



# DOCSIS 3.0 High Speed Cable Modem

Surf Fast, Save Cash and  
Ditch Rental Fees

TC7650



24x8 Channel Bonding  
Up to 1Gbps



Easy Setup



Gigabit Port

# Highlights

## Channel Bonding for Better Performance

Certified DOCSIS 3.0 technology allows TC7650 to deliver download speeds 24x faster than DOCSIS 2.0. The TC7650 features 24x8 channel bonding for downstream rates up to 1Gbps.

24 | Downstream channels



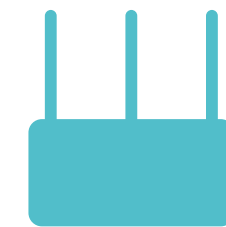
8 | Upstream channels



## Quick, Easy Setup

- Connect the coaxial cable to the modem.
- Connect your computer or router to the modem using an Ethernet cable.
- Call your ISP or use service provider self-activation process to activate the modem.

Internet



# Highlights

## Eliminate Monthly Rental Fees

Save up to \$120/year by returning your internet service provider's rental modem.\*

TC7650's  
fees

Rental fees

## Compatible with Major Cable Providers

Certified to work with internet service providers: XFINITY from Comcast, Cox, Spectrum®, and more.

xfinity™

COX

Spectrum▶

# Features

## Speed

- Channel Bonding – Up to 24 downstream & 8 upstream channels provide data rates up to 1Gbps for downstream
- DOCSIS 3.0 Technology – Allows TC7650 to deliver download speeds 24x faster than DOCSIS 2.0
- Gigabit Port – Ensures faster internet access for PC or wireless router

## Efficiency

- Eliminate Monthly Rental Fees – Save money by returning your internet service provider's rental modem
- Network Compatibility – Compatible with major cable providers
- DOCSIS Compatibility – Backwards-compatible with existing DOCSIS 1.0, 1.1, and 2.0 systems

## Ease of Use

- Easy Setup – Quick and hassle-free installation
- Well-defined LEDs – Clearly display device and network status

## Security

- Security & Firewall – Supports Baseline Encryption (BPI)/BPI+/EAE/SSD

## Reliability

- IPv4/IPv6 Dual Stack – Supports IPv4 and IPv6 Internet Protocol simultaneously
- QoS – Advanced QoS automatically recognizes & prioritizes streaming & gaming applications

# Specifications

## Downstream

- Channel Bonding: Up to 24 channels
- Channel Width: 144 MHz (24 channels) / 6 MHz (single channel)
- Modulation: 64 QAM / 256 QAM
- Symbol Rate: 5.057 Msym/s (64 QAM) / 5.361 Msym/s (256 QAM)
- Maximum Theoretical Data Rate\*:  
1029 Mbps (24 channels) / 42 Mbps (single channel) @ 256 QAM at 5.361 Msym/s
- Frequency Range: 108 to 1002 MHz (edge to edge)

## Upstream

- Channel Bonding: Up to 8 channels
- Channel Width: 200KHz / 400KHz / 800KHz / 1.6MHz / 3.2MHz / 6.4MHz
- Modulation: QPSK, 8/ 16/ 32/ 64/ 128 QAM, optional 256 QAM
- Symbol Rate: 160 / 320 / 640 / 1280 / 2560 / 5120 Ksym/s
- Frequency Range: 5 to 42MHz (edge to edge)



# Specifications

## Advanced Features

- IP Stack: Supports IPv4 and IPv6 dual stack
- DHCP: DHCP Client
- VPN Passthrough: PPTP, L2TP, IPSec
- Multicast: Support IGMP v1/v2/v3
- Management and Maintenance:
  - Managed by Web and TFTP
  - Reset to factory default by Reset button
  - Realtime statistics
  - System Log

## Others

- Package Contents
  - Cable Modem TC7650
  - RJ45 Ethernet Cable
  - Power Adapter
  - Quick Installation Guide
  - Information Card
- Certification
  - FCC, UL, Cablelabs, RoHS
- Protocols and Standards
  - IEEE Standards: IEEE802.3, 802.3u, 802.3ab, 802.1p, 802.1q
  - Others: TCP/IP, DHCP, ICMP, IGMP, TFTP, ARP, ToD
- Power Supply: 12VDC/1.5A
- Environment
  - Operating Temperature: 0°C~40°C (32°F~104°F)
  - Storage Temperature: -40°C~70°C (-40°F~158°F)
  - Operating Humidity: 10%~90% non-condensing
  - Storage Humidity: 5%~90% non-condensing



For more information, please visit  
<http://www.tp-link.com/us/products/details/TC7650.html>  
or scan the QR code on the left.

\* Maximum cable internet downlink speeds are the transmission rates that the device is capable of and certified for based on CableLabs DOCSIS 3.0 technology. Actual cable internet downlink speeds are not guaranteed and will vary according to your cable provider, MSO provisioning, and the speed tier of your subscription. Some modems are not compatible with certain cable providers. Please check with your cable provider to verify whether this modem is compatible with their service. Broadband cable service is required to use this device. Not compatible with voice services.

\*Based on a typical monthly equipment rental fee of \$10 per month.

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