

**Unprecedented Speeds over a DOCSIS Network**

DOCSIS 3.0 / Euro DOCSIS 3.0 embedded Multimedia Terminal Adapter is a Cable Modem plus 2 PacketCable Voice lines that gives Broadband Service Providers a significant competitive advantage in Triple Play service delivery. NETGEAR's DOCSIS® 3.0 cable modem with NETGEAR's field proven PacketCable™ VoIP enables service providers to bundle Voice with unprecedented speeds on an HFC network. The cost-effective CVD31T/CVE31T bonds four channels in each direction together to deliver usable downstream data rates of 152 Mbps (CVD31T, DOCSIS) or 200 Mbps (CVE31T, EuroDOCSIS) with 108 Mbps upstream (up to four times that of conventional DOCSIS 2.0 technology). The CVE31T also provides a hybrid mode. This feature allows the service provider to deploy the CVE31T in a network that uses the EuroDOCSIS 8 MHz downstream channel. The CVD31T/CVE31T is fully compliant with DOCSIS 3.0 and is backwards compatible with DOCSIS 2.0, 1.1 and 1.0. The CVD31T/CVE31T incorporates QoS for high real time VoIP and Video performance. It delivers customer data through one 10/100/1000 Ethernet LAN port and one USB 2.0 Client port. The two VoIP ports are delivered using PacketCable 1.5 VoIP. Now customers can enjoy the broadest spectrum of multimedia, including IP telephony, instant high-speed Web access, file sharing, multimedia conferencing, video streaming and download, high performance gaming, and MP3 downloading.

This eMTA allows Broadband Service Providers to capture Voice Services customers, typically increasing Average Revenue Per residential Customer by 30% to 80%.

**Blazing Speed**

With the CVD31T/CVE31T, MSO's now have a cost effective competitive weapon to combat the ADSL2+, VDSL and Fiber deployments from telcos.

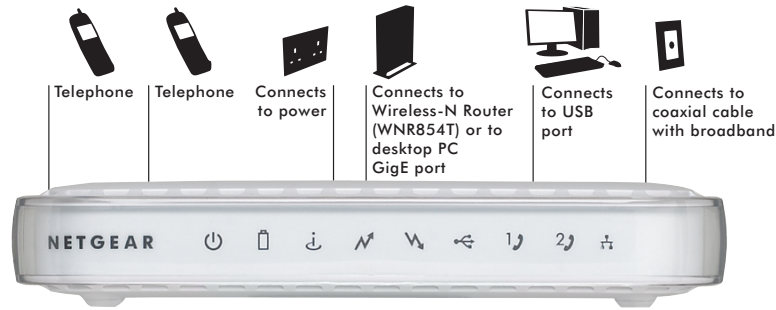
**Easy to Install and Support**

The CVD31T/CVE31T is fully compliant with DOCSIS 3.0 for remote management and provisioning. The CVD31T/CVE31T is as simple to install as plugging it in and needs "no customer management," driving support costs toward zero. Post-installation, it is easily managed with SNMP.

**Versatile**

The CVD31T/CVE31T offers both a USB 2.0 and Gigabit Ethernet port for users to take advantage of the very high-speed WAN connection.





## Technical Specifications

### Standards Compliance

Standards Compliance: DOCSIS 3.0 (CVD31T), EuroDOCSIS 3.0 (CVE31T), and backward compatible with CMTS's based on: DOCSIS 2.0, DOCSIS 1.1, DOCSIS 1.0, Analog Phone ITU-T G.993.2

### Networking Protocols

Application Layer: DHCP, DNS (Proxy & Dynamic), FTP client/server, HTTP, RTP, SSH, TFTP

Transport Layer: RSVP, TCP, TFTP, UDPv4, UDPv6

Network Layer: ARP, ICMP, IPv4, IPv6, IPv6 client/server/relay, IPv6CP, IP fragmentation & reassembly, RIPv1, RIPv2

Data Link Layer: Bridging, PPP, VPN Pass-through, Static Routing, Port Forwarding

Physical Layer: Ethernet: 10BaseT/100BaseT/1000BaseT

Analog Phone ITU-T G.993.2

### Management Specifications

- UPnP
- Setup: LAN, DNS, Static Routes
- Remote Web Management
- Smart Setup Wizard
- Scheduling tasks by time of day
- Network Time Protocol
- Firmware Upgrade via Internet
- Event Logs, Trusted User (access to all URLs)
- Maintenance: Status, Attached Devices, Backups, Set Password, Software Upgrades
- Advanced Settings: Wireless, Port Forwarding, Port Triggering
- Command line Interface
- Telnet, Syslog, TR-069 (325 Objects)

- Ethernet MIB, Bridge MIB
- Cable Device MIB, RF Interface IB

### Security

Supports baseline privacy encryption (BPI+)

### Physical Interfaces

- WAN - coax F connector
- Gigabit Ethernet LAN
- USB 2.0 Client
- 2 analog voice ports

### • Performance Specifications Upstream (Transmitter)

- Advanced QAM transmitter
- Takes burst or continuous data
- Provides FEC encoding and pre-equalization for DOCSIS applications
- Applies 4/8/16/64/128/256-QAM or S-CDMA modulation to the data stream
- Amplifies the signal through the integrated upstream power amplifier
- Provides a direct 0 MHz to 65 MHz analog output
- Four upstream channel bonding
- 2 Gbps upstream power DAC

### • Downstream (Receiver)

- Combines RF receivers with advanced QAM and S-CDMA demodulators
- Can bond up to 4 downstream channels
- Receivers support 4/16/32/64/128/256/512/1024 QAM FEC decoding
- Delivers final data stream in a serial MPEG-2 transport format
- All gain, clock and tracking loops are integrated in the QAM receiver

### • VoIP Voice Features

- Caller ID, call hold, transfer, forwarding, return, conference, redial, speed dial, anonymous call, voice mail, power saving

- Codecs: AMR, BV-16, G.711, G723.1, G.726, G.728, G.729a, G.722, G.168, iLBC, T.38 Fax relay
- Tone Detect/Generate
- Dial on Demand, Different Tones
- Adaptive jitter buffer, VAD, silence suppression
- NOTIFY for voice mail
- G.711 fax pass through
- Conference call with PSTN
- Connects to Multiple SIP servers
- Multiple SIPID, MGCP
- Rfc2833 DTMF relay
- DTMF relay using SIP Info packets
- SIP Pass-Thru (for VoIP calls to/from attached IP telephony devices)

### • Physical Specifications

- Dimensions (h x w x d): 30 x 175 x 114 mm (1.2 x 6.9 x 4.5 in)
- Weight: .31 kg (.68 lb)

### • Front Panel LEDs

- Power, Link
- Cable upstream (2 LEDs, 1/2 and 3/4)
- Cable downstream (2 LEDs, 1/2 and 3/4)
- USB, LAN, Voice 1, Voice 2, USB 2.0

### • Regulatory

- FCC, UL, CE, CB (CVE31T)

### • Power

- Adapter: 12V DC, 1.5A; plug is localized to country of sale
- Input Power: 18W

### • Package Contents

- CVD31T/CVE31T
- Power supply, Vertical stand
- Ethernet cable, USB cable, Installation CD

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\*Monday through Friday from 8am to 5pm local time, excluding NETGEAR holidays. Calls must be received by the following cutoff time for NBD hardware replacement delivery: US/Canada - 6 PM (EST), UK/Ireland - 2 PM, Central Europe - 3 PM, Australia (EST) - 5 PM

