



RADIO EXPOSURE TEST REPORT

FCC ID : Z8H89FT0088

Equipment : ePMP 5 GHz Force 4518 SM

Brand Name : Cambium Networks

Model Name : ePMP 5 GHz Force 4518 SM

Model Number : C058940P132A

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

Manufacturer : Cambium Networks, Ltd.
Ashburton, TQ13 7UP, UK

Standard : 47 CFR Part 2.1091

The product was received on Nov. 28, 2024, and testing was started from Dec. 03, 2024 and completed on Sep. 15, 2025. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in 47 CFR Part 2.1091 and shown compliance with the applicable technical standards.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

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Report Template No.: CB-A1_1 Ver1.1



Summary of Test Result

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

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sam Chen

Report Producer: Wendy Pan



1 General Description

1.1 EUT General Information

RF General Information			
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type
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, 1024QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)

1.2 Antenna Information

Ant.	Port	Antenna Polarization	Brand	Model Name	Antenna Type	Connector	WLAN 5GHz Gain (dBi)			
							UNII1	UNII 2A	UNII 2C	UNII 3
1	2	Vertical	Cambium	Force 4518	Patch	I-Pex	14.97	16.73	18.26	17.89
2	1	Horizontal	Cambium	Force 4518	Patch	I-Pex	15.06	16.73	18.27	15.43

Note2: The antenna is the cross-polarized antenna; it doesn't need to evaluate array gain.

Note3: The above information was declared by manufacturer.

For 5GHz function:

For IEEE 802.11a/n/ac/ax (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 Permissive Change

This product is an extension of original one reported under Sporton project number: FA472329-02

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
Adding 5GHz UNII2A~UNII2C (5250~5350 MHz, 5470~5725 MHz) for this device.	MPE

Note: For MPE of WLAN 5GHz UNII 1 and UNII 3 result were based on original report.

1.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
PoE 1	CWT	P015P01	INPUT: 100-240V~, 0.5A, 50/60Hz OUTPUT: 30.0V, 0.5A, 15.0W
PoE 2	CWT	P015U06	AC INPUT: 100-240V~, 0.5A, 50/60Hz DC OUTPUT: 56.0V, 0.268A, 15.0W

1.5 Testing Location

Testing Location Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu (TAF: 3787)	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.) TEL: 886-3-656-9065 FAX: 886-3-656-9085 Test site Designation No. TW3787 with FCC. Conformity Assessment Body Identifier (CABID) TW3787 with ISED.

Note: The tested sample of the UNII2A~2C MPE test item was received on Sep. 10, 2025.



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 ²)	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 ²)	<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 ²)	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 ²)	<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 30 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

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	EIRP (W)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)
5.2G;D1D	15.06	20.22	35.28	0.50	35.78	3.78443	30	0.33461	1.00000
5.3G;D1D	16.73	13.21	29.94	0.03	29.97	0.99312	30	0.08781	1.00000
5.6G;D1D	18.27	11.69	29.96	0.01	29.97	0.99312	30	0.08781	1.00000
5.8G;D1D	17.89	22.09	39.98	0.50	40.48	11.16863	30	0.98750	1.00000

————THE END————