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Data Sheet

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Cisco Model DPC3010 DOCSIS 3.0 8x4 Cable Modem

The Cisco® Model DPC3010 DOCSIS 3.0 8x4 Cable Modem (DPC3010) provides DOCSIS® broadband service providers with a cost-effective solution for delivering high-speed bi-directional data services. The DPC3010 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 320 Mbps and upstream data rates up to 120 Mbps, up to eight times faster than conventional single-channel DOCSIS 2.0 cable modems.

The DPC3010 is designed to meet DOCSIS 3.0 specifications as well as offering backward compatibility for operation in DOCSIS 2.0, 1.1 and 1.0 networks.

Figure 1.   Cisco Model DPC3010 DOCSIS 3.0 Cable Modem (image may vary from actual product and specification)

The DPC3010 also features WebWizard, a browser-based user interface. WebWizard is a powerful tool that facilitates installation and troubleshooting and eliminates the need to load set-up software on the customer premises equipment (CPE).

Features

DOCSIS

- Eight (8) bonded channels with total throughput in excess of 300 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

Connections

- 1000/100/10BASE-T auto-sensing/auto-MDIX Ethernet port

- USB 2.0 data port (option)
- Support for up to 64 users (1 USB port user and up to 63 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 LEDs on the front-panel provide an informative and easy-to-understand display that indicates the cable modem real-time operational status
- Color-coded connectors and cables for easy installation and setup
- 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 and USB driver installation software for Microsoft Windows 7, Windows Vista, Windows XP, and Windows 2000 operating systems

Figure 2. Cisco Model DPC3010 DOCSIS 3.0 Cable Modem Front Panel (image may vary from actual product and specification)

Table 1. Front Panel Features

Feature	Description
Indicators	POWER, DS, US, ONLINE, LINK
Color	Black textured, black face plate, silver text, dual-color green/amber LEDs
Branding	Cisco and model number

Figure 3. Cisco Model DPC3010 DOCSIS 3.0 Cable Modem Back Panel (image may vary from actual product and specification)

Table 2. Back Panel Features

Feature	Description
POWER Connector Color: Black	Connects modem to the DC output of the AC power adapter
POWER SWITCH (not shown)	Turns power on and off to the device (power switch provided on all products carrying the CE mark)
ETHERNET Connector Color: Yellow	(1) RJ-45 Ethernet port connects to the Ethernet port on your PC or your home network
USB (option) Connector Color: Blue	(1) Type B USB 2.0 port connects to a USB port on your PC
RESET	Power cycles the cable 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 108 to 1002 MHz
Tuner Frequency Range	88 to 1002 MHz
Tuner	(2) Frequency agile block tuners, 32 MHz bandpass each
Demodulation	8 demodulators, 4 per tuner, each demodulator; 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	<table><tr><td>Modulation</td><td>Channel Bandwidth (MHz)</td><td>Raw Data Rate (Mbps)</td></tr><tr><td>QPSK</td><td>1.6</td><td>2.56</td></tr><tr><td>16 QAM</td><td>1.6</td><td>5.12</td></tr><tr><td>QPSK</td><td>3.2</td><td>5.12</td></tr><tr><td>16 QAM</td><td>3.2</td><td>10.24</td></tr><tr><td>32 QAM</td><td>3.2</td><td>12.8</td></tr><tr><td>64 QAM</td><td>3.2</td><td>15.4</td></tr><tr><td>16 QAM</td><td>6.4</td><td>20.5</td></tr><tr><td>32 QAM</td><td>6.4</td><td>25.6</td></tr><tr><td>64 QAM</td><td>6.4</td><td>30.72</td></tr></table>
Bandwidth	200 kHz to 6.4 MHz
Maximum Operating Level	<table><tr><td></td><td></td><td>One Channel</td><td>2 Channels</td><td>3 or 4 Channels</td></tr><tr><td>TDMA</td><td>QPSK</td><td>+61 dBmV</td><td>+58 dBmV</td><td>+55dBmV</td></tr><tr><td></td><td>8 QAM</td><td>+58 dBmV</td><td>+55 dBmV</td><td>+52dBmV</td></tr><tr><td></td><td>16 QAM</td><td>+58 dBmV</td><td>+55 dBmV</td><td>+52dBmV</td></tr><tr><td></td><td>32 QAM</td><td>+57 dBmV</td><td>+54 dBmV</td><td>+51dBmV</td></tr><tr><td></td><td>64 QAM</td><td>+57 dBmV</td><td>+54 dBmV</td><td>+51dBmV</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td>SCDMA</td><td>QPSK</td><td>+56 dBmV</td><td>+53 dBmV</td><td>+53 dBmV</td></tr><tr><td></td><td>8 QAM</td><td>+56 dBmV</td><td>+53 dBmV</td><td>+53 dBmV</td></tr><tr><td></td><td>16 QAM</td><td>+56 dBmV</td><td>+53 dBmV</td><td>+53 dBmV</td></tr><tr><td></td><td>32 QAM</td><td>+56 dBmV</td><td>+53 dBmV</td><td>+53 dBmV</td></tr><tr><td></td><td>64 QAM</td><td>+56 dBmV</td><td>+53 dBmV</td><td>+53 dBmV</td></tr><tr><td></td><td>128 QAM</td><td>+56 dBmV</td><td>+53 dBmV</td><td>+53 dBmV</td></tr></table>

Specification	Value
Electrical	
Input Voltage	12 VDC
Power Consumption (modem module)	~ 7.5 Watts
Data Ports	GigE (Auto-negotiate with Auto-MDIX): RJ-45 Ethernet (1) USB 2.0: USB Type B (1) optional
RF	Female "F" type
Output Impedance	75 ohms
Mechanical	
Dimensions (H x D x W)	1.5 in. x 5.2 in. x 5.9 in. (3.8 cm x 13.2 cm x 15.1 cm)
Weight	10.3 oz. (0.294 kg)
Operating Temperature	32˚ to 104˚F (-0˚ to 40˚C)
Operating Humidity	0 to 95% RH non-condensing
Storage Temperature	-4˚ to 158˚F (-20˚ to 70˚C)
Standards and Approvals	
Designed to meet with the following standards	DOCSIS 3.0
Regulatory Compliance	
Regulatory and Safety Approvals	As required per country where the DPC3010 will be used

Ordering Information

Table 4.   Ordering Information

Description	Part Number
5-42/88-1002 MHz Diplex Filter	
DPC3010 DOCSIS 3.0 Cable Modem, includes: • GigE port • USB 2.0 port • 12 VDC/1 A, 100-120 VAC / 50-60 Hz, desktop style linear switching power supply, North America • Ethernet cable • USB cable • CD-ROM with user guides and USB driver ***North America***	4027668
DPC3010 DOCSIS 3.0 Cable Modem, includes: • GigE port • USB 2.0 port • 12 VDC/1 A, 100-240 VAC / 50-60 Hz, desktop style switching regulated power supply with detachable power cord • Power cord, North America • Ethernet cable • USB cable • CD-ROM with user guides and USB driver ***North America***	4036668
DPC3010 DOCSIS 3.0 Cable Modem, includes: • GigE port • USB 2.0 port • 12 VDC/1 A, 100-120 VAC / 50-60 Hz, desktop style linear switching power supply, North America • Ethernet cable • CD-ROM with user guides ***North America (Customer-specific configuration)***	4037053

Description	Part Number
DPC3010 DOCSIS 3.0 Cable Modem, includes: • GigE port • **No USB port** • 12 VDC/1 A, 100-120 VAC / 50-60 Hz, desktop style linear switching power supply, North America • Ethernet cable • CD-ROM with user guides *North America (Customer-specific configuration)*	4035128
DPC3010 DOCSIS 3.0 Cable Modem, includes: • GigE port • **No USB port** • 12 VDC/1 A, 100-120 VAC / 50-60 Hz, desktop style linear switching power supply, North America • Ethernet cable • CD-ROM with user guides *North America (Customer-specific configuration)*	4039766
DPC3010 DOCSIS 3.0 Cable Modem, includes: • GigE port • USB 2.0 port • 12 VDC/1 A, 220 VAC / 50-60 Hz, desktop style linear switching power supply, Argentina • Ethernet cable • USB cable • CD-ROM with user guides and USB driver *Argentina*	4038903
5-65/88-1000 MHz Diplex Filter	
DPC3010 DOCSIS 3.0 Cable Modem, includes: • International frequency plan • GigE port • USB 2.0 port • 12 VDC/1 A, 240 VAC / 50-60 Hz, wall-mount style linear switching power supply, Australia • Ethernet cable • USB cable • CD-ROM with user guides and USB driver *Australia*	4030792
DPC3010 Channel Bonded Cable Modem, includes: • GigE port • USB 2.0 port • 12 VDC/1 A, 230 VAC / 50-60 Hz, wall-mount style linear switching power supply, Europe • Ethernet cable • USB cable • CD-ROM with user guide and USB driver *Europe*	4030797
DPC3010 Channel Bonded Cable Modem, includes: • GigE port • **No USB port** • 12 VDC/1 A, 100-120 VAC / 50-60 Hz, desktop style linear switching power supply, Japan • No data cables • Printed Japanese user guide (Customer specific) *Japan (Importer- and customer-specific configuration)*	4030793
DPC3010 Channel Bonded Cable Modem, includes: • GigE port • **No USB port** • 12 VDC/1 A, 100-120 VAC / 50-60 Hz, desktop style linear switching power supply, Japan • Ethernet cable, 2 meters • Printed Japanese user's guide (generic) *Japan (Importer-specific configuration)*	4030794

Description	Part Number
DPC3010 Channel Bonded Cable Modem, includes: • GigE port • **No USB port** • 12 VDC/1 A, 100-120 VAC / 50-60 Hz, desktop style linear switching power supply, Japan • No data cables • Printed Japanese user's guide (generic) *Japan (Importer-specific configuration)*	4030816
DPC3010 Channel Bonded Cable Modem, includes: • GigE port • **No USB port** • 12 VDC/1 A, 100-120 VAC / 50-60 Hz, wall-mount style linear switching power supply, Korea • Ethernet cable, 2 meters • Printed Korean user guide *Korea*	4030795
5-85/108-1000 MHz Diplex Filter	
DPC3010 Channel Bonded Cable Modem, includes: • GigE port • **No USB port** • **No AC power supply** • Ethernet cable, 2 meters • Printed Korean user guide *Korea (Customer-specific configuration)*	4030796
DPC3010 Channel Bonded Cable Modem, includes: • GigE port • **No USB port** • **No AC power supply** • Ethernet cable, 2 meters • Printed Korean user guide *Korea (Customer-specific configuration)*	4034439

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 and Japan	4018777
100-120 VAC / 50-60 Hz, 12 VDC/1A 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 (ICS Importer markings)	4031742
100-120 VAC / 50-60 Hz, 12 VDC/1 A desktop linear switching power supply, Japan (NOS importer markings)	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
230-240 VAC / 50-60 Hz, 12 VDC/1 A wall-mount linear switching power supply, Australia	4018797
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

Description	Part Number
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
USB cable, 1.0 meter	740579
CD-ROM	
CD-ROM with user guides and USB driver	4029645