



Getting Acquainted with the MAX

This chapter covers these topics:

[What is the MAX?](#)

[What items are included in your package?](#)

[Interfaces](#)

What is the MAX?

The MAX is a WAN access router designed for central site remote access applications. It has these main features:

- Supports digital WAN access for numerous WAN services

- Allows digital and analog modems to dial in over channelized T1/PRI and E1/PRI access lines

- Provides IP and IPX routing, bridging, and terminal server functions

- Aggregates multiple calls for Bandwidth-on-Demand

- Supports multiple security methods

- Has various management and control features

What items are included in your package?

The MAX package contents vary, depending on the base unit and expansion cards you order. This section helps you confirm the items in your package.

Checking the MAX base unit

Open the shipping package and make sure you have received the base MAX unit that you ordered. [Figure 1-1](#) displays the AC MAX base unit, [Figure 1-2](#) displays the AC Redundant MAX base unit and [Figure 1-3](#) displays the DC MAX base unit (with a DC power source).

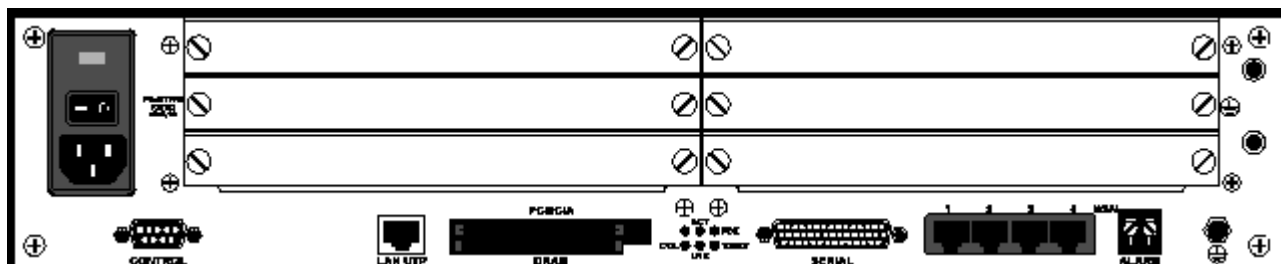


Figure 1-1. MAX base unit

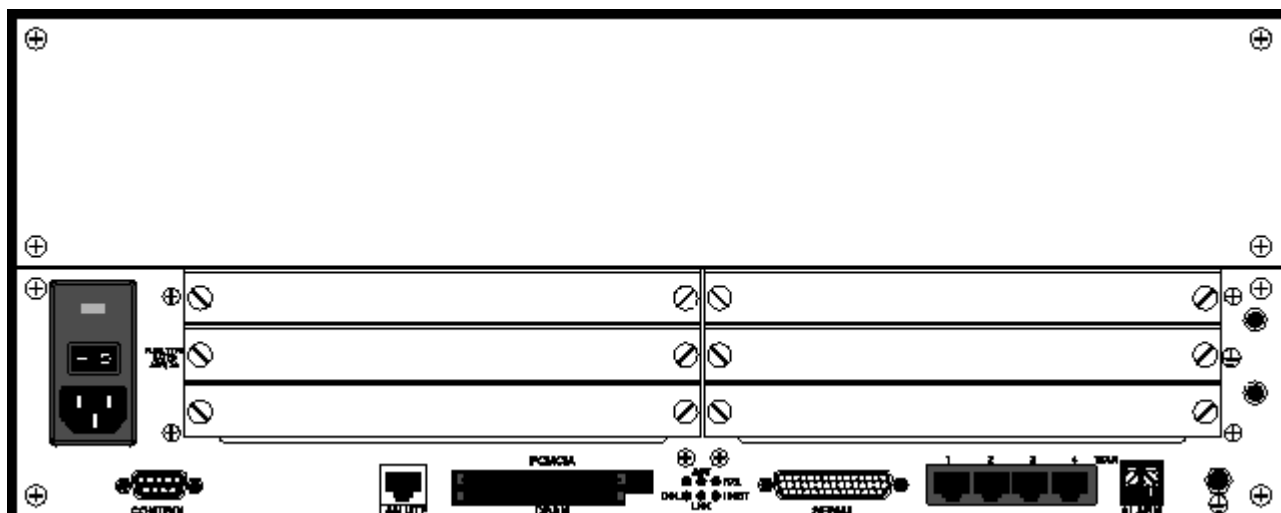


Figure 1-2. Redundant MAX base unit

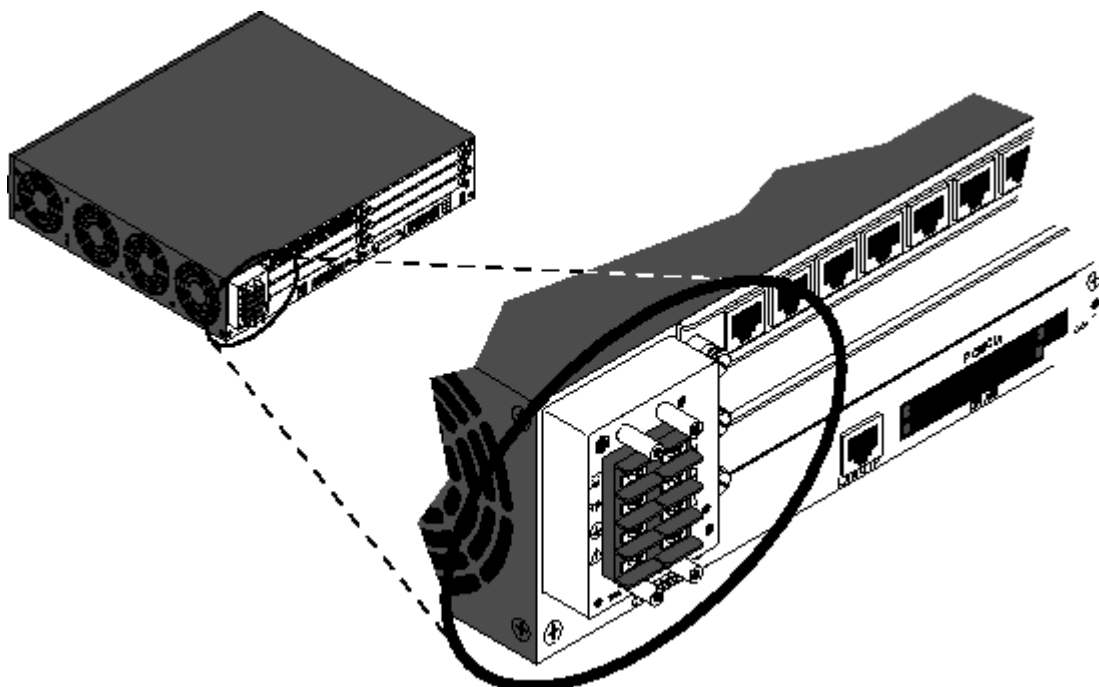


Figure 1-3. DC power source on the MAX 6000 and the Redundant MAX 6000

Checking other package contents

After you verify that you have received the right base unit, make sure your package contains these items:

A console cable (null-modem)

Two adapters

A power cable

A rack-mounting kit

Separately packaged expansion modules, if you ordered them separately

If you are missing any items, contact your MAX distributor.

Checking the expansion cards

The MAX can accommodate up to six expansion cards (also referred to as expansion modules or slot cards). Use this section to identify your expansion cards.

Digital modem card

The digital modem card provides eight, twelve, or sixteen V.34/V.42 digital modems. You can install a maximum of 72 digital modem in the MAX. See [Figure 1-4](#).

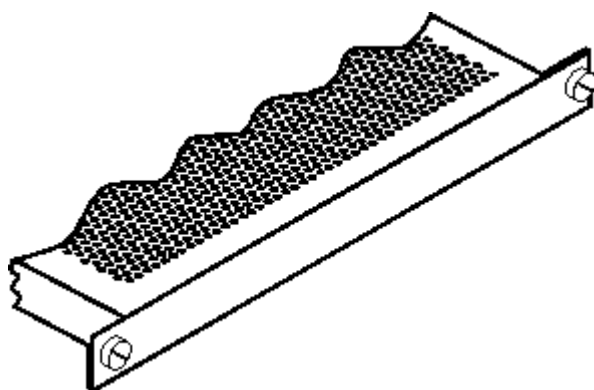


Figure 1-4. Digital modem card

Host/6 card

The Host/6 card, also known as the AIM/6 card, supports up to 32 online channels. You can install a maximum of two Host/6 cards in the MAX. See [Figure 1-5](#)

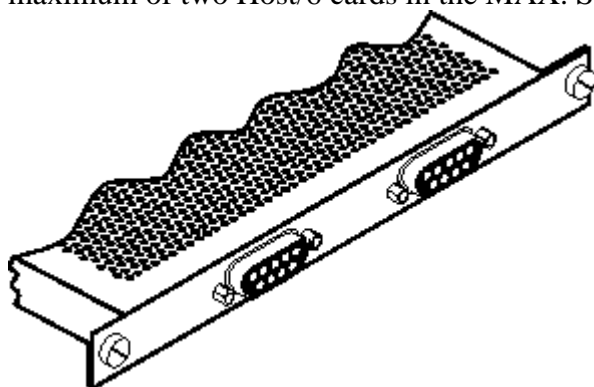


Figure 1-5. Host/6 card

ISDN BRI Network interface and terminal interface cards

The ISDN BRI network interface card and ISDN terminal interface cards have eight ISDN BRI ports. You can install a maximum of four ISDN BRI network interface cards in the MAX. See [Figure 1-6](#).

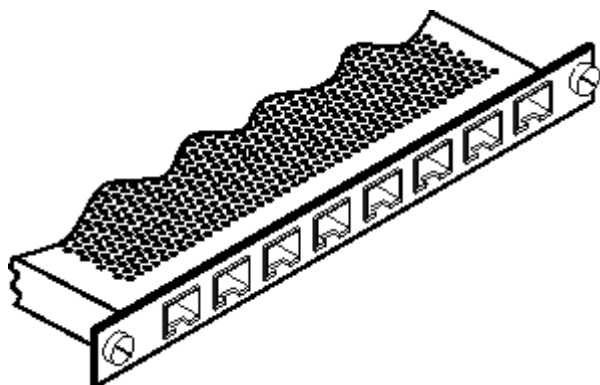


Figure 1-6. ISDN BRI network interface or terminal interface cards

Multiband inverse multiplexing card

The Multiband inverse multiplexing card has two or six user-selectable RS-449, V.35, or X.21 serial host ports with inverse multiplexing and RS-366 capability, V.25bis, or control-lead signaling. [Figure 1-7](#) shows the two-port card.

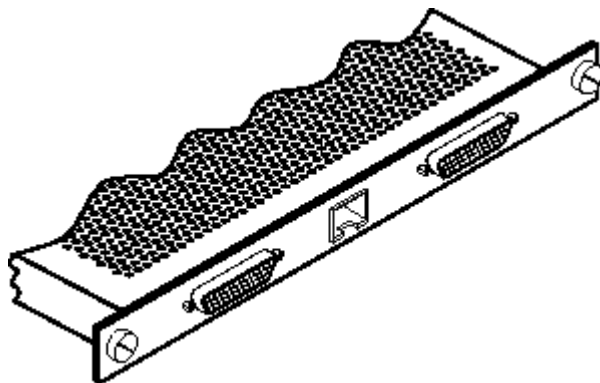


Figure 1-7. Multiband inverse multiplexing two-port card

Series56 digital modem card

The Series56 digital modem card provides eight, twelve, or sixteen digital modems per card. You can install a maximum of 72 digital modems in the MAX. See [Figure 1-8](#).

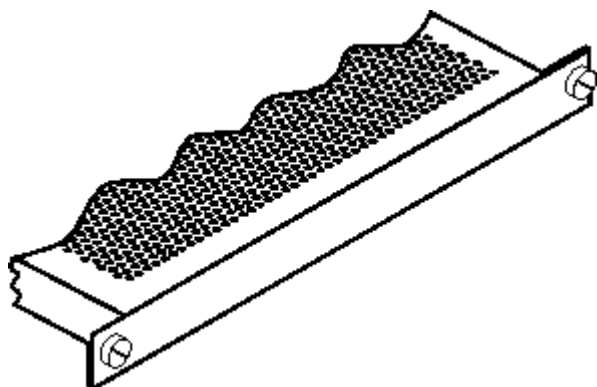


Figure 1-8. Series56 Digital modem card

V.110 card

The V.110 card provides up to eight V.110 WAN sessions. You can install a maximum of six V.110 cards in the MAX. See [Figure 1-9](#).

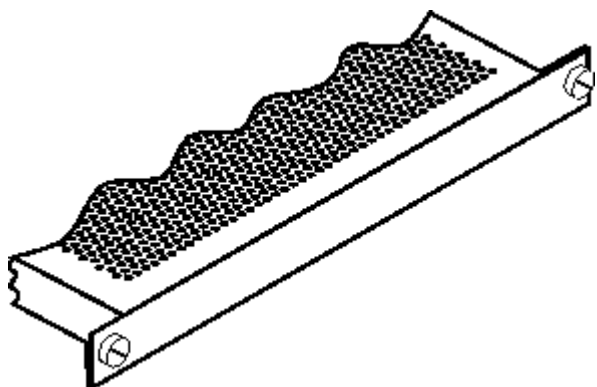
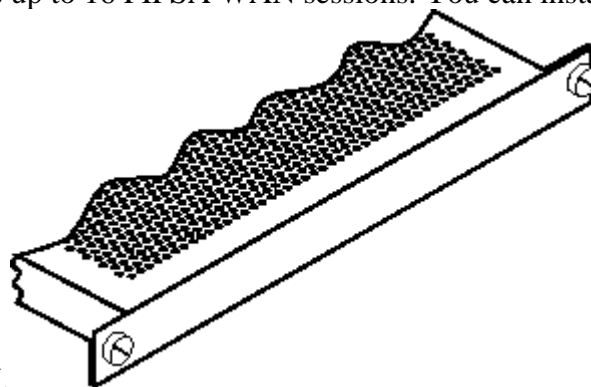


Figure 1-9. V.110 card

PIFSA-16 card

The PIFSA-16 card provides up to 16 PIFSA WAN sessions. You can install a maximum of six



PIFSA-16 cards in the MAX.

Figure 1-10. PIFSA card

ISDL card

Ascend's ISDN Digital Subscriber Line (ISDL) card (displayed as BRI/LT in the vt100 menu screen) supports incoming and outgoing voice calls. To support outgoing voice calls, the connected TE

(Terminal Equipment) must send digits to the MAX using Q.931 en-bloc dialing (sends all dialed digits to the MAX in one block (the ISDN Call Setup message) rather than one digit at a time).

The MAX receives outgoing call requests from attached ISDN TE and routes voice calls to the PSTN (Public Switched Telephone Network) over a T1 line or ISDN PRI line. The MAX receives incoming voice calls and routes them to TEs connected to IDSL cards based on DNIS (Dialed Number Identification Service). See [Figure 1-11](#).

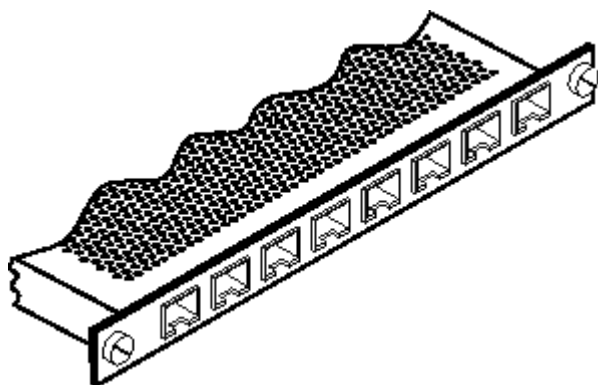


Figure 1-11. IDSL card

DRAM card

This is a proprietary Ascend card. It is *not* hot-swappable and should not be removed while the MAX is running. The DRAM card attaches directly to the CPU bus and damage might occur if you attempt to remove it.

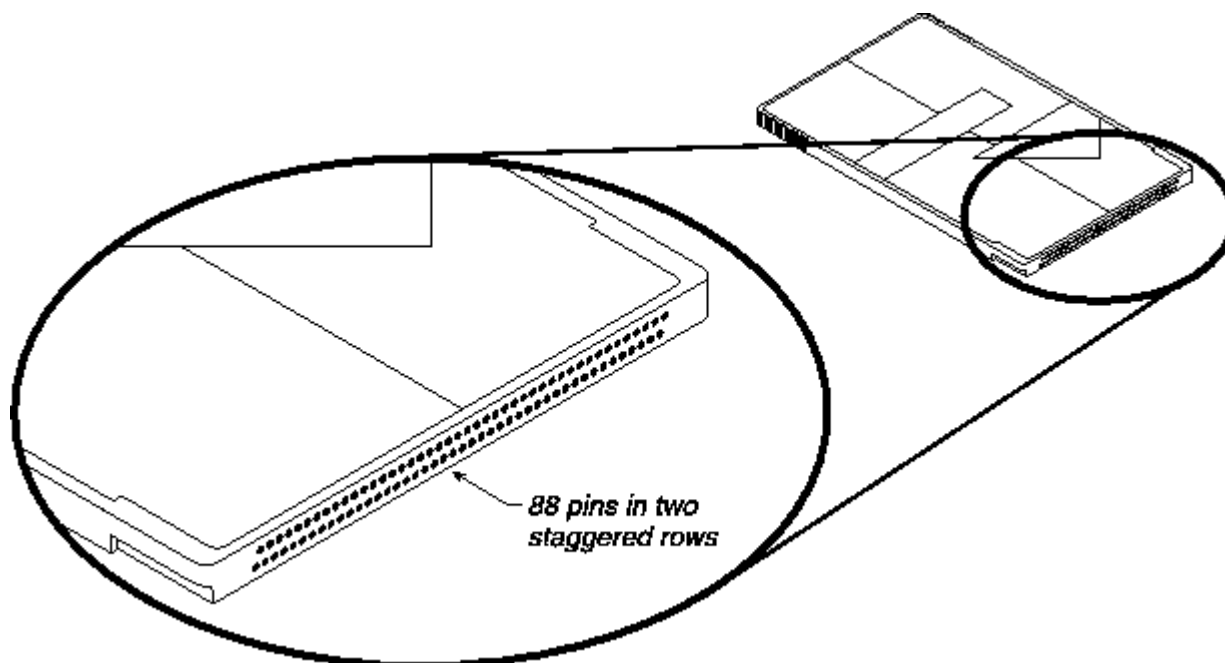


Figure 1-12. DRAM card

PCMCIA flash card

This is a standard card that extends existing flash memory.

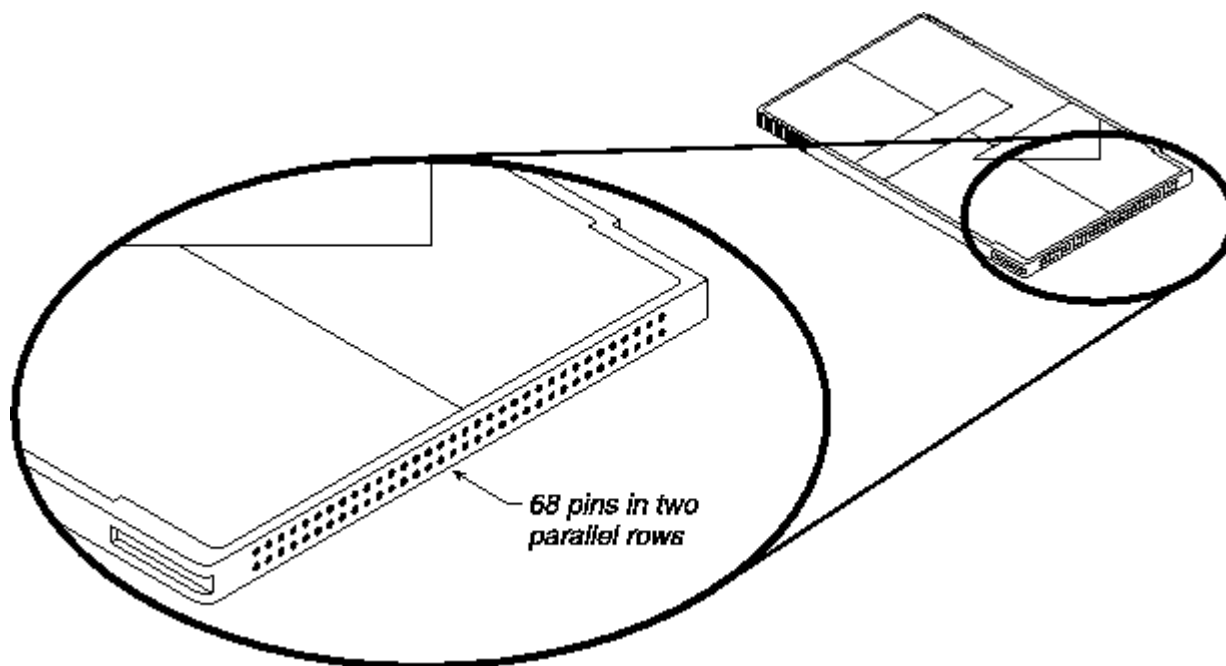


Figure 1-13. PCMCIA card

Interfaces

Read this section to learn the names and descriptions of the types of physical interfaces on the MAX.

Interfaces on the base unit

[Figure 1-1 on page 1-2](#) and [Figure 1-2 on page 1-2](#) show the physical interfaces on the MAX base unit.

POWER

The power interface on the MAX accepts AC or DC power depending on the model you purchased. [Figure 1-1 on page 1-2](#) and [Figure 1-2 on page 1-2](#) show AC power sockets. [Figure 1-3 on page 1-2](#) shows the DC power socket. See [Appendix B, "MAX Technical Specifications "](#) for further details.

CONTROL

The Control port connects to a VT-100 terminal or modem to access and provides the menu-driven user interface to the MAX. It runs at 9600 bit/s (configurable through the user interface), 8 bits per character, no parity, no flow control, 1 stop bit. See [Appendix C, "Cables and Connectors, "section \[User interface specifications\]\(#\)](#) for details on cables that connect to this port.

LAN UTP

The LAN UTP port connects the MAX to a UTP (unshielded twisted pair 10/100 BaseT) LAN. See [Appendix C, "Cables and Connectors, "section \[Ethernet interface specifications\]\(#\)](#) for details on cables that connect to this port.

PCMCIA

The PCMCIA interface accepts a plug-in PCMCIA card. See [Figure 1-13 on page 1-7](#).

DRAM

The DRAM interface accepts a plug-in DRAM card. See [Figure 1-12 on page 1-6](#).

SERIAL V.35 DTE Port

The Serial V.35 DTE port provides a point-to-point connection between the MAX and another device. This port is called the Serial WAN port in these manuals. See [Appendix C, "Cables and Connectors,"](#) section [Serial WAN cabling specifications](#) for details on cables that connect to this port.

WAN (1 to 4)

The WAN ports are either a group of four T1 or four E1 ports providing point-to-point T1/E1 connections between the MAX and other devices. These ports are called Net/T1 and Net/E1 ports in these manuals. See [Appendix C, "Cables and Connectors,"](#) sections [T1/PRI interface specifications](#) and [E1/PRI interface specifications](#) for details on cables that connect to these ports.

ALARM

The Alarm interface is a two-connector terminal block that provides indication of alarm conditions. See [Appendix B, "MAX Technical Specifications "](#) for further information on the alarm relay.

Interfaces on expansion cards

AIM/BONDING

The DCE interfaces in [Figure 1-5 on page 1-4](#) and [Figure 1-7 on page 1-4](#) provide AIM/BONDING inverse multiplexing services to devices connected to them. See [Appendix C, "Cables and Connectors,"](#) section [Serial host interface specifications](#) for details on cables that connect to these ports.

PALMTOP

A port that connects to a hand-held *palmtop* control terminal, although it can also connect to a VT-100 terminal. (See [Figure 1-7 on page 1-4](#).) The Palmtop port provides access to the menu-driven user interface of the MAX. It runs at 9600 bit/s (configurable through the user interface), 8 bits per character, no parity, no flow control, 1 stop bit. See [Appendix C, "Cables and Connectors,"](#) section [User interface specifications](#) for details on cables that connect to these ports.

ISDN BRI

ISDN BRI ports are either a group of eight DTE or eight DCE ports providing point-to-point ISDN BRI connections between the MAX and other devices. (See [Figure 1-6 on page 1-4](#).) These ports are called the Net/BRI and Host/BRI ports in these manuals for the DTE and DCE interfaces, respectively. From the point of view of the MAX pins 3 and 6 transmit on the Net/BRI interface while they receive on the Host/BRI interface. Pins 4 and 5 receive on the Net/BRI interface and transmit on the Host/BRI interface. See [Appendix C, "Cables and Connectors,"](#) section [ISDN BRI interface specifications](#) for details on cables that connect to these ports.

IDSL

The IDSL ports are a group of eight DCE ports providing point-to-point IDSL connections between the MAX and other devices. (See [Figure 1-11 on page 1-6](#).) An IDSL port has the same pinouts as a

Host/BRI port. See [Appendix C, "Cables and Connectors,"](#) section [IDSL specifications](#) for further information.

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