

AT5110 Transportation Tag

FEATURES

- **Ideal for mounting on vehicle chassis, intermodal containers, railcars, or in any environment requiring a durable, weathertight tag**
- **Stores up to 20 alphanumeric characters (120 data bits) that can be programmed either at the factory or in the field using the AP4110 programmer**
- **Indefinite service life as circuits are energized by a small portion of the RF signal**
- **Uses the RF beam to energize tag circuitry, which limits tag range. Reduces competition with other tags in nearby areas and enhances system discretion within 0.6 to 3 m (2 to 10 ft) diameter reading areas**



The AT5110 Transportation Tag is a beam-powered field disturbance device used in 915 MHz radio frequency (RF) band applications. The tag can be exposed to harsh environmental conditions.

The AT5110 contains electronically programmable circuitry activated by the RF beam. The RF beam is broadcast by a system antenna.

The AT5110 encodes the signal received from an Amtech® brand

reader system with an identification number or a data message. The encoded signal is reflected (backscattered) back to the Amtech reader system.

A polycarbonate plug with O-ring is provided with each unprogrammed tag to seal the tag's access port after field programming.

The AT5110 can be read by AI1200, AI1300, AI1400, and AI1600 series readers.

AT5110 Transportation Tag

COMMUNICATIONS

Frequency Range

902 to 928 MHz

Other frequencies available upon request

Typical Working Range

1.5 to 3 m (5 to 10 ft)

Range depends on system parameters.

Polarization

Parallel with longer side

SOFTWARE FEATURES

Data Capacity

Up to 20 alphanumeric characters (120 data bits)

POWER REQUIREMENTS

Power Source

Beam-powered

LIFE EXPECTANCY

Service Life

Indefinite

PHYSICAL

Dimensions

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

Weight: 160 g (5.7 oz)

Case Material

Weatherproof, UV-stabilized, gray case that is sealed with a snap-in removable plug and O-ring

Mounting Surface

Any smooth metal surface

Where mounting surface is non-metallic or irregular, the AT5110 may be mounted to a metal backplate attached to the surface of the vehicle or object to be tagged.

Mounting Method

Rivet Mounting: The AT5110 may be mounted directly to any smooth metal surface using blind rivets or TIR-approved fasteners.

Tape Mounting: For certain applications, the AT5110 may be mounted using double-sided tape.

ENVIRONMENTAL

Operating Temperature

-40°C to +85°C
(-40°F to +185°F)

OPTIONS

Factory Programming

Transportation tags may be programmed to your specifications at the factory.

Ultrasonic Seal

Factory-programmed tags may be custom ordered with the programming port ultrasonically sealed.

Tape Mount

The AT5110 can be ordered with double-sided tape attached.

Removable Plug

For reprogramming tags, order the removable plugs with O-ring for a weathertight seal of the programming port. Sold in units of 50.

ACCESSORIES

Mounting Tape

Double-sided polyurethane foam tape is available in 36 yard rolls or tag length segments.

Plug Removal Tool Kit

When reprogramming of Amtech-brand transportation tags is required, the AS8003 Plug Removal Tool kit cleanly and easily extracts the existing plug and O-ring without damaging circuitry or programming port contact surfaces. (Order replacement removable plugs with O-rings when reprogramming transportation tags.)

AP4110 Programmer

The AT5110 may be programmed in the field using the AP4110 Programmer. The AP4110 contains serial interface logic for connection to a PC host. The AP4110 programs and verifies Amtech-brand RFID tags through the programming port located on the reverse surface of each tag.

DOCUMENTATION

Rail Tag Mounting Guide

Technical Notes: Mounting Transportation Tags with tape



For product information call: 1.800.923.4824 or 972.733.6600 (outside the U.S.) Fax 972.733.6486

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