CONTACTLESS READERS

ACR1252U

USB NFC Contactless Reader III (NFC Forum Certified)

The ACR1252U USB NFC Reader III is an NFC Forum-certified PC-linked reader, developed based on 13.56MHz contactless technology. It has a SAM (Secure Access Module) slot which can be used together with a SAM card for key diversification and mutual authentication, providing high-level security in contactless transactions. Post-deployment firmware upgrade is also supported, eliminating the need for additional hardware modification.

ACR1252U is capable of the three modes of NFC, namely: card reader/writer, card emulation and peer-to-peer communication.

Compliant with both CCID and PC/SC, this plug-and-play USB NFC device allows interoperability with different devices and applications.

The ACR1252U comes with an optional stand to hold the smart card reader at an optimal angle, so that users can tap contactless cards or NFC-enabled devices onto the ACR1252U with ease.

KEY FEATURES

- ☑ Support various type of card type
 - o ISO/IEC 18092 NFC
 - ISO 14443 Type A & B (T=CL)
 - MIFARE®
 - o FeliCa
- ☑ Security
 - \circ 1 x ISO 7816 Standard SAM slot for improved security
- ☑ Flexible
 - o Read/write speed, LED & Buzzer can be programmable
- ☑ Support USB Firmware Upgrade
- **K** Reliable
 - Certified for international regulations
 - Mean time between failures (MTBF) up to 500k Hours
- Compatibility
 - Support for all major operating systems



Common Applications

- e-Government
- e-Banking and e-Payment
- e-Healthcare
- Transportation
- **Network Security**
- Access Control
- **Loyalty Program**
- Smart Poster/URL Marketing
- P2P Communication



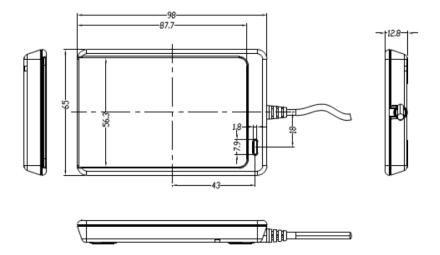


TECHNICAL SPECIFICATION

Contactless Smart Card Interface Supported Card Types ISO/IEC 18092 NFC, ISO 14443 Type A & B, MIFARE®, FeliCa Operating Frequency Reading Distance Read/White Speed Anti-Collision Yes Supported NFC Mode SAM Card Interface Standard T=0, T=1 Read/Write Speed Host Interface Protocol Connector Type USB CCID Connector Type USB Type-A, USB Type-C Speed USB 2.0 Full Speed (12Mbps) Supported USB Firmware Upgrade Physical Characteristics Dimension (L x W x H) Weight Also 7816 Class A (5V) Standard SIM size slot 1 x ISO 7816 Class A (5V) Standard SIM size slot T=0, T=1 Read/Write Speed 9.6 - 215 kbps USB CCID Connector Type USB Type-A, USB Type-C Speed USB 2.0 Full Speed (12Mbps) Supply Voltage Supported Physical Characteristics Dimension (L x W x H) Antenna size: 50 x 40 mm Weight 81 g Available Colour Matte Black USB Cable Length 1 m (Non-detachable)		
Supported Card Types B, MIFARE®, FeliCa Operating Frequency Reading Distance Up to 50 mm (Depending on tag type) Read/White Speed Anti-Collision Yes Supported NFC Mode SAM Card Interface Standard Protocol Protocol T=0, T=1 Read/Write Speed USB CCID Connector Type USB Type-A, USB Type-C Speed USB 2.0 Full Speed (12Mbps) Supply Voltage Current Consumption USB Firmware Upgrade Physical Characteristics Dimension (L x W x H) Weight Anti-Collision Anti-Collision NFC Reader/Writer, Peer-to-Peer, Card Emulation NFC Reader/Writer, Peer-to-Peer, Card Emulation NFC Reader/Writer, Peer-to-Peer, Card Emulation Supported Emulation VSB Card Emulation US NFC Reader/Writer, Peer-to-Peer, Card Emulation Sup Standard SIM Size slot 1 x ISO 7816 Class A (5V) Standard SIM Size slot USB Card Emulation VSB CCID USB CCID USB CCID USB Type-A, USB Type-C Speed USB 2.0 Full Speed (12Mbps) Supported USB Firmware Upgrade Physical Characteristics Dimension (L x W x H) Antenna size: 50 x 40 mm Weight Watte Black	Contactless Smart Card	Interface
Operating Frequency Reading Distance Read/White Speed Anti-Collision Supported NFC Mode SAM Card Interface Standard Protocol Protocol Read/Write Speed By SCID Connector Type Supply Voltage Current Consumption USB Firmware Upgrade Physical Characteristics Dimension (L x W x H) Max 200mA Reading Distance Up to 50 mm (Depending on tag type) 106/212/424 kbps (Programmable) 118/218/218/218/218/218/218/218/218/218/	Supported Card Types	ISO/IEC 18092 NFC, ISO 14443 Type A &
Reading Distance Read/White Speed Anti-Collision Yes Supported NFC Mode SAM Card Interface Standard Protocol Protocol T=0, T=1 Read/Write Speed Protocol USB CCID Connector Type USB Type-A, USB Type-C Speed USB 2.0 Full Speed (12Mbps) Supply Voltage Current Consumption USB Firmware Upgrade Physical Characteristics Dimension (L x W x H) Antenna size: 50 x 40 mm Weight Anti-Collision Yes NFC Reader/Writer, Peer-to-Peer, Card Emulation SUF Reader/Writer, Peer-to-Peer, Card Emulation US R SUF Reader/Writer, Peer-to-Peer, Card Emulation NFC Reader/Writer, Peer-to-Peer, Card Emulation NFC Reader/Writer, Peer-to-Peer, Card Emulation SUF Reader/Writer, Peer-to-Peer, Card Emulation SUF Reader/Writer, Peer-to-Peer, Card Emulation NFC Reader/Writer, Peer-to-Peer, Card Emulation NFC Reader/Writer, Peer-to-Peer, Card Emulation SUF Reader/Writer, Peer-to-Peer, Car		B, MIFARE®, FeliCa
Read/White Speed 106/212/424 kbps (Programmable) Anti-Collision Yes Supported NFC Mode Emulation SAM Card Interface Standard 1 x ISO 7816 Class A (5V) Standard SIM size slot Protocol T=0, T=1 Read/Write Speed 9.6 – 215 kbps Host Interface Protocol USB CCID Connector Type USB Type-A, USB Type-C Speed USB 2.0 Full Speed (12Mbps) Supply Voltage 5VDC Current Consumption Max. 200mA USB Firmware Upgrade Physical Characteristics Dimension (L x W x H) Antenna size: 50 x 40 mm Weight 81 g Available Colour Matte Black	Operating Frequency	13.56 MHz
Anti-Collision Supported NFC Mode Emulation SAM Card Interface Standard Standard Size slot Protocol Read/Write Speed Protocol USB CCID Connector Type USB Type-A, USB Type-C Speed USB 2.0 Full Speed (12Mbps) Supply Voltage Current Consumption USB Firmware Upgrade Physical Characteristics Dimension (L x W x H) Weight Antenna size: 50 x 40 mm Watte Black NFC Reader/Writer, Peer-to-Peer, Card Emulation NFC Reader/Writer, Peer-to-Peer, Card Emulation NFC Reader/Writer, Peer-to-Peer, Card Emulation US NFC Reader/Writer, Peer-to-Peer, Card Emulation 1 x ISO 7816 Class A (5V) Standard SIM size slot 2 x ISO 7816 Class A (5V) Standard SIM size slot 2 x ISO 7816 Class A (5V) Standard SIM size slot 2 x ISO 7816 Class A (5V) Standard SIM size slot 2 x ISO 7816 Class A (5V) Standard SIM size slot 2 x ISO 7816 Class	Reading Distance	Up to 50 mm (Depending on tag type)
Supported NFC Mode SAM Card Interface Standard Standard Standard Size slot Protocol Read/Write Speed Protocol Connector Type Supply Voltage Current Consumption USB Firmware Upgrade Physical Characteristics Dimension (L x W x H) Weight Mis ISO 7816 Class A (5V) Standard SIM size slot 1 x ISO 7816 Class A (5V) Standard SIM size slot 2 x ISO 7816 Class A (5V) Standard SIM size slot 2 x ISO 7816 Class A (5V) Standard SIM size s	Read/White Speed	106/212/424 kbps (Programmable)
Supported NFC Mode SAM Card Interface Standard 1 x ISO 7816 Class A (5V) Standard SIM size slot Protocol T=0, T=1 Read/Write Speed 9.6 – 215 kbps Host Interface Protocol Connector Type USB CCID Connector Type USB Type-A, USB Type-C Speed USB 2.0 Full Speed (12Mbps) Supply Voltage Current Consumption USB Firmware Upgrade Physical Characteristics Dimension (L x W x H) Weight 81 g Available Colour Ax ISO 7816 Class A (5V) Standard SIM size slot Name A (5V) Standard SIM size slot Supported 1 x ISO 7816 Class A (5V) Standard SIM size slot Name A (5V) Standard SIM size slot	Anti-Collision	Yes
Standard Standard Size slot Protocol Protocol Read/Write Speed Protocol USB CCID Connector Type USB Type-A, USB Type-C Speed USB 2.0 Full Speed (12Mbps) Supply Voltage Current Consumption USB Firmware Upgrade Physical Characteristics Dimension (L x W x H) Weight Antenna size: 50 x 40 mm Waste Slot Wish Color Watte Black Name (Supported) Wish Color Wash (Supported) Supported Wash (Supported) Wash	Supported NFC Mode	
size slot Protocol T=0, T=1 Read/Write Speed 9.6 – 215 kbps Host Interface Protocol USB CCID Connector Type USB Type-A, USB Type-C Speed USB 2.0 Full Speed (12Mbps) Supply Voltage 5VDC Current Consumption Max. 200mA USB Firmware Upgrade Upgrade Physical Characteristics Dimension Main Body: 98 x 65 x 12.8 mm (L x W x H) Antenna size: 50 x 40 mm Weight 81 g Available Colour Matte Black	SAM Card Interface	
size slot Protocol T=0, T=1 Read/Write Speed 9.6 – 215 kbps Host Interface Protocol USB CCID Connector Type USB Type-A, USB Type-C Speed USB 2.0 Full Speed (12Mbps) Supply Voltage 5VDC Current Consumption Max. 200mA USB Firmware Upgrade Physical Characteristics Dimension Main Body: 98 x 65 x 12.8 mm (L x W x H) Antenna size: 50 x 40 mm Weight 81 g Available Colour Matte Black	Standard	1 x ISO 7816 Class A (5V) Standard SIM
Read/Write Speed 9.6 – 215 kbps Host Interface Protocol USB CCID Connector Type USB Type-A, USB Type-C Speed USB 2.0 Full Speed (12Mbps) Supply Voltage 5VDC Current Consumption Max. 200mA USB Firmware Upgrade Supported Physical Characteristics Dimension Main Body: 98 x 65 x 12.8 mm (L x W x H) Antenna size: 50 x 40 mm Weight 81 g Available Colour Matte Black		size slot
Host InterfaceProtocolUSB CCIDConnector TypeUSB Type-A, USB Type-CSpeedUSB 2.0 Full Speed (12Mbps)Supply Voltage5VDCCurrent ConsumptionMax. 200mAUSB Firmware UpgradeSupportedPhysical CharacteristicsDimension (L x W x H)Main Body: 98 x 65 x 12.8 mm Antenna size: 50 x 40 mmWeight81 gAvailable ColourMatte Black	Protocol	T=0, T=1
Protocol USB CCID Connector Type USB Type-A, USB Type-C Speed USB 2.0 Full Speed (12Mbps) Supply Voltage 5VDC Current Consumption Max. 200mA USB Firmware Upgrade Upgrade Physical Characteristics Dimension Main Body: 98 x 65 x 12.8 mm (L x W x H) Antenna size: 50 x 40 mm Weight 81 g Available Colour Matte Black	Read/Write Speed	9.6 – 215 kbps
Connector Type USB Type-A, USB Type-C Speed USB 2.0 Full Speed (12Mbps) Supply Voltage 5VDC Current Consumption Max. 200mA USB Firmware Upgrade Supported Physical Characteristics Dimension Main Body: 98 x 65 x 12.8 mm (L x W x H) Antenna size: 50 x 40 mm Weight 81 g Available Colour Matte Black	Host Interface	
Speed USB 2.0 Full Speed (12Mbps) Supply Voltage 5VDC Current Consumption Max. 200mA USB Firmware Upgrade Physical Characteristics Dimension Main Body: 98 x 65 x 12.8 mm (L x W x H) Antenna size: 50 x 40 mm Weight 81 g Available Colour Matte Black	Protocol	USB CCID
Supply Voltage 5VDC Current Consumption Max. 200mA USB Firmware Upgrade Supported Physical Characteristics Dimension Main Body: 98 x 65 x 12.8 mm (L x W x H) Antenna size: 50 x 40 mm Weight 81 g Available Colour Matte Black	Connector Type	USB Type-A, USB Type-C
Current Consumption Max. 200mA USB Firmware Upgrade Physical Characteristics Dimension Main Body: 98 x 65 x 12.8 mm (L x W x H) Antenna size: 50 x 40 mm Weight 81 g Available Colour Matte Black	Speed	USB 2.0 Full Speed (12Mbps)
USB Firmware Upgrade Physical Characteristics Dimension Main Body: 98 x 65 x 12.8 mm (L x W x H) Antenna size: 50 x 40 mm Weight 81 g Available Colour Matte Black	Supply Voltage	5VDC
Upgrade Physical Characteristics Dimension	Current Consumption	Max. 200mA
Physical Characteristics Dimension Main Body: 98 x 65 x 12.8 mm (L x W x H) Antenna size: 50 x 40 mm Weight 81 g Available Colour Matte Black	USB Firmware	Supported
Dimension Main Body: 98 x 65 x 12.8 mm (L x W x H) Antenna size: 50 x 40 mm Weight 81 g Available Colour Matte Black	Upgrade	
(L x W x H) Antenna size: 50 x 40 mm Weight 81 g Available Colour Matte Black	Physical Characteristics	
Weight 81 g Available Colour Matte Black	Dimension	Main Body: 98 x 65 x 12.8 mm
Available Colour Matte Black	(L x W x H)	Antenna size: 50 x 40 mm
	Weight	81 g
USB Cable Length 1 m (Non-detachable)	Available Colour	Matte Black
	USB Cable Length	1 m (Non-detachable)

Buzzer 1 x Programmable Buzzer (Mono-tone) LED 1 x Programmable LED (Red & Green) Operating Condition Temperature 0 - 60°C Humidity 90% (Non-condensing) MTBF 500,000 Hours Certifications & Compliances NFC Forum Certification Mark, IEC/EN 62368, CE, UKCA, FCC, J-LIS, VCCI, TELEC, KC, BIS, ROHS, REACH, WEEE, Microsoft® WHQL Compliances USB CCID, PC/SC Libraries & Tools Libraries CT-API Tools Android Evaluation Kit, Software Development Kit (USD 149) Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android Warranty 1 Year			
LED 1 x Programmable LED (Red & Green) Operating Condition Temperature 0 - 60°C Humidity 90% (Non-condensing) MTBF 500,000 Hours Certifications & Compliances NFC Forum Certification Mark, IEC/EN 62368, CE, UKCA, FCC, J-LIS, VCCI, TELEC, KC, BIS, ROHS, REACH, WEEE, Microsoft® WHQL Compliances USB CCID, PC/SC Libraries & Tools Libraries CT-API Tools Android Evaluation Kit, Software Development Kit (USD 149) Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android	Peripherals		
Operating Condition Temperature 0 - 60°C Humidity 90% (Non-condensing) MTBF 500,000 Hours Certifications & Compliances NFC Forum Certification Mark, IEC/EN 62368, CE, UKCA, FCC, J-LIS, VCCI, TELEC, KC, BIS, ROHS, REACH, WEEE, Microsoft® WHQL Compliances USB CCID, PC/SC Libraries CT-API Tools Android Evaluation Kit, Software Development Kit (USD 149) Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android	Buzzer	1 x Programmable Buzzer (Mono-tone)	
Temperature 0 - 60°C Humidity 90% (Non-condensing) MTBF 500,000 Hours Certifications & Compliances NFC Forum Certification Mark, IEC/EN 62368, CE, UKCA, FCC, J-LIS, VCCI, TELEC, KC, BIS, ROHS, REACH, WEEE, Microsoft® WHQL Compliances USB CCID, PC/SC Libraries CT-API Tools Android Evaluation Kit, Software Development Kit (USD 149) Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android	LED	1 x Programmable LED (Red & Green)	
Humidity 90% (Non-condensing) MTBF 500,000 Hours Certifications & Compliances NFC Forum Certification Mark, IEC/EN 62368, CE, UKCA, FCC, J-LIS, VCCI, TELEC, KC, BIS, ROHS, REACH, WEEE, Microsoft® WHQL Compliances USB CCID, PC/SC Libraries & Tools Libraries CT-API Tools Android Evaluation Kit, Software Development Kit (USD 149) Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android	Operating Condition		
MTBF 500,000 Hours Certifications & Compliances NFC Forum Certification Mark, IEC/EN 62368, CE, UKCA, FCC, J-LIS, VCCI, TELEC, KC, BIS, ROHS, REACH, WEEE, Microsoft® WHQL Compliances USB CCID, PC/SC Libraries CT-API Tools Android Evaluation Kit, Software Development Kit (USD 149) Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android	Temperature	0 - 60°C	
Certifications & Compliances NFC Forum Certification Mark, IEC/EN 62368, CE, UKCA, FCC, J-LIS, VCCI, TELEC, KC, BIS, ROHS, REACH, WEEE, Microsoft® WHQL Compliances USB CCID, PC/SC Libraries & Tools Libraries CT-API Tools Android Evaluation Kit, Software Development Kit (USD 149) Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android	Humidity	90% (Non-condensing)	
NFC Forum Certification Mark, IEC/EN 62368, CE, UKCA, FCC, J-LIS, VCCI, TELEC, KC, BIS, RoHS, REACH, WEEE, Microsoft® WHQL Compliances USB CCID, PC/SC Libraries & Tools Libraries CT-API Tools Android Evaluation Kit, Software Development Kit (USD 149) Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android	MTBF	500,000 Hours	
Certifications 62368, CE, UKCA, FCC, J-LIS, VCCI, TELEC, KC, BIS, RoHS, REACH, WEEE, Microsoft® WHQL Compliances USB CCID, PC/SC Libraries CT-API Tools Android Evaluation Kit, Software Development Kit (USD 149) Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android	Certifications & Compliances		
Certifications KC, BIS, ROHS, REACH, WEEE, Microsoft® WHQL Compliances USB CCID, PC/SC Libraries & Tools Libraries CT-API Tools Android Evaluation Kit, Software Development Kit (USD 149) Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android		NFC Forum Certification Mark, IEC/EN	
KC, BIS, ROHS, REACH, WEEE, Microsoft® WHQL Compliances USB CCID, PC/SC Libraries & Tools Libraries CT-API Tools Android Evaluation Kit, Software Development Kit (USD 149) Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android	Cartifications	62368, CE, UKCA, FCC, J-LIS, VCCI, TELEC,	
Compliances Libraries & Tools Libraries CT-API Tools Android Evaluation Kit, Software Development Kit (USD 149) Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android	Certifications	KC, BIS, RoHS, REACH, WEEE,	
Libraries & Tools Libraries CT-API Tools Android Evaluation Kit, Software Development Kit (USD 149) Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android		Microsoft® WHQL	
Libraries CT-API Tools Android Evaluation Kit, Software Development Kit (USD 149) Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android	Compliances	USB CCID, PC/SC	
Tools Android Evaluation Kit, Software Development Kit (USD 149) Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android	Libraries & Tools		
Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android	Libraries	CT-API	
Drivers & Support Driver Supported OS Windows, Linux, Mac OS, Android	Tools	Android Evaluation Kit,	
Driver Supported OS Windows, Linux, Mac OS, Android		Software Development Kit (USD 149)	
	Drivers & Support		
Warranty 1 Year	Driver Supported OS	Windows, Linux, Mac OS, Android	
	Warranty	1 Year	
Model/Part Number	Model/Part Number		
USB Type-A ACR1252U-M1	USB Type-A	ACR1252U-M1	
USB Type-C ACR1252U-MF	USB Type-C	ACR1252U-MF	

MECHANICAL SPECIFICAITON



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. In 2010, 2014 and 2015, ACS was listed in Forbes Asia's "Best Under a Billion" list, 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.

Click <u>here</u> for Sales Enquiry Tel: +852-2796-7873 Fax: +852-2796-1286

