1. Product Overview
2. Product Features
3. Product Value
4. Product Application
Product Overview
ACR1281U-C1 DualBoost II
USB Dual Interface Reader

The ACR1281 Series is a family of Contactless Smart Card Readers sharing the same core. The readers are developed based on the 13.56 MHz RFID technology.

The FIPS 201 certified ACR1281U-C1 DualBoost II is the second generation of ACR128 DualBoost. Belonging to the Contactless Product Family, it also features support for contact smart cards.
<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intelligent Support</strong></td>
<td>Hybrid and Combi Cards</td>
</tr>
<tr>
<td><strong>Smart Card Interfaces</strong></td>
<td>PICC (Contactless)</td>
</tr>
<tr>
<td></td>
<td>ICC (Contact)</td>
</tr>
<tr>
<td></td>
<td>SAM</td>
</tr>
<tr>
<td><strong>Device Firmware Upgradeable</strong></td>
<td>via USB Interface</td>
</tr>
<tr>
<td><strong>High-Speed Transaction</strong></td>
<td>106 kbps – 848 kbps (Max.)</td>
</tr>
<tr>
<td><strong>Supported Card Types</strong></td>
<td>ISO 14443 Type A and B</td>
</tr>
<tr>
<td></td>
<td>Mifare® Classic, Mifare Plus®,</td>
</tr>
<tr>
<td></td>
<td>Mifare® DESFire® EV1</td>
</tr>
<tr>
<td></td>
<td>ISO 7816 Class A, B, C Memory Cards</td>
</tr>
<tr>
<td><strong>User-controllable Peripherals:</strong></td>
<td>LEDs</td>
</tr>
<tr>
<td></td>
<td>Buzzer</td>
</tr>
<tr>
<td><strong>Others/Miscellaneous</strong></td>
<td>Supports Contactless Extended APDU</td>
</tr>
<tr>
<td><strong>Certifications/Compliance</strong></td>
<td>ISO 14443, ISO 7816</td>
</tr>
<tr>
<td></td>
<td>FIPS 201</td>
</tr>
<tr>
<td></td>
<td>CE, FCC, RoHS</td>
</tr>
<tr>
<td></td>
<td>PCSC, CCID</td>
</tr>
<tr>
<td></td>
<td>Microsoft® WHQL</td>
</tr>
<tr>
<td><strong>Operating System Support</strong></td>
<td>Windows® 2000, Windows® XP,</td>
</tr>
<tr>
<td></td>
<td>Windows Vista®, Windows® 7,</td>
</tr>
<tr>
<td></td>
<td>Windows® 8, Windows® Server 2003,</td>
</tr>
<tr>
<td></td>
<td>Windows® Server 2008, Windows® Server 2008 R2,</td>
</tr>
<tr>
<td></td>
<td>Windows® Server 2012</td>
</tr>
<tr>
<td></td>
<td>Linux®, Mac OS X</td>
</tr>
<tr>
<td></td>
<td>Android™ 3.1 and above</td>
</tr>
</tbody>
</table>
Intelligent Support for Combi and Hybrid Cards

• For combi cards, if the card is inserted into the contact card slot, the ICC interface will be used and the PICC interface will be disabled as well as PC/SC polling function for PICCs.

• For hybrid cards, if the card is inserted into the contact card slot, both ICC and PICC interfaces will be used to access the hybrid card.

Combi Card = ONE IC chip is shared by two interfaces
Hybrid Card = TWO IC chips for two interfaces
Power-saving Mode

- Antenna power is only turned on if required
- Most of the time the antenna is turned off
- User is able to control the period of time for turning the antenna on/off
Auto PPS (PICC)

Whenever a PICC is recognized by the reader:

- The reader can change the communication speed between the PCD and PICC by the maximum connection speed.
- The maximum connection speed depends on the card type.
Product Features

- ACR1281U-C1 is built based on a more advanced architecture
- Suitable for high-speed transactions
- Suitable for highly secure environment
ACR1281U-C1 Architecture

ACR1281U-C1
PCSC SAM Interface
ACR1281U-C1
PCSC ICC Interface
ACR1281U-C1
PCSC PICC Interface

PCSC Layer

ISO 7816 Parts 1-4
+ SAM and ICC Interfaces

T = CL and T = 1 Emulation

ISO 14443 Parts 1-4
+ PICC Interface

SAM (Socket)
ICC (Landing Type Acceptor)
PICC (Built-in Antenna)
Product Value
What are the Key Benefits of ACR1281U-C1?

**Cost-efficient**
Single reader provides additional design and cost-saving benefits for systems integrators and card users.

**High Security**
- SAM on board (Contact Interface)

**PICC Support**
- Supports both Type A and B cards

**High-speed Transaction**
- Baud rate up to 848 Kbps (contactless)

**Contemporary Style and Durability**
- Card alignment tray for contactless card
- Landing type contact connector
- Easy to replace SAM

**Ease of integration**
- PCSC interface
- Native T=CL support

**Ease of Technology (Migration/Upgrade)**
- Quick and easy migration from contact to contactless technology
- Firmware upgradable
Product Application
In what areas can we apply ACR1281U-C1?

- Transportation
- Payment System (e-Purse, etc.)
- Campus Facility Management
- Network Access
- Physical Access Control
Thank you!

For more information, please visit:
http://www.acr1281.com