



CONTACTLESS READER MODULE

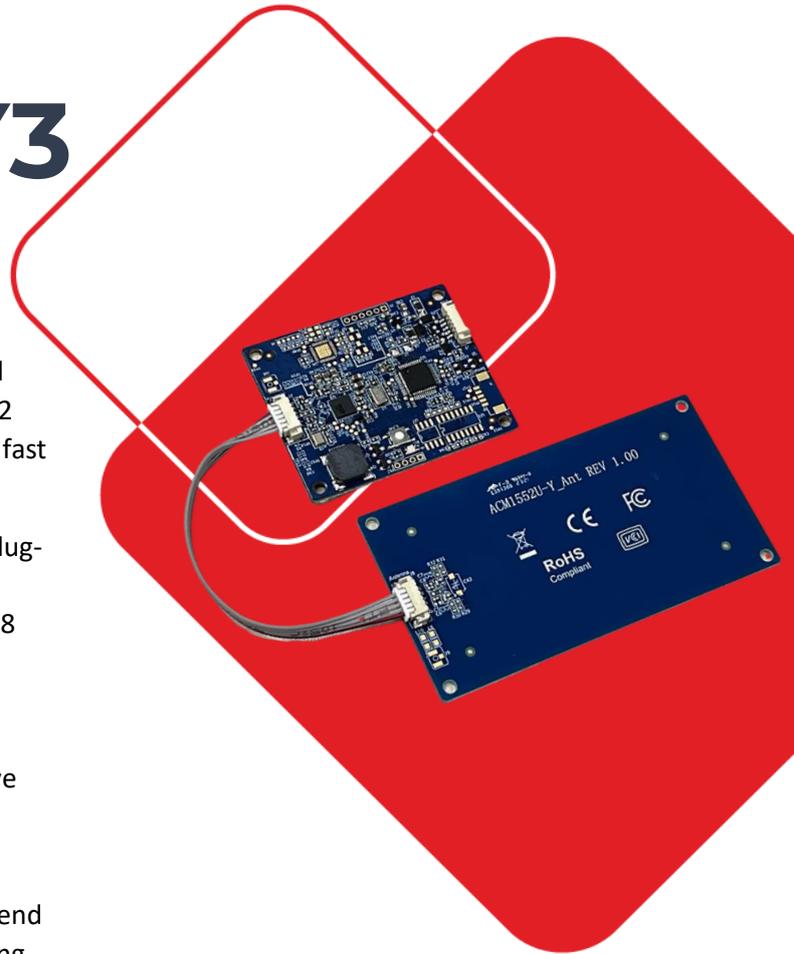
# ACM1552U-Y3

USB NFC Reader Module with Detachable Antenna Board

ACM1552U-Y3 USB NFC Reader Module with Detachable Antenna Board was developed based on the 13.56 MHz contactless technology. It can access contactless card and devices following the ISO 14443, ISO 15693 and ISO 18092 standards. This smart card reader module is designed for fast and easy integration to embedded systems.

ACM1552U-Y3 is a CCID & PC/SC compliant reader, this plug-and-play NFC reader makes use of high-speed communication for contactless cards at a maximum of 848 kbps, which makes it suitable for highly demanding applications. It also supports three modes: smart card reader/writer, keyboard emulation, and card emulation, making it a powerful all-in-one device that is cost-effective and flexible for many smart card applications.

ACM1552U-Y3 comes with a detachable antenna and an optional USB cable which allow it to be the perfect front-end interface module for NFC transaction applications including vending machine payment systems, kiosks, gaming machines, and other integrated systems.



## KEY FEATURES

- ✔ Support various contactless card type
  - ISO 14443 Type A & B (T=CL)
  - ISO 15693
  - ISO 18092-compliant NFC tags
  - MIFARE Classic®, MIFARE® Mini, MIFARE Ultralight® (T=CL), FeliCa and Topaz Card
- ✔ Support various NFC modes
  - Card Reader/Writer
  - Card Emulation
  - Keyboard Emulation
- ✔ Security
  - 1 x ISO 7816 Standard SAM slot for improved security (Upon Request)
- ✔ Flexible
  - Read/write speed, LED & Buzzer can be programmable
- ✔ Support USB Firmware Upgrade
- ✔ Reliable
  - Certified for international regulations
  - Mean time between failures (MTBF) up to 500k Hours
- ✔ High Compatibility
  - Support for all major operating systems
    - Windows®, Linux®, macOS, Android™

## Common Applications

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



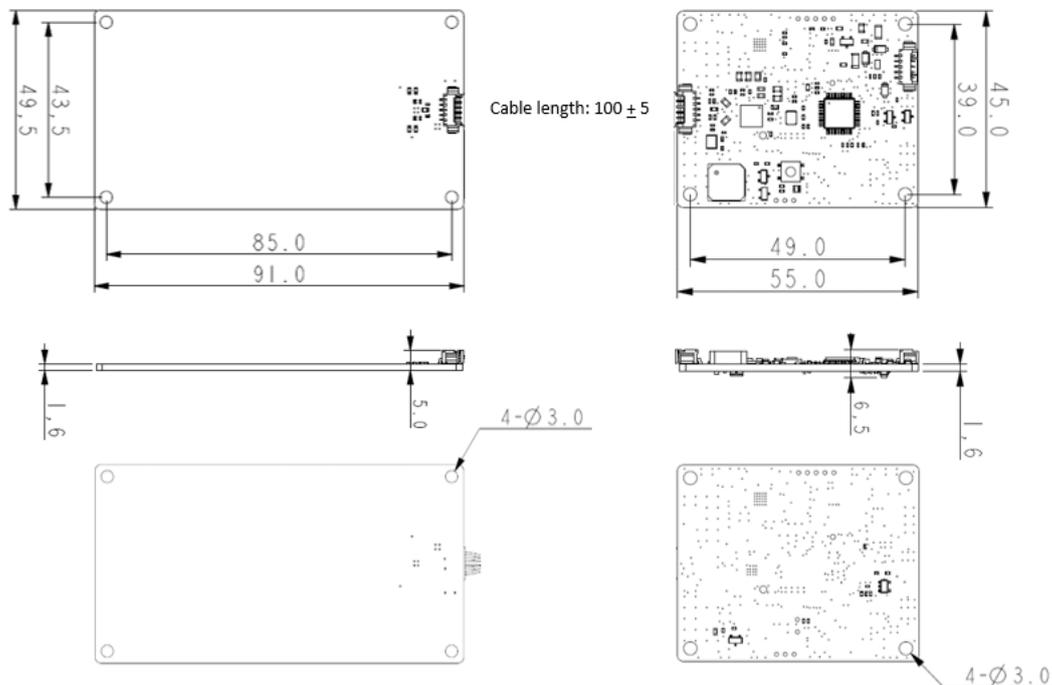


## TECHNICAL SPECIFICATION

Contactless Smart Card Interface	
Supported Card Types	ISO 14443 Type A & B Parts 1-4, ISO 15693, ISO 18092 NFC, MIFARE Classic®, MIFARE® Mini, MIFARE Ultralight® (T=CL), FeliCa and Topaz Card
Operating Frequency	13.56 MHz
Reading Distance	Up to 70 mm (Depending on tag type)
Read/Write Speed	106/212/424/848 kbps (ISO14443) 26/53kbps (ISO15693)
Anti-collision	Supported
Supported NFC Mode	Card Reader/Writer, Keyboard Emulation, Card Emulation
SAM Card Interface (Optional)	
Standard	1 x ISO 7816 Class A (5V) Standard SIM size slot
Read/Write Speed	13.4 kbps – 1,250 kbps
Clock Frequency	5 MHz, up to 10MHz (Upon request)
Protocol	T=0, T=1
Host Interface	
Protocol	USB CCID
Connector Type	USB Type-A
Speed	USB 2.0 Full Speed (12 Mbps) compatible with USB 3.0
Supply Voltage	5VDC
Current Consumption	Max. 300mA
USB Firmware Upgrade	Supported

Physical Characteristics	
Dimension (L x W x H)	Main Board: 55.0 x 45.0 x 6.5 mm Antenna Board: 91.0 x 49.5 x 5.0 mm
Weight (+2g)	27.7 g
USB Cable Length	1m, Detachable (Optional)
Peripherals	
Buzzer	1 x Programmable Buzzer (Mono-tone)
LED	1 x Programmable LED (Blue & Green)
Operating Condition	
Temperature	0 - 60°C
Humidity	90% (Non-condensing)
MTBF	500,000 Hours
Certifications & Compliances	
Certifications	IEC/EN 62368, CE, UKCA, FCC, VCCI, RoHS, REACH, WEEE, Microsoft® WHQL
Compliances	USB CCID, PC/SC
Libraries & Tools	
Libraries	CT-API
Tools	Software Development Kit
Drivers & Support	
Driver Supported OS	Windows®, Linux®, macOS, Android™
Warranty	1 Year

## MECHANICAL SPECIFICATION



### 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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