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.
Address:	10F, No. 119, Jiankang Rd., Zhonghe Dist., New Taipei City 23585, Taiwan
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.)

Table of Contents

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.

Prepared by : _____ , **Date:** May 18, 2017

Pettie Chen / Senior Specialist

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^2)	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
1.34-30	824/f	2.19/f	$*(180/f^2)$	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

$Pd = (Pout*G) / (4*pi*r^2)$

where

Pd = power density in mW/cm^2

Pout = 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^2)	Limit (mW/cm^2)
Single Mode				
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
CA Mode				
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

CONCULSION:

The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + ……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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