# RF EXPOSURE EVALUATION REPORT

FCC ID : TLZ-CU603

Equipment: Wireless MCU with Integrated Wi-Fi 6 Microcontroller Module

Brand Name : AzureWave Model Name : AW-CU603

Applicant : AzureWave Technologies, Inc.

8F., No.94, Baozhong Rd., Xindian Dist., New Taipei City,

Taiwan 231

1. Manufacturer : AzureWave Technologies, Inc.

8F., No.94, Baozhong Rd., Xindian Dist., New Taipei City,

Taiwan 231

2. Manufacturer: AZUREWAVE TECHNOLOGIES (VIETNAM) COMPANY LIMITED

1st floor, building 5, CN3 Land, Deep C 2A Industrial Park, Dinh Vu-Cat Hai Economic Zone, Dong Hai 2 Ward, Hai An District,

HaiPhong City, Vietnam

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





**Report No. : FA450318** 

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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# History of this test report

**Report No. : FA450318** 

Report No. Version		Description	Issued Date	
FA450318 Rev. 01		Initial issue of report	Aug. 05, 2024	

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## 1. <u>Description of Equipment Under Test (EUT)</u>

Product Feature & Specification				
EUT Type	Wireless MCU with Integrated Wi-Fi 6 Microcontroller Module			
Brand Name	AzureWave			
Model Name	AW-CU603			
FCC ID	TLZ-CU603			
Wireless Technology and Frequency Range	WLAN 2.4 GHz Band: 2400 MHz ~ 2483.5 MHz WLAN 5.2 GHz Band: 5150 MHz ~ 5250 MHz WLAN 5.3 GHz Band: 5250 MHz ~ 5350 MHz WLAN 5.6 GHz Band: 5470 MHz ~ 5725 MHz WLAN 5.8 GHz Band: 5725 MHz ~ 5850 MHz WLAN 5.9 GHz Band: 5850 MHz ~ 5895 MHz			
Mode	WLAN: 802.11a/b/g/n/ac/ax HT20/HT40/VHT20/HE20			
SW Version	18.80.6.p7.1			
EUT Stage	Production Unit			

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Reviewed by: <u>Jason Wang</u>
Report Producer: <u>Paula Chen</u>

## 2. Maximum RF Output Power (Unit: dBm)

Mode	Maximum Average Power (dBm)
2.4GHz WLAN	22
5GHz WLAN	22.5

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## 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 Electric field strength (V/m)		Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)	
800 St.	(A) Limits for O	ccupational/Controlled Expos	sures	W	
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 I	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	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

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## 4. Radio Frequency Radiation Exposure Evaluation

Band	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)
WLAN2.4GHz Band	3.5	22.0	25.5	0.35	354.81	0.071	1.000
WLAN5GHz Band	5.0	22.5	27.5	0.56	562.34	0.112	1.000

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### **Conclusion:**

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

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