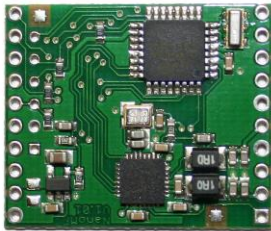


13.56 MHz multi-technology RFID module

The new multi-functional and multi-technology RFID module “**FLEX**” gets its name from its extreme flexibility in applications.

FLEX is a cost-effective RFID read/write module, suited for use with transponders in all common 13,56MHz technologies. This universal application possibility offers enormous advantages compared to other modules supporting just one technology.



FLEX is available in 2 versions :

- **FLEX** : a complete module for various 13.56 MHz tag types. Available with a selection of different interfaces.
- **FLEX_App** : also supporting various 13.56 MHz tag types, **FLEX_App** offers the feature of direct access to the core LEGIC Advant 4200 chip, allowing the user to develop his own customer-specific applications.

The **FLEX** module also offers a useful keyboard emulation mode (HID function) which allows easy connection over USB without the need to install special drivers.

Some of the highlights :

- smallest read/write module
- best price/quality ratio
- multi-functional application options
- low power consumption
- multi-standard

Supported technologies :

The shown transponder types just represent a selection of the compatible types !

- LEGIC RF : Legic Prime; LEGIC Advant
- ISO 14443A+B, up to 424 kb/s : Mifare DESFire; NXP SmartMX; Infineon SLE
- ISO 15693 : EM4035; Tag-It HFI; Infineon SRF55VxxP; ISO18000-3 mode 1
- ISO 18092/NFC (passive mode, initiator, selected tag types)
- HID iClass (ISO15693 UID only)
- Sony Felica (ISO18092)
- Inside Contactless (UID only)

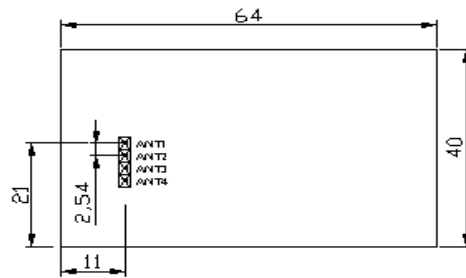
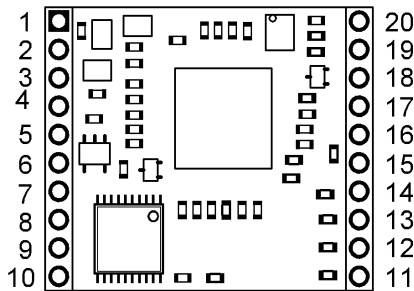
Technical specifications FLEX_App module :

- Dimensions : 31 x 26 x 4 mm
- Interface : asynchronous serial TTL-level
- External antenna
- Read range : up to 80 mm (depending on transponder type and environmental conditions)
- Power supply : 5V DC \pm 5% (coming soon : 3,3 V DC version)
- Temperature range : -25°C to + 80°C
- Note : FLEX_App is only available in combination with a Non-Disclosure Agreement

Technical specifications FLEX module :

- Dimensions : 31 x 26 x 4 mm
- Interfaces available :
 - asynchronous serial TTL-level
 - USB 2.0
 - Clock & Data
 - Wiegand
 - asynchronous serial RS232 true or RS485 via external driver circuit
- Option : HID function (keyboard emulation) for easy connection over USB. No special drivers required.
- External antenna : pcb-antenna 64 x 40 x 2 mm or customer-specific (antenna not supplied with the module)
- Read range : up to 80 mm (depending on transponder type, antenna and environmental conditions)
- Power supply : 5V DC \pm 5% (coming soon : 3,3 V DC version)
- Duplicate read control
- Temperature range : -25°C to + 80°C

PIN connections FLEX and FLEX_App module :



PIN	FLEX	FLEX_App	Antenna pcb
1	n.c.	n.c.	
2	TX ANT	TX ANT	ANT1
3	UB +5V	UB +5V	
4	GND ANT	GND ANT	ANT2
5	GND	GND	
6	GND	GND	
7	USB D-	n.c.	
8	USB D+	n.c.	
9	n.c.	IO2 3.3V Logic	
10	n.c.	IO3 3.3V Logic	
11	RX (IN), DATA, D1	RX (IN) 5V Logic	
12	TX (OUT), CLOCK, D0	TX (OUT) 5V Logic	
13	Direction, Card Load	n.c.	
14	DIGITAL I/O 1	n.c.	
15	/RESET	RESET 3.3V Logic	
16	n.c.	IO 1 3.3V Logic	
17	DIGITAL I/O 2	IO 0 3.3V Logic	
18	DIGITAL I/O 3	n.c.	
19	GND	GND	
20	UB +5V	UB +5V	