000	47.47	---	74.00	26.53	H	0.4
2499.012000	---	35.77	54.00	18.23	H	0.4

High Channel: 2481MHz

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10



Critical_Freqs

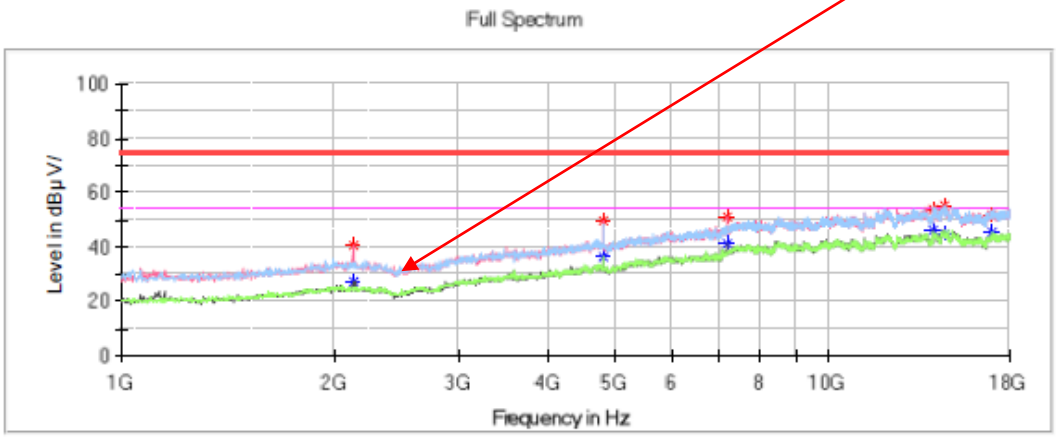
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2480.896000	74.43	---	114.00	39.57	V	0.4
2480.896000	---	73.53	94.00	20.47	V	0.4
2483.536000	---	36.13	54.00	17.87	H	0.4
2483.536000	50.72	---	74.00	23.28	H	0.4
2496.064000	---	38.47	54.00	15.53	H	0.4
2496.064000	46.10	---	74.00	27.90	H	0.4

Antenna 2
1 GHz - 18 GHz:
Low Channel

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10

Fundamental Test with Band Reject



Critical_Freqs

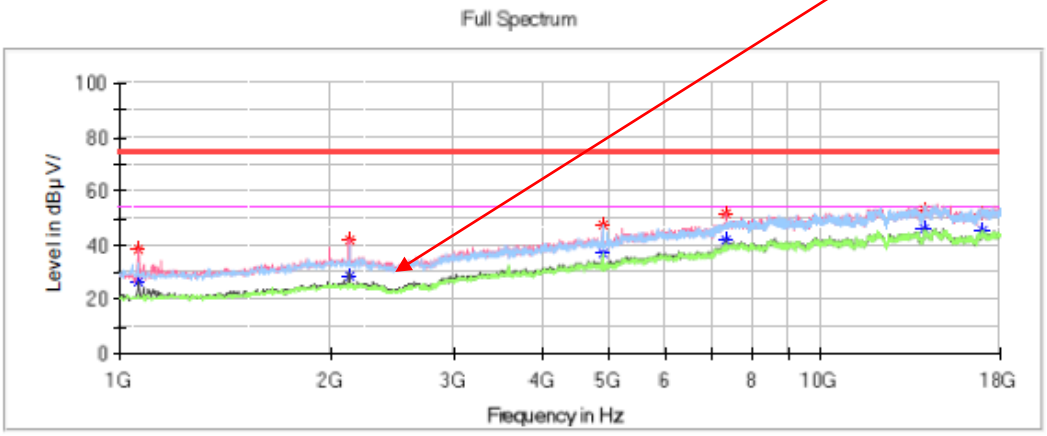
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2125.400000	---	27.23	54.00	26.77	V	-9.9
2125.400000	40.78	---	74.00	33.22	V	-9.9
4804.600000	---	36.66	54.00	17.34	V	-3.4
4804.600000	49.39	---	74.00	24.61	V	-3.4
7205.000000	---	41.24	54.00	12.76	V	2.1
7205.000000	51.36	---	74.00	22.64	V	2.1
14052.600000	---	46.18	54.00	7.82	H	11.2
14052.600000	53.63	---	74.00	20.37	H	11.2
14559.200000	---	44.87	54.00	9.13	V	11.8
14559.200000	54.94	---	74.00	19.06	V	11.8
17007.200000	51.70	---	74.00	22.30	H	11.0
17007.200000	---	45.56	54.00	8.44	H	11.0

Middle Channel

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10

Fundamental Test with Band Reject Filter



Critical_Freqs

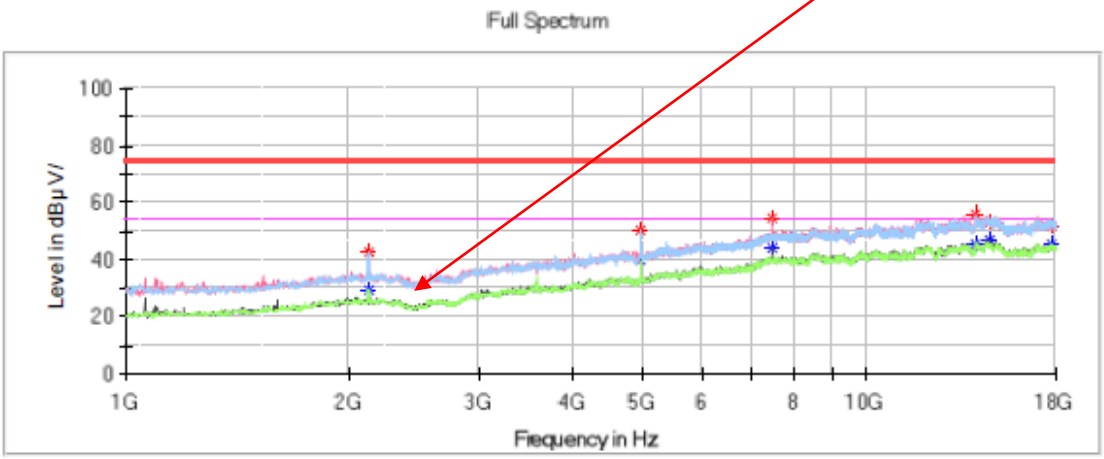
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1064.600000	---	26.64	54.00	27.36	V	-15.0
1064.600000	38.23	---	74.00	35.77	V	-15.0
2125.400000	---	28.71	54.00	25.29	V	-9.9
2125.400000	41.93	---	74.00	32.07	V	-9.9
4879.400000	---	37.17	54.00	16.83	H	-3.2
4879.400000	47.76	---	74.00	26.24	H	-3.2
7320.600000	---	41.62	54.00	12.38	V	2.4
7320.600000	51.46	---	74.00	22.54	V	2.4
14018.600000	53.10	---	74.00	20.90	V	11.1
14018.600000	---	46.08	54.00	7.92	V	11.1
17007.200000	---	45.61	54.00	8.39	H	11.0
17007.200000	52.03	---	74.00	21.97	H	11.0

High Channel

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10

Fundamental Test with Band Reject Filter



Critical_Freqs

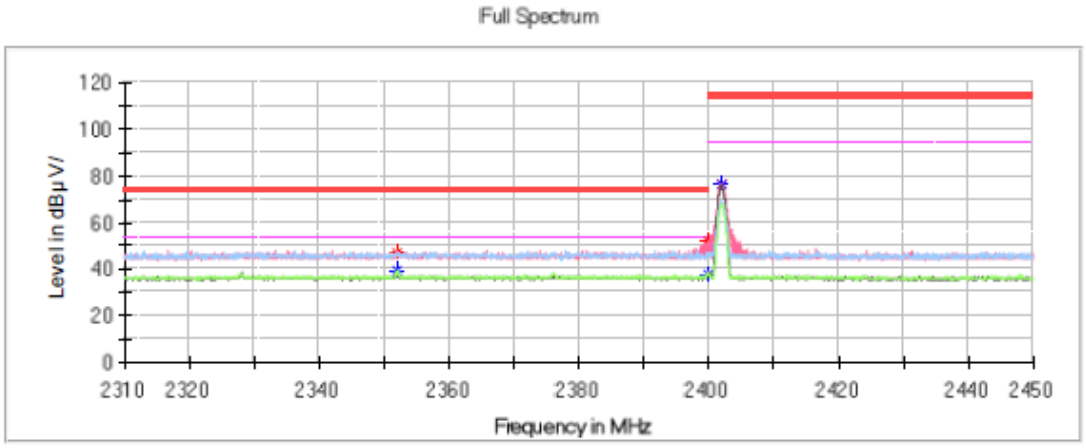
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2125.400000	---	29.48	54.00	24.52	H	-9.9
2125.400000	42.34	---	74.00	31.66	H	-9.9
4961.000000	---	39.96	54.00	14.04	V	-3.0
4961.000000	50.69	---	74.00	23.31	V	-3.0
7443.000000	---	43.93	54.00	10.07	V	2.8
7443.000000	54.39	---	74.00	19.61	V	2.8
14052.600000	55.87	---	74.00	18.13	H	11.2
14052.600000	---	45.73	54.00	8.27	H	11.2
14634.000000	53.25	---	74.00	20.75	V	11.5
14634.000000	---	46.64	54.00	7.36	V	11.5
17809.600000	51.54	---	74.00	22.46	H	11.3
17809.600000	---	45.22	54.00	8.78	H	11.3

Fundamental and Band edge:

Low Channel: 2402MHz

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10



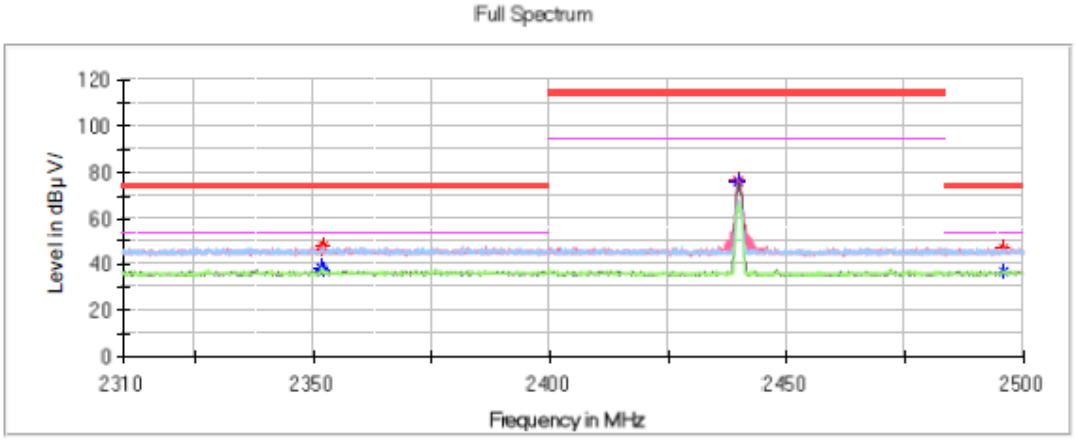
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2352.056000	46.85	---	74.00	27.15	V	0.2
2352.056000	---	39.22	54.00	14.78	V	0.2
2399.768000	52.29	---	74.00	21.71	H	0.3
2399.768000	---	37.40	54.00	16.60	H	0.3
2401.952000	---	76.00	94.00	18.00	V	0.3
2401.952000	76.38	---	114.00	37.62	V	0.3

Middle Channel: 2440MHz

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10



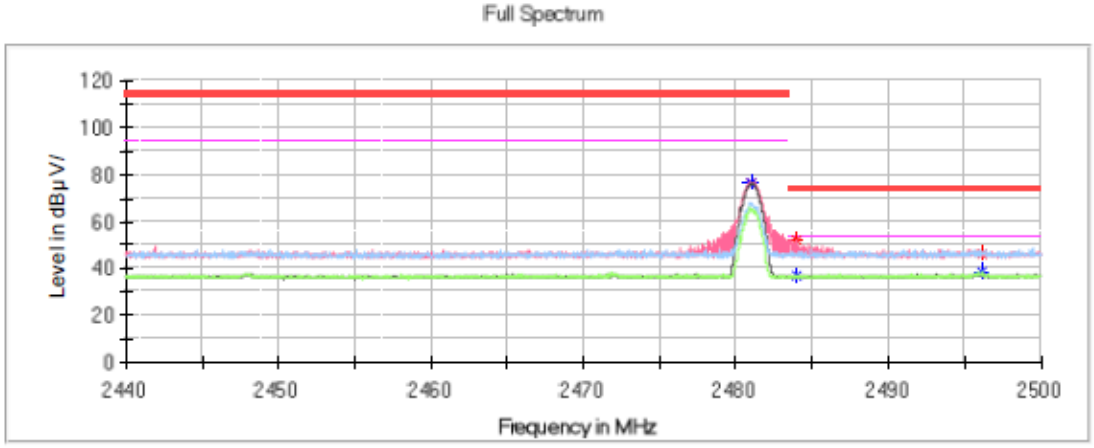
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2351.952000	---	38.21	54.00	15.79	H	0.2
2351.952000	46.16	---	74.00	27.84	H	0.2
2352.104000	---	37.98	54.00	16.02	H	0.2
2352.104000	48.13	---	74.00	25.87	H	0.2
2439.884000	---	75.57	94.00	18.43	V	0.3
2439.884000	76.20	---	114.00	37.80	V	0.3
2495.744000	---	36.97	54.00	17.03	H	0.4
2495.744000	47.32	---	74.00	26.68	H	0.4

High Channel: 2481MHz

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10



Critical_Freqs

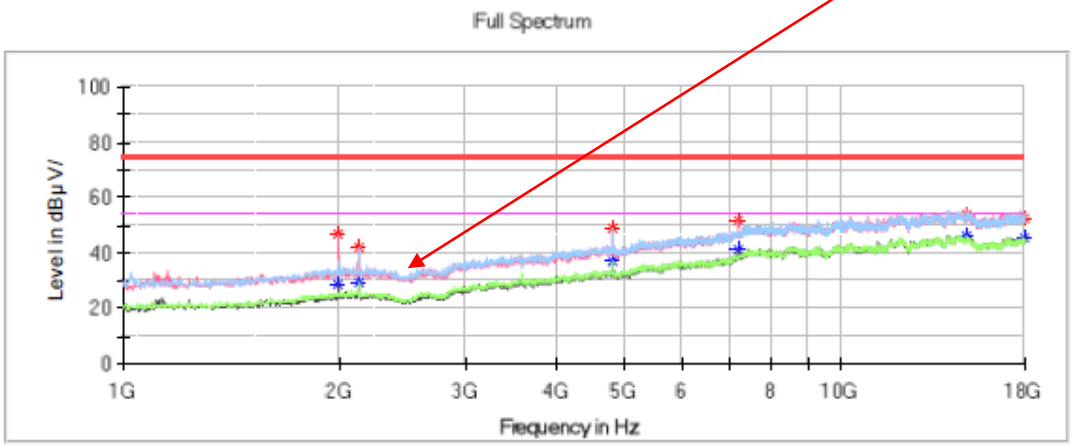
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2480.944000	---	76.10	94.00	17.90	V	0.4
2480.944000	76.55	---	114.00	37.45	V	0.4
2483.920000	---	36.80	54.00	17.20	H	0.4
2483.920000	52.12	---	74.00	21.88	H	0.4
2496.112000	---	38.30	54.00	15.70	H	0.4
2496.112000	46.23	---	74.00	27.77	H	0.4

Antenna 3
1 GHz - 18 GHz:
Low Channel

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10

Fundamental Test with Band Reject Filter



Critical_Freqs

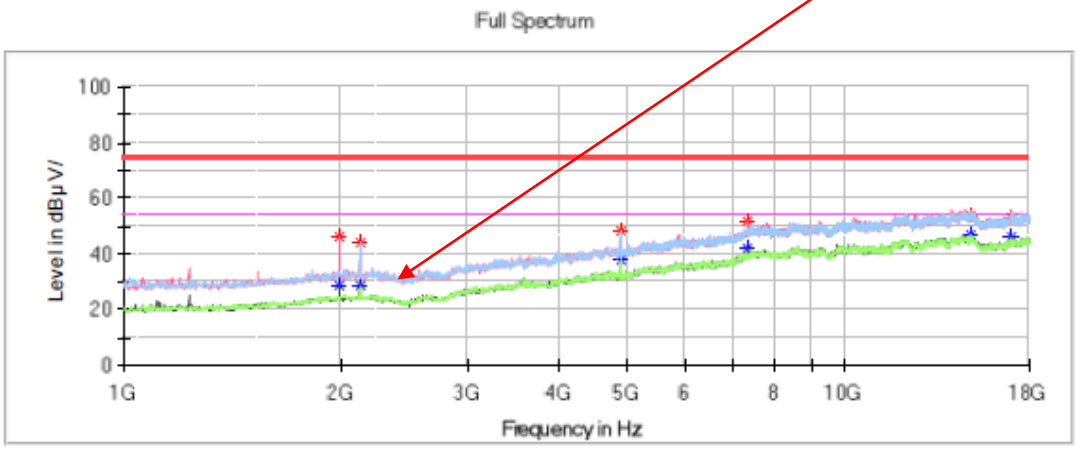
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1992.800000	46.64	---	74.00	27.36	V	-10.1
1992.800000	---	28.88	54.00	25.12	V	-10.1
2132.200000	42.01	---	74.00	31.99	H	-9.9
2132.200000	---	29.19	54.00	24.81	H	-9.9
4804.600000	48.96	---	74.00	25.04	H	-3.4
4804.600000	---	36.96	54.00	17.04	H	-3.4
7205.000000	---	41.37	54.00	12.63	V	2.1
7205.000000	51.43	---	74.00	22.57	V	2.1
14946.800000	54.11	---	74.00	19.89	V	10.5
14946.800000	---	46.46	54.00	7.54	V	10.5
17989.800000	---	45.45	54.00	8.55	V	11.7
17989.800000	52.10	---	74.00	21.90	V	11.7

Middle Channel

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10

Fundamental Test with Band Reject Filter



Critical_Freqs

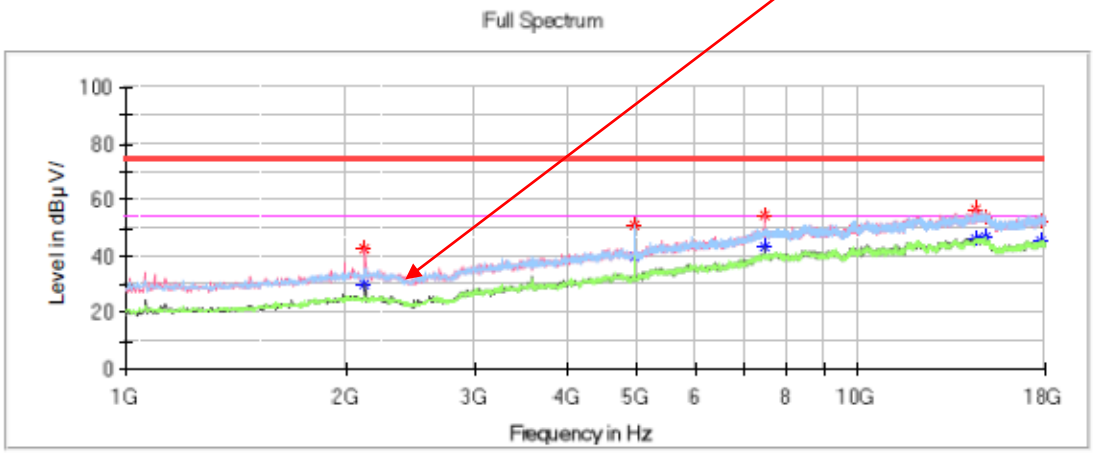
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1992.800000	45.91	---	74.00	28.09	V	-10.1
1992.800000	---	28.54	54.00	25.46	V	-10.1
2125.400000	43.81	---	74.00	30.19	H	-9.9
2125.400000	---	28.49	54.00	25.51	H	-9.9
4879.400000	48.55	---	74.00	25.45	H	-3.2
4879.400000	---	37.59	54.00	16.41	H	-3.2
7320.600000	---	41.90	54.00	12.10	V	2.4
7320.600000	51.64	---	74.00	22.36	V	2.4
14936.600000	53.79	---	74.00	20.21	V	10.5
14936.600000	---	47.04	54.00	6.96	V	10.5
17051.400000	---	45.96	54.00	8.04	H	10.9
17051.400000	53.47	---	74.00	20.53	H	10.9

High Channel

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10

Fundamental Test with Band Reject Filter



Critical_Freqs

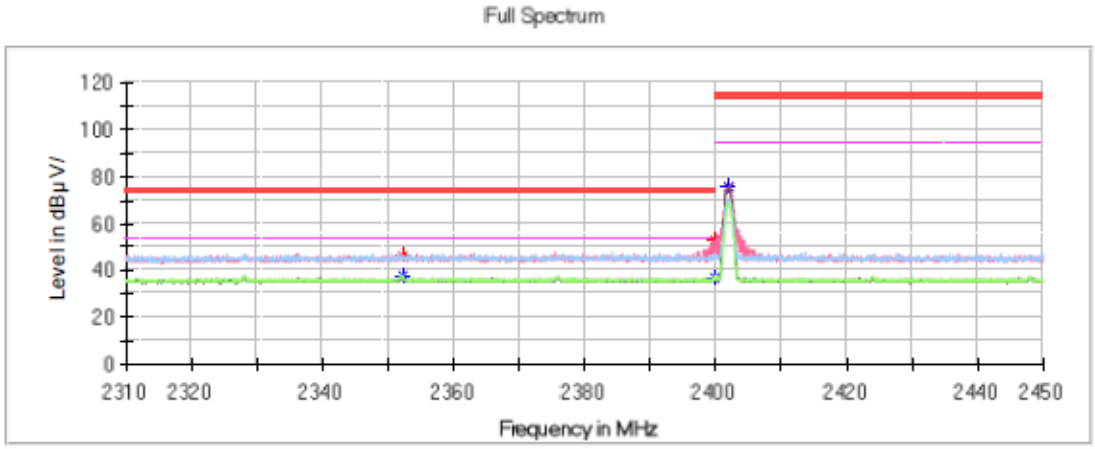
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2122.000000	---	30.22	54.00	23.78	V	-9.9
2122.000000	42.38	---	74.00	31.62	V	-9.9
4961.000000	---	40.09	54.00	13.91	H	-3.0
4961.000000	50.75	---	74.00	23.25	H	-3.0
7443.000000	---	43.29	54.00	10.71	V	2.8
7443.000000	54.29	---	74.00	19.71	V	2.8
14484.400000	---	46.34	54.00	7.66	H	11.9
14484.400000	56.58	---	74.00	17.42	H	11.9
14940.000000	---	46.51	54.00	7.49	H	10.5
14940.000000	54.06	---	74.00	19.94	H	10.5
17819.800000	52.52	---	74.00	21.48	V	11.3
17819.800000	---	45.49	54.00	8.51	V	11.3

Fundamental and Band edge:

Low Channel: 2402MHz

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10



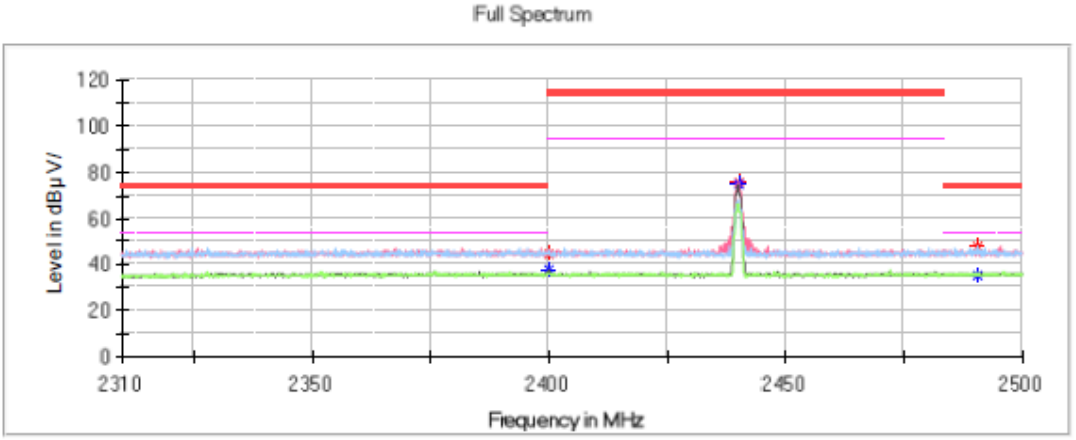
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2352.112000	45.83	---	74.00	28.17	H	0.2
2352.112000	---	38.18	54.00	15.82	H	0.2
2399.768000	53.08	---	74.00	20.92	V	0.3
2399.768000	---	36.71	54.00	17.29	V	0.3
2401.952000	---	75.24	94.00	18.76	V	0.3
2401.952000	75.84	---	114.00	38.16	V	0.3

Middle Channel: 2440MHz

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10



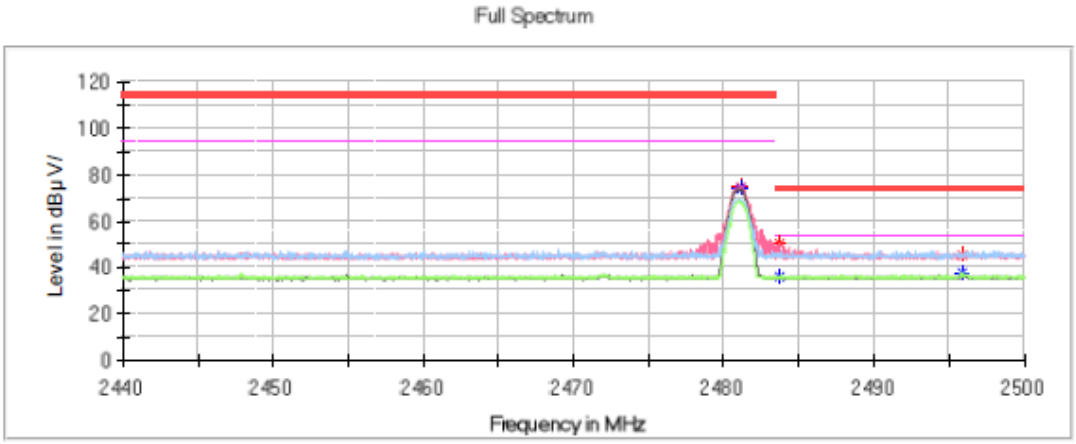
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2399.984000	---	37.38	54.00	16.62	V	0.3
2399.984000	44.89	---	74.00	29.11	V	0.3
2440.112000	75.27	---	114.00	38.73	V	0.3
2440.112000	---	74.56	94.00	19.44	V	0.3
2490.424000	---	35.30	54.00	18.70	H	0.4
2490.424000	47.82	---	74.00	26.18	H	0.4

High Channel: 2481MHz

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10



Critical_Freqs

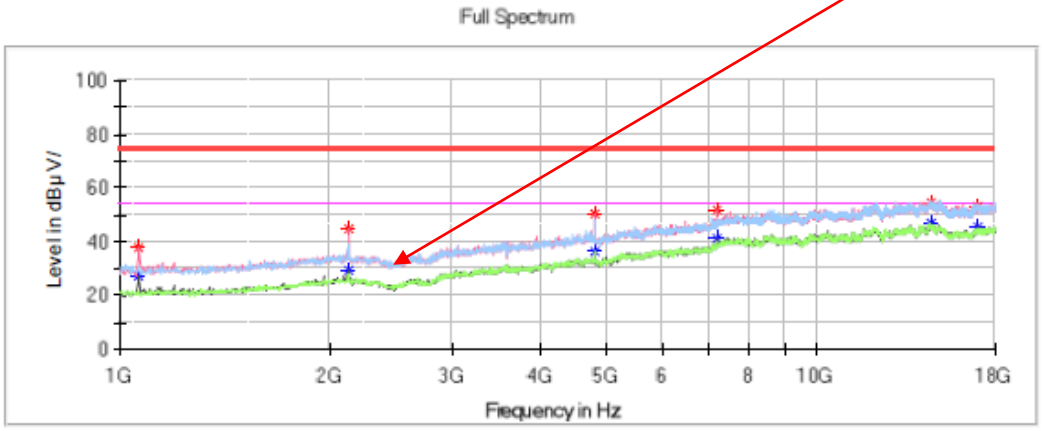
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2481.088000	---	73.89	94.00	20.11	V	0.4
2481.088000	74.44	---	114.00	39.56	V	0.4
2483.728000	50.45	---	74.00	23.55	V	0.4
2483.728000	---	35.72	54.00	18.28	V	0.4
2495.896000	45.21	---	74.00	28.79	H	0.4
2495.896000	---	37.55	54.00	16.45	H	0.4

Antenna 4
1 GHz - 18 GHz:
Low Channel

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10

Fundamental Test with Band Reject Filter



Critical_Freqs

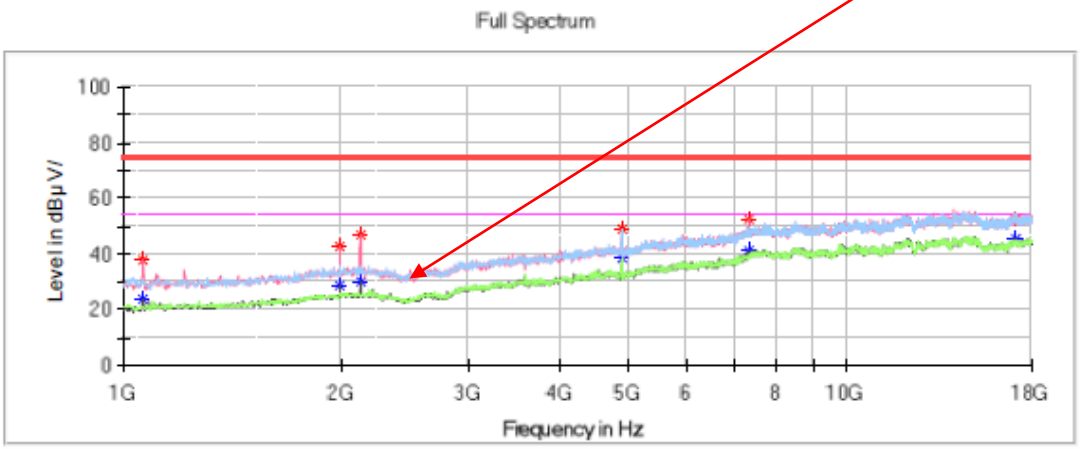
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1064.600000	37.44	---	74.00	36.56	V	-15.0
1064.600000	---	27.51	54.00	26.49	V	-15.0
2128.800000	44.46	---	74.00	29.54	V	-9.9
2128.800000	---	29.26	54.00	24.74	V	-9.9
4804.600000	50.38	---	74.00	23.62	H	-3.4
4804.600000	---	36.59	54.00	17.41	H	-3.4
7205.000000	51.70	---	74.00	22.30	V	2.1
7205.000000	---	41.29	54.00	12.71	V	2.1
14559.200000	54.23	---	74.00	19.77	H	11.8
14559.200000	---	46.84	54.00	7.16	H	11.8
16976.600000	---	45.69	54.00	8.31	V	10.9
16976.600000	53.01	---	74.00	20.99	V	10.9

Middle Channel

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10

Fundamental Test with Band Reject Filter



Critical_Freqs

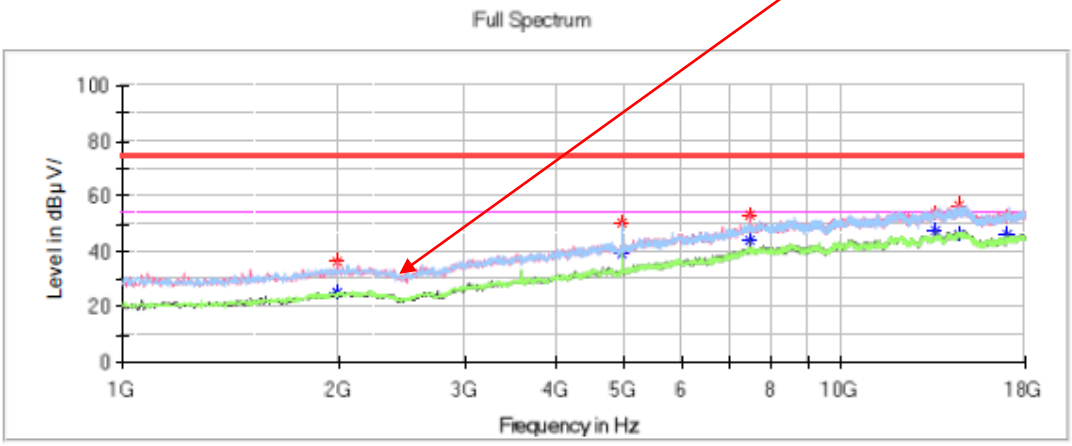
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1064.600000	---	24.08	54.00	29.92	V	-15.0
1064.600000	38.02	---	74.00	35.98	V	-15.0
1989.400000	42.85	---	74.00	31.15	V	-10.1
1989.400000	---	28.34	54.00	25.66	V	-10.1
2125.400000	46.88	---	74.00	27.12	V	-9.9
2125.400000	---	30.36	54.00	23.64	V	-9.9
4879.400000	48.87	---	74.00	25.13	H	-3.2
4879.400000	---	38.67	54.00	15.33	H	-3.2
7320.600000	52.23	---	74.00	21.77	V	2.4
7320.600000	---	41.31	54.00	12.69	V	2.4
17136.400000	52.43	---	74.00	21.57	V	10.8
17136.400000	---	45.40	54.00	8.60	V	10.8

High Channel

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10

Fundamental Test with Band Reject Filter



Critical_Freqs

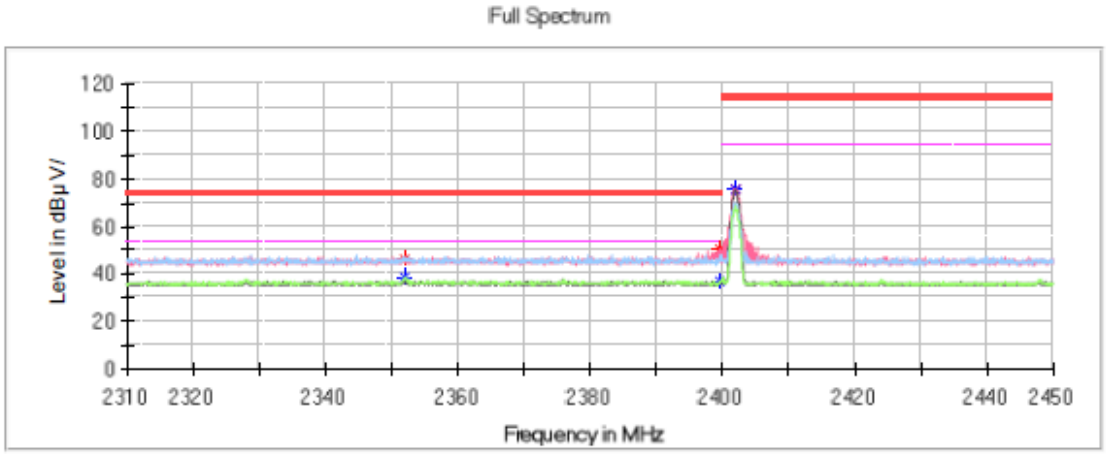
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1996.200000	---	25.26	54.00	28.74	V	-10.0
1996.200000	36.48	---	74.00	37.52	V	-10.0
4961.000000	---	39.50	54.00	14.50	H	-3.0
4961.000000	50.29	---	74.00	23.71	H	-3.0
7443.000000	---	44.05	54.00	9.95	V	2.8
7443.000000	53.41	---	74.00	20.59	V	2.8
13563.000000	---	47.30	54.00	6.70	V	10.1
13563.000000	53.82	---	74.00	20.18	V	10.1
14596.600000	---	46.05	54.00	7.95	V	11.6
14596.600000	56.66	---	74.00	17.34	V	11.6
17037.800000	52.53	---	74.00	21.47	V	10.9
17037.800000	---	46.09	54.00	7.91	V	10.9

Fundamental and Band edge:

Low Channel: 2402MHz

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10



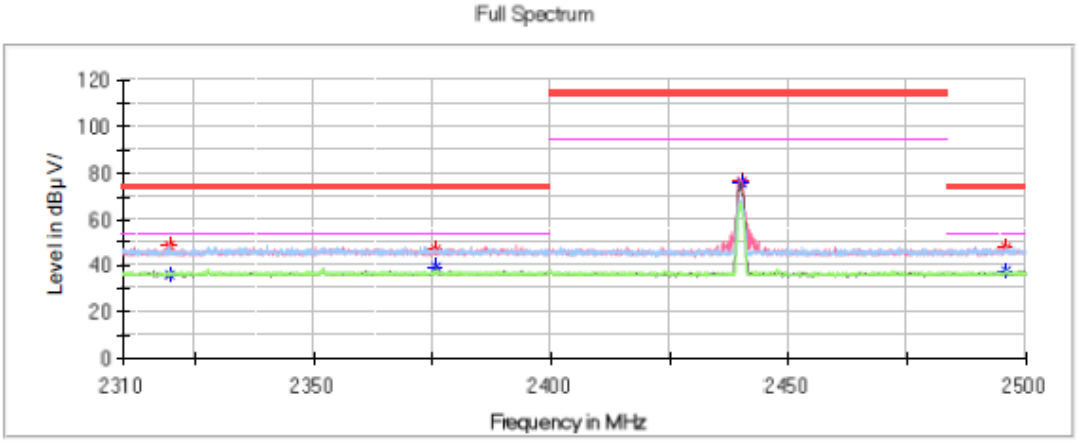
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2352.056000	45.98	---	74.00	28.02	V	0.2
2352.056000	---	38.20	54.00	15.80	V	0.2
2399.712000	50.13	---	74.00	23.87	H	0.3
2399.712000	---	37.15	54.00	16.85	H	0.3
2401.952000	---	75.22	94.00	18.78	V	0.3
2401.952000	75.84	---	114.00	38.16	V	0.3

Middle Channel: 2440MHz

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10



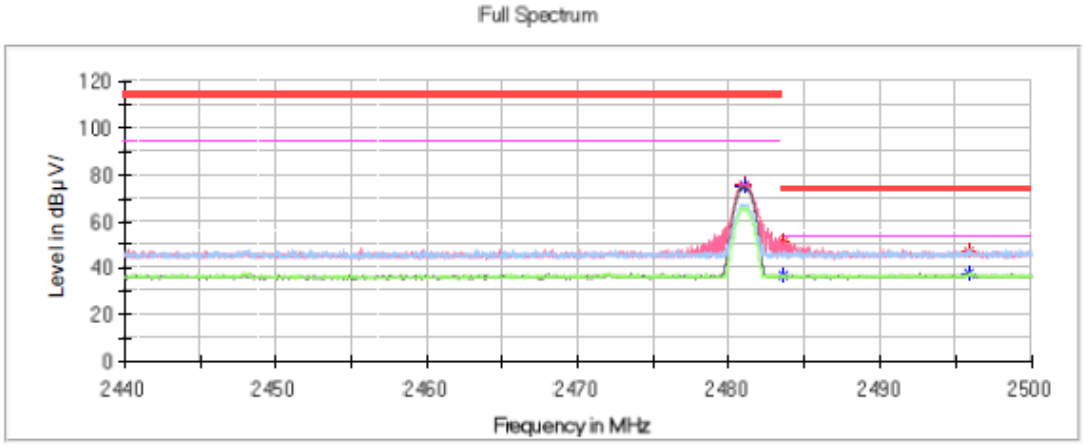
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2319.652000	---	36.23	54.00	17.77	H	0.1
2319.652000	48.32	---	74.00	25.68	H	0.1
2376.044000	---	39.12	54.00	14.88	V	0.2
2376.044000	47.10	---	74.00	26.90	V	0.2
2440.036000	75.98	---	114.00	38.02	V	0.3
2440.036000	---	75.64	94.00	18.36	V	0.3
2496.048000	---	37.69	54.00	16.31	H	0.4
2496.048000	48.16	---	74.00	25.84	H	0.4

High Channel: 2481MHz

Common Information

Project No.:	RSHA241022001
EUT Model:	AP2400S
Test Mode:	Transmitting
Standard:	FCC Part 15.249& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	25.3℃
Humidity:	54%
Atmospheric Pressure:	101.5kPa
Test Engineer:	Destine Hu
Test Date:	2025/9/10

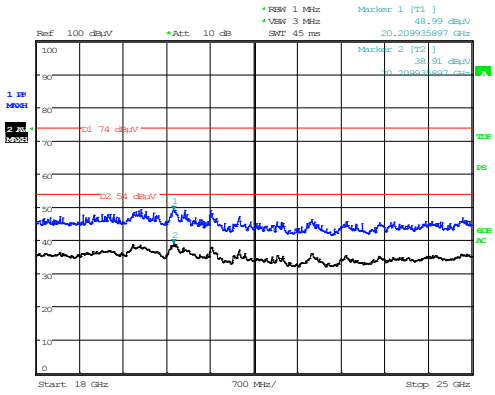


Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2481.016000	---	75.02	94.00	18.98	V	0.4
2481.016000	75.53	---	114.00	38.47	V	0.4
2483.560000	51.12	---	74.00	22.88	V	0.4
2483.560000	---	37.16	54.00	16.84	V	0.4
2495.848000	47.30	---	74.00	26.70	H	0.4
2495.848000	---	37.88	54.00	16.12	H	0.4

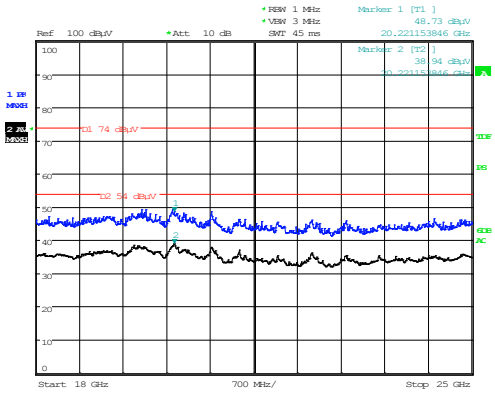
18GHz-25GHz: (Transmitting in maximum output power antenna 2 mode and high channel)

Horizontal



Project No :RSHA241022001 Tester :Hugh Wu
Date: 22.NOV.2024 16:09:58

Vertical



Project No :RSHA241022001 Tester :Hugh Wu
Date: 22.NOV.2024 16:42:41

Frequency (GHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
20.21	---	38.91	54	15.09	H	12.47
20.21	48.99	---	74	25.01	H	12.47
20.22	---	38.94	54	15.06	V	12.48
20.22	48.73	---	74	25.27	V	12.48

20 dB BANDWIDTH TESTING

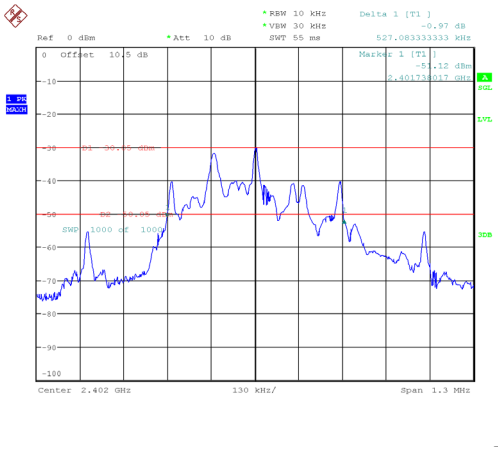
Environmental Conditions & Test Information

Test Date:	2024-12-13 to 2025-08-07
Temperature:	24-26 ℃
Relative Humidity:	58-60 %
ATM Pressure:	100.2-101.5 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

Test Mode: Transmitting
Antenna 1

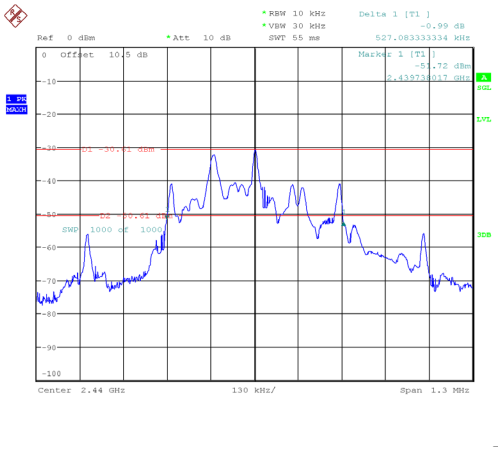
Channel	Frequency (MHz)	20 dB Bandwidth (kHz)
Low	2402	527.083
Middle	2440	527.083
High	2481	527.083

Low Channel



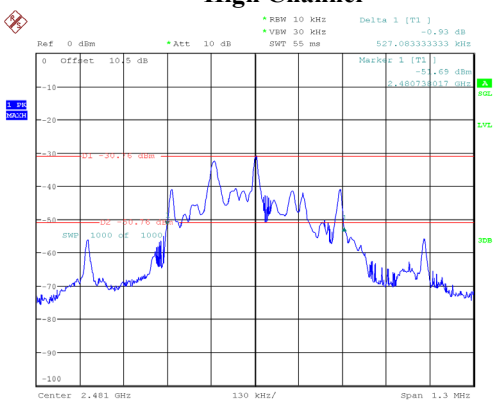
ProjectNo.:RSHA241022001 Tester:Neil Zhou
Date: 7.AUG.2025 10:01:47

Middle Channel



ProjectNo.:RSHA241022001 Tester:Neil Zhou
Date: 7.AUG.2025 10:06:19

High Channel

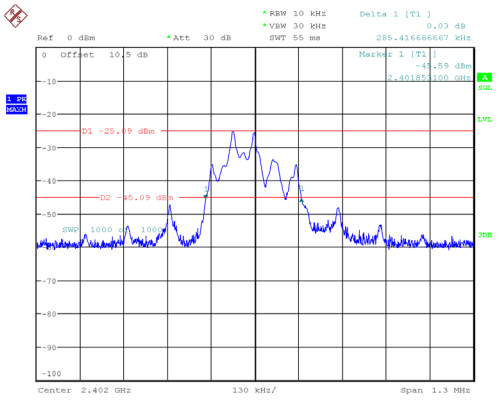


ProjectNo.:RSHA241022001 Tester:Neil Zhou
Date: 7.AUG.2025 10:11:06

Antenna 2

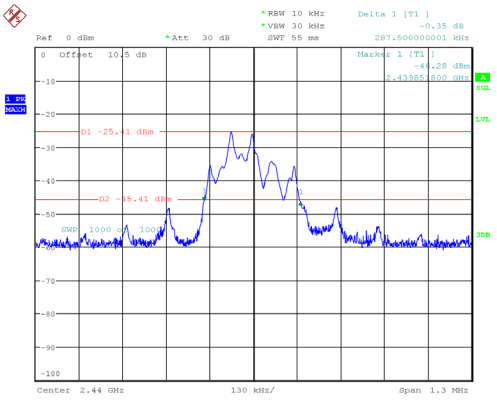
Channel	Frequency (MHz)	20 dB Bandwidth (kHz)
Low	2402	285.417
Middle	2440	287.500
High	2481	287.500

Low Channel



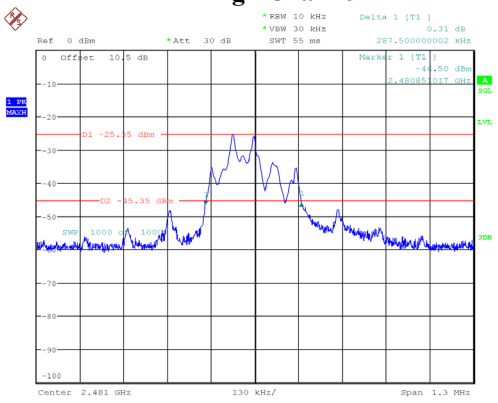
ProjectNo.:RSHA241022001 Tester:Neil Zhou
Date: 13.DEC.2024 14:18:28

Middle Channel



ProjectNo.:RSHA241022001 Tester:Neil Zhou
Date: 13.DEC.2024 13:44:46

High Channel

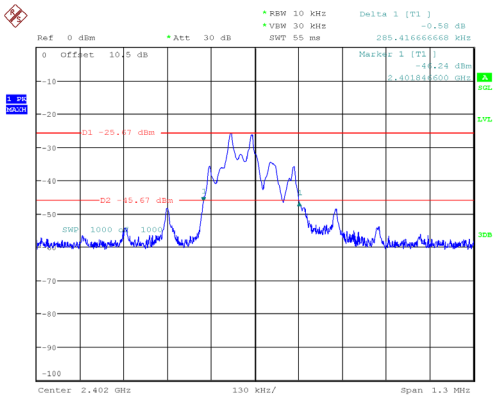


ProjectNo.:RSHA241022001 Tester:Neil Zhou
Date: 13.DEC.2024 14:04:24

Antenna 3

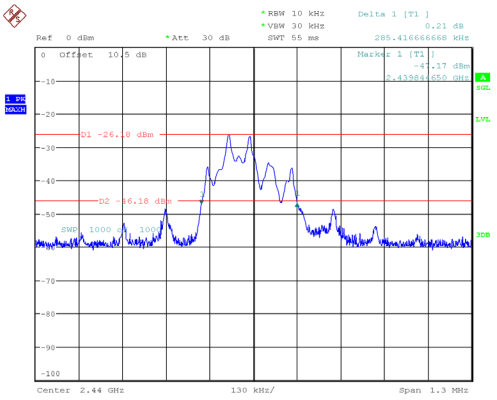
Channel	Frequency (MHz)	20 dB Bandwidth (kHz)
Low	2402	285.417
Middle	2440	285.417
High	2481	287.500

Low Channel



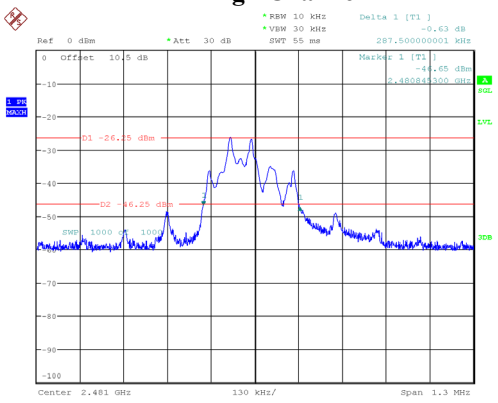
ProjectNo.:RSHA241022001 Tester:Neil Zhou
Date: 13.DEC.2024 14:15:07

Middle Channel



ProjectNo.:RSHA241022001 Tester:Neil Zhou
Date: 13.DEC.2024 13:41:38

High Channel

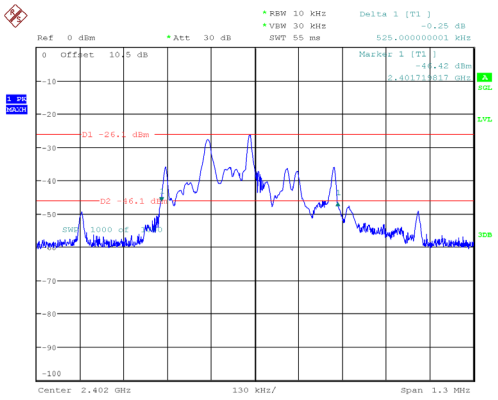


ProjectNo.:RSHA241022001 Tester:Neil Zhou
Date: 13.DEC.2024 14:11:32

Antenna 4

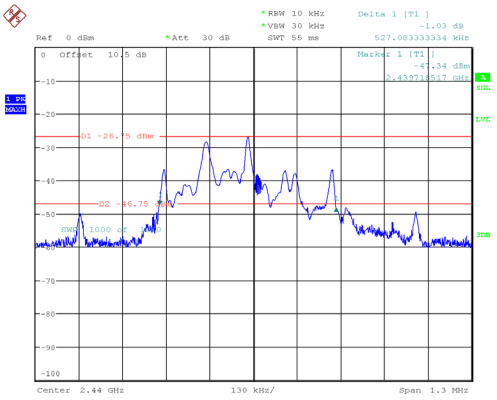
Channel	Frequency (MHz)	20 dB Bandwidth (kHz)
Low	2402	525.000
Middle	2440	527.083
High	2481	527.083

Low Channel



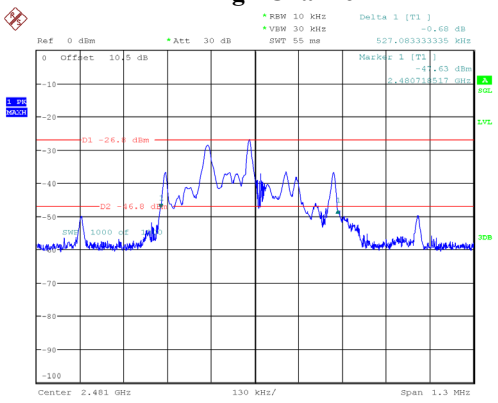
ProjectNo.:RSHA241022001 Tester:Neil Zhou
Date: 13.DEC.2024 14:23:09

Middle Channel



ProjectNo.:RSHA241022001 Tester:Neil Zhou
Date: 13.DEC.2024 13:49:36

High Channel



ProjectNo.:RSHA241022001 Tester:Neil Zhou
Date: 13.DEC.2024 14:32:31

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*******