



## 2.0. Features

- USB 2.0 Full Speed Interface
- CCID Compliant
- Smart Card Reader:
  - Contactless Interface
    - Read/Write speed of 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 Part 4 Type A and B cards, MIFARE® Classic, FeliCa, and all four types of NFC (ISO/IEC 18092 tags)
    - Built-in anti-collision feature (only one tag is accessed at any time)
    - NFC Support:
      - Card reader/writer mode
      - Peer-to-Peer mode
      - Card Emulation mode
  - SAM Interface:
    - One SAM slot
    - Supports ISO 7816-compliant Class A SAM cards
- Application Programming Interface:
  - Supports PC/SC
  - Supports CT-API (through wrapper on top of PC/SC)
- Built-in Peripherals:
  - User-controllable bi-color LED
  - User-controllable buzzer
- USB Firmware Upgradeability
- Supports Android™ 3.1 and above
- Compliant with the following standards:
  - ISO 18092
  - ISO 14443
  - ISO 7816 Class A (for SAM slot)
  - NFC Forum
  - J-LIS
  - CE
  - FCC
  - VCCI
  - MIC
  - KC
  - PC/SC
  - CCID
  - RoHS 2
  - REACH
  - Felica Performance Certification
  - Microsoft® WHQL

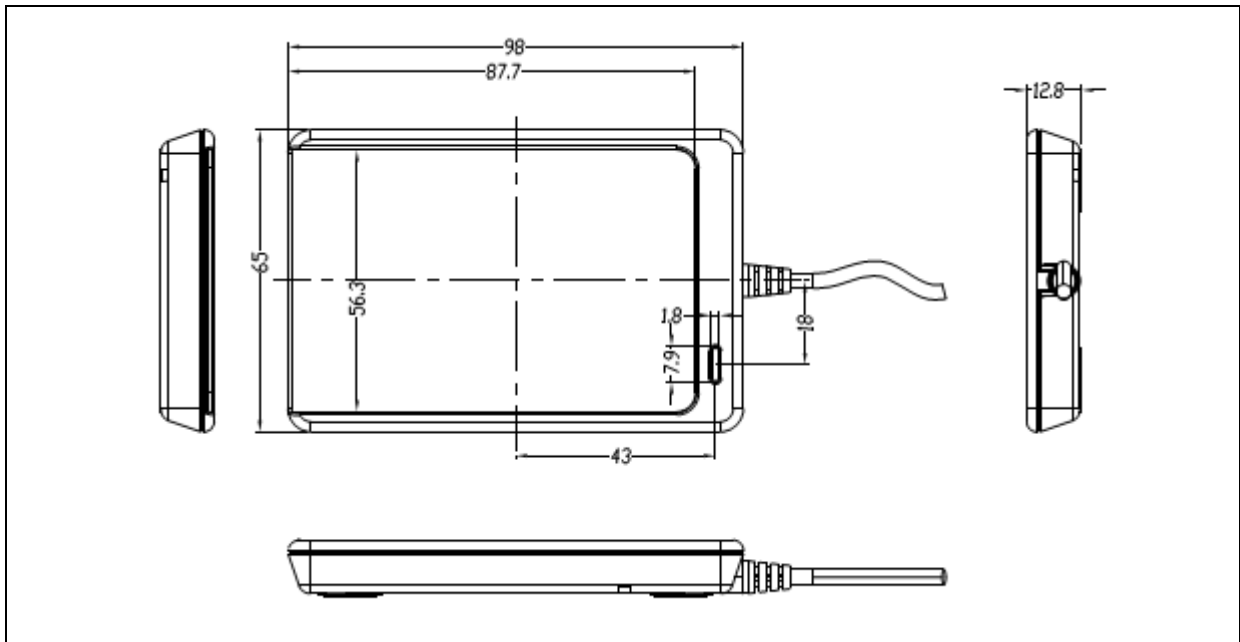


### **3.0. Typical Applications**

- e-Government
- e-Banking and e-Payment
- e-Healthcare
- Transportation
- Network Security
- Access Control
- Loyalty Program
- Smart Poster/URL Marketing
- P2P Communication



## 4.0. Technical Specifications



### Physical Specifications

Dimensions .....	98.0 mm (L) × 65.0 mm (W) × 12.8 mm (H)
Weight.....	81 g
Material .....	Acrylonitrile - Butadiene – Styrene (ABS)
Color .....	Matte Black
Antenna Size.....	50 mm × 40 mm
Cable Length.....	1 m (USB)

### Universal Serial Bus Interface

Power Source.....	From USB
Speed.....	12 Mbps (Full Speed)
Supply Voltage.....	Regulated 5 V DC
Supply Current .....	Max. 200 mA

### Contactless Smart Card Interface

Standard .....	ISO/IEC 18092 NFC, ISO 14443 Type A & B, MIFARE, FeliCa
Protocol.....	ISO 14443 T=CL for ISO 14443-4 compliant cards and T=CL Emulation for MIFARE Classic 1K/4K, ISO 18092, FeliCa and NFC tags
Operating Frequency .....	13.56 MHz
Operating Distance .....	Up to 50 mm (depending on tag type)
Smart Card Read/Write Speed.....	106 Kbps, 212 Kbps, 424 Kbps

### SAM Card Interface

Number of Slots .....	1 Standard SIM-sized
Standard .....	ISO 7816 Class A
Protocol.....	T=0 and T=1

### Built-in Peripherals

LED .....	1 Bi-color : Red and Green
Buzzer .....	Monotone

### Application Programming Interface

PC-linked mode.....	PC/SC
.....	CT-API (through wrapper on top of PC/SC)

### Operating Conditions

Temperature.....	0 °C – 50 °C
Humidity .....	Max. 90% (non-condensing)
MTBF .....	500,000 hrs

### Certifications/Compliance

ISO 18092, ISO 14443, ISO 7816 Class A (SAM slot), CE, FCC, PC/SC, CCID, RoHS 2, REACH, NFC Forum ,Felica Performance Certification, USB Full Speed, Microsoft® WHQL J-LIS (Japan), VCCI (Japan), MIC (Japan), KC (Korea)



**Device Driver Operating System Support**

Windows® 2000, Windows® XP, Windows Vista®, Windows® 7, Windows® 8, Windows® 8.1, Windows® 10  
Windows® Server 2003, Windows® Server 2003 R2, Windows® Server 2008, Windows® Server 2008 R2,  
Windows® Server 2012, Windows® Server 2012 R2  
Linux®, Mac OS®, Android™ 3.1 and above



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