APPENDIX B

Catalyst 1700 Connector Pinouts

This appendix describes the connectors for Catalyst 1700 including:

- 10Base-T RJ-45 connectors
- 10Base5 AUI connector
- 10Base2 BNC connector
- Serial RS-232 connector
- Fast Ethernet RJ-45 connectors

Each of these connectors is described in the following sections.

10Base-T Connector Pinouts

There are 25 10Base-T connectors on the front panel of the Catalyst 1700. The first 24 are for the Personal Ethernet ports and the 25th is for the General Ethernet port.

Figure B-1 10Base-T Connector

The arrangement of the pins is shown in Figure B-1 and the pinouts are shown in Table B-1.

Table B-1 10Base-T Connector Pinouts

Pin	1x through 24x, and Pin 25A when Uplink Switch is set to x	Pin	25A when Uplink Switch is set to Uplink
1	RD+	1	TD+
2	RD-	2	TD-
3	TD+	3	RD+
4	NC	4	NC
5	NC	5	NC
6	TD-	6	RD-
7	NC	7	NC
8	NC	8	NC

The Personal Ethernet ports have their transmit (TD) and Receive (RD) signals internally crossed (designated by the *x*) for attachment to an adapter using a straight-through cable. The General Ethernet port, 25A, has its TD and RD signals crossed when the Uplink switch is set to the *x* position for attachment to an adapter or bridge using a straight-through cable. Connection to a hub when set in the *x* position requires a crossover cable.

To connect to a hub using a straight-through cable using port 25A, the Uplink switch must be set in the Uplink position. This will uncross the TD and RD signals.

10Base5 AUI Connector Pinouts

The AUI connector is a 15-pin female receptacle as shown in Figure B-2.

Figure B-2 AUI Connector

The pinouts are shown in Table B-2.

Table B-2 AUI Connector Pinouts

1	GND	Ground
2	CI+	Positive AUI differential collision data input
3	Tx+	Positive AUI differential transmit data input
4	GND	Ground
5	Rx+	Positive AUI differential receive data output
6	GND	Ground
7		
8	GND	Ground
9	CI-	Negative AUI differential collision data input
10	TX-	Negative AUI differential transmit data input
11	GND	Ground
12	RX-	Negative AUI differential receive data output
13	+12V	12 Volt supply for external MAU
14	GND	Ground
15		

10Base2 BNC Connector Pinouts

A standard Ethernet 10Base2 BNC connector is used. The pin-outs are shown in Figure B-3.

Figure B-3 BNC Connector

Serial Connector Pinouts

The serial connector is a male nine-pin D subminiature connector as shown in Figure B-4.

Figure B-4 Serial Connector

The pinouts are shown in Table B-3.

Table B-3 Serial Connector Pinouts

1	DCD
2	RD
3	TD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

The shell is connected to the chassis ground. Use a standard modem cable to connect to a modem. Use a null modem cable to connect to a terminal.

Connection to another hub with internally crossed TD and RD pairs requires a crossover cable. The Modem Cable Schematic and the Null-Modem Cable Schematic are shown in Figure B-5 and Figure B-6.

Figure B-5 Modem Cable Schematic

Figure B-6 Null-Modem Cable Schematic

Fast Ethernet Connector Pinouts

The two Fast Ethernet connectors use standard RJ-45 connectors. The arrangement of the pins is shown in Figure B-7.

Figure B-7 RJ-45 Connector

The pinout is shown in Table B-4.

Table B-4 F1x and F2x Connector Pinouts

Pin	
1	RD+
2	RD-
3	TD+
4	NC
5	NC
6	TD-
7	NC
8	NC

The shell for both connectors is connected to the chassis ground. The Fast Ethernet Ports have their transmit (TD) and receive (RD) pairs internally crossed (designated by the *x*) for attachment to an adapter using a straight-through cable.

The Straight-through and Crossover Cable schematics are shown in Figure B-8 and Figure B-9.

Figure B-8 Straight-through Cable Schematic

Figure B-9 Crossover Cable Schematic