Advanced Card Systems Ltd.
Card & Reader Technologies

Mobile Card Reader

ACR1555U
Secure Bluetooth® NFC Reader

The ACR1555U Secure Bluetooth® NFC Reader supports a variety of standards, including ISO 14443 Type A and B contactless cards, MIFARE®, FeliCa, ISO 18092 NFC, and ISO 15693 cards, making it suitable for applications in finance, healthcare, and government.

Equipped with Bluetooth 5.2 (Bluetooth Low Energy) for easy pairing with mobile devices and USB Full Speed for reliable PC connectivity, the ACR1555U ensures seamless connections whether you're in the office or on the go.

Designed for efficiency and security, it features smart card reading and writing, card emulation, Bluetooth HID keyboard emulation, high-speed read/write performance of up to 848 kbps, robust AES encryption for secure messaging, and automatic lockout after multiple unauthorized access attempts.

With its compact design and rechargeable Lithium-ion battery, the ACR1555U is incredibly portable, making it ideal for use anytime, anywhere, with most Bluetooth-enabled smartphones and tablets. Additionally, a transparent card holder is included, providing protection and convenience for carrying the device.

KEY FEATURES

- ☑ Support Bluetooth® 5.2
  - o Supports Bluetooth® HID mode
  - o Support Bluetooth® AES-128 encryption
  - o High speed transmission up to 2Mbps
- ☑ Support various contactless card type
  - o ISO 14443 Type A & B Parts 1-4
  - o ISO 15693
  - o ISO 18092 NFC 5 Types of NFC tags
  - o MIFARE®, FeliCa
- ☑ Performance
  - o Read/Write ISO 14443 A & B speed of up to 848 kbps
- ☑ Support various NFC features
  - o Card Reader/Writer Mode
  - o Card Emulation Mode
  - o Bluetooth HID Keyboard Emulation mode
- ☑ Security
  - o 1 x ISO 7816 Standard SAM slot for improved security
  - o In-device AES-128 Encryption Algorithm (CBC Ciphering Mode)
- ☑ Support USB Firmware Upgrade
- ☑ Compatibility
  - o Support for all major operating systems
    - ▪ Windows®, Linux®, macOS, iOS, iPadOS, Android™

Common Applications

e-Government
e-Healthcare
e-Purse and Loyalty
Mobile Banking and Payment
Network Security
Access Control
Public Key Infrastructure

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TECHNICAL SPECIFICATION

Contactless Smart Card Interface	
Supported Card Types	ISO 14443 Type A & B Parts 1-4, ISO 15693, ISO 18092, NFC 5 Types of NFC tags, MIFARE® & FeliCa
Operating Frequency	13.56 MHz
Reading Distance	Up to 50 mm (Depending on tag type)
Read/Write Speed	106/212/424/848 kbps (ISO14443) 26 / 53 kbps (ISO15693)
Supported NFC Mode	Card Reader/Writer, Card Emulation & Bluetooth HID Keyboard Emulation

SAM Card Interface	
Standard	1 x ISO 7816 Class A, B and C (5V, 3V, 1.8V) Standard SIM size slot
Read/Write Speed	Max. 143kbps
Clock Frequency	4.57MHz
Protocol	T=0, T=1

Bluetooth Interface	
Protocol	Bluetooth® 5.2
Encryption	Bluetooth AES-128 encryption
Transmission Speed	2Mbps (BLE High speed Mode)

USB Interface	
Protocol	USB CCID
Connector Type	USB Type-C
Transmission Speed	USB 2.0 Full Speed (12 Mbps) compatible with USB 3.0
Power Supply	5VDC (500mA Max)
USB Firmware Upgrade	Supported

Power Source	
Battery type	Li-ion rechargeable Battery 3.7V 450mAh (Charging through USB)

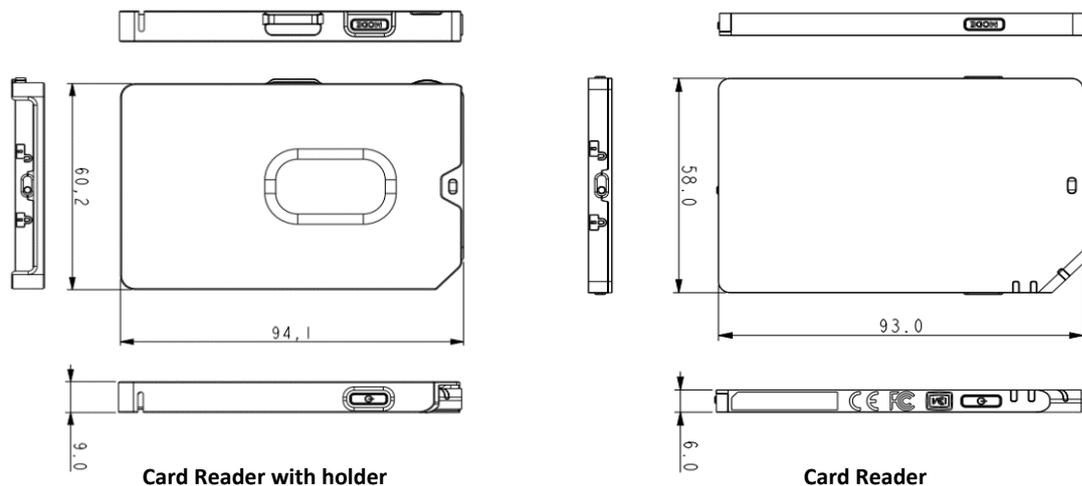| Physical Characteristics	
Dimension (L x W x H)	93.0 x 58.0 x 6.0 mm 94.1 x 60.2 x 9.0 mm (with card holder)
Weight (±5 g)	31.5 g ± 1.0 g (Card Reader) 39.7 g ± 1.0 g (with Card holder) 23.9 g ± 5.0 g (USB cable)
Available Colour	White
USB Cable	Type-C to Type-A, 1 m (detachable)
Card holder	Transparent

Peripherals	
Buzzer	1 x Buzzer
LED	1 x LED bi-Color Red and Green 1 x LED Blue 1 x LED Orange
Button	Power on/off Mode selection

Operating Condition	
Temperature	0 - 60°C
Humidity	Max. 90% (non-condensing)
MTBF	400,000 Hours

Certifications / Compliances	
Standards	BQB, USB CCID, PC/SC, Microsoft® WHQL, J-LIS
Regulatory / Environmental	CE, FCC, IEC/EN 62368, MIC (AC-24038), TELEC (211-240112), UKCA, VCCI, RoHS, REACH, WEEE

Supported OS	
USB Mode (Lightning not supported)	Windows®, Linux®, macOS, iOS, iPadOS, Android™
Bluetooth HID mode	Windows®, Linux®, macOS, iOS, iPadOS, Android™
Bluetooth	iOS, iPadOS, Android™

MECHANICAL SPECIFICAITON

Unit: mm

Card Reader with holder

Card Reader

About ACS

Advanced Card Systems Ltd. (ACS), founded in 1995, is Asia Pacific's top supplier and one of the world's top 3 suppliers of PC-linked smart card readers. ACS is the winner of the Product Quality Leadership Award for Smart Card Readers from Frost & Sullivan. ACS was listed in Forbes Asia's "Best Under a Billion" list for several years, an inter-industry list comprised of 200 top-performing publicly listed companies in the Asia-Pacific, with sales between US$5 million and US$1 billion. ACS develops a wide range of high-quality smart card reading/writing devices, smart cards and related products and distributes them to over 100 countries worldwide.

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