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## *Architect & Engineer Specification*

# **IP-FGR006 Fingerprint & proximity Reader**

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### **1 Introduction**

The intent of this document is to describe the specification of IP-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**

IP-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 ASK[EM] proximity card reader and Fingerprint reader, IP-FGR006 provide higher level of security. IP-FGR006 shall provide easy connection to controllers with standard 26bit wiegand communication. With its compact size, IP-FGR006 shall be suitable in any type of door. Combined with iTDC or iCON100 controller, the IP-FGR006 shall provide easy yet secure access control solution.

### **3 Mechanical Specification**

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

### **4 Electrical Specification**

- 4.1 The IP-FGR006 shall contain 32bit ARM9 and Dual 8bit Microprocessor
- 4.2 The IP-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 IP-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 IP-FGR006 shall indicate its status through LEDs.
- 4.4 The IP-FGR006 shall have piezo buzzer for the beeper.
- 4.5 Temper switch shall be built in to the IP-FGR006 to provide safe operation.
- 4.6 The IP-FGR006 proximity reader shall operate on 12V. Max 350mA.

### **5 Fingerprint reader Specification**

- 5.1 The IP-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 IP-FGR006 shall provide 1:n identification up to 4000 users.
- 5.5 Optional touch sensor shall be available with IP-FGR006 to provide easy identification.

### **6 RFID reader Specification**

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



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6.2.1.3 IPK 50 key tag shall have 2 inch (5 Cm) reading range.

## **7 Communication Specification**

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

## **8 Environmental Specification**

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

## **9 Certification and Approvals**

- 9.1 The IP-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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