FCC PART 15.407

TEST REPORT

For

Infinite Clouds

Office 406, Road 3307, Block 333, Um Al Hassam Manama Bahrain

FCC ID: 2BE3S313

Report Type:	**Product Name:**
Original Report	Wireless Router

Report Number:	RKSA240228003-00C
Report Date:	2024-08-29
Reviewed By:	Bard Liu
Approved By:	Kyle Xu
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

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.Govemment.

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REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RKSA240228003-00C	R1V1	2024-08-29	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	Infinite Clouds	
Product Name:	Wireless Router	
Tested Model	Infinite 313	
Power Supply:	DC 12V from DC port or DC 51V from PoE	
Maximum Output Power:	5G Wi-Fi B1:	5G Wi-Fi B4:
	Conducted Power:	Conducted Power:
	802.11a: 23.505 dBm	23.512 dBm
	802.11n20:29.18 dBm	29.17 dBm
	802.11n40: 29.24 dBm	29.38 dBm
	802.11ac20: 29.13dBm	29.28 dBm
	802.11ac40: 29.23 dBm	29.26 dBm
	802.11ac80: 29.40 dBm	29.6 dBm
RF Function	5G Wi-Fi	
Operating Band/Frequency:	Band 1:5150~5250 MHz, Band 4: 5725~5850 MHz	
Channel Number:	Band 1: 7, Band 4: 8	
Channel Separation:	802.11a/n/ac20: 20MHz; 802.11n/ac40:40 MHz, 802.11ac80: 80 MHz	
Modulation Type	OFDM	
★Maximum Antenna Gain:	6 dBi	

Note: The maximum antenna gain was declared by the manufacturer.

All measurement and test data in this report was gathered from production sample serial number: RKSA240228003-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2024-02-28.)

Objective

This type approval report is prepared for *Infinite Clouds* 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, 15.207, 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.

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

802.11a/n/ac20 mode Channel 36, 40, 48 were tested.
802.11n/ac40mode Channel 38, 46 were tested.
802.11ac80 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 **5725~5850 MHz** band,

802.11a/n/ac20 mode Channel 149, 157, 165 were tested.
802.11n/ac40 mode Channel 151, 159 were tested.
802.11ac80 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

The worst case was performed under:

5150MHz-5250MHz Band:

Mode	Data rate	Channel	★Power Level			
			Chain 1	Chain 2	Chain 3	Chain 4
802.11a	6 Mbps	Low Channel	15	15	15	15
		Middle Channel	15	15	15	15
		High Channel	15	15	15	15
802.11n-HT20	MCS0	Low Channel	15	15	15	15
		Middle Channel	15	15	15	15
		High Channel	15	15	15	15
802.11n-HT40	MCS0	Low Channel	13	13	13	13
		High Channel	15	15	15	15
802.11ac-VHT20	MCS0	Low Channel	13	13	13	13
		Middle Channel	13	13	13	13
		High Channel	15	15	15	15
802.11ac-VHT40	MCS0	Low Channel	12	12	12	12
		High Channel	15	15	15	15
802.11ac-VHT80	MCS0	Middle Channel	12	12	12	12

Note:
1. The power level was declared by the applicant.
2. 802.11a supports SISO, 802.11n20/n40/ac20/ac40/ac80 supports SISO and MIMO mode.
For Radiated Emission, according to pretest, the worst case for 802.11n20/n40/ac20/ac40/ac80 is MIMO mode.
So 802.11n20/n40/ac20/ac40/ac80 MIMO mode test data were recorded in the report.
3. For Conducted Test:
802.11a & 802.11n & 802.11ac: each transmit chains were tested.
For Radiated Test:
802.11a, SISO for each transmit chain
802.11n/ac: MIMO for four transmit chains

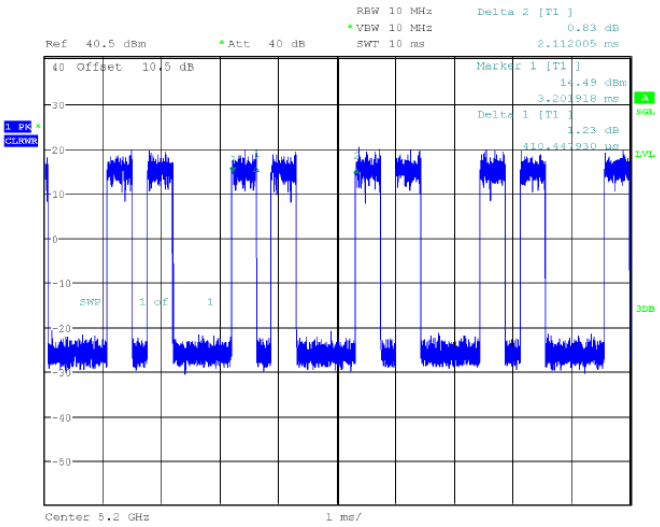
5725MHz-5850MHz Band:

Mode	Data rate	Channel	★Power Level			
			Chain 1	Chain 2	Chain 3	Chain 4
802.11a	6 Mbps	Low Channel	15	15	15	15
		Middle Channel	15	15	15	15
		High Channel	15	15	15	15
802.11n-HT20	MCS0	Low Channel	15	15	15	15
		Middle Channel	15	15	15	15
		High Channel	15	15	15	15
802.11n-HT40	MCS0	Low Channel	15	15	15	15
		High Channel	12	12	12	12
802.11ac-VHT20	MCS0	Low Channel	15	15	15	15
		Middle Channel	15	15	15	15
		High Channel	15	15	15	15
802.11ac-VHT40	MCS0	Low Channel	15	15	15	15
		High Channel	15	15	15	15
802.11ac-VHT80	MCS0	Middle Channel	13	13	13	13

Note:
1. The power level was declared by the applicant.
2. 802.11a supports SISO, 802.11n20/n40/ac20/ac40/ac80 supports SISO and MIMO mode.
For Radiated Emission, according to pretest, the worst case for 802.11n20/n40/ac20/ac40/ac80 is MIMO mode.
So 802.11n20/n40/ac20/ac40/ac80 MIMO mode test data were recorded in the report.
3. For Conducted Test:
802.11a & 802.11n & 802.11ac: each transmit chains were tested.
For Radiated Test:
802.11a, SISO for each transmit chain
802.11n/ac: MIMO for four transmit chains

Duty Cycle
5150MHz-5250MHz Band:
Chain 1:

802.11a mode



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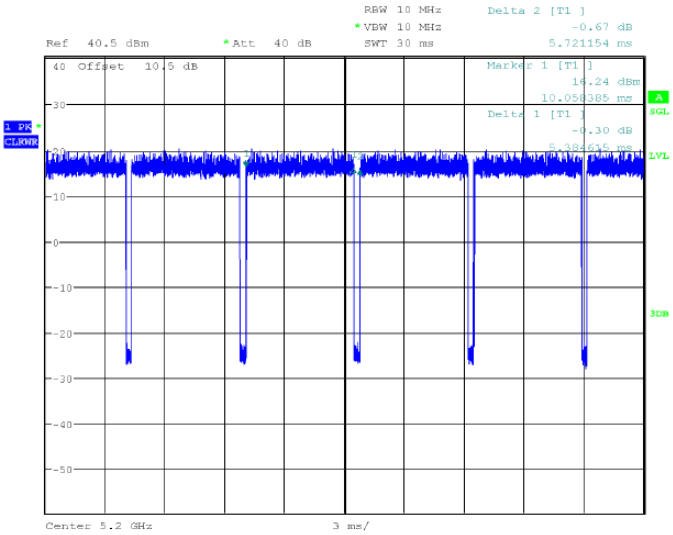
802.11n20 mode



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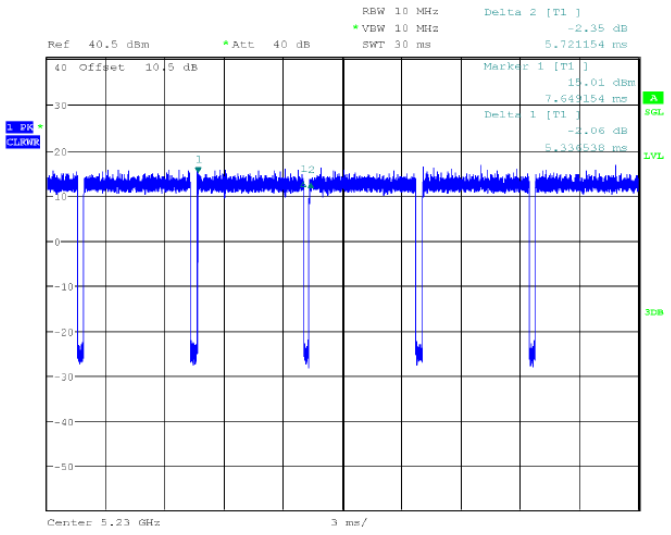
802.11n40 mode



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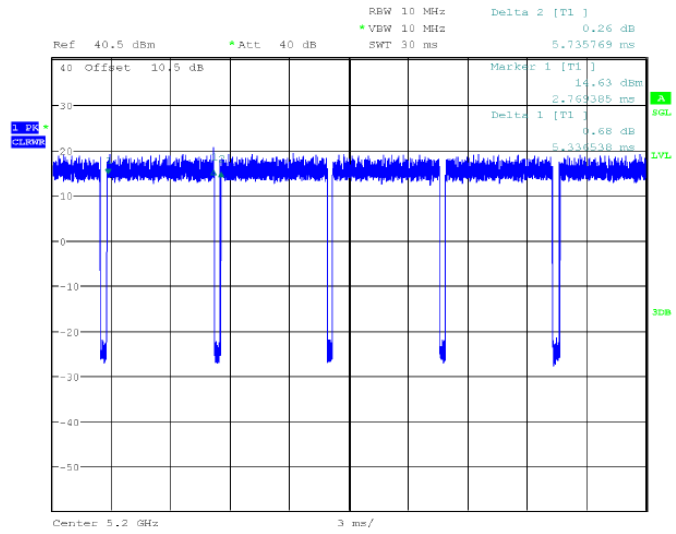
802.11ac20 mode



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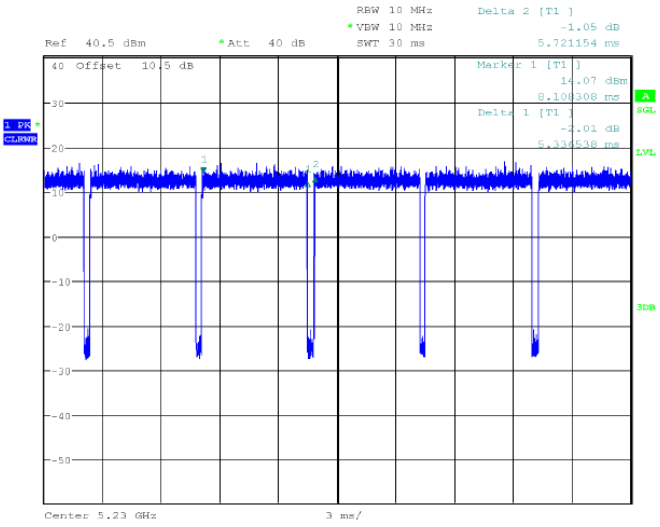
802.11ac40 mode



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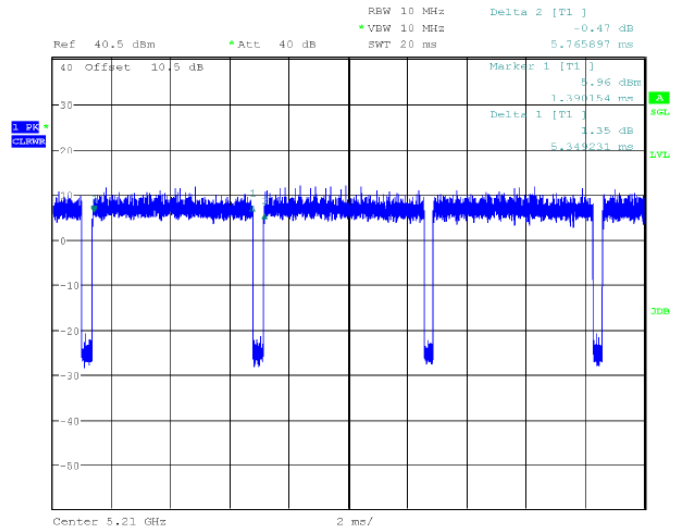
802.11ac80 mode



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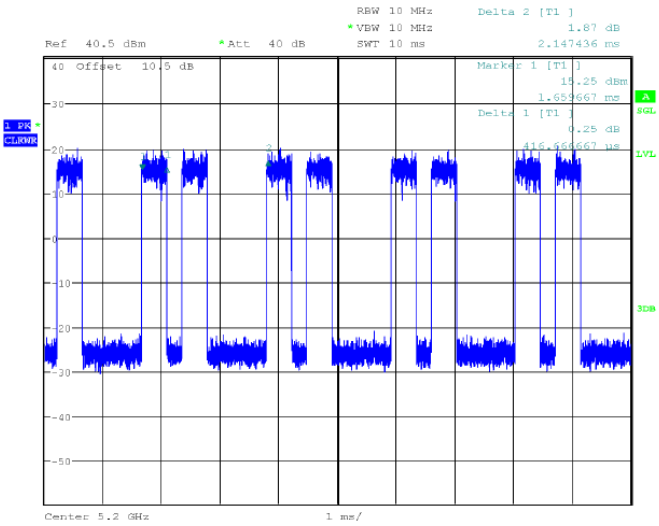
Chain 2:

802.11a mode



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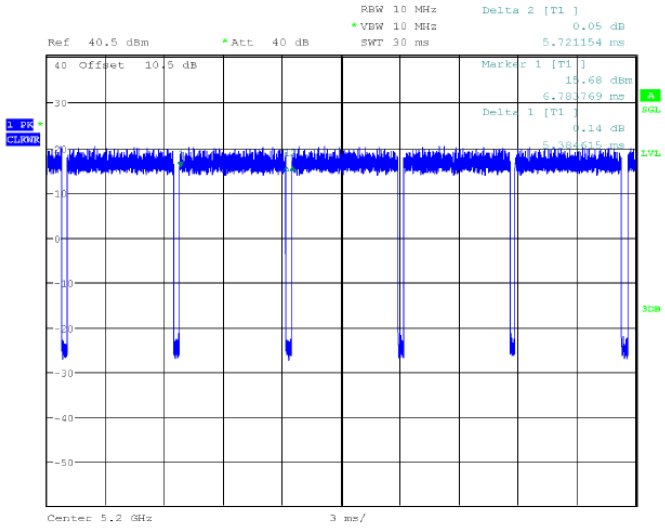
802.11n20 mode



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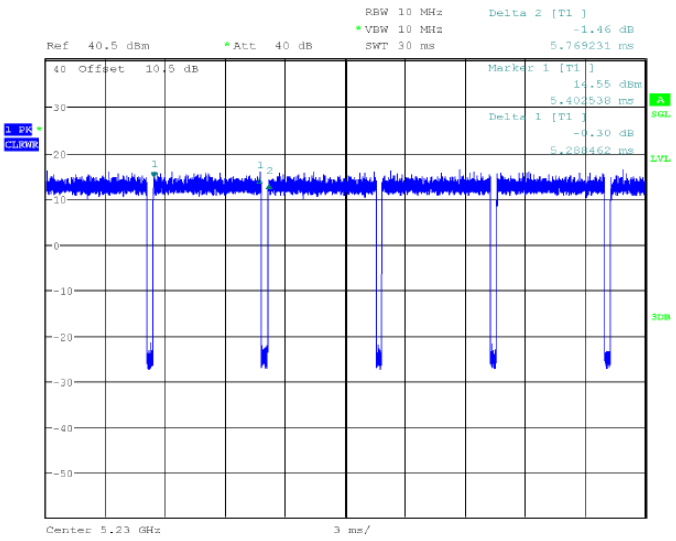
802.11n40 mode



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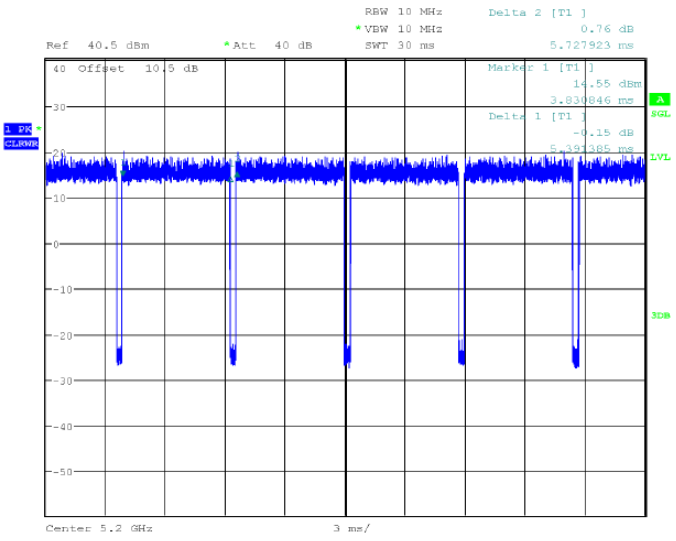
802.11ac20 mode



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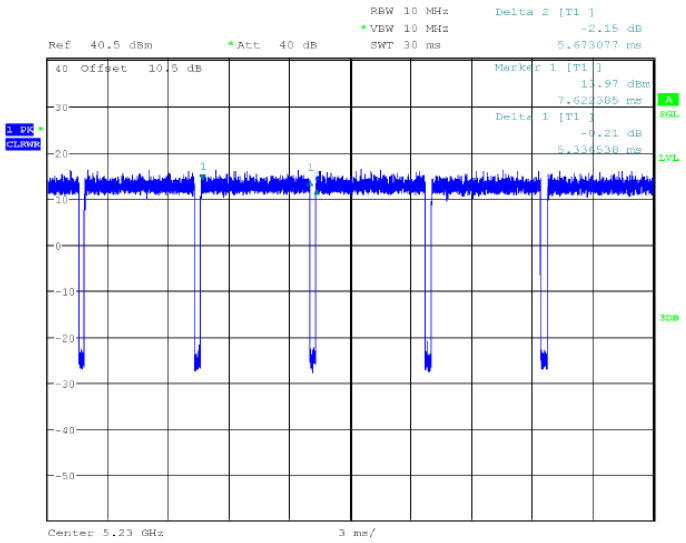
802.11ac40 mode



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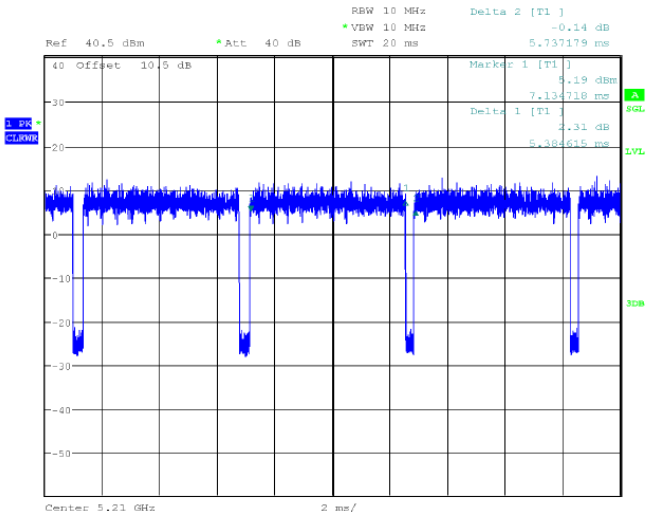
802.11ac80 mode



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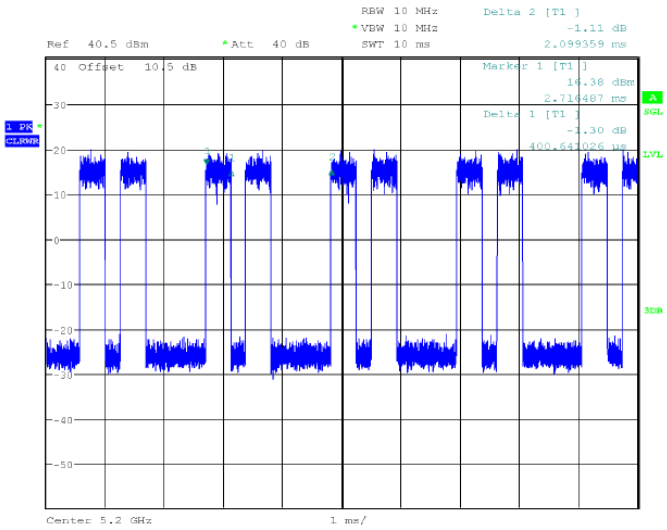
Date: 4.JUN.2024 18:55:33

Chain 3:

802.11a mode



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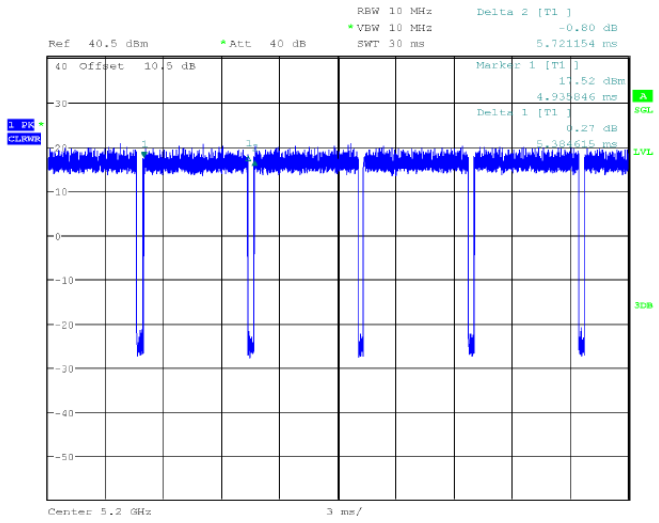
802.11n20 mode



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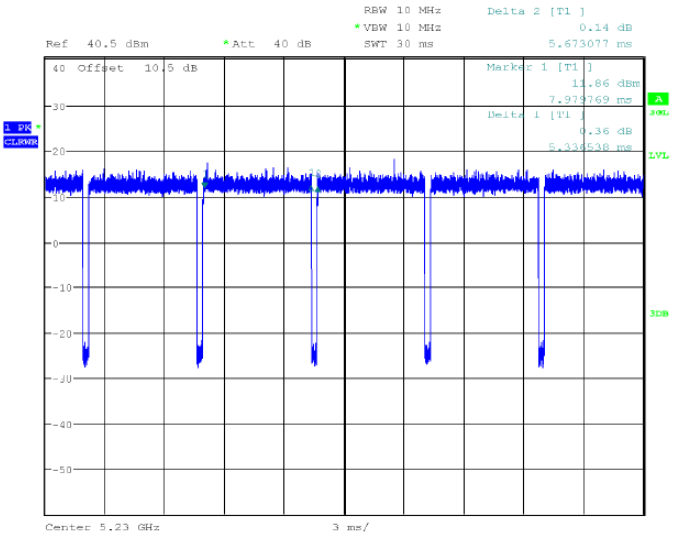
802.11n40 mode



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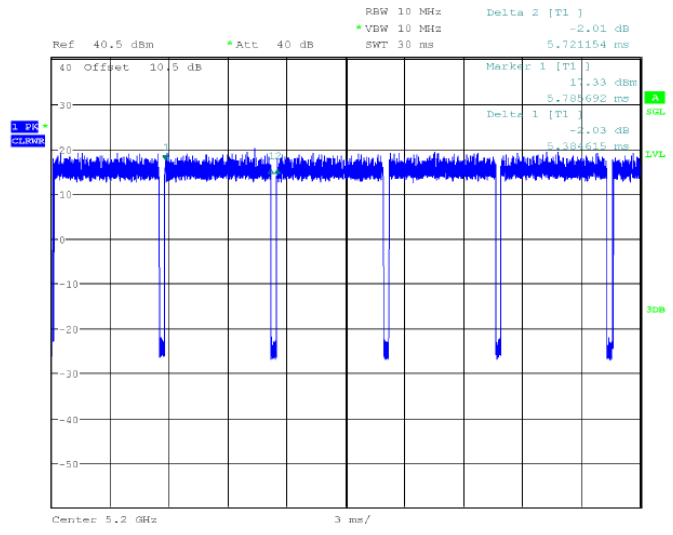
802.11ac20 mode



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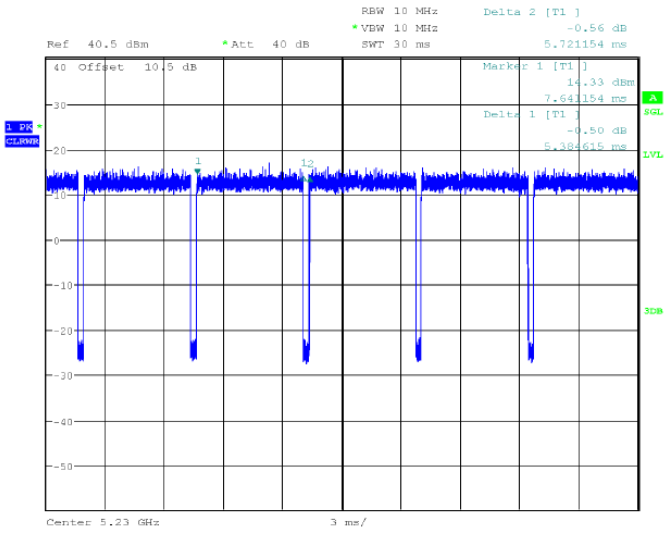
802.11ac40 mode



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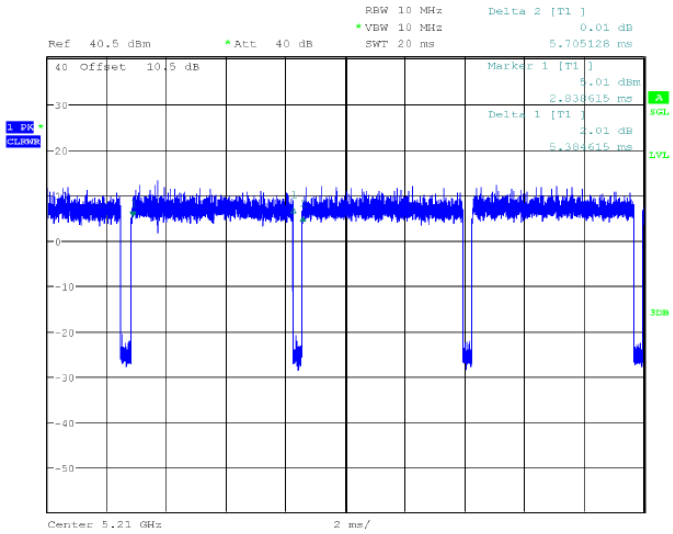
802.11ac80 mode



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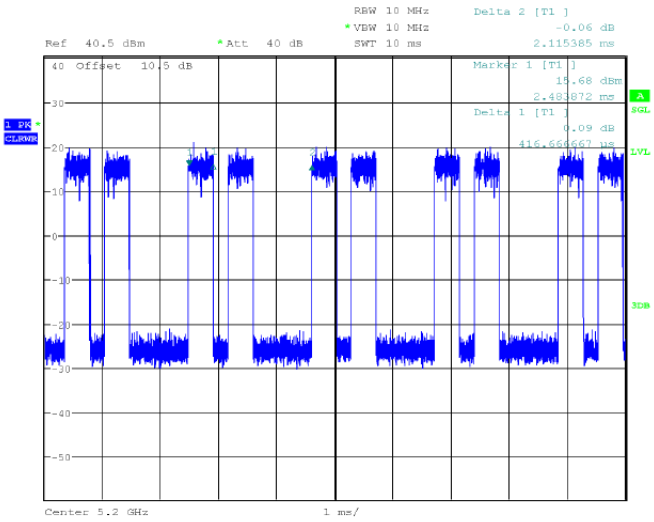
Chain 4:

802.11a mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
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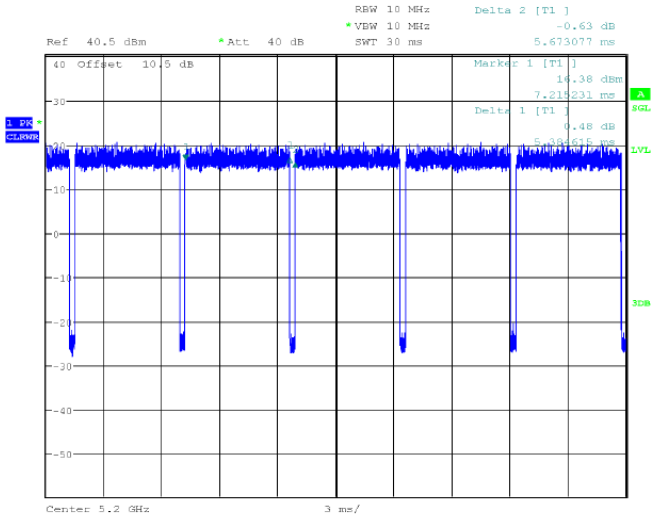
802.11n20 mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
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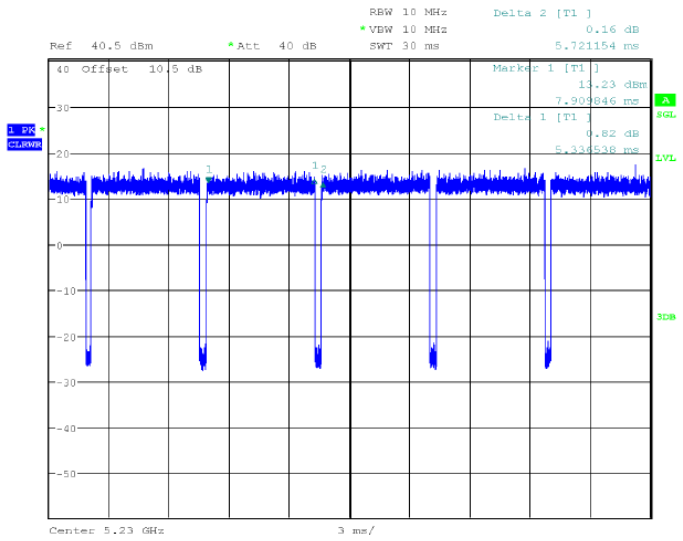
802.11n40 mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
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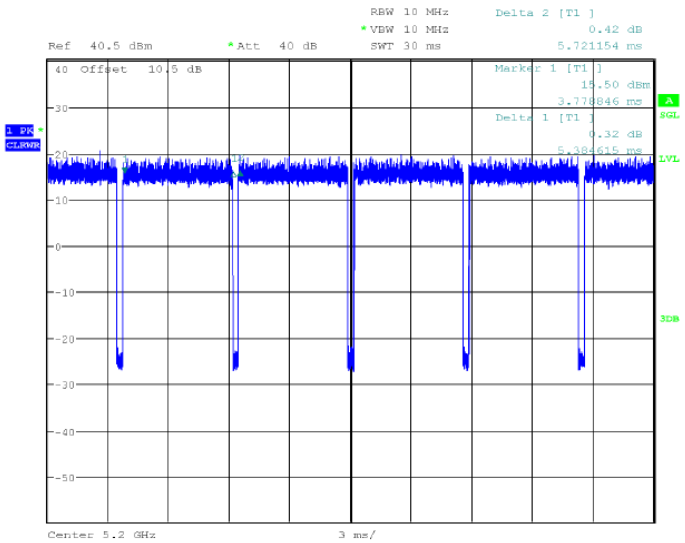
802.11ac20 mode



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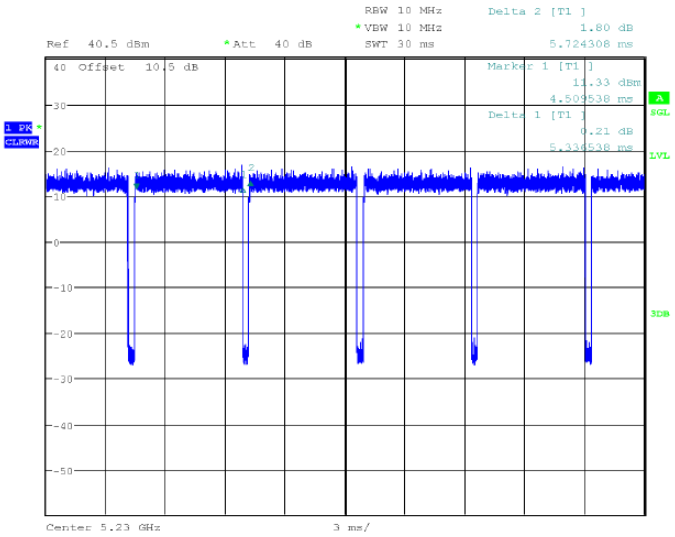
802.11ac40 mode



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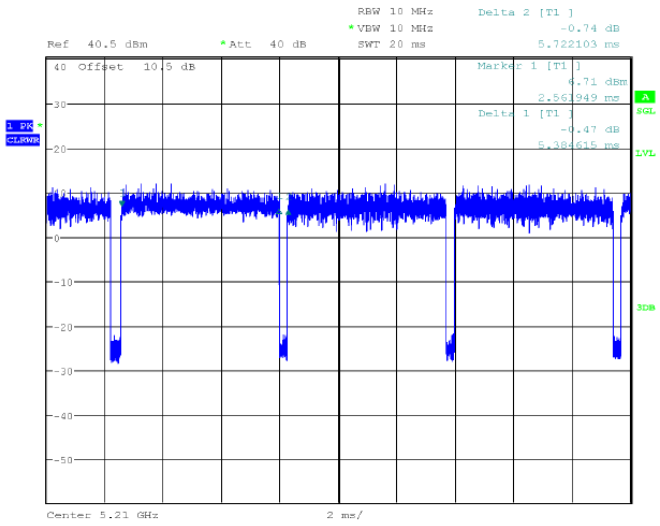
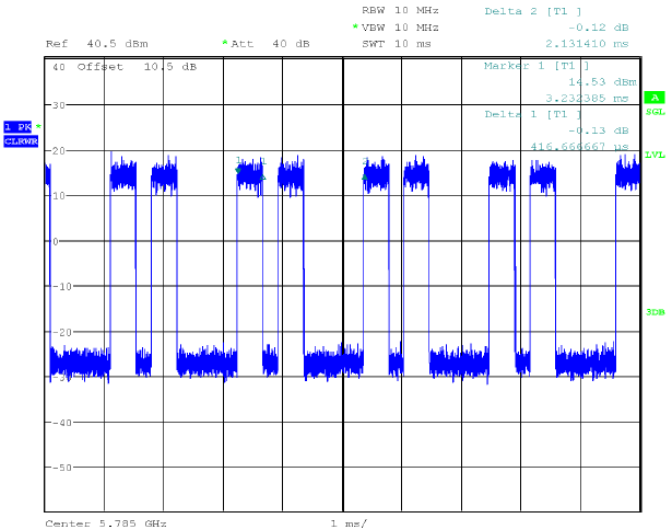
802.11ac80 mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 4.JUN.2024 19:00:30

5745MHz-5825MHz Band:
Chain 1:

802.11a mode



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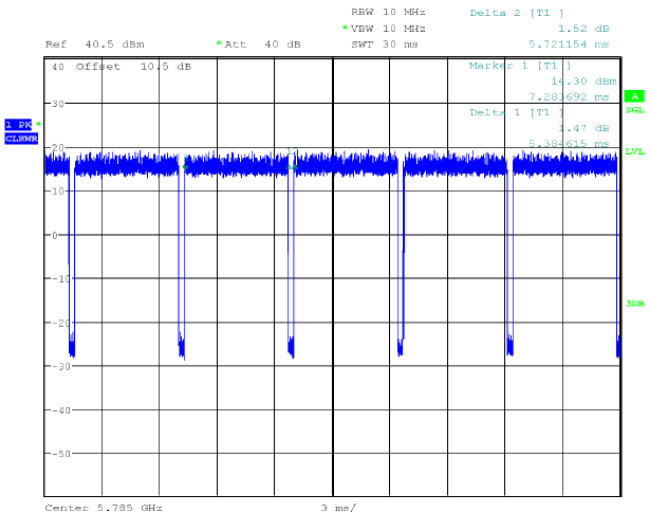
802.11n20 mode



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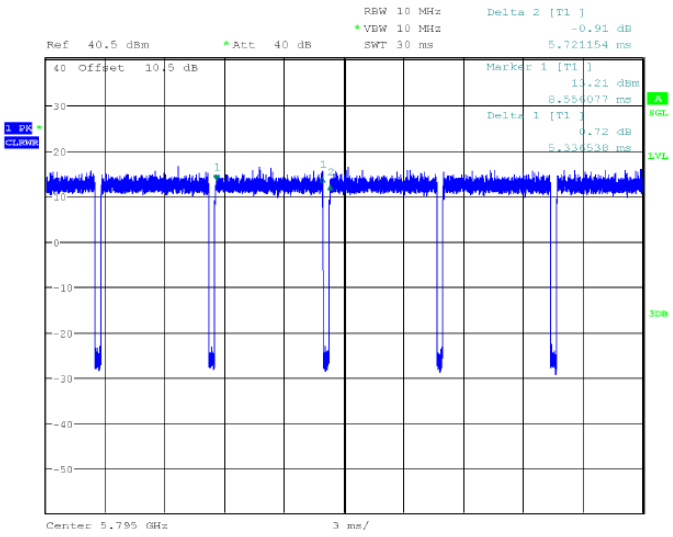
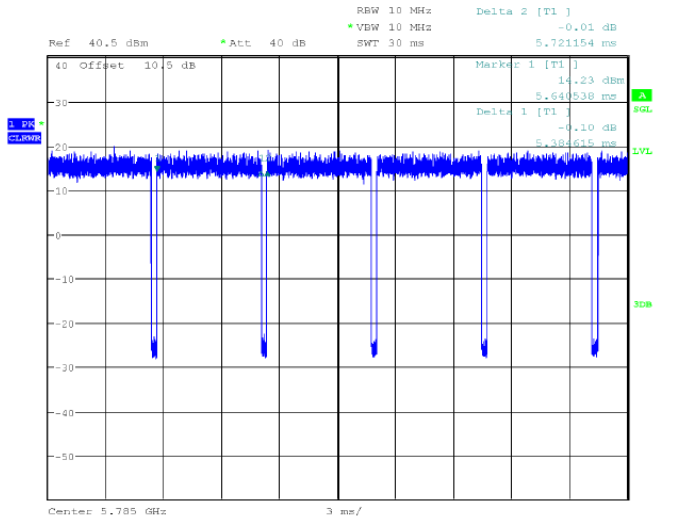
802.11n40 mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 4.JUN.2024 19:50:07

802.11ac20 mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 5.JUN.2024 09:39:06

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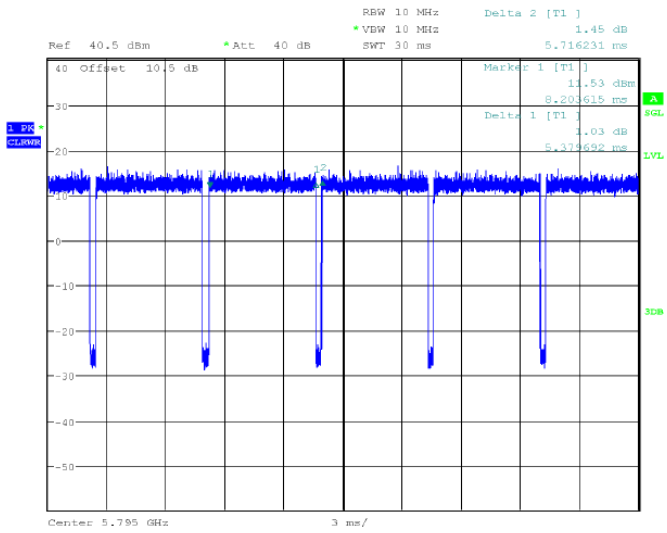

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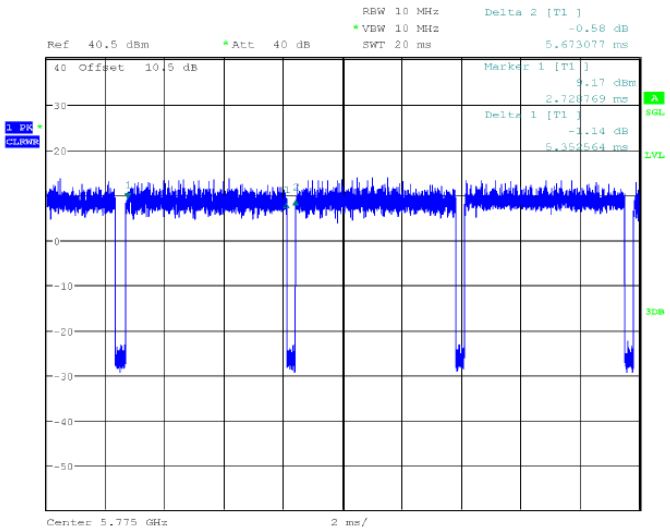
802.11ac80 mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
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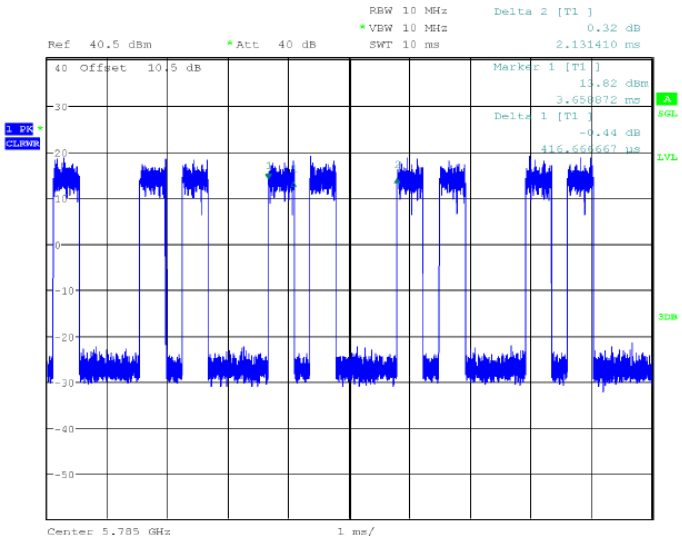
Chain 2:

802.11a mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
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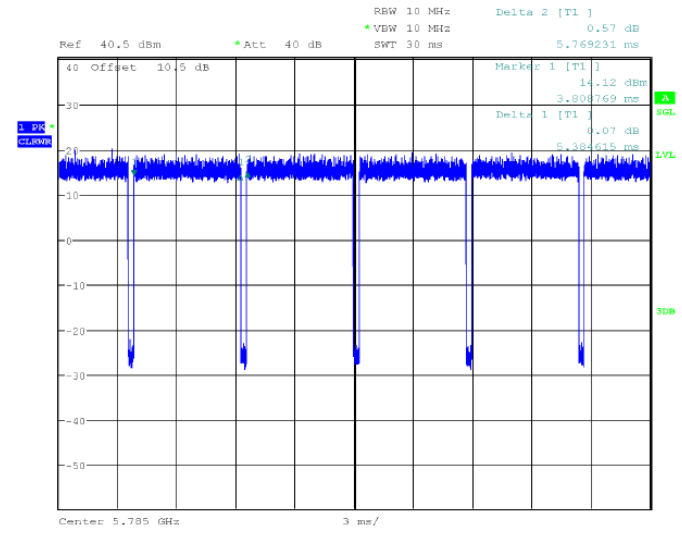
802.11n20 mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
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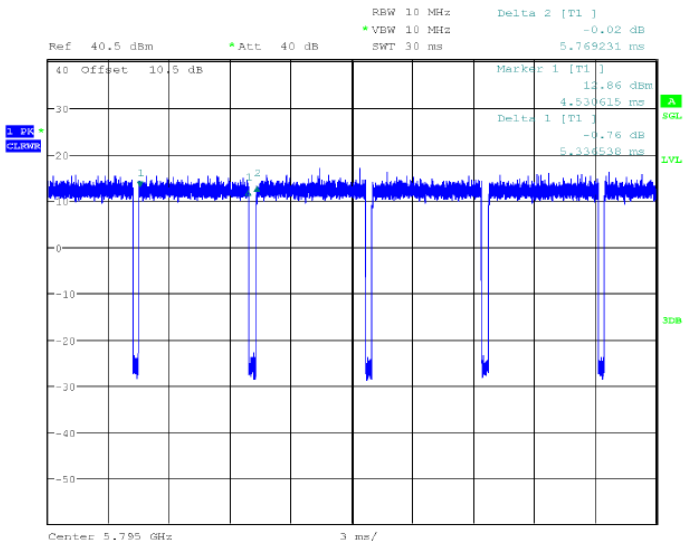
802.11n40 mode



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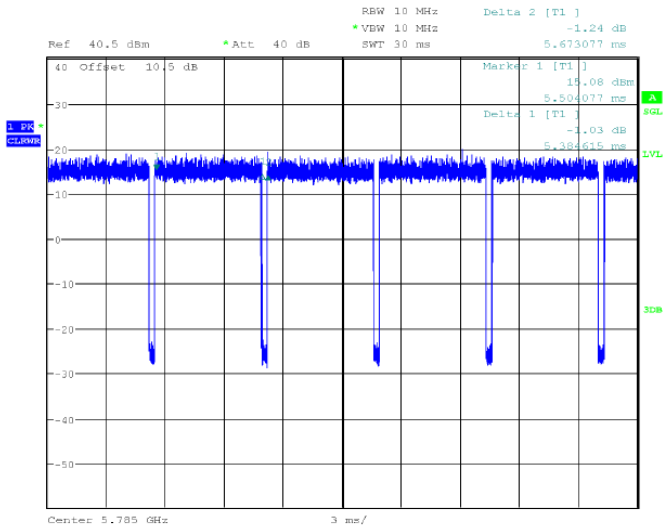

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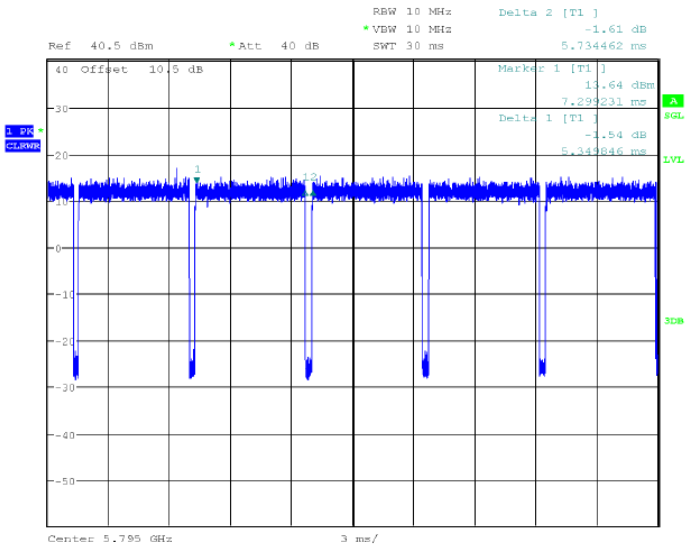
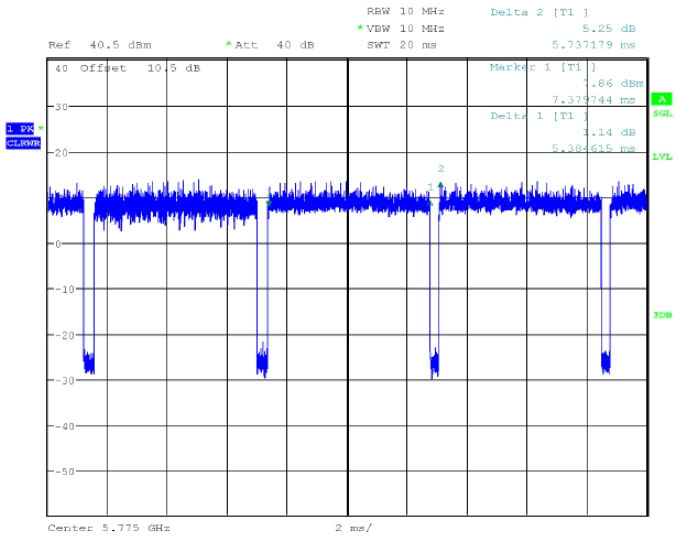


ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 5.JUN.2024 10:01:55

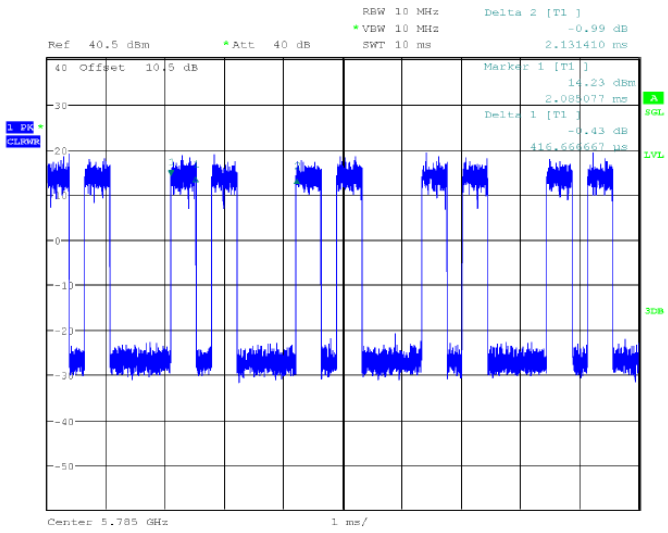
802.11ac80 mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 5.JUN.2024 10:12:57

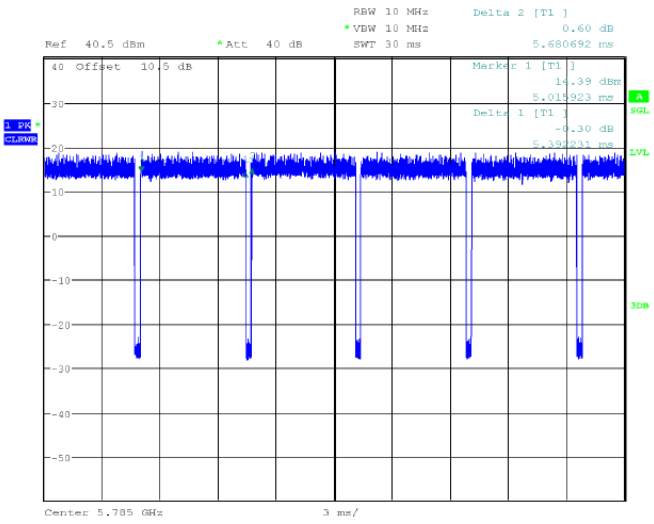
Chain 3:

802.11a mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 4.JUN.2024 19:15:33

802.11n20 mode



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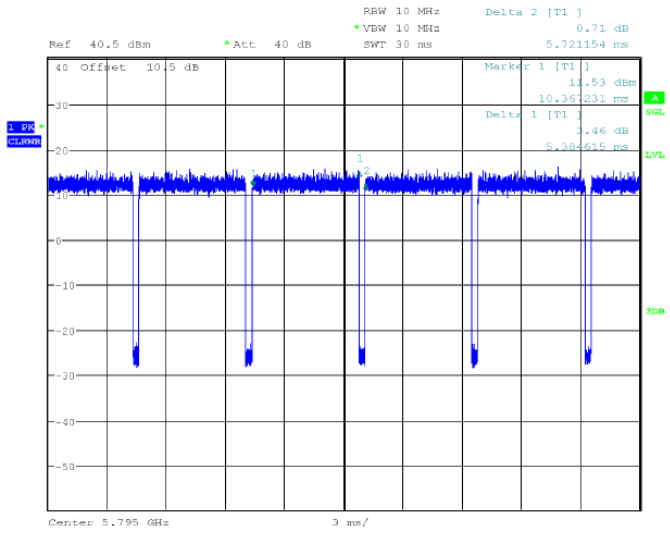
802.11n40 mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
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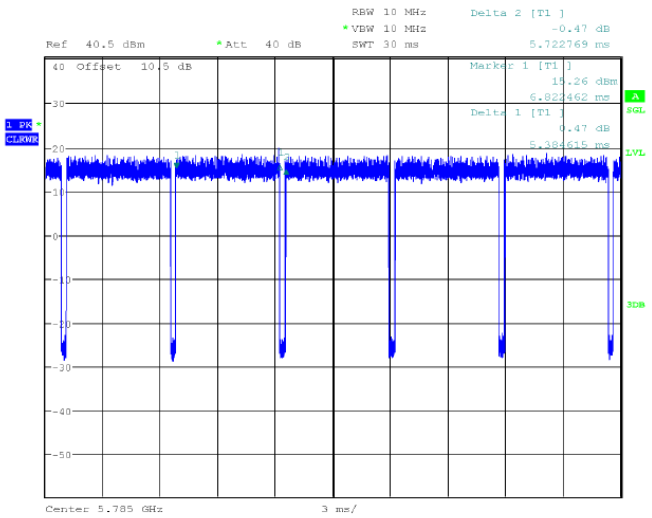
802.11ac20 mode



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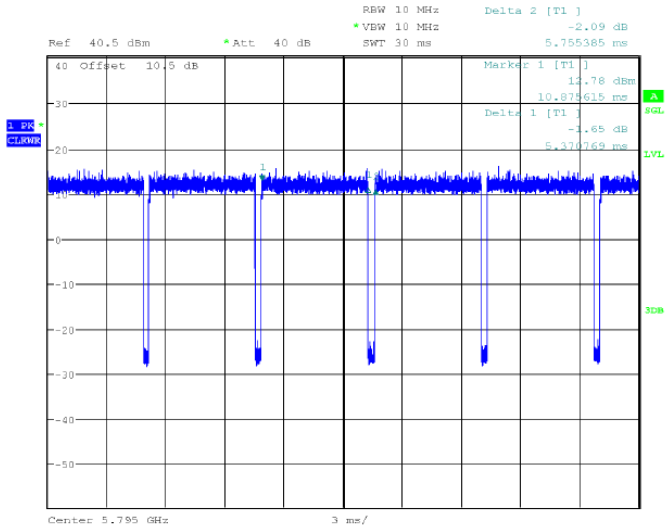
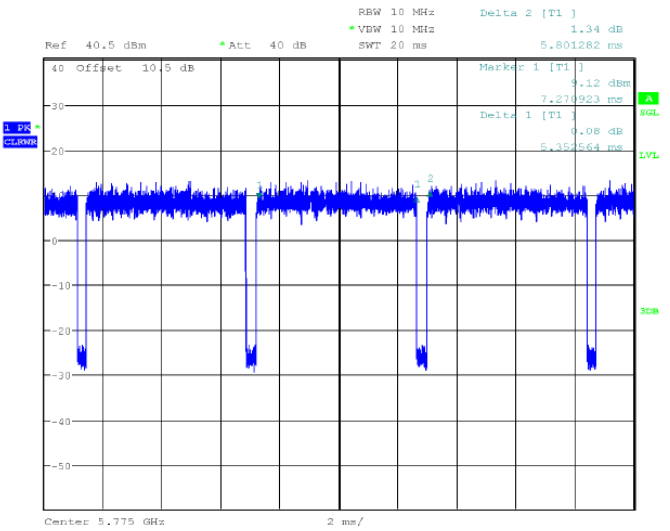
Date: 5.JUN.2024 09:43:40

802.11ac40 mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 5.JUN.2024 10:04:17

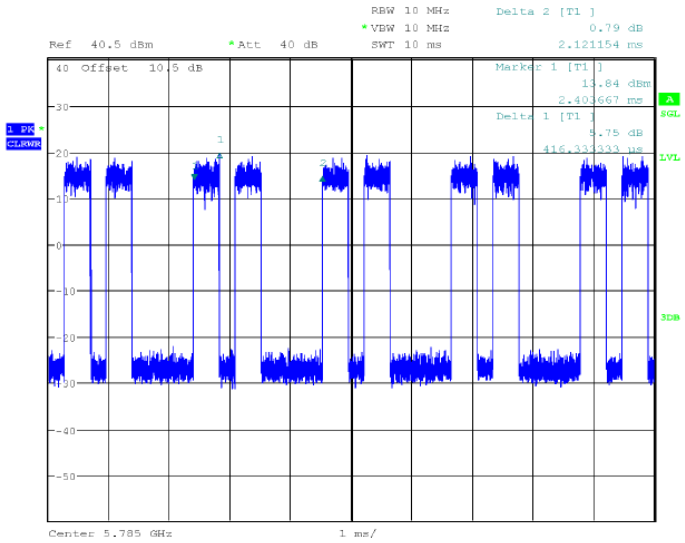
802.11ac80 mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 5.JUN.2024 10:14:54

Chain 4:

802.11a mode



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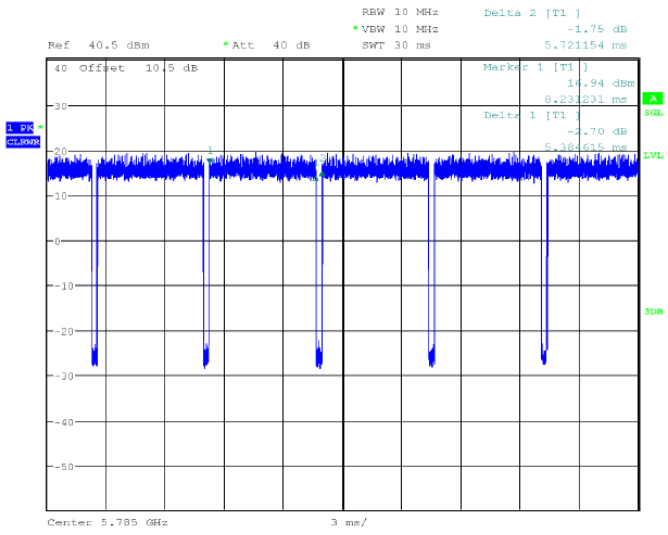
802.11n20 mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
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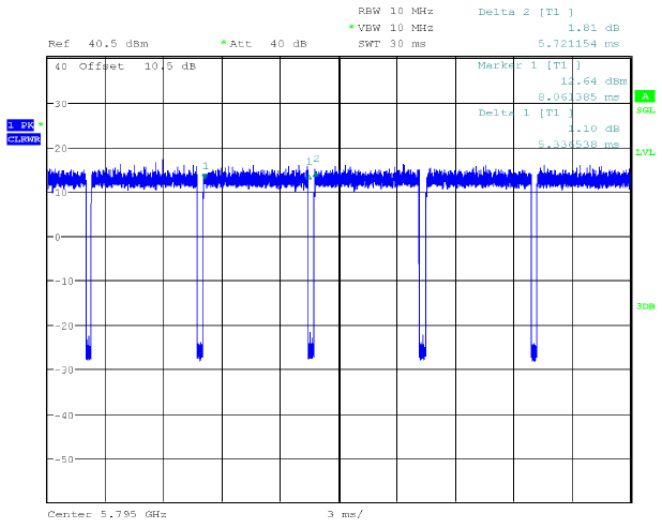

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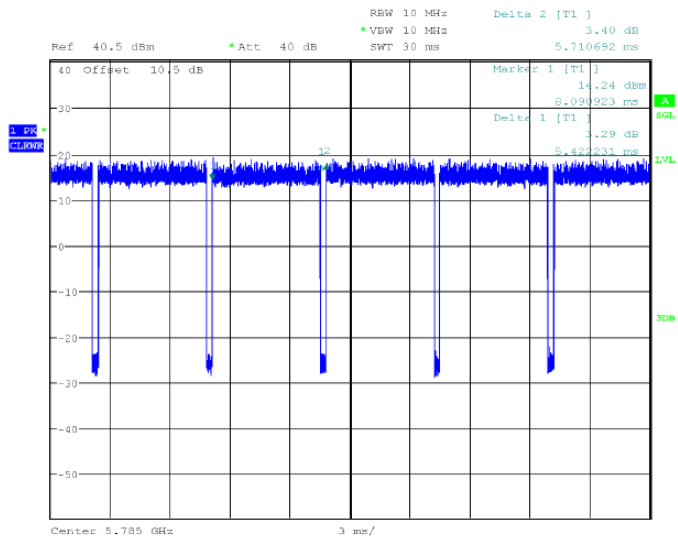
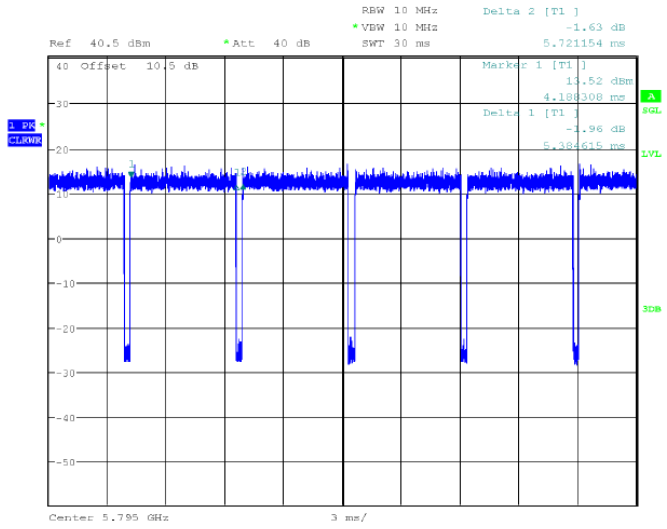
Date: 4.JUN.2024 19:54:26

802.11ac20 mode



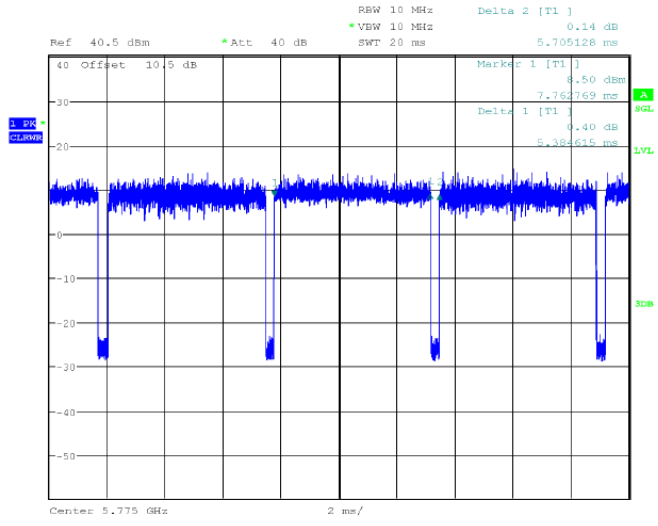
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 5.JUN.2024 09:45:01

802.11ac40 mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 5.JUN.2024 10:07:35

802.11ac80 mode



ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 5.JUN.2024 10:17:20

5150MHz-5250MHz Band:

Chain	Mode	Ton(ms)	Ton+off(ms)	Duty Cycle (%)	Duty cycle factor
Chain 1	802.11a	0.820	2.112	38.83	4.11
	802.11n-HT20	5.385	5.721	94.13	0.26
	802.11n-HT40	5.337	5.721	93.29	0.30
	802.11ac-VHT20	5.337	5.736	93.04	0.31
	802.11ac-VHT40	5.337	5.721	93.29	0.30
	802.11ac-VHT80	5.349	5.766	92.77	0.33
Chain 2	802.11a	0.834	2.147	38.84	4.11
	802.11n-HT20	5.385	5.721	94.13	0.26
	802.11n-HT40	5.288	5.769	91.66	0.38
	802.11ac-VHT20	5.391	5.728	94.12	0.26
	802.11ac-VHT40	5.337	5.673	94.08	0.27
	802.11ac-VHT80	5.385	5.737	93.86	0.28
Chain 3	802.11a	0.802	2.099	38.21	4.18
	802.11n-HT20	5.385	5.721	94.13	0.26
	802.11n-HT40	5.337	5.673	94.08	0.27
	802.11ac-VHT20	5.385	5.721	94.13	0.26
	802.11ac-VHT40	5.385	5.721	94.13	0.26
	802.11ac-VHT80	5.385	5.705	94.39	0.25
Chain 4	802.11a	0.834	2.115	39.43	4.04
	802.11n-HT20	5.385	5.673	94.92	0.23
	802.11n-HT40	5.337	5.721	93.29	0.30
	802.11ac-VHT20	5.385	5.721	94.13	0.26
	802.11ac-VHT40	5.337	5.724	93.24	0.30
	802.11ac-VHT80	5.385	5.722	94.11	0.26

5745MHz-5825MHz Band:

Chain	Mode	Ton(ms)	Ton+off(ms)	Duty Cycle (%)	Duty cycle factor
Chain 1	802.11a	0.832	2.131	39.04	4.08
	802.11n-HT20	5.385	5.721	94.13	0.26
	802.11n-HT40	5.337	5.721	93.29	0.30
	802.11ac-VHT20	5.384	5.721	94.11	0.26
	802.11ac-VHT40	5.380	5.716	94.12	0.26
	802.11ac-VHT80	5.353	5.673	94.36	0.25
Chain 2	802.11a	0.834	2.131	39.14	4.07
	802.11n-HT20	5.385	5.769	93.34	0.30
	802.11n-HT40	5.337	5.769	92.51	0.34
	802.11ac-VHT20	5.385	5.673	94.92	0.23
	802.11ac-VHT40	5.350	5.734	93.30	0.30
	802.11ac-VHT80	5.385	5.737	93.86	0.27
Chain 3	802.11a	0.834	2.131	39.14	4.07
	802.11n-HT20	5.392	5.681	94.91	0.23
	802.11n-HT40	5.385	5.721	94.13	0.26
	802.11ac-VHT20	5.385	5.723	94.09	0.26
	802.11ac-VHT40	5.380	5.755	93.48	0.29
	802.11ac-VHT80	5.353	5.801	92.28	0.35
Chain 4	802.11a	0.832	2.121	39.23	4.06
	802.11n-HT20	5.385	5.721	94.13	0.23
	802.11n-HT40	5.337	5.721	93.29	0.30
	802.11ac-VHT20	5.422	5.711	94.94	0.23
	802.11ac-VHT40	5.385	5.721	94.13	0.26
	802.11ac-VHT80	5.385	5.705	94.39	0.25

Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Unknown	PoE Injector	PSE30G	Unknown
Lenovo	Notebook 1	Y700P	PF2B7PL5
Dell	Notebook 2	E6410	3094742521
Unknown	Socket	/	/
Unknown	Adapter	/	/

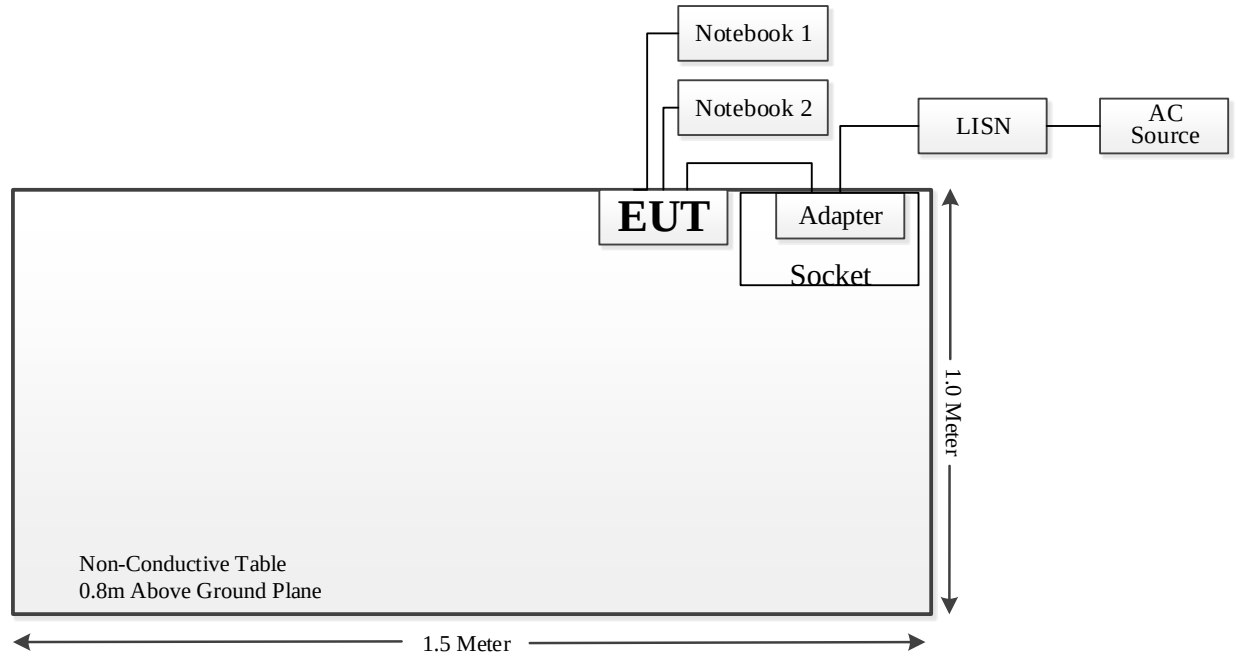
External I/O Cable

Cable Description	Length (m)	From Port	To
Power Cable 1	1.0	AC Source/LISN	PoE Injector
RJ45 Cable 1	1.5	PoE Injector	EUT
RJ45 Cable 2	3.0	EUT	Notebook 1
RJ45 Cable 3	7.0	EUT	Notebook 1
RJ45 Cable 4	7.0	EUT	Notebook 2
Power Cable 2	2.0	EUT	Adapter

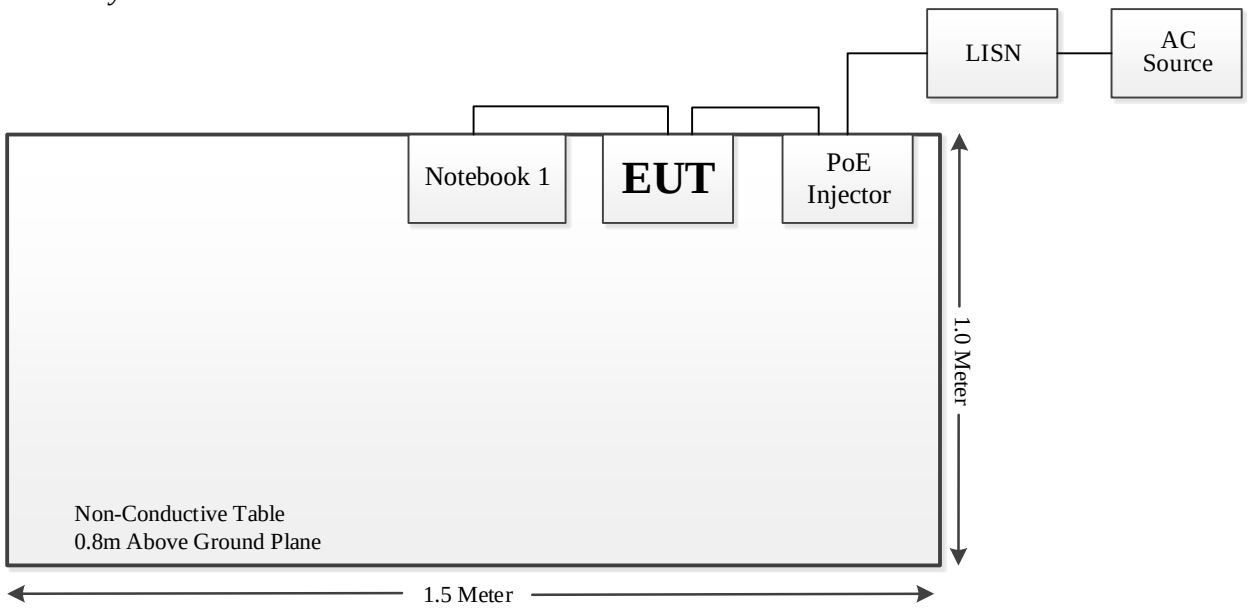
Block Diagram of Test Setup

For Conducted Emissions:

Powered by Adapter:

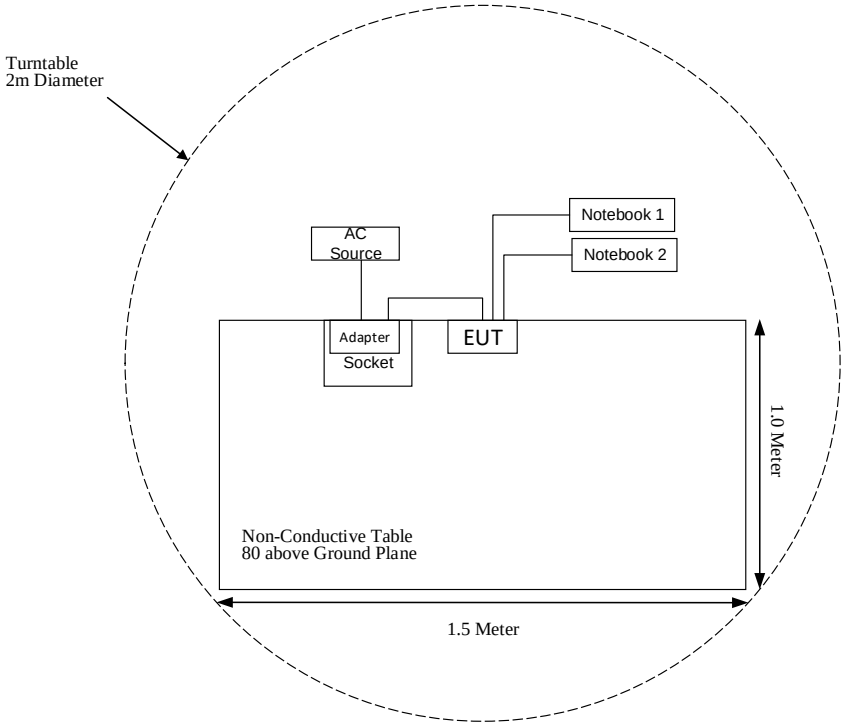


Powered by PoE:

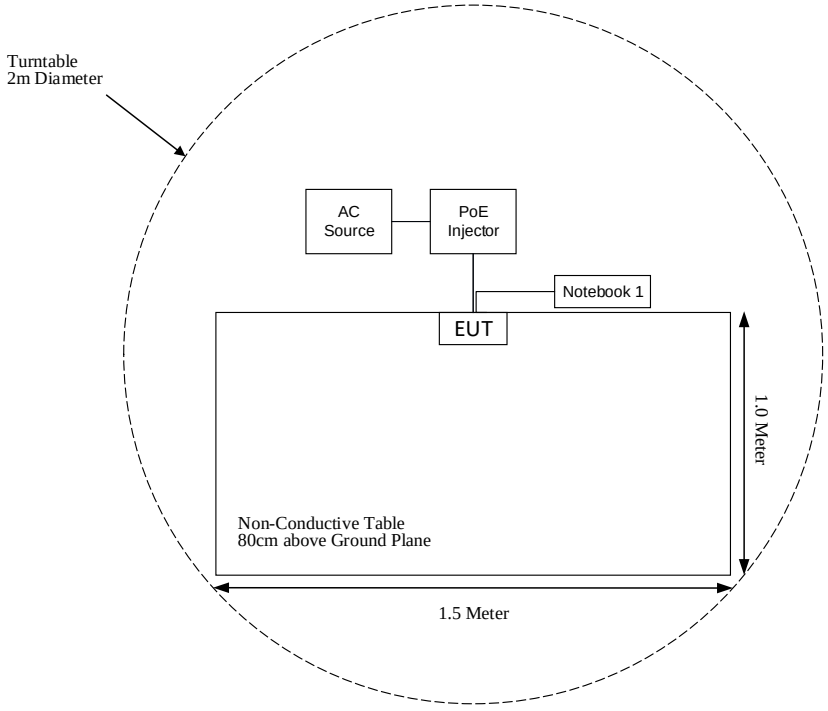


For Radiated Emissions (Below 1GHz):

Powered by adapter:

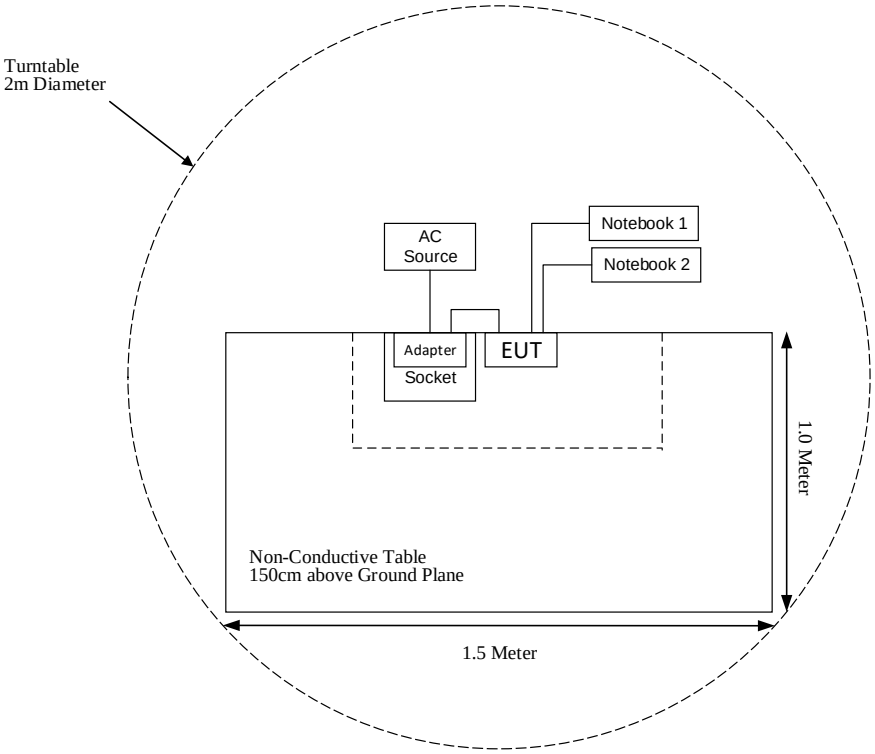


Powered by PoE:



For Radiated Emissions (Above 1GHz):

Powered by adapter:



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	2023-05-23	2024-05-22
Sunol Sciences	Hybrid Antenna	JB3	A090314-1	2023-11-11	2024-11-10
Sonoma Instrument	Amplifier	310N	171205	2023-05-23	2024-05-22
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
Narda	6 dB Attenuator	773-6	10690812-2-1	2023-11-11	2024-11-10
ETS-LINDGREN	Loop Antenna	6512	108100	2023-11-09	2024-11-08
MICRO-COAX	Coaxial Cable	Cable-8	008	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-9	009	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-10	010	2023-05-23	2024-05-22
Radiated Emission Test (Chamber #2)					
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2023-05-19	2024-05-18
ETS-LINDGREN	Horn Antenna	3115	9311-4159	2023-12-02	2024-12-01
ETS-LINDGREN	Horn Antenna	3116	84159	2023-12-07	2024-12-06
A.H.Systems,inc	Amplifier	PAM-0118P	512	2023-05-19	2024-05-18
EM Electronics Corporation	Amplifier	EM18G40G	060726	2023-05-23	2024-05-22
MICRO-TRONICS	Band Reject Filter	BRC50703	G094	2023-05-23	2024-05-22
MICRO-TRONICS	Band Reject Filter	BRC50705	G085	2023-05-23	2024-05-22
Narda	Attenuator	10dB	010	2023-05-23	2024-05-22
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-11	011	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-12	012	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-13	013	2023-05-23	2024-05-22
RF Conducted Test					
Rohde & Schwarz	Signal Analyzer	FSU26	200103	2023-05-23	2024-05-22
Rohde & Schwarz	Signal Analyzer	FSU26	200103	2024-04-24	2025-04-23
Anritsu	Power Sensor	MA24418A	12621	2023-09-27	2024-09-26
Narda	Attenuator	10dB	010	2023-05-23	2024-05-22
Narda	Attenuator	10dB	010	2024-04-23	2025-04-22
XHFDZ	RG316 Coaxial Cable	SMA-316	XHF-1175	Each time	N/A

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR	101746	2023-05-23	2024-05-22
Rohde & Schwarz	EMI Test Receiver	ESR	101746	2024-04-23	2025-04-22
Rohde & Schwarz	LISN	ENV216	101115	2023-05-23	2024-05-22
Rohde & Schwarz	LISN	ENV216	101115	2024-04-23	2025-04-22
Audix	Test Software	e3	V9	N/A	N/A
Rohde & Schwarz	Pulse Limiter	ESH3-Z2	0357.8810.54	2023-05-23	2024-05-22
Rohde & Schwarz	Pulse Limiter	ESH3-Z2	0357.8810.54	2024-04-23	2025-04-22
MICRO-COAX	Coaxial Cable	Cable-15	015	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-15	015	2024-04-23	2025-04-22

Statement of Traceability: Bay Area Compliance Laboratories Corp. (Kunshan) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliant
§15.207 & §15.407(b) (9)	AC Power Line Conducted Emissions	Compliant
§ 15.205 & §15.209 & §15.407(b) (1), (4), (8), (9), (10)	Undesirable Emission & Restricted Bands	Compliant
§§15.407(a) &§15.407(e)	Emission Bandwidth	Compliant
§15.407(a) (1) (3)	Conducted Transmitter Output Power	Compliant
§15.407(a) (1) (3)	Power Spectral Density	Compliant
§15.247 (I), §1.1310 & §2.1091	Maximum Permissible Exposure (MPE)	Compliant

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	Chain	Max. Antenna Gain	Input impedance
PCB	5150~5250 MHz	Chain 1	6dBi	50Ω
		Chain 2		
		Chain 3		
		Chain 4		
	5725~5850 MHz	Chain 1	6dBi	50Ω
		Chain 2		
		Chain 3		
		Chain 4		

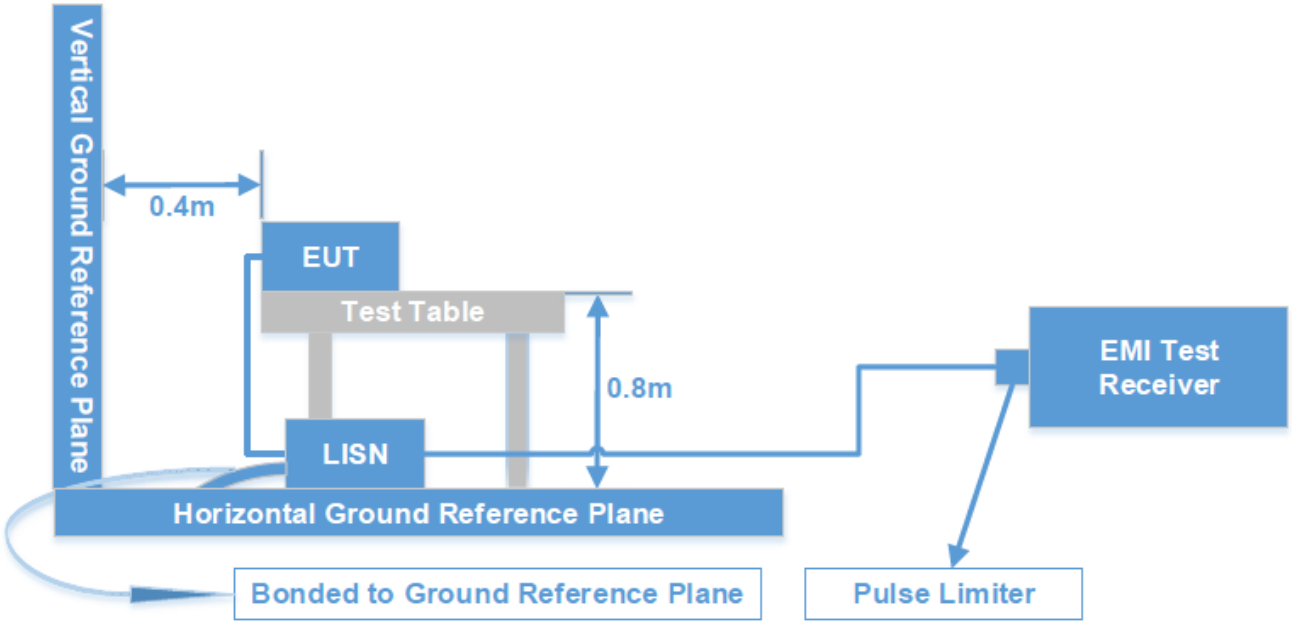
Result: Compliant.

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 EUT 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:

Factor (dB) = LISN VDF (dB) + Cable Loss (dB) + Transient Limiter Attenuation (dB)
Level (dBμV) = Read level (dBμV) + Factor (dB)

The "**Over Limit**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit of 7 dB means the emission is 7 dB above the limit. The equation for Over Limit calculation is as follows:

Over Limit (dB) = Level (dBμV) - Limit (dBμV)

Test Results Summary

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

Test Data: See Appendix

§15.205 & §15.209 & §15.407(B) (1), (4), (8), (9), (10) – UNDESIRABLE EMISSION & RESTRICTED BANDS

Applicable Standard

FCC §15.407 (b) (1), (4), (8), (9); §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.

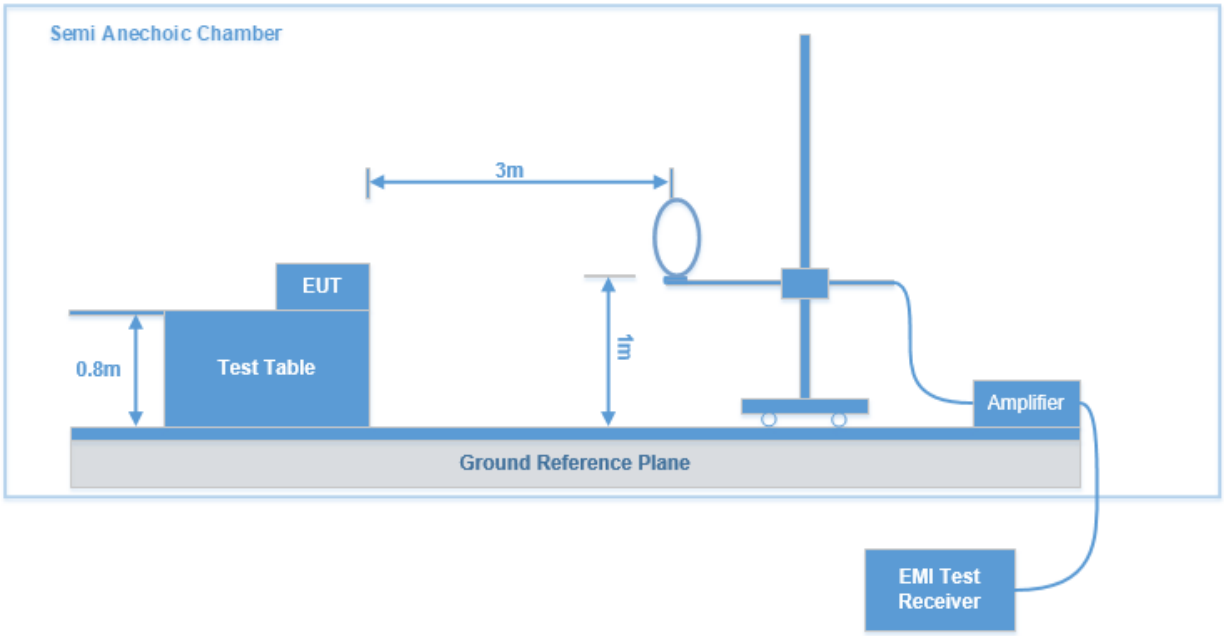
For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to 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 frenquency or frequencies above 1000MHz,the radiated emission limits are based on the use of measurement instrunmentation employing an average detector function. Unless otherwise specified, measurements above 1000MHz shall be performed using a minimum resolution bandwidth of 1MHz.

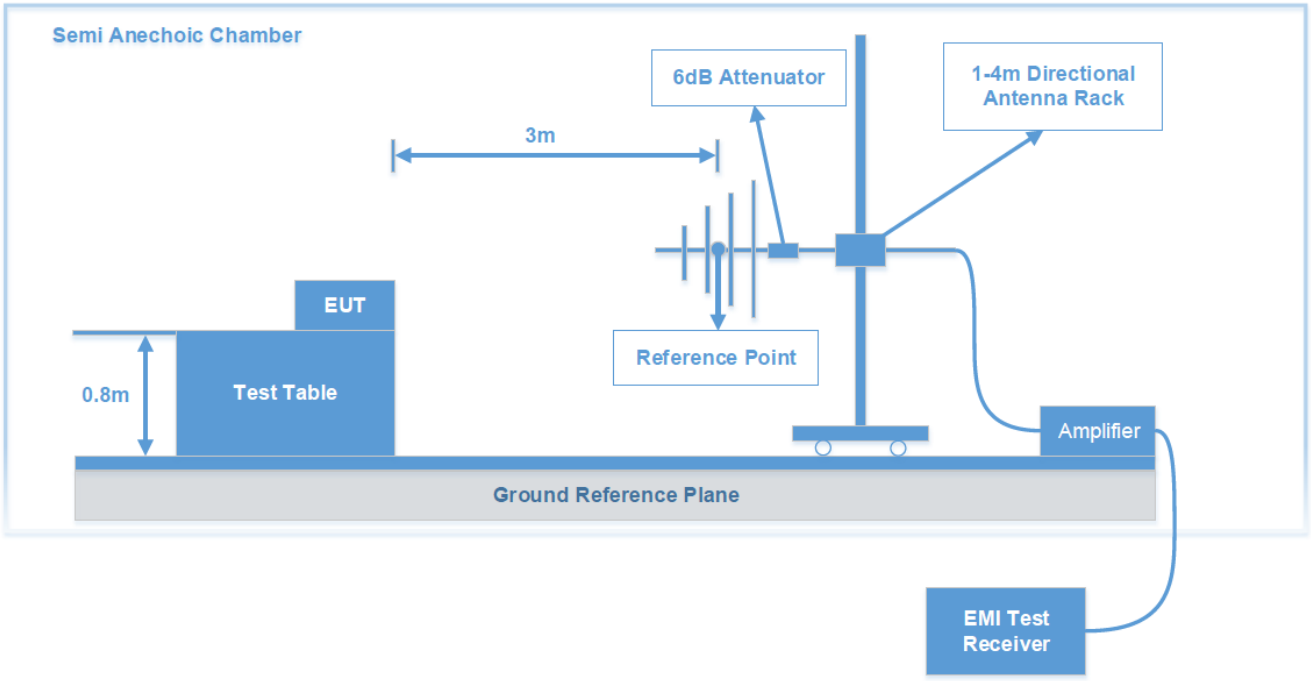
According to C63.10:2013, emission shall be computed as: E [dBμV/m] = EIRP [dBm] + 95.2, for d = 3 meters.

Test System Setup

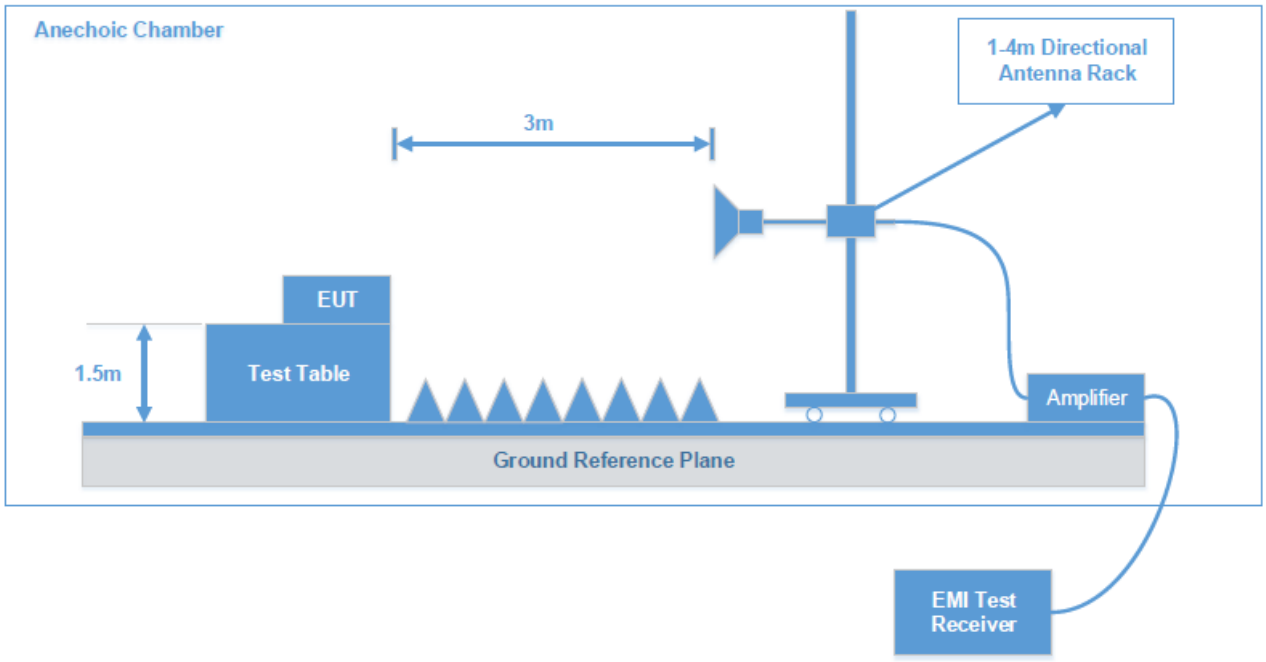
9 kHz-30MHz:



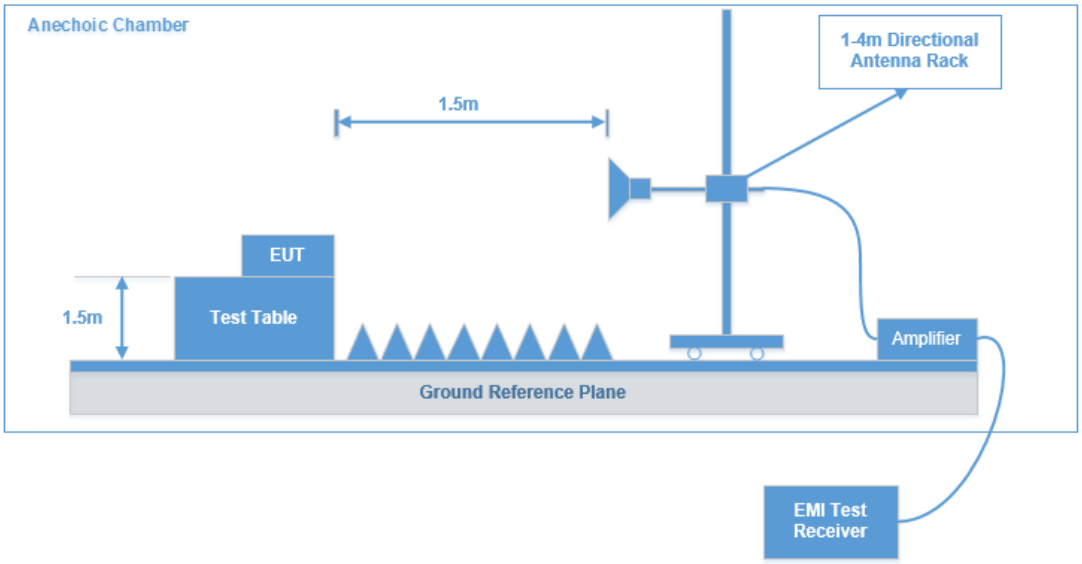
30MHz-1GHz:



1 GHz-18GHz:



18 GHz-40GHz:



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

The system was investigated from 9 kHz to 40 GHz.

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

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

Test Procedure

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.

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

Corrected Amplitude & Margin Calculation

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

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

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 band is 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

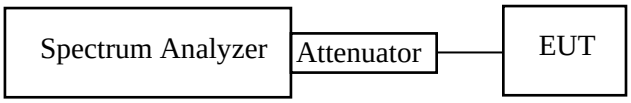
1. Emission Bandwidth (EBW)
a) Set RBW = approximately 1% of the emission bandwidth.
b) Set the VBW > RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer.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

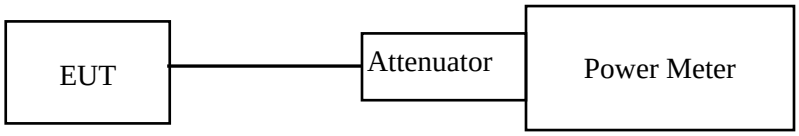
According to §15.407(a) (3)

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 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 C63.10:2013 clause 12.3.3.1

a) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the following conditions are satisfied:
1) The EUT is configured to transmit continuously, or to transmit with a constant duty cycle.
2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.
3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
b) If the transmitter does not transmit continuously, measure the duty cycle D of the transmitter output signal as described in 12.2.
c) Measure the average power of the transmitter. This measurement is an average over both the ON and OFF periods of the transmitter.
d) Adjust the measurement in dBm by adding [10 log (1 / D)], where D is the duty cycle {e.g., [10 log (1 / 0.25)], if the duty cycle is 25%}.



Test Data: See Appendix

FCC §15.407(a) (1) (3) - POWER SPECTRAL DENSITY

Applicable Standard

According to §15.407(a) (1)

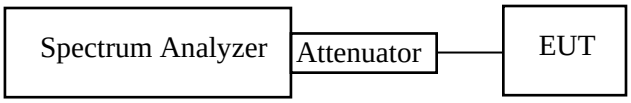
(ii) For an indoor access point operating in the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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 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 base on C63.10:2013 clause 12.5: Peak power spectral density and method SA-2



Test Data: See Appendix

FCC §1.1310 & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart 15.247 (i) and subpart 1.1310, 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

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

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)
		(dBi)	(numeric)	(dBm)	(mW)			
2.4G Wi-Fi	2412~2462	6	3.98	28.00	630.96	30	0.2220	1.0
5G Wi-Fi	5150~5250	6	3.98	29.50	891.25	30	0.3136	1.0
	5725-5850	6	3.98	30.00	1000.00	30	0.3520	1.0

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

$$\sum_i \frac{S_i}{S_{Limit,i}} = 0.2220/1.00+0.3520/1=0.2220+0.3520=0.5740 < 1.0$$

Result: The device meet FCC MPE at 30 cm distance.

Appendix - TEST DATA

Environmental Conditions & Test Information

Test Item:	DUTY CYCLE	AC POWER-LINE CONDUCTED EMISSIONS LIMITS
Test Date:	2024-06-04 to 2024-06-05	2024-04-13 to 2024-06-14
Temperature:	20.8-24.8 ℃	20.6-25.5 ℃
Relative Humidity:	47-46%	61-58 %
ATM Pressure:	101.6-101.8 kPa	100.3-101.5 kPa
Test Result:	N/A	Pass
Test Engineer:	Jay Liu	Frank Liu

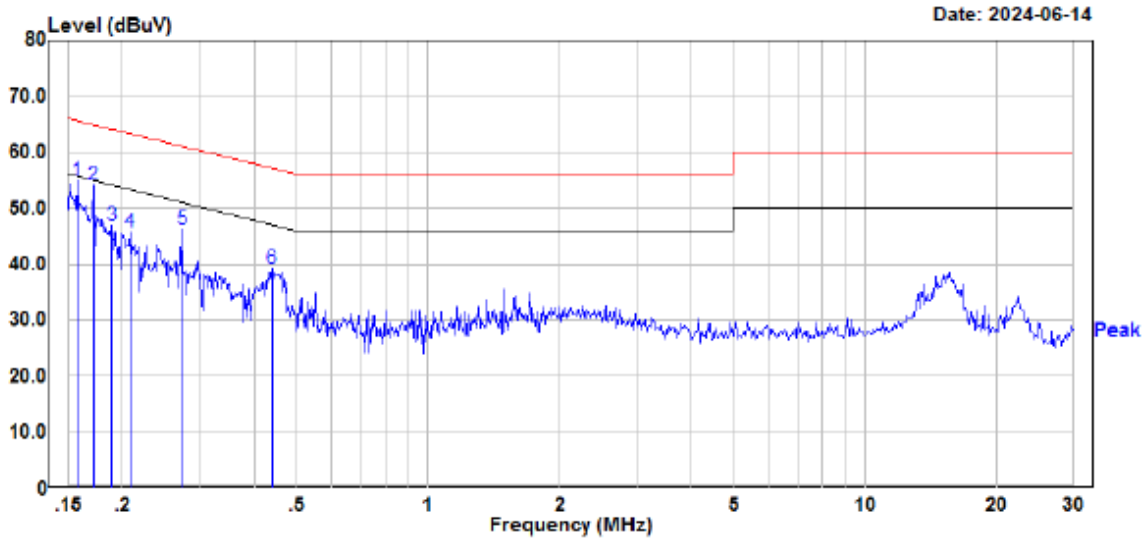
Test Item:	UNWANTED EMISSIONS & BAND EDGE EMISSIONS		
	9kHz - 1GHz	1 GHz - 18 GHz	18 GHz - 40 GHz
Test Date:	2024-03-21	2024-03-21 to 2024-03-24	2024-04-08
Temperature:	20.3 ℃	20.3 ℃	23.5 ℃
Relative Humidity:	52 %	52 %	57 %
ATM Pressure:	101.6 kPa	102.0-102.6kPa	102.7kPa
Test Result:	Pass	Pass	Pass
Test Engineer:	Leah Li	Peter Wang	Peter Wang

Test Item:	EMISSION BANDWIDTH	CONDUCTED TRANSMITTER OUTPUT POWER	POWER SPECTRAL DENSITY
Test Date:	2024-04-25 to 2024-05-06	2024-04-22	2024-04-25 to 2024-05-06
Temperature:	21.7-23.5 ℃	21.7 ℃	21.7-23.5 ℃
Relative Humidity:	43-46 %	43 %	43-46 %
ATM Pressure:	100.5-101.6kPa	101.6kPa	100.5-101.6kPa
Test Result:	Pass	Pass	Pass
Test Engineer:	Jay Liu	Bard Liu	Jay Liu

AC POWER LINE CONDUCTED EMISSIONS

EUT operation mode: Transmitting in 802.11ac 80 mode of 5725~5850MHz (maximum output power)

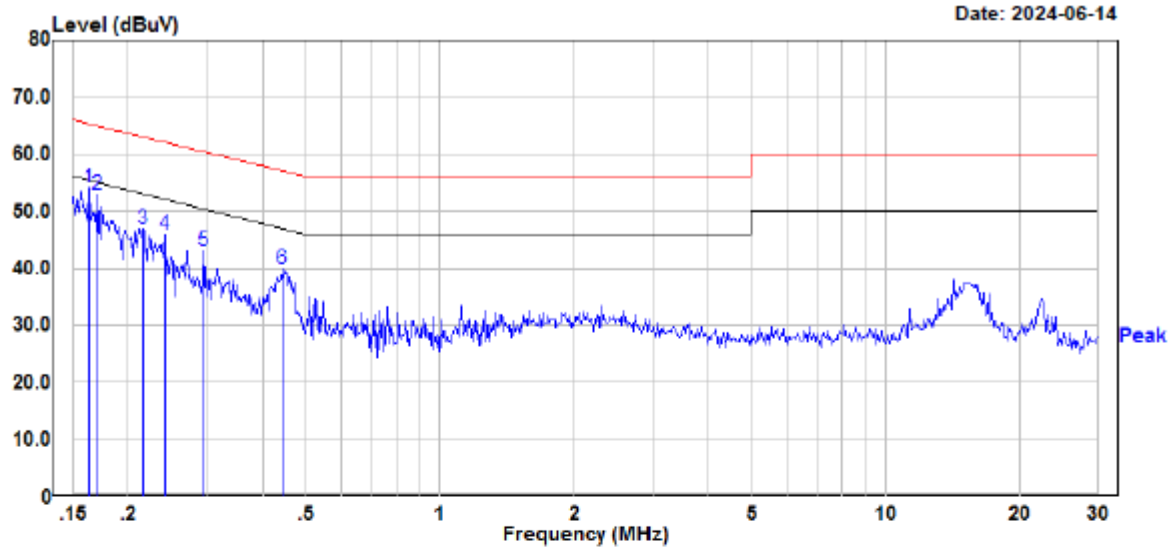
Powered by adapter:
Chain 1+2+3+4:
Line




```
Site                : CE
Condition           : FCC Part 15.207
                    : DET:Peak
Project No.         : RKSA240228003
Model               : Infinite 313
Phase               : L
Voltage             : 120V/60Hz
Mode                : 5G WiFi
Test Equipment      : ENV216,ESR
Temperature         : 25.5℃
Humidity            : 58%
Atmospheric pressure: 100.3kPa
Test Engineer       : Frank Liu
```

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.158	34.76	20.11	54.87	65.59	-10.72	Peak
2	0.171	34.10	20.11	54.21	64.90	-10.69	Peak
3	0.189	26.82	20.11	46.93	64.09	-17.16	Peak
4	0.208	25.51	20.12	45.63	63.28	-17.65	Peak
5	0.273	26.12	20.15	46.27	61.02	-14.75	Peak
6	0.439	18.92	20.23	39.15	57.08	-17.93	Peak

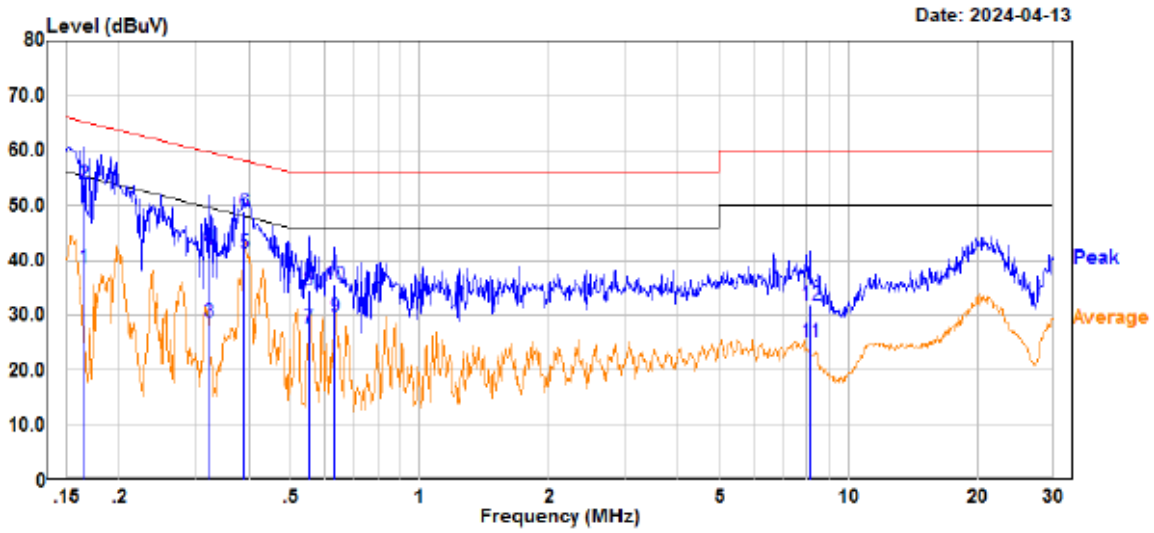
Neutral




```
Site                : CE
Condition           : FCC Part 15.207
                    : DET:Peak
Project No.         : RKSA240228003
Model               : Infinite 313
Phase               : N
Voltage             : 120V/60Hz
Mode                : 5G WiFi
Test Equipment      : ENV216,ESR
Temperature         : 25.5℃
Humidity            : 58%
Atmospheric pressure: 100.3kPa
Test Engineer       : Frank Liu
```

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.163	34.09	20.11	54.20	65.31	-11.11	Peak
2	0.170	32.75	20.11	52.86	64.96	-12.10	Peak
3	0.216	26.89	20.12	47.01	62.99	-15.98	Peak
4	0.241	25.79	20.13	45.92	62.06	-16.14	Peak
5	0.295	22.92	20.16	43.08	60.38	-17.30	Peak
6	0.442	19.54	20.23	39.77	57.02	-17.25	Peak

Powered by PoE:
Chain 1+2+3+4:
Line

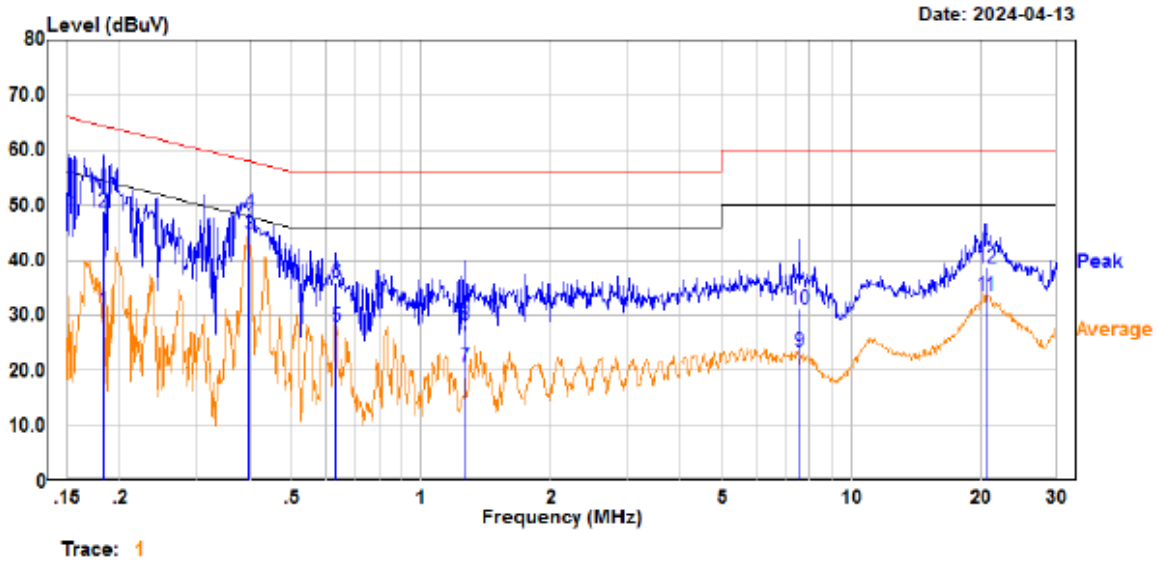


Trace: 1

Site : CE
Condition : FCC PART 15.207
: DET:Peak
Project No. : RKSA240228003
Model : Infinite 313
Phase : L
Voltage : 120V/60Hz
Mode : 5G WiFi
Test Equipment : ENV216,ESR
Temperature : 20.6℃
Humidity : 61%
Atmospheric pressure: 101.5kPa
Test Engineer : Frank Liu

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.166	18.59	20.01	38.60	55.17	-16.57	Average
2	0.166	33.79	20.01	53.80	65.17	-11.37	QP
3	0.323	8.71	20.02	28.73	49.62	-20.89	Average
4	0.323	22.11	20.02	42.13	59.62	-17.49	QP
5	0.391	21.40	20.01	41.41	48.05	-6.64	Average
6	0.391	28.80	20.01	48.81	58.05	-9.24	QP
7	0.551	7.60	19.96	27.56	46.00	-18.44	Average
8	0.551	14.60	19.96	34.56	56.00	-21.44	QP
9	0.633	9.89	19.95	29.84	46.00	-16.16	Average
10	0.633	15.59	19.95	35.54	56.00	-20.46	QP
11	8.128	5.20	19.99	25.19	50.00	-24.81	Average
12	8.128	11.90	19.99	31.89	60.00	-28.11	QP

Neutral



Trace: 1

Site : CE
Condition : FCC PART 15.207
: DET:Peak
Project No. : RKSA240228003
Model : Infinite 313
Phase : N
Voltage : 120V/60Hz
Mode : 5G WiFi
Test Equipment : ENV216,ESR
Temperature : 20.6℃
Humidity : 61%
Atmospheric pressure: 101.5kPa
Test Engineer : Frank Liu

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.183	10.90	20.02	30.92	54.34	-23.42	Average
2	0.183	28.80	20.02	48.82	64.34	-15.52	QP
3	0.398	24.60	20.01	44.61	47.89	-3.28	Average
4	0.398	28.50	20.01	48.51	57.89	-9.38	QP
5	0.633	8.09	19.95	28.04	46.00	-17.96	Average
6	0.633	16.19	19.95	36.14	56.00	-19.86	QP
7	1.266	1.01	19.74	20.75	46.00	-25.25	Average
8	1.266	8.51	19.74	28.25	56.00	-27.75	QP
9	7.542	3.50	20.03	23.53	50.00	-26.47	Average
10	7.542	11.10	20.03	31.13	60.00	-28.87	QP
11	20.540	13.90	19.80	33.70	50.00	-16.30	Average
12	20.540	18.90	19.80	38.70	60.00	-21.30	QP

Transmitter Unwanted Emissions

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

Powered by adapter:

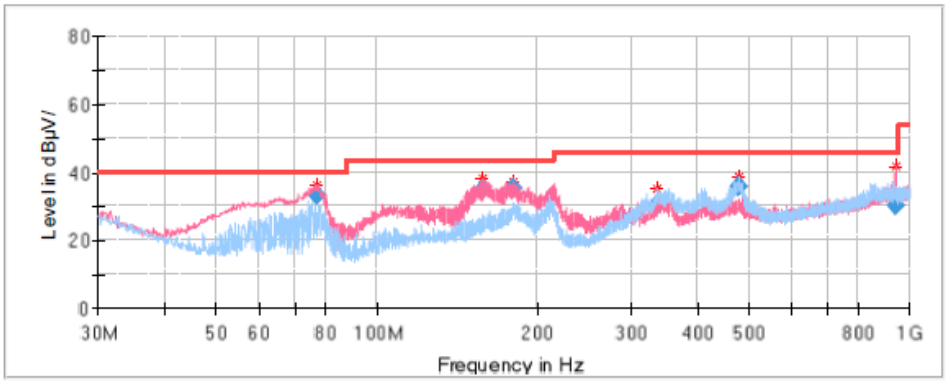
9 kHz-30MHz (Transmitting in maximum output power mode and channel)
The amplitude of spurious emissions attenuated more than 20 dB below the limit was not be recorded.

30MHz-1GHz(5150-5250MHz Band):
Transmitting in maximum output power mode 802.11ac80

5210 MHz

Common Information

Project No:	RKSA240228003
Test Mode:	Transmitting in 802.11ac80 mode (Chain0+1+2+3)
Standard:	FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer:	Leah Li



Final_Result

Frequency (MHz)	Corrected Amplitude QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
77.235950	33.30	40.00	6.70	V	-17.3
158.259600	34.57	43.50	8.93	V	-12.1
180.516850	35.40	43.50	8.10	V	-13.0
335.392700	30.09	46.00	15.91	H	-9.6
478.502750	35.55	46.00	10.45	H	-6.0
941.045250	30.34	46.00	15.66	V	1.6

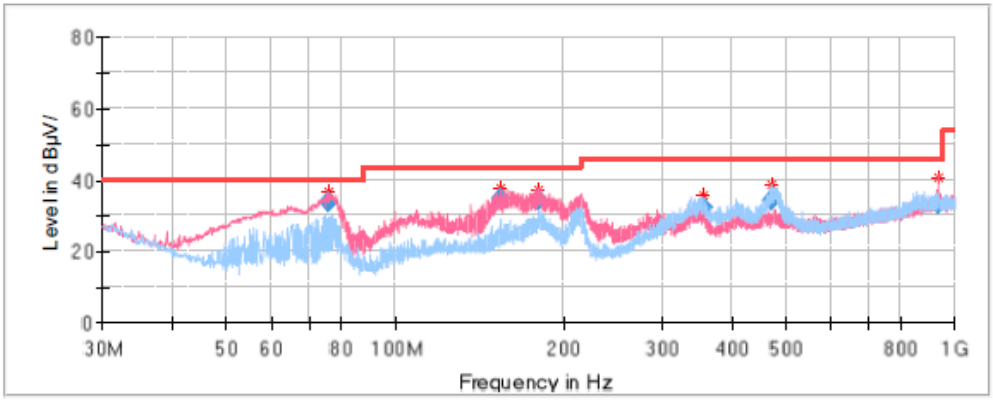
30MHz-1GHz(5725-5850MHz Band):

Transmitting in maximum output power mode 802.11ac80

5775 MHz

Common Information

Project No:	RKSA240228003
Test Mode:	Transmitting in 802.11ac80 mode (Chain0+1+2+3)
Standard:	FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer:	Leah Li



Final_Result

Frequency (MHz)	Corrected Amplitude QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
76.040500	33.72	40.00	6.28	V	-17.2
154.573600	34.65	43.50	8.85	V	-12.0
180.588250	34.42	43.50	9.08	V	-13.0
354.954050	32.41	46.00	13.59	H	-9.1
472.568050	34.11	46.00	11.89	H	-6.1
933.840650	33.40	46.00	12.60	V	1.5

Powered by PoE:

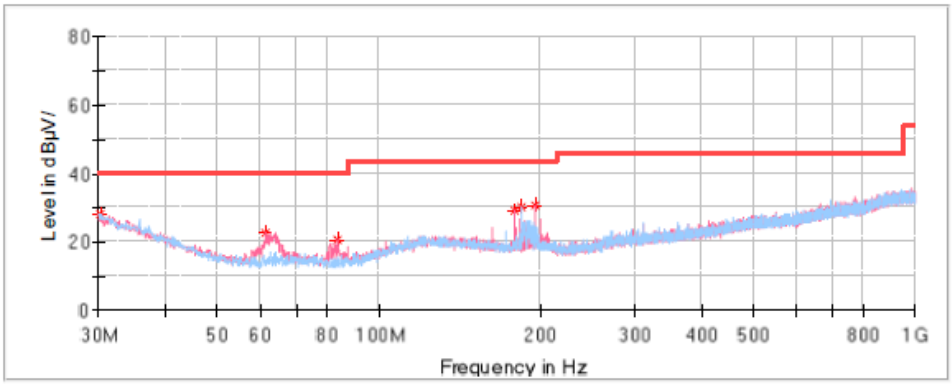
9 kHz-30MHz (Transmitting in maximum output power mode and channel)
The amplitude of spurious emissions attenuated more than 20 dB below the limit was not be recorded.

30MHz-1GHz(5150-5250MHz Band):
Transmitting in maximum output power mode 802.11ac80

5210 MHz

Common Information

Project No:	RKSA240228003
Test Mode:	Transmitting in 802.11ac80 mode (Chain0+1+2+3)
Standard:	FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer:	Leah Li



Critical_Freqs

Frequency (MHz)	Corrected Amplitude QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.242500	28.21	40.00	11.79	100.0	H	112.0	-4.6
61.403750	22.63	40.00	17.37	100.0	V	232.0	-17.4
83.592500	20.88	40.00	19.12	100.0	V	293.0	-17.4
179.137500	29.13	43.50	14.37	100.0	V	9.0	-13.2
183.987500	30.12	43.50	13.38	200.0	H	45.0	-13.1
195.506250	30.79	43.50	12.71	200.0	V	301.0	-12.7

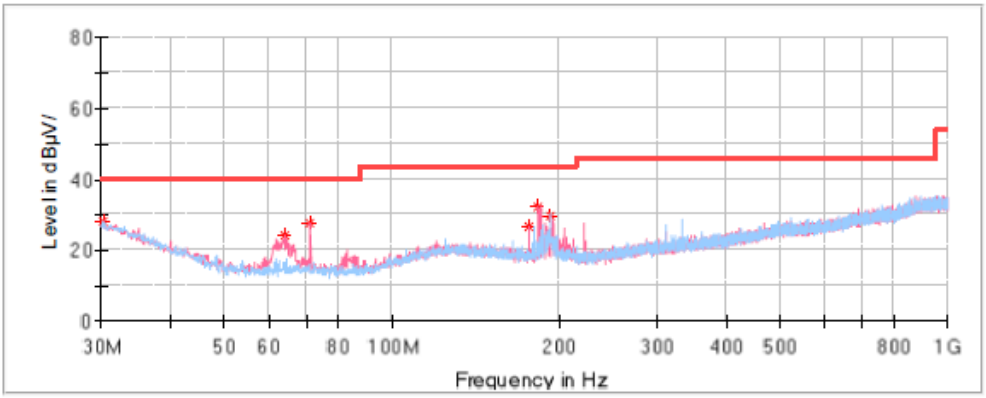
30MHz-1GHz(5725-5850MHz Band):

P58 Transmitting in maximum output power mode 802.11ac80

5775 MHz

Common Information

Project No:	RKSA240228003
Test Mode:	Transmitting in 802.11ac80 mode (Chain0+1+2+3)
Standard:	FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer:	Leah Li



Critical_Freqs

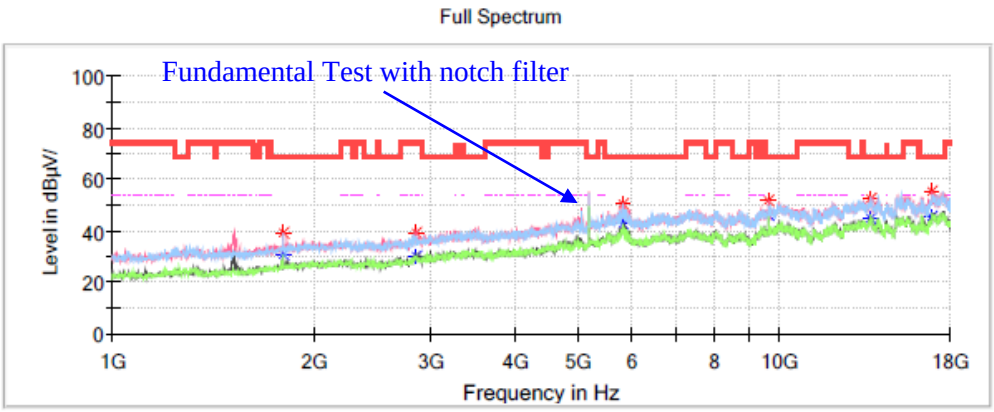
Frequency (MHz)	Corrected Amplitude QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.121250	28.06	40.00	11.94	100.0	H	168.0	-4.5
64.071250	23.99	40.00	16.01	100.0	V	87.0	-17.2
71.346250	27.67	40.00	12.33	200.0	V	178.0	-16.9
176.591250	26.66	43.50	16.84	100.0	V	190.0	-13.1
183.623750	32.41	43.50	11.09	100.0	V	280.0	-13.1
193.202500	29.90	43.50	13.60	200.0	H	327.0	-12.8

1GHz-18GHz(5150-5250MHz Band):
802.11a Mode (Chain 4 is worst)

Low Channel: 5180MHz

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	100.8kPa
Test Engineer:	Peter Wang
Test Date	2024/3/22



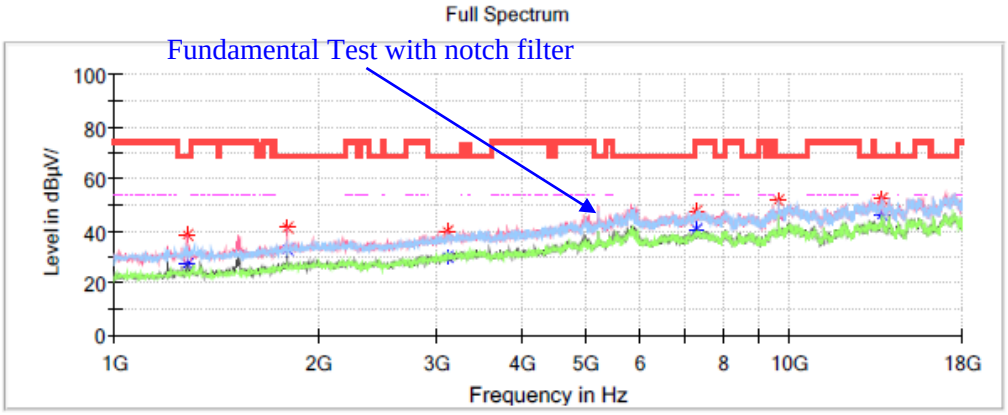
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1799.000000	39.49	---	68.20	28.71	H	-11.9
2844.500000	---	30.25	54.00	23.75	V	-8.6
2844.500000	39.09	---	74.00	34.91	V	-8.6
5817.800000	50.49	---	68.20	17.71	V	0.4
9647.900000	51.55	---	68.20	16.65	V	6.7
13676.900000	52.77	---	68.20	15.43	V	10.8
16959.600000	55.33	---	68.20	12.87	V	12.2

Middle Channel: 5200MHz

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	100.8kPa
Test Engineer:	Peter Wang
Test Date	2024/3/22



Critical_Freqs

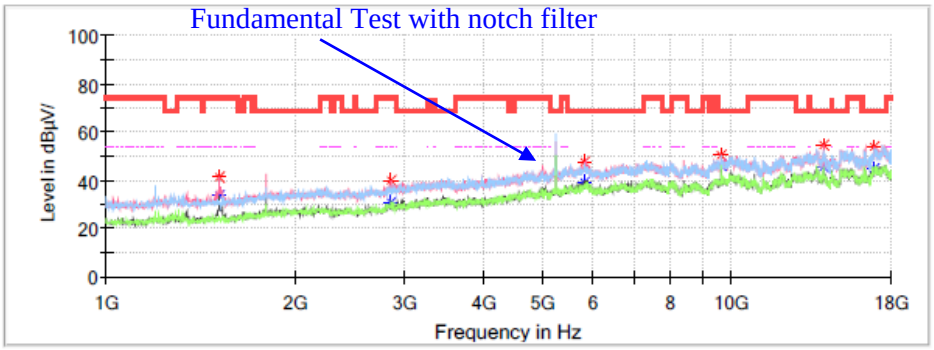
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1278.800000	38.24	---	68.20	29.96	H	-14.6
1799.000000	41.25	---	68.20	26.95	V	-11.9
3113.100000	39.53	---	68.20	28.67	V	-7.6
7286.600000	---	40.65	54.00	13.35	V	4.0
7286.600000	47.58	---	74.00	26.42	V	4.0
9647.900000	51.52	---	68.20	16.68	V	6.7
13676.900000	52.35	---	68.20	15.85	V	10.8

High Channel: 5230MHz

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	100.8kPa
Test Engineer:	Peter Wang
Test Date	2024/3/22

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)
1516.800000	---	33.66	54.00	20.34	H	-13.8
1516.800000	41.56	---	74.00	32.44	H	-13.8
2859.800000	---	30.85	54.00	23.15	V	-8.5
2859.800000	39.82	---	74.00	34.18	V	-8.5
5812.700000	47.81	---	68.20	20.39	V	0.4
9647.900000	50.69	---	68.20	17.51	V	6.7
14003.300000	54.62	---	68.20	13.58	V	10.5
16934.100000	53.50	---	68.20	14.70	V	12.1

802.11a Mode (Chain 1)

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5180 MHz						
1513.200000	---	33.71	54.00	20.29	H	-14.2
1513.200000	44.74	---	74.00	29.26	H	-14.2
2273.300000	---	29.82	54.00	24.18	H	-10.4
2273.300000	34.88	---	74.00	38.12	H	-10.4
3747.200000	---	36.1	54.00	17.90	H	-5.6
3747.200000	42.3	---	74.00	31.70	H	-5.6
6585.900000	50.39	---	68.20	17.81	V	0.5
14587.300000	47.86	---	68.20	20.34	H	9.4
16012.600000	---	41.81	54.00	12.19	H	11.5
16012.600000	48.77	---	74.00	25.23	H	11.5
Middle Channel: 5200 MHz						
1623.300000	---	32.71	54.00	21.29	H	-14.2
1623.300000	43.74	---	74.00	30.26	H	-14.2
2352.400000	---	29.71	54.00	24.29	H	-10.4
2352.400000	33.78	---	74.00	39.22	H	-10.4
3754.200000	---	36.07	54.00	17.93	H	-5.6
3754.200000	42.28	---	74.00	31.72	H	-5.6
6586.300000	50.39	---	68.20	17.81	V	0.5
15123.300000	47.86	---	68.20	20.34	H	9.4
15911.700000	---	39.81	54.00	14.19	H	11.5
15911.700000	48.63	---	74.00	25.37	H	11.5
High Channel: 5240 MHz						
1639.500000	---	32.49	54.00	21.51	H	-14.2
1639.500000	43.48	---	74.00	30.52	H	-14.2
2347.200000	---	28.71	54.00	25.29	H	-10.4
2347.200000	33.78	---	74.00	39.22	H	-10.4
3758.300000	---	36.07	54.00	17.93	H	-5.6
3758.300000	42.28	---	74.00	31.72	H	-5.6
6523.900000	50.39	---	68.20	17.81	V	0.5
15128.200000	47.76	---	68.20	20.44	H	9.4
16718.100000	48.52	---	68.20	19.68	H	11.5

802.11a Mode (Chain 2)

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5180 MHz						
1513.200000	---	33.61	54.00	20.39	H	-14.2
1513.200000	44.71	---	74.00	29.29	H	-14.2
2273.300000	---	29.82	54.00	24.18	H	-10.4
2273.300000	34.78	---	74.00	38.22	H	-10.4
3747.200000	---	35.08	54.00	18.92	H	-5.6
3747.200000	42.21	---	74.00	31.79	H	-5.6
6585.900000	50.39	---	68.20	17.81	V	0.5
14587.300000	47.86	---	68.20	20.34	H	9.4
16012.600000	---	41.75	54.00	12.25	H	11.5
16012.600000	48.54	---	74.00	25.46	H	11.5
Middle Channel: 5200 MHz						
1628.300000	43.64	---	68.20	24.56	H	-14.2
2387.400000	---	29.69	54.00	24.31	H	-10.4
2387.400000	33.56	---	74.00	39.44	H	-10.4
3856.900000	---	36.01	54.00	17.99	H	-5.6
3856.900000	42.28	---	74.00	31.72	H	-5.6
6586.700000	50.39	---	68.20	17.81	V	0.5
15324.200000	47.75	---	68.20	20.45	H	9.4
15912.500000	---	39.74	54.00	14.26	H	11.5
15912.500000	48.49	---	74.00	25.51	H	11.5
High Channel: 5240 MHz						
1835.200000	43.26	---	68.20	24.94	H	-14.2
2356.200000	---	28.65	54.00	25.35	H	-10.4
2356.200000	33.78	---	74.00	39.22	H	-10.4
3759.100000	---	35.68	54.00	18.32	H	-5.6
3759.100000	42.24	---	74.00	31.76	H	-5.6
6546.200000	50.34	---	68.20	17.86	V	0.5
15014.200000	47.76	---	68.20	20.44	H	9.4
16723.200000	48.42	---	68.20	19.78	H	11.5

802.11a Mode (Chain 3)

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5180 MHz						
1526.300000	---	33.31	54.00	20.69	H	-14.2
1526.300000	44.69	---	74.00	29.31	H	-14.2
2273.300000	---	29.61	54.00	24.39	H	-10.4
2273.300000	34.52	---	74.00	38.48	H	-10.4
3747.200000	---	35.01	54.00	18.99	H	-5.6
3747.200000	42.11	---	74.00	31.89	H	-5.6
6585.900000	50.34	---	68.20	17.86	V	0.5
14587.300000	---	40.51	54.00	13.49	H	9.4
14587.300000	47.86	---	74.00	26.14	H	9.4
16012.600000	---	41.75	54.00	12.25	H	11.5
16012.600000	48.41	---	74.00	25.59	H	11.5
Middle Channel: 5200 MHz						
1628.300000	---	31.19	54.00	22.81	H	-14.2
1628.300000	43.61	---	74.00	30.39	H	-14.2
2387.400000	---	29.65	54.00	24.35	H	-10.4
2387.400000	33.46	---	74.00	39.54	H	-10.4
3856.900000	---	35.01	54.00	18.99	H	-5.6
3856.900000	42.28	---	74.00	31.72	H	-5.6
6586.700000	50.39	---	68.20	17.81	V	0.5
15324.200000	47.75	---	68.20	20.45	H	9.4
15912.500000	---	39.71	54.00	14.29	H	11.5
15912.500000	47.41	---	74.00	26.52	H	11.5
High Channel: 5240 MHz						
1823.100000	43.15	---	68.20	25.05	H	-14.2
2375.500000	---	28.53	54.00	25.47	H	-10.4
2375.500000	33.62	---	74.00	39.38	H	-10.4
3710.300000	---	35.68	54.00	18.32	H	-5.6
3710.300000	42.24	---	74.00	31.76	H	-5.6
6574.300000	50.34	---	68.20	17.86	V	0.5
15123.500000	47.52	---	68.20	20.68	H	9.4
16752.100000	48.41	---	68.20	19.79	H	11.5

802.11n20 Mode (Chain 1+2+3+4)

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5180 MHz						
1516.800000	---	30.75	54.00	23.25	V	-13.8
1516.800000	37.43	---	74.00	36.57	V	-13.8
2832.600000	37.89	---	74.00	36.11	V	-8.6
2832.600000	---	30.00	54.00	24.00	V	-8.6
4955.900000	---	37.81	54.00	16.19	H	-1.4
4955.900000	44.18	---	74.00	29.82	H	-1.4
9647.900000	50.09	---	68.20	18.11	V	6.7
13676.900000	52.81	---	68.20	15.39	V	10.8
17534.200000	53.74	---	68.20	14.46	V	13.5
Middle Channel: 5200 MHz						
1799.000000	42.25	---	68.20	25.95	V	-11.9
3143.700000	37.71	---	68.20	30.49	V	-7.5
5047.700000	---	37.21	54.00	16.79	H	-1.0
5047.700000	43.04	---	74.00	30.96	H	-1.0
9647.900000	48.69	---	68.20	19.51	V	6.7
13682.000000	51.68	---	68.20	16.52	V	10.8
17529.100000	53.51	---	68.20	14.69	V	13.5
High Channel: 5240 MHz						
1521.900000	---	27.57	54.00	26.43	V	-13.8
1521.900000	34.63	---	74.00	39.37	V	-13.8
2873.400000	---	28.31	54.00	25.69	H	-8.5
2873.400000	38.91	---	74.00	35.09	H	-8.5
4971.200000	---	38.13	54.00	15.87	V	-1.4
4971.200000	44.50	---	74.00	29.50	V	-1.4
9647.900000	49.55	---	68.20	18.65	V	6.7
13141.400000	48.91	---	68.20	19.29	V	9.6
17505.300000	52.80	---	68.20	15.40	V	13.6

802.11n40 Mode (Chain 1+2+3+4)

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5190 MHz						
1210.800000	---	26.88	54.00	27.12	H	-14.8
1210.800000	32.83	---	74.00	41.17	H	-14.8
1799.000000	40.14	---	68.20	28.06	V	-11.9
3527.900000	39.71	---	68.20	28.49	V	-6.1
5831.400000	48.80	---	68.20	19.40	V	0.4
9647.900000	50.84	---	68.20	17.36	V	6.7
13676.900000	52.96	---	68.20	15.24	V	10.8
High Channel: 5230 MHz						
1799.000000	42.53	---	68.20	25.67	V	-11.9
2995.800000	40.49	---	68.20	27.71	V	-8.0
5805.900000	48.33	---	68.20	19.87	V	0.4
9647.900000	49.75	---	68.20	18.45	V	6.7
13680.300000	51.31	---	68.20	16.89	V	10.8
17508.700000	51.67	---	68.20	16.53	V	13.6

802.11ac20 Mode (Chain 1+2+3+4)

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5180 MHz						
1532.100000	---	26.29	54.00	27.71	H	-13.7
1532.100000	38.95	---	74.00	35.05	H	-13.7
3276.300000	38.14	---	68.20	30.06	V	-7.0
5826.300000	46.90	---	68.20	21.30	V	0.4
9647.900000	48.76	---	68.20	19.44	V	6.7
13680.300000	52.12	---	68.20	16.08	V	10.8
17529.100000	54.04	---	68.20	14.16	V	13.5
Middle Channel: 5200 MHz						
1190.400000	---	27.68	54.00	26.32	H	-14.9
1190.400000	34.07	---	74.00	39.93	H	-14.9
2587.800000	35.47	---	68.20	32.73	V	-9.5
4845.400000	---	36.56	54.00	17.44	V	-2.0
4845.400000	43.88	---	74.00	30.12	V	-2.0
9647.900000	49.43	---	68.20	18.77	V	6.7
13676.900000	53.03	---	68.20	15.17	V	10.8
17037.800000	53.87	---	68.20	14.33	V	12.4
High Channel: 5240 MHz						
1190.400000	32.89	---	74.00	41.11	H	-14.9
1190.400000	---	28.32	54.00	25.68	H	-14.9
2626.900000	34.63	---	68.20	33.57	V	-9.3
4411.900000	38.69	---	68.20	29.51	V	-4.0
9647.900000	48.80	---	68.20	19.40	V	6.7
13671.800000	52.38	---	68.20	15.82	V	10.8
17559.700000	52.60	---	68.20	15.60	V	13.4

802.11ac40 Mode (Chain 1+2+3+4)

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5190 MHz						
1532.100000	---	29.08	54.00	24.92	V	-13.7
1532.100000	37.09	---	74.00	36.91	V	-13.7
2815.600000	---	28.87	54.00	25.13	V	-8.7
2815.600000	35.53	---	74.00	38.47	V	-8.7
4513.900000	---	34.01	54.00	19.99	V	-3.7
4513.900000	43.08	---	74.00	30.92	V	-3.7
9647.900000	48.72	---	68.20	19.48	V	6.7
13676.900000	52.51	---	68.20	15.69	V	10.8
17374.400000	51.10	---	68.20	17.10	V	13.3
High Channel: 5230 MHz						
1799.000000	37.06	---	68.20	31.14	V	-11.9
2989.000000	36.06	---	68.20	32.14	V	-8.1
5914.700000	46.86	---	68.20	21.34	V	0.3
9647.900000	48.61	---	68.20	19.59	V	6.7
13680.300000	52.06	---	68.20	16.14	V	10.8
17554.600000	51.78	---	68.20	16.42	V	13.4

802.11ac80 Mode (Chain 1+2+3+4)

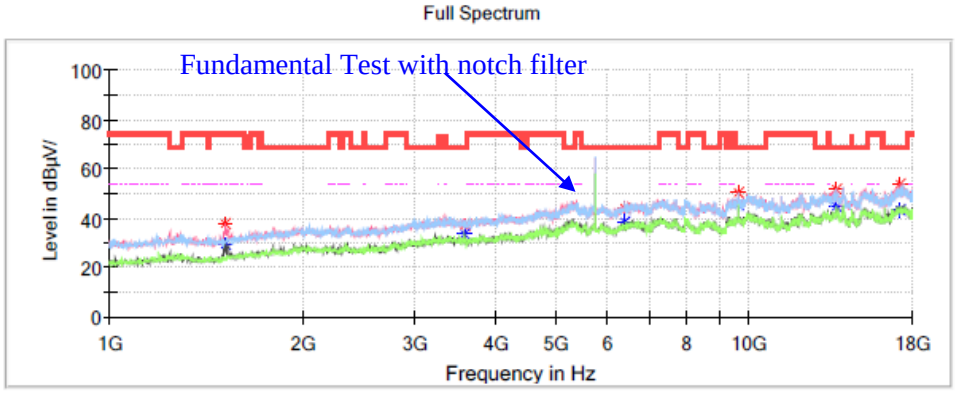
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5210 MHz						
1799.000000	42.80	---	68.20	25.40	V	-11.9
3023.000000	37.51	---	68.20	30.69	V	-7.9
4690.700000	---	34.82	54.00	19.18	V	-2.8
4690.700000	42.11	---	74.00	31.89	V	-2.8
9647.900000	49.54	---	68.20	18.66	V	6.7
13676.900000	51.80	---	68.20	16.40	V	10.8
16973.200000	50.57	---	68.20	17.63	V	12.2

1GHz-18GHz(5725-5850MHz Band):
802.11a Mode (Chain 2 is worst)

Low Channel: 5745MHz

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.1kPa
Test Engineer:	Peter Wang
Test Date	2024/3/24



Critical_Freqs

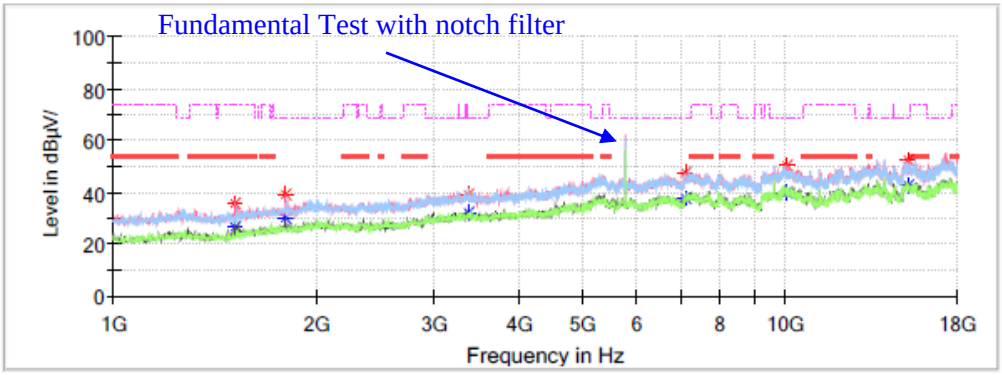
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1516.800000	---	29.25	54.00	24.75	H	-13.8
1516.800000	37.48	---	74.00	36.52	H	-13.8
3599.300000	37.13	---	68.20	31.07	V	-5.9
6394.100000	44.00	---	68.20	24.20	V	0.7
9647.900000	50.54	---	68.20	17.66	V	6.7
13682.000000	51.42	---	68.20	16.78	V	10.8
17206.100000	53.56	---	68.20	14.64	V	12.9

Middle Channel: 5785MHz

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.1kPa
Test Engineer:	Peter Wang
Test Date	2024/3/24

Full Spectrum



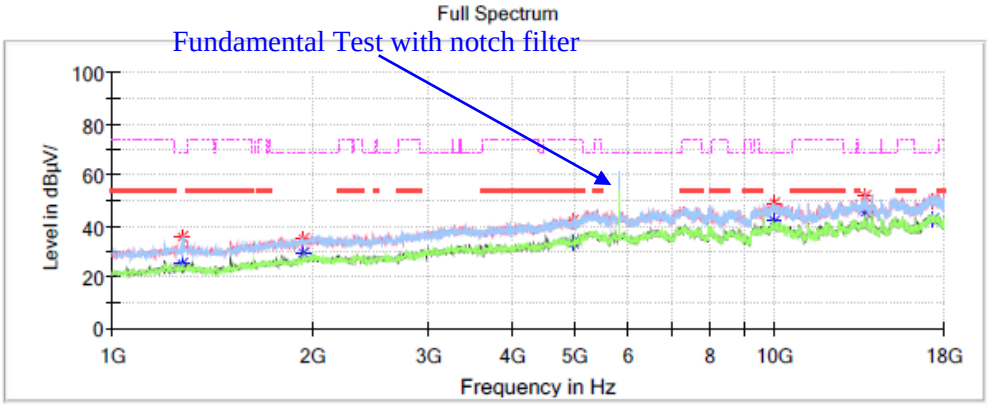
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	V	Corr. (dB/m)
1518.500000	---	26.43	74.00	47.57	H	-13.8
1518.500000	35.74	---	54.00	18.26	H	-13.8
1799.000000	---	29.81	68.20	38.39	V	-11.9
3376.600000	---	32.20	68.20	36.00	V	-6.6
7096.200000	---	38.11	68.20	30.09	V	3.9
10035.500000	---	39.70	68.20	28.50	V	7.8
15205.200000	---	42.42	68.20	25.78	V	10.8

High Channel: 5825MHz

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.1kPa
Test Engineer:	Peter Wang
Test Date	2024/3/24



Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1275.400000	---	25.48	68.20	42.72	H	-14.6
1936.700000	---	29.55	68.20	38.65	V	-11.0
4952.500000	---	33.64	74.00	40.36	V	-1.5
4952.500000	42.29	---	54.00	11.71	V	-1.5
9999.800000	---	41.61	68.20	26.59	V	7.8
13680.300000	---	45.61	68.20	22.59	V	10.8
17321.700000	---	42.86	68.20	25.34	V	13.2

802.11a Mode (Chain 1)

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5745 MHz						
1689.500000	---	33.29	54.00	20.71	H	-14.2
1689.500000	44.51	---	74.00	29.49	H	-14.2
2314.600000	---	29.55	54.00	24.45	H	-10.4
2314.600000	34.52	---	74.00	38.48	H	-10.4
3852.600000	---	35.01	54.00	18.99	H	-5.6
3852.600000	42.11	---	74.00	31.89	H	-5.6
6532.300000	50.34	---	68.20	17.86	V	0.5
14963.200000	47.86	---	68.20	20.34	H	9.4
16321.900000	48.31	---	68.20	19.89	H	11.5
Middle Channel: 5785 MHz						
1979.600000	44.49	---	68.20	23.71	H	-14.2
2326.300000	---	29.46	54.00	24.54	H	-10.4
2326.300000	34.53	---	74.00	38.47	H	-10.4
3815.300000	---	35.01	54.00	18.99	H	-5.6
3815.300000	42.11	---	74.00	31.89	H	-5.6
6636.500000	50.34	---	68.20	17.86	V	0.5
14912.300000	47.86	---	68.20	20.34	H	9.4
16423.700000	47.29	---	68.20	20.91	H	11.5
High Channel: 5825 MHz						
1582.500000	---	33.22	54.00	20.78	H	-14.2
1582.500000	44.49	---	74.00	29.51	H	-14.2
2569.500000	34.51	---	68.20	33.69	H	-10.4
3889.300000	---	35.01	54.00	18.99	H	-5.6
3889.300000	42.11	---	74.00	31.89	H	-5.6
6532.300000	50.34	---	68.20	17.86	V	0.5
15632.200000	---	40.51	54.00	13.49	H	9.4
15632.200000	47.75	---	74.00	26.25	H	9.4
16421.900000	48.26	---	68.20	19.94	H	11.5

802.11a Mode (Chain 3)

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5745 MHz						
1549.500000	---	33.21	54.00	20.79	H	-14.2
1549.500000	44.46	---	74.00	29.54	H	-14.2
2356.300000	---	29.55	54.00	24.45	H	-10.4
2356.300000	34.51	---	74.00	38.49	H	-10.4
3843.100000	---	35.01	54.00	18.99	H	-5.6
3843.100000	42.11	---	74.00	31.89	H	-5.6
6653.200000	50.34	---	68.20	17.86	V	0.5
14963.100000	47.86	---	68.20	20.34	H	9.4
16632.300000	48.26	---	68.20	19.94	H	11.5
Middle Channel: 5785 MHz						
1912.200000	44.48	---	68.20	-1844.00	H	-14.2
2326.300000	---	29.46	54.00	24.54	H	-10.4
2326.300000	34.53	---	74.00	38.47	H	-10.4
3815.500000	---	35.01	54.00	18.99	H	-5.6
3815.500000	42.11	---	74.00	31.89	H	-5.6
6423.300000	50.34	---	68.20	17.86	V	0.5
14832.100000	47.83	---	68.20	20.37	H	9.4
16932.400000	46.28	---	68.20	21.92	H	11.5
High Channel: 5825 MHz						
1465.300000	---	33.22	54.00	20.78	H	-14.2
1465.300000	44.49	---	74.00	29.51	H	-14.2
2512.200000	34.51	---	68.20	33.69	H	-10.4
3881.200000	---	35.03	54.00	18.97	H	-5.6
3881.200000	42.11	---	74.00	31.89	H	-5.6
6632.100000	50.44	---	68.20	17.76	V	0.5
15432.200000	---	40.51	54.00	13.49	H	9.4
15432.200000	47.71	---	74.00	26.29	H	9.4
16123.300000	---	40.64	54.00	13.36	H	11.5
16123.300000	48.21	---	74.00	25.79	H	11.5

802.11a Mode (Chain 4)

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5745 MHz						
1756.300000	44.35	---	68.20	23.85	H	-14.2
2356.300000	---	29.55	54.00	24.45	H	-10.4
2356.300000	34.46	---	74.00	38.54	H	-10.4
3843.100000	---	35.01	54.00	18.99	H	-5.6
3843.100000	42.11	---	74.00	31.89	H	-5.6
6653.200000	50.34	---	68.20	17.86	V	0.5
14963.100000	47.83	---	68.20	20.37	H	9.4
16632.300000	48.21	---	68.20	19.99	H	11.5
Middle Channel: 5785 MHz						
1956.200000	44.45	---	68.20	23.75	H	-14.2
2326.300000	---	28.46	54.00	25.54	H	-10.4
2326.300000	34.54	---	74.00	38.46	H	-10.4
3815.500000	---	35.01	54.00	18.99	H	-5.6
3815.500000	42.11	---	74.00	31.89	H	-5.6
6423.300000	50.22	---	68.20	17.98	V	0.5
14832.100000	47.78	---	68.20	20.42	H	9.4
16932.400000	46.21	---	68.20	21.99	H	11.5
High Channel: 5825 MHz						
1532.300000	---	33.21	54	20.79	H	-14.2
1532.300000	44.35	---	74	29.65	H	-14.2
2512.200000	33.51	---	68.2	34.69	H	-10.4
3881.200000	---	35.03	54	18.97	H	-5.6
3881.200000	42.11	---	74	31.89	H	-5.6
6632.100000	50.44	---	68.2	17.76	V	0.5
15432.200000	---	40.51	54	13.49	H	9.4
15432.200000	47.65	---	74	26.35	H	9.4
16123.300000	---	38.64	54	15.36	H	11.5
16123.300000	48.18	---	74	25.82	H	11.5

802.11n20 Mode (Chain 1+2+3+4)

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5745 MHz						
1513.400000	---	26.53	54.00	27.47	H	-13.8
1513.400000	37.42	---	74.00	36.58	H	-13.8
1799.000000	42.65	---	68.20	25.55	V	-11.9
3956.300000	---	31.08	54.00	22.92	V	-5.1
3956.300000	40.12	---	74.00	33.88	V	-5.1
8005.700000	48.73	---	68.20	19.47	V	3.8
11400.600000	---	37.42	54.00	16.58	H	7.1
11400.600000	43.26	---	74.00	30.74	H	7.1
16308.500000	49.56	---	68.20	18.64	V	9.7
Middle Channel: 5785 MHz						
1523.600000	---	27.40	54.00	26.60	H	-13.8
1523.600000	32.87	---	74.00	41.13	H	-13.8
2999.200000	39.63	---	68.20	28.57	V	-8.0
5253.400000	46.70	---	68.20	21.50	V	-0.2
9647.900000	49.16	---	68.20	19.04	V	6.7
14001.600000	50.56	---	68.20	17.64	V	10.5
17218.000000	50.35	---	68.20	17.85	V	12.9
High Channel: 5825 MHz						
1528.700000	---	26.64	54.00	27.36	V	-13.7
1528.700000	33.55	---	74.00	40.45	V	-13.7
2844.500000	---	31.37	54.00	22.63	V	-8.6
2844.500000	36.55	---	74.00	37.45	V	-8.6
4957.600000	---	36.87	54.00	17.13	V	-1.4
4957.600000	41.67	---	74.00	32.33	V	-1.4
7650.400000	---	39.51	54.00	14.49	V	4.1
7650.400000	45.42	---	74.00	28.58	V	4.1
11650.500000	48.60	---	74.00	25.40	V	7.2
11650.500000	---	41.30	54.00	12.70	V	7.2
18000.000000	---	43.58	54.00	10.42	H	11.5
18000.000000	50.53	---	74.00	23.47	H	11.5

802.11n40 Mode (Chain 1+2+3+4)

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5755 MHz						
1799.000000	40.37	---	68.20	27.83	V	-11.9
3028.100000	37.42	---	68.20	30.78	V	-7.9
6565.800000	44.49	---	68.20	23.71	V	1.2
9647.900000	49.16	---	68.20	19.04	V	6.7
13680.300000	51.39	---	68.20	16.81	V	10.8
18000.000000	---	43.30	54.00	10.70	H	11.5
18000.000000	50.62	---	74.00	23.38	H	11.5
High Channel: 5795 MHz						
1192.100000	---	30.27	54.00	23.73	V	-14.9
1192.100000	35.65	---	74.00	38.35	V	-14.9
1799.000000	41.36	---	68.20	26.84	V	-11.9
4554.700000	---	35.32	54.00	18.68	H	-3.5
4554.700000	40.55	---	74.00	33.45	H	-3.5
8803.000000	48.04	---	68.20	20.16	V	3.7
12500.500000	---	41.06	54.00	12.94	H	8.5
12500.500000	47.14	---	74.00	26.86	H	8.5
16305.100000	51.48	---	68.20	16.72	V	9.7

802.11ac20 Mode (Chain 1+2+3+4)

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5745 MHz						
1516.800000	---	31.15	54.00	22.85	V	-13.8
1516.800000	40.51	---	74.00	33.49	V	-13.8
3271.200000	37.20	---	68.20	31.00	V	-7.0
5321.400000	47.74	---	68.20	20.46	V	0.1
9647.900000	49.38	---	68.20	18.82	V	6.7
13685.400000	50.78	---	68.20	17.42	V	10.8
17218.000000	53.05	---	68.20	15.15	V	12.9
Middle Channel: 5785 MHz						
1198.900000	34.84	---	74.00	39.16	H	-14.9
1198.900000	---	26.83	54.00	27.17	H	-14.9
1799.000000	37.46	---	68.20	30.74	V	-11.9
4153.500000	---	34.19	54.00	19.81	V	-4.7
4153.500000	37.94	---	74.00	36.06	V	-4.7
7647.000000	---	39.37	54.00	14.63	V	4.1
7647.000000	47.24	---	74.00	26.76	V	4.1
12503.900000	---	41.17	54.00	12.83	V	8.5
12503.900000	49.91	---	74.00	24.09	V	8.5
17172.100000	51.41	---	68.20	16.79	V	12.8
High Channel: 5825 MHz						
1520.200000	---	27.63	54.00	26.37	H	-13.8
1520.200000	37.61	---	74.00	36.39	H	-13.8
3148.800000	39.36	---	68.20	28.84	V	-7.5
5380.900000	---	38.53	54.00	15.47	V	0.4
5380.900000	46.22	---	74.00	27.78	V	0.4
9647.900000	50.21	---	68.20	17.99	V	6.7
13678.600000	52.22	---	68.20	15.98	V	10.8
17575.000000	51.59	---	68.20	16.61	V	13.3

802.11ac40 Mode (Chain 1+2+3+4)

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5755 MHz						
1198.900000	---	28.22	54.00	25.78	V	-14.9
1198.900000	34.58	---	74.00	39.42	V	-14.9
2949.900000	37.12	---	68.20	31.08	V	-8.2
5000.100000	---	35.31	54.00	18.69	V	-1.2
5000.100000	44.09	---	74.00	29.91	V	-1.2
7959.800000	46.83	---	68.20	21.37	V	3.8
11937.800000	---	39.53	54.00	14.47	V	6.9
11937.800000	48.76	---	74.00	25.24	V	6.9
15626.800000	---	43.86	54.00	10.14	H	11.0
15626.800000	49.63	---	74.00	24.37	H	11.0
High Channel: 5795 MHz						
1817.700000	36.37	---	68.20	31.83	V	-11.8
3560.200000	39.49	---	68.20	28.71	V	-6.0
5355.400000	---	37.13	54.00	16.87	H	0.2
5355.400000	45.72	---	74.00	28.28	H	0.2
9647.900000	49.04	---	68.20	19.16	V	6.7
13676.900000	53.20	---	68.20	15.00	V	10.8
18000.000000	---	43.21	54.00	10.79	V	11.5
18000.000000	51.72	---	74.00	22.28	V	11.5

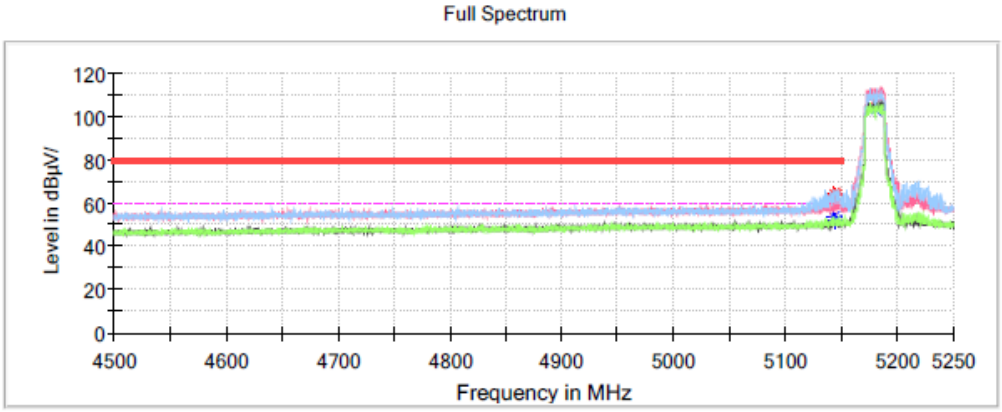
802.11ac80 Mode (Chain 1+2+3+4)

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5775 MHz						
1215.900000	---	21.15	54.00	32.85	V	-15.1
1215.900000	29.08	---	74.00	44.92	V	-15.1
2125.400000	40.54	---	68.20	27.66	V	-11.3
3939.300000	---	29.41	54.00	24.59	H	-6.0
3939.300000	40.10	---	74.00	33.90	H	-6.0
8440.900000	---	39.08	54.00	14.92	V	5.2
8440.900000	48.95	---	74.00	25.05	V	5.2
12944.200000	52.76	---	68.20	15.44	V	9.7
17078.600000	55.28	---	68.20	12.92	V	12.2

Band Edge Emissions (5150-5250MHz Band):
***802.11a Mode* (pre-scan with Chain1&2&3&4, Only the worst case Chain 4 recorded)**
Low Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.6kPa
Test Engineer:	Peter Wang
Test Date	2024/3/21



Critical_Freqs

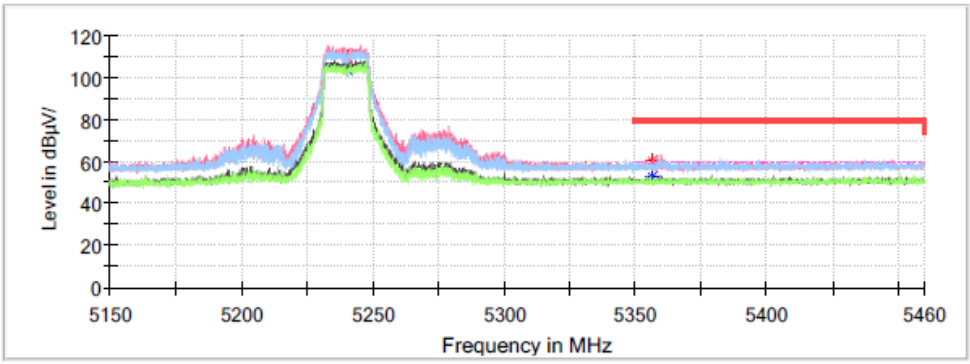
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5143.200000	64.89	---	80.00	15.11	V	9.4
5143.200000	---	53.72	60.00	6.28	V	9.4
5144.700000	63.82	---	80.00	16.18	V	9.4
5144.700000	---	52.31	60.00	7.69	V	9.4
5180.025000	108.51	---	---	---	V	9.5
5180.025000	---	103.41	---	---	V	9.5

High Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.6kPa
Test Engineer:	Peter Wang
Test Date	2024/3/21

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)
5240.055000	110.14	---	---	---	V	9.8
5240.055000	---	104.42	---	---	V	9.8
5356.739000	60.06	---	80.00	19.94	V	10.3
5356.739000	---	52.72	60.00	7.28	V	10.3

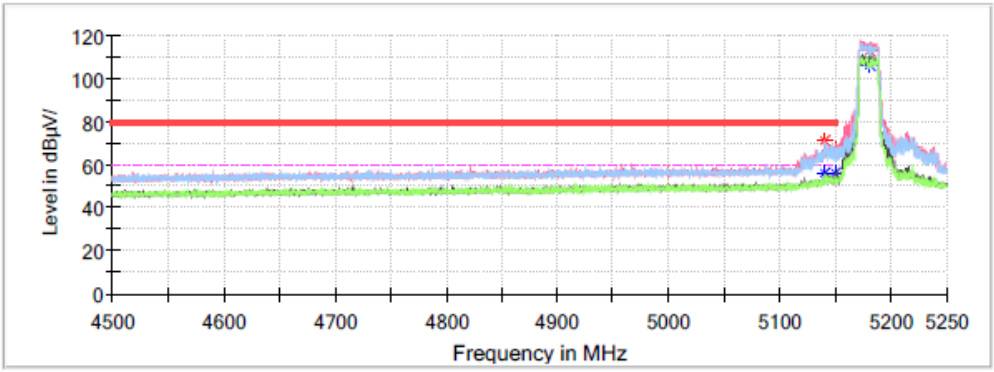
802.11n20 Mode (Chain1+2+3+4)

Low Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.6kPa
Test Engineer:	Peter Wang
Test Date	2024/3/21

Full Spectrum



Critical_Freqs

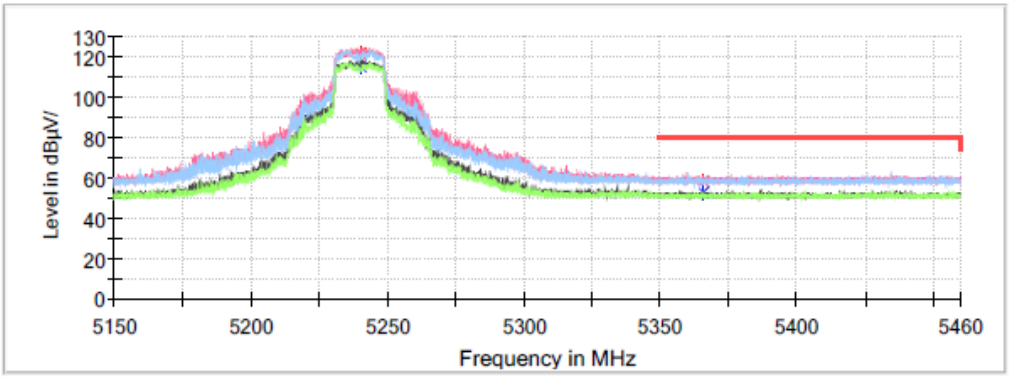
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5140.275000	71.33	---	80.00	8.67	V	9.4
5140.275000	---	56.02	60.00	3.98	V	9.4
5149.950000	67.55	---	80.00	12.45	V	9.4
5149.950000	---	56.11	60.00	3.89	V	9.4
5179.875000	---	106.54	---	---	V	9.5
5179.875000	113.65	---	---	---	V	9.5

High Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.6kPa
Test Engineer:	Peter Wang
Test Date	2024/3/21

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)
5239.993000	121.74	---	---	---	V	9.8
5239.993000	---	115.39	---	---	V	9.8
5366.101000	57.80	---	80.00	22.20	V	10.3
5366.101000	---	52.71	60.00	7.29	V	10.3

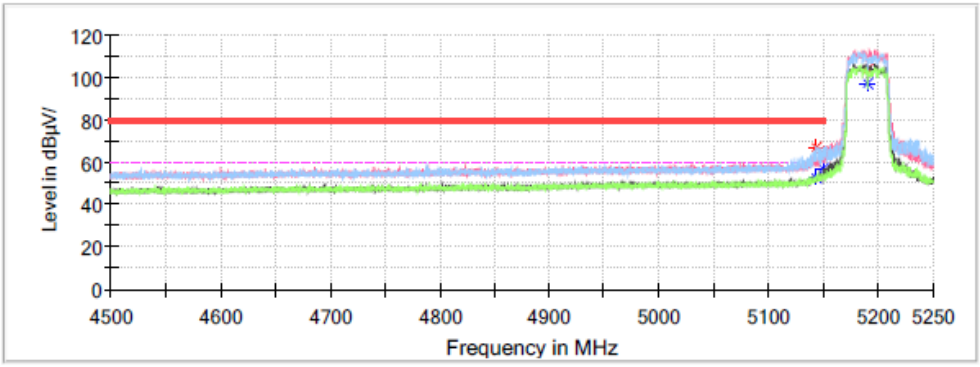
802.11n40 Mode (Chain1+2+3+4)

Low Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.6kPa
Test Engineer:	Peter Wang
Test Date	2024/3/21

Full Spectrum



Critical_Freqs

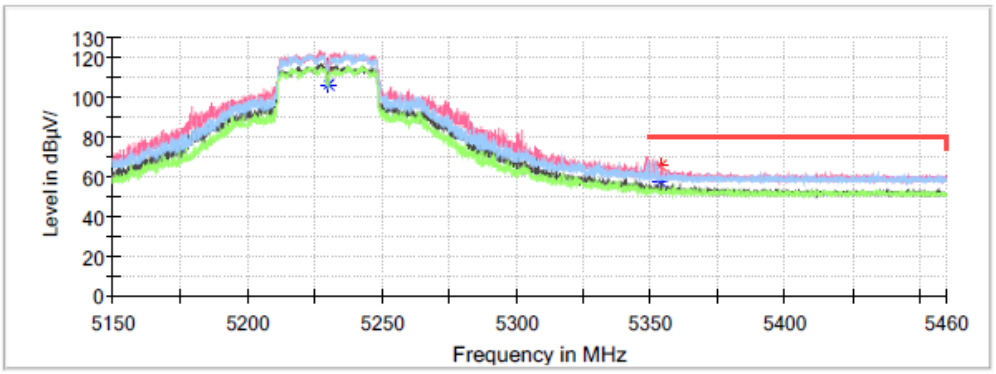
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5144.100000	66.90	---	80.00	13.10	V	9.4
5144.100000	---	52.80	60.00	7.20	V	9.4
5149.800000	64.85	---	80.00	15.15	V	9.4
5149.800000	---	56.86	60.00	3.14	V	9.4
5190.000000	104.23	---	---	---	V	9.6
5190.000000	---	97.08	---	---	V	9.6

High Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.6kPa
Test Engineer:	Peter Wang
Test Date	2024/3/21

Full Spectrum



Critical_Freqs

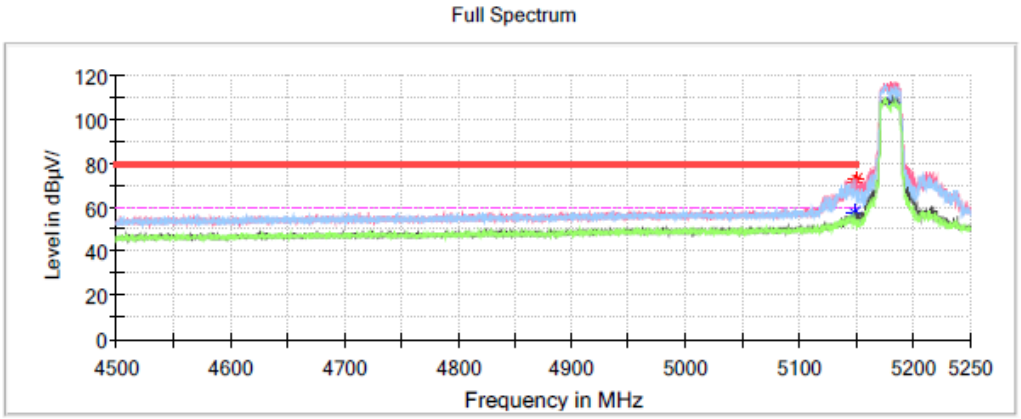
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5230.011000	115.42	---	---	---	V	9.7
5230.011000	---	106.56	---	---	V	9.7
5353.515000	65.29	---	80.00	14.71	V	10.2
5353.515000	---	57.01	60.00	2.99	V	10.2

802.11ac20 Mode (Chain1+2+3+4)

Low Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.6kPa
Test Engineer:	Peter Wang
Test Date	2024/3/21



Critical_Freqs

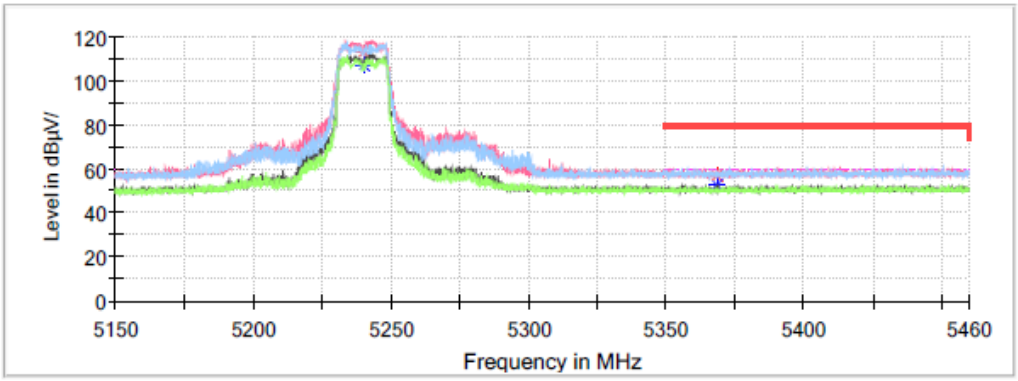
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5148.675000	---	58.16	60.00	1.84	V	9.4
5148.675000	71.02	---	80.00	8.98	V	9.4
5149.050000	---	55.52	60.00	4.48	V	9.4
5149.050000	73.06	---	80.00	6.94	V	9.4
5180.025000	114.20	---	---	---	V	9.5
5180.025000	---	108.00	---	---	V	9.5

High Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.6kPa
Test Engineer:	Peter Wang
Test Date	2024/3/21

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)
5239.993000	113.67	---	---	---	V	9.8
5239.993000	---	107.09	---	---	V	9.8
5368.271000	57.48	---	80.00	22.52	V	10.3
5368.271000	---	53.22	60.00	6.78	V	10.3

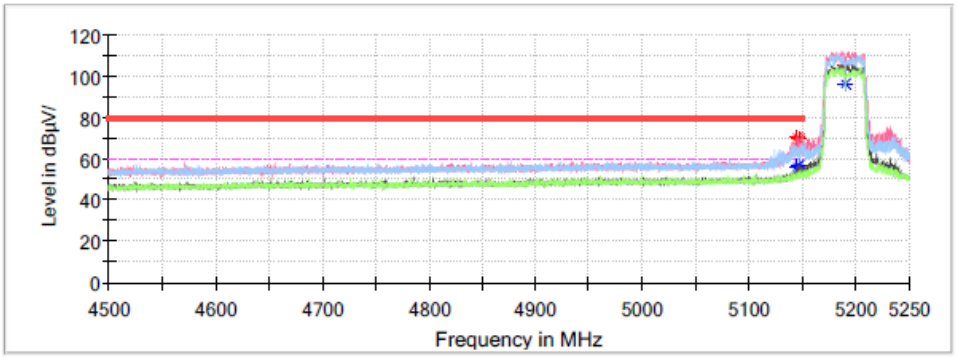
802.11ac40 Mode (Chain1+2+3+4)

Low Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.6kPa
Test Engineer:	Peter Wang
Test Date	2024/3/21

Full Spectrum



Critical_Freqs

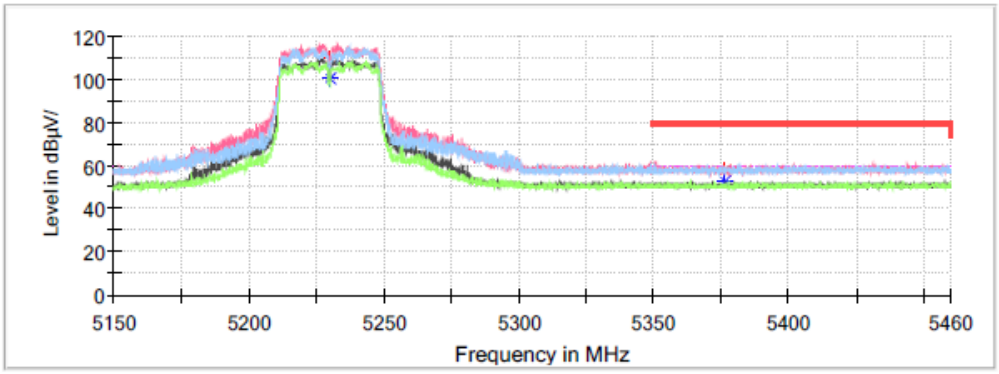
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5144.925000	70.43	---	80.00	9.57	V	9.4
5144.925000	---	56.10	60.00	3.90	V	9.4
5146.950000	69.55	---	80.00	10.45	V	9.4
5146.950000	---	56.65	60.00	3.35	V	9.4
5190.000000	---	96.10	---	---	V	9.6
5190.000000	106.14	---	---	---	V	9.6

High Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.6kPa
Test Engineer:	Peter Wang
Test Date	2024/3/21

Full Spectrum



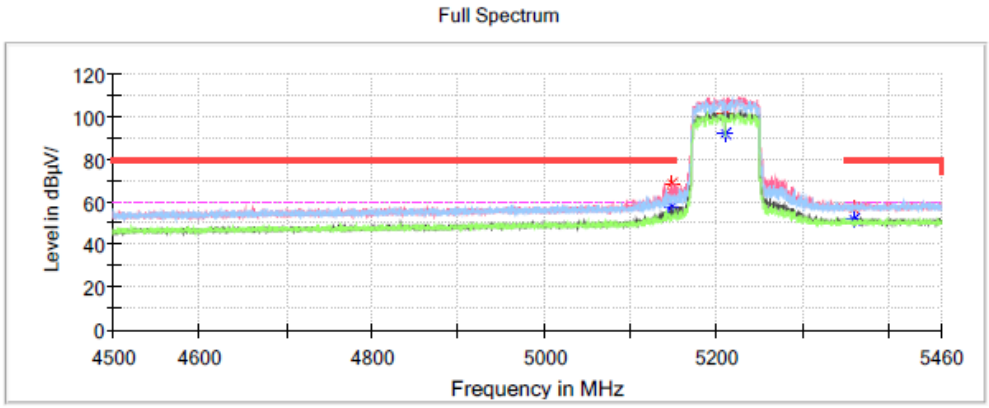
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5230.011000	109.96	---	---	---	V	9.7
5230.011000	---	100.59	---	---	V	9.7
5376.269000	57.72	---	80.00	22.28	V	10.3
5376.269000	---	52.96	60.00	7.04	V	10.3

802.11ac80 Mode (Chain1+2+3+4)

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.6kPa
Test Engineer:	Peter Wang
Test Date	2024/3/21



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)
5148.288000	---	57.90	60.00	2.10	V	9.4
5148.288000	64.47	---	80.00	15.53	V	9.4
5148.480000	---	54.98	60.00	5.02	V	9.4
5148.480000	68.56	---	80.00	11.44	V	9.4
5210.016000	101.95	---	---	---	V	9.7
5210.016000	---	92.23	---	---	V	9.7
5358.720000	57.30	---	80.00	22.70	V	10.3
5358.720000	---	51.62	60.00	8.38	V	10.3

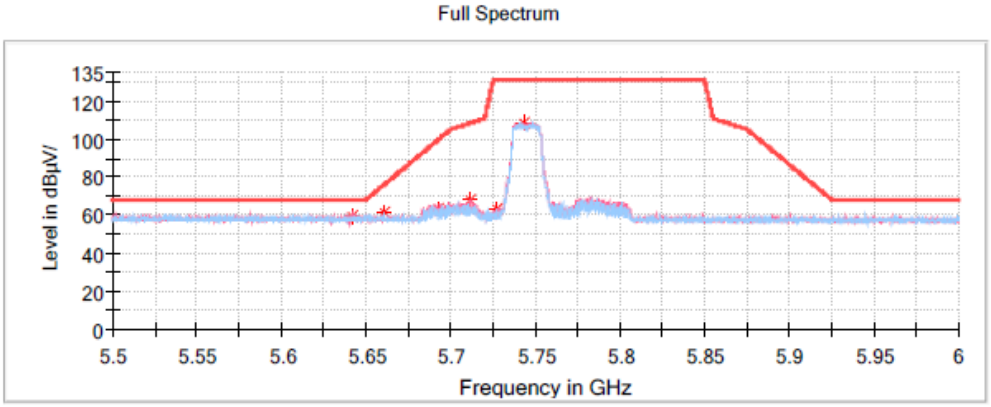
Band edge Emissions Test (5725-5850MHz Band):

***802.11a Mode* (pre-scan with Chain1&2&3&4, Only the worst case Chain 2 recorded)**

Low Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.1kPa
Test Engineer:	Peter Wang
Test Date	2024/3/24



Critical_Freqs

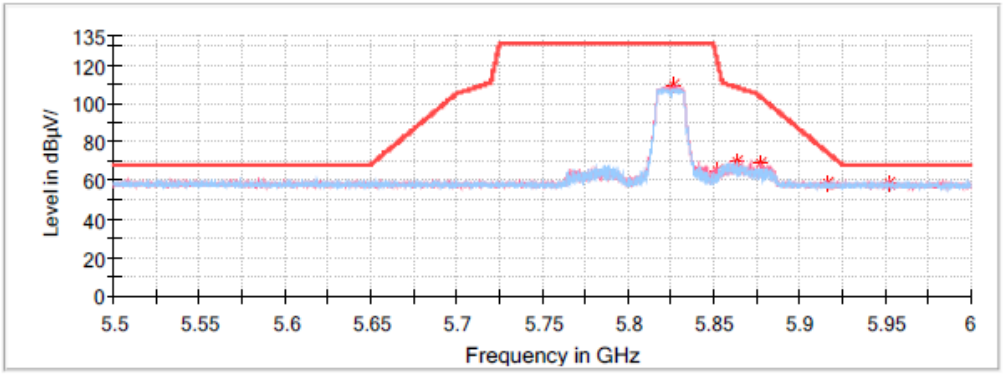
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5641.250000	59.33	---	68.20	8.87	V	10.7
5660.300000	61.22	---	75.82	14.60	V	10.6
5692.600000	63.68	---	99.72	36.04	V	10.6
5711.400000	68.19	---	108.39	40.20	V	10.6

High Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15C
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.1kPa
Test Engineer:	Peter Wang
Test Date	2024/3/24

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)
5852.200000	65.60	---	122.22	56.63	V	10.4
5863.200000	69.65	---	108.50	38.85	V	10.4
5877.750000	68.88	---	103.16	34.29	V	10.3
5916.800000	58.93	---	74.27	15.34	V	10.3
5952.900000	58.68	---	68.20	9.52	V	10.3

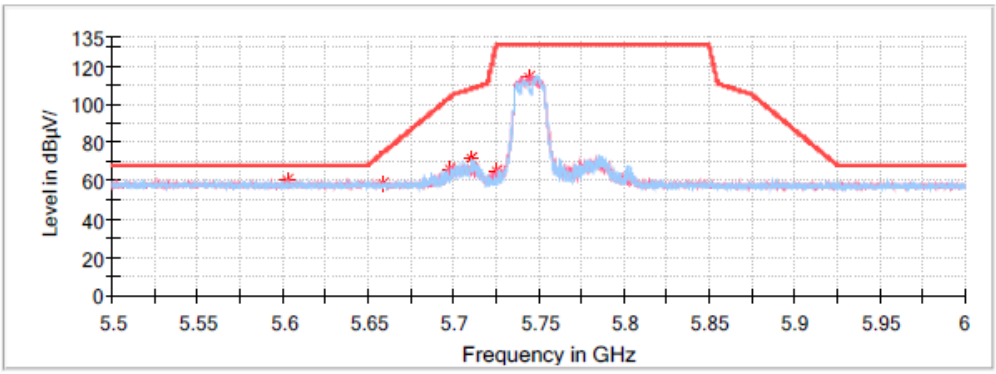
802.11n20 Mode (Chain1+2+3+4)

Low Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.1kPa
Test Engineer:	Peter Wang
Test Date	2024/3/24

Full Spectrum



Critical_Freqs

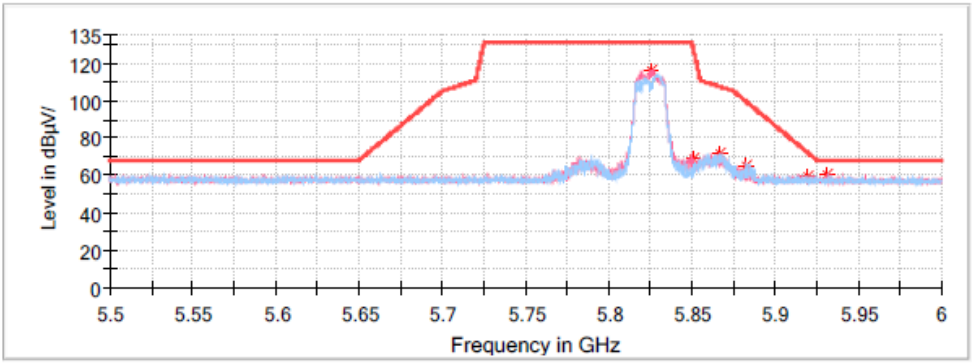
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5602.200000	60.41	---	68.20	7.79	V	10.7
5658.450000	58.97	---	74.45	15.48	V	10.6
5697.700000	66.55	---	103.50	36.94	V	10.6
5710.550000	72.05	---	108.15	36.11	V	10.6

High Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.1kPa
Test Engineer:	Peter Wang
Test Date	2024/3/24

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)
5866.500000	71.81	---	107.58	35.77	V	10.4
5882.150000	65.27	---	99.91	34.64	V	10.3
5919.700000	59.28	---	72.12	12.84	V	10.3
5931.350000	60.75	---	68.20	7.45	V	10.3

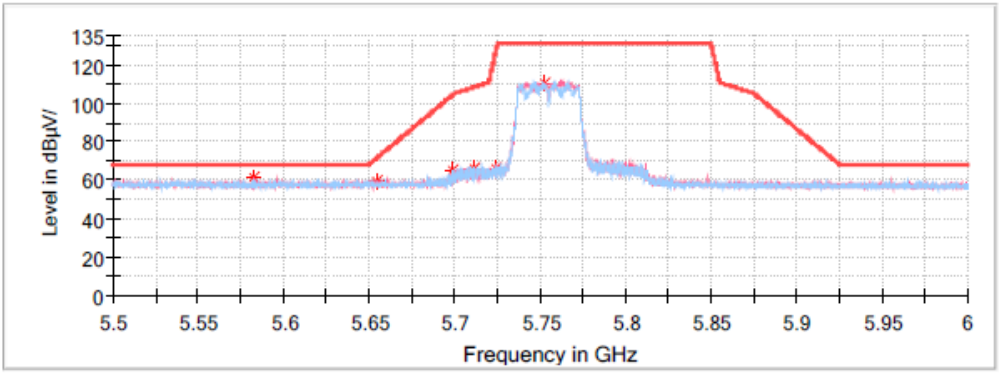
802.11n40 Mode (Chain1+2+3+4)

Low Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.1kPa
Test Engineer:	Peter Wang
Test Date	2024/3/24

Full Spectrum



Critical_Freqs

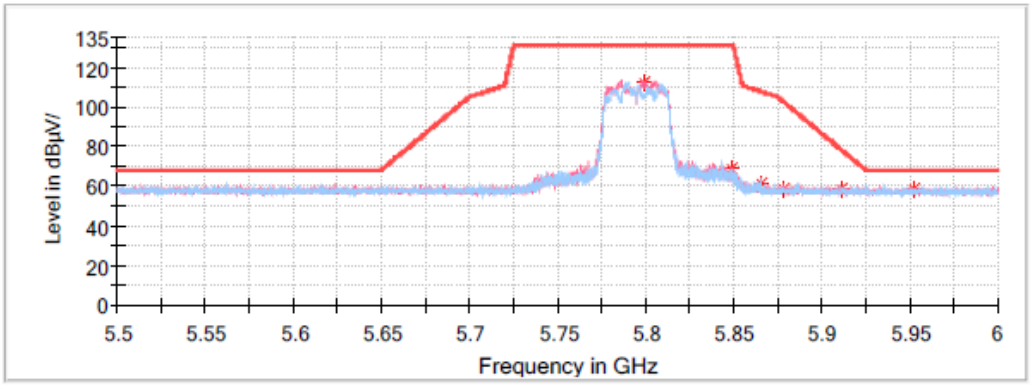
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5582.650000	61.23	---	68.20	6.97	V	10.7
5654.700000	59.11	---	71.68	12.57	V	10.6
5698.650000	64.79	---	104.20	39.41	V	10.6
5711.900000	66.44	---	108.53	42.09	V	10.6

High Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.1kPa
Test Engineer:	Peter Wang
Test Date	2024/3/24

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)
5865.900000	61.48	---	107.75	46.27	V	10.4
5877.950000	58.72	---	103.02	44.29	V	10.3
5911.000000	58.59	---	78.56	19.97	V	10.3
5951.950000	58.69	---	68.20	9.51	V	10.3

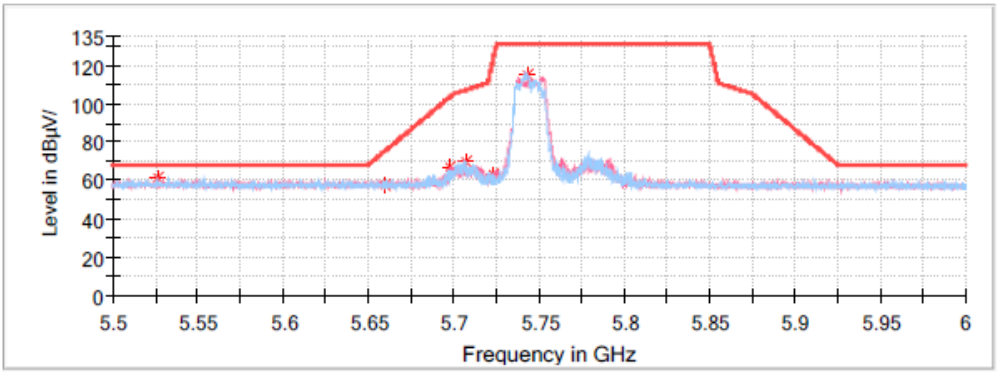
802.11ac20 Mode (Chain1+2+3+4)

Low Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.1kPa
Test Engineer:	Peter Wang
Test Date	2024/3/24

Full Spectrum



Critical_Freqs

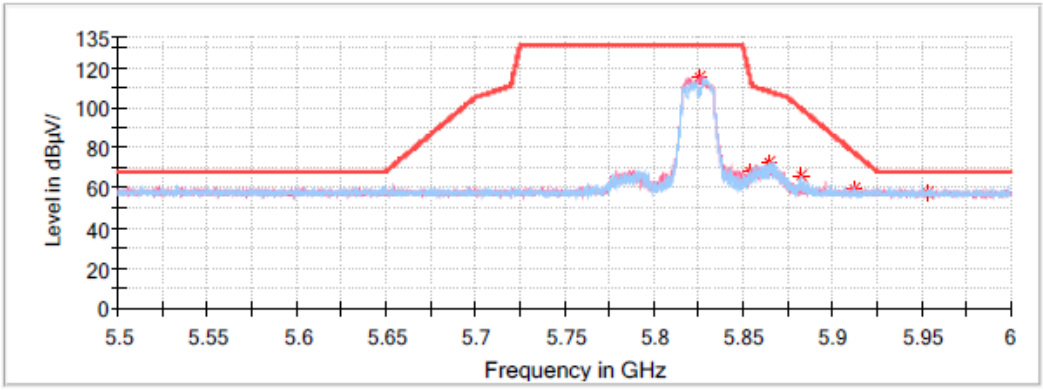
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5526.300000	61.02	---	68.20	7.18	V	10.8
5659.600000	57.63	---	75.30	17.68	V	10.6
5697.500000	66.56	---	103.35	36.79	V	10.6
5707.600000	69.53	---	107.33	37.80	V	10.6

High Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.1kPa
Test Engineer:	Peter Wang
Test Date	2024/3/24

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)
5853.900000	67.54	---	115.29	47.75	V	10.4
5865.100000	72.34	---	107.97	35.63	V	10.4
5882.850000	66.19	---	99.39	33.20	V	10.3
5912.750000	59.27	---	77.26	18.00	V	10.3
5953.250000	57.71	---	68.20	10.49	V	10.3

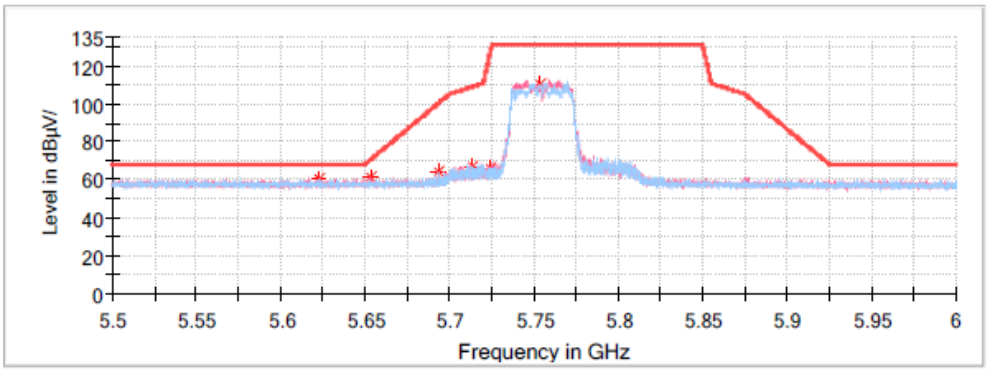
802.11ac40 Mode (Chain1+2+3+4)

Low Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.1kPa
Test Engineer:	Peter Wang
Test Date	2024/3/24

Full Spectrum



Critical_Freqs

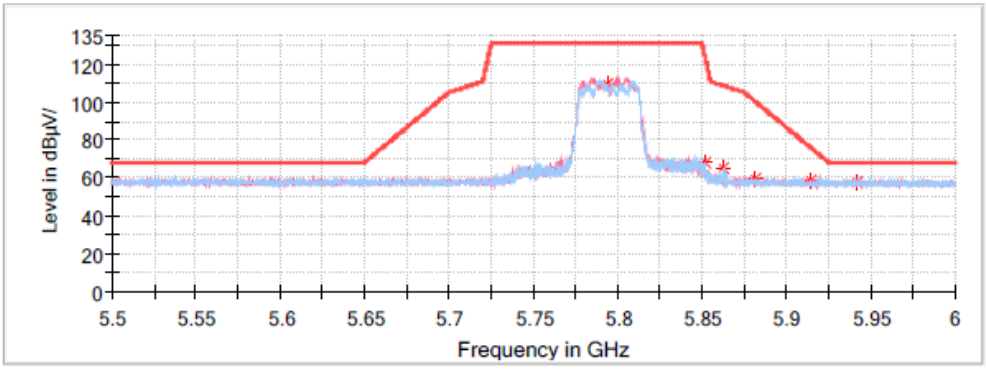
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5622.900000	59.99	---	68.20	8.21	V	10.7
5652.950000	60.96	---	70.38	9.42	V	10.6
5693.800000	64.64	---	100.61	35.97	V	10.6
5713.050000	67.38	---	108.85	41.47	V	10.6

High Channel

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.1kPa
Test Engineer:	Peter Wang
Test Date	2024/3/24

Full Spectrum



Critical_Freqs

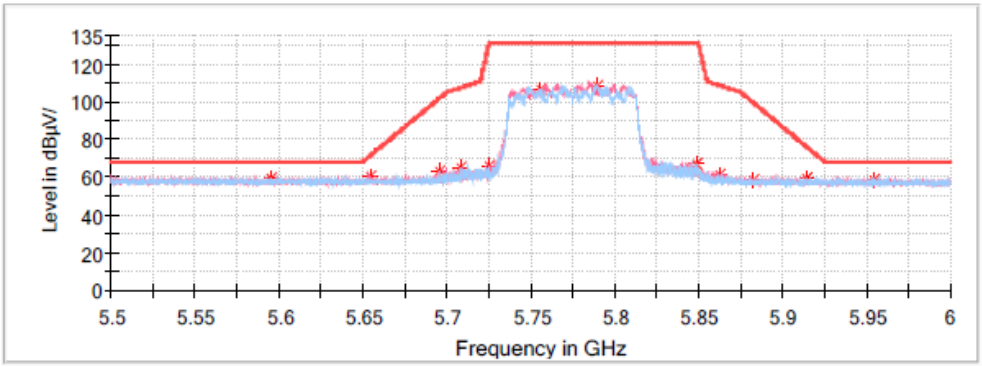
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5862.200000	64.93	---	108.78	43.85	V	10.4
5881.500000	59.91	---	100.39	40.48	V	10.3
5914.300000	58.33	---	76.12	17.79	V	10.3
5941.850000	58.04	---	68.20	10.16	V	10.3

802.11ac80 Mode (Chain1+2+3+4)

Common Information

Project No.:	RKSA240228003
EUT Model:	Infinite 313
Test Mode:	5G Wi-Fi
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Temperature:	20.3℃
Humidity:	52%
Atmospheric pressure:	101.1kPa
Test Engineer:	Peter Wang
Test Date	2024/3/24

Full Spectrum



Critical_Freqs

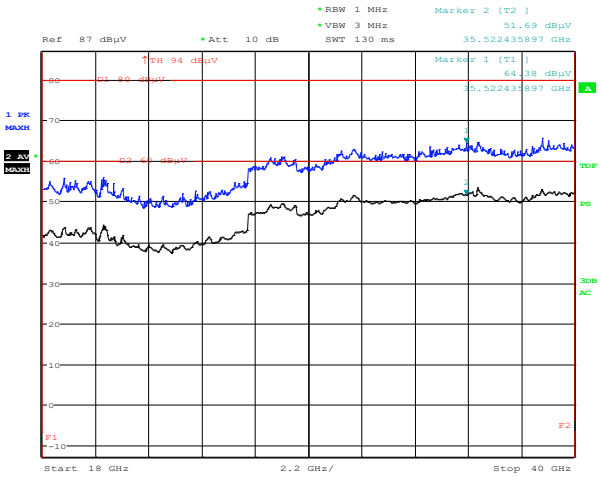
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5595.000000	59.52	---	68.20	8.68	H	10.7
5654.650000	60.68	---	71.64	10.96	H	10.6
5695.700000	63.44	---	102.02	38.58	V	10.6
5708.700000	65.35	---	107.64	42.29	V	10.6
5862.650000	61.08	---	108.66	47.58	V	10.4
5882.850000	58.82	---	99.39	40.57	V	10.3
5914.850000	59.63	---	75.71	16.08	V	10.3
5954.450000	58.95	---	68.20	9.25	V	10.2

18 GHz - 40 GHz:

(Note: The test distance is 1.5m, so the limit for peak is 80 dBµV/m, Average is 60 dBµV/m)

Transmitting in 802.11ac80 mode Middle channel is worst case

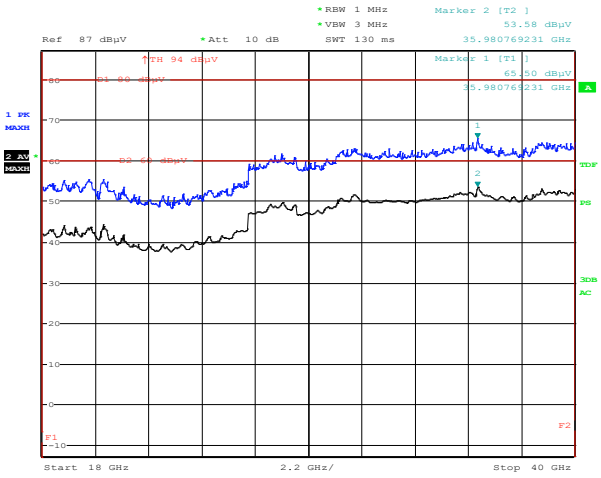
Horizontal



Project No.: RKSA240228003 Tester: Peter Wang

Date: 8.APR.2024 19:04:52

Vertical



Project No.: RKSA240228003 Tester: Peter Wang

Date: 8.APR.2024 19:26:03

EMISSION BANDWIDTH

Test Result: Compliant

5150-5250 MHz:

Test mode	Channel	Frequency (MHz)	26dB Bandwidth(MHz)			
			Chain 1	Chain 2	Chain 3	Chain 4
802.11 a	Low	5180	19.281	19.281	20.210	19.481
	Middle	5200	19.530	19.181	20.361	20.110
	High	5240	19.730	19.980	19.381	19.880
802.11n-HT20	Low	5180	21.072	21.470	21.278	21.422
	Middle	5200	21.484	20.969	21.584	21.358
	High	5240	21.278	21.579	21.372	21.304
802.11n-HT40	Low	5190	41.259	41.159	41.359	41.059
	High	5230	41.259	41.459	41.159	41.159
802.11ac-VHT20	Low	5180	20.812	21.223	21.222	21.120
	Middle	5200	21.021	21.271	21.321	21.065
	High	5240	21.065	20.912	21.175	21.431
802.11ac-VHT40	Low	5190	40.559	41.159	41.159	41.459
	High	5230	41.059	41.159	41.658	41.459
802.11ac-VHT80	/	5210	83.317	82.318	83.317	82.517

Test mode	Channel	Frequency (MHz)	99% Bandwidth(MHz)			
			Chain 1	Chain 2	Chain 3	Chain 4
802.11 a	Low	5180	16.35	16.40	16.45	16.40
	Middle	5200	16.40	16.40	16.45	16.40
	High	5240	16.40	16.45	16.40	16.40
802.11n-HT20	Low	5180	17.55	17.60	17.60	17.60
	Middle	5200	17.60	17.55	17.60	17.60
	High	5240	17.60	17.65	17.60	17.60
802.11n-HT40	Low	5190	36.20	36.20	36.20	36.20
	High	5230	36.10	36.10	36.30	36.20
802.11ac-VHT20	Low	5180	17.55	17.55	17.60	17.60
	Middle	5200	17.55	17.55	17.60	17.60
	High	5240	17.55	17.60	17.60	17.60
802.11ac-VHT40	Low	5190	36.20	36.20	36.20	36.20
	High	5230	36.10	36.20	36.20	36.20
802.11ac-VHT80	/	5210	75.60	75.20	75.60	75.20

Note: the 99% Occupied Bandwidth have not fall into the band 5250-5350MHz.

5725-5850MHz:

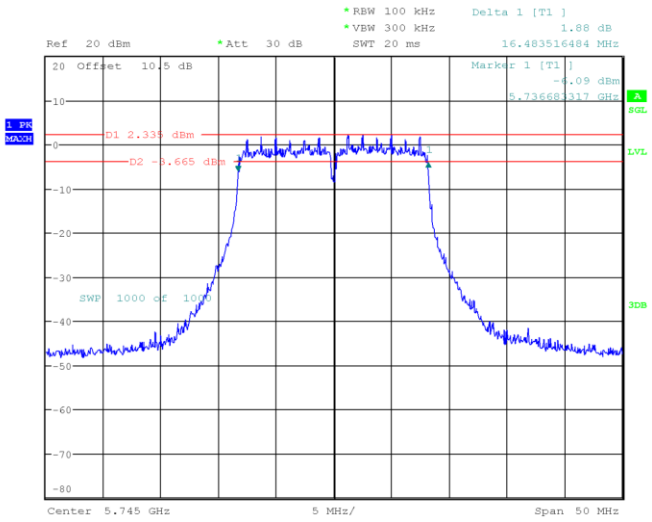
Test mode	Frequency (MHz)	6dB Emission Bandwidth (MHz)				Limit (MHz)
		Chain 1	Chain 2	Chain 3	Chain 4	
802.11 a	5745	16.484	16.533	16.484	16.484	0.5
	5785	16.484	16.434	16.434	16.484	0.5
	5825	16.434	16.434	16.484	16.434	0.5
802.11n-HT20	5745	17.682	17.732	17.682	17.682	0.5
	5785	17.732	17.682	17.682	17.732	0.5
	5825	17.682	17.682	17.682	17.732	0.5
802.11n-HT40	5755	36.364	36.563	36.563	36.563	0.5
	5795	36.364	35.964	36.364	36.563	0.5
802.11ac-VHT20	5745	17.732	17.732	17.483	17.732	0.5
	5785	17.732	17.682	17.682	17.682	0.5
	5825	17.682	17.682	17.682	17.682	0.5
802.11ac-VHT40	5755	36.164	36.563	36.563	36.563	0.5
	5795	36.563	36.164	36.164	36.563	0.5
802.11ac-VHT80	5775	75.924	75.724	76.324	76.324	0.5

Test mode	Channel	Frequency (MHz)	99% Bandwidth(MHz)			
			Chain 1	Chain 2	Chain 3	Chain 4
802.11 a	Low	5745	16.4	16.4	16.35	16.40
	Middle	5785	16.4	16.4	16.4	16.40
	High	5825	16.35	16.4	16.45	16.40
802.11n-HT20	Low	5745	17.55	17.6	17.55	17.60
	Middle	5785	17.55	17.55	17.55	17.60
	High	5825	17.6	17.6	17.55	17.60
802.11n-HT40	Low	5755	36.2	36.1	36.2	36.20
	High	5795	36.1	36.2	36.2	36.20
802.11ac-VHT20	Low	5745	17.6	17.6	17.55	17.60
	Middle	5785	17.55	17.55	17.55	17.60
	High	5825	17.55	17.6	17.55	17.60
802.11ac-VHT40	Low	5755	36.2	36.1	36.1	36.20
	High	5795	36.1	36.2	36.2	36.20
802.11ac-VHT80	/	5775	75.6	75.4	75.4	75.40

Note: the 99% Occupied Bandwidth have not fall into the band 5470-5725MHz.

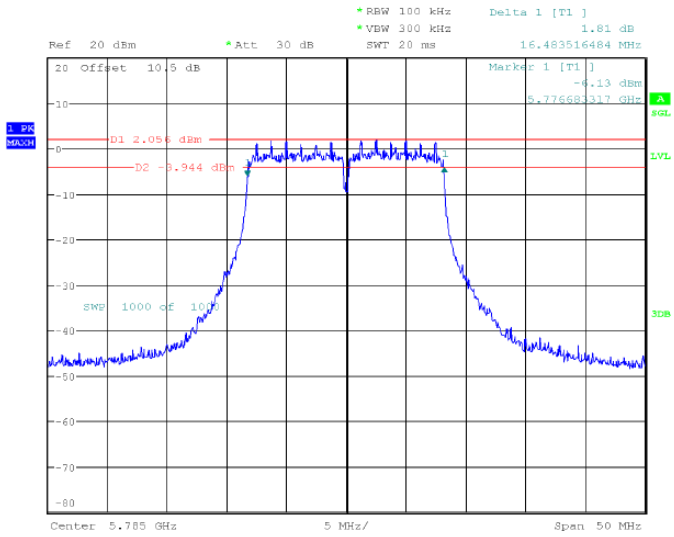
6dB Bandwidth
Chain 1:

802.11a mode, 5745MHz



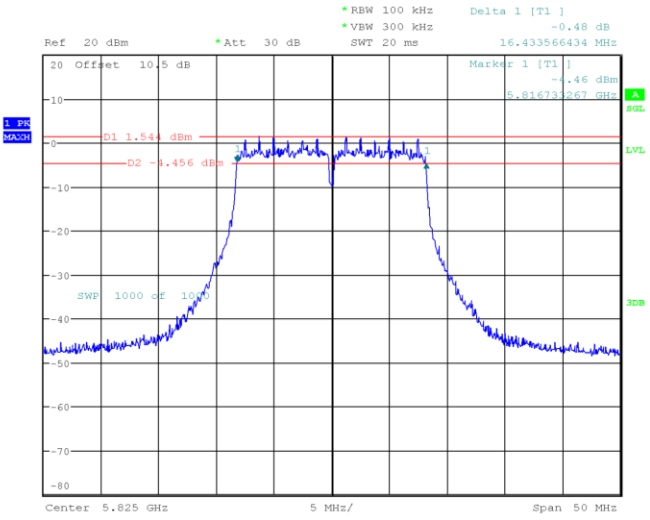
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 29.APR.2024 16:02:17

802.11a mode, 5785MHz



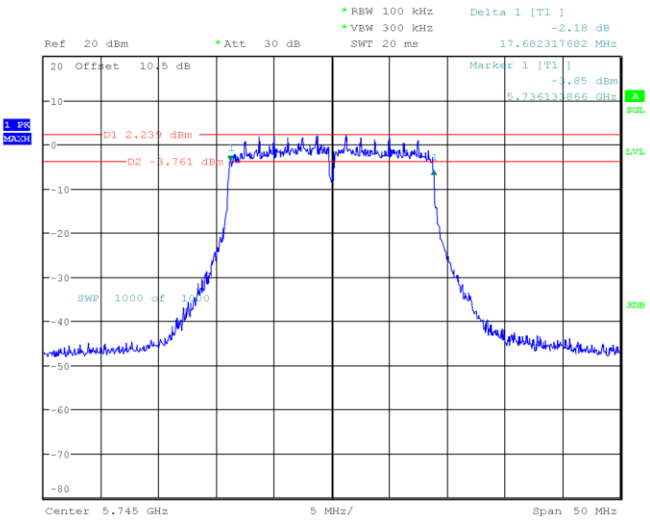
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 29.APR.2024 16:07:17

802.11a mode, 5825MHz



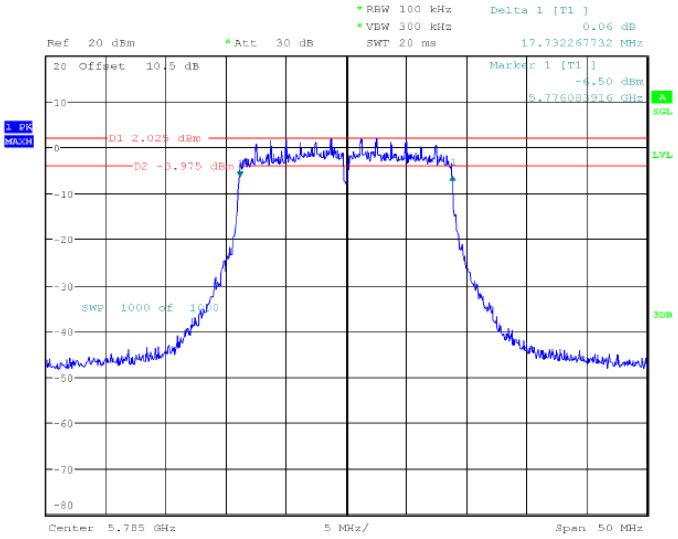
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 29.APR.2024 16:12:45

802.11n20 mode, 5745MHz



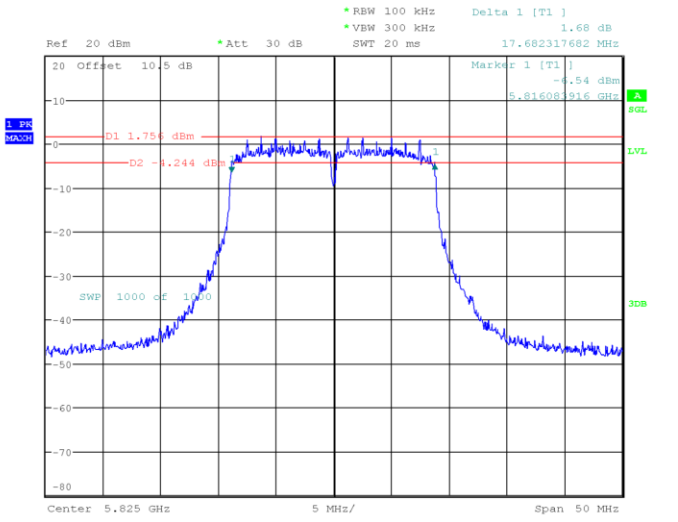
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 29.APR.2024 16:16:06

802.11 n20 mode, 5785MHz



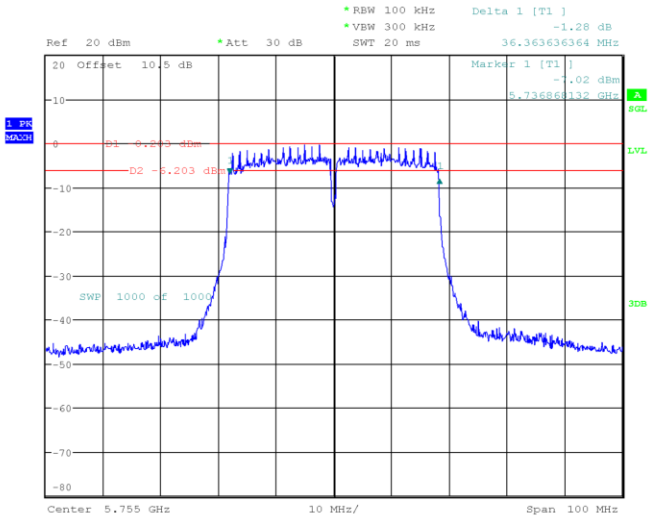
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 29.APR.2024 16:19:40

802.11 n20 mode, 5825MHz



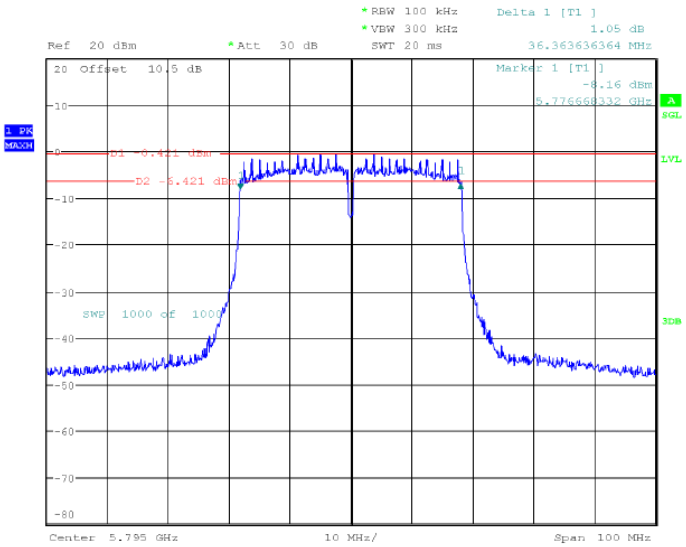
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 29.APR.2024 16:22:40

802.11n40 mode, 5755MHz



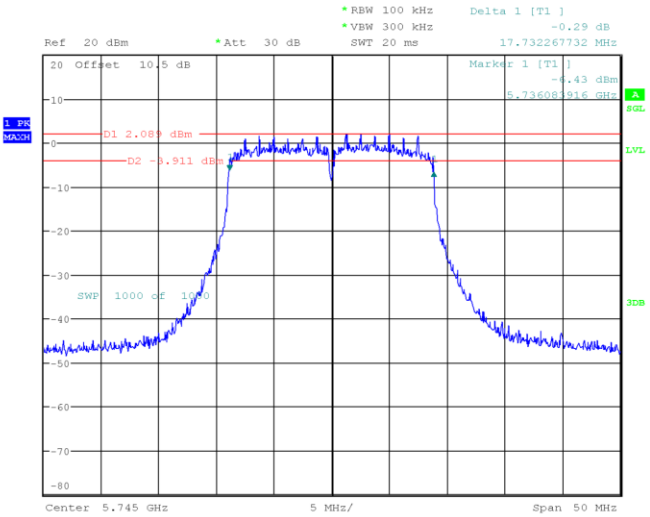
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 29.APR.2024 16:25:49

802.11n40 mode, 5795MHz



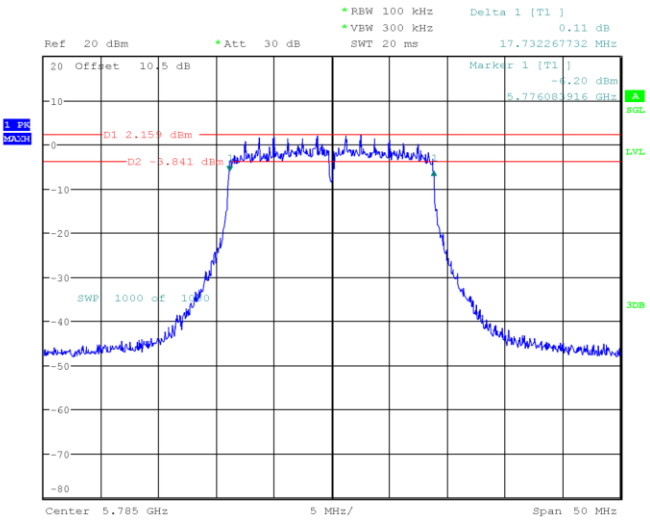
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 29.APR.2024 16:28:53

802.11ac20 mode, 5745MHz



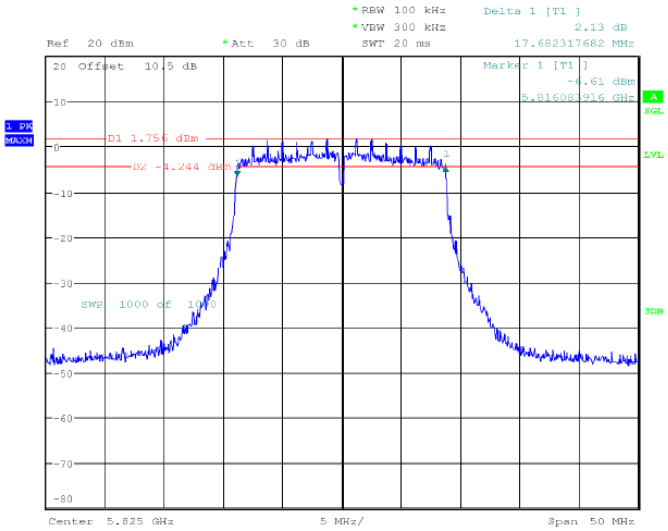
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 29.APR.2024 16:31:21

802.11ac20 mode, 5785MHz



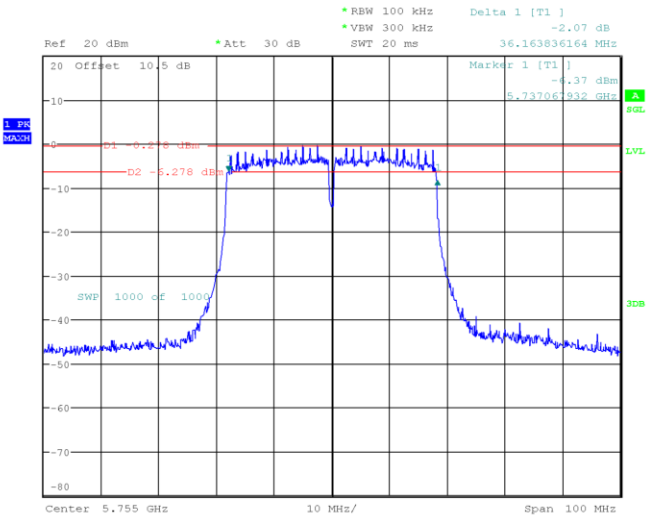
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 29.APR.2024 16:33:49

802.11 ac20 mode, 5825MHz



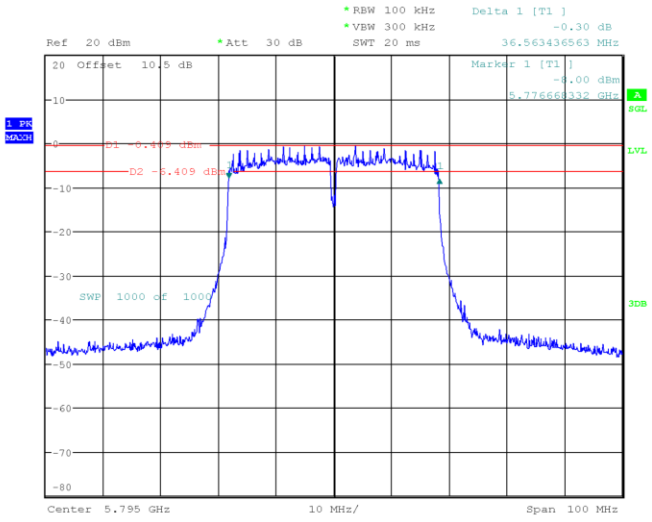
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 29.APR.2024 16:36:10

802.11 ac40 mode, 5755MHz



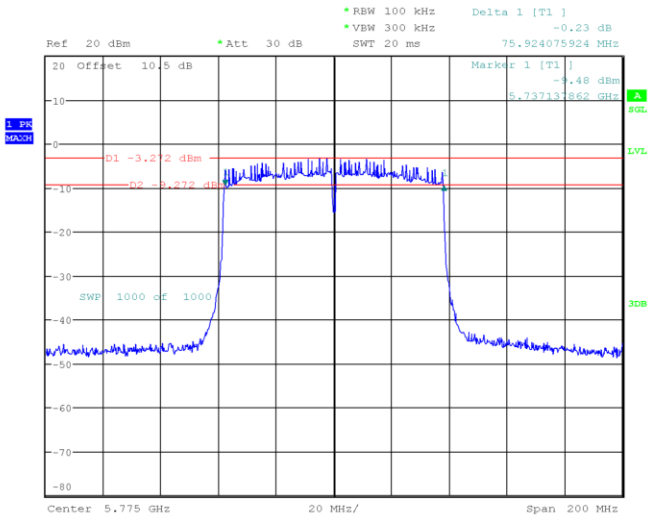
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 29.APR.2024 16:40:01

802.11 ac40 mode, 5795MHz



ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 29.APR.2024 16:42:57

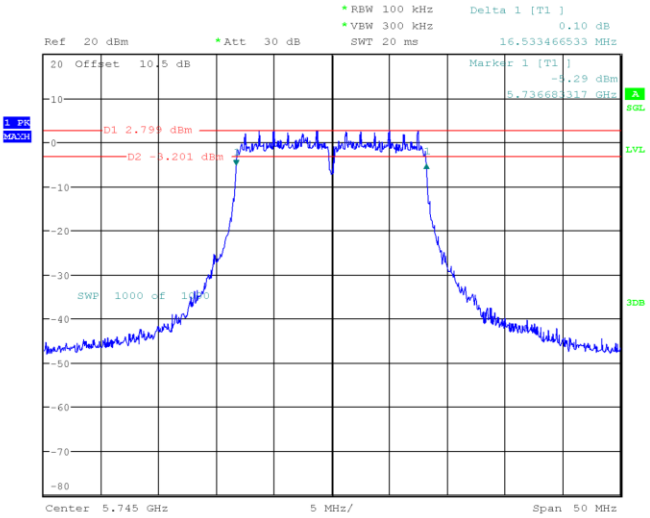
802.11 ac80 mode, 5775MHz



ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 29.APR.2024 16:47:03

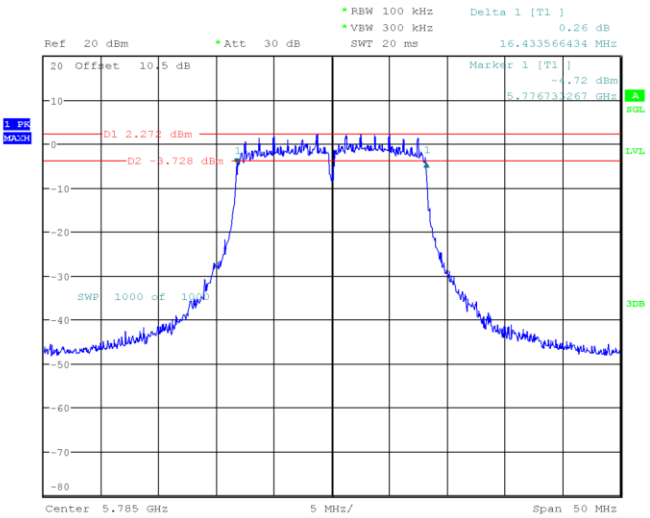
Chain 2:

802.11a mode, 5745MHz



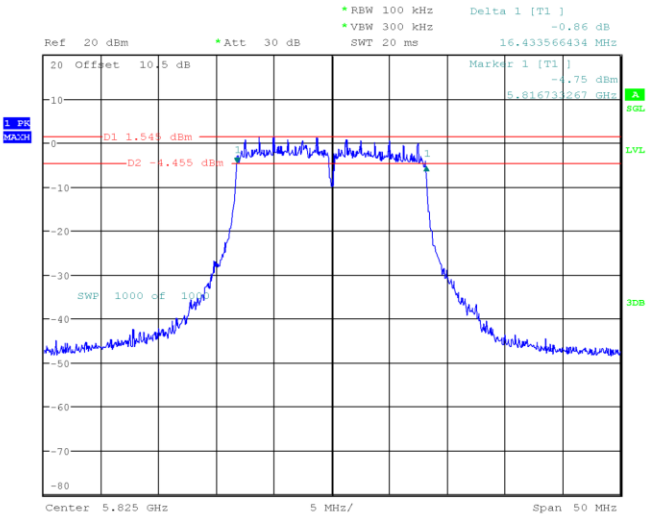
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 30.APR.2024 13:30:02

802.11a mode, 5785MHz



ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 30.APR.2024 13:34:33

802.11a mode, 5825MHz



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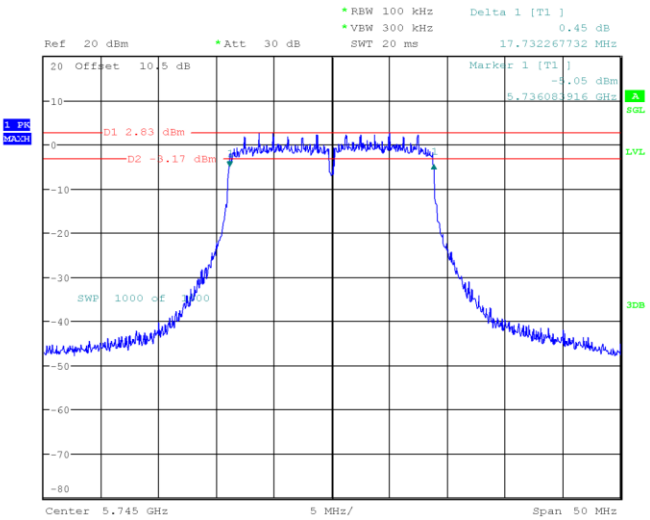
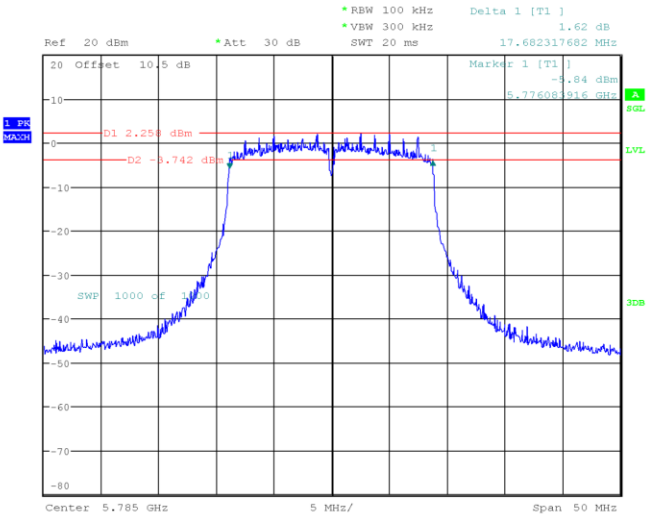
802.11n20 mode, 5745MHz



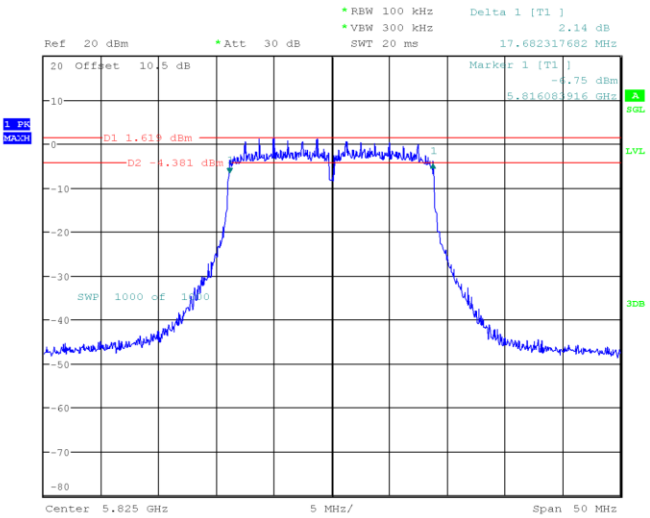
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 30.APR.2024 13:43:29

802.11 n20 mode, 5785MHz



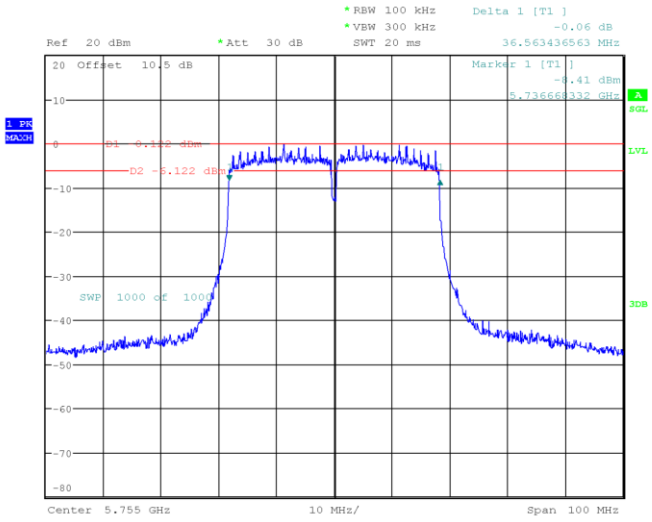
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 30.APR.2024 13:47:48

802.11 n20 mode, 5825MHz



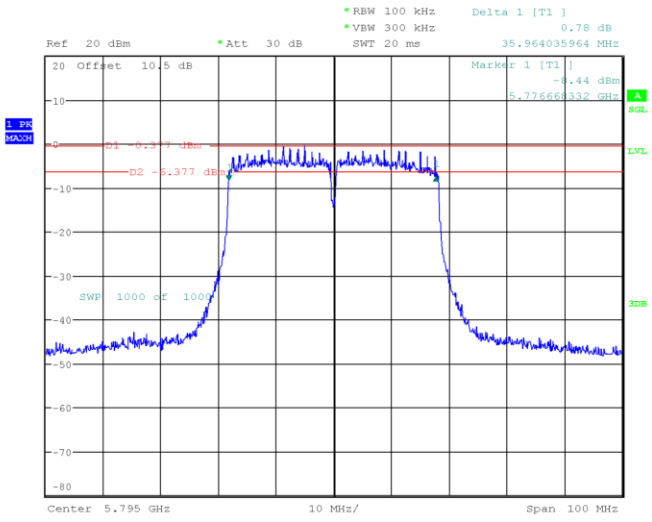
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 30.APR.2024 13:55:40

802.11n40 mode, 5755MHz



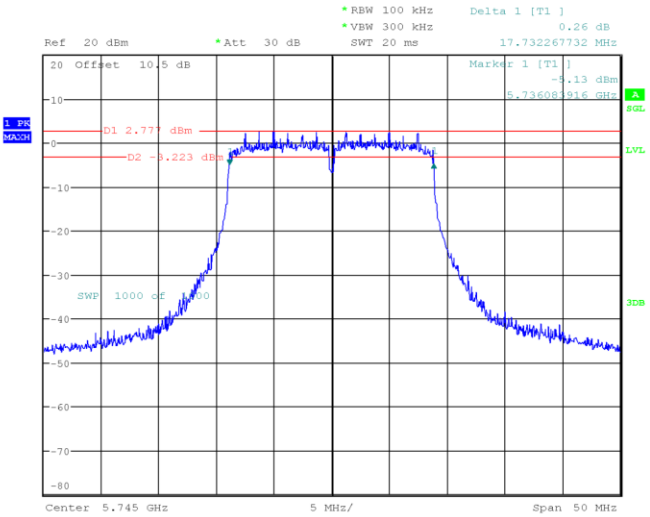
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 30.APR.2024 14:16:21

802.11n40 mode, 5795MHz



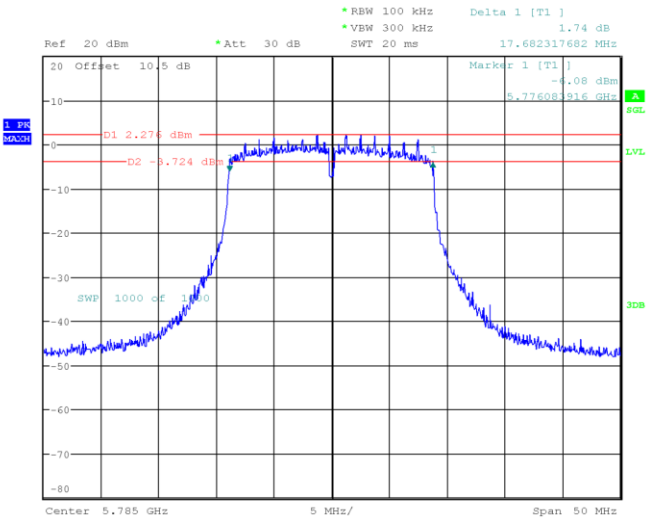
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 30.APR.2024 14:23:09

802.11ac20 mode, 5745MHz



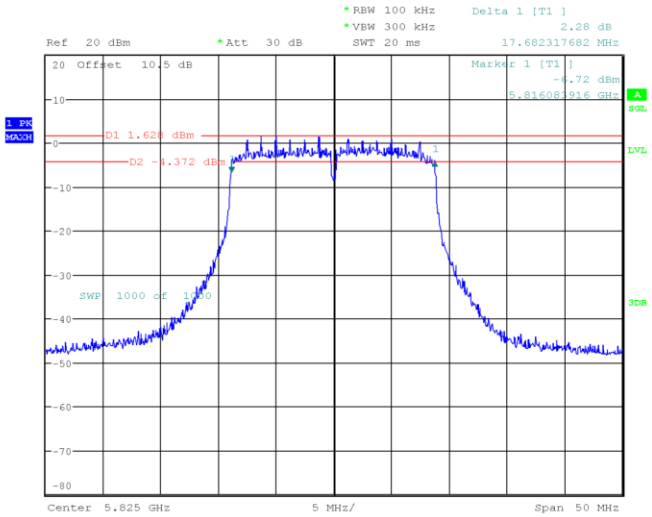
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 30.APR.2024 14:27:43

802.11ac20 mode, 5785MHz



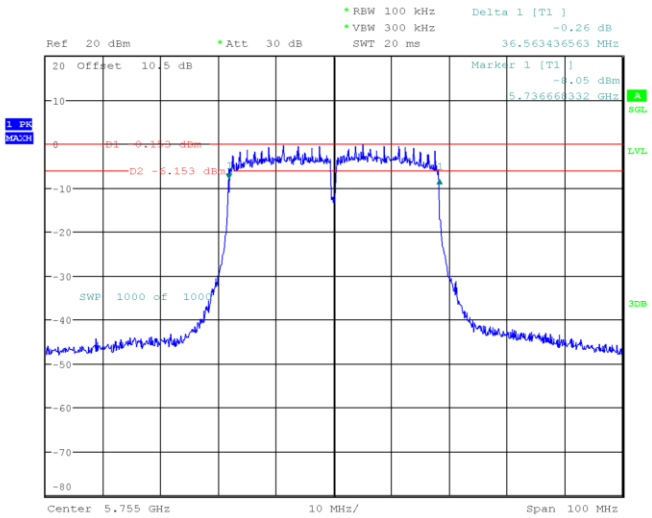
ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 30.APR.2024 14:31:50

802.11 ac20 mode, 5825MHz



ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 30.APR.2024 15:06:18

802.11 ac40 mode, 5755MHz



ProjectNo.:RKSA240228003 Tester:Jay Liu
Date: 30.APR.2024 15:14:44