NEW

I-87211W

GPS Receiver and 2 DO, 1 PPS Output Module with GPS Active External Antenna

Features

- Support PACs and Remote I/O expansion units of ICP DAS
- Support 66-channel GPS
- RS-232 supports NEMA v0183 v3.01 format or DCON protocol
- Built-in 2-channel DO, 1-channel PPS (1 pulse/s)
- PPS: 100 ms pulse output/sec for precise timekeeping and time measurement
- With various system LED indicators
- Capable of SBAS (WAAS, EGNOS, MSAS)
- DIN Rail mounting

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
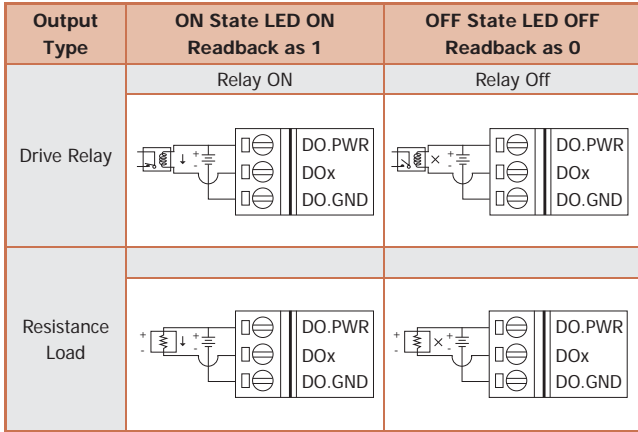- Automotive navigation
- Marine navigation

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

Models	I-87211W
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
Startup 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 ~ +75°C
Storage Temperature	-30 ~ +75°C
Humidity	5 ~ 95% RH, Non-condensing

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GPS Products

■ Wiring

Output Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
	Relay ON	Relay Off
Drive Relay	DO.PWR / DOx / DO.GND	DO.PWR / DOx / DO.GND
Resistance Load	DO.PWR / DOx / DO.GND	DO.PWR / DOx / DO.GND

■ Appearance

i-87211W
GPS Receiver Module

SAT 1 2 3 4 5 6 7 >8
NO. 0 1 1 PPS
D/O

Antenna
COM1

01
05
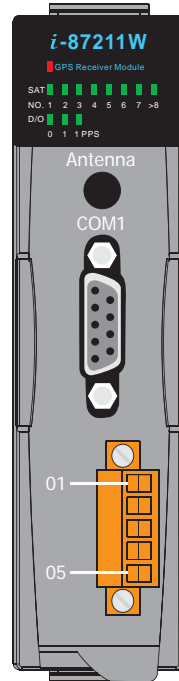
Pin Assignment	Terminal	No.	Pin Assignment
-	01	06	-
GPS_TxD	02	07	-
GPS_RxD	03	08	-
-	04	09	-
GND	05		
COM1		9-Pin Female D-Sub Connector	

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

■ Internal I/O Structure

COM1 (D-Sub9)
LED
GPS Unit
Bus
Data Addr
Control Circuit
DO.PWR
DO_0
DO_1
1 PPS
GND
+5 V$_{DC}$ +5 V$_{DC}$
GND
Digital Output

■ Dimensions (Units: mm)

71.3
68.3
36.3
91
101.2
4.1
4.3
30
114
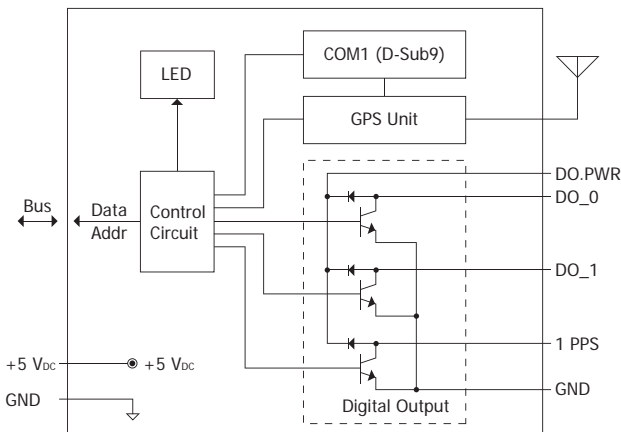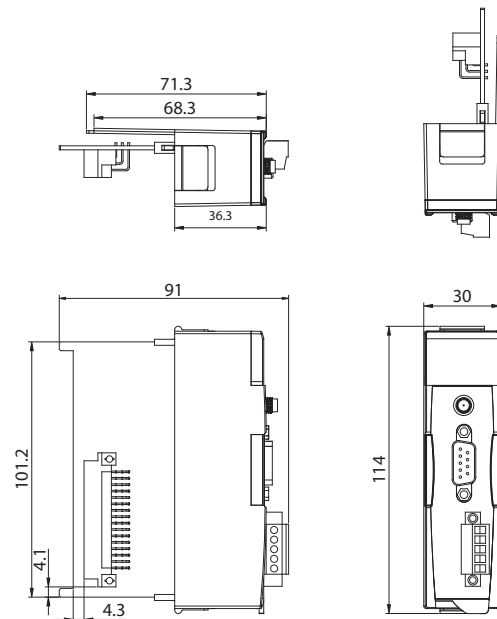
■ Ordering Information

I-87211W CR	GPS Receiver Module with 2 DO and 1 PPS output, includs ANT-115-03 (Gray Cover) (RoHS)

■ Accessories

ANT-115-03 CR	4PI81K0000001	5 m GPS Active External Antenna (SMA Plug) (RoHS)

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GPS Products