



Advanced Card Systems Ltd.
Card & Reader Technologies

ACR38T- IBS



Technical Specifications



Table of Contents

| | | |
|-------------|--|----------|
| 1.0. | Introduction | 3 |
| 2.0. | Features | 4 |
| 3.0. | Supported Card Types..... | 5 |
| 3.1. | MCU Cards | 5 |
| 3.2. | Memory-Based Smart Cards (Synchronous Interface) | 5 |
| 4.0. | Typical Applications | 6 |
| 5.0. | Technical Specification | 7 |



1.0. Introduction

The ACR38T-IBS is a stylish plug-in (SIM-sized) smart card reader/writer. It has the full functionalities of ACR38 Smart Card Reader and supports smart cards that conform to GSM 11.11 specification.

It is an extremely light and compact USB full speed device, with a weight of only 10 grams and has a release button for plug-in smart cards. The ACR38T is a highly portable smart card PC peripheral, as it plugs into the USB port and requires no additional cable or wiring. It is ideal for Internet Banking, Payment Systems and Network Security.





2.0. Features

- PC/SC Compliant
- Support GSM 11.11 specification
- Support Plug-in SIM-Sized Contact Smart Card
- Microsoft WHQL Certified Drivers
- CE and FCC Certified
- EMV 2000 Level 1 Certified
- Conforms to EN 60950/IEC 60950
- Supports ISO-7816 Class A, B and C (5V, 3V, 1.8V) cards
- Read and write support to all microprocessor cards with T=0 or T=1 protocol
- Supports a wide range of memory-based smart cards
- USB full speed interface to PC
- Short Circuit Protection
- RoHS Compliant
- Support PPS (Protocol and Parameters Selection) with 1,743 – 250,000 bps in reading and writing smart cards



3.0. Supported Card Types

3.1. MCU Cards

The ACR38T-IBS operates with an MCU card following either the T=0 and T=1 protocol.

3.2. Memory-Based Smart Cards (Synchronous Interface)

The ACR38T-IBS supports the following memory cards:

- Cards following the I2C bus protocol (free memory cards) such as:
 - Atmel: AT24C01 / 02 / 04 / 08 / 16 / 32 / 64 / 128 / 256 / 512 / 1024
 - SGS-Thomson: ST14C02C, ST14C04C
 - Gemplus: GFM1K, GFM2K, GFM4K, GFM8K
- SLE4432/4442/5542 intelligent 256 bytes EEPROM with write protect function:
SLE4432, SLE4442, SLE5542
- SLE4418/4428/5528 intelligent 1K bytes EEPROM with write-protect function:
SLE4418, SLE 4428, SLE5528
- Secure memory cards such as:
AT88SC153, AT88SC1608
- SLE4406/4436/5536 '104' type EEPROM non-reloadable token counter cards
SLE4406, SLE4436, SLE5536

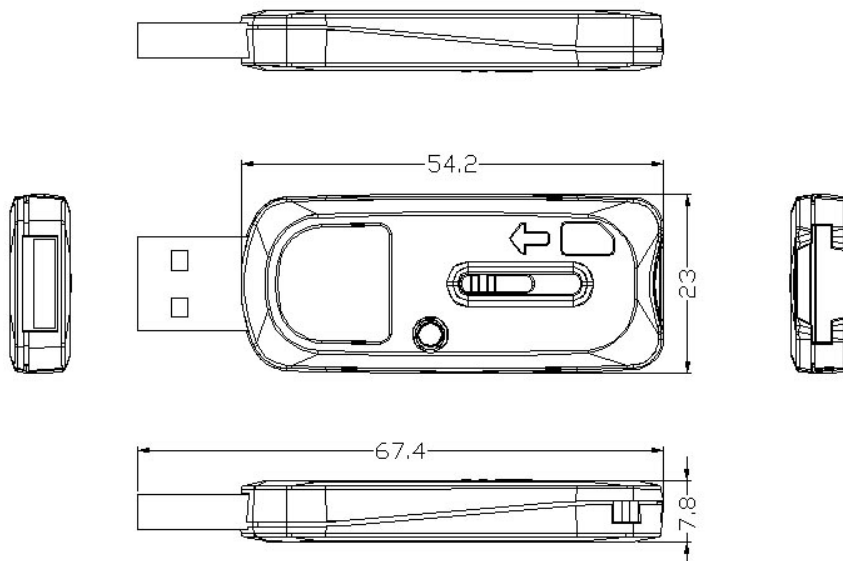


4.0. Typical Applications

- Home Banking and Home Shopping
- Electronic Commerce
- Checking the balance of account of re-loading an electronic purses
- Network access control
- S/W locking
- Digital signature
- Loyalty and promotions
- Stored value
- Identification
- Ticketing
- Parking and toll collection
- 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 (Full Speed)

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 1,743 – 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 Sliding
Card insertion cycles min. 10,000

Physical Specifications

Dimensions 67.4mm (L) x 23.0mm (W) x 7.8mm (H)
Color Red
Weight 10 g

Operating Conditions

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

Certifications/Compliance

EN 60950/IEC 60950, EMV 2000 Level 1, PC/SC, CE, FCC, RoHS Compliant, USB Full Speed, Microsoft® WHQL 2000, Server 2003, XP, Vista, Server 2008, Server 2008 R2, 7

Device Driver Operating System Support

Windows® NT, 98, ME, 2000, Server 2003, XP, Vista, Server 2008, Server 2008 R2, 7
Linux, MAC

