

SPECIFICATION

Customer : _____

Customer's Model No. : _____

Model No. : **RFR811 NFC reader** _____

Date : _____

Sample Serial No. : _____

Spec. Version & Revision Date: **V01** 2017.01.11 _____

Received/Approved by



[Http://www.champtek.com](http://www.champtek.com)

E-mail : sales@champtek.com

ChampTek Incorporated

5F, No. 2, Alley 2, Shih-Wei Lane, Chung Cheng Rd.,
Xindian District, New Taipei City 231, Taiwan

TEL : 886-2-22192385

FAX: 886-2-22192387

Revision History

Version	Date	Context
V00	2016.04.11	Initial release
V01	2017.01.11	Feature updated Remove card emulation mode Remove tiny profile and footprint

TABLE OF CONTENTS

General Description.....4

2. Features5

3. Applications5

4. Physical Characteristics6

5. Electrical Characteristics7

6. Performance.....7

7. Model.....7

8. Environmental8

9. Optional mounting brackets.....8

General Description

RFR811 13.56MHz NFC Reader

NFC is a popular technology in recent years. We often heard this work while smart phone companies introduce their latest high-end mobile phones which support NFC. **Near field communication (NFC)** is a set of standards for smart phones and similar devices to establish radio with each other by touching them together or bringing them into close proximity, usually no more than a few centimeters.



The RFR811 is a host-linked contactless card reader developed based on 13.56 MHz Contactless (RFID) Technology. Compliant with the ISO/IEC18092 standard for Near Field Communication (NFC), it supports MIFARE[®], ISO 14443 A and B, ISO15693 and FeliCa cards.

The RFR811 is ideal for both secure personal identity verification and online micro-payment transactions. Other applications include access control, e-payment, e-ticketing for events and mass transit, toll road fare collection and network authentication.

The RFR811 comes with an optional holder with it could mount the reader either on desk or wall, so that users can tap contactless cards or NFC-enabled devices onto the RFR811 with ease.

2. Features

- Smart Card Reader
 - Read/write speed up to 424 kbps
 - Built-in antenna for contactless tag access, with card reading distance of up to 50 mm (depending on tag type)
 - Supports Near Field Communication (NFC) Standards
 - Completely integrated protocol handling for ISO 15693, ISO 14443A/B, MIFARE and FeliCa.
 - Built-in anti-collision feature (only 1 tag is accessed at any time)
- Operation Voltage 5 Vdc.
- NFC Support:
 - Card mode for card UID reading function, Mifare (APDU command) read/write or ISO15693 read/write (NDEF format) in different models.
 - Peer-to-Peer mode (TBD)
- RS232 or USB Interface support
- Peripherals
 - 2 color LED
 - buzzer
- An optional holder with it could mount the reader either on desk or wall

3. Applications

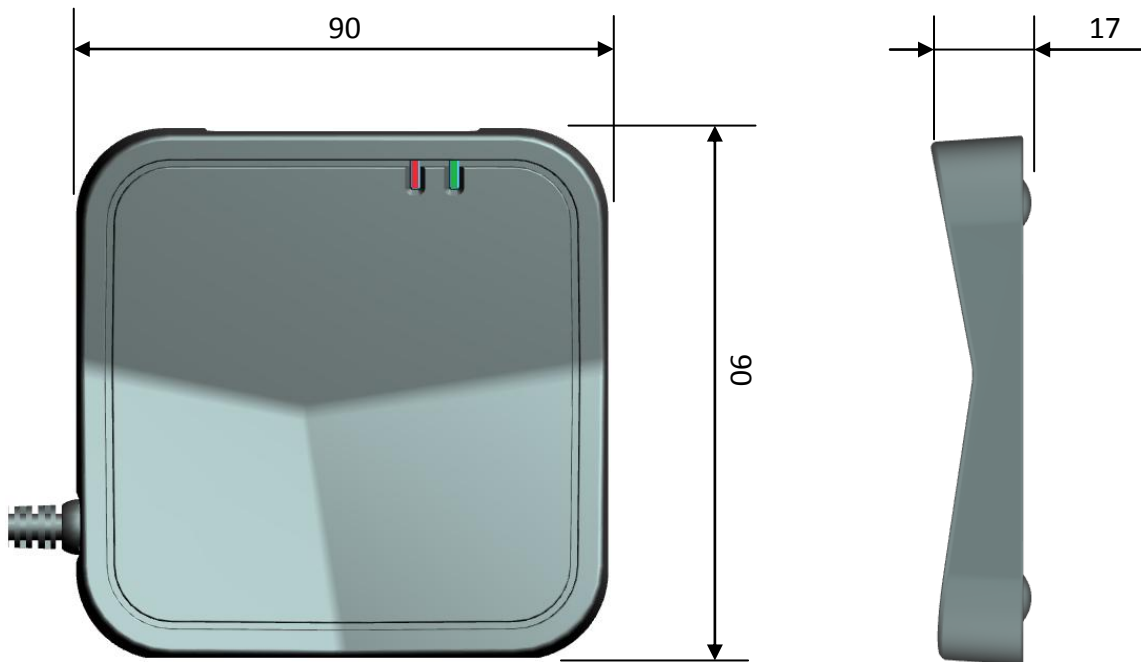
- Mobile Devices (Tablets, Handsets)
- Secure Pairing (Bluetooth, WiFi, Other Paired Wireless Networks)
- Public Transport or Event Ticketing
- Passport or e-Payment (POS) Reader Systems
- Product Identification or Authentication
- Medical Equipment or Consumables
- Access Control, Digital Door Locks
- Sharing of Electronic Business Cards

4. Physical Characteristics

Weight	
Body weight	Approx. 125g / 4.41 oz (w/o cable)
Material	
	ABS and Rubber stop
Cable Length	
	5FT. (150cm)
Interface cable	
	USB or RS-232
Dimension	
	90 mm W x 90 mm H x 17 mm L
Color available	
	Black

Mechanical drawing

Unit: mm



5. Electrical Characteristics

Interface	RS232	USB
Supply Voltage	DC +5V \pm 5%	
Output Voltage (Typ.)	\pm 9V	+5V
Current Draw		
Power On (Max.)	120mA	120mA
Stand by (Max.)	110mA	110mA
Operation (Max.)	210mA	210mA

6. Performance

Operating Frequency	13.56 MHz
Compliance	ISO14443 Type A & B ISO15693 MIFARE FeliCa
Operating Distance	Up to 50 mm (depends on the tag type)

7. Model

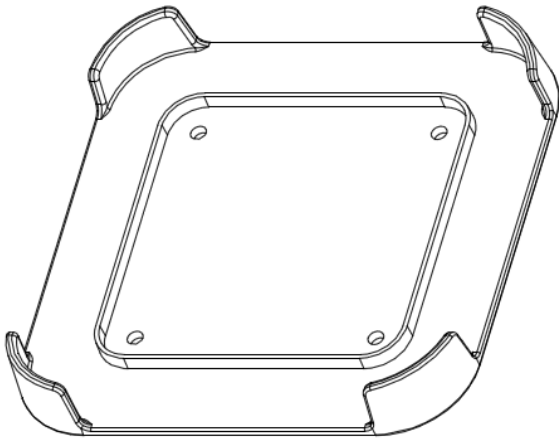
Model	Function	13.56 MHz
RFR811	Read Card UID only	ISO14443 Type A & B / Mifare ISO15693/Felica
RFR811M	Mifare read/write (APDU)	MIFARE
RFR811I	ISO 15693 read/write (NDEF)	ISO15693

8. Environmental

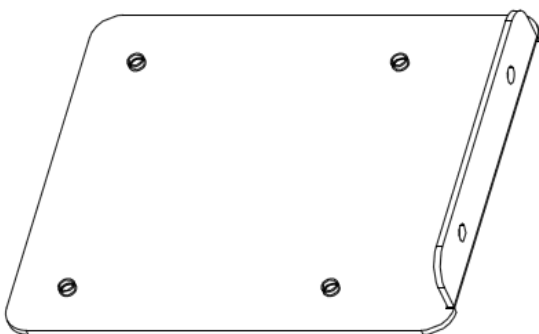
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F)
Relative Humidity	20% to 95% (Non-condensing)
Drop Resistance	59.05 inches(150cm)

9. Optional mounting brackets

9-1. Desktop Mounting Bracket



9-2. Wall / side Mounting Bracket



Due to Champtek's continuing product improvement programs, specifications and features are subjected to change without prior notices.