

INNBOX G85

Supreme GPON Home Gateway
and EasyMesh™ Wi-Fi Controller

ISKRATEL



Multi-gigabit
throughput



Top-of-the-line
wireless performance



Unparalleled reach
and coverage



Iskratel's **Innbox G85** GPON home gateway unites a powerful home-networking engine and an EasyMesh™ compliant **mesh Wi-Fi** controller in a single device. It unlocks the true potential of gigabit connectivity by providing **multi-gigabit wireless** in even the biggest homes. This state-of-the-art home gateway guarantees uncompromised user experience with advanced triple-play services and multiple **ultra-high-definition TV** streams, delivered over wired or wireless home network.

Innbox G85 supports smooth delivery of services such as internet data and IP video – including multiple UHD TV streams – over any home network, be it **wired, wireless, or mesh**.

Full gigabit throughput is available on **four gigabit Ethernet ports**, while numerous wireless clients are served efficiently via the device's **dual-band 802.11n/ac** Wi-Fi access point with **multi-user MIMO** (MU-MIMO).

Furthermore, Innbox G85 acts as an **EasyMesh™ compliant controller** for

a gigabit mesh Wi-Fi network that will end the headaches caused by dead zones. Complemented by EasyMesh™ compliant agent access points, such as Iskratel's **Innbox M84**, the wireless mesh ensures **seamless roaming and smooth handover** without service interruptions, never compromising supreme user experience.

Innbox G85 is equipped with an **RF CATV video output** for video delivery over coaxial wiring, eliminating the need for a set-top box. Adding to connectivity, Innbox G85 offers SIP-

compatible VoIP services over two telephony ports. The USB port enables **value-added features**, such as a file server, FTP server, printer server, a hub, or a 3G/LTE modem for backup connectivity.

With embedded NAT, firewall and IP sharing, Innbox G85 delivers **secure internet access** that can be shared by all connected clients, while quality-of-experience (QoE) monitoring client enables online assessment, lowering operator's operating costs.

KEY FEATURES AND BENEFITS

- ITU G.984 GPON compliant
- Powerful triple-play home gateway for advanced services and multiple HDTV IP streams
- 802.11n/ac MU-MIMO, dual-band 2.4 GHz/5 GHz, amplified
- Gigabit Ethernet LAN, RF CATV, USB, FXS for POTS, 3G/LTE
- EasyMesh™ compliant mesh Wi-Fi controller
- Smooth multi-streaming and gaming over wireless network with MU-MIMO
- Seamless roaming and handover with a single SSID
- Integrated fibre-termination unit
- K.21 overvoltage protection on all wired interfaces



WAN interface	IP routing
<ul style="list-style-type: none"> Full compliance with ITU-T G.984.5 GPON, Class B+ SC/APC connector DFB transmitter, 1310 nm, 1.25 Gbps upstream, launch power 0.5..5 dBm APD receiver, 1490 nm, 2.5 Gbps downstream, input power overload -8 dBm; sensitivity -28 dBm Fully ITU-T G.984 compliant framing Multiple T-CONTs and GEM ports, multicast GEM port 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 	<ul style="list-style-type: none"> 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
LAN interfaces	USB applications
<ul style="list-style-type: none"> Four ports Gigabit Ethernet 10/100/1000Base-TX (RJ-45) <ul style="list-style-type: none"> 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 Two ports FXS (RJ-11) for POTS connection One port USB 2.0 with host connector One port RF video for CATV overlay (F-type connector) <ul style="list-style-type: none"> RF output level 18 dBmV/ch (total 36 dBmV) RF passband 54..1002 MHz 	<ul style="list-style-type: none"> File server (using USB 3.0 disk, flash or HDD), DLNA Printer server 3G/LTE modem (optional)
Wireless LAN	Security and QoS
<ul style="list-style-type: none"> 802.11b/g/n 2x2 MIMO and 802.11ac 4x4 Wave2 MU-MIMO, with power amplifier Wi-Fi access point with internal antennas Simultaneous dual-band 2.4 GHz and 5 GHz SSID broadcast Beamforming and band steering WPA/WPA2 in PSK mode or using EAP with RADIUS Wi-Fi protected setup (WPS) Access control list 	<ul style="list-style-type: none"> 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, Voice traffic prioritisation Bandwidth reservation
Mesh Wi-Fi	Configuration and network management
<ul style="list-style-type: none"> Compliance with EasyMesh™ Embedded EasyMesh™ controller, operating with agent access points via wireless or wired backhaul Plug-and-play operation with Iskratel's EasyMesh™ compliant agent access points (such as Innbox M84) 802.11k/v/r seamless roaming and band steering Up to three guest networks Smart QoS management TR-069 client for remote management XMPP client for remote provisioning over third-party network Detailed diagnostics 	<ul style="list-style-type: none"> 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)
Bridging	Voice support
<ul style="list-style-type: none"> Ethernet bridging/switiching 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 	<ul style="list-style-type: none"> 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, 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	Physical dimensions
	<ul style="list-style-type: none"> External 115-230 V AC, 50-60 Hz, 12 V DC 1.5 A Power consumption less than 17W
Environment	Physical dimensions
	<ul style="list-style-type: none"> 225 mm x 134 mm x 50 mm 0.43 kg (without power adapter)
Certification	Environment
	<ul style="list-style-type: none"> Operating: 0..+40 °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
	<ul style="list-style-type: none"> CE, CB, RoHS compliant

Some features are hardware-dependent.

Some features might not be included in dedicated software releases.

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