

RF Exposure Report

Report No.: SA171129D05

FCC ID: P27TP202134134

Test Model: INTTP202134134

Received Date: Nov. 29, 2017

Test Date: Dec. 25 ~ 27, 2017

Issued Date: Jan. 11, 2018

Applicant: Sercomm Corp.

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Release Control Record

Issue No.	Description	Date Issued
SA171129D05	Original release.	Jan. 11, 2018

1 Certificate of Conformity

Product: Verizon LTE

Brand: Verizon

Test Model: INTTP202134134

Sample Status: Engineering sample

Applicant: Sercomm Corp.

Test Date: Dec. 25 ~ 27, 2017

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D03

IEEE C95.1

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 EMC characteristics under the conditions specified in this report.

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Date: Jan. 11, 2018

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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				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

2.2 MPE Calculation Formula

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

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**.

3 Calculation Result Of Maximum Conducted Power

Mode A:

Frequency Band (MHz)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
LTE Band 4: 2115.0MHz ~ 2150.0MHz	24.06	20	0.0507	1

Frequency Band (MHz)	ERP (dBm)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
LTE Band 13: 751MHz	21.36	23.51	20	0.0446	0.50

Note: EIRP = ERP + 2.15

Mode B:

Frequency Band (MHz)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
LTE Band 4: 2115.0MHz ~ 2150.0MHz	23.97	20	0.0496	1

Frequency Band (MHz)	ERP (dBm)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
LTE Band 13: 751MHz	20.98	23.13	20	0.0409	0.50

Note: EIRP = ERP + 2.15

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

$$\text{LTE Band 4 (Mode A) + LTE Band 13 (Mode A) + LTE Band 4 (Mode B) + LTE Band 13 (Mode B)}$$

$$= 0.0507/1 + 0.0446/0.50 + 0.0496/1 + 0.0409/0.50 = 0.2713$$

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

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