

## 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.

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

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**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.

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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

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

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 20cm 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	20	0.0003	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	25.12	10.63	20	0.7477	1

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

### 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

BT LE (2402 ~ 2480 MHz) + CBRS band (3552.5 ~ 3697.5 MHz) = 0.0003 + 0.7477 = 0.7480

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

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