

iCITE100 Zone 1 Tag Exciter



A unique component in a WLAN Real Time Location system for exciting tags to react in a particular manner

**ATEX II 2 G EEx emb II T4
IP66**

-20°C to +60°C operating temperature

Turn tags on and off

Change tags behaviour

Excite tag to send or store a message

Overview

The Extronics iCITE 100 is a Zone 1 approved version of the Aeroscout Exciter which is a hardware component of AeroScout's industry-leading Visibility System for Active RFID and location applications. Exciters add value by extending the system to provide robust and sophisticated RFID detection and identification capabilities, using the same Wi-Fi-based Active RFID tags that can also be accurately located in real time by the AeroScout system.

Exciters use low frequency signals to trigger Extronics iTAG 100 tags as they pass through a choke point or within Exciter range, to transmit a message that is received by a standard Access Point or Location Receiver. This provides instant knowledge that a tagged asset or person passed through a gate, doorway or some other tightly defined area, as well as the ability to identify an asset's precise location on a rack or a workstation. The detection capabilities of the Exciter, combined with location features, make the Extronics hazardous area Visibility System the most sophisticated enterprise location solution for a wide variety of industries.

Applications

Theft prevention and security

Facilities and general enterprises can tag valuable assets that are intended to stay within a certain area. The system can track the location of those assets, and if they leave through an exit or enter a restricted area, the Exciter will trigger an alert.

Process control

Manufacturing and supply chain facilities can track the location and presence of equipment and in process inventory as it moves through the production process. This gives an enterprise a real-time view of which (and how many) assets have passed each step in the process, enabling better supply chain management.

Reduced searching time

Exciters can identify an individual asset among many similar assets, such as WIP items on a shelf in manufacturing, or hospital infusion pumps in a storage room. The person initiating the search will not only know the location of the asset, but can also make the tag physically identify itself through a blinking light.

Inventory management

Logistics and manufacturing enterprises can automatically update inventory records based on assets currently within defined areas, ensuring real-time knowledge of levels without manual checks or physical scanning.

Business event automation

Any type of enterprise can use Exciters to trigger automated events and alerts that occur based on the location of an asset. For example, when a set number of pieces of WIP inventory pass by an Exciter to enter a processing area, the floor supervisor can receive a pager alert to redistribute staff to that area.

Features and Benefits

Long range RFID detection of Extronics iTAG100 tags, triggering them to transmit as they pass through a defined area. Exciters have up to a 6m (20 ft) range, enough to cover wide gate areas, and can also be adjusted to cover areas as small as 50cm (20 inches)

Highly accurate location detection. The EX3100 small form factor Exciter enables enterprises to locate assets precisely to a specific shelf, rack, workstation (in manufacturing) or bed (in healthcare.) In addition, any Exciter model can assist in difficult searches by distinguishing between similar nearby assets, and making the right tag identify itself by blinking.

Tag behaviour modification:

Wireless activation and deactivation of tags, extending tag battery life further by switching them off when they leave a defined tracking area. Change of tag transmission rate and other tag programming for a temporary or indefinite time to accommodate different usage patterns.

Telemetry and data functions provide the ability to use Exciters to store messages on the tag for later transmission. Message transmission can later be triggered by other Exciters, enabling sophisticated process control functions. Exciters can trigger a tag to store and transmit up to ten bytes of data.

Rugged IP66-rated enclosure for use in any hostile indoor or outdoor environment and in a wide temperature range

Chaining enables multiple Exciters to be connected together for full, precise coverage of areas such as large gates and racks. Minimal cabling requirements, because Exciters do not need to be networked and can support Power over Ethernet (PoE). For optimal conditions, the standard Ethernet interface enables centralized programming, monitoring and software updates by the AeroScout Engine.

Specification

Range	Adjustable from 50 centimetres to 6.5 metres (20 inches to 21 feet)
Tag Type	Extronics iTAG100 tags
Dimensions	250 x 250 x 120 mm (w x h x d) 9.85 x 9.85 x 4.72 inches
Weight	Approx 2.5 Kg (5.5 lbs)
Ambient Temperature	-20°C to +60°C (-4°F to +140°F)
Relative humidity	0 to 95%, non-condensing
Housing	Black antistatic GRP enclosure
Ingress Protection	IP66
Electrical Connection	Screw terminals
Cable Entry	3 x M20 Ex e compression glands
Mounting	Wall or ceiling
Management	Settings configured remotely using Aeroscout System Manager Software
LF Channel	125KHz ASK modulation
Field Intensity Limits (ETSI)	37.3 dBµA/m at 10m
Propagation Limits (FCC)	21.8 dBµV/m at 10m
Radio Certification	FCC Part 15, sub part C class B, sub part B, EN300-330, EN301-489, RSS 210 (Canada)
Safety Certification	CE, cTUVus (EN60950) ATEX II 2 G Ex emb II T4

Ordering Information

Description

Zone 1 Master Tag Exciter ATEX II 2 G EEx e mb II T4

Part Number

iCITE100-M