



# SPORTON International Inc.

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Project No: CB10408135

## Maximum Permissible Exposure Report

Applicant's company	Aerohive Networks Inc.
Applicant Address	330 Gibraltar Drive, Sunnyvale, CA 94089, USA
FCC ID	WBV-AP1130
Manufacturer's company	Wistron NeWeb Corporation
Manufacturer Address	20 Park Avenue II, Hsinchu Science Park, Hsinchu 308, Taiwan, R.O.C.

Product Name	Access Point
Brand Name	Aerohive
Model Name	AP1130
Ref. Standard(s)	47 CFR FCC Part 2 Subpart J, section 2.1091
Received Date	Jul. 22, 2014
Final Test Date	Jun 27, 2015
Submission Type	Original Equipment

Sam Chen

SPORTON INTERNATIONAL INC.



Testing Laboratory  
1190

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## History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA472301	Rev. 01	Initial issue of report	Oct. 05, 2015

## 1. GENERAL DESCRIPTION

### 1.1. EUT General Information

RF General Information			
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type
2.4GHz WLAN	2400-2483.5	2412-2462	802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM)
5GHz WLAN	5150-5250 5250-5350 5470-5725 5725-5850	5180-5240 5260-5320 5500-5720 5745-5825	802.11a/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)

### 1.2. Testing Location

Testing Location			
<input type="checkbox"/>	HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-327-0973	
<input checked="" type="checkbox"/>	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085	

### 1.3. Information

- Only Panel antenna was tested because the e.i.r.p exceeds 37dBm. Please refer to Appendix B for more detailed information about the modes selected for MPE measurement (they're highlighted in yellow). When the e.i.r.p of the modes exceeds 37dBm, MPE measurement is required. And If the e.i.r.p doesn't exceed 37dBm, MPE Calculation is applicable. So, for dipole and normal mode, MPE calculation is enough (please refer to section 2.3) but for BF and non-BF of panel, MPE measurement procedure applies (please refer to section 2.5).
- The power conditions for U-NII bands 1 and 4 are higher than bands 2 and 3.

## 2. MAXIMUM PERMISSIBLE EXPOSURE

### 2.1. Limit of Maximum Permissible Exposure

#### (A) Limits for Occupational / Controlled Exposure

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

#### (B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

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

## 2.2. MPE Calculation Method

The MPE was calculated at 40 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \qquad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

**E** = Electric field (V/m)

**P** = Peak RF output power (W)

**G** = EUT Antenna numeric gain (numeric)

**d** = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

### 2.3. Calculated Result and Limit

Exposure Environment: General Population / Uncontrolled Exposure

For 5GHz UNII Band:

Antenna Type : Panel Antenna

Conducted Power for IEEE 802.11ac VHT40 : 20.81 dBm

Distance (m)	Directional Gain (dBi)	Antenna Gain (numeric)	Average Output Power		Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
			(dBm)	(mW)			
40	20.11	102.5652	20.8140	120.6147	0.615588	1	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SA}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$

For 2.4GHz Band:

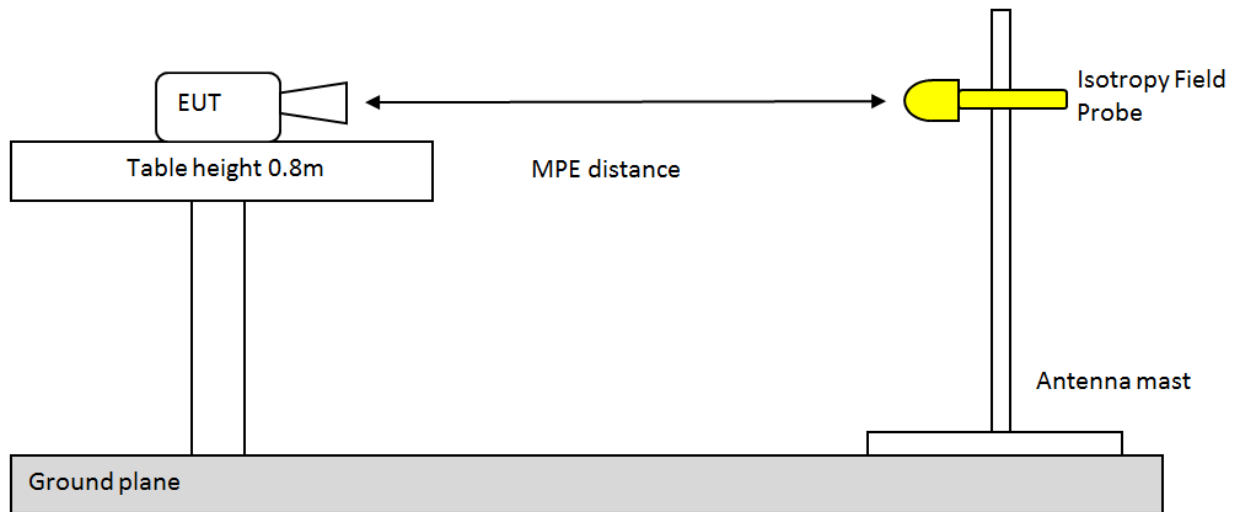
Antenna Type : Dipole Antenna

Conducted Power for IEEE 802.11ac VHT 20: 25.53 dBm

Distance (m)	Directional Gain (dBi)	Antenna Gain (numeric)	Average Output Power		Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
			(dBm)	(mW)			
40	7.39	5.4831	25.5254	356.8980	0.097379	1	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SA}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$

## 2.4. MPE Measurement Method



### Horizontal Plane

1. Align Probe with antenna axis. Probe should same height as Antenna axis.  
And take power density measurement with Probe.
  2. Rotate table 45 degree (30 degree if MPE distance is more 60cm).  
Take power density measurement again.
  3. Repeat step 2, until complete 360 degree.
- Each measured power density should be less than MPE limit.

### Vertical Plane

1. Align Probe with antenna axis. Move probe to height of 10cm above ground plane.  
Take power density measurement.  
Then repeat measure with 10cm increment of probe height until 180 cm.
  2. Rotate table 45 degree (30 degree if MPE distance is more 60cm).  
Repeat the power density measure from 10cm to 180cm
  3. Repeat step 2, until complete 360 degree.
- Spatial Average of same vertical plane should be less then MPE limit.

For Probe or measurement equipment requirement, please see FCC OET Bulletin 65 97-01

Note:

Either peak or spatially averaged results may be applied to determine compliance; and with respect to plane-wave equivalent power density limits when  $\geq 300$  MHz, and electric and magnetic field strength limits when  $< 300$  MHz.



## 2.5. Measurement Result and Limit

For 5GHz (Band1 + Band4) UNII Band:

Antenna Type: Panel Antenna

<For Non-beamforming mode>

Test Mode	VHT20 Non-BF	Test Frequency (MHz)	5180	MPE Distance (cm)	40	Power Setting	68	
EUT Plane	Horizontal							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)
90	0.20787	0.00136	0.00064	0.00023	0.00024	0.00048	0.00127	0.20732
Max PSD (mW/cm²)	0.20787							
MPE Limit (mW/cm²)	1							
EUT Plane	Vertical							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)
10	0.00084	0.00021	0.00028	0.00021	0.00019	0.00028	0.00031	0.00082
20	0.00081	0.00036	0.00029	0.00019	0.00019	0.00029	0.00032	0.00083
30	0.00052	0.00043	0.00031	0.00021	0.0002	0.00031	0.00034	0.00055
40	0.00042	0.00045	0.00032	0.00019	0.00019	0.00033	0.00037	0.00043
50	0.00053	0.00031	0.00041	0.00021	0.00019	0.00045	0.00032	0.00051
60	0.00049	0.00032	0.00037	0.00024	0.00023	0.00034	0.00043	0.00048
70	0.00186	0.00051	0.00031	0.0002	0.0002	0.00035	0.00069	0.00195
80	0.05416	0.00066	0.00036	0.00021	0.00021	0.00057	0.00157	0.05527
90	0.19348	0.00145	0.00038	0.00023	0.00025	0.00116	0.00178	0.19236
100	0.02678	0.00108	0.00034	0.00019	0.00022	0.00107	0.00208	0.028014
110	0.00204	0.00058	0.00038	0.00019	0.00021	0.00058	0.00095	0.00225
120	0.00316	0.00098	0.00059	0.00021	0.00021	0.00032	0.00074	0.00331
130	0.00058	0.00066	0.00025	0.0002	0.0002	0.00035	0.00056	0.00052
140	0.00056	0.00043	0.00024	0.0002	0.0002	0.00024	0.00043	0.00051
150	0.00046	0.00031	0.00023	0.00019	0.00019	0.00023	0.00032	0.00043
160	0.00037	0.00025	0.00023	0.00019	0.00018	0.00022	0.00028	0.00035
170	0.00033	0.00024	0.00021	0.00018	0.00018	0.00021	0.00027	0.00034
180	0.00026	0.00022	0.00021	0.00018	0.00018	0.00021	0.00025	0.00028
Spatial Average (mW/cm²)	0.01598	0.00053	0.00032	0.00020	0.00020	0.00042	0.00067	0.01607
Max Spatial Average (mW/cm²)	0.01607							
MPE Limit (mW/cm²)	1							

Test Mode	VHT20 Non-BF	Test Frequency (MHz)	5200	MPE Distance (cm)	40	Power Setting	68	
EUT Plane	Horizontal							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)
90	0.20517	0.00128	0.00051	0.00021	0.00023	0.00047	0.00149	0.20485
Max PSD (mW/cm²)	0.20517							
MPE Limit (mW/cm²)	1							
EUT Plane	Vertical							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)
10	0.00085	0.00034	0.00026	0.00023	0.00022	0.00031	0.00038	0.00092
20	0.00102	0.00036	0.00027	0.00021	0.00022	0.00034	0.00042	0.00109
30	0.00067	0.00041	0.00029	0.00021	0.00023	0.00036	0.00043	0.00073
40	0.00052	0.00046	0.00031	0.00022	0.00021	0.00038	0.00045	0.00055
50	0.00056	0.00052	0.00038	0.00023	0.00024	0.00051	0.00049	0.00054
60	0.00095	0.00053	0.00034	0.00024	0.00025	0.00046	0.00052	0.00087
70	0.00182	0.00057	0.00032	0.00025	0.00028	0.00045	0.00081	0.00191
80	0.05329	0.00086	0.00035	0.00026	0.00028	0.00065	0.00146	0.05276
90	0.18219	0.00134	0.00039	0.00029	0.00031	0.00094	0.00168	0.18335
100	0.02517	0.00111	0.00036	0.00023	0.00026	0.00089	0.00191	0.02608
110	0.00206	0.00096	0.00034	0.00024	0.00025	0.00072	0.00079	0.00214
120	0.00249	0.00087	0.00042	0.00022	0.00023	0.00045	0.00058	0.00273
130	0.00076	0.00062	0.00028	0.00021	0.00021	0.00036	0.00043	0.00069
140	0.00073	0.00043	0.00027	0.00021	0.00021	0.00034	0.00037	0.00066
150	0.00056	0.00031	0.00026	0.0002	0.00022	0.00025	0.00027	0.00052
160	0.00045	0.00026	0.00026	0.00019	0.00019	0.00021	0.00026	0.00041
170	0.00039	0.00025	0.00024	0.0002	0.00019	0.00021	0.00025	0.00035
180	0.00031	0.00023	0.00023	0.00018	0.00018	0.0002	0.00023	0.00029
Spatial Average (mW/cm²)	0.01527	0.00058	0.00031	0.00022	0.00023	0.00045	0.00065	0.01537
Max Spatial Average (mW/cm²)	0.01537							
MPE Limit (mW/cm²)	1							

Test Mode	VHT40 Non-BF	Test Frequency (MHz)	5230	MPE Distance (cm)	40	Power Setting	70	
EUT Plane	Horizontal							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)
89	0.21134	0.00122	0.00049	0.00023	0.00021	0.00046	0.00158	0.21097
Max PSD (mW/cm²)	0.21134							
MPE Limit (mW/cm²)	1							
EUT Plane	Vertical							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)
10	0.00065	0.00041	0.00029	0.00027	0.00026	0.00036	0.00039	0.00068
20	0.00091	0.00043	0.00031	0.00023	0.00023	0.00037	0.00041	0.00089
30	0.00062	0.00047	0.00034	0.00023	0.00025	0.00038	0.00046	0.00067
40	0.00051	0.00049	0.00037	0.00025	0.00027	0.0004	0.00052	0.00054
50	0.00046	0.00055	0.00042	0.00025	0.00028	0.00047	0.00057	0.00051
60	0.00146	0.00061	0.00038	0.00029	0.00032	0.00045	0.00063	0.00139
70	0.00289	0.00063	0.00037	0.00028	0.00031	0.00048	0.00104	0.00296
80	0.05267	0.00094	0.00049	0.00029	0.00034	0.00059	0.00159	0.05334
90	0.16378	0.00237	0.00051	0.00031	0.00032	0.00065	0.00171	0.16284
100	0.02359	0.00152	0.00042	0.00027	0.00028	0.00124	0.00227	0.02406
110	0.00225	0.00103	0.00037	0.00025	0.00026	0.00082	0.00095	0.00249
120	0.00207	0.00074	0.00039	0.00026	0.00024	0.00053	0.00064	0.00218
130	0.00093	0.00068	0.00032	0.00027	0.00028	0.00042	0.00052	0.00102
140	0.00067	0.00055	0.00029	0.00023	0.00023	0.00039	0.00043	0.00074
150	0.00047	0.00041	0.00028	0.00021	0.00024	0.00028	0.00029	0.00051
160	0.00045	0.00029	0.00027	0.00022	0.00022	0.00027	0.00028	0.00048
170	0.00038	0.00028	0.00029	0.00022	0.00024	0.00023	0.00028	0.00036
180	0.00036	0.00026	0.00028	0.00019	0.00021	0.00022	0.00026	0.00034
Spatial Average (mW/cm²)	0.01417	0.00070	0.00036	0.00025	0.00027	0.00048	0.00074	0.01422
Max Spatial Average (mW/cm²)	0.01422							
MPE Limit (mW/cm²)	1							

## &lt;For Beamforming mode&gt;

Test Mode	VHT20 BF	Test Frequency (MHz)	5180	MPE Distance (cm)	40	Power Setting	56	
EUT Plane	Horizontal							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)
87	0.11258	0.00097	0.00043	0.00017	0.00025	0.00031	0.00135	0.11291
Max PSD (mW/cm²)	0.11291							
MPE Limit (mW/cm²)	1							
EUT Plane	Vertical							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)
10	0.00032	0.00028	0.00023	0.00018	0.00019	0.00031	0.00032	0.00031
20	0.00037	0.00029	0.00024	0.00018	0.0002	0.00032	0.00033	0.00035
30	0.00039	0.00031	0.00025	0.00019	0.00022	0.00034	0.00035	0.00037
40	0.00043	0.00034	0.00027	0.00021	0.00024	0.00036	0.00037	0.00045
50	0.00048	0.00037	0.00028	0.00023	0.00025	0.00038	0.00043	0.00052
60	0.00057	0.00041	0.00032	0.00025	0.00027	0.00045	0.00051	0.00063
70	0.00126	0.00049	0.00034	0.00027	0.00028	0.00059	0.00071	0.00136
80	0.03165	0.00055	0.00037	0.00028	0.00029	0.00068	0.00083	0.03189
90	0.10634	0.00092	0.00039	0.00032	0.00031	0.00082	0.00094	0.10796
100	0.02156	0.00071	0.00036	0.00029	0.00026	0.00074	0.00077	0.02077
110	0.00223	0.00052	0.00032	0.00027	0.00024	0.00061	0.00072	0.00254
120	0.00196	0.00047	0.00028	0.00026	0.00023	0.00049	0.00058	0.00213
130	0.00075	0.00042	0.00027	0.00025	0.00022	0.00044	0.00049	0.00089
140	0.00044	0.00041	0.00026	0.00022	0.00019	0.00041	0.00045	0.00052
150	0.00041	0.00037	0.00025	0.00019	0.00017	0.00037	0.00041	0.00047
160	0.00037	0.00034	0.00024	0.00018	0.00016	0.00029	0.00033	0.00042
170	0.00036	0.00032	0.00023	0.00016	0.00016	0.00028	0.00027	0.00038
180	0.00031	0.00029	0.00021	0.00016	0.00016	0.00025	0.00026	0.00033
Spatial Average (mW/cm²)	0.00946	0.00043	0.00028	0.00023	0.00022	0.00045	0.00050	0.00957
Max Spatial Average (mW/cm²)	0.00957							
MPE Limit (mW/cm²)	1							

Test Mode	VHT20 BF	Test Frequency (MHz)	5200	MPE Distance (cm)	40	Power Setting	56	
EUT Plane	Horizontal							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)
87	0.10378	0.00093	0.00039	0.00014	0.00023	0.00028	0.00143	0.10257
Max PSD (mW/cm²)	0.10378							
MPE Limit (mW/cm²)	1							
EUT Plane	Vertical							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)
10	0.00028	0.00025	0.00019	0.00016	0.00016	0.00026	0.00029	0.00027
20	0.00029	0.00027	0.00021	0.00017	0.00018	0.00028	0.00031	0.00028
30	0.00031	0.00028	0.00023	0.0002	0.00018	0.00029	0.00034	0.00029
40	0.00037	0.00032	0.00025	0.00022	0.00019	0.00031	0.00038	0.00032
50	0.00043	0.00034	0.00026	0.00024	0.00021	0.00033	0.00042	0.00039
60	0.00049	0.00038	0.00028	0.00025	0.00023	0.00042	0.00045	0.00045
70	0.00105	0.00043	0.00032	0.00028	0.00024	0.00066	0.00074	0.00134
80	0.02747	0.00052	0.00033	0.00029	0.00027	0.00073	0.00079	0.02695
90	0.09315	0.00089	0.00036	0.00035	0.00036	0.00089	0.00107	0.09687
100	0.01981	0.00073	0.00034	0.00033	0.00034	0.00062	0.00071	0.02014
110	0.00167	0.00058	0.00031	0.00031	0.00029	0.00058	0.00062	0.00178
120	0.00152	0.00046	0.00027	0.0003	0.00025	0.00045	0.00053	0.00163
130	0.00063	0.00039	0.00025	0.00026	0.00024	0.00037	0.00042	0.00059
140	0.00052	0.00034	0.00023	0.00024	0.00021	0.00034	0.00036	0.00056
150	0.00034	0.00032	0.00021	0.00019	0.00023	0.00031	0.00033	0.00033
160	0.00031	0.00025	0.00018	0.00018	0.00019	0.00026	0.00032	0.00032
170	0.00026	0.00024	0.00017	0.00018	0.00017	0.00024	0.00029	0.00028
180	0.00025	0.00023	0.00016	0.00016	0.00016	0.00021	0.00024	0.00026
Spatial Average (mW/cm²)	0.00829	0.00040	0.00025	0.00024	0.00023	0.00042	0.00048	0.00850
Max Spatial Average (mW/cm²)	0.00850							
MPE Limit (mW/cm²)	1							

Test Mode	VHT20 BF	Test Frequency (MHz)	5240	MPE Distance (cm)	40	Power Setting	54	
EUT Plane	Horizontal							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )
88	0.10179	0.00087	0.00035	0.00015	0.00027	0.00032	0.00147	0.10153
Max PSD (mW/cm <sup>2</sup> )	0.10179							
MPE Limit (mW/cm <sup>2</sup> )	1							
EUT Plane	Vertical							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )
10	0.00024	0.00021	0.00017	0.00016	0.00016	0.00033	0.00037	0.00029
20	0.00026	0.00022	0.00017	0.00016	0.00017	0.00034	0.00038	0.00032
30	0.00027	0.00023	0.00018	0.00017	0.00017	0.00037	0.00041	0.00033
40	0.00033	0.00028	0.00018	0.00018	0.00018	0.00038	0.00042	0.00034
50	0.00035	0.00032	0.00019	0.00019	0.00018	0.00042	0.00049	0.00037
60	0.00076	0.00035	0.00022	0.00019	0.00019	0.00043	0.00053	0.00071
70	0.00145	0.00039	0.00024	0.00021	0.0002	0.00051	0.00068	0.00138
80	0.02359	0.00047	0.00026	0.00023	0.00022	0.00062	0.00074	0.02306
90	0.09134	0.00074	0.00027	0.00025	0.00023	0.00077	0.00085	0.09097
100	0.00987	0.00056	0.00025	0.00022	0.00021	0.00068	0.00071	0.00991
110	0.00152	0.00034	0.00023	0.0002	0.00019	0.00046	0.00055	0.00149
120	0.00134	0.00032	0.00021	0.00018	0.00018	0.00039	0.00047	0.00127
130	0.00073	0.00029	0.00018	0.00023	0.00018	0.00037	0.00043	0.00085
140	0.00045	0.00027	0.00021	0.00022	0.00017	0.00032	0.00038	0.00051
150	0.00036	0.00023	0.00023	0.00019	0.00017	0.00029	0.00036	0.00033
160	0.00032	0.00021	0.00018	0.00021	0.00023	0.00028	0.00034	0.00028
170	0.00027	0.00019	0.00017	0.00018	0.00017	0.00026	0.00032	0.00026
180	0.00025	0.00018	0.00016	0.00016	0.00018	0.00025	0.00031	0.00025
Spatial Average (mW/cm <sup>2</sup> )	0.00743	0.00032	0.00021	0.00020	0.00019	0.00042	0.00049	0.00738
Max Spatial Average (mW/cm <sup>2</sup> )	0.00743							
MPE Limit (mW/cm <sup>2</sup> )	1							

Test Mode	VHT20 BF	Test Frequency (MHz)	5745	MPE Distance (cm)	40	Power Setting	66	
EUT Plane	Horizontal							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)
92	0.25193	0.00216	0.00154	0.00026	0.00029	0.00121	0.00155	0.25073
Max PSD (mW/cm²)	0.25193							
MPE Limit (mW/cm²)	1							
EUT Plane	Vertical							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)
10	0.00042	0.00023	0.00022	0.00018	0.00017	0.00035	0.00042	0.00046
20	0.00043	0.00024	0.00025	0.00019	0.00019	0.00037	0.00045	0.00048
30	0.00047	0.00026	0.00027	0.00019	0.00021	0.00041	0.00049	0.00049
40	0.00051	0.00027	0.00031	0.00022	0.00023	0.00043	0.00053	0.00053
50	0.00134	0.00028	0.00033	0.00023	0.00025	0.00046	0.00064	0.00128
60	0.00158	0.00037	0.00034	0.00024	0.00026	0.00052	0.00078	0.00162
70	0.00219	0.00051	0.00036	0.00025	0.00027	0.00066	0.00085	0.00223
80	0.04537	0.00068	0.00039	0.00033	0.00032	0.00071	0.00147	0.04498
90	0.15326	0.00096	0.00045	0.00037	0.00038	0.00205	0.00433	0.1574
100	0.01659	0.00088	0.00043	0.00032	0.00034	0.00131	0.00168	0.01712
110	0.00257	0.00057	0.00041	0.00028	0.00032	0.00063	0.00135	0.00235
120	0.00078	0.00049	0.00037	0.00027	0.00031	0.00052	0.00071	0.00083
130	0.00069	0.00044	0.00034	0.00025	0.00028	0.00048	0.00062	0.00062
140	0.00056	0.00038	0.00032	0.00024	0.00025	0.00042	0.00054	0.00053
150	0.00047	0.00036	0.00031	0.00022	0.00024	0.00041	0.00052	0.00048
160	0.00039	0.00035	0.00028	0.00021	0.00022	0.00038	0.00048	0.00043
170	0.00035	0.00033	0.00027	0.00018	0.0002	0.00036	0.00043	0.00041
180	0.00032	0.00029	0.00026	0.00017	0.00019	0.00035	0.00041	0.00038
Spatial Average (mW/cm²)	0.01268	0.00044	0.00033	0.00024	0.00026	0.00060	0.00093	0.01292
Max Spatial Average (mW/cm²)	0.01292							
MPE Limit (mW/cm²)	1							

Test Mode	VHT20 BF	Test Frequency (MHz)	5825	MPE Distance (cm)	40	Power Setting	62	
EUT Plane	Horizontal							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)
90	0.20151	0.00164	0.00132	0.00024	0.00025	0.00093	0.00127	0.20058
Max PSD (mW/cm²)	0.20151							
MPE Limit (mW/cm²)	1							
EUT Plane	Vertical							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)
10	0.0004	0.00021	0.00019	0.00018	0.00019	0.00031	0.00036	0.00042
20	0.00041	0.00023	0.00019	0.0002	0.0002	0.00032	0.00038	0.00043
30	0.00043	0.00025	0.00022	0.00021	0.00023	0.00034	0.00042	0.00045
40	0.00051	0.00026	0.00023	0.00025	0.00024	0.00035	0.00046	0.00054
50	0.00065	0.00032	0.00025	0.00027	0.00028	0.00037	0.00049	0.00067
60	0.00079	0.00033	0.00027	0.00028	0.00029	0.00045	0.00058	0.00075
70	0.00085	0.00037	0.00028	0.00028	0.00031	0.00054	0.00062	0.00083
80	0.02457	0.00046	0.00029	0.0003	0.00032	0.00067	0.00105	0.02412
90	0.13275	0.00068	0.00036	0.00032	0.00035	0.00132	0.00396	0.13169
100	0.01837	0.00062	0.00033	0.00028	0.00031	0.00051	0.00157	0.01887
110	0.00118	0.00043	0.00032	0.00027	0.00029	0.00047	0.00146	0.00123
120	0.00079	0.00041	0.00029	0.00025	0.00026	0.00043	0.00059	0.00077
130	0.00075	0.00038	0.00028	0.00023	0.00024	0.00042	0.00055	0.00076
140	0.00061	0.00036	0.00026	0.00021	0.00022	0.00038	0.00048	0.00068
150	0.00039	0.00033	0.00025	0.00019	0.00018	0.00035	0.00045	0.00042
160	0.00038	0.00031	0.00022	0.00018	0.00017	0.00032	0.00042	0.00037
170	0.00036	0.00027	0.00021	0.00017	0.00016	0.00029	0.00041	0.00035
180	0.00034	0.00025	0.00019	0.00016	0.00016	0.00028	0.00039	0.00033
Spatial Average (mW/cm²)	0.01025	0.00036	0.00026	0.00024	0.00024	0.00045	0.00081	0.01020
Max Spatial Average (mW/cm²)	0.01025							
MPE Limit (mW/cm²)	1							



Test Mode	VHT40 BF	Test Frequency (MHz)	5230	MPE Distance (cm)	40	Power Setting	70	
EUT Plane	Horizontal							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)
90	0.23972	0.00225	0.00161	0.00038	0.00042	0.00134	0.00165	0.23762
Max PSD (mW/cm²)	0.23972							
MPE Limit (mW/cm²)	1							
EUT Plane	Vertical							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)	Max PSD (mW/cm²)
10	0.00045	0.00036	0.00027	0.00023	0.00025	0.00034	0.0003	0.00046
20	0.00064	0.00038	0.00027	0.00023	0.00026	0.00035	0.00031	0.00062
30	0.00074	0.00042	0.00028	0.00023	0.00026	0.00037	0.00032	0.00071
40	0.00081	0.00043	0.00029	0.00025	0.00027	0.00038	0.00035	0.00079
50	0.00085	0.00045	0.0003	0.00025	0.00028	0.00045	0.00042	0.00088
60	0.00152	0.00051	0.00032	0.00026	0.00029	0.00052	0.00043	0.00161
70	0.00335	0.00062	0.00036	0.00027	0.00032	0.00057	0.00059	0.00374
80	0.07963	0.00076	0.00042	0.00028	0.00033	0.00069	0.00151	0.08053
90	0.21153	0.00215	0.00058	0.00029	0.00033	0.00201	0.00234	0.20989
100	0.03046	0.00103	0.00038	0.00029	0.00031	0.00118	0.00089	0.03216
110	0.00435	0.00098	0.00037	0.00027	0.00028	0.00075	0.00065	0.00452
120	0.00269	0.00092	0.00035	0.00024	0.00027	0.00042	0.00052	0.00274
130	0.00141	0.00081	0.00034	0.00022	0.00025	0.00035	0.00046	0.00138
140	0.00096	0.00059	0.00031	0.00021	0.00023	0.00034	0.00042	0.00092
150	0.00068	0.00043	0.00027	0.00019	0.00021	0.00033	0.00041	0.00064
160	0.00063	0.00041	0.00026	0.00018	0.00019	0.00031	0.00037	0.00062
170	0.00054	0.00037	0.00026	0.00018	0.00019	0.00029	0.00034	0.00058
180	0.00037	0.00036	0.00025	0.00017	0.00018	0.00028	0.00033	0.00041
Spatial Average (mW/cm²)	0.01898	0.00067	0.00033	0.00024	0.00026	0.00055	0.00061	0.01907
Max Spatial Average (mW/cm²)	0.01907							
MPE Limit (mW/cm²)	1							

Test Mode	VHT40 BF	Test Frequency (MHz)	5795	MPE Distance (cm)	40	Power Setting	60	
EUT Plane	Horizontal							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )
90	0.16732	0.00156	0.00127	0.00028	0.00033	0.00084	0.00116	0.16589
Max PSD (mW/cm <sup>2</sup> )	0.16732							
MPE Limit (mW/cm <sup>2</sup> )	1							
EUT Plane	Vertical							
Probe height (cm) \ Deg	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )	Max PSD (mW/cm <sup>2</sup> )
10	0.00031	0.00018	0.00017	0.00018	0.00021	0.00025	0.00026	0.00029
20	0.00032	0.00019	0.00018	0.00018	0.00022	0.00027	0.00028	0.0003
30	0.00034	0.00021	0.00019	0.00018	0.00022	0.00028	0.00029	0.00032
40	0.00038	0.00023	0.00021	0.00019	0.00023	0.00029	0.00032	0.00037
50	0.00085	0.00027	0.00024	0.00019	0.00024	0.00031	0.00033	0.00079
60	0.00089	0.00028	0.00025	0.00021	0.00025	0.00034	0.00035	0.00084
70	0.00091	0.00031	0.00029	0.00021	0.00027	0.00035	0.00041	0.00088
80	0.02265	0.00037	0.00031	0.00022	0.00029	0.00047	0.00072	0.02568
90	0.11578	0.00075	0.00033	0.00024	0.00029	0.00156	0.00183	0.11327
100	0.01275	0.00071	0.00032	0.00023	0.00026	0.00041	0.00096	0.01219
110	0.00158	0.00036	0.00025	0.00021	0.00024	0.00046	0.00115	0.00148
120	0.00063	0.00035	0.00023	0.00018	0.00022	0.00031	0.00043	0.00067
130	0.00052	0.00032	0.00021	0.00018	0.00021	0.00029	0.00041	0.00058
140	0.00049	0.00029	0.00018	0.00017	0.00019	0.00027	0.00035	0.00051
150	0.00027	0.00026	0.00017	0.00016	0.00018	0.00023	0.00032	0.00029
160	0.00023	0.00021	0.00022	0.00025	0.00018	0.00021	0.00031	0.00026
170	0.00019	0.00017	0.00018	0.00017	0.00017	0.00019	0.00028	0.00021
180	0.00018	0.00016	0.00016	0.00016	0.00016	0.00018	0.00027	0.00019
Spatial Average (mW/cm <sup>2</sup> )	0.00885	0.00031	0.00023	0.00020	0.00022	0.00037	0.00052	0.00884
Max Spatial Average (mW/cm <sup>2</sup> )	0.00885							
MPE Limit (mW/cm <sup>2</sup> )	1							

**Conclusion:**

Both of the WLAN 2.4GHz Band and WLAN 5GHz Band can transmit simultaneously, the formula of calculated the MPE is:

$$\text{CPD1} / \text{LPD1} + \text{CPD2} / \text{LPD2} + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

Therefore, the worst-case situation is  $0.097379 / 1 + 0.615588 / 1 = 0.712967$ , which is less than "1". This confirmed that the device comply with FCC 1.1310 MPE limit.

**2.6. List of Measuring Equipments**

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Isotropic Probe	ETS-LINDGREN	HI-6105	00130664	100kHz-6GHz	Jun. 03, 2015	03CH01-CB

Note: Calibration Interval of instrument listed above is one year.

## Appendix A. Test Photos

## 1. Photographs of MPE Measurement Configuration

### Orthogonal Planes of Antenna

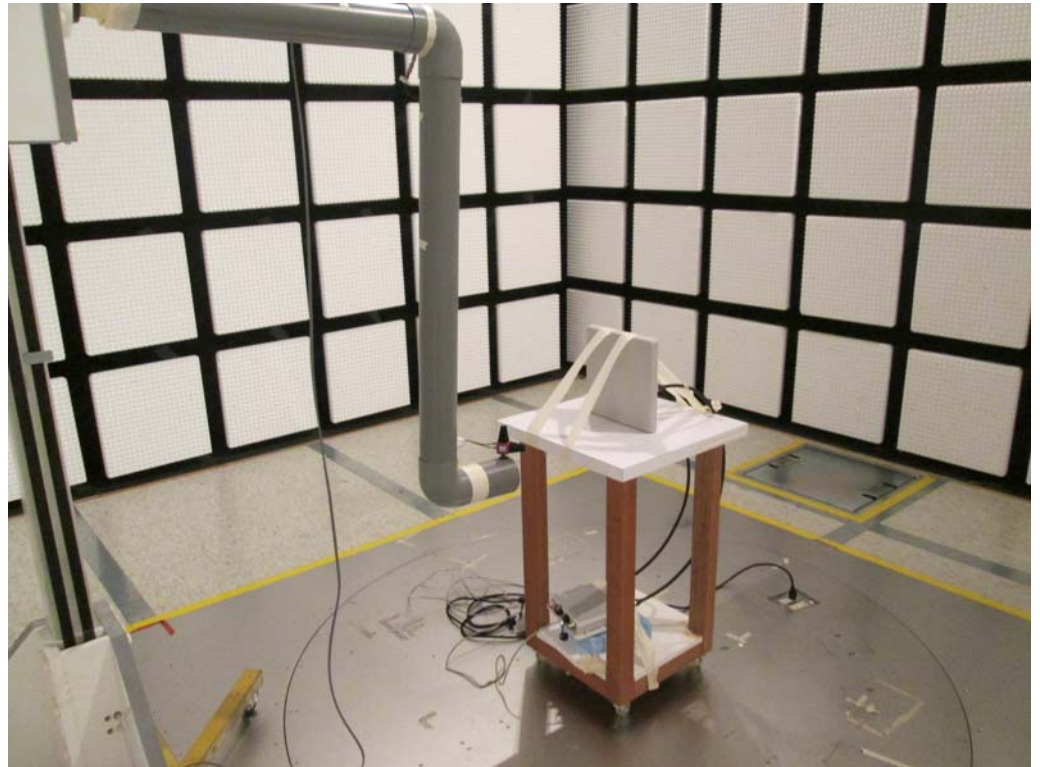
Vertical Plane



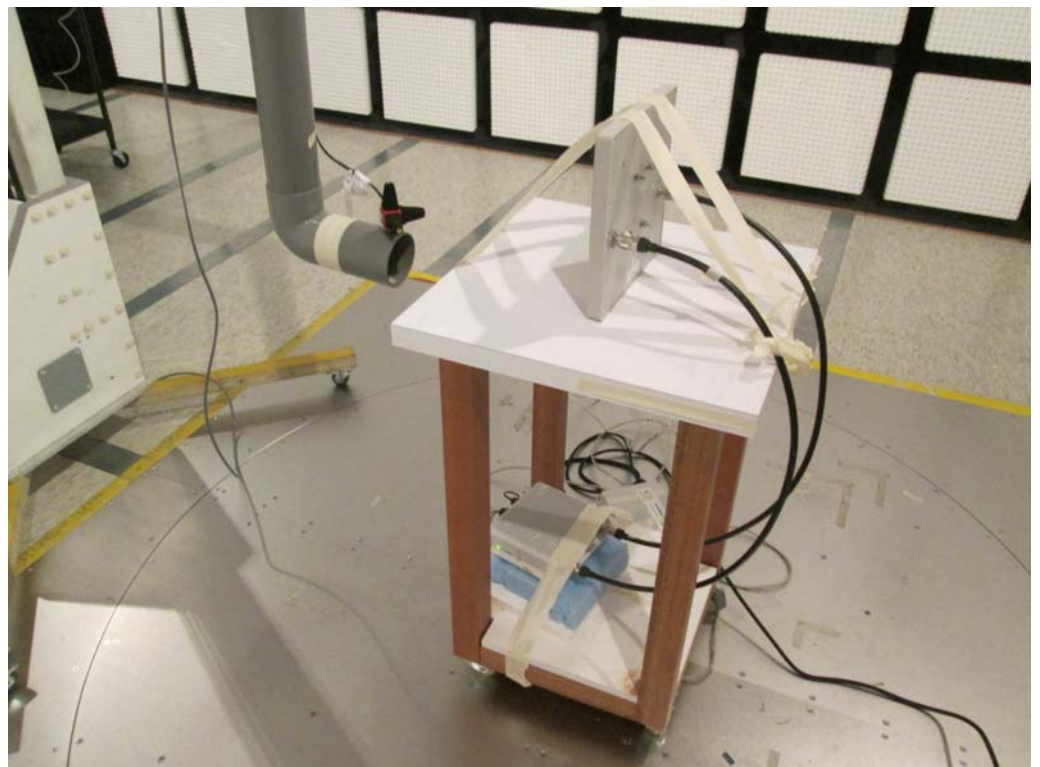
Horizontal Plane



FRONT VIEW



REAR VIEW





## Appendix B. RF Power Table



**SPORTON International Inc.**

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Ant. 1 Gain	17.1	Ntx	2
Ant. 2 Gain	17.1	Nss	1
Ant. 3 Gain		Array Gain(dB)	3.01
Ant. 4 Gain		Directional Gain	20.11
Gant(dBi)	17.10	Deviation Gain	14.11

For Non-beamforming mode												
Frequency	Modulation	Channel	Data Rate	Setting	ant 0 dBm	ant 1 dBm			Total dBm	Gain dBi	EIRP dBm	Note
5180MHz	OFDM	Ch36	6M	68	17.35				17.35	17.10	34.45	
5200MHz	OFDM	Ch40	6M	68	17.54				17.54	17.10	34.64	
5240MHz	OFDM	Ch48	6M	60	15.92				15.92	17.10	33.02	
5260MHz	OFDM	Ch52	6M	45	12.58				12.58	17.10	29.68	
5300MHz	OFDM	Ch60	6M	45	12.56				12.56	17.10	29.66	
5320MHz	OFDM	Ch64	6M	45	12.77				12.77	17.10	29.87	
5500MHz	OFDM	Ch100	6M	43	12.69				12.69	17.10	29.79	
5580MHz	OFDM	Ch116	6M	44	12.23				12.23	17.10	29.33	
5700MHz	OFDM	Ch140	6M	50	12.82				12.82	17.10	29.92	
5720MHz	OFDM	Ch144	6M	52	11.6				11.60	17.10	28.70	
5720MHz	OFDM	Ch144	6M	52	5.86				5.86	17.10	22.96	
5745MHz	OFDM	Ch149	6M	60	14.81				14.81	17.10	31.91	
5785MHz	OFDM	Ch157	6M	68	17.09				17.09	17.10	34.19	
5825MHz	OFDM	Ch165	6M	63	15.57				15.57	17.10	32.67	
5180MHz	VHT20	Ch36	MCS0-NSS1	68	17.42	16.84			20.15	17.10	37.25	This Channel >ERP 3W
5200MHz	VHT20	Ch40	MCS0-NSS1	68	17.56	16.82			20.22	17.10	37.32	This Channel >ERP 3W
5240MHz	VHT20	Ch48	MCS0-NSS1	60	15.84	15.22			18.55	17.10	35.65	
5260MHz	VHT20	Ch52	MCS0-NSS1	24	7.33	7.07			10.21	17.10	27.31	
5300MHz	VHT20	Ch60	MCS0-NSS1	24	7.18	7.12			10.16	17.10	27.26	
5320MHz	VHT20	Ch64	MCS0-NSS1	24	7.18	7.19			10.20	17.10	27.30	
5500MHz	VHT20	Ch100	MCS0-NSS1	22	7.43	7.09			10.27	17.10	27.37	
5580MHz	VHT20	Ch116	MCS0-NSS1	25	7.51	6.64			10.11	17.10	27.21	
5700MHz	VHT20	Ch140	MCS0-NSS1	27	7.18	7.12			10.16	17.10	27.26	
5720MHz	VHT20	Ch144	MCS0-NSS1	27	5.4	5.68			8.55	17.10	25.65	
5720MHz	VHT20	Ch144	MCS0-NSS1	27	-0.44	-0.55			2.52	17.10	19.62	
5745MHz	VHT20	Ch149	MCS0-NSS1	56	13.76	14.23			17.01	17.10	34.11	
5785MHz	VHT20	Ch157	MCS0-NSS1	68	16.81	16.68			19.76	17.10	36.86	
5825MHz	VHT20	Ch165	MCS0-NSS1	61	14.73	14.93			17.84	17.10	34.94	
5190MHz	VHT40	Ch38	MCS0-NSS1	42	11.93	11.22			14.60	17.10	31.70	
5230MHz	VHT40	Ch46	MCS0-NSS1	70	18.07	17.52			20.81	17.10	37.91	This Channel >ERP 3W
5270MHz	VHT40	Ch54	MCS0-NSS1	33	10.12	9.51			12.84	17.10	29.94	
5310MHz	VHT40	Ch62	MCS0-NSS1	32	9.95	9.51			12.75	17.10	29.85	
5510MHz	VHT40	Ch102	MCS0-NSS1	32	10.05	9.36			12.73	17.10	29.83	
5550MHz	VHT40	Ch110	MCS0-NSS1	33	10.11	9.51			12.83	17.10	29.93	
5670MHz	VHT40	Ch134	MCS0-NSS1	36	9.96	9.51			12.75	17.10	29.85	
5710MHz	VHT40	Ch142	MCS0-NSS1	38	9.35	9.7			12.54	17.10	29.64	
5710MHz	VHT40	Ch142	MCS0-NSS1	38	-0.9	-0.79			2.17	17.10	19.27	
5755MHz	VHT40	Ch151	MCS0-NSS1	43	10.62	11.09			13.87	17.10	30.97	
5795MHz	VHT40	Ch159	MCS0-NSS1	62	14.82	15.68			18.28	17.10	35.38	
5210MHz	VHT80	Ch42	MCS0-NSS1	36	9.79	9.72			12.77	17.10	29.87	
5290MHz	VHT80	Ch58	MCS0-NSS1	32	8.91	8.89			11.91	17.10	29.01	
5530MHz	VHT80	Ch106	MCS0-NSS1	32	8.96	8.87			11.93	17.10	29.03	
5610MHz	VHT80	Ch122	MCS0-NSS1	38	10.06	9.67			12.88	17.10	29.98	
5690MHz	VHT80	Ch138	MCS0-NSS1	40	8.94	9.32			12.14	17.10	29.24	
5690MHz	VHT80	Ch138	MCS0-NSS1	40	-4.68	-4.69			-1.67	17.10	15.43	
5775MHz	VHT80	Ch155	MCS0-NSS1	42	10.51	11.08			13.81	17.10	30.91	



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Ant. 1 Gain	17.1	Ntx	2
Ant. 2 Gain	17.1	Nss	1
Ant. 3 Gain		Array Gain(dB)	3.01
Ant. 4 Gain		Directional Gain	20.11
Gant(dBi)	17.10	Deviation Gain	14.11

For Beamforming mode												
Frequency	Modulation	Channel	Data Rate	Setting	ant 1 dBm	ant 2 dBm	ant 3 dBm	ant 4 dBm	Total dBm	Gain dBi	EIRP dBm	Note
5180MHz	VHT20	Ch36	MCS0-NSS1	56	14.43	14.26			17.36	20.11	37.47	This Channel >ERP 3W
5200MHz	VHT20	Ch40	MCS0-NSS1	56	14.56	14.36			17.47	20.11	37.58	This Channel >ERP 3W
5240MHz	VHT20	Ch48	MCS0-NSS1	54	14.48	14.06			17.29	20.11	37.40	This Channel >ERP 3W
5260MHz	VHT20	Ch52	MCS0-NSS1	22	7.12	6.58			9.87	20.11	29.98	
5300MHz	VHT20	Ch60	MCS0-NSS1	22	6.87	6.63			9.76	20.11	29.87	
5320MHz	VHT20	Ch64	MCS0-NSS1	22	6.88	6.69			9.80	20.11	29.91	
5500MHz	VHT20	Ch100	MCS0-NSS1	20	6.56	6.76			9.67	20.11	29.78	
5580MHz	VHT20	Ch116	MCS0-NSS1	22	7.25	6.42			9.87	20.11	29.98	
5700MHz	VHT20	Ch140	MCS0-NSS1	26	6.87	6.81			9.85	20.11	29.96	
5720MHz	VHT20	Ch144	MCS0-NSS1	26	5.31	5.5			8.42	20.11	28.53	
5720MHz	VHT20	Ch144	MCS0-NSS1	26	-0.42	-0.35			2.63	20.11	22.74	
5745MHz	VHT20	Ch149	MCS0-NSS1	52	13.62	13.22			16.43	20.11	36.54	
5785MHz	VHT20	Ch157	MCS0-NSS1	66	17.02	16.79			19.92	20.11	40.03	This Channel >ERP 3W
5825MHz	VHT20	Ch165	MCS0-NSS1	62	16.93	16.91			19.93	20.11	40.04	This Channel >ERP 3W
5190MHz	VHT40	Ch38	MCS0-NSS1	42	11.93	11.22			14.60	20.11	34.71	
5230MHz	VHT40	Ch46	MCS0-NSS1	70	18.07	17.52			20.81	20.11	40.92	This Channel >ERP 3W
5270MHz	VHT40	Ch54	MCS0-NSS1	22	6.97	6.75			9.87	20.11	29.98	
5310MHz	VHT40	Ch62	MCS0-NSS1	22	6.86	6.87			9.88	20.11	29.99	
5510MHz	VHT40	Ch102	MCS0-NSS1	20	6.49	6.92			9.72	20.11	29.83	
5550MHz	VHT40	Ch110	MCS0-NSS1	20	6.36	6.89			9.64	20.11	29.75	
5670MHz	VHT40	Ch134	MCS0-NSS1	25	6.86	6.75			9.82	20.11	29.93	
5710MHz	VHT40	Ch142	MCS0-NSS1	25	5.94	6.16			9.06	20.11	29.17	
5710MHz	VHT40	Ch142	MCS0-NSS1	25	-4.76	-4.01			-1.36	20.11	18.75	
5755MHz	VHT40	Ch151	MCS0-NSS1	42	11.61	11.02			14.34	20.11	34.45	
5795MHz	VHT40	Ch159	MCS0-NSS1	60	15.88	15.29			18.61	20.11	38.72	This Channel >ERP 3W
5210MHz	VHT80	Ch42	MCS0-NSS1	36	9.79	9.72			12.77	20.11	32.88	
5290MHz	VHT80	Ch58	MCS0-NSS1	25	6.53	7.09			9.83	20.11	29.94	
5530MHz	VHT80	Ch106	MCS0-NSS1	24	6.76	6.92			9.85	20.11	29.96	
5610MHz	VHT80	Ch122	MCS0-NSS1	26	6.77	6.84			9.82	20.11	29.93	
5690MHz	VHT80	Ch138	MCS0-NSS1	28	6	6.29			9.16	20.11	29.27	
5690MHz	VHT80	Ch138	MCS0-NSS1	28	-8.22	-7.68			-4.93	20.11	15.18	
5775MHz	VHT80	Ch155	MCS0-NSS1	40	10.6	9.72			13.19	20.11	33.30	