

## RF Exposure Report

**Report No.:** SA190225D05

**FCC ID:** P27RC8335PRO

**Test Model:** RC8335PRO

**Received Date:** Feb. 25, 2019

**Test Date:** Mar. 6 to 18, 2019

**Issued Date:** Mar. 22, 2019

**Applicant:** Sercomm Corp.

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**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 /  
Designation Number:** 198487 / TW2021



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### Release Control Record

Issue No.	Description	Date Issued
SA190225D05	Original release.	Mar. 22, 2019

## 1 Certificate of Conformity

**Product:** SmartThings Smart Camera, SmartThings Cam

**Brand:** SmartThings, Sercomm

**Test Model:** RC8335PRO

**Sample Status:** Engineering sample

**Applicant:** Sercomm Corp.

**Test Date:** Mar. 6 to 18, 2019

**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 :**

*Annie Chang*

**Date:** Mar. 22, 2019

Annie Chang / Senior Specialist

**Approved by :**

*Rex Lai*

**Date:** Mar. 22, 2019

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

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

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**.

## 2.4 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	28.65	5.63	20	0.5330	1
5180-5240	21.13	5.82	20	0.0986	1
5745-5825	21.17	7.09	20	0.1333	1

**NOTE:**

2.4GHz: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 5.63\text{dBi}$

5.0GHz (5180-5240MHz): Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 5.82\text{dBi}$

5.0GHz (5745-5825MHz): Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.09\text{dBi}$

2.4GHz & 5GHz technologies cannot transmit at same time.

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