

# Innbox F50



FTTH Home Gateway

*By introducing latest fiber Ethernet access technology, Iskratel brings carrier class high-end networking solution for advanced triple play services, including multiple HDTV channel support over wireless network. FTTH Home Gateway Innbox F50 combines opto-electrical converter and powerful home networking engine in single device. It enables service providers to offer connections up to 100 Mbps in both directions with standard Ethernet technology. Furthermore, Innbox F50 enables multiple profile arrangement to gain symmetrical or asymmetrical connections from CO or remote access module deployments and to provide desired bandwidths even on longer subscriber loops – up to 20km with full throughput – since fiber optics technology enables it.*

The FTTH Home Gateway Innbox F50 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 it provides five Ethernet ports including Gigabit capable as well as wireless access point of latest standard 802.11N that brings relief to those troublesome wirings.



Additionally two ports for telephony services are provided using Voice over IP technology compatible with SIP server environments.

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

Furthermore two USB2.0 host ports are available to enable value-added features such as file server, FTP server, printer server or hub connectivity.

The FTTH Home Gateway Innbox F50 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

- Powerful Home Gateway engine for offering 3Play services on broadband connectivity
- Multiple interface options: USB2.0, Ethernet, FXS for POTS, WLAN
- 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 (100Mbps)
- Embedded QoE monitoring solution
- Support for centralized management node of multiple CPE (e.g. controlled mass remote SW upgrade and auto configuration provisioning), TR-069 compliant
- Optional Fiber Termination Unit with RF Fiber-Coax converter

## Technical specifications

<b>Local Interface</b>
<ul style="list-style-type: none"> <li>4 port Fast Ethernet 10/100Base-TX (RJ-45)</li> <li>1 port Gigabit Ethernet 10/100/1000Base-TX (RJ-45)</li> <li>Automatic MDI/MDIX crossover, Auto-negotiation and speed-auto-sensing, Half/Full duplex support</li> <li>Support for 802.1Q and 802.1p VLAN</li> <li>1x USB 2.0 host connectors (2x optional)</li> <li>Internal 802.11bgn WLAN Access Point, internal antennas</li> <li>2x FXS (RJ-11) for POTS connection</li> </ul>
<b>WAN Specifications</b>
<ul style="list-style-type: none"> <li>1x 100baseFX interface</li> <li>Interface types                             <ul style="list-style-type: none"> <li>Dual fiber singlemode (DFSM) 15km, Tx/Rx=1310nm</li> <li>Bidirectional Single fiber singlemode SFSM/BiDi, 20km, Tx=1310nm/Rx=1550nm</li> </ul> </li> <li>LC and SC (for BiDi only) connector type</li> </ul>
<b>Bridging</b>
<ul style="list-style-type: none"> <li>Transparent Bridging (IEEE 802.1D)</li> <li>RFC2684 (RFC1483) Bridged</li> <li>VLAN tagging (IEEE 802.1Q)</li> <li>Service based tagging (SBT)</li> <li>Supporting QoS (IEEE 802.1p)</li> <li>Supporting IP and PPPoE packets filter function</li> <li>Supporting Zero Installation PPP Bridge (ZIPB)</li> <li>IGMP transparent snooping</li> <li>IGMP forking</li> </ul>
<b>Routing</b>
<ul style="list-style-type: none"> <li>IP routing: RIP1, RIP2, and static routing</li> <li>RFC2684 (RFC1483) Routed</li> <li>PPPoE client</li> <li>PPPoE pass-through</li> <li>DHCP client, server &amp; relay (RFC2131)</li> <li>DDNS client &amp; relay</li> <li>IP Multicast IGMP Proxy</li> <li>RTP Proxy</li> </ul>
<b>Security &amp; QoS</b>
<ul style="list-style-type: none"> <li>NAT (RFC3022) basic Firewall support with extensive ALG support</li> <li>Firewall with well known applications setup</li> <li>URL filtering</li> <li>Time Scheduler (parental control)</li> <li>DMZ/IP pass-through</li> <li>VPN pass-through</li> <li>ToS/DSCP to CoS mapping</li> <li>Bandwidth reservation</li> <li>Voice traffic prioritization</li> </ul>
<b>Visual Indicators</b>
<ul style="list-style-type: none"> <li>Broadband – indicates WAN connection status</li> <li>Internet – indicates IP connectivity status</li> <li>Data – indicates LAN connection status</li> <li>Wireless – indicates status of WLAN</li> <li>Phone – indicates VoIP is ready</li> </ul>
<b>Environment</b>
<ul style="list-style-type: none"> <li>Operating Temperature: 0°C ~ 45°C, Humidity: 5% ~ 95% (non condensing)</li> </ul>

<ul style="list-style-type: none"> <li>Storage Temperature: -20°C ~ +85°C, Humidity: 5% ~ 95% (non condensing)</li> </ul>
<b>Configuration &amp; Network Management</b>
<ul style="list-style-type: none"> <li>UPnP</li> <li>Simple port configuration</li> <li>DHCP server for IP management</li> <li>Telnet for local or remote management</li> <li>WEB for firmware upgrade and configuration</li> <li>WEB-based configuration and management (multi-level GUI)</li> <li>Centralized SI3000 CPE Management Node as option: solid DB, FTP with auto identification</li> <li>TR-069 data-frame model support, including TR-098, TR-104 and TR-106</li> <li>IxRave QoE monitoring client of Ixia®</li> </ul>
<b>Voice support</b>
<ul style="list-style-type: none"> <li>Voice compressions G.711 (64kbps, A-law, μ-law PCM), G.729ab (8kbps)</li> <li>Asymmetric operation of audio coders (US and DS can have different coder types)</li> <li>Line Echo Cancellation G.168 with configurable tail</li> <li>Voice Activity Detection (VAD), Comfort Noise Generation (CNG)</li> <li>Adaptive jitter buffer and Packet Loss Compensation (PLC)</li> <li>DTMF (tone) dialing, modem/fax tone detection and pass-through</li> <li>Supports SIPv2 (RFC 3261), RTP (RFC3550)</li> <li>Supports RTP Profile for Audio and Video Conferences with minimal control (RFC 3551)</li> <li>Supports RTP payload for DTMF events (RFC2833)</li> <li>Caller ID (Type-1 and 2)</li> </ul>
<b>USB2.0 applications</b>
<ul style="list-style-type: none"> <li>File server (by using USB2.0 disk, flash or HDD)</li> <li>Printer server</li> <li>Hub connectivity</li> <li>DECT or 3G modem (optional)</li> </ul>
<b>Wireless</b>
<ul style="list-style-type: none"> <li>WiFi Protected Setup (WPS)</li> <li>WEP: 64 or 128 bits key length</li> <li>WPA/WPA2 (Wi-Fi Protected Access) in PSK mode or using EAP with RADIUS</li> <li>Access control list based on MAC address</li> </ul>
<b>Power</b>
<ul style="list-style-type: none"> <li>External 115-230 VAC, 50 - 60 Hz, 15VDC 1,25A</li> <li>Power consumption, less than 15W</li> </ul>
<b>Physical dimensions</b>
<ul style="list-style-type: none"> <li>260mm x 185mm x 40mm (W x D x H), weight 0.5 kg</li> </ul>
<b>Certification</b>
<ul style="list-style-type: none"> <li>CE mark, CB, RoHS compliant</li> </ul>
<b>Optional accessories</b>
<ul style="list-style-type: none"> <li>FTU with RF Fiber-Coax converter</li> </ul>

Ordering info	
WAN interface	Model
DFSM 15km	Innbox F50 SM15
SFSM (Bidirectional) 20km	Innbox F50 BiDi

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



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