

# WS-C1400 Concentrator

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This chapter provides information on the WS-C1400 CDDI/FDDI concentrator. The information is organized into the following sections:

- Product Overview
- Standard Features
- Accessories
  - CDDI/FDDI Media Translator
  - UTP Cables
  - STP-to-UTP Converter
  - FDDI Patch Cable
  - Optical Attenuation Set
  - AC Power Cords
- Configuration Worksheet

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**Note** Documentation for the WS-C1400 concentrator is available in two forms: on a CD-ROM called Cisco Connection Documentation, Enterprise Series and printed books. A CD and hard-copy installation documentation ship with each chassis, and a configuration note ships with each component ordered. All configuration notes are available on the CD. Additional CDs and a subscription CD update service are also available.

You can also access Cisco technical documentation on the World Wide Web URL <http://www.cisco.com>. For more information, see the chapter “Documentation” at the end of the catalog.

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## Product Overview

The stackable WS-C1400 CDDI/FDDI concentrator combines the compact form factor of workgroup concentrators with the versatility of modular hubs. The concentrator consists of a base unit and a variety of line cards, which are listed in Table 285.

**Table 285 WS-C1400 CDDI/FDDI Concentrator, Line Cards, and Options**

Description	Product Number
<b>Base Unit</b>	
Workgroup concentrator with 2 slots	WS-C1400
<b>Line Cards<sup>1</sup></b>	
4-port FDDI (MIC) line card	WS-X1431
4-port single-mode fiber (ST) line card	WS-X1434
8-port FDDI (MIC) line card	WS-X1441
8-port single-mode fiber (ST) line card	WS-X1444
2-port FDDI, 12-port CDDI line card	WS-X1450
10-port FDDI (SC) line card	WS-X1455
16-port CDDI line card	WS-X1483
<b>Options</b>	
SMARTnet agreement	CON-SNT-WS-C1400
CiscoView 3.0.3 for SunNet Manager—SunOS, Solaris	CV-3.0.3-SNM
CiscoView 3.0.3 for HP OpenView—SunOS, Solaris	CV-3.0.3-OVS
CiscoView 3.0.3 for HP OpenView—HP-UX	CV-3.0.3-OVH
CiscoView 3.0.3 for IBM NetView—NetView AIX	CV-3.0.3-NV
Additional documentation	See the chapter “Documentation.”

1. The first two ports on the card in slot 1 can be configured by software as either A + B ports or S + M ports (to support single attachment concentrator configuration). They can also be configured as two M ports (to support the null attachment configuration).

Cables must be ordered separately. See the section “Accessories,” later in this chapter, for cable descriptions and ordering information.

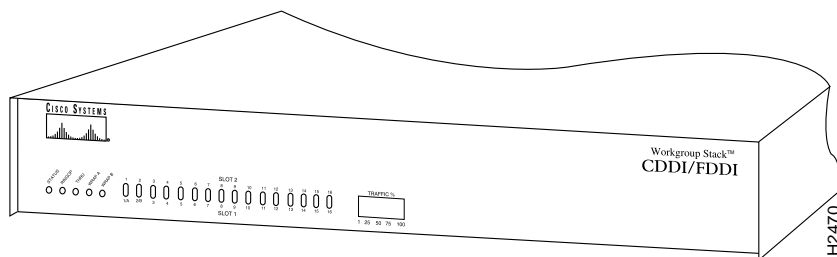
**Figure 146 WS-C1400 CDDI/FDDI Concentrator Front Panel**

Figure 147 WS-C1400 CDDI/FDDI Concentrator Rear Panel

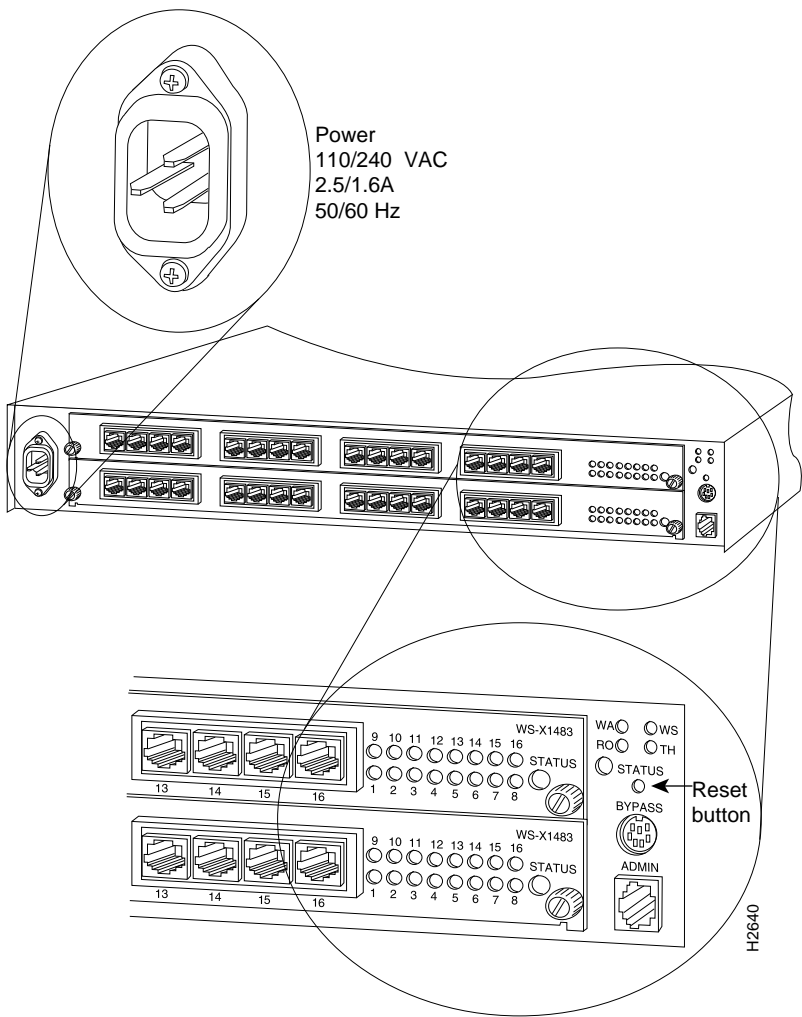


Table 286 WS-C1400 CDDI/FDDI Concentrator Summary of Features

Characteristics	Description
Placement	Desktop 19-inch rack (rack-mount bracket kit included)
Network management	SNMP agent (RFC 1155-57) SMT 7.3 FDDI MIB (RFC 1285) MIB II (RFC 1213) Cisco-specific MIB
Maximum station-to-station cabling distance	1.25 miles (2 km) using 62.5 or 50/125-micron multimode fiber 18.6 miles (30 km) using single-mode fiber 330' (100 m) using Category 5 UTP 330' (100 m) using IBM Type 1 or 2 STP

<b>Characteristics</b>	<b>Description</b>
Front panel LEDs	Concentrator status Ringop Thru Wrap A Wrap B Link status for each link Traffic meter
Rear panel LEDs	Ringop Thru Wrap A Wrap B Concentrator status Link status for each link Line card status
Connectors	CDDI: RJ-45 Multimode FDDI: media interface connector (MIC) Multimode FDDI: SC connector Single-mode FDDI: ST connector
Bypass control	6-pin mini-DIN
Administration interface	RJ-45
Processor	Motorola 68030
Dimensions (H x W x D)	3.35 x 17.2 x 16.4" (8.6 x 44.0 x 40.0 cm)
Weight (average shipping)	~25 lb (~11.55 kg)
Agency approvals	UL 1950, CSA C22.2 No.950-M89, and EN 60950 FCC Class A (47 CFR Part 15) FCC Class B (fiber only) EN 55022A VCCI-I VDE Class B (fiber only) CE Mark

**Table 287 WS-C1400 CDDI/FDDI Concentrator Environmental Specifications**

<b>Description</b>	<b>Specification</b>
Input	100 to 240 VAC autoranging
Frequency	50 to 60 Hz autoranging
AC current rating	2.5A @ 110V, 1.6A @ 220V
Operating temperature range	32 to 104 F (0 to 40 C)
Nonoperating temperature	–40 to 167 F (–40 to 75 C)



## Standard Features

The WS-C1400 concentrator includes the following standard features:

- Modular design allows between 4 and 32 CDDI and/or FDDI ports.
- Multiple concentrators may be interconnected with UTP wire to allow your network to grow inexpensively.
- High port density means three times as many ports can be packed into the same rack space compared with other equivalent products.
- Unique traffic generation feature generates up to 100 Mbps of network traffic diagnostics.
- Extensive management features:
  - Workgroup Director is compatible with SunNet Manager, IBM NetView, and HP OpenView and may be used to remotely manage several workgroup concentrators simultaneously using an intuitive GUI.
  - Includes an SNMP agent to support MIB II, the FDDI MIB, and a Cisco-specific MIB.
  - Password-protected administration interface for “out-of-band” local network management or remote access via dial-up modem.
  - Remote in-band access to the administration interface via a Telnet session.
  - Ring map feature can be used to view a sequenced list of stations connected to the same FDDI ring.
  - SMT window can be used to view the SMT parameters of any device on the ring.
- IP addresses can be configured using the BOOTP server.
- You can download new software releases over the network, or locally via the administration interface.
- Dual MAC architecture implements graceful insertion, so new stations may be connected without loss of data.
- Compact design allows the concentrator to be wall-mounted in 6-inch deep wiring closets or rack-mounted in 19-inch racks. The concentrator is also quiet and attractive enough for desktop environments.
- Traffic meter and three-color front panel indicators clearly display status.
- Supports up to 1.25 miles (2 km) of 50 or 62.5-micron multimode optical fiber, 18.6 miles (30 km) of single-mode optical fiber, or 330 feet (100 m) of Category 5 UTP or IBM Type 1 or Type 2 STP copper wire.

## Accessories

This section describes the accessories available for the WS-C1400 concentrator. Each accessory is described, and the part number included, in Table 288.

**Table 288 WS-C1400 CDDI/FDDI Concentrator Accessories**

Description	Part Number
CDDI/FDDI media translator	WS-C703
UTP cross-connect modular cable, 7' (2.12 m)	WS-C710
UTP straight-through modular cable, 25' (7.57 m)	WS-C725
STP-to-UTP converter	WS-C737
FDDI patch cable, 7' (2.12 m), MIC-to-MIC	WS-C757
FDDI patch cable, 7' (2.12 m), SC-to-MIC	WS-C767
Cross-connect, 1' (.30 m), for A/B CDDI-port daisy chain	WS-C711
10-dB optical attenuator set	WS-C784
Wall-mounting kit	WS-C1670

## CDDI/FDDI Media Translator

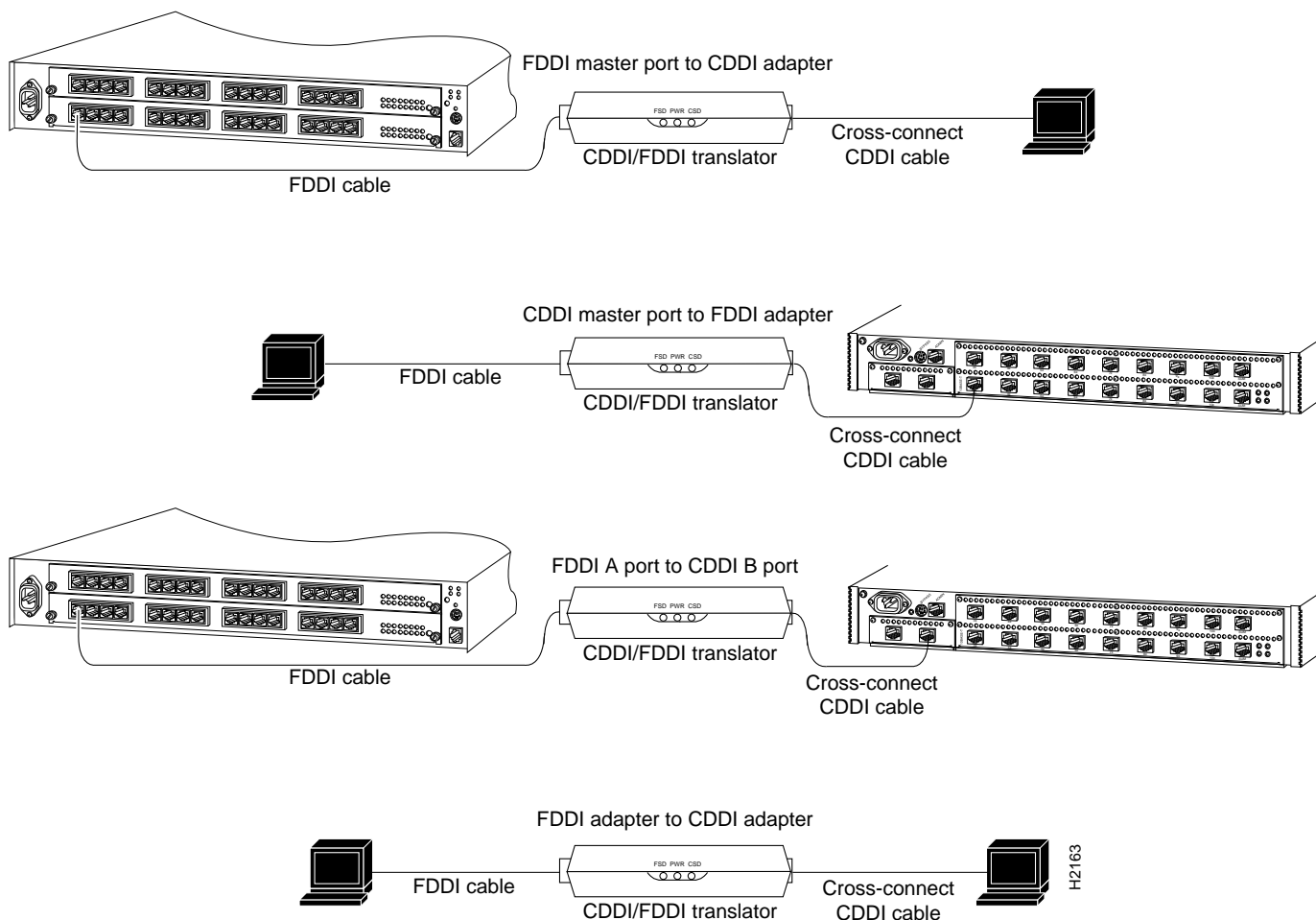
The C703 CDDI/FDDI media translator is used to convert between CDDI and FDDI links. It includes a transceiver and a +5V external 120-VAC power supply for North America. Table 289 provides specifications for the C703 CDDI/FDDI media translator.

**Table 289 CDDI/FDDI Media Translator Specifications**

Description	Specification
Connectors	1 FDDI MIC 1 CDDI 8-pin RJ-45
LEDs	FDDI signal detect CDDI signal detect Power
Dimensions (H x W x D)	1.5 x 3.5 x 5.6"
Translator power requirements	+5V
External power supply	120 VAC, UL, CS
Agency compliance	FCC Part 15, Subpart J, Class A

Figure 148 shows the most typical configurations for CDDI/FDDI translators. A standard patch cable is used to connect the FDDI side to the media translator. A cross-connect cable is used to connect the CDDI side, except when connecting a Workgroup 1000 concentrator (MLT-2), which requires a straight-through cable.

Figure 148 Typical Configuration of the CDDI/FDDI Media Translator



## UTP Cables

Two kinds of unshielded twisted-pair (UTP) modular cables can be used—cross-connect and straight-through:

- The UTP cross-connect modular cable (WS-C710) is a seven-foot long, data-grade modular cable for connecting the workgroup concentrator M port to the patch panel. A one-foot, cross-connect cable (WS-C711) is also available for daisy-chaining A/B CDDI ports.
- The UTP straight-through cables are 7-foot (WS-C717) or 25-foot (WS-C725) long, data-grade modular cables for connecting the CDDI/FDDI adapter to the wall plate.

## STP-to-UTP Converter

The STP-to-UTP converter (WS-C737) is used to connect CDDI equipment to IBM Type 1 STP cabling systems.

## FDDI Patch Cable

The FDDI patch cable (WS-C757) is a seven-foot long, fiber-optic cable with MICs on each end.

The FDDI MIC-to-FDDI SC cable (WS-C767) is a seven-foot long, fiber-optic cable with a MIC on one end and an SC connector on the other end.

## Optical Attenuation Set

The optical attenuation set (WS-C784) includes two 10-dB optical attenuators, one for each signal direction. The set must be used in single-mode fiber applications having a total link attenuation of less than 10 dBs.

## Wall-Mounting Kit

The wall-mounting kit (WS-C1670) contains hardware mounting accessories to mount the WS-C1400 chassis on the wall.

## AC Power Cords

Workgroup products are shipped with North American power cords standard. Specify on your order alternate power cords for European (220V), U.K., Italian, or Australian power cords. For part numbers, see the chapter “Power Cords.”

## Configuration Worksheet

Use the following worksheet to help plan your order or to upgrade an existing system. One blank worksheet is provided, and you can make extra copies as needed.



# WS-C1400 Concentrator Worksheet

## Network Management Software

CiscoView 3.0.3 for SunNet Manager—SunOS, Solaris	CV-3.0.3-SNM	<input type="checkbox"/>
CiscoView 3.0.3 for HP OpenView—SunOS, Solaris	CV-3.0.3-OVS	<input type="checkbox"/>
CiscoView 3.0.3 for HP OpenView—HP-UX	CV-3.0.3-OVH	<input type="checkbox"/>
CiscoView 3.0.3 for IBM NetView—NetView AIX	CV-3.0.3-NV	<input type="checkbox"/>

<b>Power cord:</b>	<input type="checkbox"/> U.S.—standard if not specified	Australia	<input type="checkbox"/>
	<input type="checkbox"/> Italy	<input type="checkbox"/> Europe	U.K.

## WS-C1400 CDDI/FDDI Workgroup Concentrator

Base unit	WS-C1400	<input type="checkbox"/>
Optional line cards (minimum one per system, maximum two per system)		

4-port FDDI (MIC)	WS-X1431	<input type="checkbox"/>
4-port single-mode fiber (ST)	WS-X1434	<input type="checkbox"/>
8-port (MIC)	WS-X1441	<input type="checkbox"/>
8-port single-mode (ST)	WS-X1444	<input type="checkbox"/>
2-port FDDI, 12-port CDDI	WS-X1450	<input type="checkbox"/>
10-port FDDI (SC)	WS-X1455	<input type="checkbox"/>
16-port CDDI	WS-X1483	<input type="checkbox"/>

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