NFC / MIFARE® / FeliCa Smartcard Plug& Play Module

FEATURES

easyDESFire EV1 protocol
Near Field Communication (NFC)
ISO7816,ISO14443 A/B, Sony FeliCa
PIN code protected EEPROM
PC/SC 2.01 compliant

APPLICATIONS

NFC, Payment, POS, Vending, Printers, Metering
E-Service
Ticketing, Terminals
Access Control

The SUNZone Hybrid Plug & Play reader is one of the **more reliable** and **flexible** NFC OEM readers in the market. It supports all major transponders compliant with **NFC Tag Type 1, 2, 3, 4.** Besides **peer-to-peer** communication (ISO 18092), **FeliCa** (unsecured mode) as well as NXP MIFARE**Classic**, MIFARE **Ultralight / Ultralight C** , MIFARE **DESFire / EV1** without additional SAM slot,. Furthermore the hybrid reader is easy to integrate and develop,works with several **NFC cell** and offers many possibilities for fast customization.

TECHNICAL SPECIFICATIONS

Supported standards	ISO18092 (NFC transport protocol), Sony FeliCa , MIFARE® family, compliant to ISO14443A/B, ISO14443A－4 (T=CL), easyDESFire EMV1, smartcard ISO7816-1,-2,-3, MSR ISO7811
Communication protocol	SUNZONE API (high level language)
Baud rate (to host)	µC equipped: 9.6, 19.2, 38.4, 57.6, 115.2, 230.4, 460.8 kBaud, 8,N,1 No µC equipped: up to 1.228 MBaud
Baud rate (passive/active)	106 kBaud, 212 kBaud, up to 424 kBaud
Interfaces	UART (CMOS-TTL 3.3 VDC or 5 VDC), I²C, USB 2.0[3], RS232, SPI, S2C
Power supply	3.3 VDC[4] (-3/+10%) or 5 VDC[4] (±10%)
Power consumption	Approx. 110 mA, sleep mode depends on interface selection.
Antenna	Integrated
Reading distance	Up to 50 mm (passive, for Type A-Cards) / 70 mm (active) APPB to APPB Up to 15...20mm (passive, for Type B-Cards) APPB
User I/O	8 GPIOs, 1 x Open drain (pin), 3 x PWM (pin) and 1 x Analog input (pin), User interrupt pin for wake up
Features	PC/SC 2.01 compliant (USB) PIN code protected EEPROM area for personalization of the reader Firmware boot-loader via host interface (µC equipped)
Dimensions	*(L x W x H) 70 x 45 x 4 … 13 mm (depending on connector)*
Weight	10g (±10%)
Operating temperature	-20°C to +80°C
Storage temperature	-40°C to +85°C
Approval	EN300330, EMV EN 301 489 1, EN60950, EN50364 (CE), RoHS compliant
Support	Application Note Hardware and Software

NOTE:
1. ASCII or binary mode: MIFARE® family, addressing party line (µC equipped), customized Firmware and applications on request
2. Binary mode: Near Field Communication (NFC), MIFARE® family, ISO 14443A/B, ISO 14443A-4 (T=CL), Sony FeliCa
3. USB interface (Windows 98SE/2000/XP/Vista, Linux, Mac), virtual COM port driver or direct driver support, USB connection either via direct cable or USB connector type B, PC/SC 2.01 compliant driver for Windows 98SE / 2000 / XP Professional (32 Bit) / Vista (32 Bit), Red Hat Linux 5 (Kernel 2.6.18) with IDE support for Windows SmartCard Resource Manager API
4. A filtered, stabilized power supply must be always used
5. Sony FeliCa command set only in pass through mode
6. SigIN-SigOUT-Connection: MIFARE® emulation, non-volatile security memory (for payment or access control data)
7. Wiegand interface is only available with a power supply of +5.0 VDC
8. SUNZONE   offers to match the antenna for any environment. Please contact us for more information
9. In this case the levels of the signal buses for UART are 3.3 VDC

ORDERING INFORMATION:
SUZCR 950xUSB   µController, USB, USB bus powered
SUZCR 950x RS   µController, RS232, 5 VDC
SUZCR 950 x UT   µController, UART (CMOS-TTL), 5 VDC

Further Product and customization options upon request