cLS-FSTS-GPS

GPS Receiver

Product Brief—Revision A   15 October 2009
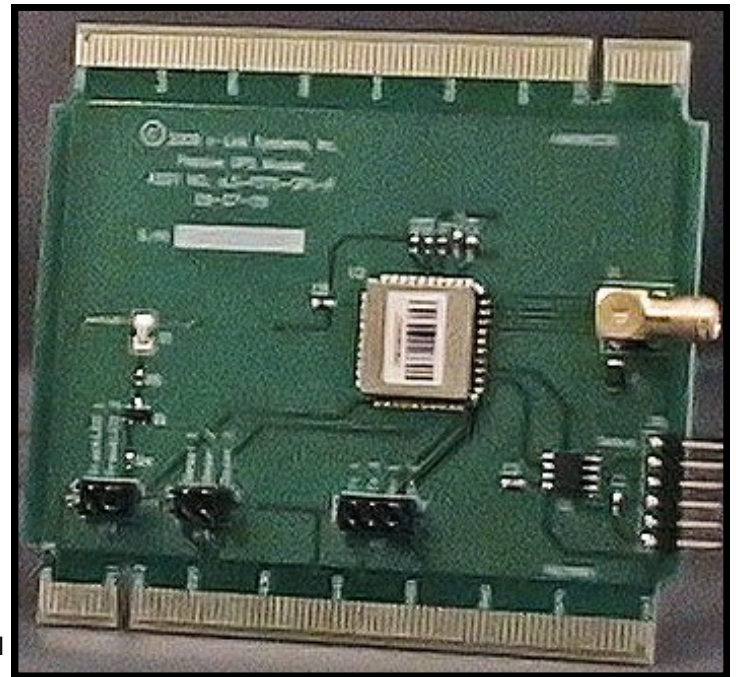
System Highlights

- Conforms Freescale Semiconductor 's Tower system

- Jumper configurable

- Active antenna model

- Serial Debug port

Description

The cLS-FSTS-GPS contains a Furuno GN-80 module. The module is connected via a jumper selection group to the Tower System MCU. The MCU communicates via a serial port. A second serial port connection is available for debug work. The active antenna power section can be shutdown via the GPS module.

Module Interface:

– 2 serial communication interfaces (UART) up to 115k baud
• Low Power Modes STANDBY
• NMEA0183 output protocol

GPS Performance:

16-channel, L1 (1575.42 MHz) GPS receiver
Acquisition Time
  • Cold Start 42 seconds

  • Warm Start 35seconds

  • Hot Start 8 seconds
Tracking Sensitivity -141dBm
Reacquisition Time 2.0 seconds average
Accuracy
  • Position 2 meters, CEP 50%
  • Altitude <+/- 5m vertical
  • Velocity 0.1 m/s

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Corporate Brief

For the past seven years c-Link Systems, Inc. has focused on industrial control/automation of process lines in metal rolling and paper mills. Out of this emerged our expertise in Industrial Robotics and high speed fiber optic communications. A previous background in mechanics, dynamics and satellite guidance systems has positioned the company to support our customers in the growing field of robotics as it relates to autonomous robotic vehicles (ARV) with numerous commercial/industrial applications.—SEA

Omni-Chassis Information

SPECIFICATIONS

Interface:

Selectable as required to conform to Tower System.

Physical Characteristics:

Freescale Tower System format .

Power Requirements:

Supply Voltage (Typical)	3.3V (3.0V—3.6V)
Current (typical)	TBA

Environmental Characteristics:

Operating Temperature:	-20°C to 90°C
Storage Temperature:	-40°C to 105°C
Relative Humidity:	0 to 90% non-Condensing

Model Numbers

cLS-FSTS-GPS: GPS card w/Active (powered) antenna connection