

GPS Time Source Modules

Stand-Alone
2070 Plug-In (2070-7G)



Stand-Alone Version
(General Purpose & NEMA)



2070 Version
(2070-7G)

Cabinets

Controllers

Signals

Signs

Software

Specialty

Overview

McCain's GPS Time Source Modules are easy-to-use, microprocessor-based Universal Time Base (UTB) devices that provide accurate time-of-day information for traffic signal controllers. The GPS Time Source retrieves time signals from the atomic clocks of the United States National Institute of Standards (NIST) broadcast on the GPS (Global Positioning System) satellite network. Using a precision GPS receiver and microprocessor, the module decodes time signals and interfaces with the traffic control equipment.

Benefits

- Synchronizes time-of-day to GPS
- Updates daylight savings and leap second time corrections automatically
- Meets Caltrans requirements for global positioning latitude and longitude

Product Description

The McCain GPS Time Source Modules consist of a GPS receiver with an antenna and a microprocessor controlled circuit. Units read raw GPS time data, accept user commands, output serial data streams, and perform other processing tasks.

Time and date functions are automatic with no jumpers or switches to set. User defined parameters are stored in internal FLASH.

Commands can then be sent to the GPS Time Source Module from the controller or from a PC. All modules have an easy-to-use Windows-based configuration software.

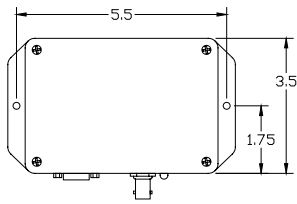
The 2070-7G, the 2070 version module, can also be programmed directly from the 2070 controller with an optional easy-to-use OS-9 configuration software.

The Stand-Alone GPS Time Source Module is a specialized UTB for general purpose and NEMA controllers. In NEMA controllers the Stand-Alone version provides a one-second pulse at a specific time of day, which is user configurable.

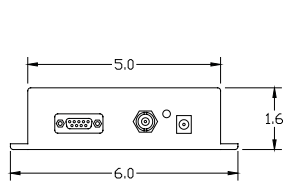
GPS Time Source Modules

Stand-Alone

Top



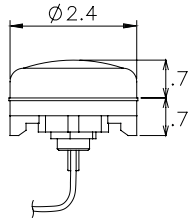
Side



2070-7G not shown - meets dimensions for 2070 2x modem cards.

Antenna

(not to same scale)



4' BNC Connector
(Stand-Alone)



16' SMA Connector
(2070-7G version)

GPS Utility (optional)



OS-9 Datakey
(2070-7G version)



Windows Configuration
(all versions)

Standard Features

- Readily available time and date information
- GPS antenna
 - Small exterior antenna with versatile mounting options
 - Coaxial cable with BNC adapter (Stand-Alone) or SMA connector (2070-7G)
 - Mounting hardware: flat washer, lock washer, and nut
 - Gasket attached to underside of antenna housing
- Query ("Q") and Set ("S") commands
- User set parameters in internal FLASH
- Stand-Alone housing is designed for mounting indoors or in a weatherproof cabinet
- Installation
 - Stand-Alone: Mounts directly to any surface with use of mounting flanges (2)
 - 2070-7G: Controller's communication slot

Interfaces

Communication interfaces:

- Stand-Alone: RS232
- 2070-7G: RS485 (uses one 2070 modem channel, second channel brought out to front panel)

Software (Optional)

An optional easy-to use Windows-based configuration software for all GPS Time Source Modules is available for download from the McCain website or disk.

An OS-9 based configuration GPS Utility is available for the 2070 version upon request.

General Specifications

Dimensions:	6" L x 3.5" W x 1.5" H (Stand-Alone) EIA rack mount form factor (plug-ins)
Power:	Stand-Alone: +5 VDC to +36 VDC (5 VDC @ 80mA) 170: + 5VDC @ 80mA 2070-7G: + 5VDC @ 80mA
Environment:	Operating Temperature: -40°C to +85°C Humidity: 0 to 95% (non-condensing)
Weight:	Stand-Alone: 6 oz 2070-7G: 8 oz

Options

- PC configuration and power/data communication cable for Stand-Alone version
- Data NEMA communication cable for Stand-Alone version
- PC configuration cable for 2070-7G

To learn more about
McCain's Integrated Traffic
Solutions, please contact
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