



Advanced Card Systems Ltd.
Card & Reader Technologies

ACR1281-C8 Contactless Reader/Writer

Technical Specifications V1.00





Table of Contents

1.0.	Introduction	3
2.0.	Features	4
3.0.	Typical Applications.....	5
4.0.	Technical Specifications.....	6
4.1.	ACR1281-C8 Reader.....	6
4.2.	ACR1281-C8 Reader Module.....	6



1.0. Introduction



The ACR1281-C8 is the new version of ACS's ACR120 Contactless Smart Card Reader. It is a compact and cost-effective device developed based on the 13.56 MHz contactless smart card (RFID) technology, with proximity operating distance up to 5 cm, depending on the type of contactless tag in use (supports Mifare and ISO 14443 Type A and Type B cards).

The versatile reader is available in both USB and Serial interface version, which can easily be integrated into a PC environment as well as other systems. It is ideal for a broad range of applications, including public transport terminals, physical and logical access controls, and even vending machines.



2.0. Features

- USB PnP or Serial RS232 interface (also available in RS485 *upon request*)
- Read and write functionality
- Smart Card Reader:
 - Built-in antenna for contactless tag access, with card reading distance of up to 50 mm
 - Supports for ISO 14443 Type A and B cards, Mifare
 - Built-in anti-collision feature (only one tag is accessed at any time)
 - Selective card polling capability (especially useful when multiple cards are presented)
- Built-in Peripherals:
 - LED
 - Buzzer
- OEM PCBA module version (*upon request*)
- Firmware Upgradability
- Compliant with the following standards:
 - CE
 - FCC
 - RoHS



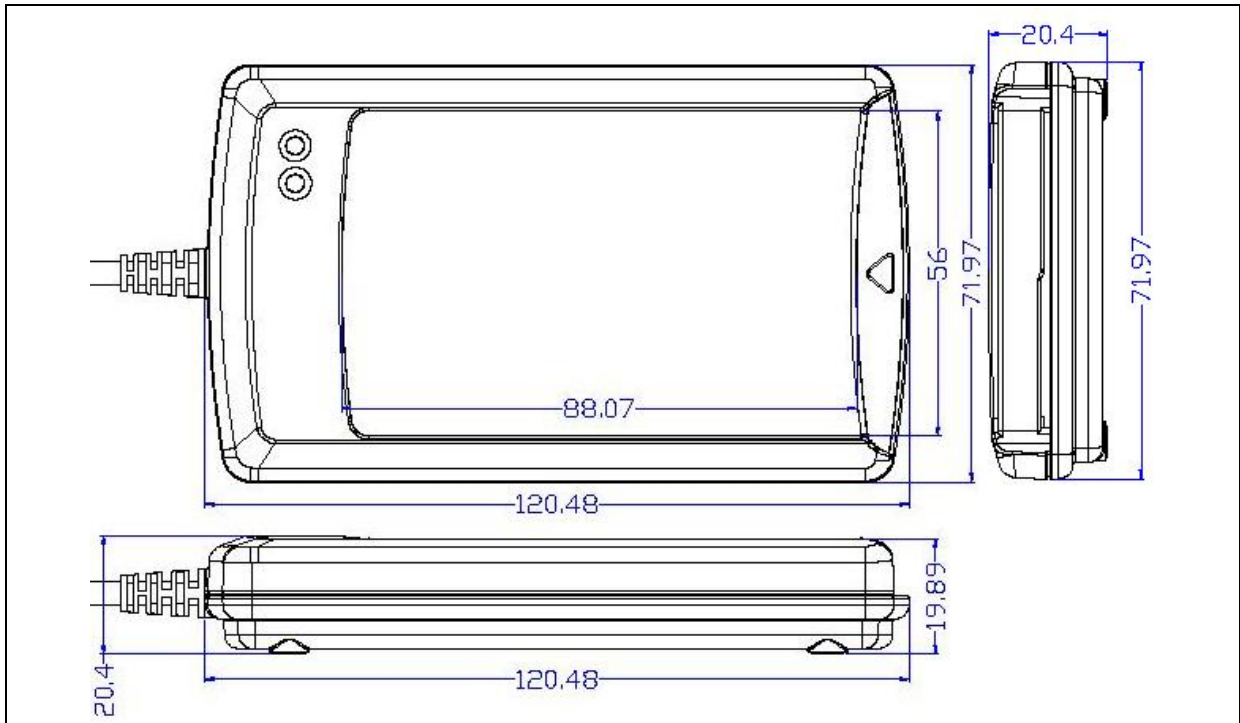
3.0. Typical Applications

- e-Government
- e-Banking and e-Payment
- e-Healthcare
- Public Key Infrastructure
- Network Security
- Access Control
- Loyalty Program

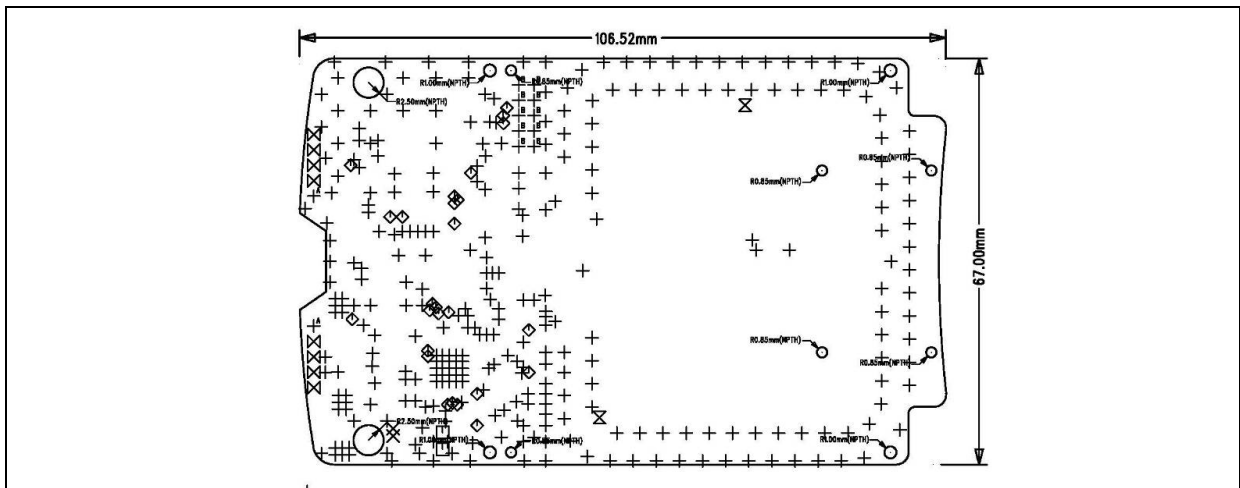


4.0. Technical Specifications

4.1. ACR1281-C8 Reader



4.2. ACR1281-C8 Reader Module





Serial Interface

Type RS232 (Standard)
 Operation Baud Rate 9,600 – 115,200 bps
 Power Source From USB
 Supply Voltage Regulated 5 V DC
 Supply Current 200 mA

Universal Serial Bus Interface

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

Contactless Smart Card Interface

Standard ISO 14443 A and B
 Protocol Mifare® Classic protocols, Mifare® DESFire protocols, Mifare Mini protocols
 Smart Card Read/Write Speed 106 kbps

Physical Specifications

Dimensions 120.5 mm (L) x 72.0 mm (W) x 20.4 mm (H)
 Color Black
 Weight 150 g

Operating Conditions

Temperature 0 – 50 °C
 Humidity 10% - 90%

Certification/Compliance

CE, FCC, RoHS

Device Driver Operating System Support

Windows® 98, ME, NT (Serial), 2000, XP, Vista, 7, Server 2003, Server 2003 R2, Server 2008, Server 2008 R2
 Linux

