

FCC PART 15.407

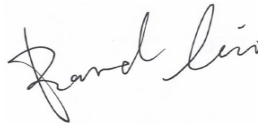
TEST REPORT

For

Tersus GNSS Inc.

Rm 601, Bldg E2, No. 88, Jinjihu Ave, Suzhou, China

FCC ID: 2AMDJ-TS21

Report Type: Original Report	Product Name: GNSS Receiver
Report Number: <u>RSA250514001-00D</u>	
Report Date: <u>2025-12-29</u>	
Reviewed By: <u>Bard Liu</u>	
Approved By: <u>Kyle Xu</u>	
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Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Kunshan). This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, or any agency of the U.S. Government.

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REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RSHA250514001-00D	R1V1	2025-12-29	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	Tersus GNSS Inc.	
Tested Model:	TS21	
Series Model:	TS20	
Model Difference:	TS21 has two cameras, TS20 has one camera	
Product Name:	GNSS Receiver	
Power Supply:	DC 5V from adapter or DC 7.4V from battery	
Maximum Average Output Power	5G Wi-Fi B1:	5G Wi-Fi B4:
	802.11a: 7.63 dBm	10.14 dBm
	802.11ac20: 7.94 dBm	10.61 dBm
	802.11ac40: 7.85 dBm	10.84 dBm
Operating Frequency	5G Wi-Fi: B1: 5150-5250 MHz; B4: 5725-5850 MHz	
Channel Number	5G Wi-Fi B1: 6; B4: 7	
Channel Separation	802.11 a/ac20/n20: 20 MHz; 802.11ac40/n40: 40 MHz	
Modulation Type	OFDM	
Antenna Type	PCB Antenna	
★Maximum Antenna Gain	Band 1: -1.32 dBi Band 4: -2.61 dBi	
Sample/EUT Status	Good condition	

Adapter Information:

Model: QL015-0503000U1

Input: 100-240V, 50/60Hz, 0.5A

Output: 5.0V, 3.0A

Note: The maximum antenna gain was declared by the manufacturer, after pre-scan, the model TS21 is the worst, only the worst data is recorded in the report.

All measurement and test data in this report was gathered from production sample serial number: RSHA250514001-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2025-05-14.)

Objective

This type approval report is prepared for *Tersus GNSS Inc.* 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 C63.10-2020, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

Measurement Uncertainty

Item		Uncertainty
AC Power Lines Conducted Emissions		3.19 dB
RF conducted test with spectrum		0.9dB
RF Output Power with Power meter		0.5dB
Radiated emission	9 kHz~150 kHz	3.8dB
	150 kHz~30 MHz	3.4dB
	30MHz~1GHz	6.11dB
	1GHz~6GHz	4.45dB
	6GHz~18GHz	5.23dB
	18GHz~40GHz	5.65dB
Occupied Bandwidth		0.5kHz
Temperature		1.0℃
Humidity		6%

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road, Kunshan, Jiangsu Province, China.

Bay Area Compliance Laboratories Corp. (Kunshan) is accredited in accordance with ISO/IEC 17025:2017 by NVLAP (Lab code: 600338-0), and the lab has been recognized as the FCC accredited lab under the KDB 974614 D01, the FCC Designation No.: CN5055.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

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

The system support 802.11a/n20/n40/ac20/ac40, the 802.11 n20/n40 were reduced since the identical parameters with 802.11ac20 and ac40.

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

802.11a/ac20 mode Channel 36, 40, 48 were tested.

802.11ac40 mode Channel 38, 46 were tested.

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

For **5725~5850 MHz** band,

802.11a/ac20 mode Channel 149, 157, 165 were tested.

802.11ac40 mode Channel 151, 159 were tested.

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

EUT Exercise Software**QRCT 3**

The worst case was performed under:

U-NII	Mode	Data rate	★Power Level		
			Low Channel	Middle Channel	High Channel
5150~5250MHz	802.11a	6Mbps	14	14	14
	802.11ac-VHT20	MCS0	14	14	14
	802.11ac-VHT40	MCS0	14	/	14
5725~5850MHz	802.11a	6Mbps	14	14	14
	802.11ac-VHT20	MCS0	14	14	14
	802.11ac-VHT40	MCS0	14	/	14

Note: The power level was declared by the applicant.

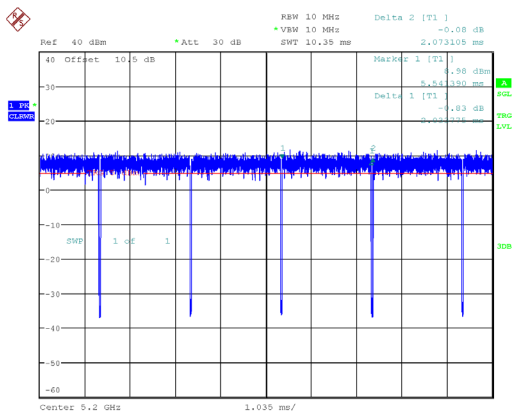
Duty Cycle:

Environmental Conditions & Test Information

Test Date:	2025-06-21
Temperature:	22.5 °C
Relative Humidity:	50 %
ATM Pressure:	100.2 kPa
Test Engineer:	Neil Zhou

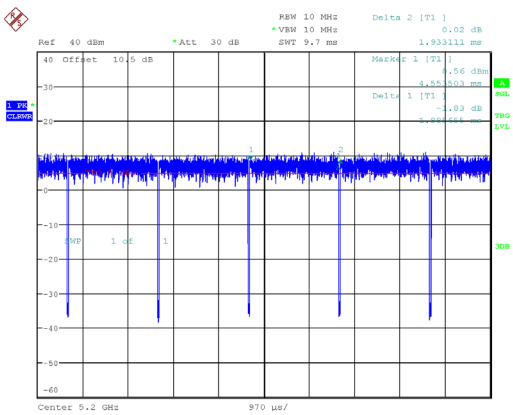
5150MHz-5250MHz Band:

802.11a mode



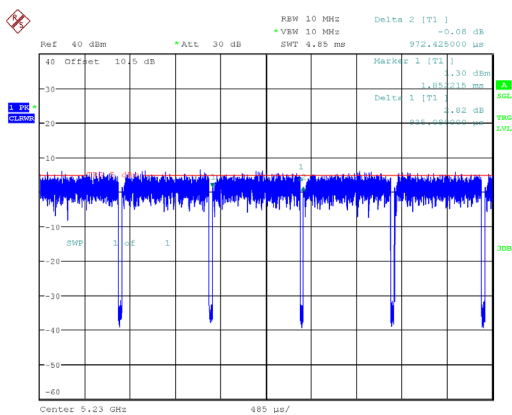
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Date: 21.JUN.2025 13:20:33

802.11ac20 mode

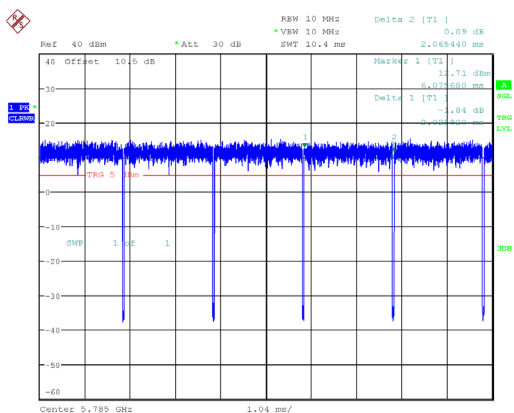


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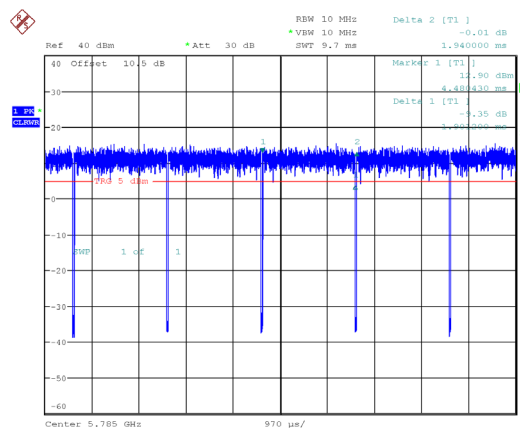
802.11ac40 mode



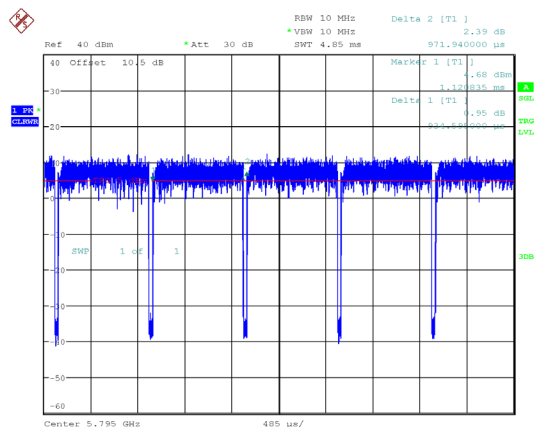
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5725MHz-5850MHz Band:**802.11a mode**

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Date: 21.JUN.2025 14:20:12

802.11ac20 mode

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Date: 21.JUN.2025 14:56:48

802.11ac40 mode

ProjectNo.:RSHA250514001 Tester:Neil Zhou
Date: 21.JUN.2025 15:32:09

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

5150MHz-5250MHz:

Mode	Test Frequency (MHz)	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor(dB)
802.11a	5200	2.034	2.073	98.12	/
802.11ac20	5200	1.886	1.933	97.57	0.11
802.11ac40	5230	0.935	0.972	96.19	0.17

5725MHz-5850MHz:

Mode	Test Frequency (MHz)	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor(dB)
802.11a	5785	2.026	2.065	98.11	/
802.11ac20	5785	1.901	1.940	97.99	0.09
802.11ac40	5795	0.935	0.972	96.19	0.17

Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

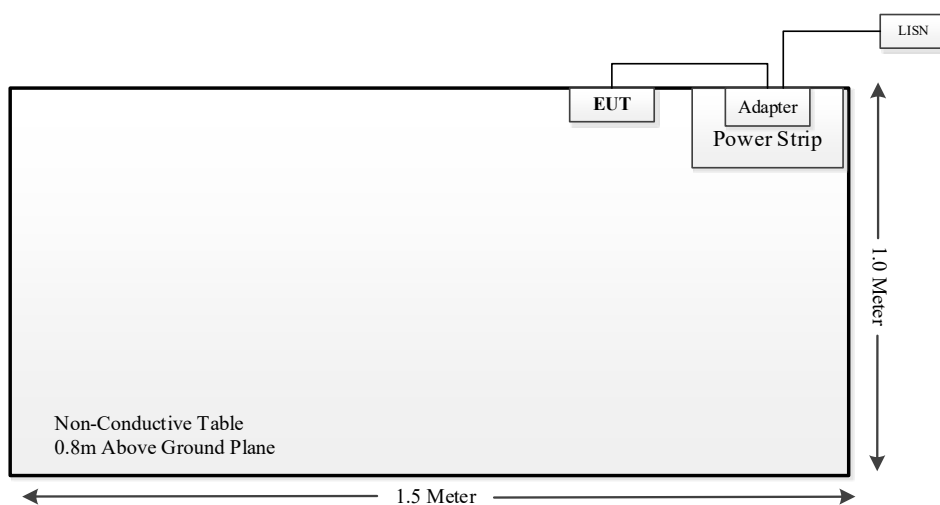
Manufacturer	Description	Model	Serial Number
/	Power Strip	/	/

External I/O Cable

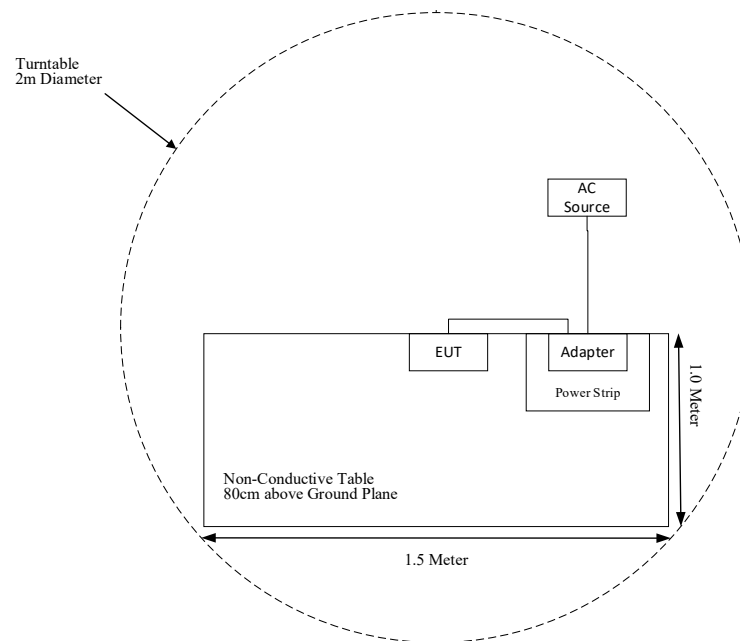
Cable Description	Length (m)	From Port	To Port
Power Cable 1	1.0	AC Source/LISN	Power Strip
Power Cable 2	1.0	Adapter	EUT

Block Diagram of Test Setup

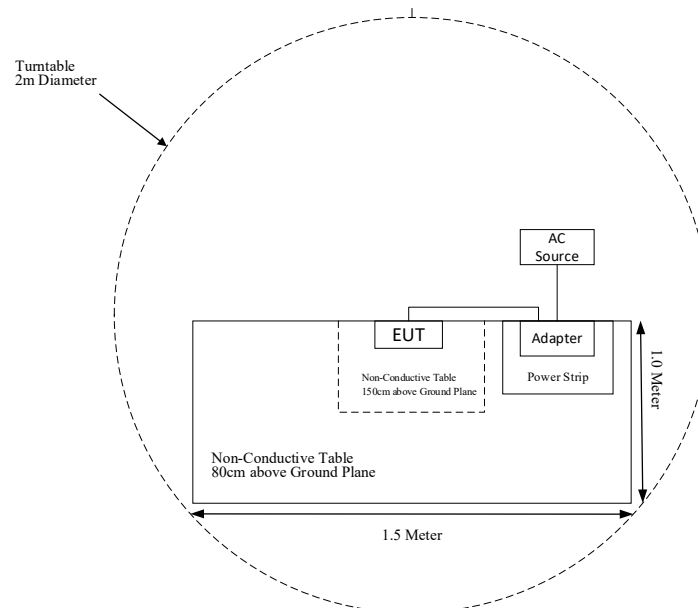
For Conducted Emissions:



For Radiated Emissions (Below 1GHz):



For Radiated Emissions (Above 1 GHz):



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)	Undesirable Emission & Restricted Bands	Compliant
§§15.407(a) & §15.407(e)	Emission Bandwidth	Compliant
§15.407(a)	Conducted Transmitter Output Power	Compliant
§15.407(a)	Power Spectral Density	Compliant
§1.1310 & §2.1091	MAXIMUM PERMISSIBLE EXPOSURE (MPE)	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test (Chamber #1)					
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2025-04-09	2026-04-08
Sunol Sciences	Broadband Antenna	JB3	A090314-1	2024-11-08	2027-11-07
Narda	6dB Attenuator	773-6	10690812-2-1	2024-11-08	2027-11-07
BACL	Active Loop Antenna	1313-1A	4041511	2024-11-22	2027-11-21
Sonoma Instrument	Pre-amplifier	310N	171205	2025-04-09	2026-04-08
Rohde & Schwarz	Auto Test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-8	008	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-9	009	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-10	010	2025-04-09	2026-04-08
Radiated Emission Test (Chamber #2)					
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2025-04-09	2026-04-08
ETS-LINDGREN	Horn Antenna	3115	9311-4159	2024-12-02	2025-12-01
ETS-LINDGREN	Horn Antenna	3116	2516	2024-12-12	2027-12-11
A.H.Systems, inc	Amplifier	PAM-0118P	512	2025-04-09	2026-04-08
SELECTOR	Amplifier	EM18G40G	060726	2025-04-09	2026-04-08
MICRO-TRONICS	Band Reject Filter	BRM50716	G059	2025-04-08	2026-04-07
Narda	Attenuator	10dB	010	2025-04-08	2026-04-07
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-6	006	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-11	011	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-12	012	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-13	013	2025-04-09	2026-04-08
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSU26	200103	2025-04-09	2026-04-08
Narda	Attenuator	10dB	010	2025-04-08	2026-04-07
Anritsu	Power Sensor	MA24418A	12621	2025-04-09	2026-04-08
XHFDZ	RG316 Coaxial Cable	SMA-316	XHF-1175	Each time	N/A

Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR	101746	2025-04-08	2026-04-07
Rohde & Schwarz	LISN	ENV216	101115	2025-04-08	2026-04-07
Audix	Test Software	e3	V9	N/A	N/A
Rohde & Schwarz	Pulse limiter	ESH3-Z2	100552	2025-04-08	2026-04-07
MICRO-COAX	Coaxial Cable	Cable-15	015	2025-04-08	2026-04-07

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

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

Applicable Standard

According to subpart §2.1091 and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

Limits for Occupational/Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E , H or S (minutes)
0.3- 3.0	614	1.63	(100)*	6
3.0 - 30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary:

Predication of MPE limit at a given distance

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

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

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

Calculation Data:

General Population/Uncontrolled

Mode	Frequency Range (MHz)	Antenna Gain		Tune-up Output Power★		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)	MPE ratio
		(dBi)	(numeric)	(dBm)	(mW)				
2.4G Wi-Fi	2412-2462	1.33	1.36	14.0	25.12	20	0.0068	1.00	0.0068
BT	2402-2480	1.33	1.36	9.0	7.94	20	0.0021	1.00	0.0021
5G Wi-Fi	5150-5250	-1.32	0.74	8.0	6.31	20	0.0009	1.00	0.0009
	5725-5850	-2.61	0.55	11.0	12.59	20	0.0014	1.00	0.0014
LTE band 2	1850-1910	1.93	1.56	22.5	177.83	20	0.0552	1.0	0.0552
LTE band 4	1710-1755	-2.87	0.52	24.5	281.84	20	0.0292	1.0	0.0292
LTE band 5	824-849	-0.03	0.99	24.5	281.84	20	0.0557	0.5493	0.1014
LTE band 7	2500-2570	0.74	1.19	23.0	199.53	20	0.0472	1.0	0.0472
LTE band 25	1850-1915	1.93	1.56	25.0	316.23	20	0.0981	1.0	0.0981
LTE band 38	2570-2620	0.74	1.19	22.5	177.83	20	0.0421	1.0	0.0421
LTE band 41	2496-2690	0.74	1.19	23.0	199.53	20	0.0472	1.0	0.0472

Occupational/Controlled

Mode	Frequency Range (MHz)	Antenna Gain		★Tune-up Output Power		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)	MPE ratio
		(dBi)	(numeric)	(dBm)	(mW)				
UHF	410-470	4.29	2.69	33.00	1995.26	20	1.0658	1.3667	0.7798

Note:

- The target output powers are all declared by the Manufacturer.
- Wi-Fi, BT, WWAN and UHF can transmit simultaneously, the worst condition is as below:

$$\sum_i \frac{S_i}{S_{Limit,i}} = 0.0068 + 0.0021 + 0.1014 + 0.7798 = 0.8901 < 1.0$$

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

FCC §15.203 – ANTENNA REQUIREMENT

Applicable Standard

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.
- c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.407, if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Antenna Connector Construction

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

Antenna Type	Frequency Range	Max. Antenna Gain	Input impedance
PCB	5150~5250 MHz	-1.32 dBi	50Ω
	5725~5850 MHz	-2.61 dBi	50Ω

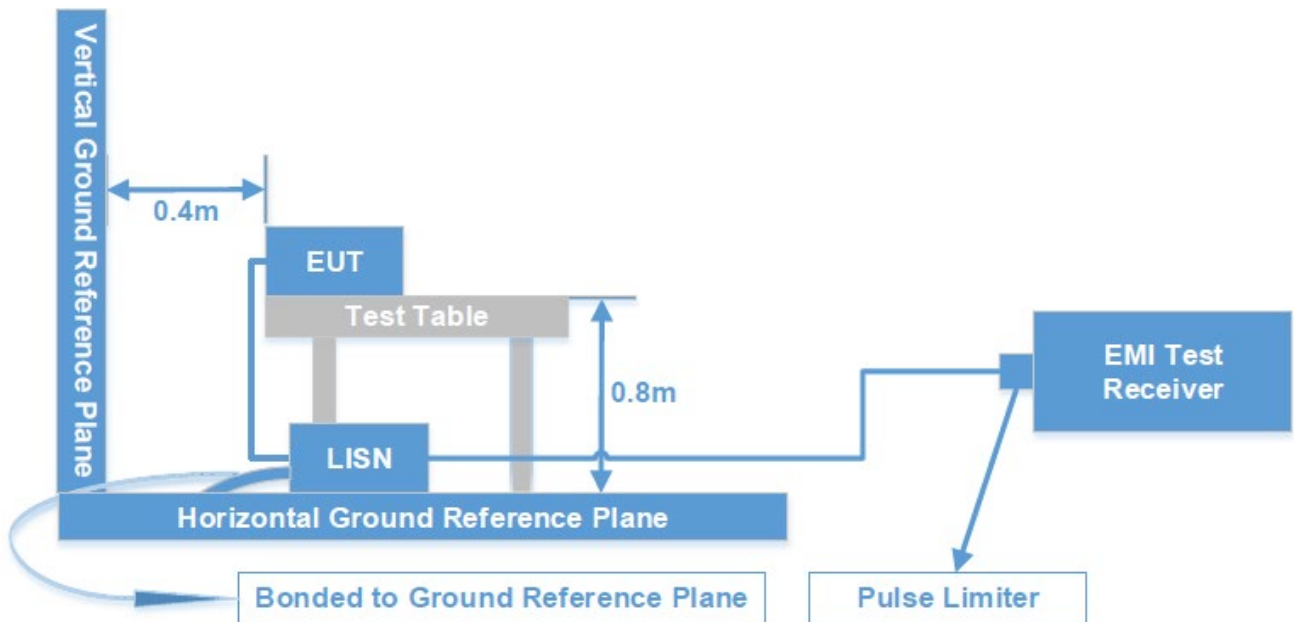
Result: Compliant.

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

Applicable Standard

FCC §15.207(a), §15.407(b) (9)

Test System Setup



The setup of EUT is according with per ANSI C63.10-2020 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

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 or adapter 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:

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

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

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

Test Results Summary

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

Test Data: See Appendix

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

Applicable Standard

FCC §15.407 (b); §15.209; §15.205;

(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

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

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

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

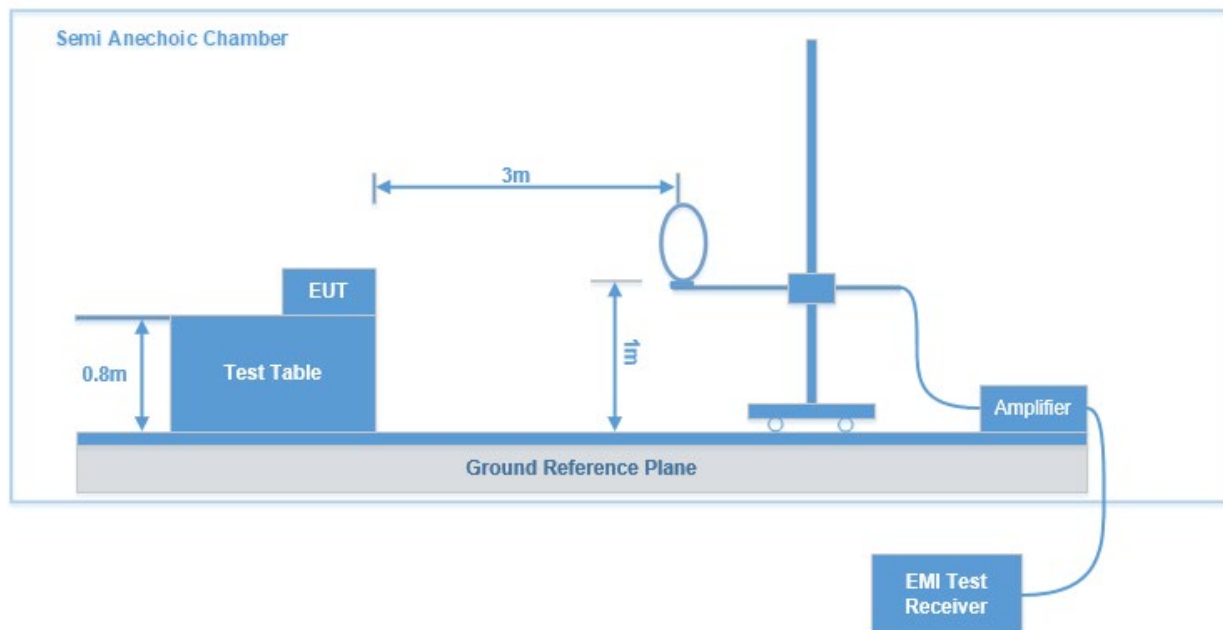
(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

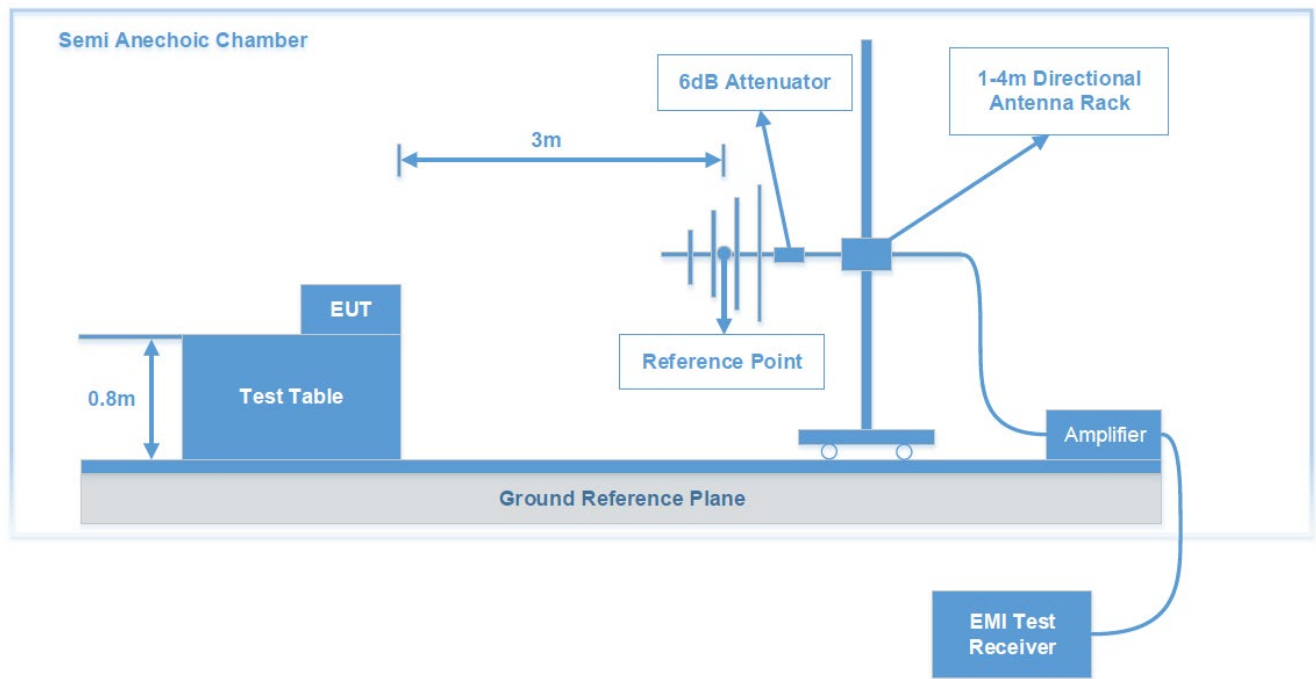
According to 789033 D02 General UNII Test Procedures New Rules v02r01, emission shall be computed as: $E [dB\mu V/m] = EIRP [dBm] + 95.2$, for $d = 3$ meters.

Test System Setup

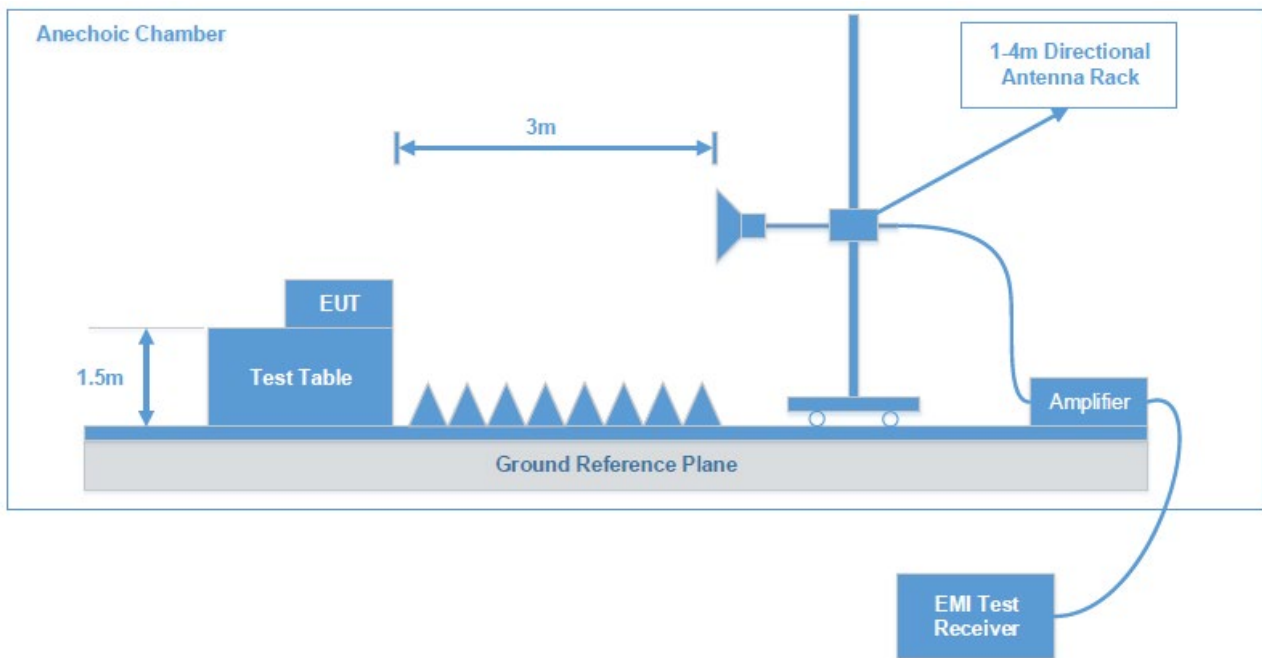
9kHz-30 MHz:



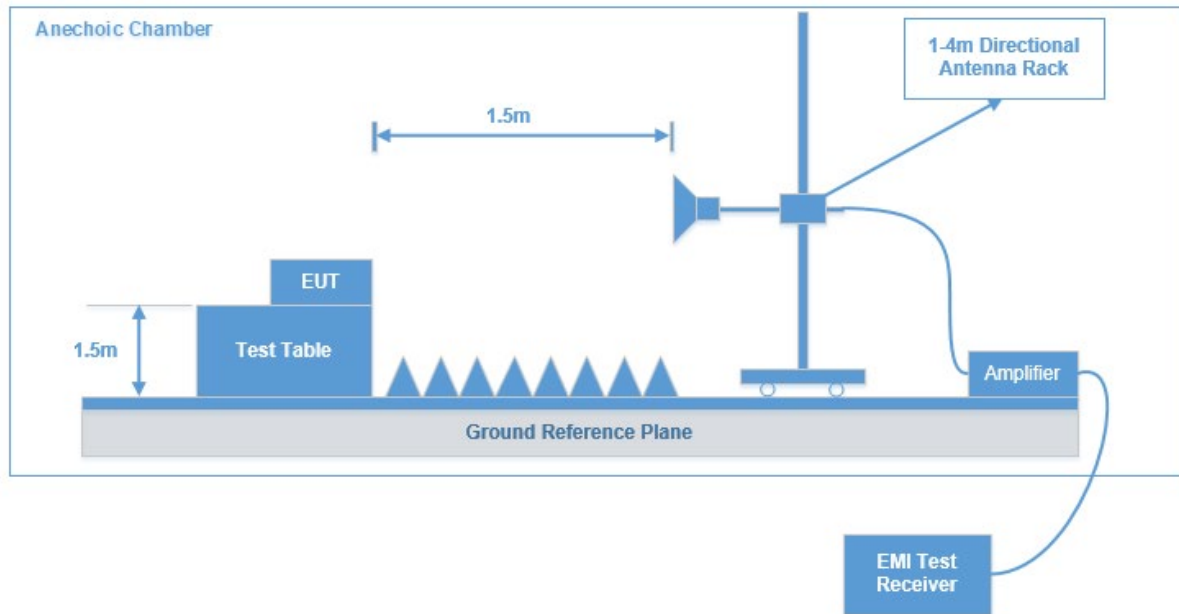
30MHz-1GHz:



1 GHz-18GHz:



18-40GHz:



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 C63.10-2020. The specification used was the FCC 15.209 and FCC 15.407 limits. The limit at 1.5m for 18-40 GHz is 80dB μ V/m (Peak) and 60dB μ V/m (Average).

The radiated emission tests were performed in the 3 meters test site, using the setup accordance with the ANSI C63.10-2020. The specification used was the FCC 15.209 and FCC 15.407 limits.

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

The spacing between the peripherals was 10 cm.

EMI Test Receiver & Spectrum Analyzer Setup

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

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

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

Test Procedure

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

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

Corrected Amplitude & Margin Calculation

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

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

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

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

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

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

Test Data: See Appendix

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

Applicable Standard

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

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

Test Procedure

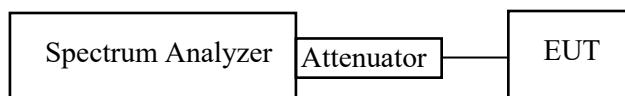
1. Emission Bandwidth (EBW)

- Set RBW = shall be in the range of 1% to 5% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = peak.
- Trace mode = max-hold.
- Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the instrument. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is in the range of 1% to 5%.

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:

- Set RBW = 100 kHz.
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Allow the trace to stabilize.
- 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.



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

Test Data: See Appendix

FCC §15.407(a) – CONDUCTED TRANSMITTER OUTPUT POWER

Applicable Standard

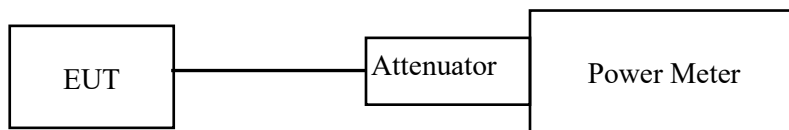
For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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

Test Procedure

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



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

Test Data: See Appendix

FCC §15.407(a) - POWER SPECTRAL DENSITY

Applicable Standard

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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

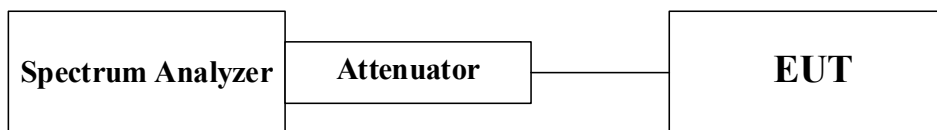
Test Procedure

The measurements are base on C63.10:2020

Duty cycle $\geq 98\%$,Method SA-1 should be applied.

Duty cycle $< 98\%$, duty cycle variations are less than $\pm 2\%$,Method SA-2 should be applied.

Duty cycle $< 98\%$, duty cycle variations exceed $\pm 2\%$,Method SA-3 should be applied.



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

Test Data: See Appendix

APPENDIX - TEST DATA

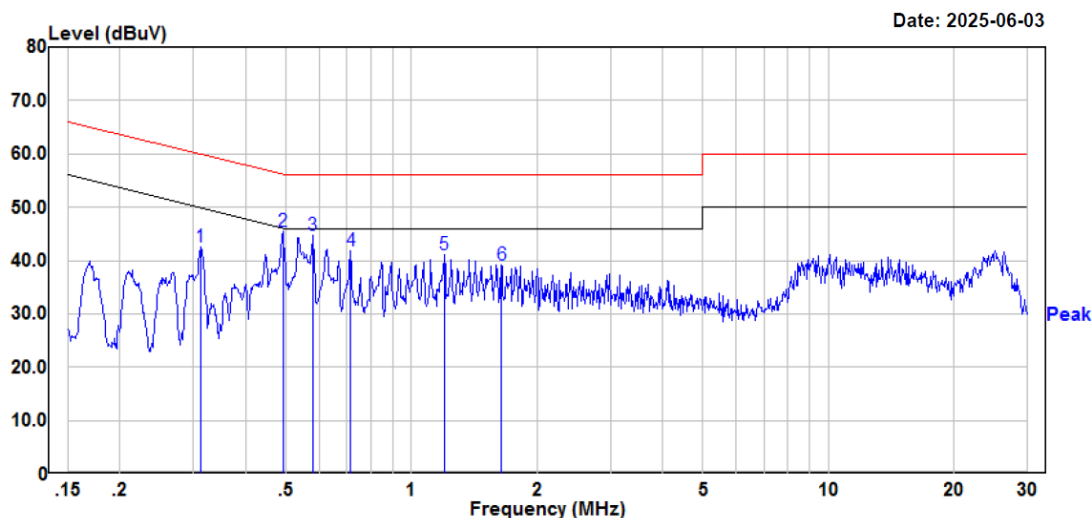
CONDUCTED EMISSIONS

Environmental Conditions & Test Information

Test Date:	2025-06-03.
Temperature:	22.4 °C
Relative Humidity:	51 %
ATM Pressure:	100.8 kPa
Test Result:	Pass
Test Engineer:	Myles Miao

EUT operation mode: Transmitting in 802.11ac40 mode 5755MHz (maximum output power)

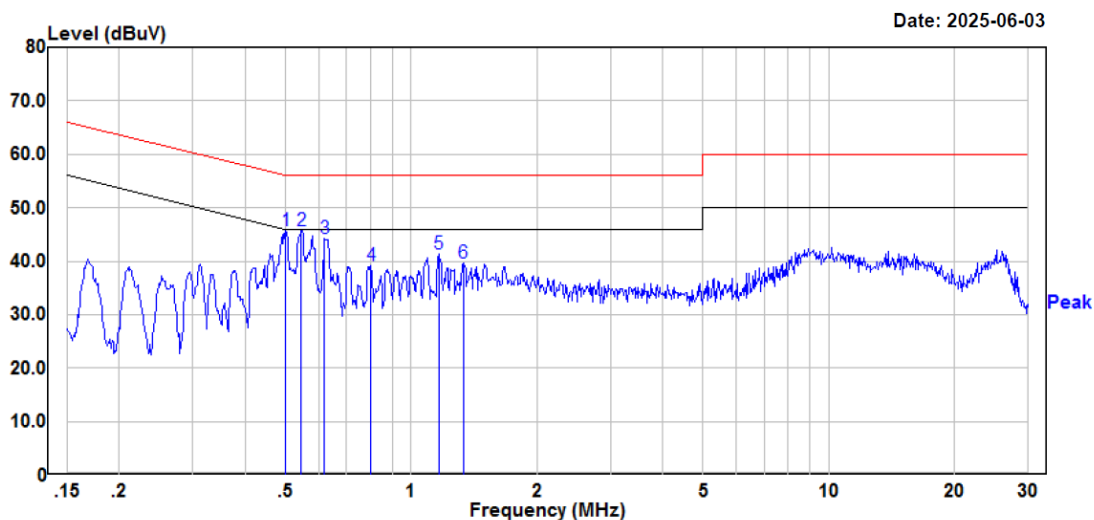
AC 120V/60 Hz, Line



Site : CE
Condition : limit\FCC PART 15.207
Project No. : RSHA250514001
Model : TS21
Phase : L
Voltage : 120V/60Hz
Mode : 5G WIFI
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 22.4℃
Humidity : 51%
Atmospheric pressure: 100.8KPa
Test Engineer : Myles Miao

	Read		Limit	Over	
	Freq	Level	Factor	Level	Line
	MHz	dBuV	dB	dBuV	dB
1	0.312	22.22	20.23	42.45	59.91
2	0.491	25.34	20.19	45.53	56.15
3	0.579	24.59	20.23	44.82	56.00
4	0.714	21.42	20.29	41.71	56.00
5	1.199	21.03	20.11	41.14	56.00
6	1.641	19.08	20.13	39.21	56.00

AC 120V/60 Hz, Neutral



Site : CE
Condition : limit\FCC PART 15.207
: DET:Peak
Project No. : RSHA250514001
Model : TS21
Phase : N
Voltage : 120V/60Hz
Mode : 5G WIFI
Test Equipment : ENV216,ESR3
Receiver Setting : RBW: 9 kHz,Sweep Time: Auto
Temperature : 22.4℃
Humidity : 51%
Atmospheric pressure: 100.8KPa
Test Engineer : Myles Miao

	Read		Limit	Over	
	Freq	Level	Factor	Level	Line
	MHz	dBuV	dB	dBuV	dB
1	0.501	25.50	20.17	45.67	56.00 -10.33 Peak
2	0.545	25.45	20.21	45.66	56.00 -10.34 Peak
3	0.621	23.87	20.25	44.12	56.00 -11.88 Peak
4	0.801	18.87	20.22	39.09	56.00 -16.91 Peak
5	1.163	21.15	20.10	41.25	56.00 -14.75 Peak
6	1.331	19.54	20.12	39.66	56.00 -16.34 Peak

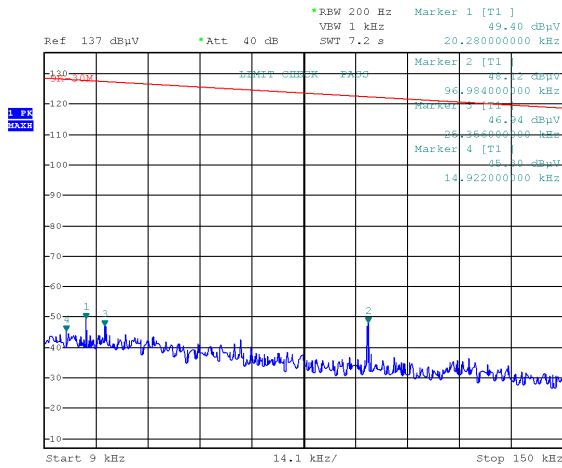
TRANSMITTER UNWANTED EMISSIONS & RESTRICTED FREQUENCY BANDS**Environmental Conditions & Test Information**

Test Item:	SPURIOUS EMISSIONS			
	9kHz – 30MHz	30MHz - 1GHz	1 GHz - 18 GHz	18 GHz - 25 GHz
Test Date:	2025-06-16	2025-05-29	2025-06-03 to 2025-06-04	2025-06-20
Temperature:	23.4℃	24.6 ℃	24.4-22.6 ℃	23.1 ℃
Relative Humidity:	48%	47 %	46-47 %	51 %
ATM Pressure:	101.2 kPa	101.6 kPa	100.8-100.9 kPa	100.7 kPa
Test Result:	Pass	Pass	Pass	Pass
Test Engineer:	Jonathan	Jonathan	Danny Zhu	Hugh Wu

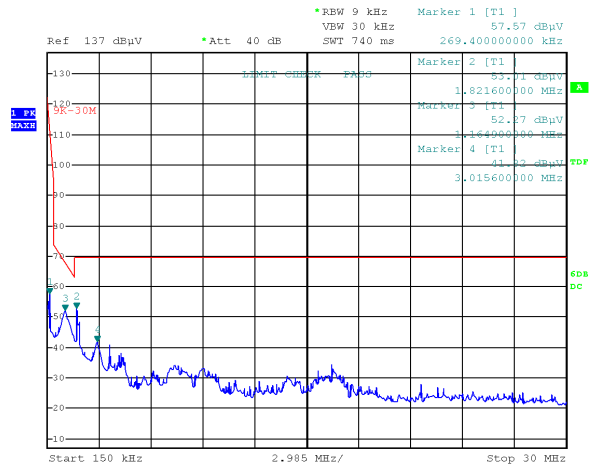
After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

**9 kHz-30 MHz: Transmitting in 802.11ac40 mode 5755MHz (maximum output power)
Parallel(worst case)**

9kHz-150kHz



150kHz-30MHz



Project No.RSHA250514001
Date: 16.JUN.2025 20:42:02

Tester:Jonathan

Project No.RSHA250514001
Date: 16.JUN.2025 20:45:13

Tester:Jonathan

9kHz-150kHz

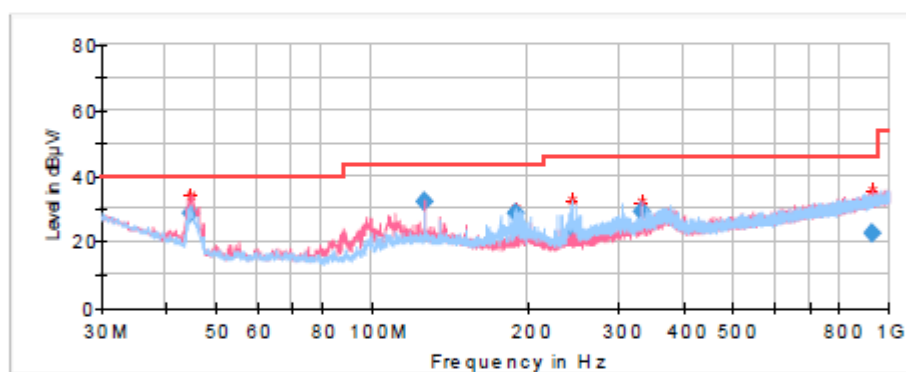
Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.014922	45.30	PK	-0.53	124.13	78.83
0.020280	49.40	PK	-0.56	121.46	72.06
0.025356	46.94	PK	-0.59	119.52	72.58
0.096984	48.12	PK	-8.92	107.87	59.75

150kHz-30MHz

Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.269400	57.57	PK	-16.41	99.00	41.43
1.164900	52.27	PK	-28.15	66.28	14.01
1.821600	53.01	PK	-30.32	69.54	16.53
3.015600	41.82	PK	-31.42	69.54	27.72

30MHz-1GHz: Transmitting in 802.11ac40 mode 5755MHz (maximum output power)**Common Information**

Project No: RSHA250514001
EUT Model: TS21
Test Mode: Transmitting in 802.11ac40 mode low channel
Standard: FCC Part 15.205 & FCC Part 15.209 & FCC Part 15.407
Test Equipment: ESCI, JB3, 310N
Receiver Setting: RBW: 100 kHz, VBW: 300 kHz, Sweep Time: Auto
Temperature: 24.6°C
Humidity: 47%
Barometric Pressure: 101.6kPa
Test Engineer: Jonathan
Test Date: 2025/5/29

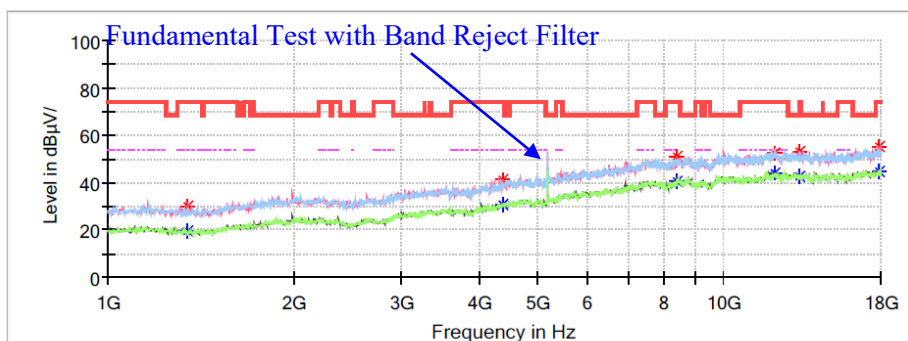
**Final Result**

Frequency (MHz)	QuasiPeak (dB μV/m)	Limit (dB μV/m)	Margin (dB)	Pol	Corr. (dB/m)
44.792500	28.80	40.00	11.20	V	-14.2
126.636250	32.30	43.50	11.20	V	-11.0
189.928750	28.56	43.50	14.94	H	-12.6
244.248750	23.29	46.00	22.71	H	-12.3
332.640000	29.28	46.00	16.72	V	-9.6
927.492500	22.78	46.00	23.22	V	1.5

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

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11a mode Low Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 22.6°C
Humidity: 46%
Atmospheric Pressure: 100.8kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/3

Full Spectrum

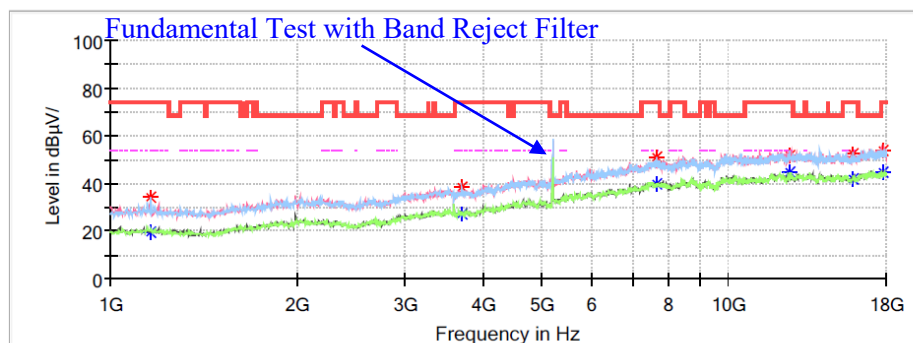
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1343.400000	29.74	---	74.00	44.26	V	-15.0
1343.400000	---	19.43	54.00	34.57	V	-15.0
4379.600000	41.10	---	74.00	32.90	V	-5.3
4379.600000	---	30.63	54.00	23.37	V	-5.3
8415.400000	---	40.57	54.00	13.43	V	4.1
8415.400000	51.32	---	74.00	22.68	V	4.1
12128.200000	52.19	---	74.00	21.81	H	8.1
12128.200000	---	44.30	54.00	9.70	H	8.1
13287.600000	---	42.97	54.00	11.03	H	8.6
13287.600000	53.32	---	74.00	20.68	H	8.6
17908.200000	---	44.66	54.00	9.34	V	11.5
17908.200000	55.44	---	74.00	18.56	V	11.5

Middle Channel: 5200MHz**Common Information**

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11a mode Middle Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 22.6°C
Humidity: 46%
Atmospheric Pressure: 100.8kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/3

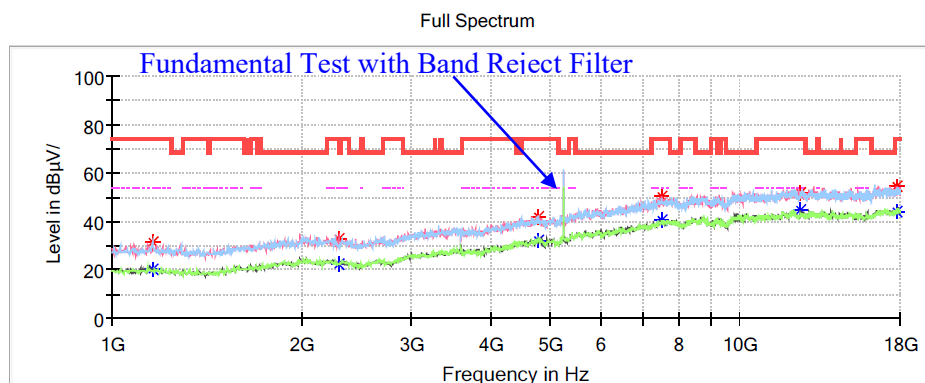
Full Spectrum

**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)
1163.200000	---	19.91	54.00	34.09	V	-15.4
1163.200000	34.29	---	74.00	39.71	V	-15.4
3699.600000	---	27.00	54.00	27.00	V	-7.0
3699.600000	38.31	---	74.00	35.69	V	-7.0
7664.000000	50.89	---	74.00	23.11	H	2.9
7664.000000	---	40.01	54.00	13.99	H	2.9
12543.000000	51.58	---	74.00	22.42	V	8.7
12543.000000	---	44.64	54.00	9.36	V	8.7
15905.600000	52.71	---	74.00	21.29	H	8.5
15905.600000	---	42.24	54.00	11.76	H	8.5
17819.800000	54.14	---	74.00	19.86	V	11.3
17819.800000	---	44.75	54.00	9.25	V	11.3

High Channel: 5240MHz**Common Information**

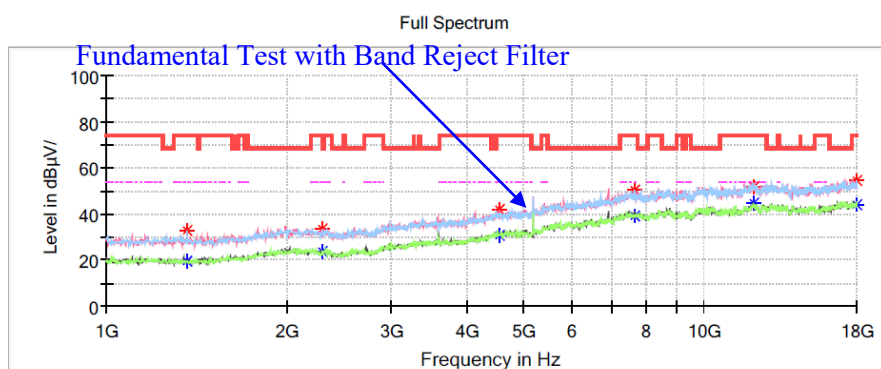
Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11a mode High Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 22.6℃
Humidity: 46%
Atmospheric Pressure: 100.8kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/3

**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)
1159.800000	---	20.28	54.00	33.72	V	-15.4
1159.800000	31.64	---	74.00	42.36	V	-15.4
2292.000000	---	22.32	54.00	31.68	V	-10.3
2292.000000	32.72	---	74.00	41.28	V	-10.3
4760.400000	42.22	---	74.00	31.78	H	-4.2
4760.400000	---	32.31	54.00	21.69	H	-4.2
7494.000000	50.63	---	74.00	23.37	V	2.9
7494.000000	---	40.31	54.00	13.69	V	2.9
12505.600000	51.59	---	74.00	22.41	V	8.7
12505.600000	---	44.94	54.00	9.06	V	8.7
17816.400000	---	44.31	54.00	9.69	V	11.3
17816.400000	54.24	---	74.00	19.76	V	11.3

802.11ac20 Mode:**Low Channel: 5180MHz****Common Information**

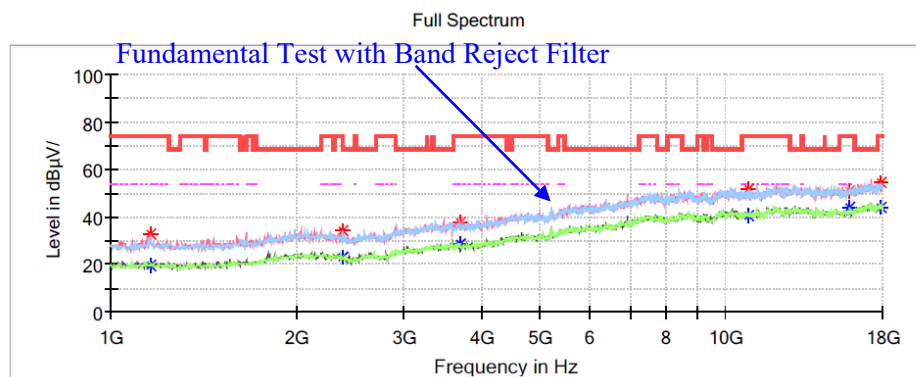
Project No.: RSHA250514001
 EUT Model: TS21
 Test Mode: 5G WIFI 802.11ac20 mode Low Channel
 Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
 Test Equipment: ESU40,3115,PAM-0118P
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Temperature: 22.6°C
 Humidity: 46%
 Atmospheric Pressure: 100.8kPa
 Test Engineer: Danny Zhu
 Test Date: 2025/6/3

**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)
1363.800000	32.62	---	74.00	41.38	H	-15.0
1363.800000	---	19.90	54.00	34.10	H	-15.0
2295.400000	---	23.54	54.00	30.46	V	-10.3
2295.400000	33.33	---	74.00	40.67	V	-10.3
4546.200000	---	30.71	54.00	23.29	V	-4.8
4546.200000	42.05	---	74.00	31.95	V	-4.8
7626.600000	50.17	---	74.00	23.83	H	2.9
7626.600000	---	38.94	54.00	15.06	H	2.9
12067.000000	51.90	---	74.00	22.10	H	8.1
12067.000000	---	44.73	54.00	9.27	H	8.1
17959.200000	---	44.20	54.00	9.80	V	11.7
17959.200000	54.59	---	74.00	19.41	V	11.7

Middle Channel: 5200MHz**Common Information**

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11ac20 mode Middle Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 22.6℃
Humidity: 46%
Atmospheric Pressure: 100.8kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/3

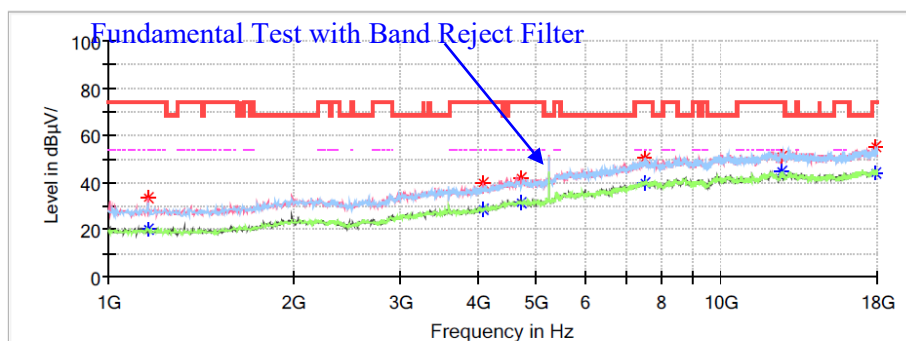
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1159.800000	32.59	---	74.00	41.41	V	-15.4
1159.800000	---	19.80	54.00	34.20	V	-15.4
2380.400000	---	23.32	54.00	30.68	V	-10.2
2380.400000	34.40	---	74.00	39.60	V	-10.2
3703.000000	---	29.00	54.00	25.00	H	-7.0
3703.000000	37.78	---	74.00	36.22	H	-7.0
10907.600000	---	40.90	54.00	13.10	H	6.3
10907.600000	51.51	---	74.00	22.49	H	6.3
15926.000000	---	44.38	54.00	9.62	H	8.5
15926.000000	51.32	---	74.00	22.68	H	8.5
17867.400000	54.63	---	74.00	19.37	V	11.4
17867.400000	---	44.35	54.00	9.65	V	11.4

High Channel: 5240MHz**Common Information**

Project No.: RSHA250514001
 EUT Model: TS21
 Test Mode: 5G WIFI 802.11ac20 mode High Channel
 Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
 Test Equipment: ESU40,3115,PAM-0118P
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Temperature: 22.6°C
 Humidity: 46%
 Atmospheric Pressure: 100.8kPa
 Test Engineer: Danny Zhu
 Test Date: 2025/6/3

Full Spectrum

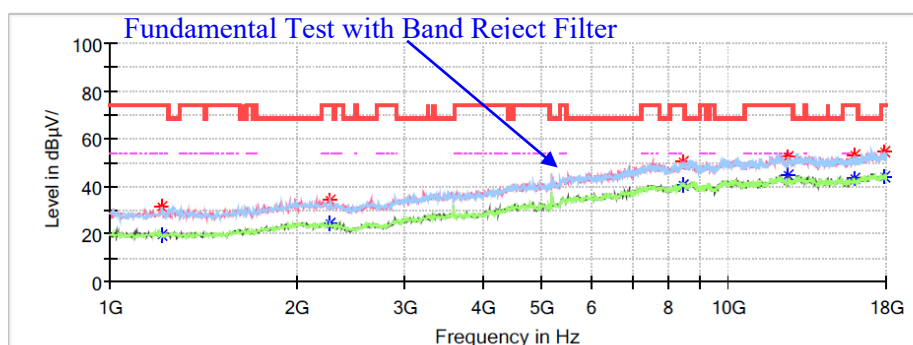
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1159.800000	---	20.38	54.00	33.62	H	-15.4
1159.800000	33.33	---	74.00	40.67	H	-15.4
4083.800000	39.66	---	74.00	34.34	V	-6.2
4083.800000	---	28.65	54.00	25.35	V	-6.2
4719.600000	---	31.50	54.00	22.50	V	-4.3
4719.600000	42.30	---	74.00	31.70	V	-4.3
7517.800000	---	40.09	54.00	13.91	H	2.9
7517.800000	50.04	---	74.00	23.96	H	2.9
12529.400000	---	44.65	54.00	9.35	H	8.7
12529.400000	51.12	---	74.00	22.88	H	8.7
17884.400000	---	43.91	54.00	10.09	V	11.5
17884.400000	55.23	---	74.00	18.77	V	11.5

802.11ac40 Mode:**Channel: 5190MHz****Common Information**

Project No.: RSHA250514001
 EUT Model: TS21
 Test Mode: 5G WIFI 802.11ac40 mode Low Channel
 Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
 Test Equipment: ESU40,3115,PAM-0118P
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Temperature: 22.6°C
 Humidity: 46%
 Atmospheric Pressure: 100.8kPa
 Test Engineer: Danny Zhu
 Test Date: 2025/6/3

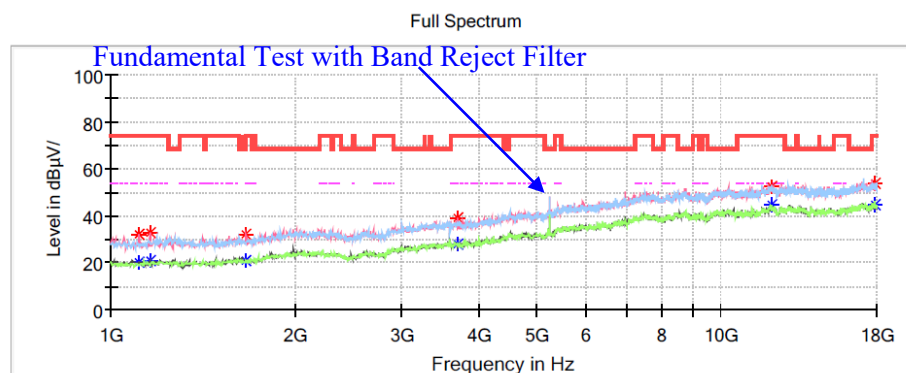
Full Spectrum

**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)
1214.200000	---	19.88	54.00	34.12	V	-15.3
1214.200000	31.22	---	74.00	42.78	V	-15.3
2271.600000	---	24.23	54.00	29.77	H	-10.3
2271.600000	34.35	---	74.00	39.65	H	-10.3
8425.600000	---	40.74	54.00	13.26	V	4.2
8425.600000	50.65	---	74.00	23.35	V	4.2
12502.200000	---	44.83	54.00	9.17	V	8.7
12502.200000	52.25	---	74.00	21.75	V	8.7
15973.600000	53.17	---	74.00	20.83	H	8.5
15973.600000	---	43.56	54.00	10.44	H	8.5
17894.600000	---	43.92	54.00	10.08	H	11.5
17894.600000	54.74	---	74.00	19.26	H	11.5

Channel: 5230MHz**Common Information**

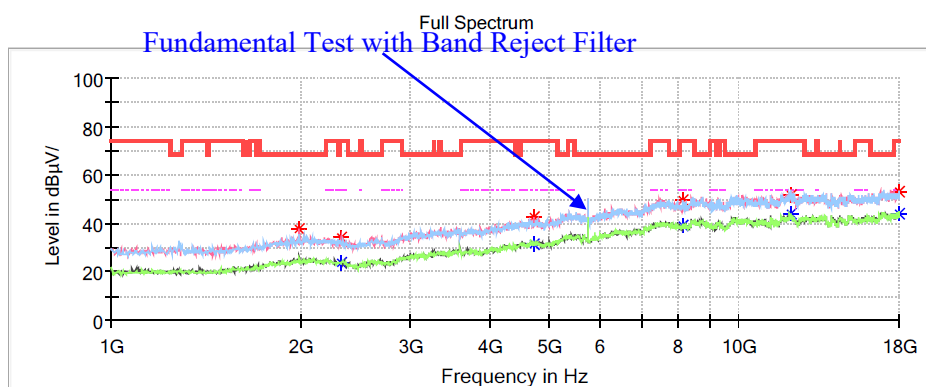
Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11ac40 mode High Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 22.6°C
Humidity: 46%
Atmospheric Pressure: 100.8kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/3

**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)
1112.200000	32.14	---	74.00	41.86	V	-15.5
1112.200000	---	20.09	54.00	33.91	V	-15.5
1159.800000	---	20.72	54.00	33.28	V	-15.4
1159.800000	32.73	---	74.00	41.27	V	-15.4
1666.400000	32.04	---	74.00	41.96	H	-13.3
1666.400000	---	21.06	54.00	32.94	H	-13.3
3699.600000	---	27.66	54.00	26.34	V	-7.0
3699.600000	39.32	---	74.00	34.68	V	-7.0
12073.800000	---	44.42	54.00	9.58	H	8.1
12073.800000	52.31	---	74.00	21.69	H	8.1
17938.800000	---	44.59	54.00	9.41	V	11.6
17938.800000	53.79	---	74.00	20.21	V	11.6

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

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11a mode Low Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.4℃
Humidity: 47%
Atmospheric Pressure: 100.9kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/4

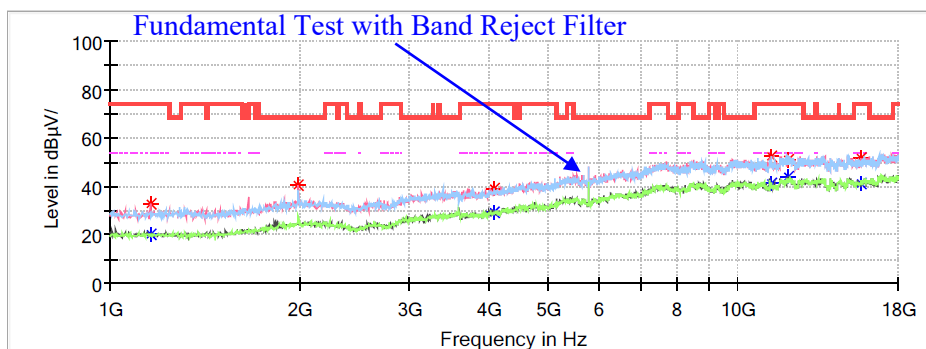
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1989.400000	37.89	---	68.20	30.31	V	-10.6
2319.200000	34.41	---	74.00	39.59	V	-10.3
2319.200000	---	23.86	54.00	30.14	V	-10.3
4709.400000	---	31.55	54.00	22.45	H	-4.3
4709.400000	42.48	---	74.00	31.52	H	-4.3
8146.800000	---	38.90	54.00	15.10	V	3.3
8146.800000	49.41	---	74.00	24.59	V	3.3
12094.200000	---	44.12	54.00	9.88	H	8.1
12094.200000	51.77	---	74.00	22.23	H	8.1
17969.400000	---	43.87	54.00	10.13	V	11.7
17969.400000	53.06	---	74.00	20.94	V	11.7

Middle Channel: 5785MHz**Common Information**

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11a mode Middle Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.4°C
Humidity: 47%
Atmospheric Pressure: 100.9kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/4

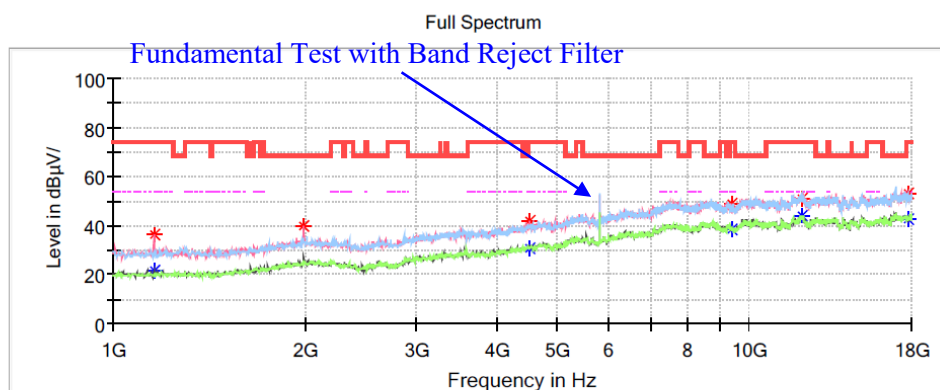
Full Spectrum

**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)
1159.800000	---	20.26	54.00	33.74	V	-15.4
1159.800000	32.94	---	74.00	41.06	V	-15.4
1996.200000	40.52	---	68.20	27.68	V	-10.5
4083.800000	39.17	---	74.00	34.83	V	-6.2
4083.800000	---	29.56	54.00	24.44	V	-6.2
11274.800000	---	41.43	54.00	12.57	H	7.1
11274.800000	52.74	---	74.00	21.26	H	7.1
12056.800000	---	43.98	54.00	10.02	V	8.0
12056.800000	51.32	---	74.00	22.68	V	8.0
15671.000000	---	41.20	54.00	12.80	H	8.7
15671.000000	51.46	---	74.00	22.54	H	8.7

High Channel: 5825MHz**Common Information**

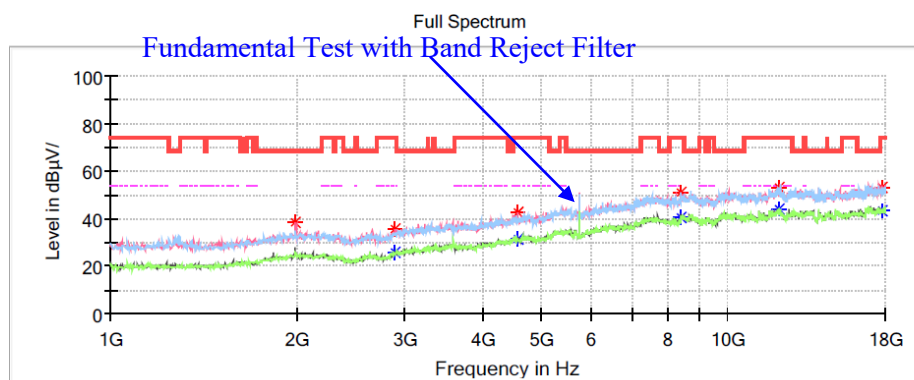
Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11a mode High Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.4°C
Humidity: 47%
Atmospheric Pressure: 100.9kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/4

**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)
1159.800000	---	21.34	54.00	32.66	V	-15.4
1159.800000	36.46	---	74.00	37.54	V	-15.4
1989.400000	40.21	---	68.20	27.99	V	-10.6
4512.200000	41.69	---	74.00	32.31	V	-4.9
4512.200000	---	31.09	54.00	22.91	V	-4.9
9384.400000	49.06	---	74.00	24.94	V	4.5
9384.400000	---	38.69	54.00	15.31	V	4.5
12073.800000	50.93	---	74.00	23.07	H	8.1
12073.800000	---	44.08	54.00	9.92	H	8.1
17802.800000	53.39	---	74.00	20.61	H	11.2
17802.800000	---	42.89	54.00	11.11	H	11.2

802.11ac20 Mode:**Low Channel: 5745MHz****Common Information**

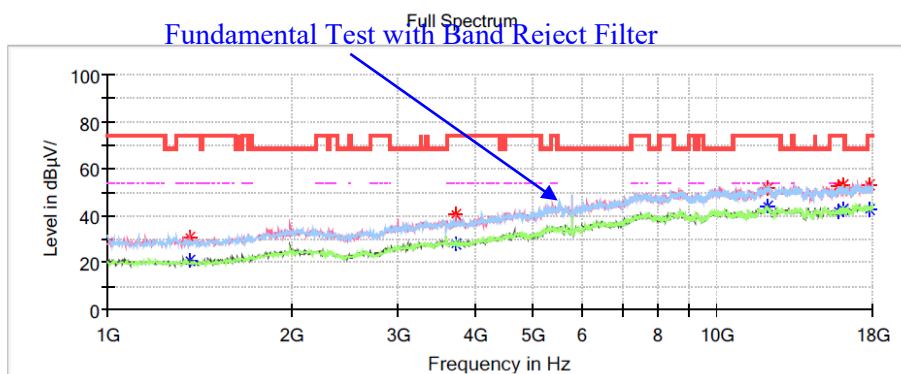
Project No.:	RSHA250514001
EUT Model:	TS21
Test Mode:	5G WIFI 802.11ac20 mode Low Channel
Standard:	FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.4°C
Humidity:	47%
Atmospheric Pressure:	100.9kPa
Test Engineer:	Danny Zhu
Test Date:	2025/6/4

**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1989.400000	38.40	---	68.20	29.80	V	-10.6
2890.400000	---	25.99	54.00	28.01	V	-9.3
2890.400000	35.64	---	74.00	38.36	V	-9.3
4576.800000	42.34	---	74.00	31.66	V	-4.7
4576.800000	---	31.76	54.00	22.24	V	-4.7
8401.800000	50.86	---	74.00	23.14	H	4.1
8401.800000	---	40.54	54.00	13.46	H	4.1
12094.200000	52.95	---	74.00	21.05	H	8.1
12094.200000	---	44.27	54.00	9.73	H	8.1
17738.200000	---	43.46	54.00	10.54	V	11.1
17738.200000	53.37	---	74.00	20.63	V	11.1

Middle Channel: 5785MHz**Common Information**

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11ac20 mode Middle Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.4℃
Humidity: 47%
Atmospheric Pressure: 100.9kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/4

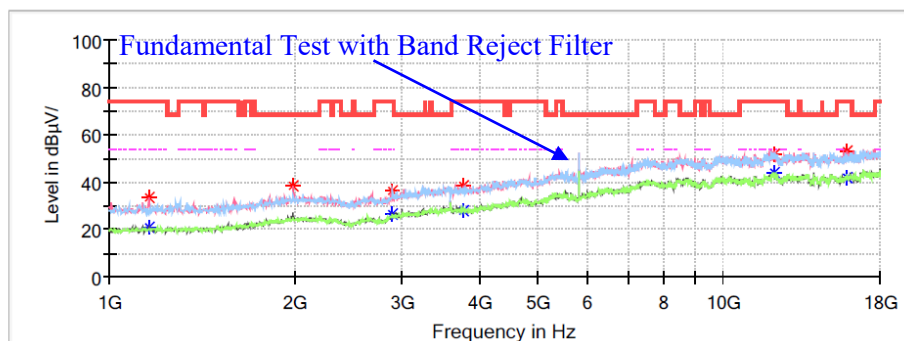
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1367.200000	---	20.74	54.00	33.26	V	-15.0
1367.200000	30.97	---	74.00	43.03	V	-15.0
3716.600000	40.29	---	74.00	33.71	V	-6.9
3716.600000	---	27.74	54.00	26.26	V	-6.9
12084.000000	---	44.00	54.00	10.00	V	8.1
12084.000000	51.59	---	74.00	22.41	V	8.1
15844.400000	52.50	---	74.00	21.50	H	8.6
15844.400000	---	41.81	54.00	12.19	H	8.6
16136.800000	---	42.94	54.00	11.06	V	8.8
16136.800000	52.98	---	74.00	21.02	V	8.8
17785.800000	---	42.97	54.00	11.03	V	11.2
17785.800000	53.27	---	74.00	20.73	V	11.2

High Channel: 5825MHz**Common Information**

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11ac20 mode High Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.4℃
Humidity: 47%
Atmospheric Pressure: 100.9kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/4

Full Spectrum

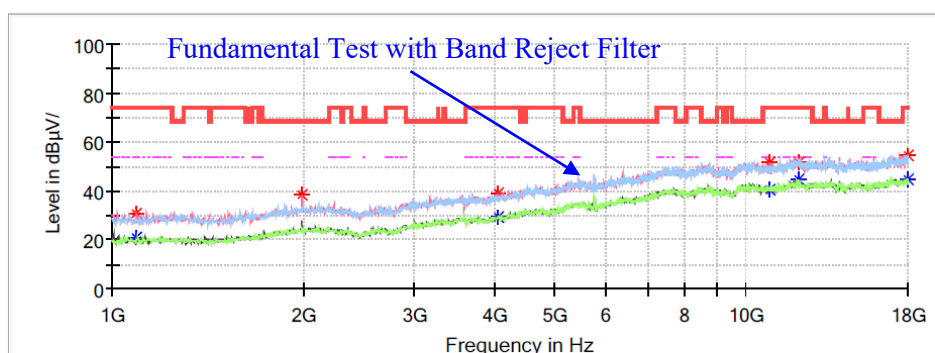
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1159.800000	33.53	---	74.00	40.47	V	-15.4
1159.800000	---	21.23	54.00	32.77	V	-15.4
1992.800000	38.78	---	68.20	29.42	V	-10.6
2893.800000	36.21	---	74.00	37.79	V	-9.3
2893.800000	---	26.63	54.00	27.37	V	-9.3
3774.400000	38.76	---	74.00	35.24	V	-6.8
3774.400000	---	28.27	54.00	25.73	V	-6.8
12097.600000	---	44.16	54.00	9.84	H	8.1
12097.600000	51.41	---	74.00	22.59	H	8.1
15881.800000	---	42.06	54.00	11.94	V	8.6
15881.800000	53.22	---	74.00	20.78	V	8.6

802.11ac40 Mode:**Channel: 5755MHz****Common Information**

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11ac40 mode Low Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.4℃
Humidity: 47%
Atmospheric Pressure: 100.9kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/4

Full Spectrum

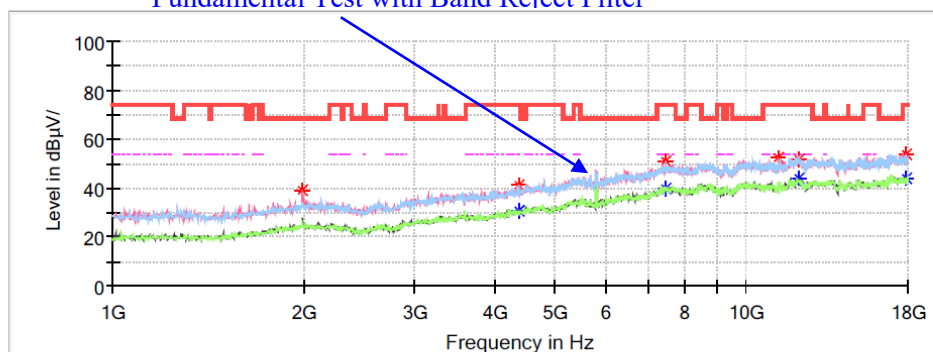
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1091.800000	---	20.67	54.00	33.33	V	-15.5
1091.800000	30.76	---	74.00	43.24	V	-15.5
1992.800000	38.75	---	68.20	29.45	V	-10.6
4060.000000	---	29.31	54.00	24.69	V	-6.3
4060.000000	39.11	---	74.00	34.89	V	-6.3
10904.200000	---	40.82	54.00	13.18	H	6.3
10904.200000	51.56	---	74.00	22.44	H	6.3
12090.800000	52.08	---	74.00	21.92	V	8.1
12090.800000	---	44.49	54.00	9.51	V	8.1
18000.000000	---	44.54	54.00	9.46	H	11.8
18000.000000	54.43	---	74.00	19.57	H	11.8

Channel: 5795MHz**Common Information**

Project No.: RSHA250514001
 EUT Model: TS21
 Test Mode: 5G WIFI 802.11ac40 mode High Channel
 Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
 Test Equipment: ESU40,3115,PAM-0118P
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
 Temperature: 24.4℃
 Humidity: 47%
 Atmospheric Pressure: 100.9kPa
 Test Engineer: Danny Zhu
 Test Date: 2025/6/4

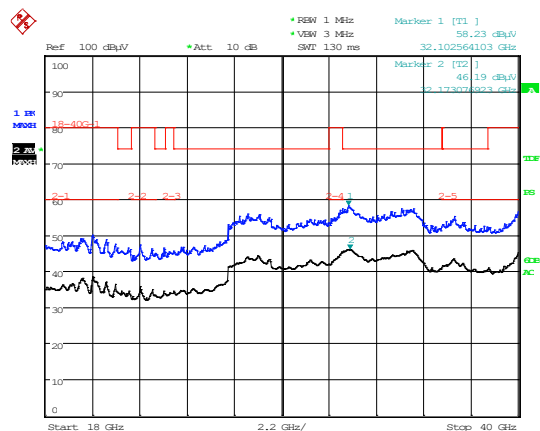
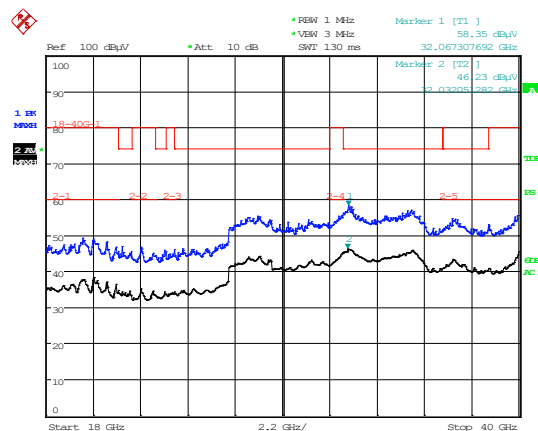
Full Spectrum
Fundamental Test with Band Reject Filter

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1996.200000	39.35	---	68.20	28.85	V	-10.5
4386.400000	---	30.61	54.00	23.39	V	-5.3
4386.400000	41.44	---	74.00	32.56	V	-5.3
7449.800000	---	39.52	54.00	14.48	V	2.8
7449.800000	51.20	---	74.00	22.80	V	2.8
11210.200000	52.29	---	74.00	21.71	V	6.9
12077.200000	---	44.06	54.00	9.94	V	8.1
12077.200000	51.56	---	74.00	22.44	V	8.1
17925.200000	---	43.73	54.00	10.27	H	11.6
17925.200000	53.54	---	74.00	20.46	H	11.6

18GHz-40GHz:

Pre-scan with 802.11a, 802.11ac20, 802.11ac40 modes of operation in the X,Y and Z axes of orientation, the worst case **802.11ac40 mode (5755MHz)** was recorded

Horizontal**Vertical**

Project No :RSHA250514001 Tester :Rugh Wu
Date: 20.JUN.2025 12:34:25

Project No :RSHA250514001 Tester :Rugh Wu
Date: 20.JUN.2025 13:05:33

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

Frequency (GHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
32.03	---	46.23	74.2	27.97	V	23.17
32.07	58.35	---	74.2	15.85	V	23.21
32.17	---	46.19	74.2	28.01	H	23.31
32.10	58.23	---	74.2	15.97	H	23.24

Restricted Bands Emissions Test (5150-5250MHz Band):

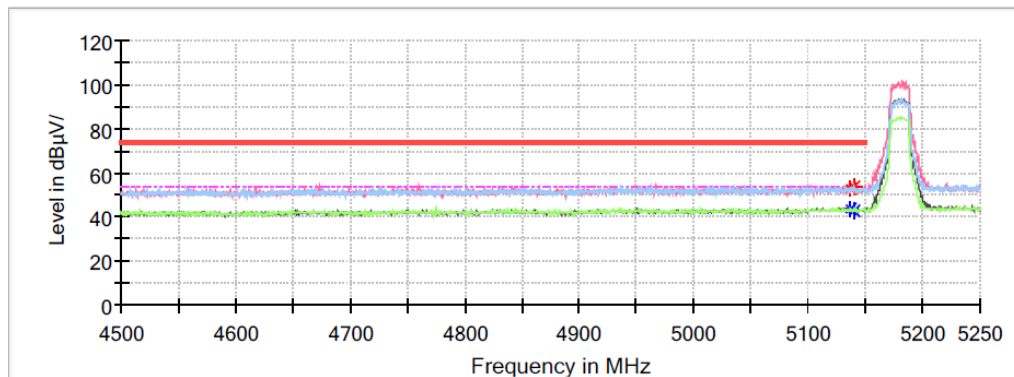
Note:

1. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
2. Corrected Amplitude = Corrected Factor + Reading
3. Margin = Limit - Corrected. Amplitude

802.11a Mode:**Common Information**

Project No.:	RSHA250514001
EUT Model:	TS21
Test Mode:	5G WIFI 802.11a mode Low Channel
Standard:	FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	22.6℃
Humidity:	46%
Atmospheric Pressure:	100.8kPa
Test Engineer:	Danny Zhu
Test Date:	2025/6/3

Full Spectrum

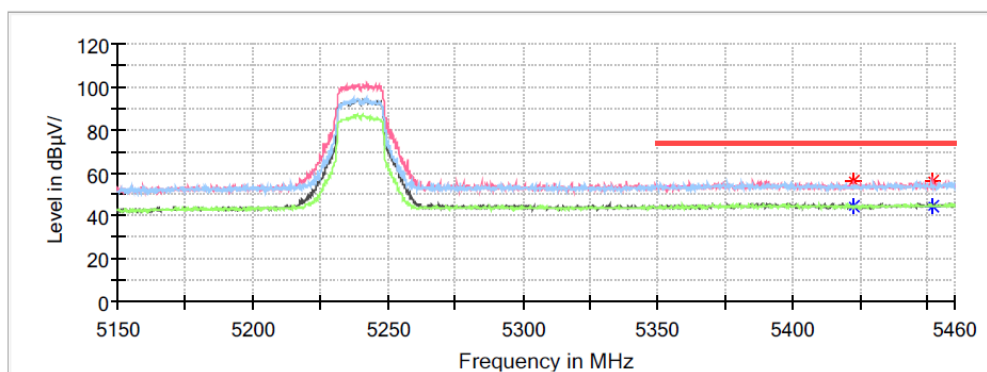
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5137.200000	---	43.91	54.00	10.09	H	7.1
5137.200000	52.96	---	74.00	21.04	H	7.1
5139.600000	---	43.05	54.00	10.95	V	7.1
5139.600000	54.09	---	74.00	19.91	V	7.1

Common Information

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11a mode High Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 22.6℃
Humidity: 46%
Atmospheric Pressure: 100.8kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/3

Full Spectrum



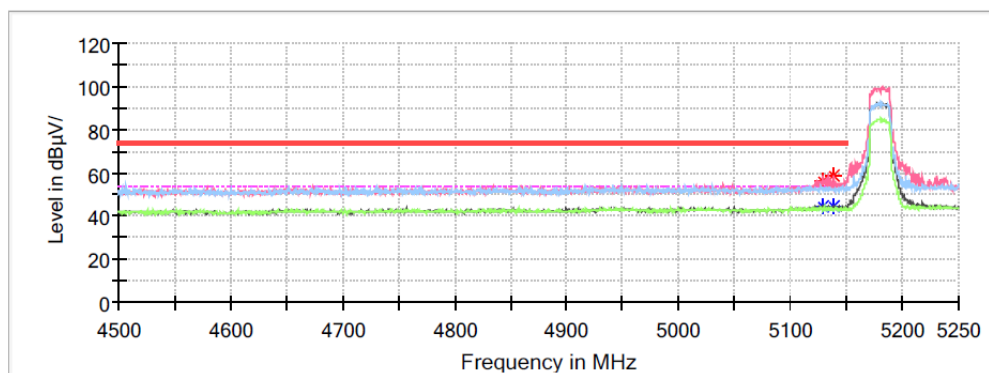
Critical_Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5422.676000	56.02	---	74.00	17.98	V	7.8
5422.676000	---	44.42	54.00	9.58	V	7.8
5452.312000	---	44.61	54.00	9.39	V	7.8
5452.312000	55.92	---	74.00	18.08	V	7.8

802.11ac20 Mode:**Common Information**

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11ac20 mode Low Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 22.6℃
Humidity: 46%
Atmospheric Pressure: 100.8kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/3

Full Spectrum

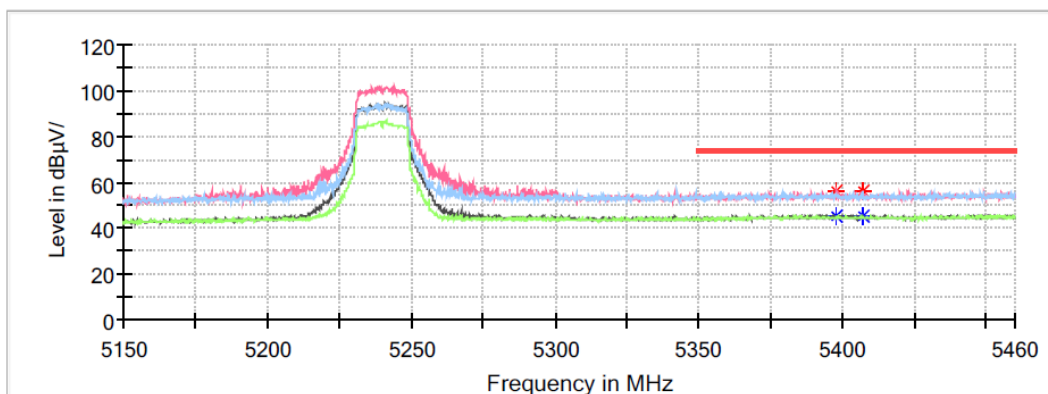
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5129.400000	56.03	---	74.00	17.97	V	7.1
5129.400000	---	44.87	54.00	9.13	V	7.1
5139.000000	58.74	---	74.00	15.26	V	7.1
5139.000000	---	44.70	54.00	9.30	V	7.1

Common Information

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11ac20 mode High Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40.3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 22.6°C
Humidity: 46%
Atmospheric Pressure: 100.8kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/3

Full Spectrum



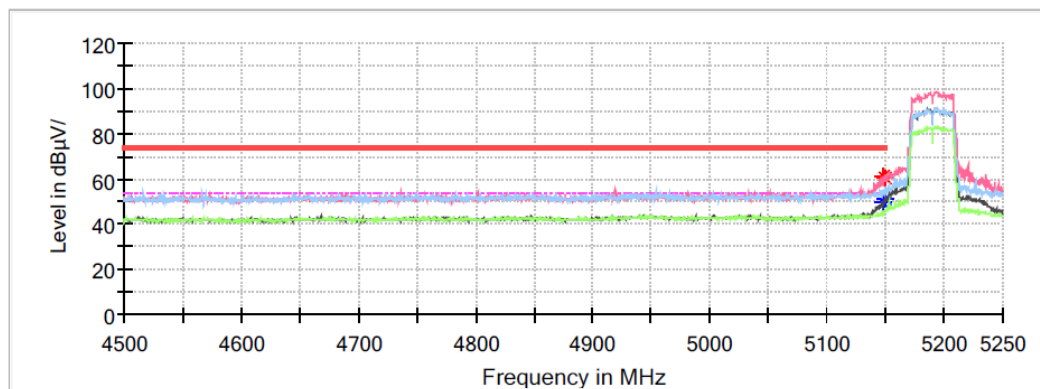
Critical_Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5398.000000	---	45.21	54.00	8.79	V	7.7
5398.124000	55.86	---	74.00	18.14	V	7.7
5407.176000	---	44.92	54.00	9.08	H	7.7
5407.176000	56.02	---	74.00	17.98	H	7.7

802.11ac40 Mode:**Common Information**

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11ac40 mode Low Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 22.6°C
Humidity: 46%
Atmospheric Pressure: 100.8kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/3

Full Spectrum

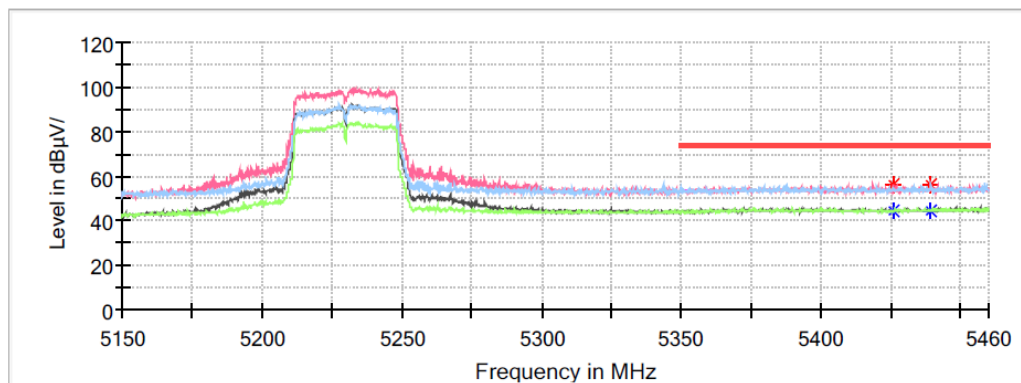
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5148.600000	61.46	---	74.00	12.54	V	7.1
5148.600000	---	49.21	54.00	4.79	V	7.1
5149.200000	60.74	---	74.00	13.26	V	7.1
5149.200000	---	51.14	54.00	2.86	V	7.1

Common Information

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11ac40 mode High Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 22.6°C
Humidity: 46%
Atmospheric Pressure: 100.8kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/3

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)
5426.024000	56.29	---	74.00	17.71	V	7.8
5426.024000	---	44.28	54.00	9.72	V	7.8
5439.540000	---	44.69	54.00	9.31	H	7.8
5439.540000	56.54	---	74.00	17.46	H	7.8

Bandedge Emissions Test (5725-5850MHz Band):

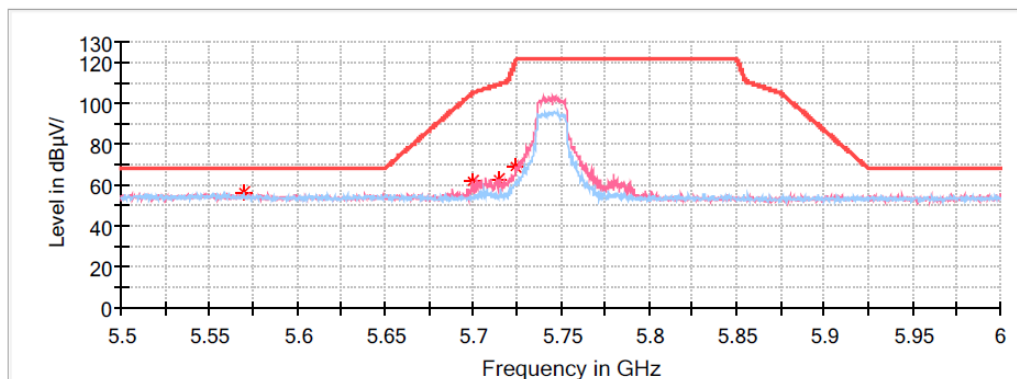
Note:

1. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
2. Corrected Amplitude = Corrected Factor + Reading
3. Margin = Limit - Corrected. Amplitude

802.11a Mode:**Common Information**

Project No.:	RSHA250514001
EUT Model:	TS21
Test Mode:	5G WIFI 802.11a mode Low Channel
Standard:	FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.4℃
Humidity:	47%
Atmospheric Pressure:	100.9kPa
Test Engineer:	Danny Zhu
Test Date:	2025/6/4

Full Spectrum

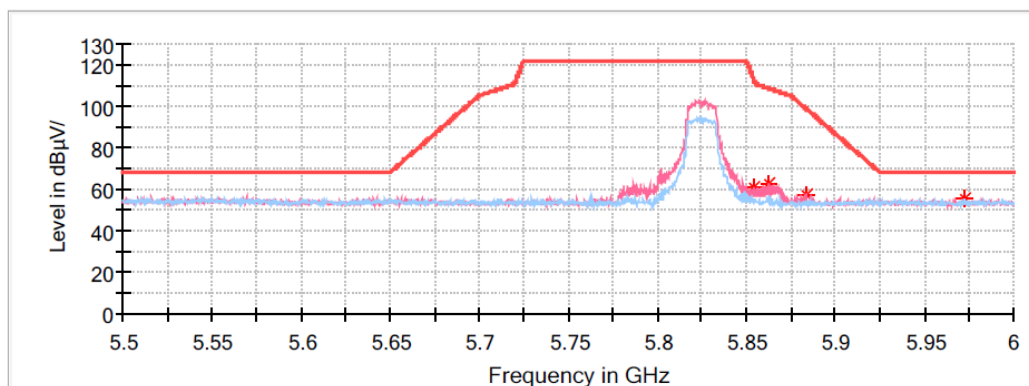
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5570.000000	56.65	---	68.20	11.55	H	7.9
5699.400000	62.01	---	104.76	42.75	H	7.7
5714.400000	62.85	---	109.23	46.38	V	7.7
5723.800000	69.45	---	119.46	50.01	V	7.7

Common Information

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11a mode High Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.4℃
Humidity: 47%
Atmospheric Pressure: 100.9kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/4

Full Spectrum



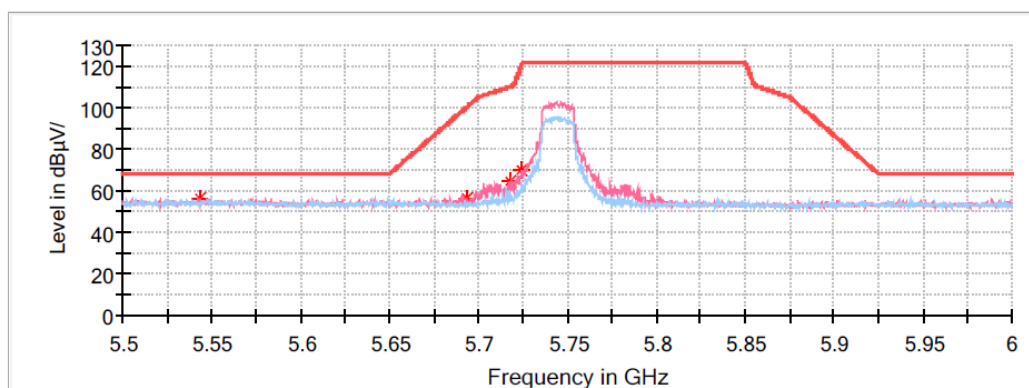
Critical_Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5854.600000	60.80	---	111.71	50.91	V	7.6
5862.200000	62.43	---	108.78	46.35	V	7.6
5883.200000	57.13	---	99.13	42.01	H	7.6
5972.400000	55.53	---	68.20	12.67	H	7.5

802.11ac20 Mode:**Common Information**

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11ac20 mode Low Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.4℃
Humidity: 47%
Atmospheric Pressure: 100.9kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/4

Full Spectrum

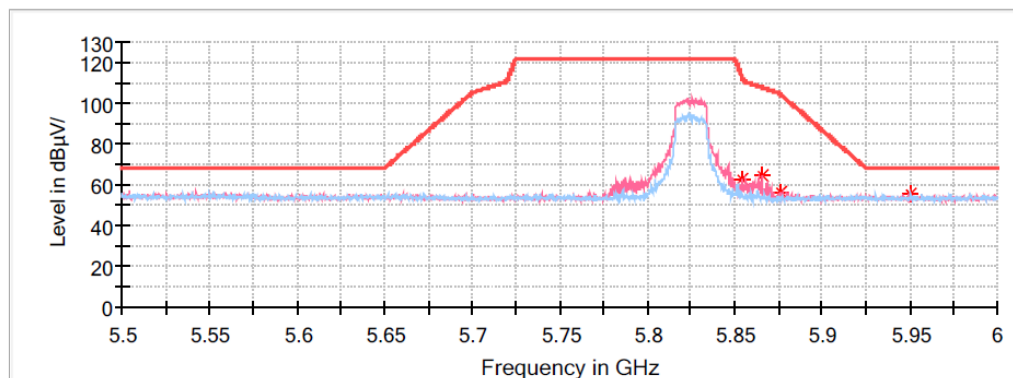
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5543.600000	56.61	---	68.20	11.59	V	7.9
5693.200000	56.74	---	100.17	43.43	V	7.8
5717.400000	64.65	---	110.07	45.42	V	7.7
5724.200000	70.27	---	120.38	50.11	V	7.7

Common Information

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11ac20 mode High Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.4℃
Humidity: 47%
Atmospheric Pressure: 100.9kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/4

Full Spectrum



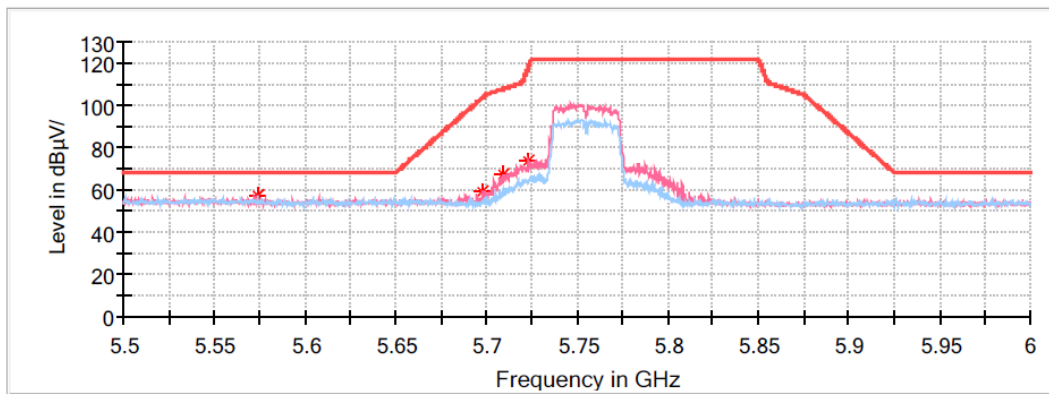
Critical_Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5854.600000	62.40	---	111.71	49.31	V	7.6
5865.800000	64.11	---	107.78	43.67	V	7.6
5876.200000	56.74	---	104.31	47.57	V	7.6
5950.000000	55.54	---	68.20	12.66	V	7.5

802.11ac40 Mode:**Common Information**

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11ac40 mode Low Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.4°C
Humidity: 47%
Atmospheric Pressure: 100.9kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/4

Full Spectrum

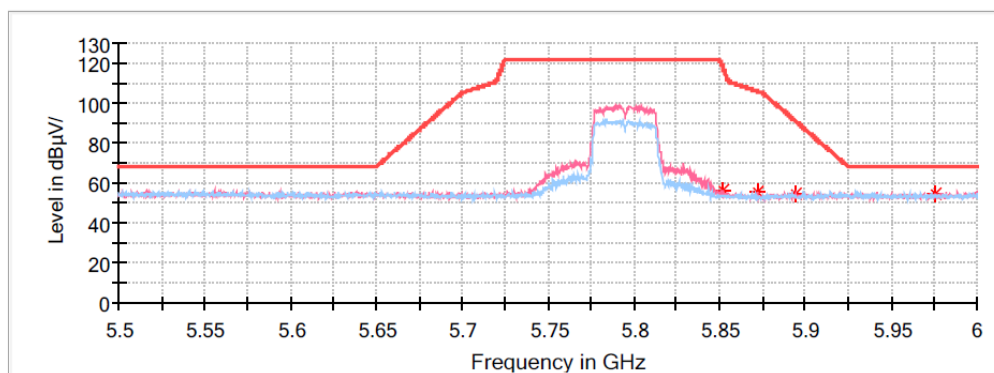
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5573.800000	56.88	---	68.20	11.32	H	7.9
5698.200000	59.07	---	103.87	44.80	H	7.7
5709.400000	67.25	---	107.83	40.58	V	7.7
5723.400000	73.24	---	118.55	45.31	V	7.7

Common Information

Project No.: RSHA250514001
EUT Model: TS21
Test Mode: 5G WIFI 802.11ac40 mode High Channel
Standard: FCC Part 15.407& FCC Part 15.205& FCC Part 15.209
Test Equipment: ESU40,3115,PAM-0118P
Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature: 24.4℃
Humidity: 47%
Atmospheric Pressure: 100.9kPa
Test Engineer: Danny Zhu
Test Date: 2025/6/4

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)
5852.000000	56.28	---	117.64	61.36	V	7.6
5872.000000	55.24	---	106.04	50.80	V	7.6
5893.800000	54.99	---	91.29	36.30	V	7.6
5975.600000	54.98	---	68.20	13.22	V	7.5

EMISSION BANDWIDTH**Environmental Conditions & Test Information**

Test Date:	2025-06-21
Temperature:	22.5 °C
Relative Humidity:	50 %
ATM Pressure:	100.2 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

Test Result: Compliant*5150-5250 MHz:*

Test mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
802.11 a	Low	5180	24.522	16.750
	Middle	5200	24.351	16.750
	High	5240	23.978	16.750
802.11 ac20	Low	5180	26.197	17.900
	Middle	5200	26.006	17.900
	High	5240	25.402	17.850
802.11 ac40	Low	5190	42	36.500
	High	5230	42.100	36.500

*Note: the 99% Occupied Bandwidth have not fall into the band 5250-5350MHz**5725-5850MHz:*

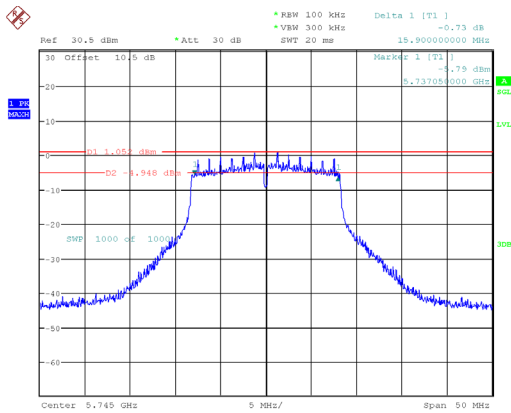
Test mode	Channel	Frequency (MHz)	99% Bandwidth (MHz)
802.11 a	Low	5745	16.700
	Middle	5785	16.700
	High	5825	16.650
802.11 ac20	Low	5745	17.800
	Middle	5785	17.850
	High	5825	17.850
802.11 ac40	Low	5755	36.400
	High	5795	36.400

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

Test mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
802.11 a	Low	5745	15.900	0.5
	Middle	5785	15.750	
	High	5825	15.800	
802.11 ac20	Low	5745	15.450	
	Middle	5785	15.800	
	High	5825	16.200	
802.11 ac40	Low	5755	36.500	
	High	5795	36.000	

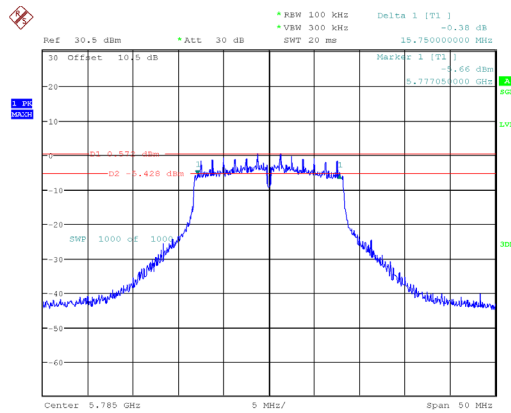
6dB Bandwidth
5725-5850 MHz Band

802.11a mode, 5745MHz



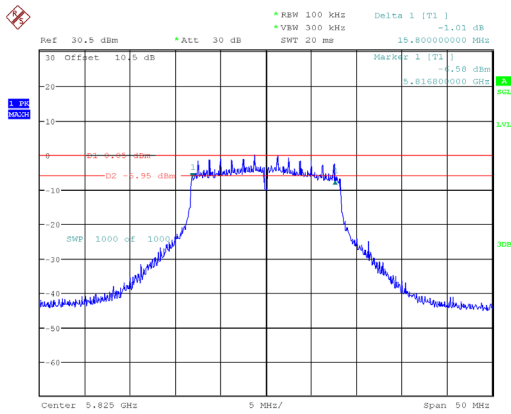
ProjectNo.:RSHA250514001 Tester:Neil Zhou
Date: 21.JUN.2025 14:15:52

802.11a mode, 5785MHz



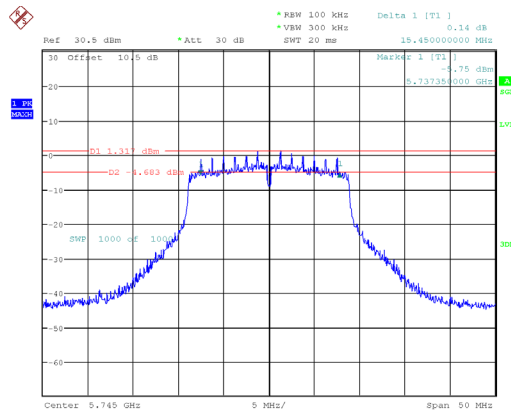
ProjectNo.:RSHA250514001 Tester:Neil Zhou
Date: 21.JUN.2025 14:22:00

802.11a mode, 5825MHz



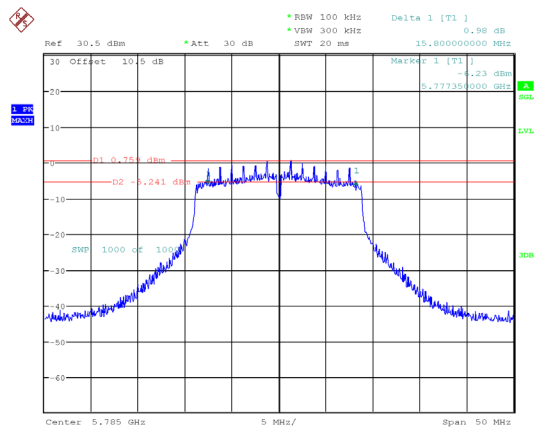
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Date: 21.JUN.2025 14:43:31

802.11ac20 mode, 5745MHz



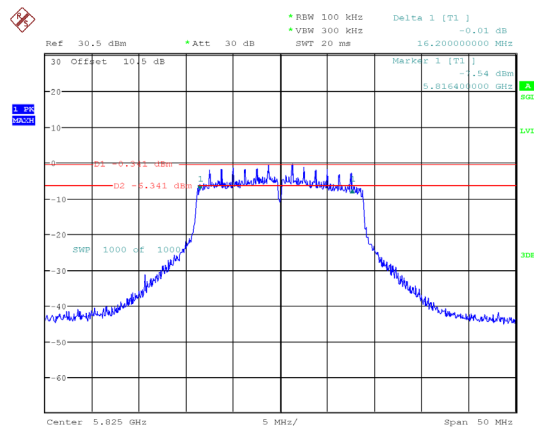
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802.11 ac20 mode, 5785MHz



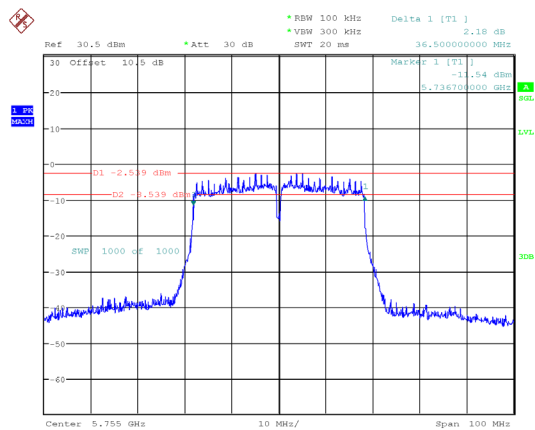
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Date: 21.JUN.2025 14:58:28

802.11 ac20 mode, 5825MHz



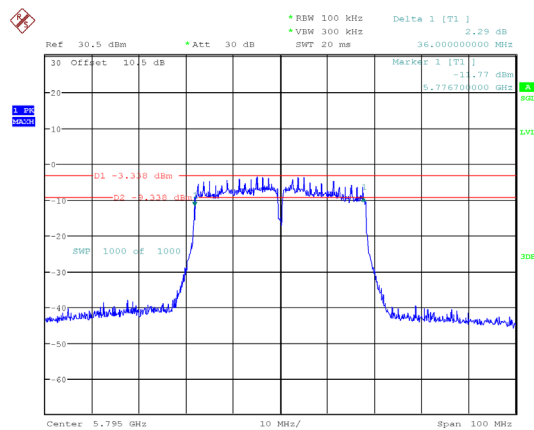
ProjectNo.:RSHA250514001 Tester:Neil Zhou
Date: 21.JUN.2025 15:19:59

802.11ac40 mode, 5755MHz



ProjectNo.:RSHA250514001 Tester:Neil Zhou
Date: 21.JUN.2025 15:24:45

802.11 ac40 mode, 5795MHz



ProjectNo.:RSHA250514001 Tester:Neil Zhou
Date: 21.JUN.2025 15:35:15