

HF | NFC - Desktop Reader

AB Circle - CIR315A

- ISO/IEC 14443 A/B, 15693 and 18092 (NFC)
- MIFARE®, FeliCa, Calypso, NFC Forum Type 1-5
- PC/SC and CCID compliant, extended APDU
- ISO/IEC 7816 SAM slot, ID-000 (SIM size)
- USB-A or USB-C, 98 x 66 x 11 mm, 81 g



HF | NFC - Desktop Reader Multi-standard contactless reader with SAM slot

The AB Circle CIR315A is a compact desktop reader for 13.56 MHz contactless smart cards and NFC tags with an integrated ISO/IEC 7816 SAM slot for secure key storage and cryptographic operations. Cards are read at up to 50 mm, depending on the tag type; the white and grey ABS housing measures 98.0 x 66.0 x 11.0 mm.

It covers ISO/IEC 14443 Type A and B, ISO/IEC 15693 and ISO/IEC 18092, including MIFARE® Classic, Plus, Ultralight and DESFire® EV1/EV2, FeliCa, Calypso, J-LIS cards and NFC Forum Type 1-5 tags. Data rates reach 848 kbps; T=CL is mapped to T=1 for PC/SC, and extended APDUs are supported.

Bus-powered via USB 2.0 Full Speed, the CCID-compliant reader works with Windows®, Linux®, macOS® and Android™ via the standard PC/SC API. Typical uses are e-government, access control, network log-on, ticketing and payment. Standard version: USB Type-A with SAM slot; other variants on request.

Common Applications

- Physical Access Control
- Network & Workstation Log-On
- E-Government & eID Services
- Public Transport Ticketing
- Cashless & Closed-Loop Payment
- Card Encoding & Personalization



TECHNICAL SPECIFICATIONS

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)
Extended APDU	Supported

SAM Interface

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

Host Interface

Interface	USB 2.0 Full Speed (12 Mbps)
Connector Type	USB Type-A (default), USB Type-C (optional)
Cable Length	1 m
Firmware Upgrades	Supported, via USB

Physical Characteristics

Dimensions	98.0 x 66.0 x 11.0 mm (L x W x H)
Weight	81.0 g (± 5 g)
Casing	White and grey ABS

Electrical Characteristics

Power Supply	USB bus-powered
Consumption	< 250 mA (operating), < 50 mA (standby)
LED	Blue (status), green (power)
Buzzer	Monotone

Operating Conditions

Operating Temperature	-10 °C to 70 °C
Storage Temperature	-20 °C to 70 °C
Humidity	Max. 95 % (non-condensing)
MTBF	600,000 hours

Certifications & Compliances

Standards	ISO/IEC 14443, 18092, 15693, 7816 (SAM), USB 2.0 Full Speed, CCID, Microsoft® WHQL
Regulatory	EN 62368, BS EN 62368, CE, FCC, UKCA, 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	CCID
API	PC/SC

Part No. / Model

CIR315A-01	USB Type-A, with SAM slot (standard)
CIR315A-02	USB Type-A, without SAM slot (MOQ)
CIR315A-03	USB Type-C, with SAM slot (MOQ)
CIR315A-04	USB Type-C, without SAM slot (MOQ)
10-100150	Reader stand (optional accessory)