

Company: Iotera

Test of: Iota Tag  
To: FCC CFR 47 Part 15 Subpart C 15.247

Report No.: IOTA01-U7c Rev A

**MPE TEST REPORT**



# MPE TEST REPORT

FROM



Test of: Iotera – Iota Tag  
to

To: FCC CFR 47 Part 15 Subpart C 15.247

Test Report Serial No.: IOTA01-U7c Rev A

This report supersedes: NONE

Applicant: Iotera  
370 Convention Way # 220  
Redwood City, California 94063  
USA

Product Function: GPS Tracker

Issue Date: 8<sup>th</sup> April 2015

## This Test Report is Issued Under the Authority of:

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## 1. MAXIMUM PERMISSABLE EXPOSURE

### Calculations for Maximum Permissible Exposure Levels

Power Density =  $P_d$  (mW/cm<sup>2</sup>) = EIRP/(4\*π\*d<sup>2</sup>)

EIRP = P \* G

P = Peak output power (mW)

G = Antenna numeric gain (numeric)

d = Separation distance (cm)

Numeric Gain = 10 ^ (G (dBi)/10)

Because the EUT belongs to the General Population/Uncontrolled Exposure the limit of power density is 1.0 mW/cm<sup>2</sup>

The calculations in the table below use the highest conducted power values together with the lowest antenna gain specified for the EUT. These calculations represent worst case in terms of the exposure levels.

Freq. Band (MHz)	Ant Gain (dBi)	Numeric Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Calculated Safe Distance @ 1mW/cm <sup>2</sup>	Calculated Power Density @ 20cm	Minimum Separation Distance (cm)
902.0 – 928.0	3.00	2.00	28.92	820.35	11.41	0.33	20.00
2400.0 - 2483.5	3.00	2.00	3.93	2.47	0.39	0.001	20.00

**Note:** for mobile or fixed location transmitters the minimum separation distance is 20cm, even if calculations indicate the MPE distance to be less.

902 – 928 MHz Chirp Spread Spectrum

2400 – 2483.5 Bluetooth Frequency Hopper

### Specification

#### Maximum Permissible Exposure Limits

**FCC §1.1310** Limit = 1mW / cm<sup>2</sup> from 1.310 Table 1

**RSS-Gen §3.2** In addition to RSS-Gen, the requirements in Radio Standards Specification RSS-102 shall be met.



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