Ethernet AUI Port, Pinouts, and Cable Specifications

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Introduction

This document explains the Ethernet AUI port, the cabling specifications, and the port pinouts.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

The information in this document is based on the software and hardware versions:

- AUI adapter cable: CAB−3CE18=

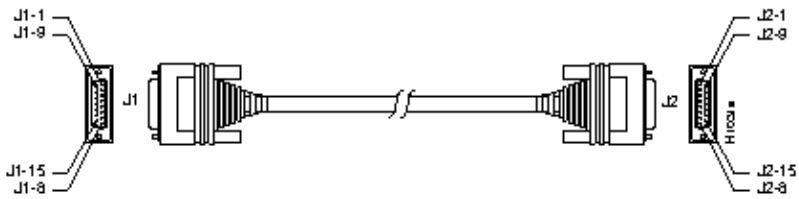
The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

For more information on document conventions, see the Cisco Technical Tips Conventions.

Background Information

For flexibility, some Cisco routers provide a generic AUI connector for Ethernet ports. These AUI ports are designed to connect to an external transceiver for conversion to a specific media type (such as twisted pair, coax, or fiber). The transceiver may either be directly connected to the AUI port or through an AUI Cable as illustrated below:



Cable Specifications

This section explains the Ethernet port and cable specifications.

Ethernet (AUI) Port Pinout (DB−15)

The table below lists the different pins and their appropriate signals.

Pin[1]	Ethernet Circuit	Signal
3	DO−A	Data Out Circuit A
10	DO−B	Data Out Circuit B
11	DO−S	Data Out Circuit Shield
5	DI−A	Data In Circuit A
12	DI−B	Data In Circuit B
4	DI−S	Data In Circuit Shield
2	CI−A	Control In Circuit A
9	CI−B	Control In Circuit B
1	CI−S	Control In Circuit Shield
6	VC	Voltage Common
13	VP	Voltage Plus
14	VS	Voltage Shield (L25 and M25)
Shell	PG	Protective Ground

[1]Any pin not referenced is not connected.

Ethernet Version 2 and IEEE 802.3 Physical Characteristics

The table below lists the Ethernet Version 2 and IEEE 802.3 physical characteristics of the Ethernet cable.

	Ethernet	IEEE 802.3		
		10Base5	10Base2	10BaseT
Data rate (Mbps)	10	10	10	10
Signaling method	Baseband	Baseband	Baseband	Baseband

Maximum segment length (in meters)	500	500	185	100 (Unshielded twisted pair − UTP)
Media	50−ohm coax (thick)	50−ohm coax (thick)	50−ohm coax (thin)	UTP
Topology	Bus	Bus	Bus	Star

Ethernet Coaxial−type Connection Limits for 10−Mbps Transmission

The following table lists the Ethernet coaxial−type connection limits for 10−Mbps transmission.

Parameter	10Base5	10Base2
Cable diameter	1 cm (0.4 in)	0.6 cm (0.25 in)
Maximum segment length	500 m (1640 ft.)	152 m (500 ft.)
Maximum network length (with four repeaters)	2500 m (8200 ft.)	762 m (2500 ft.)
Maximum connections (taps per segment)	100	30
Minimum connection (tap) spacing	2.5 m (8.2 ft.)	0.5 m (1.64 ft.)

Related Information

- **Technical Support − Cisco Systems**

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