

RF Exposure Report

Report No.: SABECO-WTW-P21010839

FCC ID: TLZ-CU488

Test Model: AW-CU488

Received Date: Feb. 03, 2021

Test Date: Mar. 03, 2021

Issued Date: Mar. 16, 2021

Applicant: AzureWave Technologies, Inc.

Address: 8F., No.94, Baozhong Rd. , Xindian Dist., New Taipei City , Taiwan 231

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Hsin Chu Laboratory

Lab Address: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
Taiwan

Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
Taiwan

**FCC Registration /
Designation Number:** 723255 / TW2022

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Release Control Record

Issue No.	Description	Date Issued
SABECO-WTW-P21010839	Original release.	Mar. 16, 2021

1 Certificate of Conformity

Product: IEEE 802.11 a/b/g/n 1T1R WLAN and Bluetooth Low Energy Microcontroller Module

Brand: AzureWave

Test Model: AW-CU488

Sample Status: Engineering sample

Applicant: AzureWave Technologies, Inc.

Test Date: Mar. 03, 2021

Standards: FCC Part 2 (Section 2.1091)
IEEE C95.3 -2002

References Test Guidance: KDB 447498 D01 General RF Exposure Guidance v06

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : Phoenix Huang, **Date:** Mar. 16, 2021
Phoenix Huang / Specialist

Approved by : Clark Lin, **Date:** Mar. 16, 2021
Clark Lin / Technical Manager

2 RF Exposure

2.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (minutes)
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

f = Frequency in MHz ; *Plane-wave equivalent power density

2.2 MPE Calculation Formula

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

2.3 Classification

The antenna of this product, under normal use condition, is at least 20 cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4 Antenna Gain

Antenna No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type
1	LYNwave	ALX20M-222AAC	3.7	2.4~2.5	PIFA	none
			3.6	5.15~5.85		

2.5 Calculation Result of Maximum Conducted Power

Operation Mode	Evaluation Frequency (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
WLAN (2.4GHz)	2412~2462	239.883	3.7	20	0.11187	1
WLAN (U-NII-1)	5180~5250	139.959	3.6	20	0.06379	1
WLAN (U-NII-2A)	5260~5320	74.989	3.6	20	0.03418	1
WLAN (U-NII-2C)	5500~5700	77.983	3.6	20	0.03554	1
WLAN (U-NII-3)	5745~5825	137.404	3.6	20	0.06262	1
BT-LE	2402~2480	3.296	3.7	20	0.00154	1

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. WLAN and Bluetooth technology cannot transmit at the same time.

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