



# BLACK BOX<sup>®</sup>

## NETWORK SERVICES

# G.SHDSL Multilink Access-Concentrator and -Aggregator



## Key Features

- ▶ 2 products in 1; Concentrator and Aggregator
- ▶ G.shdsl and ATM's IMA Standard compliant
- ▶ Speeds up to 16Mbps
- ▶ Local and Remote Administration & Firmware Upgrade
- ▶ Point to Point and Star connection

## Major Applications

- ▶ High-Speed LAN-to-LAN Connectivity (LAN Extension)
- ▶ Concentrator serving up to 8 G.shdsl CPEs
- ▶ Internet/Intranet access
- ▶ High-Speed Campus Connectivity
- ▶ Applications requiring high-speed access at extended reach

The BLACK BOX MDS2218AE is a G.shdsl multi-link access Concentrator and Aggregator. The MDS2218AE can be used as a concentrator to serve up to eight remote 2.3 Mbps, up to four remote 4.6Mbps, and up to two remote 9.2 Mbps G.shdsl access devices for a total of 18.4 Mbps of combined throughput. In addition, the MDS2218AE aggregates up to eight copper pairs to deliver up to 16 Mbps of scalable transparent LAN service where fiber is not available.

In areas requiring high speed service not reachable by traditional DSL based CPE, the Black Box MDS2218AE, with its multi-pair bonding capability can be used to extend the service coverage area.

Using up to eight G.shdsl circuits the MDS 2218AE provides end-to-end service, operating back-to-back or with any G.shdsl, ATM based, digital subscriber line access multiplexer (DSLAM). The MDS2218AE scales as network and bandwidth needs expand. Once installed, aggregate data speeds may be provisioned from 64Kbps up to 16 Mbps over the network without the need for additional expensive truck rolls. The result is reduced capital costs and operating expenses through device consolidation.

MDS2218AE is an ideal solution for delivery of Transparent LAN Service over copper pairs where fiber facilities are nonexistent or cost prohibitive.

With integrated eight G.shdsl ports, MDS2218AE can be used as a concentrator to serve up to eight 2.3 G.HDSL (or equivalent CPE), up to four MDS2205AE operating at 4.6 Mbps, or up to two MDS2210AE operating at 9.2 Mbps.

Based on the worldwide G.shdsl standard (ITU G.991.2), MDS2218AE provides businesses such advantages as unrivaled rate and reach, excellent tolerance to noise, and robustness from physical link diversity. These advantages enable service providers to provide increased end user satisfaction at low system cost.

## Specifications

### SHDSL Features —

- ITU-T G.shdsl (G.991.2)
- Signal Format TC-PAM
- Data Rate 64Kbps ~ 18.4 Mbps
- Connector RJ-45
- Impedance 135 ohms
- Wetting Current

### ATM Features —

- RFC1483 Encapsulation (IP, Bridging)
- Classical IP (RFC1577)
- Supports 18 PVCs
- Traffic shaping : UBR, CBR, VBR-nrt
- Priority based QoS queuing
- Multi-line bonding with ATM Forum's IMA (af-phy-0086.001) standard

### LAN Features —

- 802.1d compliant
- VLAN passthrough support

### Management Features —

- Local and Remote Management
- Console port for local management
- Telnet configuration
- Command Line Interface scripting
- Firmware upload/download via FTP or TFTP
- Alarm Status and Power Indicators
- OAM (I.610) support
- Event logging

### Physical Interfaces —

- One 10/100BaseT Ethernet port
- Eight G.shdsl ports (RJ-45)
- Console port
- WAN/LAN Status & Power and Ethernet
- LED indicators

### Physical Specifications —

- Dimensions: 43.7 x 439.4 x 304.8mm
- Weight: 2.72Kg (6 lbs)

### Power Specifications —

- AC Power: auto ranging 90-250 VAC, 50-60 Hz, IEC connector
- Power Consumption: 35 watts

### Operating Environment —

- Operating Temperature 0° to 40 °C
- Storage Temperature 0° to 70 °C
- Humidity 5% to 90% RH non-condensing

### Minimum System Requirements —

- Any computer with an Ethernet 10BASE-T Interface
- Any operating system that supports an Ethernet connection with an IP stack

### Regulatory Approvals —

- UL 1950
- FCC Part 15 class A
- FCC Part 68
- CS 03 Issue 8 Industry Canada
- CSA 950/US
- CE Mark

## Ordering information

### ITEM

### CODE

G:SHDSL multilink Access-Concentrator / -Aggregator . . . .MDS2218AE

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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.

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