



**Advanced Card Systems Ltd.**  
Card & Reader Technologies

# ACR1281U-C2 Card UID Reader



Technical Specifications V1.00



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## 1.0. Introduction

ACR1281U-C2 is a contactless card UID (Unique Identification Number) reader especially designed to get the UID of any ISO 14443 Parts 1-4 Type A and B-compliant contactless card in an efficient way.

When a contactless card (e.g., MIFARE® DESFire® card) is tapped on to the ACR1281U-C2, the reader retrieves the UID and automatically returns the UID to the computer. Since it is HID-compliant, this device does not require any additional driver to be installed in the computer. However, its only function is to retrieve the card's UID and display it directly in any text editor such as Notepad, Microsoft® Excel and Microsoft® Word. The ACR1281U-C2 also has an anti-collision feature that ensures only one card is accessed when multiple cards are presented at the same time.

ACR1281U-C2 Card UID Reader is HID (Human Interface Device)-compliant. It can also support Windows®, Linux®, Mac OS®, and other embedded systems.



**Figure 1:** ACR1281U-C2 Sample Application



## 2.0. Features

- USB 2.0 Full Speed Interface
- USB HID Keyboard Class Emulation
- Contactless Card Support:
  - Read/Write speed of up to 848 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, and MIFARE® cards
  - Built-in anti-collision feature (only one tag is accessed at any time)
- USB Firmware Upgradability
- Compliant with the following standards:
  - ISO 14443
  - CE
  - FCC
  - RoHS 2

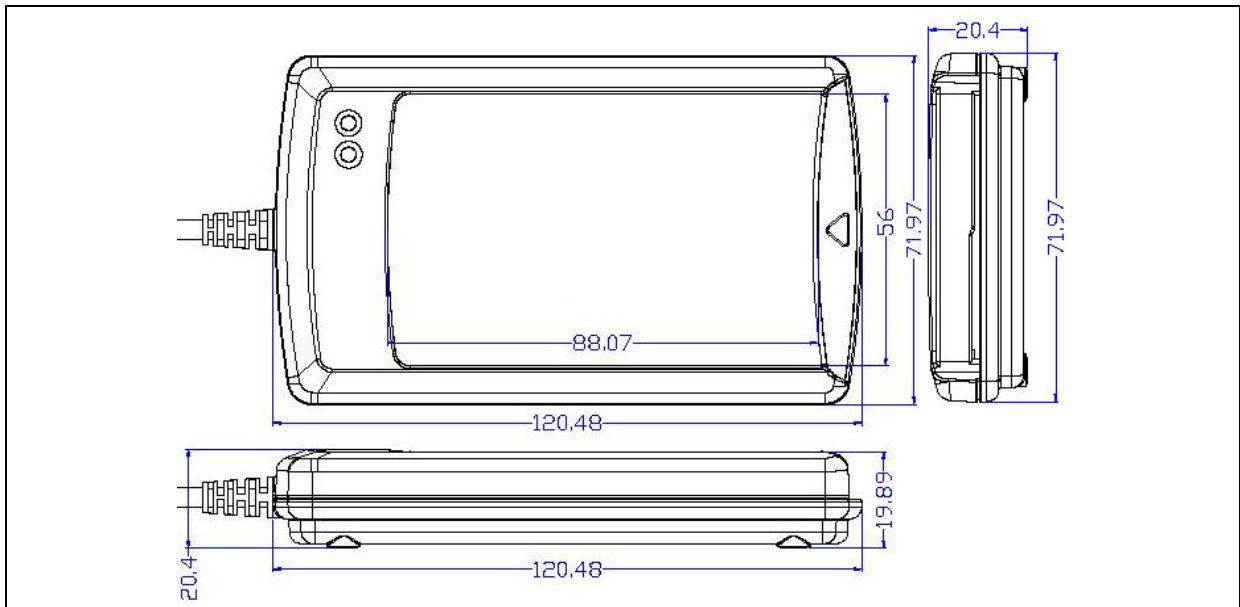


### **3.0. Typical Applications**

- 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)
USB Host Interface .....	USB HID Keyboard Class
Supply Voltage.....	Regulated 5 V DC
Supply Current .....	200 mA

### Contactless Smart Card Interface

Standard .....	ISO 14443 A and B Parts 1-4
Smart Card Read/Write Speed.....	106 Kbps, 212 Kbps, 424 Kbps, 848 Kbps
Operating Frequency .....	13.56 MHz
Operating Distance .....	Up to 50 mm (depending on card type)
Antenna Size.....	65 mm x 60 mm

### Built-in Peripherals

LEDs .....	Red and Green
Buzzer.....	Monotone

### Physical Specifications

Dimensions .....	120.5 mm (L) x 72.0 mm (W) x 20.4 mm (H)
Weight.....	140 g
Color .....	Black
Cable Length.....	2 m (USB)

### Operating Conditions

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

### Certifications/Compliance

ISO 14443, HID, CE, FCC, RoHS 2, USB Full Speed

### Operating System Support

Windows®, Linux®, Mac OS®



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