



NetVanta Series Option Modules

Network Interface Modules (NIMs) and Dial Backup Modules (DIMs)

Product Features

- Modular Network Interface Module (NIM) offering flexibility
- Modular Dial Backup Interface Module (DIM) guaranteeing bandwidth
- Built-in DSU/CSU for circuit protection
- Comprehensive PPP dial backup scheme prevents network downtime
- Supports the feature-rich ADTRAN Operating System (OS)
- Industry-leading five-year North American warranty

The NetVanta® Series of internetworking products are designed for cost-effective Internet access, corporate Frame Relay, point-to-point connectivity, and Virtual Private Networking (VPN). Available in desktop and rackmount configurations, these modular platforms offer a complete turnkey solution for IP access routing and WAN connectivity.

Modular Platforms: A single NIM slot within any of the NetVanta 1000, 3000, and 4000 Series will house both a Network Interface Module (NIM) and a Dial Backup Interface Module (DIM) together. The NIM is a *plug-in* module that offers a built-in DSU/CSU for 56/64k, T1/FT1, T1/FT1 with DSX-1, Dual T1, ADSL, or Serial interfaces. The DIM is a *plug-on* module to the NIM, which prevents downtime by dialing around a failed primary circuit, guaranteeing bandwidth for mission critical applications. An Analog Modem or an ISDN BRI DIM is available and supports dial backup to any PPP compliant device.

56/64k NIM: The 56/64k NIM offers a WAN interface for a single 56k or 64k Digital Data Service (DDS) network.

T1/FT1 NIM: Terminates a full T1 or a fractional T1 for Frame Relay or PPP networks. A NEBS Level III version is also available.

T1/FT1 with DSX-1 NIM: This NIM not only supports a full T1 or fractional T1 interface, but it also supports an additional DSX-1 interface. This DSX-1 interface is to drop-off voice traffic to a PBX.

Dual T1 NIM: A single module that terminates two individual T1s/FT1s or two T1s that are aggregated together.

ADSL NIM: The ADSL NIM allows branch office IP routing applications over PPP or ATM networks. Supporting ADSL (Annex A and Annex B), as well as ADSL2 and ADSL2+ at rates up to 25 Mbps.

Serial NIM: The Serial NIM can be set by the user to support a V.35 or X.21 (V.11) interface for synchronous operations up to 10 Mbps.

Analog Modem DIM: The Analog Modem DIM is used primarily for dial backup, supporting data rates up to 33.6 kbps, but it can also be used for dial-in access allowing for remote configuration and management.

ISDN BRI DIM: The ISDN BRI DIM also provides dial backup access to the public switched telephone network (PSTN) via ISDN BRI interfaces at rates of 64 kbps.

For easy upgrades, all these modules are field upgradable and can be configured remotely eliminating the need for remote technical expertise.

ADTRAN®, the leader in WAN connectivity, offers proven and dependable equipment that will increase your network performance, lower costs and migrate to next generation technologies. The NetVanta Series is no exception. With this kind of corporate backing and product versatility, the NetVanta Series offers a low-cost, feature-rich access router platform with the freedom for future expansion and network growth. In addition, these products are backed by an industry-leading five-year North American warranty and world-class 24-hour technical support from ADTRAN.



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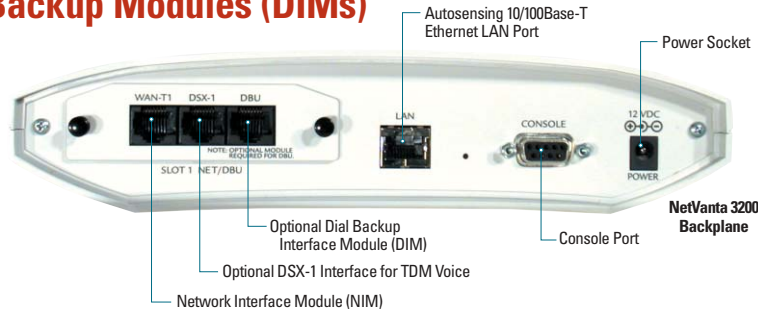


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61200862L1-8G 9.1 May 2005
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Network Interface Modules (NIM): Plug-in

DDS 56/64K Network Interface Module

- Connector: RJ-48C
- Data Rates: 56k, 64k and Auto
- 4-wire, full duplex
- -45dB receiver sensitivity all rates
- Timing derived from WAN or internal

T1/FT1 Network Interface Module

- Connector: RJ-48C
- T1 Line Rate: 1.544 Mbps
- FT1 Line Rate: DS0 Channelized (multiple of 64K)
- Line Code: AMI or B8ZS
- Framing: D4 (SF) or ESF
- Input Signal: 0 to -36 dB (DS-1)
- Line-Build-Out: 0, 7.5, 15, 22.5 dB, Auto
- Timing derived from WAN or internal

T1/FT1 + DSX-1 Network Interface Module

T1/FT1 Interface (Same T1/FT1 Specifications above)

DSX-1 Interface

- DSX-1 Connector: RJ-48C
- Line Interface: DSX-1 per ANSI T1.102
- Line Rate: 1.544 Mbps
- Capacity: 1-24 DS0s
- DS0 Assignment: Programmable
- Robbed Bit Signaling
- Line Codes: AMI, B8ZS
- Line Length: -7.5 dB to 655 ft in 110 ft steps
- Timing derived from WAN, internal or DSX-1

Dual T1 Network Interface Module

- Connector: Two RJ-48C
- T1 Line Rate: 1.544 Mbps
- FT1 Line Rate: DS0 Channelized (multiple of 64k)
- Line Code: AMI or B8ZS
- Framing: D4 (SF) or ESF
- Input Signal: 0 to -36 dB (DS-1)
- Line-Build-Out: 0, 7.5, 15, 22.5 dB, Auto
- Timing derived from WAN or internal

ADSL Network Interface Module

- Annex A and Annex B versions available
- Supports ADSL, ADSL2, and ADSL2+
- Downstream Data Rates: 64 kbps to 25 Mbps
- Upstream Data Rates: 64 kbps to 2 Mbps
- DMT Line Code
- Connector: RJ-11

Serial Interface Module

- Connector: 26-Pin Smart Serial
- V.35 or X.21 (V.11) Interface
- CTS, DCD, DSR, LL Options are Normal or Forced
- Up to 10 Mbps
- Timing derived from Serial or internal

Dial Backup Interface Modules (DIM): Plug-on

Analog Dial Backup Interface Module

- Connector: RJ-45
- 300 bps to 33.6 kbps

ISDN BRI Dial Backup Interface Module

- Connector: RJ-45 U-Interface
- Network support for 64 kbps (1B Channel)
- D Channel switch compatibility with AT&T 5ESS, Northern Telecom DMS-100, and National ISDN-1

Agency Approvals

- FCC Part 15, Class A
- FCC Part 68
- Industry Canada CS03
- UL and CUL

Environmental

- Operating Temperature: 0° to 50° C
- Storage Temperature: -40° to 85° C
- Relative Humidity: Up to 95% non-condensing

Physical

- NIM Dimensions: 4.25" x 2.75"
- DIM Dimensions: 3.75" x 2.5"

Ordering Information

Equipment	Part #
NetVanta 56/64k NIM	1200861L1
NetVanta T1/FT1 NIM	1202862L1
NetVanta T1/FT1 NIM (NEBS III)	1200862L2#NEBS
NetVanta T1/FT1 + DSX-1 NIM	1202863L1
NetVanta Dual T1 NIM	1200872L1
NetVanta ADSL NIM (Annex A)	1200869L1
NetVanta ADSL NIM (Annex B)	1200889L1
NetVanta Serial NIM	1200866L1
NetVanta Analog Modem DIM	1200864L1
NetVanta ISDN BRI "U" DIM	1200865L1
NetVanta ISDN BRI "S/T" DIM	1200875L1

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