



# BLACK BOX<sup>®</sup>

## NETWORK SERVICES

### Express 6503

#### Key Features

- ▶ High-speed SHDSL WAN interface
- ▶ Symmetrical data rates from 192Kbps to 2.304 Mbps
- ▶ Distances up to 25,000 feet over a single pair of 26 gauge copper
- ▶ V.35 and X.21 synchronous serial interfaces
- ▶ Supports FRF.5 Frame Relay PVC to ATM network interworking
- ▶ Supports FRF.8 Frame Relay PVC to ATM service interworking
- ▶ Quick, easy installation with menu-driven interface
- ▶ Supports management over SHDSL EOC
- ▶ Standard 5-year warranty

SHDSL is the newest DSL technology targeted at the small- to medium-sized business market. Approval of the standard by the ITU-T in early February 2001 cleared the way for service providers worldwide to deploy the technology, which combines the spectral, reach, and interoperability benefits of ANSI HDSL2 and ETSI SDSL. With the Express 6503, carriers can offer enterprise customers a unique customer premise solution for using existing Frame Relay routers while taking advantage of the benefits offered by SHDSL transport. SHDSL delivers symmetric data rates up to 2.3Mbps over a single copper pair at up to 30 percent greater distances and at 35 to 45 percent higher data rates than 2B1Q-based SDSL, and its rate adaptive. Its TC-PAM modulation technique ensures spectral compatibility with other DSLs deployed in the same binder group.

The Express 6503 is a cost-effective SHDSL data service unit targeted for small and branch offices. This device provides access to high-speed networks over an SHDSL network interface. By extending Frame Relay over a low-cost DSL access line, a Frame Relay service provider can save on monthly costs,

quickly leading to a huge annual savings. By taking advantage of the cost savings of DSL, the Express 6503 enables carriers to provide a cost-effective migration path using ATM and Frame Relay over SHDSL, without replacing existing business class routers. Operational savings and the preservation of the customer's investment allows carriers and their enterprise customers to take advantage of next-generation packet-based applications such as ATM. An integral V.35 or X.21 data port provides a serial interface to existing customer equipment.

The Express 6503 provides small offices and branch offices with fast, affordable, and easy-to-use access to the Internet and corporate network. The Express 6503 serial SHDSL DSU allows DSL services and applications to be available to the office router or to the desktop. It supports an integrated SHDSL WAN interface and a serial interface to the router that supports symmetric speeds of up to 2.304Mbps.

## Specifications

### SHDSL Network Interface —

- Line Rate: 200Kbps to 2.312Mbps
- Line Code: TC-PAM
- Line Interface: RJ-45
- ITU-T G.991.2
- Rate Adaption: G.handshake – G.hs (ITU-T G.994.1)

### V.35 Interface —

- Physical Interface: M34 female connector
- Data Rates: 192Kbps to 2.304Mbps
- Synchronous

### X.21 Interface —

- Physical Interface: DB-15 female connector
- Data Rates: 192Kbps to 2.304Mbps
- Synchronous

### ATM —

- ATM Forum UNI 3.1
- ITU-T1.432
- AAL-5

### Data Modes —

- Frame Relay Forum FRF.5
- Frame Relay Forum FRF.8
- Clear channel

### Diagnostics —

- DTE loopback
- Network loopback

### Management —

- VT100 Terminal Interface: DB-9 interface, EIA-232

### LED's —

- Power
- Network
- Alarm
- Test
- Transmit data
- Receive data
- Request to send
- Clear to send

### Agency Approvals —

- Emissions: Part 15 Class A
- Safety: UL 1950, CUL
- CE Mark

### Environment

**Operating** — 0° to 50°C

**Storage** — -20° to 70°C

**Relative Humidity** — Up to 95%, noncondensing

### Physical

**Dimensions** — 1.5" H x 9" W x 6.25" D

**Weight** — 1.5 lbs

**Power** — 110/240, 50/60 Hz VAC

## Black Box Network Services - The world's largest network services company

We are, with 25 years of experience, the world leader in network infrastructure services.

**On the Phone** — no charge, answer calls in less than 20 seconds, find the right product with our technical experts.

**On-site** — superior design and engineering, Certified installations, end-to-end service.

**On-line** — receive technical knowledge on-line, including technology overviews, BLACK BOX Explains and the Knowledge Box.

**Most comprehensive TECHNICAL SUPPORT** — our best Product! Free hotline TECH SUPPORT!

**The world's best customer service** — Custom design services and products, the best warranties, money-saving discount programs.

**BLACK BOX exclusives** — Certification Plus. Guaranteed-for-life products and services.

## Complete Package

- Express 6503
- User manual on CD
- 3 ft. RJ-45 to RJ-11 cable

## Ordering information

**ITEM**

**CODE**

Express 6503 with Euro-Cable .....MDS-6503