



## **Technical Specifications**

### **NFC Contactless Smart Card Reader**



## 1.0 Introduction



It is a PC-linked Contactless Smart Card Reader/Writer developed on the 13.56MHz Contactless Technology. It is the world's first CCID Compliant Contactless Card Reader/Writer that follows both ISO14443 and ISO18092. This device is designed to support not only MiFara and ISO14443 Type A and B Cards but also FeliCa and NFC tags.

By making use high-speed card access and full USB speed of 12 Mbps, read and write operations are faster and more efficient. Furthermore, this reader complies to the PC/SC Interface Standard and as a Plug and Play (PnP) device so there is no need to provide

drivers to users. With its compact size and trendy design and with the various features the ACR122 offers, you can experience the convenience in using ACR122 for applications of payment, mass transit, physical access control, time attendance, etc.

### 1.1 About RoHS Compliance

The RoHS (**R**estriction **o**f **H**azardous **S**ubstance) Directive restricts the use of six hazardous materials in the manufacturing of various types of EEE (Electrical and Electronic Equipment), including:

- \*- Lead,
- \*- Mercury,
- \*- Cadmium,
- \*- Hexavalent chromium,
- \*- Polybrominated biphenyl (PBB) and
- \*- Polybrominated diphenyl ether (PBDE).

RoHS compliance means the protection to the environment and your future generations from these restricted irritants, carcinogens and toxins.

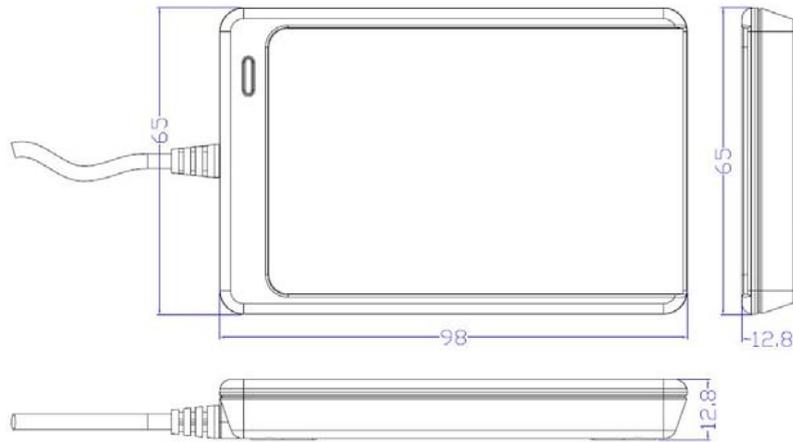
## 2.0 Features

- \* CCID Standard
- \* PC/SC Interface
- \* Read / Write Speed up to 424kbps
- \* ISO/IEC18092 (NFC) compliant
- \* ISO14443 Type A and B card support
- \* USB PnP
- \* Compact and Slim design
- \* Bi-Color LED
- \* RoHS Compliant
- \* User Controllable Buzzer (optional)
- \* SAM Socket (optional)

## 3.0 Typical Applications

- \* Automatic fare collection
- \* Vending machines
- \* Public Transportation Terminals
- \* Customer Loyalty
- \* Physical access control
- \* Time attendance
- \* Contactless public phones
- \* Network access control

## 4.0 Technical Specification



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

Standard ..... ISO/IEC 18092 ; ISO14443 A and B, FeliCa, MiFare  
 Protocol ..... FeliCa protocol, T=CL protocol  
 Operating Frequency ..... 13.56 MHz  
 Smart card read / write speed ..... 212 kbps, 424 Kbps

Standard ..... ISO 7816  
 Protocol ..... T=0 protocol  
 Operating Frequency ..... 4 MHz  
 Smart card read / write speed ..... 9600 - 115200 bps

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

Bi-Color LED..... Bi-Color LED, Red and Green  
 Buzzer ..... Monotone (optional)

Length..... 1.0 M (USB)

CE, FCC and ROHS Compliant

Windows 2K, 2K3, XP32, XP64, VISTA32, VISTA64

OEM-Logo possible, customer-specific colors, casing, and card connector