



## Product Highlights

### High-Speed Internet

8 times faster than DOCSIS 2.0 with speeds of up to 1000 Mbps

### DOCSIS Compatible

Compatible with major cable providers, including Time Warner, Comcast and more.



## DCM-254G

# DOCSIS 3.0 Cable Modem

## Features

- 4x Gigabit Ethernet port for 10/100/1000Mbps BaseT Ethernet connectivity
- Downstream speeds up to 1000Mbps in DOCSIS 3.0 mode
- 24 x 8 bonded channels in DOCSIS 3.0 mode
- Auto-negotiation MDIX functions
- ANNEX-A/B support
- SNMPv2, v3 remote network management
- AC1600 Wi-Fi Speed
- 300Mbps in 802n 2.4GHz + 1300 Mbps in 802ac 5GHz
- MIMO, Beamforming support
- Bridge mode support
- 2 x RJ11 FXS ports for VOIP
- QoS enhancement
- PacketCable 2.0 Upgradeable
- Port forwarding support
- Adjustable Wi-Fi level
- Auto Wi-Fi Channel Selection
- IPv6 ready
- IPv6 Customer Edge Routers Support

The DCM-254G is a 24x8 DOCSIS®3.0 wireless eMTA. It's a high-performance home gateway that combines a cable modem, 4 Giga-Ethernet LAN ports, 2T2R 802.11n and 3T3R 802.11ac high power wireless access point. The DCM-254G is also backwards compatible with Wi-Fi standards. 2 FXS VoIP ports in a single device providing a cost-effective voice and internet solution for both home and small office. It provides a fast connection to the internet by incorporating 24 bonded downstream channels along with 8 bonded upstream channels. These bonded channels deliver downstream data rates in excess of 1000Mbps and upstream data rates in excess of 240Mbps. The DCM-254G is a Dual Stack Lite (DS-Lite) supported. DS-Lite allows service providers to migrate to an IPv6 access network without changing end-user software. The device that accesses the Internet remains the same, thus allowing IPv4 users to continue accessing IPv4 internet content with minimum disruption to their home networks, while enabling IPv6 users to access IPv6 content.

## High-Speed Broadband Internet Access

Powered by the DOCSIS 3.0 channel bonding technology, the DCM-254G DOCSIS 3.0 Cable Modem provides download speeds up to 8 times faster than DOCSIS 2.0, making it easier to enjoy your favorite Internet applications, such as file sharing, audio and video streaming, Internet TV and website browsing.

## Get Connected and Stay Connected

The DCM-254G Cable Modem makes your broadband connection more efficient by cleaning network congestion, resulting in a boost in download speeds, increased bandwidth and enhanced performance. The DCM-254G Cable Modem is DOCSIS CableLabs Certified® PacketCable 1.5 support, which ensures compatibility with all major cable companies. The DCM-254G is also backwards compatible with DOCSIS 2.0/1.1/1.0 standards.

## Integrated Home Services

DOCSIS 3.0 compliance provides speeds fast enough to support multiple Internet-based services in the home, such as digital television and video on demand.

# DCM-254G DOCSIS 3.0 Cable Modem

## Technical Specifications

### General

Device Interfaces	<ul style="list-style-type: none"> <li>• 4x RJ45 10/100/1000 BASE-T Ethernet Port (Auto MDI/MDIX)</li> <li>• RF interface (75ohm F-type) to bi-directional Hybrid Fiber Coaxial (HFC)</li> <li>• 2 x FXS ports for VOIP</li> <li>• DC power jack</li> <li>• WPS/WLAN button</li> </ul>	<ul style="list-style-type: none"> <li>• Reset button</li> <li>• USB2.0</li> </ul>
LEDs	<ul style="list-style-type: none"> <li>• Power</li> <li>• Ds/Us</li> <li>• Online</li> <li>• 2.4Ghz /5 Ghz</li> </ul>	<ul style="list-style-type: none"> <li>• WPS</li> <li>• Tel 1</li> <li>• Tel 2</li> </ul>
Receiver Specifications	<ul style="list-style-type: none"> <li>• Downstream modulation QAM 64/256</li> <li>• Downstream frequency range 108 - 1002 MHz</li> <li>• Max. downstream data range 1000Mbps</li> </ul>	<ul style="list-style-type: none"> <li>• Capture windows 24 QAM channels maximum</li> <li>• Channel bandwidth 8MHz QAM channels</li> <li>• Full Band Capture Support</li> </ul>
Transmitter Specifications	<ul style="list-style-type: none"> <li>• Upstream modulation QPSK 8,16,32,64 and 128 QAM</li> <li>• Upstream frequency range 5 ~85MHz</li> <li>• Max. upstream data range 240 Mbps (theoretical), (32.78 Mbps x 8 channels)</li> <li>• TDMA, ATDMA channel access support</li> </ul>	<ul style="list-style-type: none"> <li>• Number of upstream Channels 8</li> <li>• Output impedance 75 Ohm F-type</li> <li>• Channel bandwidth 200, 400 and 800 kHz, 1.6, 3.2 and 6.4 MHz</li> </ul>
Wireless Specifications	<ul style="list-style-type: none"> <li>• 2.4GHz 802.11n with 2x2 MIMO</li> <li>• Frequency Range 2.400 - 2.484 GHz</li> <li>• Data Rate 300Mbps - HT20, 2.4G in 20MHz mode</li> </ul>	<ul style="list-style-type: none"> <li>• 5GHz 802.11ac with 3x3 MIMO</li> <li>• Frequency Range: 5.15 - 5.85 GHz</li> <li>• Data Rate: 1300Mbps - HT80, 5G in 20/40/80MHz mode</li> </ul>
SSIDs	<ul style="list-style-type: none"> <li>• Up to 8(configurable)</li> </ul>	
QoS	<ul style="list-style-type: none"> <li>• WMM/WMM-PS</li> </ul>	<ul style="list-style-type: none"> <li>• WPS (Wi-Fi Protected Setup) PBC, PIN</li> </ul>
Wireless Security	<ul style="list-style-type: none"> <li>• WEP-64/WEP-128, WPA-PSK/WPA2-PSK(TKIP/AES)</li> </ul>	<ul style="list-style-type: none"> <li>• Beamforming Support</li> </ul>
Antennas	<ul style="list-style-type: none"> <li>• 3dbi internal x 3</li> </ul>	
Management	<ul style="list-style-type: none"> <li>• Web based Configuration</li> <li>• CMTS configure /FTP/TFTP Firmware upgrade</li> <li>• SNMP v2/v3</li> <li>• SNMP management (MIB)</li> <li>• Management Access Control for LAN/WAN sides</li> </ul>	<ul style="list-style-type: none"> <li>• TR-069 client</li> <li>• IPv4/IPv6 Dual Stack (RFC 4213)</li> <li>• IPv6 Customer Edge Routers (RFC 6204)</li> <li>• DHCP,DHCPv6</li> <li>• Telnet SSH management</li> </ul>
<b>Voice Functions</b>		
General	<ul style="list-style-type: none"> <li>• 2 FXS ports for VoIP</li> <li>• G.168 Echo cancellation</li> <li>• Caller ID (DTMF/FSK)</li> <li>• T30 &amp; T38 fax relay</li> <li>• Codecs G.711,G.723,G.726,G.729a,G.722</li> </ul>	<ul style="list-style-type: none"> <li>• Support SIP/NCS, DQOS</li> <li>• Security:SIP/SIP-TLS</li> <li>• Call feature :Signal tone, Ring stream, Caller number display and restriction, call forwards (no-condition, no-answer, busy, not-online)</li> </ul>

# DCM-254G DOCSIS 3.0 Cable Modem

## Technical Specifications

### General

Security	<ul style="list-style-type: none"> <li>• Prevent port scanning</li> <li>• Denial of Service (DOS)</li> <li>• LAND attack</li> <li>• IP/ MAC filtering</li> </ul>	<ul style="list-style-type: none"> <li>• Application filtering</li> <li>• URL filter</li> <li>• Baseline Privacy Plus Interface(BPI+) security mechanism</li> </ul>
EMC and Safety	<ul style="list-style-type: none"> <li>• Regulatory Compliance By demand</li> </ul>	
Safety Regulations	<ul style="list-style-type: none"> <li>• CB</li> </ul>	
Green Standard	<ul style="list-style-type: none"> <li>• RoHS</li> </ul>	

### Physical

Dimensions	<ul style="list-style-type: none"> <li>• 220 x 210 x 45mm</li> </ul>	
Surge Protection	<ul style="list-style-type: none"> <li>• 2.5KV</li> </ul>	
Power Adapter	<ul style="list-style-type: none"> <li>• Input: DC 100-240 V AC / 50/60 Hz, &lt; 28 W</li> </ul>	<ul style="list-style-type: none"> <li>• Output: 12 V / 2.5 A DC (efficiency gain 5)</li> </ul>
Temperature	<ul style="list-style-type: none"> <li>• Operating: 0 °C - 40 °C (32 °F - 104 °F)</li> </ul>	<ul style="list-style-type: none"> <li>• Storage: -40 °C – 70 °C (-40 °F - 158 °F)</li> </ul>
Humidity	<ul style="list-style-type: none"> <li>• Operating: 10% to 90% non-condensing</li> </ul>	
Certifications	<ul style="list-style-type: none"> <li>• FCC</li> <li>• CE</li> <li>• cUL</li> </ul>	<ul style="list-style-type: none"> <li>• CableLabs DOCSIS 3.0 CW70</li> <li>• Time Warner Cable</li> <li>• Comcast</li> </ul>

### Order Information

Part Number	Description
DCM-254G	DOCSIS 3.0 Cable Modem