

Stinger® MRT-36H DSL Access Concentrator



Using SHDSL technology, this micro-remote terminal (MRT) allows you to deliver business-class broadband services cost effectively to the widest range of subscribers. The Stinger® MRT-36H offers a highly compact design with a built-in ATM switch, an environmentally hardened chassis, simple installation and uncomplicated integration into existing DSL installations. As a result, it's easy to deploy in any indoor or outdoor location. So you have the ATM power, QoS and traffic management capabilities needed to extend high-value broadband services to underserved communities—and generate increased revenues.

Applications

- Business-class data services that benefit from symmetric high-speed transport
- Fast Internet access, telecommuting and leased line replacements for SOHOs and small to medium-sized businesses
- Existing outdoor plant solutions in any region, as well as in-building installations like hotels and Multi-Dwelling Units
- Facilities with limited space or conservative budgets

Features

- **Compact design with high port density**—Supports up to 36 SHDSL ports in a 19-inch by 1RU unit
- **Symmetric transport speeds**—Provides high-speed data transport upstream, as well as downstream—at rates up to 2320 Kbps
- **Built-in high-performance ATM switching**—Delivers the power required for advanced broadband services
- **OC3c/STM-1, DS3 and T1/E1 IMA uplinks**—Allows easy integration into existing networks

- **ATM Quality of Service**—Provides the performance and reliability you need to offer high-value services, backed by SLAs
- **Broad service support**—Enables a full spectrum of carrier-class data and multimedia services to meet subscriber demand
- **Environmentally hardened**—Operates in any outdoor or indoor facility where temperatures range from -40C degrees to 65C degrees
- **Flexible deployment**—Allows simple installation in either 19- or 23-inch racks, using mounting brackets
- **Optional pre-packaged electronic enclosures**—Satisfies rigorous standards and challenging environmental conditions
- **Lucent's Navis® management system**—Simplifies network management, maintenance and service provisioning
- **Lucent's CellPipe® DSL modems**—Offer an ideal, cost-effective CPE solution with integrated bridge and routing capabilities

Benefits

- **Expanded service area**—Easy deployment makes it easier to reach underserved subscribers
- **Lower implementation costs**—With its high-density, flexible design, the Stinger® MRT-36H reduces the expense of adding new services and subscribers
- **Enhanced profitability**—Generate additional revenues by extending high-value broadband services to a wider customer base
- **Competitive edge**—Take advantage of high-speed symmetric DSL, along with ATM reliability, to offer advanced broadband services to your business customers
- **Economical service delivery**—Compact size, low per-port pricing and simple installation help you reach previously cost-prohibitive markets
- **Seamless upgrade**—You can add new capabilities easily to support emerging broadband applications
- **Easy expansion**—As your subscriber base increases, simply cascade other Stinger® MRT products like the Stinger® MRT-48A



Technical Specifications

1. Electrical Specifications

Power requirements:

Power consumption:
48 VDC @140 Watts

Inrush: All modules have inrush limiting circuits

DC power source fuse: 5A

2. Physical Specifications

Overall chassis size: 1.75 in (4.4 cm or 1U) high x 17.4 in (44.2 cm) wide x 9.45 in (24.0 cm) deep

Fits in 19 in. rack, supports ETSI requirements

Unit Weight: 11 lbs (5 kg) maximum
Standard EIA, ETSI and 23" mounting

Rack brackets included; optional brackets for vertical mounting or wall mounting available

3. Card slot

One for trunk module

4. Trunk Physical Interfaces

Dual-port OC3c/STM-1 single mode optical SC connector; Dual-port DS3 coaxial (BNC connectors as per ANSI T1.404); Four- or eight-port T1/E1 RJ48 jack

5. Line Interfaces

Two 50-pin RJ21 connectors for up to 36 SHDSL subscriber lines. First connector provides access to 24 SHDSL lines. Second connector provides access to the remaining 12 SHDSL lines.

6. Other Hardware Interfaces

Two STS-3 electrical cascading interfaces; 10BaseT Ethernet interface; DB9 RS232 console port interface; DB15 interface for 2 alarm outputs and 4 alarm relay inputs (1 alarm relay input is dedicated for detection of loss of AC power); Two pin BITS connector

7. Status Indicators

Port Status – One 7 segment display with 10 LEDs; Two alarm indicator LEDs; Ethernet Line Link and Activity Indicators; Trunk status – On and Activity Indicators

8. Operating Environment

Operating temperature:
-40°C to 65°C (-40°F to 149°F)

Relative humidity:
10% – 95% (non-condensing)

Operating altitude:
up to 13,123 ft (4,000 m)

9. Protocol Specifications

ATM Forum UNI (v.3.0 and v.3.1); ATM Forum Traffic Management v.4.0

10. Certification

NEBS 1-3; Telcordia GR-63-CORE; Telcordia GR-1089-CORE

11. Electromagnetic Compatibility

FCC Part 15 Class A; EN55022 Class A; AS/NZS3548 Class A; VCCI Class A; CISPR 22 Class A; EN 300386-2; CE/RTTE

12. Safety

UL 1950; CSA 22.2-950; EN/IEC 60950; CB-Scheme

13. SHDSL Interface Standards

ITU G.991.2 (G.shdsl); Annex A (typical North America) and Annex B (typ. Europe) ETSI TS 101 524; ITU G.994.1 (G.hs); ITU G.997.1 (physical layer management)

14. SHDSL Performance

Multi-rate up to 2320 Kbps symmetric bandwidth in 2-wire operation.

Multi-rate up to 4.640 Mbps symmetric bandwidth in 4-wire operation.

15. OC3c/STM-1 Interface Standards

ITU G.957; ITU G.709 (optical); ATM Forum UNI v3.0 and v3.1; ANSI T1M1.3/92-005R1; Telcordia TR-NWT-001112; Telcordia GR-253-CORE; RFC SONET 1595

16. Optical Specifications

155.52 Mbps per port

Single mode laser optics

Nominal wavelength: 1310 nm

Standard reach: 15km maximum

Transmit power: -8 dBm maximum, -15 dBm minimum

Receive sensitivity: -31 dBm maximum, as per ITU-T recommendation G.958

17. DS3 Interface Standards

DS3 operates @ 44.736 Mbps per port; DS3 ports support C-bit/M-framing; PLCP per TR-TSY-000773 and direct cell mapping per G.804; ANSI T1E1.1/94-002R1; T1.107; T1.107a; T1.403; Telcordia TR-NWT-000821; ITU G.804; RFC 1407; TR54014 (AT&T ACCUNET T45 and T45R)

18. T1/E1 Interface Standards

ANSI T1.408 Issue 1; T1E1.4/99-006R6; ITU I.432; ITU G.703; ITU G.704; ITU G.804; ATM Forum IMA v1.0 and v1.1; ATM Forum UNI v3.0 and v3.1; ATM Forum IMA MIB; RFC 1406 MIB

19. T1/E1 Performance

1.544 Mbps full duplex per T1 port, Up to 12.352 Mbps for T1 IMA; 2.048 Mbps full duplex per E1 port, Up to 16.384 Mbps for E1 IMA; 20.T1/E1 Transmission Output impedance: T1 – 100 ohms, E1 – 120 ohms; Line build out: T1 – 0 to 22.5 db; Receive sensitivity: T1 – 0 to 36 db, E1 – 0 to 43 db

20. Model Numbers

MRT19-SL-36: Stinger® MRT 19" complete chassis model with 36 SHDSL ports

MRT19-AD-48: Stinger® MRT 19" complete chassis model with 48 ADSL ports and no splitters

MRT-AD-36S: Stinger® MRT 23" complete chassis model with 36 ADSL ports and integrated splitters

*MRT-AD-36S-4T1: Complete chassis model with 4-T1 ports

*MRT-AD-36S-8T1: Complete chassis model with 8-T1 ports

*MRT-AD-36S-4E1: Complete chassis model with 4-E1 ports

*MRT-AD-36S-8E1: Complete chassis model with 8-E1 ports

MRT-AD-36S-2OC3: Complete chassis model with 2-OC-3c ports

MRT-AD-36S-2DS3: Complete chassis model with 2-DS3 ports

*IMA models also available.

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