

## RF Exposure Report

**Report No.:** SA151021E09

**FCC ID:** H8NTCG220

**Test Model:** TCG220-TdP

**Series Model:** TCG220XXXX (X can be 0-9, A-Z, a-z, “-”, “.” or blank for marketing)

**Received Date:** Oct. 21, 2015

**Test Date:** Nov. 03, 2015

**Issued Date:** Nov. 12, 2015

**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  
Hsin Chu Laboratory

**Lab Address:** No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.

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

**Test Location (2):** No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.

**Test Location (3):** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.

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### Release Control Record

Issue No.	Description	Date Issued
SA151021E09	Original release.	Nov. 12, 2015



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## 1 Certificate of Conformity

**Product:** Cable Modem

**Brand:** ASKEY

**Test Model:** TCG220-TdP

**Series Model:** TCG220XXXX (X can be 0-9, A-Z, a-z, "-", ".", or blank for marketing)

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** ASKEY COMPUTER CORP.

**Test Date:** Nov. 03, 2015

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

KDB 447498 D03

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:** Nov. 12, 2015  
Lori Chung / Specialist

**Approved by :** , **Date:** Nov. 12, 2015  
May Chen / 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

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

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**.

### 2.4 Antenna Gain

The antennas provided to the EUT, please refer to the following table:

Antenna No	PCB Chain No.	Brand	Model	Antenna Type	Antenna Connector	Gain (dBi)	Cable Length (mm)	Frequency (GHz to GHz)
1	Chain 0	MASTER WAVE	98P4QMIPF000	PCB	i-pex(MHF)	3.68	60	2.4~2.4835
2	Chain 1	MASTER WAVE	98P4RMIPF000	PCB	i-pex(MHF)	3.36	54	2.4~2.4835

## 2.5 Calculation Result of Maximum Conducted Power

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2412-2462	714.681	6.53	20	0.63950	1

NOTE:

Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 6.53\text{dBi}$

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