

**Supports real-time chokepoint detection for enhanced monitoring and identification****> Overview**

The AeroScout LF Exciters are components of the AeroScout suite of enterprise visibility solutions for location-based applications. Exciters provide robust and sophisticated RFID detection capabilities, using AeroScout Tags that can be accurately located in real time by the AeroScout system.

Exciters transmit low frequency (LF) signals to trigger AeroScout Tags as they pass through a chokepoint or as they approach the Exciter. The Tags in turn transmit messages either to the AeroScout Location Receivers or to the compatible Access Points in the Tag's range. The Exciter can activate/deactivate the Tags, program them, or even cause the Tags to operate in a desired way (for example, to blink). This provides an instant acknowledgment of an event confirming that a tagged asset has passed through a gate, doorway, or some other well-defined area. The detection capabilities of Exciters, combined with the location features of the AeroScout Visibility System, make the AeroScout suite the most sophisticated enterprise visibility solution for a wide variety of industries.

**AeroScout LF Exciters support the following functionality:**

- Deliver real-time alerts and chokepoint detection for improved operational efficiency
- Trigger alerts and events for instant chokepoint detection
- Enable precise visibility of progression through each step of a business process
- Leverage the same Wi-Fi tags that provide real-time location
- Automate gate access control

**> Industry Benefits****Theft Prevention**

Healthcare organizations or enterprises with expensive and mission-critical equipment can tag valuable assets that are intended to remain within a specified area. The AeroScout system can track the location of such tagged assets and trigger an alert when they pass through an exit point or enter a restricted area.

**Process Control**

Manufacturing companies can track the location of equipment, carriers, and even the work-in-process (WIP) inventory during a production cycle. This provides a real-time view of production items, both in terms of type and quantity, which have progressed through each step in the process, thus streamlining the manufacturing operations.

**Automatic Inventory Management**

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

**Real-Time Alerts**

Based on the locations of assets, organizations across industries can use AeroScout Exciters to trigger automated events and alerts. For example, in a shipping yard, notifications can be initiated when vehicles pass through its gates and enter or exit a specific dock.

**Security Applications**

AeroScout Exciters can be installed to improve the safety level of employees and customers. When installed at the entrances of restricted areas, Exciters 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.



*EX2000B –  
Long range Exciter*



*EX3210 – Short range  
compact Exciter*



*EX5000 – Long range  
flat-form Exciter*



*External Antenna – Extends  
the Exciters LF coverage area*

## Key Features

**RFID detection of AeroScout Tags:** Exciters trigger the Tags to transmit as they pass through a defined area in the Exciter's range, which is enough to cover typical door or gate areas. Exciters also support chain configuration, thus increasing the RFID detection range for accommodating even larger areas.

**Chaining:** In an area where the required LF coverage exceeds the capacity of one Exciter, 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 work cell. They can also assist in difficult searches for specific assets by making the Tag in question identify itself with a specific LED indication.

**Tag Behavior Modification:** AeroScout Tag behavior can be changed (activated or deactivated) when it comes in the proximity of an Exciter. For example, a Tag can be switched off when it leaves a defined area, thus extending its battery life. In addition, when the tag enters a new physical space, its transmission rate can be modified either for a temporary period or for an indefinite amount of time.

**Rugged Enclosure:** A rugged, IP67-rated enclosure is available (EX2000R) for use in hostile indoor and/or outdoor environments.

**Intrinsically Safe Models:** Exciters are also available (EX2000-X1 and EX2000-X3) for harsh environments, such as oil refineries or mines, which require explosion-proof devices.

**Message Programming Functions:** Exciters have the ability to store messages on the Tag for subsequent transmission. The message transmission can be triggered by other Exciters, enabling sophisticated process control functions.

**Multiple Cabling Options:** AeroScout Exciters can support Power-over-Ethernet (PoE) or standard Ethernet to enable centralized programming, monitoring and updates by the AeroScout Engine. In addition, Exciters can work in an offline mode disconnected from the network, thus eliminating the need for a physical network feed. In the offline mode, remote configuration and monitoring is not enabled.

## Applicable Software and Accessories

**External Low Frequency (LF) Antenna Unit:** The small-form-factor External LF Antenna unit, which behaves almost exactly as other LF Exciters, can be used as a secondary LF unit connected to the Exciters. The unit is designed to extend the LF coverage of the Exciter. Together with the Exciter, the connected External LF Antenna Unit can help in detecting when a Tag enters or exits a room. The Exciter communicates and provides power to the External LF unit via a standard CAT5 cable connection.

**Exciter Manager:** The Exciter Manager is an application for configuring the IP addresses of the Exciters to facilitate their communication with the AeroScout Engine.

**Exciter Detector:** The Exciter Detector is a handheld device for evaluating the coverage area of an Exciter. It connects to the computer via a USB port and is configured using the Exciter Detector software.

**Exciter Synchronization Tool:** The Exciter Synchronization Tool is a tool for synchronizing Exciters in cases such as bay/bed separation when the Exciters' signals overlap.

## AeroScout Exciter Specifications

### RANGE

- EX2000-X1/X3/EX2000B: 0.5 to 6m (20in to 20ft)
- EX3210: 0.25m to 3m (10in to 10ft)
- EX5000: 0.5m to 6.5m (20in to 21.3ft)

### DIMENSIONS AND WEIGHT

- EX2000-X1/-X3/EX2000B: 220mm (diameter) x 115mm (depth) (8.7in x 4.5in ); 700gm (25oz)
- EX3210: 130mm x 65mm x 25mm (5.1in x 2.5in x 1.0in); 135gm (4.8oz)
- EX5000: 180 x 155 x 45mm (7.1in x 6.1in x 1.8in); 450gm (16 oz)

### NETWORK INTERFACE AND SETTINGS

- RJ-45

### ELECTRICAL

- EX2000B: Input: 48VDC, PoE (802.3af ) Max. power consumption: 6W
- EX3210: Input: 12VDC, PoE (802.3af) Max. power consumption: 6W
- EX5000: Input: 48VDC, PoE (802.3af) Max. power consumption: 8W

### EXCITER MANAGEMENT

- Settings configured remotely using AeroScout Engine's System Manager Interface or an external application.

### LF CHANNEL

- 125KHz, ASK Modulation

### OPERATING TEMPERATURE

- EX2000-X1/-X3/EX2000B/EX3210: -20°C to +60°C (-4°F to 140°F)
- EX5000: 0°C to +50°C (32°F to 122°F)

### CERTIFICATION

- EX2000B/EX3210/EX5000: 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-X1/-X3: Intrinsically Safe Certifications: ATEX certified, Gas Group C, II 2 G EEx m e II T4

## External LF Antenna Specifications

### PHYSICAL AND MECHANICAL

- Dimensions: 93mm x 84mm x 34 mm (3.7in x 3.3in x 1.3in)
- Weight: 100gm (3.5 oz)
- Housing: ABS, indoor use only
- RJ-45 Input Connector

### COVERAGE

- Adjustable coverage range: 0.25m-3m (0.8ft x 9.8ft)

### POWER

- Powered directly from the Exciter
- Maximum power consumption: 6W

### ENVIRONMENTAL

- Operating temperature: 0°C to +50°C (32°F to 122°F)

### OTHER

- When connecting to EX2000B Exciter, requires a 48/12V adapter

## Ordering Information

For ordering and pricing information contact AeroScout at [info@aeroscout.com](mailto:info@aeroscout.com) and refer to the AeroScout 2000B Exciter (EX-2000B), Intrinsically Safe Models (EX-2000-X1, EX-2000-X3), Compact Model (EX-3210), EX5000 Exciter (EX-5000), and External LF Antenna (ANT-4200).

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DSASEX-131112