

Test Report No:
2470945R-RFUSV17S-A

RF EXPOSURE EVALUATION DECLARATION

Product Name	Network Switch
Brand Name	FORTINET
Model No.	FortiSwitch-SASE 124Gxxxxxxxxx, FORTISWITCH-SASE-124Gxxxxxxxxx, FS-SASE-124Gxxxxxxxxx, FortiSwitch-SASE 124G-FPOExxxxxxxxx, FORTISWITCH-SASE-124G-FPOExxxxxxxxx, FS-SASE-124G-FPOExxxxxxxxx (Please refer to the section 1.1 for detail.)
FCC ID	TVE-240803
Applicant's Name / Address	Fortinet, Inc. 909 Kifer Road, Sunnyvale, CA 94086, USA
Manufacturer's Name / Address	Fortinet, Inc. 909 Kifer Road, Sunnyvale, CA 94086, USA
Test Method Requested, Standard	FCC CFR Title 47 Part 2.1091 Radiofrequency radiation exposure evaluation: mobile devices.
Verdict Summary	IN COMPLIANCE
Documented By	 Amelia Wu
Approved By	 Allen Lin
Date of Receipt	Jul. 31, 2024
Date of Issue	Dec. 30, 2024
Report Version	V1.0

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Competences and Guarantees

DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

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General Conditions

1. The test results relate only to the samples tested.
2. The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
3. This report must not be used to claim product endorsement by TAF or any agency of the government.
4. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
5. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Revision History

Version	Description	Issued Date
V1.0	Initial issue of report	Dec. 30, 2024

General Information

1.1. EUT Description

RF General Information			
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type
Bluetooth	2400 ~ 2483.5	2402 ~ 2480	LE: GFSK

The difference for each model is shown as below:

EUT	Fortinet Model	Description	PCB size	Overall dimensions of the enclosure	Switch Configuration	PoE port	P/N of PSU
1	FortiSwitch-SASE 124G-FPOExxxxxxxx, FORTISWITCH-SASE-1 24G-FPOExxxxxxxx, FS-SASE-124G-FPOExxxxxxxx (where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)	All the models are identical, and the difference model names are for software changes or marketing purposes only.	MB: 300*230mm CPU Board: 125*95mm POE Board: 237.73*62.23mm	440*310*44mm	24x 2.5G/1G/100M/POE + 4x SFP+(10G) Port 1 - 24 are POE ports with automatic Max 780W POE output limit	24	EMA900D-A
2	FortiSwitch-SASE 124Gxxxxxxx, FORTISWITCH-SASE-1 24Gxxxxxxx, FS-SASE-124Gxxxxxxx (where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)	All the models are identical, and the difference model names are for software changes or marketing purposes only.	MB: 300*230mm CPU Board: 125*95mm	440*260*44mm	24x 2.5G/1G/100M + 4x SFP+(10G)	0	EMA135S-12

Note: The above EUT information is declared by the manufacturer.

1.2. Testing Location Information

Testing Location Information		
Test Laboratory : DEKRA Testing and Certification Co., Ltd.		
1 (TAF: 3024)	ADD: No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. TEL: +886-3-582-8001 FAX: +886-3-582-8958 Test site Designation No. TW3024 with FCC. Conformity Assessment Body Identifier (CABID) TW3024 with ISED.	
2 (TAF: 3024)	ADD: No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. TEL: +886-3-582-8001 FAX: +886-3-582-8958 Test site Designation No. TW3024 with FCC. Conformity Assessment Body Identifier (CABID) TW3024 with ISED.	
Test site number for address 1 includes HC-SR02. Test site number for address 2 includes HC-CB02, HC-CB03, HC-CB04, HC-SR10 and HC-SR12.		

2. RF Exposure Evaluation

2.1. Test Limit

(A) Test Limit 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) Test Limit 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

Power Density (S) is calculated by the following formula:

$$S=(P*G) /4\pi R^2$$

where:

S = power density (in appropriate units, e.g. mW/ cm²)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

π = 3.1416

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

2.2. Test Result of RF Exposure Evaluation

Exposure Environment: General Population / Uncontrolled Exposure

Evaluation Mode	E.I.R.P (dBm)	E.I.R.P (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Test Result (PASS/FAIL)
Bluetooth LE	8.960	7.870	0.002	1.000	PASS

Distance (cm): 20 for Maximum Permissible Exposure.

Note:

1. The above EUT information is declared by the manufacturer.
2. The results are based on the maximum power.