

Prüfbericht-Nr.: Test report no.:	IN24WR8Y 001	Auftrags-Nr.: Order no.:	146912000 010	Seite 1 von 60 Page 1 of 60	
Kunden-Referenz-Nr.: Client reference no.:	2133653	Auftragsdatum: Order date:	2024-05-03		
Auftraggeber: Client:	Halsa Baby Inc 2626 Cole Avenue, Suite 429, Dallas, TX 75204 USA				
Prüfgegenstand: Test item:	Hälsa Baby All-In-One Wellness Monitor				
Bezeichnung.: Identification .:	HB2.0				
Auftrags-Inhalt: Order content:	Testing and issue of Test report with Grant Certificate				
Prüfgrundlage: Test specification:	FCC Part 15 Subpart C 15.207, 15.205 & 15.209, FCC Part15 Subpart E 15.407 RSS 247 Issue 3 & RSS Gen Issue 5				
Wareneingangsdatum: Date of sample receipt:	2024-05-03				
Prüfmuster-Nr & Serien-Nr.: Test sample no & serial no.:	A003710897-003 & A003710897-004 Engineering Sample				
Prüfzeitraum: Testing period:	2024-05-06 - 2024-05-23				
Ort der Prüfung: Place of testing:	Wireless laboratory, Bangalore				
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (India) Pvt.Ltd., 27/B, 2nd Cross, Electronic City Phase1 Bangalore -560 100, India FCC Test site registration number: 496599 ISED Test site registration number: 27711				
Prüfergebnis*: Test result*:	Pass				
geprüft von: tested by:	genehmigt von: authorized by:				
Datum: Date: 2024-07-19	Ausstellatum: Issue date: 2024-07-19				
Stellung / Position:	M.V.Naveen Kumar Senior Engineer	Stellung / Position:	Madhu K.N Assistant Manager		
Sonstiges / Other:	FCC ID: 2BCMF-HALSAV02 IC : 32365-HALSAV02 HVIN: HBV10				
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged				
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	4 = ausreichend N/A = nicht anwendbar	5 = mangelhaft N/T = nicht getestet
* Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory F(ail) = failed a.m. test specification(s)	4 = sufficient N/A = not applicable	5 = poor N/T = not tested
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3	Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt. <i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.</i> <i>Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i>
4	Die Entscheidungsregel für Konformitätserklärungen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. <i>The decision rule for statements of conformity in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report.</i>

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TEST SUMMARY

Test Item	Applicable Standard		Result
	FCC 47 CFR 15	ISED	
Emission Bandwidth	15.407 (a) & (e)	RSS Gen Issue 5 Section 6.7 RSS 247 Issue 3 Section 6.2.1.1; 6.2.4.1	Pass
Frequency Stability	15.407 (g)	RSS Gen Issue 5 Section 8.11	Pass
Maximum conducted output power	15.247 (b) & 15.407 (a)	RSS 247 Issue 3 Section 6.2.1; 6.2.4	Pass
Maximum Power spectral density	15.407 (a)	RSS 247 Issue 3 Section 6.2.2; 6.2.4	Pass
Dynamic Frequency Selection	15.407 (h)	RSS 247 Issue 3 Section 6.3	*N/A
Spurious Radiated Emissions & Restricted Bands of Operation	15.407 (b) / (15.205 &15.209)	RSS 247 Issue 3 Section 6.2.1; 6.2.4 RSS Gen Issue 5 Section 8.9 & 8.10	Pass
AC Power Lines Conducted Emission	15.207	RSS Gen Issue 5 Section 8.8	Pass
Antenna Requirement	15.203	-	Pass

*N/A → Not Applicable

Product Category: Electronics Testing
Test Discipline : EMC Test Facility

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REVISION HISTORY OF THIS REPORT

Report Number	Version	Description	Issue date
IN24WR8Y 001	01	Initial issue of report	2024-07-19

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1 GENERAL REMARKS

1.1 Attachments

All attachments are part of this test report and are issued in separate document

1: TEST SETUP PHOTOS

2: EUT EXTERNAL PHOTOS

3: EUT INTERNAL PHOTOS

4: FCC LABEL AND LABEL LOCATION

5: BLOCK DIAGRAM

6: SPECIFICATION OF EUT

7: SCHEMATIC DIAGRAM

8: BILL OF MATERIAL

9: USER MANUAL

10: MAXIMUM PERMISSIBLE EXPOSURE INFORMATION

11: TEST PLOTS

2 TEST SITES

2.1 Testing Facilities

- | | |
|--|--|
| <p>1. TÜV Rheinland (India) Pvt.Ltd.,
27/B, 2nd Cross,
ElectronicCityPhase1
Bangalore – 560 100,
India
Radiated Measurement site type :
Fully anechoic chamber (used for above 1 GHz
measurements)</p> | <p>2. TUV Rheinland (India) Pvt.Ltd.,
108 , Beside ISBR Business School,
Electronic city Phase I
Bangalore - 560 100.
India
Radiated Measurement site type :
Semi anechoic chamber (used for below 1 GHz
measurements)</p> |
|--|--|

2.2 List of Test and Measurement Instruments

Table 1: List of test and measurement instruments

Equipment	Manufacturer	Model Name	Serial Number	Firmware Versions	Calibration Due Date	Periodicity	Test Facility
EMI Receiver	Rohde & Schwarz	ESW 44	101732	4.73 SP5	30.07.2024	Yearly	Radiated Spurious Emission
Active loop antenna	Frankonia	LAX-10	LAX-10-800	-	23-03-2025	Yearly	
Balun & Biconical Antenna	Schwarzbeck mess-elektronik	VHBB-9124 / BBA-9106	01028	-	08.02.2025	Yearly	
Log-Periodic Antenna	Schwarzbeck mess-elektronik	VUSLP-9111B	9111B-111	-	08.02.2025	Yearly	
Horn Antenna	Schwarzbeck	BBHA 9120 D	9120D-01944	-	28.10.2024	Yearly	
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA 9170-0904	-	15-01-2025	Yearly	
EMI Test Receiver	Rohde & Schwarz	ESW44	101773	1.72.SP1	26.01.2025	Yearly	
Semi Anechoic Chamber	Frankonia	-	-	-	-	-	
Fully Anechoic Chamber	Albatross	-	-	-	-	-	
Signal Analyzer	Rohde & Schwarz	FSV7	101644	3.40	09.02.2025	Yearly	Conducted Test Parameters
Open Switch & Control Unit	Rohde & Schwarz	OSP120 Incl. B157	OSP120-101323 & B157-100894	1.27.0.0	05.01.2025	Yearly	
Vector Signal Generator	Rohde & Schwarz	SMBV 100A	260789	4.15.125.49	09.02.2025	Yearly	
RF and microwave Signal Generator	Rohde & Schwarz	SMB 100A	108788	3.01.203.3 2	09.02.2025	Yearly	
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	1201.0002 K50	3.7	28.10.2024	Yearly	
MicroWave Switch System	KITHELEY	S46	1012004	-	NA	-	
Vector Signal Generator	Rohde & Schwarz	SMU200 A	100994	-	02.05.2025	Yearly	
Fading Simulator	Rohde & Schwarz	ABFS	100179	-	19.09.2024	Yearly	
Spectrum Analyzer	Rohde & Schwarz	FSU26	200767	-	19.09.2024	Yearly	

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EMI Receiver	Rohde & Schwarz	ESR7	101133	3.48 SP3	29.07.2024	Yearly	Conducted AC Power line Test
Two Line V- Network (LISN)	Rohde & Schwarz	ENV 216	100022	-	05.10.2024	Yearly	
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100811	-	12.07.2024	Yearly	

Table 2: Instrument application Software versions

SL. No.	Test Type	Application software	Version
1	Radiated spurious emission measurement in 10mtr SAC	BAT EMC	3.20.0.17
2	Radiated spurious emission measurement in 3mtr FAC	EMC 32	10.60.20
3	Antenna Port conducted measurement: CTE system	CTE	52.1

3 GENERAL PRODUCT INFORMATION

3.1 Product Function and Intended Use

The Hälsa Baby is an All-In-One Wellness Monitor that uses a smart sensor to track your baby's readings. The product package contains two main devices, Hälsa Hub and Hälsa SmartSensor, accompanied with Ankle Bands, Power adapter and Power cable.

The Hälsa Smart Sensor will estimate your baby's skin temperature and SPO2 to measure any variations from your baby's personal baseline. The Hälsa Smart Sensor is inbuilt with sensors, which is the data acquisition point. The Smart Sensor directly communicates via BLE with the Hälsa Hub. The Hälsa Smart Sensor has the capability to measure the following parameters.

- PPG Signal from the optical sensor.
- Track the baby's body temperature.
- Track the baby's motion.
- Status of the Battery

3.2 Ratings and System Details of Equipment under Test

Table 3: Ratings and System Details as declared by the Client*

Radio Protocol		WI-FI 5GHz
Operating Frequency Range		UNII-1 _ 5150MHz to 5250MHz UNII-3 _ 5725MHz to 5850MHz
No. of Channels		(Refer Table 5)
Channel Spacing		20 MHz, 40MHz, 80MHz
Modulation		802.11a: 20MHz Bandwidth OFDM BPSK, OFDM QPSK, OFDM 16QAM & OFDM 64QAM 802.11n: 20MHz & 40MHz Bandwidth OFDM BPSK, OFDM QPSK, OFDM 16QAM & OFDM 64QAM 802.11ac: 20MHz, 40MHz & 80MHz Bandwidth OFDM BPSK, OFDM QPSK, OFDM 16QAM, OFDM 64QAM & OFDM 256QAM
Power level index setting used		Refer the power levels Clause: 9
Maximum Measured Average Power (dBm)		14.92dBm 5795MHz at 802.11ac VHT40
Number of antennas		1
Antenna Model & Gain(dBi)		Internal PCB Chip Antenna with gain of 5.2dBi
Supply Voltage to Product		5VDC , 3A via Certified Power adapter
Environmental Conditions	Storage	Storage Temp: -10°C to +45°C
	Operating	Operating Temp: 0°C to 40°C
EUT Dimension (L x W x H)		152.4x76.2x50.8 (mm) L x W x H

***Disclaimer:** The information/data is supplied by the client and the same is considered to arrive at the final value. Any changes made apart from the specified specification, can directly impact on the tests results. Refer the products user manual for more details.

3.3 Measurement Uncertainty:

Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$

Table 4: Measurement Uncertainty

Parameter	Uncertainty
Occupied Channel Bandwidth	$\pm 5 \%$
RF output power, conducted	$\pm 1.5 \text{ dB}$
Power Spectral Density, conducted	$\pm 3 \text{ dB}$
Unwanted Emissions, conducted	$\pm 3 \text{ dB}$
SAC, radiated measurement	$\pm 6 \text{ dB}$
FAC, radiated measurement	$\pm 6 \text{ dB}$
Temperature	$\pm 3 \text{ }^{\circ}\text{C}$
Supply Voltages	$\pm 3 \%$
Time	$\pm 5 \%$

4 TEST SET-UP AND OPERATION MODE

4.1 Principle of Configuration Selection

Transmission was enabled with highest possible duty cycle on low, mid and high channels.

4.2 UUT Exercise Software

Hardware Version: HBV10

Hardware Name: Halsa Hub

Software Version: Release 2(0.0.43)

4.3 Special Accessories and Auxiliary Equipment

Model Name & Model Number	Power Adapter Ratings
XY-0049	Input: 100-240V ~ 50/60Hz 0.5A Max Output: 5V = 3A, 9V = 2A, 12V = 1.5A

4.4 Test Modes_ data Rates & Modulation

- None

4.5 Simultaneous Transmission

- This product support Simultaneous operation of Wi-Fi 2.4GHz & BLE.

4.6 Countermeasures to achieve EMC Compliance

- None

4.7 List of frequencies

Frequency Band	Channel No.	Frequency (MHz)
5150–5250 MHz	36	5180
	38	5190
	40	5200
	42	5210
	44	5220
	46	5230
	48	5240
5725-5850 MHz	149	5745
	151	5755
	155	5775
	159	5795
	165	5825

Table 5: List of Wi-Fi center Frequencies

Channel used for Wi-Fi Testing

Channel Bandwidth (20MHz)	Channel Bandwidth (40MHz)	Channel Bandwidth (80MHz)
5180	5190	5210
5240	5230	5775
5745	5755	-
5825	5795	-

Note:

TUV Sample Identification number : A003710897-004 – Radiated test Sample &
A003710897-003 – Conducted test Sample

4.8 Report Reference

SL. No	Radio Protocol	Report No
1	Wi-Fi 2.4GHz & BLE	IN24FO3U 001
2	Wi-Fi 5GHz (UNII-1 & UNII-3) → This Report	IN24WR8Y 001

5 OPERATIONAL DESCRIPTION

The Hälsa SmartSensor device contains a FCC-certified Bluetooth Low Energy (BLE) module - ISP1807 (on module antenna). Contains FCC ID: 2AAQS-ISP1807.

The Hälsa Hub manages the nursery environment and maintains the connection between the Hälsa Smart Sensor device via BLE and with a router via Wi-Fi. Furthermore, it makes the local alerts based on the processed data. Hälsa Hub needs to be powered by connected power through a USB wall adapter. This also acts as the charging dock for the Hälsa Smart Sensor device.

Hälsa Hub contains the following features.

- Customizable Night Light
- Customizable and Intelligent Sound Machines and Music
- Touch sensor
- Touch-sensitive Quick Control for Presets
- Audio Monitor
- Two-way communication from the App
- Alexa/Google Home integration
- Environmental sensor for humidity and temperature
- Easy snap on charging for the wearable
- Vitals out of range Alarms/Alerts
- Bluetooth low energy, Wi-Fi 2.4GHz and 5GHz
- Connected power through USB wall adapter

The Hälsa Hub device contains MDBT50Q-P1MV2 BLE module which contains the FCC ID: SH6MDBT50Q and AP6256 Dual Band 2.4GHz. 5GHz WiFi module.

The BLE and Wi-Fi modules are 80mm apart from each other on the same PC board and on the same layer, i.e., the top side. The SmartSensor contains a small lithium polymer battery pack, which will be charged via the Hälsa Hub.

The Hälsa Hub is powered by FCC certified USB power adaptor.

The dimensions of the Device are as follows:

- Hälsa SmartSensor - 0.4" x 1" x 2"
- Hälsa Hub - 2" x 6" x 3"

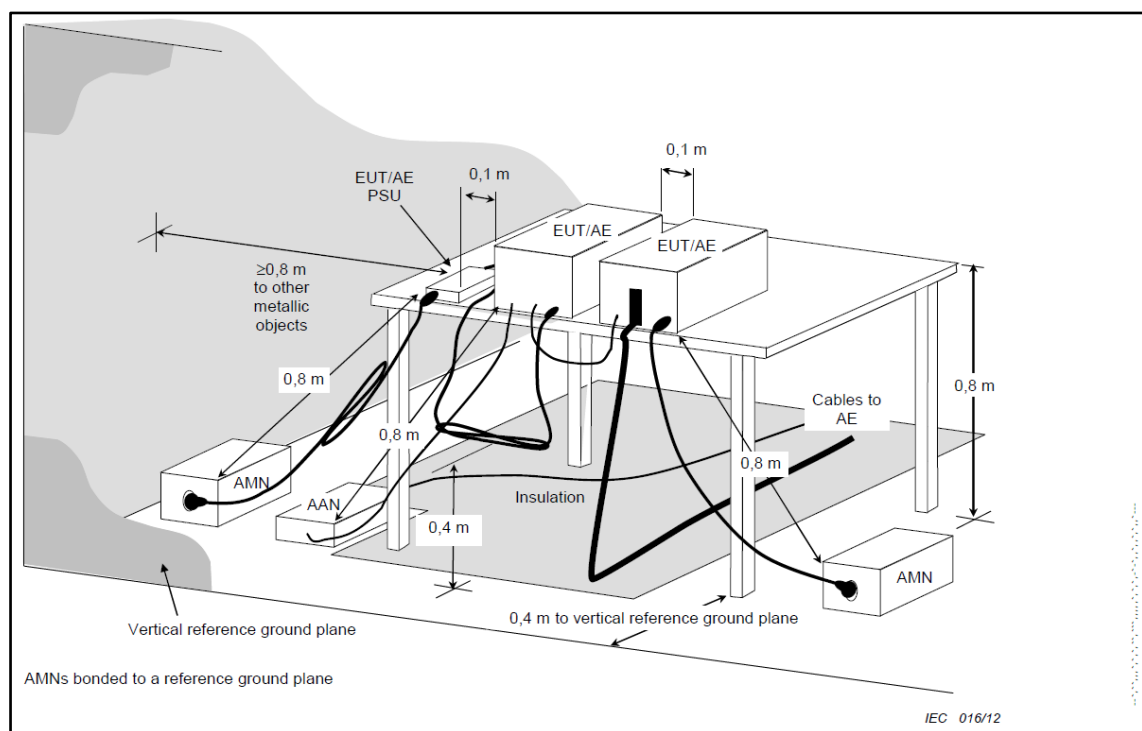
6 TEST METHODOLOGY

6.1 AC Power line Conducted Emission

Measured levels of ac power-line conducted emission across the 50Ω LISN port (to which the EUT is connected). All emission voltage and current measurements shall be made on each current-carrying conductor at the plug end of the EUT power cord by the use of mating plugs and receptacles on the LISN, if used. Equipment shall be tested with power cords that are normally supplied or recommended by the manufacturer and that have electrical and shielding characteristics that are the same as those cords normally supplied or recommended by the manufacturer.

The device is placed on the test table, raised 80cm above the reference ground plane. The vertical conducting plane is located 40cm to the rear of the device. AC Conducted emission measurement is made over frequency range from 150kHz to 30MHz, this measurement was performed with EUT powered with an AC adaptor with 110V AC 60Hz supply .

6.1.1 Test Setup Configuration



6.2 Radiated Emission Test

The radiated emission measurement was performed according to the procedures in ANSI C63.10-2013. The equipment under test (EUT) was placed at the middle of the 80 cm high turntable for below 1 GHz & 1.5 m height for above 1 GHz measurement, and the EUT is 3 meters far from the measuring antenna. The turntable was rotated 360° for obtaining the maximum emission. The height of the measuring antennas was scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations. Repeat the measurement steps until the maximum emissions were obtained. The measurement above 1000 MHz was performed by horn antenna, The measurement below 30 MHz was performed by loop antenna, Measurement from 30 MHz to 200 MHz was performed by Baloon and Biconical Antenna, and measurement from 200 MHz to 1 GHz was performed by Log-Periodic Antenna.

The EUT was rotated around the X-, Y-, and Z-Axis and the results from worst case axis are recorded

6.2.1 Test Setup Configuration

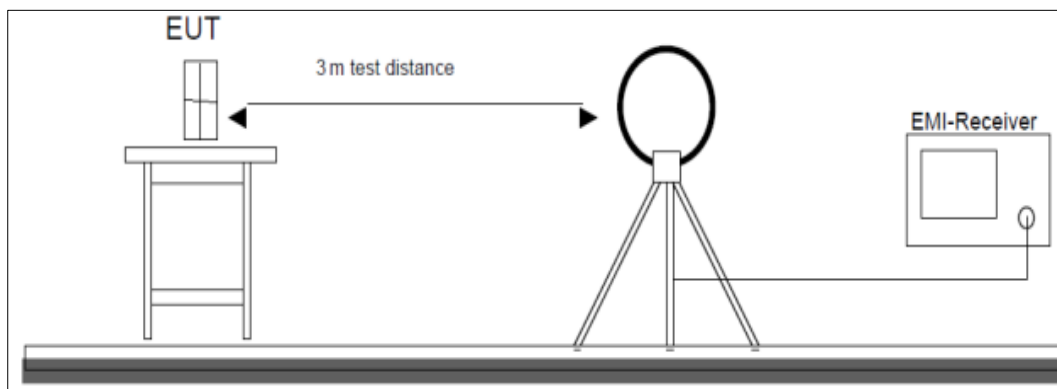


Figure 1: Frequency Range 9 kHz- 30 MHz

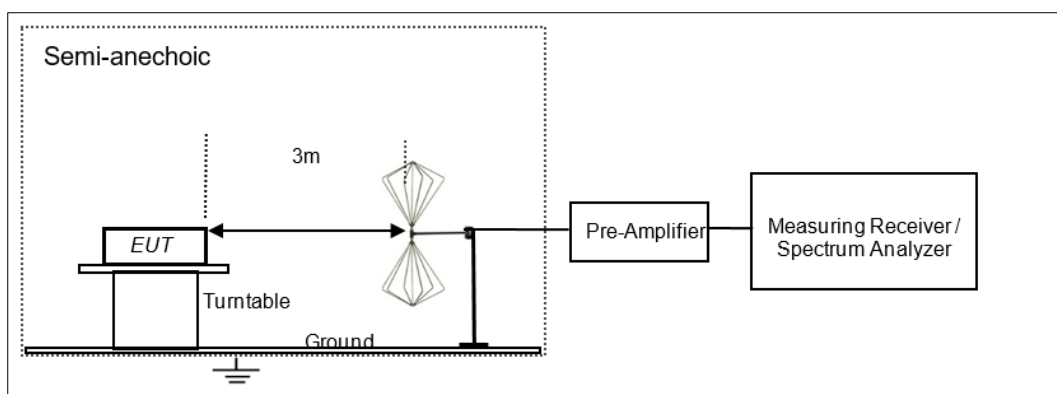


Figure 2: Frequency Range 30 MHz – 200 MHz

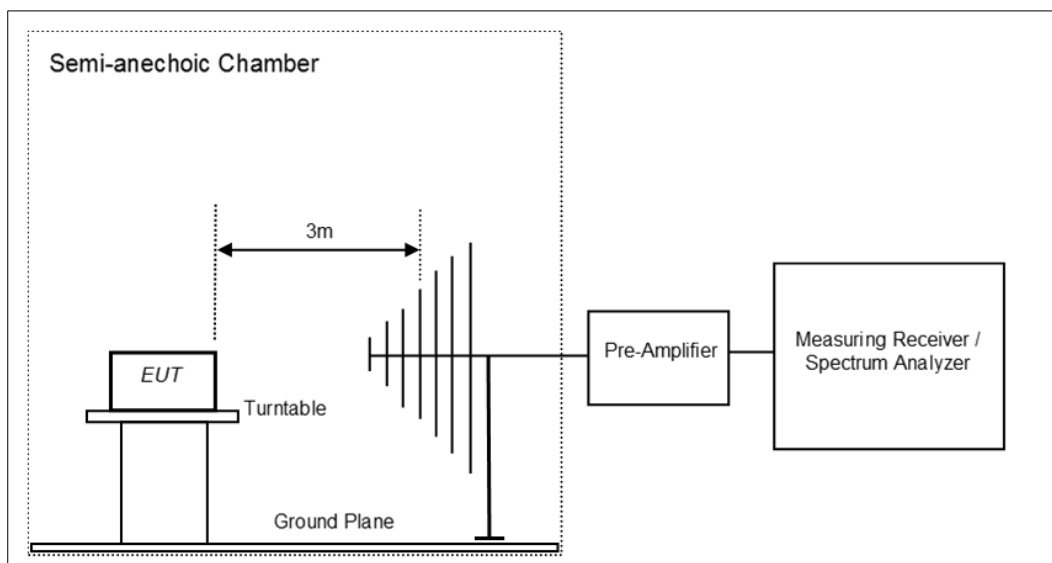


Figure 3: Frequency Range 200 MHz - 1GHz

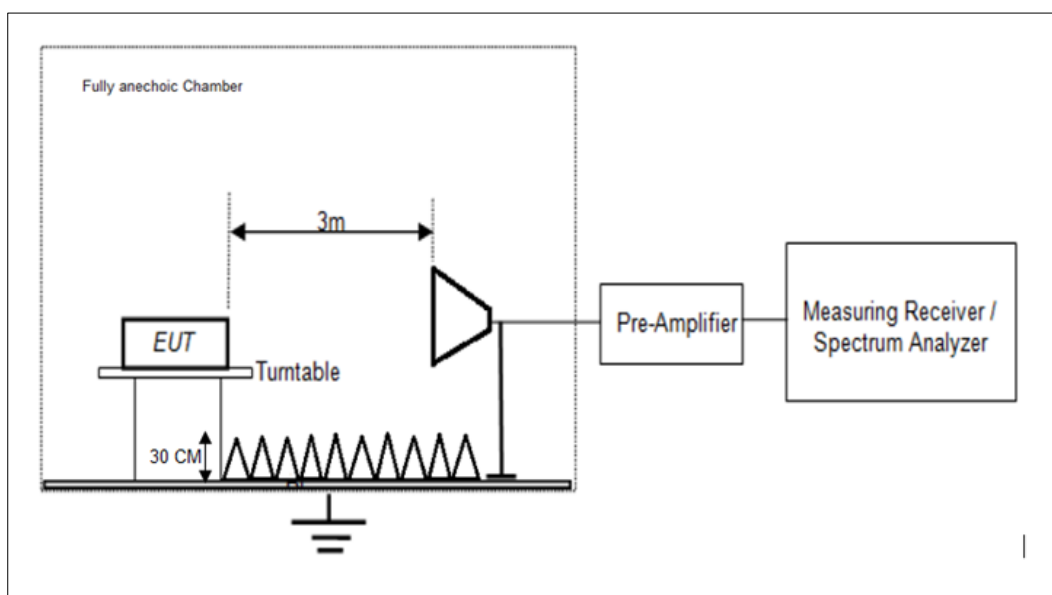


Figure 4: Frequency Range above 1 GHz

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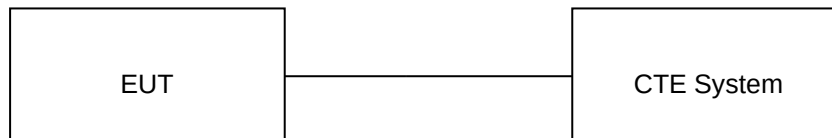
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7 TEST RESULTS

7.1 Duty Cycle

Test Method	Subclause 11.6 of ANSI C63.10 for duty cycle
Measurement Duty Cycle	Refer Test Method below
Detector	Peak/Average
Port of testing	Antenna port

Test Method



Test Condition:

Normal Test Condition:

Temperature (Norm) = + 24.9 °C

Voltage = 5VDC, 3A via Power adapter

Relative humidity: 48 %

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Test Results:

Modulation	Data Rate	Channel Frequency (MHz)	Duty Cycle (%)	Duty cycle correction factor (dB)
802.11a	6	5180	99.08	0.04
		5240	99.08	0.04
		5745	99.08	0.04
		5825	99.08	0.04
	54	5180	92.68	0.33
		5240	92.68	0.33
		5745	92.68	0.33
		5825	92.68	0.33
802.11n HT20	MCS0	5180	99.08	0.04
		5240	99.08	0.04
		5745	99.08	0.04
		5825	99.08	0.04
	MCS7	5180	91.83	0.37
		5240	91.83	0.37
		5745	91.83	0.37
		5825	91.83	0.37
802.11ac VHT20	MCS0	5180	99.08	0.04
		5240	99.08	0.04
		5745	99.08	0.04
		5825	99.08	0.04
	MCS8	5180	90.99	0.41
		5240	90.99	0.41
		5745	90.99	0.41
		5825	90.99	0.41
802.11n HT40	MCS0	5190	98.17	0.08
		5230	98.17	0.08
		5755	98.17	0.08
		5795	98.17	0.08
	MCS7	5190	87.10	0.60
		5230	87.10	0.60
		5755	87.10	0.60
		5795	87.10	0.60
802.11ac VHT40	MCS0	5190	72.78	1.38
		5230	72.78	1.38
		5755	72.78	1.38
		5795	72.78	1.38
	MCS9	5190	60.53	2.18
		5230	60.53	2.18
		5755	60.53	2.18
		5795	60.53	2.18
802.11ac VHT80	MCS0	5210	72.95	1.37
		5775	72.95	1.37
	MCS9	5210	72.95	1.37
		5775	72.95	1.37

***Note:** Duty Cycle Correction Factor(DCCF) = $10 \cdot \log(1/D)$

Where D is Duty Cycle

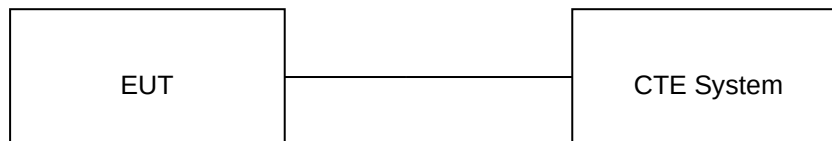
7.2 Emission Bandwidth

Result

Pass

Test Specification	FCC part 15 Subpart C & E, 15.247 (a) (2), 15.407 (a) & (e) RSS Gen Issue 5, section 6.7 & RSS 247 Issue 3, section 6.2.1.1 & 6.2.4.1
Test Method	Subclause 12.4.1 of ANSI C63.10 for emission Bandwidth Subclause 6.93 of ANSI C63.10 for Occupied channel Bandwidth
Measurement Bandwidth	Refer Test Method below
Detector	Refer Test Method below
Port of testing	Antenna port
Requirement	1. 99% emission band width measurement for reporting purpose only in the band 5150-5250 MHz 2. For equipment operating in the band 5725-5850 MHz, the minimum 6 dB bandwidth shall be at least 500 kHz

Test Method



The following procedure shall be used for measuring (99%) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency
2. Set span = 1.5 times to 5.0 times the OBW
3. Set RBW = 1% to 5% of the OBW
4. Set VBW $\geq 3 \times$ RBW
5. Use the 99% power bandwidth function of the instrument
6. Use sample detector with single sweep mode, or use Peak detector and Max Hold mode (until the trace is stabilized)

The following procedure shall be used for measuring 6dB or 26dB emission bandwidth:

1. Set center frequency to the nominal EUT channel center frequency
2. Set span = 1.5 times to 5.0 times the OBW
3. Set RBW = 1% to 5% of the OBW (for 26 dB BW) & 100 kHz (for 6dB BW)
4. Set VBW $\geq 3 \times$ RBW
5. Determine the “-xx dB down amplitude” using [(reference value) - xx]. Alternatively, this calculation may be made by using the marker-delta function of the instrument.

Note : All the steps in measurement method of KDB 789033 D02, ANSI C63.10 section 6.9.2 & 6.9.3, are followed

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Test Condition:

Normal Test Condition:

Temperature (Norm) = + 24.9 °C Voltage = 5VDC, 3A via Power adapter Relative humidity: 48 %

KDB Guidelines applied:

Measurements were made as per section C & D in KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Test results

Note:

1. All the losses are included during measurement.
2. This product do not support additional beamforming gain / directional gain, it uses Internal PCB chip antenna with gain of 5.2dBi.
3. Testing has been performed with the maximum power level setting.

Note: Refer Attached Appendix for test Plots

Modulation	Data Rate	Band	Channel frequency	Measured Emission Bandwidth 26dB (MHz)	Measured Emission Bandwidth 6dB (MHz)	Measured 99% Bandwidth (MHz)
802.11a	6Mbps	UNII 1	5180	21.28	-	16.60
			5240	21.28	-	16.60
		UNII 3	5745	-	16.03	16.60
			5825	-	16.06	16.66
	54Mbps	UNII 1	5180	20.76	-	16.47
			5240	20.89	-	16.47
		UNII 3	5745	-	15.64	16.41
			5825	-	15.36	16.47
802.11n HT20	MCS0	UNII 1	5180	21.53	-	17.88
			5240	22.30	-	17.82
		UNII 3	5745	-	17.15	17.75
			5825	-	16.09	17.75
	MCS7	UNII 1	5180	20.89	-	17.69
			5240	21.02	-	17.69
		UNII 3	5745	-	17.50	17.69
			5825	-	17.53	17.75
802.11ac VHT20	MCS0	UNII 1	5180	22.43	-	17.82
			5240	23.58	-	17.88
		UNII 3	5745	-	17.02	17.75
			5825	-	17.02	17.82
	MCS8	UNII 1	5180	21.28	-	17.69
			5240	21.41	-	17.75
		UNII 3	5745	-	17.60	17.69
			5825	-	17.50	17.50

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Modulation	Data Rate	Band	Channel frequency (MHz)	Measured Emission Bandwidth 26dB (MHz)	Measured Emission Bandwidth 6dB (MHz)	Measured 99% Bandwidth (MHz)
802.11n HT40	MCS0	UNII 1	5190	47.82	-	36.41
			5230	58.20	-	36.53
		UNII 3	5755	-	35.45	36.53
			5795	-	35.45	36.53
	MCS7	UNII 1	5190	41.02	-	36.41
			5230	51.02	-	36.41
		UNII 3	5755	-	35.13	36.28
			5795	-	35.16	36.41
802.11ac VHT40	MCS0	UNII 1	5190	39.35	-	36.41
			5230	46.92	-	36.53
		UNII 3	5755	-	35.16	36.41
			5795	-	35.16	36.41
	MCS9	UNII 1	5190	39.23	-	36.15
			5230	39.61	-	36.15
		UNII 3	5755	-	35.16	36.15
			5795	-	35.16	36.15
802.11ac VHT80	MCS0	UNII 1	5210	91.92	-	76.53
		UNII 3	5775	-	75.16	76.15
	MCS9	UNII 1	5210	94.61	-	76.92
		UNII 3	5775	-	75.16	76.15

7.3 Maximum Conducted Output Power

Result

Pass

Test Specification	FCC part 15 Subpart C 15.247(b) & Subpart E 15.407 (a) & RSS-247 Issue 3 Section 6.2.1 & 6.2.4
Test Method	Subclause 12.3.2.4 of ANSI C63.10
Measurement Bandwidth	Refer the remarks below
Detector	Average detector
Port of testing	Antenna port
Requirement for FCC	Please Refer the Below limits

Limits:

For FCC 15.407(a):

1. 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.
2. For the band 5.725–5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power 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

For ISED according to RSS-247 Clause 6.2

For Frequency band:5150MHz to 5250MHz:

LE-LAN devices are restricted to indoor operation only in the band 5150-5250 MHz. However, original equipment manufacturer (OEM) devices, which are installed in vehicles by vehicles manufacturers, are permitted.

Power limits

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 mW or $1.76 + 10 \log_{10} B$, dBm, whichever is less. Devices shall implement transmitter power control (TPC) in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW.

For other devices, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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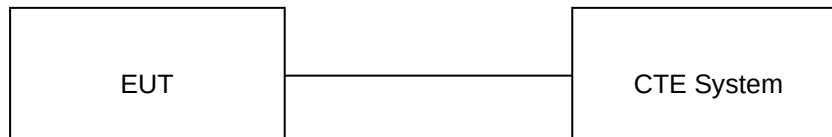
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For Frequency band:5725MHz to 5850MHz

The maximum conducted output power shall not exceed 1 W. The output 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 output 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 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-multipoint3 systems, omnidirectional applications and multiple collocated transmitters transmitting the same information

Test Method



Test Condition:

Normal Test Condition:

Temperature (Norm) = + 24.9 °C Voltage = 5VDC, 3A via Power adapter Relative humidity: 48 %

KDB Guidelines applied:

Measurements were made as per section E 3 sub-section (b) in KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Test results:

Note:

1. All the losses are included during measurement.
2. This product do not support additional beamforming gain / directional gain, it uses Internal PCB chip antenna with gain of 5.2dBi.
3. Testing has been performed with the maximum power level setting.
4. Duty cycle correction factor is considered in Measured Power.
Duty cycle Correction factor = $10 \cdot \log(1/X)$ Where X is Duty Cycle.

Note: Refer Attached Appendix for test Plots

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Modulation	Data Rate	Channel Frequency (MHz)	Measured Power with DCCF (dBm)	e.i.r.p (dBm)	FCC Limit (dBm)	ISED Limit (dBm)	ISED e.i.r.p Limit (dBm)
802.11a	6	5180	12.61	17.81	24.00	-	22.20
		5240	13.05	18.25	24.00	-	22.20
		5745	12.31	17.51	30.00	30.00	-
		5825	13.71	18.91	30.00	30.00	-
	54	5180	12.56	17.76	24.00	-	22.17
		5240	12.97	18.17	24.00	-	22.17
		5745	12.10	17.30	30.00	30.00	-
		5825	13.66	18.86	30.00	30.00	-
802.11n HT20	MCS0	5180	13.23	18.43	24.00	-	22.52
		5240	13.74	18.94	24.00	-	22.51
		5745	10.71	15.91	30.00	30.00	-
		5825	11.59	16.79	30.00	30.00	-
	MCS7	5180	13.29	18.49	24.00	-	22.48
		5240	13.48	18.68	24.00	-	22.48
		5745	10.75	15.95	30.00	30.00	-
		5825	12.62	17.82	30.00	30.00	-
802.11ac VHT20	MCS0	5180	13.24	18.44	24.00	-	22.51
		5240	14.66	19.86	24.00	-	22.52
		5745	10.67	15.87	30.00	30.00	-
		5825	13.37	18.57	30.00	30.00	-
	MCS8	5180	14.13	19.33	24.00	-	22.48
		5240	14.82	20.02	24.00	-	22.49
		5745	10.79	15.99	30.00	30.00	-
		5825	15.35	20.55	30.00	30.00	-
802.11n HT40	MCS0	5190	11.83	17.03	24.00	-	23.01
		5230	13.46	18.66	24.00	-	23.01
		5755	14.77	19.97	30.00	30.00	-
		5795	14.69	19.89	30.00	30.00	-
	MCS7	5190	12.86	18.06	24.00	-	23.01
		5230	13.38	18.58	24.00	-	23.01
		5755	14.89	20.09	30.00	30.00	-
		5795	14.58	19.78	30.00	30.00	-
802.11ac VHT40	MCS0	5190	11.76	16.96	24.00	-	23.01
		5230	14.51	19.71	24.00	-	23.01
		5755	15.04	20.24	30.00	30.00	-
		5795	14.92	20.12	30.00	30.00	-
	MCS9	5190	13.67	18.87	24.00	-	23.01
		5230	14.11	19.31	24.00	-	23.01
		5755	14.71	19.91	30.00	30.00	-
		5795	14.53	19.73	30.00	30.00	-
802.11ac VHT80	MCS0	5210	12.11	17.31	24.00	-	23.01
		5775	14.52	19.72	30.00	30.00	-
	MCS9	5210	13.86	19.06	24.00	-	23.01
		5775	14.51	19.71	30.00	30.00	-

*Note: Where DCF → Duty Cycle Correction factor

7.4 Maximum Power Spectral Density

Result

Pass

Test Specification	FCC part 15 Subpart E 15.407 (a) & RSS-247 Issue 3 Clause 6.2.1 & 6.2.4
Test Method	Subclause 12.5 of ANSI C63.10
Measurement Bandwidth	1 MHz
Detector	Average detector
Port of testing	Antenna port
Requirement for FCC & IC	Please Refer the below the limit

Limits:

For FCC 15.407(a):

1. 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.
2. For the band 5.725–5.850 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.

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According to RSS 247 Issue 3 Clause 6.2

Frequency band: 5150MHz to 5250MHz

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 mW or $1.76 + 10 \log_{10} B$, dBm, whichever is less. Devices shall implement transmitter power control (TPC) in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW.

For other devices, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

Frequency band: 5725MHz to 5850MHz

The maximum conducted output power shall not exceed 1 W. The output 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 output 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 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

Test Method



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The following procedure shall be used:

1. Set center frequency to the nominal EUT channel center frequency
2. Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal
3. Set RBW = 1MHz (5.15-5.25 GHz band) / 500kHz (5.725-5.85 GHz band)
4. Set VBW $\geq 3 \times$ RBW
5. Number of points in sweep $\geq 2 \times$ span / RBW. (This ensures that bin-to-bin spacing is $\leq$ RBW/2, so that narrowband signals are not lost between frequency bins.)
6. Sweep time = auto
7. Detector = power averaging (rms), if available. Otherwise, use sample detector mode
8. Do not use sweep triggering. Allow the sweep to "free run."
9. Trace average at least 100 traces and Compute power by integrating the spectrum across the EBW
10. Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission)
11. If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:
 - a. Set RBW = 1MHz
 - b. Set VBW $\geq 3 \times$ RBW
 - c. If measurement bandwidth of Maximum PSD is specified in 500 kHz

$$\text{PSD bandwidth correction Factor} = 10 * \log(500 \text{ kHz} / \text{RBW})$$

Test Condition:

Normal Test Condition:

Temperature (Norm) = + 24.9 °C

Voltage = 5VDC, 3A via Power adapter

Relative humidity: 48 %

KDB Guidelines applied:

Measurements were made as per section F in KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Test results:

Note:

1. All the losses are included during measurement.
2. This product do not support additional beamforming gain / directional gain, it uses Internal PCB chip antenna with gain of 5.2dBi.
3. Testing has been performed with the maximum power level setting.
4. Duty cycle correction factor is considered in Measured PSD.
Duty cycle Correction factor = $10 * \log(1/X)$ Where X is Duty Cycle.

Note: Refer Attached Appendix for test Plots

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Modulation	Data Rate	Channel Frequency (MHz)	Measured PSD with DCCF (dBm/1MHz)	e.i.r.p PSD (dBm/1MHz)	FCC PSD Limit (dBm/1MHz)	ISED e.i.r.p PSD Limit (dBm/1MHz)
802.11a	6	5180	3.22	8.42	11.00	10.00
		5240	3.69	8.89	11.00	10.00
	54	5180	3.38	8.58	11.00	10.00
		5240	3.80	9.00	11.00	10.00
802.11n HT20	MCS0	5180	3.68	8.88	11.00	10.00
		5240	4.11	9.31	11.00	10.00
	MCS7	5180	3.49	8.69	11.00	10.00
		5240	3.90	9.10	11.00	10.00
802.11ac VHT20	MCS0	5180	3.67	8.87	11.00	10.00
		5240	4.23	9.43	11.00	10.00
	MCS8	5180	4.58	9.78	11.00	10.00
		5240	4.04	9.24	11.00	10.00
802.11n HT40	MCS0	5190	-0.57	4.63	11.00	10.00
		5230	0.86	6.06	11.00	10.00
	MCS7	5190	0.17	5.37	11.00	10.00
		5230	0.64	5.84	11.00	10.00
802.11ac VHT40	MCS0	5190	-0.38	4.82	11.00	10.00
		5230	2.09	7.29	11.00	10.00
	MCS9	5190	1.24	6.44	11.00	10.00
		5230	1.35	6.55	11.00	10.00
802.11ac VHT80	MCS0	5210	-2.82	2.38	11.00	10.00
	MCS9	5210	-0.84	4.36	11.00	10.00

Modulation	Data Rate	Channel Frequency (MHz)	Measured PSD (dBm/500kHz)	FCC / ISED PSD Limit (dBm/500kHz)
802.11a	6	5745	-0.05	30.00
		5825	1.34	30.00
	54	5745	-0.21	30.00
		5825	1.49	30.00
802.11n HT20	MCS0	5745	-1.82	30.00
		5825	-1.00	30.00
	MCS7	5745	-1.74	30.00
		5825	0.06	30.00
802.11ac VHT20	MCS0	5745	-1.85	30.00
		5825	0.72	30.00
	MCS8	5745	-1.96	30.00
		5825	2.68	30.00
802.11n HT40	MCS0	5755	-0.50	30.00
		5795	-0.72	30.00
	MCS7	5755	-0.76	30.00
		5795	-0.89	30.00
802.11ac VHT40	MCS0	5755	-0.17	30.00
		5795	-0.33	30.00
	MCS9	5755	-0.63	30.00
		5795	-0.83	30.00
802.11ac VHT80	MCS0	5775	-3.58	30.00
	MCS9	5775	-3.55	30.00

***Note:** UNII-3(PSD) = Measured PSD+Duty Cycle Correction factor+ Bandwidth Correction Factor

7.5 Spurious Radiated Emissions & Restricted Bands of Operation

Result **Pass**

Test Specification	FCC part 15 Subpart E Section 15.407 (b) (15.205 & 15.209) & RSS 247 Issue 3 Section 6.2.1 & 6.2.4 / RSS Gen Issue 5 Section 8.9 & 8.10
Test Method	ANSI C63.10 – 2013
Measurement Bandwidth	100kHz for below 1GHz 1MHz for above 1GHz
Measurement Location	Semi Anechoic Chamber 30MHz - 1 GHz Fully Anechoic Chamber 1 GHz - 40GHz
Measuring Distance	3 m
Detector	Refer Remark
Requirement	As per the limits mentioned in the below table
Test setup	Refer TEST METHODOLOGY

Limit:

Table 6: Undesirable emission limits

As per FCC Part15 Subaprt E 15.407(b)

- (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 solely in the 5.725–5.850 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.
 - (ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.
- (3) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
- (4) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in § 15.207.

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According to RSS-247 Clause 6.2

Frequency range 5150MHz to 5250MHz

For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth (i.e. 99% bandwidth), above 5250 MHz. The 26 dB bandwidth may fall into the 5250-5350 MHz band; however, if the occupied bandwidth also falls within the 5250-5350 MHz band, the transmission is considered as intentional and the devices shall comply with all requirements in the band 5250-5350 MHz including implementing dynamic frequency selection (DFS) and TPC, on the portion of the emission that resides in the 5250-5350 MHz band.

Frequency range 5745MHz to 5850MHz

Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

- a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges;
- b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;
- c) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and
- d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

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Table 7: Transmitter limits for Radiated emission

Frequency (MHz)	Field strength (μV/m)	Field strength (dBμV/m)	Distance of Measurement (m)
0.009 – 0.490	2400/F(kHz)	48.50 – 13.80	300*
0.490 – 1.705	24000/F(kHz)	33.80 – 23.00	30*
1.705 -30	30	29.54	30*
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Remark: * The limit shows in the table above of frequency range 0.009 – 0.490, 0.490 – 1.705 MHz and 1.705-30MHz is at 300 meter, 30 meter and 30 meter range respectively, which corresponds to 128.51 – 93.80, 73.80 – 62.96 and 69.54 dBμV/m at 3m range by extrapolation calculation and the measurement of loop antenna.

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

Test Condition:

Normal Test Condition:

Temperature (Norm) = + 25.0 °C

Voltage = 5VDC, 3A via Power adapter

Relative humidity: 49 %

Note: Refer Attached Appendix for test Plots

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Test results:

Note: All the losses are included during measurement and final values are mentioned in the test report. Refer TEST METHODOLOGY for more details

Test results for Frequency range : 9kHz – 30MHz

No Emissions found in the frequency range 9kHz – 30MHz

Test results for frequency range 30MHz – 200MHz

Antenna Polarization	Measured Frequency (MHz)	Measured emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
Vertical	46.35(Pk)	25.01	40.00	-14.99
	76.95(Pk)	33.32	40.00	-6.68
	92.82(Pk)	32.50	43.50	-11.00
	99.99(Pk)	32.17	43.50	-11.33
	147.30(Pk)	29.51	43.50	-13.99
Horizontal	77.52(Pk)	25.79	40.00	-14.21
	85.05(Pk)	30.67	40.00	-9.33
	94.59(Pk)	35.32	43.50	-8.18
	117.36(Pk)	21.39	43.50	-22.11
	174.75(Pk)	27.32	43.50	-16.18

Test results for frequency range 200MHz – 1GHz

Antenna Polarization	Measured Frequency (MHz)	Measured emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
Vertical	449.99(Pk)	36.75	46.00	-9.25
	531.68(Pk)	36.84	46.00	-9.16
	550.00(Qp)	36.15	46.00	-9.85
	575.67(Qp)	27.81	46.00	-18.19
	599.99(Qp)	27.63	46.00	-18.37
	725.18(Pk)	33.15	46.00	-12.85
	814.01(Pk)	39.08	46.00	-6.92
Horizontal	400.20(Qp)	28.36	46.00	-17.64
	429.11(Pk)	37.13	46.00	-8.87
	550.01(Pk)	37.99	46.00	-8.01
	573.05(Pk)	38.41	46.00	-7.59

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Test results for frequency range – 1GHz to 40 GHz

Modulation: 802.11a

Data Rate: 6Mbps

Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5180	5180 (Pk)	Vertical	94.52	-	-
	5180 (Av)		85.68	-	-
	5150 (Pk)		58.92	74.00*	-15.08
	5150 (Av)		39.77	54.00*	-14.23
	10360 (Pk)		51.76	68.23	-16.47
	10360 (Av)		39.86	54.00	-14.14
	15540 (Pk)		54.65	68.23	-13.58
	15540 (Av)		42.41	54.00	-11.59
	5180 (Pk)	Horizontal	89.87	-	-
	5180 (Av)		81.10	-	-
	5150 (Pk)		54.17	74.00*	-19.83
	5150 (Av)		36.08	54.00*	-17.92
	10360 (Pk)		52.96	68.23	-15.27
	10360 (Av)		39.73	54.00	-14.27
	15540 (Pk)		54.74	68.23	-13.49
	15540 (Av)		42.36	54.00	-11.64
5240	5240 (Pk)	Vertical	94.30	-	-
	5240 (Av)		85.48	-	-
	5350 (Pk)		42.93	74.00*	-31.07
	5350 (Av)		30.02	54.00*	-23.98
	10480 (Pk)		52.73	68.23	-15.50
	10480 (Av)		40.84	54.00	-13.16
	15720 (Pk)		54.14	68.23	-14.09
	15720 (Av)		41.64	54.00	-12.36
	5240 (Pk)	Horizontal	90.18	-	-
	5240 (Av)		81.45	-	-
	5350 (Pk)		42.34	74.00*	-31.66
	5350 (Av)		29.73	54.00*	-24.27
	10480 (Pk)		53.14	68.23	-15.09
	10480 (Av)		40.80	54.00	-13.20
	15720 (Pk)		54.29	68.23	-13.94
	15720 (Av)		41.64	54.00	-12.36

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Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5745	5745 (Pk)	Vertical	94.89	-	-
	5745 (Av)		86.03	-	-
	5650(Pk)		43.71	68.23*	-24.52
	5700(Pk)		46.57	105.23*	-58.66
	5720(Pk)		52.26	110.83*	-58.57
	5725(Pk)		52.67	122.23*	-69.56
	11490 (Pk)		55.38	68.23	-12.85
	11490 (Av)		42.82	54.00	-11.18
	17235 (Pk)		58.09	68.23	-10.14
	17235 (Av)		45.60	54.00	-8.40
	5745 (Pk)	Horizontal	94.14	-	-
	5745 (Av)		85.42	-	-
	5650(Pk)		43.25	68.23*	-24.98
	5700(Pk)		45.04	105.23*	-60.19
	5720(Pk)		51.92	110.83*	-58.91
	5725(Pk)		52.47	122.23*	-69.76
	11490 (Pk)		55.13	68.23	-13.10
	11490 (Av)		42.88	54.00	-11.12
	17235 (Pk)		57.09	68.23	-11.14
	17235 (Av)		45.57	54.00	-8.43
5825	5825 (Pk)	Vertical	98.17	-	-
	5825 (Av)		89.44	-	-
	5850 (Pk)		58.18	122.23*	-64.05
	5855 (Pk)		54.13	110.83*	-56.70
	5875 (Pk)		46.16	105.23*	-59.07
	5925 (Pk)		44.49	68.23*	-23.74
	11650 (Pk)		54.63	68.23	-13.60
	11650 (Av)		42.15	54.00	-11.85
	17475 (Pk)		59.07	68.23	-9.16
	17475 (Av)		46.68	54.00	-7.32
	5825 (Pk)	Horizontal	96.96	-	-
	5825 (Av)		88.14	-	-
	5850 (Pk)		57.68	122.23*	-64.55
	5855 (Pk)		54.52	110.83*	-56.31
	5875 (Pk)		46.22	105.23*	-59.01
	5925 (Pk)		43.80	68.23*	-24.43
	11650 (Pk)		54.80	68.23	-13.43
	11650 (Av)		42.21	54.00	-11.79
	17475 (Pk)		59.01	68.23	-9.22
	17475 (Pk)		46.72	54.00	-7.28

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Data Rate: 54Mbps

Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5180	5180 (Pk)	Vertical	95.49	-	-
	5180 (Av)		85.19	-	-
	5150 (Pk)		58.82	74.00*	-15.18
	5150 (Av)		42.97	54.00*	-11.03
	10360 (Pk)		52.20	68.23	-16.03
	10360 (Av)		39.80	54.00	-14.20
	15540 (Pk)		54.75	68.23	-13.48
	15540 (Av)		42.34	54.00	-11.66
	5180 (Pk)	Horizontal	90.84	-	-
	5180 (Av)		80.66	-	-
	5150 (Pk)		53.75	74.00*	-20.25
	5150 (Av)		39.03	54.00*	-14.97
	10360 (Pk)		52.89	68.23	-15.34
	10360 (Av)		39.73	54.00	-14.27
	15540 (Pk)		54.45	68.23	-13.78
	15540 (Av)		42.33	54.00	-11.67
5240	5240 (Pk)	Vertical	95.34	-	-
	5240 (Av)		84.78	-	-
	5350 (Pk)		42.73	74.00*	-31.27
	5350 (Av)		30.07	54.00*	-23.93
	10480 (Pk)		53.50	68.23	-14.73
	10480 (Av)		40.84	54.00	-13.16
	15720 (Pk)		53.79	68.23	-14.44
	15720 (Av)		41.64	54.00	-12.36
	5240 (Pk)	Horizontal	91.29	-	-
	5240 (Av)		81.00	-	-
	5350 (Pk)		42.67	74.00*	-31.33
	5350 (Av)		29.73	54.00*	-24.27
	10480 (Pk)		53.40	68.23	-14.83
	10480 (Av)		40.81	54.00	-13.19
	15720 (Pk)		54.52	68.23	-13.71
	15720 (Av)		41.63	54.00	-12.37

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Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5745	5745 (Pk)	Vertical	96.32	-	-
	5745 (Av)		85.91	-	-
	5650(Pk)		43.17	68.23*	-25.06
	5700(Pk)		45.77	105.23*	-59.46
	5720(Pk)		53.43	110.83*	-57.40
	5725(Pk)		55.93	122.23*	-66.30
	11490 (Pk)		55.01	68.23	-13.22
	11490 (Av)		42.89	54.00	-11.11
	17235 (Pk)		57.42	68.23	-10.81
	17235 (Av)		45.55	54.00	-8.45
	5745 (Pk)	Horizontal	95.46	-	-
	5745 (Av)		85.14	-	-
	5650(Pk)		43.27	68.23*	-24.96
	5700(Pk)		44.42	105.23*	-60.81
	5720(Pk)		52.04	110.83*	-58.79
	5725(Pk)		55.22	122.23*	-67.01
	11490 (Pk)		54.88	68.23	-13.35
	11490 (Av)		42.85	54.00	-11.15
	17235 (Pk)		57.41	68.23	-10.82
	17235 (Av)		45.58	54.00	-8.42
5825	5825 (Pk)	Vertical	99.00	-	-
	5825 (Av)		88.77	-	-
	5850 (Pk)		58.11	122.23*	-64.12
	5855 (Pk)		55.38	110.83*	-55.45
	5875 (Pk)		46.47	105.23*	-58.76
	5925 (Pk)		44.42	68.23*	-23.81
	11650 (Pk)		54.72	68.23	-13.51
	11650 (Av)		42.27	54.00	-11.73
	17475 (Pk)		58.51	68.23	-9.72
	17475 (Av)		46.66	54.00	-7.34
	5825 (Pk)	Horizontal	97.72	-	-
	5825 (Av)		87.60	-	-
	5850 (Pk)		57.69	122.23*	-64.54
	5855 (Pk)		54.04	110.83*	-56.79
	5875 (Pk)		46.57	105.23*	-58.66
	5925 (Pk)		44.18	68.23*	-24.05
	11650 (Pk)		54.37	68.23	-13.86
	11650 (Av)		42.21	54.00	-11.79
	17475 (Pk)		59.06	68.23	-9.17
	17475 (Pk)		46.68	54.00	-7.32

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Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5180	5180 (Pk)	Vertical	96.28	-	-
	5180 (Av)		85.88	-	-
	5150 (Pk)		58.29	74.00*	-15.71
	5150 (Av)		40.54	54.00*	-13.46
	10360 (Pk)		52.36	68.23	-15.87
	10360 (Av)		39.71	54.00	-14.29
	15540 (Pk)		54.06	68.23	-14.17
	15540 (Av)		42.25	54.00	-11.75
	5180 (Pk)	Horizontal	91.08	-	-
	5180 (Av)		81.42	-	-
	5150 (Pk)		52.70	74.00*	-21.30
	5150 (Av)		36.76	54.00*	-17.24
	10360 (Pk)		52.30	68.23	-15.93
	10360 (Av)		39.72	54.00	-14.28
	15540 (Pk)		54.40	68.23	-13.83
	15540 (Av)		42.25	54.00	-11.75
5240	5240 (Pk)	Vertical	95.87	-	-
	5240 (Av)		85.87	-	-
	5350 (Pk)		43.13	74.00*	-30.87
	5350 (Av)		30.17	54.00*	-23.83
	10480 (Pk)		52.33	68.23	-15.90
	10480 (Av)		40.77	54.00	-13.23
	15720 (Pk)		53.67	68.23	-14.56
	15720 (Av)		41.57	54.00	-12.43
	5240 (Pk)	Horizontal	91.12	-	-
	5240 (Av)		81.57	-	-
	5350 (Pk)		42.42	74.00*	-31.58
	5350 (Av)		29.80	54.00*	-24.20
	10480 (Pk)		52.83	68.23	-15.40
	10480 (Av)		40.81	54.00	-13.19
	15720 (Pk)		53.82	68.23	-14.41
	15720 (Av)		41.66	54.00	-12.34

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Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5745	5745 (Pk)	Vertical	94.86	-	-
	5745 (Av)		84.76	-	-
	5650(Pk)		43.35	68.23*	-24.88
	5700(Pk)		44.78	105.23*	-60.45
	5720(Pk)		51.25	110.83*	-59.58
	5725(Pk)		55.91	122.23*	-66.32
	11490 (Pk)		54.43	68.23	-13.80
	11490 (Av)		42.81	54.00	-11.19
	17235 (Pk)		57.62	68.23	-10.61
	17235 (Av)		45.54	54.00	-8.46
	5745 (Pk)	Horizontal	94.49	-	-
	5745 (Av)		84.33	-	-
	5650(Pk)		43.44	68.23*	-24.79
	5700(Pk)		44.35	105.23*	-60.88
	5720(Pk)		52.56	110.83*	-58.27
	5725(Pk)		53.88	122.23*	-68.35
	11490 (Pk)		56.56	68.23	-11.67
	11490 (Av)		42.85	54.00	-11.15
	17235 (Pk)		57.65	68.23	-10.58
	17235 (Av)		45.59	54.00	-8.41
5825	5825 (Pk)	Vertical	96.87	-	-
	5825 (Av)		87.01	-	-
	5850 (Pk)		53.96	122.23*	-68.27
	5855 (Pk)		52.87	110.83*	-57.96
	5875 (Pk)		45.26	105.23*	-59.97
	5925 (Pk)		44.98	68.23*	-23.25
	11650 (Pk)		54.41	68.23	-13.82
	11650 (Av)		42.18	54.00	-11.82
	17475 (Pk)		58.63	68.23	-9.60
	17475 (Av)		46.74	54.00	-7.26
	5825 (Pk)	Horizontal	96.05	-	-
	5825 (Av)		85.99	-	-
	5850 (Pk)		52.89	122.23*	-69.34
	5855 (Pk)		54.05	110.83*	-56.78
	5875 (Pk)		45.04	105.23*	-60.19
	5925 (Pk)		44.32	68.23*	-23.91
	11650 (Pk)		55.09	68.23	-13.14
	11650 (Av)		42.22	54.00	-11.78
	17475 (Pk)		59.50	68.23	-8.73
	17475 (Pk)		46.73	54.00	-7.27

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Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5180	5180 (Pk)	Vertical	96.52	-	-
	5180 (Av)		85.11	-	-
	5150 (Pk)		59.84	74.00*	-14.16
	5150 (Av)		41.31	54.00*	-12.69
	10360 (Pk)		52.32	68.23	-15.91
	10360 (Av)		39.71	54.00	-14.29
	15540 (Pk)		54.47	68.23	-13.76
	15540 (Av)		42.26	54.00	-11.74
	5180 (Pk)	Horizontal	92.19	-	-
	5180 (Av)		80.55	-	-
	5150 (Pk)		54.37	74.00*	-19.63
	5150 (Av)		37.38	54.00*	-16.62
	10360 (Pk)		51.70	68.23	-16.53
	10360 (Av)		39.74	54.00	-14.26
	15540 (Pk)		55.24	68.23	-12.99
	15540 (Av)		42.24	54.00	-11.76
5240	5240 (Pk)	Vertical	97.33	-	-
	5240 (Av)		85.49	-	-
	5350 (Pk)		42.96	74.00*	-31.04
	5350 (Av)		30.22	54.00*	-23.78
	10480 (Pk)		54.66	68.23	-13.57
	10480 (Av)		40.78	54.00	-13.22
	15720 (Pk)		54.22	68.23	-14.01
	15720 (Av)		41.59	54.00	-12.41
	5240 (Pk)	Horizontal	93.54	-	-
	5240 (Av)		81.60	-	-
	5350 (Pk)		42.38	74.00*	-31.62
	5350 (Av)		29.76	54.00*	-24.24
	10480 (Pk)		52.89	68.23	-15.34
	10480 (Av)		40.78	54.00	-13.22
	15720 (Pk)		53.15	68.23	-15.08
	15720 (Av)		41.65	54.00	-12.35

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Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5745	5745 (Pk)	Vertical	95.55	-	-
	5745 (Av)		83.95	-	-
	5650(Pk)		43.85	68.23*	-24.38
	5700(Pk)		44.33	105.23*	-60.90
	5720(Pk)		53.83	110.83*	-57.00
	5725(Pk)		56.36	122.23*	-65.87
	11490 (Pk)		55.18	68.23	-13.05
	11490 (Av)		42.83	54.00	-11.17
	17235 (Pk)		57.14	68.23	-11.09
	17235 (Av)		45.60	54.00	-8.40
	5745 (Pk)	Horizontal	95.00	-	-
	5745 (Av)		83.45	-	-
	5650(Pk)		43.55	68.23*	-24.68
	5700(Pk)		44.06	105.23*	-61.17
	5720(Pk)		52.29	110.83*	-58.54
	5725(Pk)		56.42	122.23*	-65.81
	11490 (Pk)		54.94	68.23	-13.29
	11490 (Av)		42.88	54.00	-11.12
	17235 (Pk)		58.36	68.23	-9.87
	17235 (Av)		45.57	54.00	-8.43
5825	5825 (Pk)	Vertical	98.90	-	-
	5825 (Av)		87.43	-	-
	5850 (Pk)		58.26	122.23*	-63.97
	5855 (Pk)		55.23	110.83*	-55.60
	5875 (Pk)		45.71	105.23*	-59.52
	5925 (Pk)		44.47	68.23*	-23.76
	11650 (Pk)		55.04	68.23	-13.19
	11650 (Av)		42.19	54.00	-11.81
	17475 (Pk)		60.01	68.23	-8.22
	17475 (Av)		46.65	54.00	-7.35
	5825 (Pk)	Horizontal	97.76	-	-
	5825 (Av)		86.38	-	-
	5850 (Pk)		56.62	122.23*	-65.61
	5855 (Pk)		54.11	110.83*	-56.72
	5875 (Pk)		45.98	105.23*	-59.25
	5925 (Pk)		45.40	68.23*	-22.83
	11650 (Pk)		54.33	68.23	-13.90
	11650 (Av)		42.21	54.00	-11.79
	17475 (Pk)		59.57	68.23	-8.66
	17475 (Pk)		46.68	54.00	-7.32

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Modulation: 802.11ac VHT20

Data Rate: MCS0

Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5180	5180 (Pk)	Vertical	95.64	-	-
	5180 (Av)		86.16	-	-
	5150 (Pk)		58.94	74.00*	-15.06
	5150 (Av)		40.52	54.00*	-13.48
	10360 (Pk)		51.93	68.23	-16.30
	10360 (Av)		39.77	54.00	-14.23
	15540 (Pk)		53.87	68.23	-14.36
	15540 (Av)		42.31	54.00	-11.69
	5180 (Pk)	Horizontal	91.30	-	-
	5180 (Av)		82.00	-	-
	5150 (Pk)		53.52	74.00*	-20.48
	5150 (Av)		36.99	54.00*	-17.01
	10360 (Pk)		52.22	68.23	-16.01
	10360 (Av)		39.74	54.00	-14.26
	15540 (Pk)		55.08	68.23	-13.15
	15540 (Av)		42.33	54.00	-11.67
5240	5240 (Pk)	Vertical	97.03	-	-
	5240 (Av)		87.32	-	-
	5350 (Pk)		42.86	74.00*	-31.14
	5350 (Av)		30.45	54.00*	-23.55
	10480 (Pk)		52.76	68.23	-15.47
	10480 (Av)		40.83	54.00	-13.17
	15720 (Pk)		54.54	68.23	-13.69
	15720 (Av)		41.66	54.00	-12.34
	5240 (Pk)	Horizontal	92.60	-	-
	5240 (Av)		83.12	-	-
	5350 (Pk)		42.83	74.00*	-31.17
	5350 (Av)		29.87	54.00*	-24.13
	10480 (Pk)		52.89	68.23	-15.34
	10480 (Av)		40.84	54.00	-13.16
	15720 (Pk)		54.28	68.23	-13.95
	15720 (Av)		41.75	54.00	-12.25

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Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5745	5745 (Pk)	Vertical	94.79	-	-
	5745 (Av)		84.83	-	-
	5650(Pk)		43.92	68.23*	-24.31
	5700(Pk)		44.74	105.23*	-60.49
	5720(Pk)		51.33	110.83*	-59.50
	5725(Pk)		55.84	122.23*	-66.39
	11490 (Pk)		55.12	68.23	-13.11
	11490 (Av)		42.94	54.00	-11.06
	17235 (Pk)		57.69	68.23	-10.54
	17235 (Av)		45.51	54.00	-8.49
	5745 (Pk)	Horizontal	94.25	-	-
	5745 (Av)		84.17	-	-
	5650(Pk)		43.75	68.23*	-24.48
	5700(Pk)		43.72	105.23*	-61.51
	5720(Pk)		49.14	110.83*	-61.69
	5725(Pk)		52.26	122.23*	-69.97
	11490 (Pk)		54.92	68.23	-13.31
	11490 (Av)		42.98	54.00	-11.02
	17235 (Pk)		57.98	68.23	-10.25
	17235 (Av)		45.59	54.00	-8.41
5825	5825 (Pk)	Vertical	98.70	-	-
	5825 (Av)		89.06	-	-
	5850 (Pk)		57.99	122.23*	-64.24
	5855 (Pk)		56.41	110.83*	-54.42
	5875 (Pk)		47.71	105.23*	-57.52
	5925 (Pk)		44.72	68.23*	-23.51
	11650 (Pk)		54.50	68.23	-13.73
	11650 (Av)		42.24	54.00	-11.76
	17475 (Pk)		59.43	68.23	-8.80
	17475 (Av)		46.64	54.00	-7.36
	5825 (Pk)	Horizontal	97.07	-	-
	5825 (Av)		87.54	-	-
	5850 (Pk)		57.28	122.23*	-64.95
	5855 (Pk)		54.83	110.83*	-56.00
	5875 (Pk)		46.15	105.23*	-59.08
	5925 (Pk)		44.45	68.23*	-23.78
	11650 (Pk)		54.60	68.23	-13.63
	11650 (Av)		42.26	54.00	-11.74
	17475 (Pk)		59.12	68.23	-9.11
	17475 (Pk)		46.68	54.00	-7.32

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Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5180	5180 (Pk)	Vertical	97.89	-	-
	5180 (Av)		86.17	-	-
	5150 (Pk)		62.36	74.00*	-11.64
	5150 (Av)		46.89	54.00*	-7.11
	10360 (Pk)		52.01	68.23	-16.22
	10360 (Av)		39.72	54.00	-14.28
	15540 (Pk)		54.47	68.23	-13.76
	15540 (Av)		42.30	54.00	-11.70
	5180 (Pk)	Horizontal	93.21	-	-
	5180 (Av)		81.63	-	-
	5150 (Pk)		57.82	74.00*	-16.18
	5150 (Av)		42.63	54.00*	-11.37
	10360 (Pk)		51.53	68.23	-16.70
	10360 (Av)		39.74	54.00	-14.26
	15540 (Pk)		54.71	68.23	-13.52
	15540 (Av)		42.28	54.00	-11.72
5240	5240 (Pk)	Vertical	98.08	-	-
	5240 (Av)		86.43	-	-
	5350 (Pk)		43.81	74.00*	-30.19
	5350 (Av)		30.31	54.00*	-23.69
	10480 (Pk)		52.95	68.23	-15.28
	10480 (Av)		40.80	54.00	-13.20
	15720 (Pk)		54.95	68.23	-13.28
	15720 (Av)		41.68	54.00	-12.32
	5240 (Pk)	Horizontal	93.87	-	-
	5240 (Av)		82.28	-	-
	5350 (Pk)		42.84	74.00*	-31.16
	5350 (Av)		29.78	54.00*	-24.22
	10480 (Pk)		52.51	68.23	-15.72
	10480 (Av)		40.82	54.00	-13.18
	15720 (Pk)		54.15	68.23	-14.08
	15720 (Av)		41.67	54.00	-12.33

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Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5745	5745 (Pk)	Vertical	95.57	-	-
	5745 (Av)		84.00	-	-
	5650(Pk)		43.13	68.23*	-25.10
	5700(Pk)		44.44	105.23*	-60.79
	5720(Pk)		52.64	110.83*	-58.19
	5725(Pk)		53.59	122.23*	-68.64
	11490 (Pk)		54.86	68.23	-13.37
	11490 (Av)		42.89	54.00	-11.11
	17235 (Pk)		58.44	68.23	-9.79
	17235 (Av)		45.57	54.00	-8.43
	5745 (Pk)	Horizontal	95.80	-	-
	5745 (Av)		83.90	-	-
	5650(Pk)		43.69	68.23*	-24.54
	5700(Pk)		43.90	105.23*	-61.33
	5720(Pk)		51.73	110.83*	-59.10
	5725(Pk)		52.36	122.23*	-69.87
	11490 (Pk)		54.96	68.23	-13.27
	11490 (Av)		42.80	54.00	-11.20
	17235 (Pk)		58.10	68.23	-10.13
	17235 (Av)		45.56	54.00	-8.44
5825	5825 (Pk)	Vertical	101.56	-	-
	5825 (Av)		89.97	-	-
	5850 (Pk)		62.89	122.23*	-59.34
	5855 (Pk)		60.92	110.83*	-49.91
	5875 (Pk)		51.00	105.23*	-54.23
	5925 (Pk)		44.15	68.23*	-24.08
	11650 (Pk)		54.92	68.23	-13.31
	11650 (Av)		42.19	54.00	-11.81
	17475 (Pk)		59.30	68.23	-8.93
	17475 (Av)		46.60	54.00	-7.40
	5825 (Pk)	Horizontal	100.55	-	-
	5825 (Av)		88.91	-	-
	5850 (Pk)		61.48	122.23*	-60.75
	5855 (Pk)		59.99	110.83*	-50.84
	5875 (Pk)		49.31	105.23*	-55.92
	5925 (Pk)		44.52	68.23*	-23.71
	11650 (Pk)		54.89	68.23	-13.34
	11650 (Av)		42.17	54.00	-11.83
	17475 (Pk)		58.47	68.23	-9.76
	17475 (Pk)		46.64	54.00	-7.36

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Data Rate: MCS0

Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5190	5190 (Pk)	Vertical	91.67	-	-
	5190 (Av)		81.25	-	-
	5150 (Pk)		54.14	74.00*	-19.86
	5150 (Av)		37.93	54.00*	-16.07
	10380 (Pk)		51.59	68.23	-16.64
	10380 (Av)		39.97	54.00	-14.03
	15570 (Pk)		53.90	68.23	-14.33
	15570 (Av)		42.06	54.00	-11.94
	5190 (Pk)	Horizontal	87.37	-	-
	5190 (Av)		77.24	-	-
	5150 (Pk)		51.14	74.00*	-22.86
	5150 (Av)		35.03	54.00*	-18.97
	10380 (Pk)		52.13	68.23	-16.10
	10380 (Av)		39.98	54.00	-14.02
	15570 (Pk)		54.30	68.23	-13.93
	15570 (Av)		42.06	54.00	-11.94
5230	5230 (Pk)	Vertical	92.72	-	-
	5230 (Av)		83.25	-	-
	5350 (Pk)		48.84	74.00*	-25.16
	5350 (Av)		32.50	54.00*	-21.50
	10460 (Pk)		52.60	68.23	-15.63
	10460 (Av)		40.73	54.00	-13.27
	15690 (Pk)		53.85	68.23	-14.38
	15690 (Av)		41.56	54.00	-12.44
	5230 (Pk)	Horizontal	88.89	-	-
	5230 (Av)		79.41	-	-
	5350 (Pk)		44.82	74.00*	-29.18
	5350 (Av)		31.20	54.00*	-22.80
	10460 (Pk)		52.88	68.23	-15.35
	10460 (Av)		40.67	54.00	-13.33
	15690 (Pk)		54.26	68.23	-13.97
	15690 (Av)		41.56	54.00	-12.44

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Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5755	5755 (Pk)	Vertical	96.21	-	-
	5755 (Av)		86.49	-	-
	5650(Pk)		45.34	68.23*	-22.89
	5700(Pk)		53.88	105.23*	-51.35
	5720(Pk)		63.62	110.83*	-47.21
	5725(Pk)		66.11	122.23*	-56.12
	11510 (Pk)		55.68	68.23	-12.55
	11510 (Av)		42.93	54.00	-11.07
	17265 (Pk)		57.45	68.23	-10.78
	17265 (Av)		45.10	54.00	-8.90
	5755 (Pk)	Horizontal	95.32	-	-
	5755 (Av)		85.21	-	-
	5650(Pk)		45.25	68.23*	-22.98
	5700(Pk)		52.90	105.23*	-52.33
	5720(Pk)		62.73	110.83*	-48.10
	5725(Pk)		65.35	122.23*	-56.88
	11510 (Pk)		55.43	68.23	-12.80
	11510 (Av)		42.95	54.00	-11.05
	17265 (Pk)		57.10	68.23	-11.13
	17265 (Av)		45.07	54.00	-8.93
5795	5795 (Pk)	Vertical	96.67	-	-
	5795 (Av)		86.70	-	-
	5850 (Pk)		57.48	122.23*	-64.72
	5855(Pk)		56.43	110.83*	-54.37
	5875(Pk)		51.99	105.23*	-53.21
	5925 (Pk)		45.26	68.23*	-22.97
	11590 (Pk)		54.33	68.23	-13.90
	11590 (Av)		42.37	54.00	-11.63
	17385 (Pk)		57.01	68.23	-11.22
	17385 (Pk)		45.37	54.00	-8.63
	5795 (Pk)	Horizontal	96.56	-	-
	5795 (Av)		86.54	-	-
	5850 (Pk)		56.31	122.23*	-65.89
	5855(Pk)		55.28	110.83*	-55.52
	5875(Pk)		52.50	105.23*	-52.70
	5925 (Pk)		45.13	68.23*	-23.10
	11590 (Pk)		54.70	68.23	-13.53
	11590 (Av)		42.42	54.00	-11.58
	17385 (Pk)		57.37	68.23	-10.86
	17385 (Pk)		45.38	54.00	-8.62

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Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5190	5190 (Pk)	Vertical	93.33	-	-
	5190 (Av)		81.16	-	-
	5150 (Pk)		59.34	74.00*	-14.66
	5150 (Av)		45.52	54.00*	-8.48
	10380 (Pk)		52.69	68.23	-15.54
	10380 (Av)		39.94	54.00	-14.06
	15570 (Pk)		54.50	68.23	-13.73
	15570 (Av)		42.07	54.00	-11.93
	5190 (Pk)	Horizontal	88.51	-	-
	5190 (Av)		76.85	-	-
	5150 (Pk)		54.86	74.00*	-19.14
	5150 (Av)		41.25	54.00*	-12.75
	10380 (Pk)		52.00	68.23	-16.23
	10380 (Av)		39.93	54.00	-14.07
	15570 (Pk)		54.08	68.23	-14.15
	15570 (Av)		42.15	54.00	-11.85
5230	5230 (Pk)	Vertical	94.10	-	-
	5230 (Av)		82.18	-	-
	5350 (Pk)		49.33	74.00*	-24.67
	5350 (Av)		34.20	54.00*	-19.80
	10460 (Pk)		52.24	68.23	-15.99
	10460 (Av)		40.70	54.00	-13.30
	15690 (Pk)		53.68	68.23	-14.55
	15690 (Av)		41.58	54.00	-12.42
	5230 (Pk)	Horizontal	90.30	-	-
	5230 (Av)		78.48	-	-
	5350 (Pk)		46.38	74.00*	-27.62
	5350 (Av)		32.14	54.00*	-21.86
	10460 (Pk)		52.29	68.23	-15.94
	10460 (Av)		40.73	54.00	-13.27
	15690 (Pk)		53.73	68.23	-14.50
	15690 (Av)		41.59	54.00	-12.41

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Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5755	5755 (Pk)	Vertical	97.30	-	-
	5755 (Av)		85.32	-	-
	5650(Pk)		45.37	68.23*	-22.86
	5700(Pk)		55.79	105.23*	-49.44
	5720(Pk)		63.83	110.83*	-47.00
	5725(Pk)		64.30	122.23*	-57.93
	11510 (Pk)		54.77	68.23	-13.46
	11510 (Av)		42.87	54.00	-11.13
	17265 (Pk)		58.19	68.23	-10.04
	17265 (Av)		45.03	54.00	-8.97
	5755 (Pk)	Horizontal	96.97	-	-
	5755 (Av)		84.87	-	-
	5650(Pk)		44.52	68.23*	-23.71
	5700(Pk)		54.34	105.23*	-50.89
	5720(Pk)		62.55	110.83*	-48.28
	5725(Pk)		64.18	122.23*	-58.05
	11510 (Pk)		54.70	68.23	-13.53
	11510 (Av)		42.93	54.00	-11.07
	17265 (Pk)		57.40	68.23	-10.83
	17265 (Av)		45.04	54.00	-8.96
5795	5795 (Pk)	Vertical	97.99	-	-
	5795 (Av)		85.76	-	-
	5850 (Pk)		56.17	122.23*	-66.03
	5855(Pk)		55.04	110.83*	-55.76
	5875(Pk)		50.96	105.23*	-54.24
	5925 (Pk)		45.05	68.23*	-23.18
	11590 (Pk)		54.16	68.23	-14.07
	11590 (Av)		42.35	54.00	-11.65
	17385 (Pk)		58.20	68.23	-10.03
	17385 (Pk)		45.38	54.00	-8.62
	5795 (Pk)	Horizontal	97.42	-	-
	5795 (Av)		85.06	-	-
	5850 (Pk)		54.22	122.23*	-67.98
	5855(Pk)		53.94	110.83*	-56.86
	5875(Pk)		50.60	105.23*	-54.60
	5925 (Pk)		44.74	68.23*	-23.49
	11590 (Pk)		54.65	68.23	-13.58
	11590 (Av)		42.37	54.00	-11.63
	17385 (Pk)		58.28	68.23	-9.95
	17385 (Pk)		45.39	54.00	-8.61

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Data Rate: MCS0

Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5190	5190 (Pk)	Vertical	91.20	-	-
	5190 (Av)		79.59	-	-
	5150 (Pk)		54.32	74.00*	-19.68
	5150 (Av)		40.96	54.00*	-13.04
	10380 (Pk)		52.20	68.23	-16.03
	10380 (Av)		39.98	54.00	-14.02
	15570 (Pk)		53.94	68.23	-14.29
	15570 (Av)		42.03	54.00	-11.97
	5190 (Pk)	Horizontal	86.81	-	-
	5190 (Av)		75.21	-	-
	5150 (Pk)		50.23	74.00*	-23.77
	5150 (Av)		37.15	54.00*	-16.85
	10380 (Pk)		52.46	68.23	-15.77
	10380 (Av)		40.02	54.00	-13.98
	15570 (Pk)		54.41	68.23	-13.82
	15570 (Av)		42.03	54.00	-11.97
5230	5230 (Pk)	Vertical	93.95	-	-
	5230 (Av)		82.51	-	-
	5350 (Pk)		49.87	74.00*	-24.13
	5350 (Av)		36.93	54.00*	-17.07
	10460 (Pk)		53.21	68.23	-15.02
	10460 (Av)		40.73	54.00	-13.27
	15690 (Pk)		54.37	68.23	-13.86
	15690 (Av)		41.54	54.00	-12.46
	5230 (Pk)	Horizontal	90.45	-	-
	5230 (Av)		79.02	-	-
	5350 (Pk)		48.50	74.00*	-25.50
	5350 (Av)		34.62	54.00*	-19.38
	10460 (Pk)		52.88	68.23	-15.35
	10460 (Av)		40.75	54.00	-13.25
	15690 (Pk)		53.71	68.23	-14.52
	15690 (Av)		41.53	54.00	-12.47

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Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5755	5755 (Pk)	Vertical	96.71	-	-
	5755 (Av)		84.89	-	-
	5650(Pk)		46.60	68.23*	-21.63
	5700(Pk)		55.54	105.23*	-49.69
	5720(Pk)		63.93	110.83*	-46.90
	5725(Pk)		60.78	122.23*	-61.45
	11510 (Pk)		55.14	68.23	-13.09
	11510 (Av)		42.97	54.00	-11.03
	17265 (Pk)		56.83	68.23	-11.40
	17265 (Av)		45.09	54.00	-8.91
	5755 (Pk)	Horizontal	96.40	-	-
	5755 (Av)		84.57	-	-
	5650(Pk)		44.97	68.23*	-23.26
	5700(Pk)		54.50	105.23*	-50.73
	5720(Pk)		63.33	110.83*	-47.50
	5725(Pk)		60.58	122.23*	-61.65
	11510 (Pk)		55.26	68.23	-12.97
	11510 (Av)		42.99	54.00	-11.01
	17265 (Pk)		57.17	68.23	-11.06
	17265 (Av)		45.09	54.00	-8.91
5795	5795 (Pk)	Vertical	96.58	-	-
	5795 (Av)		84.92	-	-
	5850 (Pk)		54.31	122.23*	-67.89
	5855(Pk)		51.31	110.83*	-59.49
	5875(Pk)		49.49	105.23*	-55.71
	5925 (Pk)		45.09	68.23*	-23.14
	11590 (Pk)		54.49	68.23	-13.74
	11590 (Av)		42.49	54.00	-11.51
	17385 (Pk)		57.70	68.23	-10.53
	17385 (Pk)		45.35	54.00	-8.65
	5795 (Pk)	Horizontal	96.35	-	-
	5795 (Av)		84.69	-	-
	5850 (Pk)		53.28	122.23*	-68.92
	5855(Pk)		51.10	110.83*	-59.70
	5875(Pk)		49.57	105.23*	-55.63
	5925 (Pk)		45.77	68.23*	-22.46
	11590 (Pk)		54.23	68.23	-14.00
	11590 (Av)		42.37	54.00	-11.63
	17385 (Pk)		58.06	68.23	-10.17
	17385 (Pk)		45.34	54.00	-8.66

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Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5190	5190 (Pk)	Vertical	91.50	-	-
	5190 (Av)		79.65	-	-
	5150 (Pk)		52.87	74.00*	-21.13
	5150 (Av)		41.68	54.00*	-12.32
	10380 (Pk)		52.56	68.23	-15.67
	10380 (Av)		39.99	54.00	-14.01
	15570 (Pk)		54.58	68.23	-13.65
	15570 (Av)		42.03	54.00	-11.97
	5190 (Pk)	Horizontal	87.12	-	-
	5190 (Av)		75.29	-	-
	5150 (Pk)		49.71	74.00*	-24.29
	5150 (Av)		37.93	54.00*	-16.07
	10380 (Pk)		52.36	68.23	-15.87
	10380 (Av)		40.04	54.00	-13.96
	15570 (Pk)		53.76	68.23	-14.47
	15570 (Av)		42.04	54.00	-11.96
5230	5230 (Pk)	Vertical	92.06	-	-
	5230 (Av)		80.28	-	-
	5350 (Pk)		48.23	74.00*	-25.77
	5350 (Av)		34.69	54.00*	-19.31
	10460 (Pk)		52.69	68.23	-15.54
	10460 (Av)		40.72	54.00	-13.28
	15690 (Pk)		53.43	68.23	-14.80
	15690 (Av)		41.53	54.00	-12.47
	5230 (Pk)	Horizontal	88.68	-	-
	5230 (Av)		76.92	-	-
	5350 (Pk)		46.07	74.00*	-27.93
	5350 (Av)		32.89	54.00*	-21.11
	10460 (Pk)		52.28	68.23	-15.95
	10460 (Av)		40.77	54.00	-13.23
	15690 (Pk)		53.95	68.23	-14.28
	15690 (Av)		41.53	54.00	-12.47

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Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5755	5755 (Pk)	Vertical	94.36	-	-
	5755 (Av)		82.73	-	-
	5650(Pk)		46.77	68.23*	-21.46
	5700(Pk)		52.46	105.23*	-52.77
	5720(Pk)		57.15	110.83*	-53.68
	5725(Pk)		58.63	122.23*	-63.60
	11510 (Pk)		55.09	68.23	-13.14
	11510 (Av)		42.95	54.00	-11.05
	17265 (Pk)		56.86	68.23	-11.37
	17265 (Av)		45.02	54.00	-8.98
	5755 (Pk)	Horizontal	92.85	-	-
	5755 (Av)		81.15	-	-
	5650(Pk)		45.84	68.23*	-22.39
	5700(Pk)		51.86	105.23*	-53.37
	5720(Pk)		56.24	110.83*	-54.59
	5725(Pk)		57.70	122.23*	-64.53
	11510 (Pk)		54.96	68.23	-13.27
	11510 (Av)		42.91	54.00	-11.09
	17265 (Pk)		56.80	68.23	-11.43
	17265 (Av)		45.09	54.00	-8.91
5795	5795 (Pk)	Vertical	94.85	-	-
	5795 (Av)		83.20	-	-
	5850 (Pk)		52.64	122.23*	-69.56
	5855(Pk)		52.12	110.83*	-58.68
	5875(Pk)		47.49	105.23*	-57.71
	5925 (Pk)		45.46	68.23*	-22.77
	11590 (Pk)		54.78	68.23	-13.45
	11590 (Av)		42.38	54.00	-11.62
	17385 (Pk)		58.42	68.23	-9.81
	17385 (Pk)		45.36	54.00	-8.64
	5795 (Pk)	Horizontal	94.15	-	-
	5795 (Av)		82.16	-	-
	5850 (Pk)		51.19	122.23*	-71.01
	5855(Pk)		50.64	110.83*	-60.16
	5875(Pk)		47.10	105.23*	-58.10
	5925 (Pk)		45.19	68.23*	-23.04
	11590 (Pk)		54.15	68.23	-14.08
	11590 (Av)		42.45	54.00	-11.55
	17385 (Pk)		57.68	68.23	-10.55
	17385 (Pk)		45.39	54.00	-8.61

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Modulation: 802.11ac VHT80

Data Rate: MCS0

Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5210	5210 (Pk)	Vertical	87.36	-	-
	5210 (Av)		76.35	-	-
	5150 (Pk)		54.13	74.00*	-19.87
	5150 (Av)		40.94	54.00*	-13.06
	10420 (Pk)		52.20	68.23	-16.03
	10420 (Av)		40.22	54.00	-13.78
	15630 (Pk)		54.03	68.23	-14.20
	15630 (Av)		41.80	54.00	-12.20
	5210 (Pk)	Horizontal	84.07	-	-
	5210 (Av)		72.90	-	-
	5150 (Pk)		50.44	74.00*	-23.56
	5150 (Av)		37.41	54.00*	-16.59
	10420 (Pk)		52.72	68.23	-15.51
	10420 (Av)		40.20	54.00	-13.80
	15630 (Pk)		54.27	68.23	-13.96
	15630 (Av)		41.83	54.00	-12.17
5775	5775 (Pk)	Vertical	92.57	-	-
	5775 (Pk)		81.54	-	-
	5850 (Pk)		60.03	122.23*	-62.17
	5855 (Pk)		58.15	110.83*	-52.65
	5875 (Pk)		51.82	105.23*	-53.38
	5925 (Pk)		49.70	68.23*	-18.50
	11550 (Pk)		54.27	68.23	-13.96
	11550 (Av)		42.63	54.00	-11.37
	17325 (Pk)		57.47	68.23	-10.76
	17325 (Av)		44.90	54.00	-9.10
	5775 (Pk)	Horizontal	92.02	-	-
	5775 (Pk)		80.94	-	-
	5850 (Pk)		58.57	122.23*	-63.63
	5855 (Pk)		56.50	110.83*	-54.30
	5875 (Pk)		51.39	105.23*	-53.81
	5925 (Pk)		49.22	68.23*	-18.98
	11550 (Av)		54.39	68.23	-13.84
	11550 (Pk)		42.63	54.00	-11.37
	17325 (Pk)		58.39	68.23	-9.84
	17325 (Av)		45.53	54.00	-8.47

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Data Rate: MCS9

Channel Frequency (MHz)	Measured Frequency (MHz)	Antenna Polarization	Measured Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5210	5210 (Pk)	Vertical	90.09	-	-
	5210 (Av)		78.72	-	-
	5150 (Pk)		58.84	74.00*	-15.16
	5150 (Av)		45.98	54.00*	-8.02
	10420 (Pk)		51.86	68.23	-16.37
	10420 (Av)		40.17	54.00	-13.83
	15630 (Pk)		54.17	68.23	-14.06
	15630 (Av)		41.79	54.00	-12.21
	5210 (Pk)	Horizontal	86.65	-	-
	5210 (Av)		75.22	-	-
	5150 (Pk)		54.92	74.00*	-19.08
	5150 (Av)		42.03	54.00*	-11.97
	10420 (Pk)		51.91	68.23	-16.32
	10420 (Av)		40.20	54.00	-13.80
	15630 (Pk)		54.66	68.23	-13.57
	15630 (Av)		41.78	54.00	-12.22
5775	5775 (Pk)	Vertical	92.61	-	-
	5775 (Pk)		81.56	-	-
	5850 (Pk)		60.03	122.23*	-62.17
	5855 (Pk)		58.00	110.83*	-52.80
	5875 (Pk)		51.39	105.23*	-53.81
	5925 (Pk)		49.68	68.23*	-18.52
	11550 (Pk)		54.61	68.23	-13.62
	11550 (Av)		42.60	54.00	-11.40
	17325 (Pk)		56.44	68.23	-11.79
	17325 (Av)		44.90	54.00	-9.10
	5775 (Pk)	Horizontal	91.95	-	-
	5775 (Pk)		80.86	-	-
	5850 (Pk)		58.45	122.23*	-63.75
	5855 (Pk)		56.47	110.83*	-54.33
	5875 (Pk)		50.85	105.23*	-54.35
	5925 (Pk)		48.77	68.23*	-19.43
	11550 (Av)		54.61	68.23	-13.62
	11550 (Pk)		42.67	54.00	-11.33
	17325 (Pk)		56.90	68.23	-11.33
	17325 (Av)		44.94	54.00	-9.06

*: Restricted bands of operation

Pk: Peak Detector;
Av: Average Detect

7.6 Frequency Stability

Result

Pass

Test Specification

FCC part 15 Subpart C 15.407 (g) / RSS Gen Issue 5, Section 8.11

Test Method

Subclause 6.8.1 of ANSI C63.10

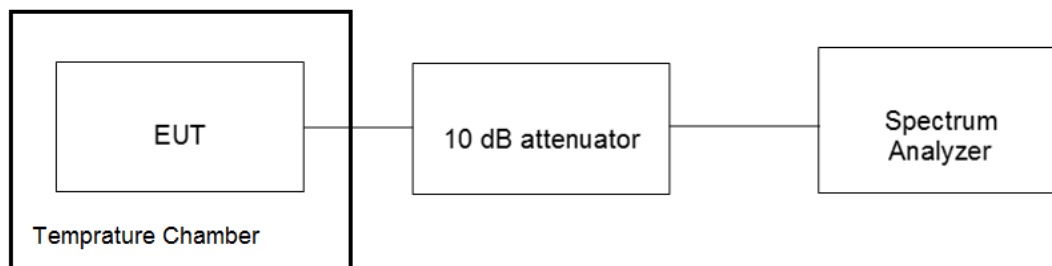
Port of testing

Antenna port

Requirement

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual

Test Method:



Test Condition:

Normal Test Condition:

Temperature (Norm) = + 24.3 °C

Voltage = 5VDC, 3A via Power adapter

Relative humidity: 51 %

KDB Guidelines applied:

Measurements were made as per section A (3) in KDB 789033 D02 General UNII Test Procedures New Rules v02r01

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Test results:

Channel Bandwidth (MHz)	Channel Frequency (MHz)	Temperature (°C)	Frequency deviation for different time interval (MHz)			
			0Min	2Min	5Min	10Min
20	5180	-10	-0.10	-0.10	-0.09	-0.12
		25	-0.01	-0.02	-0.03	-0.02
		45	-0.04	0.00	-0.03	0.00
	5240	-10	-0.09	-0.11	-0.10	-0.11
		25	-0.03	0.04	-0.02	-0.24
		45	0.01	0.02	0.02	0.00
	5745	-10	-0.10	-0.10	-0.11	-0.09
		25	-0.02	-0.02	-0.04	-0.01
		45	-0.03	0.01	-0.03	0.01
	5825	-10	-0.10	-0.10	-0.10	-0.08
		25	-0.03	0.01	-0.04	0.00
		45	-0.03	0.01	0.00	0.01
40	5190	-10	-0.04	-0.01	0.01	-0.01
		25	-0.06	-0.05	-0.02	-0.04
		45	0.26	0.34	0.31	0.31
	5230	-10	0.01	-0.01	-0.01	0.01
		25	-0.04	-0.05	-0.06	-0.06
		45	0.20	0.20	0.18	0.21
	5755	-10	0.02	0.01	-0.01	0.00
		25	-0.05	-0.02	-0.01	-0.05
		45	0.17	0.20	0.22	0.11
	5795	-10	0.01	0.93	-0.17	0.01
		25	-0.07	-0.08	-0.05	-0.04
		45	0.14	0.25	0.22	0.28
80	5210	-10	0.41	0.30	0.35	0.42
		25	0.28	0.27	0.39	0.37
		45	0.52	0.59	0.75	0.70
	5775	-10	0.30	0.38	0.41	0.30
		25	0.29	0.30	0.33	0.37
		45	0.71	0.75	0.70	0.74

7.7 AC Power Lines Conducted Emission

Result

Pass

Test Specification:	FCC Part 15 Section 15.207/RSS Gen Issue 5 Section 8.8
Test Method:	ANSI C 63.10-2013
Testing Location:	Screened room
Measurement Bandwidth:	9kHz
Frequency Range:	150kHz – 30MHz
Supply Voltage:	110VAC,60Hz
Test Method:	Refer TEST METHODOLOGY

Limits of section 15.207

Frequency of emission (MHz)	Conducted limit (dBµV)	
	Quasi-peak (dBµV)	Average (dBµV)
0.15-0.5	66-56*	56-46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency

Test Conditions:

Temperature (Norm) = + 23.8 °C

Voltage = 5VDC, 3A via Power adapter

Relative humidity: 57 %

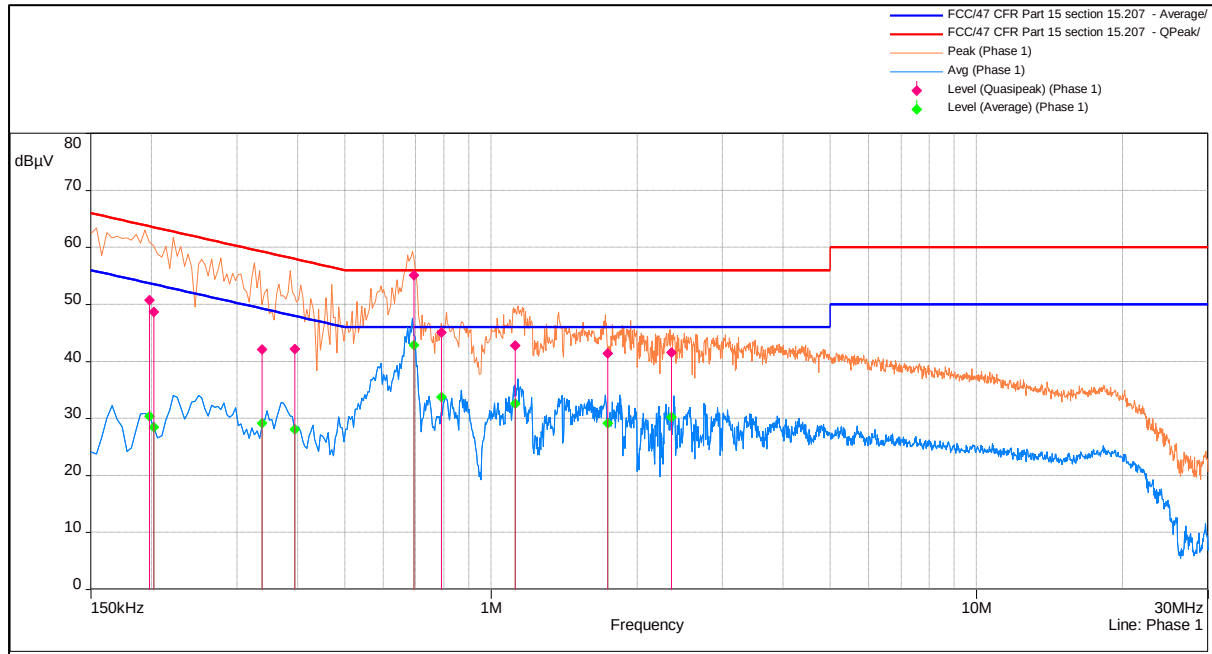
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Test results:

110VAC - 60Hz : Line



Quasi Peak:

Frequency (MHz)	Level (dBμV)	Limit (dBμV)	Margin (dB)	Comments
0.6927	55.10	56	-0.90	Pass
0.78885	45.08	56	-10.92	Pass
0.19715	50.76	63.69	-12.93	Pass
1.12135	42.81	56	-13.19	Pass
2.35465	41.54	56	-14.46	Pass
1.7373	41.42	56	-14.58	Pass
0.2004	48.72	63.53	-14.81	Pass
0.39455	42.21	57.98	-15.77	Pass
0.33635	42.11	59.25	-17.14	Pass

Average:

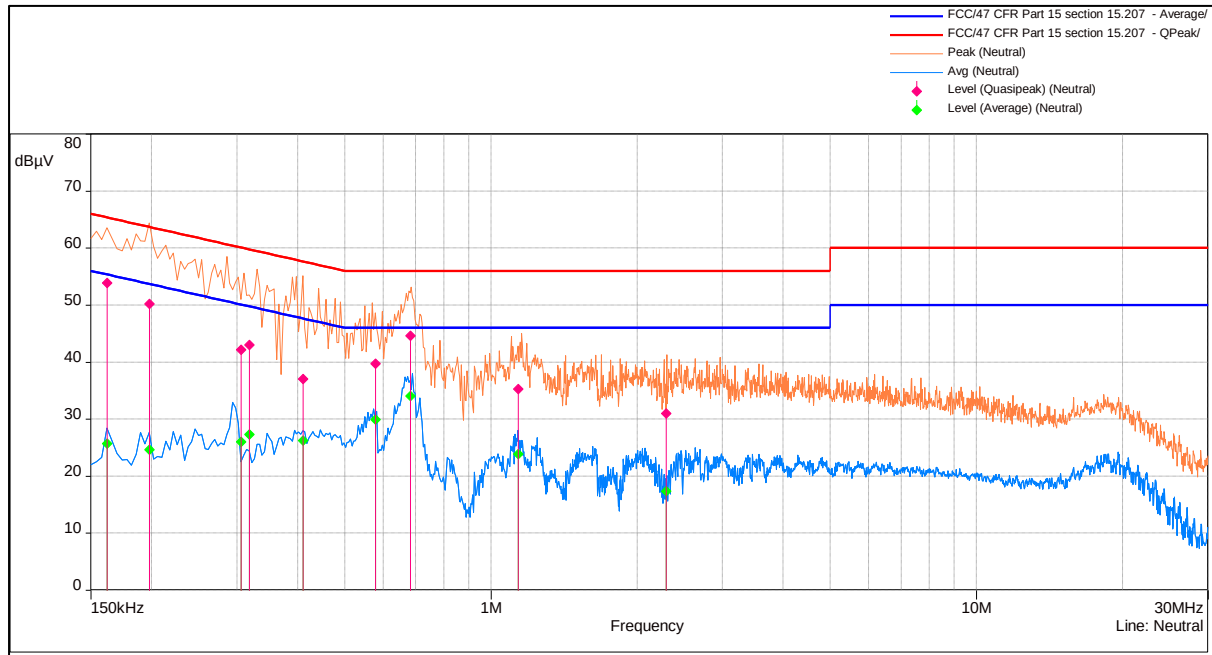
Frequency (MHz)	Level (dBμV)	Limit (dBμV)	Margin (dB)	Comments
0.6927	42.88	46	-3.12	Pass
0.78885	33.79	46	-12.21	Pass
1.12135	32.63	46	-13.37	Pass
2.35465	30.24	46	-15.76	Pass
1.7373	29.16	46	-16.84	Pass
0.39455	28.13	47.98	-19.85	Pass
0.33635	29.20	49.25	-20.05	Pass
0.19715	30.37	53.69	-23.33	Pass
0.2004	28.50	53.53	-25.02	Pass

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110VAC - 60Hz: Neutral



Quasi Peak:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Margin (dB)	Comments
0.6801	44.67	56	-11.33	Pass
0.1635	53.88	65.36	-11.48	Pass
0.1962	50.19	63.69	-13.50	Pass
0.5799	39.72	56	-16.28	Pass
0.31875	43.01	59.76	-16.74	Pass
0.30525	42.22	60.08	-17.86	Pass
0.41	37.06	57.65	-20.59	Pass
1.13685	35.29	56	-20.71	Pass
2.2952	30.98	56	-25.02	Pass

Average:

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Margin (dB)	Comments
0.6801	34.06	46	-11.94	Pass
0.5799	29.90	46	-16.10	Pass
0.41	26.25	47.65	-21.40	Pass
1.13685	23.93	46	-22.07	Pass
0.31875	27.33	49.76	-22.43	Pass
0.30525	26.03	50.08	-24.05	Pass
2.2952	17.40	46	-28.60	Pass
0.1962	24.63	53.69	-29.07	Pass
0.1635	25.76	55.36	-29.60	Pass

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9 POWER LEVEL USED FOR TESTING

802.11a 6Mbps		802.11n HT20 MCS0		802.11ac VHT40 MCS0	
5180	14	5180	15	5190	14
5240	14	5240	15	5230	16
5745	12	5745	11	5755	15
5825	14	5825	12	5795	15
802.11a 54Mbps		802.11n HT20 MCS7		802.11ac VHT40 MCS9	
5180	14	5180	15	5190	16
5240	14	5240	15	5230	16
5745	12	5745	11	5755	15
5825	14	5825	13	5795	15
802.11ac VHT20 MCS0		802.11n HT40 MCS0		802.11ac VHT80 MCS0	
5180	15	5190	14	5210	14
5240	16	5230	15	5775	15
5745	11	5755	15	802.11ac VHT80 MCS9	
5825	14	5795	15	5210	16
802.11ac VHT20 MCS8		802.11n HT40 MCS7		5775	15
5180	16	5190	15	5210	16
5240	16	5230	15	5775	15
5745	11	5755	15		
5825	16	5795	15		

***Note:** Above mentioned power level index updated as per the declaration provided by the client.

*****END OF TEST REPORT*****