

## Cisco Model DPC2325 DOCSIS 2.0 Residential Gateway with Wireless Access Point

The Cisco® Model DPC2325 DOCSIS 2.0 Residential Gateway with Wireless Access Point (DPC2325) combines a cable modem, router, and wireless access point in a single device to provide a cost-effective solution for both home and small office networking.

The DPC2325 has been designed to meet DOCSIS® 2.0 specifications. In addition, the DPC2325 is fully backward compatible for use on both DOCSIS 1.1 and DOCSIS 1.0 networks.

**Figure 1.** Model DPC2325 DOCSIS 2.0 Wireless Residential Gateway with Wireless Access Point (image may vary from actual product and specification)



Designed for the active digital home or office, the DPC2325 integrated router features a Dynamic Host Configuration Protocol (DHCP) server, Network Address and Port Translation (NAT/NAPT) and a Stateful Packet Inspection (SPI) firewall. These features allow the user to share a single high-speed public Internet connection as well as share files and folders between devices within the home network by attaching multiple wired and wireless devices in the user's home or office to the wireless residential gateway.

Consumer-friendly features like Wireless Protected Setup (WPS) and user-configured Parental Control can protect the home network from unwelcome intruders and family members from access to undesirable websites.

## Features

- A high-performance processor that supports near-line rate throughput for DOCSIS 2.0
- Compliant with DOCSIS 2.0, 1.1, and 1.0 standards to deliver high-end performance and reliability
- Plug-and-Play operation for easy setup and installation, including color-coded data ports and data cables compliant with the TR-068 specifications
- Support for Home Network Administration Protocol (HNAP) to allow simplified configuration and management
- 802.11g or optional 802.11n Wireless Access Point with four service set identifiers (SSIDs)
- Wireless MultiMedia (WMM) features including Wi-Fi Protected Setup (WPS), including a push-button switch to activate WPS for simplified and secure wireless setup
- Allows the user to attach multiple devices to the wireless home gateway for high-speed wired and wireless networking and sharing of files
- 10/100BASE-T auto-sensing/auto-MDIX Ethernet ports to provide connectivity for high-speed data services or to other Internet devices
- Advanced firewall technology deters hackers and protects the home network from unauthorized access
- Configurable either locally or remotely through web interface, configuration file, or simple network management protocol (SNMP) protocols
- Dual-antenna design - one internal and one detachable external antenna
- Attractive, compact design that allows for vertical, horizontal, or wall-mount placement
- Front panel LEDs provide visual feedback of real-time operational status
- Simple setup with user-friendly graphical user interface
- Allows automatic software upgrades by the user's service provider

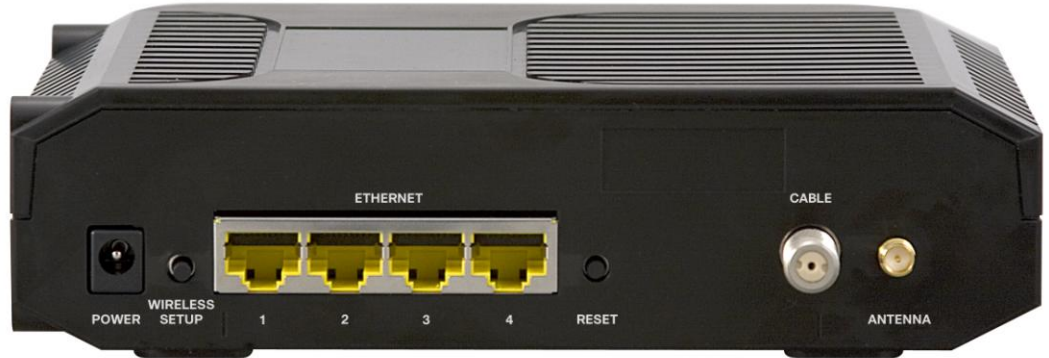
**Figure 2.** Model DPC2325 Front Panel (image may vary from actual product and specification)



**Table 1.** Front Panel Features

Feature	Description
Indicators	Power, DS, US, Online, Ethernet, Wireless Link, Wireless Setup
Color	Black housing, black lens, silver text
Branding	Cisco logo and model number

**Figure 3.** Model DPC2325 Back Panel (image may vary from actual product and specification)



**Table 2.** Back Panel Features

Feature	Description
POWER Connector Color: Black	Connects the DPC2325 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)
WIRELESS SETUP	Allows users to activate the WIRELESS SETUP mode for simplified and secure wireless setup of client devices featuring WPS
ETHERNET (1 – 4) Connector Color: Yellow	Four RJ-45 Ethernet ports connect to the Ethernet ports on the user's PC or home network
RESET	Reboots the DPC2325 when activated
CABLE Connector Color: White	F-connector connects to an active cable signal from the service provider
ANTENNA (not shown)	Provides a communication connection for the built-in 802.11g WAP, not present on 802.11n products

## Product Specifications

**Table 3.** Product Specifications

Specification	Value
<b>RF Downstream</b>	
Frequency Range	88 to 930 MHz
Demodulation	64 or 256 QAM
Maximum Data Rate	30 Mbps for 64 QAM 43 Mbps for 256 QAM
Bandwidth	6 MHz
Operating Level Range	-15 to +15 dBmV
Input Impedance	75 ohms
<b>RF Upstream</b>	
Frequency Range	5 to 42 MHz 5 to 55 MHz (Japan)
Modulation	QPSK 8 QAM 16 QAM 64 QAM 128 QAM TCM
Maximum Data Rate	5.12 Mbps for QPSK 10.2 Mbps for 16 QAM 30.0 Mbps for A-TDMA and SCDMA
Bandwidth	200 kHz to 6.4 MHz
Operating Level Range (all values +/- 0.5 dB $\mu$ V )	
TDMA	QPSK +8 to +58 dBmV 8QAM +8 to +55 dBmV 16QAM +8 to +55 dBmV 32QAM +8 to +54 dBmV 64QAM +8 to +54 dBmV
SCDMA	QPSK +8 to +53 dBmV 8QAM +8 to +53 dBmV 16QAM +8 to +53 dBmV 32QAM +8 to +53 dBmV 64QAM +8 to +53 dBmV 128QAM +8 to +53 dBmV
Output Impedance	75 ohms
<b>Wireless Access Point, 802.11g</b>	
Frequency Range	2.412~2.462 GHz, 11 Channels (North America; FCC) 2.412~2.472 GHz, 13 Channels (Europe; CE/ETSI)
Modulation	DSSS, OFDM, CCK, DQPSK, DBPSK
Data Rate:	54 Mbps with Auto Fall-Back
Security	WPA2, WPA and 64/128-bit WEP
Transmit Power	14 dBm (typical for 802.11g)
Antenna System	One (1) external, detachable One (1) internal

Specification	Value
Additional Features	<ul style="list-style-type: none"> <li>• WMM-QoS (Wireless Multi Media - Quality of Service)</li> <li>• WMM Power Save</li> <li>• WPS (Wireless Protected Setup)</li> <li>• WDS (Wireless Distribution System) – allows connection to “Range Extender Products”</li> <li>• RADIUS Authentication (Client, EAP-TLS, EAP-TTLS, EAP-PEAP, EAP-MD5)</li> <li>• MBSSID (4 SSIDs with unique NAT scopes)</li> </ul>
<b>Wireless Access Point, 802.11n</b>	
Frequency Range	2.412~2.462 GHz, 11 Channels (North America; FCC) 2.412~2.472 GHz, 13 Channels (Europe; CE/ETSI)
Modulation	PSK/CCK, DQPSK, DBPSK, OFDM
Data Rate	54, 48, 36, 24, 18, 12, 9, 6, 11, 5.5, 2, 1 20 MHz Bandwidth: 150, 130, 117, 104, 78 * 40 MHz Bandwidth: 300, 270, 243, 216, 162, 108 * <i>* Many other data rates are supported by the product. The information above specifies only the higher rates for each bandwidth.</i>
Security	Wi-Fi Security (WPA2, WPA2-PSK, WPA, WPA-PSK, WEP)
Transmit Power	2.4 GHz: 16 dBm
Antenna System	Two internal antennae
Additional Features	<ul style="list-style-type: none"> <li>• WMM-QoS (Wireless Multi Media - Quality of Service)</li> <li>• WMM Power Save</li> <li>• WPS (Wireless Protected Setup)</li> <li>• WDS (Wireless Distribution System) – allows connection to “Range Extender Products”</li> <li>• RADIUS Authentication (Client, EAP-TLS, EAP-TTLS, EAP-PEAP, EAP-MD5)</li> <li>• MBSSID (4 SSIDs with unique NAT scopes)</li> </ul>
<b>Other</b>	
Input Voltage	12 VDC
Power Consumption (Modem Module)	5.8 Watts
Data Ports	Ethernet 10/100BASE-T (Auto-sensing with Auto-MDIX): RJ-45 Ethernet (4)
RF	Female “F” type
<b>Mechanical</b>	
Dimensions (W x D x H) (approximate)	Not including “F” connector: 6 15/16 in. x 5 11/16 in. x 2 15/16 in. (17.7 cm x 14.5 cm x 5 cm) Including “F” connector and wireless antenna: 6 15/16 in. x 6 in. x 2 15/16 in. (17.7 cm x 15.5 cm x 5 cm)
Weight (approximate)	12.9 oz (0.37 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)
<b>Standards and Approvals</b>	
Designed to Comply with the Following Standards	DOCSIS 2.0, DOCSIS 1.1, DOCSIS 1.0 IEEE 802.11g WEP, WPA, and WPA2 WMM, WPS
Regulatory and Safety Approvals	As required per country where the DPC2325 will be used

## Ordering Information

**Table 4.** Ordering Information

Description	Part Number
<b>802.11n</b>	
DPC2325 DOCSIS 2.0 Wireless Residential Gateway with Wireless Access Point. Includes: <ul style="list-style-type: none"> <li>• 802.11n Wireless Access Point, Single Band, 2x2, 2.4 GHz,</li> <li>• 120 VAC / 50-60 Hz, 12 VDC / 1.0 A Desktop linear switching power supply, North America</li> <li>• Ethernet cable</li> <li>• CD-ROM containing user guide</li> </ul> <b>North America</b>	4038570
<b>802.11g</b>	
DPC2325 DOCSIS 2.0 Wireless Residential Gateway with Wireless Access Point. Includes: <ul style="list-style-type: none"> <li>• 802.11g Wireless Access Point, Single Band, 2.4 GHz</li> <li>• 100-240 VAC / 50-60 Hz, 12 VDC / 1.0 A Desktop switching-regulated power supply with detachable power cord</li> <li>• Power cord, North America (non-polarized)</li> <li>• Ethernet cable</li> <li>• CD-ROM containing user guide</li> </ul> <b>North America</b>	4036647
DPC2325 DOCSIS 2.0 Wireless Residential Gateway with Wireless Access Point. Includes: <ul style="list-style-type: none"> <li>• 802.11g Wireless Access Point, Single Band, 2.4 GHz</li> <li>• 120 VAC / 60 Hz, 12 VDC / 1.0 A Desktop linear switching power supply, North America</li> <li>• Ethernet cable</li> <li>• CD-ROM containing user guide</li> </ul> <b>North America</b>	4040527
DPC2325 DOCSIS 2.0 Wireless Residential Gateway with Wireless Access Point. Includes: <ul style="list-style-type: none"> <li>• 802.11g Wireless Access Point, Single Band, 2.4 GHz</li> <li>• 120 VAC / 60 Hz, 12 VDC / 1.0 A Desktop linear switching power supply, North America</li> <li>• Ethernet cable</li> <li>• CD-ROM containing user guide</li> </ul> <b>North America (Customer-specific configuration)</b>	4027245
DPC2325 DOCSIS 2.0 Wireless Residential Gateway with Wireless Access Point. Includes: <ul style="list-style-type: none"> <li>• 802.11g Wireless Access Point, Single Band, 2.4 GHz</li> <li>• 120 VAC / 60 Hz, 12 VDC / 1.0 A Desktop linear switching power supply, North America</li> <li>• Ethernet cable</li> <li>• CD-ROM containing user guide</li> </ul> <b>North America (Customer-specific configuration)</b>	4034609
DPC2325 DOCSIS 2.0 Wireless Residential Gateway with Wireless Access Point. Includes: <ul style="list-style-type: none"> <li>• 802.11g Wireless Access Point, Single Band, 2.4 GHz</li> <li>• 100-120 VAC/60 Hz, 12 VDC / 1.0 A Desktop linear switching power supply, North America</li> <li>• Ethernet cable</li> <li>• CD-ROM containing user guide</li> </ul> <b>North America (Customer-specific configuration)</b>	4036646
DPC2325 DOCSIS 2.0 Wireless Residential Gateway with Wireless Access Point. Includes: <ul style="list-style-type: none"> <li>• 802.11g Wireless Access Point, Single Band, 2.4 GHz</li> <li>• 230 VAC / 50-60 Hz, 12 VDC / 1.0 A Wall-mount linear switching power supply, Europe</li> <li>• Ethernet cable</li> <li>• CD-ROM containing user guide</li> </ul> <b>Europe</b>	4029841
DPC2325 DOCSIS 2.0 Wireless Residential Gateway with Wireless Access Point. Includes: <ul style="list-style-type: none"> <li>• 802.11g Wireless Access Point, Single Band, 2.4 GHz</li> <li>• 220 VAC / 50-60 Hz, 12 VDC/1.0 A Desktop linear switching power supply, Argentina</li> <li>• Ethernet cable</li> <li>• CD-ROM containing user guide</li> </ul> <b>Argentina (Customer-specific configuration)</b>	4029840

Description	Part Number
DPC2325 DOCSIS 2.0 Wireless Residential Gateway with Wireless Access Point. Includes: <ul style="list-style-type: none"> <li>• 802.11g Wireless Access Point, Single Band, 2.4 GHz</li> <li>• 230 VAC/60 Hz, 12 VDC/1 A Wall-mount linear switching power supply, Chile</li> <li>• Ethernet cable</li> <li>• CD-ROM containing user guide</li> </ul> <b>Chile</b>	4039765
DPC2325 DOCSIS 2.0 Wireless Residential Gateway with Wireless Access Point. Includes: <ul style="list-style-type: none"> <li>• 802.11g Wireless Access Point, Single Band, 2.4 GHz</li> <li>• 120 VAC / 50-60 Hz, 12 VDC / 1.0 A Desktop linear switching power supply, Columbia</li> <li>• Ethernet cable</li> <li>• CD-ROM containing user guide</li> </ul> <b>Columbia (Customer-specific configuration)</b>	4038569

## Replacement Components

**Table 5.** Replacement Components

Description	Part Number
<b>Power Supplies, 12 VDC</b>	
<i>Class 2 Linear-Switching</i>	
100-120 VAC / 50-60 Hz, 12 VDC /1.0 A Desktop linear switching power supply, North America	4018777
220 VAC / 50-60 Hz, 12 VDC / 1.0 A Desktop linear switching power supply, Argentina	4025790
230 VAC / 50-60 Hz, 12 VDC / 1.0 A Wall-mount linear switching power supply, Europe	4015453
100-120 VAC / 50-60 Hz, 12 VDC /1.0 A Desktop linear switching power supply, Japan	4026135
<i>Class 2 Switching Regulated</i>	
100-240 VAC / 50-60 Hz, 12 VDC /1.0 A Desktop switching regulated power supply with detachable power cord (order power cord separately)	4021485
<b>Power Cords</b>	
Power cord, 2 conductor, North America, NEMA 1-15 to C7 (non-polarized)	1002239
Power cord, 2 conductor, Brazil (non-polarized)	4009115
Power cord, 2 conductor, European, Euro plug CEE7/16 to C7	503414
<b>Data Cables</b>	
Ethernet data cable, 1.2m	748580
<b>CD-ROM</b>	
CD-ROM with User Guide	4029642



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