



AT-iMG616LH / AT-iMG616BD

Multiservice Gateway with Analog VoIP

AT-iMG616LH

1 x 100LX, 6 x 10/100TX, 2 x FXS,
1 x console port

AT-iMG616BD

1 x 100BX, 6 x 10/100TX, 2 x FXS,
1 x console port

The Multiservice Gateway

The AT-iMG616 intelligent Multiservice Gateway is the ideal FTTH customer premise equipment for the delivery of communications and entertainment services, including carrier-class telephony, high-speed Internet access, broadcast cable television, and interactive, two-way video-based services. All of these services are provided over a passive 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, wireless devices, analog and VoIP telephones to a single broadband uplink.

Voice over IP

The iMG616 series offers 2 FXS ports, leveraging H.323, SIP and MGCP Voice over IP (VoIP) protocols, with interoperability established with major softswitch vendors. The iMG600 family supports the connection of modems and faxes to voice interfaces for business applications in SoHo environments. VoIP QoS is assured through Type of Service bits (ToS), and IEEE 802.1p priority tagging. The addition of silence suppression and local generation of comfort noise results in excellent voice quality.

IP Television

The iMG600 family is optimized for IP video streaming. The iMG 'snoops' IGMP packets in-transit allowing 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 family 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-users' 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 Zero Touch Configurator (ZTC) software platform, the iMG600 series can be remotely provisioned and managed. ZTC is a distributed configuration system providing secure authentication and registration plus intelligent, automatic configuration of remote iMG units. Its XML-based structure enables seamless integration with service providers' existing OSS platforms. In addition, the industry standard TR-069 is fully integrated and provides efficient, scalable and secure provisioning and support for a wide variety of Triple Play services. The console port allows for local management of the device.

Optical WAN Interfaces

The iMG616 series offers different optical interfaces for FTTx applications: multi-mode and single-strand (bi-directional) optical fiber links are available. 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.

Key Features

- Single-mode WAN interface
- Bi-directional fiber WAN interface available
- Plug-and-play fiber outlet
- H.323, SIP or MGCP VoIP protocol support
- Major softswitch manufacturer compatibility
- Class 5 services
- Support for analog and VoIP phones
- Triple Play ready
- Stateful Inspection Firewall / NAT
- DMZ support
- Access Control List
- Intrusion Detection System: DoS, port scanning and Web spoofing protection
- Zero Touch Configurator and TR-069 support
- RoHS compliant

*The TR-069 will be available in the next software release.



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Specifications

Hardware

6 x 10/100TX (RJ45)
2 x VoIP FXS ports (RJ-11)
1 x console port
1 x 100LX single-mode (SC) (AT-iMG616LH)
1 x 100BX single-strand S.M. (simplex-SC) (AT-iMG616BD)

Optical Interfaces

IEEE 802.3z 100LX single-mode (SC): 1310 nm
Max sensitivity -32 dBm
Max input power -3 dBm
Max output power -5 dBm

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 wire-speed packet switching
Tag based IEEE 802.1Q VLANs (max 512)
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

QoS

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

VoIP Protocols

H.323 3.0
SIP 2.0
MGCP/NCS 1.0

VoIP Features

G.711 a-law and μ -law 64kbps
G.729 8kbps
G.726 16/24/32/40kbps
G.168 LEC 8-32 msec
T.38 fax relay¹
RTP voice packet encapsulation
Automatic fax/modem detection
Voice Activity Detection (VAD)
Comfort Noise Generation (CNG)
Error mitigation/bad frame Interpolation
Adaptive jitter buffer
5 REN
Caller ID
Call transfer¹
Call forwarding¹ (unconditional, on busy, on no answer)
Call waiting¹
Call hold¹
Message waiting¹
3-way call (local RTP MUX)
DTMF relay
RFC 2833

¹Protocol dependant

Management

AlliedView NMS
Zero Touch Configurator
TR-069
Telnet
Remote software upgrade
Web GUI
CLI
SNMPv1, v2 and v3

* The TR-069 will be available in the next software release.

Status LEDs

Power	
System	
WAN	Link/Activity
VoIP	Use/Activity
LAN	Link/Activity
Memory	
RAM:	16 MB
Flash:	4 MB

Power Characteristics

External power supply
Input: 100-240V AC, 50-60 Hz
Output: 12vDC, 1.5A
Typ. power consumption: 8.2W

Environmental Specifications

Operating temperature 0°C to 40°C
Max operating humidity 80% RH (non-condensing)
Storage temperature -20°C to 70°C
Max storage humidity 95% RH (non-condensing)

Physical Characteristics

Dimensions (H x D x W) 4.5cm x 15cm x 24cm
Weight 400 gr

Approvals and Certifications

CE and UL marking
Safety EN 60950
CSA 950/US
UL 1950
FCC Part 68
Emission FCC Part 15 Class B
EN55022 Class B
EN55024
Immunity

Ordering Information

AT-iMG616LH-xx (990-001009-xx)

1 x 100LX, 6 x 10/100TX, 2 x FXS,
1 x console port

AT-iMG616BD-xx (990-001004-xx)

1 x 100BX, 6 x 10/100TX, 2 x FXS,
1 x console port

Where xx = 10 for U.S. power cord
30 for U.K. power cord
50 for European power cord

Options

AT-iMG001 (990-001044-00)

Fiber outlet with locking mechanism (10 pieces)

AT-iMG006G-xx (990-002154-xx)

Battery backup

AT-RG009 (990-00530-00)

Battery backup cable

AT-RGCONSOLECABLE (990-011748-00)

Console cable

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