BLACK BOX ®

®

The World's Source for Connectivity℠

5100 Series Ethernet WAN Routers
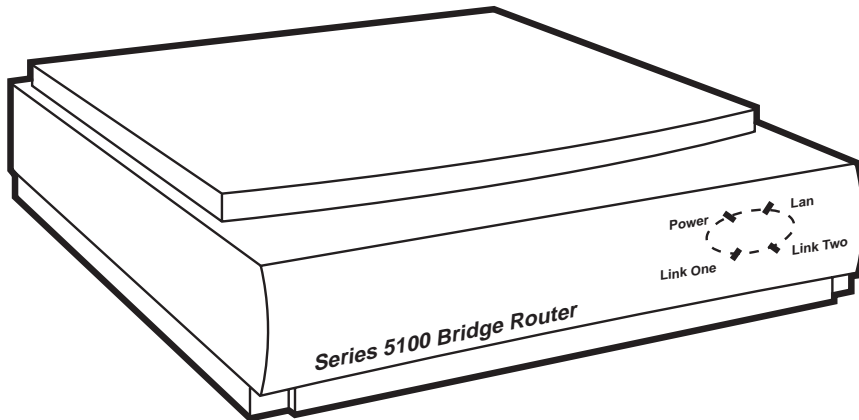
How's this for versatility? Route your LAN traffic across <u>any</u> common WAN interface—RS-232, V.35, ISDN, 56K or 64K.

Power · Lan
Link One · Link Two

Series 5100 Bridge Router

Key Features

▶ *Route data from your 10BASE-T or 10BASE2 LAN across one of 13 available WAN-interface combinations.*

▶ *Routes IP and IPX concurrently, bridges all other protocols, and supports PPP for full-featured Internet access.*

▶ *Flash memory and DRAM for fast and easy firmware upgrades.*

▶ *Transfer rates as high as 4 Mbps (2.048 mbps on each WAN port).*

▶ *Supports Telnet and SNMP management, and includes NetSAFE Firewall.*

▶ *600% data compression!*

▶ *RFC1490 Frame Relay Support—"mix and match" among different vendors.*

Have a lot of routing to plan for? Across all different types of wide-area lines? Already getting headaches just thinking about trying to do it consistently or manageably? Put away the aspirin! The BLACK BOX® Series 5100 Routers give you a stellar choice of WAN-interface options, all in one dependable product family.

Each Series 5100 Router comes equipped with a single 10BASE2 or 10BASE-T LAN interface plus one of thirteen possible combinations of one or two WAN interfaces. Choose the interface(s) you need:

- RS-232/V.24
- V.35
- 56K CSU
- 64K CSU
- ISDN-U
- ISDN-S/T

The Series 5100 Routers are easy to configure and install, and you'll see your data traffic moving in no time at all—with some models supporting data rates up to 2.048 mbps on each WAN port.

Each Router can filter up to 14,000 packets per second. And, to get the best data throughput, each Router features software compression (for link speeds up to 256 kbps) that can enhance performance *up to 600%*.

The Routers route IP and Novell IPX™ network protocols, and they bridge all other network protocols, including PPP-MP over leased lines or ISDN.

You get Frame Relay with the Series 500 Routers, too. They support not only as many as 40 DCLIs, but also RFC 1490, so you can rest assured that the Router will work with other compliant products, no matter which vendor manufactured them.

You'll also appreciate the powerful network-management capabilities of each Router: They can each be managed out-of-band with a console or in-band with SNMP or Telnet™.

Because the Series 5100 Routers have Flash memory and DRAM, you can easily upgrade their firmware to keep pace with new standards and technologies.

The Router's filtering is programmable, so you can block the transfer of packets (to reduce the bandwidth necessary for image processing, for example). Also, using the router's Bandwidth on Demand feature, you can "dial up" the bandwidth you need for a precise function.
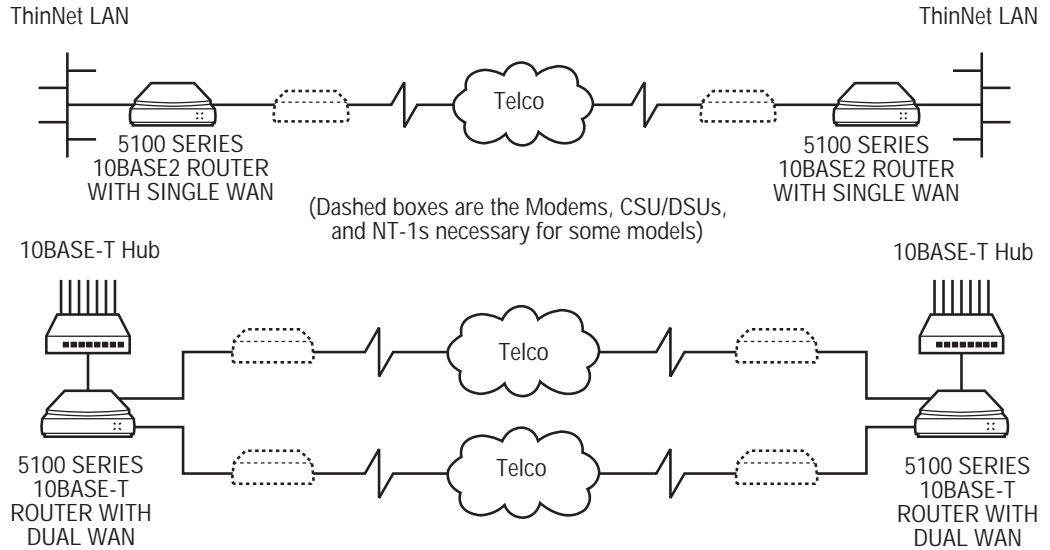
All of the Series 5100 Routers have many other useful features, including a NetSAFE Firewall, a BootP Relay Agent, and support for NAT, NAPT, reverse NAPT, and DHCP. And each model supports a full suite of features for its particular WAN interface(s) as well.

Typical Application

Route 10BASE-T traffic between your two main sites using PPP and Frame Relay—with a single ISDN B channel always available as a backup.

1

Link your LANs across any flavor of WAN...

ThinNet LAN — 5100 SERIES 10BASE2 ROUTER WITH SINGLE WAN — Telco — 5100 SERIES 10BASE2 ROUTER WITH SINGLE WAN — ThinNet LAN

(Dashed boxes are the Modems, CSU/DSUs, and NT-1s necessary for some models)

...or go for two while you're at it. (The dual WANs don't have to have the same endpoints, but if they do, you have a backup link.)

10BASE-T Hub — 5100 SERIES 10BASE-T ROUTER WITH DUAL WAN — Telco — Telco — 5100 SERIES 10BASE-T ROUTER WITH DUAL WAN — 10BASE-T Hub

Specifications

Compliance —
FCC Part 15 Subpart J Class A; CE

Standard — IEEE 802.3 Ethernet

Interfaces —
LAN:
Models with "-B" in their product codes: 10BASE2;
Models with "-T" in their product codes: 10BASE-T;
WAN:
Models with "24" in their product codes: EIA/TIA RS-232, ITU-T V.24;
Models with "35" in their product codes: ITU-T V.35;
Models with "56K" or "64K" in their product codes: Modular telco;
Models with "ST" in their product codes: ISDN S/T;
Models with "U" in their product codes: ISDN U

Protocols —
LAN: IP, IPX™;
WAN: PPP-MP, Frame Relay

Filtering — Up to 14,000 packets per second

Data Rate —
LAN: 10 mbps;
WAN:
Each RS-232 port:
Up to 2.048 mbps (for short runs only!);
Each V.35 port:
56K CSU ports: 56 kbps;
64K CSU ports: 64 kbps;
True V.35 ports:
Up to 2.048 mbps;
Each ISDN S/T or U port: 128 kbps

Data Compression — Stac® LZS (increases throughput by 600%) at raw data rates up to 256 kbps

Network Management — SNMP, in-band management (Telnet), out-of-band management (built-in console)

Internet Security — Included NetSAFE Firewall

Processor — 25-MHz 68EN360

Memory — 2 MB Flash ROM, 8 MB DRAM

Indicators —
(4) Front-mounted LEDs: Power, LAN, Link One (WAN1), Link Two (WAN2)

Connectors —
All rear-mounted;
LAN:
Models with "-B" in their product codes:
(1) RJ-45 female;
Models with "-T" in their product codes:
(1) BNC female;
WAN:
For each "24" in models' product codes:
(1) DB25 female;
For each "35" in models' product codes:
(1) M/34 female;
For each "56K," "64K," "ST," or "U" in models' product codes:
(1) RJ-45 female

Power — 80 to 240 VAC, 50 to 60 Hz (autosensing)

Size — 2"H x 10"W x 14.5"D (5 x 25 x 28 cm)

Weight — 11 lb. (4.9 kg)

Fido Protection™ — Lifetime

Ordering Information

PRODUCT NAME			PRODUCT CODE
5100 Series Routers:			
LAN	*WAN1*	*WAN2*	
10BASE-T	V.24	None	LR5100A-T-24
		V.24	LR5100A-T-24/24
		V.35	LR5100A-T-24/35
		ISDN ST	LR5100A-T-24/ST
		ISDN U	LR5100A-T-24/U
	V.35	None	LR5100A-T-35
		V.35	LR5100A-T-35/35
		ISDN ST	LR5100A-T-35/ST
		ISDN U	LR5100A-T-35/U
	56K CSU	None	LR5100A-T-56K
		56K CSU	LR5100A-T-56K/56K
	64K CSU	None	LR5100A-T-64K
		64K CSU	LR5100A-T-64K/64K
10BASE2	V.24	None	LR5100A-B-24
		V.24	LR5100A-B-24/24
		V.35	LR5100A-B-24/35
		ISDN ST	LR5100A-B-24/ST
		ISDN U	LR5100A-B-24/U
	V.35	None	LR5100A-B-35
		V.35	LR5100A-B-35/35
		ISDN ST	LR5100A-B-35/ST
		ISDN U	LR5100A-B-35/U
	56K CSU	None	LR5100A-B-56K
		56K CSU	LR5100A-B-56K/56K
	64K CSU	None	LR5100A-B-64K
		64K CSU	LR5100A-B-64K/64K