

AT5421 870MHZ

Hardened Transportation Tag

The AT5421 Hardened Transportation Tag is an 870MHz, beam-powered radio frequency identification (RFID) tag. Packaged in a factory-sealed and hardened case, this tag is ideal for mounting on vehicle chassis, intermodal containers, or any environment requiring a durable, weatherproof tag.

The AT5421 Hardened Transportation Tag is beam-powered, requiring no internal battery. 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.

The tag can be factory-programmed, as specified by the customer, or the tag can be user-programmed in the field using TransCore's suite of RF tag programmers.

When used with TransCore readers, security features prevent data corruption, data alteration, and tag cloning. The AT5421 Hardened Transportation Tag supports factory locked data fields for Tag ID, customer, and user information. This tag also supports open data fields that can be written by the agency.



Features

- ▶ Supports American Trucking Associations (ATA) and Super eGo® (SeGo) protocols
- ▶ Non-battery for extended service life
- ▶ Read/write capability in SeGo mode
- ▶ Harsh environment durability
- ▶ Factory-sealed case

Applications

- ▶ Rail Automatic Equipment Identification (AEI)
- ▶ Train positioning
- ▶ Harsh shock-and-vibration environments

AT5421 870MHz Hardened Transportation Tag

COMMUNICATIONS

Frequency Range

865.7 to 867.5MHz

Typical Working Range

1.5 to 6.1 m (5 to 20 ft)

Range depends on system parameters

Polarization

Parallel with longer side

SOFTWARE FEATURES

Data Memory

ATA Mode: 60 bits (half frame)
120 bits (full frame)

SeGo Mode: 2,048 bits

User memory programmable using RF link

POWER REQUIREMENTS

Power Source

Beam powered

LIFE EXPECTANCY

Service Life

Unlimited

PHYSICAL

Dimensions

Size: 23.6 x 6.05 x 1.75 cm (9.3 x 2.38 x 0.69 in)

Weight: 150.3 g (5.3 oz)

Case Material

Weatherproof, sealed, UV-stabilized, gray case

Mounting Surface

Any smooth metal surface

If mounting surface is non-metallic or irregular, tag must be mounted to a metal backplate attached to the surface of the vehicle or object to be tagged.

Mounting Method

Rivet Mounting: Tag must be mounted directly to any smooth metal surface using blind rivets or TIR-approved fasteners

ENVIRONMENTAL

Operating Temperature

-40°C to +70°C (-40°F to +158°F)

Storage Temperature

-55°C to +100°C (-67°F to +212°F)

Humidity

100% relative humidity, condensing

Vibration

EN61373:2010

EN50125-3: Sleeper Mount

Shock

EN61373:2010

200 G, half-sine pulse, 3 ms duration, 3 axes

EN50125-3: Sleeper Mount

Dust Ingress/Water Immersion

Meets IP67 requirements for dust ingress and water immersion (1 meter of immersion)

Compatibility

ATA Mode: American Trucking Associations standard

Super eGo Mode: SeGo

Model Part Number

Half Frame: 13-5421-NNN

Full Frame: 13-5423-NNN

For more information:

Sales Support

800.923.4824

Technical Support

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transcore.com

