

## RF Exposure Report

**Report No.:** SA111011C17U

**FCC ID:** H8N-WLU5153

**Test Model:** WLU5153-D81

**Received Date:** Jul. 24, 2013

**Test Date:** Jul. 26, 2013 ~ Feb. 16, 2016

**Issued Date:** Feb. 26, 2016

**Applicant:** ASKEY COMPUTER CORP.

**Address:** 10F, NO.119, JIANKANG RD., ZHONGHE DIST., NEW TAIPEI CITY  
23585, TAIWAN, R.O.C.

**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.)



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## Table of Contents

|                                                              |          |
|--------------------------------------------------------------|----------|
| <b>Release Control Record</b> .....                          | <b>3</b> |
| <b>1 Certificate of Conformity</b> .....                     | <b>4</b> |
| <b>2 RF Exposure</b> .....                                   | <b>5</b> |
| 2.1 Limits for Maximum Permissible Exposure (MPE).....       | 5        |
| 2.2 MPE Calculation Formula .....                            | 5        |
| 2.3 Classification .....                                     | 5        |
| <b>3 Calculation Result of Maximum Conducted Power</b> ..... | <b>5</b> |



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### Release Control Record

| Issue No.    | Description      | Date Issued   |
|--------------|------------------|---------------|
| SA111011C17U | Original release | Feb. 26, 2016 |

## 1 Certificate of Conformity

**Product:** Wireless Module

**Brand:** Panasonic

**Test Model:** WLU5153-D81

**Sample Status:** Engineering sample

**Applicant:** ASKEY COMPUTER CORP.

**Test Date:** Jul. 26, 2013 ~ Feb. 16, 2016

**Standards:** FCC Part 2 (Section 2.1091)  
KDB 447498 D01 (October 23, 2015)  
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 :**

  
Ivy Lin / Specialist

**Date:**

Feb. 26, 2016

**Approved by :**

  
Ken Liu / Senior Manager

**Date:**

Feb. 26, 2016

## 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

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

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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) | Max Power (dBm) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|----------------------|-----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 2412-2462            | 26.07           | 4.44               | 20            | 0.224                               | 1                           |
| 5180-5240            | 23.23           | 6.15               | 20            | 0.172                               | 1                           |
| 5260-5320            | 18.82           | 6.25               | 20            | 0.064                               | 1                           |
| 5500-5700            | 19.13           | 6.30               | 20            | 0.069                               | 1                           |
| 5745-5825            | 21.12           | 5.53               | 20            | 0.092                               | 1                           |

\*2.4GHz and 5GHz cannot transmit simultaneously

Note:

2412-2462: Directional gain =  $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}] = 4.44 \text{ dBi}$

5180-5240: Directional gain =  $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}] = 6.15 \text{ dBi}$

5260-5320: Directional gain =  $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}] = 6.25 \text{ dBi}$

5500-5700: Directional gain =  $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}] = 6.30 \text{ dBi}$

5745-5825: Directional gain =  $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}] = 5.53 \text{ dBi}$

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