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Shenzhen Branch**

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Report No.: SZEM171001064204

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**1 Cover Page**

# ***RF TEST REPORT***

<b>Application No.:</b>	SZEM1710010642CR
<b>Applicant:</b>	WUHAN HIKSTORAGE TECHNOLOGY CO.,LTD
<b>FCC ID:</b>	2ANVY-HH10000
<b>IC:</b>	23225-HH10000
<b>Equipment Under Test (EUT):</b> <b>NOTE:</b> The following sample(s) was/were submitted and identified by the client as	
<b>Product Name:</b>	Personal Cloud
<b>Model No.:</b>	HS-AFS-H100I
<b>Standards:</b>	FCC PART 15 Subpart E: 2016 RSS-247 Issue 2 (February 2017) RSS-Gen Issue 4 (November 2014)
<b>Date of Receipt:</b>	2017-09-19
<b>Date of Test:</b>	2017-09-19 to 2017-10-12
<b>Date of Issue:</b>	2017-10-18
<b>Test Result:</b>	<b>Pass*</b>

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



Jack Zhang  
EMC Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

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Revision Record				
Version	Chapter	Date	Modifier	Remark
00	/	2017-10-18	/	Original

Authorized for issue by:				
Tested By				2017-10-18
		Foray Chen /Project Engineer		Date
Checked By				2017-10-18
		Eric Fu /Reviewer		Date



## 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 8.3	-	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 8.11		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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### 3 General Information

#### 3.1 Client Information

Applicant:	WUHAN HIKSTORAGE TECHNOLOGY CO.,LTD
Address of Applicant:	Rm.01, 21/F, F4 Building, 5th Phase-NO.1 Software Park, Guanshan 1 Rd, East Lake Development Zone, Wuhan, China(430040)
Manufacturer:	WUHAN HIKSTORAGE TECHNOLOGY CO.,LTD
Address of Manufacturer:	Rm.01, 21/F, F4 Building, 5th Phase-NO.1 Software Park, Guanshan 1 Rd, East Lake Development Zone, Wuhan, China(430040)
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.

#### 3.2 General Description of E.U.T.

Brand Name:	HIKVISION
Product Description:	Fixed product with 5GHz WiFi function
Rated Input:	DC 12V 1.5A by Adapter
Test Voltage:	AC 120V 60Hz for adapter

Adapter 1:	Model No.:	MSA-C1500IC12.0-18P-US	
	Rated Input:	AC 100~240V, 50/60Hz 0.7A max.	
	Rated Output:	DC 12V 1.5A	
	Cable length:	AC port:	2 wires
		DC port:	150 cm
Adapter 2:	Model No.:	TS-A018-120015AD	
	Rated Input:	AC 100~240V, 50/60Hz 0.6A	
	Rated Output:	DC 12V 1.5A	
	Cable length:	AC port:	2 wires
		DC port:	150 cm



### 3.3 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	PCB Antenna
Antenna Gain	3.42 dBi for 5GHz

### 3.4 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.

### 3.5 Test Channel

Preliminary tests were performed in all tests in different data rate 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	MSC0	155	5775	MSC0
	157	5785	MSC0	-	-	-	-	-	-
	165	5825	MSC0	159	5795	MSC0	-	-	-

### 3.6 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
Serial port adapter plate	/	Test Plate 3	SGS

Software name	Manufacturer	Version	Supplied By
SecureCRT	VanDyke	V 6.2.0	SGS

### 3.7 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China.

518057.

Tel: +86 755 2601 2053

Fax: +86 755 2671 0594

No tests were sub-contracted.

### 3.8 Test Facility

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

• **CNAS (No. CNAS L2929)**

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab 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.

• **A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• **VCCI**

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-823, R-4188, T-1153 and C-2383 respectively.

• **FCC –Designation Number: CN1178**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

• **Industry Canada (IC)**

Two 3m Semi-anechoic chambers and the 10m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1, 4620C-2, 4620C-3.

### 3.9 Measurement Uncertainty

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



## 4 Equipments Used during Test

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
<b>Conducted Emission at AC Power Line</b>					
EMI test receiver	R&S	ESR7	SHEM162-1	2016-12-29	2017-12-28
LISN	Schwarzbeck	NSLK8127	SHEM061-1	2016-12-29	2017-12-28
LISN	EMCO	3816/2	SHEM019-1	2016-12-29	2017-12-28
Pulse limiter	R&S	ESH3-Z2	SHEM029-1	2017-08-12	2018-08-11
CE test Cable	/	CE01	/	2016-12-29	2017-12-28
<b>Conducted Test</b>					
Spectrum Analyzer	R&S	FSP-30	SHEM002-1	2017-04-24	2018-04-23
Spectrum Analyzer	Agilent	N9020A	SHEM181-1	2017-07-03	2018-07-02
Power meter	R&S	NRP	SHEM057-1	2016-12-29	2017-12-28
Power Sensor	R&S	NRP-Z22	SHEM136-1	2017-07-22	2018-07-21
Power Sensor	R&S	NRP-Z91	SHEM057-2	2016-12-29	2017-12-28
Signal Generator	R&S	SMR40	SHEM058-1	2017-07-03	2018-07-02
Signal Generator	Agilent	N5182A	SHEM182-1	2017-07-03	2018-07-02
Communication Tester	R&S	CMW500	SHEM183-1	2017-07-03	2018-07-02
Switcher	Tonscend	JS0806	SHEM184-1	/	/
Splitter	Anritsu	MA1612A	SHEM185-1	/	/
Coupler	e-meca	803-S-1	SHEM186-1	/	/
High-low Temp Cabinet	Suzhou Zhihe	TL-40	SHEM087-1	2017-09-13	2018-09-12
AC Power Stabilizer	WOCEN	6100	SHEM045-1	2017-01-14	2018-01-13
DC Power Supply	QJE	QJ30003SII	SHEM046-1	2017-01-14	2018-01-13
<b>Radiated Test</b>					
EMI test receiver	R&S	ESU40	SHEM051-1	2017-09-26	2018-09-25
Spectrum Analyzer	R&S	FSP-30	SHEM002-1	2017-04-24	2018-04-23
Loop Antenna (9kHz-30MHz)	Schwarzbeck	FMZB1519	SHEM135-1	2017-04-10	2018-04-09
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM048-1	2017-02-28	2018-02-27
Antenna (25MHz-3GHz)	Schwarzbeck	HL562	SHEM010-1	2017-02-28	2018-02-27
Horn Antenna (1-8GHz)	Schwarzbeck	HF906	SHEM009-1	2016-09-24	2018-09-23
Horn Antenna (1-18GHz)	Schwarzbeck	BBHA9120D	SHEM050-1	2017-01-14	2018-01-13
Horn Antenna (14-40GHz)	Schwarzbeck	BBHA 9170	SHEM049-1	2017-02-13	2018-01-15
Pre-amplifier (9kHz-2GHz)	CLAVIO	BDLNA-0001-412010	SHEM164-1	2017-08-22	2018-08-21
Pre-amplifier (1-26.5GHz)	CLAVIO	BDLNA-0118-352810	SHEM050-2	2017-08-22	2018-08-21
Band filter	LORCH	9BRX-875/X150-SR	SHEM156-1	/	/
Band filter	LORCH	13BRX-1950/X500-SR	SHEM083-2	/	/
Band filter	LORCH	5BRX-2400/X200-SR	SHEM155-1	/	/
Band filter	LORCH	5BRX-5500/X1000-SR	SHEM157-2	/	/
High pass Filter	Wainwright	WHK3.0/18G-100SS	SHEM157-1	/	/
High pass Filter	Wainwright	WHKS1700-3SS	SHEM157-3	/	/
Semi/Fully Anechoic	ST	11*6*6M	SHEM078-2	2017-07-22	2018-07-21
RE test Cable	/	RE01, RE02, RE06	/	2016-12-29	2017-12-28



## 5 Test Results

### 5.1 E.U.T. Test Conditions

**Test Voltage:** DC 3.7V

**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

## 5.2 Antenna Requirement

### Standard requirement:

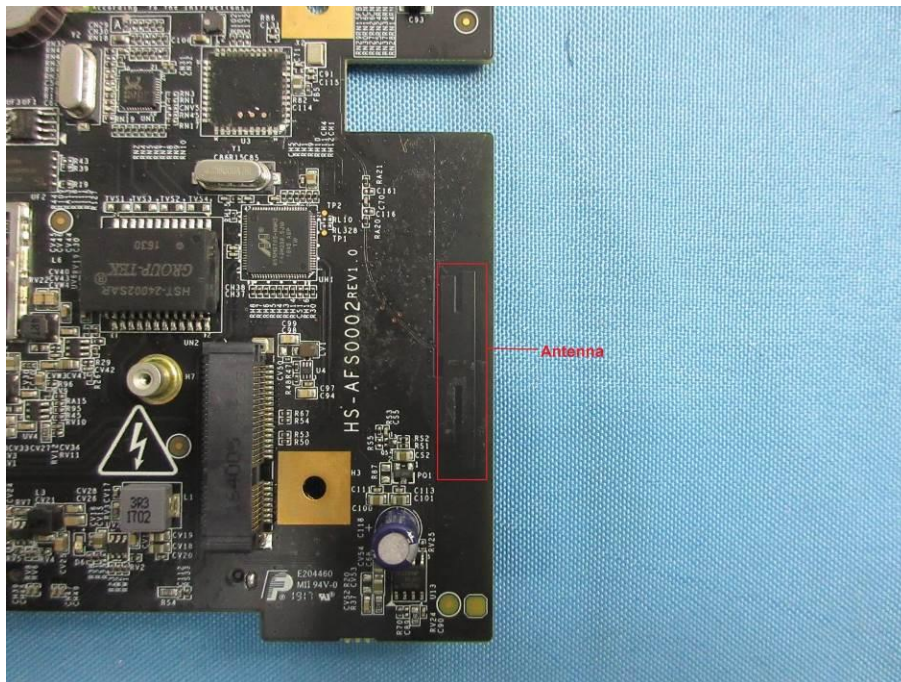
#### 15.203 requirement:

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 3.42dBi.



### 5.3 Conducted Emissions on Mains Terminals

**Frequency Range:** 150 KHz to 30 MHz

**Class/Severity:** Class B

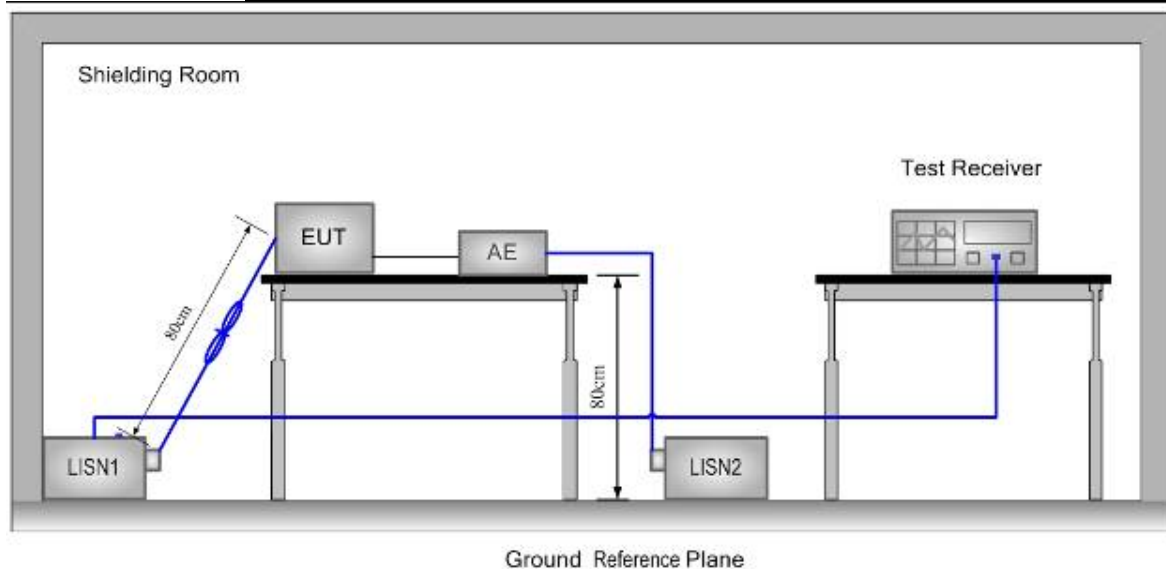
**Limit:**

Frequency range MHz	Class B Limits: dB (μV)	
	Quasi-peak	Averageage
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:

- The mains terminal disturbance voltage was measured with the EUT in a shielded room.
- The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides  $50\Omega/50\mu H + 5\Omega$  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
- 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 & Averageage 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 channel 157) record on the report. Please see the attached Quasi-peak and Averageage test results.

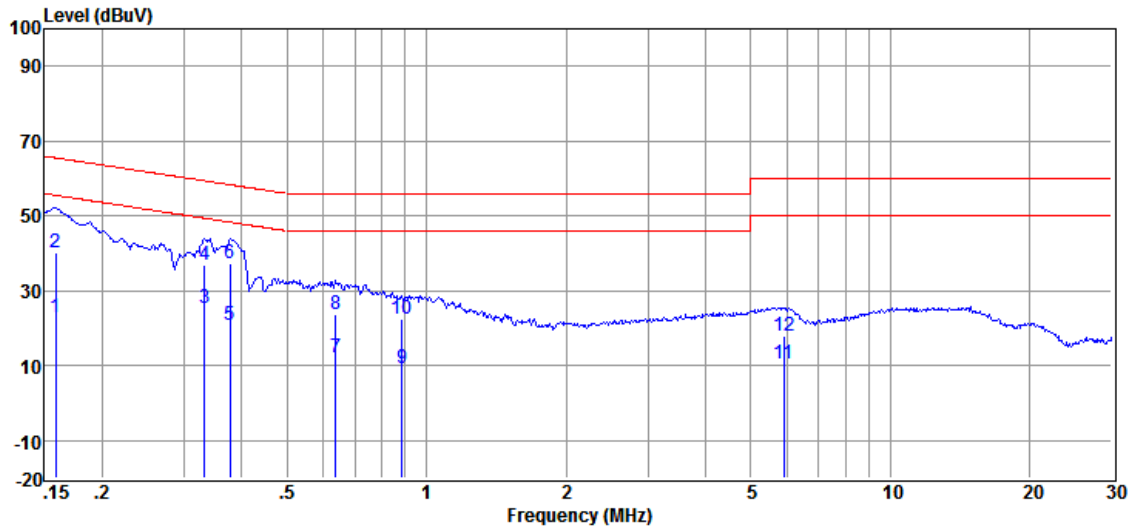
**Test Result:** Pass



## Adapter 1

### Test Data:

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

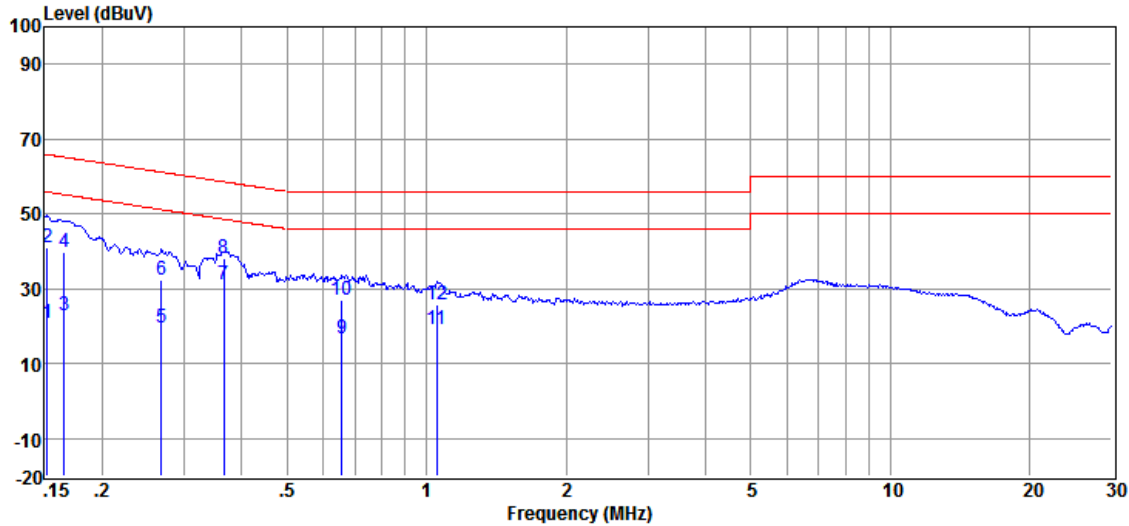


Item	Freq.	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Detector
(Mark)	(MHz)	(dBμV)	(dB)	(dB)	(dBμV)	(dBμV)	(dB)	
1	0.159	12.96	0.11	9.81	22.88	55.52	-32.64	Average
2	0.159	30.37	0.11	9.81	40.29	65.52	-25.23	QP
3	0.332	15.28	0.11	9.81	25.20	49.40	-24.20	Average
4	0.332	26.86	0.11	9.81	36.78	59.40	-22.62	QP
5	0.377	10.87	0.11	9.81	20.79	48.34	-27.55	Average
6	0.377	27.57	0.11	9.81	37.49	58.34	-20.85	QP
7	0.637	2.29	0.11	9.82	12.22	46.00	-33.78	Average
8	0.637	13.69	0.11	9.82	23.62	56.00	-32.38	QP
9	0.885	-0.51	0.11	9.83	9.43	46.00	-36.57	Average
10	0.885	12.59	0.11	9.83	22.53	56.00	-33.47	QP
11	5.898	0.68	0.11	9.86	10.65	50.00	-39.35	Average
12	5.898	8.08	0.11	9.86	18.05	60.00	-41.95	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	10.75	0.12	9.81	20.68	55.87	-35.19	Average
2	0.152	31.07	0.12	9.81	41.00	65.87	-24.87	QP
3	0.166	13.13	0.12	9.81	23.06	55.16	-32.10	Average
4	0.166	29.95	0.12	9.81	39.88	65.16	-25.28	QP
5	0.269	9.50	0.11	9.81	19.42	51.16	-31.74	Average
6	0.269	22.64	0.11	9.81	32.56	61.16	-28.60	QP
7	0.365	21.38	0.11	9.81	31.30	48.61	-17.31	Average
8	0.365	28.27	0.11	9.81	38.19	58.61	-20.42	QP
9	0.658	6.89	0.11	9.82	16.82	46.00	-29.18	Average
10	0.658	16.99	0.11	9.82	26.92	56.00	-29.08	QP
11	1.054	9.09	0.11	9.84	19.04	46.00	-26.96	Average
12	1.054	16.01	0.11	9.84	25.96	56.00	-30.04	QP

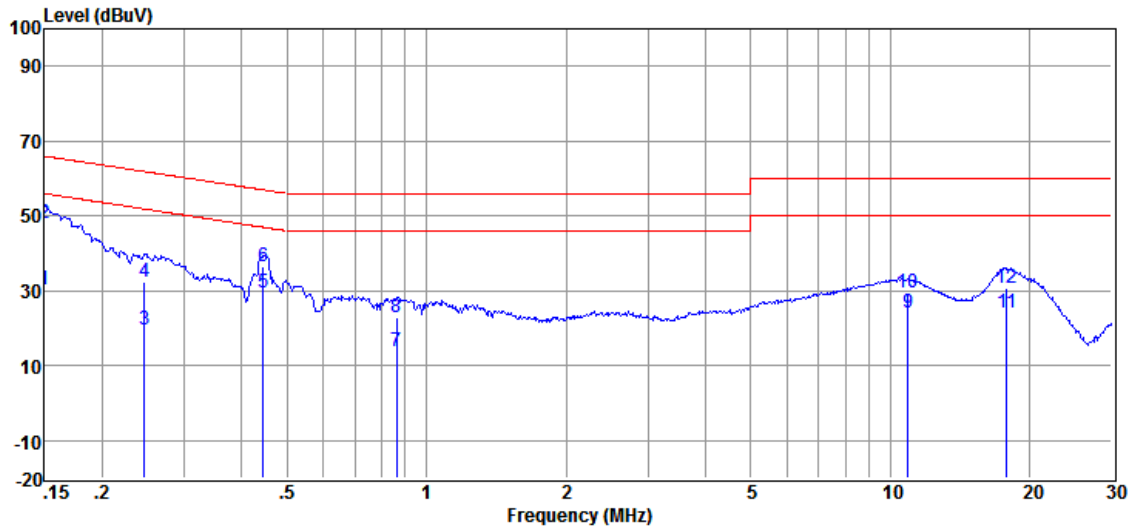
Remark: Level = Read Level + LISN/ISN Factor + Cable Loss.



## Adapter 2

### Test Data:

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

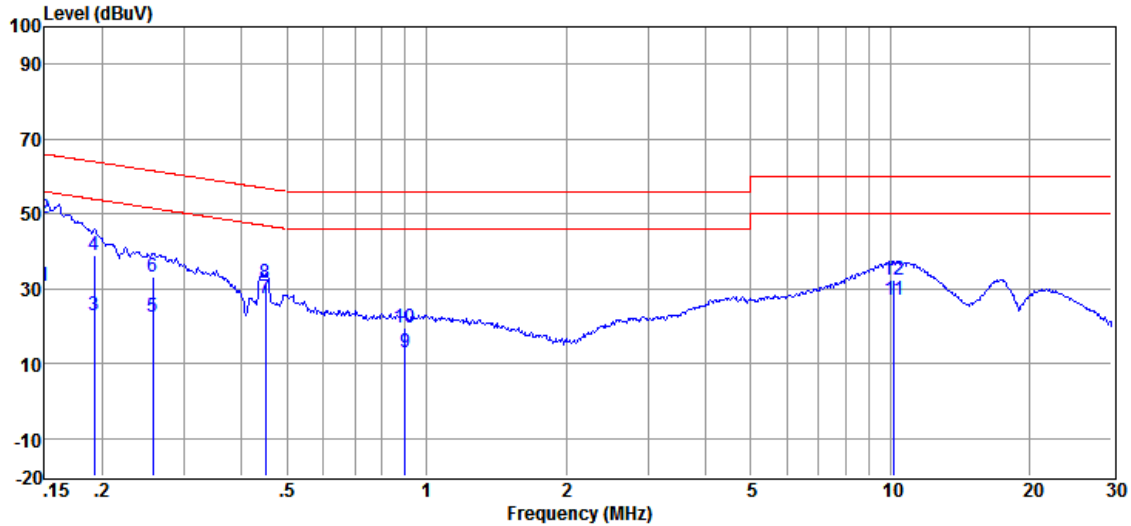


Item	Freq.	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Detector
(Mark)	(MHz)	(dBμV)	(dB)	(dB)	(dBμV)	(dBμV)	(dB)	
1	0.150	20.26	0.11	9.81	30.18	56.00	-25.82	Average
2	0.150	38.04	0.11	9.81	47.96	66.00	-18.04	QP
3	0.247	9.63	0.11	9.81	19.55	51.86	-32.31	Average
4	0.247	22.53	0.11	9.81	32.45	61.86	-29.41	QP
5	0.444	19.62	0.11	9.82	29.55	46.98	-17.43	Average
6	0.444	26.76	0.11	9.82	36.69	56.98	-20.29	QP
7	0.862	3.94	0.11	9.83	13.88	46.00	-32.12	Average
8	0.862	13.10	0.11	9.83	23.04	56.00	-32.96	QP
9	10.905	14.12	0.11	9.88	24.11	50.00	-25.89	Average
10	10.905	19.66	0.11	9.88	29.65	60.00	-30.35	QP
11	17.849	13.87	0.17	10.03	24.07	50.00	-25.93	Average
12	17.849	20.34	0.17	10.03	30.54	60.00	-29.46	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	0.150	20.99	0.12	9.81	30.92	56.00	-25.08	Average
2	0.150	38.99	0.12	9.81	48.92	66.00	-17.08	QP
3	0.192	13.11	0.12	9.81	23.04	53.93	-30.89	Average
4	0.192	28.97	0.12	9.81	38.90	63.93	-25.03	QP
5	0.258	12.37	0.11	9.81	22.29	51.51	-29.22	Average
6	0.258	23.40	0.11	9.81	33.32	61.51	-28.19	QP
7	0.449	17.68	0.11	9.82	27.61	46.89	-19.28	Average
8	0.449	21.52	0.11	9.82	31.45	56.89	-25.44	QP
9	0.899	3.22	0.11	9.83	13.16	46.00	-32.84	Average
10	0.899	9.59	0.11	9.83	19.53	56.00	-36.47	QP
11	10.179	16.98	0.13	9.87	26.98	50.00	-23.02	Average
12	10.179	22.43	0.13	9.87	32.43	60.00	-27.57	QP

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



#### **5.4 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 =  $10 * \log (1/\text{Duty cycle})$

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

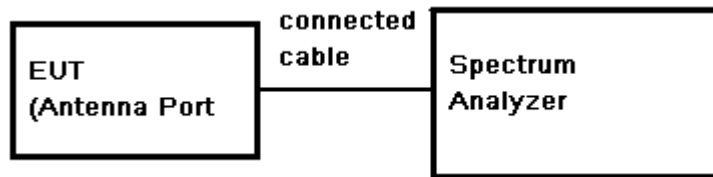
If duty cycle of test signal is < 98%, duty factor shall be considered.

#### **Test Data:**

The detailed test data see: Appendix B for SZEM171001064204

## 5.5 Emission Bandwidth

### Test Configuration:



### Test Procedure:

- Place the EUT on the table and set it in transmitting mode.
- Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- Set the spectrum analyzer as RBW= approximately 1% of the emission bandwidth or 100KHz(for 5.725-5.85 GHz band), VBW $\geq$ 3\* RBW, Span=40/80/160MHz, Sweep=auto couple
- Mark the peak frequency and -6dB (upper and lower) frequency.
- Repeat above procedures until all frequency measured was complete.

### Limit:

$\geq 500$  kHz (For 5.725-5.85 GHz band)

### Test Result:

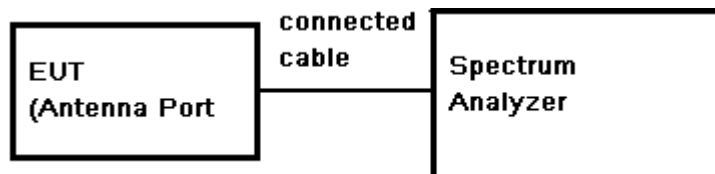
Pass

### Test Data:

The detailed test data see: Appendix B for SZEM171001064204

## 5.6 99% Occupied Bandwidth

### Test Configuration:



### Test Procedure:

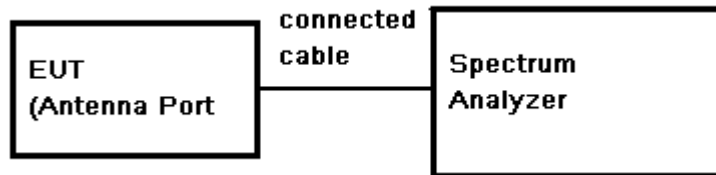
- 1) Place the EUT on the table and set it in transmitting mode.
- 2) Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 3) Set the spectrum analyzer: Span = 1.5 times to 5.0 times the OBW, RBW = 1 % to 5 % of the OBW. VBW  $\geq$  3\*RBW. 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 B for SZEM171001064204

## 5.7 Maximum Conducted output power

### Test Setup:



### Test Procedure:

- Place the EUT on the table and set it in transmitting mode.
- Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum.
- Set the spectrum analyzer as RBW=1MHz, VBW≥3\* RBW, Span=40/80MHz, Sweep=auto, Detector = RMS
- Set the occur band to the entire emission 26dB bandwidth of the signal.
- Trace Average at least 100 traces in power Averaging (i.e., RMS) mode.
- 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.
- Record the max. Power channel reading.
- Repeat above procedures until all the frequency measured were complete.

### Test Limit:

Frequency Band	EUT Category	Limit
U-NII-1	<input type="checkbox"/> 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.
	<input type="checkbox"/> Fixed Point-to-point Access Point	1W(30dBm)
	<input checked="" type="checkbox"/> Indoor Access Point	
	<input type="checkbox"/> 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)
<b>Note1:</b> *Where B is the 26dB emission bandwidth in MHz.		
<b>Note2:</b> For IC 5150MHz to 5250MHz limit is 200mW(23dBm)		

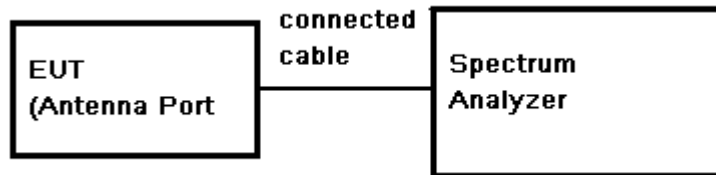
**Test Result:** Pass

### Test Data:

The detailed test data see: Appendix B for SZEM171001064204

## 5.8 Peak Power Spectral Density

**Test Setup:**



**Test Procedure:**

- Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
- Set span 40/80/160MHz; RBW = 1 MHz/510KHz; VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW; Sweep time = auto.
- Detector = RMS, Trigger = Free run Record the marker level for the particular mode.
- Use the peak search function on the instrument to find the peak of the spectrum and record its value.
- Repeat these steps for other channel and device modes.

**Test Limit:**

Frequency Band	EUT Category	Limit
U-NII-1	<input type="checkbox"/> Outdoor Access Point	17dBm/MHz
	<input type="checkbox"/> Fixed Point-to-point Access Point	11 dBm/MHz
	<input checked="" type="checkbox"/> Indoor Access Point	
	<input type="checkbox"/> 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 B for SZEM171001064204

## 5.9 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)	Limit (dBuV/m)
0.009-0.490	128.5 ~ 93.8
0.490-1.705	73.8 ~63.0
1.705-30	69.5
30-88	40.0
88-216	43.5
216-960	46.0
960-1000	54.0
Above 1000	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 (dBuV/m)
5150-5250	-27	68.3
5250-5350		
5470-5725		
5725-5850	-27* <sup>1</sup>	68.3* <sup>1</sup>
	-17* <sup>2</sup>	78.3* <sup>2</sup>

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

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

Remark: \*<sup>1</sup> Without 10MHz of band edge; \*<sup>2</sup> Within 10MHz of band edge

### Test Setup:

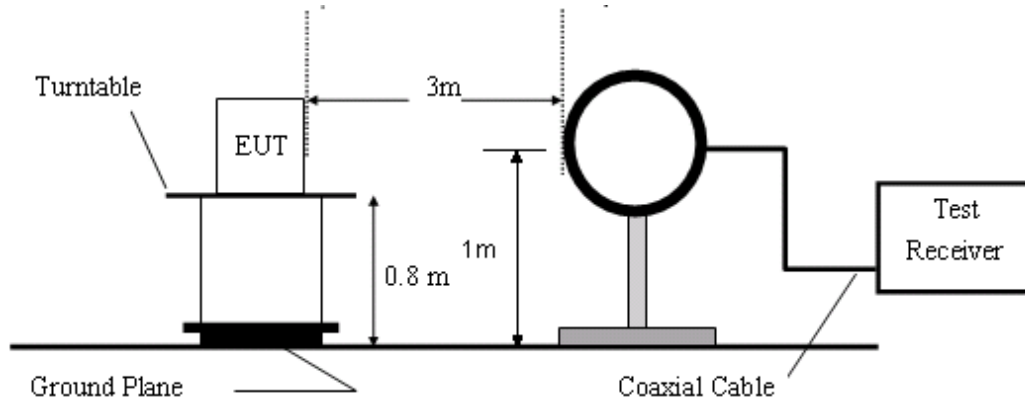


Figure1. Below 30MHz radiated emissions test configuration

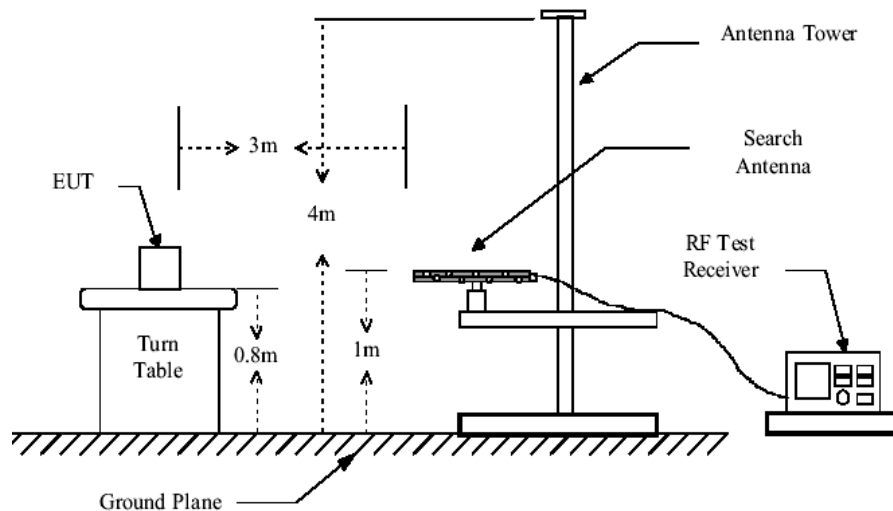


Figure2. 30MHz to 1GHz radiated emissions test configuration

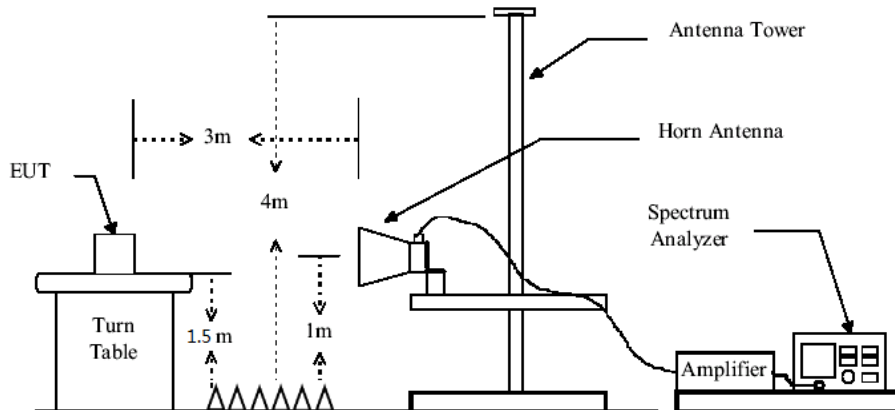


Figure3. Above 1GHz radiated emissions test configuration





**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



### 5.9.1 Radiated Spurious Emissions

Adapter 1

30MHz-1GHz:

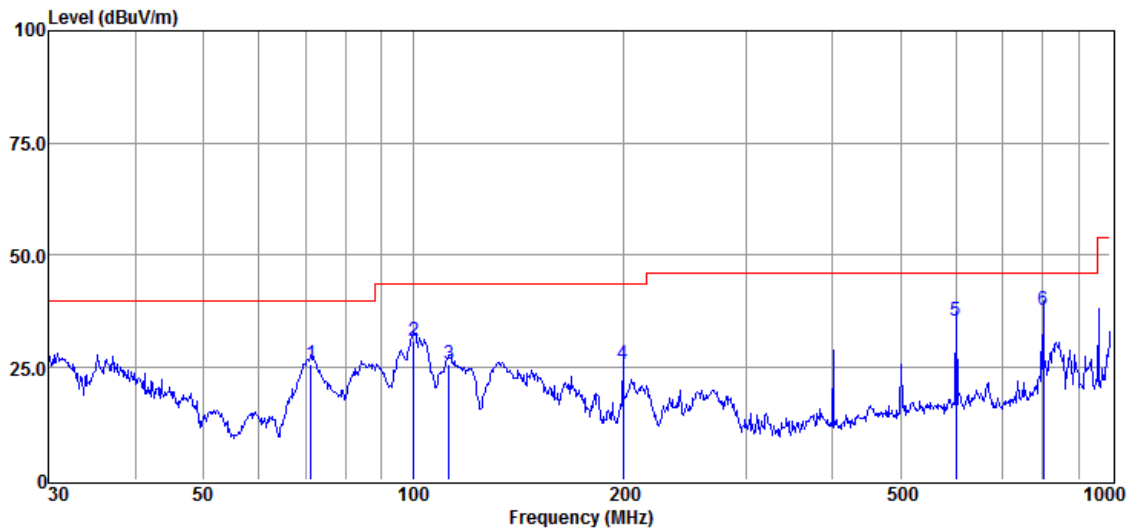
**802.11 a**

**Channel: 149**

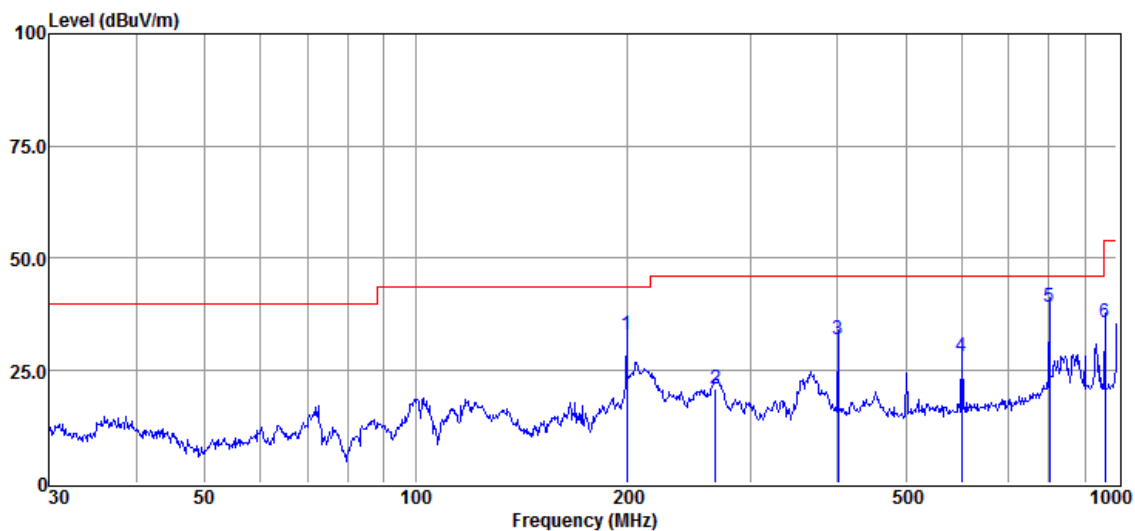
Item	Freq.	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Result Level	Limit Line	Over Limit	Detector	Polarization
(Mark)	(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		
1	199.99	65.25	9.40	42.52	0.69	32.82	43.50	-10.68	QP	Horizontal
2	267.55	50.60	12.12	42.43	0.79	21.08	46.00	-24.92	QP	Horizontal
3	400.43	58.05	15.10	42.10	1.00	32.05	46.00	-13.95	QP	Horizontal
4	601.43	49.59	19.42	42.19	1.38	28.20	46.00	-17.80	QP	Horizontal
5	801.79	57.53	21.92	42.42	2.08	39.11	46.00	-6.89	QP	Horizontal
6	962.16	51.24	23.40	41.45	2.66	35.85	54.00	-18.15	QP	Horizontal
1	71.33	57.17	10.95	42.67	0.34	25.79	40.00	-14.21	QP	Vertical
2	100.23	63.76	9.50	42.69	0.45	31.02	43.50	-12.48	QP	Vertical
3	112.52	58.21	9.70	42.70	0.51	25.72	43.50	-17.78	QP	Vertical
4	199.99	58.06	9.40	42.52	0.69	25.63	43.50	-17.87	QP	Vertical
5	601.43	56.85	19.42	42.19	1.38	35.46	46.00	-10.54	QP	Vertical
6	801.79	56.17	21.92	42.42	2.08	37.75	46.00	-8.25	QP	Vertical

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

Below is the plot of worst case:  
 Vertical:



Horizontal:



Adapter 2

30MHz-1GHz:

**802.11 a**

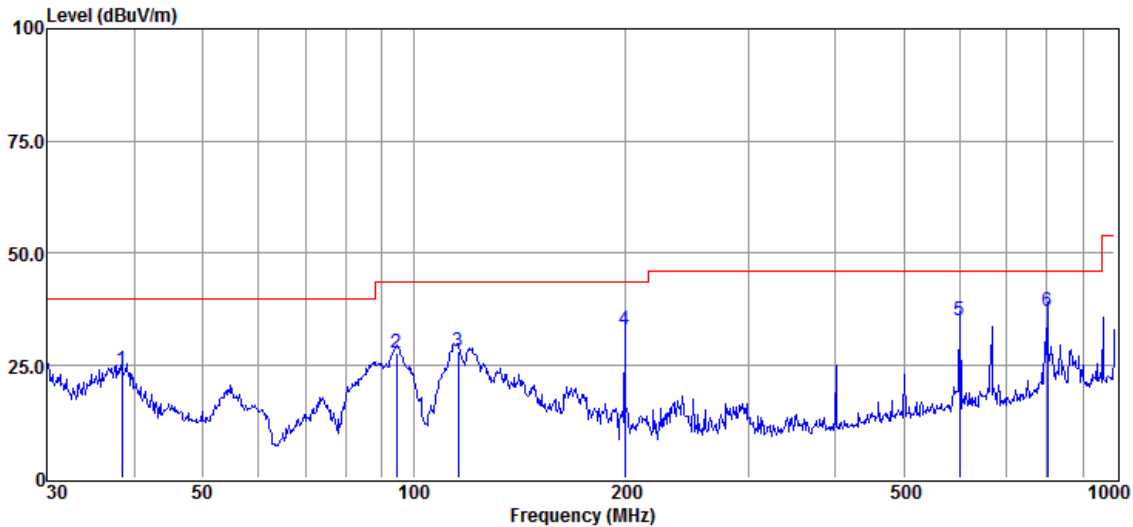
**Channel: 149**

Item	Freq.	Read Level	Antenna Factor	Preamplifier Factor	Cable Loss	Result Level	Limit Line	Over Limit	Detector	Polarization
(Mark)	(MHz)	(dBμV)	(dB/m)	(dB)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		
1	93.44	51.93	8.61	42.69	0.43	18.28	43.50	-25.22	QP	Horizontal
2	126.33	49.09	11.83	42.66	0.56	18.82	43.50	-24.68	QP	Horizontal
3	199.99	68.41	9.40	42.52	0.69	35.98	43.50	-7.52	QP	Horizontal
4	400.43	56.06	15.10	42.10	1.00	30.06	46.00	-15.94	QP	Horizontal
5	801.79	55.27	21.92	42.42	2.08	36.85	46.00	-9.15	QP	Horizontal
6	962.16	54.65	23.40	41.45	2.66	39.26	54.00	-14.74	QP	Horizontal
1	38.35	50.43	16.15	42.62	0.22	24.18	40.00	-15.82	QP	Vertical
2	94.43	61.20	8.75	42.69	0.43	27.69	43.50	-15.81	QP	Vertical
3	115.73	60.38	9.83	42.69	0.52	28.04	43.50	-15.46	QP	Vertical
4	199.99	65.26	9.40	42.52	0.69	32.83	43.50	-10.67	QP	Vertical
5	601.43	56.40	19.42	42.19	1.38	35.01	46.00	-10.99	QP	Vertical
6	801.79	55.49	21.92	42.42	2.08	37.07	46.00	-8.93	QP	Vertical

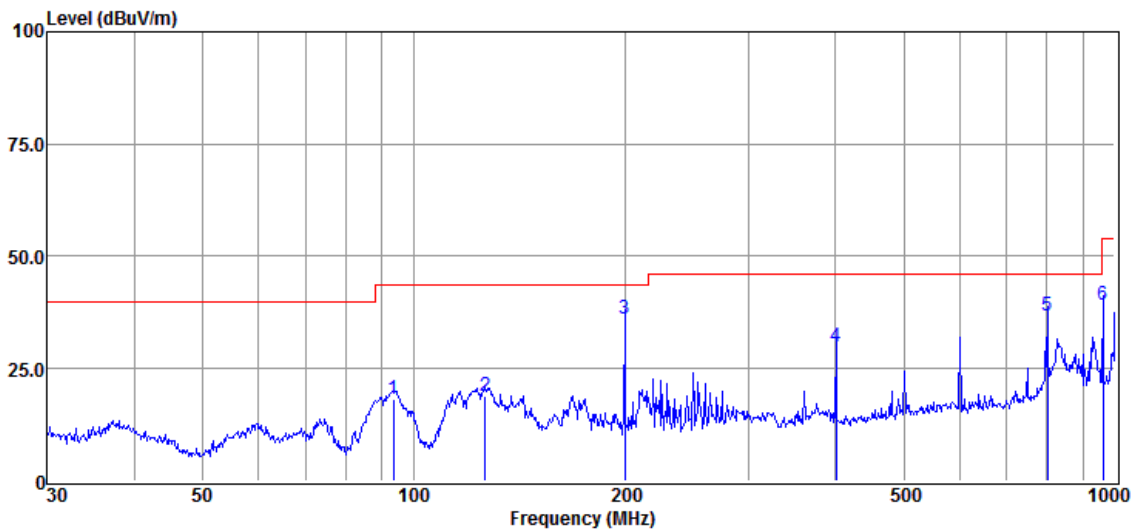
Remark: 1. Result Level = Read Level + Antenna Factor + Cable loss - Preamplifier Factor



Below is the plot of worst case:  
Vertical:



Horizontal:





**SGS-CSTC Standards Technical Services Co., Ltd.**  
**Shenzhen Branch**

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Above 1GHz

Adapter 1

**802.11a**

**Channel: 36**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	10360	33.69	14.28	47.97	54	-6.03	peak	Horizontal
2	15540	28.47	21.58	50.05	54	-3.95	peak	Horizontal
3	20720	26.57	23.16	49.73	54	-4.27	peak	Horizontal
4	10360	30.1	14.28	44.38	54	-9.62	peak	Vertical
5	15540	27.44	21.58	49.02	54	-4.98	peak	Vertical
6	20720	27.34	23.16	50.5	54	-3.5	peak	Vertical

**802.11a**

**Channel: 40**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	10440	35.16	14.14	49.3	54	-4.7	peak	Horizontal
2	15660	29.32	21.22	50.54	54	-3.46	peak	Horizontal
3	20880	27.59	23.24	50.83	54	-3.17	peak	Horizontal
4	10440	33.13	14.14	47.27	54	-6.73	peak	Vertical
5	15660	30.24	21.22	51.46	54	-2.54	peak	Vertical
6	20880	27.5	23.24	50.74	54	-3.26	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	10480	33.92	14.08	48	54	-6	peak	Horizontal
2	15720	30.23	21.1	51.33	54	-2.67	peak	Horizontal
3	20960	26.02	23.64	49.66	54	-4.34	peak	Horizontal
4	10480	34.05	14.08	48.13	54	-5.87	peak	Vertical
5	15720	28.43	21.1	49.53	54	-4.47	peak	Vertical
6	20960	26.19	23.64	49.83	54	-4.17	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	11490	33.53	14.41	47.94	54	-6.06	peak	Horizontal
2	17235	29.69	22.57	52.26	54	-1.74	peak	Horizontal
3	22980	27.47	24.45	51.92	54	-2.08	peak	Horizontal
4	11490	34.24	14.41	48.65	54	-5.35	peak	Vertical
5	17235	29.64	22.57	52.21	54	-1.79	peak	Vertical
6	22980	27.1	24.45	51.55	54	-2.45	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	11570	35.32	14.25	49.57	54	-4.43	peak	Horizontal
2	17355	29.15	21.86	51.01	54	-2.99	peak	Horizontal
3	23140	26.85	24.68	51.53	54	-2.47	peak	Horizontal
4	11570	35.28	14.25	49.53	54	-4.47	peak	Vertical
5	17355	28.7	21.86	50.56	54	-3.44	peak	Vertical
6	23140	26.86	24.68	51.54	54	-2.46	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	11650	31.51	14.06	45.57	54	-8.43	peak	Horizontal
2	17475	26.53	21.15	47.68	54	-6.32	peak	Horizontal
3	23300	27.57	25.11	52.68	54	-1.32	peak	Horizontal
4	11650	33.47	14.06	47.53	54	-6.47	peak	Vertical
5	17475	26.39	21.15	47.54	54	-6.46	peak	Vertical
6	23300	25.3	25.11	50.41	54	-3.59	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	10360	31.46	14.28	45.74	54	-8.26	peak	Horizontal
2	15540	27.46	21.58	49.04	54	-4.96	peak	Horizontal
3	20720	26.77	23.16	49.93	54	-4.07	peak	Horizontal
4	10360	35.17	14.28	49.45	54	-4.55	peak	Vertical
5	15540	27.88	21.58	49.46	54	-4.54	peak	Vertical
6	20720	28.13	23.16	51.29	54	-2.71	peak	Vertical

**802.11 n(HT20)**

**Channel: 40**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	10440	29.86	14.14	44	54	-10	peak	Horizontal
2	15660	27.62	21.22	48.84	54	-5.16	peak	Horizontal
3	20880	25.99	23.24	49.23	54	-4.77	peak	Horizontal
4	10440	34.23	14.14	48.37	54	-5.63	peak	Vertical
5	15660	26.15	21.22	47.37	54	-6.63	peak	Vertical
6	20880	27.57	23.24	50.81	54	-3.19	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	10480	29.06	14.08	43.14	54	-10.86	peak	Horizontal
2	15720	25.69	21.1	46.79	54	-7.21	peak	Horizontal
3	20960	27.93	23.64	51.57	54	-2.43	peak	Horizontal
4	10480	30.8	14.08	44.88	54	-9.12	peak	Vertical
5	15720	29.53	21.1	50.63	54	-3.37	peak	Vertical
6	20960	28.62	23.64	52.26	54	-1.74	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	11490	30.7	14.41	45.11	54	-8.89	peak	Horizontal
2	17235	27.48	22.57	50.05	54	-3.95	peak	Horizontal
3	22980	27.96	24.45	52.41	54	-1.59	peak	Horizontal
4	11490	32.94	14.41	47.35	54	-6.65	peak	Vertical
5	17235	28.58	22.57	51.15	54	-2.85	peak	Vertical
6	22980	27.19	24.45	51.64	54	-2.36	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	11570	35.56	14.25	49.81	54	-4.19	peak	Horizontal
2	17355	26	21.86	47.86	54	-6.14	peak	Horizontal
3	23140	23.96	24.68	48.64	54	-5.36	peak	Horizontal
4	11570	35.62	14.25	49.87	54	-4.13	peak	Vertical
5	17355	30.67	21.86	52.53	54	-1.47	peak	Vertical
6	23140	24.14	24.68	48.82	54	-5.18	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	11650	30.5	14.06	44.56	54	-9.44	peak	Horizontal
2	17475	30.19	21.15	51.34	54	-2.66	peak	Horizontal
3	23300	25.62	25.11	50.73	54	-3.27	peak	Horizontal
4	11650	31.76	14.06	45.82	54	-8.18	peak	Vertical
5	17475	26.74	21.15	47.89	54	-6.11	peak	Vertical
6	23300	27.52	25.11	52.63	54	-1.37	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	10380	33.3	14.25	47.55	54	-6.45	peak	Horizontal
2	15570	27.18	21.49	48.67	54	-5.33	peak	Horizontal
3	20760	27.95	23.16	51.11	54	-2.89	peak	Horizontal
4	10380	31.57	14.25	45.82	54	-8.18	peak	Vertical
5	15570	29.28	21.49	50.77	54	-3.23	peak	Vertical
6	20760	27.9	23.16	51.06	54	-2.94	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	10460	32.95	14.11	47.06	54	-6.94	peak	Horizontal
2	15690	30.2	21.14	51.34	54	-2.66	peak	Horizontal
3	20920	27.36	23.31	50.67	54	-3.33	peak	Horizontal
4	10460	31.5	14.11	45.61	54	-8.39	peak	Vertical
5	15690	28.16	21.14	49.3	54	-4.7	peak	Vertical
6	20920	28.14	23.31	51.45	54	-2.55	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	11510	32.08	14.4	46.48	54	-7.52	peak	Horizontal
2	17265	29.28	22.4	51.68	54	-2.32	peak	Horizontal
3	23020	26.02	24.68	50.7	54	-3.3	peak	Horizontal
4	11510	31.76	14.4	46.16	54	-7.84	peak	Vertical
5	17265	29.85	22.4	52.25	54	-1.75	peak	Vertical
6	23020	28.01	24.68	52.69	54	-1.31	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	11590	33.1	14.2	47.3	54	-6.7	peak	Horizontal
2	17385	29.17	21.68	50.85	54	-3.15	peak	Horizontal
3	23180	24.4	24.72	49.12	54	-4.88	peak	Horizontal
4	11590	32.72	14.2	46.92	54	-7.08	peak	Vertical
5	17385	28.95	21.68	50.63	54	-3.37	peak	Vertical
6	23180	26.75	24.72	51.47	54	-2.53	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	10360	32.95	14.28	47.23	54	-6.77	peak	Horizontal
2	15540	29.46	21.58	51.04	54	-2.96	peak	Horizontal
3	20720	26.93	23.16	50.09	54	-3.91	peak	Horizontal
4	10360	29.33	14.28	43.61	54	-10.39	peak	Vertical
5	15540	29.6	21.58	51.18	54	-2.82	peak	Vertical
6	20720	29.3	23.16	52.46	54	-1.54	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	10440	33.35	14.14	47.49	54	-6.51	peak	Horizontal
2	15660	25.9	21.22	47.12	54	-6.88	peak	Horizontal
3	20880	27.74	23.24	50.98	54	-3.02	peak	Horizontal
4	10440	33.2	14.14	47.34	54	-6.66	peak	Vertical
5	15660	26.7	21.22	47.92	54	-6.08	peak	Vertical
6	20880	26.91	23.24	50.15	54	-3.85	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	10480	32.25	14.08	46.33	54	-7.67	peak	Horizontal
2	15720	28.55	21.1	49.65	54	-4.35	peak	Horizontal
3	20960	27.99	23.64	51.63	54	-2.37	peak	Horizontal
4	10480	35.28	14.08	49.36	54	-4.64	peak	Vertical
5	15720	29.09	21.1	50.19	54	-3.81	peak	Vertical
6	20960	26.46	23.64	50.1	54	-3.9	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	11490	33.18	14.41	47.59	54	-6.41	peak	Horizontal
2	17235	29.12	22.57	51.69	54	-2.31	peak	Horizontal
3	22980	27.32	24.45	51.77	54	-2.23	peak	Horizontal
4	11490	35.97	14.41	50.38	54	-3.62	peak	Vertical
5	17235	27.07	22.57	49.64	54	-4.36	peak	Vertical
6	22980	27.8	24.45	52.25	54	-1.75	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	11570	32.87	14.25	47.12	54	-6.88	peak	Horizontal
2	17355	30.18	21.86	52.04	54	-1.96	peak	Horizontal
3	23140	26.96	24.68	51.64	54	-2.36	peak	Horizontal
4	11570	32.16	14.25	46.41	54	-7.59	peak	Vertical
5	17355	27.76	21.86	49.62	54	-4.38	peak	Vertical
6	23140	28.07	24.68	52.75	54	-1.25	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	11650	36.01	14.06	50.07	54	-3.93	peak	Horizontal
2	17475	25.9	21.15	47.05	54	-6.95	peak	Horizontal
3	23300	24.74	25.11	49.85	54	-4.15	peak	Horizontal
4	11650	35.86	14.06	49.92	54	-4.08	peak	Vertical
5	17475	29.99	21.15	51.14	54	-2.86	peak	Vertical
6	23300	25.04	25.11	50.15	54	-3.85	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	10380	31.49	14.25	45.74	54	-8.26	peak	Horizontal
2	15570	29.78	21.49	51.27	54	-2.73	peak	Horizontal
3	20760	26.58	23.16	49.74	54	-4.26	peak	Horizontal
4	10380	29.82	14.25	44.07	54	-9.93	peak	Vertical
5	15570	29.86	21.49	51.35	54	-2.65	peak	Vertical
6	20760	26.15	23.16	49.31	54	-4.69	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	10460	31.74	14.11	45.85	54	-8.15	peak	Horizontal
2	15690	27.74	21.14	48.88	54	-5.12	peak	Horizontal
3	20920	26.02	23.31	49.33	54	-4.67	peak	Horizontal
4	10460	34.41	14.11	48.52	54	-5.48	peak	Vertical
5	15690	25.86	21.14	47	54	-7	peak	Vertical
6	20920	26.38	23.31	49.69	54	-4.31	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	11510	34.9	14.4	49.3	54	-4.7	peak	Horizontal
2	17265	30.18	22.4	52.58	54	-1.42	peak	Horizontal
3	23020	27.81	24.68	52.49	54	-1.51	peak	Horizontal
4	11510	31.4	14.4	45.8	54	-8.2	peak	Vertical
5	17265	27.87	22.4	50.27	54	-3.73	peak	Vertical
6	23020	27.75	24.68	52.43	54	-1.57	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	11590	35.88	14.2	50.08	54	-3.92	peak	Horizontal
2	17385	28.88	21.68	50.56	54	-3.44	peak	Horizontal
3	23180	26.44	24.72	51.16	54	-2.84	peak	Horizontal
4	11590	32.73	14.2	46.93	54	-7.07	peak	Vertical
5	17385	29.3	21.68	50.98	54	-3.02	peak	Vertical
6	23180	28.05	24.72	52.77	54	-1.23	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	10420	32.58	14.17	46.75	54	-7.25	peak	Horizontal
2	15630	29.06	21.32	50.38	54	-3.62	peak	Horizontal
3	20840	28.1	23.54	51.64	54	-2.36	peak	Horizontal
4	10420	34.95	14.17	49.12	54	-4.88	peak	Vertical
5	15630	27.28	21.32	48.6	54	-5.4	peak	Vertical
6	20840	28.01	23.54	51.55	54	-2.45	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	11550	33.04	14.3	47.34	54	-6.66	peak	Horizontal
2	17325	26.18	22.04	48.22	54	-5.78	peak	Horizontal
3	23100	27.32	24.6	51.92	54	-2.08	peak	Horizontal
4	11550	33.63	14.3	47.93	54	-6.07	peak	Vertical
5	17325	28.43	22.04	50.47	54	-3.53	peak	Vertical
6	23100	23.61	24.6	48.21	54	-5.79	peak	Vertical



Adapter 2

**802.11a**

**Channel: 36**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	10360	35.43	14.28	49.71	54	-4.29	peak	Horizontal
2	15540	30.01	21.58	51.59	54	-2.41	peak	Horizontal
3	20720	28.28	23.16	51.44	54	-2.56	peak	Horizontal
4	10360	33.81	14.28	48.09	54	-5.91	peak	Vertical
5	15540	27.02	21.58	48.6	54	-5.4	peak	Vertical
6	20720	27.43	23.16	50.59	54	-3.41	peak	Vertical

**802.11a**

**Channel: 40**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	10440	33.26	14.14	47.4	54	-6.6	peak	Horizontal
2	15660	29.97	21.22	51.19	54	-2.81	peak	Horizontal
3	20880	27.87	23.24	51.11	54	-2.89	peak	Horizontal
4	10440	34.78	14.14	48.92	54	-5.08	peak	Vertical
5	15660	28.44	21.22	49.66	54	-4.34	peak	Vertical
6	20880	28.85	23.24	52.09	54	-1.91	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	10480	31.57	14.08	45.65	54	-8.35	peak	Horizontal
2	15720	31.61	21.1	52.71	54	-1.29	peak	Horizontal
3	20960	26.17	23.64	49.81	54	-4.19	peak	Horizontal
4	10480	32.17	14.08	46.25	54	-7.75	peak	Vertical
5	15720	30.6	21.1	51.7	54	-2.3	peak	Vertical
6	20960	28.84	23.64	52.48	54	-1.52	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	11490	33.39	14.41	47.8	54	-6.2	peak	Horizontal
2	17235	27.36	22.57	49.93	54	-4.07	peak	Horizontal
3	22980	26.57	24.45	51.02	54	-2.98	peak	Horizontal
4	11490	32.32	14.41	46.73	54	-7.27	peak	Vertical
5	17235	26.73	22.57	49.3	54	-4.7	peak	Vertical
6	22980	27.42	24.45	51.87	54	-2.13	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	11570	31.36	14.25	45.61	54	-8.39	peak	Horizontal
2	17355	26.22	21.86	48.08	54	-5.92	peak	Horizontal
3	23140	26.75	24.68	51.43	54	-2.57	peak	Horizontal
4	11570	36.61	14.25	50.86	54	-3.14	peak	Vertical
5	17355	29.76	21.86	51.62	54	-2.38	peak	Vertical
6	23140	27.14	24.68	51.82	54	-2.18	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	11650	32.41	14.06	46.47	54	-7.53	peak	Horizontal
2	17475	28.93	21.15	50.08	54	-3.92	peak	Horizontal
3	23300	26.29	25.11	51.4	54	-2.6	peak	Horizontal
4	11650	34.6	14.06	48.66	54	-5.34	peak	Vertical
5	17475	28.01	21.15	49.16	54	-4.84	peak	Vertical
6	23300	25.63	25.11	50.74	54	-3.26	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	10360	29.63	14.28	43.91	54	-10.09	peak	Horizontal
2	15540	26.29	21.58	47.87	54	-6.13	peak	Horizontal
3	20720	26.87	23.16	50.03	54	-3.97	peak	Horizontal
4	10360	32.68	14.28	46.96	54	-7.04	peak	Vertical
5	15540	27.48	21.58	49.06	54	-4.94	peak	Vertical
6	20720	25.73	23.16	48.89	54	-5.11	peak	Vertical

**802.11 n(HT20)**

**Channel: 40**

Mark	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	10440	30.98	14.14	45.12	54	-8.88	peak	Horizontal
2	15660	28.68	21.22	49.9	54	-4.1	peak	Horizontal
3	20880	24.97	23.24	48.21	54	-5.79	peak	Horizontal
4	10440	33.6	14.14	47.74	54	-6.26	peak	Vertical
5	15660	25.65	21.22	46.87	54	-7.13	peak	Vertical
6	20880	27.69	23.24	50.93	54	-3.07	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	10480	29.38	14.08	43.46	54	-10.54	peak	Horizontal
2	15720	28.63	21.1	49.73	54	-4.27	peak	Horizontal
3	20960	27.85	23.64	51.49	54	-2.51	peak	Horizontal
4	10480	32.02	14.08	46.1	54	-7.9	peak	Vertical
5	15720	26.61	21.1	47.71	54	-6.29	peak	Vertical
6	20960	26.68	23.64	50.32	54	-3.68	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	11490	33.11	14.41	47.52	54	-6.48	peak	Horizontal
2	17235	28.7	22.57	51.27	54	-2.73	peak	Horizontal
3	22980	27.71	24.45	52.16	54	-1.84	peak	Horizontal
4	11490	34.62	14.41	49.03	54	-4.97	peak	Vertical
5	17235	28.28	22.57	50.85	54	-3.15	peak	Vertical
6	22980	27.04	24.45	51.49	54	-2.51	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	11570	33.8	14.25	48.05	54	-5.95	peak	Horizontal
2	17355	30.73	21.86	52.59	54	-1.41	peak	Horizontal
3	23140	25.34	24.68	50.02	54	-3.98	peak	Horizontal
4	11570	35.52	14.25	49.77	54	-4.23	peak	Vertical
5	17355	29.69	21.86	51.55	54	-2.45	peak	Vertical
6	23140	25.66	24.68	50.34	54	-3.66	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	11650	30.63	14.06	44.69	54	-9.31	peak	Horizontal
2	17475	29.18	21.15	50.33	54	-3.67	peak	Horizontal
3	23300	27.27	25.11	52.38	54	-1.62	peak	Horizontal
4	11650	32	14.06	46.06	54	-7.94	peak	Vertical
5	17475	28.52	21.15	49.67	54	-4.33	peak	Vertical
6	23300	25.96	25.11	51.07	54	-2.93	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	10380	34.68	14.25	48.93	54	-5.07	peak	Horizontal
2	15570	27.98	21.49	49.47	54	-4.53	peak	Horizontal
3	20760	27.6	23.16	50.76	54	-3.24	peak	Horizontal
4	10380	32.96	14.25	47.21	54	-6.79	peak	Vertical
5	15570	27.08	21.49	48.57	54	-5.43	peak	Vertical
6	20760	27.12	23.16	50.28	54	-3.72	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	10460	31.32	14.11	45.43	54	-8.57	peak	Horizontal
2	15690	26.14	21.14	47.28	54	-6.72	peak	Horizontal
3	20920	29.02	23.31	52.33	54	-1.67	peak	Horizontal
4	10460	32.94	14.11	47.05	54	-6.95	peak	Vertical
5	15690	27.02	21.14	48.16	54	-5.84	peak	Vertical
6	20920	26.09	23.31	49.4	54	-4.6	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	11510	34.27	14.4	48.67	54	-5.33	peak	Horizontal
2	17265	25.58	22.4	47.98	54	-6.02	peak	Horizontal
3	23020	24.47	24.68	49.15	54	-4.85	peak	Horizontal
4	11510	31.43	14.4	45.83	54	-8.17	peak	Vertical
5	17265	26.31	22.4	48.71	54	-5.29	peak	Vertical
6	23020	28.27	24.68	52.95	54	-1.05	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	11590	31.96	14.2	46.16	54	-7.84	peak	Horizontal
2	17385	30.56	21.68	52.24	54	-1.76	peak	Horizontal
3	23180	26.12	24.72	50.84	54	-3.16	peak	Horizontal
4	11590	35.52	14.2	49.72	54	-4.28	peak	Vertical
5	17385	26.56	21.68	48.24	54	-5.76	peak	Vertical
6	23180	25.75	24.72	50.47	54	-3.53	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	10360	33.1	14.28	47.38	54	-6.62	peak	Horizontal
2	15540	30.25	21.58	51.83	54	-2.17	peak	Horizontal
3	20720	26.79	23.16	49.95	54	-4.05	peak	Horizontal
4	10360	33.3	14.28	47.58	54	-6.42	peak	Vertical
5	15540	27.45	21.58	49.03	54	-4.97	peak	Vertical
6	20720	26.52	23.16	49.68	54	-4.32	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	10440	31.69	14.14	45.83	54	-8.17	peak	Horizontal
2	15660	27.97	21.22	49.19	54	-4.81	peak	Horizontal
3	20880	26.82	23.24	50.06	54	-3.94	peak	Horizontal
4	10440	33.41	14.14	47.55	54	-6.45	peak	Vertical
5	15660	29.74	21.22	50.96	54	-3.04	peak	Vertical
6	20880	26.88	23.24	50.12	54	-3.88	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	10480	32.01	14.08	46.09	54	-7.91	peak	Horizontal
2	15720	26.66	21.1	47.76	54	-6.24	peak	Horizontal
3	20960	28.48	23.64	52.12	54	-1.88	peak	Horizontal
4	10480	33.37	14.08	47.45	54	-6.55	peak	Vertical
5	15720	29.52	21.1	50.62	54	-3.38	peak	Vertical
6	20960	27.8	23.64	51.44	54	-2.56	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	11490	32.48	14.41	46.89	54	-7.11	peak	Horizontal
2	17235	29.25	22.57	51.82	54	-2.18	peak	Horizontal
3	22980	26.93	24.45	51.38	54	-2.62	peak	Horizontal
4	11490	35.4	14.41	49.81	54	-4.19	peak	Vertical
5	17235	27.09	22.57	49.66	54	-4.34	peak	Vertical
6	22980	27.33	24.45	51.78	54	-2.22	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	11570	34.01	14.25	48.26	54	-5.74	peak	Horizontal
2	17355	28.88	21.86	50.74	54	-3.26	peak	Horizontal
3	23140	25.02	24.68	49.7	54	-4.3	peak	Horizontal
4	11570	33.48	14.25	47.73	54	-6.27	peak	Vertical
5	17355	27.84	21.86	49.7	54	-4.3	peak	Vertical
6	23140	27.37	24.68	52.05	54	-1.95	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	11650	35.93	14.06	49.99	54	-4.01	peak	Horizontal
2	17475	25.87	21.15	47.02	54	-6.98	peak	Horizontal
3	23300	27.76	25.11	52.87	54	-1.13	peak	Horizontal
4	11650	33.38	14.06	47.44	54	-6.56	peak	Vertical
5	17475	26.51	21.15	47.66	54	-6.34	peak	Vertical
6	23300	24.94	25.11	50.05	54	-3.95	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	10380	30.51	14.25	44.76	54	-9.24	peak	Horizontal
2	15570	28.31	21.49	49.8	54	-4.2	peak	Horizontal
3	20760	26.93	23.16	50.09	54	-3.91	peak	Horizontal
4	10380	32.09	14.25	46.34	54	-7.66	peak	Vertical
5	15570	28.06	21.49	49.55	54	-4.45	peak	Vertical
6	20760	25.35	23.16	48.51	54	-5.49	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	10460	33.77	14.11	47.88	54	-6.12	peak	Horizontal
2	15690	26.68	21.14	47.82	54	-6.18	peak	Horizontal
3	20920	28.35	23.31	51.66	54	-2.34	peak	Horizontal
4	10460	31.18	14.11	45.29	54	-8.71	peak	Vertical
5	15690	29.74	21.14	50.88	54	-3.12	peak	Vertical
6	20920	27.56	23.31	50.87	54	-3.13	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	11510	34.64	14.4	49.04	54	-4.96	peak	Horizontal
2	17265	27.81	22.4	50.21	54	-3.79	peak	Horizontal
3	23020	27.89	24.68	52.57	54	-1.43	peak	Horizontal
4	11510	35.02	14.4	49.42	54	-4.58	peak	Vertical
5	17265	30.24	22.4	52.64	54	-1.36	peak	Vertical
6	23020	28.1	24.68	52.78	54	-1.22	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	11590	33.43	14.2	47.63	54	-6.37	peak	Horizontal
2	17385	27.06	21.68	48.74	54	-5.26	peak	Horizontal
3	23180	24.03	24.72	48.75	54	-5.25	peak	Horizontal
4	11590	32.34	14.2	46.54	54	-7.46	peak	Vertical
5	17385	25.4	21.68	47.08	54	-6.92	peak	Vertical
6	23180	26.71	24.72	51.43	54	-2.57	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	10420	31.6	14.17	45.77	54	-8.23	peak	Horizontal
2	15630	26.79	21.32	48.11	54	-5.89	peak	Horizontal
3	20840	27.53	23.54	51.07	54	-2.93	peak	Horizontal
4	10420	34.97	14.17	49.14	54	-4.86	peak	Vertical
5	15630	27.66	21.32	48.98	54	-5.02	peak	Vertical
6	20840	27.18	23.54	50.72	54	-3.28	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	11550	34.87	14.3	49.17	54	-4.83	peak	Horizontal
2	17325	26.47	22.04	48.51	54	-5.49	peak	Horizontal
3	23100	27.19	24.6	51.79	54	-2.21	peak	Horizontal
4	11550	32.38	14.3	46.68	54	-7.32	peak	Vertical
5	17325	26.22	22.04	48.26	54	-5.74	peak	Vertical
6	23100	26.81	24.6	51.41	54	-2.59	peak	Vertical