

## RF Exposure Report

**Report No.:** SA170217C15

**FCC ID:** H8NSS2FHI

**Test Model:** SS2FHI Femtocell Multi-band SOHO

**Received Date:** Feb. 17, 2017

**Test Date:** Feb. 22 ~ Apr. 17, 2017

**Issued Date:** May 18, 2017

**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 Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)



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### Release Control Record

Issue No.	Description	Date Issued
SA170217C15	Original release	May 18, 2017

## 1 Certificate of Conformity

**Product:** Femtocell

**Brand:** Nokia

**Test Model:** SS2FHI Femtocell Multi-band SOHO

**Sample Status:** Engineering sample


**Applicant:** ASKEY COMPUTER CORP.

**Test Date:** Feb. 22 ~ Apr. 17, 2017

**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.

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**Approved by :**  , **Date:** May 18, 2017  
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				
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30-300	27.5	0.073	0.2	30
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**.

### 3 Calculation Result of Maximum Conducted Power

Mode	EIRP (dBm)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
<b>Single Mode</b>				
WCDMA Band 2	23.2	20	0.042	1
LTE Band 2	29.1	20	0.162	1
LTE Band 7	28.8	20	0.151	1
<b>CA Mode</b>				
Mode 1: LTE Band 2 (Channel Bandwidth: 5MHz) + LTE Band 7 (Channel Bandwidth: 5MHz)				
LTE Band 2	25.3	20	0.067	1
LTE Band 7	29.5	20	0.177	1
Mode 2: LTE Band 2 (Channel Bandwidth: 10MHz) + LTE Band 7 (Channel Bandwidth: 10MHz)				
LTE Band 2	27.7	20	0.117	1
LTE Band 7	28.1	20	0.128	1
Mode 3: LTE Band 2 (Channel Bandwidth: 20MHz) + LTE Band 7 (Channel Bandwidth: 20MHz)				
LTE Band 2	27.5	20	0.112	1
LTE Band 7	28.0	20	0.126	1

#### 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

Single Mode: WCDMA Band 2+ LTE Band 7 =  $0.042+0.151=0.192$

CA Mode:

Mode 1: LTE Band 2 (Channel Bandwidth: 5MHz) + LTE Band 7 (Channel Bandwidth: 5MHz)

=  $0.067+0.177=0.244$

Mode 2: LTE Band 2 (Channel Bandwidth: 10MHz) + LTE Band 7 (Channel Bandwidth: 10MHz)

=  $0.117+0.128=0.245$

Mode 3: LTE Band 2 (Channel Bandwidth: 20MHz) + LTE Band 7 (Channel Bandwidth: 20MHz)

=  $0.112+0.126=0.238$

Therefore, the maximum calculation of this situation is 0.245, which is less than the "1" limit.

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