

technicolor



FEEL THE WONDER

EPC3940

Smart Wireless .11ac
Broadband Cable Gateway with Voice



CABLE

DATA

VOICE

VIDEO

The Technicolor EPC3940 residential wireless cable gateway with digital voice is a high-performance home gateway that combines a cable modem, two-line digital voice adapter, router, and IEEE 802.11n and IEEE 802.11ac wireless access points in a single device, providing a cost-effective voice and networking solution for both the home and small office.

■ Latest Gigabit-Class Bandwidth Technology

The EPC3940 is a EuroDOCSIS 3.0 cable gateway introducing the next generation in ultrahigh-speed data services. This new cable solution offers next to 4 bonded upstream channels, 16 bonded downstream channels for downstream data rates in excess of 800 Mbps. Operators can now offer their customers even faster broadband access as well as demanding IPTV services.

The dedicated applications processor and software execution environment turns the EPC3940 into powerful and reliable platform in the home, ready for demanding services and applications.

The EPC3940 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.

■ Next-Gen Wireless Technology for Next-Gen Speeds

Featuring the next-generation IEEE 802.11ac wireless standard for the 5 GHz band, this dual band Wi-Fi solution makes optimal use of the wireless spectrum. With its optimized antenna configuration, the EPC3940 enables even higher throughput and better coverage over the much less crowded 5 GHz radio.

At the same time, it guarantees uninterrupted transmission of data services over IEEE 802.11n using the 2.4 GHz band.

Features at a Glance

- EuroDOCSIS® 3.0 certified
- Dual mode DOCSIS®/EuroDOCSIS®
- Backward compatible with (Euro)DOCSIS® 2.0 (and older)
- 16 bonded downstream and 4 bonded upstream channels
- Full band capture tuner
- Built-in RF spectrum analyzer
- 4 GE LAN ports
- Wireless networking on-board
 - IEEE 802.11n 2.4 GHz (2x2)
 - IEEE 802.11ac 5 GHz (3x3)
- 2 FXS ports for phone or fax
- Voice EuroPacketCable™ 1.5 compliant
- 1 highspeed USB 2.0 master port
- Seamless media sharing (UPnP™ AV)
- Future-proof full service platform
- Advanced security features
- TR-069 remote management
- IPv4 and IPv6 DS-Lite support
- Designed to meet the latest ECO standards



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■ Full Band Capture Solution

Thanks to its fully integrated 1 GHz wideband tuner, the EPC3940 exceeds SCTE-40+ performance and eliminates all frequency limitations of traditional wideband tuners. The EPC3940 enables use of the full Radio Frequency (RF) spectrum without the need for grouped channels. This helps the operator migrate his entire EuroDOCSIS 3.0 installed base from one to 16 EuroDOCSIS downstream channels without having to re-align all broadband channels to accommodate this new service.

Remote diagnostics provides real time, unobtrusive diagnostic and spectrum analysis capabilities, without effecting user service on any of the 16 downstream channels.

■ Voice Performance

The EPC3940 is EuroPacketCable 1.5 compliant and, after a software upgrade, it can operate in SIP mode. The EPC3940 supports all standard codecs including iLBC and BV16 and is equipped with basic and extended CLASS features such as caller ID and call waiting. Gateway and voice operations support data throughput and complex voice calls simultaneously.

■ Advanced Security

The integrated firewall provides Stateful Packet Inspection (SPI), and an integrated Intrusion Detection and Prevention System (IDS) engine which 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 gateway and the cable operators' servers, BPI+ communications privacy is used.

The EPC3940 supports up to eight wireless networks (mSSID), enabling to set up independent virtual wireless access points. These additional wireless networks allow other wireless users to enjoy high-performance access without compromise on the integrity of the basic network, thus keeping the original network access limited and secure.

■ Easy to Use

Like all Technicolor modems and gateways, the EPC3940 is an easy to use, easy to install device.

For convenience of the end user, the easy-to-access LEDs provide a clear indication of start-up sequence, operational status, and connectivity status.

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

■ ECO

Technicolor is committed to offer its customers sustainable products and implements a set of ECO features to reach the best possible environmental performance. In addition to carefully selected plastics and packaging to minimize the ecological footprint, the EPC3940 benefits from a unique combination of hardware and software features that reduce power consumption substantially.

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Technical Specifications

Hardware

■ Interfaces WAN	1 F-type connector, external threaded
■ Interfaces LAN	4-port autosensing 10/100/1000 Base-T Ethernet LAN switch 2 FXS POTS ports 1 USB 2.0 master port IEEE 802.11n 2.4 GHz IEEE 802.11ac 5 GHz
■ Buttons	WPS button Reset button Power button
■ Power input	DC jack
■ Power supply	12 VDC external PSU
■ AC voltage	100 - 240 VAC (switched mode power supply)
■ Dimensions	227 x 68 x 205 mm (8.94 x 2.72 x 8.07 in.)
■ Operating temperature	0° - 40° C (32° - 104° F)
■ Operating humidity	0% - 95% RH non-condensing
■ Storage temperature	-20° - 70° C (-4° - 158° F)

Certifications

■ Data	EuroDOCSIS® 3.0 certified
■ Voice	EuroPacketCable™ 1.5 compliant
■ CMTS interoperability	Any qualified EuroDOCSIS® / DOCSIS® CMTS

RF downstream

■ Downstream modulation	64, 256 QAM
■ Downstream frequency range	Operating 108 - 1002 MHz Tuner 88 - 1002 MHz
■ Number of downstream channels	Up to 16
■ Maximum downstream data range	889.9 Mbps (theoretical 55.62 Mbps x 16 channels)
■ Capture windows	Full Band Capture (possibility to have any of the downstream channels over the full EuroDOCSIS spectrum)
■ Input signal level range	-15 dBmV / + 15 dBmV
■ Input impedance	75 Ohm

RF upstream

■ Upstream modulation	QPSK 8, 16, 32, 64 and 128 QAM
■ Upstream frequency range	5 - 65 MHz
■ Number of upstream channels	4
■ Maximum upstream data range	122.9 Mbps (theoretical 30.72 Mbps x 4 channels)
■ Channel bandwidth	1.6, 3.2 and 6.4 MHz
■ Output impedance	75 Ohm

Wireless

■ Full dual band concurrent Wi-Fi access points, Wi-Fi certified®	2.4 GHz (2x2) IEEE 802.11n AP 5 GHz (3x3) IEEE 802.11ac AP
■ Wi-Fi security levels	IEEE802.1x port-based authentication with RADIUS client WPA2™-Enterprise / WPA™-Enterprise WPA2™-Personal / WPA™-Personal
■ Wi-Fi Protected Setup (WPS™)	
■ Wi-Fi Multimedia (WMM®) and WMM-Power Save	
■ Up to 8 BSSIDs (virtual AP) support per radio interface	
■ Wireless hotspot capabilities	
■ 2x2 MIMO 2.4 GHz Wi-Fi features	SGi STBC 20/40 MHz coexistence
■ 3x3 MIMO 5 GHz Wi-Fi features	SGi STBC 20/40/80 MHz mode
■ RX/TX switched diversity	
■ Dynamic rate switching for optimal wireless performance	
■ Manual/auto radio channel selection	

Voice and telephony

■ Audio codecs	G.711 iLBC BV16 G.728, G.729, G.723, G.726 (optional) BV32 (optional)
■ 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.168 up to 32 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)
■ REN	5 REN (per FXS)
■ Pulse dialing	DTMF/pulse tones Pulse/DTMF tones conversion
■ RTP layer	RFC 1889 RFC 1890
■ RTCP statistics collection	
■ EuroPacketCable protocols	PacketCable™ NCS Network-based call signalling protocol (PKT-SP-EC-MGCP)
■ SIP protocol	By software upgrade

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Management

- User-friendly GUI via HTTP
- Web-based user interface management and administration
- Telnet, SSH
- Logging and alert
- TR-069 CPE WAN Management Protocol (CWMP)
 - TR-098 Internet Gateway Device (IGD) data model subset (optional)
- SNMP management
 - SNMP v2, SNMP v3
- HNAP server 1.2+

Services

- Wireless hotspot
 - Static DHCP IP Scope over tunnel
- Parental control
 - URL- and (optional) content-based website filtering
 - Per-user policies
 - Keyword blocking
 - Domain name blocking
 - Time of day filters
 - MAC address filtering
- Content sharing
 - Server Message Block (SMB) Samba file server
 - UPnP A/V™ media server
- HDD file systems
 - FAT32, NTFS
 - EXT2, EXT3, EXT4
 - HFS+

Networking

- Network protocol
 - IP (IPv4, IPv6 DS-Lite)
 - TCP, UDP
 - ARP, ICMP, DHCP
 - TFTP, SNMP, HTTP
- Protocol filtering
 - Ethernet and IP

Security

- Stateful Packet Inspection Firewall (SPIF)
- Customizable firewall security levels
- Intrusion detection and prevention (DoS, SYN Flood, Ping of Death)
- Security and service segregation per SSID

Software

- Downloadable software
- Multiple client support
 - 254
- Class of Services
 - 32 DSIDs and 32 Service Flows
- Security
 - BPI+
- HTTP server

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
- Software customizations and customer change orders
- Qualified technical support and maintenance
- Seamless system integration
- Efficient repair, refurbishment and recycling
- Warranty extensions on all our products

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SALES CONTACT

For more information please get in touch with your usual sales representative or use the following email:

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ECO design

- Power control features
 - Ability to turn off any or all modules
 - Slow down or turn off processors
 - Turn on or turn off external interfaces
 - Dynamic power consumption reduction

Content of the box

- EPC3940
- Ethernet cable (RJ-45)
- Power supply unit
- Quick Setup leaflet (optional)
- Safety Instructions & Regulatory Notices booklet