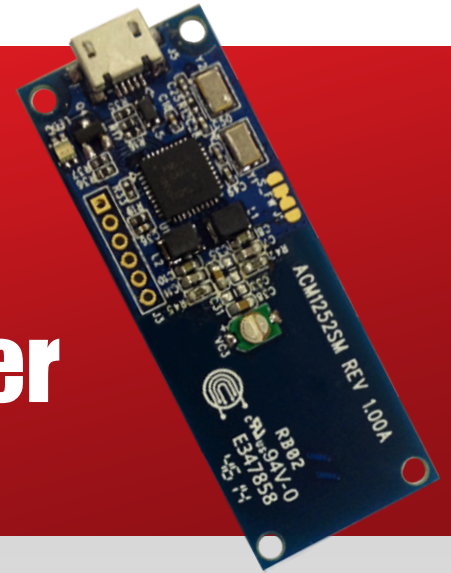




**Advanced Card Systems Ltd.**  
Card & Reader Technologies

# ACM1252U-Z2

## Small NFC Module Reader



Technical Specifications V1.02

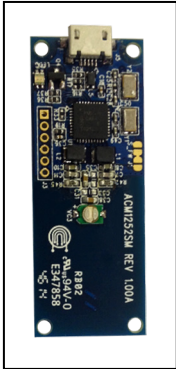


## Table of Contents

1.0.	Introduction .....	3
2.0.	Features .....	4
3.0.	Typical Applications .....	5
4.0.	Technical Specifications .....	6



## 1.0. Introduction



The ACM1252U-Z2 is an NFC reader module developed based on the 13.56 MHz contactless technology. This NFC Reader Module supports all three NFC modes namely card reader/writer, card emulation, and peer-to-peer communication.

The ACM1252U-Z2 supports ISO 14443 Type A and B cards, MIFARE®, FeliCa, and ISO 18092-compliant NFC tags. It also supports other NFC devices with an access speed of up to 424 Kbps and proximity operating distance of up to 30 mm (depending on tag type used).

It is PC/SC-compliant for interoperability across different applications and platforms and provides high-speed communication ability for contactless cards and NFC tags/devices. Post-deployment firmware upgrade is also supported, eliminating the need for additional hardware modification.



## 2.0. Features

- USB Full Speed Interface
- CCID-compliant
- Smart Card Reader:
  - Contactless Interface:
    - Read/Write speed of up to 424 Kbps
    - Built-in antenna for contactless tag access, with card reading distance of up to 30 mm (depending on tag type)
    - Supports ISO 14443 Part 4 Type A and B cards, MIFARE Classic®, FeliCa, and all four types of NFC (ISO/IEC 18092 tags)
    - Built-in anti-collision feature (only one tag is accessed at any time)
    - NFC Support:
      - Card Reader/Writer mode
      - Peer-to-Peer mode
      - Card Emulation mode
- Built-in Peripheral:
  - User-controllable bi-color LED
- Application Programming Interface:
  - Supports PC/SC
- USB Firmware Upgradability
- Supports Android™ 3.1 and later<sup>1</sup>
- Compliant with the following standards:
  - ISO 14443
  - ISO 18092
  - PC/SC
  - CCID
  - CE
  - FCC
  - RoHS 2
  - REACH
  - Microsoft® WHQL

---

<sup>1</sup> Uses an ACS-defined Android Library



### **3.0. Typical Applications**

- e-Government
- e-Banking and e-Payment
- e-Healthcare
- Transportation
- Network Security
- Access Control
- Loyalty Program





**Device Driver Operating System Support**

Windows® XP, Windows Vista®, Windows® 7, Windows® 8, Windows® 8.1, Windows® 10  
Windows® Server 2003, Windows® Server 2008, Windows® Server 2008 R2, Windows® Server 2012,  
Windows® Server 2012 R2, Windows® Server 2016  
Linux®, Mac OS®, Solaris, Android™ 3.1 and later



Android is a trademark of Google Inc.  
Linux® is the registered trademark of Linus Torvalds in the U.S. and other countries.  
Mac OS is a trademark of Apple Inc., registered in the U.S. and other countries.  
Microsoft, Windows and Windows Vista are registered trademarks of Microsoft Corporation in the United States and/or other countries.  
MIFARE and MIFARE Classic are registered trademarks of NXP B.V. and are used under license.