

AT-iMG606BD-R2

FTTH MULTISERVICE GATEWAY WITH VOIP

The Allied Telesis AT-iMG606BD-R2 gateway provides enhanced performance for routing and NAT traffic management.



The Multiservice Gateway

The AT-iMG606 intelligent Multiservice Gateway is the ideal FTTH customer premise equipment for the delivery of communications and entertainment services, including Voice over IP (VoIP), high-speed Internet access, IP television, and interactive, two-way video-based services. All of these services are provided over an active optical distribution network via a single optical fiber to the home. The combined delivery of IP Triple Play services — voice, video and data — benefits both service providers and their customers. Service providers can quickly deliver advanced services such as fast Internet, VoIP, IPTV and Video on Demand in a scalable way with complete remote management. End users benefit by having a unique device interconnecting all peripherals, computers and VoIP telephones to a single broadband uplink.

Voice over IP

The iMG606 Series utilizes SIP and MGCP VoIP protocols, with interoperability established with major softswitch vendors. VoIP QoS is assured through Type of Service bits (ToS) and IEEE 802.1p priority tagging.

IP Television

The iMG600 Series is optimized for IP video streaming. The iMG “snoops” IGMP packets in transit allowing

Key Features

- » Bi-directional fiber WAN interface
- » Plug-and-play fiber outlet
- » SIP and MGCP VoIP protocol support
- » Major softswitch manufacturer compatibility
- » Class 5 services
- » Support for VoIP phones
- » Triple Play ready
- » Stateful Inspection Firewall / NAT
- » DMZ support
- » Access Control List
- » Intrusion Detection System: DoS, port scanning and Web spoofing protection
- » AlliedView NMS support
- » RoHS compliant

simultaneous delivery of different multicast transmissions such as different movies or TV channels. This enables multiple high-quality, high bit-rate video streams without impacting data traffic or IP telephony while delivering the fast channel change that users expect from video services. MPEG video service management and diagnosis is possible through dedicated commands and video quality can be monitored using Allied Telesis' unique MPEG stream monitoring tool.

Data Delivery and Security

The iMG600 Series supports industry-leading Quality of Service (QoS) through ISO Layer 2 and 3 prioritization techniques including priority tagging with IEEE 802.1p, Type of Service and DSCP fields. The extensive support for per-port rate-limiting in the iMG600 Series enables service providers to deliver tiered data services for the wide spectrum of end customer profiles, providing maximum flexibility in service differentiation. Security is assured by an

integral Stateful Inspection Firewall with NAT and an Intrusion Detection System (IDS) to protect end-user networks from Denial of Service (DoS), port scanning and Web spoofing.

Management and Deployment

The iMG600 Series is designed to be easy to deploy and manage. With the AlliedView™ NMS software platform, the iMG600 Series can be remotely provisioned and managed.

Optical WAN Interfaces

The AT-iMG606BD-R2 offers single-strand (bi-directional) optical fiber links for FTTH application. The independent passive unit (AT-iMG001), where the optical cable is terminated, allows easy installation, maintenance and replacement thanks to a plug-and-play optical connection. It also provides a locking mechanism to secure the active unit.

Specifications

Hardware

6 x 10/100TX (RJ-45)
 1 x console port
 1 x 100BX single-strand single-mode (simplex-SC)

Optical Interfaces

IEEE 802.3ah 100BX-U single-strand single-mode (simplex SC): TX 1310 nm ; RX 1550 nm
 Max sensitivity -32 dBm
 Max input power -3 dBm
 Max output power -5 dBm

Ethernet

Layer 2 wirespeed packet switching
 Tag-based IEEE 802.1Q VLANs (max 16)
 IEEE 802.1Q tag insertion and stripping
 Port mirroring of ingress/egress traffic
 DHCP client, server and relay
 4K MAC address FDB

WAN Protocols

PPPoE
 Global IP address pool
 DNS proxy
 Static and dynamic IP address assignment

Routing and Multicast

PPP and IP routing
 RIPv1 and v2
 IGMPv2
 IGMP snooping
 IGMP proxy

Security

NAT
 Stateful Inspection Firewall
 Dynamic port opening
 Intrusion detection and blocking system
 Access Control List
 IPSec/VPN passthrough
 PAP/CHAP authentication

Quality of Service

IEEE 802.1p prioritization
 Programmable ingress/egress rate limiting
 Four QoS queues per port
 DSCP/ToS

VoIP Protocols

SIP 2.0
 MGCP/NCS 1.0

Management

AlliedView NMS
 Telnet
 Remote software upgrade
 Web GUI
 CLI
 SNMPv1, v2 and v3

Status LEDs

Power
 WAN Link/Activity
 VoIP Use/Activity
 LAN Link/Activity

Memory

RAM 32MB
 Flash 8MB

Power Characteristics

External power supply
 Input 100-240V AC, 50-60 Hz
 Output 12vDC, 1.5A
 Typ. power consumption 13W

Environmental Specifications

Operating temperature 0°C to 40°C (32°F to 104°F)
 Max operating humidity 80% relative humidity (non-condensing)
 Storage temperature -20°C to 70°C (-4°F to 158°F)
 Max storage humidity 95% relative humidity (non-condensing)

Physical Characteristics

Dimensions (W x D x H) 24 cm x 15 cm x 4.5 cm (9.4 in x 5.9 in x 1.8 in)
 Weight 400 g (14.1 oz)

Approvals and Certifications

CE and UL marking
 Safety IEC/EN60950-1
 UL 60950-1
 EN60825-1
 CAN/CSA-C22.2 No 60950-1-03
 Emission FCC Part 15 Class B
 EMC Directive 2004/108/EC
 EN 55022 Class B
 EN 300 386
 Immunity EN 55024

Ordering Information

AT-iMG606BD-R2-xx

Active Ethernet intelligent Multiservice Gateway
 » WAN 100BX (100M single BiDi fiber)
 » LAN 6 x 10/100TX
 » Includes passive wall outlet (AT-iMG001)

Where xx = 10 for U.S. power supply
 30 for U.K. power supply
 40 for Australian power supply
 50 for European power supply

Options

AT-iMG001

Fiber outlet with locking mechanism (10 pieces)

AT-iMG008-yy

Battery backup

AT-iMG009

Battery backup cable

AT-RGCONSOLECABLE

Console cable

Where yy = 10 for U.S. power cord
 30 for U.K. power cord
 40 for Australian power cord
 50 for European power cord