Advanced Card Systems Ltd.
Card & Reader Technologies

ACR89U-A2

Handheld Smart Card Reader (Contactless Version)

Product Presentation




www.acs.com.hk

Rundown

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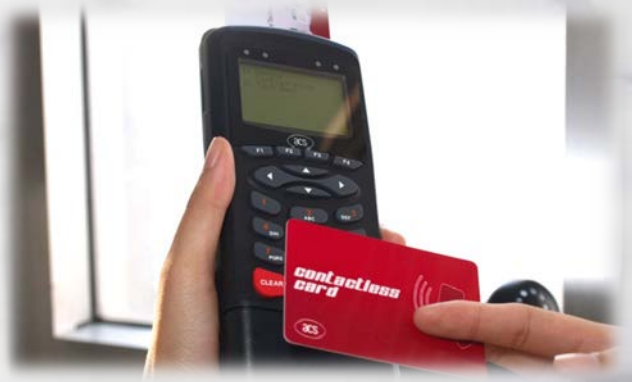
Product Overview

Product Overview

ACR89U-A2 (Contactless Version)

The ACR89U-A2 Handheld Smart Card Reader with NFC tag support is primarily designed for applications that require access to both contact and contactless smart cards following ISO7816 and ISO14443 standards.



It is an upgrade version of ACR88-CL which offers better performance, longer battery life and with optional thermal printer support.

Product Features

What are the Key Features of ACR89U-A2?

High resolution backlit graphical LCD (128x 64 pixels)

Durable 20-button keypad + Secure PIN Entry (SPE) support

4 LED Status Indicators

Memory
512 KB SDRAM – firmware
384 KB Serial Flash + 32 KB EEPROM – Data Storage / User Programmable

Supported Card Types
- ISO 7816 Class A, B and C
- Memory Cards
- ISO 14443 Type A & B
- Mifare
- FeliCa
- NFC Tags

Optional : Thermal Printer

Standalone : Rechargeable Lithium Ion Battery

PC Linked: USB Connectivity

2 Full-sized slots (Landing / Contact) + 3 SAM slots

Supported OS
- Windows 2000, 2003, XP, Vista & 7
- Mac, Linux , Android

Firmware upgradeable

Tamper detection switch

PC-Linked / Standalone Operation Modes

Product Features

NFC Technology-Enabled

NFC Tag Support
- Tag 1: based on ISO 14443 A (96 bytes), e.g. Topaz
- Tag 2: based on ISO 14443 A (48 bytes), e.g. Ultralight
- Tag 3: based on Japanese Industrial Standard, e.g. FeliCa
- Tag 4: based on ISO 14443 A and B, e.g. DESFire

Source: http://www.nfc-forum.org/specs/

Product Features

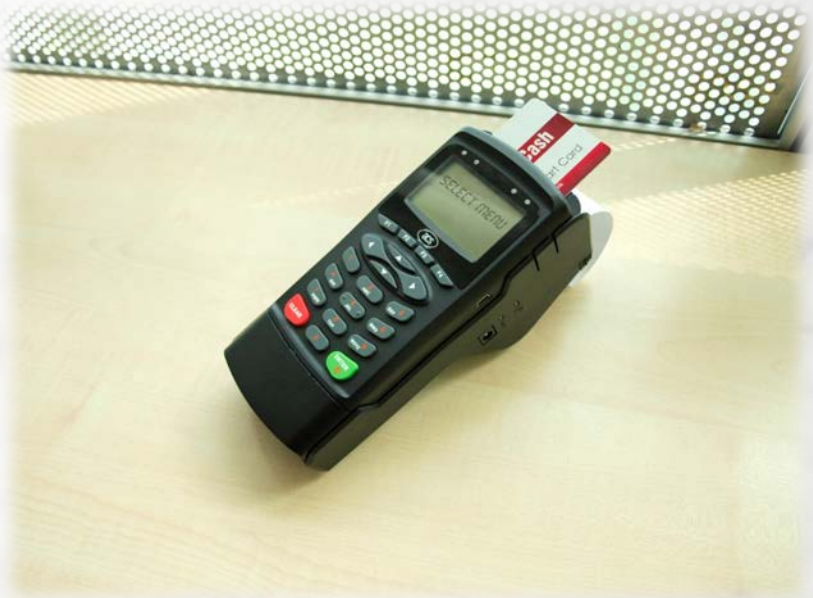
Intelligent Support for Combi and Hybrid Cards

- For Combi Card, if it is inserted into the contact card slot, ICC interface will be used and PICC interface will be disabled, as well as PC/SC Polling function for PICCs.
- For Hybrid Card, if it is inserted into the contact card slot, both ICC and PICC interfaces will be used to access the Hybrid card.

Combi card = ONE IC chip is shared by two interfaces
Hybrid card = TWO IC chips for two interfaces

Product Features

Upon Request:



Thermal Printer

ACR89U-A2 vs ACR88U-A2

	ACR88U-A2	ACR89U-A2
Processor	8bit , 24Mhz	32bit , 48Mhz
Operating System	Proprietary Scripts	FreeRTOS
Battery	3 x AAA	Rechargeable Li-Ion
Thermal Printer	--	Optional
LCD	1.9”	2.3”
LED	3	4
Firmware Upgrade	Serial	USB
Contact cards	ISO7816 Class A,B, MCU T=0,T=1, Memory cards	ISO7816 Class A,B,C MCU T=0,T=1, Memory cards
Contactless (Optional)	ISO 14443 Type A&B, Mifare	ISO 14443 Type A&B, Mifare , Felica , NFC tags
Host Interface	USB	USB and Serial

Product Value

Product Benefits

Cost-Effective

All in one design with powerful add-ons at the price of one

(PIN-Pad + LED + LCD + Contact Support + Contactless Support + Printer + Rechargeable Battery)

Customer Convenience

Easy to read and use

Highly durable and color coded keypad

Firmware Upgradeable

Thermal Printer Availability

High Security

Multiple SAM Slots

Dual Smart Card Interface

Secure PIN Entry

Mutual Authentication

Innovative

Ergonomically designed

Long Battery Life (handles up to 200 transactions)

CCID and PC/SC Compliance

Faster processing time at low cost

NFC-Enabled

ACR89U-A2 supports NFC Type 1 to Type 4 tags for different applications.

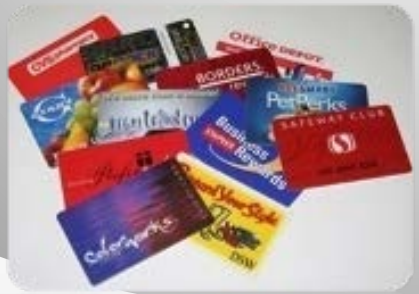
Product Application

In what areas can we apply ACR89U-A2?

e-Government

e-Payment

e-Healthcare



Customer Loyalty

Transportation

ACR89U-A2 Sample Application

Register & Issue Doctors' Cards

Each doctor carries his/her own ACR89, with his/her own doctor's card stored in one of the SAM slots.

Backup

Database

Backup

When mutually authenticated, patient's info can be viewed on the LCD of the device, or can be shown on the monitor when ACR89 is connected to the PC.

Register & Issue Patients' Cards

Patient's medical information are stored in the card. The card is inserted into one of ACR89's card slots.

Thank You!!!

More information on:

http:acr89.com