

RF Exposure Report

Report No.: SA180821C03A

FCC ID: M82-BBWSW2C

Test Model: BB-WSW2C42100-1

Series Model: BB-WSW2C00015-1; BB-WSW2C00015-1XXXXXXXXXX ;
BBWSW2C000151XXXXXXXXXX ; BB-WSW2C42100-1XXXXXXXXXX ;
BBWSW2C421001XXXXXXXXXX
(where "X" maybe any alphanumeric character, blank or "-" .)

Received Date: Dec. 7, 2018

Test Date: Dec. 19 ~ 20, 2018

Issued Date: Dec. 28, 2018

Applicant: ADVANTECH CO., LTD

Address: No.1, Alley 20, Lane 26, Rueiguang Rd, Neihu District, Taipei, Taiwan 114

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

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
(R.O.C.)

Test Location: No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City
33383, TAIWAN (R.O.C.)

FCC Registration /

Designation Number: 788550 / TW0003



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Release Control Record

Issue No.	Description	Date Issued
SA180821C03A	Original release.	Dec. 28, 2018

1 Certificate of Conformity

Product: Industrial LoRaWAN node

Brand: Advantech

Test Model: BB-WSW2C42100-1

Series Model: BB-WSW2C00015-1; BB-WSW2C00015-1XXXXXXXXXX ;
BBWSW2C000151XXXXXXXXXX ; BB-WSW2C42100-1XXXXXXXXXX ;
BBWSW2C421001XXXXXXXXXX
(where "X" maybe any alphanumeric character, blank or "-" .)

Sample Status: Engineering Sample

Applicant: ADVANTECH CO., LTD

Test Date: Dec. 19 ~ 20, 2018

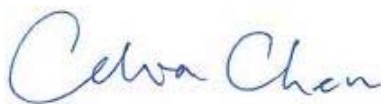
Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1

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 RF characteristics under the conditions specified in this report.

Prepared by :



Celia Chen / Supervisor

Date: Dec. 28, 2018

Approved by :



Rex Lai / Associate Technical Manager

Date: Dec. 28, 2018

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

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

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 20cm away from the body of the user. So, this device is classified as Mobile Device.

3 Calculation Result of Maximum Conducted Power

Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
18.89	2.01	20	0.0245	0.601

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