



## Introduction

The ACR38U-BMC is a USB interface smart card reader/writer. Belonging to the ACR38 family of high speed smart card readers/writers, it is built with a unique "Bridge Desktop" casing that allows upright insertion of smart cards. The convenience of using the ACR38 for applications like network security and electronic payment system makes it the ultimate smart card peripheral for the PC environment. Its stylish yet durable design also blends well with the look of other PC peripherals.

Low cost but high quality, the ACR38U-BMC creates lasting customer value and offers viable and user-friendly solutions for various smart card applications such as electronic commerce, home banking or e-purse applications and secure computer access.



## Smart Card Reader Features

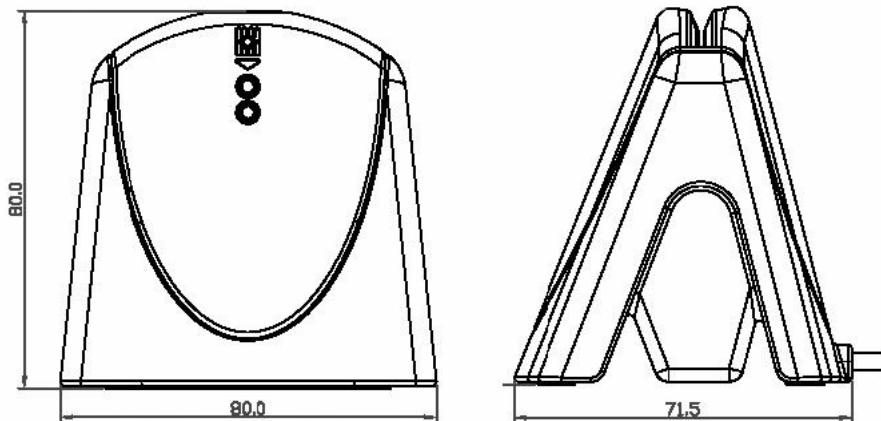
The table below summarizes the features of the ACR38-BMC:

| Features                       | Firmware 1.10 | Firmware 1.12c |
|--------------------------------|---------------|----------------|
| 1. PC/SC                       | ✓             | ✓              |
| 2. CCID                        | ✗             | ✓              |
| 3. WHQL Certified Drivers      | ✓             | ✓              |
| 4. CE and FCC                  | ✓             | ✓              |
| 5. RoHS                        | ✓             | ✓              |
| 6. EMV Level 1                 | ✓             | ✓              |
| 7. ISO 7816 (Class A, B, C)    | ✓             | ✓              |
| 8. MCU Card Support (T=0, T=1) | ✓             | ✓              |
| 9. Memory Card Support         | ✓             | ✓              |
| 10. USB Full Speed             | ✓             | ✓              |
| 11. Short Circuit Protection   | ✓             | ✓              |

## Typical Applications

- e-Government
- e-Banking and e-Payment
- e-Healthcare
- Public Key Infrastructure
- Network Security
- Access Control
- Loyalty Program

## Technical Specifications



### Universal Serial Bus Interface

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

### Smart Card Interface

|  |   |
|--|---|
| Standard .....   | ISO 7816 Class A, B and C (5 V, 3 V, 1.8 V), T=0 and T=1  |
| Supply current .....   | max. 50 mA  |
| Smart card read / write speed .....  | max. 250,000 bps (FW 1.10)<br>max. 344,086 bps (FW 1.12c) |
| Short circuit protection .....   | +5 V / GND on all pins                                    |
| The presence of the smart card power supply voltage is indicated through a red LED (top LED) on the reader. The insertion of the smart card is indicated through a green LED (bottom LED) on the reader. |   |
| CLK frequency .....  | 4 MHz   |
| Card connector .....   | Contact   |
| Card insertion cycles .....  | min. 100,000  |

### Physical Specifications

|                                     |  |
|-------------------------------------|--|
| Dimensions .....                    | 71.5 mm (L) x 80 mm (W) x 80 mm (H)                            |
| Color .....                         | Black  |
| Weight .....                        | 174 g ( $\pm$ 5 g allowance for cable) – Bridge Desktop casing |
| Cable length, cord, connector ..... | 1.5 meters, Fixed (non-detachable), USB A                      |

### Operating Conditions

|                   |             |
|-------------------|-------------|
| Temperature ..... | 0 – 50 °C   |
| Humidity .....    | 10% - 90%   |
| MTBF .....        | 500,000 hrs |

### Certifications/Compliance

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

### Device Driver Operating System Support

Windows © 98, ME, 2000, Server 2003, XP, Vista, Server 2008, Server 2008 R2, 7  
Linux, Mac



<sup>1</sup>Supported by FW1.12c