RF Exposure Report

Report No.:	SA180730C06
FCC ID:	A8J-ENSTA5-ACV2
Test Model:	ENS500-ACv2, ENS500EXT-ACv2, EnStation5-ACv2
Series Model:	EAS100-14, EAS100EXT, EAS100-19
Received Date:	Jul. 30, 2018
Test Date:	Aug. 24 ~ Sep. 07, 2018
Issued Date:	Sep. 17, 2018
Applicant:	EnGenius Technologies
Address:	1580 Scenic Avenue, Costa Mesa, CA92626
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

Table of Contents

Release Control Record

Issue No.	Description	Date Issued
SA180730C06	Original release	Sep. 17, 2018

1 Certificate of Conformity

Product:	Outdoor Long Range Wireless Access Point
Brand:	EnGenius, emplus
Test Model:	ENS500-ACv2, ENS500EXT-ACv2, EnStation5-ACv2
Series Model:	EAS100-14, EAS100EXT, EAS100-19
Sample Status:	Engineering sample
Applicant:	EnGenius Technologies
Test Date:	Aug. 24 ~ Sep. 07, 2018
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 RF characteristics under the conditions specified in this report.

Prepared by : Celine Chou , **Date:** Sep. 17, 2018

Celine Chou / Senior Specialist

Approved by : Bruce Chen , **Date:** Sep. 17, 2018

Bruce Chen / Project Engineer

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 25cm away from the body of the user. So, this device is classified as Mobile Device.

3 Calculation Result of Maximum Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
Patch Ant. for model: ENS500-ACv2 and EAS100-14 (CDD Mode)					
5180-5240	15.23	16.43	25	0.187	1
5745-5825	22.34	16.43	25	0.959	1
Patch Ant. for model: ENS500-ACv2 and EAS100-14 (Beamforming Mode)					
5180-5240	12.22	16.43	25	0.093	1
5745-5825	19.29	16.43	25	0.475	1
Dipole Ant. for model: ENS500EXT-ACv2 and EAS100EXT (CDD Mode)					
5180-5240	16.62	8.18	25	0.038	1
5745-5825	27.16	8.18	25	0.435	1
Dipole Ant. for model: ENS500EXT-ACv2 and EAS100EXT (Beamforming Mode)					
5180-5240	13.54	8.18	25	0.019	1
5745-5825	24.15	8.18	25	0.218	1
Patch Ant. for model: EnStation5-ACv2 and EAS100-19 (CDD Mode)					
5180-5240	5.35	18.51	25	0.031	1
5745-5825	20.40	18.51	25	0.991	1
Patch Ant. for model: EnStation5-ACv2 and EAS100-19 (Beamforming Mode)					
5180-5240	2.34	18.51	25	0.015	1
5745-5825	17.39	18.51	25	0.495	1

Note:
1. Patch Ant. for model: ENS500-ACv2 and EAS100-14 Directional gain = 13.42dBi + 10log(2) = 16.43dBi
2. Dipole Ant. for model: ENS500EXT-ACv2 and EAS100EXT Directional gain = 5.17dBi + 10log(2) = 8.18dBi
3. Patch Ant. for model: EnStation5-ACv2 and EAS100-19 Directional gain = 15.50dBi + 10log(2) = 18.51dBi

---END---