

RF Exposure Evaluation Report

APPLICANT	:	Ubiquiti Networks, Inc.
EQUIPMENT	:	UniFi SERVER
BRAND NAME	:	UBIQUITI
MODEL NAME	:	UAS
FCC ID	:	SWX-UASPRO
STANDARD	:	47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC., would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091 and pass the limit. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

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Reviewed by: Eric Huang / Manager

Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL INC.

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1. Administration Data

1.1. <u>Testing Laboratory</u>

Testing Laboratory	
Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978

Applicant			
Company Name Ubiquiti Networks, Inc.			
Address	2580 Orchard Parkway San Jose, CA 95131		

Manufacturer			
Company Name Ubiquiti Networks, Inc.			
Address	2580 Orchard Parkway San Jose, CA 95131		



2. Description of Equipment Under Test (EUT)

Product Feature & Specification				
EUT Type	UniFi SERVER			
Brand Name	UBIQUITI			
Model Name	UAS			
FCC ID	SWX-UASPRO			
Wireless Technology and Frequency Range	Bluetooth: 2402 MHz ~ 2480 MHz			
Mode	Bluetooth LE			
Antenna Type	Internal Antenna			
Antenna Gain	0dBi			
EUT Stage	Identical Prototype			

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

3. Maximum RF average output power among production units

Mode / Band	Average Power (dBm)				
	LE				
2.4GHz Bluetooth	0				



4. <u>RF Exposure Limit Introduction</u>

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 O	ccupational/Controlled Expos	sures		
0.3-3.0	614	1.63	*(100)	6	
3.0-30	1842/	f 4.89/1	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 Gene	ral Population/Uncontrolled	Exposure		
0.3-1.34	614	1.63	*(100)	30	
1.34-30 824/		f 2.19/1	f *(180/f2)	30	
30-300 27.5		0.073		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



5. Radio Frequency Radiation Exposure Evaluation

5.1. Standalone Power Density Calculation

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm^2)	Limit (mW/cm^2)
2.4GHz Bluetooth	2402.0	0.0	0.0	0.000	0.001	1.000	0.0002	1.000

Note: For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band

Conclusion:

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