AT5414 Transportation Tag

Features

▶ Supports Super eGo® (SeGo), eGo, and ATA protocols

▶ Dual-frequency (915 and 2450 MHz)

▶ 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

▶ Two non-replaceable internal batteries with a combined 8-year design life based on typical usage

▶ Harsh environment durability

▶ Factory-sealed case

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The AT5414 Transportation Tag is a dual-frequency, battery-powered field disturbance device used in applications requiring long-range operation. The tag is ideal for use 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 tag can be factory-programmed, as specified by the customer, or user-programmed in the field using TransCore's new AP4600 Multifunction Tag Programmer, 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.

Two small lithium batteries energize the AT5414 Transportation Tag. The batteries are compliant with U.S. DOT 49 CFR § 173.185(c) regulations for unrestricted shipment. Consult local agencies for regulations if the tag is to be shipped outside the United States. With continuous use, the average useful tag life is 8 years. The number of tag reads and external RF fields from other sources do not affect battery life. The AT5414 Transportation Tag's integral battery power improves its responsiveness, permitting reliable performance at extended range.

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AT5414 Transportation Tag

COMMUNICATIONS

Frequency Range
902 to 928 MHz

2425 to 2475 MHz

Typical Working Range
5 to 35 ft (1.5 to 11 m)

Range depends on system parameters.

Polarization
Linear, horizontal

SOFTWARE FEATURES

Data Memory
SeGo and eGo Modes: 2048 bits

ATA Mode: 60 bits

User memory programmable using RF link

POWER REQUIREMENTS

Power Source
Two lithium batteries for an 8-year typical life

PHYSICAL

Dimensions
Size: 9.32 x 2.39 x 0.75 in. (23.67 x 6.07 x 1.91 cm)

Weight: 6.6 oz (187 g)

Case Material
Weatherproof, sealed, UV-stabilized, gray case

Mounting Surface
Any smooth metal surface

Where mounting surface is non-metallic or irregular, the AT5414 Transportation Tag can be mounted to a metal backplate attached to the surface of the vehicle or object to be tagged.

Mounting Method
Rivet Mounting: The AT5414 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, 11 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

OPTIONS

Case Color
The AT5414 Transportation Tag is available in a gray case. It may also be custom-ordered in a range of colors. Special conditions may apply.

Factory Programming
TransCore can program your AT5414 Transportation Tags to your specifications at the factory.

ACCESSORIES

AP4600 Multifunction Tag Programmer
The AT5414 Transportation Tag can be programmed in the field using the AP4600 Multifunction Tag Programmer. The AP4600 Multifunction Tag Programmer interfaces with a PC host via a USB communications port.

For more information:

Call **800.923.4824** (Sales Support) **505.856.8007** (Technical Support)

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