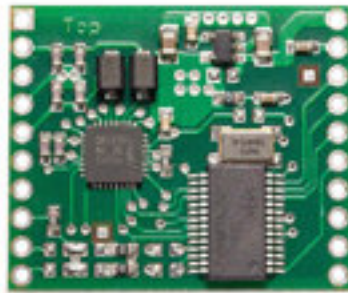




## **RFID Module Mifare DESFire**

The SMART Technologies RFID module Mifare DESFire is designed for integration in terminals, handhelds other devices.

During development, special attention was paid to compact dimensions and technical flexibility (3,3V DC to 5,0V DC) for the integration.



**Following technologies are supported by the module:**

- ISO14443A
- Mifare
  - Classic 1k, 4k, Mini
  - DESFire EV1
  - Plus (RF identification protocols)
  - Ultralight
- LEGIC Advant

For customer specific modifications the user has 4 digital I/O ports available.

The easy command structure allows the module to be connected to any other application without many efforts.

The data transfer goes in the standard version over a serial TTL interface.

Besides that, the RFID module can be connected over USB, HID-Mode, I2C, Magstripe Clock/Data, Wiegand D0 D1.

## Technical data:

- Dimensions: 31 x 26 x 3 mm
- Interfaces:
  - Asynchron serial TTL-level
  - USB (HID)
  - IC<sup>2</sup>
  - Clock/data
  - Wiegand D0/D1
  - USB COMPort (optional over external FTDI driver)
  - Real RS232 (optional over external e.g. Maxim driver)
- Supported Transponder:
  - ISO14443A
  - Mifare
    - Classic 1k, 4k, Mini
    - DESFire EV1
    - Plus RF (identification protocols)
    - Ultralight
  - LEGIC advant
- Antenna: external
- Reading distance: up to 80 mm (depending on transponder type, ext. antenna and environment)
- Current consumption:
  - RF field on: typical 60mA, depending on antenna
  - RF Field off: 2mA
  - Sleep mode (optional)
- Power supply:
  - 3,3 V DC to 5,0 V DC
- Temperature range: -20°C to + 60°C

## Pinning

<b>PIN</b>	<b>MIFARE 13,56MHz</b>
1	REC_ANT
2	TX1_ANT
3	UB 3,3- 5.0V DC
4	GND_ANT
5	TX2_ANT
6	GND
7	USB D-
8	USB D+
9	N/C
10	N/C
11	RX, DATA, D1
12	TX, CLOCK, D0
13	Card Load, Direction
14	DIGITAL I/O 1
15	/RESET
16	DIGITAL I/O 2
17	DIGITAL I/O 3
18	DIGITAL I/O 4
19	GND
20	UB 3,3-5.0V DC