

## RF Exposure Report

**Report No.:** SA190902E13

**FCC ID:** TLZ-CM358SM

**Test Model:** AW-CM358SM

**Received Date:** Sep. 02, 2019

**Test Date:** Sep. 12 to Oct. 07, 2019

**Issued Date:** Jan. 13, 2020

**Applicant:** AzureWave Technologies, Inc.

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**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
SA190902E13	Original release.	Jan. 13, 2020

## 1 Certificate of Conformity

**Product:** IEEE 802.11a/b/g/n/ac WLAN with Bluetooth 5 Combo Stamp Module

**Brand:** AzureWave

**Test Model:** AW-CM358SM

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** AzureWave Technologies, Inc.

**Test Date:** Sep. 12 to Oct. 07, 2019

**Standards:** FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.3 -2002

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 :** Joyce Kuo , **Date:** Jan. 13, 2020  
Joyce Kuo / Specialist

**Approved by :** Clark Lin , **Date:** Jan. 13, 2020  
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 <sup>2</sup> )	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 <sup>2</sup> )*	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/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

$G$  = gain of antenna in linear scale

$\pi$  = 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 20cm away from the body of the user.  
So, this device is classified as **Mobile Device**.

### 2.4 Antenna Gain

Antenna No.	Brand	Model	Ant. Net Gain (dBi)	Frequency range (GHz)	Antenna Type	Connector Type
1	NA	NA	2.98	2.4~2.4835	PIFA	i-pex(MHF)
			5.16	5.15~5.85		

## 2.5 Calculation Result of Maximum Conducted Power

Operation Mode	Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
WLAN 2.4GHz	2437	553.35	2.98	20	0.21864	1
WLAN U-NII-1	5200	135.519	5.16	20	0.08846	1
WLAN U-NII-2A	5300	122.744	5.16	20	0.08012	1
WLAN U-NII-2C	5690	100.313	5.16	20	0.06548	1
WLAN U-NII-3	5785	136.458	5.16	20	0.08907	1
Bluetooth (BT-EDR)	2402	23.714	2.98	20	0.00937	1
Bluetooth (BT-LE)	2402	23.768	2.98	20	0.00939	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 can't transmit simultaneously.

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