

ISKRATEL

A brand of Kontron



Iskratel Innbox G93

High-end GPON FTTH Home Gateway
and EasyMesh™ Wi-Fi Controller

Key features

- 3,000 Mbps cumulative Wi-Fi data rate
- One 2.5GE LAN, four GE LAN, one USB, two FXS POTS
- Dual-band Wi-Fi 6 with 160 MHz band at 5 GHz
- EasyMesh™ Wi-Fi
- Integrated speed test
- Integrated FTU



Iskratel Innbox family of CPE is a product pillar of Iskratel, a specialised telco brand of Kontron. Iskratel unites eight decades of expertise with Kontron's reach and strength.

Iskratel Innbox G93 home gateway delivers fibre connectivity over a GPON uplink, unlocking 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 services and multiple **ultra-high-definition TV** streams, delivered over wired or wireless home network.

Innbox G93 supports a smooth delivery of services such as internet and UHD video over **four Gigabit Ethernet** ports, **one 2.5-Gigabit Ethernet** port (available in a product version marked 'G93T'), and over a **Wi-Fi 6** access point that operates at **2.4 GHz and 5 GHz** concurrently and supports a 160 MHz band.

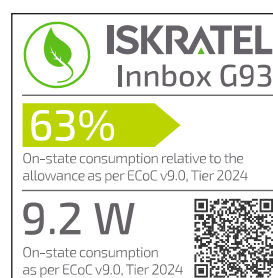
Furthermore, Innbox G93 acts as an **EasyMesh™-compliant controller** for a gigabit mesh Wi-Fi network for a whole-home coverage. Complemented with EasyMesh™ agent access points, the wireless mesh ensures **seamless roaming and handover** with no service inter-

ruptions, never compromising supreme user experience.

Innbox G93 also offers SIP-compatible VoIP services over two FXS ports. A USB port is available for backup connectivity via an **LTE modem**, or for **additional features** such as file, VPN or printer server.

The devices' embedded firewall, NAT and IP sharing deliver **secure internet access** to all connected users.

An **integrated FTU** simplifies installation and provides efficient protection of fibre termination, coiling and splice.



Full gigabit throughput



Top-of-the-line wireless performance



Unparalleled reach and coverage

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WAN specifications

- GPON (ITU-T G.984.5), Class B+
- SC/APC connector
- DFB transmitter, +0.5..+5 dBm launch power
- APD receiver, -8 dBm input power overload, -28 dBm sensitivity
- 2.5 Gbps downstream and 1.25 Gbps upstream
- Multiple T-CONTs and GEM ports, multicast GEM port
- Auto-discovery of SN and password, ITU-T conformant
- AES-128 decryption, key generation and switching
- Forward error correction
- 802.1p mapper service profile on upstream

LAN interfaces

- One port 2.5 Gigabit Ethernet 100/1000/2.5GBase-TX (RJ-45); available in product version marked 'G93T'
- Four ports Gigabit Ethernet 10/100/1000Base-TX (RJ-45)
- Two ports FXS (RJ-11) for POTS connection
- One port USB 2.0 with host connector

Wireless LAN

- Wi-Fi 6 (802.11ax) 2x2:2 MU-MIMO at 2.4 GHz and 3x3:2 MU-MIMO at 5 GHz
- Simultaneous dual-band 2.4 GHz and 5 GHz
- Support for 160 MHz band at 5 GHz
- 3,000 Mbps cumulative Wi-Fi data rate (AX3000)
- Coverage up to 250 sqm
- Wi-Fi protected setup (WPS)
- WPA/WPA2/WPA3 in PSK mode or EAP with RADIUS
- Access control list based on MAC address

Mesh Wi-Fi

- Compliance with EasyMesh™
- Embedded EasyMesh™ controller, operating with agent access points via wireless or wired backhaul
- 802.11k/v compliant roaming and band steering

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
- 4096 MAC addresses for RG traffic flows
- Broadcast storm control

IP routing

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

USB applications

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

Security and QoS

- NAT (RFC3022) basic firewall with extensive ALG support
- Firewall with well-known-app setup; URL filtering
- Time scheduler (basic 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
- Simple port configuration
- Telnet for local or remote management
- Web for firmware upgrade and configuration
- Web-based management (multi-level GUI)
- TR-069 with TR-181, TR-104, TR-106
- TR-143 testing and troubleshooting tools
- IPERF and TCP dump (optional)
- Integrated speed test

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-thru
- SIPv2, RTP, RTP profile for conferences, RTP DTMF payload
- Caller ID (Type-1 and 2), T.38 Fax

Environment

- Operating: 0..45 °C, RH 20..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

Physical dimensions

- 225 mm x 145 mm x 50 mm

Power

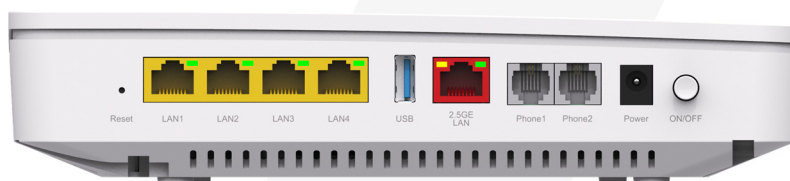
- External adapter 115-230 V AC, 50-60 Hz, 12 V DC, 1.5 A
- Power consumption (including adapter):
 - Innbox G93T with 4xGE and 2.5GE LAN: 10.6 W in On-state, 9.8 W in Ready-state; CoC compliant, Tier 2024, 65% consumption On-state
 - Innbox G93 with 4xGE LAN only: 9.2 W in On-state, 8.2 W in Ready-state; CoC compliant, Tier 2024, 63% consumption On-state
- EcoDesign compliant, HiNA equipment, Off mode 0.1 W

Certification

- CE, UKCA, FCC, RoHS



Some features may be hardware-dependent or might not be included in all software releases. The operation may depend on network setup and/or service model. No rights can be derived from this datasheet.



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