AT-iMG726BD-ON
GIGABIT iMG FOR OUTDOOR DEPLOYMENT

The Allied Telesis AT-iMG726BD-ON is an intelligent Multiservice Gateway for IP Triple Play services.

A member of the Allied Telesis family of residential and intelligent Multiservice Gateways, the outdoor-hardened AT-iMG726BD-ON is an evolution of the current AT-iMG726MOD combining powerful Layer 2 and 3 networking functionality together with Voice over IP (VoIP) telephony support to provide versatility, value, and validation for any network. The environmentally-sealed enclosure mounts outside the customer premise for optimal service provider accessibility.

Gigabit Bandwidth to Future-Proof Your Capital Investment

The gateway offers increased bandwidth and port capacity by offering a Gigabit WAN interface, two 10/100/1000 LAN and four 10/100 LAN interfaces, combined with two Plain Old Telephony Service (POTS) ports.

Quality of Service (QoS)

The AT-iMG726BD-ON gateway ensures Quality of Service through OSI Layer 2 and 3 prioritization techniques that include priority tagging with IEEE 802.1p and IP DiffServ Code Points (DSCP) Type of Service (ToS).

Optimized for IP Video Streaming

The gateway supports multicasting, IGMP snooping and proxy, fast leave and joins allowing simultaneous delivery of multiple movies or TV channels to the subscriber using the minimum bandwidth. This results in high-quality

Key Features

- » High-speed up to 1000Mbps delivery
- » IP Triple Play ready
- » Stateful Inspection Firewall / NAT for customer and service security
- » High-speed WAN and LAN interfaces
- » AlliedView™ NMS integration removes need for truck roll during deployment
- » Major softswitch manufacturer interoperability established

- » Service specific management and monitoring – ensures Quality of Experience to customers
- » Environmentally hardened unit for outdoor deployments
- » Installation flexibility through two part enclosure and electronics design
- » Internal fiber management for fiber-optic drop cable termination
- » Eight hour battery back-up option for lifeline POTS support

video streaming without impacting other services like Internet browsing or IP telephony and delivering the fast channel changes users expect from video services. The iMG, with its built in MPEG analyzer, aids in the management and diagnosis of the MPEG video service.

Enclosure

The AT-EN-SFR-ONT enclosure provides integrated fiber-optic drop cable management with the ability to secure and ground the drop cable, as well as protect a fusion splice. Enclosures may be deployed at the time of fiber installation, allowing a single fiber crew to complete all fiber-splicing needs during a single truck roll.

IP Telephony

The gateway offers two FXS (POTS) interfaces that leverage the SIP and MGCP VoIP protocols, with interoperability established with major softswitch vendors. The AT-iMG726BD-ON supports the connection of dial-up modems and fax machines with voice

PSTN interfaces and transports the data streams to support existing SoHo business applications.

Differentiated Bandwidth Services

The gateway provides extensive support for per-port rate-limiting enabling service providers to deliver tiered data services, catering for the wide spectrum of end-customer profiles.

Firewall Capability

The AT-iMG726BD-ON features an integral Stateful Inspection Firewall with Network Address Translation (NAT).

Value, Versatility, and Validation

The gateway supports several deployment scenarios. Using AlliedView NMS, the iMG can be auto-configured during its initial power on sequence, further reducing the need to "touch" the device during service provisioning and therefore reducing the service provider's operational expenditure (OPEX).

AT-iMG726BD-ON | Gigabit iMG for Outdoor Deployment

The AT-iMG726BD-ON supports a built-in Ethernet TDR for CAT 5 trouble analysis, and GR909 POTS wiring testing which allows problem isolation to be accomplished prior to a truck roll.

Easy to Deploy

With the AT-iMG726BD-ON, customer premises deployment has never been easier. The AT-EN-SFR-ONT outside plant enclosure may be pre-installed. It accommodates fiber termination and grounding for the iMG. When services are ordered, the gateway electronics chassis mounts easily into the enclosure, and terminates in-home wiring and power connection.

Easy to Manage

With the AlliedView NMS software platform, the gateway can be automatically provisioned and managed remotely. AlliedView NMS provides secure authentication and registration with intelligent, automatic configuration of remote iMG units, and seamless integration via XML/SOAP with service providers' existing OSS platforms.

Technical Specifications

User Ports

1 x WAN 1000BX	(SC/UPC)
2 x 10/100/1000T	(RJ-45)
4 x 10/100TX	(RJ-45)
2 x VoIP FXS ports	(RJ-11)

Optical Interface

IEEE 802.3ah 1000BX, single-mode single-fiber, SC connector, approximate range 20 km
TX 1310 nm; RX 1490 to 1550 nm
Max sensitivity: -23 dBm
Output power: -2 dBm (max) to -7 dBm (min)

Layer 2 Operation

Layer 2 wirespeed packet switching
IGMP v1/v2 multicast support
Tag-based IEEE 802.1Q VLANs (16 max.)
IEEE 802.1p prioritization
IEEE 802.1Q tag insertion and stripping
Programmable rate limiting ingress/egress
Port mirroring ingress/egress traffic
Input/egress QoS queue on each port
Port speed selection 10, 100 or 10/100 or 10/100/1000
1,000 MAC addresses

Layer 3 Operation

NAT
PPPoE
Stateful Inspection Firewall
Intrusion detection and blocking system
IPSec/VPN passthrough
Virtual server
Global IP address pool
Dynamic port opening
DHCP client, server and relay
DNS proxy
PAP/CHAP authentication
Static and dynamic IP address assignment
RIPv1/v2

VoIP Protocols

SIP RFC 3261	2.0
MGCP 1.0	LCS/NCS

VoIP Ports

G.711 a-law and μ-law 64kbps G.723 (optional)
G.726 16/24/32/40kbps
G.729 8kbps
G.168 LEC 16ms

T.38 fax relay
Automatic fax/modem detection
Voice Activity Detection (VAD)
Comfort Noise Generation (CNG)
Error mitigation/bad frame interpolation
Adaptive jitter buffer
REN: five per FXS port
RTP voice packet encapsulation

Class 5 Services

Call transfer
Call waiting
Call hold
Message waiting
Caller ID

LED Status Indicators

Power
System
POTS (Use/Ready/Ringing)
Link (Link/Activity)
LAN (Link/Activity)

Network Management

AlliedView NMS
Local console port
Telnet
Remote software upgrade
DHCP

Power Characteristics

External power supply	
Input	12vDC, 2.0A
Power consumption	10W (typical), 24W (maximum)

Environmental Specifications

Operating temperature	-40°C to 60°C
Storage temperature	-40°C to 80°C
Operating humidity	5% to 95% relative humidity, non-condensing

Physical Characteristics

AT-EN-SFR-ONT enclosure

Dimensions (W x D x H)	25.1 cm x 9.7 cm x 32.3 cm (9.9 in x 3.8 in x 12.7 in)
Weight	1.1 kg (2.5 lbs)

AT-iMG726BD-ON electronics module

Dimensions (W x D x H)	20.2 cm x 4.2 cm x 23 cm (8.0 in x 1.7 in x 9.1 in)
Weight	540 g (1.2 lb)

Protocols and Standards

RFC 791	IPv4
RFC 1144	TCP, UDP
RFC 1112, 2236	IGMP v1, v2
RFC 2516	PPPoE
RFC 1334	PAP
RFC 1994	CHAP
RFC 1631	NAT
RFC 2131	DHCP
IEEE 802.1p/Q, IEEE 802.1d,	
IEEE 802.2, IEEE 802.3x	VLAN
SNMP v1, v2	
RT P/RTC P	
RFC 1350	TFTP
RFC 318	Telnet
RFC 826	ARP

Approvals

CE Marking
Safety: IEC/EN60950-1 2nd Edition, UL 60950-1 2nd Edition, 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
Immunity EN 55024
GR1089 Section 4.12 when used with AT-iMG008 BBU

Softswitch Interoperability

Metaswitch, Nortel, Genband, Cirpack, NetCentrex, Sonus Networks, Marconi, Siemens, Alcatel, AudioCodes, Mediatrix, ArelNet, HotSip, Iptel, Italtel, Lucent, NetMeeting, Nuera, OK

Ordering Information

AT-iMG726BD-ON
Outdoor Gigabit intelligent Multiservice Gateway

Related Products
AT-EN-SFR-ONT
Enclosure

AT-iMG008
Battery backup

AT-iMG008NB
Battery backup (without battery)

AT-iMG017-00
Battery backup cable

AT-CONSOLE-CABLE-RJ45
Console cable

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the **solution** : the **network**