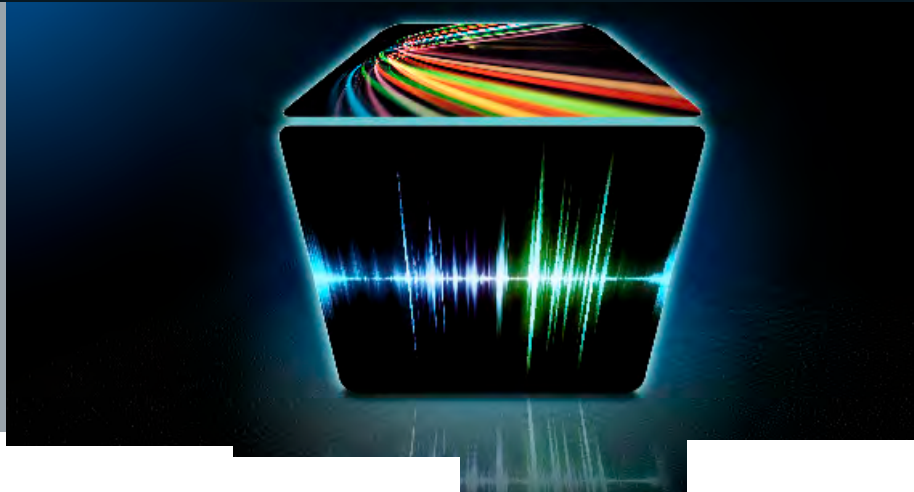


DWG850-4

Wireless and VoIP
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.

The DWG850-4 EMTA / Wireless Gateway is based on DOCSIS™ 2.0, works in dual mode DOCSIS / EuroDOCSIS 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 VoIP modem with high-speed wireless (802.11b/g) and Ethernet connectivity make the DWG850-4 an ideal voice gateway product for residential and SOHO applications.

CABLE
DATA
VOICE

High Speed Wireless Interface

The DWG850-4 supports the 802.11b/g standard at speeds up to 54Mb/s and integrates an internal 32-bit data bus guarantees superior handling of data traffic. The external antenna supports 4 dBi.

Enhanced Voice Performance

300 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 PacketCable™ 1.5 and SIP.

Features at a Glance

- DOCSIS 2.0 compliant
- PacketCable 1.0, 1.1, 1.5 compliant (upgradeable to 2.0)
- Propane™ technology, enabling the connection of more Internet users without additional network bandwidth
- 802.11b/g wireless connection
- 4 Ethernet ports for wired connectivity
- Privacy through WEP, WPA, WPA2 protocols
- Easy-to-read LEDs
- Reliable high-performance platform
- IPv6 upgradeable
- VPNs with IPSec

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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 DWG850-4 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 Ethernet DWG850-4 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	DOCSIS 2.0 compliant Dual mode DOCSIS/EuroDOCSIS
■ Voice	PacketCable 1.5 compliant upgradeable to PacketCable 2.0
■ CMTS Interoperability	Any qualified DOCSIS CMTS

Receiver

■ Downstream Modulation	QAM 64/256
■ Downstream Frequency Range	88-860 MHz
■ Maximum Downstream Data Range	30, 34/42.88 Mbps
■ Input Signal Level Range	-15dBmV ~ +15dBmV
■ BER	<1x10 ⁻⁸ @ C/N=23.5dB, QAM 64 with FEC <1x10 ⁻⁸ @ C/N=30dB, QAM 256 with FEC, received power = -6dBmV to 15dBmV <1x10 ⁻⁸ @ C/N=33dB, QAM 256 with FEC, received power = -15dBmV to -6dBmV
■ 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	5-42 MHz
■ Maximum Upstream Data Range	30.72 Mbps (QAM 64)
■ Output Signal Level Range	A-TDMA: +8 to +58 dBmV/QPSK +8 to +55 dBmV @ QAM 8/16 +8 to +54 dBmV @ QAM 32/64 S-CDMA: +8 to +53 dBmV/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
■ Fax Relay	T.38
■ DTMF Tone Relay	RFC2833
■ Caller ID	BASIC and Extended CLASS features
■ Voice Activity Detection (VAD)	yes
■ Comfort Noise Generation (CNG)	yes
■ Echo Cancellation	G.65 / G.168 up to 32 ms
■ Packet Tone	DTMF generation / Call Progress Generation / Custom Tone Generation
■ Call Discrimination	Fax and modem detection
■ Telephony Interface Capabilities	Loop-back and on demand diagnostics
■ Modems	Up to V.90 (38.5 kbps)
■ RFC2833 DMTF 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 Signalling Protocol (PKT-SP-EC-MGCP) PacketCable 2.0 upgradeable
■ SIP Based Protocols	yes

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Technical Specifications

Wireless Features

■ Protocol	Fully 802.11b/g compatible QOS with 802.11e, WMM, multi SSID supported
■ Antennas	One external antenna
■ Throughput	Up to 54Mbps 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
■ Transmit Power	Up to 19 dBm
■ Receive Sensitivity	Down to -72dBm
■ Multiple SSID	yes

Gateway Features

■ Network Protocol	IP, TCP, UDP, ARP, ICMP, DHCP, TFTP, SNMP, HTTP
■ Firewall	IP 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 or 100 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

Interfaces / Physical

■ Wireless	802.11b/g connection up to 54Mbps
■ Ethernet	4 x RJ45 - 10/100 Base-T auto detect
■ Telephone Line	2 x RJ11
■ USB Port Device	1 x USB 1.1
■ RF Connector	1 x F-Type
■ Buttons	Reset, WPS
■ LEDs	Power, DS, US, Online, Tel1, Tel2, Wireless, Eth1-4
■ Power Requirements	120-240VAC 50-60Hz, 0.8A
■ Operating Temperature	0°C to 40°C
■ Operating Humidity	20% to 90% non condensing
■ Storage Temperature	-20°C to 70°C
■ Safety	FCC Part15, UL

Content of the Box

■ Cable Gateway	
■ Power supply	DC output: 15VDC, 1.6A
■ Ethernet Cable	
■ CD-ROM	
■ Quick Installation Guide	
■ Wi-Fi dongle key and easy set up application (Optional)	

Packaging

■ Cabinet Dimensions	mm: 216 (L) x 154 (D) x 36 (H)
■ Packaging Dimensions	mm: 245 (L) x 225 (D) x 90 (H)
■ Shipping Weight	Approx. 1,5kg
■ Master-pack Dimensions	mm: 745 (L) x 388 (D) x 242 (H)
■ Master-pack Shipping Weight	Approx. 20 kg
■ Master-pack Quantity	12 units

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.

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:

cablesales@technicolor.com

technicolor



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DMS-DAT-20120227-0002 v1.0