

## INTRODUCTION

The **MP30** is a OEM read/write module with antenna designed for simple integration. The Serial TTL-interface can be directly connected to microprocessors and easily converted to the RS232 serial interface device. The typical reading range of the module is up to 20~40mm depending on the antenna and TAG.

The **MP30** is a RFID Module for all popular 13.56-MHz RFID/contactless standard protocols. The **MP30** supports and compatibles with all major global secured baseband ISO standards including ISO14443 Type A, Type B, and Smartlabel ISO15693.

The **MP30** is well suited for mobile devices due to its low power consumption and low operating voltage from 5V. The on-chip 3.3V regulators are provided to stabilize the chip's power, and simultaneously supply the power to the external companion microcontroller up to 120 mA.

The **MP30** support the DLL and easy to control this module, The ActiveX Control can be using any terminal program (VB .NET , C#...etc)

## Standard Configurations:

- ✓ **MP30R**----RS232 Interface
- ✓ **MP30L**----Serial TTL Interface
- ✓ **MP30U**----USB Virtual COM Interface
- ✓ **MP30H**----USB HID Interface

## FEATURES

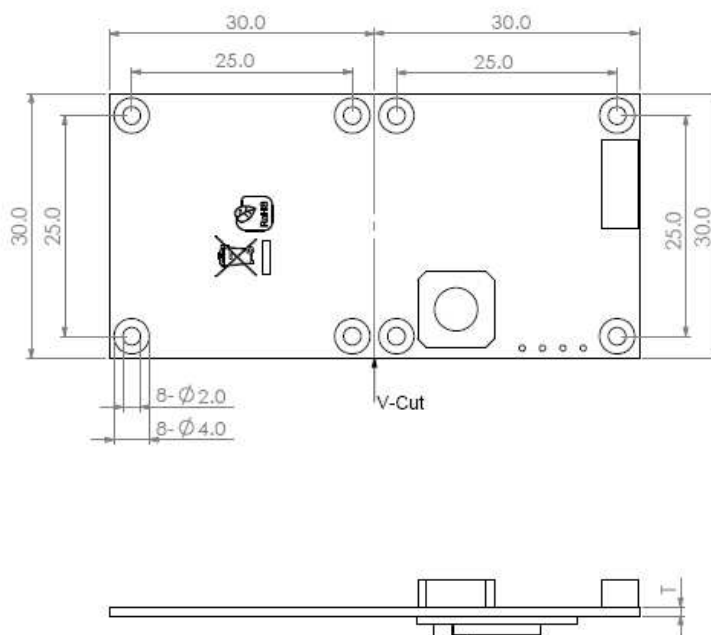
- **Supported Protocols**
  - ISO14443A/B, all bit rates : 106 kbps
  - ISO15693, all modes
    - Downlink 1 of 4 and 1 of 256
    - Uplink 6.6/13/26/53 kbps with 1 & 2 sub-carrier
- **Supported standard Format**
  - ISO14443A
  - ISO14443B
  - ISO15693
  - ISO14443-3
  - ISO14443-4
  - ISO 7816 T=CL Supported
  - NFC1-4 TAGs
- **Ultra small outline 60x30x7.8 mm**
- **Information Support**
  - Visual C# demonstration Software
  - Protocol Information
- **Low power, low profile for portable designed**
- **Plug-in fitting for 13.56Mhz**
- **Serial TTL Interface.**
- **Baud Rate 19200,N,8,1**
- **Power supply Active 120mA @5VDC**
- **Firmware Update**

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

### SPECIFICATIONS:

<b>POWER REQUIREMENT</b>	5V regulated for Operate Voltage . A linear regulator is recommended.
<b>CURRENT REQUIREMENTS</b>	Active 120mA @5VDC
<b>INTERFACE</b>	Serial TTL / RS232 / USB HID / USB Virtual COM Interface
<b>SUPPORTED PROTOCOLS</b>	ISO14443A/B, all bit rates : 106 kbps ISO15693, all modes Downlink 1 of 4 and 1 of 256 Uplink 6.6/13/26/53 kbps with 1 & 2 sub-carrier
<b>CARD TYPE</b>	ISO 14443A MIFARE™Standard, MIFARE 4k, MIFARE Ultralight, MIFARE Ultralight C, MIFARE DESFire®, MIFARE DESFire EV1, ISO 14443B Smartcard ISO14443B, SRI4K, SRI512 ISO 15693 SIC5600, ICODE-SLI, ICODE-SLI-L, ICODE-SLIS Read payware and paypass and E-password ISO7816 T=CL Supported NFC TAG 1~4 supportive Felica READ UID
<b>FERQUENCY</b>	13.56MHz standard.
<b>READ RANGE</b>	Mifare : 1~3 cm ISO 15693 : 2~4 cm
<b>TRANSPONDER</b>	Read / Write
<b>BAUD RATE</b>	19200,N,8,1
<b>DIMENSIONS</b>	SMT: 60(L) x 30(W) x 7.8(H) mm
<b>WEIGHT</b>	7.2g
<b>ENVIRONMENT</b>	Operating Temp : -0°C ~ +60°C Humidity : 10 ~ 90 % relative

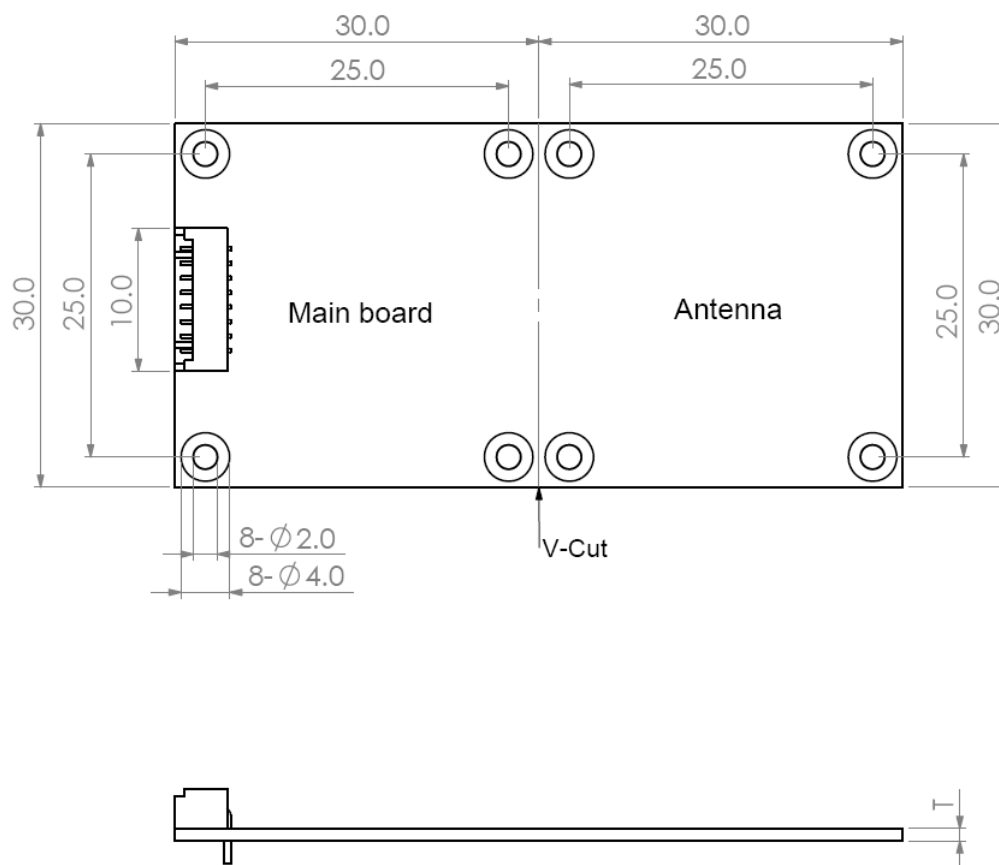
### PACKAGE DESCRIPTION



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**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>

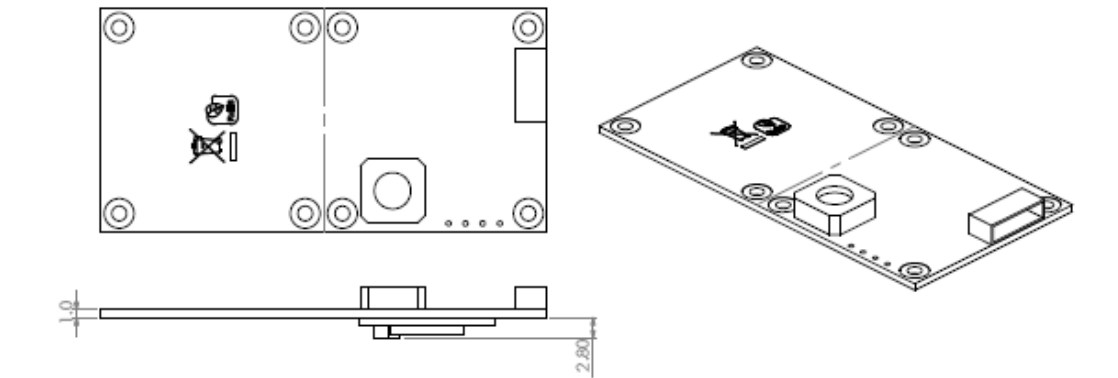


	MP30R- 00	MP30L- 00	MP30U- 00	MP30H- 00
Description	RS232	Serial TTL	USB (Virtual serial port)	USB (USB HID )
Pin Numbers	8	8	8	8
Connector	JST SH 1.0mm	JST SH 1.0mm	JST SH 1.0mm	JST SH 1.0mm
PIN#				
1	+5 VDD	+5 VDD	+5 VDD	+5 VDD
2	TXD	TXD	D-	D-
3	RXD	RXD	D+	D+
4	GND	GND	GND	GND
5	SHIELD	SHIELD	SHIELD	SHIELD
6	--	--	--	--
7	--	--	--	--
8	--	--	--	--

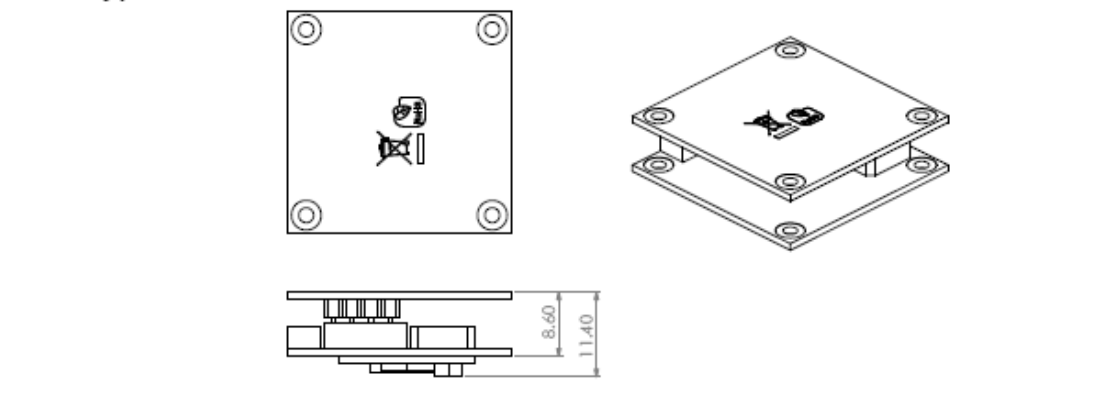
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#### Appendix A

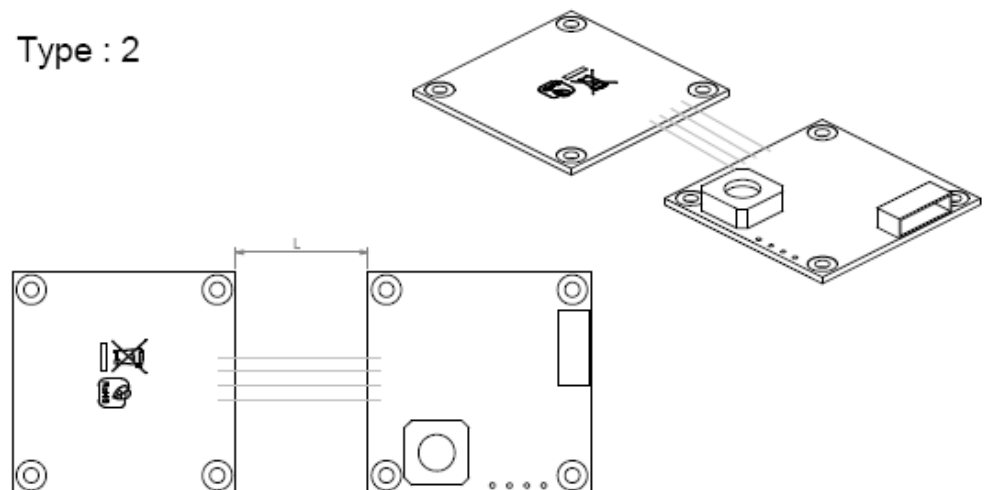
Type : 0



Type : 1



Type : 2



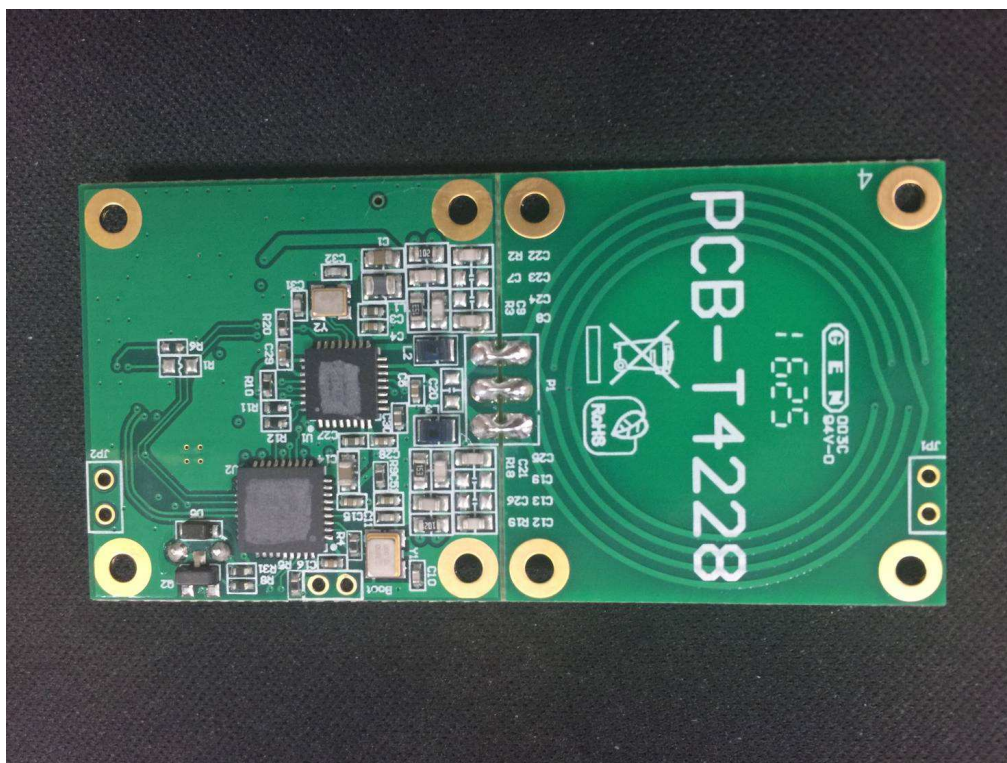
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### Appendix B



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## Appendix C

### Federal Communication Commission Interference Statement

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 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.

#### FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

The module must be installed in **Windows PC and tablet PC or Andorid tablet PC**

#### IMPORTANT NOTE:

In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

#### End Product Labeling

The final end product must be labeled in a visible area with the following:

“Contains **FCC ID: WXAMP30**”.

#### Manual Information to the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.

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## Appendix C

### 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).

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