



RF EXPOSURE REPORT

REPORT NO.: SA130308C12

MODEL NO.: WLU5054-D84

FCC ID: H8N-WLU5054

RECEIVED: Mar. 08, 2013

TESTED: Mar. 13 ~ Mar. 15, 2013

ISSUED: Mar. 22, 2013

APPLICANT: Askey Computer Corp

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ISSUED BY: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

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TEST LOCATION: No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA130308C12	Original release	Mar. 22, 2013



1. CERTIFICATION

PRODUCT: Wireless LAN module

MODEL NO.: WLU5054-D84

BRAND: Askey

APPLICANT: Askey Computer Corp

TESTED: Mar. 13 ~ Mar. 15, 2013

TEST SAMPLE: ENGINEERING SAMPLE

STANDARDS: FCC Part 2 (Section 2.1091)

FCC OET Bulletin 65, Supplement C (01-01)

IEEE C95.1

The above equipment (model: WLU5054-D84) 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, DATE : Mar. 22, 2013

Ivy Lin / Specialist

APPROVED BY: Ken Liu, DATE : Mar. 22, 2013

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 ²)	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/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 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**.



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2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

Frequency band (MHz)	Conducted power (dBm)	Antenna Gain (dBi)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
2412~2462	28.33	5.33	0.462	1
5180~5240	16.99	6.28	0.042	1
5260~5320	18.31	6.60	0.062	1
5500~5700	18.11	6.69	0.060	1
5745~5825	25.89	6.39	0.336	1

Note:

For 2.4GHz:

$$\text{Directional gain} = 10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 5.33 \text{dBi}$$

For 5180~5240MHz:

$$\text{Directional gain} = 10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 6.28 \text{dBi}$$

For 5260~5320MHz:

$$\text{Directional gain} = 10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 6.60 \text{dBi}$$

For 5500~5700MHz:

$$\text{Directional gain} = 10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 6.69 \text{dBi}$$

For 5745~5825MHz:

$$\text{Directional gain} = 10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 6.39 \text{dBi}$$