

MicroSMART

MIFARE[®] SMART CARD READER / WRITER



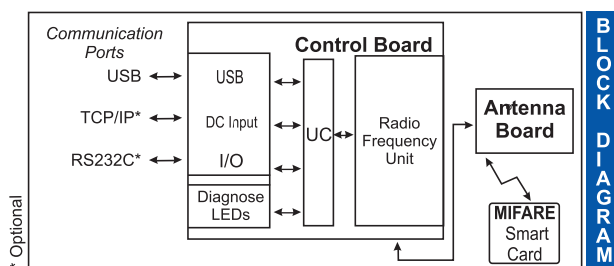
MicroSMART : SALIENT FEATURES

- Philips MIFARE Technology (ISO14443 Type A)
- Typical Operating Distance : Typical 60 - 80 mm
- Compatible to 1KB(S50)/4KB (S70) Mifare RF Card
- USB Interface (Optional : TCP/IP* / RS 232C*)
- DLL for Windows Based Application Development
- ASCII protocol for Embedded Systems Integration

The **MICRO SMART** USB based proximity reader is a fully functional read / write device that is controlled via a USB. With its integrated antenna, it provides a Maximum operating range of upto 100 mm. The Onboard Micro controller provides a powerful firmware, which supports all the basic functions for accessing **PHILIPS MIFARE** compatible 1KB/4KB smart cards, and with a USB interface, it is easily integrated into a system.

It serves your demand for use in embedded system or handheld devices. This USB reader is also well suited for slot or surface readers (e.g. ATMs, Vending machines). Typical high volume applications are Attendance & Access Control, parking, highway Toll gates, unmanned weigh bridges, vehicle tracking, Mobile Attendance, work-in-progress. PC based applications include System Authorization, E-purse, PC Login, Loyalty Cards, Medical Data, Library & multi-application Campus cards etc....

A simple connection to the USB interface to a computer or uC is the only hardware requirement, besides the design of the User Application Program. This reader can even be integrated with any embedded controller. Software drivers i.e.: DLL (for Windows) & ASCII protocol (for DOS, Micro controller embedded products) are available for easy system integration.



The **MicroSMART** USB Proximity Reader (Short Range) consists of a **MIFARE RC 632 Smart IC**, a **ARM CPU** and a **USB interface** mounted on a PCB. It also carries the antenna for the data communication with a contactless **MIFARE** compatible Smart Card. It can optionally be provided with **TCP/IP LAN Port** for Network based application. It can act as a **Wiegand Reader** also.

BUILT - IN FUNCTIONS

- “Auto Increment/Decrement” on Card usage for Vending Application
- “Auto Data Send” for a Information from a Block to be transmitted upon card usage for ID#/Name/Password etc.
- “Auto Digital Output” upon Card usage for switching Application
- “26/34 Bit Weigand Output Port” for Card Reader Application
- “Value Block” for E-Purse Application
- “Key A / Key B” definition for each sector for Multi-Application
- “Addressable” for distributed application
- “TCP/IP” Enabled using driver function

TECHNICAL SPECIFICATION

Operating frequency	13.56 MHz
Power supply	Typ.70 mA(max. 90 mA)
Supply voltage	8 - 40 V DC
Operating temperature	0 .. +55 C
Max. humidity	98% RH(Non-condensing)
Storage temperature	-25 .. +85 C
Dimension	95(H)x67(W)x30(D)mm
Interface to host	USB / RS232C* / TCP/IP*
Operating distance (Max./typical)	100/60 mm
Wiegand O/P	26/34 bit Wiegand output

ORDERING INFORMATION

- ◆ **MicroSMART R/W** : Contactless Smart Card Reader/Writer
- ◆ **MicroSMART** : Contactless Smart Card wiegand Reader
- ◆ **MicroSMART SDK** : MicroSMART R/W + DLL + ASCII Protocol
- ◆ **Smart Card** : MIFARE Compatible 1KB/4KB RFID Card