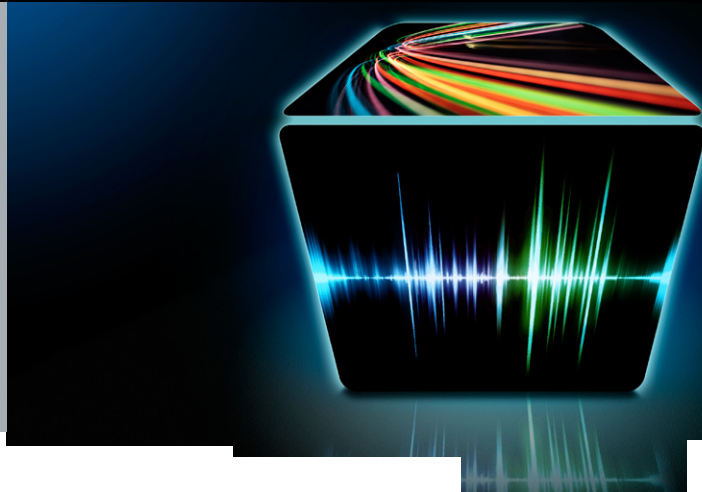


THG540

VoIP Cable Modem



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.

Technicolor further expands its Broadband Cable Modem Product line with the introduction of the THG540 EMTA. This Voice Cable Modem is an indoor EMTA (Embedded Multimedia Terminal Adapter) solution. The THG540 builds on Technicolor's successful Cable Modem Product and is based on Euro-DOCSIS™ 2.0 Hardware specification.

Moreover, the THG540, Euro-DOCSIS™ 2.0 ready, will benefit from improved RF performances thanks to a world-class tuner.

Technicolor's robust case design is consistent throughout its product line of cable modems and gateways.

CABLE
DATA
VOICE

Easy to Use, Easy to Install

As all Technicolor gateways, the THG540 with Ethernet and USB port 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.

Bridging

Allows simultaneous connections of two PCs, enables Ethernet and USB port data traffic bridging.

Features at a Glance

- EuroDOCSIS 2.0 certified
- Dual-Mode cable modem: DOCSIS and Euro-DOCSIS
- Euro-PacketCable 1.0, 1.1, 1.5 certified (optional configuration: SIP)
- Propane™ technology, enabling the connection of more Internet users without additional network bandwidth
- Ethernet and USB 1.1 ports for wired connectivity and easy installation
- Reliable high-performance platform
- IPv6 ready

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Advanced Voice Performance

240 MHz Dual Instruction MIPS32 CPU and DSP Instruction Extensions for VoIP 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 EuroPacketCable™ 1.5 and SIP.

Advanced Diagnostics

- Advanced web pages, protected by password, to facilitate installation and troubleshooting
- Easy configuration and set-up
- Remote access via Telnet, SNMP, Web Page
- Post-installation easily managed with SNMP

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Technical Specifications

Standards / Certifications

■ Data	EuroDOCSIS 2.0 certified
■ Voice	EuroPacketCable 1.5 certified, upgradeable to EuroPacketCable 2.0 (basic package)
■ CMTS Interoperability	Any qualified Euro-DOCSIS and DOCSIS CMTS (*)
■ WHQL-certified USB driver	yes

Receiver

■ Downstream Modulation	QAM 64/256
■ Downstream Frequency Range	108-862 MHz
■ Maximum Downstream Data Range	41.71/55.61 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)
■ BER	<1x10 ⁻⁸ @ C/N=25,5dB, QAM 64 with FEC, <1x10 ⁻⁸ @ C/N=34,5dB, QAM 256 with FEC, received power = +47 to +54 dB μ V <1x10 ⁻⁸ @ C/N=31,5dB, QAM 256 with FEC, received power = +54 to +77 dB μ V
■ Input Impedance	75 Ohm

Transmitter

■ Upstream Modulation	QPSK and 16 QAM
■ Additional Upstream Modulation Types	QAM 8/32/64 for A-TDMA and QAM 128 for S-CDMA channels
■ Upstream Frequency Range	5-65 MHz
■ Maximum Upstream Data Range	Max 5.12/10.24 Mbps {QPSK/QAM 16}, Max 30.720 Mb/s (QAM 64)
■ Output Signal Level Range	A-TDMA: +68 to +115 dB μ V @ QPSK +68 to +118 dB μ V @ QAM 8/16 +68 to +114 dB μ V @ QAM 32/64 S-CDMA: +68 to +113 dB μ V /All
■ Output Impedance	75 Ohm
■ Channel Bandwidth	Programmable (200*N KHz) N=1, 2, 4, 8, 16, 32
■ Automatic Level Adjust	yes
■ Gain Control Range	50dB
■ Frequency Stability	± 5 kHz

Telephony Features

■ Audio Codecs	PCM A-law, PCM μ -law, G.729, G.729a, G.729e, G.728, iLBC and BV16
■ Multi-line Phone Support	Yes, Two phone lines, three-party conference calls, can support two complex voice codecs simultaneously
■ Fax Relay	T.38
■ DTMF Tone relay	RFC2833
■ Caller ID	Type I and Type II
■ CLASS features	BASIC and Extended CLASS features
■ VAD (Voice Activity Detection)	yes
■ CNG (Comfort Noise Generation)	yes
■ Echo cancellation	G.165/G.168 up to 16ms
■ Packet Tone	DTMF generation/Call Progress Generation/Custom
■ Call discrimination	Fax and Modem Detection
■ Telephony interface capabilities	Loop-back and on demand diagnostic
■ Modems	Up to V.90 (38.5kbps)
■ RFC2833 DTMF Tone relay	Enabled/disabled via SNMP and Telnet
■ REN	5 REN
■ Pulse dialing	DTMF tones to pulse tones conversion and pulse to DTMF tones conversion

VoIP Call Control

■ RTP layer	RFC1889/RFC1890
■ RTCP statistics collection	yes
■ PacketCable Protocols	PacketCable NCS Network-Based Call Signaling Protocol (PKT-SP-EC-MGCP)
■ SIP Based Protocols	yes

PC Compatible

■ CPU	486DX 66MHz (Pentium Preferred)
■ Memory	RAM 16MB (32MB Preferred)
■ Operating Systems	Windows 2000, Me, XP and Vista
■ Available Disk Space	76 MB
■ Sound Card	16-Bit
■ Video	VGA (SVGA Preferred)
■ Ethernet Port	10/100 Base-T
■ USB port	With Windows 98SE/ME/2000/XP/Vista
■ Drive	CD-ROM

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Technical Specifications

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+
■ Privacy	Through encryption between gateway and PC
■ HTTP Server (CM status)	yes

Interfaces / Physical

■ Ethernet	1 x RJ45 - 10/100 Base-T auto detect
■ Telephone line	2x RJ11
■ RF Connector	1 x F-Type
■ USB Port device	1x USB 1.1
■ Button	Reset
■ LEDs	Tel1, Tel2, Message, Cable Activity, Cable Link, PC Link, Internet
■ Power Supply	External, 230VAC 50Hz
■ Operating Temperature	0°C to 40°C
■ Operating Humidity	20% to 90% non-condensing
■ Storage Temperature	-20°C to 70°C
■ Safety	CE

Packaging Information

■ Cabinet Dimensions	mm: 180 (L) x 140 (D) x 50 (H)
■ Packaging Dimensions	mm: 310 (L) x 180 (D) x 95 (H)
■ Shipping Weight	Approx. 1.2 kg
■ Master-pack Dimensions	mm: 385 (L) x 398 (D) x 395 (H)
■ Master-pack Shipping Weight	Approx. 15kg
■ Master-pack Quantity	12 units

Content of the Box

- VoIP Cable Modem
- 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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