RF EXPOSURE EVALUATION REPORT

FCC ID	: TVE-240701
Equipment	: Network Switch
Brand Name	: FORTINET
Model Name	: FortiSwitch 124Gxxxxxxxxxx, FORTISWITCH-124Gxxxxxxxxxx, FS-124Gxxxxxxxxxx (where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)
Marketing Name	: FortiSwitch 124G
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

We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part2.1091 and it complies with applicable limit.

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC evaluation.

The results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Laboratory, the test report shall not be reproduced except in full.

Approved by: Cona Huang / Deputy Manager

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History of this test report

Report No.	Version	Description	Issued Date
FA451712-01	Rev. 01	Initial issue of report	Jan. 16, 2024

1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	Network Switch
Brand Name	FORTINET
Model Name	FortiSwitch 124Gxxxxxxxxxx, FORTISWITCH-124Gxxxxxxxxxx, FS-124Gxxxxxxxxxx (where “x” can be used as “A-Z”, or “0-9”, or “-“, or blank for software changes or marketing purposes only)
Marketing Name	FortiSwitch 124G
FCC ID	TVE-240701
Wireless Technology and Frequency Range	Bluetooth: 2400 MHz ~ 2483.5 MHz
Mode	Bluetooth LE

Reviewed by: Jason Wang

Report Producer: Paula Chen

2. Maximum RF average output power among production units

BLE 1Mbps		
Channel	Frequacy(MHz)	Maximum power(dBm)
0	2402	7
19	2440	6.9
39	2480	7

BLE 2Mbps		
Channel	Frequacy(MHz)	Maximum power(dBm)
0	2402	7
19	2440	6.9
39	2480	7

3. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f2)	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				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f2)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:
S = Power Density
P = Output Power at Antenna Terminals
G = Gain of Transmit Antenna (linear gain)
R = Distance from Transmitting Antenna

4. Radio Frequency Radiation Exposure Evaluation

4.1. Standalone Power Density Calculation

Band	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum PG (mW)	Power Density at 20cm (mW/cm^2)	Limit (mW/cm^2)
Bluetooth	2.0	7.0	7.94	0.002	1.000

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.