

## RF Exposure Report

**Report No.:** SA171226C09

**FCC ID:** 2AEIFUMPZ2-M01

**Test Model:** UMPZ2-EVK2

**Received Date:** Dec. 26, 2017

**Test Date:** Jan. 10 ~ Jan. 11, 2018

**Issued Date:** Jan. 23, 2018

**Applicant:** ALPS ELECTRIC CO., LTD.

**Address:** 6-3-36, Furukawanakazato, Osaki-city Miyagi-pref 989-6181, Japan

**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

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



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### Release Control Record

| Issue No.   | Description       | Date Issued   |
|-------------|-------------------|---------------|
| SA171226C09 | Original release. | Jan. 23, 2018 |

## 1 Certificate of Conformity

**Product:** V2X module

**Brand:** ALPS

**Test Model:** UMPZ2-EVK2

**Sample Status:** Engineering sample

**Applicant:** ALPS ELECTRIC CO., LTD.

**Test Date:** Jan. 10 ~ Jan. 11, 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 EMC characteristics under the conditions specified in this report.

**Prepared by :**

  
Pettie Chen / Senior Specialist

**Date:**

Jan. 23, 2018

**Approved by :**

  
Bruce Chen / Project Engineer

**Date:**

Jan. 23, 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 <sup>2</sup> ) | 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<sup>2</sup>

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 Calculation Result Of Maximum Conducted Power

| FREQUENCY BAND (MHz) | EIRP (dBm) | DISTANCE (cm) | POWER DENSITY (mW/cm <sup>2</sup> ) | LIMIT (mW/cm <sup>2</sup> ) |
|----------------------|------------|---------------|-------------------------------------|-----------------------------|
| 5860 ~ 5920          | 20.2       | 20            | 0.021                               | 1                           |

---END---