



RADIO EXPOSURE TEST REPORT

FCC ID : TVE-251020

Equipment : Secured Wireless Access Point

Brand Name : FORTINET

Model Name : FortiAP 244Kxxxxxxxxx, FAP-244Kxxxxxxxxx,
FORTIAP-244Kxxxxxxxxx
(Please refer to section 1.3 for detailed information.)

Applicant : Fortinet, Inc.
909 Kifer Road, Sunnyvale, CA 94086, USA

Manufacturer : Fortinet, Inc.
909 Kifer Road, Sunnyvale, CA 94086, USA

Standard : 47 CFR Part 2.1091

The product was received on Oct. 02, 2025, and testing was started from Oct. 02, 2025 and completed on Jun. 17, 2026. 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 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: Rex Liao

Sporton International Inc. Hsinchu Laboratory

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Photographs of EUT v04



History of this test report

Report No.	Version	Description	Issued Date
FA5O0812	01	Initial issue of report	Mar. 26, 2026
FA5O0812	02	1. Adding the Mounting brackets and the Waterproof Cap Type 2 as accessories 2. Updating the Photographs of EUT to v02	Apr. 17, 2026
FA5O0812	03	Adding Information for Function in section 1.4	May 05, 2026
FA5O0812	04	Updating the Photographs of EUT to v03	May 18, 2026
FA5O0812	05	Updating the Photographs of EUT to v04	May 19, 2026
FA5O0812	06	Disable the 6GHz function and re-evaluate RF exposure.	Jun. 24, 2026



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:

1. 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.
2. The console port is intended for manufacturer use only and is not accessible to the end-user.

Reviewed by: Sam Chen**Report Producer: Sophia Shiung**



1 General Description

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	5180-5250 5250-5320 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) EHT240: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
Bluetooth	2400-2483.5	2402-2480	LE: GFSK
IEEE802.15.4	2400-2483.5	2405-2480	O-QPSK



1.2 Antenna Information

Ant.	Port					Brand	Model Name	Antenna Type	Connector	Remark
	WLAN 2.4GHz	WLAN 5GHz	WLAN 6GHz	BT/ Zigbee	GNSS					
1	1	2	-	-	-	Grand-Tek	2034G00000370	Dipole	I-PEX	Radio 0
2	2	1	-	-	-	Grand-Tek	2034G00000380	Dipole	I-PEX	
3	-	-	2	-	-	Grand-Tek	203CG00000150	Dipole	I-PEX	Radio 1
4	-	-	1	-	-	Grand-Tek	203CG00000160	Dipole	I-PEX	
5	-	-	-	1	-	Grand-Tek	2039G00000090	Dipole	I-PEX	Radio 2
6	-	-	-	-	1	Grand-Tek	2031G00000150	Ceramic	I-PEX	Radio 4
7	2	2	2	-	-	Grand-Tek	203DG00000140	Dipole	I-PEX	Radio 3
8	1	1	1	-	-	Grand-Tek	203DG00000150	Dipole	I-PEX	

Ant.	Gain (dBi)									Remark
	WLAN 2.4GHz (MHz)			WLAN 5GHz (MHz)						
	2400	2450	2500	5100	5350	5500	5650	5785	5900	
1	8.8	9.2	8.0	9.5	9.4	9.2	9.3	9.1	9.1	Radio 0
2	8.8	9.8	8.3	10.1	10.8	10.0	9.0	8.5	9.0	

Ant.	Gain (dBi)		Remark
	WLAN 6GHz (MHz)		
	5925	6550	
3	8.3	8.5	Radio 1
4	8.5	9.4	

Ant.	Gain (dBi)				Remark
	BT / Zigbee (MHz)			GNSS (MHz)	
	2400	2450	2500		
5	7.3	7.9	7.2	-	Radio 2
6	-	-	-	5.2	Radio 4

Ant.	Gain (dBi)											Remark
	WLAN 2.4GHz (MHz)			WLAN 5GHz (MHz)						WLAN 6GHz (MHz)		
	2400	2450	2500	5100	5350	5500	5650	5785	5900	5925	6550	
7	7.3	7.0	6.1	6.4	6.4	6.5	7.0	7.3	7.5	8.0	6.8	Radio 3
8	6.2	7.0	6.3	6.0	5.8	5.5	6.0	6.5	6.6	7.0	5.9	

Note 1: The above information was declared by manufacturer.

Note 2: The WLAN 6GHz function is not enabled for this application.



Note 3: Directional gain information for WLAN 2.4GHz and 5GHz

Type	Maximum Output Power	Power Spectral Density
Non-BF	Directional gain = Max.gain + array gain. For power measurements on IEEE 802.11 devices Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$
BF	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$

Ex.

Directional Gain (NSS1) formula :

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

$$NSS1(g1,1) = 10^{G1/20} ; NSS1(g1,2) = 10^{G2/20} ; NSS1(g1,2) = 10^{G3/20} ; NSS1(g1,2) = 10^{G4/20}$$

$$g_{j,k} = (NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2$$

$$DG = 10 \log[(NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2 / N_{ANT}] \Rightarrow 10$$

$$\log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20} + 10^{G4/20})^2 / N_{ANT}]$$

Where;

<Radio 0>

2.4G G1= 9.8 dBi; G2= 9.2 dBi; DG= 12.52 dBi

5G UNII-1 G1= 9.5 dBi; G2= 10.1 dBi; DG= 12.82 dBi

5G UNII-2A G1= 9.4 dBi; G2= 10.8 dBi; DG= 13.14 dBi

5G UNII-2C G1= 9.3 dBi; G2= 10 dBi; DG= 12.67 dBi

5G UNII-3 G1= 9.1 dBi; G2= 8.5 dBi; DG= 11.82 dBi

<Radio 3>

2.4G G1= 7.3 dBi; G2= 7 dBi; DG= 10.16 dBi

5G UNII-1 G1= 6.4 dBi; G2= 6 dBi; DG= 9.21 dBi

5G UNII-2A G1= 6.4 dBi; G2= 5.8 dBi; DG= 9.12 dBi

5G UNII-2C G1= 7 dBi; G2= 6 dBi; DG= 9.52 dBi

5G UNII-3 G1= 7.5 dBi; G2= 6.6 dBi; DG= 10.07 dBi

Note 4: <Radio 0>

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 (2TX/2RX):

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

Port 1 and Port 2 could transmit/receive simultaneously.

**<Radio 2>****For Bluetooth and Zigbee function (1TX/1RX):**

Only Port 1 can be used as transmitting/receiving antenna.

<Radio 3>**For 2.4GHz function:****For IEEE 802.11 b/g/n/VHT/ax (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 (2TX/2RX):**

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

Port 1 and Port 2 could transmit/receive simultaneously.

For GNSS function (1RX):

Only Port 1 can be used as receiving antenna.

1.3 Table for Multiple Listing

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

Model Name	Description
FortiAP 244Kxxxxxxxxx	Where "x" can be used as "A-Z", "0-9", "-", or blank for software changes or marketing purposes only.
FAP-244Kxxxxxxxxx	
FORTIAP-244Kxxxxxxxxx	

Note 1: From models above, model "FAP-244K" was selected to test.

Note 2: The above information was declared by manufacturer.



1.4 Table for Radio Function

Radio (R)	Function	WLAN 2.4GHz	WLAN 5GHz		WLAN 6GHz	BT / Zigbee	GNSS
			UNII 1/3	UNII 2A~2C			
R0 (Service Radio)	AP Router	✓	✓	✓	-	-	-
	Bridge, Repeater, Extender, Mesh	✓	✓	-	-	-	-
R1 (Service Radio)	AP Router	-	-	-	-	-	-
R2	-	-	-	-	-	✓	-
R3 (Scan Radio)	-	✓	✓	✓	-	-	-
R4	-	-	-	-	-	-	✓

Note 1: For WLAN 2.4GHz and 5GHz, R0 and R3 can't operate at the same frequency simultaneously.

Note 2: The AP Router mode was tested and its data was recorded in this report.

Note 3: The above information was declared by manufacturer.

1.5 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
PoE	PHIHONG	POE60U-BTA	Input: 100-240V ~ 1.5A, 50-60Hz Output 1: 56V, 0.535A, 30W Output 2: 56V, 0.535A, 30W
Others			
Power cable 1*1: Non-shielded, 1m			
Power cable 2*1: Non-shielded, 1m			
Mounting bracket 1*1			
Mounting bracket 2*1			
Mounting bracket 3*1			
Mounting bracket 4*1			
Ground cable*1: Non-shielded, 1m			
Waterproof Connector Type 1*1			
Waterproof Connector Type 2*1			
Waterproof Cap Type 1*1			
Waterproof Cap Type 2*1			



1.6 Testing Location

Testing Location Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)
(TAF: 3787)	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.



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

<Radio 0>

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Ratio (S/Limit)
2.4G;D1D	12.52	23.45	35.97	0.02	35.99	30	0.35119	1.00000	0.35119
5.2G;D1D	12.82	23.16	35.98	0.01	35.99	30	0.35119	1.00000	0.35119
5.3G;D1D	13.14	16.75	29.89	0.08	29.97	30	0.08781	1.00000	0.08781
5.6G;D1D	12.67	17.21	29.88	0.09	29.97	30	0.08781	1.00000	0.08781
5.8G;D1D	11.82	24.13	35.95	0.04	35.99	30	0.35119	1.00000	0.35119

<Radio 2>

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Ratio (S/Limit)
2.4G;BT-LE	7.90	17.58	25.48	0.50	25.98	30	0.03504	1.00000	0.03504
Zigbee	7.90	17.91	25.81	0.50	26.31	30	0.03780	1.00000	0.0378

<Radio 3>

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Ratio (S/Limit)
2.4G;G1D	7.30	23.32	30.62	0.50	31.12	30	0.11443	1.00000	0.11443
5.2G;D1D	6.40	21.52	27.92	0.50	28.42	30	0.06145	1.00000	0.06145
5.3G;D1D	6.40	20.62	27.02	0.50	27.52	30	0.04995	1.00000	0.04995
5.6G;D1D	7.00	20.17	27.17	0.50	27.67	30	0.05171	1.00000	0.05171
5.8G;D1D	7.50	21.24	28.74	0.50	29.24	30	0.07422	1.00000	0.07422

**Simultaneous Transmission Analysis Mode:****Mode 1: R0: 2.4/5GHz + R2: BT + R3: 2.4GHz**

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Ratio (S/Limit)
2.4G;BT-LE	7.90	17.58	25.48	0.50	25.98	30	0.03504	1.00000	0.03504
2.4G;D1D	12.52	23.45	35.97	0.02	35.99	30	0.35119	1.00000	0.35119
5.2G;D1D	12.82	23.16	35.98	0.01	35.99	30	0.35119	1.00000	0.35119
2.4G;G1D	7.30	23.32	30.62	0.50	31.12	30	0.11443	1.00000	0.11443
Sum S/Limit Ratio	0.85185								
Ratio Limit	1								

Mode 2: R0: 2.4/5GHz + R2: Zigbee + R3: 2.4GHz

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Ratio (S/Limit)
Zigbee	7.90	17.91	25.81	0.50	26.31	30	0.03780	1.00000	0.0378
2.4G;D1D	12.52	23.45	35.97	0.02	35.99	30	0.35119	1.00000	0.35119
5.2G;D1D	12.82	23.16	35.98	0.01	35.99	30	0.35119	1.00000	0.35119
2.4G;G1D	7.30	23.32	30.62	0.50	31.12	30	0.11443	1.00000	0.11443
Sum S/Limit Ratio	0.85461								
Ratio Limit	1								

Mode 3: R0: 2.4/5GHz + R2: BT + R3: 5GHz

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Ratio (S/Limit)
2.4G;BT-LE	7.90	17.58	25.48	0.50	25.98	30	0.03504	1.00000	0.03504
2.4G;D1D	12.52	23.45	35.97	0.02	35.99	30	0.35119	1.00000	0.35119
5.2G;D1D	12.82	23.16	35.98	0.01	35.99	30	0.35119	1.00000	0.35119
5.8G;D1D	7.50	21.24	28.74	0.50	29.24	30	0.07422	1.00000	0.07422
Sum S/Limit Ratio	0.81164								
Ratio Limit	1								

Mode 4: R0: 2.4/5GHz + R2: Zigbee + R3: 5GHz

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Ratio (S/Limit)
Zigbee	7.90	17.91	25.81	0.50	26.31	30	0.03780	1.00000	0.0378
2.4G;D1D	12.52	23.45	35.97	0.02	35.99	30	0.35119	1.00000	0.35119
5.2G;D1D	12.82	23.16	35.98	0.01	35.99	30	0.35119	1.00000	0.35119
5.8G;D1D	7.50	21.24	28.74	0.50	29.24	30	0.07422	1.00000	0.07422
Sum S/Limit Ratio	0.8144								
Ratio Limit	1								

————THE END————