RF Exposure Report

Report No.:	SA181129D01
FCC ID:	P27-SRE4105T
Test Model:	SRE4105T-B41
Series Model:	SRE4105Txxxxxxx (1st x should be "blank" or "-", the rest x should be 0 to 9, A to Z, a to z, "blank" or "-", for marketing purpose.)
Received Date:	Sep. 19, 2018
Test Date:	Dec. 27, 2018 ~ Jan. 22, 2019
Issued Date:	Jan. 23, 2019
Applicant:	Sercomm Corp.
Address:	8F, No. 3-1, YuanQu St., NanKang, Taipei 115, Taiwan, R.O.C. (NanKang Software Park)
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

Testing Laboratory
2021

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Release Control Record

Issue No.	Description	Date Issued
SA181129D01	Original release.	Jan. 23, 2019

1 Certificate of Conformity

Product:	SOHO Magic Box
Brand:	Sprint
Test Model:	SRE4105T-B41
Series Model:	SRE4105Txxxxxxx (1st x should be "blank" or "-", the rest x should be 0 to 9, A to Z, a to z, "blank" or "-", for marketing purpose.)
Sample Status:	Engineering sample
Applicant:	Sercomm Corp.
Test Date:	Dec. 27, 2018 ~ Jan. 22, 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:** Jan. 23, 2019

Annie Chang / Senior Specialist

Approved by : Rex. Lai , **Date:** Jan. 23, 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				
300-1500	…	…	F/1500	30
1500-100,000	…	…	1.0	30

F = Frequency in MHz

2.2 MPE Calculation Formula

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

where

Pd = power density in mW/cm^2

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 25cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4 Calculation Result Of Maximum Conducted Power

Function	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
Bluetooth LE	1.37	2.87	25	0.0003	1
The Max Power = Max tune up power					

Frequency Band (MHz)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
LTE Band 25: 1852.5~1912.5MHz, 1855~1910MHz	29.72	25	0.1194	1

Frequency Band (MHz)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
LTE Band 41_CPE: 2502.5~2567.5MHz, 2622.5~2687.5MHz 2505.0~2565.0MHz, 2625.0~2685.0MHz 2507.5~2562.5MHz, 2627.5~2682.5MHz 2510.0~2560.0MHz, 2630.0~2680.0MHz	35.63	25	0.4655	1

Frequency Band (MHz)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
LTE Band 41_BTS: 2510~2560MHz, 2630~2680MHz	32.55	25	0.2290	1

NOTE: BTS Band 41 low band and CPE Band 41 low band cannot transmit at same time.
BTS Band 41 high band and CPE Band 41 high band cannot transmit at same time.
CPE Band 25 and CPE Band 41 cannot transmit at same time.

Conclusion:

The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + ……etc. < 1

CPD = Calculation power density

LPD = Limit of power density

BTS Band 41 (Low) + CPE Band 25 +Bluetooth LE = 0.2290+0.1194+0.0003= 0.3487
BTS Band 41 (Low) + CPE Band 41 (High) +Bluetooth LE = 0.2290+0.4655+0.0003= 0.6948

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

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