

## RF Exposure Report

**Report No.:** SA160421D16

**FCC ID:** RFHIKARPC07AA9

**Test Model:** IKARPC-07A-A9

**Received Date:** Apr. 21, 2016

**Test Date:** May 11 ~ 30, 2016

**Issued Date:** Jun. 14, 2016

**Applicant:** IEI Integration Corp.

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

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### Release Control Record

Issue No.	Description	Date Issued
SA160421D16	Original release.	Jun. 14, 2016

## 1 Certificate of Conformity

**Product:** Panel PC

**Brand:** iEi

**Test Model:** IKARPC-07A-A9

**Sample Status:** Engineering sample

**Applicant:** IEI Integration Corp.

**Test Date:** May 11 ~ 30, 2016

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

KDB 447498 D03

KDB 447498 D01

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 :**

*Annie Chang*

, **Date:**

Jun. 14, 2016

Annie Chang / Senior Specialist

**Approved by :**

*Rex Lai*

, **Date:**

Jun. 14, 2016

Rex Lai / Assistant 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				
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 30cm away from the body of the user.

So, this device is classified as **Mobile Device**.

### 3 Calculation Result Of Maximum Conducted Power

#### For 2.4GHz:

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2412 ~ 2462	20.11	1.28	20	0.0274	1.00
2402 ~ 2480	-0.03	1.28	20	0.0003	1.00

#### For 3.75G:

Frequency Band (MHz)	ERP (dBm)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
GPRS (824.2 ~ 848.8)	28.68	30.83	20	0.2408	0.55
WCDMA (826.4 ~ 846.6)	21.50	23.65	20	0.0461	0.55

Note: EIRP = ERP + 2.15

Frequency Band (MHz)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
GPRS (1850.2 ~ 1909.8)	25.71	20	0.0741	1.00
WCDMA (1852.4 ~ 1907.6)	20.83	20	0.0241	1.00

**NOTE:** 2.4GHz, 3.75G can transmit simultaneously.

#### Conclusion:

The formula of calculated the MPE is:

$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$

CPD = Calculation power density

LPD = Limit of power density

WLAN (2.4GHz) + GPRS (824.2 ~ 848.8)

$= 0.0274/1 + 0.2408/0.55 = 0.4652$

Therefore the maximum calculation of this situation is 0.4652, which is less than the "1" limit.

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