innbox
WORLD IN A BOX.

INNBOX G69

GPON FTTH Home Gateway

By introducing latest fiber GPON access technology, Innbox brings carrier class high-end networking solution for advanced triple play services. Complying with the latest ITU-T G.984 GPON standard, Innbox GPON FTTH Home Gateway G69 is designed for service providers to meet the demand for desired high-speed connections, offering rates up to 2.5Gbps downstream and up to 1.25Gbps upstream. Innbox G69 is designed for indoor applications, presenting lower cost alternative to outdoor solutions, significantly lowering CAPEX with advanced FTTH deployments.

The FTTH Home Gateways in Innbox G69 supports delivery of all triple play services: internet data, Voice over IP (VoIP) and IP video including bandwidth consuming HDTV. For packet based terminal devices the Innbox G69 GPON Home Gateway provides up to four Gigabit Ethernet ports as well as a wireless access point of latest standard 802.11N/AC that brings relief to those troublesome wirings.

Moreover most of the models offer two ports for telephony services using Voice over IP technology compatible with SIP environments. Furthermore when taking into account the end-user's existing copper wiring, Home Gateway Innbox G69 is equipped with a RF video output, eliminating the need for set-top boxes, since video is broadcasted in the same manner as with an analog cable system.

With embedded NAT, firewall and IP sharing technology Innbox G69 Home Gateway delivers secure broadband Internet access to be shared by all connected clients.

In addition to all local connection options, USB2.0 host port is available to enable value-added features such as file server, FTP server, printer server, hub or external 3G/LTE modem connectivity. The GPON Home Gateway Innbox G69 also embeds special Quality of Experience (QoE) monitoring client which enables on-line evaluation of data path all the way to HGW, which can reflect in significant lower OPEX of operator.

Key Features and Benefits >

ITU G.984 GPON compliant

Powerfull Full Gigabit Home Gateway engine for offering 3Play services

Multiple interface options: Gigabit Ethernet, FXS for POTS, CATV RF, WLAN 802.11N/AC concurrent dual band 2.4GHz/5GHz, USB2.0, 3G/LTE (for backup connectivity)

Real 3Play proven Home Gateway to provide multiple HDTV IP streams

Fully featured Router and Firewall, secure wireless transmitting and authentication

Line rate routing performance

Embedded QoE monitoring solution

Optional battery backup for lifeline services

Integrated Fiber Termination Unit

K.21 overvoltage protection on all wired interfaces

INNBOX G69

TECHNICAL SPECIFICATIONS

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Note: some features are hardware dependant;
some feature may not be included in dedicated software release.

WAN Specifications

- Full ITU-T G.984 compliance
- SC/APC connector
- Tx (1.25Gbps upstream data rate)
  - 1310nm (Launch Power: 0,5 to +5 dBm)
- Rx (2.5Gbps downstream data rate)
  - 1490nm (Input power overload: -8 dBm)

GPON

- Fully ITU-T G.984 compliant framing
- Multiple T-CONTs per device
- Multiple GEM Ports per device
- Activation with automatic discovered SN and password in conformance with ITU-T
- AES-128 Decryption with key generation and switching
- FEC (Forward Error Correction)
- 802.1p mapper service profile on U/S
- Support for Multicast GEM Port

Bandwith/Distance

- Compliant with ITU-T G.984.5, Class B+
  - APD receiver and DFB transmitter
  - 0.5~+5dBm launch power, -28 dBm sensitivity and -8dBm overload

Local Interface

- Up to 4 ports Gigabit Ethernet 10/100/1000Base-TX (RJ-45 jack)
  - Automatic MDI/MDIX crossover, Auto-negotiation and speed čauto-sensing, Half/Full duplex support
  - Meets IEEE 802.3 specifications
  - Support for 802.1Q and 802.1p VLAN
- Internal 802.11bgn 2x2 MIMO and 802.11 ac 3x3 MIMO WLAN Access Point with concurrent operaion; with power amplifiers, internal antennas
- 2 ports FXS (RJ-11) for POTS connection
- 1 port USB 2.0 with host connector
- RF Video Overlay (F-type connector)
  - RF Output Level 18dBmV/ch (Total RF output power 36dBmv)
  - RF Passband: 54 MHz - 1002 MHz

Bridging

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

IP Routing

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

USB2.0 applications

- File server (by using USB2.0 disk, flash or HDD), DLNA
- Printer server
- Hub connectivity
- 3G or LTE modem (optional)

Wireless

- WiFi Protected Setup (WPS)
- WEP: 64 or 128 bits key length
- WPA/WPA2 (Wi-Fi Protected Access) in PSK mode or using EAP with RADIUS
- Access control list based on MAC address

Security & QoS

- NAT (RFC3022) basic Firewall support 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 prioritization

Configuration & Network Management

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

Voice support

- Voice compressions G.711 (64kbps, A-law, u-law PCM), G.729ab (8kbps) - optional
- Line Echo Cancellation G.168 with configurable tail
- Voice Activity Detection (VAD), Comfort Noise Generation (CNG)
- Adaptive jitter buffer and Packet Loss Compensation (PLC)
- DTMF (tone) dialing, modem/fax tone detection and pass-trough
- Supports SIPv2 (RFC 3261), RTP (RFC3550)
- Supports RTP Profile for Audio and Video Conferences with minimal control (RFC 3551)
- Supports RTP payload for DTMF events (RFC2833)
- Caller ID (Type-1 and 2)
- T.38 Fax

Power

- External 115-230 VAC, 50 - 60 Hz, 12VDC 3A
- UPS connector
- Power consumption, less than 32W

Physical dimensions

- 270mm x 165mm x 35mm (60mm), weight 0.54-0.62 kg

Environment

- Operating Temperature: 0°C ~ 40°C, Humidity: 5% ~ 85% (non condensing), compliant with ETSI 300 019-1 –3, Class 3.1
- Storage Temperature: -25°C ~ +55°C, Humidity: 10% ~ 95% (non condensing), compliant with ETSI 300 019-1 –1, Class 1.2

Optional accessories

- Uninterruptible Power Supply (UPS)
- 3G USB modem
- LTE USB modem - coming soon...

Certification

- CE, CB, RoHS compliant

CE RoHS RoHS Compliant 2011/65/EU