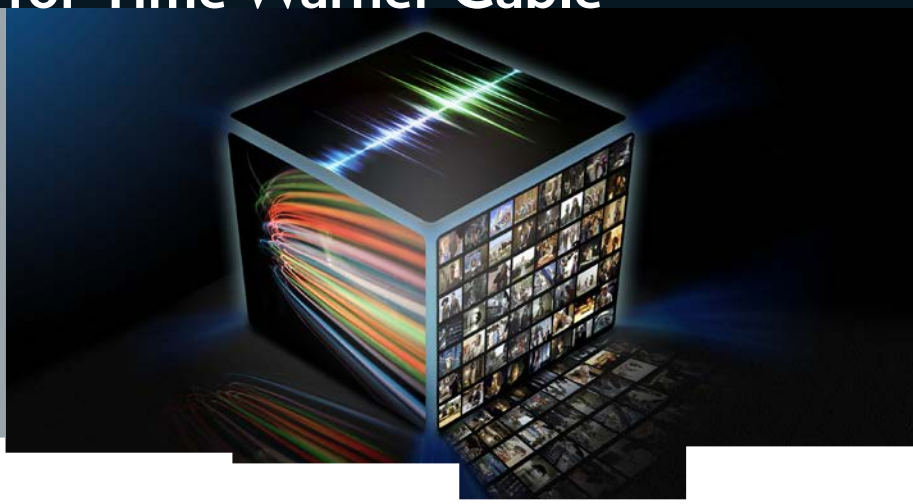
technicolor

MediaAccessTC8706T for Time Warner Cable

Smart Cable Gateway with Battery Backup Solution



CABLE

- DATA
- VOICE
- VIDEO

Future-proof Solution for Advanced Services over DOCSIS

As cable and wireless standards keep evolving, Technicolor presents the TC8706T, a DOCSIS 3.0 dual band concurrent wireless embedded Multimedia Terminal Adapter (eMTA) smart gateway with best-in-class performance and dual band concurrent wireless support.

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 TC8706T 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, and provides full connectivity to devices in the home including set-top boxes via MoCA 2.0. The optionally integrated DECT base station offers support for up to five DECT phones.

Applications Core

As an easily updatable platform, the TC8706T 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™ 1.5 & 2.0 compliant
- Full band capture
- 4 GE LAN ports
- MoCA 2.0
- Dual band high power Wi-Fi interface: IEEE 802.11n 2.4 GHz (3x3) & 5GHz (3x3)
- 2 FXS ports (RJ-11)
- (optional) Integrated DECT multiline base station (CAT-iq™ 2.0 ready)
- 2 USB 2.0 master for hard disk, printer, 3G adapter, ...
- Spectrum analyzer
- Technicolor feature set
- Dedicated applications core
- HNAP for home security services (optional)
- SNMP
- TR-069 remote management (optional)
- IPv4 and IPv6 support

MediaAccess TC8706T for Time Warner Cable

Smart Cable Gateway
with Battery Backup Solution

Full Band Capture Solution

Thanks to its fully integrated 1 GHz wideband capture, the TC8706T exceeds SCTE-40+ performance and eliminates all frequency limitations of traditional wideband tuners. The TC8706T 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.

The full band capture feature also facilitates spectrum analysis features and capabilities, unleashing powerful ways to manage cable plants in a proactive way, reducing operational expenses.

High-Speed Wireless Interface

The TC8706T has a dual band concurrent high power IEEE 802.11n wireless interface, supporting an industry leading 3x3 spatial stream configuration at both 2.4GHz and 5GHz. Combined with internal amplifiers, the TC8706T takes home networking to a completely new level. The TC8706T also supports multiple SSIDs.

Voice Performance

The TC8706T is PacketCable 2.0 compliant and is equipped with basic and extended CLASS features such as caller ID and call waiting.

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

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.

MoCA

The TC8706 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. MoCA 2.0 provides a future proof, high bandwidth and high node count wired backbone within the subscriber's home.

Hardware robustness and immunity

The TC8706T has industry leading EMC robustness for maximum reliability. Best in class radiated immunity specification provides protection against wireless and LTE interference. Industry leading immunity to conducted interference gives protection against in-home conducted disturbances. Best in class surge immunity provides protection against electrical surge events. Power supply thermal stability is fully characterized to protect against any safety or reliability concerns such as brown-out situations.

Easy to Use

Like all Technicolor modems and gateways, the TC8706T is an easy to use, easy to install gateway.

For instance, the easy-to-access LEDs provide a clear indication of start-up sequence, connectivity status and channel bonding status (number of used downstream and upstream channels). Additionally, 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 TC8706T 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 TC8706T 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

MediaAccess TC8706T for Time Warner Cable

Smart Cable Gateway
with Battery Backup Solution

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)
  MoCA 2.0 for LAN through WAN RF connector F-Type
  2 FXS POTS ports (RJ-11)
  Integrated DECT base station (optional)
  2 USB 2.0 master ports
  Wi-Fi IEEE 802.11b/g/n high power 2.4GHz 3x3
  Wi-Fi IEEE 802.11b/g/n high power 5GHz 3x3
- 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
- Radiated immunity — More than 10 V/m
- Conducted interference immunity
  Up to 10 V e.m.f.
- Surge immunity — 6 kV on AC input
  6 kV shield to ground
  4 kV center conductor to shield
- 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

MoCA Specifications

- MoCA 2.0
- Full backward compatibility to MoCA 1.1
- Support for up to 16 MoCA network nodes
- Throughput up to 400 Mbps
- Expanded range of operating frequencies – 1150 MHz to 1650 MHz
- Supports both Parameterized and Prioritized QoS

Management

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

Wireless Specifications

- Dual band concurrent Wi-Fi access points, Wi-Fi certified®
  IEEE 802.11b/g/n high power 2.4GHz 3x3
  IEEE 802.11b/g/n high-power 5GHz 3x3
- 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 BSSIDs (virtual AP) support
- Security and service segregation per SSID
- 6 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

MediaAccess TC8706T for Time Warner Cable

Smart Cable Gateway
with Battery Backup Solution

Technical Specifications

DECT Specifications

- CAT-iq™ 2.0 mulit-line (enhancement to DECT 6.0 for use in IP based devices)
- Far reaching
- Improved voice quality
- Wideband voice support

Telephony Specifications

- Audio codecs — PCM A-law, PCM μ-law, G.728, G.729, G.729a, G.729e, iLBC and BV16; Wideband (G.722, G.722.2)
- 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)
- RFC2833 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

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

technicolor

© Copyright 2013 Technicolor. All rights reserved.
Photos and specifications are subject to change without notice. All trade names referenced are service marks, trademarks, or registered trademarks of their respective companies.
DMS-DAT-20121017-0000 vA.1