



Advanced Card Systems Ltd.
Card & Reader Technologies

ACR122U USB NFC Reader

Technical Specifications V3.06





2.0. Features

- USB Full Speed Interface
- CCID-compliant
- Smart Card Reader:
 - o Read/Write speed of up to 424 Kbps
 - o Built-in antenna for contactless tag access, with card reading distance of up to 50 mm (depending on tag type)
 - o Supports ISO 14443 Part 4 Type A and B cards, MIFARE Classic®, FeliCa, and all four types of NFC (ISO/IEC 18092 tags)
 - o Built-in anti-collision feature (only one tag is accessed at any time)
- Built-in Peripherals:
 - o User-controllable bi-color LED
 - o User-controllable buzzer
- Application Programming Interface:
 - o Supports PC/SC
 - o Supports CT-API (through wrapper on top of PC/SC)
- Supports Android™ 3.1 and later¹
- Compliant with the following standards:
 - o EN 60950/IEC 60950
 - o ISO 14443
 - o ISO 18092
 - o PC/SC
 - o CCID
 - o CE
 - o FCC
 - o RoHS 2
 - o REACH
 - o VCCI (Japan)
 - o KC (Korea)
 - o Microsoft® WHQL

¹ Uses an ACS-defined Android Library

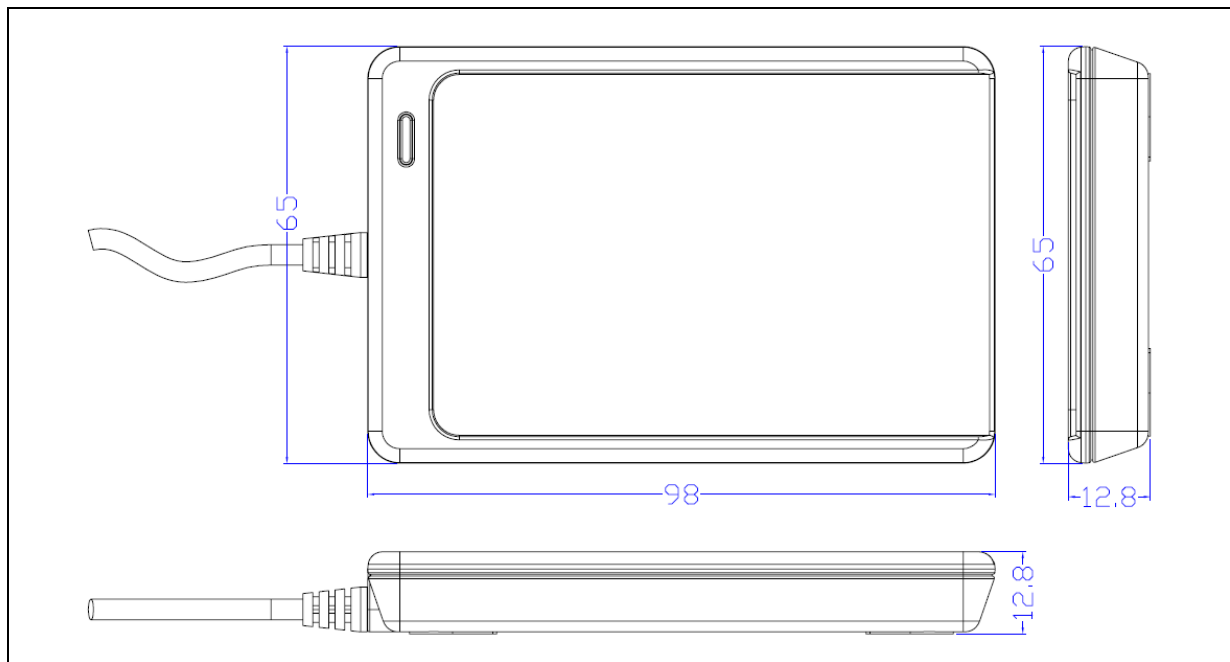


3.0. Typical Applications

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



4.0. Technical Specifications



Physical Characteristics

Dimensions 98.0 mm (L) × 65.0 mm (W) × 12.8 mm (H)
Weight 70 g
Color Pearl White

USB Host Interface

Protocol USB CCID
Connector Type Standard Type A
Power Source From USB port
Speed USB Full Speed (12 Mbps)
Supply Voltage 5 V
Supply Current Max. 200 mA
Cable Length 1.0 m, Fixed

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
..... T=CL Emulation for MIFARE Classic, 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
Antenna Size 50 mm × 40 mm

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 – 60 °C
Humidity Max. 90% (non-condensing)
MTBF 408,500 hrs

Certifications/Compliance

EN 60950/IEC 60950, ISO 14443, ISO 18092, USB Full Speed, PC/SC, CCID, CE, FCC, RoHS 2, REACH VCCI (Japan), KC (Korea), Microsoft® WHQL



Device Driver Operating System Support

Windows® CE 5.0, Windows® 6.0, Windows® Embedded Compact 7, 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, Windows® Server 2016
Linux®, Mac OS®, Solaris, Android™ 3.1 and later



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