technicolor

MediaAccessTC7110







CABLE

DATA

VOICE

Wideband Voice Solution

The TC7110 wireless EMTA is based on DOCSIS 2.0 and combines all the features of a wireless router and EMTA in one cost-effective package. It supports voice using the PacketCable 1.5 standard and call control with the PacketCable standard NCS protocol or SIP protocol as an option. A high-quality voice modem with high-speed wireless (IEEE 802.11n) and Fast Ethernet connectivity make the TC7110 the ideal choice for residential and SOHO applications.

High-Speed Wireless Interface

The TC7110 has an IEEE 802.11n wireless interface, offering speeds of up to 60 Mbps. This newest wireless standard brings home networking to a completely new level and enables real-time multimedia content streaming over a Wi-Fi network everywhere in your home.

Features at a Glance

- DOCSIS® 2.0 certified
- 4 FE LAN ports
- Wireless networking on-board: 802.11b/g/n (2.4 GHz)
- Voice PacketCable[™] 1.0, 1.1 and 1.5 compliant
- Upgradeable to PacketCable[™] 2.0
- IPv6 upgradeable
- Advanced security features
- Reliable high-performance platform
- BPI+ communications privacy to support secure data exchange between modems & cable operators' servers





Wireless Voice Cable Modem

Enhanced Voice Performance

The TC7110 is equipped with a 320 MHz Dual Instruction MIPS32 CPU and DSP Instruction Extensions for voice in order to guarantee superior performance. Gateway and voice operations support data throughput and complex voice codec calls simultaneously.

All standard codecs are supported, including the new iLBC and BV16. Different software images are available to support PacketCable 1.5 and SIP

Easy to Use, Easy to Install

Like all Technicolor modems and gateways, the TC7110 with four FE LAN ports is an easy to use, easy to install gateway. For end-user convenience, the easy-to-access LEDs provide a clear indication of start-up sequence and connectivity status. Multiple integrated web pages allow direct access to the status and settings, including privacy and security information.

Advanced in 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.

The TC7110 also supports powerful wireless security mechanisms, such as Wi-Fi Protected Access (WPA2) together with a secure and user friendly connection and configuration mechanism for wireless clients (WPS).

To secure data exchange between the gateways and the cable operators' servers, BPI+ communications privacy is used.

ECO

Technicolor offers its customers environmentally-friendly products. In addition to carefully selected plastics and packaging to minimize the ecological footprint, the TC7110 benefits from a unique combination of hardware and software features that reduce power consumption substantially.

Professional Services

Technicolor offers a wide array of services:

- Hardware: Optimize warranty and hardware operations such as logistics, recycling, refurbishing, ...
- Support & Maintenance contracts providing a technical support line, software support, updates, upgrades, on-site support and training. Dedicated response time can be tailored to fit your organization with BRONZE, SILVER and GOLD agreements.
- Technicolor proposes Integration Services on technologies and products to accelerate your project whilst optimizing your time to market. We can also provide resources for project management, engineering, planning, and assist your team with device interoperability tests, Proof Of Concept (POC) and trials.
- Missions to optimize your Total Cost of Ownership (TCO) by analyzing your hotline calls and proposing relevant actions to reduce your OPEX budgets.
- Leveraging its many years of expertise in creating gateway and settop box products with over 200 million devices delivered to diverse markets all around the world Technicolor has built an experienced and dedicated design team guaranteeing state-of-the-art yet cost-effective designs, easy to use and install.

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Wireless Voice Cable Modem

Technical Specifications

Cable Certifications / Standards

Data
DOCSIS® 2.0 certified
Voice
PacketCable™ 1.5 certified

Upgradeable to PacketCable $^{\text{\tiny ™}}$ 2.0

■ 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 Base-T port

Ethernet LAN switch (RJ-45) 2 FXS POTS ports (RJ-11)

■ Interfaces other Reset button

WPS button

Dimensions
Power supply
Operating temperature
Operating humidity
Operating humidity
1.85 x 5.6 x 7 in. (47 x 142 x 178 mm)
120 - 240 VAC, 50 - 60 Hz
32° - 104° F (0° to 40° C)
20% to 90% non-condensing

Operating numidity
Storage temperature
4° - 158° F (-20° to 70° C)

■ Safety FCC Part15, UL

Receiver Specifications

■ Downstream modulation QAM 64/256

■ Downstream frequency range 88-862 MHz

■ Maximum downstream data range

30.34/42.88 Mbps

(QAM 64 / QAM 256)

■ Input signal level range +43 to +73 dB μ V (QAM 64)

+47 to +77 dB μ V (QAM 256)

■ Input impedance 75 Ohm

■ BER <1x10-8 @ C/N=23.5dB, QAM 64 with FEC

<1x10-8 @ C/N=30dB, QAM 256 with FEC, received power = +47 to +54 dB μ V

<1x10-8 @ C/N=33dB, QAM 256 with FEC, received power = +54 to +77 dB μ V

Transmitter Specifications

■ Upstream modulation QPSK and QAM 16

Additional upstream modulation types

QAM 8/32/64 for A-TDMA and QAM 128 for S-CDMA channels

■ Upstream frequency range

5-42 MHz

■ Maximum upstream data range

Max 5.12/10.24 Mbps (QPSK/QAM 16)

Max 30.720 Mbps (QAM 64)

Output signal level range

A-TDMA:

+68 to +118 dB μ V @ QPSK +68 to +115 dB μ V @ QAM 8/16 +68 to +114 dB μ V @ QAM 32/64

S-CDMA:

+68 to +113 dBµV /All

■ Channel bandwidth Programmable (200*N KHz)

N=1, 2, 4, 8, 16, 32

Output impedance 75 Ohm

lacksquare Automatic level adjust

■ Gain control range■ Frequency stability+/- 5 kHz

Management

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

Wireless Specifications

- Wi-Fi IEEE 802.11b/g access point Wi-Fi CERTIFIED®
- WPA(2) $^{\text{\tiny M}}$ -personal support of Temporal Key integrity Protocol (TKIP), WEP $^{\text{\tiny M}}$
- Wi-Fi Protected Setup (WPS™)
- Up to 4 virtual SSID APs support
- Security and service segregation per SSID
- Up to 60 Mbps data rates

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Wireless Voice Cable Modem



Technical Specifications

Networking

■ Network protocol IP, TCP, UDP, ARP, ICMP, DHCP, TFTP, SNMP,

HTTP

Ethernet and IP ■ Protocol filtering

■ SNMP management

Software Specifications

■ Software downloadable

■ Multiple client support 254 ■ Class of Services (CoS) 16 SIDs

Security

■ HTTP server (CM status)

Telephony Specifications

PCM A-law, PCM μ -law, G.729, G.729a, G.729e, ■ Codecs

iLBC and BV16, T.38 Fax relay

Caller ID ■ Features

Call waiting 3-party conference calls voice mail indicator

■ Comfort Noise Generation (CNG)

■ Echo cancellation G.65 / G.168 up to 32 ms

■ Packet tone DTMF generation / Call Progress Generation /

Custom Tone Generation

■ Telephony interface capabilities

Loopback and on-demand diagnostics

■ REN

■ RTCP statistics collection

PacketCable™ NCS Network-Based Call Signalling ■ Signalling protocols

Protocol or SIP protocol

Content of the Box

- Wireless Voice Cable Modem
- Power supply unit
- Ethernet cable (RJ-45)
- CD-ROM
- Quick Installation Guide
- Wi-Fi adapter key and easy set-up application (optional)

TECHNICOLOR WORLDWIDE HEADQUARTERS

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