



Advanced Card Systems Ltd.
Card & Reader Technologies

ACR31 Swipe Card Reader



Technical Specifications V1.03



Table of Contents

1.0.	Introduction	3
1.1.	Secure Card Reader.....	3
1.2.	Modern Design	3
2.0.	Features	4
3.0.	Typical Applications.....	5
4.0.	Technical Specifications.....	6



1.0. Introduction

ACR31 Swipe Card Reader is a combination of card reader functionality and mobility, which enables you to access secure applications anytime, anywhere. As compact and stylish as it is, this card reader is capable of supporting demanding applications using magnetic stripe cards. It provides the perfect balance between reliable functionality and design aesthetics to meet your security needs in various application areas.



1.1. Secure Card Reader

ACR31 Swipe is a reliable card reader that uses AES-128 encryption algorithm and DUKPT Key Management System for a secure transaction which makes it an ideal device for a broad range of solutions, such as e-Banking and e-Payment.

1.2. Modern Design

The ultra-compact ACR31 Swipe is specifically designed to be brought and used anytime, anywhere. With CR2016 battery to stabilize the power supply and the standard 3.5 mm audio jack interface, it further allows the ACR31 Swipe to be integrated seamlessly with most smartphones and tablets available in the market.

Built with a modern design, ACR31 Swipe is a portable and lightweight swipe card reader that is perfect for users who wish to transact securely while on the go.



2.0. Features

- 3.5 mm Audio Jack Interface
- Powered by a CR2016 battery
- Reads up to two tracks of card data
- Capable of bi-directional reading
- Supports AES-128 encryption algorithm
- Supports DUKPT Key Management System
- Magnetic Stripe Card Reader:
 - Supports ISO 7810/7811 magnetic cards
 - Supports Hi-coercivity and Low-coercivity magnetic cards
 - Supports JIS1 and JIS2
- Supports Android™ 2.0 and later¹
- Supports iOS 5.0 and later²
- Compliant with the following standards:
 - CE
 - FCC
 - RoHS 2
 - REACH
 - VCCI (Japan)

¹Uses an ACS-defined Android Library

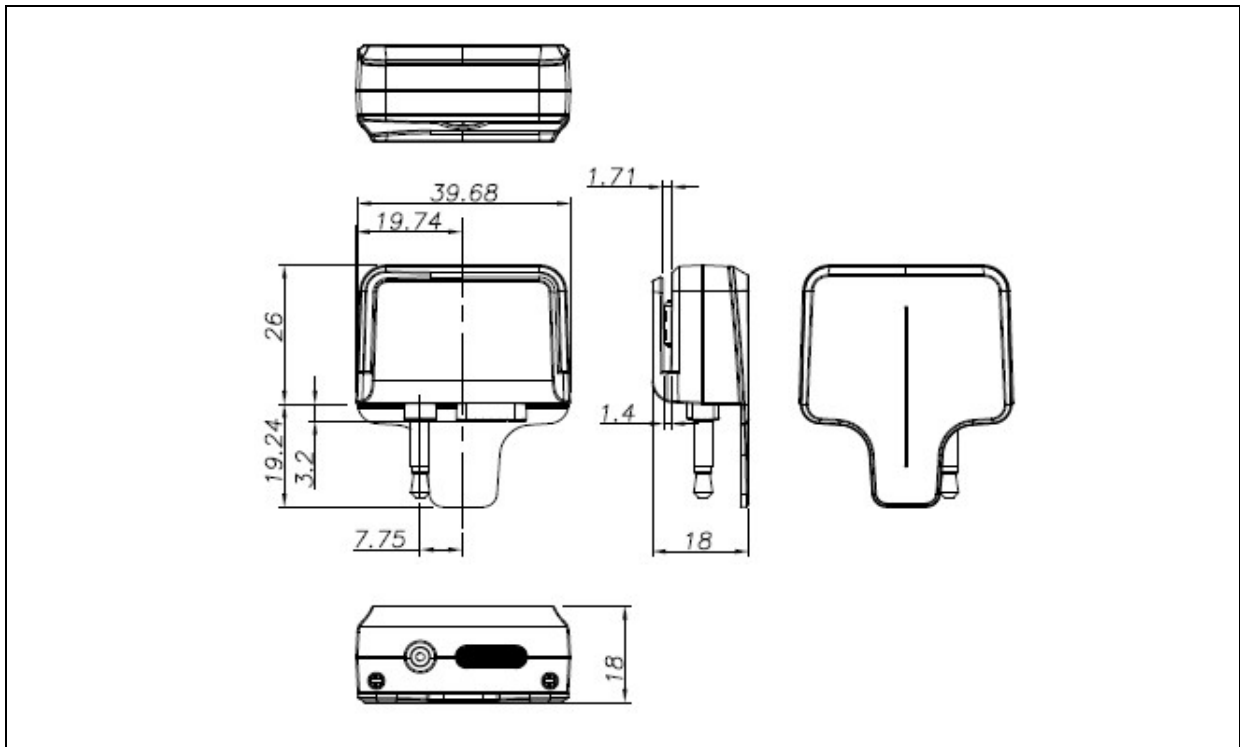
²Uses an ACS-defined iOS Library



3.0. Typical Applications

- Mobile Banking & Payment
- e-Healthcare
- e-Purse & Loyalty

4.0. Technical Specifications



Physical Characteristics

Dimensions 39.68 mm (L) x 46.00 mm (W) x 18.00 mm (H)
 Weight 20 g (with battery)
 Color White

Audio Jack Communication Interface

Protocol Bi-directional Audio Jack Interface
 Connector 3.5 mm 4-pole Audio Jack
 Speed Max. 2.6 Kbps
 Power Source Battery-powered

Power Source

Battery CR2016
 Supply Voltage 2.3 V – 3 V DC
 Operating Current 5 mA
 Sleep Current 0.4 μ A
 Battery Lifetime 10,000 swipes

Magnetic Card Interface

Standard ISO 7810/7811 Hi-Co and Low-Co Magnetic Cards
 JIS 1 and JIS 2
 Card Swipe Speed Max. 10 in/s
 Card Swipe Cycles Min. 500,000

Operating Conditions

Temperature 0 °C - 50 °C
 Humidity Max. 90% (non-condensing)
 MBTF 500,000 hrs

Certifications/Compliance

CE, FCC, RoHS 2, REACH, VCCI (Japan)

Device Driver Operating System Support

Android™ 2.0 and later, iOS 5.0 and later



Android is a trademark of Google Inc.