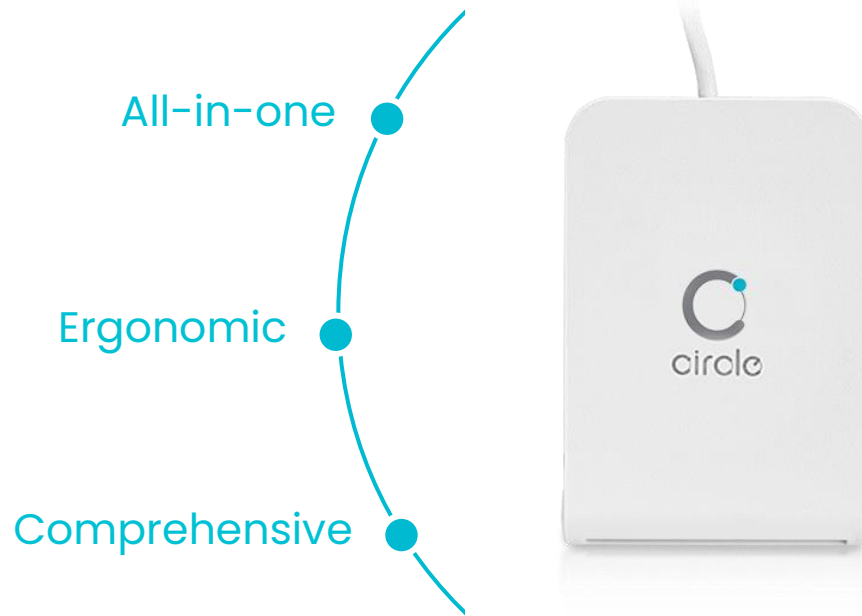# CIR315B

Dual Interface Smart Card Reader

CIR315B Dual Interface Smart Card Reader brings contact and contactless technologies together into a single all-in-one device.

- Supports ISO/IEC 14443, ISO/IEC 18092, ISO/IEC 15693, ISO/IEC 7816 Part 1/2/3/4 standards
- Supports ISO/IEC 14443-4 Type A & B cards, ISO/IEC 15693-3 cards, MIFARE® series, FeliCa, J-LIS cards, Calypso and NFC Forum Type 1/2/3/4/5 Tags
- Supports 1 x ISO/IEC 7816 Part 1/2/3/4 standard full-sized card slot and 1 x ISO/IEC 7816 Part 3/4 SAM slot
- Supports full-sized ISO/IEC 7816 Class A/ B/ C cards with T=0 or T=1 protocol
- Supports extended APDU
- Complies with CCID standard
- Conforms to PC/SC specifications
- Firmware upgradable
- Works on different operating systems
- Optional connector types: USB A or USB C

All-in-one

Ergonomic

Comprehensive

CIR315B Dual Interface Smart Card Reader

Contact Smart Card Interface

Standard	ISO/IEC 7816 Part 1/2/3/4
Protocol	T=0, T=1
Supported Card Types	ISO/IEC 7816 Class A/ B/ C (5V/ 3V/ 1.8V) cards
Supported Card Size	ID-1 (Full size)
Supply Current	60 mA in Class A/ B, 35 mA in Class C
Speed	9.6 – 826 kbps
Short Circuit Protection	Support
Clock Frequency	Up to 16 MHz (Default: 4.8 MHz)
Card Connector	Sliding, Min. 100,000 insertion cycles
Extended APDU	Support

Contactless Smart Card Interface

Standard	ISO/IEC 14443, ISO/IEC 18092, ISO/IEC 15693
Protocol	T=CL (translated to T=1 for PC/SC compliance)
Operating Frequency	13.56 Mhz
Supported Card Types	ISO/IEC 14443-4 Type A & B Cards, ISO/IEC 15693-3 Cards, MIFARE® series: Classic/ Plus/ Ultralight/ Ultralight C/ DESFire/ DESFire EV1/ DESFire EV2, etc. FeliCa (Standard/ Lite/ Plug), Calypso, J-LIS Cards, NFC Forum Type 1/2/3/4/5 Tags
Speed	106/ 212/ 424/ 848 kbps (Default: 424 kbps)
Reading Distance	Up to 50 mm (depending on tag type)
Extended APDU	Support

SAM Card Interface

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

Physical Characteristics

Dimensions	98.0 mm (L) x 66.0 mm (W) x 11.0 mm (H)
Weight	81.5 g (± 5 g)
Casing	White and Grey ABS

Host Interface

Power Supply	USB Bus-powered
Current Consumption	<250 mA (Operating), <50 mA (Standby)
USB Standard	USB 2.0 Full Speed (12 Mbps)
USB Connector Type	Default: Type A; Optional: Type C
USB Cable	1m

Human Interface

LED	3 LEDs: 2 Blue (Operation Status), 1 Green (Power)
Buzzer	Monotone

Software and Driver

Firmware Upgradeable	Support, via USB
Driver	CCID
Application Programming Interface (API)	PC/SC

Operating Conditions

Operating Temperature	-10 ºC – 70 ºC
Operating Humidity	Max. 95% (non-condensing)
Storage Temperature	-20 ºC – 70 ºC
Meantime Between Failure (MTBF)	500,000 hours

Compliance/ Certifications

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

Operational Environment

Supported Operating Systems	Windows® 7 SP1 and above, Linux®, macOS® 10.12 and above, Android™ 6.0 and above

Ordering Information

Product Code	CIR315B-01: USB Type A Connector, with SAM slot (Standard)
	CIR315B-02: USB Type A Connector, without SAM slot
	CIR315B-03: USB Type C Connector, with SAM slot
	CIR315B-04: USB Type C Connector, without SAM slot