

iTAG100 Intrinsically Safe Active WiFi & RFID Tag

Locate people, assets and mobile equipment in Wi-Fi environments

ATEX

II 1 G EEx ia IIB/IIC T4/T5/T6

I M1 EEx ia

FM

Intrinsically Safe

Class I, II, III Division 1, Groups A, B, C, D, E, F, G

US Mine Safety and Health Administration

Approval No.23-A08006-0

-30°C to +75°C (-22°F to +167°F)

IP67



Overview

The iTAG100 is an intrinsically safe version of the AeroScout T2 Tag and is the most advanced Wi-Fi based Active RFID tag on the market, from the company that originated the Wi-Fi tag industry. The iTAG100 is a small, long-life Wi-Fi based Active RFID device that can be placed on any asset, allowing the Extronics system to locate assets that are not Wi-Fi enabled.

Locates any high-value asset.

These small, rugged, battery-powered tags can be attached to people and to a variety of equipment, such as medical devices, containers, manufacturing equipment and retail shopping carts. In addition, the Extronics system can locate standard Wi-Fi clients such as laptops, PDAs and barcode scanners, without the need to tag these assets or introduce client software

Accurate Real-Time Location as well as sophisticated RFID Choke Point Detection.

The Extronics system uses multiple methods to determine accurate location. With the Extronics Exciter, the same system also enables tags to be detected and reprogrammed as they pass through doorways, gates or other choke points.

Sophisticated Software Platform.

The system utilises the advanced MobileView software platform, which enables developers to leverage positioning data from iTAG100 Tags and other devices for enhanced business management tasks.

Indoor, outdoor and mixed operation.

The Extronics system is suitable for use in indoor, outdoor and mixed environments, from corporate offices to harsh industrial areas.

Multiple reader options.

Extronics tag messages can be received and processed by Extronics Location Receivers as well as standard Cisco Systems and Meru wireless access points, keeping infrastructure costs low.

Features and Benefits

Flexible Mounting and Usage Options

The iTAG100 enables the wire-less network infrastructure to locate any asset or person. The Tag's small size and weight and convenient form allow mounting even on very small or oddly-shaped assets. The Tag is supplied with a multifunctional attachment plate that supports a variety of mounting options, including wrist straps, safety pins to attach to clothing or belt/pocket clips. Other industry-specific mounting accessories are available.

Long Battery Life

A powerful, replaceable battery provides up to 4 years of battery life. The Tag provides a report on the battery level for timely replacement. The iTAG100 can also be automatically activated or deactivated for conserving battery power.

Call Button Option

The call button feature adds the ability to define events according to a button pushed on the tag. This enables advanced functionality such as emergency reporting or parts

Tag Management

The iTAG100 can be pro-grammed via a wireless interface. The Tag Manager software allows for easy and efficient tag

configuration, activation or deactivation and programming. The Tag Activator enables wireless batch programming of up to 50 tags at the same time.

Compatibility and Non-Interference

iTAG100's are 802.11 compatible. The Tag's channel sensing techniques avoid interference with Wi-Fi networks. The use of the 2.4GHz frequency band at low power levels ensures no interference with other wireless equipment, making Extronics Tags safe for use with such sensitive equipment as medical devices in a hospital.

Tag Programmability and Storage

The iTAG100 can store up to 10 messages of 10 bytes each. These messages can either be pre-programmed by the Tag Manager software or programmed on the fly by an Extronics Exciter when a tag is in proximity.

Telemetry Functionality

Extronics Tags include a serial interface that enables data retrieval from host devices. The tags can be configured to retrieve data such as mileage, fuel and temperature from the host periodically, and to send that data wirelessly in addition to the location messages.

Features and Benefits

Rugged Performance

Extronics Tags are designed to handle tough work environments such as manufacturing and outdoor applications. The Tag enclosure is water-resistant and designed to withstand significant physical shocks and drops.

Advanced Features and Functionality

Using the Extronics Exciter, tag behaviour can be automatically modified as the tag passes through a choke point such as a doorway or gate. This includes turning tags on/off to conserve battery life, or changing tag transmission rates. In addition, a tamperproof housing upgrade prevents removal and ensures integrity of the device.

Variety of Mounting Options

The iTAG has multiple mounting options and can be provided with a suitable adapter depending on the asset geometry. As standard the tag is supplied for strap or clip mounting. A variety of types is shown below.



Motion Detector

The man down feature protects the safety of lone workers by sending an immediate alert when a person is not in motion for a certain amount of time.

Specification

Range	Outdoor Range : Up to 200 metres (600 Feet) Indoor Range : Up to 60 metres (180 feet)
Positioning Accuracy	Typically 5 metres but as low as 1 metre, dependant upon number of Access Points or Location Receivers and environment
Dimensions	62mm x 40mm x 17mm (2.44" x 1.57" x 0.67")
Weight	70g (2.4oz)
Housing	UV resistant Ex Antistatic Polycarbonate
Ingress Protection	IP67
Housing Options	Call button or tamper proof housing
Housing Mounting Options	Wrist strap, safety pin, clip, adhesive tape, Velcro, hanger and trailer mount. Includes multi-functional attachment plate
Radio	802.11b radio (2.4 GHz) & RFID low frequency receiver (125 KHz)
Transmission Power	Up to +19dBm, approx 81mW with clear channel sensing function that avoids interference with wireless networks
Programmability	Transmission level interval, from 64 msec to 3.5 hours, channel programming and wireless tag programming
Ambient Temperature	-30°C to +75°C (-22°F to +167°F)
Relative humidity	0 to 100%, condensing
Power	EX approved 3.6V Lithium battery with solder tags (replaceable by competent personnel)
Battery Life	Up to 4 years dependant on use and environment 3.75 years (transmission every 5 minutes) 3 years (transmission every minute) 2.33 years (transmission every 30 seconds)
Compliance	Compliant with IEEE 802.11 standards
Radio Certification	FCC Part 15, sub part C class B, sub part B, EN 300-328, EN300-330, EN301-489, RSS 210 (Canada), ARIB STD-T66 (Japan), ARIB STD-33 (Japan), MIC (Korea)
Safety Certification	CE, cTUVus (EN60950)
ATEX Certification	EPSILON 06 ATEX 2075 II 1 G EEx ia IIB/IIC T4/T5/T6 I M1 EEx ia I
FM Certification	Intrinsically Safe Class I, II, III Division 1, Groups A, B, C, D, E, F, G T4 T5 T6
MSHA Certification	Approval No.23-A08006-0

Ordering Information

Description

Intrinsically Safe Tag ATEX certified II 1G EEx ia IIA/IIB & II 2G EEx ia IIC T4/T5/T6

Intrinsically Safe Tag ATEX certified II 1G EEx ia IIC T4/T5/T6

Intrinsically Safe Tag ATEX certified II 1G EEx ia IIA/IIB & II 2G EEx ia IIC T4/T5/T6 with Call Button

Intrinsically Safe Tag ATEX certified II 1G EEx ia IIC T4/T5/T6 with Call Button

Intrinsically Safe Tag ATEX certified I M1 EEx ia I

Intrinsically Safe Tag ATEX certified I M1 EEx ia I with Call Button

Intrinsically Safe Tag MSHA certified

Intrinsically Safe Tag MSHA certified with Call Button

Intrinsically Safe Tag FM Certified

Intrinsically Safe Tag FM certified with Call Button

Spare lithium battery for the iTAG100 Group II ATEX version

Spare lithium battery for the iTAG100 Group II FM version

Spare lithium battery for the iTAG100 Group I ATEX and MSHA versions

Part Number

iTAG100-1

iTAG100-2

iTAG100-1-CB

iTAG100-2-CB

iTAG100-3

iTAG100-3-CB

iTAG100-MSHA

iTAG100-MSHA-CB

iTAG100-5

iTAG100-5-CB

iTAG100-B1-II

iTAG100-B1-FM

iTAG100-XL050F