IT2222 Tag

Features

▶ Provides security features, including unique tag identification (ID) addressing, to ensure that a given data message only affects the designated tag.

▶ Provides read and write password protection, reader authentication, and off-line authentication to provide operational security.

▶ Detects the presence of TransCore's Amtech®-brand reader and automatically switches to a compliant emulation mode.

▶ Indicates tag status via light-emitting diode(s), two-tone audio buzzer, or both

▶ Powered by user-replaceable or non-replaceable battery

▶ Installed using either suction cups or hook-and-loop method

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The IT2222 Tag is a radio frequency (RF)-programmable battery-powered field disturbance device designed for electronic toll and traffic management and other intelligent transportation system applications requiring high-speed two-way communications.

Electronic toll collection operation is based on a flexible, open protocol. The protocol requires a tag first to be activated by a trigger signal received from the reader. Next, the reader broadcasts a polling message providing commands that direct the tag's response. The tag uses a modulated backscatter technique to encode data on the received carrier and reflect the signal back to the reader for decoding.

The IT2222 Tag can respond to a time division multiple access protocol to minimize contention in applications requiring wide-area communications. This protocol allows the reader to communicate with many IT2200-series tags, regardless of the tag's position within the reader's field of view.

Writing to and programming of the IT2222 Tag is accomplished by RF signal using TransCore's Encompass® 6 Multiprotocol Reader or a tag programmer.

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IT2222 Tag

COMMUNICATIONS

Frequency Range
902 to 928 MHz

Typical Working Range
Determined by reader

Polarization
Horizontal

SOFTWARE FEATURES

Downlink Data Rate
Encoded: 300 kHz Manchester

Decoded: 300 kbps

Uplink Data Rate
Encoded: 600/1200 kHz FSK

Decoded: 300 kbps

Data Memory
2048 bits (960 bits are customer-programmable)

POWER REQUIREMENTS

Power Source
The IT2222 Tag is powered either by a user-replaceable battery or non-replaceable battery.

LIFE EXPECTANCY

Service Life
10 years minimum for tag case and circuitry. Battery life depends on the battery type, either user-replaceable or factory sealed.

PHYSICAL

Dimensions
Size: 4.3 x 2.9 x 0.6 in. (10.9 x 7.4 x 1.5 cm)

Weight:: 3.5 oz (99.2 g)

Mounting Surface
Interior, nonmetallic windshield

Mounting Method
The IT2222 Tag can be mounted using suction cups or hook-and-loop method.

Case
The plastic case is UV stable. The IT2222 Tag is not affected by temperature extremes or severe conditions typical of this environment. The IT2222 Tag is shock and vibration resistant.

ENVIRONMENTAL

Operating Temperature
-4°F to +167°F (-20°C to +75°C)

Humidity
95% noncondensing

Vibration Tolerance
1 G_{rms}, 15 to 2000 Hz

Shock Tolerance
5 G, 1/2 sine pulse, 10 ms duration, 3 axes

OPTIONS

Factory Programming
IT2222 Tag fixed and variable data pages can be programmed and initialized at the factory to the user's specifications.

Custom Labels
Required identification can be displayed on the IT2222 Tag with an adhesive label, or limited ID information, or customer information can be laser-etched into the tag case.

Audio/Visual Indicators
The IT2222 Tag can be ordered with several options such as LEDs and/or a two-tone buzzer to communicate the current transaction status, account status, or a low battery condition.

For more information:

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

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