Hiprom Products

Communications and GPS products for the Integrated Architecture™

Overview

Rockwell Automation Hiprom provides a complementary portfolio of Logix-based industrial GPS, timing and specialized communication products.

PROFIBUS PA

- 1788-EN2PA-R
- 1788-EN2PA
- 1788-CN2PA-R
- 1788-PAJB4
- 1788-PAJB6
- 1788-PARJB

GPS & Timing

- 1769-GPS
- 1756-TIME

Cellular

- 1756-CELL

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PROFIBUS PA: The 1788-EN2PA-R and 1788-CN2PA-R

The Hiprom 1788-EN2PA-R and 1788-CN2PA-R linking devices provide a fast and integrated solution for adding PROFIBUS PA field devices to any Allen-Bradley® Logix platform. These devices provide a direct link between PROFIBUS PA and EtherNet/IP or ControlNet (Redundant).

- **Direct Logix to PROFIBUS PA:** The unit operates as a true PA master, and does not require any DP network, DP master, coupler device or external power conditioner.
- **Embedded Ethernet Switch technology:** the 1788-EN2PA-R hosts two Ethernet ports, which allows the unit to be connected in a Linear topology or in a Device Level Ring (DLR) topology.
- **Seamless Integration into RSLogix™ 5000:** An Add-On Profile (AOP) profiles automated configuration as well as diagnostics for each device. New devices can be added to the network without stopping the process.
- **FDT/DTM technology:** Direct access to the field devices diagnostics and parameters using an FDT frame such as FactoryTalk® AssetCentre. A field device DTM can be launched from within the RSLogix 5000 environment using Hiprom FDT-ThinFrame technology. FDT-ThinFrame allows a device DTM to be launched from within the FactoryTalk ViewSE HMI, providing the operator a graphical view into the state and diagnostics of the field device.

Allen-Bradley • Rockwell Software

Rockwell Automation

GPS Precision Timing: 1769-GPS

By harnessing the power of the Global Positioning System, the Hiprom 1769-GPS module is able to provide precision timing information across the 1769 backplane. Other GPS information is also available, including: position, velocity and GPS receiver status.

- **Precision Timing:** Provided across the backplane by means of a scheduled connection between the GPS module and CompactLogix™ CPU.
- **Sequence of Events Recording:** One millisecond accuracy can easily be achieved in the CompactLogix CPU by executing a simple ladder routine in a 1ms periodic task.
- **GPS Position:** Data is available in both polar coordinates of Longitude, Latitude, and altitude as well as in Cartesian Earth-Centered-Earth-Fixed (ECEF) coordinates X, Y and Z.
- **GPS Velocity:** Data is available in Northerly, Easterly, and Upward velocity components as well as ECEF Vx, Vy and Vz.
- **Status information:** An LED display located on the front of the module provides the user with status data, such as: number of satellites locked, validity of GPS data as well as the location and signal strength of each satellite being tracked.

Time Synchronization Module: 1756-TIME

The Hiprom 1756-TIME module contains an onboard GPS receiver leveraging the accuracy of the GPS satellite atomic clocks. It hosts dual Ethernet ports for direct Ethernet time synchronization using NTP (Network Time Protocol) and PTP (Precision Time Protocol) where the modules act as Time Grandmasters.

- **Precision Time Protocol (1588 PTP):** Recommended for the control layer where a precision of 250ns with respect to UCT (Universal Coordinate Time) can be achieved in certain network topologies.
- **Network Time Protocol (NTP):** Used to synchronize HMI PCs without the need for any additional software.

- **IRIG-B Input/Output:** For legacy systems, modulated IRIG-B (B-122) is supported. The module can be configured to either transmit or receive IRIG-B.
- **EtherNet/IP Embedded Switch Technologies:** Allows Linear Network and Device Level Ring Ethernet topologies.

Cellular Communications Module: 1756-CELL

The Hiprom 1756-CELL module offers a cost effective and convenient method of monitoring and controlling remote sites. The module can be used to receive simple command instructions via text message and send alarm and event notifications to responsible personnel resulting in improved response time, and in turn decreasing downtime. The 1756-CELL module slots directly into any ControlLogix® chassis, interfacing with, and deriving all required power, from the backplane.

- **GSM Cellular Network:** Utilize any standard GSM cellular network which has coverage in the area where the module is located. Low setup costs because existing GSM network structure is being utilized
- **Messaging:** The module can send and receive SMSs (Short Message Service) by utilizing the easy to use generic message block within RSLogix5000.
- **Diagnostics:** Easily accessible by viewing the input image, which is transferred to a user friendly UDT, simplifying the installation and commissioning process of the module.

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