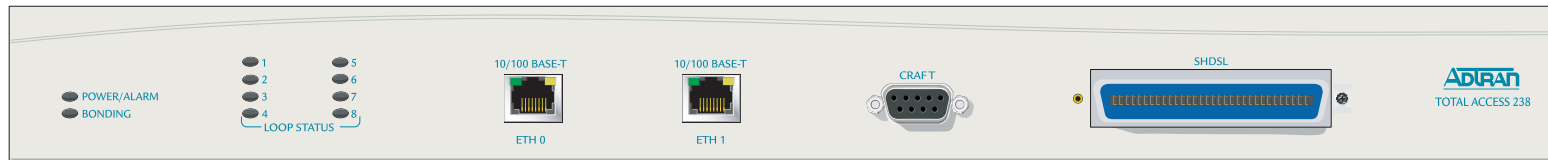


Total Access 238 Octal SHDSL Bridge

P/N: 1200630L1
CLEI: VAMF400A_



DESCRIPTION

The Total Access® 238 (P/N 1200630L1) is DC-powered, network terminating unit that uses enhanced Symmetric High-Bitrate Digital Subscriber Line (eSHDSL) technology to transport up to 5.696 Mbps of data per loop on up to eight copper loops. An AC version (P/N 1200630L2) is also available.

The Total Access 238 interfaces between the incoming IMA-bonded ITU G.991.2 (SHDSL) service and the customer 10/100Base-T network, for LAN-to-LAN bridging. It can be deployed in pairs (back-to-back) for a local campus application, or to a DSLAM Line Terminating Unit (LTU) located in a Central Office (CO) for traditional data service applications. The Total Access 238 can be locally or remotely provisioned. Local provisioning is accomplished through the V.28 craft interface (DB-9) using a dumb terminal or PC with terminal emulation software. Remote provisioning is accomplished using the Embedded Operations Channel (EOC) or the Command Line Interface (CLI), and can initiate and respond to local and remote loopbacks on the network interfaces.

INSTALLATION

After unpacking the unit, inspect it for damage. If damage is noted, file a claim with the carrier and then contact ADTRAN. For more information, refer to the warranty.

Mounting Options

The Total Access 238 is a 1U high, rack mountable unit which can be installed in either a 19-inch or 23-inch equipment rack, or in a wallmount configuration. Mounting Brackets and screws are provided with the unit. For complete mounting instructions, refer to the Installation and Maintenance Practice.

Cables Required

- ◆ Ethernet cable
- ◆ SHDSL connection (through the 50-pin amphenol)

Connections

The Total Access 238 is a locally powered standalone unit. It provides a single DC power connector, eight ITU G.991.2 (SHDSL) single-pair interfaces through a 50-pin amphenol connector, two IEEE 802.3 (10/100Base-T) interfaces through RJ-45 connectors, and one V.28 control port through a DB-9 connector.

Powering

Power to the Total Access 238 must be derived from a grounded -48 VDC nominal (-42 VDC to -54 VDC) power source. Power connection is made on the two-conductor terminal on the rear panel. The terminal is removable for easy access to the screws.

Grounding

CAUTION: *The grounding conductor must be of equal or greater size than the ungrounded branch-circuit supply conductor.*

FRONT PANEL LEDS

Front panel mounted LEDs provide status information for each SHDSL loop, IMA operation, and alarms. Ethernet activity LEDs, located on the Ethernet RJ-45 connectors, provide link status and traffic indications.

Label	Status	Description
POWER/ALARM	○ Off	Main power off
	● Green	No active alarm present on the system
	● Red	Active alarm present on the system
BONDING	● Green	IMA active and operating normally
	● Yellow	IMA interface in test
	● Red	IMA interface not active
LOOP STATUS	● Green	Loop trained
	★ Green Flashing	Loop training
	● Yellow	Loop in test
	● Red	Loop not trained
	○ Off	Loop not part of IMA group
ETHERNET ACTIVITY	○ Off	No data traffic being sent/received on the Ethernet interface
	★ Yellow	Data traffic is being sent or received on the Ethernet interface
ETHERNET LINK	○ Off	No active 10/100Base-T link
	● Green	Active 10/100Base-T link is present

OPERATION

The Total Access 238 management and provisioning features are accessible through a Command Line Interface (CLI) using the DB-9 interface, labeled **CRAFT**, on the front panel of the unit.

Connecting Through the CRAFT Interface

Connect to the craft interface using a VT100 dumb terminal or PC with VT100 emulation software configured with the following parameters:

- ◆ 9600 baud rate
- ◆ no parity
- ◆ no flow control
- ◆ 8 data bits
- ◆ 1 stop bit

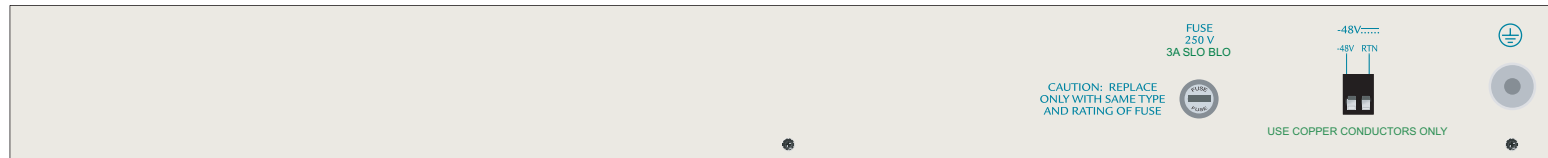
Once connected, press ENTER to access the CLI. At the login prompt, type in the default username (**admin**) and default password (**password**). A successful login displays the TA238# prompt.





Total Access 238 8-Port SHDSL (Annex A) Ethernet Bridge, DC-Powered

PRICING AND AVAILABILITY 800.827.0807
TECH SUPPORT 800.726.8663
RETURN FOR REPAIR 256.963.8722
www.adtran.com
61200630L1-22B



Setting up the Private Virtual Channels (PVC)

The command structure to provision PVCs is as follows. The keyboard input required is in bold.

```
TA238#config
TA238 (config) #interfaces ima
TA238 (config-ima) #pvc 0/32 (vpc/vci)
TA238 (config-ima-vc0/32) #encapsulation llc (or vc-mux)
TA238 (config-ima-vc0/32) #ubr+ (maximum cell rate) (minimum cell rate)
TA238 (config-ima-vc0/32) #management enabled (or disabled)
```

Setting up for Campus Application

To use two Total Access 238 units in a back-to-back campus application, configure one unit as an LTU. The command structure to reconfigure to LTU is as follows. The keyboard input required is in bold.

```
TA238#config
TA238 (config) #interfaces shdsl
TA238 (config-shdsl) #termination ltu
```

When ENTER is pressed, the system responds with the following prompt:

This change will cause a system reboot. Continue?[y/n]

Pressing Y will reboot the unit and reconfigure for LTU.

COMPLIANCE

For detailed compliance information, refer to the *Total Access 238 8-Port SHDSL (Annex A) Ethernet Bridge, DC-Powered Compliance Notice* (P/N 61200630L1-17).

CRAFT Port (DB-9) Pinout

Pin	Name	Description
1	DCD	Data Carrier Detect – Internally connected to DTR and DSR
2	RXD	Receive Data
3	TXD	Transmit Data
4	DTR	Data Terminal Ready – Internally connected to DCD and DSR
5	GND	Signal Ground
6	DSR	Data Set Ready – Internally connected to DCD and DTR
7	RTS	Ready To Send – Internally connected to CTS
8	CTS	Clear To Send – Internally connected to RTS
9	N/A	Unused

10/100Base-T Pinout

Pin	Name	Description
1	TX+	Transmit Data Positive
2	TX-	Transmit Data Negative
3	RX+	Receive Data Positive
4-5	N/A	Unused
6	RX-	Receive Data Negative
7-8	N/A	Unused

SHDSL 50-Pin Amphenol Connector Pinout

Pin	Name	Description
1	Tip1	Tip Loop 1
26	Ring1	Ring Loop 1
2	Tip2	Tip Loop 2
27	Ring2	Ring Loop 2
3	Tip3	Tip Loop 3
28	Ring3	Ring Loop 3
4	Tip4	Tip Loop 4
29	Ring4	Ring Loop 4
5	Tip5	Tip Loop 5
30	Ring5	Ring Loop 5
6	Tip6	Tip Loop 6
31	Ring6	Ring Loop 6
7	Tip7	Tip Loop 7
32	Ring7	Ring Loop 7
8	Tip8	Tip Loop 8
33	Ring8	Ring Loop 8
Other	N/A	Unused

Warranty: ADTRAN will replace or repair this product within the warranty period if it does not meet its published specifications or fails while in service. Warranty information can be found online at www.adtran.com/warranty.