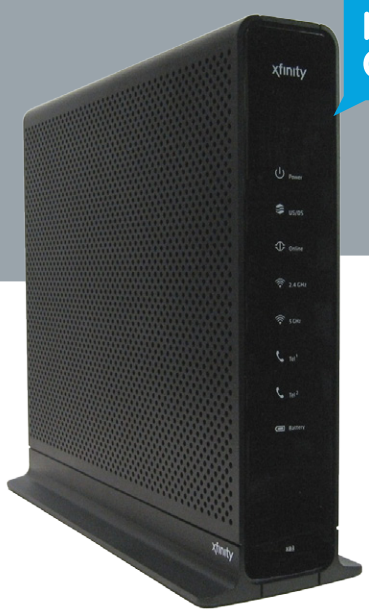
technicolor

MediaAccess TC8717C for Comcast

Wireless .11ac
Smart eMTA Cable Gateway
with DECT and Battery Backup



CABLE
- DATA
- VOICE
- VIDEO

Next-Gen Wireless Technology for Next-Gen Speeds

The TC8717C is one of the first dual band concurrent Wi-Fi ultra broadband gateways to feature the next-generation IEEE 802.11ac wireless standard for the 5 GHz band. With its optimized antenna configuration, this enhanced wireless solution enables even higher throughput and better coverage over the much less crowded 5 GHz radio, for real-time content delivery. Simultaneously, it guarantees uninterrupted transmission of data services over IEEE 802.11n using the 2.4 GHz band.

Latest High-Bandwidth Technology

The TC8717C is 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 TC8717C 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 16 bonded downstream channels and four bonded upstream channels for speeds of up to 640 Mbps downstream and 160 Mbps upstream. The TC8717C also provides full connectivity to devices in the home including set-top boxes via MoCA.

Features at a Glance

- DOCSIS® 3.0
- Backwards compatible with DOCSIS® 2.0 (and older)
- 16 downstream and 4 upstream channels
- Full band capture
- 4 GE LAN ports
- Dual band concurrent Wi-Fi interfaces:
  - IEEE 802.11n 2.4 GHz (3x3)
  - IEEE 802.11ac 5 GHz (3x3)
- MoCA 2.0
- 2 FXS ports for phone or fax
- Integrated DECT multiline base station (CAT-iq™ 2.0 ready)
- Voice PacketCable™ 1.5 & 2.0 compliant
- Wideband audio: G.722
- 2 USB 2.0 master ports for hard disk, printer, 3G adapter, ...
- Seamless media sharing (UPnP A/V™ and DLNA®)
- HNAP for home security services (optional)
- Future-proof full service platform supporting:
  - Qeo communication framework and apps
  - Dedicated applications core
- TR-069 remote management (optional)
- IPv4 & IPv6 enabled
- Designed according to the latest ECO standards

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Full Band Capture Solution

Thanks to its fully integrated 1 GHz wideband capture, the TC8717C exceeds SCTE-40+ performance and eliminates all frequency limitations of traditional wideband tuners. The TC8717C 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 16 DOCSIS downstream channels without having to re-align all its broadband channels to accommodate this new service.

"I speak Qeo"

The TC8717C has been developed to run Qeo, Technicolor's open, agile and distributed communication framework that addresses the issue of disparate ecosystems used for device interaction. With Qeo, you can seamlessly bridge all your connected devices, applications and over-the-top cloud solutions, regardless of brand or ecosystem. As a universal software language, it lets you create totally new use cases for the connected life and the "Internet of Things" (IoT).

Qeo also includes tools to monitor and manage all Qeo enabled devices, helping you keep operational costs under control.

To learn more about Qeo, visit: **www.i-speak-qeo.com**

Applications Core

As an easily updatable platform, the TC8717C 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:

- Home Security and Automation
- Troubleshooting and Diagnostics
- Customer Self Help

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 TC8717C 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.

Voice Performance

The TC8717C is PacketCable 2.0 compliant and is equipped with basic and extended CLASS features such as caller id and call waiting.

DECT Integrated Base Station

Thanks to its integrated DECT base, new lines can be added by simply pairing new cordless handsets, while legacy phone and fax equipment can still be connected to the FXS port.

The TC8717C DECT base works seamlessly with the MediaConnect TH78, Technicolor's next-gen CAT-iq v2.0 certifiable DECT handset.

Media Sharing

The TC8717C acts as a fully compliant DLNA 1.5 Digital Media Server (DMS) and enables distribution of all content from any device to any device in the home. You can stream music, data, pictures and video from your gateway to devices connected to your wired or wireless home network.

In addition, the TC8717C supports hot plugging of USB hard disk drives, allowing you to simply plug and play devices without the need to switch the gateway off first.

MoCA

The TC8717C also includes an integrated MoCA 2.0 interface which enables the gateway to provide connectivity to set-top boxes and client devices connected within the home.

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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.

Easy to Use

Like all Technicolor modems and gateways, the TC8717C 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, operational status, and connectivity status.

Multiple integrated web pages also allow direct access to the status and settings, including privacy and security information.

WPS

With Wi-Fi Protected Setup (WPS) users can easily connect with the TC8717C 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 is committed to offer its customers sustainable products and implements a set of ECO features to reach the best possible environmental performance. In addition to carefully selected plastics and packaging to minimize the ecological footprint, the TC8717C 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

Hardware Specifications

- Interfaces WAN: 1 RF connector F-Type
- Interfaces LAN: 4-port autosensing 10/100/1000 Base-T auto-MDI/MDI-X Ethernet LAN switch
  MoCA 2.0 for LAN through WAN RF connector F-Type
  Integrated DECT base station
  2 FXS POTS ports
  2 USB 2.0 master ports
  IEEE 802.11n 2.4 GHz on-board
  IEEE 802.11ac 5.0 GHz on-board
- Interfaces other: Power button
  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° - 50° C (32° - 122° F)
- Operating humidity: 20 % to 90 % non-condensing
- Storage temperature: -20° - 70° C (-4° - 158° F)

Cable Certifications

- Data: DOCSIS® 3.0
- Voice: PacketCable™ 1.5 & 2.0 compliant
- CMTS interoperability: Any qualified DOCSIS® CMTS

Receiver Specifications

- Downstream modulation: QAM 64/256
- Downstream frequency range: 54 - 1002 MHz
- Maximum downstream data range: 620 Mbps (theoretical)
  (38.8 Mbps x 16 channels)
- Capture windows: Full Band Capture: possibility to have any of the 16 downstream channels over the full DOCSIS® spectrum
- Number of downstream channels: Up to 16
- 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: 108 Mbps (theoretical)
  (27 Mbps x 4 channels)
- Number of upstream channels: Up to 4
- Channel bandwidth: 200, 400 and 800 kHz, 1.6, 3.2 and 6.4 MHz
- Output impedance: 75 Ohm

Wireless Specifications

- Full dual band concurrent Wi-Fi access points, Wi-Fi certified®
  2.4 GHz (3x3) IEEE 802.11n AP with implicit transmit beamforming
  5.0 GHz (3x3) IEEE 802.11ac AP with IEEE 802.11ac compliant transmit beamforming
- Wi-Fi power: High Power: up to 200 mW EIRP
- Wi-Fi Protected Setup (WPS™)
- Wi-Fi security levels: WPA2™-Personal / WPA™-Personal
  IEEE 802.1x port-based authentication with RADIUS client
  WEP™
- Up to 8 BSSIDs (virtual AP)
- RX/TX switched diversity
- 3x3 MIMO 2.4 GHz Wi-Fi features
  SGi
  STBC
  20/40 MHz coexistence
- 3x3 MIMO 5 GHz Wi-Fi features
  SGi
  STBC
  20/40/80 MHz mode
- Dynamic rates switching for optimal wireless rates
- Manual/auto radio channel selection

Management

- User-friendly GUI via HTTP
- Web-based user interface management and administration
- Logging and alert
- Product software: downloadable software

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

Services

- Support of Qeo communication framework and apps, including access to real time diagnostics
- Open architecture for 3rd party application and UI development
- Parental control: URL- and (optional) content-based website filtering
  Time-based access control
- Content sharing: UPnP A/V™ media server and control point
  DLNA®
  Metadata support

Security

- Stateful Packet Inspection Firewall (SPIF)
- Customizable firewall security levels
- Intrusion detection and prevention (DoS, SYN Flood, Ping of Death)
- Security and service segregation per SSID

Networking

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

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Technical Specifications

DECT Specifications

- CAT-iq™ 2.0 multi-line (enhancement to DECT 6.0 for use in IP based devices)
- Far reaching
- Improved voice quality
- Wideband voice support
- Shared phonebook
- Centralized call logging
- Up to 5 simultaneous handsets
- Extended functionality for the MediaConnect TH78 handset

Telephony Specifications

- Audio codecs: PCM A-law, PCM μ-law, G.729, G.729a, G.729e, G.728 Wideband G.722 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.165; 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

Environmental Features

- Power control features: Ability to turn off any or all modules; Slow down or turn off processors; Turn on or turn off external interfaces; Dynamic power consumption reduction

Content of the Box

- Wireless .11ac Smart eMTA Cable Gateway with DECT and Battery Backup
- Ethernet cable (RJ-45)
- Power supply cable
- Setup CD (optional)
- Quick Setup leaflet(s) (optional)
- Safety Instructions & Regulatory Information booklet (optional)

TECHNICOLOR WORLDWIDE HEADQUARTERS
1, rue Jeanne d'Arc
92443 Issy-les-Moulineaux France
Tel: +33 (0)1 41 86 50 00 - Fax: +33 (0)1 41 86 58 59

www.technicolor.com

SALES CONTACT
For more information please get in touch with your usual sales representative or use the following email:

EMEASalescontact@technicolor.com
APACSalescontact@technicolor.com
NAMSalescontact@technicolor.com
LATAMSalescontact@technicolor.com

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