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TCW770

DOCSIS / EuroDOCSIS 3.0 Wireless Cable Gateway

On January 27th 2010, Thomson changed its company name to Technicolor. All product data sheets, including those for products which still carry the Thomson name, now reflect our new Technicolor brand.

With the evolution of cable standards, DOCSIS/EuroDOCSIS 3.0 will prove decisive for cable operators wishing to provide high bandwidth data delivery and to stay ahead of the content with game and video over IP delivery. With this new generation of High Speed Data Services Solution, Technicolor introduces up to eight (8) bonded downstream channels and four (4) bonded upstream channels, with a design backward-compatible for use as a single-channel with DOCSIS and Euro-DOCSIS 2.0 (and older) networks without any service interruption. Thanks to the integrated dual split tuner solution, the operator will benefit from flexibility in channel allocation: to ease the management when the channel frequency plan is loaded or to separate data from other services such as video over IP.

The new TCW770 comes in the sleek attractive design Technicolor has adopted as the new «family look».

High Speed Wireless Interface

The TCW770 has a Wi-Fi 802.11n wireless interface, offering speeds of up to 100 Mbps. This newest wireless standard reaches speeds of twice the range than 802.11g, bringing Home Networking to a completely new level and enabling real time multimedia content streaming over a Wi-Fi network everywhere in the house.

Ecological Design

Technicolor, as front-runner in ecological design, offers in the TCW770 advanced features to reduce power consumption. It is designed with advanced power management to better control power consumption, thanks to the integrated tuner. The Gateway even supports a lower power mode thanks to a split tuner solution, an integrated upstream power amp and the auto power down feature on the external GEthernet interfaces. Additional power control features are supported with the ability to turn off any or all modules, to slow down or turn off processors and to turn off all external interfaces, reducing the power consumption even more.

Features at a Glance

- EuroDOCSIS 3.0
- Dual-mode cable modem: DOCSIS and EuroDOCSIS
- 64 MHz dual tuner fully compliant with DOCSIS 3.0
- Backward-compatible with DOCSIS 2.0 (and older)
- 4-port GEthernet router
- MPEG2 over IP Encapsulation solution
- Wi-fi 11n wireless connection
- Reliable high-performance platform
- Advanced power management
- Powerful processor and architecture
- Supports IPv4 and IPv6
- Advanced security features

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Advanced in Security

To ensure end users and operators with the fullest possible secure solution, Technicolor built in several security mechanisms.

The integrated firewall guarantees users ultimate network security. It minimizes undesired service impact and provides stateful inspection of packets. An integrated Denial of Service (DoS) engine monitors a wide range of attack patterns, and logs potential security breaches to a local cache or remote server.

The TCW770 also supports powerful wireless security mechanisms, such as Wi-Fi Protected Access (WPA, WPA2), Wired Equivalent Privacy (WEP) encryption. This allows users to communicate and access data with efficient link quality and the highest level of network security.

On top of that a wireless access control mechanism is built in to prevent unauthorized wireless users from accessing.

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

Easy to Use, Easy to Install

As all Technicolor gateways, the 4-port GEthernet TCW770 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 and connectivity status.

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

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Technical Specifications

Standards / Certifications

■ Data	EuroDOCSIS 3.0 full compliant
■ CMTS Interoperability	Any qualified EuroDOCSIS and DOCSIS (*) CMTS
■ 802.11n	yes

Receiver

■ Downstream Modulation	QAM 64/256
■ Downstream Frequency Range	88-1002 MHz
■ Maximum Downstream Data Range	440 Mbps (theoretical) (55.61 Mbps x 8 channels)
■ Capture Windows	64 MHz capture window split into two windows of 32 MHz thanks to the integrated dual tuner solution
■ Number of Downstreams	up to 8
■ Input Signal Level Range	-17dBmV ~ +13dBmV (64QAM) -13dBmV ~ +17dBmV (256QAM)
■ Input Impedance	75 Ohm

Transmitter

■ Upstream Modulation	QPSK and 8, 16, 32, 64 and 128 QAM
■ Upstream Frequency Range	5-65 MHz
■ Maximum Upstream Data Range	131 Mbps (theoretical) (32.78 Mbps x 4 channels)
■ Number of Upstreams	4
■ Channel Bandwidth	200, 400 and 800kHz, 1.6, 3.2 and 6.4 MHz
■ Output Impedance	75 Ohm

Wireless Features

■ Protocol	Fully 802.11n compatible
■ Antenna	Two external antennas
■ Throughput	Up to 100Mbps data rate
■ Wireless Security	64/128 bit WEP encryption, WPA, WPA2 support of Temporal Key integrity Protocol (TKIP), IEEE802.1x Port-Based Authentication with RADIUS client
■ WPS	yes
■ Multiple SSID	yes

Gateway Features

■ Network Protocol	IP, TCP, UDP, ARP, ICMP, DHCP, FTP, TFTP, SNMP, HTTP IP
■ Firewall	Filtering, Stateful Packet Inspection (SPI), Intrusion Detection for Denial of Service (DoS) attacks, Flexible Parental Control, URL Content Filtering
■ Firewall Control	Web-Based User Interface Management and Administration, Remote User Access, Logging & Alert

PC Compatible

■ Operating Systems	Windows 2000, XP and Vista
■ Ethernet Port	10/100/1000 Base-T
■ Drive	CD-ROM

Software Features

■ Software Downloadable	yes
■ Multiple Client Support	254
■ Class of Services (CoS)	16 SIDs
■ Protocol Filtering	Ethernet & IP
■ SNMP Management	V2, V3
■ Security	BPI+
■ HTTP Server (CM status)	yes

(*) Using the Euro-DOCSIS frequency bandwidth with a DOCSIS CMTS.

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Technical Specifications

Interfaces / Physical

■ Wireless	2 internal antennas; external antennas optional
■ Giga Ethernet	4 x RJ45 10/100/1000 Base-T auto detect
■ USB 2.0	1 x master port
■ RF Connector	1 x F-Type
■ Buttons	on/off, reset, WPS
■ LEDs	Power, DS, US, Online, Wireless, Eth1-4, USB
■ Power Supply	External, 230VAC 50Hz, Eco design
■ Operating Temperature	0° to 40°C
■ Operating Humidity	20% to 90% non-condensing
■ Storage Temperature	-20° to 70°C
■ Safety	CE and CB

Content of the Box

- ■ Cable Gateway
- ■ Power supply
- ■ Ethernet Cable
- ■ CD-ROM
- ■ Quick Installation Guide

Technicolor Professional Services are available to address your demands for qualified technical support & warranty, product maintenance, access to training courses and tailor-made solutions to specific product evolution. For more information, please ask your usual contact person.

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