

ACR1581 USB dual Interface Smartcard Reader with SAM



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The ACR1581U dual interface USB smartcard reader from ACS is the third generation of the ACR128 reader, replacing the ACR1281U.

The ACR1581 is compliant to ISO 7816 for contact smartcards as well as ISO 14443 for contactless cards, enabling the user to integrate separate and independent contact and contactless technologies into one device. The reader is equipped with an internal SAM-slot to enable secure transactions in both contact and contactless applications. The sleek housing of the ACR1581 can detect a contactless card even if it is inserted in the contact card slot.

The ACR1581 DualBoost smartcard reader is PC/SC compliant for both contact and contactless interfaces and supports high-speed communication for contactless cards (max. 848 kbps).

This reader is an update from the ACR1281U-C1.

**If you would like the free SDK Reader Installer software for this product, please request it in the Special Instructions section when placing your order.**

**Dual interface USB contact and contactless reader with built-in SAM slot.**

To buy, visit:

<https://www.smartcardfocus.com/shop/ilp/id~965/p/index.shtml>

This Product Briefing has been produced by Dot Origin Ltd, the smart card experts behind SmartcardFocus.com. If you have a query email [sales@smartcardfocus.com](mailto:sales@smartcardfocus.com) or call us on +44 (0)1428 685250.

# ACR1581U-C1 Technical Specifications

## Product:

Credential type(s): Dual (contact and contactless)

Form factor: Desktop

Connector: USB CCID (Standard 2.0 Type A connector), compatible with USB3.0

OS support: Windows; Linux; Mac OS; Android; iOS/iPadOS (16 or above)

## Contactless Card Interface:

Contactless interface standard: ISO 14443 / ISO 15693

Contactless credential types: MIFARE / FeliCa / NFC Forum Tags / Topaz

Contactless operating frequency: High (13.56MHz)

Data transmission protocol: T=CL

Contactless operating distance: Up to 70mm (2.8in)

Contactless read/write speed: MIFARE ISO 14443A/B 106 / 212 / 424 / 848kbps,  
iClass 15693 26kbps

## Contact Smartcard Interfaces:

Contact interface standard: ISO 7816 Class A, B, C (5V, 3V, 1.8V)

Full-sized card slot contact card types: Processor cards (T=0 and T=1) and Memory cards

SAM card interface: Contact chip - SIM sized card

Data transmission protocol: T=0 / T=1

Card contacts: Landing

Contact read/write speed: 13.4kbps - 1250kbps

Clock frequency: 5MHz

Card insertion cycles: Min 300 000

## Host Interface:

Host interface standards: USB CCID

Host data transmission speed (wired): 12 Mbps (USB 2.0 full speed); compatible with USB 3.0

## Other Features:

Keyboard emulation and card emulation

Status indicator: Programmable LED x 2 (blue and green); programmable buzzer x1

Firmware in-field upgradeable: Yes

**Certifications:**

Manufacturer's warranty: 1 year

MTBF: 500 000hrs

Type approvals: CE, UKCA, FCC, RoHS, REACH, IEC 62368

Country of origin: China

**Physical:**

Dimensions: 120.5 x 72.0 x 20.4mm (4.7 x 2.8 x 0.80in)

Built-in antenna dimensions: 63 x 54mm (2.5 x 2.1in)

Weight ( $\pm 5\%$ ): 143g (5.0oz)

Captive cable length: 2m (79in)

**Power:**

Supply voltage: 5V DC

Operating current: 300mA (max)

Battery power option: No

**Environment:**

Operating temperature: 0 to 60degC (32 to 140degF)

Operating humidity: Up to 90% RH (non-condensing)

Manufacturer's part number: ACR1581U-C1

Manufacturer: ACS