



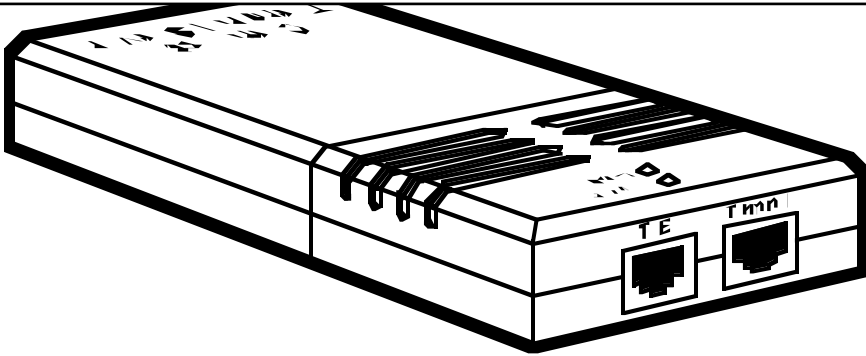
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Black Box Corporation.

BLACK BOX[®]

NETWORK SERVICES

Black Box Network Services • 464 Basingstoke Road • Reading, Berkshire, RG2 0BG • Tech Support: 0118 965 6000 • www.blackbox.co.uk • e-mail: techhelp@blackbox.co.uk

COMPACT SINGLE-PORT TERMINAL SERVER



Simplify! If you need only one port, then buy only one port. It's the cost-effective way to go.

Key Features

- ▶ ***Provides Ethernet support for terminals, printers, and other RS-232 devices.***
- ▶ ***True terminal speeds up to 115.2 kbps.***
- ▶ ***Supports industry-standard TCP/IP protocols.***
- ▶ ***Enables remote users to connect to larger networks using PPP and SLIP protocols.***
- ▶ ***Simple to install, configure, manage, and use.***
- ▶ ***Saves the cost of multiple lines and termination hardware.***
- ▶ ***Small and lightweight.***

Why spend money on terminal server ports that you'll probably never use? Some companies never give you the option of buying only what you need, pushing an 8- or 16-port server when all you really want is a single-port model.

As always, Black Box has what you want. The Compact Single-Port Terminal Server gives you the freedom to easily—and economically—add one port for each new user as the need arises. Best of all, this lightweight terminal server actually costs less than the per-port cost of most multiport terminal servers.

This low-cost router also ensures you that you'll get high performance from your serial-to-network connections.

Optimised for network and terminal performance, the Compact Single-Port Terminal Server provides true terminal baud rates. The unit is designed for the single user or device, so you can enjoy the benefits of consistent, full-speed data throughput instead

of accepting the often lower performance of a shared terminal server. Its RS-232 port supports speeds from 50 to 115,200 bps, as well as hardware flow control, software flow control, and full modem controls.

With the terminal server, virtually any type of asynchronous RS-232 device can be integrated with a TCP/IP-based Ethernet network. RS-232 devices communicate through an Ethernet LAN by bidirectionally translating async to IP and IP to async. Once it's installed and configured, you can connect your PCs, printers, modems, and hosts to the LAN. There's no need for a point-to-point link or a complex, cumbersome, and expensive wiring scheme.

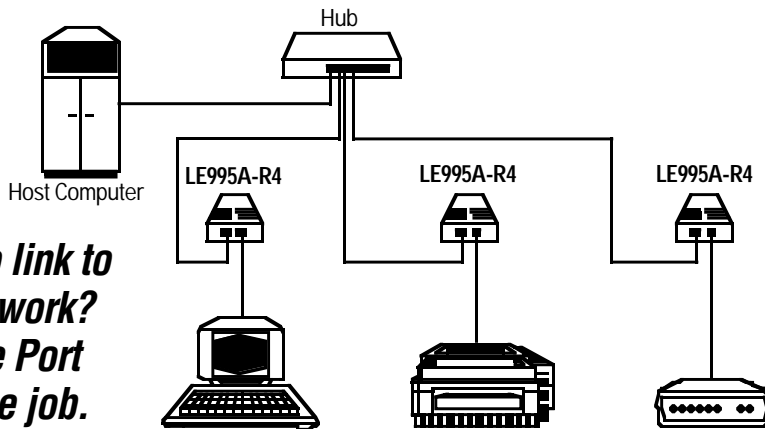
The Compact Single-Port Terminal Server can be deployed different ways. Use it, for example, to connect a legacy serial device to your LAN so you can control and monitor the device remotely. Or use it to provide a dedicated link between two workstations at separate locations. In this

application, the Single-Port Terminal Server uses your existing network backbone as the transport medium. You can also space two Compact Single-Port Terminal Servers apart on your network and use them as serial-line extenders.

The device supports a full complement of the industry-standard TCP/IP Internet Protocol suite, including Rlogin, Telnet, Reverse Telnet (raw sockets), PPP, SLIP, and SNMP. You can connect a device such as a PC or a terminal that needs to dial into a LAN (Telnet). Or you can connect a data-collection device that needs to be controlled from a LAN (Reverse Telnet), such as a modem or printer. Because the terminal server supports raw sockets, there's no need to spend a lot of time writing programs and dealing with Telnet overhead to make your LAN node communicate with your RS-232 device.

The terminal server also allows a remote user to dial into the Ethernet backbone and access the TCP/IP host. TCP/IP hosts and

So you have three devices to link to your 10BASE-T Ethernet network? Then three Compact Single Port Terminal Servers will do the job.



users can even share a modem and dial out to the Internet or other BBS services.

The latest version of the terminal server has several improvements. For instance, you can now configure the device's IP address via PING. Just enter the unit's Ethernet address into a client host's ARP table and, when the client "PINGs" that IP address, the Compact Single-Port Terminal Server automatically assigns itself the IP address that it finds inside the PING packet.

The updated Compact Single-Port Terminal Server also makes reconnecting to Telnet easier. If you use the device to originate a standard or raw-mode Telnet session, the terminal server can be set up to automatically re-establish the session if it's lost or broken. What's more, you can now use Telnet to access the device's command line interface (CLI).

Firmware enhancements also allow you to set a TCP timeout, where TCP socket (raw Telnet) connections automatically shut down if the terminal server doesn't experience packet activity for a defined period of time.

Installation and configuration are easy. The Compact Single-Port Terminal Server is completely self-contained, requiring no additional software to be loaded into the unit or onto a host. For configuring and managing the terminal server from connected data terminal equipment (such as a PC), we provide a 4-foot (1.2-m) DB9 female-to-RJ-45 serial terminal cable.

To preserve your configuration settings during power outages, the system's parameters are stored in non-volatile RAM.

Specifications

Compliance: FCC Part 15, Class A; CE; power supply on LE995A-R4 is UL* listed

Protocols: ARP: RFC 826;
DNS: RFCs 1034, 1035;
IP: RFC 791;
RARP: RFCs 903;
SLIP: RFC 1055;
UDP: RFC 768;
DHCP: RFCs 2131, 2132;
ICMP: RFC 792;
PPP: RFCs 1332, 1661, 1662;
RIP: RFC 1058;
TCP: RFC 793

Speed (Maximum):
RS-232: 115.2 kbps;
Ethernet: 10 Mbps

Processor: Toshiba® 68HC000

Internal Memory: RAM: 64 KB with 2 KB NVRAM;
EPROM: 256 KB

Management:
SNMP/MIB-II: RFCs 1155, 1157, 1213; CLI

Connectors: Network interface:
(1) RJ-45 10BASE-T (IEEE

802.3/Ethernet compliant);
Terminal interface: (1) RJ-45 RS-232C (accepts 4-, 6-, or 8-pin RJ-45 plugs)

Indicators: (2) LEDs: Power and Link Integrity

Temperature Tolerance:
Operating: 32 to 104°F (0 to 40°C);
Storage: 14 to 158°F (-10 to +70°C)

Humidity Tolerance: Up to 95%, noncondensing)

Power: LE995A-R4: 120 VAC, 60 Hz, external wallmount;
LE995AE-UK-R4, LE995AE-EU-R4: 230 VAC, 50 Hz, external wallmount;
LE996A: No power supply included; accepts any 2-position DC power strip from -48 VDC to +48 VDC, including 12 V, 24 V, and 48 V

Size: 1.2"H x 2.6"W x 4.9"D (3 x 6.6 x 12.5 cm)

Weight: 0.4 lb. (0.2 kg)

Package Includes

- Compact Single-Port Terminal Server
- (1) 4-ft. (1.2-m) DB9 female-to-RJ-45 cable for connecting a DTE to perform management and configuration
- LE995A-R4, LE995AE-UK-R4, LE995AE-EU-R4 only:
External wallmount power supply unit
- User manual (includes CLI reference)

Ordering Information

| ITEM | CODE |
|--------------------------------------------------------------------------|---------------|
| Compact Single-Port Terminal Server | |
| 120-VAC AC-Powered..... | LE995A-R4 |
| 230-VAC AC-Powered U.K. | LE995AE-UK-R4 |
| Europe | LE995AE-EU-R4 |
| DC-Powered | LE996A |
| (NOTE: DC power supply is not included.) | |
| <i>You may also need...</i> | |
| Category 5 Solid-Conductor Cable, 4-Pair, Straight-Pinned, PVC, | EYN737MS |
| RS-232 Cable, 25-Conductor | ECM25C |