technicolor

FEEL THE WONDER

broadband

ACCESS GATEWAY

DWA0120

Wi-Fi .11ac Smart Ultra-Broadband Gateway

The Technicolor DWA0120 is a powerful network-agnostic Digital Home enabler.

Next-Gen Wi-Fi Technology for Next-Gen Speeds

Featuring the next-generation IEEE 802.11ac Wave 2 Wi-Fi standard for the 5 GHz band, this dual band Wi-Fi solution makes optimal use of the radio spectrum. With its optimized antenna configuration, the DWA0120 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.

Flexible & Future-Proof Software Stack

The DWA0120 is enriched with Technicolor Homeware, a reliable and managed middleware that offers an open architecture with multiple application environments fit 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.

Wireless Doctor, a Technicolor Managed Service

The DWA0120 supports Wireless Doctor™, a Technicolor Managed Service that gives service providers advanced capabilities to monitor and to improve the Wi-Fi quality of experience for their subscribers.

Wireless Doctor™ encompasses many facets including Wi-Fi diagnostics, Wi-Fi network optimization, Wi-Fi mesh and Wi-Fi provisioning. It enables service providers to gain valuable insights into their installed base, to reduce OPEX proactively by leveraging Radio Resource Management (RRM) and reactively by empowering Customer Service, and to optimize CAPEX investments by identifying where new and additional Wi-Fi access points are needed.

Features at a Glance

- Integrated VDSL2 modem
- 1 GE WAN port
- AutoWAN sensing™
- 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)
- 1 highspeed USB 2.0 master port
- Seamless media sharing (UPnP A/V™ and DLNA®)
- Future-proof full service platform
- Enabled to support Wireless Doctor® (sold separately)
- Extensive remote management
- Non-service-affecting platform software upgrades (dual bank memory)
- IPv4 & IPv6 enabled
- Designed according to the latest ECO standards

Wireless Doctor A Technicolor Managed Service

Wi-Fi .11ac

Wi-Fi PROTECTED SETUP

Wi Fi CERTIFIED

HI-SPEED USB CERTIFIED

dlna

UPnP AV

ACCESS GATEWAY

DWA0120

Best-In-Class Ultra Broadband

The accelerating growth of WAN and LAN traffic is pushing operators to look to ultra-high-speed network technologies to solve the bandwidth crunch. VDSL2 combined with Gigabit Ethernet enables extremely high bandwidth and guarantees superior quality in voice, data and video.

A dedicated Gigabit Ethernet WAN port and AutoWAN sensing make the DWA0120 the ideal service gateway for deployment in Fiber To The Home (FTTH) scenarios.

Some of the latest performance-enhancing technologies have been added on top, to get the utmost out of existing infrastructures:

- G.vector: effectively cancels the crosstalk noise inherently present in VDSL2 bands. With vectoring, every line in a binder can operate at peak performance, as if there were no other VDSL2 lines in that binder.
- G.inp ("Impulse Noise Protection"): makes sure that no errors occur on the DSL connection, even under extreme conditions, so that high-quality video transmission is guaranteed at all times. It is based on the principle of retransmission.

Furthermore, the latest wireless technologies ensure robust in-home wireless distribution which reduces wiring complexity and provides true mobility without sacrificing Quality of Service (QoS) and Quality of Experience (QoE) or transfer speeds.

Media Sharing

The DWA0120 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 DWA0120 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.

Highest Security

The DWA0120 Stateful Packet Inspection (SPI) firewall guarantees users the ultimate network security level. Through integration with Network Address & Port Translation (NAPT), the firewall leverages all the Application Level Gateways (ALGs) provided in the NAT context to minimize undesired service impacts.

Advanced smart parental controls, security audit services, access logging and monitoring are optionally available for home, hotspot and mobile data network users to create a fully personalized and time-based access control environment, based on individual user profiles and web usage behaviour.

The DWA0120 also supports powerful wireless security mechanisms, such as Wi-Fi Protected Access (WPA, WPA2) together with the secure and user friendly Wi-Fi Protected Setup (WPS) connection and configuration mechanism for connecting wireless clients.

In addition, the DWA0120 supports multiple wireless networks (mSSID) enabling to set up independent virtual wireless access points, including controlled wireless hotspots. These additional wireless networks allow other wireless users to enjoy high-performance access without any compromise on the integrity of the basic network, thus keeping the original network access limited and secure.

Easy to Manage

The DWA0120 is completely designed according to the TR-069's TR-098 IGD data model through which the device can be configured remotely by the operator without interrupting the end user's experience.

In addition, the TR-181i2 Device:2 data model is made available to further increase the remote management capabilities towards life cycle management, diagnostics and application management.

IPv6 Enabled

With the approaching IPv4 address pool depletion, gateway products need to be ready for IPv6. Technicolor is a frontrunner in the support of IPv6 on its devices, with the DWA0120 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 to address security concerns that exist in an IPv4 environment.

ACCESS GATEWAY

DWA0120

Technical Specifications

Hardware

- Interfaces WAN: 1 RJ-11 DSL line port; 1 Ethernet WAN 10/100/1000 Base-T port
- Interfaces LAN: 4-port autosensing 10/100/1000 Base-T Ethernet LAN switch; IEEE 802.11n 2.4 GHz Wi-Fi; IEEE 802.11ac 5 GHz Wi-Fi; 1 USB 2.0 master port
- Buttons & LEDs: Info button (with integrated LED); Wi-Fi on/off button; WPS button; Reset button (recessed); Power button; 7 status LEDs
- Power input: DC jack
- Power supply: 12 VDC external PSU
- AC Voltage: 100 - 240 VAC, 50 - 60 Hz (switched mode power supply)
- Dimensions: 213 x 34 x 185 mm (8.39 x 1.34 x 7.28 in.)
- Operating temperature: 0 - 40 °C (32 - 104 °F)
- Operating humidity: 20 - 80 % RH non-condensing
- Storage temperature: -20 - 70 °C (-4 - 158 °F)

xDSL modem

- Supports multi mode standards
- ADSL compliancy: ITU-T G.992.1 Annex A (G.dmt); ITU-T G.992.2 Annex A (G.lite); ITU-T G.994.1 (G.hs); Rates up to 8 Mbps downstream and 1 Mbps upstream
- ADSL2 compliancy: ITU-T G.992.3 Annex A, L (G.dmt.bis); ITU-T G.992.4 Annex A, L (G.lite.bis); ITU-T G.998.4 (G.inp); Rates up to 12 Mbps downstream and 1 Mbps upstream
- ADSL2+ compliancy: ITU-T G.992.5 Annex A, M; ITU-T G.998.4 (G.inp); Rates up to 24 Mbps downstream and 3 Mbps upstream
- VDSL2 compliancy: ITU G.993.2
  - SOS
  - SRA
  - INM

  ITU-T G.993.5 (G.vector); ITU-T G.998.4 (G.inp); Up to VDSL2 profile 17a
- Supports Dying Gasp (optional)

Wi-Fi

- Full dual band concurrent Wi-Fi access points, Wi-Fi certified®
  - 2.4 GHz (2x2) IEEE 802.11n
  - 5 GHz (3x3) IEEE 802.11ac
    - with IEEE 802.11ac compliant transmit beamforming
- Wi-Fi security levels: WPA2™-Enterprise / WPA™-Enterprise; WPA2™-Personal / WPA™-Personal; WPA2™ + WPA™ mixed mode (AES and TKIP)
- Wi-Fi Protected Setup (WPS™)
- Wi-Fi Multimedia (WMM®) and WMM-Power Save
- Up to 4 BSSIDs (virtual AP) support per radio interface
- Wireless hotspot capabilities
- Band Steering
- 2x2 MIMO 2.4 GHz Wi-Fi features
  - 2.4 GHz frequency bands
    - 2400 - 2483.5 MHz
  - 2.4 GHz Wi-Fi power Standard up to 20 dBm (100 mW EIRP)
    - High power (optional) up to 24 dBm (250 mW EIRP)
  - SGi (Short Guard Interval)
  - STBC (Space-Time Block Code)
  - 20, 40 MHz bandwidths
- 3x3 MIMO 5 GHz Wi-Fi features
  - 5 GHz frequency bands
    - 5150 - 5250 MHz
    - 5250 - 5350 MHz with Dynamic Frequency Control
  - 5 GHz Wi-Fi power up to 30 dBm (1000 mW EIRP)
  - SGi (Short Guard Interval)
  - STBC (Space-Time Block Code)
  - 20, 40, 80 MHz bandwidths
- RX/TX switched diversity
- Dynamic rate switching for optimal wireless performance
- Manual/auto radio channel selection

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Technical Specifications

Management

- Customizable user-friendly GUI via HTTP and HTTPS
- Command Line Access SHell (CLASH)
  - SSH v2
- Web services API for remote access (portal, management, diagnostics, applications,...)
- Web-browsing intercept (install/diagnostics/captive portal)
- AutoWAN sensing™ (automatic selection and configuration of WAN interfaces)
- TR-069 CPE WAN Management Protocol (CWMP)
  - TR-098 Internet Gateway Device (IGD) data model
  - TR-111 home network device management
  - TR-140 storage service provisioning
  - TR-143 network throughput performance tests and statistical monitoring
  - TR-157a3 Life Cycle Management (LCM)
  - TR-181i2 Device:2 data model
- Zero-touch autoprovisioning

Services

- Life Cycle Management (LCM) for developing advanced services support
- Open architecture for 3rd party application and UI development
- 3G/LTE/4G mobile fall-back WAN connection (through USB adapter)
- Enabled to support Technicolor Managed Services
  - Wireless Doctor™ (sold separately)
- VPN client/server scenarios
  - L2TP/IPSec
  - PPTP
  - OpenVPN
- Wireless hotspot (optional, on request)
  - Based on HotSpot 2.0 technologies
  - Passpoint™
  - GRE tunneling
  - EAP
  - Fon
- Parental control
  - URL- and (optional) content-based website filtering
  - Time-based access control (Tim-of-Day)
- Printer sharing
  - IPP
  - LPD
  - Server Message Block (SMB) Samba printer sharing
- Content sharing
  - Server Message Block (SMB) Samba file server
  - UPnP A/V™ media server and control point
  - DLNA® DMS
  - Metadata support
- HDD file systems
  - FAT32, NTFS, ExFAT
  - EXT2, EXT3, EXT4
  - HFS+

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
- MLD Proxy for IPv6
- Port Control Protocol (PCP)
- Multicast to unicast translation on Wi-Fi interfaces

IPv6 networking

- IPv4 / IPv6 dual IP stack
- Supported models
  - PPP(oE)(oA)
  - IPoE(oA)
- Transitioning
  - 6rd/6to4/6in4
  - DS-Lite
- Stateful connection tracking
- Stateful inspection firewall
- DHCPv6
  - Stateful/stateless DHCPv6 client
  - Stateless DHCPv6 server
  - Relay
  - Prefix Delegation
- ICMPv6
- 464xlat
- MAP-T

Quality of Service

- ATM QoS
  - UBR, VBR-nrt, VBR-rt, CBR shaping, queuing and scheduling
  - CLP tagging
- IP QoS
  - Flexible classification (ALG aided)
  - IP rate limiting (two-rate remarking/dropping)
  - DSCP (re)marking
  - Dynamic link fragmentation
- Ethernet QoS
  - Priority or C-VLAN/S-VLAN tagging
  - Ethernet switch port queuing and scheduling
- Wireless QoS
  - WMM (BE, BK, VI, VO access categories) queuing and scheduling

Security

- Stateful Packet Inspection Firewall (SPIF)
- Customizable firewall security levels
- Intrusion detection and prevention
- DeMilitarized Zone (DMZ)
- GRE Tunnel encryption
- Multilevel access policy
- Secure boot
- Security and service segregation per SSID

Package contents

- DWA0120
- DSL cable
- Ethernet cable
- Power supply unit
- Quick Setup leaflet(s) (optional)
- Safety Instructions & Regulatory Information
- Filter(s) or splitter(s) (optional)

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