

## K531-232

OEM CONTACTLESS MODULE READER/WRITER WITH ANTENNA RS232



Ready-to-use ISO/IEC 14443-A/B reader / writer with antenna RS-232 link ( +/- 10V ) that can be embedded in virtually any kind of appliance

### KEY FEATURES

K531-232 is dedicated to integrators who need to work with any ISO 14443-A/B cards such as Mifare, DESFire, Calypso and more.

Thanks to its asynchronous serial communication interface, K531-232 is really easy to operate from any microcontroller or host computer.

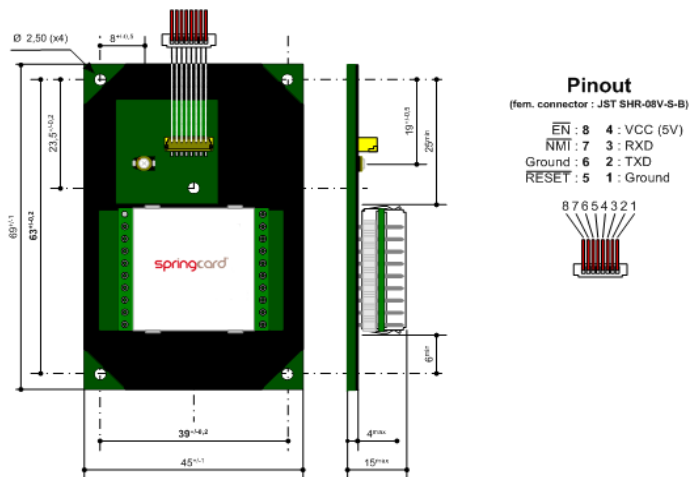
K531-232 has many features that make it the only product on the market to provide such flexibility at low cost.

- Metallic bonnets to protect from radiations
- Ferrite on antenna to protect other components from radiations
- Embedded T=CL protocol, ISO/IEC 14443 A & B
- compliance from layer 1 to 4. Able to read/write all files/sectors of Mifare, DESFire,...
- High level function set
- High speed communication

### A FEW TYPICAL APPLICATIONS

- vending machine,
- card printer,
- access control gate
- enrollement station,
- And more

### DETAILED VIEWS



### SPRINGCARD & PRO ACTIVE

Established in 2000, Pro Active is an innovative provider of smartcard-related solutions, and one of the leaders on the contactless-reader market.

SpringCard distributes Pro Active's contact and contactless products worldwide, under a single brand name.

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## TECHNICAL SPECIFICATIONS

### Contactless smartcard interface

|   |  |
|---|--|
| Standards   | ISO/IEC 14443 A and B, T=CL                            |
| RFID carrier  | 13.56 MHz  |
| Operating distance  | typical 5 cm - up to 8cm depending on card and antenna |
| Card baud rate  | 106, 212 or 424 kbit/s                                 |
| Supported cards (partial list):<br>NXP (Philips) MIFARE Classic & UltraLight<br>NXP (Philips) DESFIRE, SmartMX, ProX<br>Infineon SLE66 family<br>ST MicroElectronics SR, SRI, SRIX families<br>ASK CTS256/CTS512<br>Calypso (CD97, CD21, GTML, etc)<br>And virtually any ISO 14443 A or B compliant smartcard |  |

### Serial Interface

|                    |   |
|--------------------|---|
| RX/TX pins (RS232) | asynchronous serial communication<br>8 data bits, 1 stop, no flow control<br>9600, 38400 or 115200bps |
| Power supply       | 5 V DC  |
| Consumption        | 150mA typical   |

### Hardware specifications

|                    |   |
|--------------------|---|
| Dimensions (LxWxH) | 45 x 69 x 15 mm                                       |
| Weight             | ≈ 14g   |
| Housing            | Metallic bonnets on K531<br>Ferrite shield on antenna |

### Environment and safety

|                       |  |
|-----------------------|--|
| Operating temperature | -20 → +80°C                            |
| Storage temperature   | -40 → +85°C                            |
| MTBF                  | 500 000 hours                          |
| CE mark               | EN50082 / EN55022 class B <sup>1</sup> |
| FCC                   | Part 15                                |
| Other standards       | RoHS                                   |

<sup>1</sup>Safety: EN60950: 2001 ; EN 50364 : 2001, EMCEN 301 489-03 v1.4.1 ; EN 301 489-01 v1.6.1.

## ORDER CODES

| PART #   | Description                                 |
|----------|---|
| K531-232 | ISO 14443-A/B OEM module with RS232 antenna |

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