

## RF Exposure Report

**Report No.:** SA140224C17H

**FCC ID:** 2AGZF-WE2520

**Test Model:** SWE2520

**Received Date:** Feb. 24, 2014

**Test Date:** Mar. 13 ~ Mar. 20, 2014 (For 2.4GHz Band)

Jul. 14 ~ Jul. 22, 2015 (For 5GHz Band)

**Issued Date:** Dec. 22, 2015

**Applicant:** Siselectron Technology Ltd.

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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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## Table of Contents

<b>Release Control Record.....</b>	<b>3</b>
<b>1      Certificate of Conformity.....</b>	<b>4</b>
<b>2      RF Exposure.....</b>	<b>5</b>
2.1    Limits For Maximum Permissible Exposure (MPE).....	5
2.2    MPE Calculation Formula .....	5
2.3    Classification .....	5
<b>3      Calculation Result Of Maximum Conducted Power.....</b>	<b>6</b>



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### Release Control Record

Issue No.	Description	Date Issued
SA140224C17H	Original release.	Dec. 22, 2015

## 1 Certificate of Conformity

**Product:** Dual Band AC1750 Access Point

**Brand:** Siselectron

**Test Model:** SWE2520

**Sample Status:** Engineering sample

**Applicant:** Siselectron Technology Ltd.

**Test Date:** Mar. 13 ~ Mar. 20, 2014 (For 2.4GHz Band)

Jul. 14 ~ Jul. 22, 2015 (For 5GHz Band)

**Standard:** 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 :** Ivy Lin, **Date:** Dec. 22, 2015

Ivy Lin / Specialist

**Approved by :** Ken Liu, **Date:** Dec. 22, 2015

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

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

where

Pd = power density in mW/cm<sup>2</sup>

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 30cm 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	28.69	8.77	30	0.493	1
5180-5240	27.68	9.77	30	0.492	1
5745-5825	26.22	9.77	30	0.351	1

NOTE:

2.4GHz Band: Directional gain = 4dBi + 10log(3) = 8.77dBi

5.0GHz Band: Directional gain = 5dBi + 10log(3) = 9.77dBi

#### Conclusion:

The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + .....etc. < 1

CPD = Calculation power density

LPD = Limit of power density

WLAN 2.4GHz + WLAN 5GHz = 0.493 + 0.492 = 0.985

Therefore the maximum calculations of above situations are less than the "1" limit.

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