



Two and Four Port Ethernet Gateway Specifications



Part Number: Cat # 2-Port with hub: PLENETG05
4-Port with hub: PLENETG06

Product Overview

The Ethernet Gateway family of remote communication servers connects to a 10 Mbps Ethernet and provides two (2) or four (4) serial ports that are software selectable to RS-232, RS-422, or RS-485. The Ethernet Gateway uses the TCP/IP family of protocols to provide terminal connectivity and communications services in open-systems environments. The system administrator, or the user, is responsible for the setup and configuration of the Ethernet Gateway to meet the usage requirements. A concise command set is used for configuration along with commands for monitoring and managing the network activity and for diagnosing and troubleshooting system problems.

Features and Benefits

The Ethernet Gateway offers the following features and benefits:

- Easy setup and configuration
- Open-systems communications for multi-site data networks
- Can be used in a variety of data communication applications
- Reduces cost and complexity
- Two (2) or four (4) DB-9 serial ports with screw-down connectors
- One (1) 10Base-T port, RJ-45
- Dual-port Hub, providing two (2) RJ-45 connectors, instead of one (1) 10Base-T connector
- High-speed serial connections
- Software selectable RS-232, RS-422, or RS-485 modes on each port
- Dial-up LAN/Internet access
- IP packet routing
- Operating system independent
- Modem and serial printer pooling
- Complete remote diagnostics
- LEDs for each port, signaling port status, and error conditions
- Industry standard interoperability
- Developer's API for custom, on-board applications and protocols
- Raw reverse Telnet option to access ports without using special protocol or processing
- Standard LPD printing option that is efficient and easy to use
- Dial-on-demand to automatically dial and make a connection with a remote system
- Multiple services per port allows setting up both incoming and outgoing services on the same port
- PPP header compression
- Reverse Telnet support for a variety of UNIX operating systems

Intelligent Ethernet Port Servers

The Ethernet Gateway series of Intelligent Ethernet Port Servers provide LAN-attached serial port expansion, Ethernet Hub, remote monitoring, and IP routing for multi-site retail networks. The Ethernet Gateway can be used in a variety of applications including:

- adding peripherals to point of sale (signature capture, check readers, card readers)
- connecting in-store devices (scales, price verification equipment)
- monitoring single or multiple remote devices (tank monitors, Telco equipment)
- connecting back-office devices (kitchen printers, money counters, RF controllers)
- providing dial-on-demand remote communications

The Ethernet Gateway uses the industrial standard TCP/IP and PPP protocols to ensure connectivity and flexibility in open systems for the user's demanding applications. The Ethernet Gateway comes with the NativeCOM port redirection software, a Web browser interface, and remote diagnostics, which simplify installation and support. This makes any LAN-attached serial port appear as local to the Windows application, whether it is local or remote. Each Ethernet Gateway's serial port is software selectable to RS-232, RS-422, or RS-485 with no external cabling, saving cost from the complexity of competitive RS-232 only solutions. For developers and OEMs with unique protocol conversion or monitoring and reporting needs, the Developer's API is available to create custom benefits. Two (2) models are available:

- PLENETG05: two (2) serial ports, 10Base-T, IP Router, Hub
- PLENETG06: four (4) serial ports, 10Base-T, IP Router, Hub

Panel Connectors

The Ethernet Gateway's front and back panels provide four (4) DB-9 serial ports, numbered 1 through 4. (On the two-port model, ports 3 and 4 are not included.) There is one (1) RJ-45 Ethernet port labeled LAN on the front panel, and there is one (1) Ethernet port labeled Hub. Each connector has an associated LED that signals normal operation or error conditions. In addition, there is a status LED next to the power connector that indicates the overall status of the Ethernet Gateway.

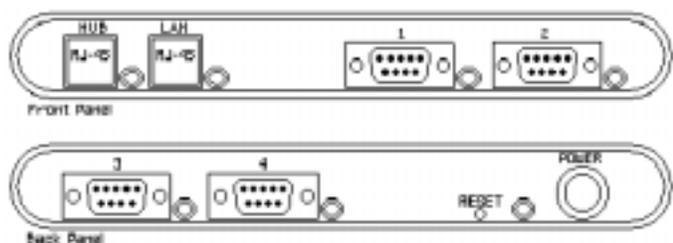


Figure 1: PLENETG06 Panels with Hub

Possible Configurations

IP Addresses

The Ethernet Gateway provides flexibility in assigning the necessary IP address. The IP address can be assigned using any of the following methods:

- directly assign the address on the Ethernet Gateway via terminal
- assign the IP address using the NativeCOM software
- assign the IP address using a Web browser
- allow a DHCP server to assign the IP address

Session Settings

When the Ethernet Gateway is booted, the configuration information that defines the operation of the Ethernet Gateway during the session (the active configuration) is loaded into memory from the current configuration database into flash memory. Any configuration setting can be changed in the active configuration. In addition, the active configuration can be saved into the current configuration database (in flash memory) so that the changed settings will be available after reboot/restart. When the Ethernet Gateway is delivered, the current configuration database contains factory default settings. In addition, a factory default configuration database (a copy of the current configuration database) is stored in flash memory. The factory default configuration database is stored as a backup configuration, which can be restored into the current configuration database if necessary. If the Ethernet Gateway encounters an error condition while loading the current configuration database into the active configuration, it will load the factory default configuration database into the active configuration in order to complete the boot. The status LED on the back panel will flash alternately yellow and green to indicate that a problem occurred and the factory default configuration was loaded.

Changing Settings

The configuration settings can be changed:

- using the Ethernet Gateway's command interface via a Telnet connection or a terminal connected to the Ethernet Gateway; or
- using a Web browser to connect to the IP address of the Ethernet Gateway; or
- for Windows NT users, using the NativeCOM port redirector software provided free of charge with the Ethernet Gateway.

At any point, the factory default configuration settings can be restored.

Common Settings

Some of the commonly changed configuration items are:

- Passwords
 - User login
 - Administrative
- Networking
 - Internet address
 - Sub-network mask
 - Initial route list
 - Host name list
 - Domain name
 - DNS server list
- Asynch serial ports
 - Service definition
 - Speed
 - Character length
 - Stop bits
 - Parity
 - Input flow control
 - Output flow control
 - Inactivity timeout
 - Switch character
 - DCD modem signal

Power Requirement

Control Voltage 100/240 V 50/60 Hz 0.9A

Size

Height 1.25”

Width 8”

Depth 4.75”

Standards

UL, CUL, NEMKO, NOM, SEV, SAA,
and T-Mark Listed

VCCI, MOC, BCIQ, FCC, and C-Tick Rated

Fuses 3x self-resetting 0.5A

Environment

Operating Temperature 0° to +50° C

Storage Temperature -10° to +70° C

Relative Humidity 10% - 90% @ 40° C
non-condensing

Fast Transient Surge IEC 801- 4 Severity Level 2
Criterion B

Radiation EMI IEC 801- 3 Severity Level 2
Withstand Capability Criterion A

Electrostatic Discharge IEC 801-2, Severity Level 3
Criterion B

