

## RF Exposure Report

**Report No.:** SA111011C17T

**FCC ID:** H8N-WLU5150

**Test Model:** WLU5150-D81

**Received Date:** Oct. 11, 2011

**Test Date:** Nov. 08, 2011 ~ Feb. 16, 2016

**Issued Date:** Feb. 24, 2016

**Applicant:** ASKEY COMPUTER CORP.

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23585, TAIWAN, R.O.C.

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

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33383, TAIWAN (R.O.C.)

**Test Location (2):** No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin  
Chu Hsien 307, Taiwan

**Test Location (3):** No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin  
Chu Hsien 307, Taiwan



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### Release Control Record

Issue No.	Description	Date Issued
SA111011C17T	Original release	Feb. 24, 2016

## 1 Certificate of Conformity

**Product:** Wireless LAN Adaptor

**Brand:** Panasonic

**Test Model:** WLU5150-D81

**Sample Status:** Engineering sample

**Applicant:** ASKEY COMPUTER CORP.

**Test Date:** Nov. 08, 2011 ~ 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 :**  , **Date:** Feb. 24, 2016  
Ivy Lin / Specialist

**Approved by :**  , **Date:** Feb. 24, 2016  
Ken Liu / Senior 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

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

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	25.80	3.30	20	0.162	1
5180-5240	23.19	4.76	20	0.124	1
5260-5320	18.40	5.73	20	0.051	1
5500-5700	18.90	6.62	20	0.071	1
5745-5825	22.72	6.69	20	0.174	1

\*2.4GHz and 5GHz cannot transmit simultaneously

Note:

$$2.4\text{GHz: Directional gain} = 10 \log[(10^{G^1/20} + 10^{G^2/20} + \dots + 10^{G^N/20})^2 / 2] = 3.30\text{dBi}$$

$$5180-5240: \text{Directional gain} = 10 \log[(10^{G^1/20} + 10^{G^2/20} + \dots + 10^{G^N/20})^2 / 2] = 4.76\text{dBi}$$

$$5260-5320: \text{Directional gain} = 10 \log[(10^{G^1/20} + 10^{G^2/20} + \dots + 10^{G^N/20})^2 / 2] = 5.73\text{dBi}$$

$$5500-5700: \text{Directional gain} = 10 \log[(10^{G^1/20} + 10^{G^2/20} + \dots + 10^{G^N/20})^2 / 2] = 6.62\text{dBi}$$

$$5745-5825: \text{Directional gain} = 10 \log[(10^{G^1/20} + 10^{G^2/20} + \dots + 10^{G^N/20})^2 / 2] = 6.69\text{dBi}$$

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