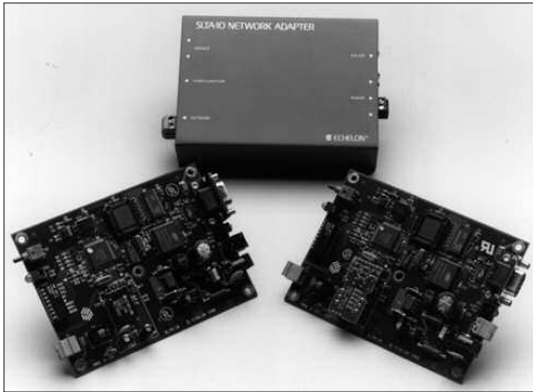


PSG/3 Serial Gateway Models 73381, 73382, 73383, 73384, and 73381R



Description

The PSG/3 Serial Gateway is a fully self-contained module used to build gateways between devices or systems with serial EIA-232C (formerly RS-232C) interfaces and LONWORKS® networks. Typical applications for the PSG/3 include gateway connectivity to programmable logic controllers, servo controllers, smart sensors, keypads, displays, printers, console ports, etc.

The PSG/3 has a fixed input clock rate of 10MHz and includes the core electronics, high-speed 16550-compatible UART, EIA-232 driver/receivers, Neuron® 3150® Chip, LONWORKS transceiver, power supply and firmware required to implement a serial gateway. User programs may access 7.5Kbytes of RAM and up to 34.25 KBytes of program space (either Flash or PROM).

Model 73381R is compliant with the European Directive 2002/95/EC on the restriction of the use of certain hazardous substances (RoHS) in electrical and electronic equipment.

The PSG/3 is supplied in a compact metal enclosure with rubber feet for desk mounting, and keyhole slots for wall mounting. Programmable DIP switches are accessible without disassembly of the chassis. The network wiring is polarity insensitive and is connected to a color-coded removable screw terminal block. Input power is 9-30V AC or DC. Power wiring is polarity insensitive and is connected to a color coded, removable screw terminal block or barrel connector. External power options are available for the US, UK, Continental Europe, and Japan. Serial signals are provided through a standard DB-9 connector.

-
- ▼ Serial EIA-232 interface connects to host processors and modems
 - ▼ Integral FTT-10A, TPT/XF-78, TPT/XF-1250 or RS-485 transceiver
 - ▼ Buffered 16550-compatible UART
 - ▼ 1200 to 115,200bps serial bit rate
 - ▼ 7.5Kbytes RAM and 34.25Kbytes application space
 - ▼ Supports Flash memory for downloadable program updates
 - ▼ 10MHz input clock
 - ▼ Color coded, removable screw terminals for power and network connections
 - ▼ Configuration DIP switches accessible without opening chassis
 - ▼ 9-30V AC or DC input power
 - ▼ Metal enclosure for wall or desk mounting
 - ▼ CE Mark, UL, cUL, TÜV
-

Usage

The gateway developer uses the PSG firmware library included with the NodeBuilder® development tool or available for free download from the Download Center of <http://www.echelon.com>, to create a custom serial gateway application written in Neuron C. The PSG firmware library provides functions to initialize the UART, read the DIP switches, send and receive characters, and send and receive LONWORKS messages. The NodeBuilder development tool is used to create a standard .NRI or .NEI image that is programmed into a 29C512 flash device or 27C512 PROM. Subsequent program updates may be downloaded over the LONWORKS network when flash parts are used.

The PSG/3 replaces and is compatible with the PSG/2.

Specifications

Processor	Neuron 3150 Chip
Channel Type	Varies by model: TP/FT-10, TP/XF-78, TP/XF-1250, and TP-RS485
Processor Input Clock	10MHz @ 200ppm.
Serial Communications Type	EIA-232
Serial Bit Rate	1200, 2400, 9600, 14.4k, 19.2k, 38.4k, 57.6k, or 115.2 kbps
Serial Modem Control	Optional, DSR, DCD, DTR, and RI
Serial Connector	Female DB-9
Network Connector	Weidmüller 2 conductor BLA
Operating Input Voltage	9-30V AC or DC polarity insensitive
Operating Input Current	250 mA max
Temperature	
Operating	-40 to 85°C
Non-operating (12 hour)	-40 to 85°C
Humidity (non-condensing)	
Operating(24 hours)	25 to 90% RH @ 50°C
Non-operating (24 hours)	95% RH max @ 50°C
Dimensions	101.6mmW x 138.2mmL x 34.0mmH (4.00" x 5.44" x 1.34")
EMI	FCC Part 15 Level B, EN55022 Level B
Listings	UL 1950, cUL1950, TÜV EN60950, CE Mark

Documentation

Complete documentation may be obtained by ordering or downloading the following documents from <http://www.echelon.com>.

Documentation	Echelon Part Number
SLTA-10 Serial LonTalk Adapter and Serial Gateway User's Guide	078-0160-01

Ordering Information

Product	Echelon Model Number
PSG/3 Serial Gateway - TP/FT-10A	73381, 73381R (RoHS-compliant)
PSG/3 Serial Gateway - TPT/XF-78	73382
PSG/3 Serial Gateway - TPT/XF-1250	73383
PSG/3 Serial Gateway - TR-RS-485	73384

Copyright © 1995-2006, Echelon Corporation. Echelon, LON, LonWorks, LonMark, LonBuilder, NodeBuilder, LonManager, LonTalk, LonUsers, LonPoint, Digital Home, Neuron, 3120, 3150, LNS, zLON, LonWorld, ShortStack, Panoramix, LonMaker, the Echelon logo, and the LonUsers logo are trademarks of Echelon Corporation registered in the United States and other countries. LonLink, LonResponse, LonSupport, LonNews, Open Systems Alliance, OpenLDV, Powered by Echelon, LNS Powered by Echelon, Panoramix Powered by Echelon, LonWorks Powered by Echelon, Networked Energy Services Powered by Echelon, NES Powered by Echelon, Digital Home Powered by Echelon, Pyxos, and Thinking Inside the Box are trademarks of Echelon Corporation. Other trademarks belong to their respective holders.

Disclaimer

Neuron Chips, Free Topology Twisted Pair Transceiver Modules, and other OEM Products were not designed for use in equipment or systems which involve danger to human health or safety or a risk of property damage and Echelon assumes no responsibility or liability for use of the Neuron Chips or Free Topology Twisted Pair Transceiver Modules in such applications. ECHELON MAKES AND YOU RECEIVE NO WARRANTIES OR CONDITIONS, EXPRESS, IMPLIED, STATUTORY OR IN ANY COMMUNICATION WITH YOU, AND ECHELON SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

003-0321-01B



www.echelon.com