



## **IDentity Card Tag**

Ultra High Frequency 865 - 928 MHz  
Global Passive Transponder

### **Overview**

The IDentity Card Tag is a high performance radio frequency (RF) transponder designed to be used in conjunction with Sirit's IDentity 5000 series reader systems for automatic vehicle identification applications.

Each transponder is capable of read/write functionality, contains a unique identification code, and is powered by utilizing energy from the reader, eliminating the requirement for a battery. The card transponder has a compact form factor so as not to hinder the driver's view, while offering the ability to transfer the tag between vehicles.

The IDentity series tag and reader solution is ideally suited for a number of global transportation applications including Electronic Vehicle Registration (EVR), vehicle emissions testing, proof of insurance compliance and electronic tolling. By eliminating the manual, visual-based inspection associated with current systems the Sirit solution enables system operators to securely identify vehicles with appropriate authorizations from a distance, while the vehicle is in motion.

### **Security & Authentication**

Sirit's "Secure Reader" and "Secure Tag" technologies offer multiple levels of security and authentication options. These options provide authentication techniques for the credit card transponder. In addition, Sirit provides "RF" security features that verify the authenticity of a transponder during communications with the reader and provide security of sensitive information that may be stored on the tag.

These security and authentication features have been successfully tested at vehicle speeds up to 140 MPH (225 KPH).

# IDentity Card Tag

## 865 - 928 MHz Global, Passive Transponders



| Performance Characteristics |   |
|-----------------------------|---|
| Operating Frequency:        | 902 - 928 MHz Americas, 4 W EIRP<br>869.4 - 869.56 MHz Europe, 0.5 W ERP<br>865.6 - 867.6 MHz Europe, 2 W ERP |
| Supported Protocol:         | ISO 18000-6C  |
| Data Transfer Rate:         | Up to 640 kbps  |
| Physical Characteristics    |   |
| Dimensions (LxW):           | 85.72 x 53.97 mm (3.375 x 2.125 in.)  |
| Weight:                     | 5.0 g (0.176 oz)  |
| Environment                 |   |
| ESD Voltage Immunity:       | +/- 3kV   |
| Operating Temperature:      | -40°C to +85°C (-40°F to 185°F)   |
| Storage Temperature:        | -40°C to +100°C (-40°F to 212°F)  |
| Relative Humidity:          | 30% - 70%   |
| Tag Memory & Security       |   |
| Tag Part Numbers            | ID-CCT-L3S  |
| On-Chip Memory:             | 752 bits  |
| Tag Identifier:             | 64 bits   |
| Access password:            | 32 bits   |
| Kill password:              | 32 bits   |
| EEPROM data retention:      | 10 years  |
| EEPROM write endurance:     | 10,000 cycles   |
| Unique TID                  | Yes   |
| Password Authentication     | Yes   |
| Read Lockable Memory        | No  |

  

3.375"

2.125"

IDentity Card Tag

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### About Sirit

Sirit Inc. (TSX: SI) is a leading provider of Radio Frequency Identification (RFID) reader technology to OEMs and solution providers worldwide. Harnessing the power of Sirit's enabling-RFID technology, customers are able to more rapidly bring high quality RFID solutions to the market with reduced initial engineering costs. Sirit's products are built on more than 16 years of RF domain expertise addressing multiple frequencies (LF/HF/UHF), multiple protocols and are compliant with global standards. Sirit's broad portfolio of products and capabilities are easily customized to address new and traditional RFID market applications including Supply Chain & Logistics, Cashless Payment, Access Control, Automatic Vehicle Identification, Inventory Control & Management, Asset Tracking and Product Authentication. For more information, visit [www.sirit.com](http://www.sirit.com).



The "RFID by Sirit" symbol signifies that Sirit Inc.'s high quality RFID reader technology resides within this product.

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