ACR1255 Bluetooth Contactless Card Development Kit

The ACR1255U from ACS is a Bluetooth NFC reader that supports ISO 14443 type A and B cards, MIFARE, FeliCa, and ISO 18092 compliant NFC cards and tags. Featuring Bluetooth Smart connectivity (Bluetooth Low Energy) for pairing with mobile devices and a USB connection for PC-linked operation, this portable reader is ideal for use with most Bluetooth-enabled devices including smartphones and tablets.

The SDK is a set of PC/SC compliant sample codes, for device and contactless card programming for Java, MS Visual Basic .NET 2013, MS Visual C# .NET 2013 and MS Visual C++ .NET. It also includes a number of helpful tools and utilities for programming and a full set of reference material. This will help software developers create PC-linked applications, like smart posters for advertising and marketing. The ACS Smart Card and Reader Tool and all of the necessary drivers are also included.

The ACR1255U SDK is a complete package providing all the components required for application development:

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- 1 x ACR1255U-J1 ACS Secure Bluetooth NFC reader
- 5 x MIFARE 1K Contactless Smartcards
- 5 x ACOS3 Contactless Smartcards
- 1 x SDK download key

Development kit for the ACR1255U Bluetooth NFC reader

To buy, visit:
https://www.smartcardfocus.com/shop/ilp/id~897/p/index.shtml

This Product Briefing has been produced by Dot Origin Ltd, the smart card experts behind SmartcardFocus.com. If you have a query email sales@smartcardfocus.com or call us on +44 (0)1428 685250.

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ACR1255U Technical Specifications

Product:

Credential type(s): Contactless

Read/Write: Read and Write

Form factor: Portable

Connector: USB CCID (USB Mini-B connector)

OS support: Windows; Linux; Mac OS; Android

Bluetooth Interface:

BLE interface standard: IEEE 802.15.4 (Bluetooth Low Energy/Bluetooth4.0)

Contactless Card Interface:

Contactless interface standard: ISO 14443, ISO 18092 NFC

Contactless credential types: ISO 14443-4 compliant cards, MIFARE Classic, FeliCa, NFC Forum Tags

Contactless operating frequency: High (13.56MHz)

Data transmission protocol: T=CL

Contactless data security: In-device AES-128 Encryption Algorithm (CBC Ciphering Mode)

Contactless encryption: AES-128

Contactless operating distance: Up to 50mm (2.0in)

Contactless read/write speed: Up to 424kbps

Host Interface:

Host interface standards: PC/SC, CT-API (through wrapper on top of PC/SC)

Host data transmission speed (wired): 12 Mbps (USB full speed)

Other Features:

Status indicator: 2 bi-colour LEDs - red/blue and red/green

Buzzer: Monotone

Firmware in-field upgradeable: Yes, over USB interface

Colour: White

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Certifications:

Manufacturer's warranty: 1 year

MTBF: 400 000hrs

Type approvals: CE, FCC, RoHS 3, REACH, IEC 60950

Application approvals: TELEC (Japan), VCCI (Japan)

Country of origin: China

Physical:

Dimensions: 85 x 54 x 10mm (3.35 x 2.13 x 0.39in)

Weight (±5%): 74.1g (2.6oz) including cable

Cable length supplied: 1m (39in) detachable

Power:

Supply voltage: 5V DC

Operating current: 500mA (max)

Battery power option: Rechargeable Lithium-ion Battery (charging through USB)

Environment:

Operating temperature: 0 to 60degC (32 to 140degF)

Operating humidity: Up to 85% RH (non-condensing)

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The SDK download includes:

Bluetooth driver: Supports Windows 10, 8.1, 7

USB driver: Supports Windows 10, 8.1, 7

Utility Tools:

- PC/SC Learning Tool – enables users to perform PC/SC-compliant Windows API smart card functions, with the option of 'Teach mode' to guide you through the standard sequence of commands

- ACS Smart Card and Reader Tool – allows users to send commands from a PC/SC compliant smart card reader to an ISO7816 compliant smartcard

- ACS QuickView - which reads and displays smartcard reader and smartcard details, and polls to test the presence of a card in the reader

- ACS Script Tool - helps to send APDU commands to one or more smartcards or smartcard readers, including passing values between readers

Sample Codes: Demonstrates basic commands used to communicate with the ACR1255U-J1 reader and smartcards. Visual Basic 2013, Visual C++ 2013, Visual C# 2013, Java Version 6 or above

Reference Manuals: Easy to use reference manuals for the ACR1255U-J1 reader, MIFARE Classic 1K and ACOS3 smartcards to help with the development process

Technical Specifications: Includes detailed technical specifications of all the contained products

Manufacturer's part number: SDK-ACR1255U-J1

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