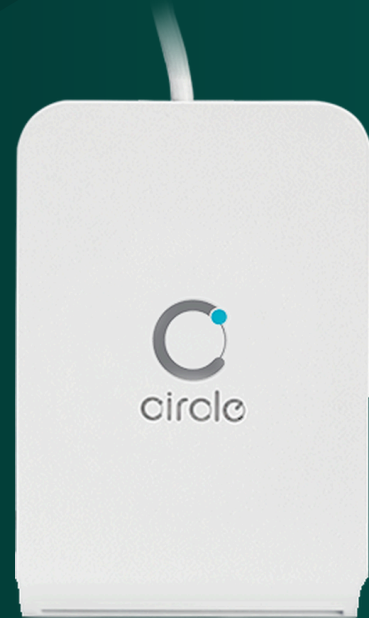


HF | NFC - Dual Interface Reader

AB Circle - CIR315B

- ID-1 contact slot plus 13.56 MHz contactless
- ISO/IEC 7816 Class A/B/C cards, T=0 and T=1
- ISO/IEC 14443 A/B, 15693 and 18092 (NFC)
- MIFARE®, FeliCa, Calypso, NFC Forum Type 1-5
- SAM slot, PC/SC and CCID, USB-A or USB-C



HF | NFC - Dual Interface Reader Contact and contactless smart cards in one reader

The AB Circle CIR315B combines a full-size ISO/IEC 7816 contact slot, a 13.56 MHz contactless interface and an ISO/IEC 7816 SAM slot in one compact desktop reader. Contactless cards are read at up to 50 mm, depending on the tag type; the ABS housing measures 98.0 x 66.0 x 11.0 mm and weighs 81.5 g.

The contact slot accepts ID-1 cards of Class A, B and C (5 V, 3 V, 1.8 V) with T=0 or T=1 at up to 826 kbps; the sliding connector is rated for at least 100,000 insertions. On the contactless side it supports ISO/IEC 14443 A/B, ISO/IEC 15693 and ISO/IEC 18092 with MIFARE®, FeliCa, Calypso, J-LIS cards and NFC Forum Type 1-5 tags.

Bus-powered via USB 2.0 Full Speed and compliant with CCID and PC/SC, the reader works with Windows®, Linux®, macOS® and Android™ and supports extended APDUs on the contact and contactless interfaces. Standard version: USB Type-A with SAM slot; other variants on request.

Common Applications

- PKI Log-On & Document Signing
- Physical & Logical Access Control
- E-Government & eID Services
- Card Issuance & Personalization
- Public Transport Ticketing
- Campus & Closed-Loop Payment



TECHNICAL SPECIFICATIONS

Contact Interface

Standard	ISO/IEC 7816-1/2/3/4
Protocol	T=0, T=1
Supported Cards	ID-1, Class A/B/C (5 V/3 V/1.8 V)
Supply Current	60 mA (Class A/B), 35 mA (Class C), short-circuit protected
Speed	9.6 – 826 kbps
Clock Frequency	Up to 16 MHz (default 4.8 MHz)
Card Connector	Sliding, min. 100,000 insertions

Contactless Interface

Operating Frequency	13.56 MHz
Supported Standards	ISO/IEC 14443, 18092, 15693
Protocol	T=CL (mapped to T=1 for PC/SC)
Supported Cards	ISO/IEC 14443-4 Type A & B, ISO/IEC 15693-3, MIFARE® Classic, Plus, Ultralight, Ultralight C, DESFire® / EV1 / EV2, FeliCa Standard / Lite / Plug, Calypso, J-LIS, NFC Forum Type 1–5 Tags
Read / Write Speed	106 – 848 kbps (default 424 kbps)
Reading Distance	Up to 50 mm (depending on tag type)

SAM Interface

Standard	ISO/IEC 7816-3/4, T=0 / T=1
Supported Cards	Class A (5 V), ID-000 (SIM size)
Speed / Clock	9.6 – 125 kbps / 4.0 MHz

Operating Conditions

Temperature	-10 °C to 70 °C (operating), -20 °C to 70 °C (storage)
Humidity	Max. 95 % (non-condensing)
MTBF	500,000 hours

Host Interface

Interface	USB 2.0 Full Speed (12 Mbps)
Connector Type	USB Type-A (default), USB Type-C (optional), 1 m cable
Power Supply	USB bus-powered
Consumption	< 250 mA (operating), < 50 mA (standby)

Physical Characteristics

Dimensions	98.0 x 66.0 x 11.0 mm (L x W x H)
Weight	81.5 g (± 5 g)
Casing	White and grey ABS
LED / Buzzer	2 x blue (status), 1 x green (power) / monotone

Certifications & Compliances

Standards	ISO/IEC 14443, 18092, 15693, 7816, USB 2.0 Full Speed, CCID, Microsoft® WHQL
Regulatory	EN 62368, BS EN 62368, CE, UKCA, FCC, VCCI, MIC, RoHS3, REACH

Drivers & Support

Supported OS	Windows® 7 SP1 and above, Linux®, macOS® 10.12 and above, Android™ 6.0 and above
Driver / API	CCID (driver), PC/SC (API)
Firmware Upgrades	Supported, via USB

Part No. / Model

CIR315B-01	USB Type-A, with SAM slot (standard)
CIR315B-02	USB Type-A, without SAM slot (MOQ)
CIR315B-03	USB Type-C, with SAM slot (MOQ)
CIR315B-04	USB Type-C, without SAM slot (MOQ)
10-100150	Reader stand (optional accessory)