

AT5417

Externally-Powered Signal Tag

The AT5417 Externally-Powered Signal Tag is used for rail traffic monitoring and automatic data capturing. When the AT5417 tag is connected to a 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 AT5417 tag uses AC or DC power. It comes with a three-foot (0.9m) 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

AT5417 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 is functional and ready for interrogation by the reader within 60ms of receiving external power

Off Timing

After tag has been powered-up for 10 seconds or more and the power is discontinued, tag is functional and can be interrogated by the reader for an additional 170ms to 320ms

POWER REQUIREMENTS

Power Source

Externally powered through wire interface

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

DC: 5V to 24V at ≤ 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, gray 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 36in (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_{rms} 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

13-5417-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

