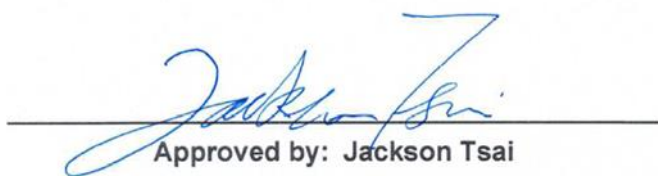


Radio Exposure Evaluation Report

FCC ID : Z3WAIR4991-41
Equipment : AT&T ALL-Fi Extender
Brand Name : Airties
Model Name : WFEXT4991-41
Applicant : AirTies Wireless Networks
Sehit Mehmet Mikdat Uluunlu Sokagi No:23 Esentepe,
Sisli İstanbul, 34394 Turkey
Manufacturer : AirTies Wireless Networks
Sehit Mehmet Mikdat Uluunlu Sokagi No:23 Esentepe,
Sisli İstanbul, 34394 Turkey
Standard : 47 CFR FCC Part 2 Subpart J, section 2.1091

The product was received on Dec. 11, 2025, and testing was started from Dec. 24, 2025 and completed on Feb. 09, 2026. 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.)



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Photographs of EUT V01	

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:

None

Reviewed by: Ryan Hsiao

Report Producer: Michelle Tsai



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, 1024QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11be: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
6GHz WLAN	5925-7125 (LPI)	5955-7115 (LPI)	802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)
	5925-6425 6525-6875 (SPAP)	5955-6415 6535-6855 (SPAP)	802.11be: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
Bluetooth	2400-2483.5	2402-2480	LE: DSSS (GFSK)
ZigBee	2400-2483.5	2405-2480	DSSS (O-QPSK)

1.1.2 Antenna Information

Ant.	Port				Brand	Model Name	Antenna Type	Connector	Gain (dBi)
	WLAN			Bluetooth /Zigbee					
	2.4GHz	5GHz	6GHz						
1	-	-	1	-	Galtronics	60-3744-03-2	PIFA	I-Pex	Note 1
2	-	-	2	-	Galtronics	60-3695-03-1	PIFA	I-Pex	
3	-	-	3	-	Galtronics	60-3695-03-2	PIFA	I-Pex	
4	-	-	4	-	Galtronics	60-3744-03-2	PIFA	I-Pex	
5	1	1	-	-	Galtronics	60-3693-03-2	PIFA	I-Pex	
6	-	2	-	-	Galtronics	60-2917-03	PIFA	I-Pex	
7	2	3	-	-	Galtronics	60-3755-03-2	PIFA	I-Pex	
8	-	4	-	-	Galtronics	60-2917-03	PIFA	I-Pex	
9	-	-	-	1	Airties	Air-BT-01	PCB	I-Pex	
10	-	-	-	2	Airties	Air-BT-02	PCB	I-Pex	
11	-	-	-	-	Galtronics	60-3756-03-2	PCB	I-Pex	

Ant.	Remark
1	6G4 (Mated to Connector J1)
2	6G3 (Mated to Connector J2)
3	6G1 (Mated to Connector J3)
4	6G2 (Mated to Connector J4)
5	DB1 (Mated to Connector J20)
6	5G2 (Mated to Connector J21)
7	DB2 (Mated to Connector J22)
8	5G1 (Mated to Connector J23)
9	N/A
10	N/A
11	GNSS

Note 1:

Ant.	Antenna Gain (dBi)										
	WLAN 2.4GHz	WLAN 5GHz				WLAN 6GHz				Bluetooth /Zigbee	GPS
		UNII 1	UNII 2A	UNII 2C	UNII 3	UNII 5	UNII 6	UNII 7	UNII 8		
1	-	-	-	-	-	5.38	3.86	4.02	2.84	-	-
2	-	-	-	-	-	5.09	4.72	4.61	4.69	-	-
3	-	-	-	-	-	4.88	6.09	5.24	6.46	-	-
4	-	-	-	-	-	6.63	6.7	5.53	6.03	-	-
5	2.16	3.61	2.65	2.56	2.47	-	-	-	-	-	-
6	-	2.73	2.49	3.24	3.3	-	-	-	-	-	-
7	2.15	3.89	3.85	3.62	2.69	-	-	-	-	-	-
8	-	2.31	2.88	3.09	2.63	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	4.3	-
10	-	-	-	-	-	-	-	-	-	4.3	-
11	-	-	-	-	-	-	-	-	-	-	4.7

Item	Directional Gain (dBi)									
	WLAN 2.4GHz	WLAN 5GHz				WLAN 6GHz				
		UNII 1	UNII 2A	UNII 2C	UNII 3	UNII 5	UNII 6	UNII 7	UNII 8	
2T1S	3.95	-	-	-	-	-	-	-	-	-
2T2S	2.16	-	-	-	-	-	-	-	-	-
4T1S	-	3.89	3.85	3.62	3.36	6.63	6.72	5.96	6.72	-
4T2S	-	3.89	3.85	3.62	3.3	6.63	6.7	5.53	6.46	-
4T4S	-	3.89	3.85	3.62	3.3	6.63	6.7	5.53	6.46	-

Note 2: The above information (except gain of Ant. 1~8 and directional gain) was declared by the manufacturer.

Note 3: For 2.4GHz/5GHz/6GHz, the antenna gain and directional gain are measured which follow the procedure of KDB 662911 D03.

Note 4: **For 2.4GHz function:**

For IEEE 802.11 b/g/n/VHT/ax/be (2TX/2RX):

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

Port 1 and Port 2 could transmit/receive simultaneously.

For 5GHz function:

For IEEE 802.11 a/n/ac/ax/be (4TX/4RX):

Port 1~4 can be used as transmitting/receiving antenna.

Port 1~4 could transmit/receive simultaneously.

For 6GHz function:

For IEEE 802.11 ax/be (4TX/4RX):

Port 1~4 can be used as transmitting/receiving antenna.

Port 1~4 could transmit/receive simultaneously.

For Bluetooth function (1TX/1RX):

The EUT supports the antenna with TX/RX diversity functions.

Port 1~2 can be used as transmitting/receiving antenna, but only one of them will be used at one time.

For Zigbee function (1TX/1RX):

The EUT supports the antenna with TX/RX diversity functions.

Port 1~2 can be used as transmitting/receiving antenna, but only one of them will be used at one time.

For GPS function (1RX):

Only Ant. 11 can be used as receiving antenna.



1.1.3 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR3D0518-02AB

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

Modifications	Performance Checking
To enable Multi-RU transmission capability by software.	Exposure evaluation was evaluated.

1.2 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter	AT&T	EPS26R0-16	Input: 120V ~ 0.725A Max 60Hz Output: 12V, 2.2A, 26.4W
Other			
RJ-45 cable*1: Non-shielded, 1.5m			

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

1.3 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

1.4 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.			

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

Multiple Transmitters Condition

Co-location as simultaneously transmitting (co-transmitting) and the evaluation shall be consider that simultaneous transmissions from co-located devices the individual transmitters are evaluated separately. After sum of the individual value (basic restriction / reference level) are measured/calculated also have to under basic restriction / reference level.

Co-transmitting mode:

1. WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz(LPI) + Bluetooth
2. WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz(LPI) + Zigbee
3. WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz(SPAP) + Bluetooth
4. WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz(SPAP) + Zigbee

2.2 RF Exposure Exempt Measurement

Option	Refer Std.	Exemption Exposure Thresholds (TL)
A	§1.1307(b)(3)(i)(A)	Available maximum time-averaged power is no more than 1 mW
B	§1.1307(b)(3)(i)(B)	$P_{th}(mW) = \begin{cases} ERP_{20cm} (d / 20cm)^x \rightarrow d \leq 20cm \\ ERP_{20cm} \rightarrow 20cm < d \leq 40cm \end{cases}$ $x = -\log_{10} \left(\frac{60}{ERP_{20cm} \sqrt{f}} \right) \text{ and } f \text{ is in GHz}$ $\begin{cases} ERP_{20cm} : 0.3GHz \leq f < 1.5GHz \rightarrow 2040f(mW) \\ ERP_{20cm} : 1.5GHz \leq f \leq 6GHz \rightarrow 3060(mW) \end{cases}$
C	§1.1307(b)(3)(i)(C)	$\begin{cases} 0.3 \sim 1.34MHz \rightarrow ERP(W) = 1920R^2 \\ 1.34 \sim 30MHz \rightarrow ERP(W) = 3450R^2 / f^2 \\ 30 \sim 300MHz \rightarrow ERP(W) = 3.83R^2 \\ 300 \sim 1500MHz \rightarrow ERP(W) = 0.0128R^2 f \\ 1500 \sim 100000MHz \rightarrow ERP(W) = 19.2R^2 \end{cases}$ f is in MHz; R is in m; $R > \lambda / 2\pi$

2.3 Multiple RF Sources Exposure

Refer Std.	Exemption Exposure Thresholds (TL)
§1.1307(b)(3)(ii)(A)	The available maximum time-averaged power of each source is no more than 1 mW and there is a separation distance of two centimeters between any portion of a radiating structure operating and the nearest portion of any other radiating structure in the same device, except if the sum of multiple sources is less than 1 mW during the time-averaging period, in which case they may be treated as a single source (separation is not required)
§1.1307(b)(3)(ii)(B)	$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{ExposureLimit_k} \leq 1$ a = number of fixed, mobile, or portable RF sources claiming exemption using paragraph §1.1307(b)(3)(i)(B) of this section for P , including existing exempt transmitters and those being added. b = number of fixed, mobile, or portable RF sources claiming exemption using paragraph §1.1307(b)(3)(i)(C) of this section for Threshold ERP, including existing exempt transmitters and those being added. c = number of existing fixed, mobile, or portable RF sources with known evaluation for the specified minimum distance including existing evaluated transmitters. P_i = the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source i at a distance between 0.5 cm and 40 cm (inclusive). P_{th,i} = the exemption threshold power (P_{th}) according to paragraph §1.1307(b)(3)(i)(B) of this section for fixed, mobile, or portable RF source i. ERP_j = the ERP of fixed, mobile, or portable RF source j. ERP_{th,j} = exemption threshold ERP for fixed, mobile, or portable RF source j, at a distance of at least λ/2π according to the applicable formula of paragraph §1.1307(b)(3)(i)(C) of this section. Evaluated_k = the maximum reported SAR or MPE of fixed, mobile, or portable RF source k either in the device or at the transmitter site from an existing evaluation at the location of exposure. Evaluated Limit_k = either the general population/uncontrolled maximum permissible exposure (MPE) or specific absorption rate (SAR) limit for each fixed, mobile, or portable RF source k, as applicable from § 1.1310 of this chapter.



2.4 MPE Calculation Method

The MPE was calculated at 45 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 = 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

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

2.5 Calculated Result and Limit

Exposure Environment: General Population / Uncontrolled Exposure

WLAN 2.4GHz

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	3.95	26.91	28.71	0.50	833.681	45	C	3888.0	0.2145

WLAN 5GHz

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.89	29.87	31.61	0.50	1625.549	45	C	3888.0	0.4182
5.3G;D1D	3.85	23.96	25.66	0.50	413.048	45	C	3888.0	0.1063
5.6G;D1D	3.62	23.95	25.42	0.50	390.841	45	C	3888.0	0.1006
5.8G;D1D	3.36	29.94	31.15	0.50	1462.177	45	C	3888.0	0.3762

WLAN 6GHz_LPI

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	-	-	24.23	0.50	297.167	45	C	3888.0	0.0765
6.4G;D1D	-	-	24.62	0.50	325.087	45	C	3888.0	0.0836
6.7G;D1D	-	-	24.49	0.50	315.500	45	C	3888.0	0.0812
7.0G;D1D	-	-	21.88	0.50	172.982	45	C	3888.0	0.0445

WLAN 6GHz_SPAP

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	-	-	29.34	0.50	963.829	45	C	3888.0	0.2480
6.7G;D1D	-	-	30.17	0.50	1166.810	45	C	3888.0	0.3002

Bluetooth

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;BT-LE	4.30	19.91	22.06	0.50	180.302	45	C	3888.0	0.0464

Zigbee

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;Zigbee	4.30	19.90	22.05	0.50	179.887	45	C	3888.0	0.0463

Note 1: Option A, B and C refer as clause 2.2

Note 2: For option B, Pth(mW) convert to TL ERP(mW); For option C, ERP(W) convert to TL ERP(mW)

Note 3: TL Ratio=Tune-up ERP(mW)/TL ERP(mW)

**Simultaneous Transmission Analysis Mode:****WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz(LPI) + Bluetooth**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	3.95	26.91	28.71	0.50	833.681	45	C	3888.0	0.2145
5.2G;D1D	3.89	29.87	31.61	0.50	1625.549	45	C	3888.0	0.4182
6.4G;D1D	-	-	24.62	0.50	325.087	45	C	3888.0	0.0836
2.4G;BT-LE	4.30	19.91	22.06	0.50	180.302	45	C	3888.0	0.0464
Sum TL Ratio_C	0.7627								
Ratio Limit	1								

WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz(LPI) + Zigbee

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	3.95	26.91	28.71	0.50	833.681	45	C	3888.0	0.2145
5.2G;D1D	3.89	29.87	31.61	0.50	1625.549	45	C	3888.0	0.4182
6.4G;D1D	-	-	24.62	0.50	325.087	45	C	3888.0	0.0836
2.4G;G1D	4.30	19.90	22.05	0.50	179.887	45	C	3888.0	0.0463
Sum TL Ratio_C	0.7626								
Ratio Limit	1								

WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz(SPAP) + Bluetooth

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	3.95	26.91	28.71	0.50	833.681	45	C	3888.0	0.2145
5.2G;D1D	3.89	29.87	31.61	0.50	1625.549	45	C	3888.0	0.4182
6.7G;D1D	-	-	30.17	0.50	1166.810	45	C	3888.0	0.3002
2.4G;G1D	4.30	19.90	22.05	0.50	179.887	45	C	3888.0	0.0463
Sum TL Ratio_C	0.9793								
Ratio Limit	1								



WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz(SPAP) + Zigbee

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	3.95	26.91	28.71	0.50	833.681	45	C	3888.0	0.2145
5.2G;D1D	3.89	29.87	31.61	0.50	1625.549	45	C	3888.0	0.4182
6.7G;D1D	-	-	30.17	0.50	1166.810	45	C	3888.0	0.3002
2.4G;G1D	4.30	19.90	22.05	0.50	179.887	45	C	3888.0	0.0463
Sum TL Ratio_C	0.9792								
Ratio Limit	1								

Note 1: Option A, B and C refer as clause 2.2

Note 2: For option B, Pth(mW) convert to TL ERP(mW); For option C, ERP(W) convert to TL ERP(mW)

Note 3: TL Ratio=Tune-up ERP(mW)/TL ERP(mW)

Note 4: Refer as clause 2.3 Multiple RF Sources Exposure. Please follow below option and sum TL ration table.

Option	Sum TL Ratio_B	Option	Sum TL Ratio_C	Option	Sum TL Ratio_E
B	$\sum_{i=1}^a \frac{P_i}{P_{th,i}}$	C	$\sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}}$	E	$\sum_{k=1}^c \frac{Evaluated_k}{ExposureLimit_k}$

Note: The above antenna gain was declared by manufacturer.

—————THE END—————