EAGLE X
Ultimate Tri-Band Wi-Fi 6 Extender
OWA3111

Technicolor's EAGLE X, a Tri-Band extender that integrates two Gigabit Ethernet ports, is equipped with the latest Wi-Fi 6 technology, allowing for faster throughputs, better performance in dense multi-user environments and improved battery lifetime of connected devices. Finally, the EAGLE X was designed with sufficient horsepower to propagate multi-gigabit speeds throughout the home and support additional value-added services.

The Perfect Solution to Support Premium Wi-Fi Full Home Coverage

With its support of Tri-band concurrent Wi-Fi 6 (IEEE 802.11ax) for both the 2.4 GHz and 5 GHz bands, the OWA3111 is a powerful and future-proof companion access point to extend the main gateway coverage, improving the in-home user experience and increasing the total throughput in the home.

Wi-Fi 6 Technology

Wi-Fi 6 – a stronger, higher performing wireless connectivity – is a major evolution that improves gigabit-services delivery through providing reliable connections to a large number of devices. Used in both the 2.4 and 5 GHz bands, Wi-Fi 6 is the first major upgrade for Wi-Fi at 2.4 GHz since Wi-Fi 4 in 2009. While it keeps the data rate the same as Wi-Fi 5, Wi-Fi 6 increases signal robustness to accommodate more devices and allow better sharing of the wireless channel.

Wi-Fi 6 provides higher maximum data rates on the network by using higher orders of modulation – up to 1024 QAM from Wi-Fi 5's 256 QAM. It lowers latency by dramatically reducing delay times as data is sent, improving load times and helping avoid disconnects and other issues benefitting applications such as on-line gaming. Additionally, Wi-Fi 6 provides a mechanism to reduce interference between neighboring routers through efficient spectrum use, improving service quality levels to customers that live in high Wi-Fi density areas. Finally, Wi-Fi 6 introduces a concept called Target Wake Time (TWT), allowing the access point to put clients' Wi-Fi radio in a sleep mode until it's needed, reducing power consumption and prolonging battery life.

Featuring the next-generation Wi-Fi 6 technology on both the 2.4 GHz and 5 GHz bands, the OWA3111 makes optimal use of the radio spectrum allowing for faster throughputs, better performance in dense multi-user environments and saving battery lifetime of connected devices. With its optimized antenna configuration, the OWA3111 enables a best in class coverage.

The OWA3111 supports Wi-Fi XL™, a differentiated Wi-Fi solution that delivers multi-user gigabit Wi-Fi services throughout the home.

Features at a Glance

__ 2 Gigabit Ethernet ports
__ Tri-Band concurrent Wi-Fi radios
   2.4 GHz (2x2) Wi-Fi 6 (IEEE 802.11ax)
   High band 5 GHz (4x4) Wi-Fi 6 (IEEE 802.11ax)
   Low band 5 GHz (2x2) Wi-Fi 6 (IEEE 802.11ax)
__ EasyMesh (agent) enabled
   Ready for EasyMesh R2 upgrade
__ Enabled to support
__ Technicolor Wi-Fi XL™
__ Technicolor Navigate mobile app

__ 1 highspeed USB 2.0 port (optional)
__ Future-proof Added Value Services platform supporting
   Technicolor HOMEWARE
__ Extensive remote management
__ Non-service-affecting platform software upgrades (dual bank memory)
(dual bank memory)
__ IPv4 & IPv6 enabled
__Designed according to the latest ECO standards

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Wi-Fi EasyMesh Technology

EasyMesh™, a standards-based and open approach to deploying multiple access points in the home, gives consumers both freedom of choice and easy setup of Wi-Fi mesh networks. EasyMesh certified devices from different manufacturers are fully compatible and can be used to create whole home Wi-Fi coverage.
Enriched with advanced diagnostics capabilities, Technicolor's EasyMesh certified products intelligently select the most appropriate access point & frequency bands and maximize performance for every user and device in the home. All Technicolor products are software upgradable from and backwards compatible with the EasyMesh R1.
Technicolor's EasyMesh products bring the following capabilities:

__ Easy setup for automatic device onboarding and configuration
__ Standardized network intelligence gathering mechanisms that enable roaming, band steering and load balancing to maximize network performance
__ Interoperability of EasyMesh certified access points from multiple vendors.
__ Standardized Wi-Fi diagnostics (R2)
__ Guaranteed service continuity through improved channel management (R2)
__ Traffic separation for guest accounts (R2)
__ Enhanced client steering (R2)

Technicolor Wi-Fi XL

Technicolor is proud to deliver Wi-Fi XL™, a superior whole home Wi-Fi solution combining the Technicolor wireless expertise embedded in our new home gateways, extenders and set-top-boxes, with the latest Wi-Fi alliance technology standards and additional layers of innovative software for more advanced functionalities.
By combining several products, technologies and software Wi-Fi XL solves multiple pain points:

__ First, it extends Wi-Fi coverage to all corners of the home, transmitting the gigabit access-speeds that enter it.
__ Secondly, it provides seamless roaming by integrating EasyMesh and guarantees a smooth experience over time through the use of advanced software tracking that solves wireless issues as they arise.
__ Lastly, it caters to the new reality of an ever-increasing amount of Wi-Fi users that have dedicated needs in terms of latency, bandwidth and priority (I.e. Audio and Video).

Wi-Fi XL enables optimized connectivity and seamless interactions for every user, every time and in every corner of their home. This means seamless Wi-Fi, without exception – reducing the number of calls to your helpdesk and driving increased customer satisfaction, loyalty, and lifetime value.
Wi-Fi XL™ also introduces Technicolor Navigate, a mobile app solution interacting with all in-home Technicolor Wi-Fi XL products. Navigate allows the user to monitor, configure and optimize their whole home Wi-Fi network and topology.

Wi-Fi EasyMesh Technology

Equipped with a System on Chip (SoC) featuring a next-gen 1.5 GHz quad-core ARMv7 processor (11k DMIPS), the OWA3111 surpasses any current extender performance. Combining these features with an increased Level 2 cache, this smart extender is ideally suited to run multiple demanding applications and services such as Wi-Fi services, security services, deep packet inspection and powerful encryption algorithms simultaneously.

Flexible & Future-Proof Software Stack

The OWA3111 is powered with HOMEWARE, a reliable and managed middleware developed by Technicolor, enabling our operator customers to tap into a thriving ecosystem of partners to bring the most innovative services to their subscribers.
HOMEWARE is open: based on Open Source Software that we extended to make it carrier grade.
HOMEWARE is apps-ready: with its dedicated and short learning curve SDK, it allows NSPs to generate new services and improve ARPU by integrating third-party applications. It also pre-integrates Technicolor's partners apps (via the Technicolor HERO Program) and delivers a full apps Life Cycle Management to improve broadband service availability by decoupling the upgrade and maintenance of applications from the extender core software.
HOMEWARE is secure: it uses an overall software architecture with end-to-end security by design, from bootup to the installation of applications via life cycle management.
HOMEWARE is interoperable: working with multiple network components, allowing a shorter time to market, greater freedom for the service provider to choose the network components or to deploy in an environment with multiple vendors in the network. It also reduces complexity for the service provider as a single software stack that can deal with a vast variety of environments.

Highest Security

The OWA3111 supports powerful wireless security mechanisms, such as Wi-Fi Protected Access (WPA, WPA2 and WPA3) together with the secure and user friendly Wi-Fi Protected Setup (WPS) connection and configuration mechanism for connecting wireless clients.
In addition, the OWA3111 supports multiple wireless networks (mSSID) enabling operators 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.

USB 2.0 port (optional)

The OWA3111 comes optionally with a highspeed USB 2.0 master port to support devices such as IoT devices or other USB connected services.

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Technical Specifications

Hardware

__ CPU	1.5 GHz quad-core ARMv7 CPU (11k DMIPS)
__ Memory	128 MB Flash
	256 MB RAM
__ Interfaces LAN	1 autosensing 10/100/1000 Base-T Ethernet LAN ports
	1 Wi-Fi 6 (IEEE 802.11ax) 2.4 GHz radio
	2 Wi-Fi 6 (IEEE 802.11ax) 5 GHz radios
	1 USB 2.0 master port (optional)
Buttons & LEDs	WPS button (with integrated status LED)
	Reset button (recessed)
	Power button
__ Power input	DC jack
__ Power supply	12 VDC external PSU
__ AC Voltage	100 - 240 VAC, 50 - 60 Hz (switched mode power supply)
__ Operating temperature	0 - 40 °C (32 - 104 °F)
	20 - 80 % RH non-condensing
__ Operating humidity	-20 - 70 °C (-4 - 158 °F)
__ Storage temperature	90 x 180 x 80 mm (3.54 x 7.09 x 3.15 in.)
__ Dimensions	

Wi-Fi

Full tri-band concurrent Wi-Fi radios, Wi-Fi certified®

2x2 Wi-Fi 6 (IEEE 802.11ax) 2.4 GHz access point
2x2 Wi-Fi 6 (IEEE 802.11ax) 5 GHz Low band access point 4x4 Wi-Fi 6 (IEEE 802.11ax) 5 GHz High band access point

__ Wi-Fi Security Levels   WPA2™-Enterprise
WPA3™-Personal / WPA2™-Personal
WPA3™ + WPA2™ mixed mode (SAE, AES)
__ Wi-Fi Protected Setup (WPS™)
__ Wi-Fi Multimedia (WMM®) and WMM-Power Save
__ Up to 4 BSSIDs (virtual AP) support per radio interface
__ Wi-Fi EasyMesh™ R1 agent (upgrade to EasyMesh R2 supported)
__ 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 27 dBm (500 mW EIRP)
SGi (Short Guard Interval)
STBC (Space-Time Block Code)
20, 40 MHz bandwidths
2x2 antenna

__ MU-MIMO 5 GHz Wi-Fi features

5 GHz frequency bands
    5150 - 5250 MHz
    5250 - 5350 MHz (Low band) with DFC 5470 - 5725 MHz (High band) with DFC
5 GHz Wi-Fi power
Low band up to 23 dBm (200 mW EIRP)
High band up to 30 dBm (1000 mW EIRP)
SGi (Short Guard Interval)
STBC (Space-Time Block Code)
LDPC (FEC)
Multi-User MIMO
TPC (Transmit Power Control)
OCAC (Off Channel Availability Check)
20, 40, 80, 160 MHz bandwidths
2x2 antenna (5 GHz Low band) limited to 80 MHz bandwidths
4x4 antenna (5 GHz High band)

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)
__ TR-069 CPE WAN Management Protocol (CWMP)

    TR-098 Internet Gateway Device (IGD) management
    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
__ Enabled to support Technicolor Managed Services
    Wi-Fi XL™
    Navigate mobile app

Quality of Service

Wireless QoS   WMM (BE, BK, VI, VO access categories) queuing and scheduling

Security

__ Multilevel access policy
__ Secure boot
__ Security and service segregation per SSID

Package Contents

__ OWA3111
__ Power supply unit
__ Quick Setup Guide
__ Safety Instructions & Regulatory Information
__ Ethernet cable