Advanced Card Systems Ltd.
Card & Reader Technologies

ACR88
Secure PINPad Reader

A Product Presentation

Rundown

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Product Overview

ACR88 Handheld Smart Card Reader/Writer

Multifunctional handheld smart card device with optional fingerprint scanner or contactless card reader

SAM Interface

Smart Card Interface

Keypad

LCD

ACR88 Core

Contactless Interface

Battery-Operated (Standalone)

Fingerprint Sensor

ACR88 Series

ACR88U
(Standard Version)

ACR88U-FPA
(+ Fingerprint
Sensor)

ACR88U-CL1
(+ Contactless
Reader)

Product Features

Handheld Portable Smart Card Reader/Writer

Dual operation modes:

PC-linked: powered through USB

Standalone: powered through 3x AAA batteries

Accepts 3V and 5V cards

Supports MCU cards with T=0 and T=1 protocols

2 full-sized smart cards and 3 SAMs

On-board firmware upgradeable

On-board script loadable*

(* For ACR88U ONLY.)

Product Features

Supports Secure PIN entry (SPE)

Graphical LCD w/backlight
(128x64 dots, 8 rows x 21chars, English)

Ergonomic and highly durable keypad (20-keys)

Monotone Buzzer

3 bi-color LED

Real time clock (RTC) w/ independent backup battery

Tamper switch which protect fraudulent intrusion

Certifications / Standards:
- CCID compatible
- CE/FCC
- EMV2000 Level 1 certification
- ISO 7816
- WHQL

Optional Features of ACR88

Contactless Sensor
For fast transactions

Fingerprint Sensor
For stronger authentication

Privacy Cover
For data privacy (MOQ required)

Non-volatile memory
For different font storage

Product Value

Extraordinary Ease of Use

PC/SC compliance	→	**Simple installation**
Streamlined stylish profile	→	**Conserves desktop space**
Ergonomically designed	→	**Easily handheld for key entry or card input**
Intuitive keypad interface, LED & buzzer signaling, Hi-res backlit display, Well-spaced Keys	→	**Reduce user training & Minimize user error**

What are the Key Benefits of ACR88?

Flexibility

Modular Design with Optional Fingerprint Sensor / Contactless Card Reader	→	**Support a full range of security and verification applications**
Online/Offline modes available	→	**Increase usage scenarios**
Support 2 x full-size, and up to 3 x SAM slots for SIM-sized cards	→	**Adjust level of security for different applications**
Script programmability with ACS Proprietary Scripting Commands	→	**Easy command Programming with tailor-fit functions**
Customization	→	**To suit specific needs**

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Cost-Effectiveness & Reliability

All-in-1 Design + Powerful Addons	→	Several devices for the price of one.
EMV 2000 v4.0 Level 1 compliance	→	E-Payment confidence
CE & FCC compliance	→	Hardware reliability

Development Environment

Development Environment

For PC-Linked Applications

Program according to PC/SC API

For Standalone Applications

Program via ACR88 Scriptbuilder*
according to easy-to-use,
well-defined scripts provided
by ACS

(* On-board script programmability:
For ACR88U ONLY)

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Software Development Kit

SDK - Contents

o   1 ACR88 reader
o   10 Test Cards
- 5 ACOS3 Microprocessor-based cards
- 5 ACOS6 SAM cards
o   1 Detachable USB cable
o   1 Firmware upgrade cable
o   1 Leather case
o   1 SDK CDROM containing
- Drivers
- Sample codes
- Tools and Utilities
- Demo programs
- Comprehensive Documents e.g. API, Technical Specification, User Guides, etc.

SDK – Demo Programs

1. Multi-application Demo
A 3-part demo which includes the ePurse, Healthcare card and Taxi meter

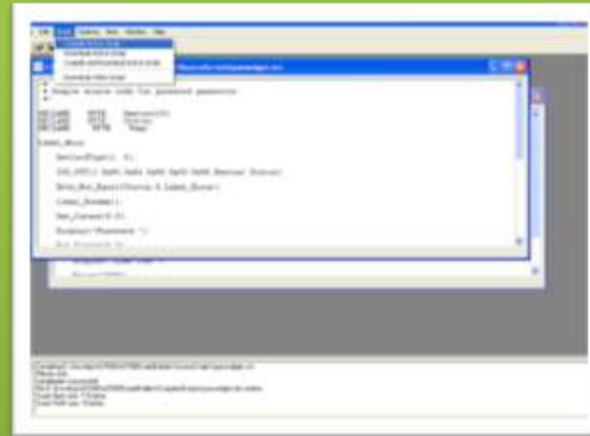**2. Functional Demo**
Demonstrates different API functions of the ACR88 device: e.g. Port, Device, LCD, Keypad, Realtime Clock, etc.

SDK – Demo Programs

ACR88 Scriptbuilder

3. Standalone Demos and sample scripts
Shows the necessary functions of the device when implemented as standalone taxi application & traffic violation application.

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Product Application

Transportation / Traffic Management

Payment System (ePurse, Credit/Debit etc.)

Secure Authentication

eCommerce

Healthcare

Loyalty System

Network Access Control

Physical Access Control

Sample Scenario: Traffic Violations Management

Enter PIN with the keypad optionally

SAM Cards (Police' Cards) are stored inside ACR88. This will authenticate the drivers' cards inserted, as well as the data received from them, and prove to the drivers the authenticity of the terminal

Contact/Contactless Driver's Card

Driver's Information is shown in the LCD.

Optionally authenticate ID by scanning fingerprint.

$ Police enters violation and the fine amount by means of the keypad.

Police transfer the fining data to the terminals in the Police Station with the ACR88 in Online mode.

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Sample Scenario: Healthcare

Register & Issue Doctors' Cards

Backup

Database

Backup

Register & Issue Patients' Cards

Each doctor carries his/her own ACR88, with his/her own doctor's card stored in one of the SAM slots.

When mutually authenticated, patient's info can be viewed on the LCD of ACR88, or can be shown on the monitor when ACR88 is connected to the PC

Patient's medical information are stored in the card. The card is inserted into one of ACR88's card slots.

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Thank You!!!

More information on:

http://www.acs.com.hk/acr88.php