

Company: iControl Incorporated

Assessment of: iControl iTAG3.3

To: FCC CFR 47 Part 15 RF Exposure requirements
Industry Canada RSS-102

No.: ICON12 – iTAG3.3 MPE

MPE TEST REPORT





Assessment of: iControl Incorporated iControl iTAG3.3
to

To: FCC CFR 47 Part 15 RF Exposure requirements
Industry Canada RSS-102

Test Report Serial No.: ICON12 – iTAG3.3 MPE

This report supersedes: NONE

Applicant: iControl Incorporated
3235 Kifer Rd, Suite 260
Santa Clara, 95051
USA

Product Function: Asset Tracking

Issue Date: 10th August 2015

This Test Report is Issued Under the Authority of:

MiCOM Labs, Inc.
575 Boulder Court
Pleasanton California 94566
USA
Phone: +1 (925) 462-0304
Fax: +1 (925) 462-0306
www.micomlabs.com



MiCOM Labs is an ISO 17025 Accredited Testing Laboratory



Title: iControl Incorporated iControl iTAG3.3
To: FCC CFR 47 Part 15 RF Exposure requirements
Serial #: ICON12 - 2.4GHz Zigbee FCC IC
Issue Date: 10th August 2015
Page: 3 of 5

1. MAXIMUM PERMISSIBLE EXPOSURE

Calculations for Maximum Permissible Exposure Levels

$$\text{Power Density} = P_d \text{ (mW/cm}^2\text{)} = \text{EIRP}/(4*\pi*d^2)$$

$$\text{EIRP} = P * G$$

P = Peak output power (mW)

G = Antenna numeric gain (numeric)

d = Separation distance (cm)

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

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)
2400.0 - 2483.5	3.50	2.24	19.77	94.84	4.11	0.04	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.

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



Title: iControl Incorporated iControl iTAG3.3
To: FCC CFR 47 Part 15 RF Exposure requirements
Serial #: ICON12 - 2.4GHz Zigbee FCC IC
Issue Date: 10th August 2015
Page: 4 of 5

Specification
Maximum Permissible Exposure Limits

FCC §1.1310 Limit = $1\text{mW} / \text{cm}^2$ 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.

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.



575 Boulder Court
Pleasanton, California 94566, USA
Tel: +1 (925) 462 0304
Fax: +1 (925) 462 0306
www.micomlabs.com