

6.2. GPS I/O Modules



I-87211W

GPS Receiver and 2 DO, 1 PPS Output Module

Features

- MediaTek solution
- Support 32-channel GPS
- Capable of SBAS (WAAS, EGNOS, MSAS)



Introduction

I-87211W module features high sensitivity, low power and ultra small form factor. This GPS module is powered by MediaTek solution, it can provide you with superior sensitivity and performance even in urban canyon and dense foliage environment.

Applications

- Satellite time correction
- Personal positioning and navigation
- Automotive navigation
- Marine navigation

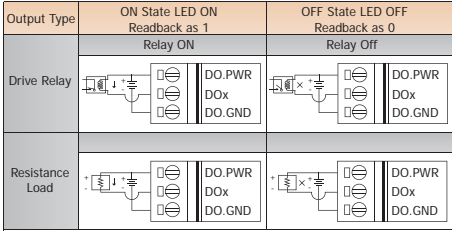
I/O Specifications

Digital Output	
Output Channel	2 (Sink)
Output Type	Non-isolated Open Collector
Output Current	100 mA
Load Voltage	+5 V _{DC} ~ +30 V _{DC}

System Specifications

GPS Receiver	
Chip	MediaTek solution
Frequency	L1 1575.42 MHz, C/A code
Support Channel	32
Position Accuracy	Capable of SBAS (WAAS, EGNOS, MSAS)
Max. Altitude	<18,000 m
Max. Velocity	<515 m/s
Acquisition Time	Cold Start (Open Sky)=42 s (typical)
Sensitivity	Tracking=Up to -158 dBm
	Cold start=Up to -142 dBm
Protocol Support	NMEA 0183 version 3.01
GPS Output	
1 PPS	Pulse per second output (Default 100 ms pulse/sec)
RS-232 Interface	GPS information output
LED Indicators	
Power/Communication	1 LED
Digital Output	3 LEDs
GPS	8 LEDs
Power	
Power Consumption	0.75 W (max.)
Mechanical	
Dimensions (W x L x H)	30 mm x 91 mm x 114 mm
Environment	
Operating Temperature	-25 °C ~ +75 °C
Storage Temperature	-40 °C ~ +85 °C
Humidity	5 ~ 95% RH, non-condensing

Wiring



Pin Assignments

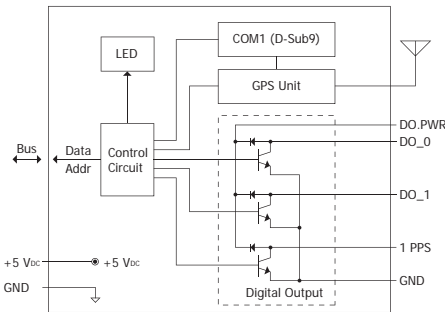


Pin Assignment	Terminal	No.	Pin Assignment
-	01	06	-
GPS_TxD	02	07	-
GPS_RxD	03	08	-
-	04	09	-
GND	05		

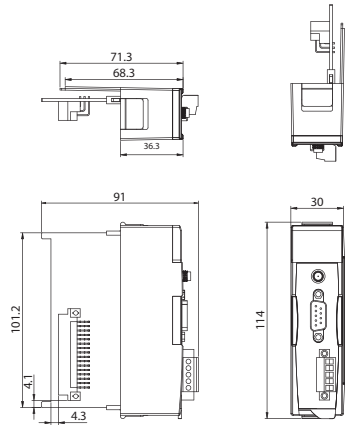
COM1 9-Pin Female D-Sub Connector

Terminal No.	Pin Assignment
01	DO.PWR
02	DO_0
03	DO_1
04	1 PPS
05	GND

Internal I/O Structure



Dimensions (Unit: mm)



Ordering Information

I-87211W CR	GPS Receiver and 2 DO, 1 PPS Output Module (RoHS)
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Accessories

ANT-115-03 CR	4PI81K000001	GPS Active External Antenna (SMA Plug) (RoHS)
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