INNBOX V80

Supreme VDSL2 and ETTH Home Gateway

ISKRATEL
S&T Group

LINDSAY BROADBAND

Full gigabit throughput	Top-of-the-line wireless performance	Broad management capabilities

WI-FI **ac**

By introducing latest VDSL2 technology, Iskratel brings a carrier-class, high-end networking solution for advanced triple-play services, including multiple high-definition channels over the wireless network. Comprising of a VDSL2 modem and a powerful home-networking engine, the **Innbox V80** VDSL2 home gateway is designed for service providers meeting the demand for high-speed connections up to 100 Mbps in downstream.

The vectoring-enabled **Innbox V80** enables multiple VDSL profile arrangement for symmetrical or asymmetrical connections and is able to provide high data rates even over long subscriber loops.

The Innbox V80 VDSL home gateway offers two types of WAN connectivity. Over copper-pair uplink, VDSL2 with vectoring and ADSL2+ are supported, while one of five gigabit Ethernet LAN ports can be used also as a WAN port in ETTH deployments.

The Innbox V80 supports the delivery of triple-play services: internet data, voice over IP, and IP video, including bandwidth-consuming HDTV.

A wireless 802.11ac/n access point supports a dual-band Wi-Fi technology (with concurrent 2.4 GHz and 5 GHz), guaranteeing that the delivery of services to all wireless devices and supreme user experience are never compromised.

Adding to local connectivity, Innbox V80 offers two ports for telephony services, using a SIP-compatible VoIP technology.

With embedded NAT, firewall and IP sharing, Innbox V80 delivers a 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.

KEY FEATURES AND BENEFITS

- ITU-T, ANSI and ETSI compliant VDSL2, vectoring, ADSL2+/ADSL2
- Powerful full-gigabit engine for enhanced services
- USB 2.0, Gigabit Ethernet, FXS for POTS, 3G/LTE
- 802.11n/ac concurrent, dual-band 2.4 GHz/5 GHz
- Triple-play home gateway for multiple HDTV IP streams
- Fully-featured router and firewall, with secure wireless transmission and authentication
- Line-rate routing performance
- K.21 overvoltage protection on all wired interfaces

DSL WAN specifications

- 100 Ohm line impedance, RJ-11
- VDSL2 compliance with ITU-T G.993.2 DMT, ETSI TS 101-270-1 V1.3.1, ETSI TS 101-270-2 V1.2.1
- Vectoring compliance with ITU-T G.993.5
- Profiles supported 8a, 8b, 8c, 8d, 12a, 12b, 17a
- ADSL compliance with ITU-T G.992.1 G.dmt, G.992.2 G.lite, ANSI T1.413 i2
- ADSL2 compliance with G.992.3 G.dmt.bis
- ADSL2+ compliance with G.992.5 G.dmt.bis+
- Support for 997 and 998 band plans
- Support for US0 band
- ISDN and POTS complementary services

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
- 1 port Gigabit Ethernet 10/100/1000Base-TX (RJ-45) usable either as LAN or WAN
- 2 ports FXS (RJ-11) for POTS connection
- 1 port USB 2.0 with host connector

Wireless

- 802.11b/g/n 2×2 MIMO and 802.11ac 2×2 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, service-based tagging
- IGMP transparent snooping, IGMP forking (optional)
- Automatic MAC learning and aging

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

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 prioritization

Configuration and network management

- UPnP/DLNA
- Simple port configuration
- DHCP server for IP management
- 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
- IPERF (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 dialing, modem/fax tone detection, pass-through
- 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)

Power

- External 115-230 VAC, 50-60 Hz, 12 VDC 2 A
- Power consumption less than 20W
- K.21 overvoltage protection on all wired interfaces

Physical dimensions

- 190 mm x 143 mm x 27 mm
- 0.28 kg (without power adapter)

Environment

- Operating: +5°C to +40°C, RH 5-85% non-condensing, compliant with ETSI 300 019-1-3, Class 3.1
- Storage: -25°C to +55°C; RH 10-95% non-condensing, compliant with ETSI 300 019-1-1, Class 1.2

Certification

- CE, CB, RoHS compliant

Ordering code	Description
LBB-2670	Innbox V80, 1x GE WAN, 4x GE LAN, 2x FXS/POTS, 1x USB, WiFi 11ac 2x2 MIMO 2.4/5 GHz. (Two-Box Solution with Innbox G21)

Some features are hardware-dependent.
Some features might not be included in dedicated software releases.
Date of issue: 24. 5. 2018 / Version 2.0