

# NFC Reader



## Technical Specifications

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## 1.0. Introduction



The NFC reader is a PC-linked contactless smart card reader/writer developed on the 13.56 MHz contactless technology. It is the world's first CCID-compliant contactless card reader/writer that follows both ISO 14443 and ISO 18092. This device is designed to support not only Mifare and ISO 14443 Type A and B cards but also FeliCa and NFC tags.

By making use of up to 424 kbps for NFC tag access and full USB speed of up to 12 Mbps, NFC reader can read and write faster and more efficiently. Furthermore, NFC reader is also PC/SC compliant which allows inter-operability across different applications and platforms. You can experience the convenience in using NFC reader, with its compact size and the various features it offers, for applications such as payment, access control, time and attendance, and mass transit.

## 2.0. Features

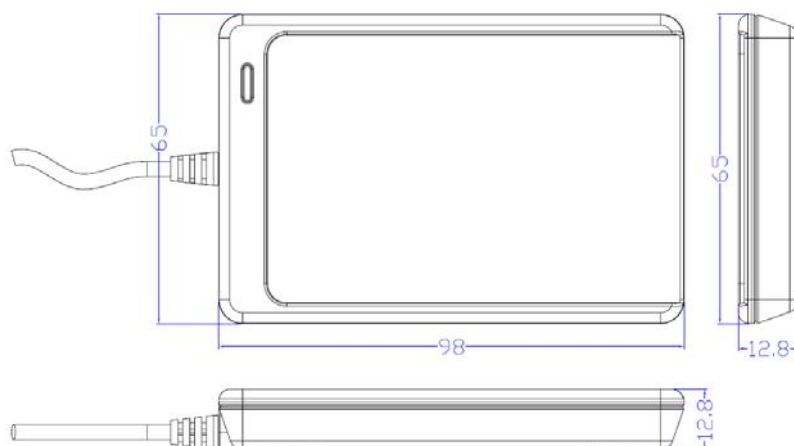
- CCID-compliant
- PC/SC-compliant
- Read/write speed up to 424 kbps
- Built-in antenna for contactless tag access, with card reading distance of up to 50 mm (depending on tag type)
- Supports ISO 14443 Type A and B, Mifare, FeliCa, and all 4 types of NFC (ISO/IEC 18092) tags
- Supports new Mifare Ultralight C, Mifare Plus and DESFire EV1
- Supports all 3 modes of NFC: reader, card emulation and peer-to-peer modes
- Built-in anti-collision feature (at least 1 card is detected when multiple cards are presented)
- USB PnP
- User-controllable bi-color LED
- Compact size: 98 mm (L) x 65 mm (W) x 12.8 mm (H)
- Light Weight: 70 g
- User-controllable buzzer

### 3.0. Typical Applications

- e-Government
- e-Banking and e-Payment
- e-Healthcare
- Transportation
- Network Security
- Access Control
- Loyalty Program



## 4.0. Technical Specifications



### Universal Serial Bus Interface

Power source .....	From USB
Speed.....	12 Mbps (Full Speed)
Supply Voltage.....	Regulated 5 V DC
Supply Current .....	200 mA (maximum); 50 mA (standby); 100 mA (normal)

### Contactless Smart Card Interface

Standard .....	ISO/IEC 18092 NFC, ISO 14443 A and B, FeliCa, Mifare
Protocol.....	FeliCa protocol, T=CL protocol
Operating Frequency .....	13.56 MHz
Smart card read / write speed.....	106 kbps, 212 kbps, 424 kbps

### Casing

Dimensions .....	98 mm (L) x 65 mm (W) x 12.8 mm (H)
Weight.....	70 grams
Material .....	Polycarbonate (PC)
Color .....	Pearl White
Antenna Size.....	50 mm x 40 mm
Operating distance.....	Up to 50 mm (depending on tag type)

### Built-In Peripherals

Bi-Color LED .....	Bi-color LED, red and green
Buzzer .....	Monotone

### Operating Conditions

Temperature.....	0 - 50 °C
Humidity .....	10% - 80%

### Cable Connector

Length .....	1.0 M (USB)
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### Certifications/Compliance

PC/SC, CCID, CE, FCC, VCCI, RoHS Compliant, USB Full Speed  
 Microsoft® WHQL 2000, Server 2003, XP, Vista, Server 2008, Server 2008 R2, 7

### Device Driver Operating System Support

Windows® 98, ME, 2000, Server 2003, XP, Vista, Server 2008, Server 2008 R2, 7  
 Windows® CE 5.0  
 Linux, Mac

