

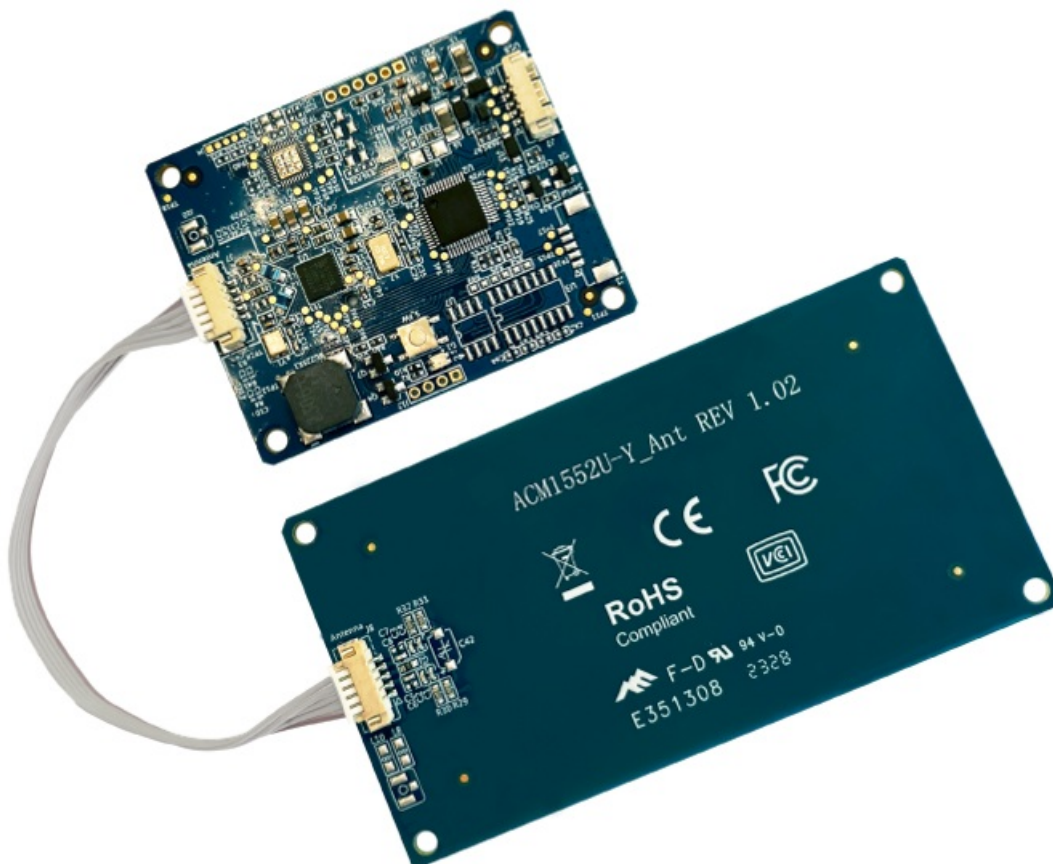


acs ACM1552U-Z2 Small NFC Reader Module User Manual

[Home](#) » [ACS](#) » acs ACM1552U-Z2 Small NFC Reader Module User Manual 



Advanced Card Systems Ltd.
Card & Reader Technologies



ACM1552U-Z2
Small NFC Reader Module
User Manual V1.00

Contents

- 1 Introduction
- 2 Features
- 3 Typical Applications
- 4 Driver installation Procedure
- 5 Technical Specifications
- 6 IMPORTANT NOTE:
- 7 Documents / Resources
 - 7.1 References

Introduction

Continuing the success of the ACM1252U-Z2, the ACM1552U-Z2 is a CCID & PC/SC compliant reader module. It is an NFC reader that can access various contactless smart cards following the ISO 14443 Type A & B, ISO 15693, and ISO 18092 NFC standards. It features three NFC modes, namely Card Reader/Writer, Card Emulation and Keyboard Emulation, making it a powerful all-in-one device that is cost-effective and flexible for many smart card applications.

1.1. USB NFC Reader

ACM1552U-Z2 supports a wide range of types of contactless cards and tags, including ISO 14443 Type A & B, ISO 15693, ISO18092 NFC, MIFARE®, FeliCa, SRI/SRIX, CTS, Innovatron, Picopass, Topaz card and NFC tags. This plug-and-play NFC reader module makes use of high-speed communication for contactless cards at a maximum of 848 kbps, which makes it suitable for highly demanding applications.



1.2. Compact Design

The compact size of the ACM1552U-Z2 module makes it an excellent choice for integration into small machines. Its small form factor offers flexibility and seamless integration into various applications, such as handheld devices and kiosks without compromising their functionality or usability.

1.3. Firmware Upgradeable Feature

To save valuable cost and time, the firmware of ACM1552U-Z2 could conveniently be upgraded in-field to allow users to cope with the fast-changing technology for their applications in order to suit different scenarios.

1.4. Multi-Platform Support

ACM1552U-Z2 is a PC/SC and CCID-compliant reader. With driver support on different platforms, ACM1552U-Z2

can operate in Windows ® , Linux ® , macOS and Android TM operating systems.

Features

- Mini Mobile Wallet NFC Module
 - USB 2.0 Full Speed Interface
 - Apple VAS and Google Smart Tap Certified
 - Plug and Play – CCID support brings utmost mobility 1
 - USB Firmware Upgradeability 2
 - Contactless Smart Card Reader:
 - o Supports ISO 14443 Type A and B cards
 - o Supports ISO 15693 cards
 - o Supports ISO 18092 NFC
 - o Supports MIFARE® (T=CL), FeliCa, NFC Tags
 - o Supports SRI/SRIX, CTS, Innovatron, Picopass, Topaz Card
 - o Built-in antenna for contactless tag access, with a reading distance of up to 70 mm (depending on tag type)
 - o Built-in anti-collision feature (only one tag is accessed at any time)
 - o NFC Support:
 - o Card reader/writer mode
 - o Card emulation mode
 - o Keyboard emulation mode
 - Application Programming Interface:
 - o Supports PC/SC 3
 - o Supports CT-API (through wrapper on top of PC/SC)
 - Supports Windows ® , Linux ® , macOS, and Android TM operating systems.
 - Built-in Peripherals:
 - o One user-controllable bi-color LED
 - Compliant with the following certifications and standards:
 - o Apple VAS
 - o Google Smart Tap
 - o CE
 - o FCC
 - o RoHS
 - o REACH
 - o WEEE
 - o VCCI
 - o Microsoft ® WHQL
- 1 Applicable under PC-linked mode
- 2 Same as above
- 3 Same as above
- o ISO 14443
 - o ISO 15693
 - o ISO 18092
 - o PC/SC

- o CCID

Typical Applications

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

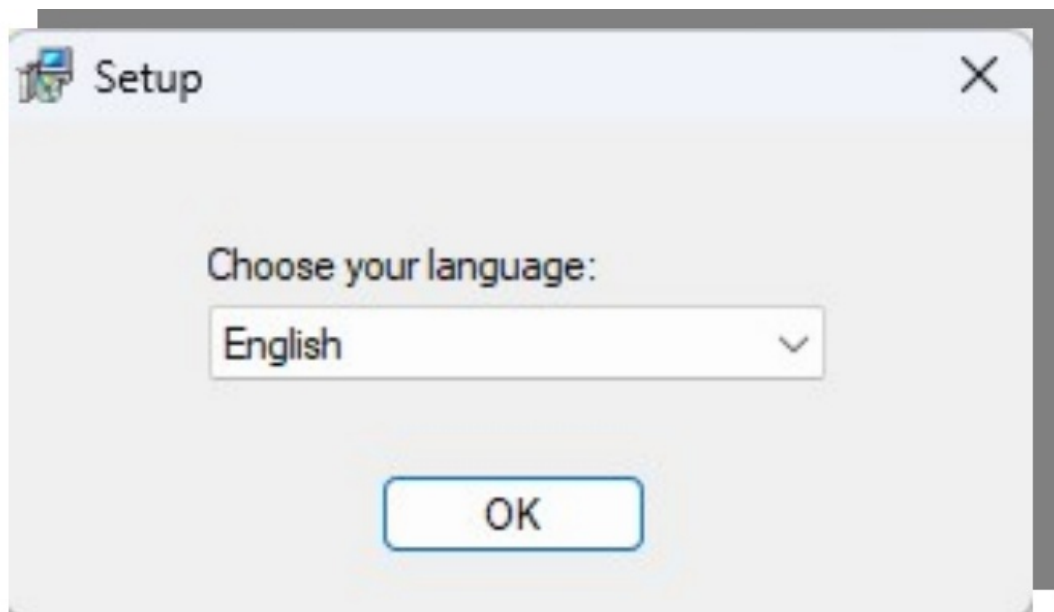
Driver installation Procedure

The installation procedure is the same for ACS PC/SC Driver version 1.0.4.0 and above.

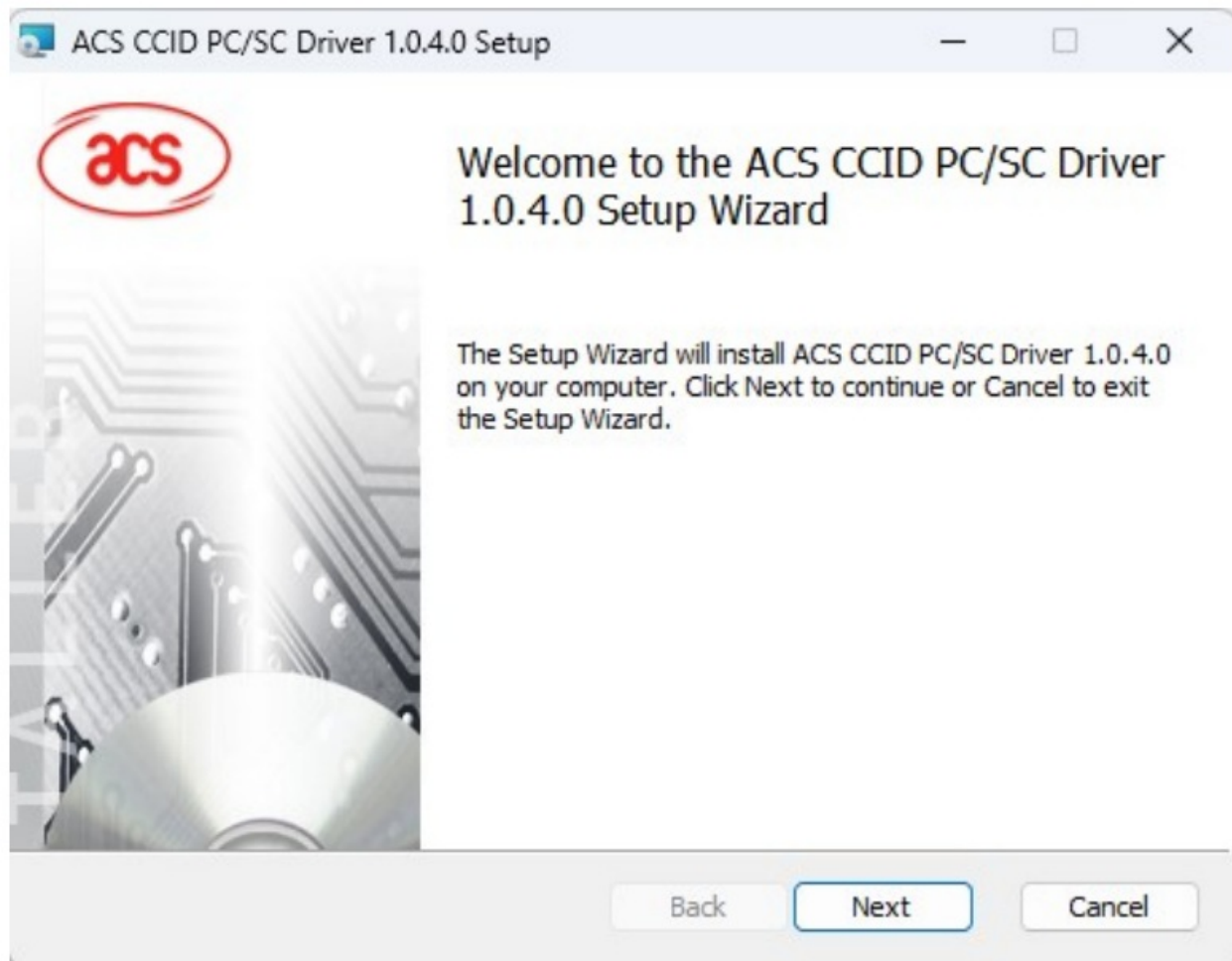
The latest device drivers of the ACS Smart Card Readers may be downloaded from the ACS Driver Download Webpage: <http://acs.com.hk/en/drivers/>

To install the ACS Driver:

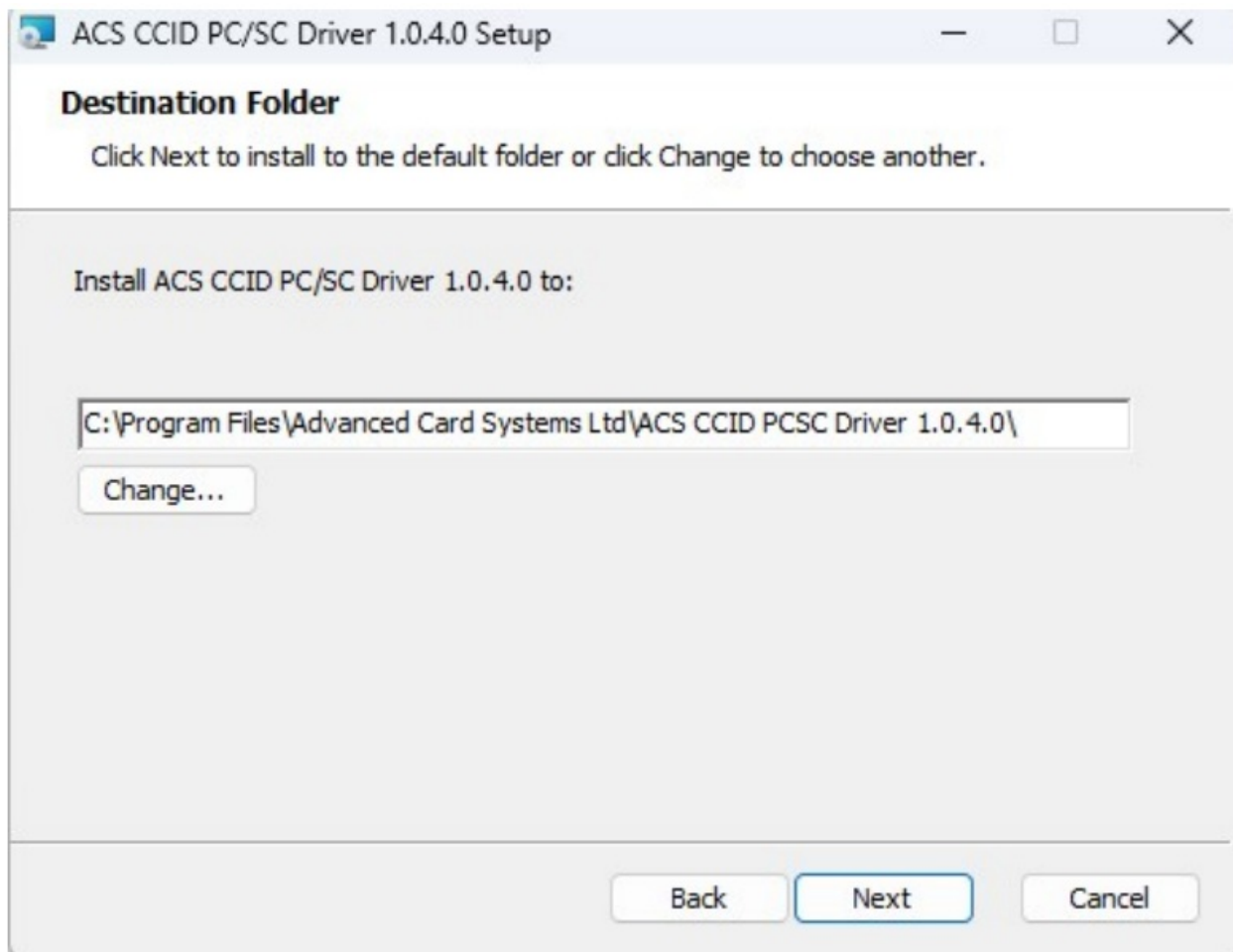
1. In the ACS PC/SC Driver folder, run the file Setup.exe.
2. Choose the language, and then click OK.



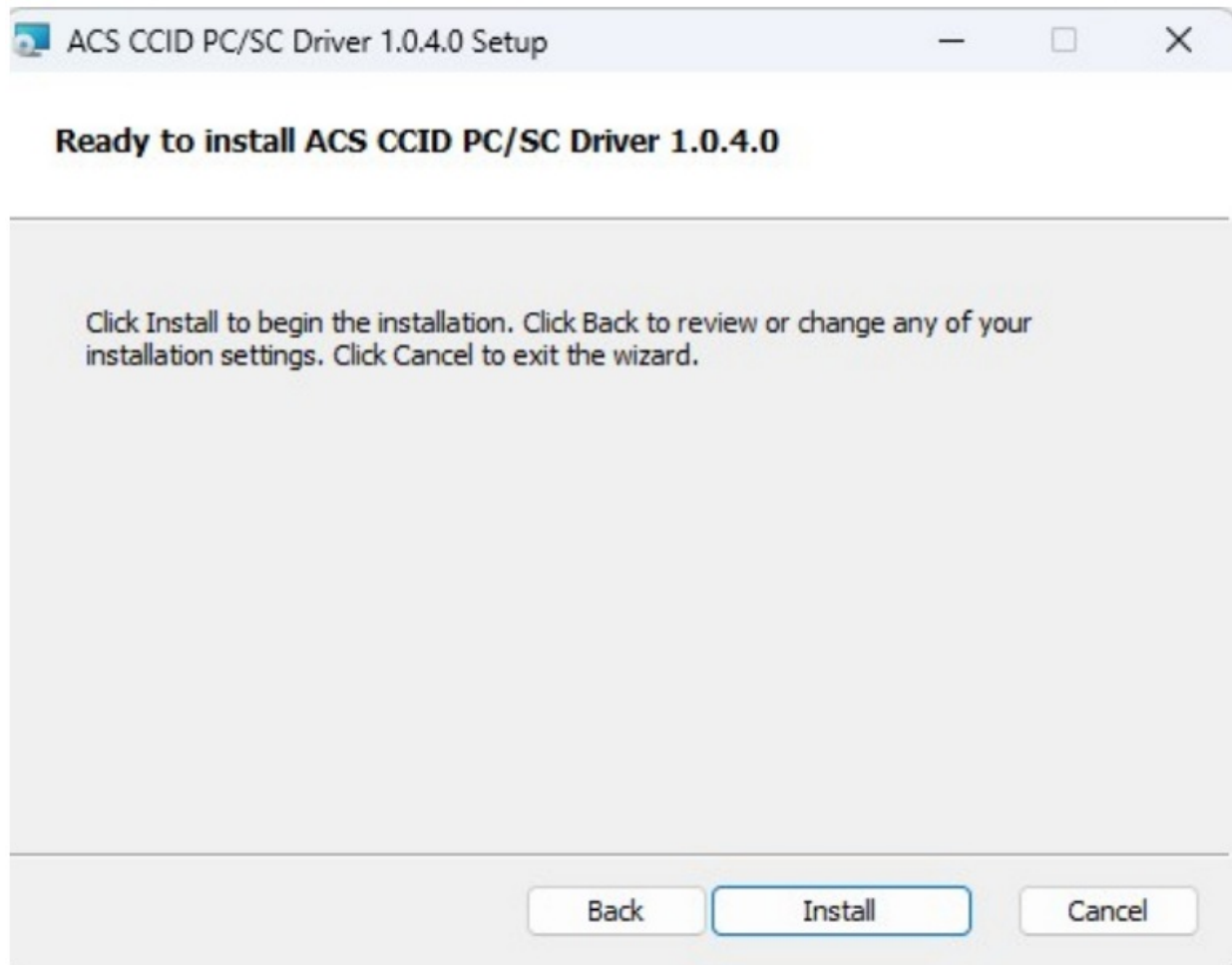
3. The Setup Wizard will be displayed. Click Next to proceed with the installation.



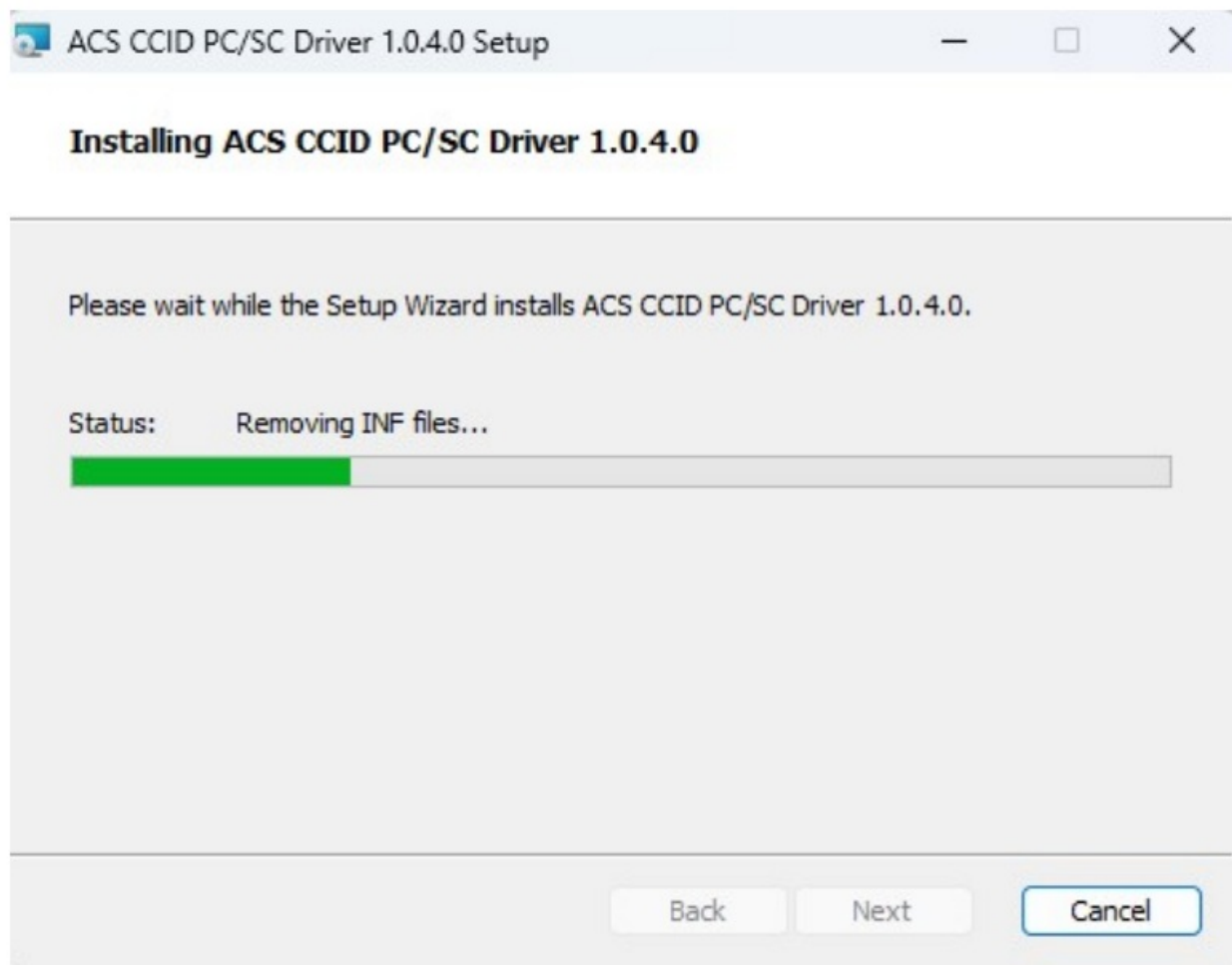
4. Click Next to install the driver to the default folder located at C:\Program Files\AdvancedCard Systems Ltd\ACS PCSC Driver 1.0.4.0\, with C as the drive letter of your local drive. Otherwise, click Change to choose another destination folder.



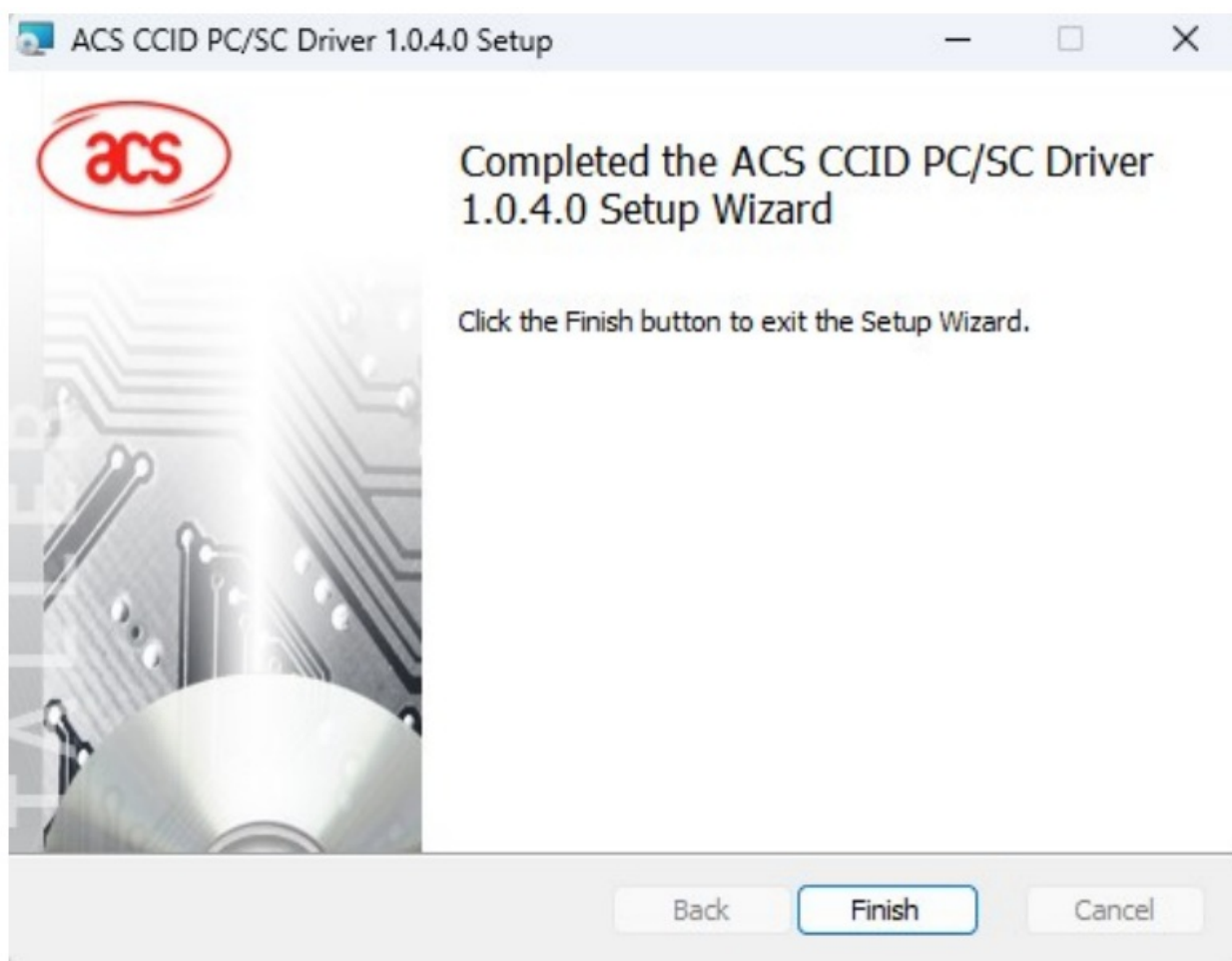
5. Click Install to begin the installation.



6. Wait for the installation process to finish.



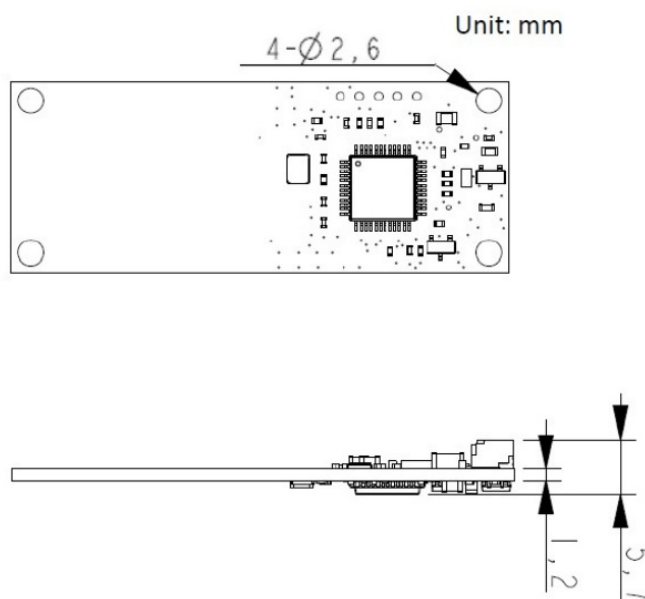
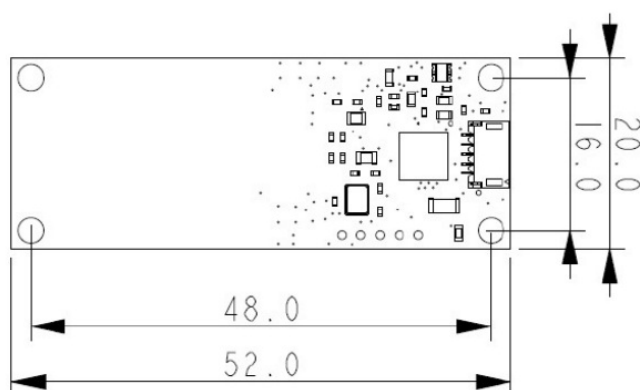
7. Once the driver installation is finished, click Finish to exit the setup wizard.



Technical Specifications

TECHNICAL SPECIFICATION

| Contactless Smart Card Interface | |
|----------------------------------|--|
| 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 |
| Operating Frequency | 13.56 MHz |
| Reading Distance | Up to 50 mm (Depending on tag type) |
| Read/Write Speed | 106/212/424/848 kbps (ISO14443) 26kbps (ISO15693) |
| Anti-Collision | Yes |
| Supported NFC Mode | NFC Reader/Writer , Keyboard Emulation, Card Emulation, |
| Host Interface | |
| Protocol | USB CCID |
| Connector Type | 5pin, JST SH series compatible |
| Speed | USB 2.0 Full Speed (12 Mbps) compatible with USB3.0 |
| Supply Voltage | 5VDC |
| Current Consumption | Max. 200mA |
| USB Firmware Upgrade | Supported |
| Physical Characteristics | |
| Dimension (L x W x H) | 57 x 20 x 6.9 mm |
| Weight (±1g) | 3.9g |
| Peripherals | |
| LED | 1 x Programmable LED (Blue & Green) |
| Operating Condition | |
| Temperature | 0 - 60°C |
| Humidity | Max. 90% (Non-condensing) |
| MTBF | 500,000 Hours |
| Certifications & Compliances | |
| Certifications | Apple VAS, Google Smart Tap, IEC/EN 62368, CE, FCC, VCCI, RoHS, REACH, WEEE, Microsoft® WHQL |
| Compliances | USB CCID, PC/SC |
| Libraries & Tools | |
| Libraries | Apple VAS API, Google Smart Tap API, CT-API |
| Tools | ACS VAS Test Tools with API Software Development Kit |
| Drivers & Support | |
| Driver Supported OS | Windows®, Linux®, macOS, Android™ |
| Warranty | 1 Year |
| Model/Part Number | |
| Default | ACM1552U-ZW |



macOS is registered trademarks of Apple Inc., registered in the U.S. and other countries.

Windows® is a trademark of Microsoft Corporation in the United States and/or other countries.

Android™ is trademarks of Google LLC. Linux® is the registered trademark of Linus Torvalds in the U.S. and other countries.

FCC Caution:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

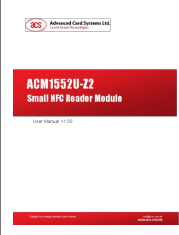
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

info@acs.com.hk
www.acs.com.hk

Documents / Resources

| | |
|---|---|
|  | acs ACM1552U-Z2 Small NFC Reader Module [pdf] User Manual ACM1552U-Z2 Small NFC Reader Module, ACM1552U-Z2, Small NFC Reader Module, Reader Module, Module |
|---|---|

References

- [ACS Smart Card Reader Driver & Manual Downloads - ACS Drivers](#)
- [ACS - Top PC-linked Smart Card Reader Supplier | Homepage](#)
- [User Manual](#)