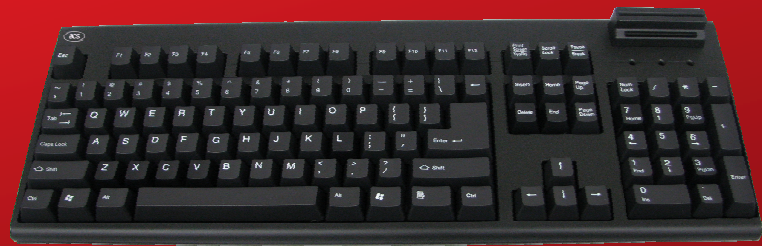




Advanced Card Systems Ltd.
Card & Reader Technologies

ACR38K Smart Keyboard



Technical Specifications



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1.0. Introduction

The ACR38K Smart Keyboard offers you with specialized keyboard setting, accessing every function in just one key-press, plus a classy multimedia controller. This keyboard is equipped with ACS Smart Card Reader enabling you to easily implement and use smart card based solutions.



ACS smart card readers utilize the latest in microchip technology giving you high performance and high security for your confidential files in a convenient and easy to carry microchip smart card. The software drivers and tools in this package will enable you to write files to your smart card and to read the contents. Combined with our versatile smart card reader/writer, using the ACR38 module, the keyboard is transformed into a highly powerful component for security, e-commerce, and other applications. of unauthorized access to private network, it is time to properly secure access to PCs, desktops, and the Intranet and Extranet networks.



You can also write protect the contents of your smart card so that nobody can erase or overwrite the files.



2.0. Features

2.1. Keyboard Features

- USB interface with 104 keys
- ACPI power management key support: power, sleep and wake up

2.2. Smart Card Reader Features

- Supports ISO-7816 Class A, B and C (5V, 3V, 1.8V) cards
- Conforms to: EN 60950/IEC 60950, ISO-7816, PC/SC, Microsoft WHQL, EMV 2000 Level 1, CE, FCC and RoHS
- Read and write support to all microprocessor cards with T=0 or T=1 protocols
- Supports a variety of memory cards
- Support PPS (Protocol and Parameters Selection) with 1,953 – 250,000 bps in reading and writing smart cards
- USB full speed interface
- Short Circuit Protection
- RoHS Compliant



3.0. Supported Card Types

3.1. MCU Cards

The ACR38K operates with an MCU card following either the T=0 or T=1 protocol.

3.2. Memory-Based Smart Cards (Synchronous Interface)

The ACR38K works with several memory-based smart cards such as:

- Cards following the I2Cbus protocol (free memory cards) with maximum 128 bytes page with capability, including:
 - Atmel: AT24C01/02/04/08/16/32/64/128/256/512/1024
 - SGS-Thomson: ST14C02C, ST14C04C
 - Gemplus: GFM1K, GFM2K, GFM4K, GFM8K
- Cards with secure memory IC with password and authentication, including:
 - Atmel: AT88SC153 and AT88SC1608
- Cards with intelligent 1k bytes EEPROM with write-protect function, including:
 - Infineon: SLE4418, SLE4428, SLE5518 and SLE5528
- Cards with intelligent 256 bytes EEPROM with write-protect function, including:
 - Infineon: SLE4432, SLE4442, SLE5532 and SLE5542
- Cards with '104' type EEPROM non-reloadable token counter cards, including:
 - Infineon: SLE4406, SLE4436, SLE5536 and SLE6636

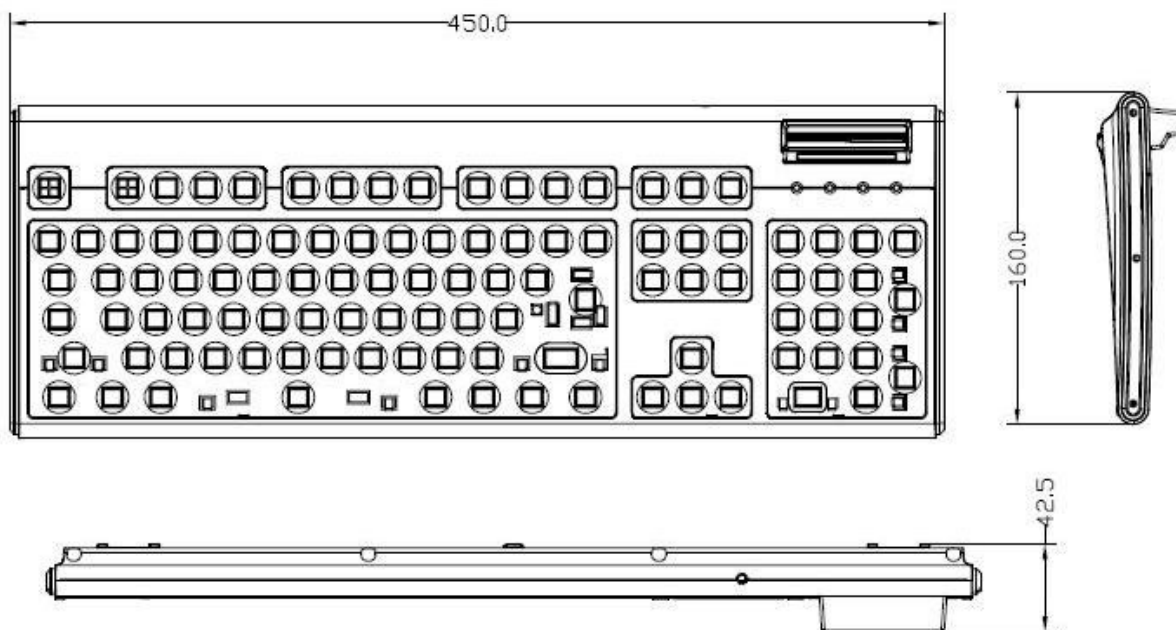


4.0. Typical Applications

- Home Banking and Home Shopping
- Electronic Commerce
- Network access control
- S/W locking
- Digital signature
- Loyalty and promotions
- Stored value
- Identification
- Online gaming



5.0. Technical Specification



Universal Serial Bus Interface

Type USB full speed, four lines: +5V, GND, D+ and D-
Power source From USB
Speed 12 Mbps

Smart Card Interface

Standard ISO-7816 Class A, B and C (5V, 3V, 1.8V), T=0 and T=1
Supply current max. 50mA
Smart card read / write speed 1,953 – 250,000 bps
Short circuit protection +5V / GND on all pins
The presence of the smart card power supply voltage is indicated through a green LED on the reader
CLK frequency 4 MHz
Card connector Contact
Card insertion cycles min. 100,000

Physical Specifications

Number of Keys 104
Keyboard dim. (mm) 445(L) x160 (W) x 40(H)
Color Black
Weight 650g

Operating Conditions

Temperature 0 - 50° C
Humidity 40% - 80%

Certifications/Compliance

EN 60950/IEC 60950, RoHS Compliant, EMV 2000 Level 1, ISO-7816, PC/SC, CCID, CE, FCC
USB Full Speed, Microsoft WHQL 2000, XP, Vista

Device Driver Operating System Support

Windows ® NT, 98, ME, 2000, XP, Vista, Server 2003; Linux; MAC

