

Radio Exposure Evaluation Report

FCC ID : A8J-ECW536
Equipment : EnGenius Cloud Wi-Fi 7 4x4x4 Tri-Band Indoor Access Point
Brand Name : EnGenius EnGenius®
Model Name : ECW536, ECW536S
Applicant : EnGenius Technologies
1580 Scenic Avenue, Costa Mesa, Los Angeles CA CA92626
United States Of America
Manufacturer : EnGenius Networks Inc.
10F., No.209, Sec. 1, Nangang Rd., Nangang Dist., Taipei City
115018, Taiwan
Standard : 47 CFR FCC Part 2 Subpart J, section 2.1091

The product was received on Oct. 31, 2023, and testing was started from Nov. 10, 2023 and completed on Dec. 18, 2023. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in 47 CFR FCC Part 2 Subpart J, section 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. Hsinhua Laboratory, the test report shall not be reproduced except in full.


Approved by: Jackson Tsai

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)



Table of Contents

HISTORY OF THIS TEST REPORT	3
SUMMARY OF TEST RESULT	4
1 GENERAL DESCRIPTION	5
1.1 Information.....	5
1.2 Applicable Standards	10
1.3 Testing Location	10
Photographs of EUT V01	



History of this test report

Report No.	Version	Description	Issued Date
FA381846-05	01	Initial issue of report	Dec. 15, 2025



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
-	-	Exposure evaluation	Not Performed	Refer 1.1.6

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:

None

Reviewed by: Barry Hsiao

Report Producer: Amber Chiu

1 General Description

1.1 Information

1.1.1 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) VHT: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11be: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
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) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11be: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
6GHz WLAN	5925-7125	5955-7115	802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11be: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
Bluetooth	2400-2483.5	2402-2480	LE: DSSS (GFSK)



1.1.2 Antenna Information

Model Name : ECW536						
Ant.	Brand	Model Name	Antenna Type	Connector	Support	Radio
1	Senao	5718A0738300	PIFA	I-Pex	2.4G	Radio 1
2	Senao	5718A0739300	PIFA	I-Pex	2.4G	
3	Senao	5718A0740300	PIFA	I-Pex	2.4G	
4	Senao	5718A0741300	PIFA	I-Pex	2.4G	
5	Senao	5718A0742300	PIFA	I-Pex	5G	Radio 2
6	Senao	5718A0743300	PIFA	I-Pex	5G	
7	Senao	5718A0744300	PIFA	I-Pex	5G	
8	Senao	5718A0745300	PIFA	I-Pex	5G	
9	ADVANCED WIRELESS & ANTENNA Inc.	A8P8P-100089	Alford loop	I-Pex	6E	Radio 3
10	ADVANCED WIRELESS & ANTENNA Inc.	A8P8P-100090	Alford loop	I-Pex	6E	
11	ADVANCED WIRELESS & ANTENNA Inc.	A8P8P-100091	Alford loop	I-Pex	6E	
12	ADVANCED WIRELESS & ANTENNA Inc.	A8P8P-100092	Alford loop	I-Pex	6E	
13	ADVANCED WIRELESS & ANTENNA Inc.	A8P8P-100093	Dipole	I-Pex	BT	-

Ant.	Port	Gain (dBi)									
		2.4G	BT	5G				6E			
				UNII-1	UNII-2A	UNII-2C	UNII-3	6.175G	6.475G	6.695G	6.995G
1	1	2.82	-	-	-	-	-	-	-	-	-
2	2	2.39	-	-	-	-	-	-	-	-	-
3	3	2.33	-	-	-	-	-	-	-	-	-
4	4	2.69	-	-	-	-	-	-	-	-	-
5	1	-	-	4.81	4.19	5.45	4.98	-	-	-	-
6	2	-	-	2.63	3.44	5.31	5.17	-	-	-	-
7	3	-	-	5.06	5.29	4.27	3.96	-	-	-	-
8	4	-	-	3.72	3.52	4.66	4.51	-	-	-	-
9	1	-	-	-	-	-	-	4.96	4.99	4.98	4.78
10	2	-	-	-	-	-	-	4.72	4.74	4.53	4.69
11	3	-	-	-	-	-	-	4.88	4.63	4.47	4.94
12	4	-	-	-	-	-	-	4.77	4.84	4.61	4.26
13	1	-	3.07	-	-	-	-	-	-	-	-



Composite Gain (dBi)									
	2.4G	UNII-1	UNII-2A	UNII-2C	UNII-3	6.175G	6.475G	6.695G	6.995G
DG [1SS]	6.46	7.31	7.57	8.57	8.92	9.98	9.93	9.53	9.86
DG [2SS]	3.46	5.06	5.29	5.57	5.92	6.98	6.93	6.53	6.86
DG [4SS]	2.82	5.06	5.29	5.45	5.17	4.96	4.99	4.98	4.94

Note 1: The EUT has thirteen antennas.

Note 2: The composite gain is derived as KDB 662911 D03 v01 which was used as directional gain. For more detail information, please refer to the Antenna Pattern Report AP381814.

For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT/ax/be mode (4TX/4RX) < **Radio 1** >

Ant. 1 (port 1), Ant. 2 (port 2), Ant. 3 (port 3) and Ant. 4 (port 4) could transmit/receive simultaneously.

For 5GHz function:

For IEEE 802.11 a/n/ac/ax/be mode (4TX/4RX) < **Radio 2** >

Ant. 5 (port 1), Ant. 6 (port 2), Ant. 7 (port 3) and Ant. 8 (port 4) could transmit/receive simultaneously.

For 6GHz function:

For IEEE 802.11 ax/be mode (4TX/4RX) < **Radio 3** >

Ant. 9 (port 1), Ant. 10 (port 2), Ant. 11(port 3) and Ant. 12 (port 4) could transmit/receive simultaneously.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Ant. 13 (port 1) could transmit/receive.

Model Name : ECW536S						
Ant.	Brand	Model Name	Antenna Type	Connector	Support	Radio
1	Senao	5718A0738300	PIFA	I-Pex	2.4G	Radio 1
2	Senao	5718A0739300	PIFA	I-Pex	2.4G	
3	Senao	5718A0740300	PIFA	I-Pex	2.4G	
4	Senao	5718A0741300	PIFA	I-Pex	2.4G	
5	Senao	5718A0742300	PIFA	I-Pex	5G	Radio 2
6	Senao	5718A0743300	PIFA	I-Pex	5G	
7	Senao	5718A0744300	PIFA	I-Pex	5G	
8	Senao	5718A0745300	PIFA	I-Pex	5G	
9	ADVANCED WIRELESS & ANTENNA Inc.	A8P8P-100089	Alford loop	I-Pex	6E	Radio 3
10	ADVANCED WIRELESS & ANTENNA Inc.	A8P8P-100090	Alford loop	I-Pex	6E	
11	ADVANCED WIRELESS & ANTENNA Inc.	A8P8P-100091	Alford loop	I-Pex	6E	
12	ADVANCED WIRELESS & ANTENNA Inc.	A8P8P-100092	Alford loop	I-Pex	6E	
13	ADVANCED WIRELESS & ANTENNA Inc.	A8P8P-100093	Dipole	I-Pex	BT	-
14	EnRack	7102A0836000	PIFA	I-Pex	2.4G/5G/6G	Scan Radio
15	EnRack	7102A0837000	PIFA	I-Pex	2.4G/5G/6G	Scan Radio



Ant.	Port	Gain (dBi)									
		2.4G	BT	5G				6E			
				UNII-1	UNII-2A	UNII-2C	UNII-3	6.175G	6.475G	6.695G	6.995G
1	1	2.82	-	-	-	-	-	-	-	-	-
2	2	2.39	-	-	-	-	-	-	-	-	-
3	3	2.33	-	-	-	-	-	-	-	-	-
4	4	2.69	-	-	-	-	-	-	-	-	-
5	1	-	-	4.81	4.19	5.45	4.98	-	-	-	-
6	2	-	-	2.63	3.44	5.31	5.17	-	-	-	-
7	3	-	-	5.06	5.29	4.27	3.96	-	-	-	-
8	4	-	-	3.72	3.52	4.66	4.51	-	-	-	-
9	1	-	-	-	-	-	-	4.96	4.99	4.98	4.78
10	2	-	-	-	-	-	-	4.72	4.74	4.53	4.69
11	3	-	-	-	-	-	-	4.88	4.63	4.47	4.94
12	4	-	-	-	-	-	-	4.77	4.84	4.61	4.26
13	1	-	3.07	-	-	-	-	-	-	-	-
14	1	4.76	-	5.37	5.37	5.37	5.37	5.14	5.14	5.14	5.14
15	2	4.94	-	5	5	5	5	5.55	5.55	5.55	5.55

Composite Gain (dBi)										
	2.4G	UNII-1	UNII-2A	UNII-2C	UNII-3	6.175G	6.475G	6.695G	6.995G	
DG [1SS]	6.46	7.31	7.57	8.57	8.92	9.98	9.93	9.53	9.86	
DG [2SS]	3.46	5.06	5.29	5.57	5.92	6.98	6.93	6.53	6.86	
DG [4SS]	2.82	5.06	5.29	5.45	5.17	4.96	4.99	4.98	4.94	

Note 1: The EUT has thirteen antennas.

Note 2: The composite gain is derived as KDB 662911 D03 v01 which was used as directional gain. For more detail information, please refer to the Antenna Pattern Report AP381814.

For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT/ax/be mode (4TX/4RX) < **Radio 1** >

Ant. 1 (port 1), Ant. 2 (port 2), Ant. 3 (port 3) and Ant. 4 (port 4) could transmit/receive simultaneously.

For IEEE 802.11 b/g/n/VHT/ax mode (2RX) < **Scan Radio** >

Ant. 14 (port 1), Ant. 15 (port 2) could receive simultaneously.

For 5GHz function:

For IEEE 802.11 a/n/ac/ax/be mode (4TX/4RX) < **Radio 2** >

Ant. 5 (port 1), Ant. 6 (port 2), Ant. 7 (port 3) and Ant. 8 (port 4) could transmit/receive simultaneously.

For IEEE 802.11 a/n/ac/ax mode (2RX) < **Scan Radio** >

Ant. 14 (port 1), Ant. 15 (port 2) could receive simultaneously

For 6GHz function:

For IEEE 802.11 ax/be mode (4TX/4RX) < **Radio 3** >

Ant. 9 (port 1), Ant. 10 (port 2), Ant. 11(port 3) and Ant. 12 (port 4) could transmit/receive simultaneously.

For IEEE 802.11 a/n/ac/ax mode (2RX) < **Scan Radio** >

Ant. 14 (port 1), Ant. 15 (port 2) could receive simultaneously

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Ant. 13 (port 1) could transmit/receive.

**1.1.3 Accessories**

Accessories				
Bracket	Brand Name	Dragonjet	Part Number	6301A6543000

Reminder: Regarding to more detail and other information, please refer to user manual.

1.1.4 Table for Multiple Listing

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

Model Name	ECW536	ECW536S
Radio 1_2.4G	X	X
Radio 2_5G	X	X
Radio 3_6G	X	X
BT	X	X
Scan Radio (RX only)	N/A	X

1.1.5 Table for Existing Change

This product is an extension of original one reported under Sporton project number: FA381846

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

Modifications	Performance Checking
1. Add model (ECW536S) and Antenna 14,15. (Scan Radio only RX)	After evaluation, no RF test validations are required.

1.2 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 2 Subpart J, section 2.1091
- ♦ KDB 447498 D04 Interim General RF Exposure Guidance v01

The following reference test guidance is not within the scope of accreditation of TAF.

- ♦ 47 CFR Part 1.1307
- ♦ 47 CFR Part 1.1310

1.3 Testing Location

Test Lab. : Sporton International Inc. Hsinhua Laboratory			
☒	Hsinhua (TAF: 3785)	ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)	
		TEL: 886-3-327-3456	FAX: 886-3-327-0973
Test site Designation No. TW3785 with FCC.			
☐	Wen 33rd.St. (TAF: 3785)	ADD: No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)	
		TEL: 886-3-318-0787	FAX: 886-3-318-0287
Test site Designation No. TW0008 with FCC.			

—————THE END—————