



CONTACTLESS READERS

# AquaGuard

IP67-rated NFC USB Reader

The AquaGuard NFC USB Reader is ACS's fourth-generation NFC reader device built on 13.56 MHz contactless technology. It operates with contactless cards and devices adhering to ISO 14443 Type A and B, ISO 15693, and ISO 18092 standards. The IP67 rating signifies its exceptional resistance to dust and water, ensuring uninterrupted operation even under challenging conditions.

In compliance with both CCID and PC/SC standards, AquaGuard NFC USB Reader offers high-speed communication of up to 848 kbps. The reader's IP67-certified shell houses USB firmware upgradable features, extending its versatility and cost-effectiveness across numerous sectors, including finance, healthcare, and government.

This IP67-rated NFC reader intelligently supports three modes of NFC: reader/writer, card emulation, and keyboard emulation. Its robustness and versatility open up a wide array of potential applications such as, loyalty program, access control systems, and transportation ticketing. The AquaGuard Reader, with its IP67 support, stands as a resilient and dependable choice in NFC technology.



AquaGuard

\*Stand Version(optional)

## KEY FEATURES

- ✓ **Supports Various Contactless Card Types**
  - ISO 14443 Type A & B Parts 1-4
  - ISO 15693
  - ISO 18092 NFC
  - MIFARE® (T=CL), FeliCa, NFC Tags
  - SRI/SRIX, CTS, Innovatron, Picopass, Topaz Card
- ✓ **High-Performance**
  - Read/Write ISO 14443A & B speed of up to 848 kbps
  - Read/Write ISO 15693 speed of up to 26 kbps
- ✓ **Support Various NFC Features**
  - Card Reader/Writer Mode
  - Card Emulation Mode
  - Keyboard Emulation Mode
- ✓ **IP67 Support**
  - Protected against dust and temporary water exposure
- ✓ **Support USB Firmware Upgrade**
- ✓ **Reliable**
  - Certified for international regulations
  - Mean time between failures (MTBF) up to 500k Hours
- ✓ **Compatibility**
  - Support for all major operating systems
    - Windows®, Linux®, macOS, Android™

## Common Applications

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

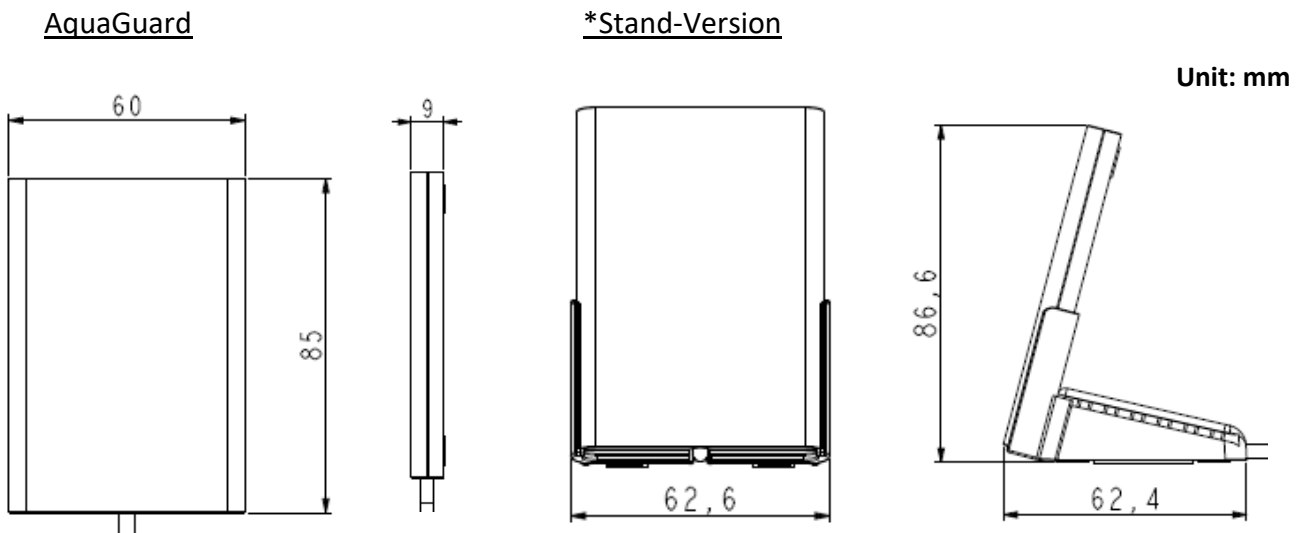




**TECHNICAL SPECIFICATION**

Contactless Smart Card Interface		Peripherals	
Supported Card Types	ISO 14443 Type A & B Parts 1-4, ISO 15693, ISO 18092 NFC, MIFARE®, FeliCa, SRI/SRIX, CTS, Innovatron, Picopass, Topaz Card	Buzzer	1 x Programmable Buzzer (Mono-tone)
Operating Frequency	13.56 MHz	LED	1 x Programmable RGB (Blue & Green & Red)
Reading Distance	Up to 70 mm (Depending on tag type)	Operating Condition	
Read/Write Speed	106/212/424/848 kbps (ISO14443) 26/53kbps (ISO15693)	Temperature	0 - 60°C
Supported NFC Mode	Card Reader/Writer, Keyboard Emulation, Card Emulation	Humidity	90% (Non-condensing)
Host Interface		MTBF	500,000 Hours
Protocol	USB CCID	Certifications/ Compliances	
Connector Type	USB Type-A	Standards	USB CCID, PC/SC, Microsoft® WHQL, J-LIS, IP67
Speed	USB 2.0 Full Speed (12 Mbps) compatible with USB 3.0	Regulatory / Environmental	CE, UKCA, FCC, VCCI, KC, RoHS, REACH, WEEE
Supply Voltage	5VDC	Libraries & Tools	
Current Consumption	Max. 300mA	Libraries	CT-API
USB Firmware Upgrade	Supported	Tools	Software Development Kit
Physical Characteristics		Drivers & Support	
Dimension (L x W x H)	Main Body: 85.0 x 60.0 x 9.0 mm With Stand: 86.6 x 62.6 x 62.4mm	Driver Supported OS	Windows®, Linux®, macOS, Android™
Weight(±5g)	67g 88g (with stand)	Warranty	1 Year
Available Colour	White	Model/Part Number	
USB Cable Length	1 m (Non-detachable)	USB Type-A	ACR1552U-A2
		(Optional Stand)	ACR1552U-STD001

**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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