ADTRAN

Quick Start Guide

NetVanta 900 Series Octal FXO Module

P/N 1200792L1

SPECIFICATIONS

Signaling:	FXO (Foreign Exchange Office): Loop Start (LS), Ground Start (GS), DPT
Transmission Level:	Transmit Gain: -6 to +10 dB, 0.1 dB steps Receive Gain: -6 to +10 dB, 0.1 dB steps
Impedance:	600Ω +2.16 µF, 900Ω +2.16 µF
Port Tests:	1 kHz test tone (near-end, far-end selectable), Loop open, Loop closed, Ring ground, Loopbacks (analog, digital), Transmit signaling bits (0000, 0101, 1010, 1111)
Front Panel LED's:	Off: port is idle or disabled Green: port is offhook Blinking green: port is ringing Amber: port is in test
Environmental:	Operating Temperature: 0º C to 50º C Storage Temperature: -20º to 70º C Relative Humidity: Up to 95% non-condensing
Compliance:	UL 60950, Third Edition/CSA C22.2, No. 60950 FCC Part 15 Class A FCC Part 68 / ACTA Industry Canada CS-03

NOTE

This module is to be installed in NetVanta 900 Series products only.

INSTALLATION INSTRUCTIONS

1. Remove the locking bar from the NetVanta 900 Series chassis.
2. Remove blank panel from chassis if installed.
3. Slide the FXO Module into the access slot until the module is firmly positioned against the back of the chassis.

   Press firmly on the top and bottom of the faceplate to ensure a proper fit.
4. Replace the locking bar and secure with a screwdriver. The locking bar must be attached at all times.
5. Connect the cables to the associated device(s). Note that the connections for the voice ports are located on the side of the chassis.

FXO PINOUT

Two 50-pin female amphenol connectors provide the interconnect wiring for the analog trunk circuits (FXO ports).

Pair	50-Pin Amp Connector Slots 2-4	50-Pin Amp Connector Slots 5-7
1, 26	Slot 2/1 - Ring, Tip	Slot 5/1 - Ring, Tip
2, 27	Slot 2/2 - Ring, Tip	Slot 5/2 - Ring, Tip
3, 28	Slot 2/3 - Ring, Tip	Slot 5/3 - Ring, Tip
4, 29	Slot 2/4 - Ring, Tip	Slot 5/4 - Ring, Tip
5, 30	Slot 2/5 - Ring, Tip	Slot 5/5 - Ring, Tip
6, 31	Slot 2/6 - Ring, Tip	Slot 5/6 - Ring, Tip
7, 32	Slot 2/7 - Ring, Tip	Slot 5/7 - Ring, Tip
8, 33	Slot 2/8 - Ring, Tip	Slot 5/8 - Ring, Tip
9, 34	Slot 3/1 - Ring, Tip	Slot 6/1 - Ring, Tip
10, 35	Slot 3/2 - Ring, Tip	Slot 6/2 - Ring, Tip
11, 36	Slot 3/3 - Ring, Tip	Slot 6/3 - Ring, Tip
12, 37	Slot 3/4 - Ring, Tip	Slot 6/4 - Ring, Tip
13, 38	Slot 3/5 - Ring, Tip	Slot 6/5 - Ring, Tip
14, 39	Slot 3/6 - Ring, Tip	Slot 6/6 - Ring, Tip
15, 40	Slot 3/7 - Ring, Tip	Slot 6/7 - Ring, Tip
16, 41	Slot 3/8 - Ring, Tip	Slot 6/8 - Ring, Tip
17, 42	Slot 4/1 - Ring, Tip	Slot 7/1 - Ring, Tip
18, 43	Slot 4/2 - Ring, Tip	Slot 7/2 - Ring, Tip
19, 44	Slot 4/3 - Ring, Tip	Slot 7/3 - Ring, Tip
20, 45	Slot 4/4 - Ring, Tip	Slot 7/4 - Ring, Tip
21, 46	Slot 4/5 - Ring, Tip	Slot 7/5 - Ring, Tip
22, 47	Slot 4/6 - Ring, Tip	Slot 7/6 - Ring, Tip
23, 48	Slot 4/7 - Ring, Tip	Slot 7/7 - Ring, Tip
24, 49	Slot 4/8 - Ring, Tip	Slot 7/8 - Ring, Tip
25, 50	Reserved - Future	Reserved - Future

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COMMANDS

answer-supervision {**enable** | **disable***}

Configures answer supervision for the appropriate voice port(s). Answer supervision (when the far end answers the call) is indicated by using reverse battery polarity. Enabling this option will cause the FXO interface to interpret reverse battery polarity on the 2-wire interface as LSAS (Line Side Answer Supervision) and transmit the appropriate signaling bits on the T1. The LSAS signaling is defined as 0100 (for ESF) or 01/00 (for D4). The carrier must configure the network T1 for LSAS (if this is not a point-to-point T1).

impedance {**600c*** | **900c**}

Sets the AC impedance of the FXO interface.

Option	600c*	900c
Impedance	600Ω + 2.16 μF	900Ω + 2.16 μF

loopback {**analog** | **digital**}

Activates a loopback on the FXO Module. Selecting an **analog** loopback initiates a loop back toward the T1 network side of the connection after passing through analog filters in the voice codec. Selecting a **digital** loopback performs the same loopback before passing through analog filters in the voice codec.

rx-gain {**-6.0** to **10.0**} (configure in 0.1 dB increments)

Defines the receive gain characteristics on the FXO interface. Receive gain determines the amplification of the received signal before transmitting out the FXO interface.

signal {**loop-start*** | **ground-start** | **dpt**}

Configures the signaling mode for the FXO interface. **Loop-start** signaling bridges the tip and ring to indicate an off-hook (seizing the ling) condition. **Ground-start** signaling applies resistance to the tip conductor of the circuit to indicate an off-hook condition. DPT signaling is used when connecting the FXO interface to analog DPO ports on the customer premise equipment. The signaling mode must match the configuration of the network.

test loop {**open** | **closed**}

Provides manual control of the FXO interface's hook switch. Selecting the **closed** command will close the hook switch on the interface allowing DC current to flow. Selecting the **open** command will open the hook switch, preventing DC current flow through the interface. This is helpful when troubleshooting problems with the FXO equipment.

test tone {**near** | **far**}

Activates a 1 kHz test tone sent towards the FXO interface (**near**) or out the T1 network interface to the remote end (**far**).

test ring-ground

Forces the ring conductor to ground potential and provides battery on tip for detection of tip ground. This is helpful when troubleshooting problems with ground start circuits.

test signaling-bits {0000 | 0101 | 1010 | 1111}

Sends the specified signaling bits towards the T1. This is helpful when troubleshooting from the far end. Set the signal bits using this command, then view the status of the line from the remote equipment to verify that the proper signaling bits are received.

tx-gain {**-6.0** to **10.0**}

Defines the transmit gain characteristics on the FXO interface. Transmit gain determines the amplification of the received signal before transmitting from the FXO interface towards the network.

*** Indicates default values**