



# GPS Time Control Module Datasheet

Module No.: **QCM-GPSTMR** ..... Rev.A2

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## Introduction

**Q**CM-GPSTMR is designed for the system with functions like time display, auto time synchronization. For GPS time, there's no need for manual adjustment. It has the remote transmission function, so we recommend customers place QCM-GPSTMR in an open-air for a better reception of signal. LCD display and function key are tools for GPS synchronization. LCD displays the current time/date when in standby mode.

## Feature

- \* Full Mandarin display on LCD.
- \* GPS time reception and adjustment.
- \* Provide 5 groups for the date default settings in the system and 5 connectors for GPS time adjustment.
- \* When in standby mode, the GPS machine displays the current date and time.
- \* If Power shortage/off, the calendar in the system will still be hold.
- \* With remote transmission function.
- \* If the function of GPS fails, it still can display the time.



## Electronic Specification

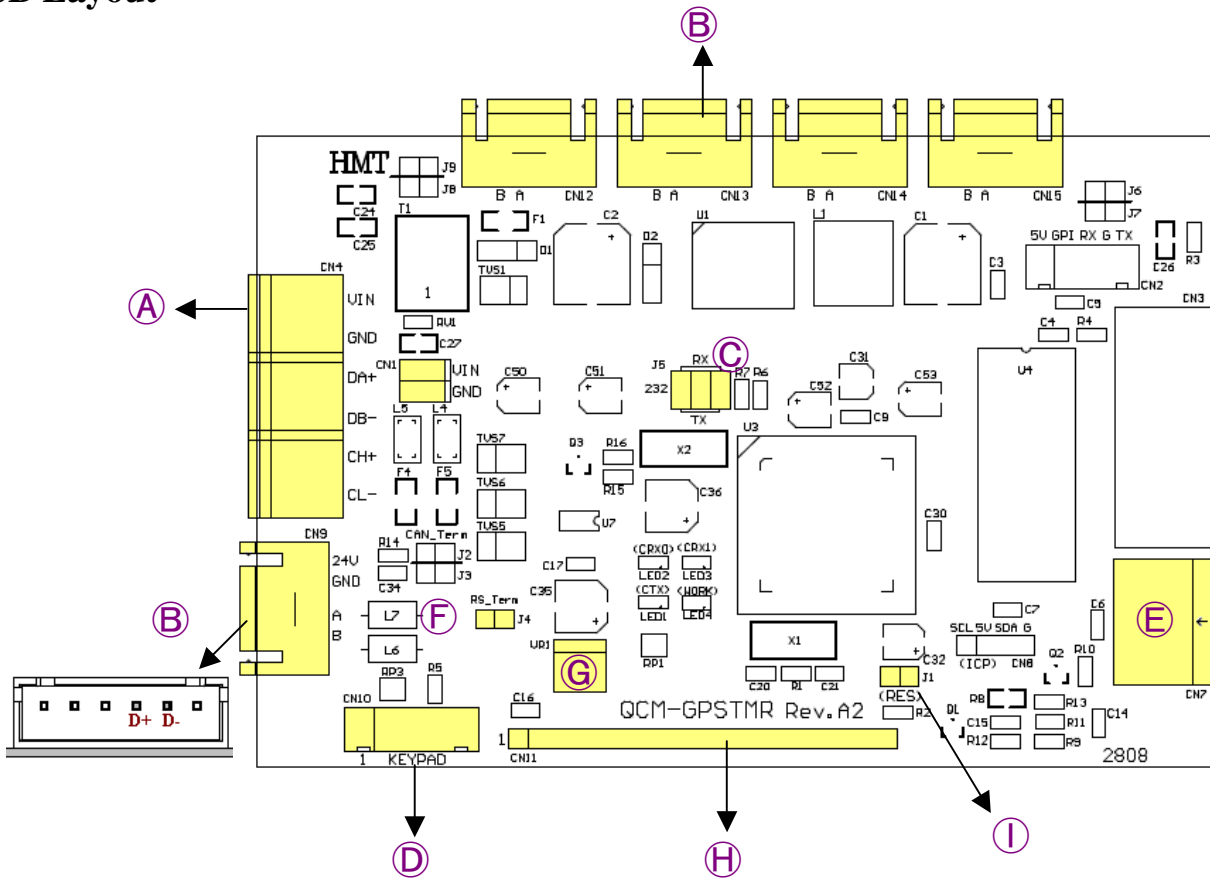
Voltage Supply	DC12-24V, 150mA at DC24V
LCD Display	122x32 Display in Mandarin
Function Key	5 KEY Multi-function Key
Standby Display	Year(4 digits)-Month-Day-Weekday , Hr:Min:Sec
System Default Date /outputs for GPS time	5 groups (Target System Date/Time and Time Synchronization connectors)
Communication Interface	CAN / RS-485 / RS-232
Metal Box	YES

\* QCM-GPSTMR can connect to 155 target system units at most.  
 Each "System default date/GPS time output" from the module can connect to 31 target system units at most.  
 Suggest use #18 wire for each "System default date/GPS time output", and 1,200 m is the length limitation.

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## PCB Layout



## Jumper/Connector Descriptions

A	CN1: DC12V Voltage Supply CN4: VIN: DC 12V G: 0V, Ground DA+/DB-: output trigger for date and GPS time(RS-485) CH+/CL-: Signal Transmission (CAN BUS)	
B	CN9,CN12,CN13,CN14,CN15: (A→D+ / B→D-) Output trigger for date and GPS time (shown in the layout above) (RS-485)	
C	J5: Serial mode level options. RS-232 input -short "232". Tx: serial signal output                      Rx: serial signal input	
D	CN10: Key PAD Connector	E    CN7: GPS Connector
F	J4: normal set- short	G    VR1: LCD back lighted CR
H	CN7: LCD WG12232 Connector	I    J1: System Reset

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## LCD Displays

When the connection to GPS is successful, QCM- GPSTMR LCD will show “” (the satellite icon) on the lower right side of the panel!



\* Time display is 24hrs format

## KEYPAD User Guide

### + Key:

- ① Adjust the number at the flashing column (value up)
- ② Go back to the last item

### EN Key: (enter the main menu)

- ① Enter the preferred page
- ② Move to the next column
- ③ Setting is done

**Sync. Key:** Quick key for time synchronization



### CL Key:

- ① Cancel/Return to the menu
- ② Return to the standby mode

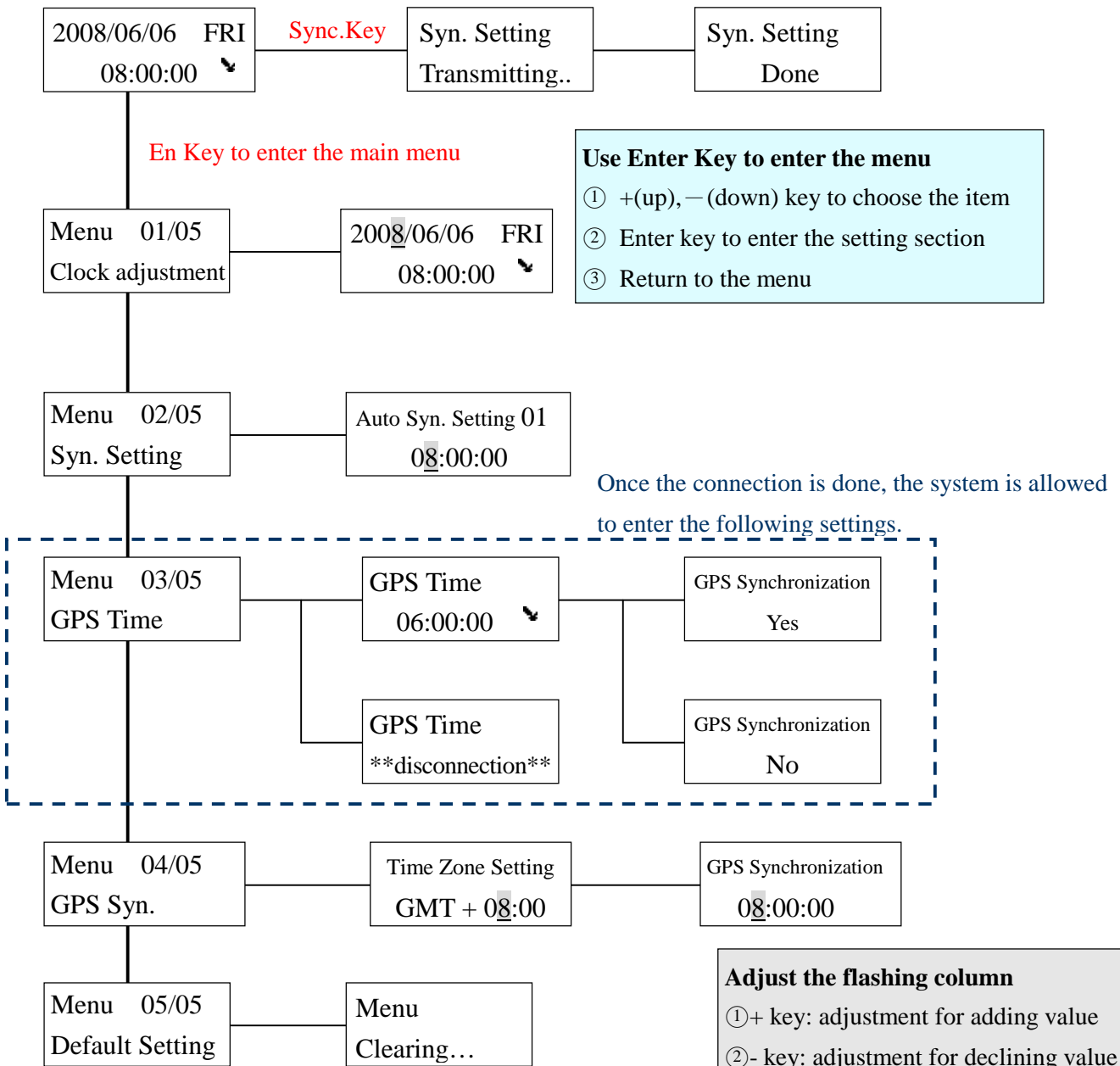
### - Key:

- ① Adjust the number at the flashing column (value down)
- ② Move to the next item

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## Panel Display & Operation Notes



- **Sync. Key:** (Quick key for time synchronization)  
After the connection with the preferred module is done, press “Sync.” key. The selected module will synchronize the date and time with them in QCM-GPSTMR.  
*\*The synchronization with QCM-GPSTMR only functions when the selected module is in standby mode.*

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- **Clock Adjustment:**

Date and time adjustment in the system. Use "+key / -key" from the KEYPAD to adjust

- **Synchronization Setting:**

Set the auto synchronization time for both QCM-GPSTMR and the target system here!

Available 8 groups for time synchronization on a day.

Use "+ key/-key from the KEYPAD to set the time for synchronization. EN key is for movements to the next column and next group for time synchronization. CL key is for storing the settings once it leaves the current page.

- **GPS Time:**

Time Synchronization: the current GPS standard time, QCM-GPSTMR and the GPS.

If no "📶 icon on the LCD, it means no GPS or the failed installation. This page will display **\*\*\*GPS disconnection \*\*\*!**

- **GPS Synchronization:**

Select the time zone in advance→set the time in the selected time zone

Follow the settings of GPS synchronization. See the description below:

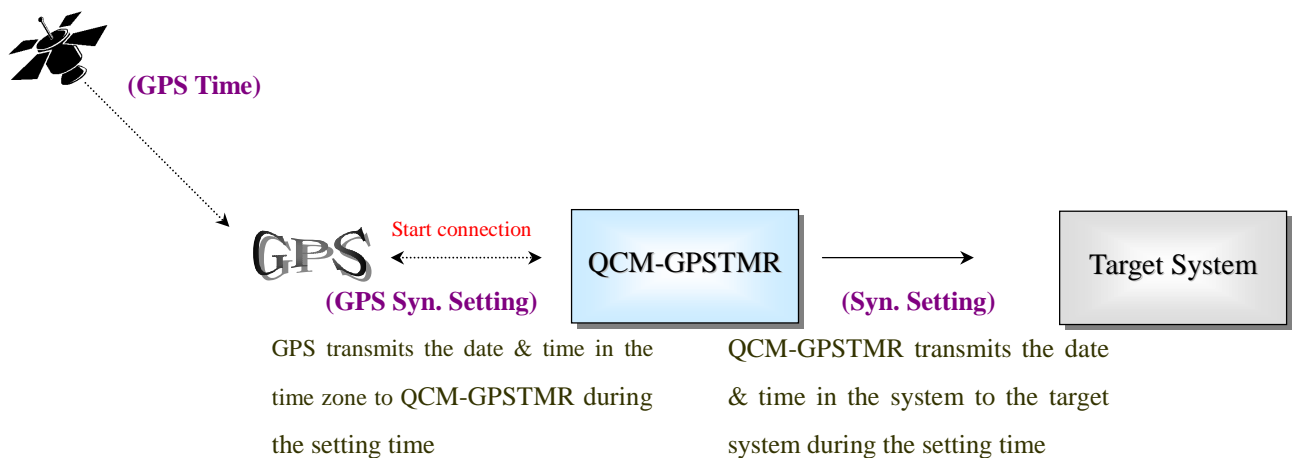
When the GPS time is at 08:00 in GMT +8:00 time zone, QCM-GPSTMR will synchronize the time with the GPS!!

**\*Please check the connection with GPS is ok or not\***

- **Default Setting:** (Firmware Version: QCM-GPS Timer Ver. 1.01)

Clear all settings; Set auto synchronization & GPS synchronization

- **System Setting illustration:**

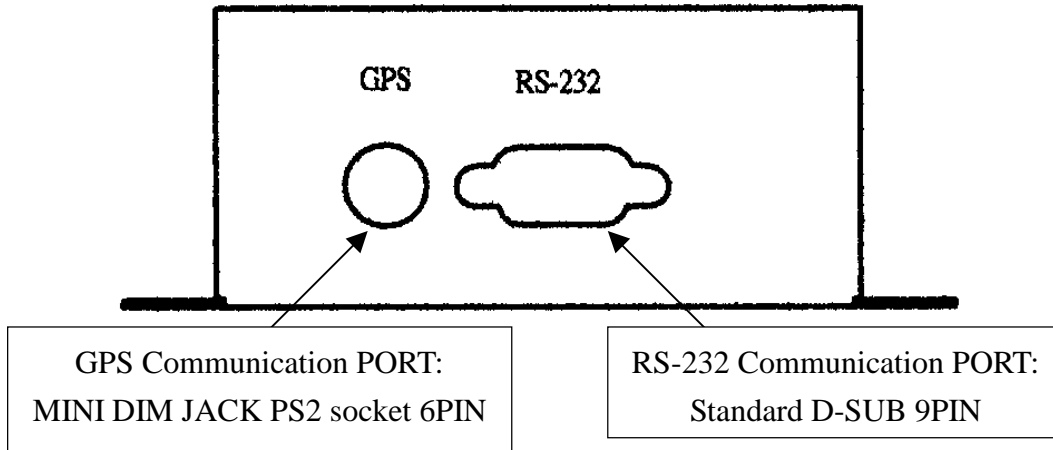


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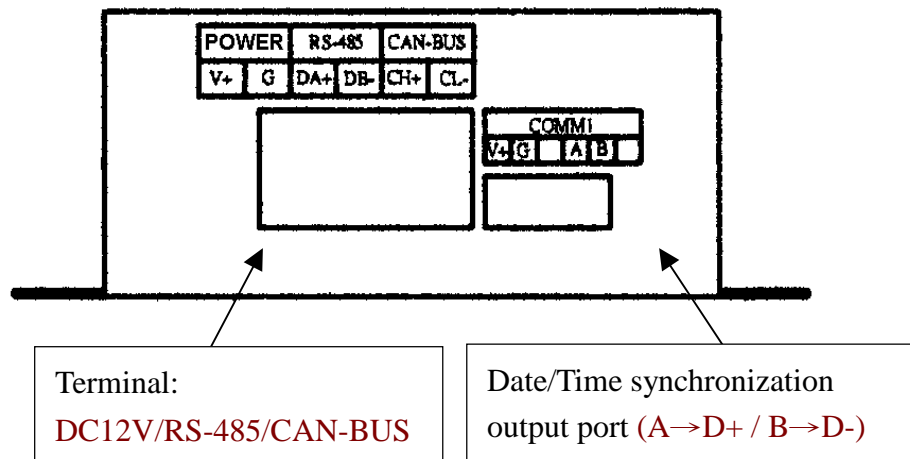
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## Exterior Connector Port Layout

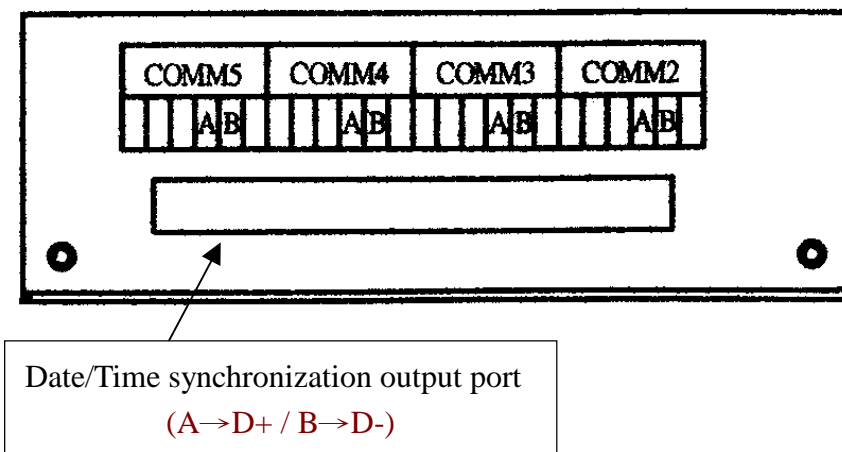
- **RS-232 PORT/GPS PORT**



- **POWER PORT/Signal Transmission Port/Date/Time Synchronization Output Port**



- **POWER PORT/Date/Time Synchronization Output Port**



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## Metal Box Dimension

