

# TG870

Residential Gateway  
with Integrated 3G Femtocell



On January 27<sup>th</sup> 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.

## TELECOM

DATA

VOICE

VIDEO

MOBILE

## Best in Class in Digital and Voice Communication

The Technicolor TG870 is a femtocell-integrated 3G IP gateway which allows operators to deliver multimedia services to a home network over any 3G handset.

This residential gateway also offers ADSL connectivity as well as Voice over IP functions for residential and business users. Also featuring 4 ethernet ports, an additional 802.11b/g wireless LAN interface and supported ADSL2+ with backwards compatibility, this integrated femtocell gateway halves power consumption with its eco-friendly design.

### Femtocell

A femtocell is a small cellular base station that connects to the user's existing broadband internet connection (DSL) and works with existing mobile handsets – typically two to four mobile phones per residential setting. Operating as an extension of the carrier's existing network, femtocells allow for more comprehensive cover inside buildings as well as at the furthest edge of the network.

### Features at a Glance

- ADSL2+ with integrated modem
- Integrated 3G Femto Access Point (for up to 4 simultaneous users)
- UMTS/HSDPA support for voice, video and data traffic
- 4 Ethernet ports to connect devices, such as PCs, laptops or set top boxes
- 1 Full FXO analogue port
- 2 FXS ports for phones and/or fax
- 2 USB master ports 2.0 for Hard Disk and printer sharing
- IEEE802.11b/g Wi-Fi CERTIFIED™ wireless equipment
- Home entertainment ready: media sharing and UPnP A/V
- Built-in firewall
- Remotely Manageable: TR-069, TR-104, TR-098, TR-111
- ECO mode for energy savings



# TG870

## Residential Gateway with Integrated 3G Femtocell

### Your Private Mobile Network at Home

The greatest advantage of using a femtocell is that it allows users to use their normal 3G phone for all their telecommunication needs.

Femtocells are a cost-effective way of increasing both in-house network coverage and capacity, and remove the need for separate home phones.

The biggest benefit for consumers is reducing the cost of their mobile voice calls without having to make any changes to their existing mobile handsets.

### Residential Gateway Benefits

#### Easily and Remotely Manageable

The Technicolor TG870 is designed to be fully compatible with the TR-069 model, through which the device can be configured remotely. In addition, TR-104 for VoIP is implemented for the configuration and management of all voice services.

TR-037 and TR-69 allow the network bandwidth to be configured according to service needs, enabling it to be seamlessly integrated with the network's provisioning system.

#### ECO in the Gateway

We at Technicolor take ecological concerns very seriously, and are committed to pursuing solutions that reduce the environmental impact of our platforms. Our initiatives not only seek to make more efficient use of energy and reduce power consumption, but also cover aspects such as overall product design. The housings of all our generic modem, router and gateway product lines already feature 100% recyclable plastics.

Now with the ECO button for power saving, the Technicolor TG870 takes energy saving one step further.

#### Fixed Voice over IP

The Technicolor TG870 offers two phone connectors for accommodating a phone and fax. Once the gateway has been registered with a VoIP service, regular phone calls can be made over the internet with all the benefits of IP telephony. The gateway offers a wide range of services such as caller ID, CLIR, call waiting, call forwarding, 3-way conferencing and message waiting notification.

#### Advanced in Security

The integrated firewall guarantees users ultimate network security. The firewall provides Stateful Packet Inspection (SPI) and the integrated Intrusion Detection System (IDS), minimises undesired service impact by monitoring a wide range of attack patterns (such as Denial of Service), and logs these potential security breaches to a local cache or remote server.

#### Wireless Performance

Users can experience the freedom of wireless, and with Wi-Fi 802.11g, speed, security and performance are guaranteed. The Technicolor TG870 also supports powerful wireless security mechanisms, such as Wi-Fi Protected Access (WPA™), Wired Equivalent Privacy (WEP™) encryption, and a physical registration button for Wi-Fi Protected Setup (WPS™). This allows users to communicate and access data with efficient link quality and the highest level of network security. The filtering of unwanted content on the internet is also integrated.

# TG870

## Residential Gateway with Integrated 3G Femtocell

## Technical Specifications

### Hardware Specifications

- Interfaces WAN RJ11 DSL line port  
Optional ISDN (Annex B)  
Full FXO
- Interfaces LAN 4-port autosensing 10/100Base-T auto-MDI/  
MDI-X Ethernet switch  
2 FXS POTS interfaces  
2 USB 2.0 master interfaces  
Wi-Fi IEEE 802.11b/g  
WCDMA Access Point
- Extras Restore factory defaults button  
WLAN registration button (WPS™)  
ECO button  
Diagnostics button
- Dimensions 240 x 205 x 80 mm (94.5 x 80.7 x 31.5 in.)  
(h x d x w)
- AC Voltage 100-240 VAC (switched mode power supply)
- Temperature 0° - 40° C (32 - 104 F)
- Humidity 20% to 80%

### WCDMA Femtocell Access Point

- Supports 4 simultaneous AMR channels (voice calls)
- 7.2 Mbps HSDPA
- 1.5 Mbps HSUPA
- Range 50m to 200m
- 3GPP Rel6 LACC compliant
- Max output 20dBm
- Software upgradeable
- Interference mitigation
- All traffic handled through IPSec encrypted tunnels
- RF environmental fingerprinting
- 384 Kbps P-S data
- Supplementary services
- Quality of Service (QoS)

### DSL Modem Specifications

- Supports Multi Mode Standard
- ADSL compliance: ANSI T1.413 Issue 2, ITU-T G.992.1 Annex A, B (G.dmt), ITU-T G.992.2 Annex A, B (G.lite), ITU-T G.994.1 (G.hs)
- ADSL2 compliance: ITU-T G.992.3 Annex A, B, L, M (G.dmt.bis), ITU-T G.992.4 Annex A, B, L, M (G.lite.bis)
- ADSL2+ compliance: ITU-T G.992.5 Annex A, B, M  
- Maximum Rate: 8 Mbps for downstream and 1 Mbps

### Firewall Security

- Firewall with Stateful Packet Inspection (SPI) - Maximum Rate: 12 Mbps for downstream and 1.5 Mbps
- Intrusion Detection System (IDS), protecting against attacks, such as Denial of Service (DoS), SYN Flood, Ping of Death, Fraggle, LAND, Teardrop, etc. for upstream
- Content filtering: URL blocking
- IP and generic packet filtering, based on IP address/port number/protocol type - Maximum Rate: 24 Mbps for downstream and 3 Mbps upstream
- Real-time attack alert and logging

### Management

- User Friendly GUI via HTTP and HTTPS
- (Wireless) Home Network Install Wizard
- Web based Easy installation (OS independent)
- On demand Remote Management
- TR-69 Remote Manageable
- TR-104 Voice Provisioning
- TR-98 Queue Management
- TR-111 Home Network Device Management

### Services

- Printer sharing
- Content sharing (UPnP A/V + SMB)
- Webcam control and display
- Secure Remote File Access
- PC-less Peer-2-Peer
- Personal Web Gallery (photo blog)
- Shared HD with Access Rights
- Gateway Secured Storage
- Central PVR

### Wireless Performance and Security

- Wi-Fi CERTIFIED™ 802.11b/g access point
- Wi-Fi Multimedia - WMM™ (802.11i)
- Supports 802.1x/PSK WPA™
- WPA™ -Personal / WPA2™ -Personal (802.11i)
- Supports wireless repeater function to extend the coverage area
- Wireless Protected Setup (WPS™)
- Dynamic rate switching for optimal wireless data rates up to 54 Mbps
- Manual/auto radio channel selection - data rates up to 54Mb/s
- Manual/auto selection of pure 802.11g/mixed mode (802.11b/g) network
- Wireless Distribution System (WDS)
- 64/128bit WEP encryption
- Wireless client MAC or hardware address-based access control (with physical registration button)

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## Technical Specifications

### Enabling Technologies

- Qos: ATM, Ethernet, Wi-Fi, IP
- FLEXIBundle
- Hyper-Nat
- SIM-lock
- Virtual bridges - portmapping
- Flexiport
- Smart DHCP, DNS
- IGMPv3 proxy (Fastleave)
- IGMP snooping
- VLAN bridging - tagging

### Voice over IP Features

- Voice Functionality
  - Signalling: SIP, MGCP, H.323
  - Codecs: G.711, G.723, G.726, G.729, Wideband (G.722), T.38
  - Flexible telephone number per FXS and DECT Handsets, including Common Numbers
  - Interop with main market softswitches
- Mobile
  - HSDPA up to 7.2 Mbps - HSUPA up to 1.5 Mbps
  - Up to 4 simultaneous voice AMR calls
  - R99 PS data up to 384 kbps
- FXO
  - Dial map for PSTN/VoIP outgoing calls
  - Prefix for PSTN/VoIP switch
  - Lifeline backup: manual and automatic PSTN / VoIP
  - Incoming call detection on PSTN
- Supplementary and Advanced Services
  - Call waiting (on call basis)
  - Caller Identification
  - Call forwarding (No answer/Busy/Unconditional)
  - Call transferring
  - CLIP (Calling Line Identification Presentation)
  - CLIR (Calling Line Identification Restriction)
  - Fax transparency
  - 3-way conference
  - MWI (Message Waiting Indicator)
  - Missed call e-mail
  - Click to dial
  - Warm line
  - Call Completion to Busy Subscriber
  - Forced FXO
  - Abbreviated number
  - Common DECT number
  - Common number in/outgoing Call

### Content of the Box

- Femto Gateway
- ADSL cable (RJ11)
- Ethernet cable
- Power supply unit
- Setup CD and Leaflet
- Filter or splitter (optional)

\* Windows® is a registered trademark of Microsoft Corporation in the United States and other countries

\* Wi-Fi CERTIFIED™ is a registered certification mark and WPA™, WPA2™, WPA™-Personal, WPA2™-Personal, WMM™ and WPS™ are trademarks of the Wi-Fi Alliance

\*\* UPnP™ is a certification mark of the UPnP™ Implementers Corporation



Technicolor TG870 Backpanel

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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