

## UIC680 SERIES

### Contactless Smart Card Reader Module - RS232 & USB HID Keyboard Interface - (Support M-Chip & qVSDC)

Thank you for purchasing the UIC680 series products.

The contactless smart card reader module UIC680 is mainly to support the contactless payment systems. The small footprint size of the module makes it easily to integrate to the current transaction system such as Point-of-Sale terminal, kiosk, and vending machine station as the part of the system. The module communicates with a host computer or terminal using a standard RS-232, USB or TTL interface.

#### FEATURES

- Small footprint PCB size: 50 L\* 40 W (mm) without antenna board
- Supports ISO 14443 type A & B standard
- Supports American Express® ExpressPay, MasterCard® PayPass™, Visa® MSD applications
- Reads/writes Philips Mifare® classical contactless smart card
- Provides the options for the direct coupling antenna and the remote antenna
- RS232, USB 2.0 and serial TTL (optional) Interface
- RS232 data pass through function
- TTL F2F magnetic stripe decode data pass through (optional)
- F2F decoder data emulation (optional)
- Firmware upgradeable

#### AGENCY APPROVAL

- Specifications for FCC Class B, CE Class B



NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

You are cautioned that any change or modifications to the equipment not expressly approve by the party responsible for compliance could void your authority to operate such equipment.

#### SPECIFICATIONS

Communication	Standard RS232 signal level Compatible with USB 2.0 specification (optional)/TTL 5V signal level (optional)
Power Requirements	5VDC
Power Consumption	330mA in idle mode; 430mA in operating mode
Operating Temperature	-10 to 50°C
Operating Humidity	10 to 85% (non condensing)
Dimensions	50L x 40W mm, without antenna board

**PIN ASSIGNMENT**

**Interface J3 Pin Assignment**

DB9	Signal	Direction	PCB-J1	Signal
5	GND		1	GND
2	RxD	← Serial data to host	2	TXD1
3	TxD	→ Serial data from host	3	RXD1
			4	VCC
		Serial Pass-thru or USB data	5	TXD2 (or USB D-)
		Serial Pass-thru or USB data	6	RxD2 (or USB D+)
	Shield		7	Shield

**Extension Port J1 Pin Assignment**

Pin	Signal	Comment
1	GND	
2	GND	
3	Extended IO	
4	Extended IO	
5	GND	
6	VCC	5Vdc
7	Extended IO	
8	Extended IO	
9	Extended IO	
10	Extended IO	
11	Extended IO	
12	Extended IO	
13	Extended IO	
14	Extended IO	
15	Extended IO	
16	Extended IO	
17	Extended IO	
18	Extended IO	
19	GND	
20	VCC_33	3.3V
21	Extended IO	
22	Extended IO	
23	Extended IO	
24	Buzzer Control Signal	
25	Extended IO	
26	Extended IO	
27	Extended IO	
28	Extended IO	

**50 RF Antenna Port J2B Pin Assignment**

Contact number	Signal
1	RF output
2	GND

**Direct Match Antenna Port J2A Pin Assignment**

Contact number	Signal
1	RX
2	TX
3	GND
4	GND

This device is intended for use under the following conditions:

1. The transmitter module may not be co-located with any other transmitter or antenna.
2. The module is approved using the FCC “unlicensed modular transmitter approval” method.

As long as these two conditions are met, further transmitter testing will not be required. However, the OEM integrator is still responsible for testing their end product for any additional compliance measures necessitated by the installation of this module (i.e. digital device emissions, PC peripheral requirements, etc.).

Note: In the event that these conditions cannot be met (i.e. co-location with another transmitter), then the FCC authorization is no longer valid and the corresponding FCC ID may *not* be used on the final product. Under these circumstances, the OEM integrator will be

The end user should NOT be provided with any instructions on how to remove or install the modular.

The following sentence has to be displayed on the outside of device in which the transmitter module is installed "Contains FCC ID: TFJ680CLB"