

RF Exposure Report

Report No.: SA170824C11D

FCC ID: RID-LM513

Test Model: LM-513H

Received Date: Oct. 27, 2017

Test Date: Nov. 01 ~ Dec. 20, 2017

Issued Date: Feb. 23, 2018

Applicant: Globalsat Worldcom Corporation

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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.)

Test Location: No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

FCC Registration / Designation Number: 788550 / TW0003



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Release Control Record

Issue No.	Description	Date Issued
SA170824C11D	Original release	Feb. 23, 2018

1 Certificate of Conformity

Product: LoRa Module

Brand: GlobalSat

Test Model: LM-513H

Sample Status: Engineering sample

Applicant: GlobalSat WorldCom Corporation

Test Date: Nov. 01 ~ Dec. 20, 2017

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

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 RF characteristics under the conditions specified in this report.

Prepared by :

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Date:

Feb. 23, 2018

Approved by :

Bruce Chen

Bruce Chen / Project Engineer

Date:

Feb. 23, 2018

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

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

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.

3 Calculation Result of Maximum Conducted Power

Mode	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
Hybrid Mode (125kHz Bandwidth)	19.25	2.95	20	0.033	0.601
Hybrid Mode (500kHz Bandwidth)	19.32	2.95	20	0.034	0.601

Note: 125kHz & 500kHz bandwidth can't transmit simultaneously.

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