



Provides Immediate Choke Point Detection for Enhanced Monitoring and Identification of Assets

> Overview

The AeroScout Exciter is an optional hardware component of AeroScout's market-leading Unified Asset Visibility solutions. Exciters provide an immediate indication of a tracked asset or person's location and status for enhanced monitoring and identification purposes. The choke point detection capabilities leverage the same Wi-Fi tags that are also used for accurate location determination.

Exciters use low frequency signals to trigger AeroScout tags as they pass within the range of an Exciter. The tag then transmits a message that is received by standard Wi-Fi Access Points or AeroScout's Location Receivers. This provides instant notification when a tagged asset or person passes through a gate, doorway or other tightly-defined area. Exciters can also help identify an asset's precise location on a rack or at a workstation. The unique choke point detection features, combined with location, status and condition capabilities, deliver comprehensive solutions for a wide variety of industries and business needs.

Delivers immediate alerts and choke point detection to improve operations

- Instant choke point detection drives alerts and events
- Enables precise visibility of progression through each step of a business process
- Leverages the same Wi-Fi tags that also provide real-time location determination
- Automates gate access control
- Wireless network connectivity option supports wireless Exciter management



EX2000/EX2000B:
long-range detection, such
as for gates and doorways



EX3210: short-range
detection, such as for
racks and shelves



Exciter Detector

> Industry Benefits

Theft Prevention

Healthcare organizations or any other enterprises with expensive and mission-critical equipment can tag valuable assets that are supposed to remain within a specified area. The AeroScout system can track the location of those items, and if they pass through an exit or enter a restricted area, the Exciter will trigger an alert.

Operations Improvement

Manufacturing companies can track the location of equipment, carriers and even work-in-process (WIP) inventory as they move through a production process. This provides a real-time view of which (and how many) items have progressed through each step in the process – enabling streamlined operations.

Automatic Inventory Management

Logistics organizations can update inventory records by automatically determining which assets are within defined areas, ensuring real-time knowledge of inventory levels without manual checks or barcode scanning.

Real-Time Alerts

Organizations across industries can use AeroScout Exciters to trigger automated events and alerts based on the current location of an asset. For example, in a shipping yard, notifications can be sent when vehicles pass through the gates and enter or exit a certain dock.

Improved Safety

AeroScout Exciters can be used in many industries to improve the safety of employees and customers. Exciters can be placed at the entrances of restricted areas to trigger alerts when unauthorized persons attempt to enter. For example, instant notifications can be sent if someone comes in proximity of a restricted area on an oil rig. In hospitals, Exciters can notify staff regarding a patient elopement event, such as a patient leaving the behavioral health department.

Key Features

Adjustable Range

AeroScout Exciters have up to a six-meter (20-foot) range, enough to cover wide gate areas, and can also be adjusted to cover areas as small as ten inches.

Chaining

Multiple Exciters can be connected together for complete and precise coverage of areas such as large gates and racks.

Accurate Location Detection

Exciters enable enterprises to locate assets precisely to a specific shelf, rack, room, bay or workcell. Also, they can assist in difficult searches among similar nearby assets by making the tag in question identify itself with a specific LED indication.

Tag Behavior Modification

Tag behavior can be changed when the tag comes in proximity of an Exciter. AeroScout tags can be activated or deactivated in this way. For instance, a tag can be switched off when it leaves a defined area – extending its battery life. In addition, its transmission rate can be modified for a temporary or indefinite amount of time when it enters a new physical space.

Telemetry and Data Functionality

Exciters can store messages on AeroScout tags for later transmission. Message transmission can be triggered subsequently by other Exciters, enabling sophisticated process control functions, such as:

- Store and transmit batches of data up to 15 bytes
- Send sensor and telemetry data from a host – such as temperature or mileage

Wireless Connection

Wireless Exciters (EX2000 model) can be connected to the network via Wi-Fi (802.11 a/b/g) when physical network connections are unavailable. This enables organizations to configure and manage Exciters wirelessly.

Rugged Enclosure

A rugged, IP65-rated enclosure is available (EX2000/EX2000B models) for use in hostile indoor environments.

Intrinsically Safe Models

Exciters are also available (EX2000-X1 and EX2000-X3) for harsh environments, such as oil refineries or mines that require explosion-proof devices.

Multiple Cabling Options

Exciters can support Power over Ethernet (PoE) or standard Ethernet to enable centralized programming, monitoring and updates by the AeroScout Engine.

AeroScout Exciter Specifications

RANGE

- **EX2000/EX2000B/-X1/-X3:** Adjustable range from 50cm to 6m (20in to 20ft)
- **EX3210:** Adjustable range from 25cm to 3m (10in to 10ft)

PHYSICAL AND MECHANICAL

- **EX2000/EX2000B/-X1/-X3:** Dimensions: 220mm (diameter) x 115mm (depth) (8.7in (diameter) x 4.5in (depth))
Weight: EX2000/EX2000B 700g (25oz)
Housing: IP65 rated enclosure
Wall or ceiling mounting option included
- **EX3210:**
Dimensions: 130mm x 65mm x 25mm (5.1in x 2.5in x 1.0in)
Weight: 135g (4.8oz)
Housing: ABS, indoor use only
Connectors: Serial RS232 (RJ-45), in and out

NETWORK INTERFACE AND SETTINGS

- **EX2000/EX2000B/-X1/-X3 and EX3210:** RJ-45
- **EX2000/EX2000B:** Wi-Fi 802.11 a/b/g, 128-bit WPA2 Algorithm

ELECTRICAL

- **EX2000/EX2000B/-X1/-X3:** 48VDC, PoE (802.3af)
Maximum power consumption: 10W
- **EX3210:** Input voltage 12V DC, PoE (802.3af)
Maximum power consumption: 6W

MANAGEMENT

- Settings configured remotely using AeroScout Engine's System Manager interface or external application

LF CHANNEL

- 125kHz, ASK Modulation

ENVIRONMENTAL SPECIFICATIONS

- **EX2000/EX2000B/-X1/-X3; EX3210:** Temperature: -20°C to +60°C (-4°F to +140°F)
- **EX2000/EX2000B:** Temperature: 0°C to +50°C (32°F to +122°F)

CERTIFICATIONS

- **EX2000/EX2000B:** FCC Part 15, sub-part C class B, sub-part B EN 300-330, EN 301-489
RSS210 (Canada) EMC IEC60601-1-2 (Europe)
Safety: CE, cTUVus (EN60950)
- **EX2000/EX2000B/-X1/-X3** Intrinsically Safe Certifications: ATEX certified, Gas Group C, II 2 G EEx m e II T4
- **EX3210:** FCC Part 15, sub-part C class B, sub-part B EN 300-330, EN 301-489
Safety: CE, cTUVus (EN60950)

TOOLS

- **Ultrasound and LF Exciter Detector:** Tool for visualization of the effective Ultrasound and LF Exciter transmission field. (SKU: EXD-1000)

Ordering Information

For ordering and pricing information contact AeroScout at info@aeroscout.com and refer to the AeroScout Exciter (EX-2000/EX2000B), Intrinsically Safe (EX-2000-X1, EX-2000-X3) and Compact Models (EX-3210).

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