RF Exposure Report

Report No.:	FCC_RF_SL19101801-XIR-016_MPE
FCC ID:	GKM-XT1040S1
Test Model:	XT1040S1
Series Model:	N/A
Received Date:	10/23/2019
Test Date:	-
Issued Date:	11/05/2019
Applicant:	Xirgo Technologies, LLC
Address:	188 Camino Ruiz, Camarillo CA 93012
Manufacturer:	Xirgo Technologies, LLC
Address:	188 Camino Ruiz, Camarillo CA 93012
Issued By:	Bureau Veritas Consumer Products Services, Inc.
Lab Address:	775 Montague Expressway, Milpitas, CA 95035
Test Location (1):	775 Montague Expressway, Milpitas, CA 95035
FCC Registration / Designation Number:	540430

ACCREDITED
TESTING CERT # 2742-01

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Release Control Record

Issue No.	Description	Date Issued
FCC_RF_SL19101801-XIR-016_MPE	Orignal Release	11/05/2019

1 Certificate of Conformity

Product:	Bluetooth wireless door sensor
Brand:	Xirgo Technologies
Test Model:	XT1040S1
Series Model:	N/A
Sample Status:	Engineering sample
Applicant:	Xirgo Technologies, LLC
Standards:	FCC Part 2 (Section 2.1093) KDB 447498 D01 General RF Exposure Guidance v06 IEEE C95.1-1992

The above equipment has been tested by **Bureau Veritas Consumer Products Services, Inc., Milpitas 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.

Prepared by : _____ , **Date:** 11/05/2019

Deon Dai / Test Engineer

Approved by : _____ , **Date:** 11/05/2019

Chen Ge / Engineer Reviewer

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

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

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 maximum output power and antenna gain is declared by the manufacturer and used in this assessment. The minimum RF exposure distance during normal operation is 20 cm (Mobile Condition).

2.4 Antenna Gain

The antenna type is Chip antenna with 1.5 dBi gain.

2.5 Calculation Result of Maximum Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Max Power (mW)	Turn-Up Tolerance	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
2402-2480	3.93	2.47	±1dB	1.5	20	0.000875	1

Note:

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

3 Conclusion

BT_LE

Power Density (mW/cm^2) = 0.000875 < 1.0 mW/cm^2

Therefore the maximum calculations of above situation is less than the "1" mW/cm^2 limit.

Pass

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