



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

# ACR83 PINeasy



Technical Specifications V2.06



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## 1.0. Introduction

ACR83 PINeasy is a USB reader featuring a keypad and display, supporting Secure PIN Entry (SPE). The PIN (Personal Identification Number) is securely entered on its keypad and then authenticated within the device. Since the PIN is entered into the secure ACR83 PINeasy rather than the vulnerable PC or workstation, the possibility of a Virus/Trojan or USB Sniffer getting hold of the PIN is eliminated.

ACR83 PINeasy, which fits perfectly on the palm of your hand, is one of the smallest PIN-pad readers in the market. To authenticate yourself, all you have to do is to connect the reader to USB port of the PC, insert the smart card, follow the command on the LCD and enter your PIN.

Additionally, the ACR83 PINeasy is compliant with major computing, banking and safety standards such as Microsoft® WHQL (Windows Hardware Quality Labs), PC/SC, EMVCo Terminal Level 1, CE and FCC, equipping ACR83 to be a device that you can trust.



## 2.0. Features

- USB Full Speed Interface
- Contact Smart Card Reader:
  - Supports ISO 7816 Class A, B and C (5 V, 3 V and 1.8 V) cards
  - Supports microprocessor cards with T=0 and/or T=1 protocol
- Supports Protocol and Parameters Selection (PPS)
- Supports Secure PIN Entry (SPE)
- Built-in Peripherals:
  - 14-key Keypad
  - 2 rows x 16 characters dot matrix LCD, with 5 dots x 8 dots each character
- Certified and compliant with the following standards:
  - CCID
  - PC/SC
  - CE
  - FCC
  - IEC/EN 60950
  - RoHS
  - EMVCo Level 1 Certified
  - Microsoft® WHQL

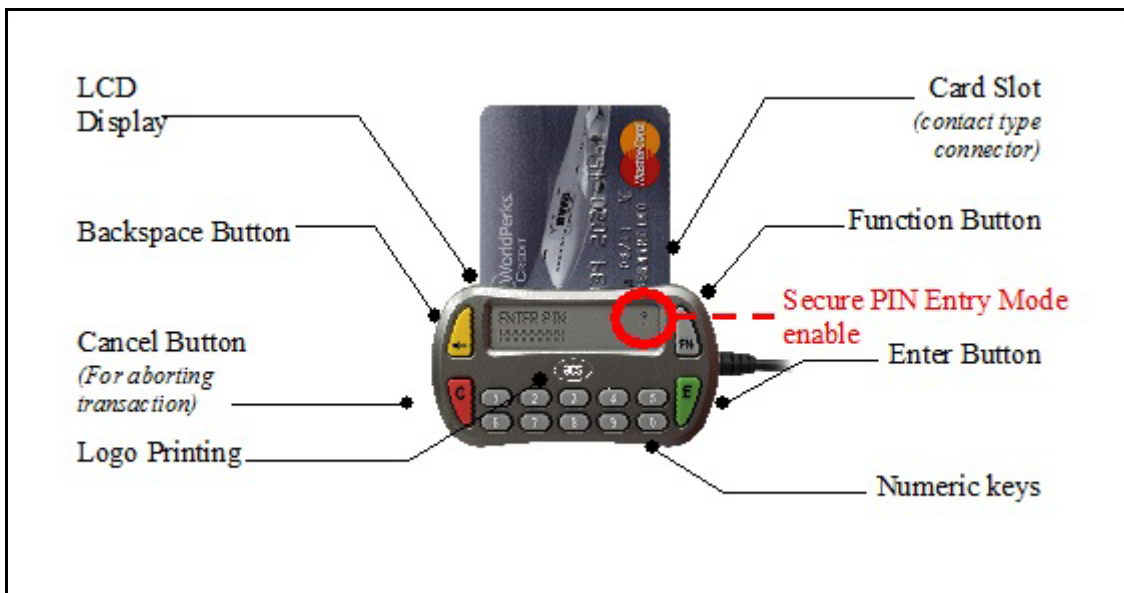


Figure 1: ACR83U-A1 Features



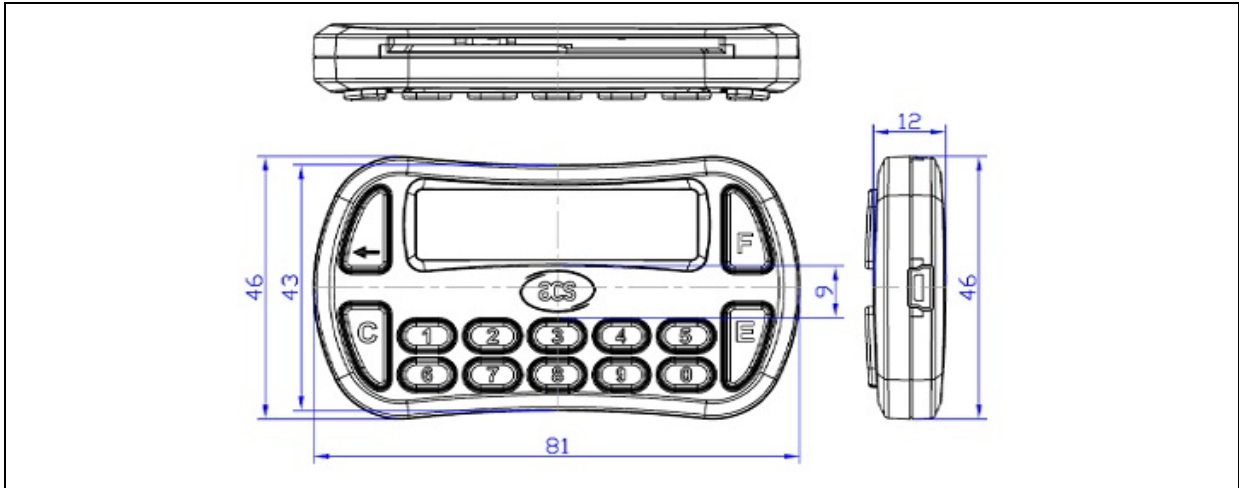
### 3.0. Typical Applications

- e-Government
- e-Banking and e-Payment
- e-Healthcare
- Transportation
- Loyalty Program





## 4.0. Technical Specifications



### Power

Supply Voltage ..... +5 V  
Supply Source ..... < 100 mA (without smart card)

### Universal Serial Bus Interface

Type ..... USB Full Speed, Four Lines: +5 V, GND, D+ and D-  
Power Source ..... From USB  
Speed ..... 12 Mbps  
Supply Current ..... Max. 50 mA

### Contact Smart Card Interface

Standard ..... ISO 7816 Class A, B and C (1.8 V, 3 V or 5 V), T=0 and T=1  
Smart Card Read/ Write Speed ..... 1,743 BPS – 250,000 BPS  
Short Circuit Protection ..... +5 V/GND on all pins  
CLK Frequency ..... 4 MHz  
Card Connector ..... Sliding Contact (8 contacts)  
Card Insertion Cycles ..... Min. 100,000

### Built-in Peripherals

Keypad ..... 14 keys (10 numeric key and 4 function keys)  
LCD Display ..... 2 rows x 16 characters, each character 5 x 8 dots

### Physical Specifications

Dimensions ..... 81 mm (L) x 46 mm (W) x 12 mm (H)  
Color ..... Metallic Grey  
Weight ..... 65 g

### Operating Conditions

Temperature ..... 0 °C – 50 °C  
Humidity ..... 10% - 90%, non-condensing

### Certifications/Compliance

CE, FCC, IEC/EN 60950, RoHS, ISO 7816, PC/SC, CCID, EMVCo Level 1, Microsoft® WHQL for Windows® 2000, Windows® XP, Windows Vista®, Windows® 7, Windows® 8, Windows® 8.1, Windows® Server 2003, Windows® Server 2008, Windows® Server 2008 R2, Windows® Server 2012, Windows® Server 2012 R2

### Device Driver Operating System Support

Windows® 2000, Windows® XP, Windows Vista®, Windows® 7, Windows® 8, Windows® 8.1, Windows® Server 2003, Windows® Server 2008, Windows® Server 2008 R2, Windows® Server 2012, Windows® Server 2012 R2, Linux®, Mac OS®, Android 3.1 and above

