

AT5412 Transportation Tag

Features

- ▶ Supports Super eGo® (SeGo), eGo, and ATA protocols
- ▶ Non-battery for extended service life
- ▶ 2048-bit read/write memory
- ▶ Read/write capability in SeGo mode
- ▶ Compatible with multiple Amtech®-brand readers and TransCore® Encompass® multiprotocol readers
- ▶ Data encryption and authentication
- ▶ Harsh environment durability
- ▶ Factory-sealed case



The AT5412 Harsh Environment Transportation Tag is a half frame, beam-powered tag used in 915 MHz radio frequency (RF) band applications with TransCore Amtech-brand and TransCore Encompass multiprotocol reader systems. It is packaged in a factory-sealed case, which makes this tag ideal for mounting on vehicle chassis, intermodal containers, or in any environment requiring a durable, weatherproof tag.

The AT5412 Transportation Tag is beam-powered (a small portion of the RF signal continually energizes the tag's circuitry) so no internal battery is required. In addition to giving the tag an unlimited service life, this feature limits the tag's range and reduces the possibility of cross-reads from nearby tags. System discretion is enhanced to within a 5- to 10- foot (1.5- to 3-meter) diameter reading area.

The tag can be factory-programmed, as specified by the customer, and can store up to 10 six-bit alphanumeric characters of data (60 bits) compatible with previous ATA/AAR read-only readers.

The tag's mutual authentication feature, in conjunction with TransCore Encompass readers, uses hardware-based protection that is more difficult to compromise than software-only protection. Mutual authentication prevents unwanted data from being written to the tag's protected memory space.

AT5412 Transportation Tag

COMMUNICATIONS

Frequency Range

902 to 928 MHz

Typical Working Range

5 to 10 ft (1.5 to 3 m)

Range depends on system parameters.

Polarization

Parallel with longer side

SOFTWARE FEATURES

Data Memory

SeGo and eGo Mode: 2,048 bits

ATA Mode: 60 bits

User memory programmable using RF link

POWER REQUIREMENTS

Power Source

Beam powered

LIFE EXPECTANCY

Service Life

>10 years

PHYSICAL

Dimensions

Size: 9.3 x 2.38 x 0.69 in. (23.6 x 6.0 x 1.75 cm)

Weight: 5.3 oz (150.2 g)

Case Material

Weatherproof, sealed, UV-stabilized, gray case

Mounting Surface

Any smooth metal surface

Where mounting surface is non-metallic or irregular, the AT5412 Transportation Tag may be mounted to a metal backplate attached to the surface of the vehicle or object to be tagged.

Mounting Method

Rivet Mounting: The AT5412 Transportation Tag can be mounted directly to any smooth metal surface using blind rivets or TIR-approved fasteners.

ENVIRONMENTAL

Operating Temperature

-40°F to +185°F (-40°C to +85°C)

Storage Temperature

-67°F to +212°F (-55°C to +100°C)

Humidity

100% relative humidity, condensing

Vibration

2 G_{rms}, 10-200 Hz

Shock, Normal Environment

30 G, half-sine pulse, 6 ms duration, 3 axes

COMPATIBILITY

Super eGo Mode: SeGo

eGo Mode: ANSI NCITS 256-2001 Part 4.2 and ISO 18000-6B standards

ATA Mode: American Trucking Associations standard

For more information:

Call **214.461.6443** (Sales Support) • **505.856.8007** (Technical Support)

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