springcard®

K531-485

OEM CONTACTLESS READER/WRITER MODULE WITH ANTENNA AND RS-485 INTERFACE

Ready-to-use ISO/IEC 14443-A/B reader/writer with antenna and a standard RS-485 long-distance serial interface that can be embedded in virtually any kind of appliance

KEY FEATURES

K531-485 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, K531-485 is really easy to operate from any microcontroller or host computer.
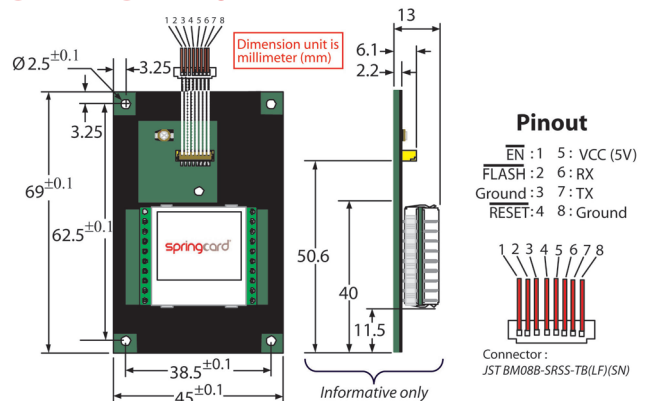
K531-485 has many features that make it the only product on the market to provide such flexibility at low cost.

- 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
- enrollment station,
- and more

DETAILED VIEWS

Dimension unit is millimeter (mm)

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 Assignements	Notes
1	/EN - Not used	Can be left unconnected
2	/FLASH - Not used	Can be left unconnected
3	Ground	
4	/RESET - 5V : normal operation 0V : module reset	Can be left unconntected
5	VCC (5V)	
6	RX (RS-485)	Host to module
7	TX (RS-485)	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.

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

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OEM CONTACTLESS READER/WRITER MODULE WITH ANTENNA AND **RS-485** INTERFACE

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)* :
NXP (Philips) MIFARE Classic & UltraLight
NXP (Philips) DESFIRE, SmartMX, ProX
Infineon SLE66 family
ST MicroElectronics SR, SRI, SRIX families
ASK CTS256/CTS512
Calypso (CD97, CD21, GTML, etc)
And virtually any ISO 14443 A or B compliant smartcard

Serial Interface	
RS-485 bus	asynchronous serial communication 8 data bits, 1 stop, no flow control 38400bps
Power supply	5 V DC
Consumption	200mA typical
Connector	JST: BM08B-SRSS-TB(LF)(SN) Corresponding female connector (*not provided*) : JST: SHR-08V -S -B

Hardware specifications	
Dimensions (LxWxH)	45 x 69 x 15 mm
Weight	≈ 14g
Housing	Metalic bonnets on K531 Ferrite shield on antenna

Environment and safety	
Operating temperature	-20→+70°C
Storage temperature	-40 →+85°C
MTBF	500 000 hours
CE mark	EN50082 / EN55022 class B[1]
FCC	Part 15
Other standards	RoHS

[1]Safety: EN60950: 2001 ; EN 50364 : 2001, EMC:EN 301 489-03 v1.4.1 ; EN 301 489-01 v1.6.1

ORDER CODES

PART #	Description
K531-485	ISO 14443-A/B OEM module with antenna and RS-485 interface

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