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1 Cover Page

FCC Part 15E TEST REPORT

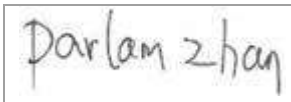
Application No.:	SHEM1702000910CR
Applicant:	Hangzhou EZVIZ Network Co., Ltd
FCC ID:	2ALZF-CS-W2S
IC:	22696-CSW2S
Equipment Under Test (EUT): **NOTE:** The following sample(s) was/were submitted and identified by the client as	
Product Name:	Wireless Relay Gateway
Model No.:	CS-W2S
Standards:	FCC PART 15 Subpart E: 2016 RSS-247 Issue 2 (February 2017) RSS-Gen Issue 4 (November 2014)
Date of Receipt:	2017-02-28
Date of Test:	2016-03-15 to 2017-05-03
Date of Issue:	2017-05-15
Test Result:	**Pass***

*In the configuration tested, the EUT detailed in this report complied with the standards specified above.

Parlam Zhan
E&E Section Manager
SGS-CSTC (Shanghai) Co., Ltd.

2 Version

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
00	/	2017-05-15	/	Original

Authorized for issue by:				
Engineer		Eddy Zong **Print Name**		
Clerk		Susie Liu **Print Name**		
Reviewer		Parlam Zhan **Print Name**		

3 Test Summary

Test Item	FCC Requirement	IC Requirement	Test method	Result
Antenna Requirement	15.203 & 15.407 a(1)&(3)	RSS-Gen Issue 4 Clause 7.1.2	-	PASS
AC Power Line Conducted Emission	15.407 b(6)	RSS-Gen Issue 4 Clause 8.8	ANSI C63.10 (2013) Clause 6.2	PASS
26 dB Emission bandwidth	15.403 i	RSS-Gen Issue 4 Clause 6.6	KDB 789033 D02 KDB 644545 KDB662911 D01	PASS
Minimum 6 dB bandwidth (5.725-5.85 GHz band)	15.407 (e)	RSS-247 Issue 2 Clause 6.2.4.1		PASS
Maximum Conducted output power	15.407 a(1)&(3)	RSS-247 Issue 2 Clause 6.2		PASS
Transmitter Power Control	15.407 (h)(1)	RSS-247 Issue 2 Clause 6.2.3		N/A
Peak Power spectrum density	15.407 a(1)&(3)	RSS-247 Issue 2 Clause 6.2		PASS
Radiated Spurious emissions and Band-edge	15.209 & 15.407	RSS-247 Issue 2 Clause 6.2		PASS
Transmission in the Absence of Data	15.407 (c)	RSS-247 Issue 2 Clause 6.4		PASS
Frequency Stability	15.407 (g)	RSS-Gen Issue 4 Clause 7.1.2		PASS
Dynamic Frequency Selection	15.407 (h)(2)	RSS-247 Issue 2 Clause 6.3	KDB 905462 D02 KDB 905462 D03	N/A
99% Occupied bandwidth		RSS-Gen Issue 4 section 6.6	RSS-Gen Issue 4 section 6.6	PASS

Notes: N/A: The device no DFS Band.

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5 General Information

5.1 Client Information

Applicant:	Hangzhou EZVIZ Network Co., Ltd
Address of Applicant:	Floor 7, Building 1, No. 700, Dongliu Road, Binjiang District, Hangzhou, Zhejiang, 310052, China.
Manufacturer:	Hangzhou EZVIZ Network Co., Ltd
Address of Manufacturer:	Floor 7, Building 1, No. 700, Dongliu Road, Binjiang District, Hangzhou, Zhejiang,310052,China.
Factory:	1. Hangzhou Hikvision Technology Co., Ltd. 2. Hangzhou Hikvision Electronics Co., Ltd.
Address of Factory:	1. No.700, Dongliu Road, Binjiang District, Hangzhou Ctiy,Zhejiang, 310052, China 2. No.299, Qiushi Road,Tonglu Economic Development Zone,Tonglu County, Hangzhou,Zhejiang,310052,China.

5.2 General Description of E.U.T.

Product Description:	Fixed product with 5GHz WiFi function
Brand Name:	EZVIZ
Test Voltage:	AC 120V 60Hz

5.3 Technical Specifications

Operation Frequency:	802.11a/n(HT20)/ac(HT20): 5180-5240MHz, 5745MHz-5825MHz 802.11n(HT40)/ac(HT40): 5190-5230MHz, 5755MHz-5795MHz 802.11ac(HT80): 5210MHz, 5775MHz
Modulation Technique:	OFDM(256QAM, 64QAM, 16QAM, QPSK, BPSK) Remark: 256QAM for 802.11 ac only
Data Rate:	802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n: MCS0-7 802.11ac: MCS0-9
Number of Channel:	802.11 a/n(HT20)/ac(HT20): 9 Channel 36, 40, 44, 48, 149, 153, 157, 161, 165 802.11 n(HT40)/ac(HT40): 4 Channel 38, 46, 151, 159 802.11 ac(HT80): 2 Channel 42, 155
Antenna Type	Antenna 1:PCB Antenna Antenna 2:PCB Antenna
Antenna Gain	Antenna 1: 3 dBi Antenna 2: 3 dBi

5.4 Test Mode

Test Mode	Description of Test Mode
Engineering mode	Using test software to control EUT working in continuous transmitting, and select channel and modulation type.

5.5 Test Channel

Preliminary tests were performed in all tests in different data rata and antenna configurations at lowest channel, the data rates of worse case as below were chosen for final test.

Band	802.11a			802.11 n(HT20)			802.11n(HT40)		
	Channel	Freq	Rate	Chan	Freq	Rate	Channel	Freq	Rate
U-NII 1	36	5180	6 Mbps	36	5180	MSC0	38	5190	MSC0
	44	5220	6 Mbps	44	5220	MSC0	-	-	-
	48	5240	6 Mbps	48	5240	MSC0	46	5230	MSC0
U-NII 3	149	5745	6 Mbps	149	5745	MSC0	151	5755	MSC0
	157	5785	6 Mbps	157	5785	MSC0	-	-	-
	165	5825	6Mbps	165	5825	MSC0	159	5795	MSC0
Band	802.11ac(HT20)			802.11 ac(HT40)			802.11ac(HT80)		
	Channel	Freq	Rate	Chan	Freq	Rate	Channel	Freq	Rate
U-NII 1	36	5180	MSC0	38	5190	MSC0	42	5210	MSC0
	44	5220	MSC0	-	-	-	-	-	-
	48	5240	MSC0	46	5230	MSC0			
U-NII 3	149	5745	MSC0	151	5755		155	5775	MSC0
	157	5785	MSC0	-	-	-	-	-	-
	165	5825	MSC0	159	5795	MSC0	-	-	-

5.6 Description of Support Units

The EUT has been tested with support equipments as below.

Description	Manufacturer	Model No.	Supplied By
Laptop	Lenovo	ThinkPad X100e	SGS

Software name	Manufacturer	Version	Supplied By
CMD	/	/	SGS

5.7 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

No.588 West Jindu Road, Songjiang District, Shanghai, China.201612.

Tel: +86 21 6191 5666

Fax: +86 21 6191 5678

5.8 Test Facility

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

- **CNAS (No. CNAS L0599)**

  CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

- **FCC – Registration No.: 402683**

  SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered and fully described in a report filed with the Federal Communications Commission (FCC). The acceptance letter from the FCC is maintained in our files. Registration No.: 402683.

- **Industry Canada (IC) – IC Assigned Code: 8617A**

  The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 8617A-1.

- **VCCI (Member No.: 3061)**

  The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-3868 and C-4336 respectively.

5.9 Measurement Uncertainty

No.	Parameter	Measurement Uncertainty
1	Radio Frequency	< ±1 x 10^{-5}
2	Total RF power, conducted	< ±1.5 dB
3	RF power density, conducted	< ±3 dB
4	Spurious emissions, conducted	< ±3 dB
5	All emissions, radiated	< ±6 dB (30MHz – 1GHz) < ±6 dB (above 1GHz)
6	Temperature	< ±1°C
7	Humidity	< ±5 %
8	DC and low frequency voltages	< ±3 %

6 Equipments Used during Test

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due date
1	Power meter	Rohde & Schwarz	NRP	101641	2017-01-14	2018-01-13
2	Power Sensor	Rohde & Schwarz	NRP-Z22	101096	2016-08-06	2017-08-05
3	Spectrum Analyzer	Rohde & Schwarz	FSP-30	2705121009	2017-01-14	2018-01-13
4	EMI test receiver	Rohde & Schwarz	ESU40	100109	2017-02-13	2018-01-15
5	Active Loop Antenna (9kHz to 30MHz)	Rohde & Schwarz	FMZB1519	1519-034	2017-02-13	2018-01-15
6	Broadband UHF-VHF ANTENNA (25MHz to 2GHz)	SCHWARZBECK	VULB9168	9168-313	2017-02-13	2018-01-15
7	Ultra broadband antenna (25MHz to3GHz)	Rohde & Schwarz	HL562	100227	2016-08-30	2017-08-29
8	Horn Antenna (1GHz to 18GHz)	Rohde & Schwarz	HF906	100284	2017-02-13	2018-01-15
9	Horn Antenna (1GHz to 18GHz)	SCHWARZBECK	BBHA9120D	9120D-679	2017-02-13	2018-01-15
10	Horn Antenna(14GHz to 40GHz)	SCHWARZBECK	BBHA 9170	BBHA917-0373	2017-02-13	2018-01-15
11	Pre-amplifier (9KHz – 2GHz)	LNA6900	TESEQ	71033	/	/
12	Pre-amplifier (1GHz – 26.5GHz)	SCHWARZBECK	SCU-F0118-G40-BZ4-CSS(F)	10001	2017-01-14	2018-01-13
13	Pre-amplifie (14GHz – 40GHz)	SCHWARZBECK	SCU-F1840-G35-BZ3-CSS(F)	10001	2017-01-14	2018-01-13
14	Tunable Notch Filter	Wainwright instruments Gmbh	WRCT800.0/880.0-0.2/40-5SSK	170397 169777 169780 192507	/	/
15	High pass Filter	FSCW	HP 12/2800-5AA2	19A45-02	/	/
16	High-low temperature cabinet	Suzhou Zhihe	TL-40	50110050	2016-09-11	2017-09-10
17	AC power stabilizer	WOCEN	6100	51122	2017-01-14	2018-01-13
18	DC power	QJE	QJ30003SII	3573/4/3	2017-01-14	2018-01-13
19	Signal Generator (Interferer)	Rohde & Schwarz	SMR40	100555	2016-08-13	2017-08-12
20	Signal Generator (Blocker)	Rohde & Schwarz	SMJ100A	101394	2017-01-14	2018-01-13
21	Splitter	Anritsu	MA1612A	M12265	/	/
22	Coupler	e-meca	803-S-1	900-M01	/	/

7 Test Results

7.1 E.U.T. Test Conditions

Test Voltage: DC 3.8V

Requirements: 15.31(e) For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. For battery operated equipment, the equipment tests shall be performed using a new battery.

Operating Environment:

Temperature:	20.0 -25.0 °C
Humidity:	35-75 % RH
Atmospheric Pressure:	99.2 -102.0 kPa

Test frequencies: According to the 15.31(m) Measurements on intentional radiators or receivers, other than TV broadcast receivers, shall be performed and. if required. reported for each band in which the device can be operated with the device operating at the number of frequencies in each band specified in the following table:

Frequency range over which device operates	Number of frequencies	Location in the range of operation
1 MHz or less	1	Middle
1 to 10 MHz	2	1 near top and 1 near bottom
More than 10 MHz	3	1 near top. 1 near middle and 1 near bottom

Pursuant to Part 15.31(c) For swept frequency equipment, measurements shall be made with the frequency sweep stopped at those frequencies chosen for the measurements to be reported

7.2 Antenna Requirement

Standard requirement:

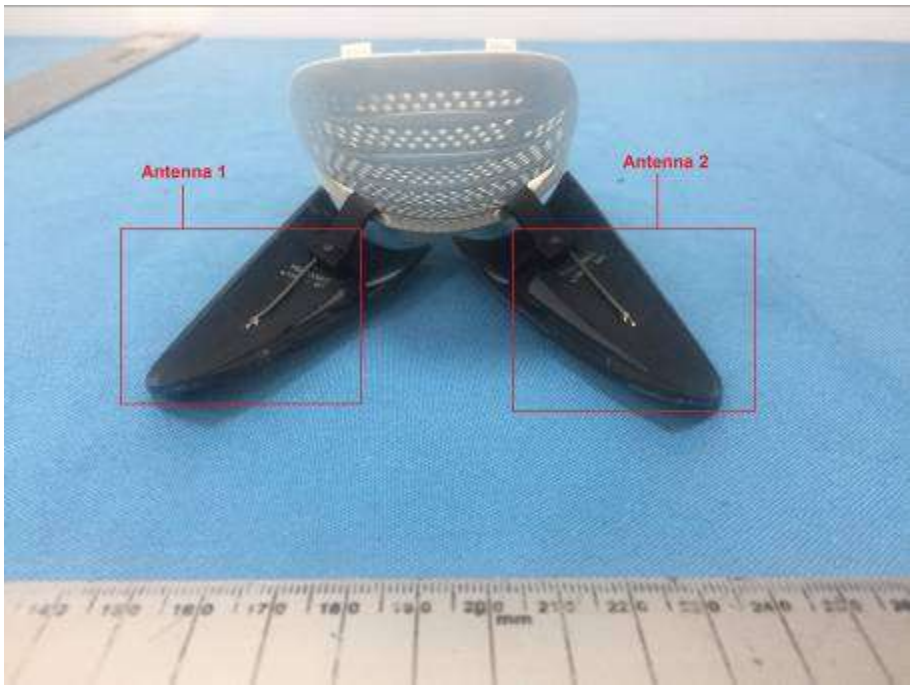
15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited

This requirement does not apply to carrier current devices. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

EUT Antenna:

The antenna is PCB Antenna. The gain is less than 3.0dBi.



7.3 Conducted Emissions on Mains Terminals

Frequency Range: 150 KHz to 30 MHz

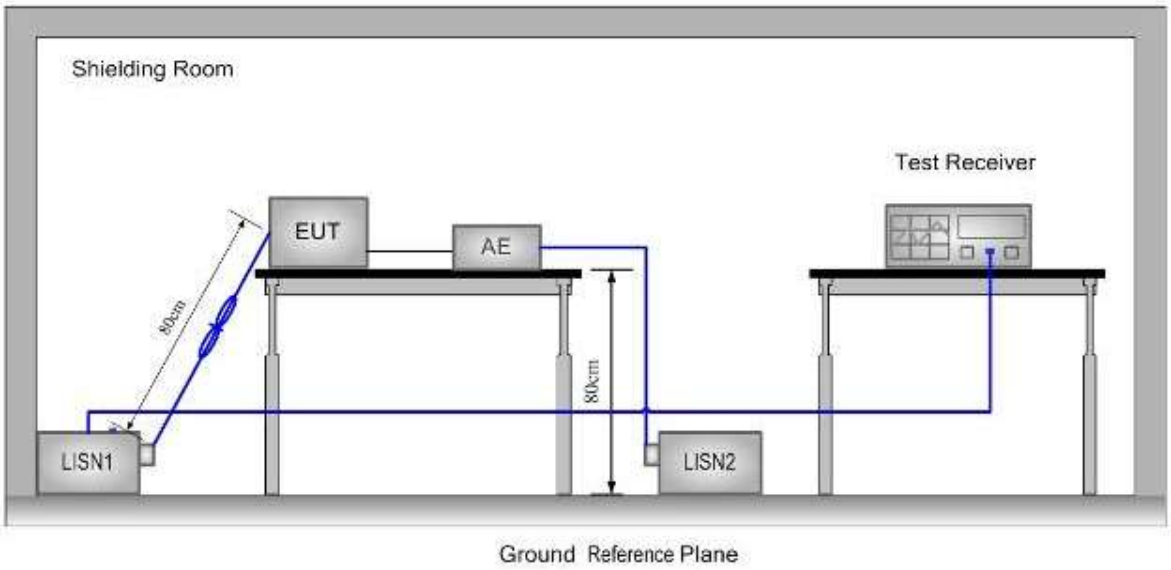
Class/Severity: Class B

Limit:

Frequency range MHz	Class B Limits: dB (μV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50
Note1: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50MHz. Note2: The lower limit is applicable at the transition frequency.		

Test site/setup: Test instrumentation set-up:

Frequency Range	Detector	RBW	VBW
9KHz to 150Hz	Quasi-peak	200Hz	500Hz
150KHz to 30MHz	Quasi-peak	9kHz	30kHz



Test Procedure:

a) The mains terminal disturbance voltage was measured with the EUT in a shielded room.

b) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN, which was bonded to the ground reference plane in the same way as the LISN for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded

c) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.

d) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to

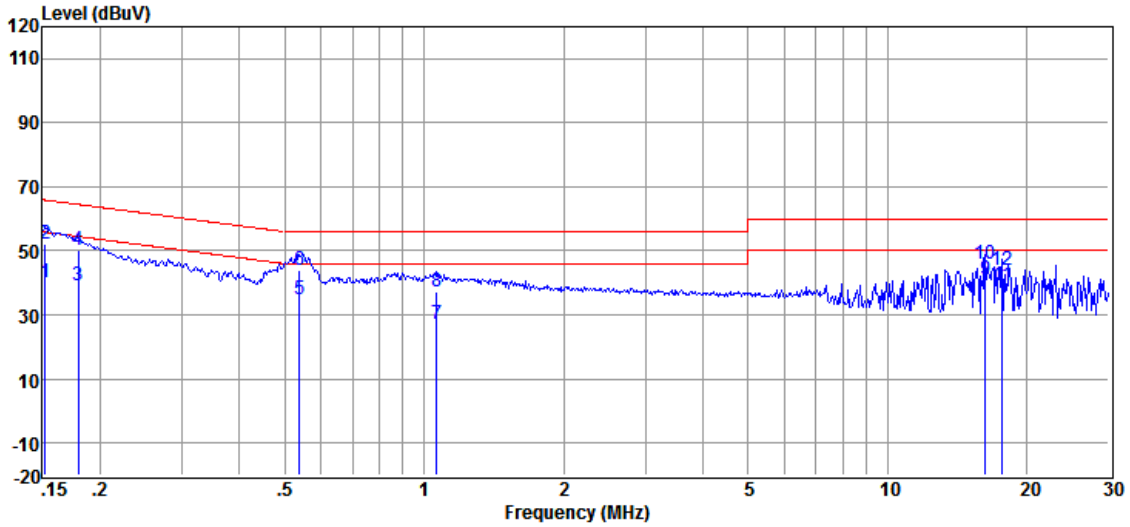
the horizontal ground reference plane. The LISN was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISN mounted on top of the ground reference plane. This distance was between the closest points of the LISN and the EUT. The mains lead of EUT excess 0.8m was folded back and forth parallel to the lead so as to form a horizontal bundle with a length between 0.3m and 0.4m. All other units of the EUT and associated equipment were at least 0.8 m from the LISN.

Remark: Pre-scan was performed with peak detected on all ports, Quasi-peak & average measurements were performed at the frequencies at which maximum peak emission level were detected. Pretest under all modes; choose the worst case mode (802.11a in Middle channel) record on the report. Please see the attached Quasi-peak and Average test results.

Test Result: Pass

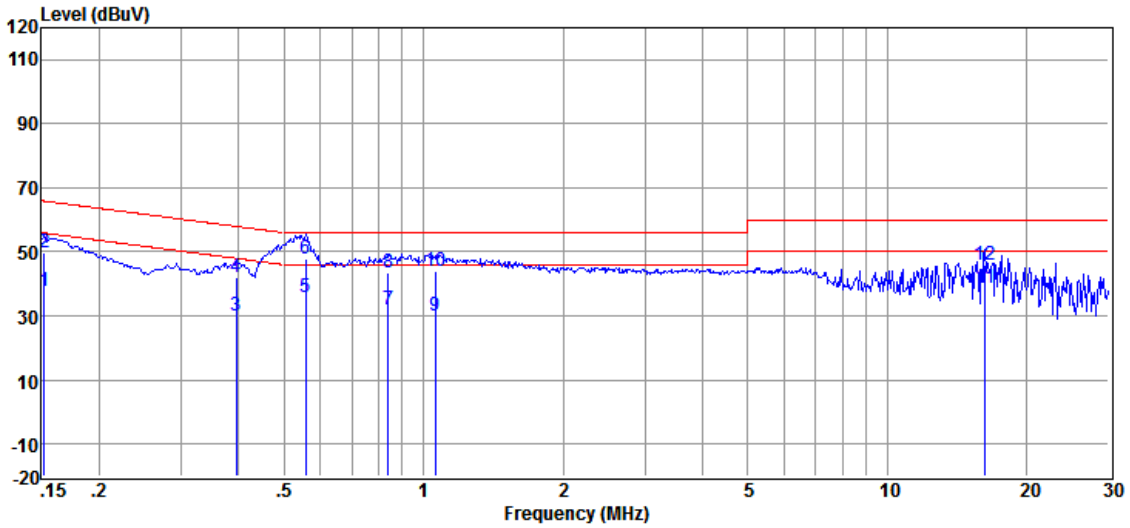
Test Data:

Test Mode:	802.11a	**Test Channel:**	Channel 157
Test Port:	AC Live Line		



Item	Freq.	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Detector
(Mark)	(MHz)	(dBµV)	(dB)	(dB)	(dBµV)	(dBµV)	(dB)	
1	0.152	40.26	0.05	0.00	40.31	55.87	-15.56	Average
2	0.152	52.26	0.05	0.00	52.31	65.87	-13.56	QP
3	0.180	39.20	0.08	0.00	39.28	54.50	-15.22	Average
4	0.180	50.20	0.08	0.00	50.28	64.50	-14.22	QP
5	0.538	34.90	0.10	0.00	35.00	46.00	-11.00	Average
6	0.538	43.90	0.10	0.00	44.00	56.00	-12.00	QP
7	1.065	27.25	0.08	0.00	27.33	46.00	-18.67	Average
8	1.065	37.25	0.08	0.00	37.33	56.00	-18.67	QP
9	16.226	40.72	0.23	0.00	40.95	50.00	-9.05	Average
10	16.226	45.72	0.23	0.00	45.95	60.00	-14.05	QP
11	17.661	38.91	0.24	0.00	39.15	50.00	-10.85	Average
12	17.661	43.91	0.24	0.00	44.15	60.00	-15.85	QP

Test Port: AC Neutral Line



Item	Freq.	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Detector
(Mark)	(MHz)	(dBµV)	(dB)	(dB)	(dBµV)	(dBµV)	(dB)	
1	0.152	37.80	0.05	0.00	37.85	55.87	-18.02	Average
2	0.152	49.80	0.05	0.00	49.85	65.87	-16.02	QP
3	0.396	29.84	0.04	0.00	29.88	47.95	-18.07	Average
4	0.396	41.84	0.04	0.00	41.88	57.95	-16.07	QP
5	0.558	35.66	0.04	0.00	35.70	46.00	-10.30	Average
6	0.558	47.66	0.04	0.00	47.70	56.00	-8.30	QP
7	0.839	31.68	0.05	0.00	31.73	46.00	-14.27	Average
8	0.839	43.68	0.05	0.00	43.73	56.00	-12.27	QP
9	1.060	29.94	0.05	0.00	29.99	46.00	-16.01	Average
10	1.060	43.94	0.05	0.00	43.99	56.00	-12.01	QP
11	16.226	38.57	0.27	0.00	38.84	50.00	-11.16	Average
12	16.226	45.57	0.27	0.00	45.84	60.00	-14.16	QP

Remark: Level = Read Level + LISN/ISN Factor + Cable Loss.

7.4 Duty Cycle

In order to assist with the determination of the average level of fundamental and spurious emissions field strength, measurements were made of duty cycle to determine the transmission duration and the silent period time of the transmitter. The transmitter duty cycle was measured using a spectrum analyser in the time domain and calculated by using the following calculation:

Duty cycle= T on time / Period

Duty factor = 10 * log (1/Duty cycle)

If duty cycle of test signal is > 98%, duty factor is not required.

If duty cycle of test signal is < 98%, duty factor shall be considered.

Test Data:

The detailed test data see: Appendix A for SHEM170200091005

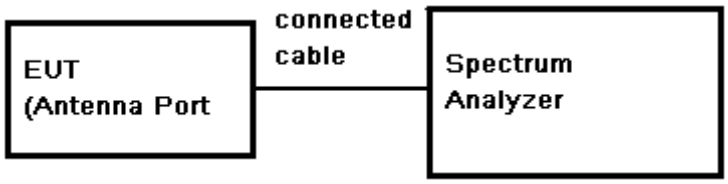
7.5 Emission Bandwidth

For purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. Determination of the emissions bandwidth is based on the use of measurement instrumentation employing a peak detector function with an instrument resolution bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement.

Test Data:
The detailed test data see: Appendix A for SHEM170200091005

7.6 99% Occupied Bandwidth

Test Configuration:



Test Procedure:

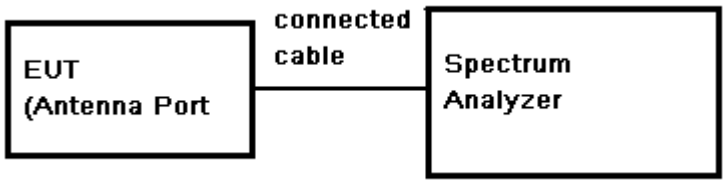
1) Place the EUT on the table and set it in transmitting mode.
2) Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3) Set the spectrum analyzer: Span = 1.5 times to 5.0 times the OBW, RBW = 1 % to 5 % of the OBW. VBW >= 3*RBW. Sweep = auto; Detector Function = Peak. Trace = Max Hold.
4) Use the 99 % power bandwidth function of the instrument.
5) Repeat above procedures until all frequency measured was complete.

Test Data:

The detailed test data see: Appendix A for SHEM170200091005

7.7 Maximum Conducted output power

Test Setup:



Test Procedure:

a) Place the EUT on the table and set it in transmitting mode.
b) Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum.
c) Set the spectrum analyzer as RBW=1MHz, VBW≥3* RBW, Span=40/80MHz, Sweep=auto, Detector = RMS
d) Set the occur band to the entire emission 26dB bandwidth of the signal.
e) Trace average at least 100 traces in power averaging (i.e., RMS) mode.
f) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 26dB occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges.
g) Record the max. Power channel reading.
h) Repeat above procedures until all the frequency measured were complete.

Test Limit:

Frequency Band	EUT Category	Limit
U-NII-1	☐ Outdoor Access Point	1W(30dBm) The maximum e.i.r.p≤125 mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon.
	☐ Fixed Point-to-point Access Point	1W(30dBm)
	☒ Indoor Access Point	
	☐ Mobile and Portable client device	250mW (24dBm)
U-NII-2a	-	Lesser of 250mW (24dBm) or 11dBm + 10log B*
U-NII-2c		
U-NII-3		1W (30dBm)
Note1: * Where B is the 26dB emission bandwidth in MHz. **Note2:** For IC 5150MHz to 5250MHz limit is 250mW		

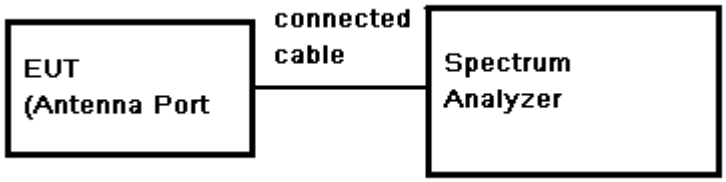
Test Result: Pass

Test Data:

The detailed test data see: Appendix A for SHEM170200091005

7.8 Peak Power Spectral Density

Test Setup:



Test Procedure:

a) Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
b) 5.15GHz-5.25GHz set span ≥ 1.5*OBW; RBW = 1 MHz; VBW ≥ 3 MHz,5.725GHz-5.85GHz, set span ≥ 1.5*OBW; RBW = 0.51 MHz; VBW ≥ 1.5 MHz
c) Number of points in sweep ≥ 2 Span / RBW; Sweep time = auto.
d) Detector = RMS, Trigger = Free run Record the marker level for the particular mode.
e) Use the peak search function on the instrument to find the peak of the spectrum and record its value.
f) Repeat these steps for other channel and device modes.

Test Limit:

Frequency Band	EUT Category	Limit
U-NII-1	☐ Outdoor Access Point	17dBm/MHz
	☐ Fixed Point-to-point Access Point	11 dBm/MHz
	☒ Indoor Access Point	
	☐ Mobile and Portable client device	11 dBm/MHz
U-NII-2a	-	11 dBm/MHz
U-NII-2c		
U-NII-3		30 dBm/500KHz
Note: For IC 5150MHz to 5250MHz limit is 10 dBm/MHz		

Test Result: Pass

Test Data:

The detailed test data see: Appendix A for SHEM170200091005

7.9 Radiated Spurious Emissions and Band-edge

Test site/setup: Measurement Distance: 3m

Test instrumentation set-up:

Frequency Range(MHz)	Detector	RBW	VBW
0.009-0.090	Peak	10kHz	30kHz
0.009-0.090	Average	10kHz	30kHz
0.090-0.110	Quasi-peak	10kHz	30kHz
0.110-0.490MHz	Peak	10kHz	30kHz
0.110-0.490	Average	10kHz	30kHz
0.490 -30	Quasi-peak	10kHz	30kHz
30-1000	Quasi-peak	100kHz	300kHz
Above 1000	Peak	RBW=1MHz	VBW≥RBW
	Average		VBW=10Hz

Sweep=Auto

15.209 Limit:

Frequency(MHz)	Field strength (microvolt/meter)	Limit (dBuV/m)
0.009-0.490	2400/F(KHz)	128.5 ~ 93.8
0.490-1.705	24000/F(KHz)	73.8 ~63.0
1.705-30	30	69.5
30-88	100	40.0
88-216	150	43.5
216-960	200	46.0
960-1000	500	54.0
Above 1000	500	54.0

Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.

15.407 Limit:

Operation Frequency (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength (dBμV/m)
5150-5250	-27	68.3
5250-5350		
5470-5725		
5725-5850	-27*[1]	68.3*[1]
	-17*[2]	78.3*[2]

Note: The following formula is used to convert the EIRP to field strength

$E=\frac{1000000\sqrt{30P}}{3}$ uV/m, where P is the EIRP (Watts).

Remark: *[1] Without 10MHz of band edge; *[2] Within 10MHz of band edge

Test Setup:

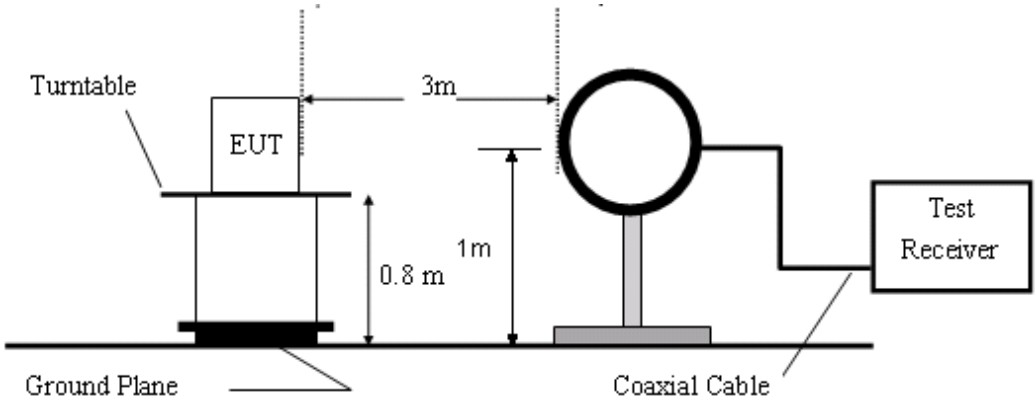


Figure1. Below 30MHz radiated emissions test configuration

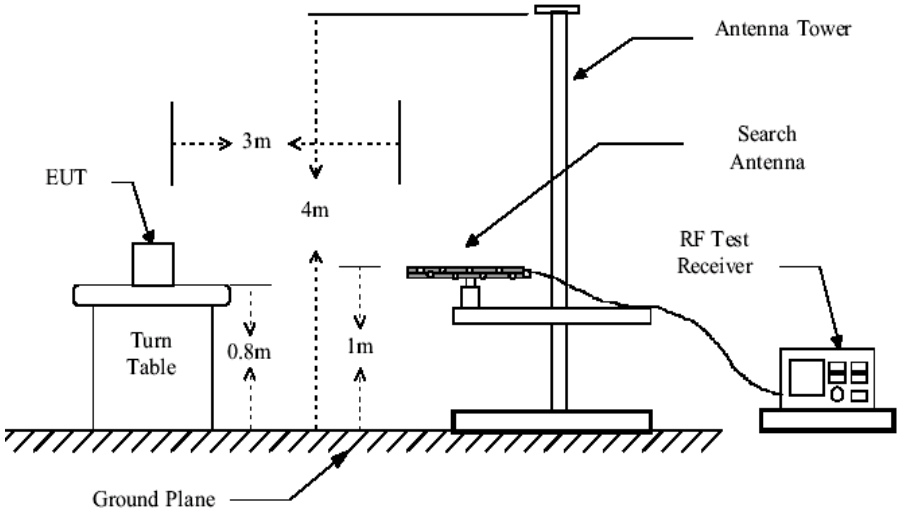


Figure2. 30MHz to 1GHz radiated emissions test configuration

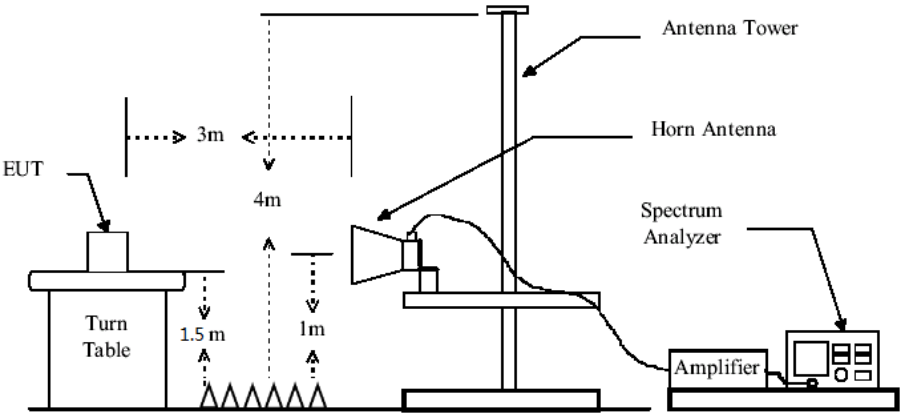


Figure3. Above 1GHz radiated emissions test configuration

Test Procedure:

1) The procedure used was ANSI Standard C63.10. When an emission was found, the table was rotated to produce the maximum signal strength. An initial pre-scan was performed for in peak detection mode using the receiver. The EUT was measured for both the Horizontal and Vertical polarities and performed a pre-test three orthogonal planes. For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. The worst case emissions were reported.
2) Low noise amplifier was used below 1GHz, High pass Filter and amplifier was used above 3GHz. We did not use any amplifier or filter between 1G and 3GHz.
3) Test were performed for their spatial orthogonal(X, Y, Z), the worst test data (X orthogonal) was submitted.
   a) For this intentional radiator operates below 25 GHz. the spectrum shall be investigated to the tenth harmonic of the highest fundamental frequency. And above the third harmonic of this intentional radiator, the disturbance is very low. So the test result only displays to 5rd harmonic.
   b) As shown in Section, for frequencies above 1000MHz. the above field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.
4) Pretest under all modes during 30MHz to 1GHz; choose the worst case mode (Middle channel of 802.11a on band 1) record on the report.
5) No spurious emissions were detected within 20dB of limit below 30MHz.

Test Result: Pass

7.9.1 Radiated Spurious Emissions

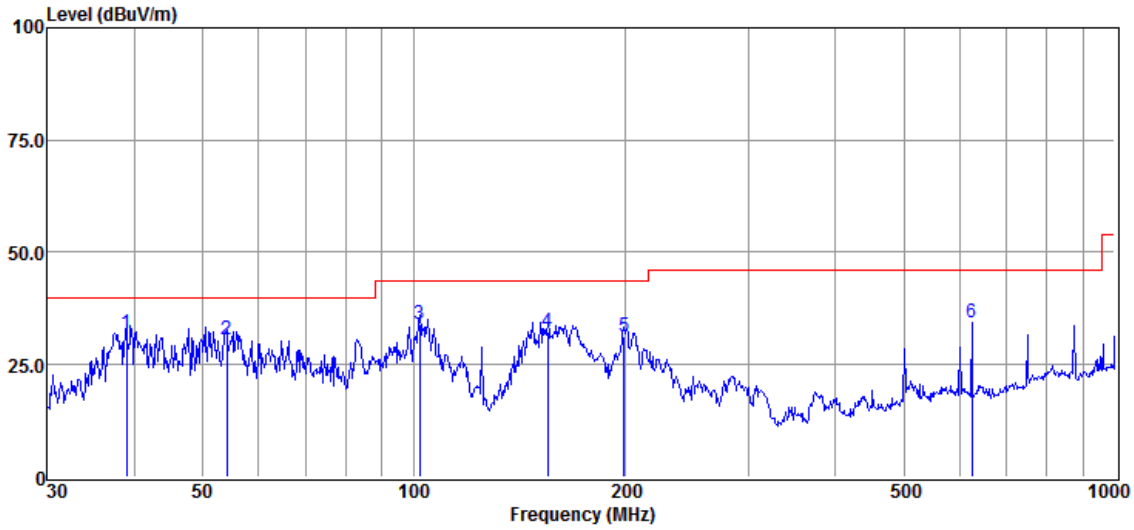
30MHz-1GHz:

802.11 a **Channel: 149 of Antenna 1**

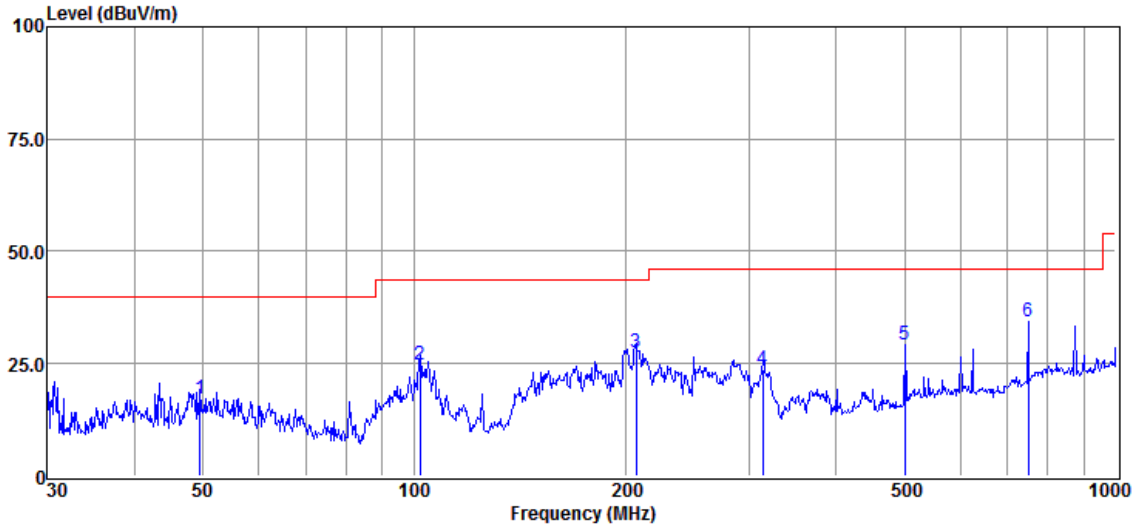
Item	Freq.	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Result Level	Limit Line	Over Limit	Detector	Polarization
(Mark)	(MHz)	(dBµV)	(dB/m)	(dB)	(dB)	(dBµV/m)	(dBµV/m)	(dB)		
1	49.53	31.82	13.82	28.80	0.26	17.10	40.00	-22.90	QP	Horizontal
2	102.00	43.22	9.56	28.60	0.46	24.64	43.50	-18.86	QP	Horizontal
3	207.12	44.47	10.37	28.10	0.70	27.44	43.50	-16.06	QP	Horizontal
4	314.38	37.55	13.36	28.03	0.86	23.74	46.00	-22.26	QP	Horizontal
5	501.18	40.11	17.26	29.20	1.18	29.35	46.00	-16.65	QP	Horizontal
6	750.11	39.63	21.97	29.24	1.88	34.24	46.00	-11.76	QP	Horizontal
1	38.89	47.31	13.39	28.82	0.22	32.10	40.00	-7.90	QP	Vertical
2	54.07	45.93	13.32	28.80	0.28	30.73	40.00	-9.27	QP	Vertical
3	102.00	52.64	9.56	28.60	0.46	34.06	43.50	-9.44	QP	Vertical
4	155.36	47.76	12.41	28.40	0.63	32.40	43.50	-11.10	QP	Vertical
5	199.29	47.82	10.82	28.10	0.69	31.23	43.50	-12.27	QP	Vertical
6	625.08	41.93	20.15	29.26	1.41	34.23	46.00	-11.77	QP	Vertical

Remark: 1. Result Level = Read Level + Antenna Factor + Cable loss - Preamp Factor

Below is the plot of worst case:
Vertical:



Horizontal:



Above 1GHz

Antenna 1

Channel: 36

802.11a

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6418	40.89	8.14	49.03	54	-4.97	peak	Horizontal
2	9505	33.98	14.42	48.4	54	-5.6	peak	Horizontal
3	10360	34.07	14.28	48.35	54	-5.65	peak	Horizontal
4	7627.6	40.7	12.02	52.72	54	-1.28	peak	Vertical
5	10360	31.34	14.28	45.62	54	-8.38	peak	Vertical
6	13096	36.08	15.33	51.41	54	-2.59	peak	Vertical

802.11a **Channel: 44**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7753.6	39.59	12.21	51.8	54	-2.2	peak	Horizontal
2	9517.6	37.96	14.41	52.37	54	-1.63	peak	Horizontal
3	10400	30.09	14.22	44.31	54	-9.69	peak	Horizontal
4	6342.4	42.96	7.84	50.8	54	-3.2	peak	Vertical
5	9555.4	38.6	14.39	52.99	54	-1.01	peak	Vertical
6	10400	31.6	14.22	45.82	54	-8.18	peak	Vertical

802.11a **Channel: 48**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	9542.8	35.26	14.41	49.67	54	-4.33	peak	Horizontal
2	10480	32.81	14.08	46.89	54	-7.11	peak	Horizontal
3	13058.2	37.67	15.25	52.92	54	-1.08	peak	Horizontal
4	6405.4	40.4	8.09	48.49	54	-5.51	peak	Vertical
5	9605.8	36.27	14.38	50.65	54	-3.35	peak	Vertical
6	10480	34.41	14.08	48.49	54	-5.51	peak	Vertical

802.11a **Channel: 149**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	9505	35.95	14.42	50.37	54	-3.63	peak	Horizontal
2	11490	33.68	14.41	48.09	54	-5.91	peak	Horizontal
3	13096	36.51	15.33	51.84	54	-2.16	peak	Horizontal
4	6418	43.94	8.14	52.08	54	-1.92	peak	Vertical
5	7867	36.94	12.37	49.31	54	-4.69	peak	Vertical
6	11490	34.67	14.41	49.08	54	-4.92	peak	Vertical

802.11a **Channel: 157**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6418	42.83	8.14	50.97	54	-3.03	peak	Horizontal
2	11570	32.4	14.25	46.65	54	-7.35	peak	Horizontal
3	13234.6	36.26	15.61	51.87	54	-2.13	peak	Horizontal
4	6518.8	41.6	8.45	50.05	54	-3.95	peak	Vertical
5	9580.6	37.62	14.39	52.01	54	-1.99	peak	Vertical
6	11570	33.25	14.25	47.5	54	-6.5	peak	Vertical

802.11a **Channel: 165**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7816.6	36.82	12.29	49.11	54	-4.89	peak	Horizontal
2	11650	36.31	14.06	50.37	54	-3.63	peak	Horizontal
3	13259.8	35.51	15.66	51.17	54	-2.83	peak	Horizontal
4	6418	40.34	8.14	48.48	54	-5.52	peak	Vertical
5	9605.8	35.17	14.38	49.55	54	-4.45	peak	Vertical
6	11650	35.86	14.06	49.92	54	-4.08	peak	Vertical

802.11 n(HT20) **Channel: 36**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6405.4	42.07	8.09	50.16	54	-3.84	peak	Horizontal
2	9505	37.04	14.42	51.46	54	-2.54	peak	Horizontal
3	10360	34.08	14.28	48.36	54	-5.64	peak	Horizontal
4	6468.4	42.85	8.31	51.16	54	-2.84	peak	Vertical
5	10360	34.25	14.28	48.53	54	-5.47	peak	Vertical
6	11836	35.51	13.74	49.25	54	-4.75	peak	Vertical

802.11 n(HT20) **Channel: 44**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7665.4	36.09	12.07	48.16	54	-5.84	peak	Horizontal
2	9631	34.7	14.36	49.06	54	-4.94	peak	Horizontal
3	10400	33.9	14.22	48.12	54	-5.88	peak	Horizontal
4	7375.6	41.59	11.37	52.96	54	-1.04	peak	Vertical
5	10400	32.5	14.22	46.72	54	-7.28	peak	Vertical
6	12970	36.79	15.07	51.86	54	-2.14	peak	Vertical

802.11 n(HT20) **Channel: 48**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6329.8	41.78	7.79	49.57	54	-4.43	peak	Horizontal
2	7287.4	38.16	10.98	49.14	54	-4.86	peak	Horizontal
3	10480	35.33	14.08	49.41	54	-4.59	peak	Horizontal
4	7879.6	36.41	12.39	48.8	54	-5.2	peak	Vertical
5	10480	31.25	14.08	45.33	54	-8.67	peak	Vertical
6	12730.6	35.48	14.42	49.9	54	-4.1	peak	Vertical

802.11 n(HT20) **Channel: 149**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6342.4	42.57	7.84	50.41	54	-3.59	peak	Horizontal
2	9353.8	38.56	14.34	52.9	54	-1.1	peak	Horizontal
3	11490	33.04	14.41	47.45	54	-6.55	peak	Horizontal
4	8383.6	38.86	11.93	50.79	54	-3.21	peak	Vertical
5	11490	32.74	14.41	47.15	54	-6.85	peak	Vertical
6	11722.6	38.04	13.89	51.93	54	-2.07	peak	Vertical

802.11 n(HT20) **Channel: 157**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7287.4	37.15	10.98	48.13	54	-5.87	peak	Horizontal
2	9668.8	36.94	14.36	51.3	54	-2.7	peak	Horizontal
3	11570	37.53	14.25	51.78	54	-2.22	peak	Horizontal
4	8484.4	39.49	12.12	51.61	54	-2.39	peak	Vertical
5	11570	35.77	14.25	50.02	54	-3.98	peak	Vertical
6	11735.2	33.36	13.87	47.23	54	-6.77	peak	Vertical

802.11 n(HT20) **Channel: 165**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7438.6	41.06	11.64	52.7	54	-1.3	peak	Horizontal
2	9568	37.73	14.4	52.13	54	-1.87	peak	Horizontal
3	11650	35.6	14.06	49.66	54	-4.34	peak	Horizontal
4	6468.4	40.23	8.31	48.54	54	-5.46	peak	Vertical
5	7312.6	40.29	11.09	51.38	54	-2.62	peak	Vertical
6	11650	31.6	14.06	45.66	54	-8.34	peak	Vertical

802.11 n(HT40) **Channel: 38**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6468.4	40.65	8.31	48.96	54	-5.04	peak	Horizontal
2	9618.4	35.67	14.37	50.04	54	-3.96	peak	Horizontal
3	10380	32.6	14.25	46.85	54	-7.15	peak	Horizontal
4	6405.4	44.63	8.09	52.72	54	-1.28	peak	Vertical
5	9517.6	38.49	14.41	52.9	54	-1.1	peak	Vertical
6	10380	34.23	14.25	48.48	54	-5.52	peak	Vertical

802.11 n(HT40) **Channel: 46**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7426	39.37	11.58	50.95	54	-3.05	peak	Horizontal
2	10460	33.94	14.11	48.05	54	-5.95	peak	Horizontal
3	11710	35.17	13.92	49.09	54	-4.91	peak	Horizontal
4	7665.4	39.5	12.07	51.57	54	-2.43	peak	Vertical
5	9605.8	36.94	14.38	51.32	54	-2.68	peak	Vertical
6	10460	30.95	14.11	45.06	54	-8.94	peak	Vertical

802.11 n(HT40) **Channel: 151**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	9593.2	36.39	14.38	50.77	54	-3.23	peak	Horizontal
2	11510	31.53	14.4	45.93	54	-8.07	peak	Horizontal
3	11760.4	37.52	13.8	51.32	54	-2.68	peak	Horizontal
4	6342.4	40.43	7.84	48.27	54	-5.73	peak	Vertical
5	7879.6	36.23	12.39	48.62	54	-5.38	peak	Vertical
6	11510	31.12	14.4	45.52	54	-8.48	peak	Vertical

802.11 n(HT40) **Channel: 159**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6405.4	43.02	8.09	51.11	54	-2.89	peak	Horizontal
2	7665.4	39.87	12.07	51.94	54	-2.06	peak	Horizontal
3	11590	33.17	14.2	47.37	54	-6.63	peak	Horizontal
4	5422.6	41.15	7.25	48.4	54	-5.6	peak	Vertical
5	7867	38.12	12.37	50.49	54	-3.51	peak	Vertical
6	11590	35.4	14.2	49.6	54	-4.4	peak	Vertical

802.11 ac(VHT20) **Channel: 36**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7627.6	39.16	12.02	51.18	54	-2.82	peak	Horizontal
2	9593.2	33.19	14.38	47.57	54	-6.43	peak	Horizontal
3	10360	35.38	14.28	49.66	54	-4.34	peak	Horizontal
4	6418	44.77	8.14	52.91	54	-1.09	peak	Vertical
5	7665.4	37.76	12.07	49.83	54	-4.17	peak	Vertical
6	10360	32.77	14.28	47.05	54	-6.95	peak	Vertical

802.11 ac(VHT20) **Channel: 40**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7438.6	41.28	11.64	52.92	54	-1.08	peak	Horizontal
2	9694	36.22	14.34	50.56	54	-3.44	peak	Horizontal
3	10400	33.21	14.22	47.43	54	-6.57	peak	Horizontal
4	6594.4	42.04	8.55	50.59	54	-3.41	peak	Vertical
5	7879.6	38.05	12.39	50.44	54	-3.56	peak	Vertical
6	10400	32.85	14.22	47.07	54	-6.93	peak	Vertical

802.11 ac(VHT20) **Channel: 48**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7892.2	37.86	12.42	50.28	54	-3.72	peak	Horizontal
2	9517.6	38.04	14.41	52.45	54	-1.55	peak	Horizontal
3	10480	34.58	14.08	48.66	54	-5.34	peak	Horizontal
4	6493.6	41.73	8.4	50.13	54	-3.87	peak	Vertical
5	9530.2	37.75	14.4	52.15	54	-1.85	peak	Vertical
6	10480	30.59	14.08	44.67	54	-9.33	peak	Vertical

802.11 ac(VHT20) **Channel: 149**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7930	37.33	12.3	49.63	54	-4.37	peak	Horizontal
2	11490	34.92	14.41	49.33	54	-4.67	peak	Horizontal
3	13121.2	33.67	15.38	49.05	54	-4.95	peak	Horizontal
4	7526.8	40.61	11.92	52.53	54	-1.47	peak	Vertical
5	9492.4	35.23	14.42	49.65	54	-4.35	peak	Vertical
6	11490	33.24	14.41	47.65	54	-6.35	peak	Vertical

802.11 ac(VHT20) **Channel: 157**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7892.2	36.91	12.42	49.33	54	-4.67	peak	Horizontal
2	9530.2	38.05	14.4	52.45	54	-1.55	peak	Horizontal
3	11570	34.97	14.25	49.22	54	-4.78	peak	Horizontal
4	9542.8	34.88	14.41	49.29	54	-4.71	peak	Vertical
5	11570	31.6	14.25	45.85	54	-8.15	peak	Vertical
6	13133.8	37.19	15.4	52.59	54	-1.41	peak	Vertical

802.11 ac(VHT20) **Channel: 165**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6468.4	42.06	8.31	50.37	54	-3.63	peak	Horizontal
2	9366.4	36.67	14.36	51.03	54	-2.97	peak	Horizontal
3	11650	34.53	14.06	48.59	54	-5.41	peak	Horizontal
4	9605.8	34.54	14.38	48.92	54	-5.08	peak	Vertical
5	11650	34.49	14.06	48.55	54	-5.45	peak	Vertical
6	13133.8	34.63	15.4	50.03	54	-3.97	peak	Vertical

802.11 ac(VHT40) **Channel: 38**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6418	41.02	8.14	49.16	54	-4.84	peak	Horizontal
2	7816.6	37.98	12.29	50.27	54	-3.73	peak	Horizontal
3	10380	33.56	14.25	47.81	54	-6.19	peak	Horizontal
4	6418	44.74	8.14	52.88	54	-1.12	peak	Vertical
5	9542.8	34.22	14.41	48.63	54	-5.37	peak	Vertical
6	10380	32.44	14.25	46.69	54	-7.31	peak	Vertical

802.11 ac(VHT40) **Channel: 46**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	9618.4	33.79	14.37	48.16	54	-5.84	peak	Horizontal
2	10460	32.43	14.11	46.54	54	-7.46	peak	Horizontal
3	13310.2	36.61	15.87	52.48	54	-1.52	peak	Horizontal
4	6401	43.27	8.08	51.35	54	-2.65	peak	Vertical
5	8645	38.59	12.60	51.19	54	-2.81	peak	Vertical
6	10460	36.49	14.11	50.60	54	-3.40	peak	Vertical

802.11 ac(VHT40) **Channel: 151**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7791.4	38.98	12.26	51.24	54	-2.76	peak	Horizontal
2	9580.6	36.97	14.39	51.36	54	-2.64	peak	Horizontal
3	11510	33.58	14.4	47.98	54	-6.02	peak	Horizontal
4	6418	41.69	8.14	49.83	54	-4.17	peak	Vertical
5	7375.6	39.43	11.37	50.8	54	-3.2	peak	Vertical
6	11510	36.86	14.4	51.26	54	-2.74	peak	Vertical

802.11 ac(VHT40) **Channel: 159**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6392.8	42.11	8.05	50.16	54	-3.84	peak	Horizontal
2	7892.2	36.14	12.42	48.56	54	-5.44	peak	Horizontal
3	11590	33.92	14.2	48.12	54	-5.88	peak	Horizontal
4	9505	34.45	14.42	48.87	54	-5.13	peak	Vertical
5	10563.4	37.12	14.05	51.17	54	-2.83	peak	Vertical
6	11590	33.36	14.2	47.56	54	-6.44	peak	Vertical

802.11 ac(VHT80) **Channel:42**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6405.4	42.54	8.09	50.63	54	-3.37	peak	Horizontal
2	8308	35.89	11.78	47.67	54	-6.33	peak	Horizontal
3	10420	31.6	14.17	45.77	54	-8.23	peak	Horizontal
4	7879.6	40.28	12.39	52.67	54	-1.33	peak	Vertical
5	9593.2	34.01	14.38	48.39	54	-5.61	peak	Vertical
6	10420	32.38	14.17	46.55	54	-7.45	peak	Vertical

802.11 ac(VHT80) **Channel: 155**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7753.6	37.48	12.21	49.69	54	-4.31	peak	Horizontal
2	9505	34.39	14.42	48.81	54	-5.19	peak	Horizontal
3	11550	36.57	14.3	50.87	54	-3.13	peak	Horizontal
4	7879.6	39.71	12.39	52.1	54	-1.9	peak	Vertical
5	9542.8	35.03	14.41	49.44	54	-4.56	peak	Vertical
6	11550	35.87	14.3	50.17	54	-3.83	peak	Vertical

Antenna 2

Channel: 36

802.11a

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6418	40.68	8.14	48.82	54	-5.18	peak	Horizontal
2	9505	34.83	14.42	49.25	54	-4.75	peak	Horizontal
3	10360	30.3	14.28	44.58	54	-9.42	peak	Horizontal
4	7627.6	36.79	12.02	48.81	54	-5.19	peak	Vertical
5	10360	34.51	14.28	48.79	54	-5.21	peak	Vertical
6	13096	35.02	15.33	50.35	54	-3.65	peak	Vertical

802.11a **Channel: 44**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7753.6	36.8	12.21	49.01	54	-4.99	peak	Horizontal
2	9517.6	36.35	14.41	50.76	54	-3.24	peak	Horizontal
3	10400	30.56	14.22	44.78	54	-9.22	peak	Horizontal
4	6342.4	41.24	7.84	49.08	54	-4.92	peak	Vertical
5	9555.4	35.89	14.39	50.28	54	-3.72	peak	Vertical
6	10400	30.86	14.22	45.08	54	-8.92	peak	Vertical

802.11a **Channel: 48**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	9542.8	34.07	14.41	48.48	54	-5.52	peak	Horizontal
2	10480	31.73	14.08	45.81	54	-8.19	peak	Horizontal
3	13058.2	36.75	15.25	52	54	-2	peak	Horizontal
4	6405.4	44.19	8.09	52.28	54	-1.72	peak	Vertical
5	9605.8	37.5	14.38	51.88	54	-2.12	peak	Vertical
6	10480	31.22	14.08	45.3	54	-8.7	peak	Vertical

802.11a **Channel: 149**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	9505	34	14.42	48.42	54	-5.58	peak	Horizontal
2	11490	32.45	14.41	46.86	54	-7.14	peak	Horizontal
3	13096	36.16	15.33	51.49	54	-2.51	peak	Horizontal
4	6418	42.44	8.14	50.58	54	-3.42	peak	Vertical
5	7867	37.39	12.37	49.76	54	-4.24	peak	Vertical
6	11490	33.32	14.41	47.73	54	-6.27	peak	Vertical

802.11a **Channel: 157**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6418	44.41	8.14	52.55	54	-1.45	peak	Horizontal
2	11570	33.71	14.25	47.96	54	-6.04	peak	Horizontal
3	13234.6	37.38	15.61	52.99	54	-1.01	peak	Horizontal
4	6518.8	39.86	8.45	48.31	54	-5.69	peak	Vertical
5	9580.6	36.02	14.39	50.41	54	-3.59	peak	Vertical
6	11570	35.35	14.25	49.6	54	-4.4	peak	Vertical

802.11a **Channel: 165**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7816.6	40.05	12.29	52.34	54	-1.66	peak	Horizontal
2	11650	32.89	14.06	46.95	54	-7.05	peak	Horizontal
3	13259.8	34.4	15.66	50.06	54	-3.94	peak	Horizontal
4	6418	42.13	8.14	50.27	54	-3.73	peak	Vertical
5	9605.8	36.76	14.38	51.14	54	-2.86	peak	Vertical
6	11650	36.04	14.06	50.1	54	-3.9	peak	Vertical

802.11 n(HT20) **Channel: 36**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6405.4	42.5	8.09	50.59	54	-3.41	peak	Horizontal
2	9505	36	14.42	50.42	54	-3.58	peak	Horizontal
3	10360	34.55	14.28	48.83	54	-5.17	peak	Horizontal
4	6468.4	41.27	8.31	49.58	54	-4.42	peak	Vertical
5	10360	33.53	14.28	47.81	54	-6.19	peak	Vertical
6	11836	38.85	13.74	52.59	54	-1.41	peak	Vertical

802.11 n(HT20) **Channel: 44**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7665.4	39.46	12.07	51.53	54	-2.47	peak	Horizontal
2	9631	36.8	14.36	51.16	54	-2.84	peak	Horizontal
3	10400	32.59	14.22	46.81	54	-7.19	peak	Horizontal
4	7375.6	36.98	11.37	48.35	54	-5.65	peak	Vertical
5	10400	34.38	14.22	48.6	54	-5.4	peak	Vertical
6	12970	36.44	15.07	51.51	54	-2.49	peak	Vertical

802.11 n(HT20) **Channel: 48**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6329.8	43.26	7.79	51.05	54	-2.95	peak	Horizontal
2	7287.4	41.7	10.98	52.68	54	-1.32	peak	Horizontal
3	10480	34.7	14.08	48.78	54	-5.22	peak	Horizontal
4	7879.6	38.55	12.39	50.94	54	-3.06	peak	Vertical
5	10480	31.56	14.08	45.64	54	-8.36	peak	Vertical
6	12730.6	34.3	14.42	48.72	54	-5.28	peak	Vertical

802.11 n(HT20) **Channel: 149**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6342.4	40.15	7.84	47.99	54	-6.01	peak	Horizontal
2	9353.8	36.98	14.34	51.32	54	-2.68	peak	Horizontal
3	11490	33.45	14.41	47.86	54	-6.14	peak	Horizontal
4	8383.6	37.92	11.93	49.85	54	-4.15	peak	Vertical
5	11490	34.95	14.41	49.36	54	-4.64	peak	Vertical
6	11722.6	36.55	13.89	50.44	54	-3.56	peak	Vertical

802.11 n(HT20) **Channel: 157**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7287.4	39.56	10.98	50.54	54	-3.46	peak	Horizontal
2	9668.8	34.99	14.36	49.35	54	-4.65	peak	Horizontal
3	11570	37.44	14.25	51.69	54	-2.31	peak	Horizontal
4	8484.4	38.29	12.12	50.41	54	-3.59	peak	Vertical
5	11570	33.4	14.25	47.65	54	-6.35	peak	Vertical
6	11735.2	38.11	13.87	51.98	54	-2.02	peak	Vertical

802.11 n(HT20) **Channel: 165**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7438.6	37.12	11.64	48.76	54	-5.24	peak	Horizontal
2	9568	38.54	14.4	52.94	54	-1.06	peak	Horizontal
3	11650	32.44	14.06	46.5	54	-7.5	peak	Horizontal
4	6468.4	43.72	8.31	52.03	54	-1.97	peak	Vertical
5	7312.6	40.58	11.09	51.67	54	-2.33	peak	Vertical
6	11650	32.97	14.06	47.03	54	-6.97	peak	Vertical

802.11 n(HT40) **Channel: 38**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6468.4	41.32	8.31	49.63	54	-4.37	peak	Horizontal
2	9618.4	35.23	14.37	49.6	54	-4.4	peak	Horizontal
3	10380	32.69	14.25	46.94	54	-7.06	peak	Horizontal
4	6405.4	42.74	8.09	50.83	54	-3.17	peak	Vertical
5	9517.6	37.63	14.41	52.04	54	-1.96	peak	Vertical
6	10380	32.41	14.25	46.66	54	-7.34	peak	Vertical

802.11 n(HT40) **Channel: 46**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7426	38.87	11.58	50.45	54	-3.55	peak	Horizontal
2	10460	35.26	14.11	49.37	54	-4.63	peak	Horizontal
3	11710	38.46	13.92	52.38	54	-1.62	peak	Horizontal
4	7665.4	37.35	12.07	49.42	54	-4.58	peak	Vertical
5	9605.8	34.47	14.38	48.85	54	-5.15	peak	Vertical
6	10460	32.85	14.11	46.96	54	-7.04	peak	Vertical

802.11 n(HT40) **Channel: 151**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	9593.2	35.84	14.38	50.22	54	-3.78	peak	Horizontal
2	11510	31.08	14.4	45.48	54	-8.52	peak	Horizontal
3	11760.4	37.91	13.8	51.71	54	-2.29	peak	Horizontal
4	6342.4	41.13	7.84	48.97	54	-5.03	peak	Vertical
5	7879.6	36.51	12.39	48.9	54	-5.1	peak	Vertical
6	11510	31.48	14.4	45.88	54	-8.12	peak	Vertical

802.11 n(HT40) **Channel: 159**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6405.4	40.45	8.09	48.54	54	-5.46	peak	Horizontal
2	7665.4	40.59	12.07	52.66	54	-1.34	peak	Horizontal
3	11590	35.45	14.2	49.65	54	-4.35	peak	Horizontal
4	5422.6	43.76	7.25	51.01	54	-2.99	peak	Vertical
5	7867	37.04	12.37	49.41	54	-4.59	peak	Vertical
6	11590	32.62	14.2	46.82	54	-7.18	peak	Vertical

802.11 ac(VHT20) **Channel: 36**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7627.6	36.55	12.02	48.57	54	-5.43	peak	Horizontal
2	9593.2	37.16	14.38	51.54	54	-2.46	peak	Horizontal
3	10360	31	14.28	45.28	54	-8.72	peak	Horizontal
4	6418	42.33	8.14	50.47	54	-3.53	peak	Vertical
5	7665.4	39.73	12.07	51.8	54	-2.2	peak	Vertical
6	10360	30.79	14.28	45.07	54	-8.93	peak	Vertical

802.11 ac(VHT20) **Channel: 40**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7438.6	39.95	11.64	51.59	54	-2.41	peak	Horizontal
2	9694	37.79	14.34	52.13	54	-1.87	peak	Horizontal
3	10400	34.41	14.22	48.63	54	-5.37	peak	Horizontal
4	6594.4	43.33	8.55	51.88	54	-2.12	peak	Vertical
5	7879.6	38.69	12.39	51.08	54	-2.92	peak	Vertical
6	10400	32.54	14.22	46.76	54	-7.24	peak	Vertical

802.11 ac(VHT20) **Channel: 48**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7892.2	37.66	12.42	50.08	54	-3.92	peak	Horizontal
2	9517.6	35.33	14.41	49.74	54	-4.26	peak	Horizontal
3	10480	31.44	14.08	45.52	54	-8.48	peak	Horizontal
4	6493.6	41.91	8.4	50.31	54	-3.69	peak	Vertical
5	9530.2	37.21	14.4	51.61	54	-2.39	peak	Vertical
6	10480	34.24	14.08	48.32	54	-5.68	peak	Vertical

802.11 ac(VHT20) **Channel: 149**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7930	37.93	12.3	50.23	54	-3.77	peak	Horizontal
2	11490	33.55	14.41	47.96	54	-6.04	peak	Horizontal
3	13121.2	33.82	15.38	49.2	54	-4.8	peak	Horizontal
4	7526.8	39.62	11.92	51.54	54	-2.46	peak	Vertical
5	9492.4	38.01	14.42	52.43	54	-1.57	peak	Vertical
6	11490	33.02	14.41	47.43	54	-6.57	peak	Vertical

802.11 ac(VHT20) **Channel: 157**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7892.2	38.75	12.42	51.17	54	-2.83	peak	Horizontal
2	9530.2	37.08	14.4	51.48	54	-2.52	peak	Horizontal
3	11570	35.56	14.25	49.81	54	-4.19	peak	Horizontal
4	9542.8	37.67	14.41	52.08	54	-1.92	peak	Vertical
5	11570	32.98	14.25	47.23	54	-6.77	peak	Vertical
6	13133.8	36.18	15.4	51.58	54	-2.42	peak	Vertical

802.11 ac(VHT20) **Channel: 165**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6468.4	43.45	8.31	51.76	54	-2.24	peak	Horizontal
2	9366.4	34.13	14.36	48.49	54	-5.51	peak	Horizontal
3	11650	32.66	14.06	46.72	54	-7.28	peak	Horizontal
4	9605.8	35.11	14.38	49.49	54	-4.51	peak	Vertical
5	11650	31.44	14.06	45.5	54	-8.5	peak	Vertical
6	13133.8	34.72	15.4	50.12	54	-3.88	peak	Vertical

802.11 ac(VHT40) **Channel: 38**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6418	41.34	8.14	49.48	54	-4.52	peak	Horizontal
2	7816.6	39.74	12.29	52.03	54	-1.97	peak	Horizontal
3	10380	30.13	14.25	44.38	54	-9.62	peak	Horizontal
4	6418	42.2	8.14	50.34	54	-3.66	peak	Vertical
5	9542.8	36.92	14.41	51.33	54	-2.67	peak	Vertical
6	10380	32.66	14.25	46.91	54	-7.09	peak	Vertical

802.11 ac(VHT40) **Channel: 46**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	9618.4	34.67	14.37	49.04	54	-4.96	peak	Horizontal
2	10460	34.15	14.11	48.26	54	-5.74	peak	Horizontal
3	13310.2	34.99	15.87	50.86	54	-3.14	peak	Horizontal
4	6401	41.74	8.08	49.82	54	-4.18	peak	Vertical
5	8645	39.24	12.6	51.84	54	-2.16	peak	Vertical
6	10460	36.11	14.11	50.22	54	-3.78	peak	Vertical

802.11 ac(VHT40) **Channel: 151**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7791.4	38.32	12.26	50.58	54	-3.42	peak	Horizontal
2	9580.6	38.19	14.39	52.58	54	-1.42	peak	Horizontal
3	11510	37.5	14.4	51.9	54	-2.1	peak	Horizontal
4	6418	44.23	8.14	52.37	54	-1.63	peak	Vertical
5	7375.6	38.08	11.37	49.45	54	-4.55	peak	Vertical
6	11510	36.41	14.4	50.81	54	-3.19	peak	Vertical

802.11 ac(VHT40) **Channel: 159**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6392.8	41.72	8.05	49.77	54	-4.23	peak	Horizontal
2	7892.2	35.96	12.42	48.38	54	-5.62	peak	Horizontal
3	11590	33.08	14.2	47.28	54	-6.72	peak	Horizontal
4	9505	37.82	14.42	52.24	54	-1.76	peak	Vertical
5	10563.4	35.97	14.05	50.02	54	-3.98	peak	Vertical
6	11590	34.69	14.2	48.89	54	-5.11	peak	Vertical

802.11 ac(VHT80) **Channel:42**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	6405.4	40.46	8.09	48.55	54	-5.45	peak	Horizontal
2	8308	39.02	11.78	50.8	54	-3.2	peak	Horizontal
3	10420	36.06	14.17	50.23	54	-3.77	peak	Horizontal
4	7879.6	36.95	12.39	49.34	54	-4.66	peak	Vertical
5	9593.2	37.92	14.38	52.3	54	-1.7	peak	Vertical
6	10420	36.3	14.17	50.47	54	-3.53	peak	Vertical

802.11 ac(VHT80) **Channel: 155**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	7753.6	38.16	12.21	50.37	54	-3.63	peak	Horizontal
2	9505	35.68	14.42	50.1	54	-3.9	peak	Horizontal
3	11550	35.93	14.3	50.23	54	-3.77	peak	Horizontal
4	7879.6	35.59	12.39	47.98	54	-6.02	peak	Vertical
5	9542.8	36.18	14.41	50.59	54	-3.41	peak	Vertical
6	11550	36.92	14.3	51.22	54	-2.78	peak	Vertical

7.9.2 Radiated Band-edge

Appendix A for SHEM170200091005

Remark: 1. Test Level = Receiver Reading + Antenna Factor + Cable Loss- Preamplifier Factor

2. No any other emission which falls in restricted bands can be detected and be reported.

3. If the Peak value below the AV Limit, the AV test doesn't perform for this submission.

All frequencies within the "Restricted bands" have been evaluated to compliance. Section 15.205 Restricted bands of operation.

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.5 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	
13.36 - 13.41			

7.10 Transmission in the Absence of Data

7.10.1 Standard Applicable

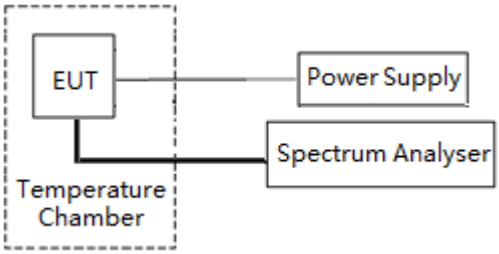
The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

7.10.2 Test Result

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

7.11 Frequency stability

Test setup:



Test Procedure:

a) The EUT was place in the temperature chamber, the DC leads and RF output cable exited the chamber though an opening made for that purpose.

b) After operate the equipment in standby conditions for 15 minutes before proceeding. The temperature was varied from -20°C to +55°C at intervals of not more than 10°C. The frequency stability was read from the spectrum analyzer and the frequency stability and input voltage was record.

Test Limit: The frequency of carrier signal shall be maintained within the band of operation

Test Data:

Antenna 1

Band	Test Conditions		Operation Frequency(MHz)	Test Frequency (MHz)	Freq. Dev. (MHz)	Limit (GHz)	Result
	Volt (V AC)	Temp (℃)					
Band U-NII 1	Normal(120)	Extreme(-20)	5180	5179.9863	0.0137	5.15-5.25	Pass
		Extreme(-10)		5179.9862	0.0138		Pass
		Extreme(0)		5179.9859	0.0141		Pass
		Extreme(+10)		5179.9857	0.0143		Pass
		Extreme(+20)		5179.9862	0.0138		Pass
		Extreme(+30)		5179.9852	0.0148		Pass
		Extreme(+40)		5179.9856	0.0144		Pass
		Extreme(+55)		5179.9853	0.0147		Pass
	Extreme(102)	Norma(+20)		5179.9881	0.0119		Pass
	Extreme(138)			5179.9832	0.0168		Pass
Band U-NII 3	Normal(120)	Extreme(-20)	5825	5824.9796	0.0204	5.725-5.85	Pass
		Extreme(-10)		5824.9791	0.0209		Pass
		Extreme(0)		5824.9797	0.0203		Pass
		Extreme(+10)		5824.9801	0.0199		Pass
		Extreme(+20)		5824.9784	0.0216		Pass
		Extreme(+30)		5824.9781	0.0219		Pass
		Extreme(+40)		5824.9763	0.0237		Pass
		Extreme(+55)		5824.9784	0.0216		Pass
	Extreme(102)	Norma(20)		5824.9779	0.0221		Pass
	Extreme(138)			5824.9793	0.0207		Pass

Antenna 2

Band	Test Conditions		Operation Frequency(MHz)	Test Frequency (MHz)	Freq. Dev. (MHz)	Limit (GHz)	Result
	Volt (V AC)	Temp (℃)					
Band U-NII 1	Normal(120)	Extreme(-20)	5180	5179.9869	0.0131	5.15-5.25	Pass
		Extreme(-10)		5179.9864	0.0136		Pass
		Extreme(0)		5179.9862	0.0138		Pass
		Extreme(+10)		5179.9868	0.0132		Pass
		Extreme(+20)		5179.9863	0.0137		Pass
		Extreme(+30)		5179.9849	0.0151		Pass
		Extreme(+40)		5179.9862	0.0138		Pass
		Extreme(+55)		5179.9871	0.0129		Pass
	Extreme(102)	Norma(+20)		5179.9872	0.0128		Pass
	Extreme(138)			5179.9848	0.0152		Pass
Band U-NII 3	Normal(120)	Extreme(-20)	5825	5824.9799	0.0201	5.725-5.85	Pass
		Extreme(-10)		5824.9783	0.0217		Pass
		Extreme(0)		5824.9792	0.0208		Pass
		Extreme(+10)		5824.9799	0.0201		Pass
		Extreme(+20)		5824.9769	0.0231		Pass
		Extreme(+30)		5824.9784	0.0216		Pass
		Extreme(+40)		5824.9776	0.0224		Pass
		Extreme(+55)		5824.9793	0.0207		Pass
	Extreme(102)	Norma(20)		5824.9788	0.0212		Pass
	Extreme(138)			5824.9791	0.0209		Pass

Remark: Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

8 Test Setup Photographs

Refer to the < CS-W2S _Test Setup photos-FCC>.

9 EUT Constructional Details

Refer to the < CS-W2S _External Photos > & < CS-W2S _Internal Photos >.

--End of the Report--