

Cisco Model DPC3008 DOCSIS 3.0 8x4 Cable Modem

The Cisco® Model DPC3008 DOCSIS 3.0 8x4 Cable Modem (DPC3008) provides DOCSIS® broadband service providers with a cost-effective solution for delivering high-speed bi-directional data services. The DPC3008 provides a faster connection to the Internet by incorporating eight bonded downstream channels along with four bonded upstream channels. These bonded channels deliver downstream data rates in excess of 340 Mbps. That's up to eight times faster than conventional single-channel DOCSIS 2.0 cable modems.

The DPC3008 is designed to DOCSIS 3.0 specifications as well as being backward compatible with DOCSIS 2.0, 1.1, and 1.0 networks.

Figure 1. DPC3008 DOCSIS 3.0 8x4 Cable Modem (image may vary from actual product and specification)



Features

DOCSIS

- Eight (8) bonded downstream channels with data rates in excess of 340 Mbps
- Four (4) bonded upstream channels with data rates in excess of 120 Mbps
- Designed to meet DOCSIS 3.0 specifications as well as backward compatibility with existing DOCSIS 2.0, 1.1 and 1.0 networks
- Enhanced packet processing technology to maximize performance
- Expanded tuning range, 88-1002 MHz
- Color-coded connectors and cables for easy installation and setup

Connections

- 10/100/1000BASE-T auto-sensing/auto-MDIX Ethernet port
- Support for up to 64 users (on user-supplied Ethernet hubs)

Design and Function

- Attractive compact design and versatile orientation to stand vertically, lie flat on the desktop or shelf, or mount easily on a wall
- Dual color LED status indicators on the front panel provide an informative and easy-to-understand display that indicates the cable modem operational status
- Easy-to-understand generic icons indicate purpose of LEDs
- Rugged electronic components for long-term reliability

Management

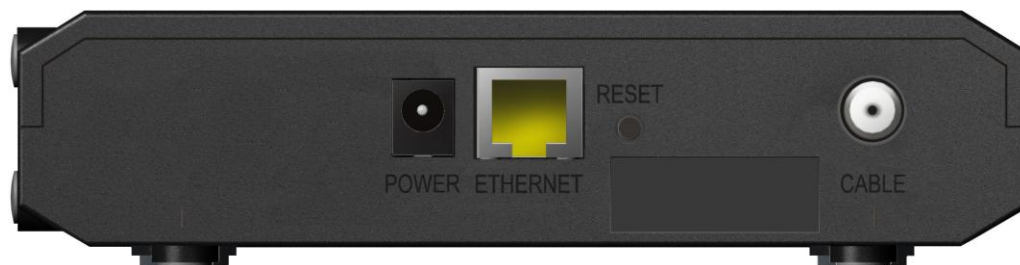
- Software upgradeable by network download
- Remote manageability using SNMP V1/V2 and V3

Software and Documentation

- CD-ROM containing user guide

Figure 2. DPC3008 Front Panel (image may vary from actual product and specification)**Table 1.** Front Panel Features

Feature	Description
Indicators	POWER, DS, US, ONLINE, LINK, and corresponding icons
Color	Black case, black faceplate, silver text, green/amber LEDs
Branding	Cisco logo and model number

Figure 3. DPC3008 Back Panel (image may vary from actual product and specification)**Table 2.** Back Panel Switch and Connections

Feature	Description
POWER SWITCH (not shown)	Switches power to the unit (power switch provided only on products carrying the CE mark)
POWER Connector Color: Black	Connects modem to the DC output of the AC power adapter
ETHERNET Connector Color: Yellow	RJ-45 Ethernet port connects to the Ethernet port on your PC or your home network
REBOOT EMTA	Power cycles the modem
CABLE Connector Color: White	F-connector connects to an active cable signal from your service provider

Product Specifications

Table 3. Product Specifications

Specification	Value				
RF Downstream					
Operating Frequency Range	88 to 1002 MHz or 54 to 1002 MHz (option)				
Tuner Frequency Range	88 to 1002 MHz				
Tuner	(1) Frequency agile block tuner, 96 MHz bandpass				
Demodulation	8 demodulators, 64 QAM or 256 QAM				
Maximum Data Rate	8 downstream channels, each 6 MHz channel: 42.88 Mbps for 256 QAM and 30.34 Mbps for 64 QAM				
Bandwidth	6 MHz				
Operating Level Range	-15 to +15 dBmV				
Input Impedance	75 ohms				
RF Upstream					
Operating Frequency Range	5 to 42 MHz, 5 to 65 MHz, or 5 to 85 MHz				
Transmitter Frequency Range	5 to 42 MHz, 5 to 65 MHz, or 5 to 85 MHz				
Upstream Transmission	4 upstream channels				
Modulation	QPSK, 8 QAM, 16 QAM, 32 QAM, 64 QAM at ATDMA mode QPSK, 8 QAM, 16 QAM, 32 QAM, 64 QAM, 128 QAM at SCDMA mode				
Maximum Data Rate per Channel	<u>Modulation</u>	<u>Channel Bandwidth (MHz)</u>	<u>Raw Data Rate (Mb/s)</u>		
	QPSK	1.6	2.56		
	16 QAM	1.6	5.12		
	QPSK	3.2	5.12		
	16 QAM	3.2	10.24		
	32 QAM	3.2	12.8		
	64 QAM	3.2	15.4		
	16 QAM	6.4	20.5		
	32 QAM	6.4	25.6		
	64 QAM	6.4	30.72		
Bandwidth	200 kHz to 6.4 MHz				
Maximum Operating Level (+/-2dB)	<u>Modulation</u>	<u>1 Channel</u>	<u>2 Channels</u>	<u>3 or 4 Channels</u>	
	TDMA	QPSK	+61 dBmV	+58 dBmV	+55 dBmV
		8 QAM	+58 dBmV	+55 dBmV	+52 dBmV
		16 QAM	+58 dBmV	+55 dBmV	+52 dBmV
		32 QAM	+57 dBmV	+54 dBmV	+51 dBmV
		64 QAM	+57 dBmV	+54 dBmV	+51 dBmV
		SCDMA	QPSK	+56 dBmV	+53 dBmV
	SCDMA	8 QAM	+56 dBmV	+53 dBmV	+53 dBmV
		16 QAM	+56 dBmV	+53 dBmV	+53 dBmV
		32 QAM	+56 dBmV	+53 dBmV	+53 dBmV
		64 QAM	+56 dBmV	+53 dBmV	+53 dBmV
		128 QAM	+56 dBmV	+53 dBmV	+53 dBmV

Electrical	
Input Voltage	12 VDC
Power Consumption (Modem Module)	~ 5.0 Watts
Data Ports	Ethernet 10/100/1000BASE-T (Auto-sensing with Auto-MDIX) RJ-45 Ethernet (1)
RF	Female "F" type
Impedance	75 ohms
Mechanical	
Dimensions (W x D x H) (Approximate)	Not including "F" connector: 5.92 in. x 4.8 in. x 1.15 in. (15.04 cm x 12.19 cm x 2.92 cm)
Weight (Approximate)	8.4 oz (0.24 kg)
Operating Temperature	32° to 104°F (0° to 40°C)
Operating Humidity	0 to 90% RH non-condensing
Storage Temperature	-4° to 140°F (-20° to 60°C)
Standards and Approvals	
Designed to Comply with the Following Standards	DOCSIS 3.0, 2.0, 1.1, 1.0
Regulatory and Safety Approvals	As required per country where the DPC3008 will be used

Ordering Information

Table 4. Ordering Information

Description	Part Number
5-42/88-1002 Diplex Filter	
DPC3008 DOCSIS 3.0 Cable Modem. Includes: <ul style="list-style-type: none"> 100-120 VAC / 50-60 Hz, desktop style, linear switching power supply Ethernet data cable CD-ROM containing user guide North America	4038905
DPC3008 DOCSIS 3.0 Cable Modem. Includes: <ul style="list-style-type: none"> 220 VAC / 50-60 Hz, desktop style, linear switching power supply Ethernet data cable CD-ROM containing user guide Argentina	4039644
DPC3008 DOCSIS 3.0 Cable Modem. Includes: <ul style="list-style-type: none"> 100-120 VAC / 50-60 Hz, desktop style, linear switching power supply Ethernet data cable, 2 meters CD-ROM containing user guide Japan	4039428
5 -85/88-1002 Diplex Filter	
DPC3008 DOCSIS 3.0 Cable Modem. Includes: <ul style="list-style-type: none"> 220 VAC / 50-60 Hz, wall-mount, linear switching power supply Ethernet data cable CD-ROM containing user guide Korea	4039429

Replacement Components

Table 5. Replacement Components

Description	Part Number
Power Supply - Class 2 Linear Switching	
100-120 VAC / 50-60 Hz, 12 VDC/1 A desktop linear switching power supply, North America	4018777
100-120 VAC / 50-60 Hz, 12 VDC/1 A desktop linear-switching power supply, North America (customer specific)	4034588
100-120 VAC / 50-60 Hz, 12 VDC/1 A desktop linear switching power supply, Japan	4031742
100-120 VAC / 50-60 Hz, 12 VDC/1 A desktop linear switching power supply, Japan	4026135
220 VAC / 50-60 Hz, 12 VDC/1 A desktop linear switching power supply, Argentina	4025790
220 VAC / 50-60 Hz, 12 VDC/1 A wall-mount linear switching power supply, Korea	4015458
230-240 VAC / 50-60 Hz, 12 VDC/1 A wall-mount linear switching power supply, Europe	4015453
Power Supply - Class 2 Switching Regulated	
100-240 VAC / 50-60 Hz, 12 VDC/1 A desktop-style switching regulated power supply, Class II, C7 AC connector, 2 conductors with detachable power cord (order power cord separately)	4021485
Power Cord	
Power cord, 2 conductors, NEMA 1-15 to C7, North America (non-polarized)	1002239
Data Cable	
Ethernet cable, 1.2 meters	740580
Ethernet cable, 2.0 meters	4018790
CD-ROM	
CD-ROM with user guide	4040234



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Cisco Systems, Inc.
800 722-2009 or 678 277-1120
www.cisco.com

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