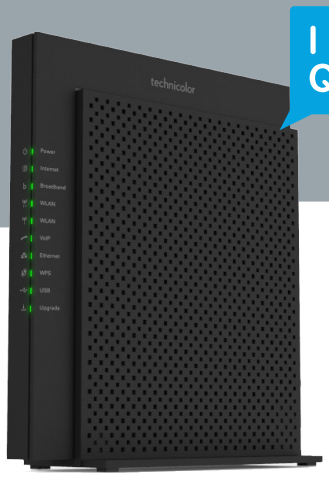
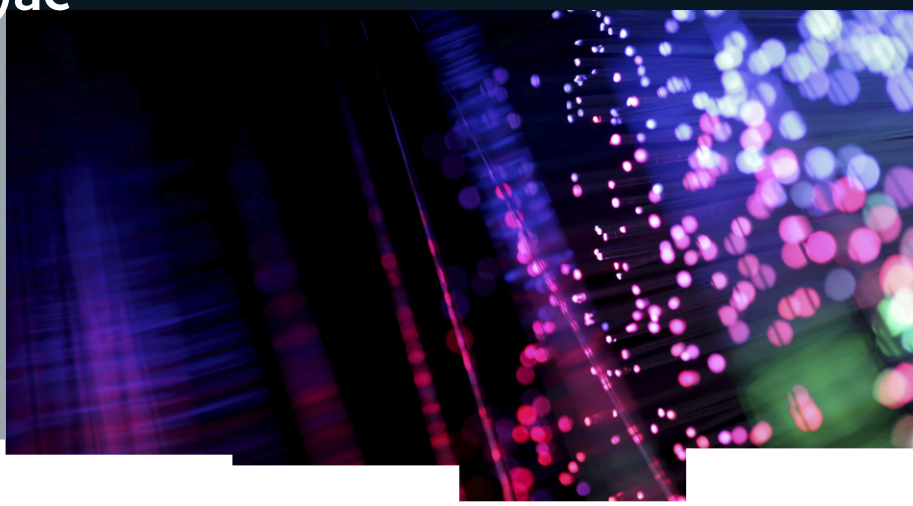
technicolor

MediaAccess TG1700(d)ac

Smart Wireless .11ac
Integrated GPON Gateway
with Voice





TELECOM
DATA
VOICE
VIDEO

On the Edge with Gigabit Speeds

The Technicolor TG1700(d)ac is a high-speed Gigabit Passive Optical Network (GPON) triple-play gateway taking advantage of the latest developments in Fiber To The Home (FTTH), while at the same time guaranteeing the highest quality of service. With this gateway, operators can provide their customers a seamless experience of broadcast television, interactive video and very high speed data and telephony services.

Next-Gen Wireless Technology for Next-Gen Speeds

The TG1700(d)ac is one of the first dual band concurrent Wi-Fi ultra broadband gateways to feature the next-generation IEEE 802.11ac wireless standard for the 5 GHz band. With its optimized antenna configuration, this enhanced wireless solution enables even higher throughput and better coverage over the much less crowded 5 GHz radio, for real-time content delivery. Simultaneously, it guarantees uninterrupted transmission of data services over IEEE 802.11n using the 2.4 GHz band.

Features at a Glance

- Integrated 2.5/1.25 Gbps GPON port
- 4 GE LAN ports
- Dual band concurrent Wi-Fi interfaces:
  - IEEE 802.11n 2.4 GHz (2x2) with high power (optional)
  - IEEE 802.11ac 5 GHz (3x3)
- CATV port for downstream RF video overlay video (optional)
- 2 FXS ports for phone or fax
- 2 USB 2.0 master ports for hard disk, printer, 3G adapter, ...
- Seamless media sharing (UPnP A/V™ and DLNA®)
- Future-proof full service platform supporting:
  - Qeo communication framework and apps
  - OSGi execution environment
- Extensive remote management
- Non-service-affecting platform software upgrades (dual bank memory)
- IPv4 & IPv6 enabled
- Designed according to the latest ECO standards

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OLT Agnostic GPON Gateway

Built upon our extensive experience in DSL gateway development and deployment, the TG1700(d)ac interoperates seamlessly with different Optical Line Terminations (OLTs) in the field. By keeping a flexible software track on the TG1700(d)ac, we can detect the OLT and reconfigure the gateway dynamically to ensure full compatibility between both. As such, there is no need for any firmware upgrades or restart in order to be able to cover deployments with multiple OLTs, even if from different vendors.

Moreover, the TG1700(d)ac supports standard G.984.4 OMCI features and implements some proprietary vendor specific Management Information Base (MIB), Managed Entities (MEs) and Alarms (MAs). Furthermore, the device can be maintained and upgraded using the TR-069 protocol.

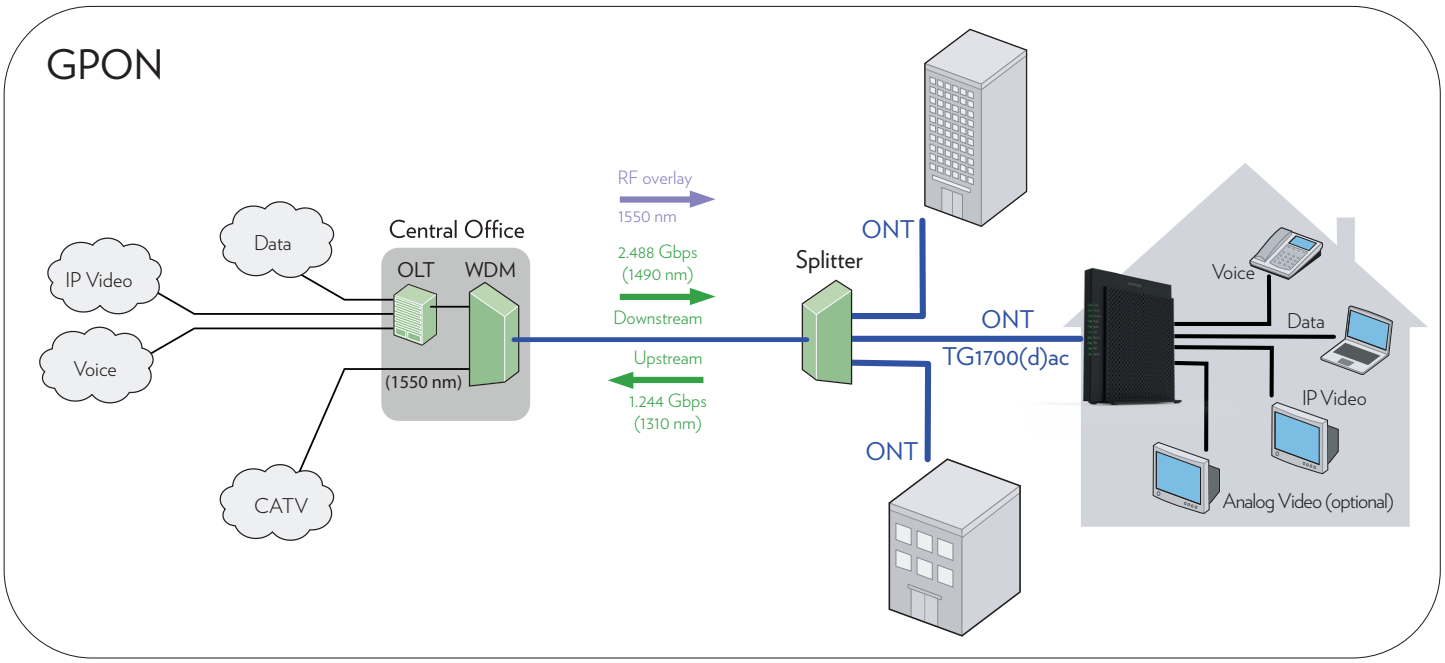
High Speed Network Connectivity

By integrating the ONT in the gateway and by using an integrated GPON interface, the TG1700(d)ac can reach lightning fast speeds, allowing operators to respond to the increasing end-user demand for higher bandwidths.

To benefit from these extreme WAN speeds the gateway implements a Gigabit Ethernet (GE) router, providing very high speed connectivity between LAN devices and the network. It also includes a dual band concurrent Wi-Fi base station with IEEE 802.11n and IEEE 802.11ac capabilities to stream data, including rich media content, anywhere in the home.

The integration of the GPON ONT in a service gateway guarantees a lower installation and operation cost. Thanks to its innovative mechanical solution, the installation becomes as easy as any other fixed line service gateway installation.

On top of this high-speed down- and upload, the TG1700(d)ac has an optional downstream RF Video overlay connection. It enables Network Service Providers (NSPs) to use their existing fiber infrastructure to get a TV signal to the home without the need for deploying additional coax. This results in substantial cost savings and a first-class robust quality of service, ensuring linear television channel distribution to the home, without impacting video on demand and other interactive services.



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Flexible & Future-Proof Software Stack

The TG1700(d)ac is enriched with Technicolor Homeware, a reliable and managed middleware for gateways that speaks Qeo (www.i-speak-qeo.com) to open up the connected home and deliver an unlimited spectrum of value added services and applications.

Featuring a platform agnostic architecture, Technicolor Homeware is a fully portable solution that ensures the fastest time to market. Moreover, its modularity and enhanced life cycle management make it easy to add or remove components to or from a software release, while enabling second & third party development.

Leveraging open source, Technicolor Homeware embraces different execution environments and supports current and emerging trends, transforming the gateway into a full-blown app platform.

"I speak Qeo"

The TG1700(d)ac has been developed to run Qeo, Technicolor's open, agile and distributed communication framework that addresses the issue of disparate ecosystems used for device interaction. With Qeo, you can seamlessly bridge all your connected devices, applications and over-the-top cloud solutions, regardless of brand or ecosystem. As a universal software language, it lets you create totally new use cases for the connected life and the "Internet of Things" (IoT).

Qeo also includes tools to monitor and manage all Qeo enabled devices, helping you keep operational costs under control.

To learn more about Qeo, visit: **www.i-speak-qeo.com**

IPv6 Enabled

With the approaching IPv4 address pool depletion, our products need to be ready for IPv6. Technicolor is a frontrunner in the introduction of IPv6 on its devices, with the TG1700(d)ac being enabled for multiple IPv6 field scenarios. Internet Protocol version 6 is the next generation of Internet technologies aiming to effectively support the ever-expanding Internet usage and functionality, and also to address security concerns that exist in an IPv4 environment.

Technicolor aims to introduce IPv6 as smoothly as possible in customer networks. By providing in-depth knowledge of the networking stack, we guide our customers in their transition from IPv4 to IPv6.

Voice over IP

The TG1700(d)ac offers VoIP functions for residential and business users. POTS phone connectors are provided to accommodate regular phones and faxes. Once the gateway is registered with a VoIP service, regular phone calls can be conducted over the Internet with all the benefits of IP telephony.

On top of a wide range of advanced voice services like caller ID, CLIR, call waiting, call forwarding, three-way conference and message waiting notification, the TG1700(d)ac is completely interoperable with the main IMS cores in the market.

Media Sharing

The TG1700(d)ac acts as a fully compliant DLNA 1.5 Digital Media Server (DMS) and enables distribution of all content from any device to any device in the home. You can stream music, data, pictures and video from your gateway to devices connected to your wired or wireless home network.

In addition, the TG1700(d)ac supports hot plugging of USB hard disk drives, allowing you to simply plug and play devices without the need to switch the gateway off first.

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 TG1700(d)ac benefits from a unique combination of hardware and software features that reduce power consumption substantially.

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
- Seamless system integration
- Warranty on all our products
- Qualified technical support and maintenance
- Efficient repair, refurbishment and recycling

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Technical Specifications

Hardware Specifications

- Interfaces WAN: 1 GPON port (SC/APC)
- Interfaces LAN: 4-port autosensing 10/100/1000 Base-T auto-MDI/MDI-X Ethernet LAN switch
  1 CAT-RF port (optional)
  2 FXS POTS ports
  2 USB 2.0 master ports
  IEEE 802.11n 2.4 GHz on-board
  IEEE 802.11ac 5.0 GHz on-board
- Interfaces other: Power button
  Info button
  WPS button
  Wi-Fi on/off button
  Reset button
- Dimensions: 228.5 x 182.5 x 39.5 mm (9.0 x 7.2 x 1.6 in)
- AC Voltage: 100 - 240 VAC (switched mode power supply)
- Temperature: 0° - 40° C (32° - 104° F)
- Humidity: 20 % to 80 %

GPON Interface Specifications

- Standards: ITU-T G984.1
  ITU-T G984.2
  ITU-T G984.3
  ITU-T G984.4
  ITU-T G.988
- Fiber type: ITU-T G.652
- Up to 8 T-CONTs and 32 GEM ports
- Upstream and downstream FEC
- Downstream AES encryption
- Downstream rate: 2.488 Gb/s
- Upstream rate: 1.244 Gb/s
- Upstream wavelength: 1260 - 1360 nm
- Downstream wavelength: 1480 - 1500 nm
- Connector type: SC-APC
- Attenuation range: Class B+ (28 dB optical budget)
- Maximum differential range: 20 km
- GPON Dying Gasp

CATV-RF Interface Specifications (optional)

- Band: 42 - 870 MHz
- Downstream wavelength: 1550 - 1560 nm
- Average received optical power (OMI = 3.4% / carrier): -7 to 1 dBm
- Output power of CATV-RF channel: 14.5 to 22 dBmV (550 MHz)
- CSO distortion: -55 dBc (maximum)
- CTB distortion: -59 dBc (maximum)
- Carrier / Noise Ratio (CNR): 52 dB (typical)

Wireless Specifications

- Full dual band concurrent Wi-Fi access points, Wi-Fi certified®
  2.4 GHz (2x2) IEEE 802.11n AP
  5.0 GHz (3x3) IEEE 802.11ac AP with IEEE 802.11ac compliant transmit beamforming
- Wi-Fi 2.4 GHz power: Standard: Up to 20dBm (100mW EIRP)
  High Power (optional): Up to 24dBm (250mW EIRP)
- Wi-Fi Protected Setup (WPS™)
- Wi-Fi security levels: WPA2™-Enterprise / WPA™-Enterprise
  WPA2™-Personal / WPA™-Personal
  WEP™
- Wi-Fi Multimedia (WMM®)
- Up to 4 BSSIDs (virtual AP) support per radio interface
- RX/TX switched diversity
- 2x2 MIMO 2.4 GHz Wi-Fi features
  SGi
  STBC
  20/40 MHz coexistence
- 3x3 MIMO 5.0 GHz Wi-Fi features
  SGi
  STBC
  20/40/80 MHz mode
- Dynamic rates switching for optimal wireless rates
- Manual/auto radio channel selection

Management

- Customizable user-friendly GUI via HTTP and HTTPS
- Web services API for remote access (portal, management, diagnostics, applications, ...)
- TR-069 CPE WAN Management Protocol (CWMP)
  TR-098 Internet Gateway Device Management
  TR-181i2 Device:2 data model
  TR-157a3 Life Cycle Management (LCM)
  TR-143 network throughput performance tests and statistical monitoring
  TR-104 voice service provisioning and configuration
  TR-111 home network device management
  TR-140 storage service provisioning
- ONT Management and Control Interface (OMCI) management
- Zero-touch autoprovisioning

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Technical Specifications

Services

- Support of Qeo communication framework and apps, including access to real time diagnostics
- Life Cycle Management (LCM) for developing advanced services support
- Open architecture for 3rd party application and UI development
- 3G mobile fall-back WAN connection (through 3G USB adapter)
- Parental control: URL- and (optional) content-based website filtering; Time-based access control
- Printer sharing
- Content sharing: Samba file server; UPnP A/V™ media server and control point; DLNA® DMS; Metadata support; Remote HDD file access
- HDD file systems: FAT32, NTFS, EXT2, EXT3, HFS+

Security

- Stateful Packet Inspection Firewall (SPIF)
- Customizable firewall security levels
- Intrusion detection and prevention (DoS, SYN Flood, Ping of Death, Fraggle, LAND, Teardrop, etc.)
- DeMilitarized Zone (DMZ)
- Multilevel access policy
- Security and service segregation per SSID

Networking

- Symmetrical NAT with application helpers (ALGs)
- Game and application sharing NAT port maps
- DHCP conditional serving & relay, DNS server & relay
- IGMPv3 proxy (Fastleave)
- IGMP snooping (full routed)
- DHCP spoofing
- IEEE 802.1q VLAN bridging, multiple bridge instances
- Multicast to unicast translation on Wi-Fi interfaces

IPv6 Networking

- IPv4 / IPv6 dual IP stack
- Supported models: PPP(oE) – IPoE
- Transitioning: 6rd/6to4/6in4; DSLite
- Stateful connection tracking / stateful inspection firewall
- DHCPv6: Stateful/stateless DHCPv6 client; Stateless DHCPv6 server; Relay; Prefix Delegation
- DNS v4/v6 Proxy
- ULA
- ICMPv6
- IPv6 Quality of Service
- MLDv1/v2

Quality of Service

- GPON QoS
- IP QoS: Flexible classification (ALG aided); IP rate limiting (two-rate remarking/dropping); DSCP (re) marking; TCP ACK optimization; Dynamic link fragmentation; Per service class connection/resource reservation
- Ethernet QoS: Priority or C-VLAN/S-VLAN tagging; Switch port queuing and scheduling
- Wireless QoS: WMM (BE, BK, VI, VO access categories) queuing and scheduling

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Technical Specifications

Telephony

- Voice technologies: Voice over IP (VoIP)
- Voice signalling: SIP
- Voice codecs: G.711, G.726, G.729
  Wideband G.722.2 (optional)
  T.38
- Echo cancellation: G.168 compliant
- Comfort Noise Generator (CNG)
- Voice Activity Detection (VAD)
- Flexible telephone number per FXS handset including common numbers
- Supplementary and advanced services
  - Caller ID
  - Call waiting (on call basis)
  - Call forwarding (no answer/busy/unconditional)
  - Call transferring
  - Call hold, call return
  - Calling Line Identification Presentation (CLIP)
  - Calling Line Identification Restriction (CLIR)
  - Calling Name Identification Presentation (CNIP)
  - Calling Name Identification Restriction (CNIR)
  - Fax transparency / V.92 transparency
  - 3-way conference
  - Message Waiting Indicator (MWI)
  - Warm line
  - Call completion to busy subscriber
  - Abbreviated number
  - Anonymous Call Rejection (ACR)
  - Distinctive ringing
  - Support for secondary outbound proxy
  - DNS NAPTR, DNS SRV
- Interoperable with main market softswitches

Environmental Features

- Wi-Fi on/off function
- LED on/off function

Content of the Box

- Smart Wireless .11ac Integrated GPON Gateway with Voice
- Ethernet cable (RJ-45)
- Power supply unit
- Quick Setup leaflet(s) (optional)
- Safety Instructions & Regulatory Information booklet (optional)

TG1700(d)ac back panel

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DS-262-v01-1402

SAFETY INSTRUCTIONS AND REGULATORY NOTICES

BEFORE YOU START INSTALLATION OF OR USE THIS PRODUCT, CAREFULLY READ THESE INSTRUCTIONS

When using this product, always follow the basic safety precautions to reduce the risk of fire, electric shock and injury to persons, including the following:

- Always install the product as described in the documentation that is included with your product.
- Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use this product to report a gas leak in the vicinity of the leak.

Applicability

These Safety Instructions and Regulatory Notices apply to:

- Technicolor xDSL Modems & Gateways

Directive

Unless express and prior approval by Technicolor in writing, you may not:

- Disassemble, de-compile, reverse engineer, trace or otherwise analyze the equipment, its content, operation, or functionality, or otherwise attempt to derive source code (or the underlying ideas, algorithms, structure or organization) from the equipment, or from any other information provided by Technicolor, except to the extent that this restriction is expressly prohibited by local law;
- Copy, rent, loan, re-sell, sub-license, or otherwise transfer or distribute the equipment to others;
- Modify, adapt or create a derivative work of the equipment;
- Remove from any copies of the equipment any product identification, copyright or other notices;
- Disseminate performance information or analysis (including, without limitation, benchmarks) from any source relating to the equipment.

Such acts not expressly approved by Technicolor will result in the loss of product warranty and may invalidate the user's authority to operate this equipment. Technicolor disclaims all responsibility in the event of use that does not comply with the present instructions.

Open Source Software notification

This product may contain certain open source software modules which are subject to Open Source Software license terms. A list of the Open Source Software used by or provided under this product release and their corresponding Licenses and version number are available on Technicolor's website at the following address: www.technicolor.com/en/hi/minisites/open-software or at another address as Technicolor may provide from time to time.

If and where applicable, depending on the terms of the applicable Open Source Software licenses, the source codes of the Open Source Software are available for free on Technicolor's website at the following address: www.technicolor.com/en/hi/minisites/open-software.

For avoidance of doubt, Open Source Software is only licensed by the original owner of the Open Source Software under the terms set forth in the designated Open Source License.

Safety instructions

- *Read these instructions.*
- *Keep these instructions.*
- *Heed all warnings.*
- *Follow all instructions.*

PAP

DSL3687400B

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DMS-SAF-20101221-0001 v5.0.

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Climatic conditions

This product:

- Is intended for in-house stationary use; the maximum ambient temperature must not exceed 40 °C (104 °F); the relative humidity must be between 20% and 80%.
- Must not be mounted in a location exposed to direct or excessive solar and/or heat radiation.
- Must not be exposed to heat trap conditions and must not be subjected to water or condensation.
- Must be installed in a Pollution Degree 2 environment (environment where there is no pollution or only dry, nonconductive pollution).

Ventilation and positioning

- Do not block or cover any ventilation openings; never stand it on soft furnishings or carpets.
- Never push objects through the openings in this product.
- Leave 7 to 10 cm (3 to 4 inches) around the product to ensure that proper ventilation gets to it.
- Do not install the product near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not put anything on it which might spill or drip into it (for example, lighted candles or containers of liquids). Do not expose it to dripping or splashing, rain or moisture. If a liquid enters inside the product, or if the product has been exposed to rain or moisture, unplug it immediately and contact the Customer Service.

Cleaning

Unplug this product from the wall socket and computer before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

Water and moisture

Do not use this product near water, for example near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement or near a swimming pool. Transition of the product from a cold environment to a hot one may cause condensation on some of its internal parts. Allow it to dry by itself before re-starting the product.

Electrical powering

The powering of the product must adhere to the power specifications indicated on the marking labels.

In case this product is powered by a power supply unit:

- This power supply unit must be Class II and a Limited Power Source in accordance with the requirements of IEC60950-1/EN60950-1, Clause 2.5 and rated as indicated on the label on your product. It must be tested and approved to national, or local standards.
- *For US and Canada*: This product is intended to be supplied by a UL listed Direct Plug-in Power Unit marked "Class 2" and rated as indicated on the label on your product.

Only use the power supply unit that is supplied with this product. The use of other types of supplies is prohibited. If you are not sure of the type of power supply needed, consult the product's user documentation or contact your local product dealer.

Accessibility

The plug on the power supply cord or power supply unit serves as disconnect device. Be sure that the mains supply socket outlet you use is easily accessible and located as close to the product as possible.

Overloading

Do not overload mains supply socket outlets and extension power cords as this increases the risk of fire or electric shock.

Telephone cable

CAUTION

To reduce the risk of fire, use only No 26 AWG wire size or larger telecommunication line cord.

Connect the telecommunication line cord only in the PSTN, FXO, DSL or Line port of the product. Never plug the telecommunication line cord in another receptacle of the product.

Follow the installation instructions in the sequence as outlined in the installation guide.

Servicing

To reduce the risk of electric shock, do not disassemble this product. None of its internal parts are user-replaceable; therefore, there is no reason to access the interior. Opening or removing covers may expose you to dangerous voltages. Incorrect reassembly could cause electric shock if the appliance is subsequently used.

If service or repair work is required, take it to a qualified service dealer.

Damage requiring service

Unplug this product from the mains supply socket outlet and refer servicing to qualified service personnel under the following conditions:

- When the power supply, power cord or its plug are damaged.

- When the attached cords are damaged or frayed.
- If liquid has been spilled into the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally.
- If the product has been dropped or damaged in any way.
- There are noticeable signs of overheating.
- If the product exhibits a distinct change in performance.

Immediately disconnect the product if you notice it giving off a smell of burning or smoke. Under no circumstances must you open the equipment yourself; you run the risk of electrocution.

Protect the product when moving it

Always disconnect the power source when moving the product or connecting or disconnecting cables.

Interface classifications (upon applicability)

The external interfaces of the product are classified as follows:

- DSL, Line: TNV circuit, subjected to overvoltages (TNV-3)
- Phone, FXS: TNV circuit, not subjected to overvoltages (TNV-2)
- PSTN, FXO: TNV circuit, subjected to overvoltages (TNV-3)
- All other interface ports (e.g. Ethernet, USB, etc.), including the low voltage power input from the AC mains power supply: SELV circuits.

WARNING

- The Phone, FXS port will be classified as a ***TNV-3*** circuit when connected internally to the PSTN, FXO port, for example, when the device is powered off.
- If the product is equipped with a USB interface (slave and/or master) or any type of connector with metallic shielding, then it is not allowed to connect the Phone, FXS port with the PSTN, FXO or the DSL, Line port by any means, for example with an external telephone cable.

Regulatory information

You must install and use this device in strict accordance with the manufacturer's instructions as described in the user documentation that is included with your product.

Before you start installation or use of this product, carefully read the contents of this document for device specific constraints or rules that may apply in the country where you want to use this product.

In some situations or environments, the use of wireless devices may be restricted by the proprietor of the building or responsible representatives of the organization.

If you are uncertain of the policy that applies on the use of wireless equipment in a specific organization or environment (e.g. airports), you are encouraged to ask for authorization to use this device prior to turning on the equipment.

Technicolor is not responsible for any radio or television interference caused by unauthorized modification of the device, or the substitution or attachment of connecting cables and equipment other than specified by Technicolor. The correction of interference caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

Technicolor and its authorized resellers or distributors are not liable for any damage or violation of government regulations that may arise from failing to comply with these guidelines.

North-America - Canada

Notification of Canadian Radio Frequency Interference Statement

This Class B digital apparatus complies with Canadian ICES-003.

This product meets the applicable Innovation, Science and Economic Development Canada technical specifications.

NOTICE: The Ringer Equivalence Number (REN) for this terminal equipment is 0.1. The REN is an indication of the maximum number of devices allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the RENs of all the devices does not exceed 5.

Canada - Industry Canada (IC)

In case this product is equipped with a wireless transceiver, this device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Canada - Radiation exposure statement

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm (8 inches) between the radiator and your body.

Restricted frequency bands
In case this product is equipped with a wireless transceiver operating in the 2.4 GHz band, it may only use channels 1 to 11 (2412 to 2462 MHz) on Canada territory.
In case this product is equipped with a wireless transceiver operating in the 5 GHz band, it is for indoor use only.
The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

North-America - United States of America
Federal Communications Commission (FCC) radio frequency interference statement
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
Responsible Party: Technicolor, 101W. 103rd St., Indianapolis, IN 46290 USA, 317-587-5466.

This equipment complies with Part 68 of the FCC Rules.
The customer information required for Telephone Terminal Equipment ("TTE") approved for connection to the Public Switched Telephone Network ("PSTN"), pursuant to 47 CFR §68.218(b)(1) can be found at www.technicolor.com.
RF exposure statement
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with FCC RF exposure compliance requirements, please follow operation instruction as documented in the product documentation.
When the product is equipped with a wireless interface, then it becomes a mobile or fixed mounted modular transmitter and must have a separation distance of at least 20 cm (8 inches) between the antenna and the body of the user or nearby persons. In practice, this means that the user or nearby persons must have a distance of at least 20 cm (8 inches) from the product and must not lean on the product in case it is wall-mounted. With a separation distance of 20 cm (8 inches) or more, the M(aximum) P(ermissible) E(xposure) limits are well above the potential this wireless interface is capable to produce.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
Restricted frequency bands
In case this product is equipped with a wireless transceiver operating in the 2.4 GHz band, it may only use channels 1 to 11 (2412 to 2462 MHz) on U.S.A. territory.
In case this product is equipped with a wireless transceiver operating in the 5 GHz band, it meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.
The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

CONSIGNES DE SÉCURITÉ ET INFORMATIONS RÉGLEMENTAIRES

AVANT D'INSTALLER OU D'UTILISER LE PRODUIT, LISEZ ATTENTIVEMENT CES INSTRUCTIONS

Afin d'éviter tout risque d'incendie, de choc électrique et de blessure corporelle, il convient d'utiliser le produit conformément aux mesures de sécurité de base, parmi lesquelles les suivantes :

- Respectez toujours les instructions d'installation détaillées dans la documentation accompagnant le produit.
- Évitez de connecter ou d'utiliser ce produit en cas d'orage.La foudre peut provoquer un faible risque de choc électrique.
- N'utilisez pas le produit pour signaler une fuite de gaz à proximité de cette fuite.

Applicabilité

Ces Consignes de sécurité et informations réglementaires sont applicables à :

- Technicolor xDSL Modems & Gateways

Consignes à respecter

Sauf accord écrit explicite et préalable de Technicolor, vous ne pouvez pas :

- démonter, décompiler, décomposer, examiner ou analyser de quelque manière que ce soit l'appareil, son contenu, son fonctionnement ou ses fonctionnalités, ni tenter de copier le code source (ou les concepts sous-jacents, les algorithmes, la structure ou l'organisation) de l'appareil, ou de toute autre information fournie par Technicolor, sauf si cette restriction est expressément interdite par la législation locale;
- copier, louer, prêter, revendre, mettre sous licence, ni transférer ou distribuer l'appareil à des tiers;
- modifier, adapter ou créer un dérivé de l'appareil;
- retirer de l'appareil l'identification du produit, les droits d'auteur ou toute autre notification;
- diffuser des informations ou analyses relatives aux performances de l'appareil (y compris et sans restriction, les tests de performance) quelle que soit la source d'information.

Ces actes, réalisés sans l'accord explicite de Technicolor, entraînent la perte de la garantie du produit et enlèvent à l'utilisateur le droit d'employer l'équipement. Technicolor rejette toute responsabilité en cas d'utilisation de l'équipement non conforme aux présentes instructions.

Notice relative aux Logiciels Libres

Ce produit logiciel peut contenir des éléments (modules ou bibliothèques logiciels) publiés sous licence « Logiciels libres » (« open source »). Ces composants logiciels peuvent être modifiés dans les prochaines versions logicielles.

Vous trouverez la liste des logiciels libres embarqués dans ce produit logiciel, ainsi que leur licence et version sur le site Technicolor à l'adresse suivante : http://www.technicolor.com/en/hi/minisites/open-software, ou à toute autre adresse URL que Technicolor pourrait fournir dans le futur.

En fonction des termes et conditions d'utilisation applicables à ces éléments logiciels (les licences de logiciel libre en cause), le code source de ces modules ou bibliothèques logiciels seront mis à disposition sur le site de Technicolor, à l'adresse suivante : http://www.technicolor.com/en/hi/minisites/open-software, ou à toute autre adresse URL que Technicolor pourrait fournir dans le futur.

En tout état de cause, les logiciels libres sont licenciés directement par l'auteur original de ces composants logiciels, dans les termes de la licence de logiciel libre correspondante.

Consignes de sécurité

- *Lisez ces instructions.*
- *Conservez ces instructions.*
- *Respectez tous les avertissements.*
- *Suivez toutes les instructions.*

Conditions climatiques

Ce produit :

- Est conçu pour une utilisation fixe dans un bureau à une température ambiante maximale de 40 °C (104 °F); l'humidité relative doit être comprise entre 20% et 80%.

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Tous les noms de marque désignent des marques de service, des marques commerciales ou des marques déposées des sociétés auxquelles elles appartiennent. Les spécifications peuvent être modifiées sans préavis. DMS-SAF-20101221-0001 v5.0.

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- Ne doit pas être installé dans un endroit exposé au rayonnement direct et excessif du soleil et/ou à des radiations de chaleur.
- Ne doit pas être mis dans des conditions d'accumulation de chaleur et ne doit pas être soumis à l'humidité ou la condensation.
- Doit être installé dans un environnement présentant un degré de pollution 2 (environnement exempt de pollution ou avec une pollution sèche, non conductrice).

Ventilation et positionnement

- Ne pas obstruer les ouvertures de ventilation; ne jamais se tenir sur des tissus d'ameublement et les tapis.
- Ne jamais pousser des objets dans les ouvertures de ce produit.
- Laisser 7 à 10 cm (3 à 4 pouces) autour du produit afin d'assurer une bonne ventilation.
- Ne pas installer le produit à proximité de sources de chaleur telles que des radiateurs, poêles ou autres appareils (y compris les amplificateurs) qui produisent de la chaleur.
- Ne mettez rien sur lui qui pourrait renverser ou goutte à goutte dans le (par exemple, des bougies ou des contenants de liquides allumée). Ne pas l'exposer à des gouttes ou des éclaboussures, de la pluie ou de l'humidité. Si un liquide pénètre à l'intérieur du produit, ou si le produit a été exposé à la pluie ou à l'humidité, débranchez-le immédiatement et contactez le service après-vente.

Nettoyage

Débranchez l'appareil de la prise murale et de l'ordinateur avant de le nettoyer. N'utilisez pas de détergents liquides ou d'aérosols. Nettoyez-le avec un chiffon humide.

Eau et humidité

N'utilisez pas ce produit à proximité d'une arrivée d'eau, par exemple près d'une baignoire, d'un lavabo,
d'un évier, d'une machine à laver, dans un sous-sol humide ou près d'une piscine. Le transfert de ce produit d'un environnement froid vers un environnement chaud peut entraîner l'apparition de condensation sur certaines parties internes. Laissez l'appareil sécher avant de le remettre en marche.

Alimentation électrique

L'alimentation du produit doit respecter les spécifications en matière d'alimentation figurant sur les étiquettes.
Dans le cas où ce produit est alimenté par un bloc d'alimentation :

- L'alimentation doit être de classe II, être une source à puissance limitée conformément aux exigences de la norme CEI60950-1/ EN60950-1, clause 2.5, aux caractéristiques nominales comme indiquées sur l'étiquette fixée sur le produit. Elle doit être testée et répondre aux normes nationales ou locales.
- *Pour États-Unis et Canada* : Ce produit est destiné à être alimenté par une source d'alimentation directe certifiée UL de «Classe 2» et considéré comme indiqué sur l'étiquette de votre produit.

Utilisez uniquement le bloc d'alimentation livré avec votre produit. L'utilisation d'autres types de sources d'énergie est interdite. Si vous n'êtes pas certain du type d'alimentation nécessaire, veuillez consulter la documentation fournie avec le produit ou contacter votre revendeur local.

Accessibilité

L'alimentation électrique est un moyen de déconnecter ce produit. Assurez-vous donc que le socle de la prise dans laquelle vous branchez le cordon d'alimentation est facilement accessible, et est située le plus près possible de l'équipement.

Surcharge

Ne surchargez pas les socles des prises du réseau d'alimentation ni les rallonges car ceci augmente les risques d'incendie et de choc électrique.

Câble téléphonique

ATTENTION
Pour réduire les risques d'incendie, utilisez uniquement des conducteurs de télécommunications 26 AWG ou de section supérieure.

Connectez uniquement le câble téléphonique dans la prise PSTN, FXO ou DSL, Line du produit. Ne le branchez jamais dans une autre prise du produit.
Suivez la procédure pour connecter les câbles au produit en suivant la séquence décrite dans le guide d'installation.

Entretien

Pour réduire les risques de choc électrique, ne démontez pas ce produit. Aucune de ses pièces internes
ne peut être remplacée par un non-professionnel; il n'y a dès lors pas de raison de l'ouvrir. L'ouverture ou le retrait des couvercles peut vous exposer à des tensions dangereuses. Un remontage incorrect peut entraîner un choc électrique lors de l'utilisation suivante.
Si votre appareil doit être réparé ou révisé, confiez-le à un distributeur agréé.

Détérioration nécessitant une intervention

Débranchez ce produit de la prise murale et faites effectuer la réparation par un service après-vente qualifié dans les cas suivants :

- Si l'alimentation ou sa fiche sont endommagées.
- Si un des câbles fournis est endommagé ou effiloché.
- Si vous avez renversé du liquide dans le produit.
- Si le produit a été exposé à la pluie ou à de l'eau.
- Si le produit ne fonctionne pas normalement.
- Si le produit est tombé ou a été endommagé d'une façon quelconque.
- S'il y a un signe perceptible de surchauffe.
- Si le produit présente des variations importantes au niveau des performances.

Débranchez immédiatement le produit si vous remarquez qu'il s'en dégage une odeur de brûlé ou de la fumée. Vous ne devez en aucun cas ouvrir l'appareil vous-même car vous risquez d'être électrocuté.

Classification des interfaces (sur l'applicabilité)

Les interfaces externes du produit sont spécifiées comme suit :

- DSL, Line : circuit TRT, sujet à des surtensions (TRT-3)
- Phone, FXS : circuit TRT, non sujet à des surtensions (TRT-2)
- PSTN, FXO : circuit TRT, sujet à des surtensions (TRT-3)
- Tous les autres ports d'interface (par example, Ethernet, USB, etc.)y compris l'entrée d'alimentation basse tension depuis l'alimentation du réseau : circuits TBTS

AVERTISSEMENT

- Le port Phone, FXS sera classifié comme un circuit TRT-3 lorsqu'il est raccordé en interne au port PSTN, FXO, par exemple, lorsque le périphérique est mis hors tension.
- Si le produit est équipé d'une interface USB (esclave et/ou maître) ou d'un autre type de connecteur avec un blindage métallique, il est interdit de relier le port Phone, FXS au port PSTN, FXO ou au port DSL, Line par un moyen quelconque, par exemple, à l'aide d'un câble téléphonique externe.

Avis réglementaire

L'appareil doit être installé et utilisé en stricte conformité avec les instructions du fabricant, énoncées dans la documentation accompagnant le produit.

Avant d'installer ou d'utiliser le produit, lisez attentivement ce document afin de prendre connaissance des restrictions spécifiques à l'appareil ou des règles en vigueur dans le pays où vous comptez l'utiliser.

Dans certains environnements ou circonstances, l'emploi de dispositifs sans fil peut être prohibé par le propriétaire du bâtiment ou les représentants responsables de l'organisation concernée.

En cas de doute quant à la politique s'appliquant à l'utilisation d'équipements sans fil dans une organisation ou un environnement spécifique (par exemple dans les aéroports), il est recommandé de demander la permission d'utiliser l'appareil avant de l'allumer.

Technicolor n'est pas responsable des interférences avec les postes de radio ou de télévision susceptibles de survenir à la suite d'une modification non autorisée de l'appareil ou du remplacement ou de la connexion de câbles et d'équipements non agréés par Technicolor. C'est par conséquent à l'utilisateur qu'il incombe de remédier aux interférences causées par de telles manipulations.

Technicolor et ses revendeurs et distributeurs agréés déclinent toute responsabilité quant aux dommages ou violation des réglementations nationales découlant du non-respect de ces instructions.

Amérique du Nord – Canada

Déclaration Canadienne d'interférence de Fréquence Radio

Cet appareil numérique de Classe B est conforme à la norme canadienne NMB-003.

Le présent produit est conforme aux spécifications techniques applicables d'Innovation, Sciences et Développement Économique Canada.

NOTE : L'Indice d'Équivalence de la Sonnerie (IES) de ce produit est 0.1. Le IES sert à indiquer le nombre maximal de terminaux qui peuvent être raccordés à une interface téléphonique. La terminaison d'une interface peut consister en une combinaison quelconque de dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas cinq.

Canada - Industrie Canada (IC)

Si le produit est équipé d'un émetteur-récepteur sans fil, il est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage; (2) l'appareil doit accepter

tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Canada - Avis radiation énoncées

Cet équipement se conforme avec les limites d'exposition aux radiations énoncées pour un environnement incontrôlé. Il doit être installé et opéré avec une distance minimale de 20 cm (8 pouces) entre la source de radiation et votre corps.

Bandes de fréquences restreintes

Si le produit est équipé d'un émetteur-récepteur sans fil fonctionnant dans la bande des 2.4 GHz, il utilise uniquement les canaux 1 à 11 (2 412 à 2 462 MHz) sur le territoire canadien.

Si le produit est équipé d'un émetteur-récepteur sans fil fonctionnant dans la bande des 5 GHz, il peut uniquement être utilisé dans un environnement intérieur.

La disponibilité de certains canaux spécifiques et / ou bandes de fréquences de fonctionnement sont en fonction du pays et sont firmware programmé en usine pour correspondre à la destination prévue. Le réglage du firmware n'est pas accessible par l'utilisateur.