

## RF Exposure Report

**Report No.:** SA180607D01

**FCC ID:** P27P208

**Test Model:** P208-TP

**Received Date:** Jun. 7, 2018

**Test Date:** Jul. 4 ~ 25, 2018

**Issued Date:** Jul. 30, 2018

**Applicant:** Sercomm Corp.

**Address:** 8F, No. 3-1, YuanQu St., NanKang, Taipei 115, Taiwan, R.O.C. (NanKang Software Park)

**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.)

**FCC Registration /  
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### Release Control Record

Issue No.	Description	Date Issued
SA180607D01	Original release.	Jul. 30, 2018

## 1 Certificate of Conformity

**Product:** CBRS Outdoor Small Cell

**Brand:** Sercomm

**Test Model:** P208-TP

**Sample Status:** Engineering sample

**Applicant:** Sercomm Corp.

**Test Date:** Jul. 4 ~ 25, 2018

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

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

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 RF characteristics under the conditions specified in this report.

**Prepared by :** Celia Chen , **Date:** Jul. 30, 2018  
Celia Chen / Supervisor

**Approved by :** Rex Lai , **Date:** Jul. 30, 2018  
Rex Lai / Associate Technical 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				
0.3-1.34	614	1.63	(100)*	30
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 ; \*Plane-wave equivalent power density

### 2.2 MPE Calculation Formula

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

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 22cm away from the body of the user.

So, this device is classified as **Mobile Device**.

## 2.4 Calculation Result Of Maximum Conducted Power

Function	Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
BT LE	2402 ~ 2480	-1.11	2.9	22	0.0002	1

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
CBRS band: 3552.5 ~ 3697.5	27.07	10.63	22	0.9682	1

Note: Directional gain = 7.62dBi + 10log(2) = 10.63dBi

### Conclusion:

The formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

BT LE (2402 ~ 2480 MHz) + CBRS band (3552.5 ~ 3697.5 MHz) = 0.0002 + 0.9682 = 0.9684

**Therefore the maximum calculations of above situations are less than the “1” limit.**

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