FCC PART 15.407

TEST REPORT

For

Hangzhou YuShu Technology Co., Ltd.

306 Room, Building 1, 88 Dongliu Rd, XiXing Street, Binjiang District, Hangzhou, ZheJiang, China

FCC ID: 2A5PE-YUSHU006

Report Type:	**Product Name:**
Original Report	Quadruped Robot

Report Number:	RKSA240325003-00D
Report Date:	2024-10-14
Reviewed By:	Bard Liu
Approved By:	Oscar Ye
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Kunshan) No.248 Chenghu Road, Kunshan, Jiangsu province, China Tel: +86-512-86175000 Fax: +86-512-88934268 www.baclcorp.com.cn

TABLE OF CONTENTS

REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RKSA240325003-00D	R1V1	2024-10-14	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	Hangzhou YuShu Technology Co., Ltd.				
Product Name:	Quadruped Robot				
Tested Model:	B2				
Power Supply:	DC 50.4V from battery				
Operating Frequency:	B1: 5150-5250 MHz, B2: 5250-5350 MHz, B3: 5470-5725 MHz, B4: 5725-5850 MHz				
Maximum Output Power:	Mode:	5G Wi-Fi Band 1:	Band 2:	Band 3:	Band 4:
	802.11a:	18.41 dBm	17.97 dBm	16.94 dBm	18.12 dBm
	802.11ac20:	21.65 dBm	20.74 dBm	19.82 dBm	21.29 dBm
	802.11ac40:	21.28 dBm	19.74 dBm	17.73 dBm	20.50 dBm
	802.11ac80:	21.07 dBm	17.69 dBm	19.07 dBm	21.30 dBm
	802.11ax20:	21.76 dBm	20.79 dBm	19.01 dBm	21.39 dBm
	802.11ax40:	21.19 dBm	19.76 dBm	17.79 dBm	20.62 dBm
	802.11ax80:	21.09 dBm	17.70 dBm	19.10 dBm	21.32 dBm
Channel Number:	B1: 7, B2: 7, B3: 21, B4: 8				
Channel Separation	802.11a/ac/n/ax20: 20 MHz, 802.11ac/n/ax40: 40 MHz, 802.11ac/ax80: 80 MHz				
Modulation Type:	OFDM, OFDMA				
Antenna Type:	Omni antenna				
★Maximum Antenna Gain:	Band 1: 2.72 dBi; Band 2: 2.93 dBi; Band 3: 3.01 dBi; Band 4: 3.11 dBi;				

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

All measurement and test data in this report was gathered from production sample serial number: RKSA240325003-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2024-03-25.)

Objective

This type approval report is prepared for *Hangzhou YuShu 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.

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Kunshan).

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

Description of Test Configuration

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

Note: The system support 802.11a/n ht20/n ht40/ac vht20/vht40/vht80/ax20/ax40/ax80,
the 802.11n-ht20/n-ht40 were reduced since the identical parameters with 802.11 ac20/ ac40.

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

802.11a/ac20/ax20 mode Channel 36, 40, 48 were tested.
802.11ac40/ax40 mode Channel 38, 46 were tested.
802.11ac80/ax80 mode Channel 42 was tested.

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

For **5250~5350 MHz** band, test channel list is as below,

802.11a/ac20/ax20 mode Channel 52, 56, 64 were tested.
802.11ac40/ax40 mode Channel 54, 62 were tested.
802.11ac80/ax80 mode Channel 58 was tested.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	60	5300
54	5270	62	5310
56	5280	64	5320
58	5290	/	/

For **5470~5725 MHz** band, test channel list is as below,

802.11a/ac20/ax20 mode Channel 100, 116, 140, 142 were tested.
802.11ac40/ax40 mode Channel 102, 110, 134, 144 were tested.
802.11ac80/ax80 mode Channel 106, 122, 138 were tested.

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	116	5580	132	5660
102	5510	118	5590	134	5670
104	5520	120	5600	136	5680
106	5530	122	5610	138	5690
108	5540	124	5620	140	5700
110	5550	126	5630	142	5710
112	5560	128	5640	144	5720

For **5725~5850 MHz** band,

802.11a/ac20/ax20 mode Channel 149, 157, 165 were tested.
802.11ac40/ax40 mode Channel 151, 159 were tested.
802.11ac80/ax80 mode Channel 155 was 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: QRCT 4

The worst case was performed under:

5150-5250MHz:

Mode	Data Rate	Channel	★Power Level	
			Chain 0	Chain 1
802.11a	6 Mbps	5180	20	20
		5200	20	20
		5240	20	20
802.11-ac20	MCS0	5180	20	20
		5200	20	20
		5240	20	20
802.11-ac40	MCS0	5190	20	20
		5230	20	20
802.11-ac80	MCS0	5210	20	20
802.11-ax20	MCS0	5180	20	20
		5200	20	20
		5240	20	20
802.11-ax40	MCS0	5190	20	20
		5230	20	20
802.11-ax80	MCS0	5210	20	20

5250-5350MHz:

Mode	Data Rate	Channel	★Power Level	
			Chain 0	Chain 1
802.11a	6 Mbps	5260	20	20
		5280	20	20
		5320	20	20
802.11-ac20	MCS0	5260	20	20
		5280	20	20
		5320	20	20
802.11-ac40	MCS0	5270	18	18
		5310	18	18
802.11-ac80	MCS0	5290	18	18
802.11-ax20	MCS0	5260	20	20
		5280	20	20
		5320	20	20
802.11-ax40	MCS0	5270	17	17
		5310	17	17
802.11-ax80	MCS0	5290	18	18

5470-5725MHz:

Mode	Data Rate	Channel	★Power Level	
			Chain 0	Chain 1
802.11a	6 Mbps	5500	17	17
		5580	19	19
		5700	19	19
		5720	19	19
802.11ac20	MCS0	5500	18	18
		5580	13	13
		5700	13	13
		5720	13	13
802.11ac40	MCS0	5510	16	16
		5550	15	15
		5670	15	15
		5710	15	15
802.11ac80	MCS0	5530	17	17
		5610	17	17
		5690	17	17
802.11ax20	MCS0	5500	17	17
		5580	14	14
		5700	14	14
		5720	14	14
802.11ax40	MCS0	5510	16	16
		5550	16	16
		5670	16	16
		5710	16	16
802.11ax80	MCS0	5530	17	17
		5610	17	17
		5690	17	17

5725-5850MHz:

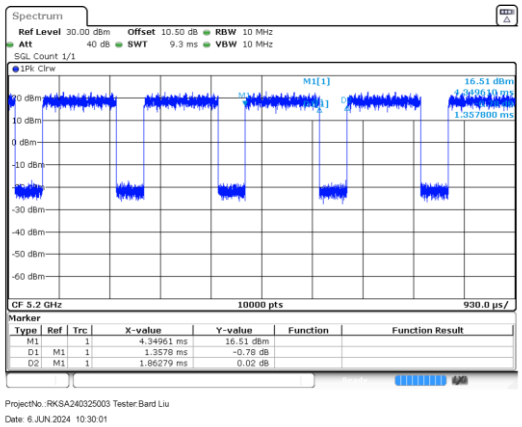
Mode	Data Rate	Channel	★Power Level	
			Chain 0	Chain 1
802.11a	6 Mbps	5745	20	20
		5785	20	20
		5825	20	20
802.11ac20	MCS0	5745	20	20
		5785	20	20
		5825	20	20
802.11ac40	MCS0	5755	20	20
		5795	20	20
802.11ac80	MCS0	5775	20	20
802.11ax20	MCS0	5745	20	20
		5785	20	20
		5825	20	20
802.11ax40	MCS0	5755	20	20
		5795	20	20
802.11ax80	MCS0	5775	20	20

Note:
1. The power level was declared by the applicant.
2. 802.11a supports SISO, 802.11ac20/ac40/ac80/ax20/ax40/ax80 supports SISO and MIMO mode. For Radiated Emission, according to pretest, the worst case for 802.11ac20/ac40/ac80/ax20/ax40/ax80 is MIMO mode. So 802.11ac20/ac40/ac80/ax20/ax40/ax80 MIMO mode test data were recorded in the report.
3. For 802.11ax, the EUT only support full RU not support partial RU.

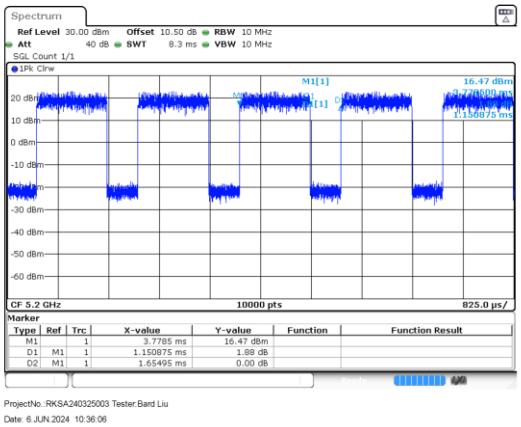
For Conducted Test:
802.11a & 802.11ac&802.11ax: each transmit chains were tested.
For Radiated Test:
802.11a：SISO for each transmit chain
802.11ac/ax: MIMO for two transmit chains

Duty Cycle
Chain 0
5150MHz-5250MHz Band:

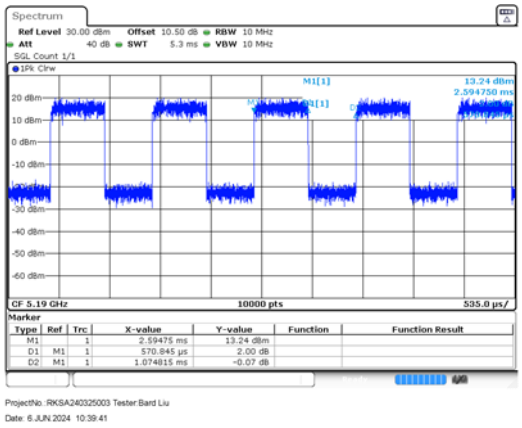
802.11a mode



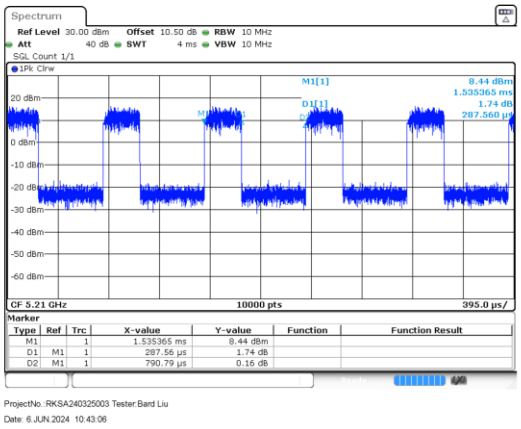
802.11ac20 mode



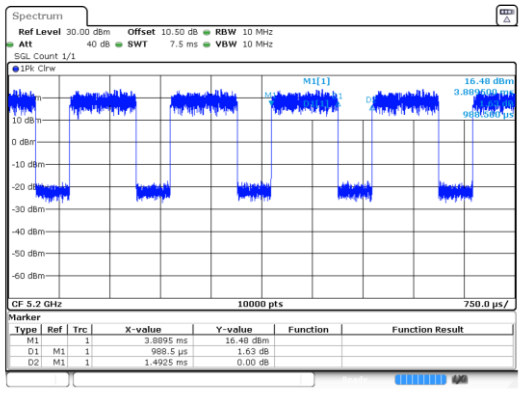
802.11ac40 mode



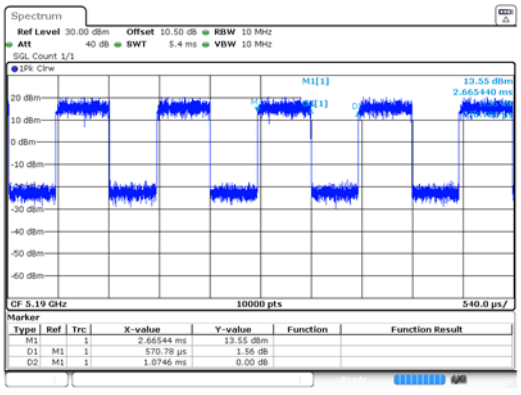
802.11ac80 mode



802.11ax20 mode

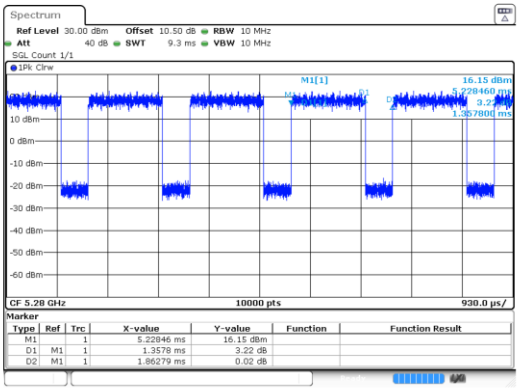


802.11ax40 mode

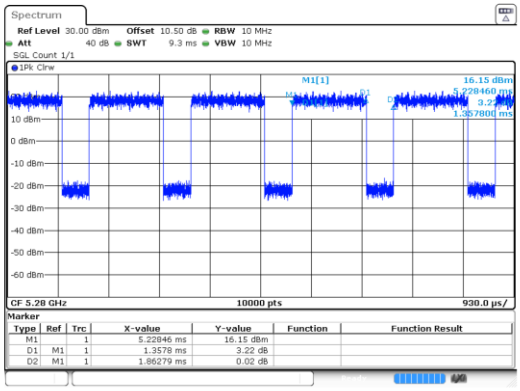


5250MHz-5350MHz Band:

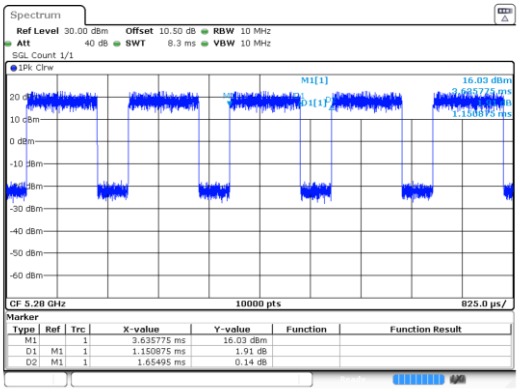
802.11ax80 mode



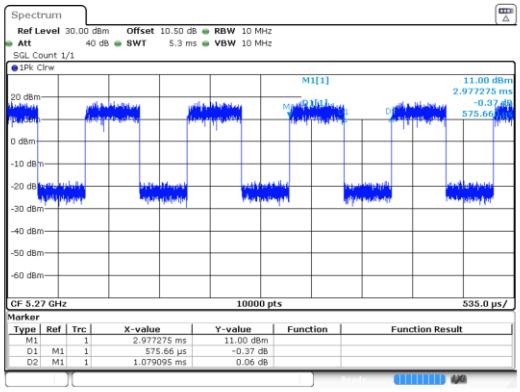
802.11a mode



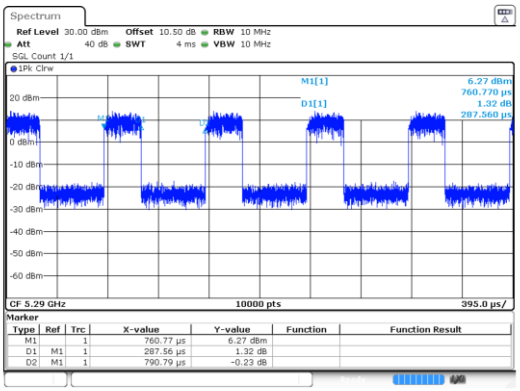
802.11ac20 mode



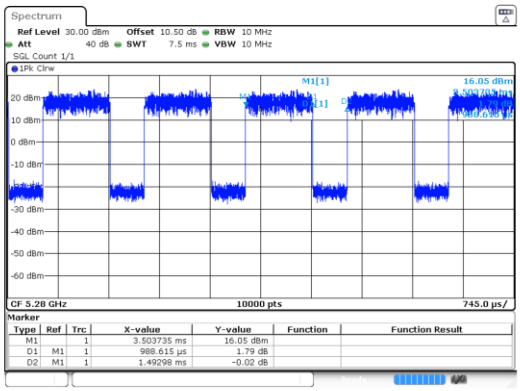
802.11ac40 mode



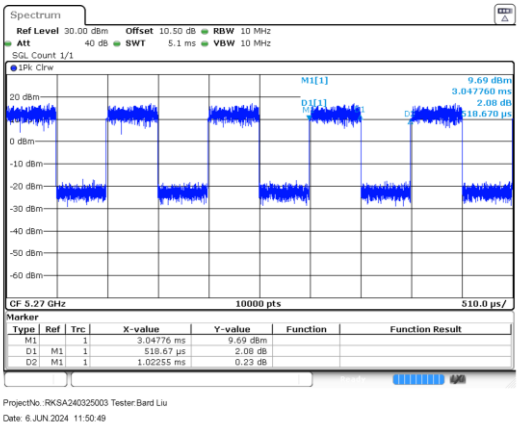
802.11ac80 mode



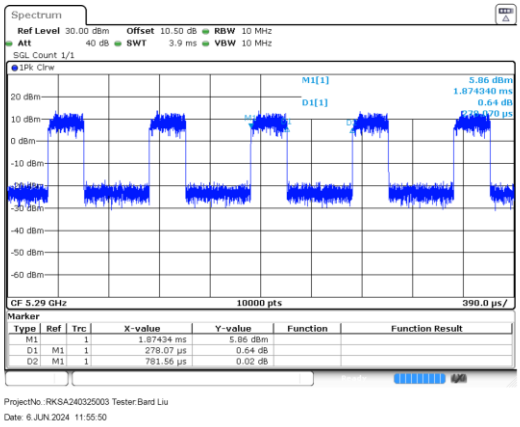
802.11ax20 mode



802.11ax40 mode

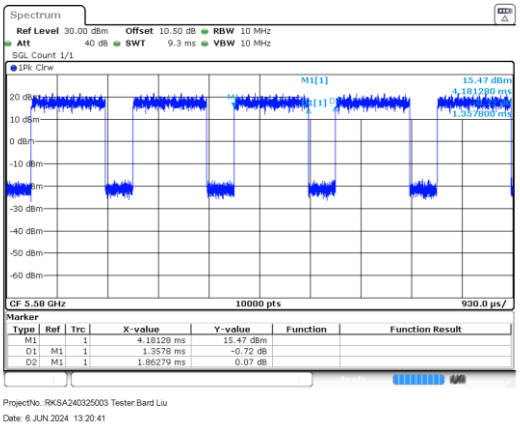


802.11ax80 mode

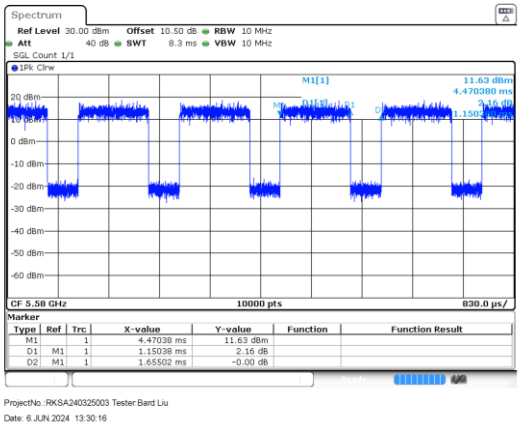


5470MHz-5725MHz Band:

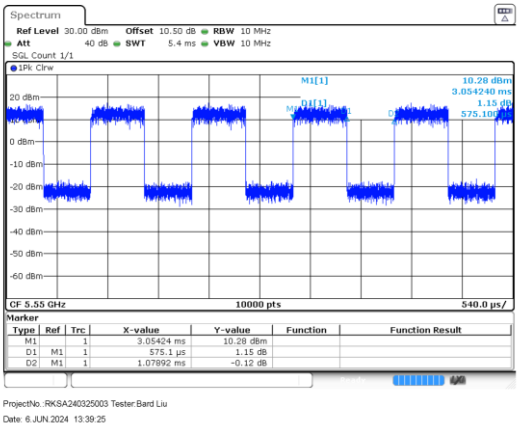
802.11a mode



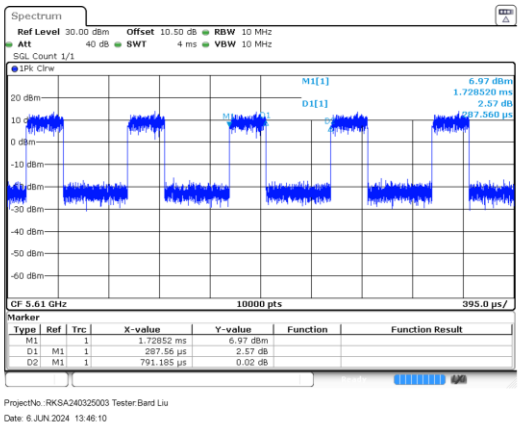
802.11ac20 mode



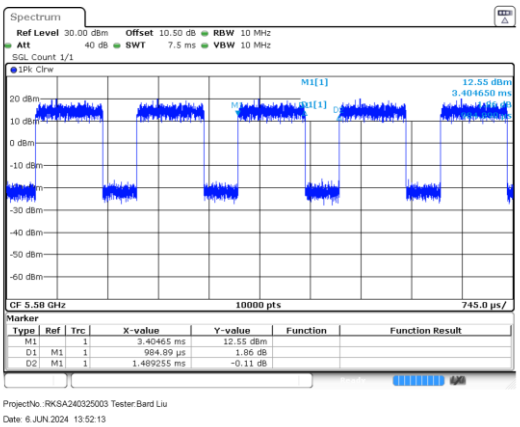
802.11ac40 mode



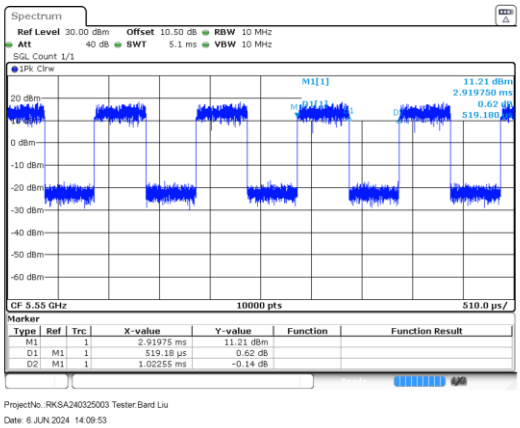
802.11ac80 mode



802.11ax20 mode

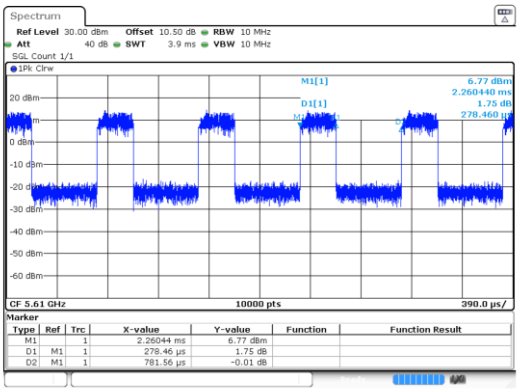


802.11ax40 mode

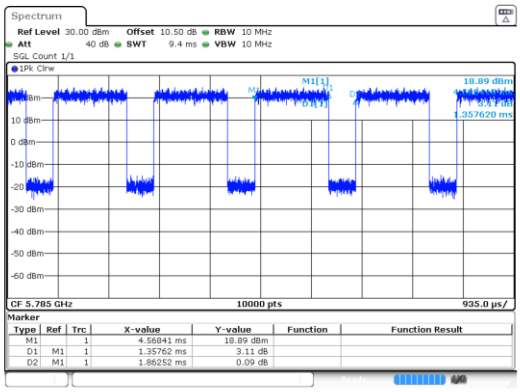


5725MHz-5850MHz Band:

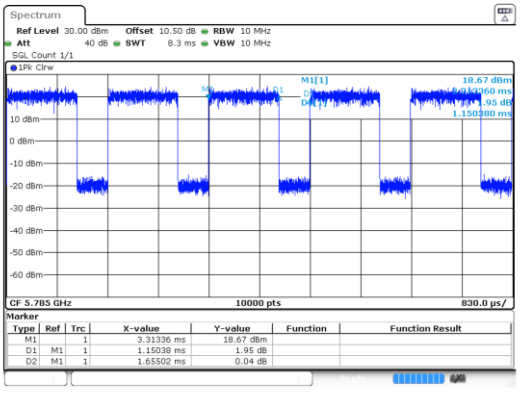
802.11ax80 mode



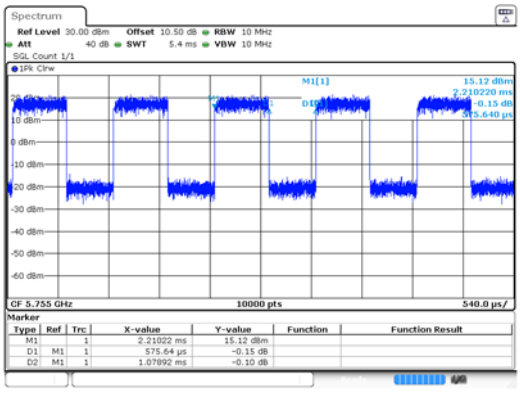
802.11a mode



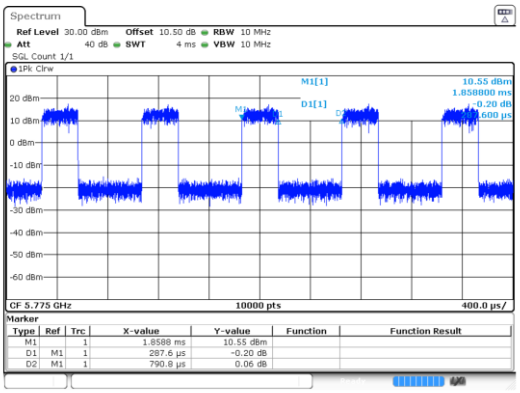
802.11ac20 mode



802.11ac40 mode

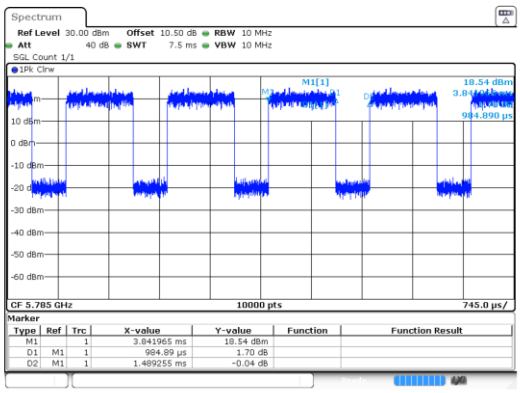


802.11ac80 mode



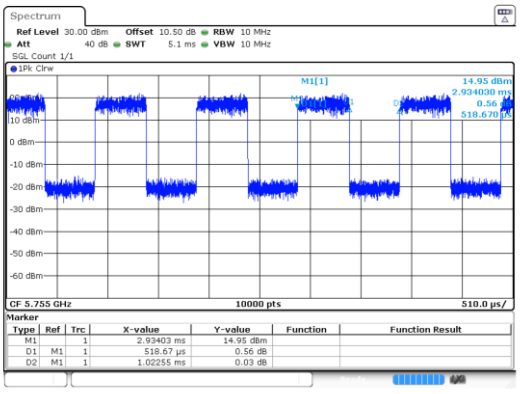
ProjectNo.:RKSA240325003 Tester:Bard Liu
Date: 6.JUN.2024 14:45:05

802.11ax20 mode



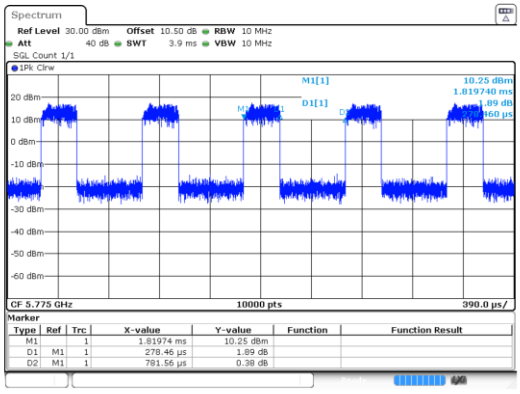
ProjectNo.:RKSA240325003 Tester:Bard Liu
Date: 6.JUN.2024 15:04:06

802.11ax40 mode



ProjectNo.:RKSA240325003 Tester:Bard Liu
Date: 6.JUN.2024 15:09:48

802.11ax80 mode



ProjectNo.:RKSA240325003 Tester:Bard Liu
Date: 6.JUN.2024 15:14:27

5.2G

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
a_5200MHz_Chain 0	1.358	1.863	72.89	1.37
ac20_5200MHz_Chain 0	1.151	1.655	69.55	1.58
ac40_5190MHz_Chain 0	0.571	1.075	53.12	2.75
ac80_5210MHz_Chain 0	0.288	0.791	36.41	4.39
ax20_5200MHz_RU_Full_Chain 0	0.989	1.493	66.24	1.79
ax40_5190MHz_RU_Full_Chain 0	0.571	1.075	53.12	2.75
ax80_5210MHz_RU_Full_Chain 0	0.288	0.791	36.41	4.39

5.3G

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
a_5280MHz_Chain 0	1.358	1.863	72.89	1.37
ac20_5280MHz_Chain 0	1.151	1.655	69.55	1.58
ac40_5270MHz_Chain 0	0.576	1.079	53.38	2.73
ac80_5290MHz_Chain 0	0.288	0.791	36.41	4.39
ax20_5280MHz_RU_Full_Chain 0	0.989	1.493	66.24	1.79
ax40_5270MHz_RU_Full_Chain 0	0.519	1.023	50.73	2.95
ax80_5290MHz_RU_Full_Chain 0	0.278	0.782	35.55	4.49

5.6G

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
a_5580MHz_Chain 0	1.358	1.863	72.89	1.37
ac20_5580MHz_Chain 0	1.150	1.655	69.49	1.58
ac40_5550MHz_Chain 0	0.575	1.079	53.29	2.73
ac80_5610MHz_Chain 0	0.288	0.791	36.41	4.39
ax20_5580MHz_RU_Full_Chain 0	0.985	1.489	66.15	1.79
ax40_5550MHz_RU_Full_Chain 0	0.519	1.023	50.73	2.95
ax80_5610MHz_RU_Full_Chain 0	0.278	0.782	35.55	4.49

5.8G

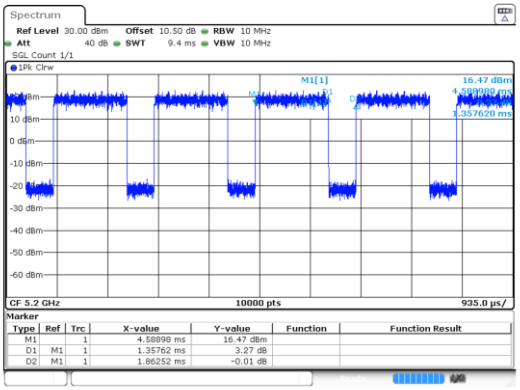
Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
a_5785MHz_Chain 0	1.358	1.863	72.89	1.37
ac20_5785MHz_Chain 0	1.150	1.655	69.49	1.58
ac40_5755MHz_Chain 0	0.576	1.079	53.38	2.73
ac80_5775MHz_Chain 0	0.288	0.791	36.41	4.39
ax20_5785MHz_RU_Full_Chain 0	0.985	1.489	66.15	1.79
ax40_5755MHz_RU_Full_Chain 0	0.519	1.023	50.73	2.95
ax80_5775MHz_RU_Full_Chain 0	0.278	0.782	35.55	4.49

Duty Cycle = Ton/(Ton+Toff)*100%

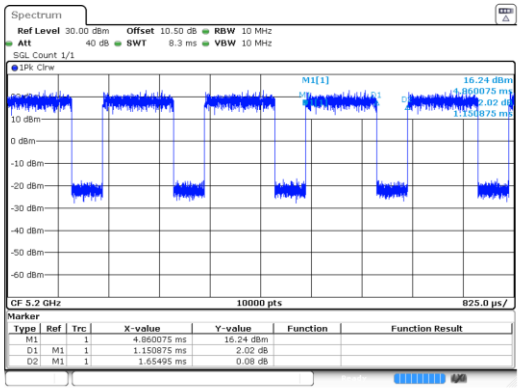
Chain 1

5150MHz-5250MHz Band:

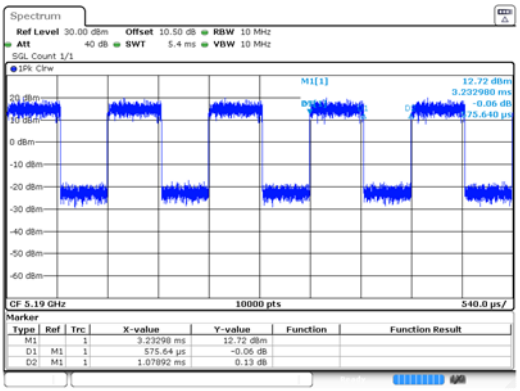
802.11a mode



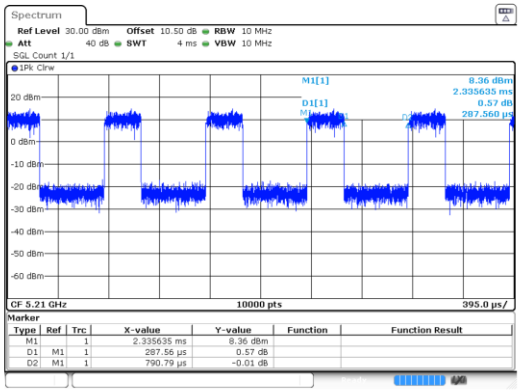
802.11ac20 mode



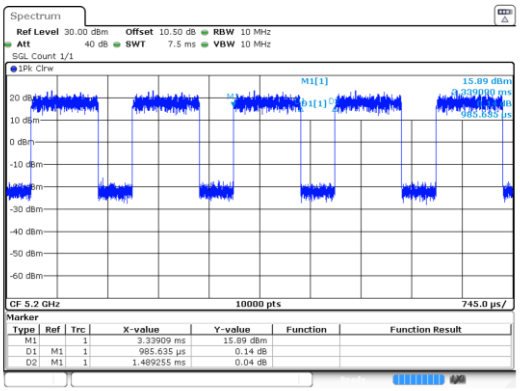
802.11ac40 mode



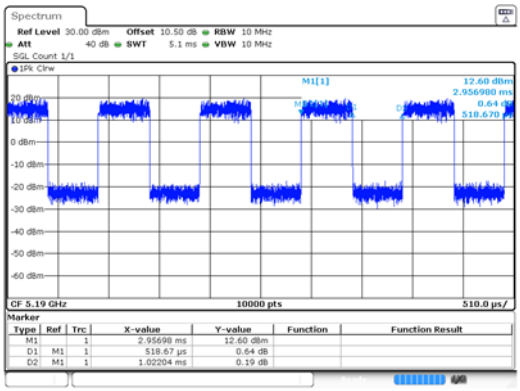
802.11ac80 mode



802.11ax20 mode

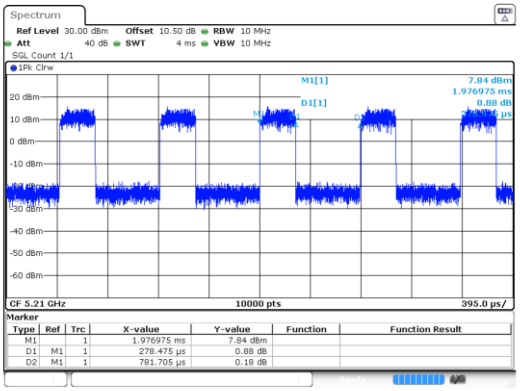


802.11ax40 mode



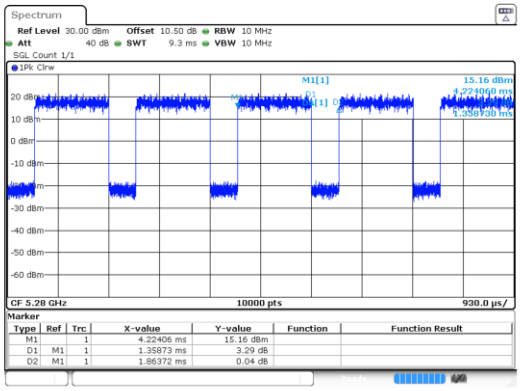
5250MHz-5350MHz Band:

802.11ax80 mode



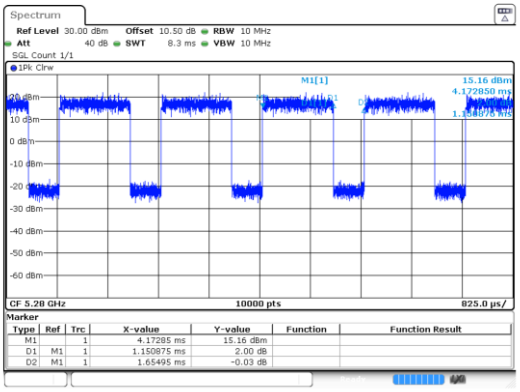
ProjectNo.:RKSA240325003 Tester:Bard Liu
Date: 6.JUN.2024 16:13:14

802.11a mode



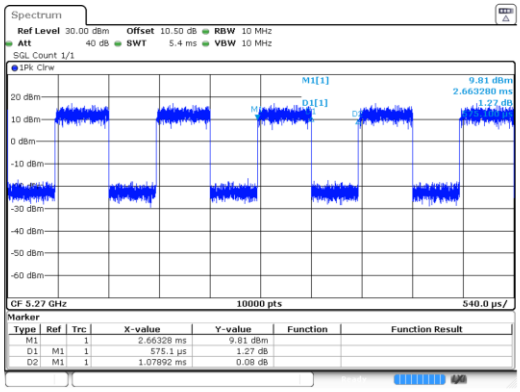
ProjectNo.:RKSA240325003 Tester:Bard Liu
Date: 6.JUN.2024 16:28:00

802.11ac20 mode



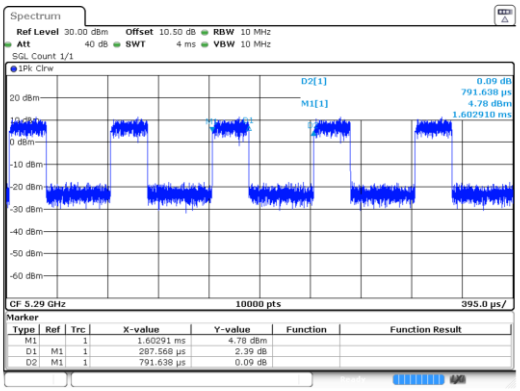
ProjectNo.:RKSA240325003 Tester:Bard Liu
Date: 6.JUN.2024 16:35:22

802.11ac40 mode



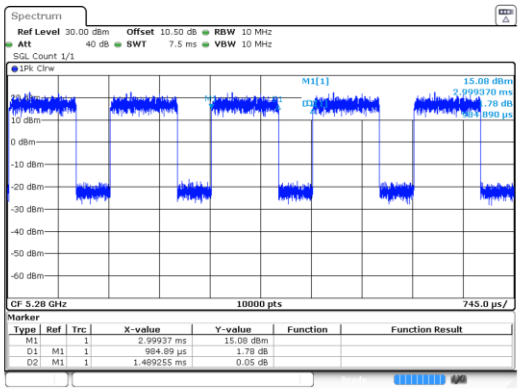
ProjectNo.:RKSA240325003 Tester:Bard Liu
Date: 6.JUN.2024 16:38:47

802.11ac80 mode



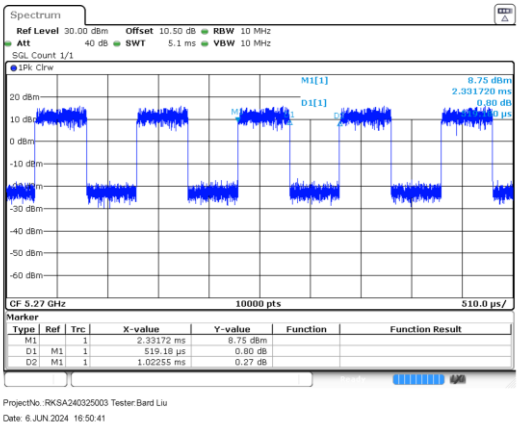
ProjectNo.:RKSA240325003 Tester:Bard Liu
Date: 6.JUN.2024 16:42:22

802.11ax20 mode

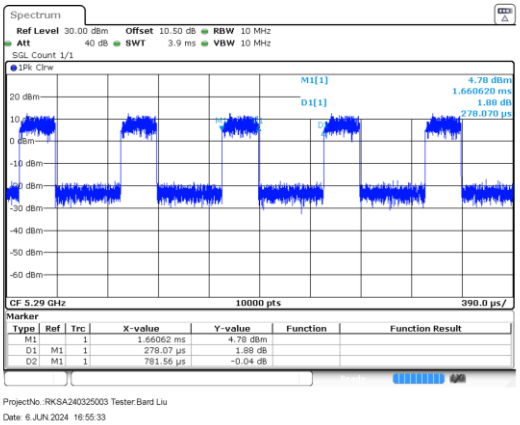


ProjectNo.:RKSA240325003 Tester:Bard Liu
Date: 6.JUN.2024 16:46:40

802.11ax40 mode

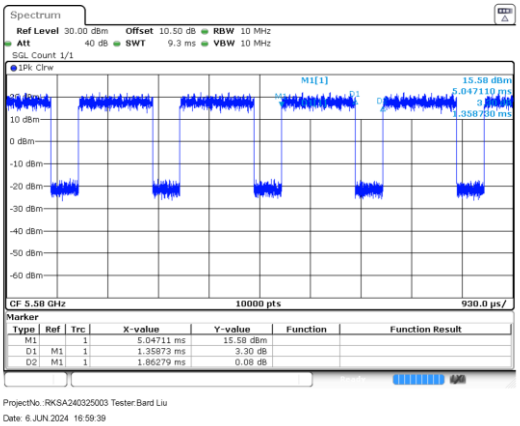


802.11ax80 mode

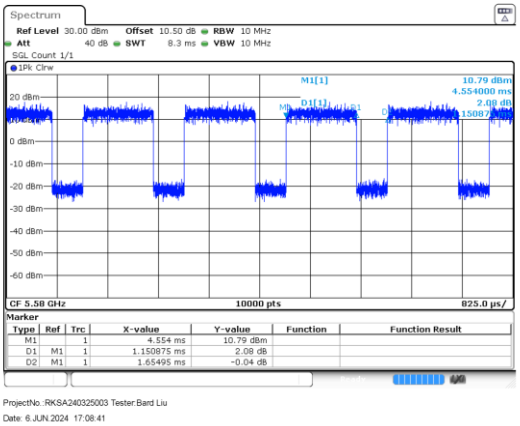


5470MHz-5725MHz Band:

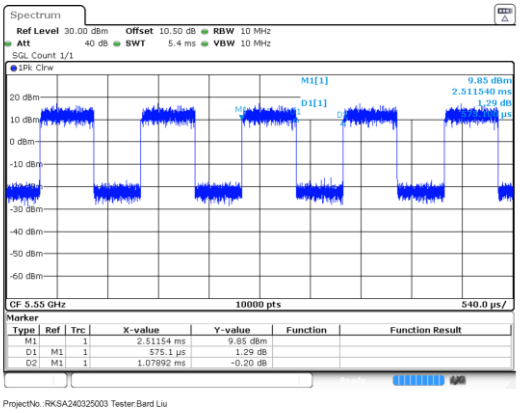
802.11a mode



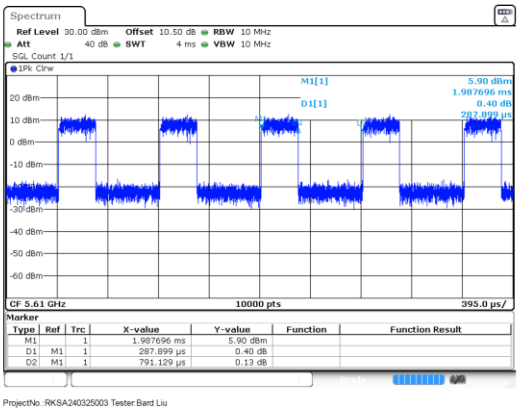
802.11ac20 mode



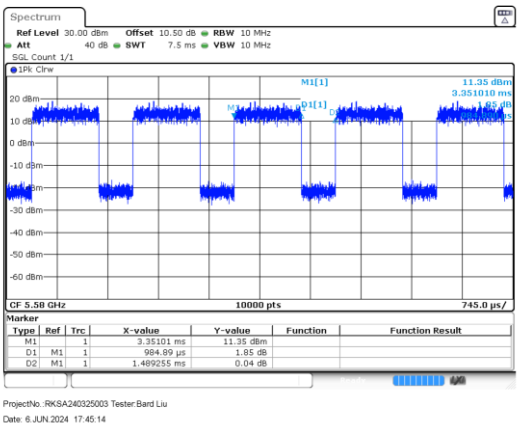
802.11ac40 mode



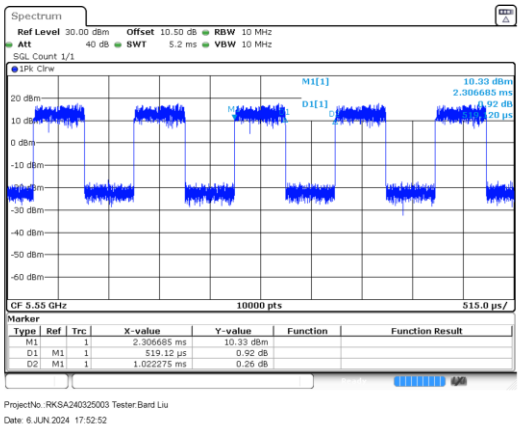
802.11ac80 mode



802.11ax20 mode

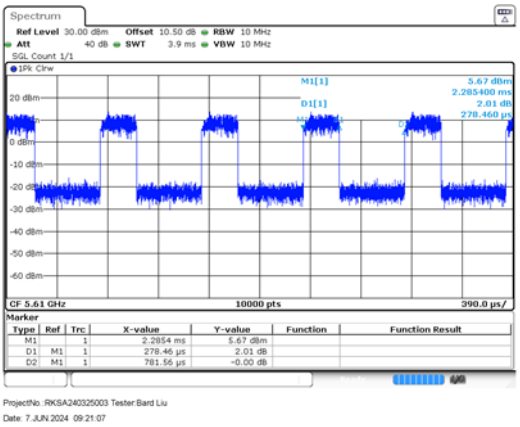


802.11ax40 mode

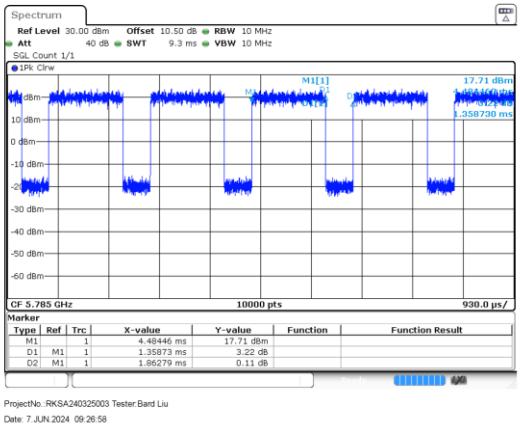


5725MHz-5850MHz Band:

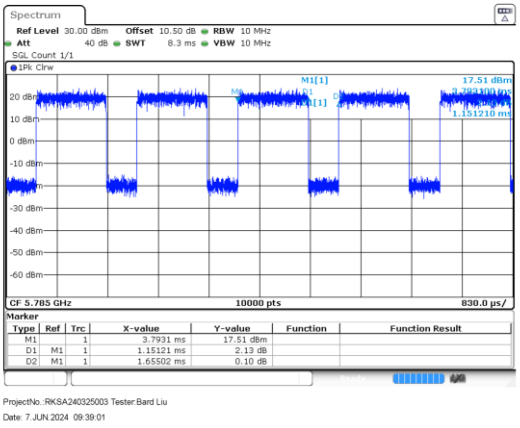
802.11ax80 mode



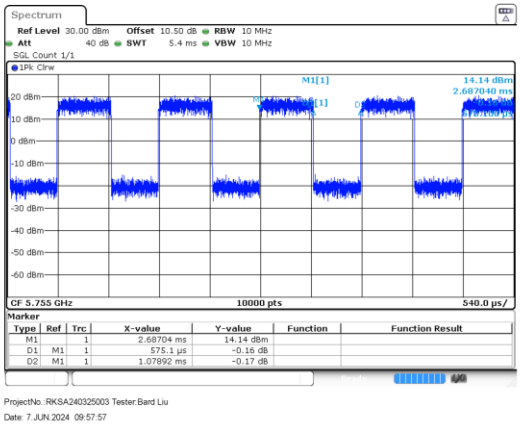
802.11a mode



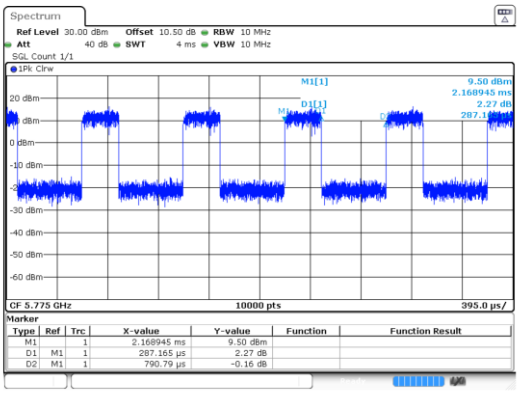
802.11ac20 mode



802.11ac40 mode

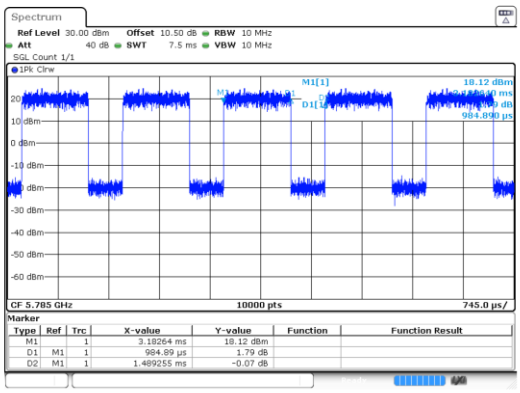


802.11ac80 mode



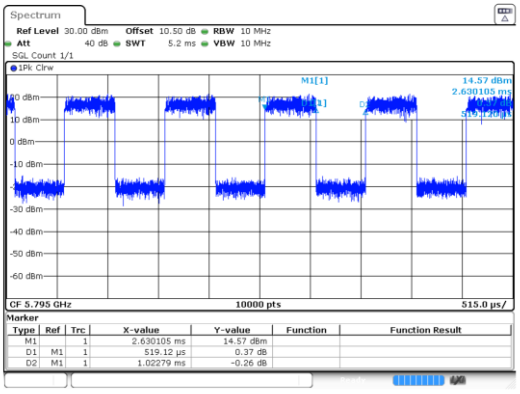
ProjectNo.:RKSA240325003 Tester:Bard Liu
Date: 7.JUN.2024 10:01:31

802.11ax20 mode



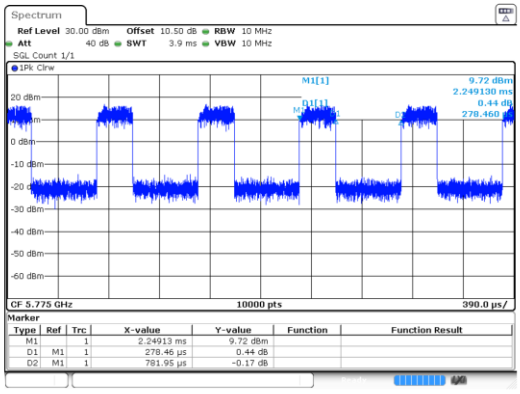
ProjectNo.:RKSA240325003 Tester:Bard Liu
Date: 7.JUN.2024 10:28:47

802.11ax40 mode



ProjectNo.:RKSA240325003 Tester:Bard Liu
Date: 7.JUN.2024 10:33:29

802.11ax80 mode



ProjectNo.:RKSA240325003 Tester:Bard Liu
Date: 7.JUN.2024 10:34:57

5.2G

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
a_5200MHz_Chain 1	1.358	1.863	72.89	1.37
ac20_5200MHz_Chain 1	1.151	1.655	69.55	1.58
ac40_5190MHz_Chain 1	0.576	1.079	53.38	2.73
ac80_5210MHz_Chain 1	0.288	0.791	36.41	4.39
ax20_5200MHz_RU_Full_Chain 1	0.986	1.489	66.22	1.79
ax40_5190MHz_RU_Full_Chain 1	0.519	1.022	50.78	2.94
ax80_5210MHz_RU_Full_Chain 1	0.278	0.782	35.55	4.49

5.3G

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
a_5280MHz_Chain 1	1.359	1.864	72.91	1.37
ac20_5280MHz_Chain 1	1.151	1.655	69.55	1.58
ac40_5270MHz_Chain 1	0.575	1.079	53.29	2.73
ac80_5290MHz_Chain 1	0.288	0.792	36.36	4.39
ax20_5280MHz_RU_Full_Chain 1	0.985	1.489	66.15	1.79
ax40_5270MHz_RU_Full_Chain 1	0.519	1.023	50.73	2.95
ax80_5290MHz_RU_Full_Chain 1	0.278	0.782	35.55	4.49

5.6G

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
a_5580MHz_Chain 1	1.359	1.863	72.95	1.37
ac20_5580MHz_Chain 1	1.151	1.655	69.55	1.58
ac40_5550MHz_Chain 1	0.575	1.079	53.29	2.73
ac80_5610MHz_Chain 1	0.288	0.791	36.41	4.39
ax20_5580MHz_RU_Full_Chain 1	0.985	1.489	66.15	1.79
ax40_5550MHz_RU_Full_Chain 1	0.519	1.022	50.78	2.94
ax80_5610MHz_RU_Full_Chain 1	0.278	0.782	35.55	4.49

5.8G

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
a_5785MHz_Chain 1	1.359	1.863	72.95	1.37
ac20_5785MHz_Chain 1	1.151	1.655	69.55	1.58
ac40_5755MHz_Chain 1	0.575	1.079	53.29	2.73
ac80_5775MHz_Chain 1	0.287	0.791	36.28	4.40
ax20_5785MHz_RU_Full_Chain 1	0.985	1.489	66.15	1.79
ax40_5755MHz_RU_Full_Chain 1	0.519	1.023	50.73	2.95
ax80_5775MHz_RU_Full_Chain 1	0.278	0.782	35.55	4.49

Duty Cycle = Ton/(Ton+Toff)*100%

Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

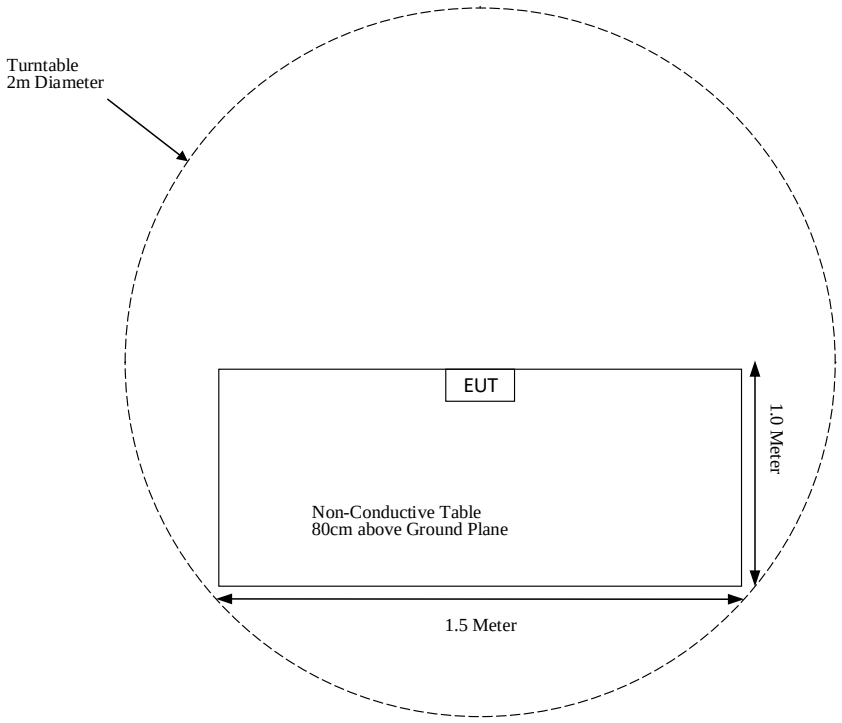
Manufacturer	Description	Model	Serial Number
/	/	/	/

External I/O Cable

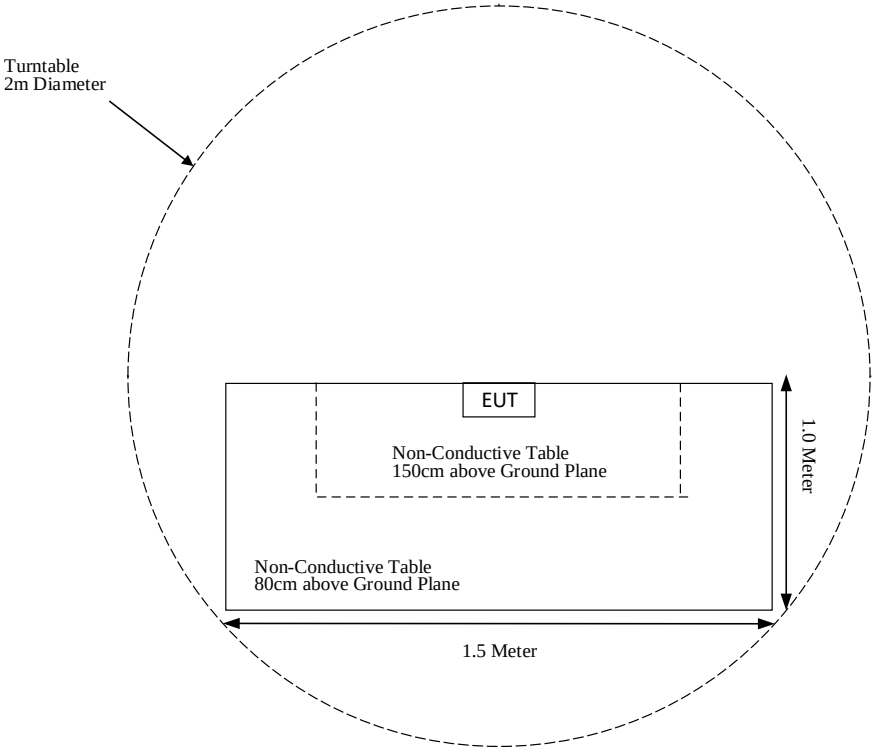
Cable Description	Length (m)	From Port	To
/	/	/	/

Block Diagram of Test Setup

For Radiated Emissions (Below 1GHz):



For Radiated Emissions (Above 1GHz):



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	2023-11-11	2024-11-10
ETS-LINDGREN	Loop Antenna	6512	108100	2023-11-09	2024-11-08
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	2023-11-11	2024-11-10
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	2023-12-02	2024-12-01
ETS-LINDGREN	Horn Antenna	3116	84159	2023-12-07	2024-12-06
A.H.Systems, inc	Amplifier	PAM-0118P	512	2024-04-25	2025-04-24
EM Electronics Corporation	Amplifier	EM18G40G	060726	2024-04-25	2025-04-24
MICRO-TRONICS	Band Reject Filter	BRC50703	G094	2024-04-25	2025-04-24
MICRO-TRONICS	Band Reject Filter	BRC50704	84	2024-04-25	2025-04-24
MICRO-TRONICS	Band Reject Filter	BRC50705	G085	2024-04-25	2025-04-24
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	2024-04-23	2025-04-22
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
RF Conducted Test					
Rohde & Schwarz	Signal Analyzer	FSV40	101116	2024-04-24	2025-04-23
Rohde & Schwarz	Signal Analyzer	FSU26	200103	2024-04-24	2025-04-23
Anritsu	Power Sensor	MA24418A	12621	2024-04-23	2025-04-22
N/A	Attenuator	10 dB	N/A	2024-04-23	2025-04-22
XHFDZ	RG316 Coaxial Cable	SMA-316	XHF-1175	Each time	N/A

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
§1.1310 & §2.1091	Maximum Permissible Exposure (MPE)	Compliant
§15.203	Antenna Requirement	Compliant
§15.207 & §15.407(b) (9)	AC Power Line Conducted Emissions	Not Applicable (See Note)
§ 15.205 & §15.209 & §15.407(b)	Undesirable Emission & band edge	Compliant
§§15.407(a) &§15.407(e)	Emission Bandwidth	Compliant
§15.407(a)	Conducted Transmitter Output Power	Compliant
§15.407(a)	Power Spectral Density	Compliant

Note: The EUT powered by battery.

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	Frequency Range (MHz)	Antenna Gain		★Tune-up Output Power		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)	MPE ratio
		(dBi)	(numeric)	(dBm)	(mW)				
SRD	2400.8-2480	2.49	1.77	8.5	7.08	20	0.0025	1.0	0.0025
2.4G Wi-Fi	2412-2462	2.49	1.77	30	1000.00	20	0.3521	1.0	0.3521
5G Wi-Fi	5150-5250	2.72	1.87	22.0	158.49	20	0.0590	1.0	0.0590
	5250-5350	2.93	1.96	21.0	125.89	20	0.0491	1.0	0.0491
	5470-5725	3.01	2.00	20.0	100.00	20	0.0398	1.0	0.0398
	5725-5850	3.11	2.05	21.5	141.25	20	0.0576	1.0	0.0576
BLE	2402-2480	2.49	1.77	3.0	2.00	20	0.0007	1.0	0.0007
Classic BT	2402-2480	2.49	1.77	5.5	3.55	20	0.0012	1.0	0.0012

Note:
1. For the above tune up power were declared by the manufacturer.
2. SRD and 2.4G Wi-Fi/5G WIFI/BT/BLE can transmit simultaneously.

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

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

$=0.0025+0.3521$

$=0.3546$

< 1.0

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

FCC §15.203 – ANTENNA REQUIREMENT

Applicable Standard

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine 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
Omni	5150~5250 MHz	2.72 dBi	50Ω
	5250~5350 MHz	2.93 dBi	50Ω
	5470~5725 MHz	3.01 dBi	50Ω
	5725~5850 MHz	3.11 dBi	50Ω

Result: Compliant.

§15.205 & §15.209 & §15.407(B) – UNDESIRABLE EMISSION & BAND EDGE

Applicable Standard

FCC §15.407 (b); §15.209; §15.205;

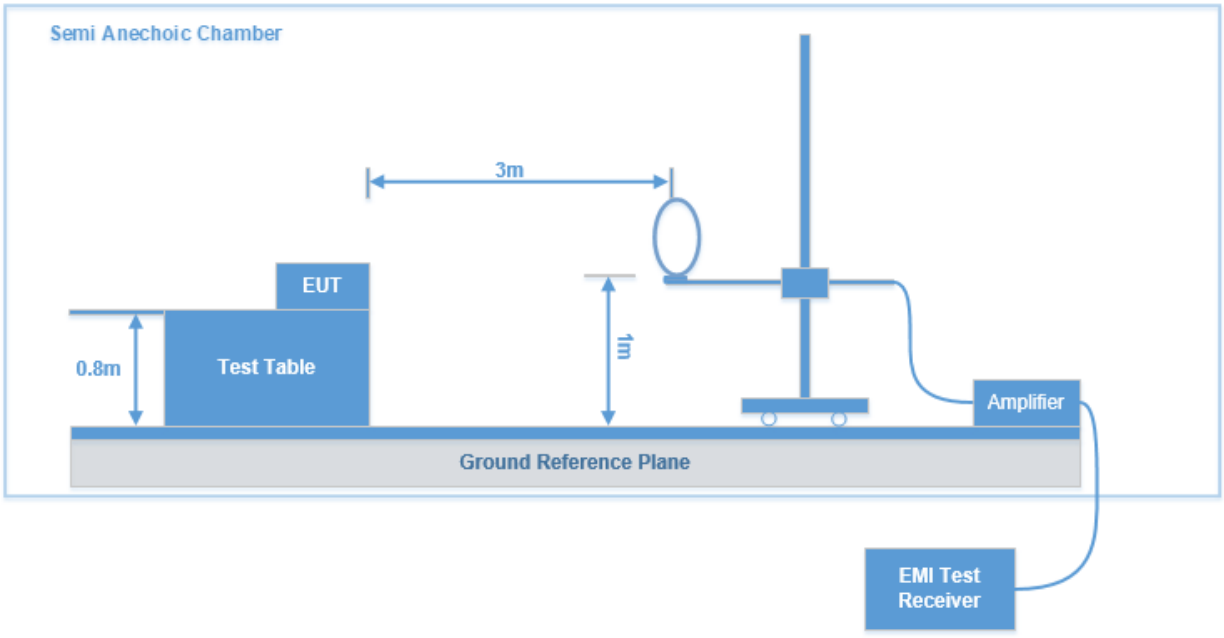
(b) Undesirable emission limits. Except as shown in paragraph (b) (7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:
(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of - 27 dBm/MHz.
(2) For transmitters operating in the 5.25-5.35 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.
(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of - 27 dBm/MHz.
(4) For transmitters operating in the 5.725 - 5.85 GHz band:
(i) 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.

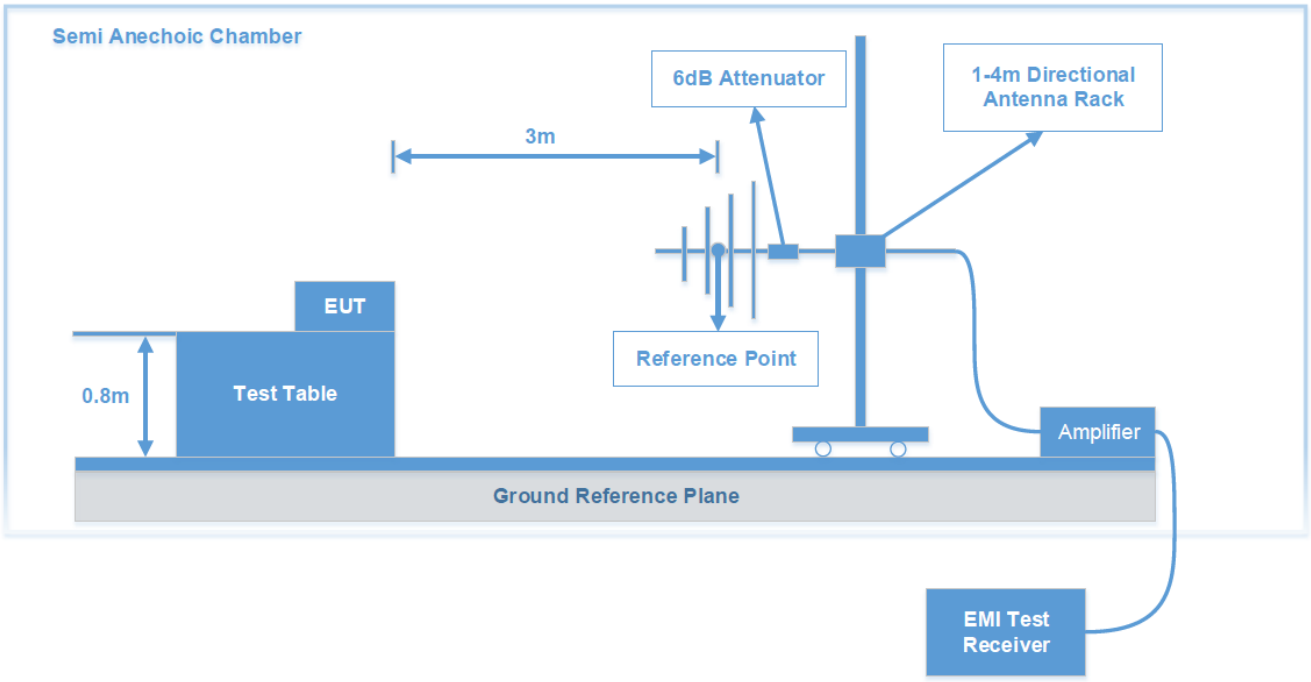
According to C63.10:2013, emission shall be computed as: E [dBμV/m] = EIRP [dBm] + 95.2, for d = 3 meters.

Test System Setup

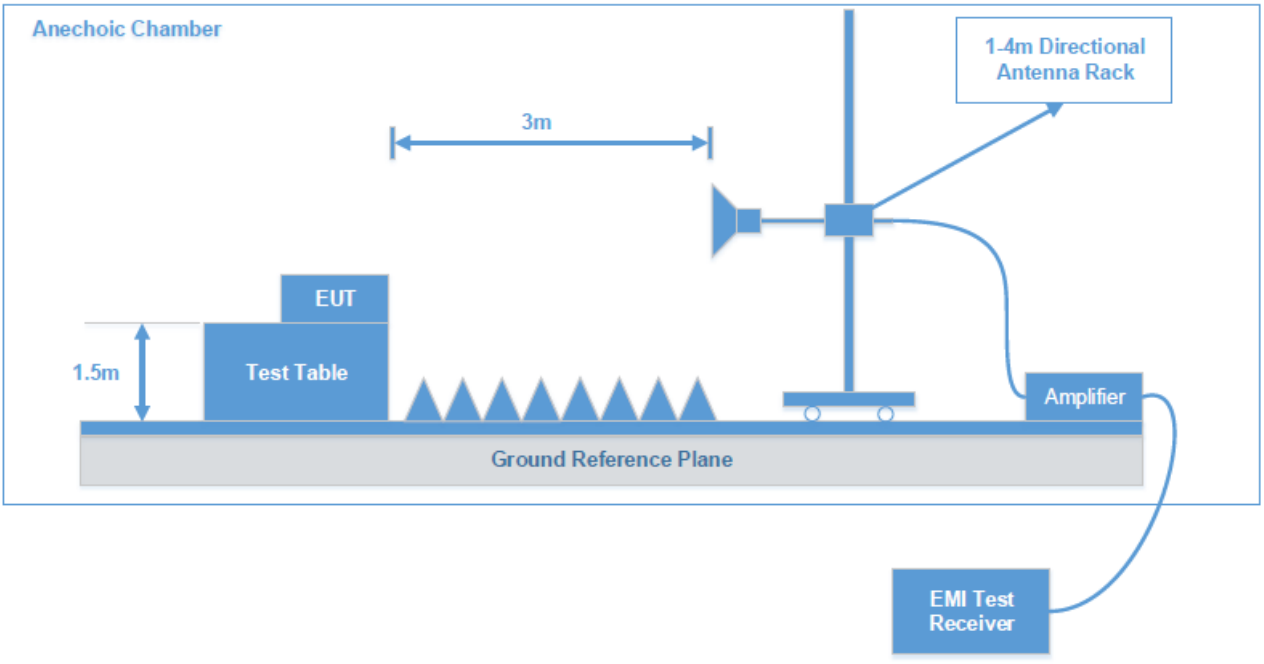
9 kHz - 30 MHz:



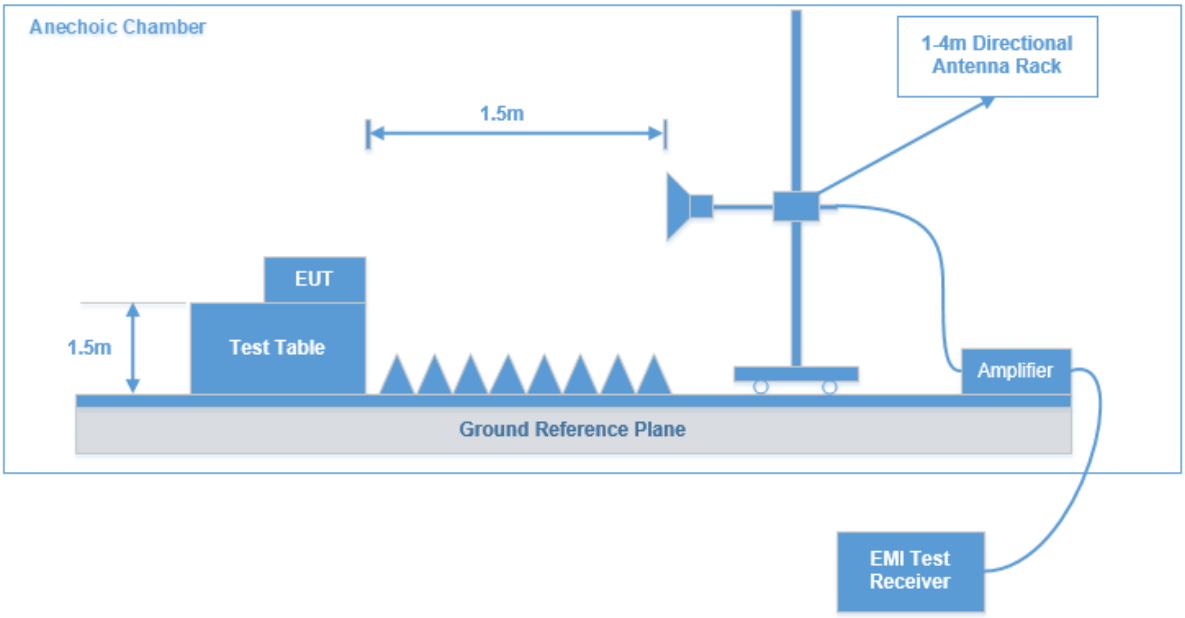
30 MHz - 1 GHz:



1 GHz - 18 GHz:



18 GHz - 40 GHz:



The radiated emission tests were performed in the 3 meters test site for below 18GHz and 1.5m for 18-40 GHz, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209 and FCC 15.407 limits. The limit at 1.5m for 18-40 GHz is 80dBμV/m（Peak）and 60dBμV/m（Average）

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

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

Test Procedure

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:

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

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin (dB) = Limit (dBμV/m) – Corrected Amplitude (dBμV/m)

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

Test Data: See Appendix

FCC §15.407(a) &§15.407(e) - EMISSION BANDWIDTH

Applicable Standard

The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Test Procedure

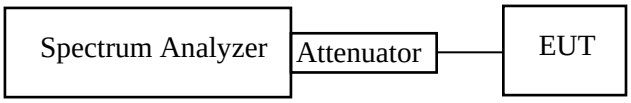
1. Emission Bandwidth (EBW)
a) Set RBW = approximately 1% of the emission bandwidth.
b) Set the VBW > RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

2. **Minimum Emission Bandwidth for the band 5.725-5.85 GHz**
Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.725-5.85 GHz. The following procedure shall be used for measuring this bandwidth:
a) Set RBW = 100 kHz.
b) Set the video bandwidth (VBW) ≥ 3 × RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.

g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3. Occupied bandwidth
The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:
a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.
d) Step a) through step c) might require iteration to adjust within the specified range.

e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).



Test Data: See Appendix

FCC §15.407(a) – CONDUCTED TRANSMITTER OUTPUT POWER

Applicable Standard

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 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.

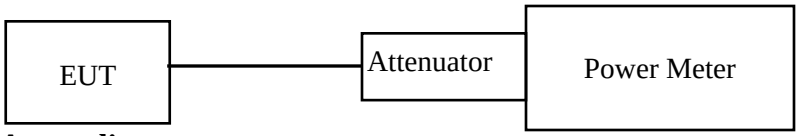
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 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.

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 collocated 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

According to C63.10 12.3.3.1, Method PM is Measurement using an RF average power meter

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

FCC §15.407(a) - POWER SPECTRAL DENSITY

Applicable Standard

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 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.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 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.

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 collocated 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

The measurements are based on C63.10:2013 12.5 Peak power spectral density, method SA-2 used.

Test Data: See Appendix

EUT PHOTOGRAPHS

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

TEST SETUP PHOTOGRAPHS

Please refer to the attachment APPENDIX D - TEST SETUP PHOTOGRAPHS.

APPENDIX - TEST DATA

Environmental Conditions & Test Information

Test Item:	UNWANTED EMISSIONS & RESTRICTED FREQUENCY BANDS			Duty Cycle
	9 kHz - 1GHz	1 GHz – 18 GHz	18 GHz - 40 GHz	
Test Date:	2024-07-17 to 2024-07-18	2024-07-20 to 2024-07-24	2024-05-24	2024-06-06 to 2024-06-07
Temperature:	23.4-24.7 ℃	22.8-23.9 ℃	25.5 ℃	22.3-23.3 ℃
Relative Humidity:	51-52 %	53-55 %	52 %	51-58 %
ATM Pressure:	100.6-100.9 kPa	100.5-100.8 kPa	100.5 kPa	100.5-100.9 kPa
Test Result:	Pass	Pass	Pass	/
Test Engineer:	Grace Luo	Hugh Wu	Hugh Wu	Bard Liu

Test Item:	EMISSION BANDWIDTH	CONDUCTED TRANSMITTER OUTPUT POWER	POWER SPECTRAL DENSITY
Test Date:	2024-06-06 to 2024-06-07	2024-06-06 to 2024-06-07	2024-06-06 to 2024-09-27
Temperature:	22.3-23.3 ℃	22.3-23.3 ℃	22.3-25.3 ℃
Relative Humidity:	51-58 %	51-58 %	51-55 %
ATM Pressure:	100.5-100.9 kPa	100.5-100.9 kPa	100.3-100.5 kPa
Test Result:	Pass	Pass	Pass
Test Engineer:	Bard Liu	Bard Liu	Bard Liu&Neil Zhou

Transmitter Unwanted Emissions & Restricted frequency bands

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

9 kHz - 30 MHz: *(maximum output power 5150-5250MHz Band ax20 mode and low channel)*

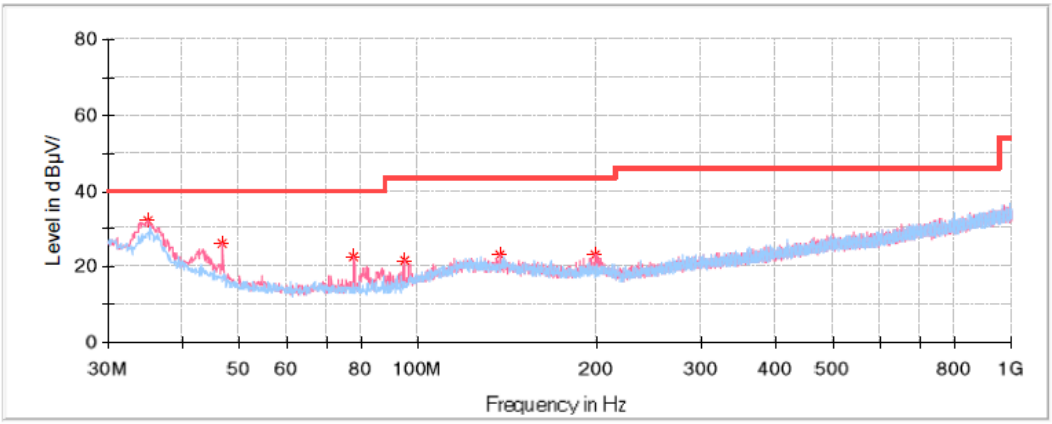
The amplitude of spurious emissions attenuated more than 20 dB below the limit was not be recorded.

30MHz-1GHz(5150-5250MHz Band): 802.11ax20 (worst case)

Low Channel: 5180 MHz

Common Information

Project No:	RKSA240325003
EUT Model:	B2
Test Mode:	5G WIFI
Standard:	FCC Part 15.205 & FCC Part 15.209 &FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	23.4℃
Humidity:	52%
Barometric Pressure:	100.9kPa
Test Engineer:	Grace Luo
Test Date:	2024/7/17



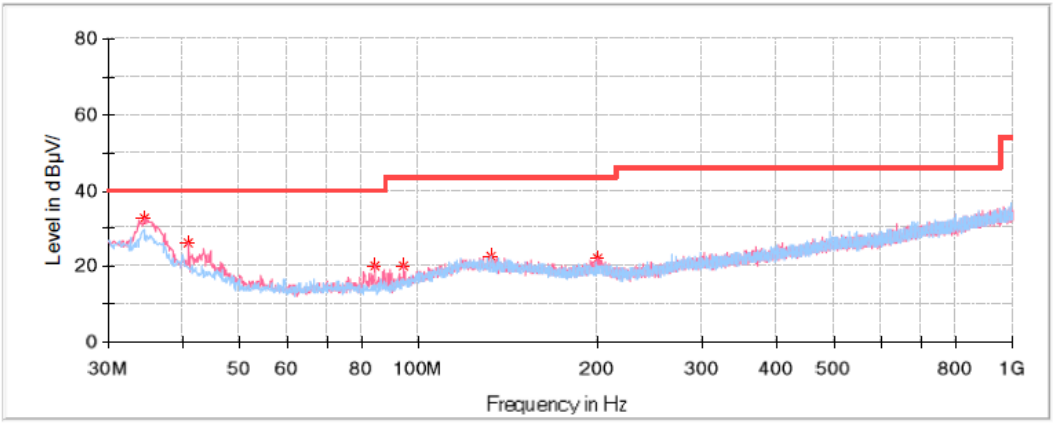
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
35.092500	32.34	40.00	7.66	V	-8.2
46.853750	26.07	40.00	13.93	V	-15.1
78.015000	22.58	40.00	17.42	V	-17.3
94.626250	21.88	43.50	21.62	V	-15.8
137.670000	23.15	43.50	20.35	V	-11.4
199.265000	23.16	43.50	20.34	V	-12.2

Middle Channel: 5200 MHz

Common Information

Project No:	RKSA240325003
EUT Model:	B2
Test Mode:	5G WIFI
Standard:	FCC Part 15.205 & FCC Part 15.209 &FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	23.4℃
Humidity:	52%
Barometric Pressure:	100.9kPa
Test Engineer:	Grace Luo
Test Date:	2024/7/17



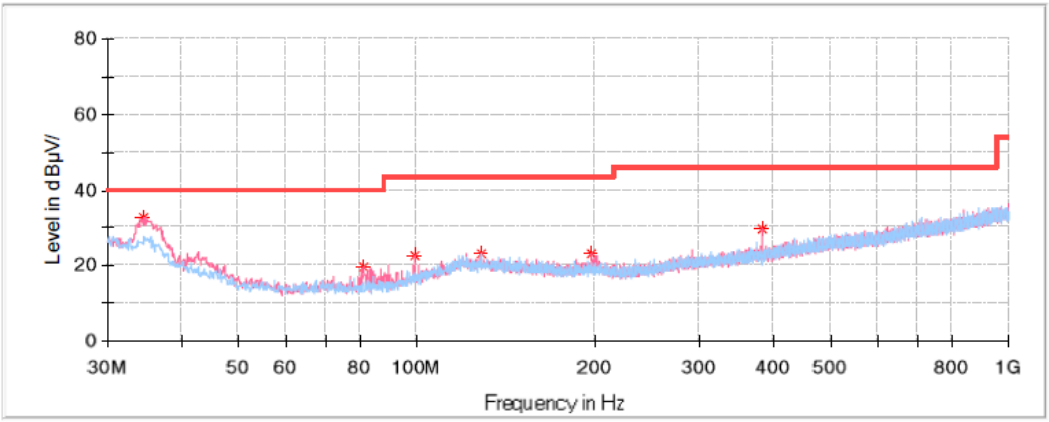
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
34.607500	32.53	40.00	7.47	V	-7.8
41.033750	26.28	40.00	13.72	V	-12.0
84.320000	20.04	40.00	19.96	V	-17.2
94.383750	20.09	43.50	23.41	V	-15.8
132.213750	22.87	43.50	20.63	H	-11.2
199.386250	22.03	43.50	21.47	V	-12.2

High Channel: 5240 MHz

Common Information

Project No:	RKSA240325003
EUT Model:	B2
Test Mode:	5G WIFI
Standard:	FCC Part 15.205 & FCC Part 15.209 &FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	23.4℃
Humidity:	52%
Barometric Pressure:	100.9kPa
Test Engineer:	Grace Luo
Test Date:	2024/7/17



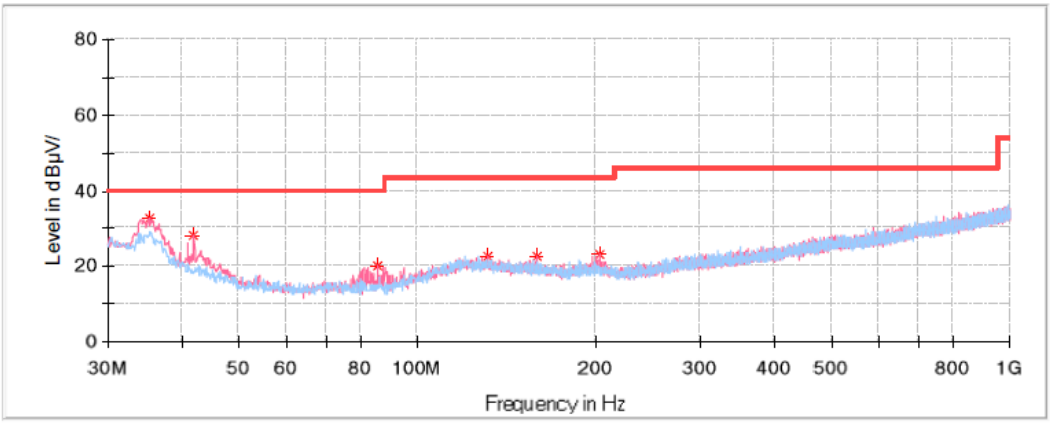
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
34.607500	32.60	40.00	7.40	V	-7.8
81.288750	19.52	40.00	20.48	V	-17.3
99.112500	22.39	43.50	21.11	V	-14.7
128.091250	23.12	43.50	20.38	H	-11.1
197.688750	22.98	43.50	20.52	V	-12.3
383.928750	29.88	46.00	16.12	V	-8.4

30MHz-1GHz(5250-5350MHz Band): 802.11ax20 (worst case)
Low Channel: 5260 MHz

Common Information

Project No:	RKSA240325003
EUT Model:	B2
Test Mode:	5G WIFI
Standard:	FCC Part 15.205 & FCC Part 15.209 &FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	23.4℃
Humidity:	52%
Barometric Pressure:	100.9kPa
Test Engineer:	Grace Luo
Test Date:	2024/7/17



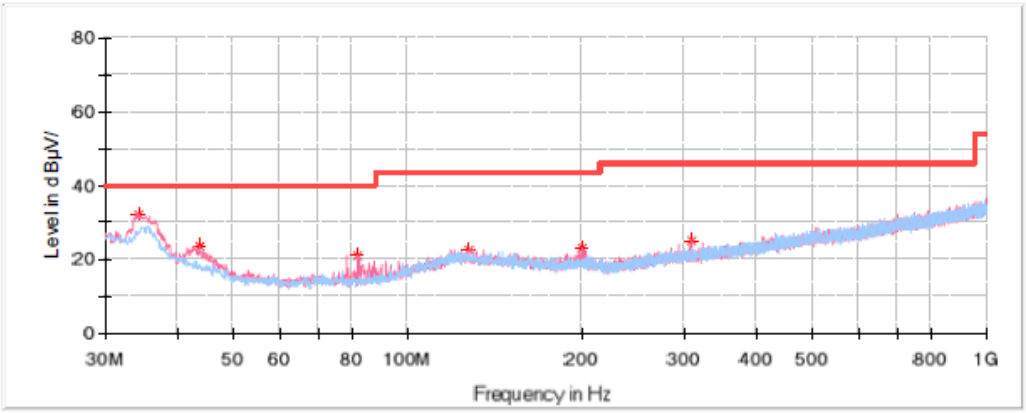
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
35.213750	32.71	40.00	7.29	V	-8.2
41.882500	28.21	40.00	11.79	V	-12.5
85.775000	20.07	40.00	19.93	V	-17.1
131.122500	22.70	43.50	20.80	V	-11.2
158.525000	22.63	43.50	20.87	V	-12.1
202.902500	22.90	43.50	20.60	V	-12.4

High Channel: 5280 MHz

Common Information

Project No:	RKSA240325003
EUT Model:	B2
Test Mode:	5G WIFI
Standard:	FCC Part 15.205 & FCC Part 15.209 &FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	23.4℃
Humidity:	52%
Barometric Pressure:	100.9kPa
Test Engineer:	Grace Luo
Test Date:	2024/7/17



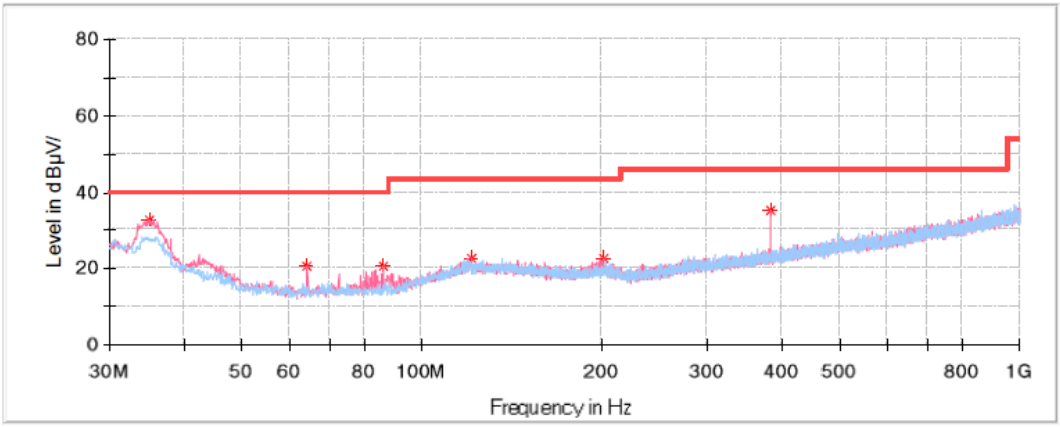
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
34.243750	32.36	40.00	7.64	V	-7.6
43.580000	23.80	40.00	16.20	V	-13.4
82.137500	21.28	40.00	18.72	V	-17.2
127.606250	22.66	43.50	20.84	V	-11.1
200.113750	23.18	43.50	20.32	V	-12.2
310.087500	24.98	46.00	21.02	V	-10.3

High Channel: 5320 MHz

Common Information

Project No:	RKSA240325003
EUT Model:	B2
Test Mode:	5G WIFI
Standard:	FCC Part 15.205 & FCC Part 15.209 &FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	23.4℃
Humidity:	52%
Barometric Pressure:	100.9kPa
Test Engineer:	Grace Luo
Test Date:	2024/7/17



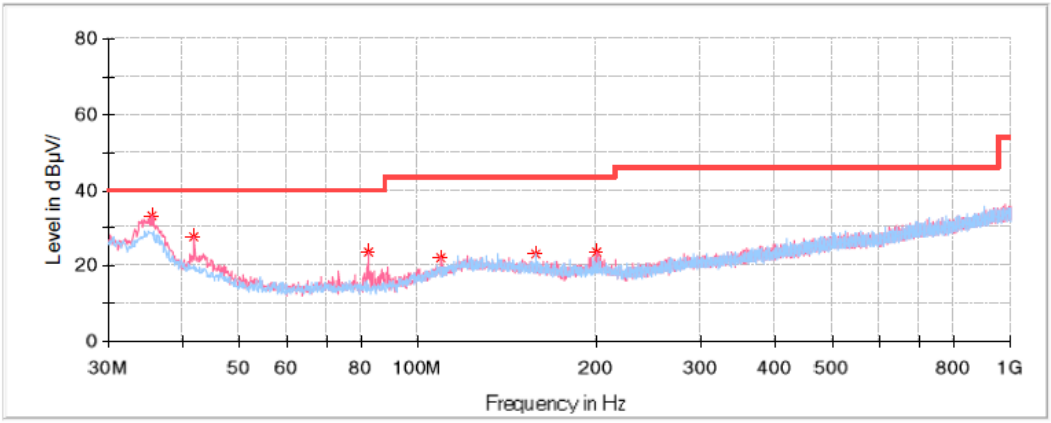
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
34.971250	32.90	40.00	7.10	V	-8.1
64.313750	20.61	40.00	19.39	V	-17.3
86.260000	20.38	40.00	19.62	V	-17.1
121.058750	22.78	43.50	20.72	V	-10.9
201.932500	22.60	43.50	20.90	V	-12.3
383.928750	35.14	46.00	10.86	V	-8.4

30MHz-1GHz(5470-5725MHz Band): 802.11ac20 (worst case)
Channel: 5500 MHz

Common Information

Project No:	RKSA240325003
EUT Model:	B2
Test Mode:	5G WIFI
Standard:	FCC Part 15.205 & FCC Part 15.209 &FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	23.4℃
Humidity:	52%
Barometric Pressure:	100.9kPa
Test Engineer:	Grace Luo
Test Date:	2024/7/17



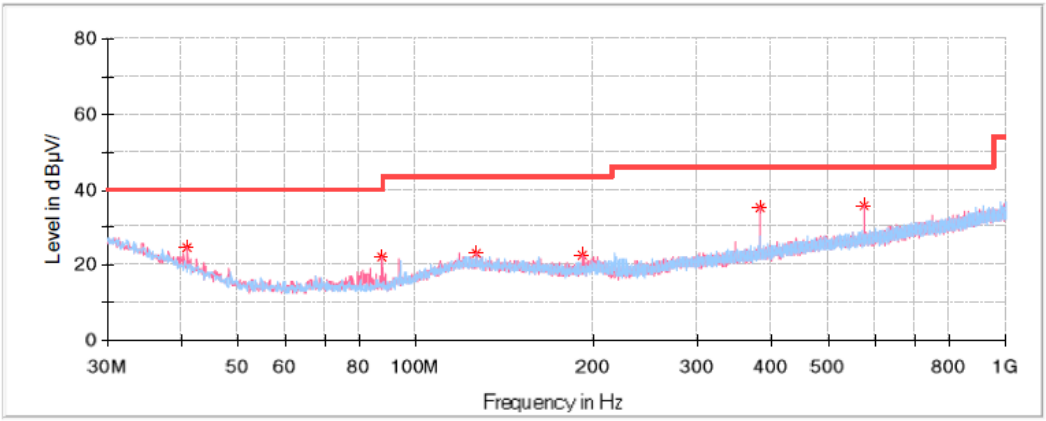
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
35.456250	33.00	40.00	7.00	V	-8.4
41.882500	27.71	40.00	12.29	V	-12.5
82.380000	23.88	40.00	16.12	V	-17.2
109.540000	22.00	43.50	21.50	V	-12.7
157.918750	23.23	43.50	20.27	H	-12.1
199.750000	23.76	43.50	19.74	V	-12.2

Channel: 5580 MHz

Common Information

Project No:	RKSA240325003
EUT Model:	B2
Test Mode:	5G WIFI
Standard:	FCC Part 15.205 & FCC Part 15.209 &FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	24.7℃
Humidity:	51%
Barometric Pressure:	100.6kPa
Test Engineer:	Grace Luo
Test Date:	2024/7/18



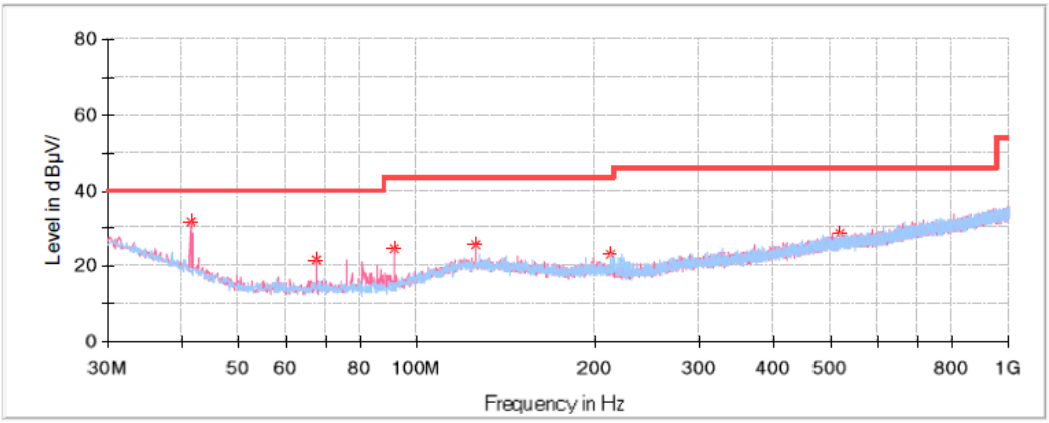
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
41.033750	24.68	40.00	15.32	V	-12.0
87.715000	22.09	40.00	17.91	V	-17.0
127.000000	23.30	43.50	20.20	V	-11.1
190.777500	22.44	43.50	21.06	V	-12.6
384.050000	35.26	46.00	10.74	V	-8.4
575.988750	35.62	46.00	10.38	V	-4.5

Channel: 5700 MHz

Common Information

Project No:	RKSA240325003
EUT Model:	B2
Test Mode:	5G WIFI
Standard:	FCC Part 15.205 & FCC Part 15.209 &FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	24.7℃
Humidity:	51%
Barometric Pressure:	100.6kPa
Test Engineer:	Grace Luo
Test Date:	2024/7/18



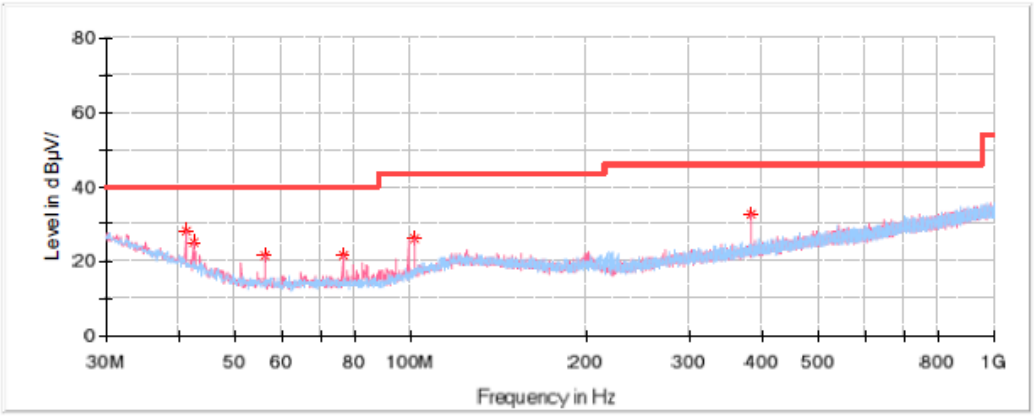
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
41.397500	31.90	40.00	8.10	V	-12.2
67.466250	21.78	40.00	18.22	V	-17.2
91.352500	24.66	43.50	18.84	V	-16.6
125.423750	25.57	43.50	17.93	V	-11.0
212.845000	23.19	43.50	20.31	H	-13.0
519.486250	28.82	46.00	17.18	H	-5.2

Channel: 5720 MHz

Common Information

Project No:	RKSA240325003
EUT Model:	B2
Test Mode:	5G WIFI
Standard:	FCC Part 15.205 & FCC Part 15.209 &FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	24.7℃
Humidity:	51%
Barometric Pressure:	100.6kPa
Test Engineer:	Grace Luo
Test Date:	2024/7/18



Critical_Freqs

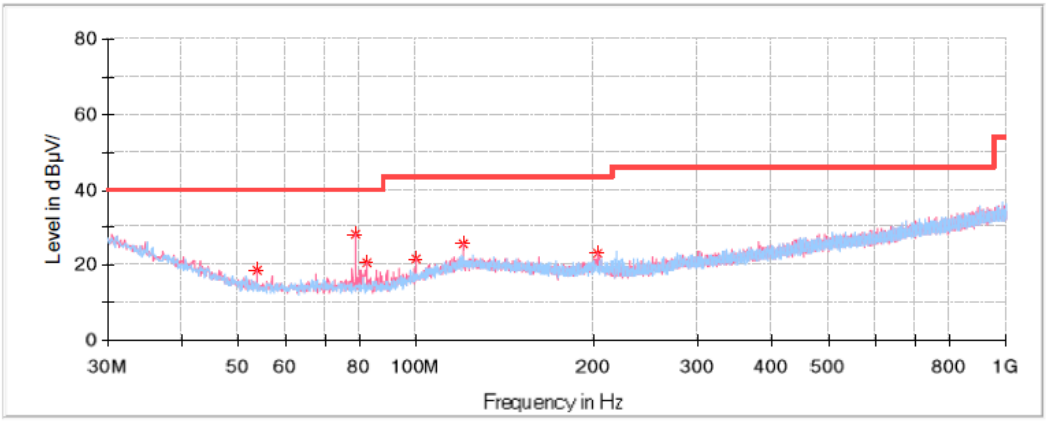
Frequency (MHz)	MaxPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
41.155000	28.42	40.00	11.58	V	-12.1
42.367500	24.92	40.00	15.08	V	-12.7
56.190000	21.56	40.00	18.44	V	-17.3
76.560000	21.74	40.00	18.26	V	-17.2
101.173750	26.31	43.50	17.19	V	-14.2
383.928750	32.46	46.00	13.54	V	-8.4

30MHz-1GHz(5725-5850MHz Band): 802.11ax20 (worst case)

Low Channel: 5745 MHz

Common Information

Project No:	RKSA240325003
EUT Model:	B2
Test Mode:	5G WIFI
Standard:	FCC Part 15.205 & FCC Part 15.209 &FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	24.7℃
Humidity:	51%
Barometric Pressure:	100.6kPa
Test Engineer:	Grace Luo
Test Date:	2024/7/18



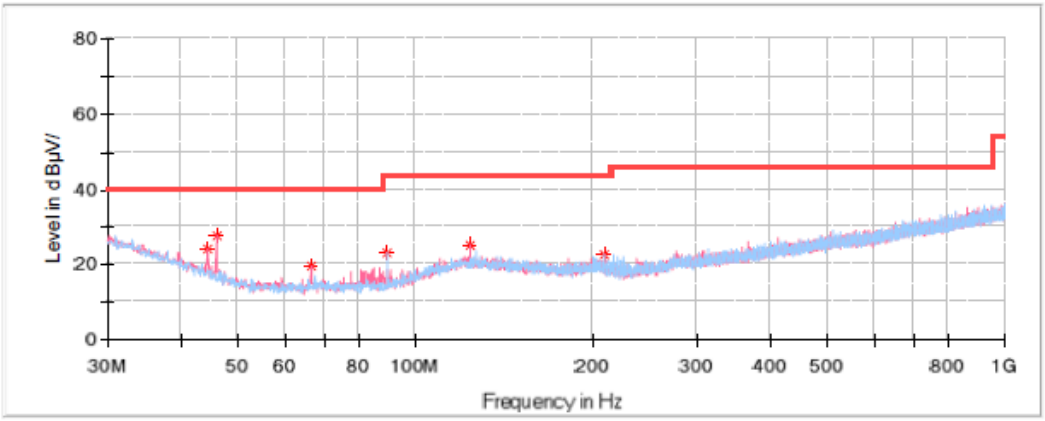
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
53.765000	18.41	40.00	21.59	V	-17.1
78.985000	28.26	40.00	11.74	V	-17.3
82.380000	20.51	40.00	19.49	V	-17.2
99.961250	21.46	43.50	22.04	V	-14.5
120.088750	25.77	43.50	17.73	V	-10.9
203.023750	22.97	43.50	20.53	V	-12.4

Middle Channel: 5785 MHz

Common Information

Project No:	RKSA240325003
EUT Model:	B2
Test Mode:	5G WIFI
Standard:	FCC Part 15.205 & FCC Part 15.209 &FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	24.7℃
Humidity:	51%
Barometric Pressure:	100.6kPa
Test Engineer:	Grace Luo
Test Date:	2024/7/18



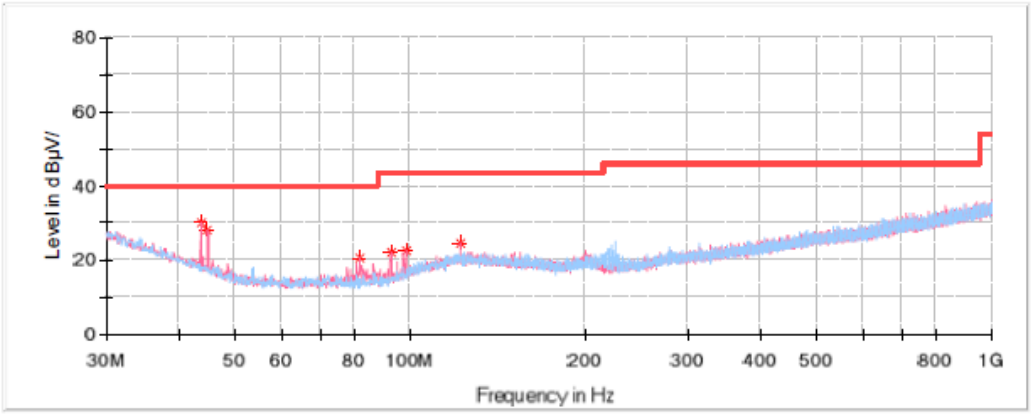
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
44.307500	23.91	40.00	16.09	V	-13.7
45.883750	27.80	40.00	12.20	V	-14.6
66.375000	19.78	40.00	20.22	V	-17.2
89.291250	23.00	43.50	20.50	H	-16.9
123.483750	25.04	43.50	18.46	V	-11.0
208.601250	22.89	43.50	20.61	H	-12.8

High Channel: 5825 MHz

Common Information

Project No:	RKSA240325003
EUT Model:	B2
Test Mode:	5G WIFI
Standard:	FCC Part 15.205 & FCC Part 15.209 &FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	24.7℃
Humidity:	51%
Barometric Pressure:	100.6kPa
Test Engineer:	Grace Luo
Test Date:	2024/7/18



Critical_Freqs

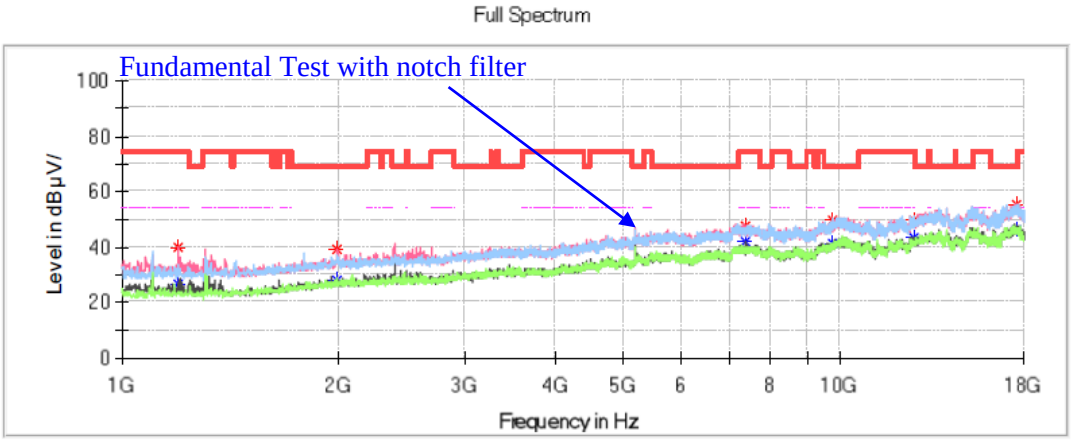
Frequency (MHz)	MaxPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
43.580000	30.01	40.00	9.99	V	-13.4
44.792500	28.34	40.00	11.66	V	-14.0
82.016250	20.48	40.00	19.52	V	-17.2
92.565000	22.19	43.50	21.31	V	-16.3
98.142500	22.76	43.50	20.74	V	-14.9
122.271250	24.67	43.50	18.83	V	-10.9

1GHz - 18GHz(5150-5250MHz Band):
Chain 0:
802.11a Mode:

Low Channel: 5180MHz

Common Information

Project No.:	RKSA240325003
Test Mode:	802.11a mode of low channel
Standard:	FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer:	Hugh Wu



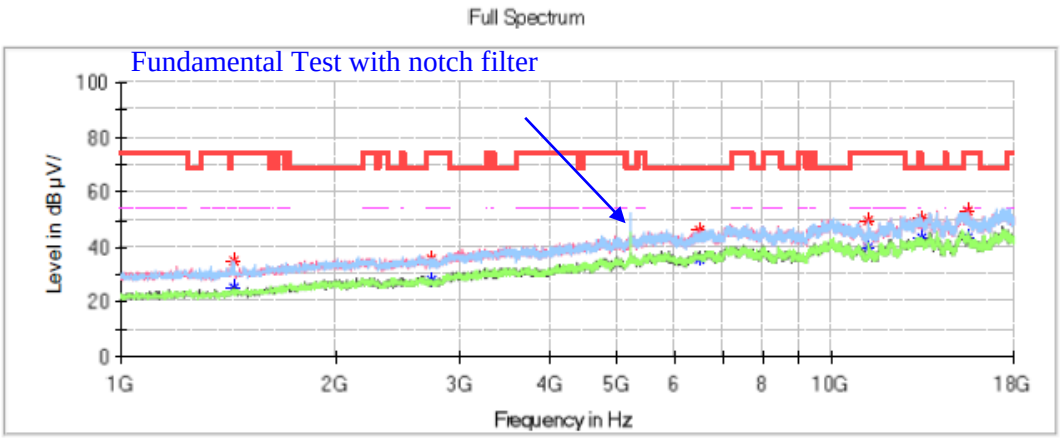
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1195.500000	---	26.90	54.00	27.10	V	-14.9
1195.500000	39.82	---	74.00	34.18	V	-14.9
1996.200000	39.45	---	68.20	28.75	V	-10.6
7390.300000	---	41.68	54.00	12.32	V	4.1
7390.300000	47.70	---	74.00	26.30	V	4.1
9768.600000	49.72	---	68.20	18.48	V	7.1
12643.300000	---	43.60	54.00	10.40	H	8.6
12643.300000	49.92	---	74.00	24.08	H	8.6
17590.300000	55.47	---	68.20	12.73	V	13.2

Middle Channel: 5200MHz

Common Information

Project No.:	RKSA240325003
Test Mode:	802.11a mode of middle channel
Standard:	FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer:	Hugh Wu



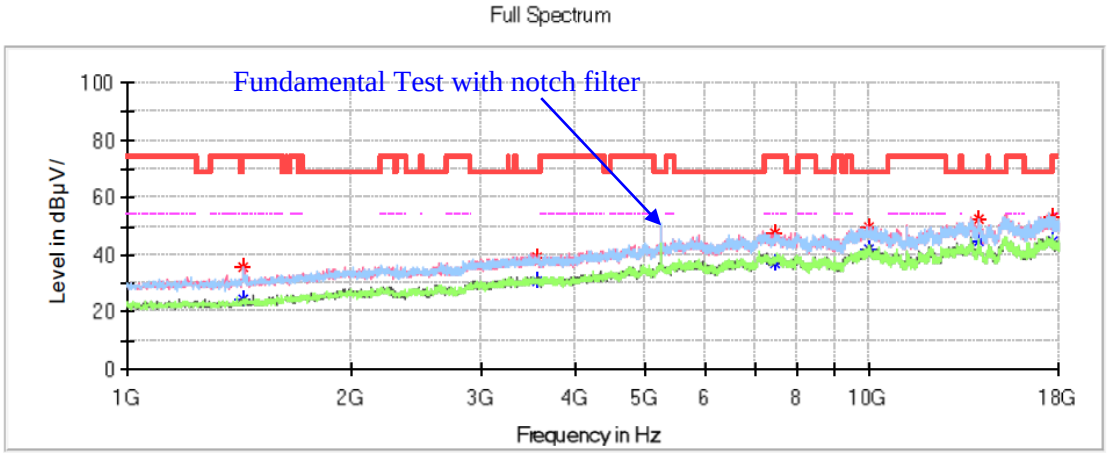
Critical_Freqs

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	34.86	---	74.00	39.14	V	-14.1
1438.600000	---	24.84	54.00	29.16	V	-14.1
2730.600000	35.96	---	74.00	38.04	V	-9.0
2730.600000	---	27.71	54.00	26.29	V	-9.0
6508.000000	46.24	---	68.20	21.96	V	0.9
11215.300000	49.32	---	74.00	24.68	H	6.7
11215.300000	---	39.63	54.00	14.37	H	6.7
13353.900000	50.03	---	74.00	23.97	V	10.4
13353.900000	---	43.11	54.00	10.89	V	10.4
15535.000000	---	43.18	54.00	10.82	V	11.6
15535.000000	53.32	---	74.00	20.68	V	11.6

High Channel: 5240MHz

Common Information

Project No.:	RKSA240325003
Test Mode:	802.11a mode of high channel
Standard:	FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer:	Hugh Wu



Critical_Freqs

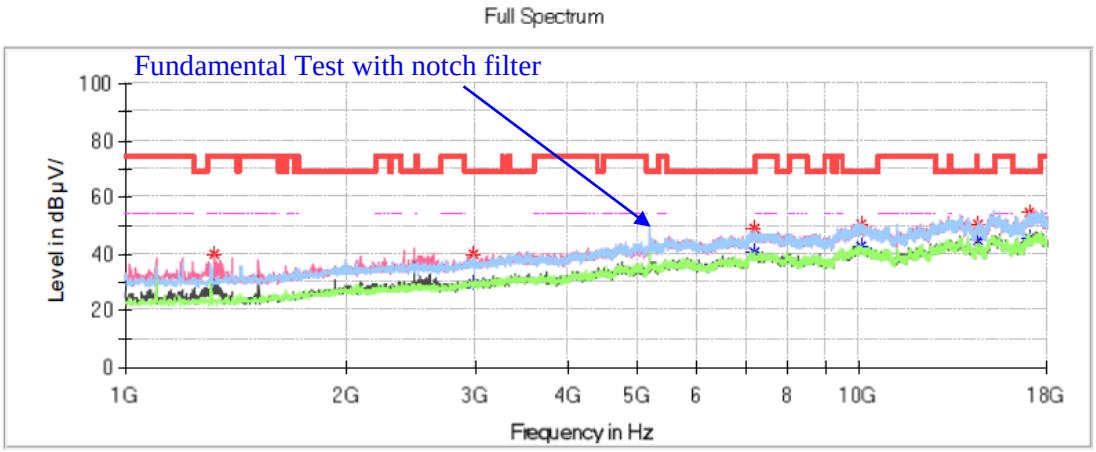
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1433.500000	35.45	---	68.20	32.75	H	-14.1
3577.200000	39.34	---	68.20	28.86	V	-5.9
7468.500000	---	37.06	54.00	16.94	V	4.2
7468.500000	47.60	---	74.00	26.40	V	4.2
9989.600000	49.82	---	68.20	18.38	V	7.8
14005.000000	52.67	---	68.20	15.53	H	10.5
17636.200000	53.20	---	68.20	15.00	V	13.1

Chain 1:
802.11a Mode:

Low Channel: 5180MHz

Common Information

Project No.:	RKSA240325003
Test Mode:	802.11a mode of low channel
Standard:	FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer:	Hugh Wu



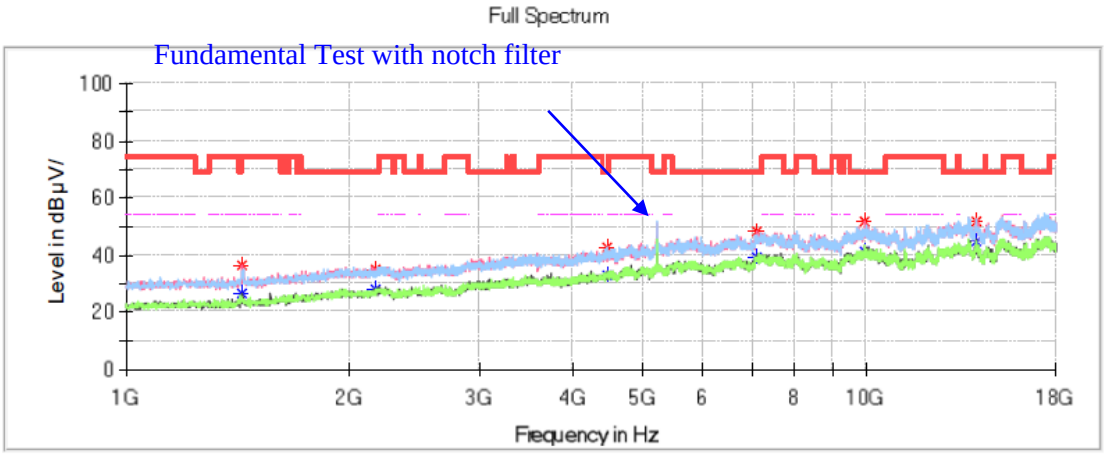
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1321.300000	39.88	---	74.00	34.12	V	-14.5
1321.300000	---	29.96	54.00	24.04	V	-14.5
2985.600000	39.97	---	68.20	28.23	V	-8.1
7179.500000	49.14	---	68.20	19.06	V	3.9
10037.200000	50.22	---	68.20	17.98	H	7.8
14489.500000	50.16	---	74.00	23.84	V	8.2
14489.500000	---	44.72	54.00	9.28	V	8.2
17005.500000	54.56	---	68.20	13.64	H	12.4

Middle Channel: 5200MHz

Common Information

Project No.:	RKSA240325003
Test Mode:	802.11a mode of middle channel
Standard:	FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer:	Hugh Wu



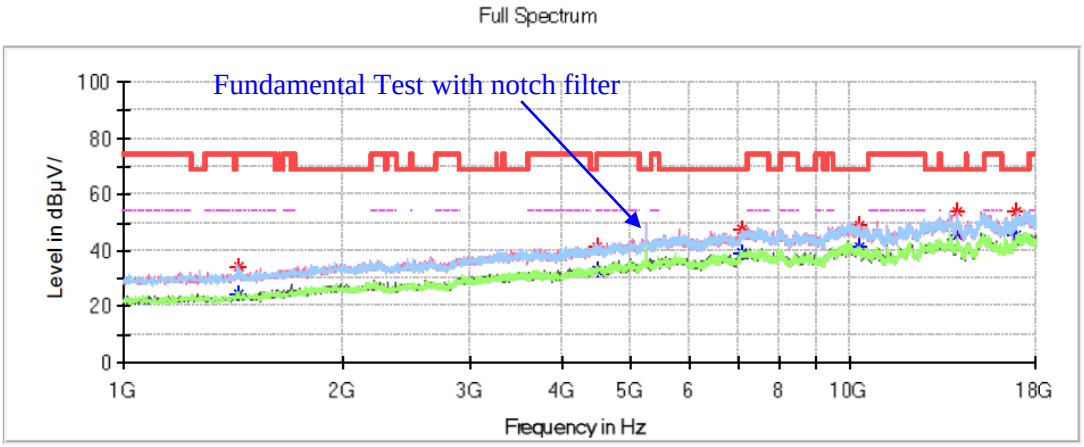
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1436.900000	36.34	---	74.00	37.66	V	-14.1
1436.900000	---	26.28	54.00	27.72	V	-14.1
2174.700000	34.67	---	68.20	33.53	V	-10.3
4461.200000	42.60	---	68.20	25.60	H	-3.9
7084.300000	48.44	---	68.20	19.76	V	3.9
9923.300000	51.70	---	68.20	16.50	V	7.6
14001.600000	51.82	---	68.20	16.38	V	10.5

High Channel: 5240MHz

Common Information

Project No.:	RKSA240325003
Test Mode:	802.11a mode of high channel
Standard:	FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer:	Hugh Wu



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)
1442.000000	---	24.19	54.00	29.81	V	-14.1
1442.000000	34.28	---	74.00	39.72	V	-14.1
4473.100000	41.09	---	68.20	27.11	H	-3.9
7094.500000	47.51	---	68.20	20.69	H	3.9
10285.400000	49.10	---	68.20	19.10	V	7.5
14001.600000	53.51	---	68.20	14.69	V	10.5
16947.700000	53.59	---	68.20	14.61	V	12.1

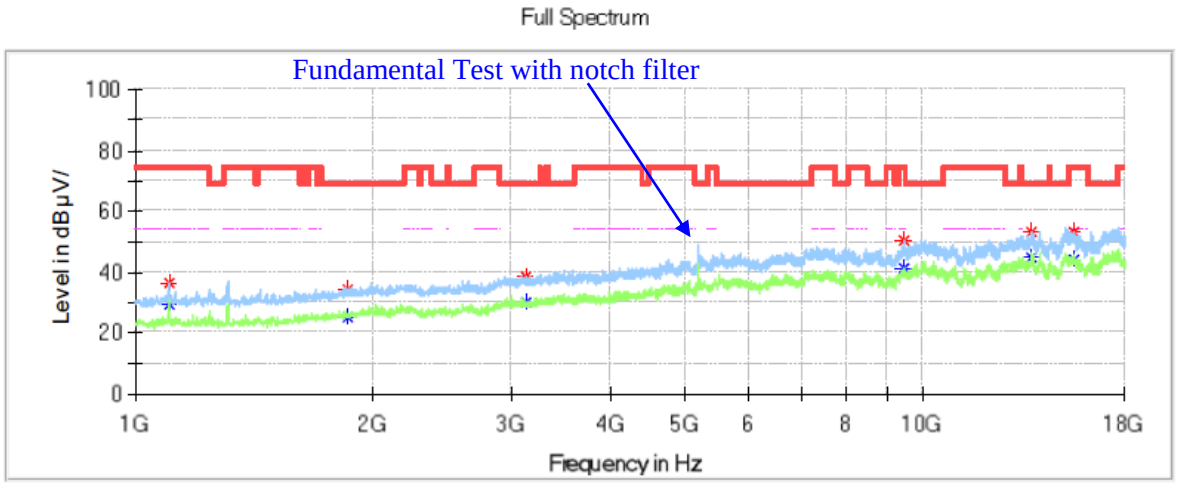
Chain 0+Chain 1:

802.11ac20 Mode:（worst case）

Low Channel: 5180MHz

Common Information

Project No.:	RKSA240325003
Test Mode:	802.11ac20 mode of low channel
Standard:	FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer:	Hugh Wu



Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5180MHz						
1102.000000	---	29.07	54.00	24.93	H	-15.2
1102.000000	36.34	---	74.00	37.66	H	-15.2
1863.600000	34.46	---	68.20	33.74	H	-11.5
3138.600000	38.76	---	68.20	29.44	H	-7.5
9454.100000	---	41.18	54.00	12.82	H	6.0
9454.100000	50.07	---	74.00	23.93	H	6.0
13727.900000	53.22	---	68.20	14.98	H	10.8
15529.900000	---	43.80	54.00	10.20	H	11.6
15529.900000	53.47	---	74.00	20.53	H	11.6
15529.900000	---	42.50	54.00	11.50	V	11.6
15529.900000	52.88	---	74.00	21.12	V	11.6
Middle Channel: 5200MHz						
1306.000000	---	29.64	54.00	24.36	V	-14.5
1306.000000	35.95	---	74.00	38.05	V	-14.5
2043.800000	34.80	---	68.20	33.40	H	-10.5
6659.300000	47.29	---	68.20	20.91	H	1.8
9948.800000	50.05	---	68.20	18.15	H	7.6
13736.400000	53.62	---	68.20	14.58	H	10.8
17224.800000	54.74	---	68.20	13.46	H	12.9
High Channel: 5240MHz						
1307.700000	37.92	---	74.00	36.08	H	-14.5
1307.700000	---	30.93	54.00	23.07	H	-14.5
4333.700000	41.36	---	74.00	32.64	V	-4.2
4333.700000	---	32.84	54.00	21.16	V	-4.2
8386.500000	---	38.20	54.00	15.80	H	3.9
8386.500000	46.90	---	74.00	27.10	H	3.9
11201.700000	48.94	---	74.00	25.06	V	6.7
11201.700000	---	39.77	54.00	14.23	V	6.7
14005.000000	52.17	---	68.20	16.03	H	10.5
16974.900000	53.94	---	68.20	14.26	H	12.2