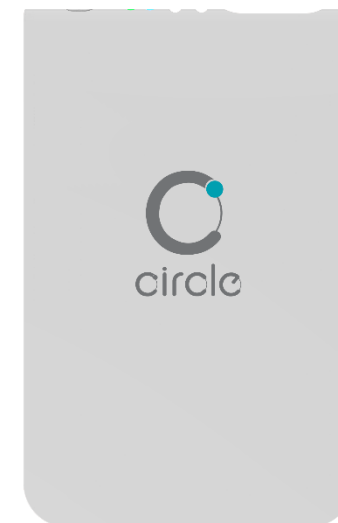# CIR415A

Bluetooth® Contactless Smart Card Reader

CIR415A Bluetooth® Contactless Smart Card Reader combines the latest bluetooth and contactless technologies to offer you an ideal solution for wireless contactless applications.

- Supports Bluetooth® 5.0
- Supports ISO/IEC 18092 NFC cards/ tags
- Supports ISO14443 Type A & B cards/ tags
- Supports ISO15693
- Supports MIFARE® families, FeliCa®
- Supports 1 x ISO7816 SAM slot
- Supports extended APDU
- Complies with CCID standard
- Conforms to PC/SC specifications
- Firmware upgradable
- Works on different operating systems
- A transparent card holder is included

Extra-slim

Interoperable

Fast

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CIR415A Bluetooth® Contactless Smart Card Reader

info@abcircle.com
www.abcircle.com

Contactless Smart Card Interface

Standard	ISO/IEC 14443 Type A & B, 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/IEC14443-4 A & 4B Cards, ISO/IEC15693-3 Cards, MIFARE series: Classic/ PLUS/ Ultralight/ Ultralight C/ DESFire/ DESFire EV1/ DESFire EV2, etc, FeliCa (Standard/ Lite/ Plug), Calypso, J-LIS Cards, NFC Forum Tag type 1/2/3/4/5
Speed	106/ 212/ 424/ 848kbps (Default: 424kps)
Reading Distance	Up to 50 mm (depending on tag type)
Extended APDU	Support

SAM Card Interface

Standard	ISO/IEC7816 Part 3/4
Protocol	T=0, T=1
Supported Card Types	ISO/IEC7816 Class A(5V) cards
Supported Card Size	ID-000 (SIM size)
Speed	9.6– 125kbps
Clock Frequency	4.0 MHz

Physical Characteristics

Dimensions	With cardholder: 96.1mm (L) x 64.1mm (W) x 8.9mm (H)
	Without cardholder: 94.7mm (L) x 60.0mm (W) x 6.0mm (H)
Weight	34.0g (± 5 g)
Casing	White PC & Transparent ABS

Host Interface

Power Supply	USB Bus-powered or 400 mAh Rechargeable Lithium-ion Battery (charged through USB)
Current Consumption	<500 mA (Operating)
USB Standard	USB 2.0 Full Speed (12 Mbps)
USB Connector Type	Type C
USB Cable	1m, Detachable USB Type A to C Cable
Bluetooth Standard	BT 5.0 BLE (2 Mbps)

Human Interface

LED	3 LED: Red & Green Bi-colour, Blue & Green Bi-colour, Blue
Buzzer	Monotone

Software and Driver

Firmware Upgradeable	Support, via USB
Communication Channel Encryption	Bluetooth Mode: AES-128 Encryption Algorithm (CBC Ciphering Mode)
Driver	USB Mode: CCID; Bluetooth Mode: Proprietary
Application Programming Interface (API)	USB Mode: PC/SC; Bluetooth Mode: Proprietary

Operating Conditions

Operating Temperature	0 – 60 ℃ (not charging); 0 – 45 ℃ (charging)
Operating Humidity	Max.85% (non-condensing)
Storage Temperature	–20 ℃ – 65 ℃
Meantime Between Failure (MTBF)	500,000 hours

Compliance/ Certifications

Standards/ Systems	ISO/IEC14443, ISO/IEC18092, ISO/IEC15693, ISO/IEC7816 (SAM slot), USB 2.0 Full Speed, CCID, Microsoft® WHQL, Bluetooth 5.0 specification
Regulatory/ Environmental	EN62368, CE, FCC, VCCI, MIC, BQB, TELEC, RoHS3, REACH

Operational Environment

Supported Operating Systems	USB Mode: Windows® 7 SP1, 8, 10, Linux®, Mac OS®, Android™ Bluetooth Mode: Windows® 10, Mac OS®, Android™, iOS

Ordering Information

Produce Code	CIR415A-01: USB Type A to C Cable
Accessory	Transparent Card holder