

## FCC ISED RF Exposure Evaluation Report

<b>Test Report Number</b>	CMP-21042044-LC-FCC-IC-RF Exposure
<b>FCC ID</b> <b>ISED ID</b>	APV-TAG09 5843C-TAG09
<b>Applicant</b> <b>Applicant Address</b> <b>Product Name</b> <b>Model (s)</b> <b>Date of Receipt</b> <b>Date of Test</b> <b>Report Issue Date</b> <b>Test Standards</b> <b>Test Result</b>	CalAmp 2200 Faraday Ave, Suite 220 Carlsbad, CA 92008 iOn Tag STAG09XT 04/29/2021 04/29/2021- 05/14/2021 05/20/2021 47 CFR §1.1307(b), 47 CFR §1.1310 RSS-102 Issue 5: Feb 2021 <b>PASS</b>
	Issued by:  <b>Vista Compliance Laboratories</b> 1261 Puerta Del Sol, San Clemente, CA 92673 USA <a href="http://www.vista-compliance.com">www.vista-compliance.com</a>
 <hr/> <b>Daniel Bruno (Test Technician)</b>	 <hr/> <b>David Zhang (Technical Manager)</b>
<p>This report is for the exclusive use of the applicant. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. Note that the results contained in this report pertain only to the test samples identified herein, and the results relate only to the items tested and the results that were obtained in the period between the date of initial receipt of samples and the date of issue of the report. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested and the results thereof based upon the information provided to us. The applicant has 60 days from date of issuance of this report to notify us of any material error or omission. Failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by any government agencies. This report is not to be reproduced by any means except in full and in any case not without the written approval of Vista Laboratories.</p>	

**REVISION HISTORY**

<b>Report Number</b>	<b>Version</b>	<b>Description</b>	<b>Issued Date</b>
CMP-21042044-LC-FCC-IC-RF Exposure	01	Initial report	05/20/2021

**TABLE OF CONTENTS**

<b>1</b>	<b>GENERAL INFORMATION.....</b>	<b>4</b>
1.1	Applicant.....	4
1.2	Product information.....	4
1.3	Test standard and method.....	5
<b>2</b>	<b>TEST SITE INFORMATION.....</b>	<b>5</b>
<b>3</b>	<b>TEST RESULTS.....</b>	<b>6</b>
3.1	FCC SAR Test Exclusion.....	6
3.2	ISED RF Exposure Exemption.....	7

## 1 General Information

### 1.1 Applicant

<b>Applicant</b>	CalAmp
<b>Applicant address</b>	2200 Faraday Ave, Suite 220 Carlsbad, CA 92008
<b>Manufacturer</b>	CalAmp
<b>Manufacturer Address</b>	2200 Faraday Ave, Suite 220 Carlsbad, CA 92008

### 1.2 Product information

<b>Product Name</b>	iOn Tag
<b>Product Description</b>	iOn Tag
<b>Model Number</b>	STAG09XT
<b>Family Models</b>	N/A
<b>Serial Number</b>	72308628870323375
<b>Frequency Band</b>	2402-2480MHz
<b>Type of modulation</b>	GFSK
<b>Equipment Class</b>	DTS
<b>Antenna Information</b>	Internal PCB Antenna
<b>Clock Frequencies</b>	N/A
<b>Input Power</b>	3 x AAA Alkaline Cell Batteries operated, 3.3VDC
<b>Power Adapter Manufacturer/Model</b>	N/A
<b>Power Adapter SN</b>	N/A
<b>Hardware version</b>	N/A
<b>Software version</b>	N/A
<b>Simultaneous Transmission</b>	N/A
<b>Additional Info</b>	EMC Emission Class B

### 1.3 Test standard and method

<b>Test standard</b>	47 CFR §1.1307(b), 47 CFR §1.1310 RSS-102 Issue 5: Feb 2021
<b>Test method</b>	47 CFR §1.1307(b), 47 CFR §1.1310 RSS-102 Issue 5: Feb 2021

## 2 Test Site Information

<b>Lab performing tests</b>	Vista Laboratories, Inc.
<b>Lab Address</b>	1261 Puerta Del Sol, San Clemente, CA 92673 USA
<b>Phone Number</b>	+1 (949) 393-1123
<b>Website</b>	www.vista-compliance.com

Test Condition	Temperature	Humidity	Atmospheric Pressure
RF Testing	23.2°C	57.5%	996 mbar
Radiated Emission Testing	23.2°C	57.5%	996 mbar

### 3 Test Results

#### 3.1 FCC SAR Test Exclusion

RF Exposure Requirements:	47 CFR §1.1307(b)
RF Radiation Exposure Limits:	47 CFR §1.1310
RF Radiation Exposure Guidelines:	FCC OST/OET Bulletin Number 65
EUT Frequency Band:	2402-2480MHz

**Equation:**

According to the procedure in KDB447498 (v05r02) section 4.3,

1g-SAR testing is excluded if the following criteria is met.

$$(P/d)^* \sqrt{f} \leq 3.0 \text{ for 1-g SAR}$$

10g-SAR testing is excluded if the following criteria is met.

$$(P/d)^* \sqrt{f} \leq 7.5 \text{ for 10-g SAR}$$

Where

P is the time averaged maximum conducted power in mW

d minimum separation distance in mm

f is the frequency in GHz

The distance between the antenna and human body is 5 mm. The calculation was based on the distance of 5 mm.

Radio	Frequency (MHz)	Max Conducted Power (dBm)	Max Conducted Output Power (mW)	Measurement distance (mm)	Test Exclusion Threshold Result
BLE	2402-2480	2.08	1.614	5	0.500

The above results show that the device is excluded for both standalone 1g-SAR and 10g-SAR testing.

### 3.2 ISED RF Exposure Exemption

RF Exposure Requirements: RSS-102 Issue 5: Feb 2021  
 RF Radiation Exposure Limits: RSS-102 Issue 5: Feb 2021  
 RF Radiation Exposure Guidelines: RSS-102 Issue 5: Feb 2021  
 EUT Frequency Band:

BLE: 2402-2480MHz

Limits for General Population/Uncontrolled Exposure in the band of: 300 - 6,000 MHz

Exemption limit for Routine Evaluation:  $1.31 \times 10^{-2} f_{0.6834} \text{ W}$

Radio	Frequency (MHz)	Max E.I.R.P (dBm)	Max E.I.R.P (W)	Evaluation Exemption limit (W)
BLE	2402-2480	4.04	0.0025	2.736

The above results show that the E.I.R.P of this device is below the exemption limit for Routine Evaluation.