INNBOX G108

Supreme XGS-PON FTTH Home Gateway

Multi-gigabit throughput

Top-of-the-line wireless performance

Broad management capabilities

Wi-Fi ac

By introducing the latest XGS-GPON fibre-access technology, Innbox brings a carrier-class, high-end networking solution for advanced triple-play services. Complying with the latest ITU-T G.9807 GPON standard, the **Innbox G108** XGS-GPON home gateway is designed for service providers meeting the demand for high-speed connections, and offers data rates up to 10 Gbps in downstream and up to 10 Gbps in upstream.

The **Innbox G108** is designed for indoor applications, as a cost-optimal alternative to outdoor solutions, and significantly lowers the CAPEX of advanced FTTH deployments.

Innbox G108 XGS-PON home gateway supports the delivery of all triple-play services: internet data, voice over IP, and IP video, including bandwidth-consuming UHD TV. It provides four full-gigabit Ethernet ports, as well as a wireless access point of the latest **802.11n/ac** standard that relieves the users of those troublesome wirings.

Using a **dual-band Wi-Fi** technology (with concurrent 2.4 GHz and 5 GHz) with 1750 Mbps capacity, the delivery of services to all wireless devices and supreme user experience are never compromised.

Adding to local connectivity, Innbox

G108 offers two ports for telephony services, using a SIP-compatible VoIP technology.

With embedded NAT, firewall and IP sharing, Innbox G108 delivers **secure internet access** that can be shared by all connected clients.

A USB 2.0 host port is available to

enable **value-added features**, such as a file server, an FTP server, a printer server, a hub or an external 3G/LTE modem. In addition, the Innbox G108 embeds a Quality of Experience (QoE) monitoring client which enables on-line evaluation of the data path all the way to the gateway, reflecting in a significantly **lower operator OPEX**.
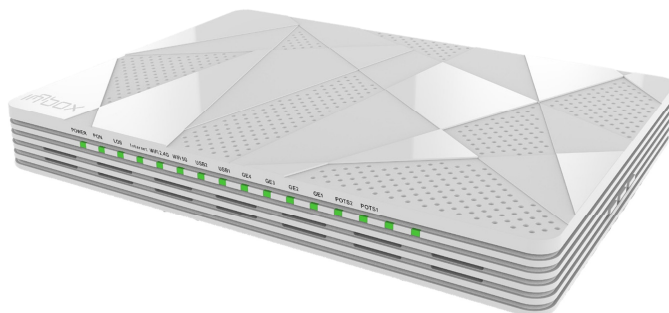
KEY FEATURES AND BENEFITS

- ITU G.9807 XGS-PON compliant
- Powerful multi-gigabit home-gateway engine for offering triple-play services
- Multiple interfaces: USB 2.0, Gigabit Ethernet, FXS for POTS, Wi-Fi 802.11n/ac concurrent, dual-band 2.4 GHz/ 5 GHz (450 Mbps + 1300 Mbps), 3G/LTE (for backup connectivity)

- Triple-play proven home gateway to provide multiple HDTV IP streams
- Fully-featured router and firewall, with secure wireless transmission and authentication
- Line-rate routing performance
- Embedded QoE-monitoring solution
- K.21 overvoltage protection on all wired interfaces

WAN specifications

- SFP+ cage for pluggable optical module
  - XGS-PON
  - NG-PON2 (in the roadmap)
  - XG-PON1 (in the roadmap)
  - Asymmetrical 10GEPON (10G/1G) (in the roadmap)
  - Symmetrical 10GEPON (10G/10G) (in the roadmap)
- Tx (10 Gbps upstream data rate)
- Rx (10 Gbps downstream data rate)

xPON

- Fully ITU-T G.9807 compliant framing
- Multiple T-CONTs per device
- Multiple GEM ports per device
- Activation with auto-discovery of SN and password in conformance with ITU-T
- AES-128 decryption with key generation and switching
- Forward error correction
- 802.1p mapper service profile on U/S
- Support for multicast GEM port

Local interfaces

- 4 ports Gigabit Ethernet 10/100/1000Base-TX (RJ-45)
  - Automatic MDI/MDIX crossover, Auto-negotiation and speed auto-sensing, half/full duplex support
  - Meets IEEE 802.3 specifications
  - Support for 802.1Q and 802.1p VLAN
- 2 ports FXS (RJ-11) for POTS connection
- 2 ports USB 2.0 with host connector

Wireless

- 802.11b/g/n 3×3 MIMO and 802.11n/ac 3×3 MIMO
- Concurrent WLAN access point with internal antennas
- Wi-Fi protected setup (WPS)
- WEP with 64- or 128-bit key lengths
- WPA/WPA2 in PSK mode or using EAP with RADIUS
- Access control list based on MAC address

Bridging

- Ethernet bridging/switching per IEEE 802.1D/802.1Q
- Traffic management (priority queuing, traffic shaping)
- QoS with support for IEEE 802.1p and DSCP
- Per-port IEEE 802.1Q VLAN ID processing
- VLAN tagging/untagging
- IGMP v2/v3 snooping
- Automatic MAC learning and aging
- Unlimited MAC addresses for OMCI-configured flows
- Support for 4096 MAC addresses for RG traffic flows
- Broadcast storm control

IP routing

- IP routing: RIP1, RIP2, static routing
- RFC2684 (RFC1483) routed
- PPPoE client, PPPoE pass-through
- DHCP client, server and relay (RFC2131)
- (D)DNS client and relay
- IP multicast IGMP proxy
- RTP proxy PPPoE
- NAT/NAPT with port forwarding

USB 2.0 applications

- File server (using USB 2.0 disk, flash or HDD), DLNA
- Printer server
- Hub connectivity
- 3G or LTE modem (optional)

Security and QoS

- NAT (RFC3022) basic firewall with extensive ALG support
- Firewall with well-known applications setup
- URL filtering
- Time scheduler (parental control)
- DMZ/IP pass-through
- VPN pass-through
- ToS/DSCP-to-CoS mapping
- Bandwidth reservation
- Voice traffic prioritisation

Configuration and network management

- OMCI
- UPnP/DLNA
- Simple port configuration
- Telnet for local or remote management
- Web for firmware upgrade and configuration
- Web-based management (multi-level GUI)
- TR-069 data-frame model, TR-098, TR-104, TR-106
- IxRave QoE monitoring client of Ixia® (optional), TR-143
- IPERF and TCP dump (optional)
- Buttons: WLAN, WPS, reset

Voice support

- G.711 (64 kbps, A-law, μ-law), G.729ab (8 kbps) (optional)
- Line echo cancellation G.168 with configurable tail
- Voice-activity detection, Comfort noise generation
- Adaptive jitter buffer and packet-loss compensation
- DTMF dialling, modem/fax tone detection and pass-trough
- SIPv2 (RFC 3261), RTP (RFC3550)
- RTP profile for audio and video conferences (RFC 3551)
- RTP payload for DTMF events (RFC2833)
- Caller ID (Type-1 and 2)
- T.38 Fax

Power

- External 115-230 V AC, 50-60 Hz, 12 V DC 2.5 A
- Power consumption less than 24W

Physical dimensions

- 220 mm × 160 mm × 38 mm
- 0.5 kg (without power adapter)

Environment

- Operating: 0..48 °C, RH 5..90% non-condensing, compliant with ETSI 300 019-1-3, Class 3.1
- Storage: −20..+70 °C; RH 10..95% non-condensing, compliant with ETSI 300 019-1-1, Class 1.2

Certification

- CE, CB, RoHS compliant

Some features are hardware-dependent.
Some features might not be included in dedicated software releases.
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