

FCC PART 15.407

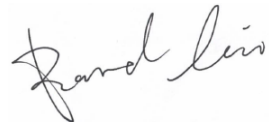
TEST REPORT

For

Shanghai Xiangcheng Communication Technology Co.,Ltd

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

FCC ID: 2A2UU-P14

Report Type: Class II permissive change Report	Product Name: Smart POS Terminal
Report Number:	<u>RKSA240620011-00D</u>
Report Date:	<u>2025-05-20</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.

TABLE OF CONTENTS

DOCUMENT HISTORY	3
FILING DESCRIPTION	4
GENERAL INFORMATION.....	5
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	5
OBJECTIVE	5
TEST METHODOLOGY	5
MEASUREMENT UNCERTAINTY	6
TEST FACILITY	6
SYSTEM TEST CONFIGURATION.....	7
DESCRIPTION OF TEST CONFIGURATION	7
EUT EXERCISE SOFTWARE	8
EQUIPMENT MODIFICATIONS	9
SUPPORT EQUIPMENT LIST AND DETAILS	9
EXTERNAL I/O CABLE.....	9
BLOCK DIAGRAM OF TEST SETUP	9
TEST EQUIPMENT LIST	11
SUMMARY OF TEST RESULTS.....	12
FCC §15.203 – ANTENNA REQUIREMENT	13
APPLICABLE STANDARD	13
ANTENNA CONNECTOR CONSTRUCTION	13
FCC §15.407 (b) (9) §15.207 (a) – AC POWER LINE CONDUCTED EMISSIONS.....	14
APPLICABLE STANDARD	14
TEST SYSTEM SETUP.....	14
EMI TEST RECEIVER SETUP.....	14
TEST PROCEDURE	15
TEST RESULTS SUMMARY	15
TEST DATA: SEE APPENDIX	15
§15.205 & §15.209 & §15.407(B) – UNDESIRABLE EMISSION & RESTRICTED BANDS	16
APPLICABLE STANDARD	16
TEST SYSTEM SETUP.....	16
EMI TEST RECEIVER & SPECTRUM ANALYZER SETUP	19
TEST PROCEDURE	19
TEST DATA: SEE APPENDIX	19
FCC §15.407(a) (1) (3) – CONDUCTED TRANSMITTER OUTPUT POWER	20
APPLICABLE STANDARD	20
TEST PROCEDURE	20
APPENDIX - TEST DATA.....	21
ENVIRONMENTAL CONDITIONS & TEST INFORMATION.....	21
AC POWER LINE CONDUCTED EMISSIONS.....	22
TRANSMITTER UNWANTED EMISSIONS	26
SPOT CHECK WITH MAXIMUM CONDUCTED OUTPUT POWER.....	62
EUT PHOTOGRAPHS	63
TEST SETUP PHOTOGRAPHS	64

DOCUMENT HISTORY

Revision	Release Time	Description of Revision	Report Number
R1V1	2025-05-20	Class II permissive change Report	RKSA240620011-00D

FILING DESCRIPTION

Report Number	Information about changes
RKSA240620011-00D	Adapter; Battery; Wifi/BT Antenna; WWAN Antenna; SIM card slot, Memory, Add 2.4G Hotspot function

Note:

This is a C2PC report, based on CR231168756-00D★ grant on 03/11/2024, the details as below:

1. Add an adapter, its model is LM-603U-050200U02UL.
2. Add a new battery, its model is F50051MA, the supplier is Dongguan HongDe Battery Co.Ltd
3. Add a new battery, the model is F50051MA (only model name different with original.)
4. Change the wifi/BT Antenna.
5. Change the SIM card slot.
6. Change the WWAN Antenna.
7. Change memory from Vender: BIWIN Vender Model :BWCC2X32N2A-16G-X to Vender: LONGSYS Vender Model :FLXC2002G-N2
8. Add 2.4G WiFi Hotspot function through software which not affect RF performance

For above changes, we “Spot Check With Maximum Conducted Output Power”, and tested “Conducted Emissions” and “Radiated Emissions” and update related photos, other data and photos were referred to the original report CR231168756-00D★

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	Shanghai Xiangcheng Communication Technology Co.,Ltd
Tested Model:	P14
Product Name:	Smart POS Terminal
Power Supply:	DC 3.8V from battery or DC 5V charging by adapter
Operating Frequency	B1: 5150-5250 MHz, B4: 5725-5850 MHz
★Maximum Peak Output Power (Conducted):	11.71dBm (5150-5250 MHz) 11.92dBm (5725-5850 MHz)
Channel Number	B1: 7, B4: 8
Channel Separation	802.11a/ac/n20: 20 MHz; 802.11ac/n20: 40 MHz; 802.11ac80: 80 MHz
Modulation Type	OFDM
Antenna Type	IFA Antenna
★Maximum Antenna Gain	Band 1: 1.34 dBi; Band 4: 1.43 dBi

Adapter Information:

Model: LM-603U-050200U02UL

Input: 100-240V, 50/60Hz, 0.35A

Output: 5V, 2000mA, 10.0W

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

All measurement and tested data in this report was gathered from production sample serial number: RKSA240620011-1 (Assigned by BACL (Kunshan). The EUT supplied by the applicant was received on 2024-06-20.)

Objective

This type approval report is prepared for *Shanghai Xiangcheng Communication Technology Co.,Ltd* in accordance with Part 2-Subpart J, Part 15-Subparts A and E of the Federal Communication Commissions' rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart E, section 15.203, 15.205, 15.209 and 15.407 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, 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°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

The EUT was configured for testing in an engineering mode which was provided by the manufacturer.

For **5150~5250 MHz** band, test channel list is as below,

802.11a/n20 mode Channel 36, 40, 48 were tested.
802.11n40 mode Channel 38, 46 were tested.
802.11ac80 mode Channel 42 were tested.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
38	5190	46	5230
40	5200	48	5240
42	5210	/	/

For **5725~5850 MHz** band,

802.11a/n20 mode Channel 149, 157, 165 were tested.
802.11n40 mode Channel 151, 159 were tested.
802.11ac80 mode Channel 155 were tested.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	159	5795
151	5755	161	5805
153	5765	165	5825
155	5775	/	/
157	5785	/	/

EUT Exercise Software

RF test tool: Engineer mode

The worst case was performed under:

5150-5250MHz:

Mode	Data Rate	Channel	★Power Level
802.11a	6 Mbps	5180	16
		5200	16
		5240	16
802.11ac80	MCS0	5210	16
802.11n20	MCS0	5180	16
		5200	16
		5240	16
802.11n40	MCS0	5190	16
		5230	16

5725-5850MHz:

Mode	Data Rate	Channel	★Power Level
802.11a	6 Mbps	5745	17
		5785	17
		5825	17
802.11ac80	MCS0	5775	17
802.11n20	MCS0	5745	17
		5785	17
		5825	17
802.11n40	MCS0	5755	17
		5795	17

Note: The power level was declared by the applicant.

Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

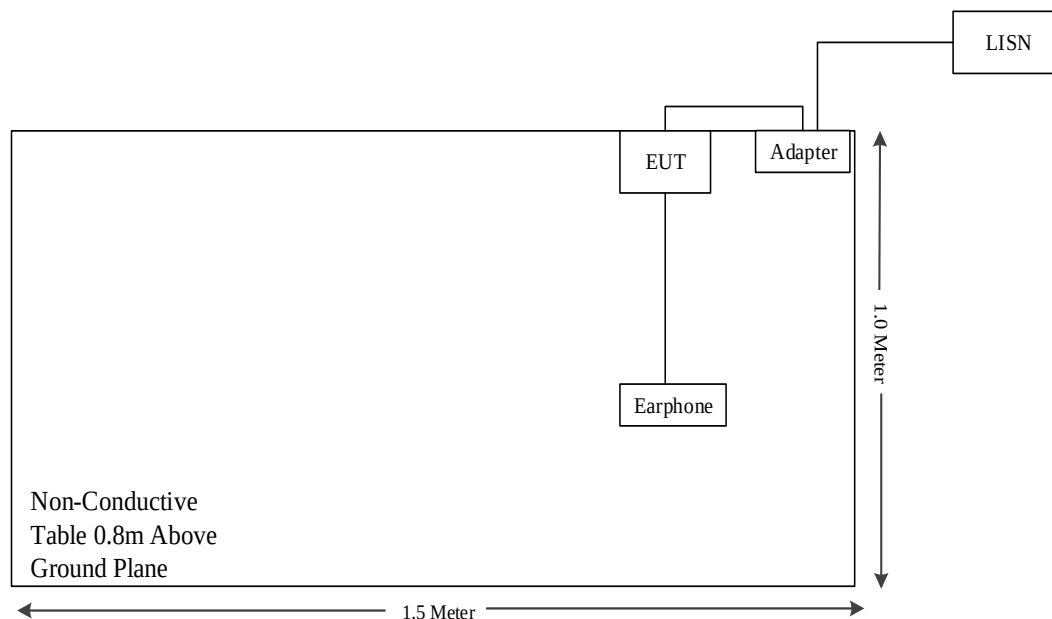
Manufacturer	Description	Model	Serial Number
Unknown	Earphone	Unknown	Unknown

External I/O Cable

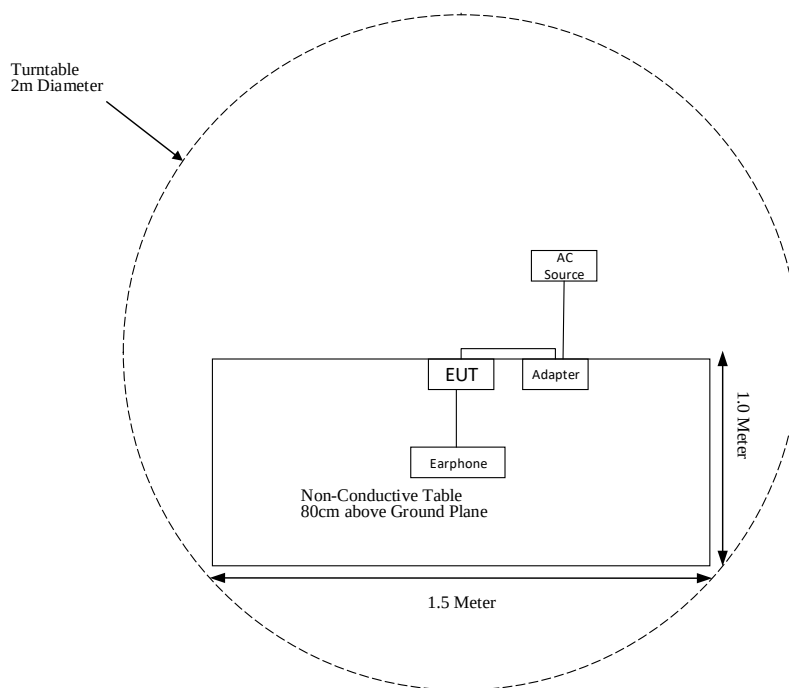
Cable Description	Length (m)	From Port	To
Power Cable 1	1.0	AC Source/LISN	Adapter
USB Cable 1	1.0	Adapter	EUT
Audio Cable 1	1.0	EUT	Earphone

Block Diagram of Test Setup

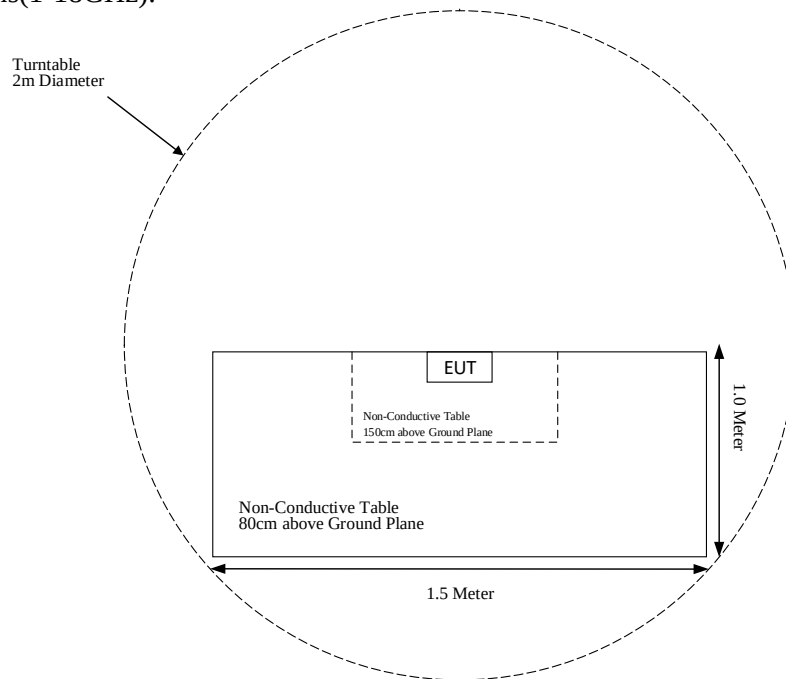
For Conducted Emissions:



For Radiated Emissions (Below 1GHz):



For Radiated Emissions(1-18GHz):



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
BACL	Active Loop Antenna	1313-1A	4041511	2024-11-22	2027-11-21
Sonoma Instrument	Pre-amplifier	310N	171205	2024-04-23	2025-04-22
Rohde & Schwarz	Auto Test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-8	008	2024-04-25	2025-04-24
MICRO-COAX	Coaxial Cable	Cable-9	009	2024-04-23	2025-04-22
MICRO-COAX	Coaxial Cable	Cable-10	010	2024-04-23	2025-04-22
Radiated Emission Test (Chamber #2)					
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2024-04-25	2025-04-24
ETS-LINDGREN	Horn Antenna	3115	9311-4159	2024-12-02	2025-12-01
ETS-LINDGREN	Horn Antenna	3116	2516	2024-12-12	2027-12-11
A.H.Systems, inc	Amplifier	PAM-0118P	512	2024-04-25	2025-04-24
SELECTOR	Amplifier	EM18G40G	060726	2024-04-25	2025-04-24
MICRO-TRONICS	Band Reject Filter	BRM50716	G059	2024-05-23	2025-05-22
Narda	Attenuator	10dB	010	2024-04-23	2025-04-22
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-6	006	2024-04-25	2025-04-24
MICRO-COAX	Coaxial Cable	Cable-11	011	2024-04-25	2025-04-24
MICRO-COAX	Coaxial Cable	Cable-12	012	2024-04-25	2025-04-24
MICRO-COAX	Coaxial Cable	Cable-13	013	2024-04-25	2025-04-24
RF Conducted Test					
Narda	Attenuator	10 dB	N/A	2024-04-23	2025-04-22
Anritsu	Power Sensor	MA24418A	12621	2024-04-23	2025-04-22
Unknown	RF Cable	RF Cable C01	C01	Each Time	N/A
Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR	1316.3003K03-101746-zn	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	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).

SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result	Remark
§15.203	Antenna Requirement	Compliant	---
§15.207 & §15.407(b) (9)	AC Power Line Conducted Emissions	Compliant	---
§15.205 & §15.209 & §15.407(b)	Undesirable Emission & Restricted frequency bands	Compliant	---
§§15.407(a) & §15.407(e)	Emission Bandwidth	---	See Note★
§15.407(a) (1) (3)	Conducted Transmitter Output Power	Reporting	---
§15.407(a) (1) (3)	Power Spectral Density	---	See Note★

Note: The changes will not affect test data, the data are referred to original report CR231168756-00D★ which provided by applicant.

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 compliance 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 15.407, 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

Antenna permanently attached to the unit. fulfill the requirement of this section. Please refer to the EUT photos.

Antenna Type	Frequency Range	Max. Antenna Gain	Input impedance
IFA antenna	5150~5250 MHz	1.34 dBi	50Ω
	5725~5850 MHz	1.43 dBi	50Ω

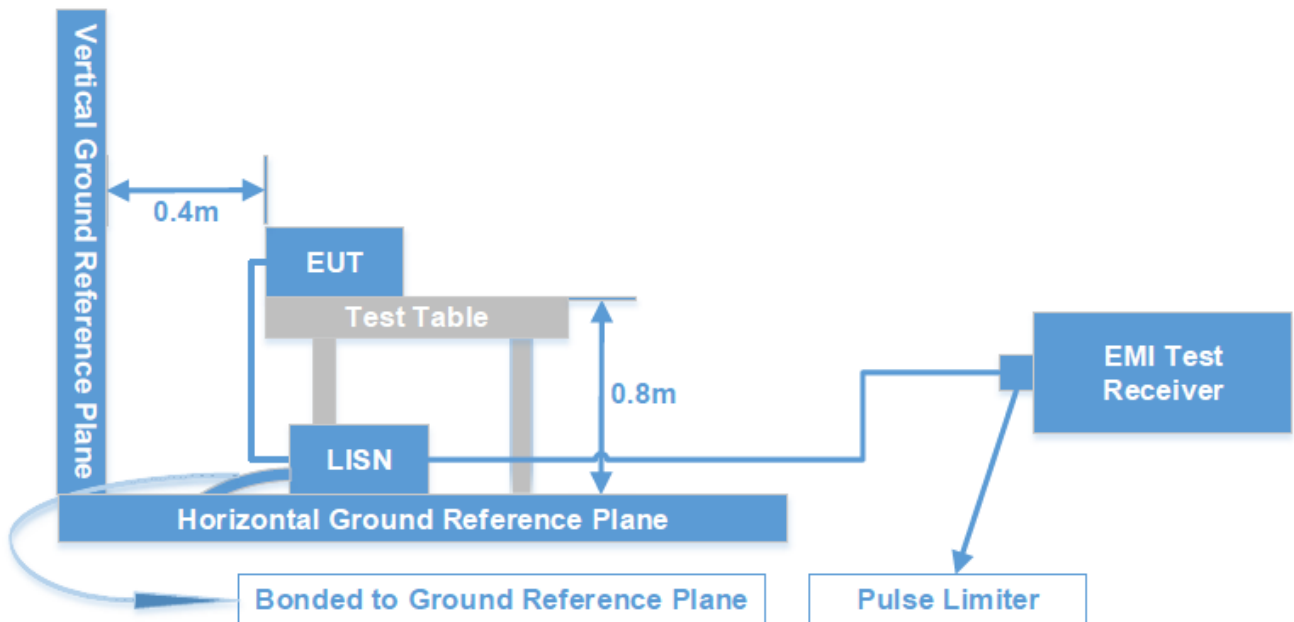
Result: Compliant.

FCC §15.407 (b) (9) §15.207 (a) – AC POWER LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207(a), §15.407(b) (9)

Test System Setup



The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

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

During the conducted emission test, the PoE Injector was connected to 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:

$$\text{Factor (dB)} = \text{LISN VDF (dB)} + \text{Cable Loss (dB)} + \text{Transient Limiter Attenuation (dB)}$$
$$\text{Level (dB}\mu\text{V)} = \text{Read level (dB}\mu\text{V)} + \text{Factor (dB)}$$

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:

$$\text{Over Limit (dB)} = \text{Level (dB}\mu\text{V)} - \text{Limit (dB}\mu\text{V)}$$
Test Results Summary

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

Test Data: See Appendix

§15.205 & §15.209 & §15.407(B) – UNDESIRABLE EMISSION & RESTRICTED BANDS

Applicable Standard

FCC §15.407 (b); §15.209; §15.205;

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of - 27 dBm/MHz.

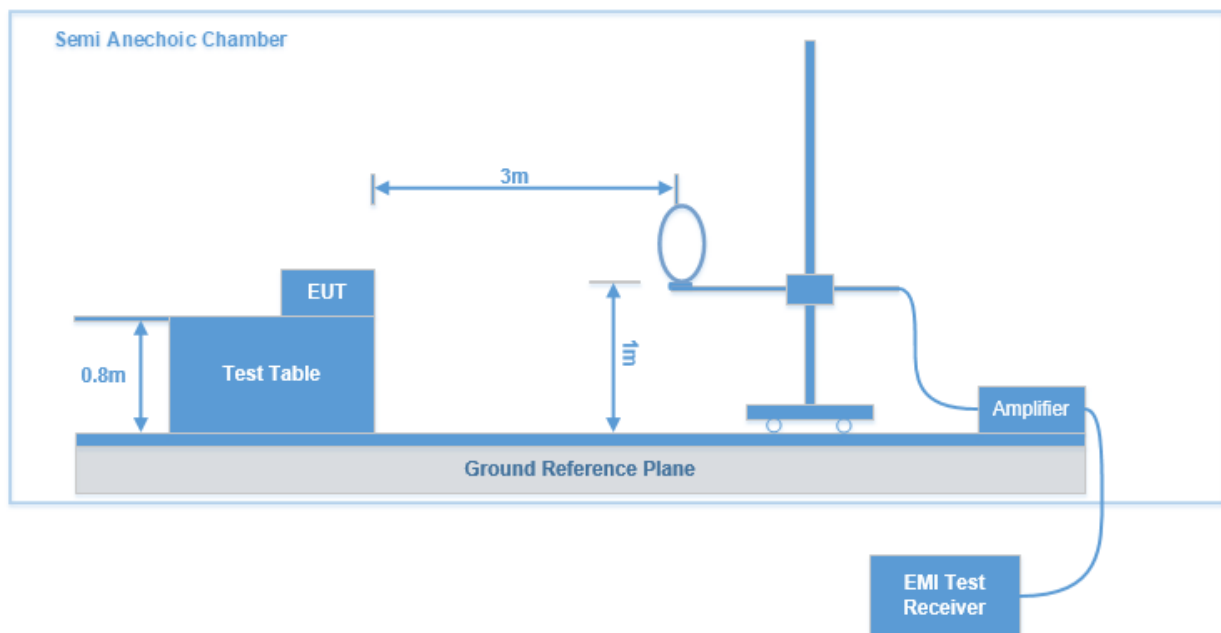
For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of – 27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

As per FCC §15.35(d): Unless otherwise specified, on any frequency or frequencies above 1000MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000MHz shall be performed using a minimum resolution bandwidth of 1MHz.

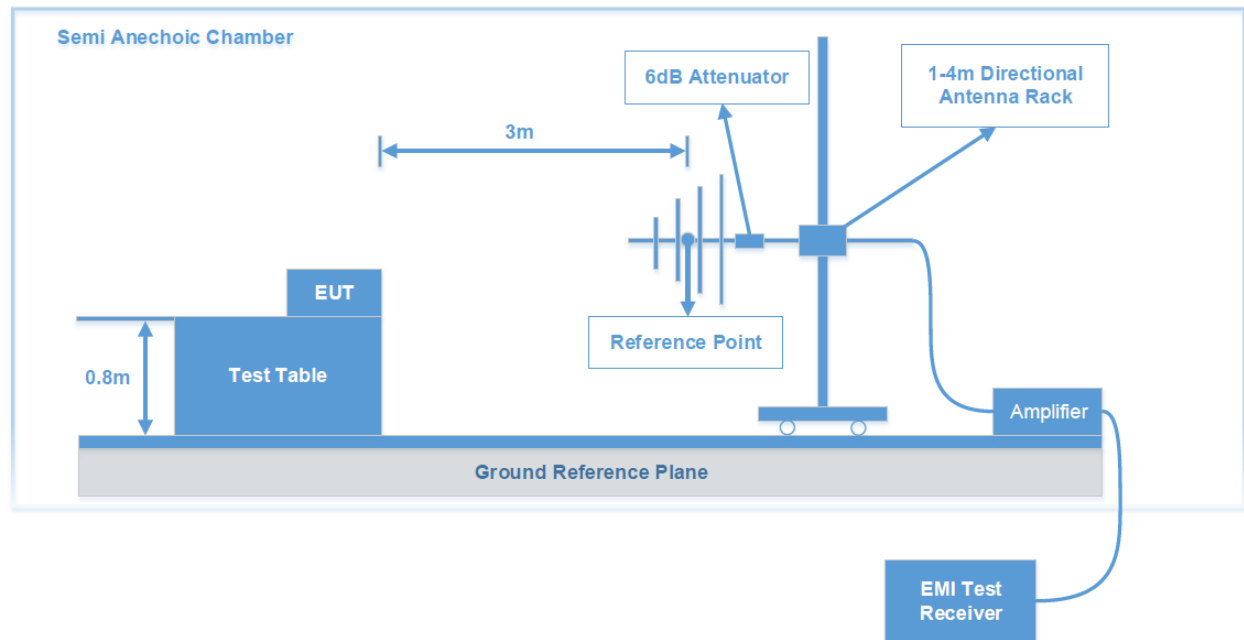
According to 789033 D02 General UNII Test Procedures New Rules v02r01, emission shall be computed as: $E \text{ [dB}\mu\text{V/m]} = \text{EIRP [dBm]} + 95.2$, for $d = 3$ meters.

Test System Setup

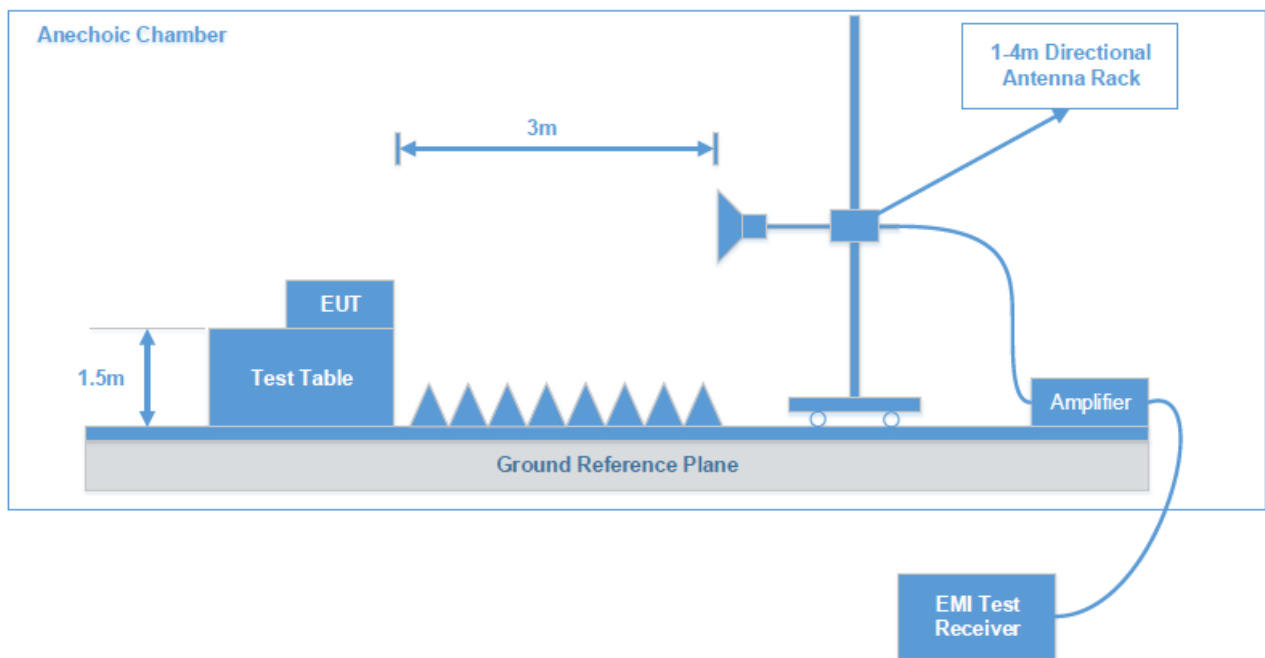
9 kHz - 30 MHz:

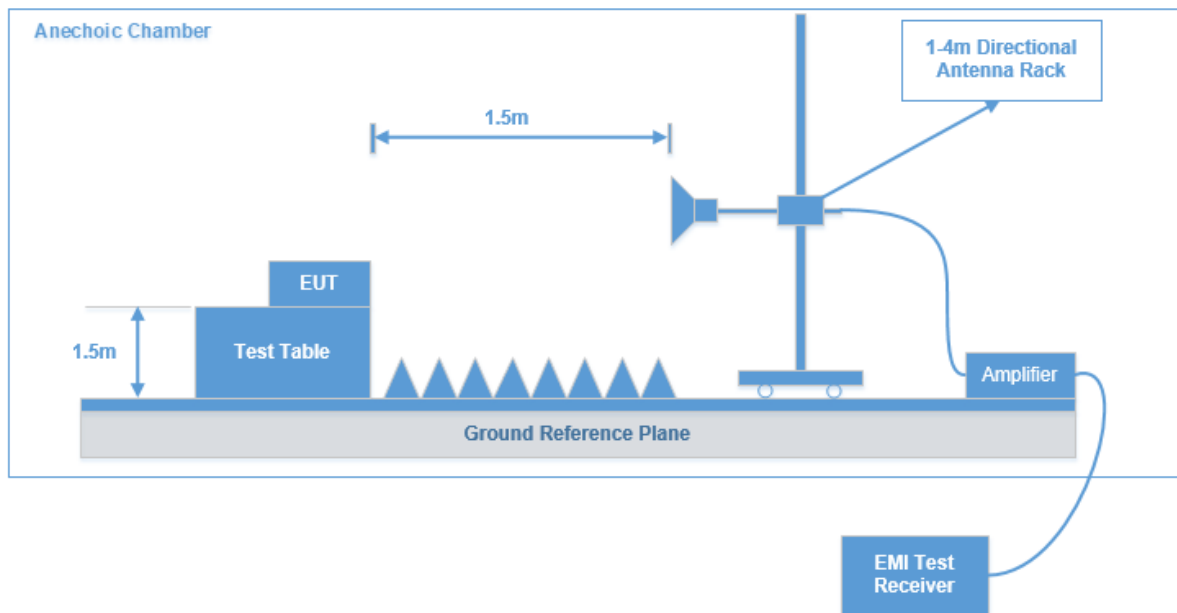


30 MHz - 1 GHz:



1 GHz-18GHz:



18 GHz-40 GHz:

The radiated emission tests were performed in the 3 meters test site for below 25GHz, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209 and FCC 15.407 limits.

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 15.407 limits.

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

The spacing between the peripherals was 10 cm.

EMI Test Receiver & Spectrum Analyzer Setup

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

For 9 kHz-30MHz test, the lowest height of the magnetic antenna shall be 1 m above the ground and three antenna orientations (parallel, perpendicular, and ground-parallel) shall be measured.

Test Procedure

During the radiated emission test, the adapter was connected to AC floor outlet. Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

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

Corrected Amplitude & Margin Calculation

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

$$\text{Corrected Amplitude (dB}\mu\text{V/m)} = \text{Meter Reading (dB}\mu\text{V)} + \text{Corrected factor (dB/m)}$$

$$\text{Corrected factor (dB/m)} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Amplifier Gain (dB)}$$

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:

$$\text{Margin (dB)} = \text{Limit (dB}\mu\text{V/m)} - \text{Corrected Amplitude (dB}\mu\text{V/m)}$$

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

Test Data: See Appendix

FCC §15.407(a) (1) (3) – CONDUCTED TRANSMITTER OUTPUT POWER

Applicable Standard

According to §15.407(a)(1)

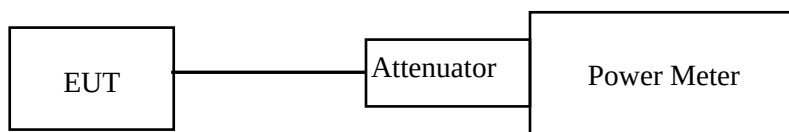
(ii) For an indoor access point operating in the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to §15.407(a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple colocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Test Procedure

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.



Test Data: See Appendix

APPENDIX - TEST DATA

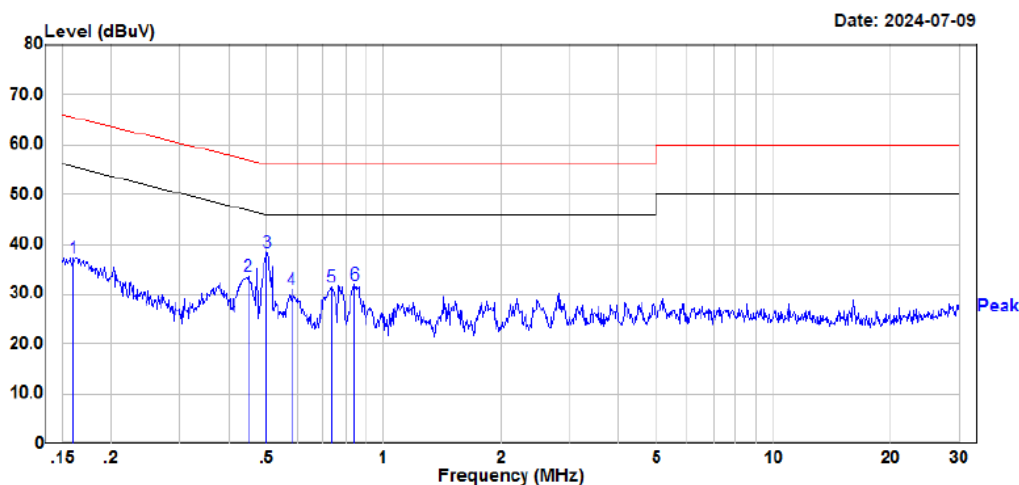
Environmental Conditions & Test Information

Test Item:	AC LINE CONDUCTED EMISSIONS	SPURIOUS EMISSIONS		
		9 kHz-30 MHz	30 MHz-1 GHz	1 GHz - 18 GHz
Test Date:	2024-07-09	2024-12-19	2024-10-25	2025-01-07
Temperature:	28.1 °C	22.7 °C	20.2 °C	22.3 °C
Relative Humidity:	48 %	54 %	58 %	47 %
ATM Pressure:	100.4 kPa	102.8 kPa	102.6 kPa	102.6 kPa
Test Result:	Pass	Pass	Pass	Pass
Test Engineer:	Leah Li	Jerry Yan	Leah Li	Destine Hu

Test Item:	SPURIOUS EMISSIONS	SPOT CHECK WITH MAXIMUM CONDUCTED OUTPUT POWER
	18 GHz - 40 GHz	
Test Date:	2025-01-08	2024-10-30
Temperature:	21.4 °C	20.3 °C
Relative Humidity:	44 %	52 %
ATM Pressure:	102.5 kPa	101.4 kPa
Test Result:	Pass	Pass
Test Engineer:	Hugh Wu	Destine Hu

AC POWER LINE CONDUCTED EMISSIONS

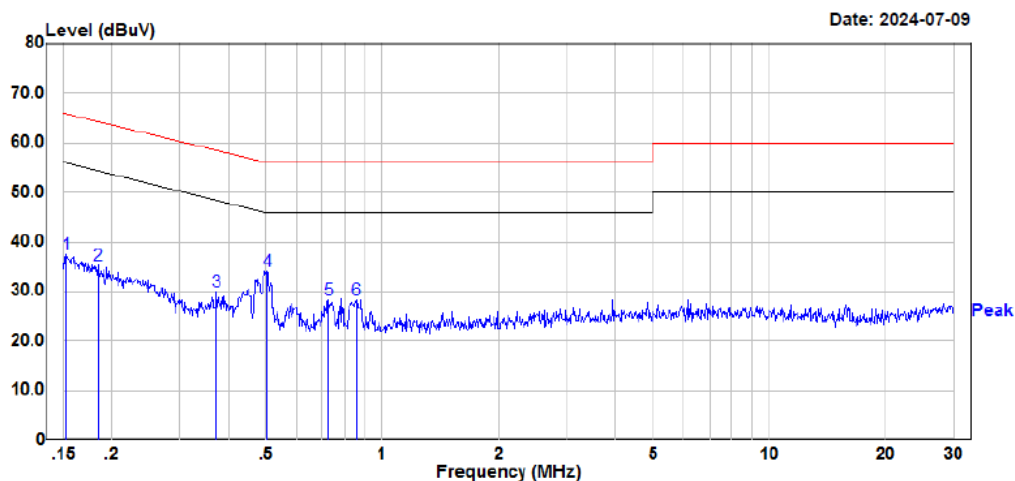
EUT operation mode: Transmitting in 802.11a mode low channel of 5150~5250MHz (maximum output power mode).

AC 120V/60 Hz, Line

Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA240620011
Model : P14
Phase : L
Voltage : 120V/60Hz
Mode : 5G WIFI
Test Equipment : ENV216,ESR
Temperature : 28.1℃
Humidity : 48%
Atmospheric pressure: 100.4kPa
Test Engineer : Leah Li

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.159	17.22	20.11	37.33	65.50	-28.17	Peak
2	0.449	13.38	20.23	33.61	56.89	-23.28	Peak
3	0.501	18.27	20.13	38.40	56.00	-17.60	Peak
4	0.579	10.95	20.11	31.06	56.00	-24.94	Peak
5	0.732	11.47	20.03	31.50	56.00	-24.50	Peak
6	0.842	11.95	19.89	31.84	56.00	-24.16	Peak

AC 120V/60 Hz, Neutral

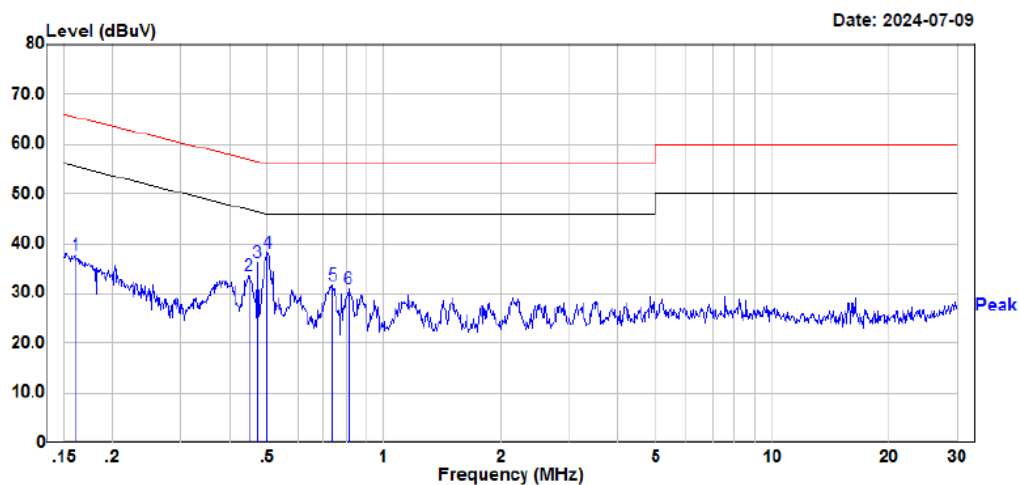


Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA240620011
Model : P14
Phase : N
Voltage : 120V/60Hz
Mode : 5G WIFI
Test Equipment : ENV216,ESR
Temperature : 28.1℃
Humidity : 48%
Atmospheric pressure: 100.4kPa
Test Engineer : Leah Li

		Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.152	17.32	20.12	37.44	65.88	-28.44	Peak
2	0.184	15.26	20.11	35.37	64.30	-28.93	Peak
3	0.372	9.71	20.20	29.91	58.47	-28.56	Peak
4	0.504	13.92	20.13	34.05	56.00	-21.95	Peak
5	0.725	8.17	20.04	28.21	56.00	-27.79	Peak
6	0.858	8.53	19.87	28.40	56.00	-27.60	Peak

EUT operation mode: Transmitting in 802.11a mode low channel of 5725~5850MHz (maximum output power mode).

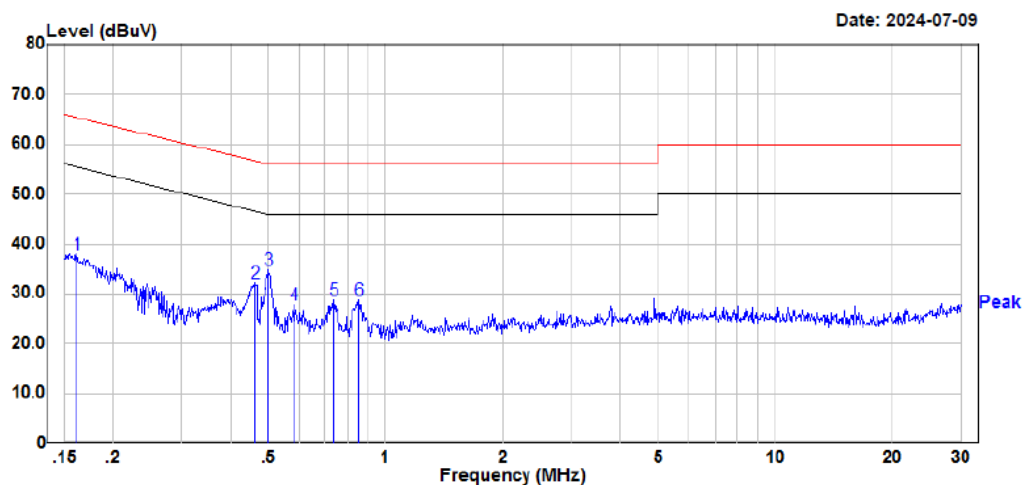
AC 120V/60 Hz, Line



Site : CE
Condition : limit\FCC PART 15.207
DET:Peak
Project No. : RKSA240620011
Model : P14
Phase : L
Voltage : 120V/60Hz
Mode : 5G WIFI
Test Equipment : ENV216,ESR
Temperature : 28.1℃
Humidity : 48%
Atmospheric pressure: 100.4kPa
Test Engineer : Leah Li

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.160	17.65	20.11	37.76	65.46	-27.70	Peak
2	0.449	13.47	20.23	33.70	56.89	-23.19	Peak
3	0.472	16.18	20.19	36.37	56.48	-20.11	Peak
4	0.501	18.09	20.13	38.22	56.00	-17.78	Peak
5	0.736	11.77	20.02	31.79	56.00	-24.21	Peak
6	0.809	11.00	19.93	30.93	56.00	-25.07	Peak

AC 120V/60 Hz, Neutral



Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RKSA240620011
Model : P14
Phase : N
Voltage : 120V/60Hz
Mode : 5G WIFI
Test Equipment : ENV216,ESR
Temperature : 28.1℃
Humidity : 48%
Atmospheric pressure: 100.4kPa
Test Engineer : Leah Li

		Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.162	17.81	20.11	37.92	65.38	-27.46	Peak
2	0.463	12.02	20.21	32.23	56.64	-24.41	Peak
3	0.501	14.80	20.13	34.93	56.00	-21.07	Peak
4	0.582	7.76	20.10	27.86	56.00	-28.14	Peak
5	0.736	8.84	20.02	28.86	56.00	-27.14	Peak
6	0.854	8.85	19.87	28.72	56.00	-27.28	Peak

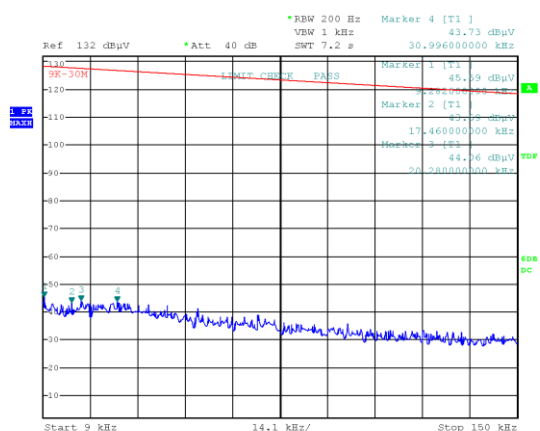
Transmitter Unwanted Emissions

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

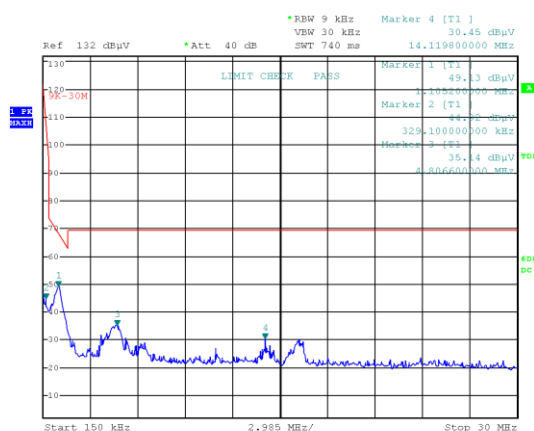
For Wi-Fi Mode:

9 kHz-30 MHz: Transmitting in maximum output power 5150-5250MHz 802.11a mode low channel Parallel(worst case)

9 kHz-150 kHz



150 kHz-30 MHz



Project No. RKSA240620011
Date: 19.DEC.2024 14:09:03

Tester: Jerry Yan

Project No. RKSA240620011
Date: 19.DEC.2024 14:13:10

Tester: Jerry Yan

9 kHz-150 kHz

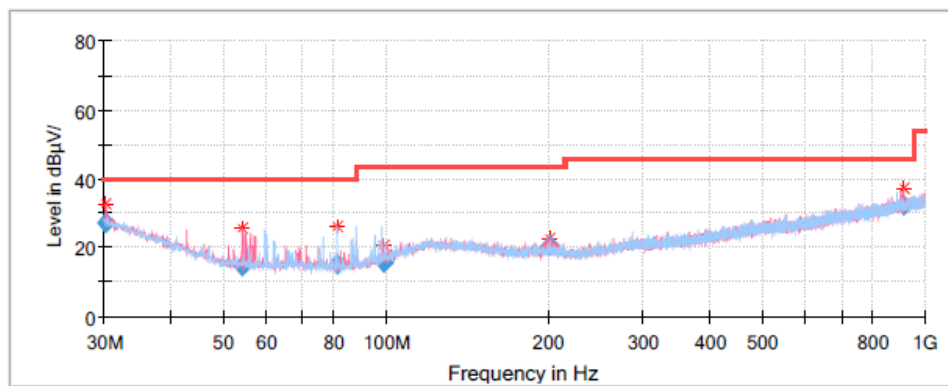
Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.009282	45.59	PK	-0.37	128.25	82.66
0.017460	43.59	PK	-0.55	122.76	79.17
0.020280	44.06	PK	-0.56	121.46	77.4
0.030996	43.73	PK	-0.77	117.78	74.05

150 kHz-30 MHz

Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.32910	44.92	PK	-18.39	97.26	52.34
1.10520	49.13	PK	-27.96	66.74	17.61
4.80660	35.14	PK	-32.03	69.54	34.40
14.11980	30.45	PK	-33.12	69.54	39.09

Transmitting in maximum output power mode 802.11a mode low channel**30 MHz-1 GHz(5150-5250MHz Band):****Low Channel: 5180 MHz****Common Information**

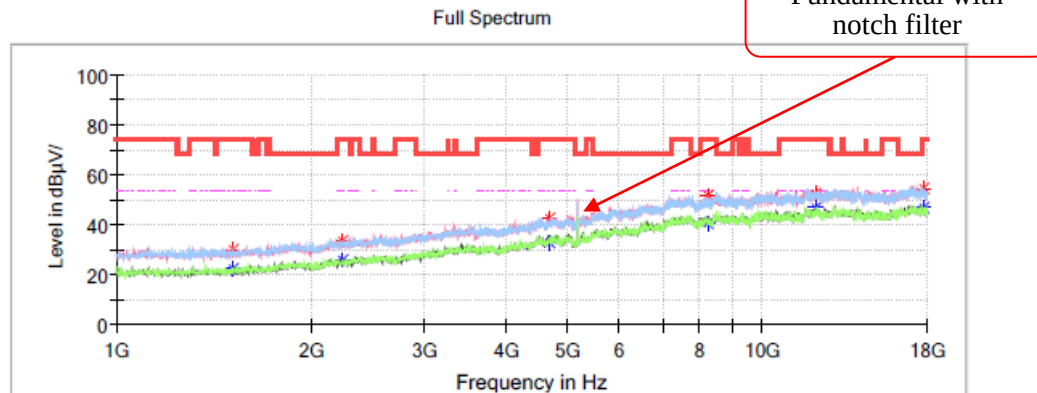
Project No:	RKSA240620011
EUT Model:	P14
Test Mode:	Transmitting in 802.11a mode low channel
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	20.2℃
Humidity:	58%
Barometric Pressure:	102.6kPa
Test Engineer:	Leah Li
Test Date:	2024/10/25

**Final Result**

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
30.241837	27.38	40.00	12.62	V	-5.5
54.255042	14.67	40.00	25.33	V	-17.0
81.282505	14.99	40.00	25.01	H	-17.3
99.369400	15.39	43.50	28.11	H	-14.6
201.149950	20.50	43.50	23.00	V	-12.3
914.054773	32.38	46.00	13.62	V	1.2

1GHz-18GHz(5150-5250MHz Band):**802.11a mode****Low Channel: 5180 MHz****Common Information**

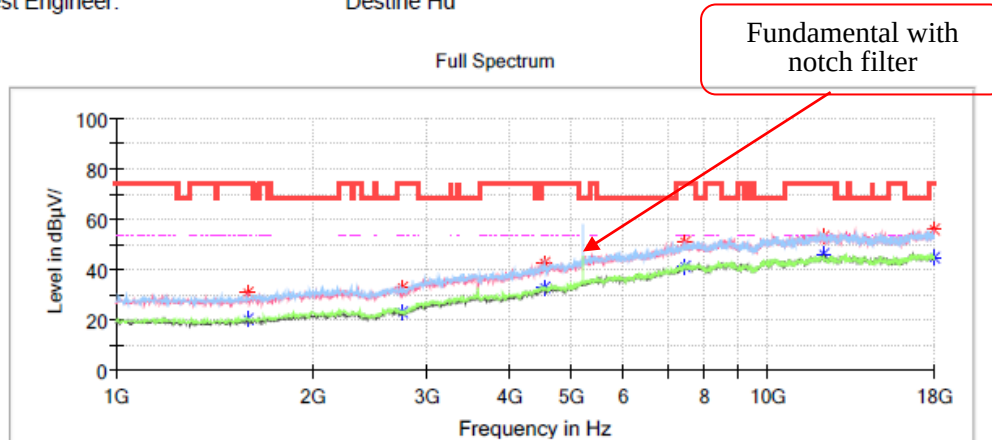
Project No.: RKSA240620011
Test Mode: Transmitting in 802.11a mode 5180 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1518.500000	---	22.19	54.00	31.81	V	-14.6
1518.500000	30.08	---	74.00	43.92	V	-14.6
2242.700000	---	25.59	54.00	28.41	V	-11.0
2242.700000	33.85	---	74.00	40.15	V	-11.0
4685.600000	---	33.18	54.00	20.82	H	-3.6
4685.600000	42.95	---	74.00	31.05	H	-3.6
8260.700000	---	40.90	54.00	13.10	V	4.7
8260.700000	51.69	---	74.00	22.31	V	4.7
12073.800000	52.36	---	74.00	21.64	V	9.1
12073.800000	---	47.09	54.00	6.91	V	9.1
17758.600000	---	46.85	54.00	7.15	H	11.8
17758.600000	54.79	---	74.00	19.21	H	11.8

Middle Channel: 5200 MHz**Common Information**

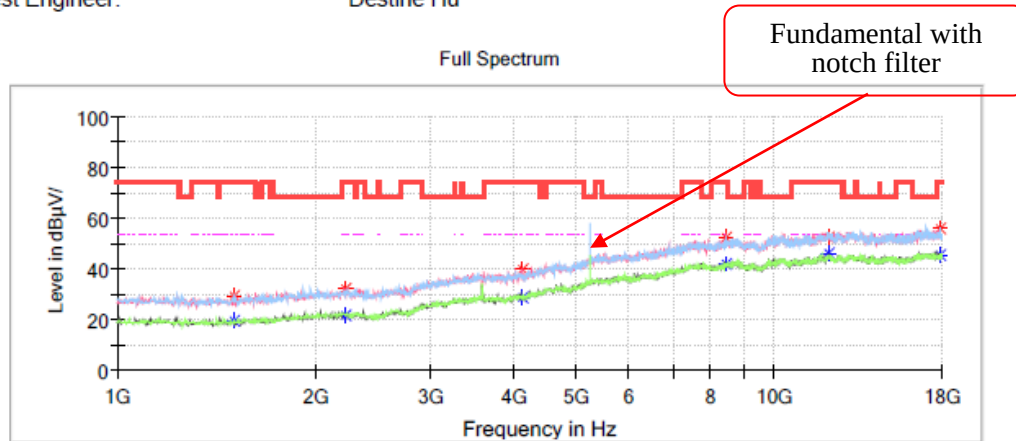
Project No.: RKSA240620011
 Test Mode: Transmitting in 802.11a mode 5200 channel
 Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Test Engineer: Destine Hu

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1588.200000	---	20.44	54.00	33.56	V	-14.2
1588.200000	30.57	---	74.00	43.43	V	-14.2
2744.200000	---	22.81	54.00	31.19	V	-9.3
2744.200000	32.52	---	74.00	41.48	V	-9.3
4553.000000	---	33.19	54.00	20.81	H	-4.1
4553.000000	42.32	---	74.00	31.68	H	-4.1
7439.600000	---	41.05	54.00	12.95	V	3.7
7439.600000	51.31	---	74.00	22.69	V	3.7
12196.200000	53.19	---	74.00	20.81	H	9.2
12196.200000	---	46.04	54.00	7.96	H	9.2
17989.800000	56.05	---	74.00	17.95	V	12.0
17989.800000	---	45.06	54.00	8.94	V	12.0

High Channel: 5240 MHz**Common Information**

Project No.: RKSA240620011
 Test Mode: Transmitting in 802.11a mode 5240 channel
 Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Test Engineer: Destine Hu

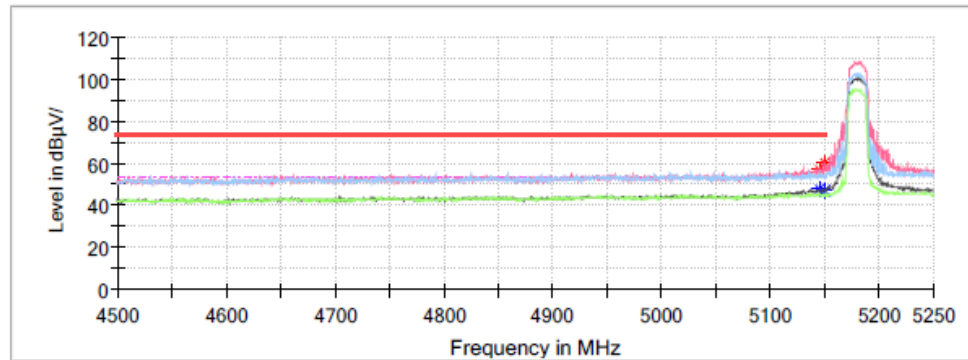
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1503.200000	---	19.61	54.00	34.39	H	-14.7
1503.200000	29.09	---	74.00	44.91	H	-14.7
2227.400000	---	22.03	54.00	31.97	V	-11.0
2227.400000	32.47	---	74.00	41.53	V	-11.0
4131.400000	---	28.66	54.00	25.34	V	-5.5
4131.400000	39.96	---	74.00	34.04	V	-5.5
8422.200000	---	41.62	54.00	12.38	V	5.2
8422.200000	52.68	---	74.00	21.32	V	5.2
12114.600000	---	45.89	54.00	8.11	V	9.1
12114.600000	52.36	---	74.00	21.64	V	9.1
17853.800000	---	45.27	54.00	8.73	H	11.8
17853.800000	55.90	---	74.00	18.10	H	11.8

Band Edge:**Left Side****Common Information**

Project No.: RKSA240620011
Test Mode: Transmitting in 802.11a mode 5180 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

Full Spectrum

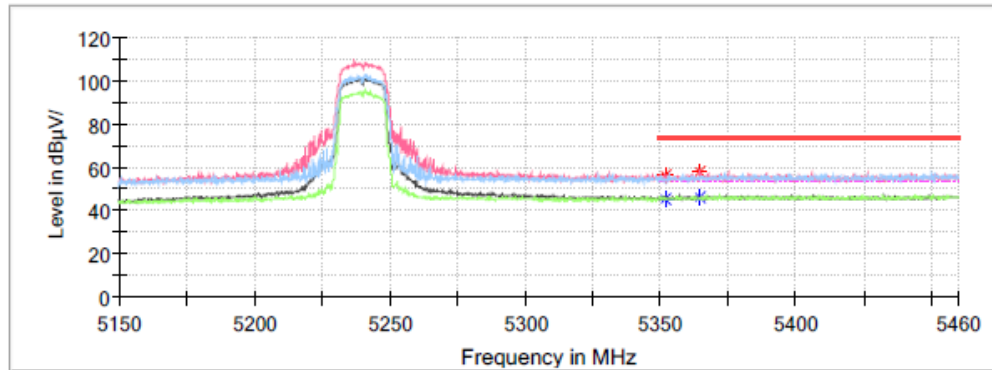
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5145.300000	---	47.91	54.00	6.09	V	8.2
5145.300000	56.65	---	74.00	17.35	V	8.2
5149.200000	---	46.86	54.00	7.14	V	8.2
5149.200000	60.10	---	74.00	13.90	V	8.2

Right Side**Common Information**

Project No.:	RKSA240620011
Test Mode:	Transmitting in 802.11a mode 5240 channel
Standard:	FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer:	Destine Hu

Full Spectrum

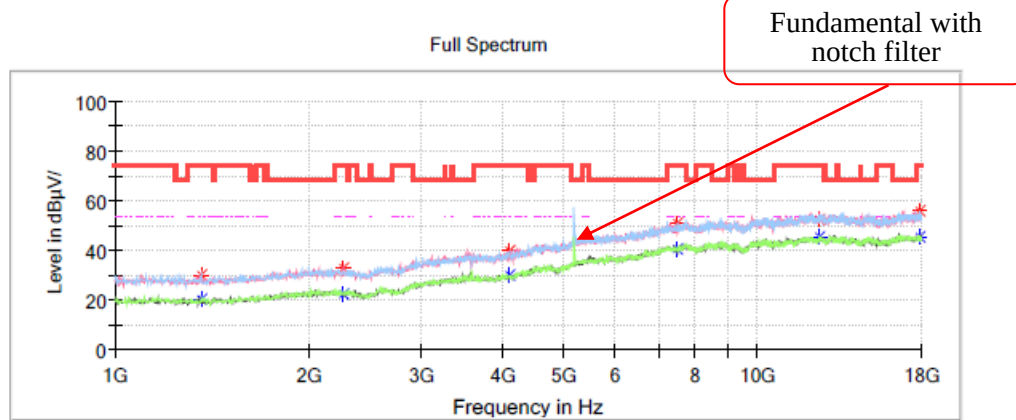
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5351.996000	---	45.33	54.00	8.67	V	8.7
5351.996000	56.51	---	74.00	17.49	V	8.7
5364.768000	---	46.12	54.00	7.88	V	8.8
5364.768000	57.56	---	74.00	16.44	V	8.8

802.11n20 mode
Low Channel: 5180 MHz

Common Information

Project No.:	RKSA240620011
Test Mode:	Transmitting in 802.11n20 mode 5180 channel
Standard:	FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer:	Destine Hu

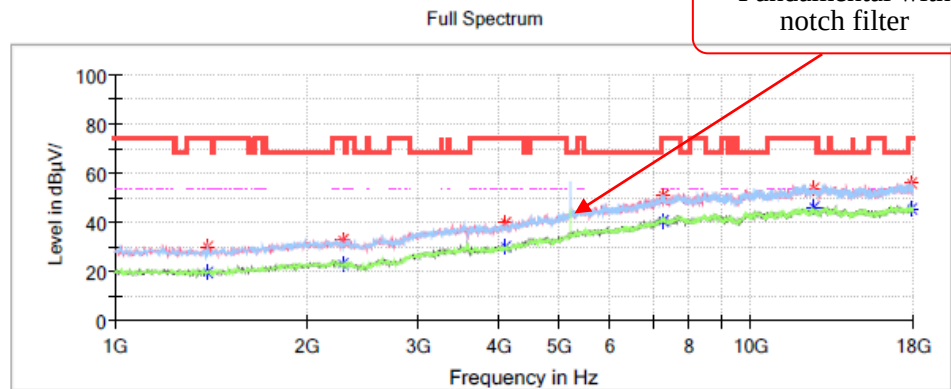


Critical Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1360.400000	---	20.07	54.00	33.93	H	-14.9
1360.400000	29.99	---	74.00	44.01	H	-14.9
2261.400000	---	22.49	54.00	31.51	V	-10.9
2261.400000	32.73	---	74.00	41.27	V	-10.9
4121.200000	---	29.73	54.00	24.27	V	-5.5
4121.200000	39.68	---	74.00	34.32	V	-5.5
7490.600000	---	40.65	54.00	13.35	H	3.9
7490.600000	50.99	---	74.00	23.01	H	3.9
12451.200000	52.63	---	74.00	21.37	V	9.6
12451.200000	---	45.70	54.00	8.30	V	9.6
17891.200000	---	45.31	54.00	8.69	H	11.9
17891.200000	55.66	---	74.00	18.34	H	11.9

Middle Channel: 5200 MHz**Common Information**

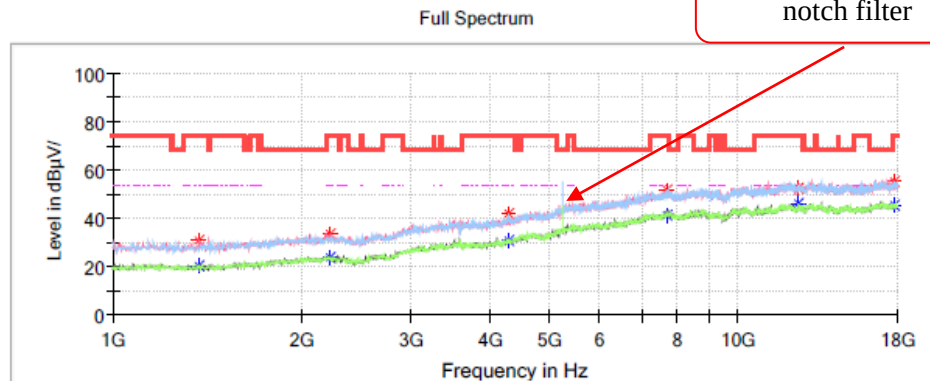
Project No.: RKSA240620011
Test Mode: Transmitting in 802.11n20 mode 5200 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1401.200000	---	19.76	54.00	34.24	V	-14.9
1401.200000	30.26	---	74.00	43.74	V	-14.9
2275.000000	---	23.13	54.00	30.87	V	-10.9
2275.000000	32.86	---	74.00	41.14	V	-10.9
4117.800000	---	30.39	54.00	23.61	V	-5.5
4117.800000	40.14	---	74.00	33.86	V	-5.5
7296.800000	---	40.46	54.00	13.54	H	3.4
7296.800000	51.02	---	74.00	22.98	H	3.4
12580.400000	53.75	---	74.00	20.25	V	9.7
12580.400000	---	46.01	54.00	7.99	V	9.7
17870.800000	---	45.62	54.00	8.38	H	11.8
17870.800000	56.09	---	74.00	17.91	H	11.8

High Channel: 5240 MHz**Common Information**

Project No.: RKSA240620011
Test Mode: Transmitting in 802.11n20 mode 5240 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

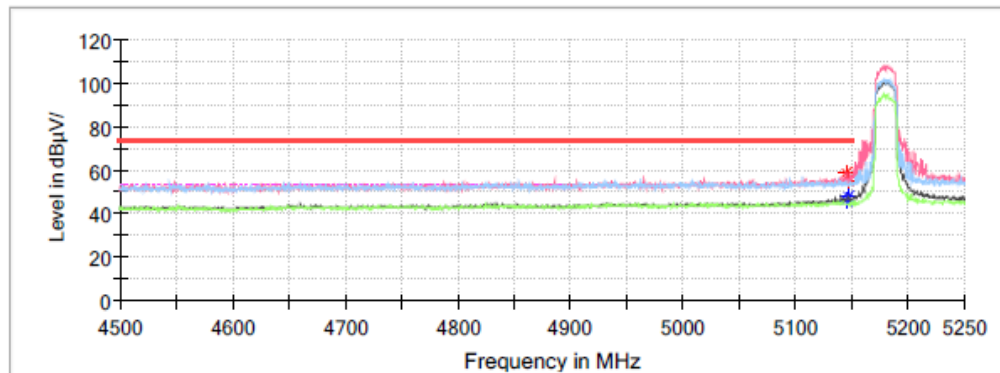
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1374.000000	---	19.99	54.00	34.01	V	-14.9
1374.000000	30.53	---	74.00	43.47	V	-14.9
2227.400000	---	23.78	54.00	30.22	V	-11.0
2227.400000	33.24	---	74.00	40.76	V	-11.0
4294.600000	---	30.90	54.00	23.10	H	-4.9
4294.600000	41.96	---	74.00	32.04	H	-4.9
7687.800000	---	41.53	54.00	12.47	H	3.9
7687.800000	51.93	---	74.00	22.07	H	3.9
12478.400000	---	46.05	54.00	7.95	H	9.6
12478.400000	52.52	---	74.00	21.48	H	9.6
17813.000000	---	45.68	54.00	8.32	V	11.8
17813.000000	55.47	---	74.00	18.53	V	11.8

Band Edge:**Left Side****Common Information**

Project No.: RKSA240620011
Test Mode: Transmitting in 802.11n20 mode 5180 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

Full Spectrum

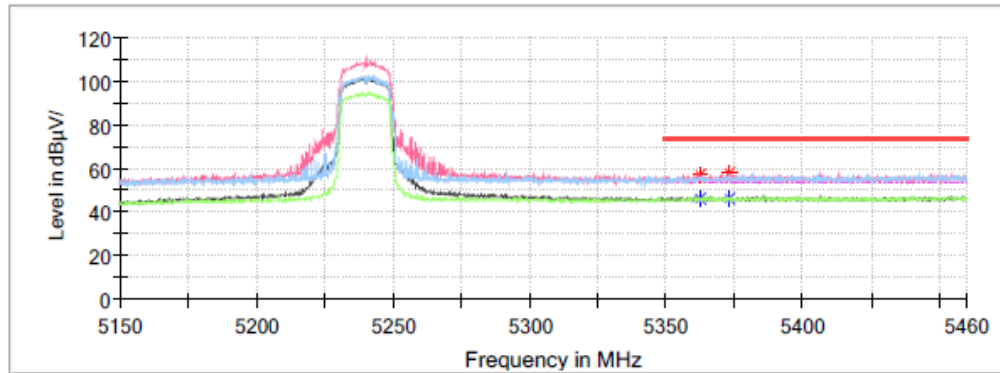
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5144.700000	58.67	---	74.00	15.33	V	8.2
5144.700000	---	46.40	54.00	7.60	V	8.2
5147.100000	55.54	---	74.00	18.46	V	8.2
5147.100000	---	47.80	54.00	6.20	V	8.2

Right Side**Common Information**

Project No.: RKSA240620011
Test Mode: Transmitting in 802.11n20 mode 5240 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

Full Spectrum

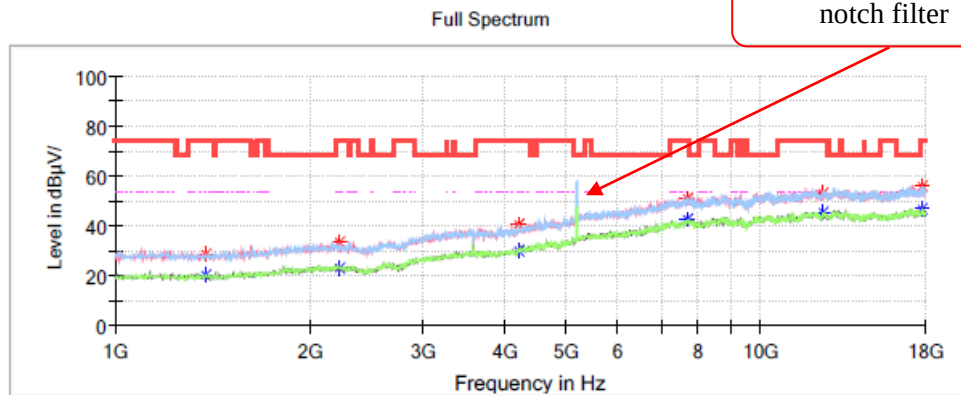
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5362.412000	---	45.88	54.00	8.12	V	8.8
5362.412000	56.93	---	74.00	17.07	V	8.8
5373.324000	---	46.14	54.00	7.86	V	8.8
5373.324000	57.90	---	74.00	16.10	V	8.8

802.11n40 mode
Low Channel: 5190 MHz

Common Information

Project No.: RKSA240620011
Test Mode: Transmitting in 802.11n40 mode 5190 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

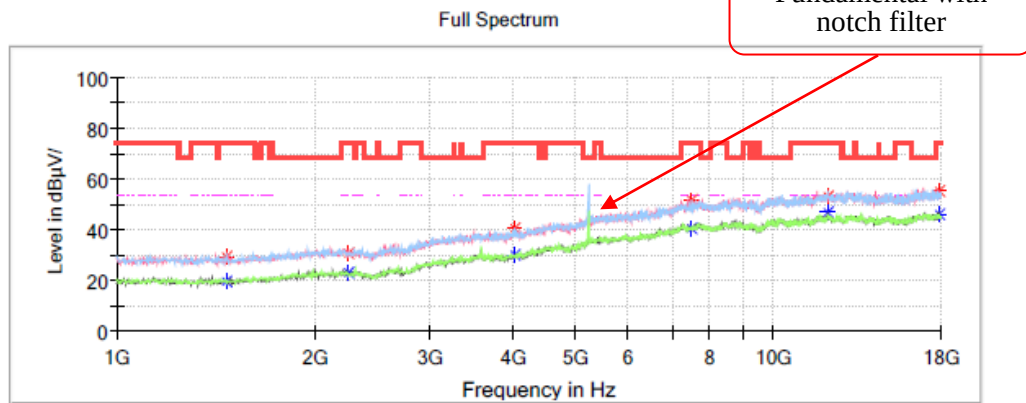


Critical Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1377.400000	---	20.58	54.00	33.42	V	-14.9
1377.400000	28.99	---	74.00	45.01	V	-14.9
2227.400000	---	22.83	54.00	31.17	V	-11.0
2227.400000	33.46	---	74.00	40.54	V	-11.0
4216.400000	---	30.22	54.00	23.78	V	-5.2
4216.400000	40.29	---	74.00	33.71	V	-5.2
7698.000000	---	42.33	54.00	11.67	V	3.9
7698.000000	51.28	---	74.00	22.72	V	3.9
12502.200000	53.12	---	74.00	20.88	H	9.7
12502.200000	---	45.75	54.00	8.25	H	9.7
17789.200000	---	46.51	54.00	7.49	H	11.8
17789.200000	56.01	---	74.00	17.99	H	11.8

High Channel: 5230 MHz**Common Information**

Project No.:	RKSA240620011
Test Mode:	Transmitting in 802.11n40 mode 5230 channel
Standard:	FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer:	Destine Hu

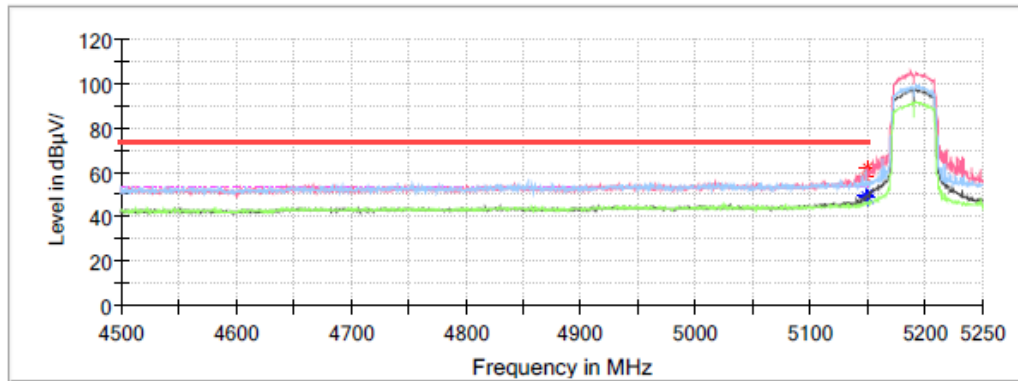
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1465.800000	29.71	---	74.00	44.29	V	-14.8
1465.800000	---	19.74	54.00	34.26	V	-14.8
2254.600000	30.96	---	74.00	43.04	V	-10.9
2254.600000	---	22.87	54.00	31.13	V	-10.9
4026.000000	40.74	---	74.00	33.26	V	-5.8
4026.000000	---	30.32	54.00	23.68	V	-5.8
7524.600000	52.04	---	74.00	21.96	H	3.9
7524.600000	---	40.32	54.00	13.68	H	3.9
12124.800000	---	46.57	54.00	7.43	V	9.1
12124.800000	53.25	---	74.00	20.75	V	9.1
17918.400000	---	46.25	54.00	7.75	H	11.9
17918.400000	55.48	---	74.00	18.52	H	11.9

Band Edge:**Left Side****Common Information**

Project No.: RKSA240620011
Test Mode: Transmitting in 802.11n40 mode 5190 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

Full Spectrum

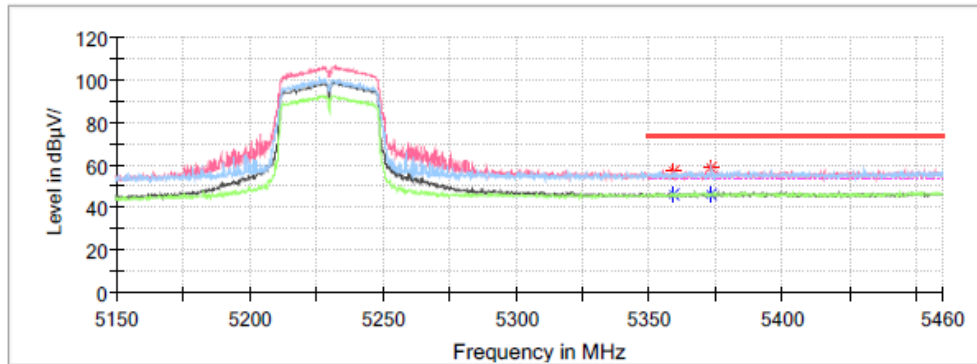
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5148.600000	---	49.75	54.00	4.25	V	8.2
5148.600000	57.93	---	74.00	16.07	V	8.2
5149.800000	---	49.05	54.00	4.95	V	8.2
5149.800000	61.77	---	74.00	12.23	V	8.2

Right Side**Common Information**

Project No.: RKSA240620011
Test Mode: Transmitting in 802.11n40 mode 5230 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

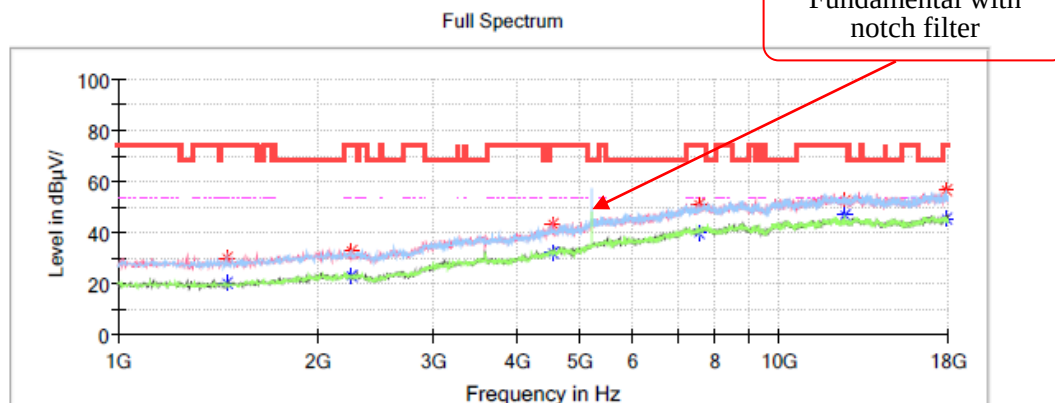
Full Spectrum

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5359.188000	---	46.42	54.00	7.58	V	8.8
5359.188000	57.12	---	74.00	16.88	V	8.8
5373.448000	---	46.46	54.00	7.54	H	8.8
5373.448000	58.36	---	74.00	15.64	H	8.8

**802.11ac80 mode
5210 MHz****Common Information**

Project No.: RKSA240620011
Test Mode: Transmitting in 802.11ac80 mode 5210 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

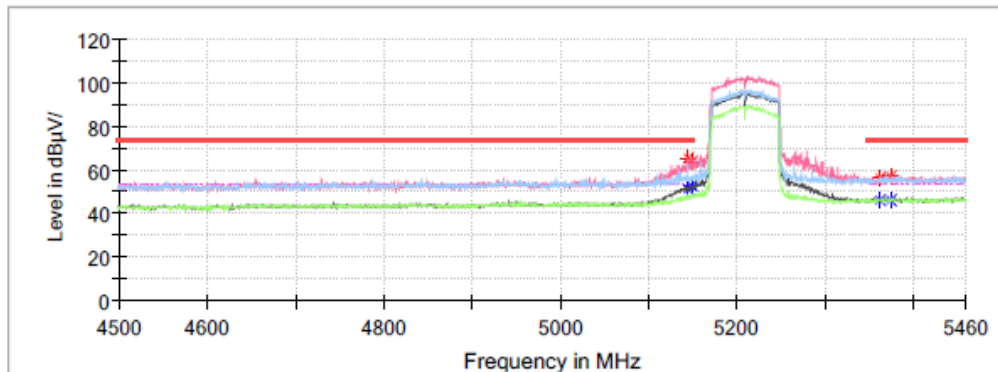
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1455.600000	---	19.98	54.00	34.02	V	-14.8
1455.600000	30.04	---	74.00	43.96	V	-14.8
2247.800000	---	23.04	54.00	30.96	V	-11.0
2247.800000	33.05	---	74.00	40.95	V	-11.0
4529.200000	---	32.44	54.00	21.56	V	-4.2
4529.200000	43.13	---	74.00	30.87	V	-4.2
7568.800000	---	40.15	54.00	13.85	H	3.9
7568.800000	50.85	---	74.00	23.15	H	3.9
12580.400000	52.28	---	74.00	21.72	V	9.7
12580.400000	---	46.53	54.00	7.47	V	9.7
17836.800000	---	45.57	54.00	8.43	H	11.8
17836.800000	56.32	---	74.00	17.68	H	11.8

Band Edge:**Common Information**

Project No.: RKSA240620011
Test Mode: Transmitting in 802.11ac80 mode 5210 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

Full Spectrum

**Critical Freqs**

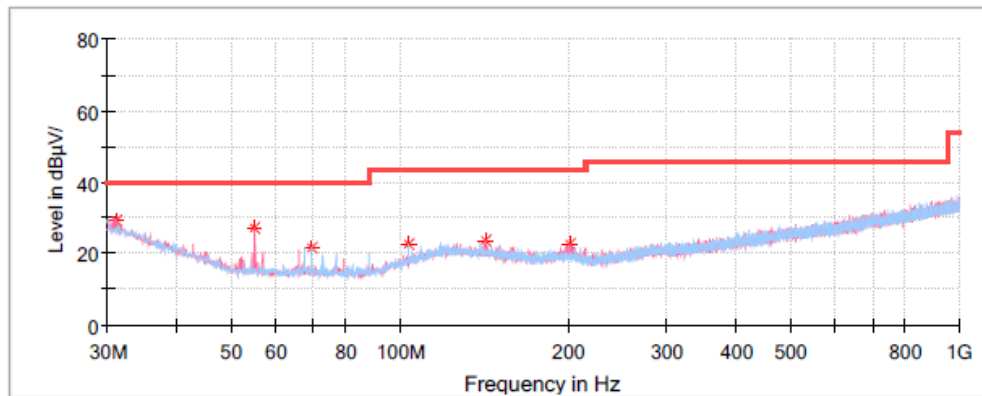
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5144.736000	65.09	---	74.00	8.91	V	8.2
5144.736000	---	51.13	54.00	2.87	V	8.2
5149.728000	63.37	---	74.00	10.63	V	8.2
5149.728000	---	53.08	54.00	0.92	V	8.2
5362.080000	---	46.01	54.00	7.99	V	8.8
5362.080000	56.25	---	74.00	17.75	V	8.8
5375.904000	---	46.20	54.00	7.80	V	8.8
5375.904000	56.91	---	74.00	17.09	V	8.8

**Transmitting in maximum output power mode 802.11a mode middle channel
30MHz-1GHz(5725-5850MHz Band):**

Middle Channel: 5785 MHz

Common Information

Project No:	RKSA240620011
EUT Model:	P14
Test Mode:	Transmitting in 802.11a mode Middle channel
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	20.2℃
Humidity:	58%
Barometric Pressure:	102.6kPa
Test Engineer:	Leah Li
Test Date:	2024/10/25

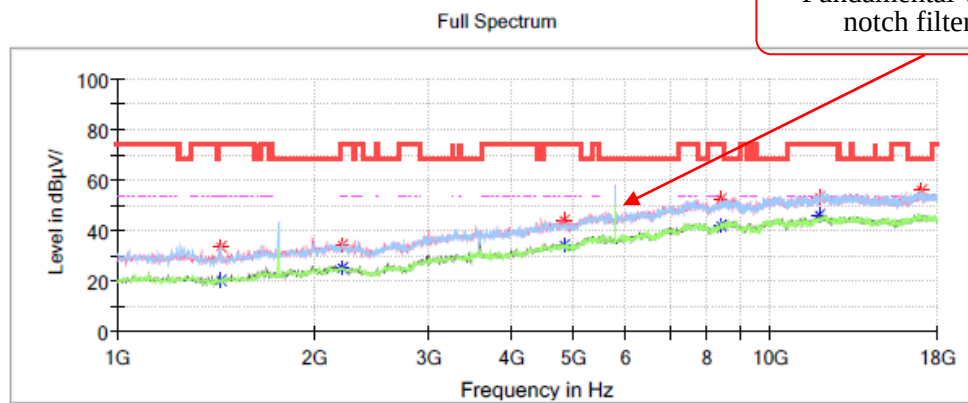


Critical Freqs

Frequency (MHz)	MaxPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
31.212500	29.13	40.00	10.87	V	-5.5
55.098750	27.25	40.00	12.75	V	-17.2
69.527500	21.48	40.00	18.52	H	-17.1
103.477500	22.89	43.50	20.61	H	-13.8
141.913750	23.43	43.50	20.07	V	-11.5
201.568750	22.49	43.50	21.01	V	-12.3

1GHz-18GHz (5725-5850MHz Band):**802.11a mode****Low Channel: 5745 MHz****Common Information**

Project No.: RKSA240620011
 Test Mode: Transmitting in 802.11a mode 5745 channel
 Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Test Engineer: Destine Hu

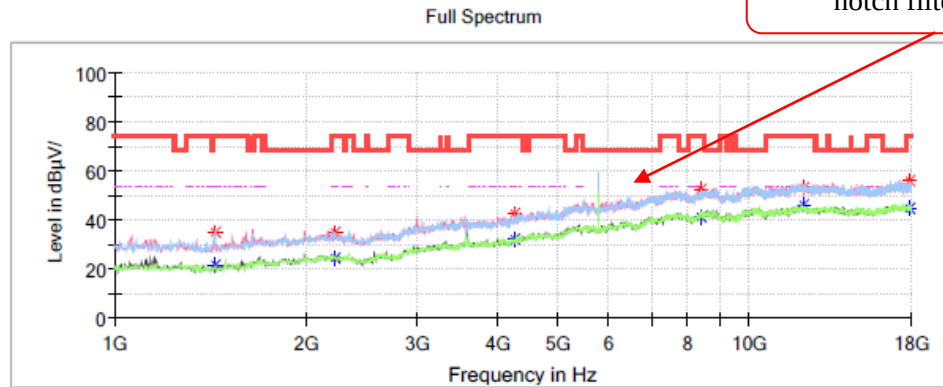
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1438.600000	---	20.55	54.00	33.45	V	-14.8
1438.600000	33.78	---	74.00	40.22	V	-14.8
2207.000000	---	24.97	54.00	29.03	V	-11.1
2207.000000	34.51	---	74.00	39.49	V	-11.1
4825.000000	---	34.28	54.00	19.72	V	-3.1
4825.000000	43.73	---	74.00	30.27	V	-3.1
8412.000000	---	42.06	54.00	11.94	H	5.2
8412.000000	52.59	---	74.00	21.41	H	5.2
11893.600000	---	45.92	54.00	8.08	V	8.9
11893.600000	53.26	---	74.00	20.74	V	8.9
17027.600000	55.95	---	68.20	12.25	H	12.2

Middle Channel: 5785 MHz**Common Information**

Project No.: RKSA240620011
Test Mode: Transmitting in 802.11a mode 5785 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

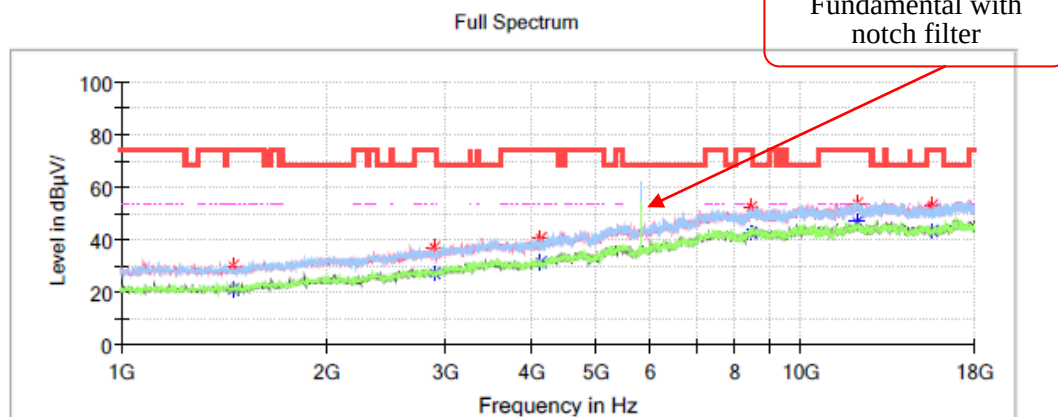
Fundamental with
notch filter

**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)
1438.600000	35.12	---	74.00	38.88	H	-14.8
1438.600000	---	21.58	54.00	32.42	H	-14.8
2224.000000	---	24.39	54.00	29.61	H	-11.0
2224.000000	35.11	---	74.00	38.89	H	-11.0
4281.000000	---	31.85	54.00	22.15	V	-5.0
4281.000000	42.51	---	74.00	31.49	V	-5.0
8378.000000	52.32	---	74.00	21.68	V	5.1
8378.000000	---	41.49	54.00	12.51	V	5.1
12199.600000	52.91	---	74.00	21.09	V	9.2
12199.600000	---	45.81	54.00	8.19	V	9.2
17853.800000	---	44.87	54.00	9.13	V	11.8
17853.800000	55.94	---	74.00	18.06	V	11.8

High Channel: 5825 MHz**Common Information**

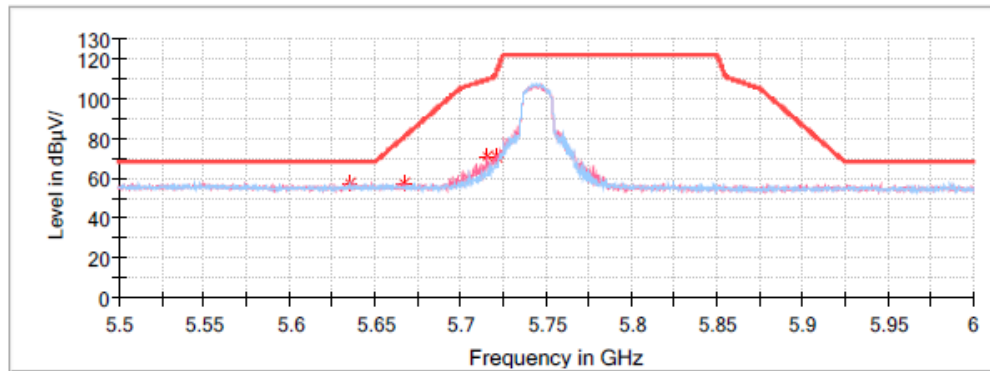
Project No.:	RKSA240620011
Test Mode:	Transmitting in 802.11a mode 5825 channel
Standard:	FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer:	Destine Hu

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1455.600000	30.12	---	74.00	43.88	V	-14.8
1455.600000	---	20.83	54.00	33.17	V	-14.8
2885.300000	36.77	---	74.00	37.23	V	-8.8
2885.300000	---	27.05	54.00	26.95	V	-8.8
4134.800000	40.75	---	74.00	33.25	H	-5.5
4134.800000	---	31.33	54.00	22.67	H	-5.5
8439.200000	---	42.88	54.00	11.12	H	5.2
8439.200000	52.23	---	74.00	21.77	H	5.2
12068.700000	---	46.80	54.00	7.20	V	9.1
12068.700000	53.90	---	74.00	20.10	V	9.1
15592.800000	52.93	---	74.00	21.07	V	9.8
15592.800000	---	43.60	54.00	10.40	V	9.8

Band Edge:**Left Side****Common Information**

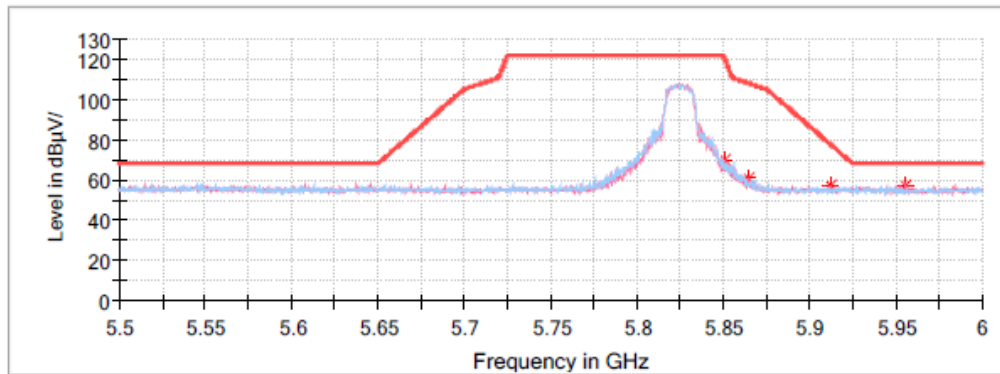
Project No.:	RKSA240620011
Test Mode:	Transmitting in 802.11a mode 5745 channel
Standard:	FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer:	Destine Hu

Full Spectrum**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5634.800000	57.52	---	68.20	10.68	H	9.0
5667.000000	57.33	---	80.78	23.45	V	8.9
5715.200000	71.20	---	109.46	38.26	V	8.9
5721.400000	71.22	---	113.99	42.77	V	8.9

Right Side**Common Information**

Project No.: RKSA240620011
Test Mode: Transmitting in 802.11a mode 5825 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

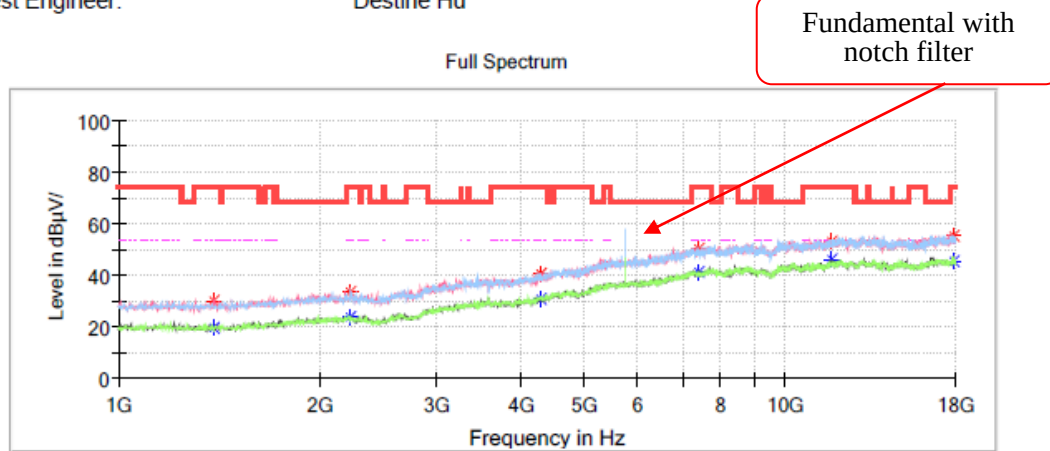
Full Spectrum**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5851.400000	69.67	---	119.01	49.34	V	8.7
5865.200000	60.83	---	107.94	47.12	V	8.7
5912.200000	57.28	---	77.67	20.40	V	8.7
5955.200000	56.85	---	68.20	11.35	V	8.6

802.11n20 mode
Low Channel: 5745 MHz

Common Information

Project No.:	RKSA240620011
Test Mode:	Transmitting in 802.11n20 mode 5745 channel
Standard:	FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer:	Destine Hu

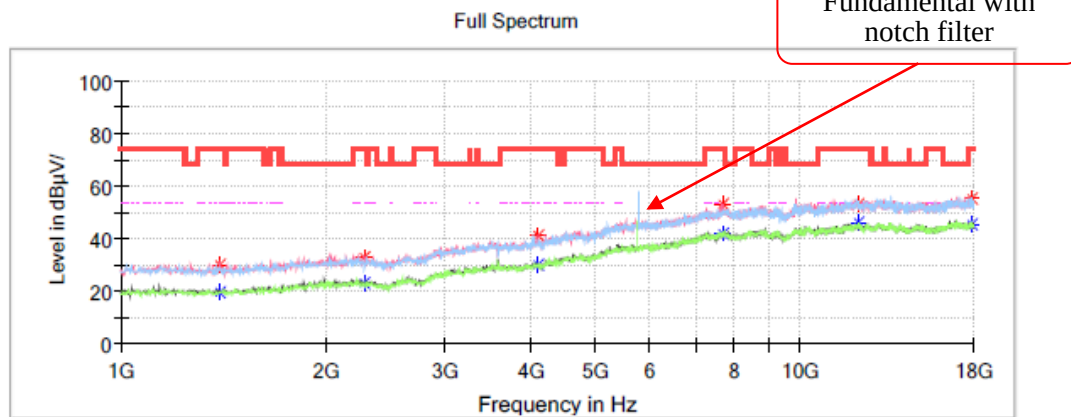


Critical Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1391.000000	---	19.74	54.00	34.26	V	-14.9
1391.000000	30.06	---	74.00	43.94	V	-14.9
2230.800000	---	23.79	54.00	30.21	H	-11.0
2230.800000	33.29	---	74.00	40.71	H	-11.0
4298.000000	---	30.90	54.00	23.10	H	-4.9
4298.000000	40.88	---	74.00	33.12	H	-4.9
7432.800000	---	40.99	54.00	13.01	H	3.7
7432.800000	50.22	---	74.00	23.78	H	3.7
11764.400000	53.09	---	74.00	20.91	V	8.9
11764.400000	---	46.25	54.00	7.75	V	8.9
17864.000000	---	45.69	54.00	8.31	H	11.8
17864.000000	55.44	---	74.00	18.56	H	11.8

Middle Channel: 5785 MHz**Common Information**

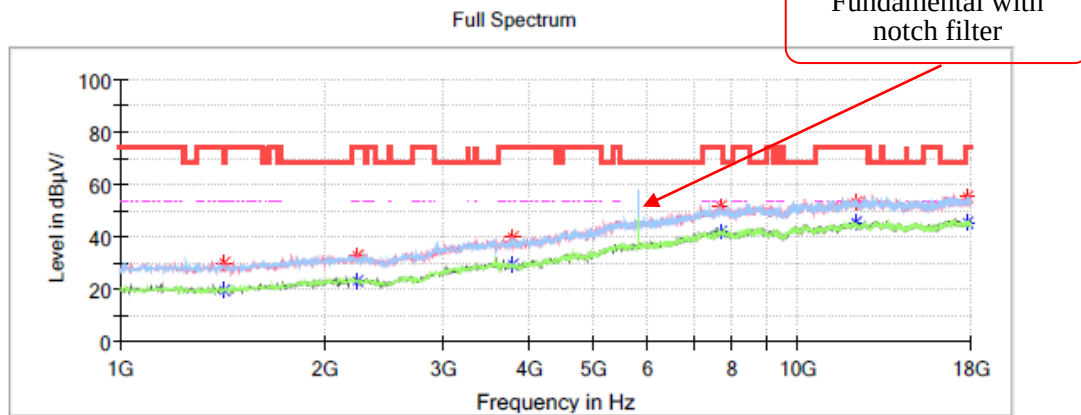
Project No.: RKSA240620011
 Test Mode: Transmitting in 802.11n20 mode 5785 channel
 Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Test Engineer: Destine Hu

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1401.200000	---	19.60	54.00	34.40	V	-14.9
1401.200000	30.27	---	74.00	43.73	V	-14.9
2288.600000	---	22.98	54.00	31.02	V	-10.8
2288.600000	32.59	---	74.00	41.41	V	-10.8
4107.600000	---	29.97	54.00	24.03	H	-5.6
4107.600000	41.04	---	74.00	32.96	H	-5.6
7691.200000	---	41.88	54.00	12.12	V	3.9
7691.200000	52.88	---	74.00	21.12	V	3.9
12196.200000	53.25	---	74.00	20.75	V	9.2
12196.200000	---	45.89	54.00	8.11	V	9.2
17911.600000	---	45.25	54.00	8.75	H	11.9
17911.600000	55.09	---	74.00	18.91	H	11.9

High Channel: 5825 MHz**Common Information**

Project No.: RKSA240620011
 Test Mode: Transmitting in 802.11n20 mode 5825 channel
 Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Test Engineer: Destine Hu

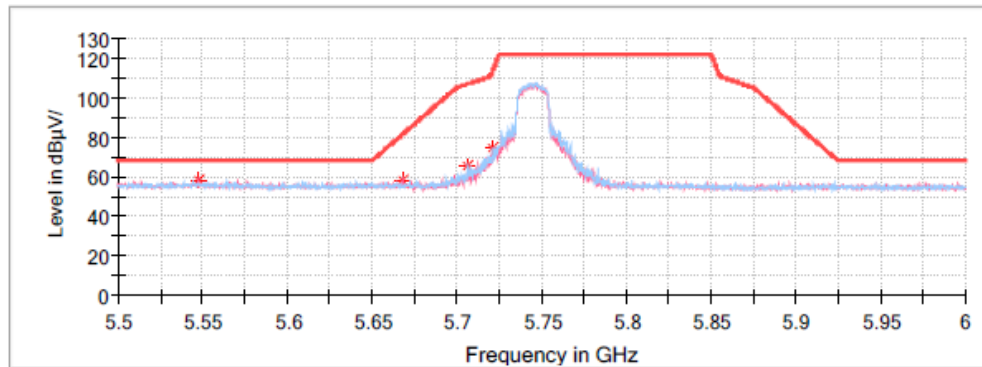
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1425.000000	---	19.46	54.00	34.54	V	-14.8
1425.000000	29.90	---	74.00	44.10	V	-14.8
2244.400000	---	23.27	54.00	30.73	H	-11.0
2244.400000	32.86	---	74.00	41.14	H	-11.0
3794.800000	---	29.34	54.00	24.66	V	-6.1
3794.800000	40.19	---	74.00	33.81	V	-6.1
7711.600000	---	42.23	54.00	11.77	H	3.9
7711.600000	51.80	---	74.00	22.20	H	3.9
12155.400000	53.34	---	74.00	20.66	H	9.2
12155.400000	---	45.77	54.00	8.23	H	9.2
17748.400000	---	45.52	54.00	8.48	V	11.7
17748.400000	55.07	---	74.00	18.93	V	11.7

Band Edge:**Left Side****Common Information**

Project No.:	RKSA240620011
Test Mode:	Transmitting in 802.11n20 mode 5745 channel
Standard:	FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer:	Destine Hu

Full Spectrum

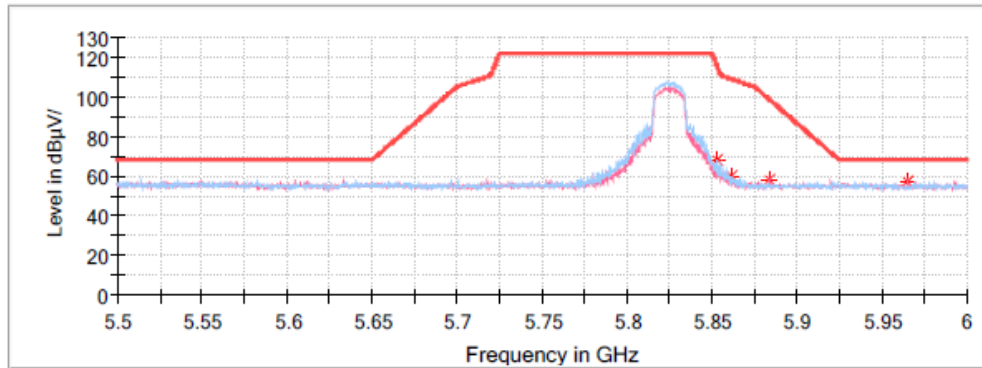
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5547.200000	57.92	---	68.20	10.28	V	9.1
5667.600000	58.17	---	81.22	23.05	V	8.9
5706.600000	65.44	---	107.05	41.61	H	8.9
5721.200000	74.14	---	113.54	39.39	H	8.9

Right Side**Common Information**

Project No.: RKSA240620011
Test Mode: Transmitting in 802.11n20 mode 5825 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

Full Spectrum

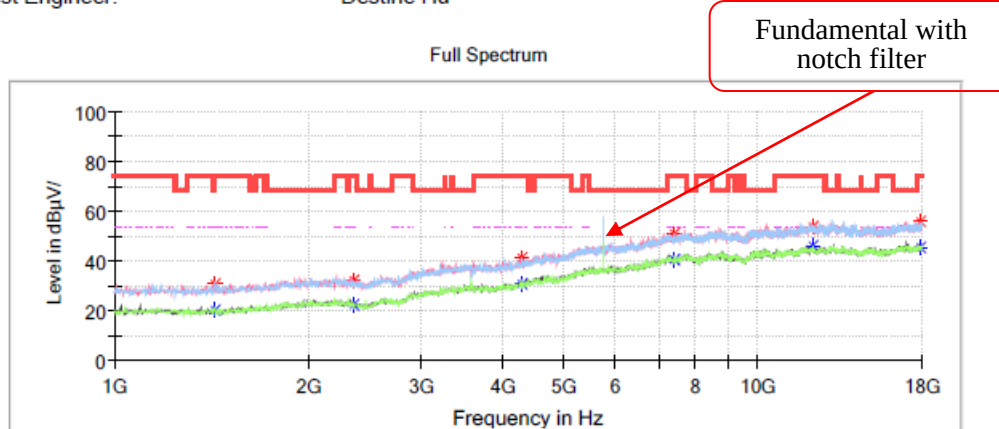
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5852.600000	68.25	---	116.27	48.02	H	8.7
5861.600000	60.34	---	108.95	48.61	H	8.7
5884.200000	57.97	---	98.39	40.42	V	8.7
5965.600000	57.47	---	68.20	10.73	V	8.6

802.11n40 mode
Low Channel: 5755 MHz

Common Information

Project No.:	RKSA240620011
Test Mode:	Transmitting in 802.11n40 mode 5755 channel
Standard:	FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer:	Destine Hu

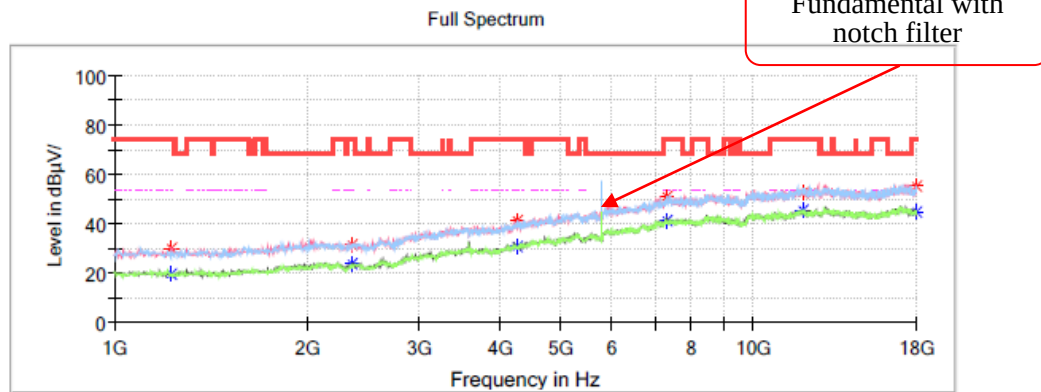


Critical Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1435.200000	30.99	---	74.00	43.01	H	-14.8
1435.200000	---	20.25	54.00	33.75	H	-14.8
2349.800000	32.43	---	74.00	41.57	V	-10.6
2349.800000	---	22.67	54.00	31.33	V	-10.6
4304.800000	40.94	---	74.00	33.06	H	-4.9
4304.800000	---	31.08	54.00	22.92	H	-4.9
7429.400000	51.37	---	74.00	22.63	H	3.7
7429.400000	---	40.48	54.00	13.52	H	3.7
12152.000000	---	46.48	54.00	7.52	V	9.2
12152.000000	54.18	---	74.00	19.82	V	9.2
17870.800000	---	45.33	54.00	8.67	H	11.8
17870.800000	55.66	---	74.00	18.34	H	11.8

High Channel: 5795 MHz**Common Information**

Project No.: RKSA240620011
Test Mode: Transmitting in 802.11n40 mode 5795 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

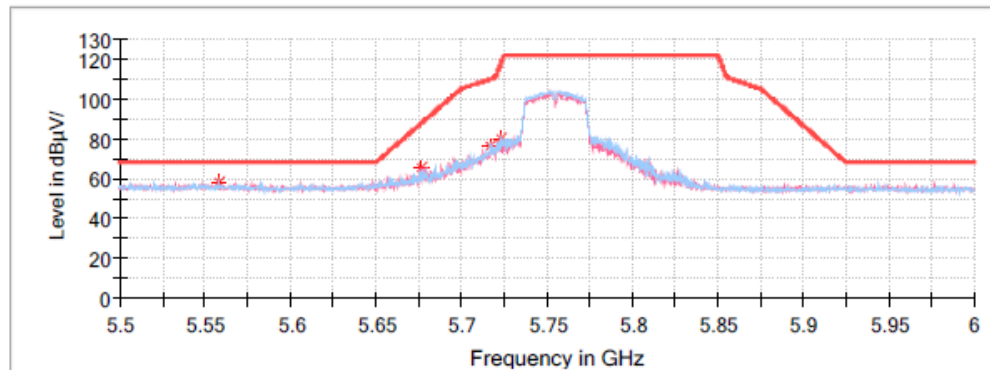
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1227.800000	---	19.31	54.00	34.69	V	-15.1
1227.800000	30.14	---	74.00	43.86	V	-15.1
2360.000000	---	23.62	54.00	30.38	V	-10.6
2360.000000	31.60	---	74.00	42.40	V	-10.6
4267.400000	---	30.84	54.00	23.16	H	-5.0
4267.400000	41.36	---	74.00	32.64	H	-5.0
7341.000000	---	41.61	54.00	12.39	H	3.5
7341.000000	51.02	---	74.00	22.98	H	3.5
11988.800000	52.58	---	74.00	21.42	V	9.0
11988.800000	---	45.56	54.00	8.44	V	9.0
17952.400000	---	45.07	54.00	8.93	H	11.9
17952.400000	54.93	---	74.00	19.07	H	11.9

Band Edge:**Left Side****Common Information**

Project No.: RKSA240620011
Test Mode: Transmitting in 802.11n40 mode 5755 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

Full Spectrum

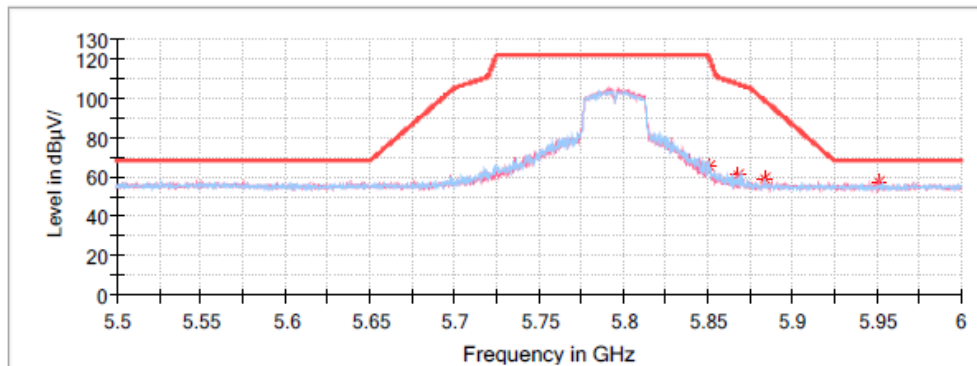
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5557.800000	58.62	---	68.20	9.58	H	9.0
5676.800000	65.53	---	88.03	22.50	V	8.9
5716.600000	76.57	---	109.85	33.28	H	8.9
5722.600000	80.08	---	116.73	36.64	H	8.9

Right Side**Common Information**

Project No.: RKSA240620011
Test Mode: Transmitting in 802.11n40 mode 5795 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

Full Spectrum

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5851.400000	65.36	---	119.01	53.65	V	8.7
5867.600000	60.75	---	107.27	46.52	V	8.7
5884.200000	59.46	---	98.39	38.93	H	8.7
5951.000000	57.61	---	68.20	10.59	V	8.6

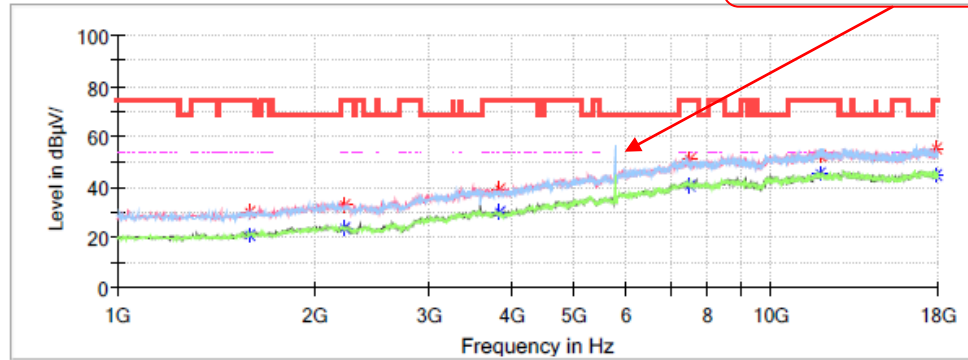
802.11ac80 mode 5775 MHz

Common Information

Project No.: RKSA240620011
 Test Mode: Transmitting in 802.11ac80 mode 5775 channel
 Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Test Engineer: Destine Hu

Full Spectrum

Fundamental with
notch filter



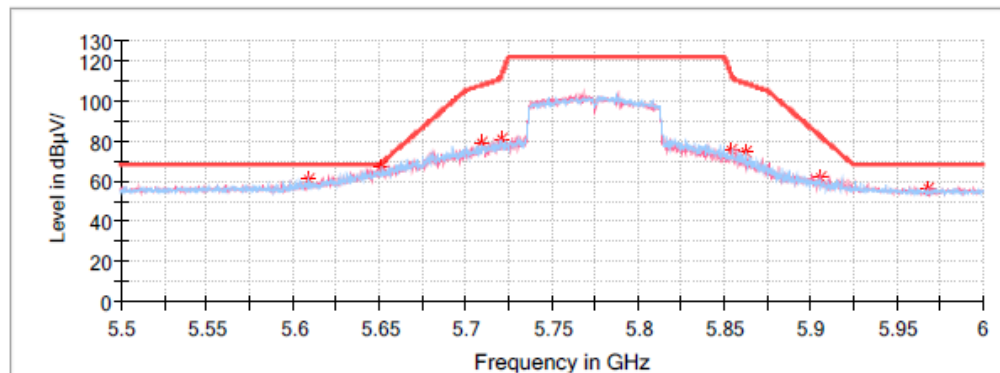
Critical Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1595.000000	---	21.00	54.00	33.00	H	-14.2
1595.000000	30.06	---	74.00	43.94	H	-14.2
2227.400000	---	23.99	54.00	30.01	V	-11.0
2227.400000	33.12	---	74.00	40.88	V	-11.0
3839.000000	---	29.80	54.00	24.20	H	-6.0
3839.000000	39.39	---	74.00	34.61	H	-6.0
7483.800000	---	40.80	54.00	13.20	H	3.8
7483.800000	51.40	---	74.00	22.60	H	3.8
11880.000000	52.67	---	74.00	21.33	V	8.9
11880.000000	---	45.75	54.00	8.25	V	8.9
17881.000000	---	44.93	54.00	9.07	V	11.9
17881.000000	54.90	---	74.00	19.10	V	11.9

Band Edge:**Common Information**

Project No.: RKSA240620011
Test Mode: Transmitting in 802.11ac80 mode 5775 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Test Engineer: Destine Hu

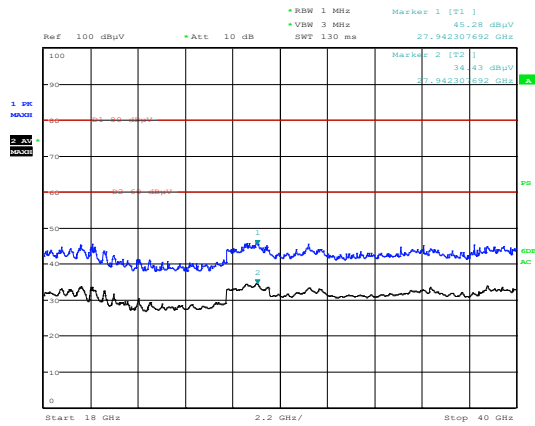
Full Spectrum

**Critical Freqs**

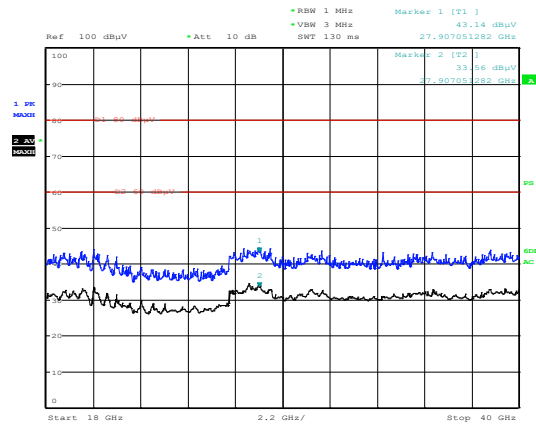
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5608.400000	60.96	---	68.20	7.24	V	9.0
5651.200000	67.45	---	69.09	1.64	H	8.9
5709.600000	79.38	---	107.89	28.51	V	8.9
5721.000000	80.95	---	113.08	32.13	V	8.9
5853.800000	75.61	---	113.54	37.93	V	8.7
5862.800000	74.42	---	108.62	34.19	H	8.7
5906.400000	62.21	---	81.96	19.76	V	8.7
5968.000000	56.59	---	68.20	11.61	V	8.6

18GHz-40GHz: Transmitting in maximum output power mode and channel

Horizontal



Vertical



Project No :RKSA240620011
Date: 8.JAN.2025 12:39:01

Tester :Hugh Wu

Project No :RKSA240620011
Date: 8.JAN.2025 12:16:49

Tester :Hugh Wu

Frequency (MHz)	Max Peak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
27907.05	---	33.56	60	26.44	V	17.46
27907.05	43.14	---	80	36.86	V	17.46
27942.31	---	34.43	60	25.57	H	17.47
27942.31	45.28	---	80	34.72	H	17.47

Note: The test distance is 1.5m. The limit is 80dBμV/m (Peak) and 60dBμV/m (Average).

SPOT CHECK WITH MAXIMUM CONDUCTED OUTPUT POWER*Test Mode: Transmitting**Band: 5150-5250 MHz*

Mode	Channel	Frequency (MHz)	Maximum Conducted Average Output Power(dBm)	Limit (dBm)	Result
802.11a	Low	5180	12.01	24	Pass
	Middle	5200	11.60	24	Pass
	High	5240	11.29	24	Pass

Band: 5725-5850 MHz

Mode	Channel	Frequency (MHz)	Maximum Conducted Average Output Power(dBm)	Limit (dBm)	Result
802.11a	Low	5745	11.59	30	Pass
	Middle	5785	11.70	30	Pass
	High	5825	11.42	30	Pass

Note: The Spot Check data were similar to the original data.

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 D - 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 *******