

# AT5419

## Externally-Powered Signal Tag

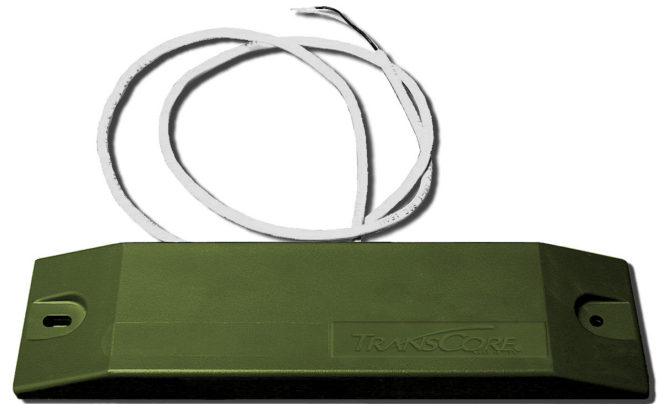
The AT5419 Externally-Powered Signal Tag is used for rail traffic monitoring and automatic data capturing. When the AT5419 tag is connected to a flashing rail signal light system, reader equipment can verify the status of the signal light.

This tag is RF programmable, and may be programmed by the customer using TransCore's AP4600 Multifunction Tag Programmer with the specialized programming bracket.

Data on this tag can be configured to match reader systems that are compatible with Association of American Railroads (AAR), American Trucking Associations (ATA), and the International Organization for Standardization (ISO).

The AT5419 tag uses AC or DC power. It comes with a 37-inch (0.94m) two-wire interface cable. The conductor leads are left bare for convenient connection to a terminal strip, microcomputer, or power supply.

TransCore's RFID-based systems are trusted worldwide by mass transit agencies to provide precise location and accurate data as part of their rail system control and signal systems.



### Features

- ▶ Compatible with Association of American Railroads (AAR), American Trucking Associations (ATA), International Organization for Standardization (ISO) reader systems
- ▶ Uses AC or DC power
- ▶ Customer programmable using the AP4600 multifunction tag programmer and programming bracket
- ▶ Weather-resistant and factory-sealed case

### Applications

- ▶ Rail traffic monitoring
- ▶ Automatic data capture

# AT5419 Externally-Powered Signal Tag

## COMMUNICATIONS

### Frequency Range

902 to 928MHz

### Typical Working Range

Determined by reader

### Polarization

Parallel with longer side

## TIMING

### On Timing

Tag switches to a continuous ON state after a maximum of 1400ms of the signal decision assertion (request to turn on the flashing signal)

### Off Timing

Tag switches to a continuous OFF state within 1500ms of the signaling decision negation (request to turn off the flashing signal)

## POWER REQUIREMENTS

### Power Source

Externally powered through wire interface

**AC:** 5V to 10V RMS at 50-60Hz

**DC:** 5V to 24V at  $\leq 5$  mA

## SOFTWARE FEATURES

### Data Memory

**ATA Mode:** 60 bits

10 six-bit ASCII characters

User memory programmable using RF link

## LIFE EXPECTANCY

### Service Life

Unlimited

## PHYSICAL

### Dimensions

**Size:** 9.3 x 2.4 x 0.8in (23.6 x 6.1 x 2cm)

**Weight:** 7.9oz (225g), including cable

### Case Material

Weatherproof, sealed, UV-stabilized, olive-drab case

### Mounting Surface

Any smooth metal surface

If mounting surface is non-metallic or irregular, tag must be mounted to a metal backplate.

### Mounting Method

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

**Tape Mounting:** VHB Double-sided tape

### Interface Cable

Tag is hardwired with a jacketed, two-conductor, twisted-pair 37in (0.9m) interface cable

## ENVIRONMENTAL

### Operating Temperature

-40°F to +158°F (-40°C to +70°C)

### Storage Temperature

-67°F to +185°F (-55°C to +85°C)

### Humidity

0 to 95% non-condensing at 86°F (30°C) during operation

### Vibration

5 to 20Hz, sine wave, 0.2in peak to peak

20 to 200Hz, 4.2G peak

### Harsh Vibration

20G<sub>rms</sub> 20 to 2000Hz

### Shock

10G terminal peak sawtooth, 11ms duration, 3 axes

### Harsh Shock

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

## COMPLIANCE

### Electromagnetic Compatibility (EMC)

Tested and verified to EN50121-4:2006/

AC:2008 Railway Applications - Electromagnetic Compatibility Part 4

### RF Interference

Tested and verified to FCC Part 15, Subpart B, Class B

## OPTIONS

### Labeling

Identification information, custom logos and/or organization name can be marked on tag case. Model number and ID number can be indelibly marked on tag case top surface

## ACCESSORIES

### AP4600 Multifunction Tag Programmer

Designed for use in an office environment and connects to a host PC's USB port. External power required

### AP4600 Programming Bracket

Required for programming AT5417 and AT5419 signal tags. Holds tag in position for accurate programming (sold separately).

## MODEL PART NUMBERS

13-5419-NNN Signal Tag

14-4600-001 AP4600 Desktop Programmer

54-4600-001 AP4600 Programming Bracket

For more information:

**Sales Support**

800.923.4824

**Technical Support**

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[transcore.com](http://transcore.com)

