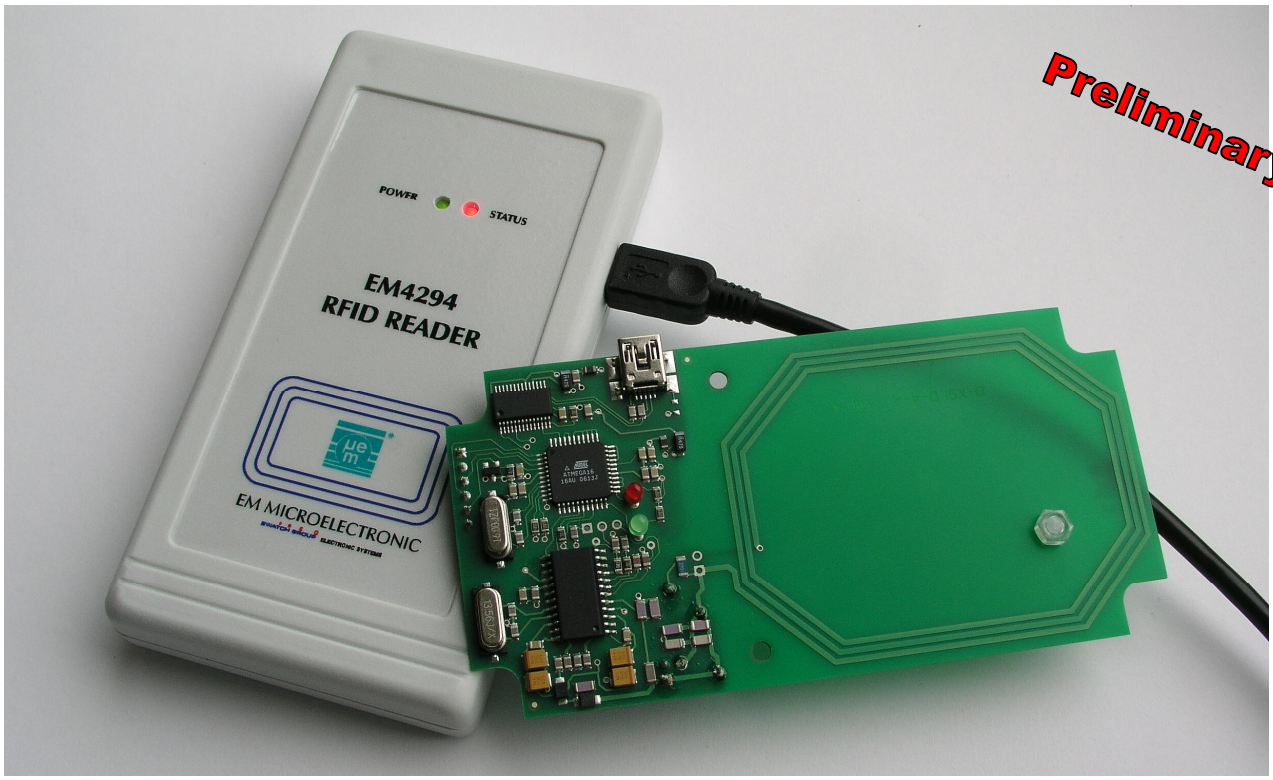
EM MICROELECTRONIC

SWATCH GROUP ELECTRONIC SYSTEMS

Support Tools

EMDB410



Description

The EM4294 RFID READER is a 13.56MHz proximity Radio Frequency Identification Device reader compliant with the ISO15693 and ISO14443 standards.

The reader supports the Mandatory, Optional, Custom, and Proprietary commands of the EM Microelectronic ISO15693 compliant transponder ICs (EM4034, EM4035, and EM4135) and the EM4006 Read Only IC.

Moreover, alternate firmware providing the Mandatory command set of ISO14443 Type A and Type B (ISO14443-2 and parts of ISO14443-3) is also available.

The EM4294 RFID Reader hardware is based on the EM4294 transceiver IC which delivers a RF power of 200mW to the PCB printed antenna.

The EM4294 IC also incorporates a SIM card microcontroller in order to access the crypto algorithm of the EM4035 based RFID tag. Through the reader PC software, one has the possibility to change the content of the 4 secret keys or modify the EM4035 tag memory segmentation. Additionally, SIM card firmware provides the 3-DES CBC encryption/decryption algorithm and user accessible memory.

The EM4294 reader is a reference design for beginners or experts. On the CD ROM, the user will find all the support material (hardware and software) to realize its own 13.56MHz RFID coupler.

The reader firmware can be upgraded via the USB port.

The reader is fully USB powered.

The latest documentation versions are published on the EM Microelectronic website: www.emmicroelectronic.com.

Reader items

- Desktop reader base station
- EM4034 & EM4035 tags in a credit card format (2 parts)
- Mini USB cable
- CDROM

CDROM content

- User's Guide
- Microcontroller source code files written in C language
- USB drivers
- Unified application software for ISO15693 and ISO14443 standards including source files in C++
- Hardware schematic and PCB Gerber Files (Layout)
- Product Datasheets
- Application Notes

Ordering Information

To order, please, use exact Part Number:

Description	Part Number
EM4294 RFID Reader	EMDB410

Rev. A510

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