

## K632-TTL

OEM CONTACTLESS READER/WRITER MODULE WITH ANTENNA AND TTL INTERFACE



Ready-to-use ISO/IEC 14443-A/B and ISO/IEC 15693 reader / writer with antenna and RX/TX at TTL level that can be embedded in virtually any kind of appliance

### KEY FEATURES

K632-TTL is dedicated to integrators who need to work with any ISO 14443-A/B or ISO 15693 cards/tags such as Mifare, DESFire, Calypso and more. Thanks to its asynchronous serial communication interface, K632-TTL is really easy to operate from any microcontroller or host computer.

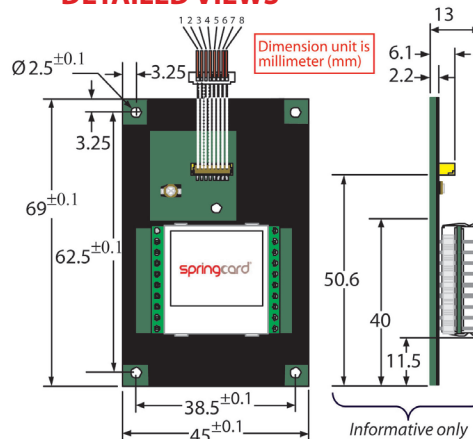
K531-TTL has many features that make it the only product on the market to provide such flexibility at low cost.

- Metallic bonnets to protect from radiations
- Ferrite on antenna to protect other components from radiations
- Embedded T=CL protocol, ISO/IEC 14443-A/B (from layer 1 to 4) and ISO/IEC 15693 compliance. Able to read/write all files/sectors of Mifare, DESFire,...
- High level function set
- High speed communication

### A FEW TYPICAL APPLICATIONS

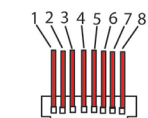
- vending machine,
- card printer,
- access control gate
- enrollement station,
- and more

### DETAILED VIEWS



### Pinout

EN : 1 5: VCC (5V)  
FLASH : 2 6: RX  
Ground : 3 7: TX  
RESET : 4 8: Ground



Connector: JST BM08B-SRSS-TB(LF)(SN)

PIN Assignments	Notes
1 /EN - Not used	Must be left unconnected
2 /FLASH - 5V : normal operation 0V : firmware upgrade	Can be left unconnected
3 Ground	
4 /RESET - 5V : normal operation 0V : module reset	Can be left unconnected
5 VCC (5V)	
6 RX (TTL)	Host to module
7 TX (TTL)	Module to host
8 Ground	

### 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.

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### TECHNICAL SPECIFICATIONS

#### K632 Contactless smartcard interface

Standards	ISO/IEC 14443 A and B, T=CL ISO/IEC 15693 and 18000-3
RFID carrier	13.56 MHz
Operating distance	typical 5 cm - up to 8cm depending on card and antenna
Card baud rate	106, 212, 424 or 848 kbit/s depending on antenna
Supported cards (partial list) : <ul style="list-style-type: none"> <li>▪ NXP (Philips) ICODE1, ICODE-SLI, etc</li> <li>▪ Texas Instrument TagIT</li> <li>▪ NXP (Philips) MIFARE Classic &amp; UltraLight</li> <li>▪ NXP (Philips) DESFIRE, SmartMX, ProX</li> <li>▪ Infineon SLE66 family</li> <li>▪ ST MicroElectronics SR, SRI, SRIX families</li> <li>▪ HID iClass, Inside PicoTag</li> <li>▪ ASK CTS256/CTS512</li> <li>▪ Calypso (CD97, CD21, GTML, etc)<sup>1</sup></li> </ul> And virtually any ISO/IEC 14443 A or B compliant smartcard, or ISO/IEC 15693 compliant RFID label	

#### Hardware specifications

Dimensions (LxWxH)	45 x 69 x 15 mm
Weight	≈ 14g
Housing	Metallic bonnets on K531 Ferrite shield on antenna
Connector	JST: BM08B-SRSS-TB(LF)(SN) Corresponding female connector ( <i>not provided</i> ) : JST: SHR-08V -S -B

#### Environment and safety

Operating temperature	-20 → +70°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

#### Serial Interface

RX/TX pins (CMOS/TTL)	asynchronous serial communication 8 data bits, 1 stop, no flow control 9600, 38400 or 115200bps
Power supply	5 V DC
Consumption	200mA typical
Connector	JST: BM08B-SRSS-TB(LF)(SN) Corresponding female connector ( <i>not provided</i> ) : JST: SHR-08V -S -B

### ORDER CODES

PART #	Description
K632-TTL	ISO 14443-A/B and ISO 15693 OEM module with antenna and TTL interface

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