

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



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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: 8th 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/cm²) = $EIRP / (4 * \pi * d^2)$

$EIRP = P * G$

P = Peak output power (mW)

G = Antenna numeric gain (numeric)

d = Separation distance (cm)

Numeric Gain = $10^{(G \text{ (dBi)} / 10)}$

Because the EUT belongs to the General Population/Uncontrolled Exposure the limit of power density is 1.0 mW/cm²

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 ²	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 / cm² 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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