

# THOMSON

## TCW710

### Wireless Cable Modem Gateway



All in one solution



Thomson is expanding its wireless cable modem product range by introducing a Euro-DOCSIS™ 2.0 ready version, the TCW710. This gateway features an 802.11g (802.11b compatible) wireless connection with an excellent broadcast range thanks to the use of an external antenna. With the addition of CableHome™ 1.1, advanced firewall, router, one Ethernet connection and optional local configuration settings, this Thomson gateway is the ideal, simple, networking solution for the residential and SOHO environments. The TCW710 includes the latest protection for wireless protocol, WPA (Wi-Fi Protected Access) and WEP (Wired Equivalent Privacy). Moreover, the TCW710, Euro-DOCSIS™ 2.0 ready, will benefit from improved RF performances thanks to a world-class tuner. Enhanced with the now Thomson standard Dual-Mode feature, the TCW710 is a versatile product which can cope with both DOCSIS™ and Euro-DOCSIS™ standards.

#### Other Broadband Cable Products:

TCM410: Euro-DOCSIS 2.0 certified hardware (new enclosure)  
TCM420: Euro-DOCSIS 2.0 ready hardware, 1.1 certified  
TCM425: DOCSIS 2.0 certified hardware  
THG520: Euro-DOCSIS/DOCSIS 2.0 VoIP E-MTA  
TCW690: One port Euro-DOCSIS/DOCSIS 2.0 802.11g Wireless Cable Modem

- ▶ Euro-DOCSIS™ 2.0 ready hardware
- ▶ CableHome™ 1.1
- ▶ 802.11g wireless connection capable of supporting over 250 PC's or other devices at speed up to 54Mb/s
- ▶ Backwards compatible with 802.11b equipment
- ▶ Ethernet port Gateway
- ▶ Security through a built-in stateful packet inspection firewall
- ▶ Dual-Mode cable modem (DOCSIS™ and Euro-DOCSIS™)
- ▶ Privacy through WPA and WEP protocols (encryption between the gateway and the PC's)
- ▶ Easy Access to Advanced Diagnostics Web Pages
- ▶ USB port for easy installation.
- ▶ Reliable high-performance platform.
- ▶ Surf the Internet Up to 100Times Faster than a 56k analog Modem <sup>(1)</sup>

1- Compared with a 56 kbps analog telephone modem.  
Internet access sold separately.  
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# TCW710

## Wireless Cable Modem Gateway



### Euro-DOCSIS™ 2.0 Based Design

The cable modem is certified to work on any Euro-DOCSIS based HFC cable system. Resident 2.0 hardware enables future upgrades to advanced Euro-DOCSIS™ 2.0 features.

### Wi-Fi 802.11b/g

The TCW710 supports 802.11g standard at speed up 54Mb/s. (802.11b compatible at speed up to 11Mb/s).

### E-Z Start-Up Indicators

Easy-to-use LED lights on the front of the unit show the modem status. This provides the user the ability to verify modem operation and connectivity.

### Dual-Mode cable modem

The cable modem is able to work with both Euro-DOCSIS™ and DOCSIS™ standards (if using the Euro-DOCSIS™ bandwidth).

### Simple-to-Use Illustrated Setup Guide

The guide steps users through the connections of the broadband cable, electrical power, and Ethernet or USB cables.

### Security

- Supports BPI+ communications privacy to support secure data exchange between modems and cable operators' servers.
- Supports WPA and WEP (encryption of the data between the gateway and the wireless connected computer).
- Wireless access control mechanism to limit the access of the wireless users.
- Internet Security Button puts the modem into "standby" mode but still enables a fast and easy use for subscribers when required. Furthermore, the button also serves as a security feature, assuring the customer that the network will not be accessible, alleviating security concerns of an "always on" connection.
- Supports VPN's with IPsec.

### Internal Web Pages

The TCW710's multiple web pages allow direct access to information about the status of the modem and to the product settings in particular privacy and security.

### Propane® technology

This advanced transport technology (Dynamic Payload Header Suppression) allows operators to increase the number of subscribers on their network without investing unnecessarily in bandwidth capacity. In the appropriate conditions, operators can benefit from more data bandwidth per customer, more voice channels for IP-telephony, and more users per fiber node.

#### ▶ PC Compatible

- CPU - 486DX 66MHz (Pentium Preferred)
- System RAM - 16MB (32MB Preferred)
- Operating System - Windows Me, 2000 and XP
- Available Disk Space - 76 MB
- Sound card - 16 bit
- Video - VGA (SVGA Preferred)
- Ethernet - 10 or 100 Base-T
- USB - Windows 98SE or later
- Drive - CD-ROM

#### ▶ Applications Supported

- FTP AOL & MSN Messenger
- Real Audio Yahoo Messenger
- H 323 Go2Call
- ICQ Hotline Server
- IPsec Passthru Visual IRC
- Dwyco Video Conferencing CuSeeme
- L2TP AT&T Instant Messenger Anyway
- TFTP MIRC Active Worlds
- PIRCH Buddy Phone
- MS NetMeeting Calista IP Phone
- Net2phone Delta Three PC to Phone
- Xircon Dialpad
- Netscape Chat OrbitIRC

### Technical Specifications

#### ▶ Standards

- Euro-DOCSIS 2.0 - Field Upgradeable to 2.0 (include 1.1)
- CMTS Interoperability - Any qualified Euro-DOCSIS and DOCSIS\*
- Operating Systems supported - Any with Ethernet connection, Windows98SE, 2000, Me and XP with USB

#### ▶ Receiver

- Downstream Modulation - 64/256 QAM
- Downstream Frequency Range - 108-862 MHz
- Maximum Downstream Data Rate - 41.71/55.61 Mbps (64QAM/256 QAM)
- RF Input Sensitivity - +43 to +73 dBμV (64QAM), +47 to +77 dBμV (256QAM)
- BER <10<sup>-8</sup> - 64QAM:C/N>25.5dB, 256QAM: for +47dBμV to +54 dBμV C/N >34.5dB +54 dBμV to +77 dBμV, C/N > 31.5dB
- Input Impedance - 75 Ohm

#### ▶ Transmitter

- Frequency Range - 5-65 MHz
- Upstream Modulator - QPSK/16 QAM
- Additional Upstream Modulation types for Euro-DOCSIS 2.0 - 8QAM, 32QAM, 64QAM for S-CDMA and TDMA channels
- Channel Bandwidth - 200 KHz, 400KHz, 800KHz, 1.6MHz, 3.2MHz, 6.4MHz (\*\*)
- Maximum Upstream Data Rate - Max 5.12/10.24 Mbps (QPSK/16 QAM) Max 30.720Mb/s(64QAM)(\*\*)
- RF Output Level - +68 to +115 dBμV (8QAM & 16QAM); +68 to +118 dBμV (QPSK); +68 to +114 dBμV (32QAM & 64QAM)(\*\*); +68 to +113 dBμV (S-CDMA all modulation types) (\*\*)
- Automatic Level Adjust - Yes
- Gain Control Range - 50 dB
- Frequency Stability - ± 5KHz
- Output Impedance - 75 Ohms

#### ▶ Software Features

- Software downloadable - Yes
- Bridging - Between USB and Ethernet
- Multiple client support - 250
- Internet security Button - When turned Off, the modem can be accessed by the head-end but the connection to the PC is Off, so that nobody can access it
- Class-of-Service (COS) - Yes
- Protocol Filtering - Ethernet & IP
- SNMP Management - V2, V3
- Security - BPI+
- IP Security - Hardware support
- LED Diagnostics - 5-step LED
- Privacy - Through encryption between the gateway and the PC
- Local configuration through http Server - Hardware, Software status, Basic settings, Advanced settings, Firewall, Wireless access control

#### ▶ Packaging & Content

- Cabinet Dimensions (cm) - 170mm (L) x 130mm (D) x 42mm (H)
- Shipping Weight appr. - 1,4 kg
- Packaging dimensions (cm) - 263mm (L) x 197mm (D) x 98mm (H)
- Overpack dimensions (cm) - 515mm (L) x 540mm (D) x 220mm (H)
- Overpack shipping Weight appr. - 15 kgs
- Overpack Quantity - 10
- Operating Temp. - 0°C to 40°C
- Cables - USB & Ethernet
- CD-Rom - Yes

#### ▶ I/O Interfaces

- Wireless - 802.11b/g connection at up to 54Mb/s (802.11b compatible at up to 11Mb/s)
- Ethernet 10Base-T or 100Base-T - RJ45-auto-detect
- RF Connector - F-Type
- Power (Wall Pack) - 230Vac 50Hz
- USB Port - Yes
- User Switches - Internet On/Off & Reset
- Number of PCs Supported - 250

(\* ) using the Euro-DOCSIS frequency band width with a DOCSIS CMTS

(\*\*) Euro-DOCSIS™ 2.0 specific Propane® is a trademark of Broadcom Corporation and or its subsidiaries in the United States and certain other countries.

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