

MediaAccess TC8305C for Comcast

Smart Cable Gateway
with Battery Backup Solution



CABLE

DATA

VOICE

Future-proof Solution for Advanced Services over DOCSIS

As cable standards keep evolving, Technicolor presents the TC8305C, a DOCSIS 3.0 wireless embedded Multimedia Terminal Adapter (eMTA) smart gateway with best-in-class performance.

A dedicated applications processor and software execution environment make it a powerful and reliable platform in the home, ready for demanding services and applications.

The TC8305C has an extended life cycle thanks to its extensive remote management capabilities, including the ability to smoothly upgrade itself and add apps on the go.

Moreover, this new generation of smart high-speed data service solutions supports up to eight bonded downstream channels and four bonded upstream channels.

Applications Core

As an easily updatable platform, the TC8305 is capable of providing subscribers with advanced services and apps within the home. Its dedicated applications processor and software service framework put services such as the following at your fingertips:

- DLNA Digital Media Server (DMS)
- Home Security and Automation
- Troubleshooting and Diagnostics
- Customer Self Help

Features at a Glance

- DOCSIS® 3.0 certified
- Backward compatible with DOCSIS 2.0 (and older)
- 8 downstream and 4 upstream channels
- Voice PacketCable™ 2.0 compliant
- Full band capture
- 4 GE LAN ports
- Wireless networking on-board: IEEE 802.11b/g/n (2.4 GHz) 3x3 200mW high-power
- 2 FXS ports (RJ-11)
- Voice CLASS features
- Generic Technicolor feature set
- Dedicated applications core
- Customizable GUI
- HNAP for home security services (optional)
- Multiple SSIDs, hotspot support
- Wideband voice codec
- SNMP
- TR-069 remote management (optional)
- IPv4 and IPv6 support



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Full Band Capture Solution

Thanks to its fully integrated 1 GHz wideband capture, the TC8305C exceeds SCTE-40+ performance and eliminates all frequency limitations of traditional wideband tuners. The TC8305C enables use of the full radio frequency (RF) spectrum without the need for grouped channels. This helps the operator migrate its entire DOCSIS 3.0 install base from one to eight DOCSIS downstream channels without having to re-align all its broadband channels to accommodate this new service.

High-Speed Wireless Interface

The TC8305C has an IEEE 802.11n wireless interface, supporting an industry leading 3x3 spatial stream configuration at 2.4GHz. Combined with internal amplifiers, The TC8305C brings home networking to a completely new level. The TC8305C also supports multiple SSIDs.

Voice Performance

The TC8305C is PacketCable 2.0 compliant and is equipped with basic and extended CLASS features such as caller id and call waiting.

Advanced Security

The integrated firewall provides Stateful Packet Inspection (SPI), and an integrated intrusion detection and Prevention System (IDS) engine monitors a wide range of attack patterns, and logs potential security breaches to a local cache or remote server. To secure data exchange between the gateways and the cable operators' servers, BPI+ communications privacy is used.

IPv6 Enabled

With the approaching IPv4 address pool depletion, our products need to be ready for IPv6. Technicolor is a frontrunner in the introduction of IPv6 on its devices, with the TC8305C being enabled for multiple IPv6 field scenarios. Internet Protocol version 6 is the next generation of Internet technologies aiming to effectively support the ever-expanding Internet usage and functionality, and also to address security concerns that exist in an IPv4 environment.

Technicolor aims to introduce IPv6 as smoothly as possible in customer networks. By providing in-depth knowledge of the networking stack, we guide our customers in their transition from IPv4 to IPv6.

Easy to Use

Like all Technicolor modems and gateways, the TC8305 is an easy to use, easy to install gateway. For convenience of the end user, the easy-to-access LEDs provide a clear indication of start-up sequence, connectivity status and channel bonding status. Multiple integrated web pages allow direct access to the status and settings, including privacy and security information.

With Wi-Fi Protected Setup (WPS) users can easily connect with the TC8305C wireless network by simply pushing a button or entering a PIN code. It allows home users to easily connect to a secure network without any complex configuration and eliminates the need to remember or store their security information in an unsafe way.

ECO

Technicolor offers its customers environmentally friendly products. In addition to carefully selected plastics and packaging to minimize the ecological footprint, the TC8305C benefits from a unique combination of hardware and software features that reduce power consumption substantially.

Professional Services

To reinforce our extensive portfolio of digital home solutions, Technicolor has a dedicated Professional Services team to make sure that every deployment is a success, from initial provisioning and integration to operations, upgrades, ongoing support and beyond.

Our wide array of services spans the entire customer project lifecycle, encompassing:

- Expert consulting
- Seamless system integration
- Warranty on all our products
- Qualified technical support and maintenance
- Efficient repair, refurbishment and recycling

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Technical Specifications

Cable Certifications

- Data DOCSIS® 3.0 certified
- Voice PacketCable™ 2.0 compliant
- CMTS interoperability Any qualified DOCSIS® CMTS

Hardware Specifications

- Interfaces WAN 1 RF connector F-Type
- Interfaces LAN 4-port auto-MDI/MDI-X 10/100/1000 Base-T port
Ethernet LAN switch (RJ-45)
2 FXS POTS ports (RJ-11)
1 USB 2.0 master port
Wi-Fi IEEE 802.11b/g/n 2.4 GHz on board
- Interfaces other WPS button
Reset button
- Dimensions 242 x 52 x 218 mm (9.5 x 2.0 x 8.6 in.)
- Power supply 90-135 VAC, 50-60 Hz
Lifeline battery backup
- Operating temperature 0° to 50° C (32° - 122° F)
- Operating humidity 20 % to 90 % non-condensing
- Storage temperature -20° to 70° C (-4° - 158° F)

Receiver Specifications

- Downstream modulation QAM 64/256
- Downstream frequency range 54 - 1002 MHz
- Maximum downstream data range 340 Mbps (theoretical)
(42.88 Mbps x 8 channels)
- Capture windows Full Band Capture: possibility to have any of the 8 downstream channels over the full DOCSIS® spectrum
- Up to 8 downstream channels
- Input signal level range -15 dBmV / + 15 dBmV
- Input impedance 75 Ohm

Transmitter Specifications

- Upstream modulation QPSK and 8, 16, 32, 64 and 128 QAM
- Upstream frequency range 5 - 42 MHz
- Maximum upstream data range 131 Mbps (theoretical)
(32.78 Mbps x 4 channels)
- 4 upstream channels
- Channel bandwidth 200, 400 and 800 kHz, 1.6, 3.2 and 6.4 MHz
- Output impedance 75 Ohm

Management

- User-friendly GUI via HTTP
- Web-based user interface management and administration
- Logging and alert

Wireless Specifications

- Wi-Fi IEEE 802.11b/g/n 2.4GHz 3x3 high-power 200mW access point
Wi-Fi certified®
- WPA(2)™-personal support of Temporal Key Integrity Protocol (TKIP),
IEEE802.1x port-based authentication with RADIUS client
- Wi-Fi Protected Setup (WPS™)
- Up to 8 virtual SSID APs support
- Security and service segregation per SSID
- 3 internal antennas

Security

- Stateful Packet Inspection Firewall (SPIF)
- Customizable firewall security levels
- Intrusion detection and prevention (DoS, SYN Flood, Ping of Death)
- URL- and content-based website filtering

Networking

- Network protocol IP, TCP, UDP, ARP, ICMP, DHCP, TFTP, SNMP, HTTP
- Protocol filtering Ethernet and IP
- SNMP management SNMP v2, SNMP v3

Software Specifications

- Downloadable software
- Multiple client support 254
- Class of Services 16 DSID
- Security BPI+
- HTTP server

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Technical Specifications

Telephony Specifications

- Audio codecs PCM A-law, PCM μ -law, G.729, G.729a, G.729e, G.728, iLBC and BV16
- Multi-line phone support 2 phone lines
 - 3-party conference calls
 - Supports two complex voice codecs simultaneously
- Fax relay T.38
- DTMF tone relay RFC 2833
- Caller ID Type I and Type II
- CLASS features Basic and extended CLASS features
- Voice Activity Detection (VAD)
- Comfort Noise Generation (CNG)
- Echo cancellation G.65 / G.168 up to 16 ms
- Packet tone
 - DTMF generation
 - Call progress generation
 - Custom tone generation
- Call discrimination Fax and modem detection
- Telephony interface capabilities
 - Loopback and on-demand diagnostics
- Modems Up to V.90 (38.5 kbps)
- RFC 2833 DMTF tone relay
 - Enabled / disabled via SNMP
- REN 5 REN
- Pulse dialing
 - DTMF
 - pulse tones and pulse
 - DTMF tones conversion
- RTP layer
 - RFC 1889
 - RFC 1890
- RTCP statistics collection
- PacketCable protocols
 - PacketCable™ NCS
 - Network-based call signalling protocol (PKT-SP-EC-MGCP)
 - SIP protocol by software upgrade
- SIP based protocols

Content of the Box

- Smart Cable Gateway with Battery Backup Solution
- Power supply cable

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