

## RF Exposure Report

**Report No.:** SA190528D02

**FCC ID:** P27TP20213425

**Test Model:** INTTP20213425

**Received Date:** May 28, 2019

**Test Date:** Jul. 5 to 18, 2019

**Issued Date:** Jul. 19, 2019

**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
SA190528D02	Original release.	Jul. 19, 2019

## 1 Certificate of Conformity

**Product:** Verizon LTE

**Brand:** Verizon

**Test Model:** INTTP20213425

**Sample Status:** Engineering sample

**Applicant:** Sercomm Corp.

**Test Date:** Jul. 5 to 18, 2019

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

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.3 -2002

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 :**



, **Date:** Jul. 19, 2019

Celia Chen / Supervisor

**Approved by :**



, **Date:** Jul. 19, 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 Antenna Gain

Function	Frequency Band (MHz)	Antenna Type	Antenna Connector	Antenna Gain (dBi)
LTE Band 2	1935 ~ 1985	Dipole	RP-SMA	2.5
LTE Band 4	2115 ~ 2150			2.5
LTE Band 5	874 ~ 889			3.2
LTE Band 13	746 ~ 756			1.0

## 2.5 Calculation Result of Maximum Conducted Power

Frequency Band (MHz)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
LTE Band 2: 1935MHz ~ 1985MHz	26.69	20	0.0928389	1
LTE Band 4: 2115MHz ~ 2150MHz	25.12	20	0.0646741	1

Frequency Band (MHz)	ERP (dBm)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
LTE Band 5: 874MHz ~ 889MHz	25.28	27.43	20	0.1100855	0.58
LTE Band 13: 746MHz ~ 756MHz	25.15	27.3	20	0.1068391	0.50

Note: EIRP = ERP + 2.15

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

### 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

LTE Band 2 + LTE Band 4 + LTE Band 5 + LTE Band 13

$= 0.0928389/1 + 0.0646741/1 + 0.1100855/0.58 + 0.1068391/0.50 = 0.5609938$

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

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