RF Exposure Report

Report No.:	SA150528E05K
FCC ID:	TLZ-CU300
Test Model:	AW-CU300
Series Model:	AW-CU300A
Received Date:	Mar. 22, 2019
Test Date:	Mar. 27, 2019
Issued Date:	May 15, 2019

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 R.O.C.
Test Location:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
FCC Registration / Designation Number:	723255 / TW2022

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Release Control Record

Issue No.	Description	Date Issued
SA150528E05K	Original release.	May 15, 2019

1 Certificate of Conformity

Product:	IEEE 802.11 b/g/n WLAN Microcontroller Module
Brand:	AzureWave
Test Model:	AW-CU300
Series Model:	AW-CU300A
Sample Status:	ENGINEERING SAMPLE
Applicant:	AzureWave Technologies, Inc.
Test Date:	Mar. 27, 2019
Standards:	FCC Part 2 (Section 2.1091) KDB 447498 D01 General RF Exposure Guidance v06 IEEE C95.1-1992

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 : _____ , **Date:** May 15, 2019

Cindy Hsin / Specialist

Approved by : _____ , **Date:** May 15, 2019

May Chen / 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				
300-1500	…	…	F/1500	30
1500-100,000	…	…	1.0	30

F = Frequency in MHz

2.2 MPE Calculation Formula

$Pd = (Pout*G) / (4*pi*r^2)$

where

Pd = power density in mW/cm^2

Pout = 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**.

3 Antenna Gain

The antennas provided to the EUT, please refer to the following table:

Antenna No	Brand	Model	Gain (dBi) (Including cable loss)	Antenna Type	Connector Type	Frequency range (GHz to GHz)	Cable Length (mm)
1(Internal)	AzureWave	AW-CU300 ANT	5.12	PCB	NA	2.4~2.4835	NA
2(External)	TAOGLAS	FXP73.07.0100A	3	Monopole	I-PEX	2.4~2.4835	100
3(External)	TAOGLAS	PC11.07.0100A	3	Dipole	I-PEX	2.4~2.4835	100
4(External)	TAOGLAS	FXP74.07.0100A	4	PIFA	I-PEX	2.4~2.4835	100
5(External)	TAOGLAS	GW.17.07.0250E	2.7	Dipole	I-PEX	2.4~2.4835	250
6(External)	TAOGLAS	PC17.07.0070A	0.9	PIFA	I-PEX	2.4~2.4835	70
7(External)	LAIRD	NanoBlue-IP04_MAF94045	2	Monopole	I-PEX	2.4~2.4835	100
8(External)	MAG.LAYERS	EDA_1313_2G4C1-A16	2.39	Dipole	I-PEX	2.4~2.4835	150
9(External)	LAIRD	EBL2400A1-23UFL	2.45	Dipole	I-PEX	2.4~2.4835	230
10(External)	MOLEX	1461530100	3	Dipole	I-PEX	2.4~2.4835	100
11(External)	MOLEX	1461530150	2.8	Dipole	I-PEX	2.4~2.4835	150
12(External)	MOLEX	1461530200	2.6	Dipole	I-PEX	2.4~2.4835	20
13(External)	MOLEX	1461530250	2.4	Dipole	I-PEX	2.4~2.4835	250
14(External)	MOLEX	1461530300	2.2	Dipole	I-PEX	2.4~2.4835	300
15(External)	MOLEX	2042810050	2.2	Dipole	I-PEX	2.4~2.4835	50
16(External)	MOLEX	2042810100	2	Dipole	I-PEX	2.4~2.4835	100
17(External)	MOLEX	2042810150	1.8	Dipole	I-PEX	2.4~2.4835	150
18(External)	MOLEX	2042810200	1.6	Dipole	I-PEX	2.4~2.4835	200
19(External)	MOLEX	2042810250	1.4	Dipole	I-PEX	2.4~2.4835	250
20(External)	MOLEX	2042810300	1.2	Dipole	I-PEX	2.4~2.4835	300
21(External)	YAGEO	ANTX100F113B24003	2.9	PIFA	I-PEX	2.4~2.4835	100
22(External)	YAGEO	ANTX100P113B24003	2.8	PIFA	I-PEX	2.4~2.4835	100
23(External)	LYNWAVE	ALA110-052020	2	Dipole	I-PEX	2.4~2.4835	50
24(External)	LYNWAVE	ALA120-052024	2	Dipole	I-PEX	2.4~2.4835	160
25(External)	LYNWAVE	ALA150-052020	2	Dipole	I-PEX	2.4~2.4835	85
26(External)	LYNWAVE	ALA140-05102J	2	Dipole	I-PEX	2.4~2.4835	40
27(External)	LYNWAVE	ALA120-051020	2	Dipole	I-PEX	2.4~2.4835	50
28(External)	LYNWAVE	ALA120-051022	2	Dipole	I-PEX	2.4~2.4835	100
29(External)	LYNWAVE	ALA140-051020	1.88	Dipole	I-PEX	2.4~2.4835	70
30(External)	LYNWAVE	ALA150-05102B	2	Dipole	I-PEX	2.4~2.4835	100
31(External)	LYNWAVE	ALA150-05102C	2	Dipole	I-PEX	2.4~2.4835	75
32(External)	LYNWAVE	ALA150-05102F	2	Dipole	I-PEX	2.4~2.4835	140
33(External)	LYNWAVE	ALA150-05102J	2	Dipole	I-PEX	2.4~2.4835	100
34(External)	LYNWAVE	ALA140-05102D	2	Dipole	I-PEX	2.4~2.4835	95
35(External)	LYNWAVE	ALA150-051026	2	Dipole	I-PEX	2.4~2.4835	150

Antenna 1 was chosen for final calculation.

4 Calculation Result of Maximum Conducted Power

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
2412-2462	195.884	5.12	20	0.12669	1

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