

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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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

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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 ²)	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 ²)*	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/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 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 ²)	Limit (mW/cm ²)
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 ²)	Limit (mW/cm ²)
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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