

# Enterprise Desktop USB Smart Card Reader



## JCR-721



- ▶ Supports all full-sized MCU ISO 7816 A/B/C contact smart cards
- ▶ Very fast, optimized for PKI, digital signature, e-Banking, e-Government applications
- ▶ Highly durable, 200,000+ card insertion cycles, non-scratching landing contacts
- ▶ All-platforms compatibility
- ▶ Available with USB Type-A and Type-C plug connector cable
- ▶ Casing and packaging customization available



# Enterprise Desktop USB Smart Card Reader

## Overview

JCR-721 is a compact, easy to use, high-performing and cost-effective PC/SC USB smart card reader/writer.

JCR-721 supports multiple smart card PC/SC API protocols, utilizing USB Full-speed connection to increase reliability, communication speed and ease of operation.

Optimized for smart card applications where high speed is essential such as user authentication and PKI.

JCR-721 is an Enterprise-class smart card reader that will fit any technological solution.



## Typical Applications

- Public Key Infrastructure (PKI)
- Network Security
- eGovernment
- eBanking and ePayment
- Access Control
- Loyalty Programmes
- eHealthcare

## Features

- USB Interface
  - USB Full-Speed (12 Mbps), supports USB 1.1, 2.0, 3.0, 3.1 standards
  - USB Type-A connector (USB Type-C optionally)
  - Plug-and-Play – CCID support brings total mobility
- Contact Interface
  - Supports ISO 7816 (part 1-3), Class A, B, C (5V, 3V, 1.8V) cards
  - Supports microprocessor cards with T=0 and T=1 protocol
  - Supports PPS (Protocol and Parameters Selection)
  - Features short-circuit and ESD protection
- Application Programming Interface
  - Supports PC/SC
- Compliance with the following standards
  - ISO 7816
  - EMVCo Compliance (EMV Level 1/Contact)
  - PC/SC
  - CCID
  - Microsoft® WHQL
  - Universal Serial Bus Specification Revision 2.0 (USB v2.0)
  - Universal Serial Bus. Device Class: Smart Card. CCID. Specification for Integrated Circuit(s) Cards Interface Devices. Revision 1.1 (CCID v1.1)
  - PC/SC Workgroup Specifications Revision 2.01.14 (PC/SC v2.01.14, part 1 - 10)
  - PKCS#11 (v2.30)
  - EN 60950/IEC 60950
  - CE



After 1,000 insertion cycles  
(any inexpensive s/c reader, typically with sliding contacts)



After 10,000 insertion cycles  
(JCR-721 reader with Landing contact group and Microlift™)

## Technical Specifications

- PC-linked mode: PC/SC
- Protocol: USB CCID, Plug and Play, no additional USB drivers
- Connector type: Standard USB Type-A (available USB Type-C)
- Transmission speed: 12 Mbps (USB 2.0 full speed)
- Supported card types: 5V, 3V and 1.8V smart cards ISO7816 Class A, B and C, Protocol T=0, T=1
- Card acceptor: landing contact group with Microlift™, ISO 8 contacts
- Life-cycle durability: 200,000+ card insertion cycles (500,000+ for embedded model JCR-701)
- Card size: ID-1 (full-size), 1 slot
- Card thickness: 0.76 mm ± 0.08 mm
- Smart card clock frequency: 4-18 MHz
- Smart card Interface speed: up to 323 Kbps (when supported by the card)
- Compliance/Certification
  - Microsoft WHQL (Windows Compatible)
  - Certified for Microsoft Windows 10 Client for x64 and x86
  - EMVCo Compliance (EMV Level 1/Contact)
  - NDS (Navigation Data Standard) Compliance
  - ISO 7816
  - USB 2.0 Full Speed (USB 1.1 compatible), CCID
  - EN 60950/IEC 60950-1-2014
- PC/SC Driver & OS Support
  - Microsoft Windows XP SP3, Vista SP2, 7 SP1, 8, 8.1, 10
  - Microsoft Windows Server 2003 SP2, 2008 SP2, 2008 R2 SP1, 2012, 2012 R2
  - GNU/Linux x32/x64
  - Apple macOS 10.13 High Sierra (x64), mac OS 10.14 Mojave
  - Android 8 (Oreo)
  - Sailfish Mobile
- Develops the recognizable and ergonomic ASEDrive IIIe case design by Athena Smartcard Solutions, licenced by NXP, whilst the internals & firmware are totally new
- Color: Light grey (black optional)
- Status indicator: 2 LED indicators (Green – working, Red – error)
- Cable length: 1.8 m (for USB Type-A connector)
- Unique Serial Number: Yes (machine-readable and printed on sticker – 8 digits in HEX)
- Upgradable firmware
- Power source: USB port
- Power supply: DC +5V (built-in 3.3V and 1.5V regulator)
- Power consumption: power on 100 mA max, short circuit protection
- Power to smart card: up to 60 mA
- Smart card detection: movement detection with auto power-off automatic detection of smart card type short circuit and thermal protection
- Short circuit protection: +5V/GND on all pins, advanced ESD protection up to 15 KV
- IP33 Protection Class (protection from solids and liquids)
- Dimensions: 85 [L] × 72 [W] × 17 [H]
- Weight: 230 g
- Operating temperature: 0° - 70°C
- Operating humidity: 40 - 60%, max 80% (non-condensing)
- MTBF: 500,000 hrs
- Warranty: 1 year manufacturer's warranty (up to 3 years optionally)

## Customization

### We offer complete customization options

- Casing
  - Color (light grey or black)
  - Customer or distributor logo (laser engraving or printing, mono- or multi-color)
- Packaging
- OEM- or Embedded version – you can fit it into your PC and any specific devices. SDK is also available.



## Product line

### Mini-reader

The compact mini-reader for periodical use on trip, at home



### Vertical reader

Enterprise entrusted reader, made on the base of JCR-721

COMING SOON



### OEM- or Embedded reader (3,5", 5,25" Slim)

Made on the base of JCR-721, intended for embedding in personal computers and other devices



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More info

