
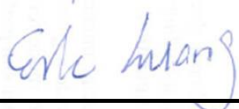


RF Exposure Evaluation Report

APPLICANT : Ubiquiti Networks
EQUIPMENT : mFi Inwall Outlet
BRAND NAME : 
MODEL NAME : mFi-MPW
FCC ID : SWX-MFIMPW
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.



Reviewed by: Eric Huang / Deputy Manager



Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL INC.

No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.



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1. Administration Data

1.1. Testing Laboratory

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978


1.2. Applicant

Company Name	Ubiquiti Networks
Address	12F, No105, Song Ren Rd., SinYiDestruct, Taipei, Taiwan

1.3. Manufacturer

Company Name	Nanning FuGui Precision Industrial Co., LTD
Address	No. 18, Zhongbu Road, Nanning New& High-Tech Industrial Development Zone, Guangxi

2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	mFi Inwall Outlet
Brand Name	
Model Name	mFi-MPW
FCC ID	SWX-MFIMPW
Wireless Technology and Frequency Range	WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz
Mode	• 802.11b/g/n HT20/HT40
Antenna Type	PCB Antenna
EUT Stage	Production Unit

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	Maximum Target Average Power
WLAN 802.11 b	18
WLAN 802.11 g	15
WLAN 802.11 n-20MHz	14
WLAN 802.11 n-20MHz	13



4. 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/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				
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

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 Calculations

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Average EIRP (mW)	Power Density at 20cm (mW/cm ²)	Limit (mW/cm ²)
WLAN2.4GHz 802.11b	2412.0	2.22	18.0	105.20	0.02	1.00
WLAN2.4GHz 802.11g	2412.0	2.22	15.0	52.72	0.01	1.00
WLAN2.4GHz 802.11n-HT20	2412.0	2.22	14.0	41.88	0.01	1.00
WLAN2.4GHz 802.11n-HT40	2422.0	2.22	13.0	33.27	0.01	1.00

Note: For conservativeness, the lowest uplink 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.