

Cisco Model DPC3941B DOCSIS 3.0 24x4 Wireless Business Gateway

If you're looking for a cost-effective, high performance networking gateway for a small office, you've just found it. The Cisco® Model DPC3941B DOCSIS 3.0 24x4 Wireless Business Gateway is multiple solutions in one product. It combines a cable modem, a router, and 802.11ac wireless access points in a single device. The gateway delivers a faster connection to the Internet by incorporating 24 bonded downstream channels along with four bonded upstream channels. The bonded channels can deliver downstream data rates that exceed 900 Mbps and upstream data rates that exceed 120 Mbps. Downstream rates are up to 24 times faster than conventional single-channel DOCSIS® 2.0 cable modem rates.

The Cisco Model DPC3941B Business Gateway (Figure 1) is designed to meet DOCSIS 3.0 specifications and backward compatibility for operation in DOCSIS 2.0, 1.1, and 1.0 networks.

Figure 1. Cisco Model DPC3941B DOCSIS 3.0 24x4 Wireless Business Gateway (Image Below May Vary from Actual Product)



The integrated router features a Dynamic Host Configuration Protocol (DHCP) server, Network Address Translation (NAT), Network Address Port Translation (NAPT), and a stateful packet inspection (SPI) firewall. These features allow the user to share a single high-speed public Internet connection and to share files and folders between devices in the home network by attaching multiple wired and wireless devices in the active home or office to the wireless Business gateway.

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

Features

DOCSIS

- Compliant with DOCSIS 3.0, 2.0, 1.1, and 1.0 standards to deliver high-end performance and reliability

Connections

- Four 10/100/1000BASE-T Ethernet ports to provide wired connectivity
- High-performance broadband Internet connectivity
- Optional: Two USB 2.0 Type 2 connections
- Dual-band concurrent 802.11ac Wireless Access Point (WAP) with eight Service Set Identifiers (SSIDs) compatible with 802.11b/g/n
- WPS, including a push-button switch to activate WPS for simplified and highly secure wireless setup

Design and Function

- Attractive, compact design and versatile orientation to stand vertically
- LED status indicators on the front panel, providing an informative and easy-to-understand display that indicates the operational status
- TR-068-compliant, color-coded interface ports and corresponding cables that simplify installation and setup

Management

- User-configurable parental controls that block access to undesirable Internet sites
- Advanced firewall technology that deters hackers and protects the home network from unauthorized access
- Automatic software upgrades by your service provider allowed

Software and Documentation

- User guide and optional USB driver installation software that can be downloaded from Cisco.com

Table 1. Front-Panel Features

Feature	Description
Indicators and controls	Power, DS/US, Online, WiFi1, WiFi2, Tel1, Tel2, and Battery
Color	Black, black lens, and silver text
Branding	Xfinity and Comcast model name

Figure 2. Cisco Model DPC3941B Business Gateway Top Panel
(Image Below May Vary from Actual Product)



Table 2. Top-Panel Features

Feature	Description
Indicators and controls	WPS and page
Color	Black, black lens, and silver text

Figure 3. Cisco Model DPC3941B Business Gateway Back Panel
(Image Below May Vary from Actual Product)



Table 3. Back-Panel Features

Feature	Description
RESET	Performs a soft configuration reset of the Cisco Model DPC3941B.
USB Connector color: blue	Optional (2): Each Type 2 USB 2.0 port connects to a USB port on a printer or another USB device.
ETHERNET (1- 4) Connector color: yellow	Four RJ-45 Ethernet ports connect to the Ethernet port on your PC or your home network.
POWER Connector color: black	Connection for AC power input 120 VAC.
ANTENNA (internal)	6 internal Antenna's. 3 for 2.4 and 3 for 5 GHz. and 802.11ac.

Figure 4. Cisco Model DPC3941B Business Gateway Bottom Panel (Image Below May Vary from Actual Product)



Table 4. Bottom-Panel Features

Feature	Description
Manufacturer label Color: white with black text	Label with key manufacturing information, such as the part number, serial number, CM MAC address, MTA MAC address, and WAN MAC address
Battery Color: black	Battery compartment for a 10.8V lithium-ion, 2600 mAh rechargeable battery Note: 3000mAh battery available as well. Battery does not ship with gateway but can be ordered separately)

Product Specifications

Business Gateway	
Gateway configuration management	<ul style="list-style-type: none"> • TR-069 and subset of TR-098 data model (optional) • Extensive custom SNMP MIB for the gateway • Provisioning with SNMP • HNP server 1.2+
Independent Computer Security Association (ICSA) firewall compliant	<ul style="list-style-type: none"> • Web filtering: pop-ups, cookies, Java, and ActiveX scripts • Intrusion detection and prevention: WAN ping blocking, IP fragment blocking, port scan detection, TCP port probe, and UDP port probe • DoS protection: inbound, outbound, WAN interface, LAN interface, SYN flood, Ping of Death, Smurf, Bonk, Jolt, Land, Nestea, Newtear, Syndrop, Teardrop, WinNuke, and OOBNUKE (invalid TCP urgent pointer), x1234, Saihyousen, Oshare, ARP flood, TCP hijacking, Christmas Tree, SYN/FIN (jackal), BackOffice (UDP 32337), NetBus, and ICMP flooding • IP address, port number, and MAC address filtering • TCP flags and ICMP types fragmentation • Connection creation and teardown • Timestamps and payload modification
Parental controls	<ul style="list-style-type: none"> • Per-user policies • Keyword blocking • Domain name blocking • Time of day filters • MAC address filtering

Advanced event logging	<ul style="list-style-type: none"> • Filtering activity • Session tracking • User notification through email alert and SNMP traps
Routing features	<ul style="list-style-type: none"> • NAPT, NAT, and pass-through (Layer 2) operational modes • RFC3489 (STUN) "port-restricted cone NAT" behavior • RIP v1/v2 with MD5 • Static routes • Port forwarding • Port triggering • UPnP IGD 1.0 • IPsec pass-through • L2TP pass-through • PPTP pass-through • ALG support: mIRC, PIRCH, MS NetMeeting, Net2phone, AOL and MSN Messenger, Yahoo Messenger, Go2Call, Hotline Server, Visual IRC, CuSeeme, AT&T Instant, Messenger Anywhere, Active Worlds, Buddy Phone Calista IP Phone, Delta Three PC to Phone, Dial Pad, Dwyco Video Conferencing, OrbitRC, Xircon, Netscape Chat, FTP, H.323, and ICQ
Wireless Access Point	
802.11 b/g/n/ac	<ul style="list-style-type: none"> • 3x3 2.4 and 5 GHz dual-band, concurrent wireless access point • 6 internal antennas • Wi-Fi-compliant security (WPA2-Enterprise, WPA2-PSK, WPA-Enterprise, WPA-PSK, and WEP) • Wireless multimedia quality of service (WMM-QoS) • WMM power save • WPS • Wireless bridging- Wireless Distribution System (WDS)- that allows connection to "range extender products" • RADIUS authentication (client, EAP-TLS, EAP-TTLS, EAP-PEAP, and EAP-MD5) • MBSSID (8 SSIDs with unique NAT scopes per radio) • Wi-Fi "hot spot" support (static DHCP IP scope over tunnel)
MoCA	
Versions	MoCA 1.1 and 2.0
Applications Support	
Applications	N/A
RF Downstream	
Operating frequency range	108 to 1002 MHz
Tuner frequency range	108 to 1002 MHz
Tuner	(1) frequency agile block tuner, full-band capture
Demodulation	8 demodulators, each demodulator: 64 QAM or 256 QAM
Maximum data rate	<ul style="list-style-type: none"> • 8 downstream channels, each 6 MHz channel: UP to 24 downstream channels 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 (optional 5 to 65 MHz, or 5 to 85 MHz)
Upstream transmission	4 upstream channels
Modulation	QPSK, 8 QAM, 16 QAM, 32 QAM, 64 QAM or ATDMA, and 128 QAM or SCDDMA

Maximum data rate per channel	Modulation	Channel Bandwidth (MHz)	Raw Data Rate (Mbps)	
	QPSK	1.6	2.56	
	16 QAM	1.6	5.12	
	QPSK	3.2	5.12	
	16 QAM	3.2	10.2	
	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	30.7	
Bandwidth	200 kHz to 6.4 MHz			
Maximum operating level	Modulation	One Channel	2 Channels	3 or 4 Channels
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	+53 dBmV
	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	120 VAC			
Power consumption (modem module)	~17W			
Data ports	Gigabit Ethernet (auto-negotiate with auto-MDIX): RJ-45 Ethernet (4) Optional with some part numbers: USB 2.0 and USB Type 2 (2)			
RF	Female F-Type			
Output impedance	75 ohms			
Mechanical				
Dimensions (H x D x W)	10.59 x 2.17 x 10.55 in.			
Weight	2.646 lb			
Operating temperature	32 to 104° F (0 to 40°C)			
Operating humidity	0 to 95% RH noncondensing			
Storage temperature	-4 to 158° F (-20 to 70°C)			
Standards and Approvals				
Designed to meet the following standards	DOCSIS 3.0 IEEE 802.11ac WPA2, WPA, and WEP WMM, WPS			
Regulatory Compliance				
Regulatory and safety approvals	As required per country where the Cisco Model DPC3941B will be used.			

Ordering Information

To place an order, visit the [Cisco Ordering Home Page](#) and refer to Table 5 and Table 6.

Table 5. Ordering Information

Description	Part Number
Cisco Model DPC3941B DOCSIS 3.0 8x4 Wireless Business Gateway. Includes: <ul style="list-style-type: none">• 802.11ac Wireless Access Point, dual-band concurrent 3x3• Power cord, North America (nonpolarized)	DPC3941B-AMC14-K9

Optional & Replacement Components Ordering Information

Table 6. Optional & Replacement Components

Description	Part Number
Power Cord	
Power cord, 2 conductors, NEMA 1-15 to C7, North America (polarized)	4026134
Battery Option	
2600 mAh Lithium-Ion battery	4033435
3000 mAh Lithium-Ion battery	4038047



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