



INTRODUCTION

MP650 是一款外型輕巧低功耗的指紋讀卡機,它可以自由輸入員工代號對應該員工指紋,其驗證方式是直接在 MP650 上就可以完成不需要另接電腦,驗證完成直接將員工代號輸出到 Wiegand(default)或 Ethernet 或 RS485

MP650 除了含有 Wiegand,RS485 外也提供了網路界面讓用戶搭配根據不同應用環境使用.

MP650 的網路界面除了可以設定參數以及上傳/下載指紋資料庫外也搭配具有 RS485 控制器升級為網路界面

特點:

- 驗證模式,Fingerprint only
- 透過 TCP/IP 上傳指紋特徵及參數
- 三合一界面: Wiegand (Default), RS485 and 網路
- Wiegand 輸出時,可自行設定 26 bits to 34 bits
- 支援 RS485 界面,可接 RS485 Control
- 支援三種顏色的 LED 並可自行設定 LED 及 Buzzer 的狀態

FEATURES

- **Interface**
Wiegand , RS485 , 網路界面
- **RFID Supported standard Format**
NFC1-4 TAGS
- **RFID 讀取距離: 2~5 cm**
- **尺寸: 130Hx54Wx43D mm**
- **指紋容量:**
1900 (標準) or 9000 二選一
- **Low power, low profile for portable designed**
- **Identification speed**
<3 sec (1:N)
- **驗證方式**

Fingerprint only
- **Power supply**

5~12V Max 200mA

Standard Configurations:

- ✓ **MP650-00** ---- TCP/IP with 1900 枚指紋
- ✓ **MP650-10**---- TCP/IP with 9000 枚指紋
- ✓ **MP650W-00** ---- TCP/IP with 1900 枚指紋
- ✓ **MP650W-10**---- TCP/IP with 9000 枚指紋

Applications:

- 門禁系統
- 考勤系統
- 會員管理及飯店管理
- 身份識別驗證系統

※ Specification is subject to change without notice.

- ✓ We welcome OEM inquiries
- ✓ Custom device programming is available

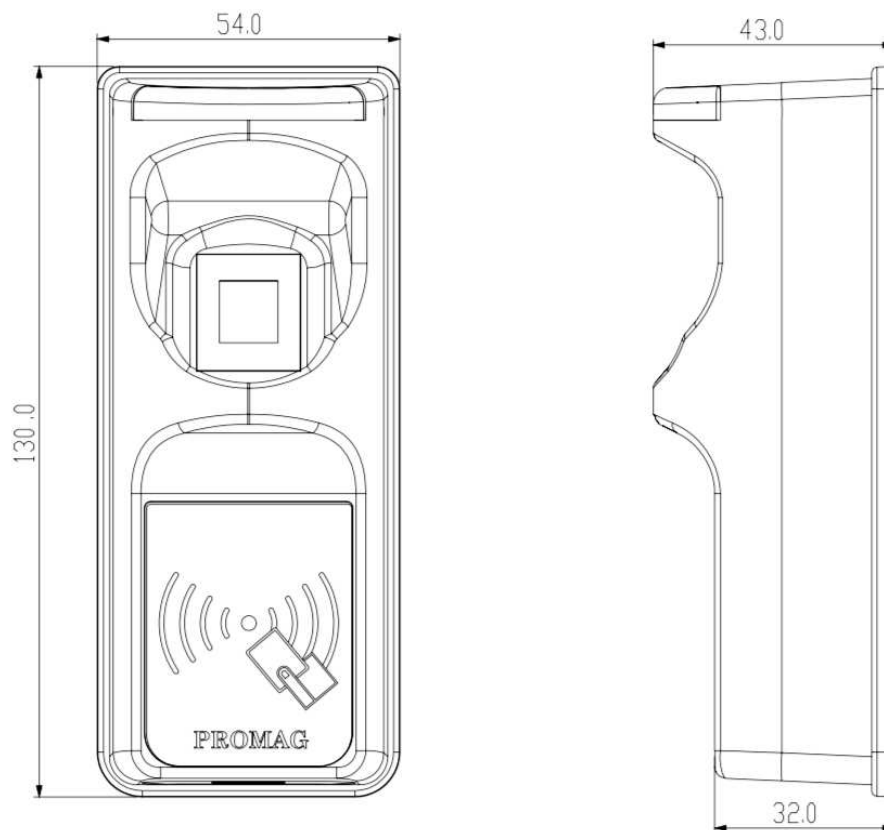
 **集佳股份有限公司**
GIGA-TMS INC.
新北市汐止區康寧街 169 巷 31 號 8 樓

TEL: +886-2-26954214
FAX: +886-2-26954213
e-mail: sales@gigatms.com.tw
http://www.gigatms.com.tw

SPECIFICATIONS:

POWER REQUIREMENT	5V~12V regulated for Operate Voltage. A linear regulator is recommended.
CURRENT REQUIREMENTS	Active 200mA @5VDC
INTERFACE	Ethernet or WiFi 二選一, Wiegand , R485 Interface
指紋登錄方式	On-Line: Ethernet or WiFi
Template capacity	1900 or 9000 (Fingerprint)二選一
Resolution	508dpi(Fingerprint sensor)
指紋比對方式	1:N
指紋比對速度	<3 sec
FAR	<0.0001 % (If threshold is 3)
FRR	<0.01% (If threshold is 3)
Network Protocol	UDP/IP, ICMP(ping), ARP, TCP/IP
Ethernet Interface	10/100 BaseT Ethernet
DIMENSIONS	130H x 54 W x 43 D mm
ENVIRONMENT	Operating Temp : -0℃ ~ +60℃ Humidity : 10 ~ 90 % relative

PACKAGE DESCRIPTION

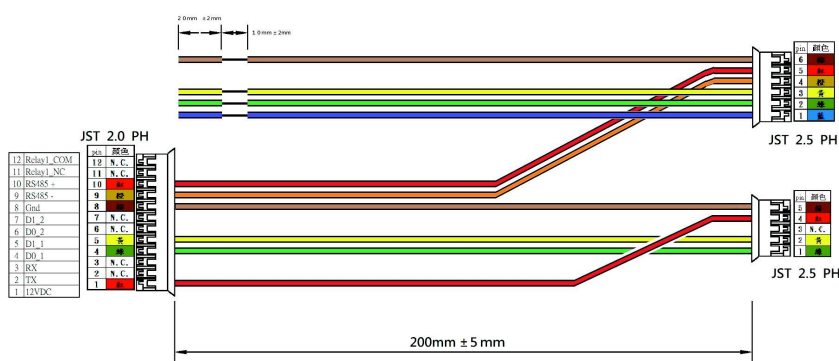
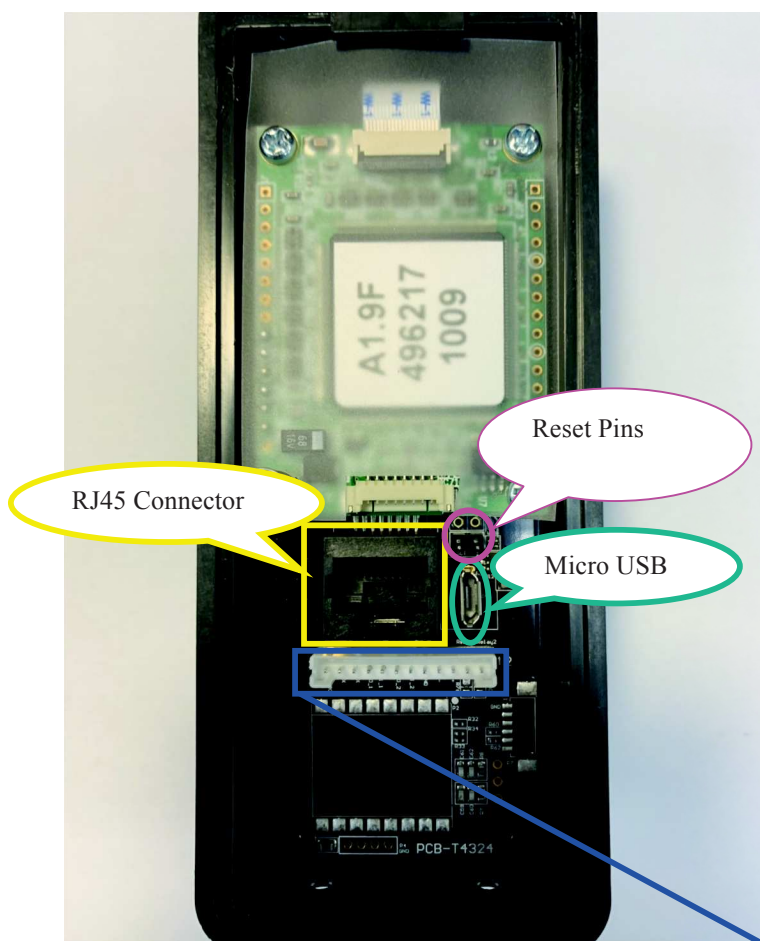


- ✓ We welcome OEM inquiries
- ✓ Custom device programming is available

 集佳股份有限公司
GIGA-TMS INC.
新北市汐止區康寧街 169 巷 31 號 8 樓

TEL: +886-2-26954214
FAX: +886-2-26954213
e-mail: sales@gigatms.com.tw
http://www.gigatms.com.tw

PIN DEFINE



Description	
Pin Numbers	12
Connector	JST SH 2.0mm
PIN#	
1	+5~12 VDD
2	TXD
3	RXD
4	(IN) D0 or I/O
5	(IN) D1 or I/O
6	(OUT) D0 or I/O
7	(OUT) D1 or I/O
8	GND
9	RS485-
10	RS485+
11	Relay_COM (標準版本) 可變更 Output 5VDC/150mA
12	Relay_NC (標準版本) 可變更 GND

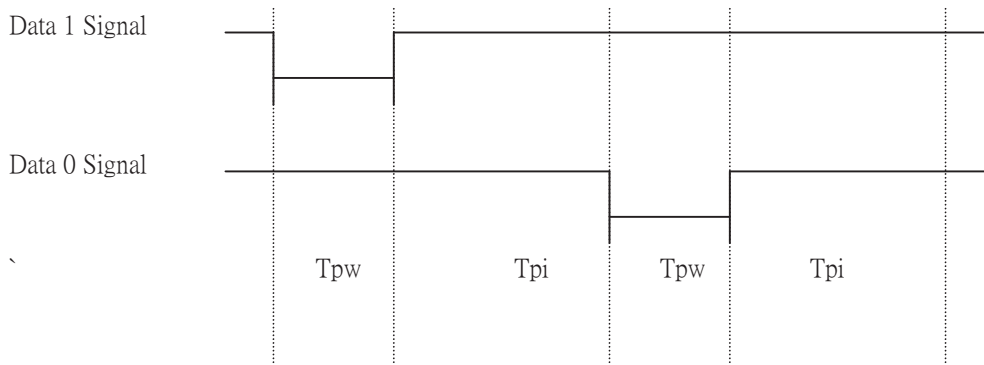
- ✓ We welcome OEM inquiries
- ✓ Custom device programming is available

集佳股份有限公司
GIGA-TMS INC.
新北市汐止區康寧街 169 巷 31 號 8 樓

TEL: +886-2-26954214
FAX: +886-2-26954213
e-mail: sales@gigatms.com.tw
<http://www.gigatms.com.tw>

Wiegand Interface (default Wiegand 26 Bits)

The Data 1 and Data 0 signals are held at a logic high level until the reader is ready to send a data stream. The reader places data as asynchronous low-going pulses on the Data 1 or Data 0 lines to transmit the data stream to Host. The Data 1 and Data 0 pulses will allow pulse width times and pulse interval times for the reader.



Pulse Times

Symbol	Description	Typical Time
Tpw	Pulse Width Time	100us +/- 3%
Tpi	Pulse Interval Time	1.9ms +/- 3%

Wiegand Packet

Standard(Default)	Parity(Even)	Data Bits	Parity(Odd)
Reverse (Option)	Parity(Odd)	Data Bits	Parity(Even)

RS485 Interface

RS485 output data packet with Header, Reader ID and Trailer:

Header	Reader ID	Data Bytes	Trailer
--------	-----------	------------	---------

Header and Trailer can be set by software, Data Bytes can be set Binary or ASCII

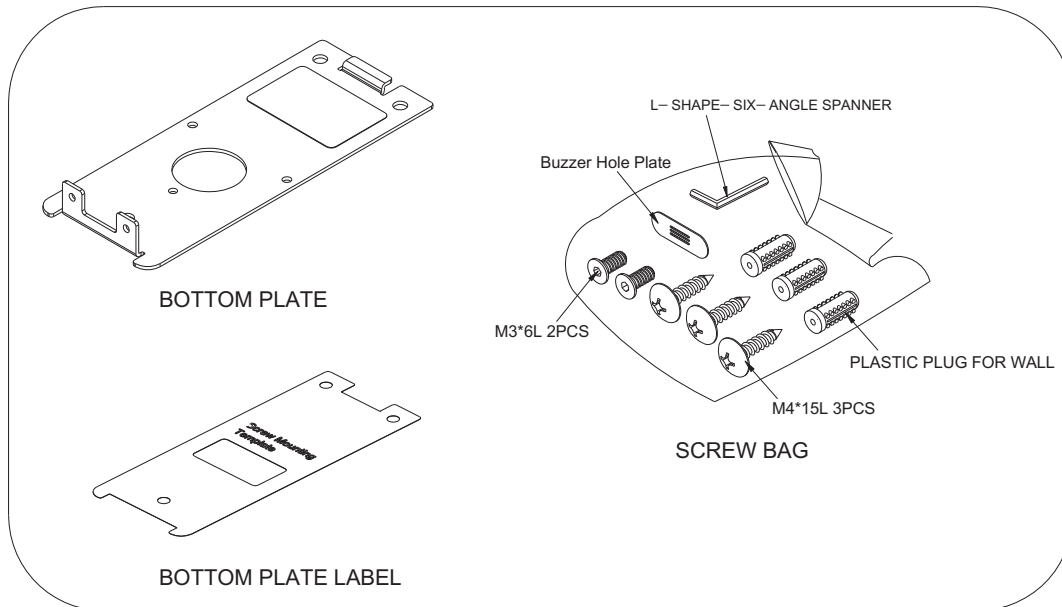
- ✓ We welcome OEM inquiries
- ✓ Custom device programming is available

 **集佳股份有限公司**
GIGA-TMS INC.
新北市汐止區康寧街 169 巷 31 號 8 樓

TEL: +886-2-26954214
FAX: +886-2-26954213
e-mail: sales@gigatms.com.tw
<http://www.gigatms.com.tw>

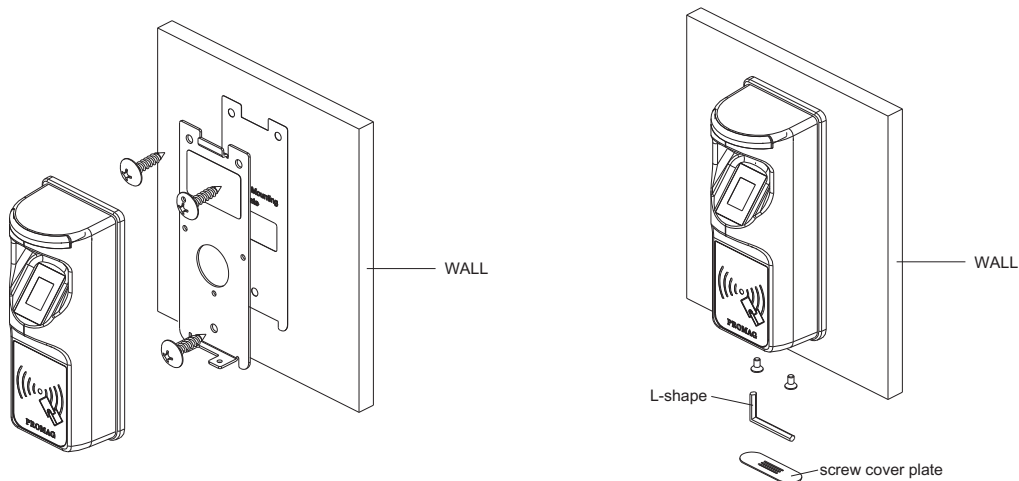
Installation

Required Items



Secure Mounting Installation

1. Attach the bottom plate label on the target position. Drill the holes to match the bottom plate then fix SmaFinger reader.
2. After fixing SmaFinger with attached screws (using the L-shape spanner), apply screw cover plate for completion.



- ✓ We welcome OEM inquiries
- ✓ Custom device programming is available

 **集佳股份有限公司**
GIGA-TMS INC.
新北市汐止區康寧街 169 巷 31 號 8 樓

TEL: +886-2-26954214
FAX: +886-2-26954213
e-mail: sales@gigatms.com.tw
<http://www.gigatms.com.tw>

Appendix A

LIMITED WARRANTY

Giga-Tms warrants that the products sold pursuant to this Agreement will perform in accordance with Giga-Tms's published specifications. This warranty shall be provided only for a period of **one year** from the date of the shipment of the product from Giga-Tms (the "Warranty Period"). This warranty shall apply only to the "Buyer" (the original purchaser, unless that entity resells the product as authorized by Giga-Tms, in which event this warranty shall apply only to the first re-purchaser).

During the Warranty Period, should this product fail to conform to Giga-Tms's specifications, Giga-Tms will, at its option, repair or replace this product at no additional charge except as set forth below. Repair parts and replacement products will be furnished on an exchange basis and will be either reconditioned or new. All replaced parts and products become the property of Giga-Tms. This limited warranty does not include service to repair damage to the product resulting from accident, disaster, unreasonable use, misuse, abuse, negligence, or modification of the product not authorized by Giga-Tms. Giga-Tms reserves the right to examine the alleged defective goods to determine whether the warranty is applicable. Without limiting the generality of the foregoing, Giga-Tms specifically disclaims any liability or warranty for goods resold in other than Giga-Tms's original packages, and for goods modified, altered, or treated without authorization by Giga-Tms.

Service may be obtained by delivering the product during the warranty period to Giga-Tms (8F No. 31 Lane 169, Kang Ning Street, Hsi Chih Dist New Taipei City, Taiwan). If this product is delivered by mail or by an equivalent shipping carrier, the customer agrees to insure the product or assume the risk of loss or damage in transit, to prepay shipping charges to the warranty service location, and to use the original shipping container or equivalent. Giga-Tms will return the product, prepaid, via a three (3) day shipping service. A Return Material Authorization ("RMA") number must accompany all returns. Buyers may obtain an RMA number by contacting with sales@gigatms.com.tw

EACH BUYER UNDERSTANDS THAT THIS GIGA-TMS PRODUCT IS OFFERED AS IS. GIGA-TMS MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND GIGA-TMS DISCLAIMS ANY WARRANTY OF ANY OTHER KIND, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IF THIS PRODUCT DOES NOT CONFORM TO GIGA-TMS'S SPECIFICATIONS, THE SOLE REMEDY SHALL BE REPAIR OR REPLACEMENT AS PROVIDED ABOVE. GIGA-TMS'S LIABILITY, IF ANY, SHALL IN NO EVENT EXCEED THE TOTAL AMOUNT PAID TO GIGA-TMS UNDER THIS AGREEMENT. IN NO EVENT WILL GIGA-TMS BE LIABLE TO THE BUYER FOR ANY DAMAGES, INCLUDING ANY LOST PROFITS, LOST SAVINGS, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF, OR INABILITY TO USE, SUCH PRODUCT, EVEN IF GIGA-TMS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY.

LIMITATION ON LIABILITY

EXCEPT AS PROVIDED IN THE SECTIONS RELATING TO GIGA-TMS'S LIMITED WARRANTY, GIGA-TMS'S LIABILITY UNDER THIS AGREEMENT IS LIMITED TO THE CONTRACT PRICE OF THIS PRODUCT.

GIGA-TMS MAKES NO OTHER WARRANTIES WITH RESPECT TO THE PRODUCT, EXPRESSED OR IMPLIED, EXCEPT AS MAY BE STATED IN THIS AGREEMENT, AND GIGA-TMS DISCLAIMS ANY IMPLIED WARRANTY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

GIGA-TMS SHALL NOT BE LIABLE FOR CONTINGENT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES TO PERSONS OR PROPERTY. GIGA-TMS FURTHER LIMITS ITS LIABILITY OF ANY KIND WITH RESPECT TO THE PRODUCT, INCLUDING ANY NEGLIGENCE ON ITS PART, TO THE CONTRACT PRICE FOR THE GOODS.

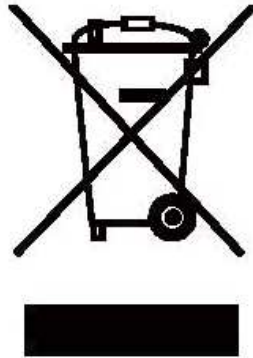
GIGA-TMS'S SOLE LIABILITY AND BUYER'S EXCLUSIVE REMEDIES ARE STATED IN THIS SECTION AND IN THE SECTION RELATING TO GIGA-TMS'S LIMITED WARRANTY.

- ✓ We welcome OEM inquiries
- ✓ Custom device programming is available

 **集佳股份有限公司**
GIGA-TMS INC.
新北市汐止區康寧街 169 巷 31 號 8 樓

TEL: +886-2-26954214
FAX: +886-2-26954213
e-mail: sales@gigatms.com.tw
<http://www.gigatms.com.tw>

Appendix B



CAUTION:

The crossed out wheeled bin label that can be found on your product indicates that this product should not be disposed of via the normal household waste stream.

To prevent possible harm to the environment or human health please separate this product from other waste streams to ensure that it can be recycled in an environmentally sound manner.

For more details on available collection facilities please contact your local government office or the retailer where you purchased this product.

This information only applies to customers in the European Union.

For other countries, please contact your local government to investigate the possibility of recycling your product.

-
- ✓ We welcome OEM inquiries
 - ✓ Custom device programming is available

 **集佳股份有限公司**
GIGA-TMS INC.
新北市汐止區康寧街 169 巷 31 號 8 樓

TEL: +886-2-26954214
FAX: +886-2-26954213
e-mail: sales@gigatms.com.tw
<http://www.gigatms.com.tw>