



Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street,
Bao'an District, Shenzhen, China

TEST REPORT

FCC PART 15 SUBPART E 15.407

Report Reference No.....: CTA25020700203

FCC ID.....: 2BHL2-SHARESLAMS20

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Date of issue: Mar. 28, 2025

Testing Laboratory Name: Shenzhen CTA Testing Technology Co., Ltd.

Address: Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community,
Fuhai Street, Bao'an District, Shenzhen, China

Applicant's name.....: SHAREUAV Ltd

Address: 7 Floor, A2 Building, Chuangzhiyuncheng, Liuxian Avenue, Nanshan
District, Shenzhen, China

Test specification

Standard: FCC Part 15 Subpart E 15.407

TRF Originator.....: Shenzhen CTA Testing Technology Co., Ltd.

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Test item description: SHARE Real-Scene 3D LiDAR Scanner

Trade Mark: N/A

Manufacturer: SHAREUAV Ltd

Model/Type reference: SHARE SLAM S20

Listed Models: N/A

Modulation: OFDM

Frequency: From 5180MHz-5240MHz, 5745MHz-5825MHz

Ratings: DC 14.4V From battery and DC 20.0V From external circuit

Result: PASS

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TEST REPORT

Equipment under Test : SHARE Real-Scene 3D LiDAR Scanner

Model /Type : SHARE SLAM S20

Listed Models : N/A

Applicant : **SHAREUAV Ltd**

Address : 7 Floor, A2 Building, Chuangzhiyuncheng, Liuxian Avenue, Nanshan District, Shenzhen, China

Manufacturer : **SHAREUAV Ltd**

Address : 7 Floor, A2 Building, Chuangzhiyuncheng, Liuxian Avenue, Nanshan District, Shenzhen, China

Test Result:	PASS
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1 TEST STANDARDS

The tests were performed according to following standards:

[FCC Rules Part 15 Subpart E](#)—Unlicensed National Information Infrastructure Devices

[ANSI C63.10-2013](#): American National Standard for Testing Unlicensed Wireless Devices

[KDB789033 D02](#): General UNII Test Procedures New Rules v01r02

2 SUMMARY

2.1 General Remarks

Date of receipt of test sample	:	Feb. 07, 2025
Testing commenced on	:	Feb. 07, 2025
Testing concluded on	:	Mar. 28, 2025

2.2 Product Description

Product Description:	SHARE Real-Scene 3D LiDAR Scanner			
Model:	SHARE SLAM S20			
Power supply:	DC 14.4V From battery and DC 20.0V From external circuit			
Adapter information:	Model: CD296 Input: 100-240V~, 50/60Hz, 1.8A Max. USB-C1/C2 Output: 5.0Vdc, 3.0A, 9.0Vdc, 3.0A, 12.0Vdc, 3.0A, 15.0Vdc, 3.0A, 20.0Vdc, 3.25A, 3.3-21.0Vdc, 3.0A, 65.0W Max USB-A Output: 4.5Vdc, 5.0A, 5.0Vdc, 4.5A, 5.0Vdc, 3.0A, 9.0Vdc, 2.0A, 12.0Vdc, 1.5A, 22.5W Max Total Output Power: 65.0W Max.			
Testing sample ID:	CTA250207002-1# (Engineer sample) CTA250207002-2# (Normal sample)			
Hardware version:	V1.0			
Software version:	V1.0			
WIFI				
Supported type:	20MHz system	40MHz system	80MHz system	160MHz system
	802.11a 802.11n 802.11ac/ax	802.11n 802.11 ac/ax	802.11 ac/ax	N/A
Operation frequency:	5180MHz-5240MHz 5745MHz-5825MHz	5190MHz-5230MHz 5755MHz-5795MHz	5210MHz 5775MHz	N/A
Modulation:	OFDM	OFDM	OFDM	N/A
Channel number:	9	4	2	N/A
Channel separation:	20MHz	40MHz	80MHz	N/A
Antenna type:	PIFA antenna			
Antenna gain:	Ant1: For 5180-5240MHz: 4.79 dBi; 5745-5825MHz: 4.15 dBi Ant2: For 5180-5240MHz: 4.79 dBi; 5745-5825MHz: 4.15 dBi			

2.3 Equipment Under Test

Power supply system utilised

Power supply voltage	:	☐ 230V / 50 Hz	☐ 120V / 60Hz
		☐ 12 V DC	☐ 24 V DC
		☒ Other (specified in blank below)	

DC 14.4V From battery and DC 20.0V From external circuit

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2.4 Short description of the Equipment under Test (EUT)

This is a SHARE Real-Scene 3D LiDAR Scanner.

For more details, refer to the user's manual of the EUT.

2.5 EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

- - supplied by the manufacturer
- - supplied by the lab

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2.6 EUT operation mode

The Applicant provides communication tools software (AT command) to control the EUT for staying in continuous transmitting (Duty Cycle more than 98%) and receiving mode for testing.

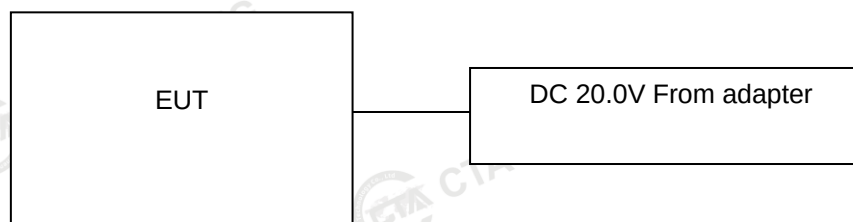
All test performed at the low, middle and high of operational frequency range of each mode.

Operation Frequency List WIFI on 5G Band:

Operating band	20MHz		40MHz		80MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
U-NII 1 (5150MHz-5250MHz)	36	5180	38	5190	42	5210
	40	5200				
	44	5220	46	5230		
	48	5240				
U-NII 3 (5725MHz-5850MHz)	149	5745	151	5755	155	5775
	153	5765				
	157	5785	159	5795		
	161	5805				
	165	5825	--	--	--	--

Note: The line display in grey is those Channels/Frequencies select to test in this report for each operation mode.

2.7 Block Diagram of Test Setup



2.8 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended to comply with Section 15.407 of the FCC Part 15, Subpart E Rules.

2.9 Modifications

No modifications were implemented to meet testing criteria.

3 TEST ENVIRONMENT

3.1 Address of the test laboratory

Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC-Registration No.: 517856 Designation Number: CN1318

Shenzhen CTA Testing Technology Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA-Lab Cert. No.: 6534.01

Shenzhen CTA Testing Technology Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

3.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Radiated Emission:

Temperature:	25 ° C
Humidity:	45 %
Atmospheric pressure:	950-1050mbar

Conducted testing:

Temperature:	25 ° C
Humidity:	44 %
Atmospheric pressure:	950-1050mbar

AC Power Conducted Emission

Temperature:	24 ° C
Humidity:	44 %
Atmospheric pressure:	950-1050mbar

3.4 Test Description

FCC Requirement		
FCC Part 15.207	AC Power Conducted Emission	PASS
FCC Part 15.407(a)	Emission Bandwidth(26dBm Bandwidth)	PASS ^{Note1}
FCC Part 15.407(e)	Minimum Emission Bandwidth(6dBm Bandwidth)	PASS ^{Note2}
FCC Part 15.407(a)	Maximum Conducted Output Power	PASS
FCC Part 15.407(a)	Peak Power Spectral Density	PASS
FCC Part 15.407(g)	Frequency Stability	PASS
FCC Part 15.407(b)	Undesirable emission	PASS
FCC Part 15.407(b)/15.205/15.209	Radiated Emissions	PASS
FCC Part 15.407(h)	Dynamic Frequency Selection	N/A ^{Note 3}
FCC Part 15.203/15.247(b)	Antenna Requirement	PASS

Note 1: Apply to U-NII 1 band.

Note 2: Apply to U-NII 3 band only.

Note 3: This device not work in DFS band.

Data Rate Used:

Preliminary tests were performed in different data rate to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate
Maximum Conducted Output Power Power Spectral Density Emission Bandwidth(26dBm Bandwidth) Minimum Emission Bandwidth(6dBm Bandwidth) Undesirable emission Frequency Stability	11a/OFDM	6 Mbps
	11n(20MHz),11ac/ax(20MHz)/OFDM	MCS0
	11n(40MHz),11ac/ax(40MHz)/OFDM	MCS0
	11ac/ax(80MHz)/OFDM	MCS0

3.5 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen CTA Testing Technology Co., Ltd.quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen CTA Testing Technology Co., Ltd.:

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	9KHz~30MHz	3.02 dB	(1)
Radiated Emission	30~1000MHz	4.06 dB	(1)
Radiated Emission	1~18GHz	5.14 dB	(1)
Radiated Emission	18-40GHz	5.38 dB	(1)

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Conducted Disturbance	0.15~30MHz	2.14 dB	(1)
Output Peak power	30MHz~18GHz	0.55 dB	(1)
Power spectral density	/	0.57 dB	(1)
Spectrum bandwidth	/	1.1%	(1)
Radiated spurious emission (30MHz-1GHz)	30~1000MHz	4.10 dB	(1)
Radiated spurious emission (1GHz-18GHz)	1~18GHz	4.32 dB	(1)
Radiated spurious emission (18GHz-40GHz)	18-40GHz	5.54 dB	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3.6 Equipments Used during the Test

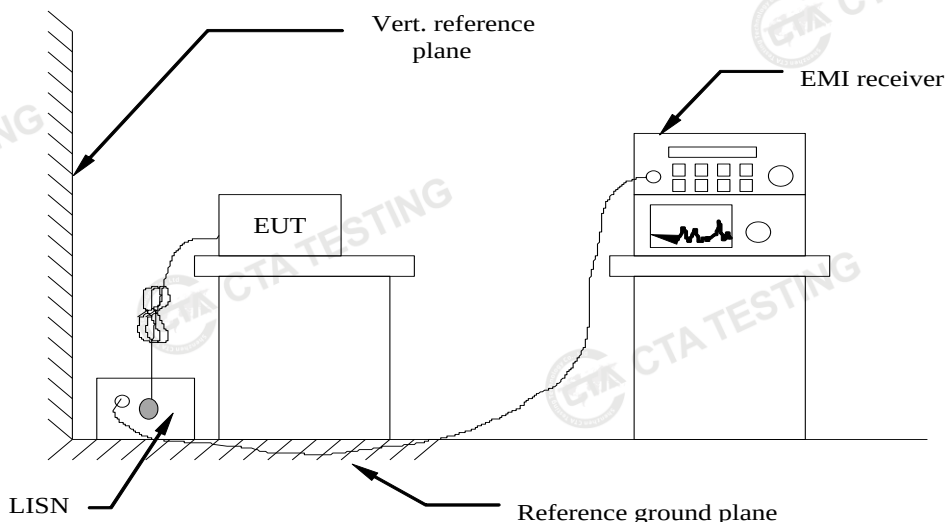
Test Equipment	Manufacturer	Model No.	Equipment No.	Calibration Date	Calibration Due Date
LISN	R&S	ENV216	CTA-308	2024/08/03	2025/08/02
LISN	R&S	ENV216	CTA-314	2024/08/03	2025/08/02
EMI Test Receiver	R&S	ESPI	CTA-307	2024/08/03	2025/08/02
EMI Test Receiver	R&S	ESCI	CTA-306	2024/08/03	2025/08/02
Spectrum Analyzer	Agilent	N9020A	CTA-301	2024/08/03	2025/08/02
Spectrum Analyzer	R&S	FSU	CTA-337	2024/08/03	2025/08/02
Vector Signal generator	Agilent	N5182A	CTA-305	2024/08/03	2025/08/02
Analog Signal Generator	R&S	SML03	CTA-304	2024/08/03	2025/08/02
WIDEBAND RADIO COMMUNICATION TESTER	CMW500	R&S	CTA-302	2024/08/03	2025/08/02
Temperature and humidity meter	Chigo	ZG-7020	CTA-326	2024/08/03	2025/08/02
Ultra-Broadband Antenna	Schwarzbeck	VULB9163	CTA-310	2023/10/17	2026/10/16
Horn Antenna	Schwarzbeck	BBHA 9120D	CTA-309	2023/10/13	2026/10/12
Loop Antenna	Zhinan	ZN30900C	CTA-311	2023/10/17	2026/10/16
Horn Antenna	Beijing Hangwei Dayang	OBH100400	CTA-336	2023/10/17	2026/10/16
Amplifier	Schwarzbeck	BBV 9745	CTA-312	2024/08/03	2025/08/02
Amplifier	Taiwan chengyi	EMC051845B	CTA-313	2024/08/03	2025/08/02
Directional coupler	NARDA	4226-10	CTA-303	2024/08/03	2025/08/02
High-Pass Filter	XingBo	XBLBQ-GTA18	CTA-402	2024/08/03	2025/08/02
High-Pass Filter	XingBo	XBLBQ-GTA27	CTA-403	2024/08/03	2025/08/02
Automated filter bank	Tonscend	JS0806-F	CTA-404	2024/08/03	2025/08/02
Power Sensor	Agilent	U2021XA	CTA-405	2024/08/03	2025/08/02

Amplifier	Schwarzbeck	BBV9719	CTA-406	2024/08/03	2025/08/02
Test Equipment	Manufacturer	Model No.	Version number	Calibration Date	Calibration Due Date
EMI Test Software	Tonscend	TS®JS32-RE	5.0.0.2	N/A	N/A
EMI Test Software	Tonscend	TS®JS32-CE	5.0.0.1	N/A	N/A
RF Test Software	Tonscend	TS®JS1120-3	3.1.65	N/A	N/A
RF Test Software	Tonscend	TS®JS1120	3.1.46	N/A	N/A

4 TEST CONDITIONS AND RESULTS

4.1 AC Power Conducted Emission

TEST CONFIGURATION



TEST PROCEDURE

- 1 The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10-2013.
- 2 Support equipment, if needed, was placed as per ANSI C63.10-2013
- 3 All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10-2013
- 4 The EUT received power from adapter, the adapter received AC120V/60Hz and AC 240V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5 All support equipments received AC power from a second LISN, if any.
- 6 The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7 Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
- 8 During the above scans, the emissions were maximized by cable manipulation.

AC Power Conducted Emission Limit

For intentional device, according to § 15.207(a) AC Power Conducted Emission Limits is as following :

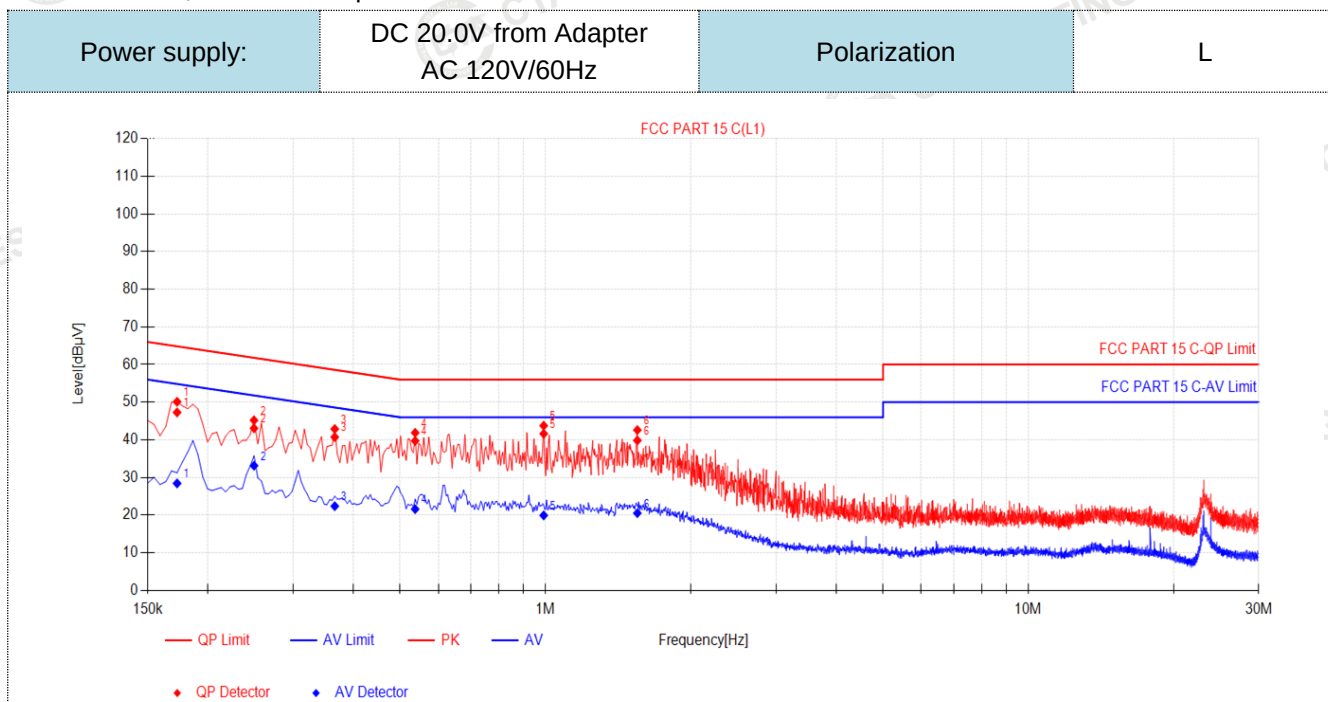
Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST RESULTS

Remark:

1. All modes of 802.11a/n/ac/ax were tested at Low, Middle, and High channel; only the worst result of 802.11a CH36 was reported as below:
2. Both 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz power supply have been tested, only the worst result of 120 VAC, 60 Hz was reported as below:

**Final Data List**

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dB μV]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Reading [dBμV]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Verdict
1	0.1725	9.97	37.32	47.29	64.84	17.55	18.46	28.43	54.84	26.41	PASS
2	0.249	9.94	33.12	43.06	61.79	18.73	23.19	33.13	51.79	18.66	PASS
3	0.366	9.87	30.87	40.74	58.59	17.85	12.52	22.39	48.59	26.20	PASS
4	0.537	10.03	29.70	39.73	56.00	16.27	11.57	21.60	46.00	24.40	PASS
5	0.9915	9.92	31.70	41.62	56.00	14.38	10.02	19.94	46.00	26.06	PASS
6	1.5495	9.90	29.95	39.85	56.00	16.15	10.64	20.54	46.00	25.46	PASS

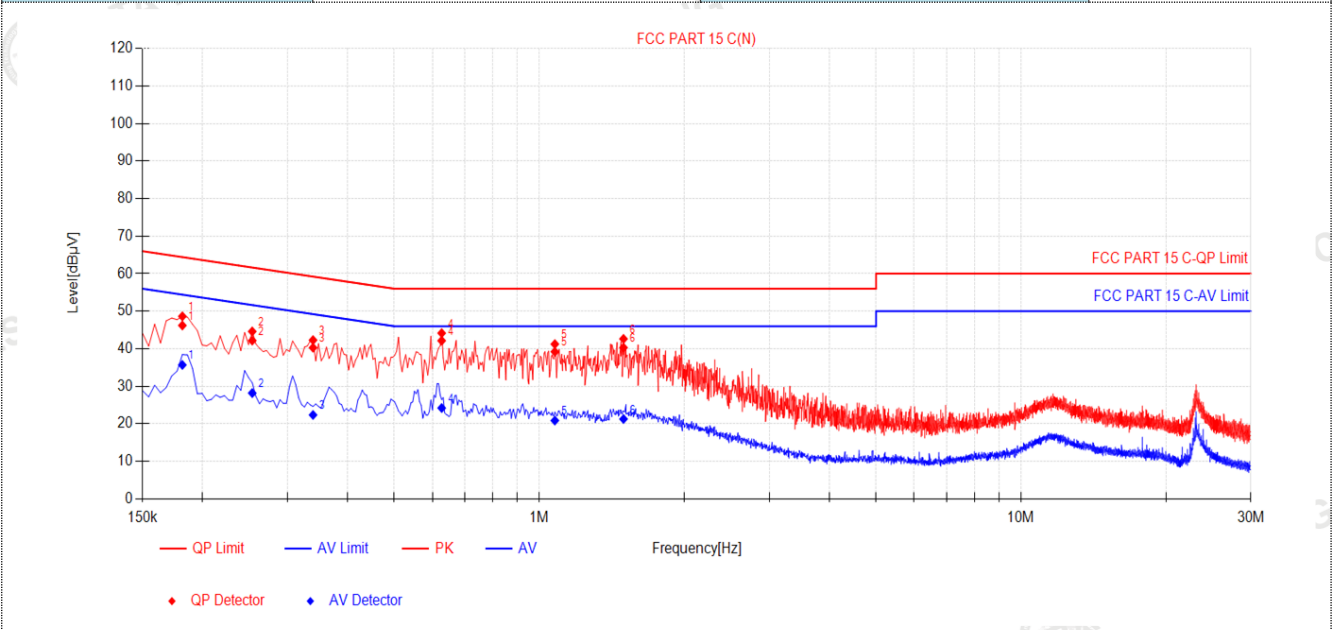
Note:1).QP Value (dBμV)= QP Reading (dBμV)+ Factor (dB)

2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)

3). QPMargin(dB) = QP Limit (dBμV) - QP Value (dBμV)

4). AVMargin(dB) = AV Limit (dBμV) - AV Value (dBμV)

Power supply:	DC 20.0V from Adapter AC 120V/60Hz	Polarization	N
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Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Reading[dB µV]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Reading [dBµV]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.1815	10.03	36.18	46.21	64.42	18.21	25.67	35.70	54.42	18.72	PASS
2	0.2535	10.01	32.17	42.18	61.64	19.46	18.18	28.19	51.64	23.45	PASS
3	0.339	9.86	30.42	40.28	59.23	18.95	12.51	22.37	49.23	26.86	PASS
4	0.627	10.13	32.01	42.14	56.00	13.86	14.08	24.21	46.00	21.79	PASS
5	1.077	10.14	29.07	39.21	56.00	16.79	10.74	20.88	46.00	25.12	PASS
6	1.4955	10.13	30.17	40.30	56.00	15.70	11.15	21.28	46.00	24.72	PASS

Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBµV) - QP Value (dBµV)
4). AVMargin(dB) = AV Limit (dBµV) - AV Value (dBµV)

4.2 Radiated Emissions

Limit

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: 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.

Undesirable emission limits

Requirement	Limit(EIRP)	Limit (Field strength at 3m) ^{Note1}
15.407(b)(1)	PK:-27(dBm/MHz)	PK:68.2(dBμV/m)
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)		

Note1: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000 \sqrt{30P}}{3} \mu\text{V/m, where P is the eirp (Watts)}$$

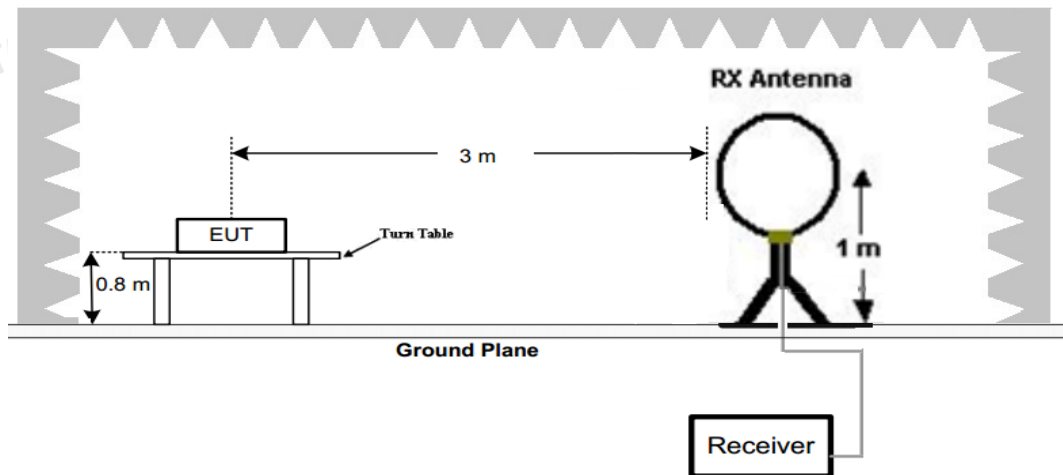
- (5) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209
- (6) In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a)

Radiated emission limits

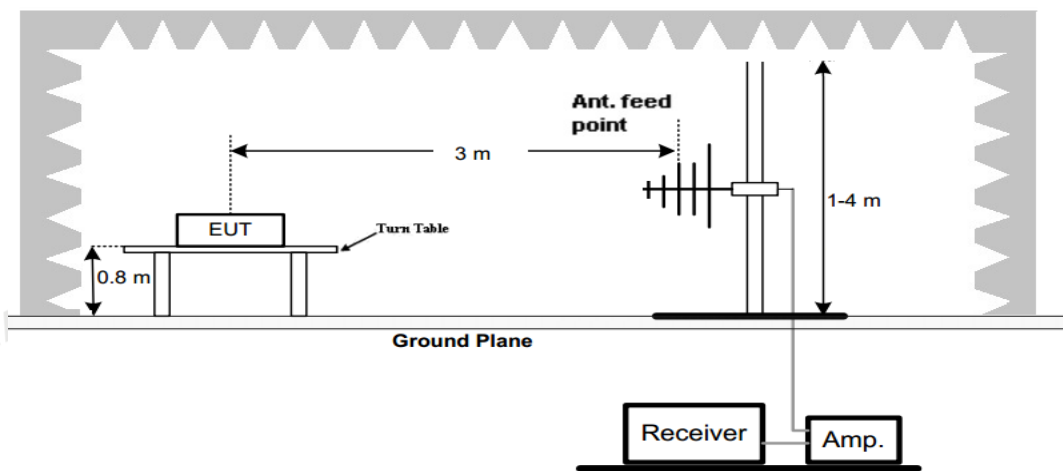
Frequency (MHz)	Distance (Meters)	Radiated (dBμV/m)	Radiated (μV/m)
0.009-0.49	3	$20\log(2400/F(\text{KHz}))+40\log(300/3)$	$2400/F(\text{KHz})$
0.49-1.705	3	$20\log(24000/F(\text{KHz}))+40\log(30/3)$	$24000/F(\text{KHz})$
1.705-30	3	$20\log(30)+40\log(30/3)$	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

TEST CONFIGURATION

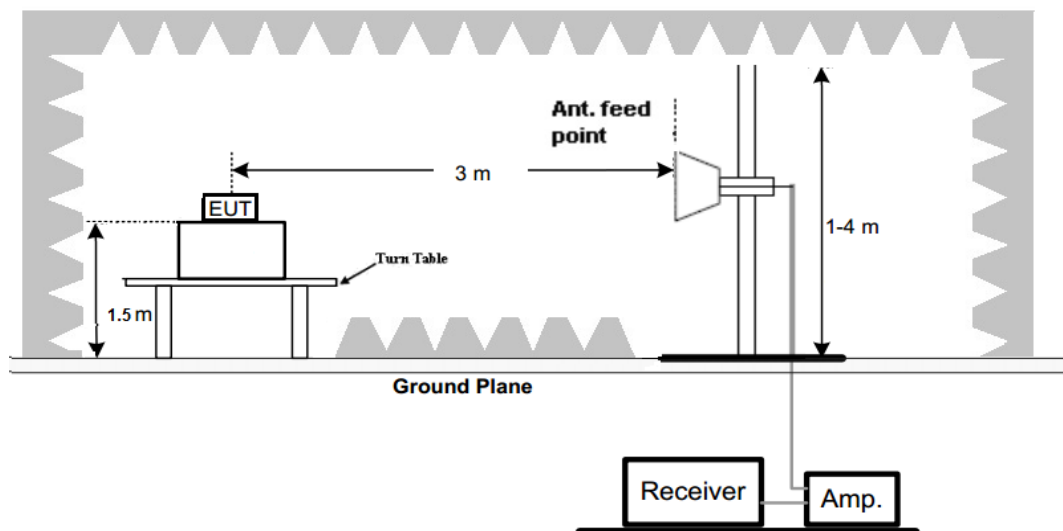
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz

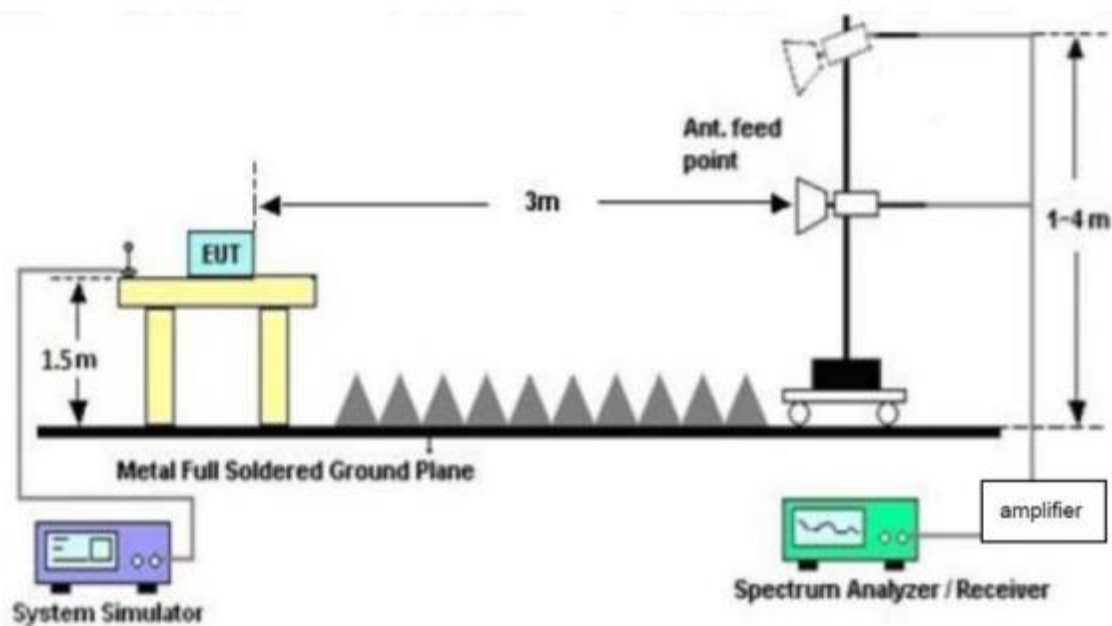


(B) Radiated Emission Test Set-Up, Frequency below 1000MHz



(C) Radiated Emission Test Set-Up, Frequency above 1000MHz





Test Procedure

- Below 1GHz measurement the EUT is placed on a turntable which is 0.8m above ground plane, and above 1GHz measurement EUT was placed on a low permittivity and low loss tangent turn table which is 1.5m above ground plane.
- Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0° to 360° to acquire the highest emissions from EUT
- And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- Repeat above procedures until all frequency measurements have been completed.
- Radiated emission test frequency band from 9KHz to 40GHz.
- The distance between test antenna and EUT as following table states:

Test Frequency range	Test Antenna Type	Test Distance
9KHz-30MHz	Active Loop Antenna	3
30MHz-1GHz	Bilog Antenna	3
1GHz-18GHz	Horn Antenna	3
18GHz-25GHz	Horn Antenna	1

- Setting test receiver/spectrum as following table states:

Test Frequency range	Test Receiver/Spectrum Setting	Detector
9KHz-150KHz	RBW=200Hz/VBW=3KHz, Sweep time=Auto	QP
150KHz-30MHz	RBW=9KHz/VBW=100KHz, Sweep time=Auto	QP
30MHz-1GHz	RBW=120KHz/VBW=1000KHz, Sweep time=Auto	QP
1GHz-40GHz	Peak Value: RBW=1MHz/VBW=3MHz, Sweep time=Auto Average Value: RBW=1MHz/VBW=10Hz, Sweep time=Auto	Peak

TEST RESULTS

Remark:

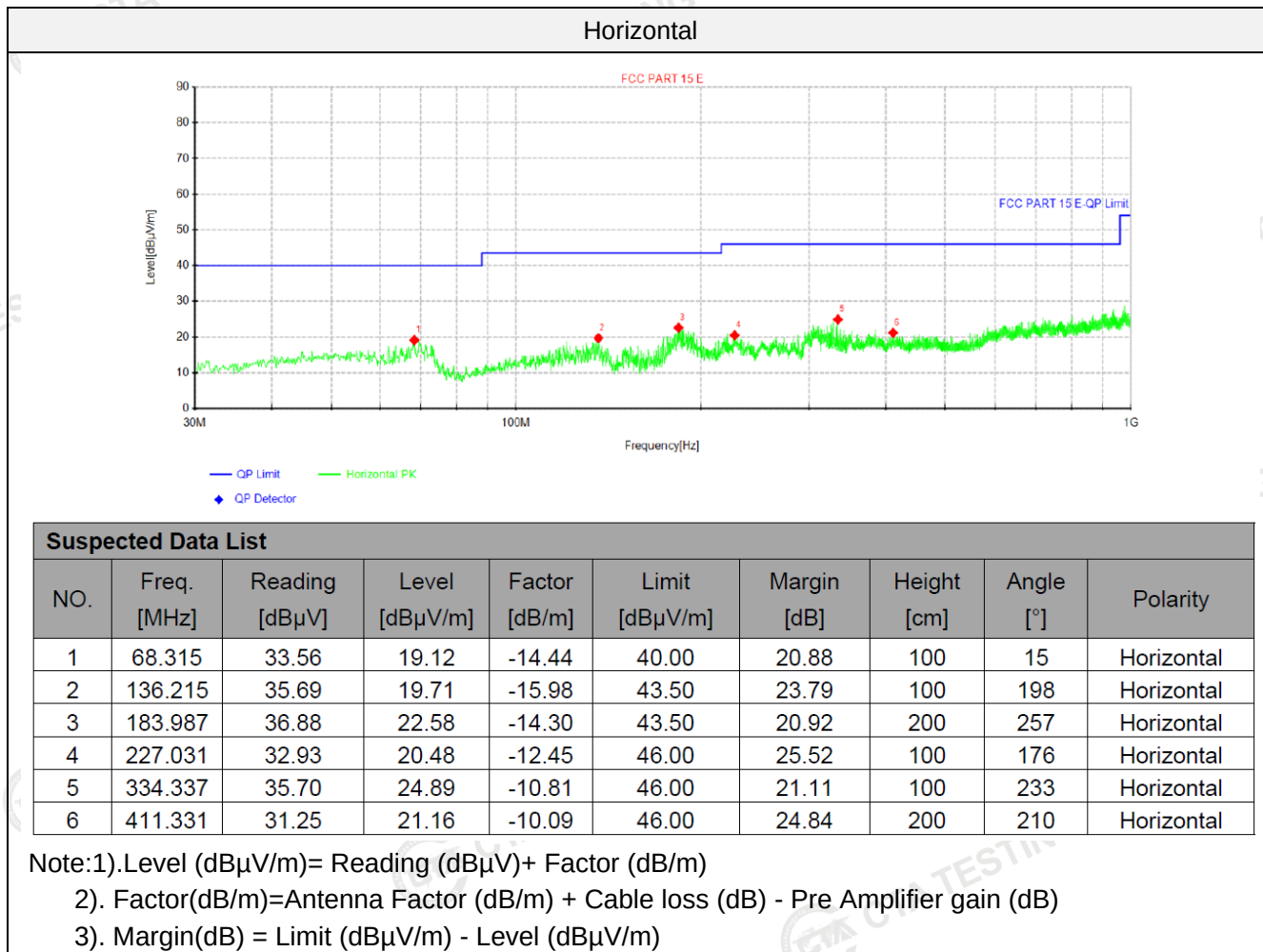
- This test was performed with EUT in X, Y, Z position and the worse case was found when EUT in X position.
- All 802.11a / 802.11n/ac/ax (HT20) /802.11n/ac/ax (HT40)/ 802.11ac/ax (HT80) modes have been tested for below 1GHz test, only the worst case 802.11a low channel of U-NII 1 band was recorded.
- All 802.11a / 802.11n/ac/ax (HT20) /802.11n/ac/ax (HT40)/ 802.11ac/ax (HT80) modes have been tested for above 1GHz test, only the worst case 802.11a was recorded.
- Radiated emission test from 9 KHz to 10th harmonic of fundamental was verified, and no emission found except

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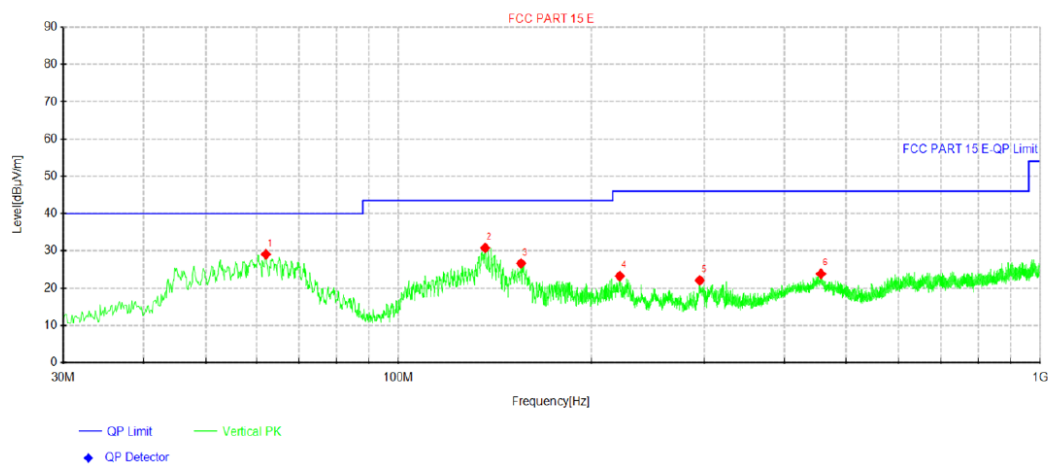
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system noise floor in 9 KHz to 30MHz and not recorded in this report.

For 30MHz-1GHz



Vertical



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	62.1312	42.35	29.07	-13.28	40.00	10.93	100	126	Vertical
2	136.578	46.73	30.79	-15.94	43.50	12.71	100	279	Vertical
3	155.372	42.37	26.64	-15.73	43.50	16.86	200	346	Vertical
4	221.453	35.70	23.23	-12.47	46.00	22.77	100	279	Vertical
5	295.295	33.14	22.08	-11.06	46.00	23.92	100	3	Vertical
6	456.436	33.55	23.84	-9.71	46.00	22.16	200	34	Vertical

Note:1). Level (dBμV/m)= Reading (dBμV)+ Factor (dB/m)

2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dBμV/m) - Level (dBμV/m)

For 1GHz to 40GHz

Note: All 802.11a / 802.11n/ac/ax (HT20) /802.11n/ac/ax (HT40)/ 802.11ac/ax (HT80) modes have been tested for above 1GHz test, only the worst case 802.11a was recorded.

U-NII 1 & 802.11a Mode (above 1GHz)

Tested Channel	Frequency (MHz)	Emission Level (dBuV/m)	Detector Mode	ANT Pol	Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre amplifier (dB)	Correction Factor (dB/m)
36.00 (5180MHz)	5150.00	55.36	PK	H	68.20	12.84	58.79	33.04	5.45	41.92	-3.43
	5150.00	46.28	AV	H	54.00	7.72	49.71	33.04	5.45	41.92	-3.43
	10360.00	51.42	PK	H	68.20	16.78	38.83	38.83	10.12	45.28	3.67
	--	--	--	--	--	--	--	--	--	--	--
44.00 (5220MHz)	10440.00	50.76	PK	H	68.20	17.44	47.08	38.85	10.13	45.3	3.68
	--	--	--	--	--	--	--	--	--	--	--
48.00 (5240MHz)	5350.50	48.41	PK	H	68.20	19.79	51.68	32.84	5.97	42.08	-3.27
	10480.00	50.53	PK	H	68.20	17.67	46.79	38.89	10.19	45.34	3.74
	--	--	--	--	--	--	--	--	--	--	--

Tested Channel	Frequency (MHz)	Emission Level (dBuV/m)	Detector Mode	ANT Pol	Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre amplifier (dB)	Correction Factor (dB/m)
36.00 (5180MHz)	5150.00	55.50	PK	V	68.20	12.70	58.93	33.04	5.45	41.92	-3.43
	5150.00	45.34	AV	V	54.00	8.66	48.77	33.04	5.45	41.92	-3.43
	10360.00	51.72	PK	V	68.20	16.48	48.05	38.83	10.12	45.28	3.67
	--	--	--	--	--	--	--	--	--	--	--
44.00 (5220MHz)	10440.00	51.44	PK	V	68.20	16.76	47.76	38.85	10.13	45.3	3.68
	--	--	--	--	--	--	--	--	--	--	--
48.00 (5240MHz)	5350.50	48.61	PK	V	68.20	19.59	51.88	32.84	5.97	42.08	-3.27
	10480.00	51.46	PK	V	68.20	16.74	47.72	38.89	10.19	45.34	3.74
	--	--	--	--	--	--	--	--	--	--	--

U-NII 3 & 802.11a Mode (above 1GHz)

Tested Channel	Frequency (MHz)	Emission Level (dBuV/m)	Detector Mode	ANT Pol	Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre amplifier (dB)	Correction Factor (dB/m)
149.00 (5745MHz)	5720.00	56.63	PK	H	68.20	11.57	59.41	33.42	6.04	42.24	-2.78
	5720.00	46.58	AV	H	54.00	7.42	49.36	33.42	6.04	42.24	-2.78
157.00 (5785MHz)	11490.00	51.45	PK	H	68.20	16.75	46.97	39.02	10.91	45.45	4.48
	--	--	--	--	--	--	--	--	--	--	--
165.00 (5825MHz)	11570.00	50.21	PK	H	68.20	17.99	45.76	38.93	10.95	45.43	4.45
	--	--	--	--	--	--	--	--	--	--	--
165.00 (5825MHz)	5855.00	50.76	PK	H	68.20	17.44	52.95	33.91	6.17	42.27	-2.19
	11650.00	53.34	PK	H	68.20	14.86	48.76	38.83	11.16	45.41	4.58

Tested Channel	Frequency (MHz)	Emission Level (dBuV/m)	Detector Mode	ANT Pol	Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre amplifier (dB)	Correction Factor (dB/m)
149.00 (5745MHz)	5720.00	55.36	PK	V	68.20	12.84	58.14	33.42	6.04	42.24	-2.78
	5720.00	45.74	AV	V	54.00	8.26	48.52	33.42	6.04	42.24	-2.78
157.00 (5785MHz)	11490.00	49.42	PK	V	68.20	18.78	44.94	39.02	10.91	45.45	4.48
	--	--	--	--	--	--	--	--	--	--	--
165.00 (5825MHz)	11570.00	50.28	PK	V	68.20	17.92	45.83	38.93	10.95	45.43	4.45
	--	--	--	--	--	--	--	--	--	--	--
165.00 (5825MHz)	5855.00	50.31	PK	V	68.20	17.89	52.50	33.91	6.17	42.27	-2.19
	11650.00	51.83	PK	V	68.20	16.37	47.25	38.83	11.16	45.41	4.58

REMARKS:

1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
3. Margin value = Limit value- Emission level.
4. -- Mean the other emission levels were very low against the limit.

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5. RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz Peak detector is for AV value.
6. Worst case data at 6Mbps at IEEE 802.11a; MCS0 at IEEE 802.11n HT20, IEEE 802.11n HT40, IEEE 802.11ac VHT20 ,IEEE 802.11ac VHT40 and IEEE 802.11ac VHT80;

ANT 1:

Conducted Emissions

U-NII 1 and U-NII 3:

TestMode	Freq(MHz)	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11a	5180	30~5140	2439.37	-65.15	≤-27	PASS
		5360~27000	26112.04	-57.67	≤-27	PASS
	5220	30~5140	2677.66	-67.62	≤-27	PASS
		5360~27000	25633.07	-58.02	≤-27	PASS
	5240	30~5140	2629.97	-66.74	≤-27	PASS
		5360~27000	26267.85	-58.81	≤-27	PASS
	5745	30~5650	2437.05	-63.68	≤-27	PASS
		5925~27000	26952.23	-58.22	≤-27	PASS
	5785	30~5650	3151.35	-67.44	≤-27	PASS
		5925~27000	26640.32	-58.39	≤-27	PASS
802.11n(HT20)	5180	30~5140	5485.15	-67.82	≤-27	PASS
		5925~27000	26087.45	-57.66	≤-27	PASS
	5180	30~5140	2664.21	-67.29	≤-27	PASS
		5360~27000	26896.13	-57.76	≤-27	PASS
	5220	30~5140	2438.51	-65.65	≤-27	PASS
		5360~27000	26527.53	-58.23	≤-27	PASS
	5240	30~5140	2436.13	-65.74	≤-27	PASS
		5360~27000	26955.28	-58.02	≤-27	PASS
	5745	30~5650	3133.36	-67.91	≤-27	PASS
		5925~27000	26610.11	-57.95	≤-27	PASS
802.11n(HT40)	5190	30~5650	2439.11	-65.88	≤-27	PASS
		5925~27000	24934.65	-57.87	≤-27	PASS
	5190	30~5140	3008.04	-68.22	≤-27	PASS
		5360~27000	26089.56	-57.42	≤-27	PASS
	5230	30~5140	2439.88	-65.94	≤-27	PASS
		5360~27000	26631.4	-57.32	≤-27	PASS
	5230	30~5140	2436.13	-66.31	≤-27	PASS
		5360~27000	26689.11	-57.99	≤-27	PASS
	5755	30~5650	2435.92	-65.04	≤-27	PASS
		5925~27000	25316.81	-58.02	≤-27	PASS
802.11ac(HT20)	5190	30~5650	3166.71	-67	≤-27	PASS
		5925~27000	24971.18	-58.5	≤-27	PASS
	5180	30~5140	2436.64	-66.61	≤-27	PASS
		5360~27000	26627.79	-58.06	≤-27	PASS
	5220	30~5140	2437.66	-66.96	≤-27	PASS
		5360~27000	26751.86	-58.36	≤-27	PASS
	5240	30~5140	2436.3	-65.93	≤-27	PASS
		5360~27000	26422.93	-58.41	≤-27	PASS
	5745	30~5650	5193.47	-61.03	≤-27	PASS
		5925~27000	26547.59	-58.16	≤-27	PASS
802.11ac(HT40)	5190	30~5650	2439.86	-64.99	≤-27	PASS
		5925~27000	26965.58	-58.12	≤-27	PASS
	5180	30~5650	5218.57	-50.78	≤-27	PASS
		5925~27000	26225.85	-57.4	≤-27	PASS
	5230	30~5140	2439.19	-66.37	≤-27	PASS
		5360~27000	26529.69	-57.13	≤-27	PASS
	5230	30~5140	2438.68	-65.54	≤-27	PASS
		5360~27000	26515.26	-57.58	≤-27	PASS
	5755	30~5650	5214.45	-51.14	≤-27	PASS
		5925~27000	26994.38	-58.34	≤-27	PASS
802.11ac(HT80)	5795	30~5650	5202.27	-57.19	≤-27	PASS
		5925~27000	26951.53	-58.02	≤-27	PASS
	5210	30~5140	2438.68	-65.35	≤-27	PASS
		5360~27000	25654.71	-57.8	≤-27	PASS
802.11ax(HT20)	5775	30~5650	5203.21	-61.02	≤-27	PASS
		5925~27000	26032.66	-58.17	≤-27	PASS
	5180	30~5140	2686.86	-67.76	≤-27	PASS
		5360~27000	26959.61	-57.31	≤-27	PASS
802.11ax(HT20)	5220	30~5140	2435.96	-64.96	≤-27	PASS
		5360~27000	26959.61	-57.31	≤-27	PASS

	5240	5360~27000	26007.45	-58.11	≤ -27	PASS
		30~5140	3035.02	-67.06	≤ -27	PASS
		5360~27000	26681.17	-58.14	≤ -27	PASS
	5745	30~5650	2440.04	-65.27	≤ -27	PASS
		5925~27000	26161.22	-57.38	≤ -27	PASS
	5785	30~5650	5237.12	-57.91	≤ -27	PASS
		5925~27000	25802.24	-57.34	≤ -27	PASS
	5825	30~5650	5213.33	-52.78	≤ -27	PASS
		5925~27000	26709.87	-58.32	≤ -27	PASS
802.11ax(HT40)	5190	30~5140	2436.3	-66.69	≤ -27	PASS
		5360~27000	26990.62	-57.88	≤ -27	PASS
	5230	30~5140	2435.79	-64.77	≤ -27	PASS
		5360~27000	26639.33	-58.3	≤ -27	PASS
	5755	30~5650	2639.18	-67.04	≤ -27	PASS
		5925~27000	25698.97	-58.15	≤ -27	PASS
	5795	30~5650	2438.17	-65.51	≤ -27	PASS
		5925~27000	26754.13	-57.96	≤ -27	PASS
802.11ax(HT80)	5210	30~5140	2435.11	-64.77	≤ -27	PASS
		5360~27000	26484.97	-57.88	≤ -27	PASS
	5775	30~5650	2435.73	-64.71	≤ -27	PASS
		5925~27000	26579.2	-58.47	≤ -27	PASS

