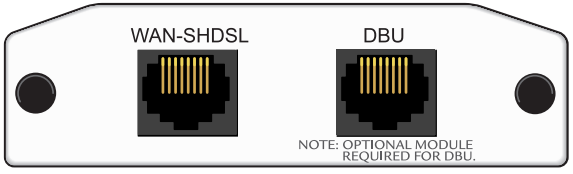
ADTRAN®
Quick Start Guide

NetVanta SHDSL Network Interface Module (NIM) P/N 1200867L1



SPECIFICATIONS

Operating Modes	Line termination (CO), network termination (CPE)
SHDSL Interface	Supported Standards: ITU-T G.991.2 SHDSL Line Rate: 200 to 2312 kbps in 64k increments Line Code: TC-PAM Connector: RJ-45
Clock Source	CO Operating Mode: Internal CPE Operating Mode: Network
Diagnostics	Test Pattern Generation and Detection: 2^{15} - 1 Network loopbacks (local and remote) Alarm generation and detection Programmable alarm threshold settings for loop attenuation and signal-to-noise ratio margin
Compliance	FCC Part 15 Class A, EN 55022 Class A, EN 55024, EN 61000-3-2, EN 61000-3-3 AS/ACIF S043 EN 60950, AS/NZS 60950
Physical	Dimensions: 2.75-inch W x 4.25-inch D Operating Temperature: 0°C to 50°C Storage Temperature: -20°C to 70°C Relative Humidity: Up to 95 percent, noncondensing

INSTALLATION INSTRUCTIONS

1. Remove power from the base unit.
2. Slide the option module into the option slot until the module is firmly seated against the chassis.
3. Secure the pins at both edges of the module.
4. Connect the cables to the associated device(s).
5. Complete installation of the base unit.
6. Restore power to the base unit.

CAUTION

NetVanta modules should be installed only in NetVanta Series products.

WAN-SHDSL NETWORK (RJ-45) PINOUTS

Pin	Name	Description
1-3	—	Unused
4	T	Network - Tip
5	R	Network - Ring
6-8	—	Unused

NOTE

An optional Dial Backup Interface Module (DIM) is required for dial backup applications.
For a description of the DBU pinouts, refer to the Quick Start Guide included with your DIM shipment.

NOTE

***Important:** For additional details on product features, specifications, installation, and safety, refer to the appropriate Hardware Installation Guide on the **ADTRAN OS System Documentation** CD shipped with the base unit and available online at www.adtran.com.*

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SHDSL NIM COMMANDS

alarm-threshold [loop-attenuation | snr-margin]

Sets thresholds for specific alarm conditions. Use the **no** form of this command to disable threshold settings.

loop-attenuation <*value*>	Specifies a loop-attenuation threshold value from 1 to 127 dB. If signal energy loss on the loop exceeds the configured value, the router issues an alarm.
snr-margin <*value*>	Specifies a value for signal-to-noise ratio (SNR) margin from 1 to 15 dB. If the difference in amplitude between the baseband signal and the noise exceeds the configured value, the router issues an alarm.

boot alternate-image

Executes new code after a firmware upgrade.

equipment-type [co |cpe*]

Determines the operating mode for the SHDSL interface.

co	Use this option only in a campus environment when operating two SHDSL NIMs back-to-back. In this setup, configure the master NIM to **co** and the slave NIM to **cpe**.
cpe*	Use this option when interfacing directly with your service provider or when acting as the slave NIM in a campus environment.

inband-detection

Enables inband loopback pattern detection on the SHDSL interface. Use the **no** form of this command to disable **inband-detection**.

inband-protocol [pn127 | v54]

Designates the inband loopback pattern to send/detect on the SHDSL interface. Use the **no** form of this command to return to default.

pn127	Selects PN127 as the inband loopback pattern to send/detect.
v54	Selects V.54 as the inband loopback pattern to send/detect.

linerate <*value*>

Defines the line rate for the SHDSL interface (the value includes 8 kbps of framing overhead). This command is functional only in **co** operating mode (see the description for the **equipment-type** command). The default for this command is 2056 kbps. The first two selections listed (72 and 136 kbps) are not supported by this unit.

<*value*>	Specifies the line rate in kbps. Range: 200 to 2312 kbps in 64k increments.

SHDSL NIM COMMANDS (CONTINUED)

loopback network

Initiates a loopback test on the SHDSL network on the SHDSL interface, looping the data toward the network. Use the **no** form of this command to deactivate the loopback.

loopback remote

Sends a loopback request to the remote unit. This command is functional only in **co** operating mode (see the description for the **equipment-type** command). Use the **no** form of this command to send a loopdown code to the remote unit to deactivate the loopback.

loopback remote inband

Injects the selected inband loop-up pattern into the data stream to cause a loopback at the far end. Use the **no** form of this command to inject a loop-down pattern into the data stream to cause an existing inband loopback at the far end to cease.

outage-retrain

Causes the SHDSL interface to force the SHDSL retrain sequence (which takes the line down temporarily) if the interface detects more than ten consecutive errored seconds. A retrain is forced in hopes that the newly retrained line will perform better. Use the **no** version of the command to disable this feature.

test-pattern [clear | insert | p215]

Activates the built-in pattern generator and begins sending the selected test pattern toward the network. Can be used to verify a data path when used in conjunction with an active loopback. Use the **no** form of this command to cease pattern generation.

clear	Clears the test pattern error count.
insert	Inserts a single error into the currently active test pattern.
p215	Generates a pseudorandom test pattern sequence based on a 15-bit shift register.

***Indicates default values.**

