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## *Architect & Engineer Specification*

# **FGR006 Fingerprint & proximity Reader**

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### **1 Introduction**

The intent of this document is to describe the specification of FGR006 Fingerprint & proximity Reader manufactured by IDTECK Co., Ltd. All the information is provided in detail for system architect and engineers designing access control system.

### **2 Description**

FGR006 Fingerprint & proximity Reader shall provide easy and versatile solution to access control. Armed with 1:n identification within 2 second, it shall dynamically control up to 4,000 fingerprints. With Built-in 125kHz proximity reader and Fingerprint reader, FGR006 provide higher level of security. FGR006 shall provide easy connection to controllers with standard 26bit wiegand communication. With its compact size, FGR006 shall be suitable in any type of door. Combined with iTDC or iCON100 controller, the FGR006 shall provide easy yet secure access control solution.

### **3 Mechanical Specification**

- 3.1 The FGR006 biometric reader shall measure 2.6" x 5" x 2" (66 x 129 x 52mm).
- 3.2 The FGR006 shall have a dark pearl gray and gray body
- 3.3 The FGR006 shall weigh 0.5 lbs (230g)

### **4 Electrical Specification**

- 4.1 The FGR006 shall contain 32bit ARM9 and Dual 8bit Microprocessor
- 4.2 The FGR006 shall contain memory as following.
  - 4.2.1 Finger Module shall have following memory
    - 4.2.1.1 Program memory of 128KByte Flash memory
    - 4.2.1.2 Data memory of 128KByte/256KByte/512KByte Flash memory
  - 4.2.2 Controller part of FGR006 shall have following memory
    - 4.2.2.1 Program memory of 128KByte ROM.
    - 4.2.2.2 Data memory of 256KByte SRAM.
- 4.3 The FGR006 shall indicate its status through LEDs.
- 4.4 The FGR006 shall have piezo buzzer for the beeper.
- 4.5 Temper switch shall be built in to the FGR006 to provide safe operation.
- 4.6 The FGR006 proximity reader shall operate on 12V. Max 350mA.

### **5 Fingerprint reader Specification**

- 5.1 The FGR006 shall include built in optical fingerprint module.
- 5.2 1,000/2,000/4,000 Fingerprint templates shall be stored as dual finger templates.
- 5.3 Dual fingerprint template size shall be 800Kbytes.
- 5.4 The FGR006 shall provide 1:n identification up to 4000 users.
- 5.5 Optional touch sensor shall be available with FGR006 to provide easy identification.

### **6 RFID reader Specification**

- 6.1 The FGR006 shall include built-in 125KHz RF reader.
- 6.2 Reading Range of FGR006 shall vary depending on the types of the card that are used. The FGR006 shall accept following proximity cards with stated reading range.
  - 6.2.1 Passive cards that are stated below shall operate with the FGR006 and shall have declared reading range.
    - 6.2.1.1 IDC 80 card (ISO credit card size and thickness) shall have 4 inch (10 Cm) reading range.
    - 6.2.1.2 IDC 170 card (clamshell card) shall have 4 inch (10 Cm) reading range.



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- 6.2.1.3 IDK 50 key tag shall have 2 inch (5 Cm) reading range.
- 6.2.1.4 IMC125 mini proximity Sticker Tag shall have 2 inch (5 Cm) reading range.
- 6.2.2 Active cards that are stated below shall operate with the FGR006 and shall have declared reading range.
  - 6.2.2.1 IDA 200 active card shall have 15 inch (40 Cm) reading range.

## 7 Communication Specification

- 7.1 The FGR006 shall connect to controller with 26bit Wiegand output.
- 7.2 The FGR006 shall provide RS422, RS232 and optional TCP/IP communication.
- 7.3 The FGR006 shall support baud rate of 4800bps, 9600bps(default), 19200bps, and 38400bps software programmable.
- 7.4 By using optional RS232 Communication Jack, FGR006 shall upload and download fingerprint templates from/to PDA, Notebook, and Computer.

## 8 Environmental Specification

- 8.1 Operating Temperature
  - 8.1.1 The FGR006 shall operate temperature between 0 ° C ~ +50 ° C .
- 8.2 Operating Humidity
  - 8.2.1 The FGR006 shall operate humidity between 10% ~ 90% RH(Non-condensing)

## 9 Certification and Approvals

- 9.1 The FGR006 shall have following certification
  - 9.1.1 FCC certification
  - 9.1.2 UL certification
  - 9.1.3 CE certification
  - 9.1.4 MIC certification

### Technical Support Contact Information:

#### **IDTECK**

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