



## SCI 1000 Datasheet

**OTI's SCI 1000** is a sophisticated, stylishly designed contactless card reader designed for contactless payment and loyalty applications providing unsurpassed cost to performance value.

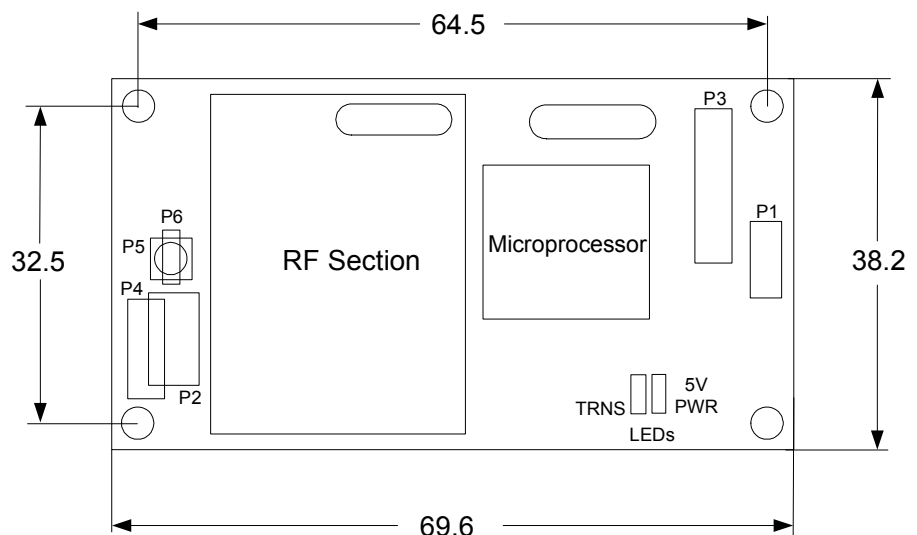
The **SCI 1000** reader communicates with ISO 14443A&B and Mifare cards and supports major financial contactless card programs.

The **SCI 1000** reader is designed as OEM versions of readers, customized to fit into third party equipment manufacturers and supports secured contactless features in an OEM version.

### SCI 1000 Layout

#### Physical Dimensions :

- W=69.6 mm
- L=38.2 mm
- D= XX
- Weight - 14 gr.
- Vibrations:  
10 ÷ 200 Hz @ 2.0G



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## General Features

- Bi-directional radio frequency interface between Reader and Contactless Smart Cards.
- Flexible, software configurable microcomputer-based design.
- Integrated, sophisticated Smart Card Operating System on board.
- **Contactless Read/Write Range** - Up to 10 centimeters (4 inches) with Contactless Smart Card (depending on antenna size and orientation)
- **RF Interface (up to two channels):**
  - Carrier frequency: 13.56 MHz.
  - RF output: 400mW
  - Output Short Protection – Built-in (continuous)
  - RF Data Operations - Half duplex
  - ISO 14443 Type A&B and Mifare full compatibility.
- **Optional SAM:**
  - Data line - Bi-directional, Half duplex
  - Reset line
  - Clock – 4MHz
- **Communication Links:**
  - Serial RS232 communication protocol TTL5-3.3V level NRZ
  - Signals – Transmit / Receive
  - Async (start/stop), bit serial, (full duplex); data byte=8 data bits, no parity, 2 stop bits, full 8-bit binary data Flexible protocol. Client defined baud rate (up to 57,600 baud)
  - Data Error Checking - Message Length, Parity, Frame-bits, CRC.

- **Indicators:**
  - Power indicator LED
  - Programmable Green LED
- **Digital I/O:**
  - 3 programmable IOs
  - 3 programmable buffered LED Outputs. 20 mA source per output
- **Microprocessor Circuit:**
  - Microprocessor - 80C32 compatible
  - XTAL - 24 MHz
  - Flash memory - 128Kbyte
  - Secondary Flash memory - 32Kbyte
  - RAM - 8Kbyte
  - Lock-up protector - Watch Dog Timer
- **Electronic Board Power Requirements:**
  - Regulated 5VDC/400mA
  - Max power consumption - 2W (RF signal ON)
- **Security** - High security encryption system (DES/RSA) in the board's Operating System (with SAM option on-board).

## Environmental

- **Temperature:**
  - Operating: -20° - 70°C (-4° - 158°F)
  - Storage: -45° - 85°C (-49° - 185°F)
- **Humidity** - 5 to 95% non-condensing
- **Tuning** – NON
- **Remote antenna (up to two channels)** - Connection to passive antenna via 50Ω coax cable. For length over 1m, cable length must be increments of half wavelength
- **Secured Applications:** Secured applications with SAM option. (Up to two SAMs)

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