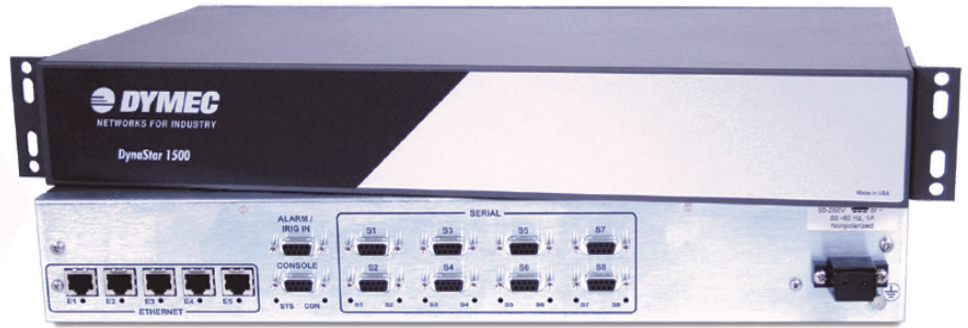


DynaStar DS1500-ETS Ethernet Terminal Server

Features

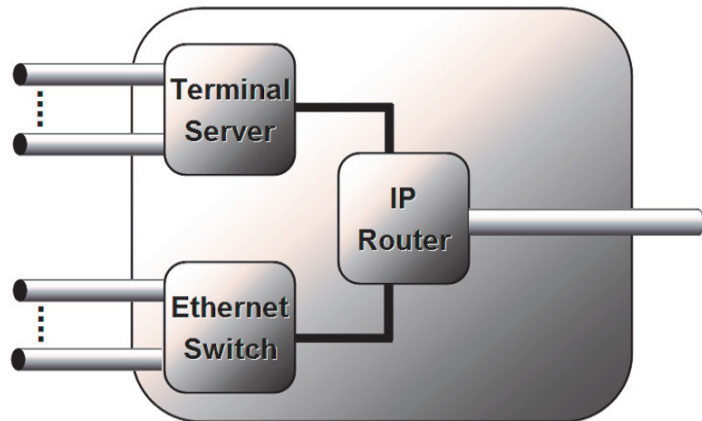
- Hardened for harsh environments
- Meets IEEE 1613 / IEC 61850-3 requirements for power utility substations
- Three networking functions integrated in one product
 - Terminal server
 - Ethernet switch
 - IP router
- Eight serial ports, 300 bps to 230.4 kbps
- Five 10/100 Base TX Auto-sensing Ethernet ports
Or
- Three 10/100 Base TX Auto-sensing Ethernet ports with 2 optional (singlemode or multimode 100FX SFP ports)
- Multi-Protocol support
 - Async, SCADA, Ethernet, TCP/IP
 - Ethernet switching
 - Flow control
 - Prioritization
 - VLANs
 - Rapid Spanning Tree
 - IP Routing, RIP, RIP II, RIP RX, OSPF, Static
 - IP VPN using IPSec
 - VLAN support
 - IP address filtering
 - DHCP service
- Menu-driven and SNMP management
- Port mirror on Ethernet switch ports
- Powerful built-in protocol analyzer
- No fans or moving parts
- Non-vented sealed steel enclosure
- AC & DC power options



DS1500-ETS Ethernet Terminal Server

Supporting eight serial and either five 10/100 TX Ethernet interfaces, or three 10/100 TX Ethernet and two optional 100 FX SFP optical interfaces, the DynaStar1500 Ethernet Terminal Server (ETS) delivers reliable and secure Ethernet and Serial connectivity for multiple industrial automation devices at your site.

The DynaStar DS-1500-ETS is specifically designed for industrial monitoring and control networks operating in harsh environments. Combining three different networking functions (terminal server, Ethernet switch, and IP router), the DS1500-ETS can replace multiple communication network devices, increasing operational reliability and significantly reducing hardware and deployment costs.



A "Hardened" product, the DS1500-ETS is built to thrive in the harshest environments and conditions, including: extreme temperatures, high humidity, power surges, ground potential rise, EMI/RFI interference as well as other tough environmental conditions often found in industrial and remote process sites.

The DS1500-ETS can function as both an Ethernet switch and an Async-TCP/IP terminal server, supporting multiple application and device interfaces including legacy, bit-oriented protocols, Async/serial protocols and IP/Ethernet. The DS1500-ETS is ideally suited to enable IP conversion strategies for SCADA traffic and other non-IP based process control, supervisory or monitoring communications traffic.



GarrettCom™

SERIAL INTERFACE

Physical Interface:

- 8 RS232 DTE ports
or
- 4 RS232 and 4 RS485 ports
- DB9 female connector
- Serial data rates from 300 bps to 230.4 kbps
- Data length: 1-32 bits supporting legacy SCADA protocols

Protocols/Features:

- Async to TCP/IP
- TCP/IP to serial terminal server, reverse terminal server
- Select SCADA bit oriented protocols
CONITEL, PMS91, MCS-11, GETAC

ETHERNET INTERFACE

Physical Interface:

- 5 RJ-45 modular connector ports
- 10/100 Base TX, auto-sensing or fixed speed
- Full Duplex, Half Duplex with auto MDIX
or
- 3 RJ-48 modular connector ports, 10/100 Base TX, auto-sensing or fixed speed connector ports with 2 optional (single or multimode) 100 FX SFP ports

Protocols/Features:

- Ethernet, TCP/IP
- Full wire speed switching between ports
- IEEE 802.3x flow control
- Prioritization per IEEE 802.1p
- Port based VLANs per 802.1Q
- Spanning Tree per IEEE 802.1d
- Rapid Spanning Tree per IEEE 802.1w
- Support for 4096 MAC Addresses

IP ROUTING FUNCTIONS & FEATURES

- IP Routing, RIP, RIP II, RIP RX OSPF, Static Routes
- DHCP Services
- Block / Allow MAC / IP or PORT addresses
- IP to multicast for SCADA polling
- DiffServ, traffic prioritization

SECURITY

- Multilevel Passwords with enforcement and aging
- Firewall with IP address filtering
- IP VPN using IPSec with DES/3DES encryption
- VLAN support on Ethernet LAN segments
- Static MAC address

MANAGEMENT & DIAGNOSTICS

- Local console port to menu-driven system
- Remote access via telnet from WAN or Ethernet connection
- SNMP MIB and SNMP traps
- PING and telnet diagnostic functions
- Port mirror on Ethernet switch ports
- Powerful built-in datacom analyzer to monitor traffic on any port
- Comprehensive Layer 1 through 3 statistics
- Event logging

ENVIRONMENTAL

Operating Temperature:

- -40C to +75C, no fans

Storage Temperature:

- -40C to +85C

Humidity:

- 95% non-condensing

Industrial:

- IEEE1613
- IEC 61850-3

Emissions:

- EN55022A, FCC Part 15A
- VCCI, AS/NZ-3548

Safety:

- UL60950-1
- EN60950-1
- CSA C22.2

Immunity:

- EN55024
- EN61000-6-2
- EN61000-4-2 (ESD)
- EN61000-4-3 (RF)
- EN61000-4-4 (EFT)
- EN61000-4-5 (SURGE)
- EN61000-4-6 (CRF)
- EN61000-4-11 (VDI)

Environmental Monitoring:

- Dry Contact Alarm, 1 output

Telecom:

- ACTA TIA/EIA IS-968A (FCC part 68)
- IC CS03
- EN55022:1998 Telco Port Emissions

POWER OPTIONS

- High Voltage (H)
- 90-250 Vac or Vdc, 50-60Hz
- 1A, 85 watts

Low Voltage DC (L)

- 18-60 Vdc
- 4.5A, 81 watts

MECHANICAL

Dimensions:

- 19 inch Rack Mount, 1.5U
- 17.5" W x 10" D x 2.6" H
(44.5cm x 25.4cm x 6.35cm)

Weight:

- 9.5 lbs (4.3 kg)

Mounting:

- Front rack mount, Mid-mount, or Panel mount options



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