AT-iMG7x6MOD

Gigabit, Modular intelligent Multiservice Gateway for Outdoor Deployment

AT-iMG726MOD

The AT-iMG726MOD ia a modular gateway product that consists of a base module with: 6 x 10/100TX LAN ports, 2 x VoIP FXS ports and pluggable
1 x LAN module, 1 x WAN module

AT-iMG746MOD

The AT-iMG746MOD ia a modular gateway product that consists of a base module with: 6 x 10/100TX LAN ports, 4 x VoIP FXS ports and pluggable
1 x LAN module, 1 x WAN module

Modular, Ethernet intelligent Multiservice Gateway for IP Triple Play Services

A member of Allied Telesis' family of residential and intelligent Multiservice Gateways, the outdoor hardened AT-iMG726MOD and AT-iMG746MOD, evolution of the current AT-iMG626MOD and AT-iMG646MOD combines 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.

Applications

Capitalizing on Existing Infrastructure

The modular gateway offers tremendous versatility by offering both a modular Wide Area Network (WAN) interface, as well as a modular Local Area Network (LAN) interface. Combined with the built-in Ethernet LAN and Plain Old Telephony Service (POTS) ports, the MOD offers unlimited adaptability for field deployments. The AT-EN646MOD enclosure provides integrated fiber-optic drop cable management, where needed, 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.

Software Real-time Applications Optimization

Quality of Service

The modular 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).

Optimization for IP Video Streaming

The modular gateway 'snoops' IGMP multicast packets in-transit allowing the simultaneous delivery of multiple movies or TV channels to the subscriber using the minimum bandwith. This results in high-quality 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 aids in the management and diagnosis of the MPEG video service. The video quality can be monitored using the unique MPEG stream monitoring tool.

Key Features

- High-speed up to 1000Mbps delivery
- IP Triple Play ready
- Stateful Inspection Firewall / NAT for customer and service security
- Modular WAN and LAN modules reduces deployment cost (CAPEX and OPEX savings)
- Allied*View*™ 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

2002/95/EC ROHS COMPLIANT

AT-iMG7x6MOD | Outdoor Gigabit intelligent Multiservice Gateway

IP Telephony

The modular gateway offers up to 4 FXS interfaces that leverage the SIP and MGCP Voice over IP (VoIP) protocols, with interoperability established with major softswitch vendors. The modular gateway 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.

Data Delivery and Security

Differentiated Bandwidth Services

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

Firewall Capability

The modular gateway has an integral Stateful Inspection Firewall with Network Addess Translation (NAT), Denial of Service (DoS) and an Intrusion Detection System (IDS) with blocking to protect end-customer networks.

Reducing Operational Cost

Value, Versatility, and Validation

The modular gateway will support many different types of deployments senarios. Using the Allied*View* 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).

Wide range of add-on modules

Flexibility on the Interfaces

The HPNA LAN module, enables the iMG to provide connectivity via existing customer premises (inside) wiring, reducing the costly and time consuming rewiring jobs. The T1/E1 LAN add-on module enables the iMG to support legacy network implementing up to two circuit emulation services.

A modular WAN interface, enables the service provider to offer a wide range of interfaces, single fiber 100Mbps fiber interface, 1000Mbps single fiber, GEPON fiber interface and a WAN module with 1000Mbps fiber interface plus 1000Mbps copper interface to deploy a full Gigabit bridged network. Further extending its value and reducing the service provider's opex, the gateway offers testing and fault-isolation on the Ethernet, HPNA and POTS ports, that assist the service technician to quickly pinpoint the solution when troubleshooting a problem.

Management

Easy to Deploy and Manage

With the modular gateway customer premises deployment has never been easier. The AT-EN646MOD Outside Plant Enclosure may be pre-installed. It accommodates fiber termination and grounding for the iMG. When services are ordered, the modular gateway electronics chassis mounts easily into the enclosure, and terminates in-home wiring and power connection.

Allied*View* NMS

The modular gateway is designed to be easy to deploy and manage. With the Allied*View* NMS software platform, can be automatically provisioned and managed remotely. The NMS provide secure authentication and registration with intelligent, automatic configuration of remote iMG units, and seamless integration via XML/SOAP with service providers' existing OSS platforms.

Specifications

User's Ports

6 x 10/100TX (RJ-45)
2 x VoIP FXS ports (RJ-11) (AT-iMG726MOD)
4 x VoIP FXS ports (RJ-11) (AT-iMG746MOD)
1 x WAN module slot
1 x LAN module slot

WAN Modules

AT-iMGMOD-WAN-100M-BD	100BX
AT-iMGMOD-WAN-GEPON	GEPON
AT-iMGMOD-WAN-GIG-BD	1000BX
AT-iMGMOD-WAN-GIG-BD-LN	1000BX + 1000T

LAN Modules

AT-iMGMOD-LAN-HPNA
AT-iMGMOD-LAN-E1T1

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 (32,000 steps)
Port mirroring ingress/egress traffic
Input /egress QoS queue on each port
Port speed selection 10, 100 or 10/100
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/NCS	1.0

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 8-32m/sec
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: 5 per FXS port
RTP voice packet encapsulation

Class 5 Services

Call transfer
Call waiting
Call hold
Message waiting
Caller ID

AT-iMG7x6MOD | Outdoor Gigabit intelligent Multiservice Gateway

LED Status Indicators

Power	
System	
POTS	Use/ready/ringing
WAN	Link/activity
LAN	Link/activity

Network Management

AlliedView NMS
Local console port
Telnet
Remote software upgrade
DHCP

Technical Specifications

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% RH

Physical Characteristics

AT-EN646MOD Enclosure

Dimensions	41.75cm x 29.25cm x 11.75cm
(H x W x D)	16.7" x 11.7" x 4.7"
Weight	3.6 lbs

AT-iMG7x6MOD

Dimensions	30cm x 21.75cm x 3cm
(H x W x D)	12" x 8.7" x 1.2"
Weight	2.65 lbs

Protocols and Standards

IPv4	RFC 791
TCP, UDP	RFC 1144
IGMP (v1/v2)	RFC 1112, 2236
PPPoE	RFC 2516
PAP	RFC 1334
CHAP	RFC 1994
NAT	RFC 1631
DHCP	RFC 2131
VLAN	IEEE 802.1p/Q, IEEE 802.1d, IEEE 802.2, IEEE 802.3x
SNMP	v1, v2, v3
RTP/RTCP	
TFTP	RFC 1350
Telnet	RFC 318
ARP	RFC 826

Approvals

CE 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
Immunity	EN 55024

Softswitch Interoperability

Cirpack, Net Centrex, Sonus Networks, Marconi, Siemens, Alcatel, Audiocodes, Mediatrix, Arelnet, HotSIP, Iptel, Italtel, Lucent, Netmeeting, Nuera, OK

Warranty

Two years

Ordering Information

AT-iMG746MOD (990-002628-00)
1 x WAN slot empty
1 x LAN slot empty

AT-iMG746MOD-PKG1 (990-002876-00)
1 x AT-iMGMOD-WAN-100M-BD
1 x LAN slot empty

AT-iMG746MOD-PKG2 (990-002880-00)
1 x AT-iMGMOD-WAN-100M-BD
1 x AT-iMGMOD-LAN-HPNA

AT-iMG746MOD-PKG3 (990-002877-00)
1 x AT-iMGMOD-WAN-GEPON
1 x LAN slot empty

AT-iMG746MOD-PKG7 (990-002878-00)
1 x AT-iMGMOD-WAN-GIG-BD
1 x LAN slot empty

AT-iMG746MOD-PKG10 (990-002879-00)
1 x AT-iMGMOD-WAN-GIG-BD-LN
1 x LAN slot empty

AT-iMG726MOD-MN (990-002620-00)
1 x WAN slot empty
1 x LAN slot empty

AT-iMG726MOD-PKG1 (990-002645-00)
1 x AT-iMGMOD-WAN-100M-BD
1 x LAN slot empty

AT-iMG726MOD-PKG3 (990-002874-00)
1 x AT-iMGMOD-WAN-GEPON
1 x LAN slot empty

AT-iMG726MOD-PKG7 (990-002644-00)
1 x AT-iMGMOD-WAN-GIG-BD
1 x LAN slot empty

AT-iMG726MOD-PKG10 (990-002875-00)
1 x AT-iMGMOD-WAN-GIG-BD-LN
1 x LAN slot empty

Related Products

AT-iMGMOD-LAN-FILLER (990-002656-00)
Filler plate for the LAN slot

AT-iMGMOD-MTG-BRKT (990-002975-00)
Mounting bracket for indoor installation (10 units MOQ)

WAN Modules

AT-iMGMOD-WAN-100M-BD 100BX (990-002655-00)

AT-iMGMOD-WAN-GEPON GEPON (990-002883-00)

AT-iMGMOD-WAN-GIG-BD 1000BX (990-002634-00)

AT-iMGMOD-WAN-GIG-BD-LN 1000BX + 1000T (990-002633-00)

LAN Modules

AT-iMGMOD-LAN-HPNA (990-002881-00)
AT-iMGMOD-LAN-E1T1 (990-002882-00)

Gigabit SFP Module for iMAP GE8

AT-SPBD10-14 (990-000374-00)

USA Headquarters | 19800 North Creek Parkway | Suite 100 | Bothell | WA 98011 | USA | T: +1 800 424 4284 | F: +1 425 481 3895
European Headquarters | Via Motta 24 | 6830 Chiasso | Switzerland | T: +41 91 69769.00 | F: +41 91 69769.11
Asia-Pacific Headquarters | 11 Tai Seng Link | Singapore | 534182 | T: +65 6383 3832 | F: +65 6383 3830
www.alliedtelesis.com

© 2009 Allied Telesis Inc. All rights reserved. Information in this document is subject to change without notice. All company names, logos, and product designs that are trademarks or registered trademarks are the property of their respective owners. 617-000319 Rev. C