



# FCC RADIO EXPOSURE TEST REPORT

**FCC ID** : Z8H89FT0047

**Equipment** : ePMP 5GHz Force 300 CSM RADIO / ePMP 3000L 5GHz  
Access Point Radio

**Brand Name** : Cambium Networks

**Model Name** : ePMP 5GHz Force 300 CSM RADIO / ePMP 3000L 5GHz  
Access Point Radio

**Applicant** : Cambium Networks Inc.  
3800 Golf Road, Suite 360 Rolling Meadows, IL 60008, USA

**Manufacturer** : Cambium Networks Inc.  
3800 Golf Road, Suite 360 Rolling Meadows, IL 60008, USA

**Standard** : 47 CFR Part 2.1091

The product was received on Jan. 15, 2019, and testing was started from Jan. 16, 2019 and completed on Jan. 23, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in 47 CFR Part 2.1091, KDB447498 D01 General RF Exposure Guidance v06 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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## History of this test report

[illegible]



## Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
2	-	Exposure evaluation	PASS	-

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and Explanations:**

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

**Reviewed by: Sam Chen**

**Report Producer: Cindy Peng**



# 1 General Description

## 1.1 EUT General Information

RF General Information			
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type
5GHz WLAN	5725-5850	5745-5825	802.11a/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)

The EUT supports 20MHz bandwidth and 80MHz bandwidth.

## 1.2 Antenna Information

Set	Ant.	Port	Brand	P/N	Type	Connector	Gain (dBi)
1	1	1	Cambium	C050900D007B	Dish	Reversed-SMA	25
		2	Cambium	C050900D007B	Dish	Reversed-SMA	25
Set	Ant.	Port	Brand	P/N	Type	Connector	Gain (dBi)
2	2	1	ANATEL	C050900D021	Array	Reversed-SMA	17
		2	ANATEL	C050900D021	Array	Reversed-SMA	17
Set	Ant.	Port	Brand	Model Name	Type	Connector	Gain (dBi)
3	3	1	ABRACON	APAMS-121	Dipole	Reversed-SMA	2
	4	2	ABRACON	APAMS-121	Dipole	Reversed-SMA	2

Note 1: The above information was declared by manufacturer.

Note 2: The EUT has three sets of antenna.

Note 3: Set 1 antenna has one antenna, and it has two connectors.

Note 4: Set 2 antenna has one antenna, and it has two connectors.

Note 5: Set 3 antenna contains two antennas, and the array gain is 0dBi.

### **For IEEE 802.11a/n/ac mode (2TX/2RX)**

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.



### 1.3 Table for Multiple Listing

The equipment names/model names in the following table are all refer to the identical product.

EUT	Equipment Name / Model Name	GPS Function	WIFI Filter Function
1	ePMP 5GHz Force 300 CSM RADIO	No	Yes
2	ePMP 3000L 5GHz Access Point Radio	Yes	Yes

From the above models, EUT 1 was selected as representative model for the test and its data was recorded in this report.

### 1.4 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

Test site Designation No. TW0006 with FCC.

Test site registered number IC 4086B with Industry Canada.



## 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 129 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

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

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

**P** = 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 Set 2 antenna:

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Tune-up EIRP (W)	Distance (cm)	S (mW/cm <sup>2</sup> )	S Limit (mW/cm <sup>2</sup> )
5.8G;D1D	17.00	18.90	35.90	0.09	35.99	3.97192	129	0.01899	1.00000

Note: The above antenna gain was declared by manufacturer.

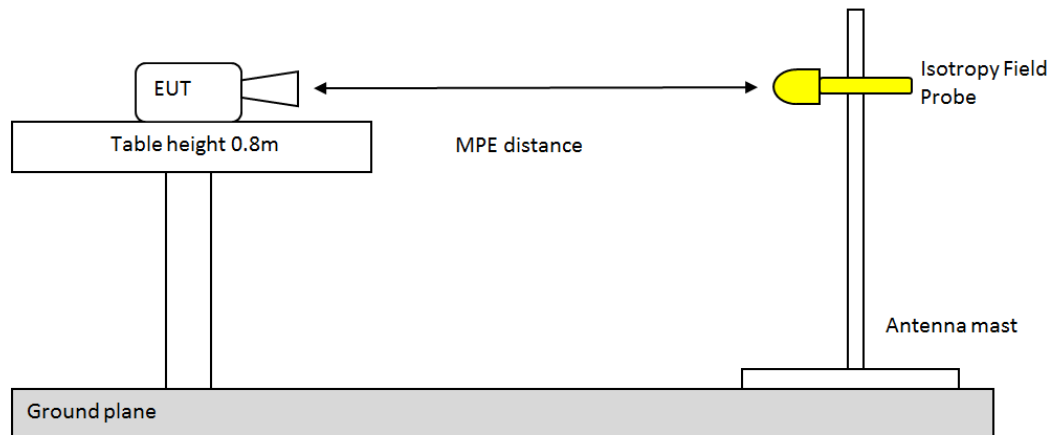
For Set 3 antenna:

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Tune-up EIRP (W)	Distance (cm)	S (mW/cm <sup>2</sup> )	S Limit (mW/cm <sup>2</sup> )
5.8G;D1D	2.00	27.64	29.64	0.50	30.14	1.03276	129	0.00494	1.00000

Note: The above antenna gain was declared by manufacturer.



## 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 Set 1 antenna:

Test Mode	11a	Test Frequency (MHz)	5745	MPE Distance (cm)	129	Power Setting	27	
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)
209	0.07521	0.00102	0.00131	0.00077	0.00082	0.00109	0.00111	0.08613
Max PSD (mW/cm²)	0.08613							
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	0.00227	0.00048	0.00067	0.00037	0.00025	0.00034	0.00055	0.00137
20	0.00317	0.00162	0.00168	0.00102	0.00046	0.00053	0.00068	0.00234
30	0.00762	0.00234	0.00221	0.00065	0.00043	0.00070	0.00127	0.00684
40	0.01137	0.00123	0.00115	0.00051	0.00032	0.00048	0.00083	0.01128
50	0.01329	0.00146	0.00106	0.00085	0.00034	0.00038	0.00065	0.01239
60	0.01452	0.00112	0.00118	0.00076	0.00034	0.00032	0.00066	0.01507
70	0.01356	0.00097	0.00084	0.00078	0.00051	0.00031	0.00060	0.01743
80	0.01208	0.00176	0.00092	0.00087	0.00041	0.00039	0.00062	0.01612
90	0.04081	0.00188	0.00125	0.00098	0.00049	0.00043	0.00081	0.02025
100	0.05316	0.00102	0.00134	0.00142	0.00052	0.00038	0.00050	0.03053
110	0.05032	0.00124	0.00089	0.00175	0.00058	0.00038	0.00061	0.03392
120	0.03827	0.00168	0.00119	0.00151	0.00033	0.00038	0.00040	0.03141
130	0.03187	0.00165	0.00174	0.00094	0.00020	0.00053	0.00067	0.03735
140	0.01746	0.00143	0.00153	0.00081	0.00017	0.00057	0.00073	0.01853
150	0.00941	0.00135	0.00126	0.00071	0.00029	0.00038	0.00090	0.00781
160	0.00483	0.00164	0.00157	0.00073	0.00028	0.00033	0.00094	0.00468
170	0.00301	0.00162	0.00114	0.00058	0.00019	0.00035	0.00076	0.00287
180	0.00094	0.00145	0.00157	0.00041	0.00028	0.00030	0.00058	0.00085
Spatial Average (mW/cm²)	0.01822	0.001441111	0.001288333	0.000869444	0.000355	0.000415556	0.000708889	0.015057944
Max Spatial Average (mW/cm²)	0.01822							
MPE Limit (mW/cm²)	1							

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Test Mode	11a	Test Frequency (MHz)	5785	MPE Distance (cm)	129	Power Setting	27	
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)
209	0.14052	0.00187	0.00282	0.00141	0.00157	0.00163	0.00196	0.16038
Max PSD (mW/cm²)	0.16038							
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	0.00188	0.00061	0.00124	0.00128	0.00079	0.00043	0.00092	0.00178
20	0.00586	0.00175	0.00267	0.00264	0.00093	0.00089	0.00124	0.00388
30	0.01025	0.00293	0.00315	0.00137	0.00083	0.00132	0.00169	0.00934
40	0.01909	0.00223	0.00212	0.00114	0.00078	0.00072	0.00097	0.01879
50	0.02153	0.00106	0.00239	0.00212	0.00060	0.00093	0.00083	0.02114
60	0.02265	0.00216	0.00247	0.00119	0.00079	0.00063	0.00078	0.02318
70	0.01706	0.00131	0.00197	0.00137	0.00136	0.00047	0.00048	0.02058
80	0.01677	0.00185	0.00157	0.00156	0.00117	0.00057	0.00076	0.02826
90	0.07192	0.00226	0.00164	0.00245	0.00068	0.00073	0.00097	0.03751
100	0.11753	0.00246	0.00289	0.00417	0.00065	0.00075	0.00084	0.05332
110	0.09243	0.00155	0.00203	0.00391	0.00135	0.00066	0.00063	0.04987
120	0.06113	0.00230	0.00265	0.00346	0.00066	0.00069	0.00085	0.05128
130	0.04993	0.00212	0.00276	0.00209	0.00047	0.00099	0.00114	0.05693
140	0.02639	0.00203	0.00228	0.00135	0.00050	0.00063	0.00095	0.02894
150	0.01236	0.00271	0.00209	0.00103	0.00072	0.00043	0.00068	0.01325
160	0.01262	0.00243	0.00247	0.00091	0.00042	0.00038	0.00091	0.01258
170	0.00375	0.00285	0.00286	0.00107	0.00051	0.00046	0.00113	0.00383
180	0.00234	0.00167	0.00178	0.0008	0.00045	0.00063	0.00085	0.00235
Spatial Average (mW/cm²)	0.03142	0.00202	0.00228	0.00188	0.00076	0.00068	0.00092	0.02427
Max Spatial Average (mW/cm²)	0.03142							
MPE Limit (mW/cm²)	1							



Test Mode	11a	Test Frequency (MHz)	5825	MPE Distance (cm)	129	Power Setting	27	
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)
209	0.15824	0.00226	0.00318	0.00157	0.00201	0.00166	0.00134	0.19732
Max PSD (mW/cm²)	0.19732							
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	0.00135	0.00078	0.00163	0.00164	0.00093	0.00032	0.00109	0.00167
20	0.00492	0.00121	0.00288	0.00303	0.00127	0.00105	0.00114	0.00259
30	0.01479	0.00335	0.00471	0.00170	0.00102	0.00167	0.00156	0.01287
40	0.01775	0.00229	0.00237	0.00199	0.00085	0.00094	0.00125	0.01782
50	0.02137	0.00216	0.00327	0.00257	0.00063	0.00083	0.00081	0.01862
60	0.02094	0.00211	0.00230	0.00168	0.00114	0.00087	0.00103	0.02119
70	0.01762	0.00191	0.00211	0.00153	0.00147	0.00053	0.00102	0.01963
80	0.01345	0.00191	0.00233	0.00207	0.00169	0.00075	0.00098	0.02678
90	0.08369	0.00171	0.00154	0.00368	0.00143	0.00076	0.00107	0.03358
100	0.01347	0.00222	0.00337	0.00583	0.00165	0.00091	0.00129	0.05667
110	0.09682	0.00187	0.00289	0.00587	0.00184	0.00063	0.00065	0.05257
120	0.05664	0.00203	0.00401	0.00486	0.00083	0.00082	0.00136	0.05238
130	0.04162	0.00239	0.00259	0.00237	0.00051	0.00085	0.00093	0.04619
140	0.02739	0.00236	0.00225	0.00207	0.00061	0.00045	0.00110	0.02703
150	0.01302	0.00286	0.00304	0.00157	0.00062	0.00049	0.00072	0.01458
160	0.01145	0.00221	0.00258	0.00123	0.00071	0.00051	0.00088	0.01138
170	0.00498	0.00237	0.00252	0.00117	0.00078	0.00037	0.00103	0.00458
180	0.00235	0.00186	0.00237	0.00139	0.00073	0.00040	0.00083	0.00238
Spatial Average (mW/cm²)	0.02576	0.00209	0.00271	0.00257	0.00104	0.00073	0.00104	0.02347
Max Spatial Average (mW/cm²)	0.02576							
MPE Limit (mW/cm²)	1							

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Report No. : FA880825-01

Test Mode	11ac VHT20	Test Frequency (MHz)	5745	MPE Distance (cm)	129	Power Setting	27	
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)
209	0.09228	0.00093	0.00148	0.00066	0.00092	0.00133	0.00137	0.09123
Max PSD (mW/cm²)	0.09228							
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	0.00215	0.00056	0.00065	0.00062	0.00023	0.00025	0.00063	0.00153
20	0.00159	0.00070	0.00073	0.00072	0.00039	0.00032	0.00072	0.00198
30	0.00903	0.00202	0.00168	0.00062	0.00043	0.00069	0.00093	0.00710
40	0.00663	0.00145	0.00124	0.00041	0.00038	0.00063	0.00107	0.00655
50	0.01053	0.00145	0.00136	0.00058	0.00031	0.00039	0.00027	0.01043
60	0.01357	0.00165	0.00124	0.00088	0.00037	0.00043	0.00048	0.01578
70	0.01257	0.00143	0.00107	0.00092	0.00038	0.00032	0.00016	0.01726
80	0.01178	0.00162	0.00067	0.00094	0.00041	0.00053	0.00041	0.01752
90	0.04502	0.00132	0.00116	0.00097	0.00037	0.00057	0.00071	0.02240
100	0.05813	0.00126	0.00133	0.00151	0.00044	0.00045	0.00051	0.04122
110	0.04827	0.00117	0.00109	0.00196	0.00053	0.00039	0.00055	0.03725
120	0.03763	0.00143	0.00133	0.00131	0.00040	0.00037	0.00085	0.03615
130	0.03048	0.00136	0.00167	0.00091	0.00023	0.00034	0.00046	0.04025
140	0.02148	0.00115	0.00160	0.00079	0.00018	0.00061	0.00082	0.02342
150	0.00945	0.00136	0.00162	0.00058	0.00027	0.00053	0.00091	0.00937
160	0.00426	0.00146	0.00133	0.00076	0.00031	0.00044	0.00105	0.00428
170	0.00445	0.00167	0.00168	0.00054	0.00025	0.00039	0.00096	0.00432
180	0.00088	0.00126	0.00121	0.00043	0.00032	0.00031	0.00057	0.00085
Spatial Average (mW/cm²)	0.01822	0.00135	0.00126	0.00086	0.00034	0.00044	0.00067	0.01654
Max Spatial Average (mW/cm²)	0.01822							
MPE Limit (mW/cm²)	1							



Test Mode	11ac VHT20	Test Frequency (MHz)	5785	MPE Distance (cm)	129	Power Setting	27	
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)
209	0.13074	0.00162	0.00288	0.00028	0.00137	0.00187	0.00174	0.14924
Max PSD (mW/cm²)	0.14924							
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	0.00276	0.00086	0.00112	0.00106	0.00061	0.00044	0.00132	0.00227
20	0.00243	0.00082	0.00221	0.00222	0.00102	0.00048	0.00116	0.00245
30	0.01143	0.00276	0.00242	0.00134	0.00106	0.00123	0.00179	0.01077
40	0.01139	0.00243	0.00196	0.00088	0.00057	0.00113	0.00145	0.01095
50	0.01612	0.00291	0.00276	0.00181	0.00058	0.00089	0.00082	0.01581
60	0.02397	0.00263	0.00243	0.00178	0.00064	0.00072	0.00118	0.02538
70	0.01976	0.00172	0.00141	0.00157	0.00085	0.00047	0.00091	0.02936
80	0.01952	0.00229	0.00104	0.00184	0.00076	0.00051	0.00074	0.02351
90	0.06153	0.00276	0.00257	0.00233	0.00071	0.00081	0.00148	0.03478
100	0.09322	0.00299	0.00329	0.00228	0.00072	0.00042	0.00101	0.06548
110	0.09428	0.00188	0.00173	0.00321	0.00118	0.00062	0.00105	0.05732
120	0.05694	0.00168	0.00251	0.00279	0.00051	0.00082	0.00061	0.04819
130	0.05084	0.00202	0.00307	0.00216	0.00044	0.00117	0.00101	0.06052
140	0.03178	0.00211	0.00216	0.00124	0.00032	0.00127	0.00119	0.03508
150	0.01506	0.00168	0.00196	0.00073	0.00048	0.00076	0.00128	0.01523
160	0.00832	0.00251	0.00263	0.00093	0.00047	0.00058	0.00151	0.00836
170	0.00662	0.00212	0.00268	0.00086	0.00045	0.00069	0.00135	0.00638
180	0.00226	0.00191	0.00206	0.00088	0.00046	0.00067	0.00109	0.00215
Spatial Average (mW/cm²)	0.02935	0.00212	0.00222	0.00166	0.00066	0.00076	0.00116	0.02522
Max Spatial Average (mW/cm²)	0.02935							
MPE Limit (mW/cm²)	1							

**FCC RADIO EXPOSURE TEST REPORT**

Report No. : FA880825-01

Test Mode	11ac VHT20	Test Frequency (MHz)	5825	MPE Distance (cm)	129	Power Setting	27	
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)
209	0.16213	0.00274	0.00334	0.00156	0.00186	0.00178	0.00153	0.19061
Max PSD (mW/cm²)	0.19061							
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	0.00211	0.00095	0.00128	0.00126	0.00058	0.00039	0.00082	0.00116
20	0.00253	0.00851	0.00176	0.00191	0.00123	0.00044	0.00113	0.00242
30	0.00843	0.00202	0.00315	0.00211	0.00097	0.00165	0.00154	0.00758
40	0.01157	0.00232	0.00215	0.00094	0.00112	0.00132	0.00108	0.01065
50	0.01527	0.00204	0.00204	0.00211	0.00076	0.00072	0.00074	0.01319
60	0.02119	0.00176	0.00178	0.00143	0.00094	0.00061	0.00072	0.02149
70	0.01628	0.00121	0.00169	0.00142	0.00113	0.00045	0.00065	0.02013
80	0.01432	0.00176	0.00178	0.00213	0.00131	0.00047	0.00088	0.02205
90	0.07123	0.00206	0.00168	0.00345	0.00093	0.00076	0.00131	0.03003
100	0.13524	0.00308	0.00384	0.00625	0.00082	0.00108	0.00151	0.06952
110	0.09238	0.00134	0.00256	0.00483	0.00172	0.00074	0.00066	0.04814
120	0.06127	0.00351	0.00378	0.00452	0.00082	0.00136	0.00148	0.04708
130	0.04463	0.00271	0.00331	0.00295	0.00069	0.00139	0.00138	0.05059
140	0.02707	0.00158	0.00263	0.00276	0.00052	0.00082	0.00114	0.02909
150	0.01288	0.00206	0.00223	0.00177	0.00069	0.00057	0.00089	0.01423
160	0.01313	0.00139	0.00243	0.00098	0.00072	0.00044	0.00128	0.01325
170	0.00362	0.00284	0.00292	0.00165	0.00065	0.00036	0.00133	0.00388
180	0.00183	0.00136	0.00273	0.00126	0.00075	0.00041	0.00093	0.00191
Spatial Average (mW/cm²)	0.03083	0.00236	0.00243	0.00243	0.00091	0.00078	0.00108	0.02258
Max Spatial Average (mW/cm²)	0.03083							
MPE Limit (mW/cm²)	1							



Test Mode	11ac VHT80	Test Frequency (MHz)	5775	MPE Distance (cm)	129	Power Setting	19.5	
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)
209	0.03218	0.00043	0.00069	0.00015	0.00039	0.00041	0.00047	0.03824
Max PSD (mW/cm²)	0.03824							
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	0.00073	0.00027	0.00037	0.00028	0.00014	0.00013	0.00026	0.00063
20	0.00078	0.00022	0.00025	0.00043	0.00011	0.00018	0.00015	0.00091
30	0.00357	0.00034	0.00057	0.00059	0.00026	0.00025	0.00032	0.00335
40	0.00301	0.00078	0.00065	0.00017	0.00023	0.00031	0.00039	0.00304
50	0.00445	0.00054	0.00055	0.00046	0.00018	0.00022	0.00033	0.00453
60	0.00672	0.00063	0.00048	0.00036	0.00017	0.00021	0.00028	0.00768
70	0.00576	0.00052	0.00031	0.00041	0.00021	0.00017	0.00024	0.00714
80	0.00553	0.00062	0.00035	0.00052	0.00022	0.00021	0.00025	0.00743
90	0.01825	0.00072	0.00075	0.00061	0.00014	0.00021	0.00037	0.00952
100	0.02767	0.00068	0.00073	0.00091	0.00024	0.00023	0.00014	0.01832
110	0.02462	0.00043	0.00047	0.00092	0.00037	0.00013	0.00028	0.01513
120	0.01507	0.00065	0.00055	0.00093	0.00017	0.00022	0.00022	0.01329
130	0.01308	0.00053	0.00092	0.00062	0.00012	0.00023	0.00025	0.01647
140	0.00951	0.00053	0.00072	0.00041	0.00011	0.00027	0.00035	0.01024
150	0.00395	0.00026	0.00051	0.00043	0.00013	0.00011	0.00025	0.00382
160	0.00231	0.00054	0.00072	0.00021	0.00013	0.00012	0.00045	0.00229
170	0.00162	0.00024	0.00071	0.00013	0.00015	0.00011	0.00036	0.00151
180	0.00042	0.00028	0.00032	0.00011	0.00012	0.00028	0.00031	0.00042
Spatial Average (mW/cm²)	0.00817	0.00049	0.00055	0.00047	0.00018	0.00020	0.00029	0.00698
Max Spatial Average (mW/cm²)	0.00817							
MPE Limit (mW/cm²)	1							





## 2.6 List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Isotropic Probe	ETS-LINDGREN	HI-6105	00130664	100kHz-6GHz	Oct. 31, 2018	Oct. 30, 2019	03CH01-CB

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