

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. 16, 2019, and testing was started from Jan. 16, 2019 and completed on Jan. 29, 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 variant 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.)

TEL: 886-3-656-9065

FAX: 886-3-656-9085

.

Report Template No.: CB Ver1.0

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Issued Date

: Sep. 06, 2019

Report Version

: 01

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Photographs of EUT v01

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History of this test report

Report No.: FA880825-02

Report No.	Version	Description	Issued Date
FA880825-02	01	Initial issue of report	Sep. 06, 2019

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Summary of Test Result

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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

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1 General Description

1.1 EUT General Information

RF General Information								
FValliation : '		Operating Frequency (MHz)	Modulation Type					
5GHz WLAN	5250-5350 5470-5725 5725-5850	5260-5320 5500-5720 5745-5825	OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)					

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Note1: The EUT supports 20MHz bandwidth and 80MHz bandwidth.

Note2: While frame-based mechanism is implemented, the test procedure is the same with regular IEEE 802.11a/n/ac devices.

1.2 Antenna Information

Set	Ant.	Port	Brand	P/N	Туре	Connector	Gain (dBi)			
_	4	1	Cambium	C050900D007B	Dish	Reversed-SMA	25			
1	1	2	Cambium	C050900D007B	Dish	Reversed-SMA	25			
Set	Ant.	Port	Brand	P/N	Type Connector		Gain (dBi)			
	2	2	0		1	ANATEL	C050900D021	Array	Reversed-SMA	17
2			2	ANATEL	C050900D021	Array	Reversed-SMA	17		
Set	Ant.	Port	Brand	Model Name	Туре	Connector	Gain (dBi)			
_	3	1	ABRACON	APAMS-121	Dipole	Reversed-SMA	2			
3	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.

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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	

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

1.4 Table for Class III Change

This product is an extension of original one reported under Sporton project number: FA880825-01 Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
1. Adding 5GHz band 2 and band 3 (5250~5350 MHz, 5470~5725 MHz) for this device, and it has the straddle channels (5690 MHz, 5720 MHz).	Maximum Permissible Exposure
2. Adding slave without Radar mode in DFS Band.	Do not affect the test result.

Note: Maximum Permissible Exposure of 5GHz band 4 is based on original test report.

1.5 Testing Location

Testing Location									
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						
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.

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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)			Averaging Time E ², H ² 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

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(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	9		Averaging Time E ², H ² 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 (V/m) =
$$\frac{\sqrt{30 \times P \times G}}{d}$$
 Power Density: Pd (W/m²) = $\frac{E^2}{377}$

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

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

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2.3 Calculated Result and Limit

Exposure Environment: General Population / Uncontrolled Exposure

For Set 1 antenna:

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Tune-up EIRP (W)	Distance (cm)	S (mW/cm²)	S Limit (mW/cm²)
5.3G;D1D	25.00	3.71	28.71	0.50	29.21	0.83368	129	0.00399	1.00000
5.6G;D1D	25.00	3.50	28.50	0.50	29.00	0.79433	129	0.00380	1.00000
5.8G;D1D	25.00	27.57	52.57	0.50	53.07	202.76827	129	0.96962	1.00000

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Note: The above antenna gain was declared by manufacturer.

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/cm²)	S Limit (mW/cm²)
5.3G;D1D	17.00	11.80	28.80	0.50	29.30	0.85114	129	0.00407	1.00000
5.6G;D1D	17.00	12.79	29.79	0.20	29.99	0.99770	129	0.00477	1.00000
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.

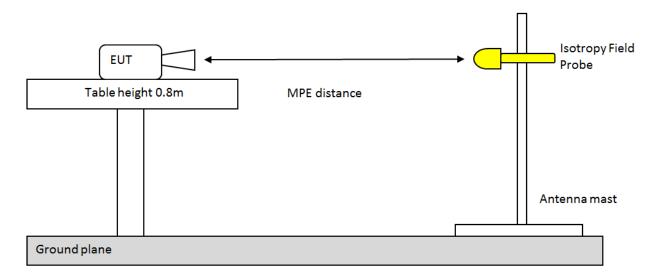
For Set 3 antenna:

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Tune-up EIRP (W)	Distance (cm)	S (mW/cm²)	S Limit (mW/cm²)
5.3G;D1D	2.00	23.93	25.93	0.50	26.43	0.43954	129	0.00210	1.00000
5.6G;D1D	2.00	23.93	25.93	0.50	26.43	0.43954	129	0.00210	1.00000
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.

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2.4 MPE Measurement Method



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Horizontal Plane

- $\hbox{1. Align Probe with antenna axis. Probe should same height as Antenna axis.}\\$
 - 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 ≥ 300 MHz, and electric and magnetic field strength limits when < 300 MHz.

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2.5 Measurement Result and Limit

For Set 1 antenna:

For Set 1 antenna		Toot		MDE				
Took Mode	44-	Test	F7.4F	MPE	400	Power		7
Test Mode	11a	Frequency	5745	Distance	129	Setting	2	7
		(MHz)		(cm)				
EUT Plane	Horizontal							
	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
Probe height (cm) \	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD
Deg	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)
	(,	(, 6)	(,	(,	(,	(, 6)	(,	(,
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				Vert	cal			
	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
Probe height (cm) \								
Deg	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD
	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(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	0.01000	0.00144444	0.001200222	0.000860444	0.000255	0.000445550	0.000700000	0.015057044
(mW/cm²)	0.01822	0.001441111	0.001288333	0.000869444	0.000355	0.000415556	0.000708889	0.015057944
Max Spatial Average				0.01	922			
(mW/cm²)				0.01	022			
MPE Limit (mW/cm²)				1				

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		Test		MPE		Power		
Test Mode	11a	Frequency	5785	Distance	129	Setting	2	7
		(MHz)		(cm)				
EUT Plane		T		Horiz	ontal		T	
	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
Probe height (cm) \	May DCD	May DCD	May DCD	Mary DCD	May DCD	May DCD	May DCD	May DCD
Deg	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD
	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)
209	0.14052	0.00187	0.00282	0.00141	0.00157	0.00163	0.00196	0.16038
Max PSD (mW/cm²)				0.16	038			
MPE Limit (mW/cm²)				1				
EUT Plane				Vert	ical			
	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
Probe height (cm) \	May DCD	May DCD	May DCD	May DCD	May DCD	May DCD	May DCD	May DCD
Deg	Max PSD	Max PSD	Max PSD (mW/cm²)	Max PSD				
	(mW/cm²)	(mW/cm²)	(mvv/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(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	0.03142	0.00202	0.00228	0.00188	0.00076	0.00068	0.00092	0.02427
(mW/cm²)	0.03142	0.00202	0.00220	0.00100	0.00070	0.00000	0.00032	0.02421
Max Spatial Average				0.03	142			
(mW/cm²)				0.03				
MPE Limit (mW/cm²)				1				

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Test Mode	11a	Test Frequency (MHz)	5825	MPE Distance (cm)	129	Power Setting	2	7
EUT Plane				Horiz	ontal			
	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
Probe height (cm) \ Deg	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)				0.19	732			
MPE Limit (mW/cm²)				1				
EUT Plane				Vert	ical			
	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°
Probe height (cm) \ Deg	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)				0.02	576			
MPE Limit (mW/cm²)				1				

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		Test		MPE					
Test Mode	11ac VHT20	Frequency	5745	Distance	129	Power	2	7	
rest wode	TIAC VITIZU		3743		129	Setting		1	
EUT Plane		(MHz)		(cm)	ontal				
EUI Flatie	0.459	Horizontal							
	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°	
Probe height (cm) \	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	
Deg	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	
	,	, ,	. ,	,	, ,			, ,	
209	0.09228	0.00093	0.00148	0.00066	0.00092	0.00133	0.00137	0.09123	
Max PSD (mW/cm²)				0.09	228				
MPE Limit (mW/cm²)				1					
EUT Plane				Vert	ical				
	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°	
Probe height (cm) \	May DCD	May DCD	May DCD	Mary DCD	May DCD	Mary DCD	Mary DCD	May DCD	
Deg	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	
	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(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	0.01922	0.00435	0.00436	0.00006	0.00024	0.00044	0.00067	0.01654	
(mW/cm²)	0.01822	0.00135	0.00126	0.00086	0.00034	0.00044	0.00067	0.01654	
Max Spatial Average				0.04	922				
(mW/cm²)				0.01	022				
MPE Limit (mW/cm²)				1					

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		Toot		MPE					
Took Made	11 oo \/ IT20	Test	E70E		100	Power		7	
Test Mode	11ac VHT20	Frequency (MHz)	5785	Distance	129	Setting	2	,	
FUT Plans		(IVITIZ)		(cm)	tol				
EUT Plane		Horizontal							
	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°	
Probe height (cm) \	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	
Deg	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	
	` ′	, ,	, ,		, ,		,	, ,	
209	0.13074	0.00162	0.00288	0.00028	0.00137	0.00187	0.00174	0.14924	
Max PSD (mW/cm²)				0.14	924				
MPE Limit (mW/cm²)				1					
EUT Plane				Vert	ical				
	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°	
Probe height (cm) \	Mara DOD	Mara DOD	Mara DOD	Marri DOD	Marri DOD	Marri DOD	Maria BOD	M DOD	
Deg	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	Max PSD	
	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(mW/cm²)	(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	0.02935	0.00212	0.00222	0.00166	0.00066	0.00076	0.00116	0.02522	
(mW/cm²)	0.02935	0.00212	0.00222	0.00100	0.0000	0.00076	0.00116	0.02322	
Max Spatial Average				0.02	035				
(mW/cm²)				0.02					
MPE Limit (mW/cm²)				1					

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Test Mode	11ac VHT20	Test Frequency (MHz)	5825	MPE Distance (cm)	129	Power Setting	2	7		
EUT Plane		Horizontal								
Probe height (cm) \ Deg	0~45° Max PSD (mW/cm²)	45~90° Max PSD (mW/cm²)	90~135° Max PSD (mW/cm²)	Max PSD (mW/cm²)	180~225° Max PSD (mW/cm²)	225~270° Max PSD (mW/cm²)	270~315° Max PSD (mW/cm²)	315~360° 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				Vert	ical					
	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°		
Probe height (cm) \ Deg	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)				0.03	083					
MPE Limit (mW/cm²)				1						

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		Test		MPE						
Test Mode	11ac VHT80	Frequency	5775	Distance	129	Power	10	0.5		
rest mode	1140 111100	(MHz)	0770	(cm)	125	Setting	10	,.0		
EUT Plane		(2)		Horiz	ı ontal					
	0~45°									
Probe height (cm) \	0~43	45~50	30~133	133~100	100~223	223~210	270~313	315~360°		
Deg	Max PSD									
Deg	(mW/cm²)									
209	0.03218	0.00043	0.00069	0.00015	0.00039	0.00041	0.00047	0.03824		
Max PSD (mW/cm²)				0.03	824					
MPE Limit (mW/cm²)				1						
EUT Plane				Vert	ical					
	0~45°	45~90°	90~135°	135~180°	180~225°	225~270°	270~315°	315~360°		
Probe height (cm) \	Max PSD									
Deg	(mW/cm²)									
	(IIIVV/CIII-)									
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	0.00817	0.00049	0.00055	0.00047	0.00018	0.00020	0.00029	0.00698		
(mW/cm²)	0.00017	0.00048	0.00000	0.00047	0.00010	0.00020	0.00029	0.00090		
Max Spatial Average				0.00	817					
(mW/cm²)				0.00	017					
MPE Limit (mW/cm²)				1						

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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

Report No.: FA880825-02

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

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