

Product Catalog



Our Commitment to Excellence

Known for **reliability**

Chosen for quality

Awarded for innovation

Allied Telesis is a world-class leader in delivering IP/Ethernet network solutions to the global marketplace. We create innovative, standards-based IP networks that seamlessly connect users with their voice, video and data services.

Publicly traded in Japan and with major corporate divisions in Europe, Asia and the Americas, Allied Telesis is a truly international company ready to service, support, and supply a globally connected customer base of diverse enterprises, organizations and governments. Our partners include the world's largest distributors, integrators, solution providers and resellers to assure you receive immediate local service and support.

Our solutions are used in a wide variety of complex networking applications, and optimized for very demanding and highly specialized markets such as healthcare, IP surveillance, hospitality, the military and public utilities, to name but a few. Because we provide world-class quality and performance at prices suited to budgets facing a challenging world economy, Allied Telesis has become the default standard for many of today's critical network operations.

Our worldwide research and development centers work to bring you innovative products that help your company succeed. We also operate state-of-the-art production facilities, compliant with the world's most-stringent environmental policies, manufacturing more than 600 different products every month, and shipping globally.

As a major industry manufacturer, Allied Telesis is committed to providing you with solutions comprising products designed and built to the highest-possible standards and quality. Our manufacturing conforms to appropriate ISO 9000 standards, and all of our facilities adhere to the strict ISO 14001 standard to ensure a healthier world environment.

Allied Telesis has been designing, manufacturing and selling networking products for nearly a quarter of a century. Our solution-based philosophy of producing products of the highest quality, at affordable prices, with extensive service and support, has resulted in Allied Telesis products being deployed in networks of all types and sizes around the world. Our proven track record of solid technology, excellent support and full-featured software and hardware has allowed Allied Telesis to become a worldwide de-facto standard in many areas of network technology. With a portfolio of products providing end-to-end networking for service provider, enterprise and SMB customers, Allied Telesis is the natural choice for many world-class organizations.

As a leading provider of networking infrastructure, Allied Telesis today enables efficient and reliable delivery of voice, video and data services. The Company is committed to innovating the way in which services and applications are delivered and managed, resulting in increased value and lower operating costs.

Allied Telesis Solutions

alliedtelesis.com/solutions

Over our 23-year history, Allied Telesis has provided products and services to virtually all major vertical industries. We have had particular strongholds in the government, defense, education, service provider and MDU/MTU markets.

In recent years, we have seen a shift in the way customers purchase. They are moving from a pure product and technology focus toward an emphasis on the value their network solutions provide in enabling them to achieve business goals. Customers now want to justify their network purchasing in terms of its ability to help increase revenue, decrease cost and increase productivity within their organization rather than on "feeds and speeds."

The edge of the network, which connects the outer reaches of an organization like operational personnel, customers and even physical devices, is increasingly becoming the focal point for both cost reduction and enhanced productivity. Video images and video communications also are beginning to overtake data and voice as the key drivers of bandwidth and network configuration requirements.

With our extensive experience in moving video packets for the carrier market and our expertise in designing ruggedized, temperature-sensitive products for defense, FTTH and industrial clients, Allied Telesis is well-positioned to help customers in key industries that are undergoing major market transformation and/ or government and regulatory-driven changes. We are developing targeted horizontal solutions, together with leading technology partners, to extend the network and push intelligence and especially video to the edge of the network.

Healthcare

Advances in voice, video and data networking can make medical professionals faster, more accurate and more patient-friendly. Our solutions keep you compliant with privacy regulations and help open

up new opportunities for both patient care and broadband "to-the-pillow" services, including audio and Internet services, pay-per-use channels and Video-on-Demand (VoD). With several key partners and applications in the Picture Archiving and Communications Systems (PACS) area, the increasing need to reliably and quickly transmit high-bandwidth medical data is being fully enabled with Allied Telesis technology.

Allied Telesis is the industry leader in providing cost-effective, reliable, secure IP network solutions. Hospitals and medical facilities around the world use Allied Telesis networking solutions

to improve patient care, enhance productivity, reduce costs, ensure data security and improve in-building safety using advanced IP surveillance technologies. With our long history of partnering with government and healthcare

organizations, Allied Telesis is adept at guiding medical providers through the often-complex world of grants and legislative mandates while simultaneously providing the network systems critical to the success of healthcare facilities'



adoption or expansion of vital diagnostic and administrative solutions. We are currently developing healthcare solutions and architectures through technology partnerships with leading suppliers

in the PACS, telemedicine, bedside concierge and video surveillance/physical security arenas.

Video Solutions

There are many different means of video traffic — from low-quality webcams to high-end HD video or even 3D video. Video is a fast-growing market with increasing business importance for numerous applications and markets. High-demanding HD video requires optimized network architectures to provide high-quality output and to scale to very large networks with thousands of end points and simultaneous video streams. Allied Telesis is uniquely

> positioned to provide high-performance networks for HD video applications. Allied Telesis is currently working with partners in the healthcare arena to enable the transport of real-time, interactive

3D video streams that do not require the use of 3D glasses. We believe that this is the world's first demonstration of this auto-stereoscopic 3D traffic being transported in real-time over the network.

Solutions

Education

High-bandwidth, secure networks help deliver advanced teaching and communications tools that benefit students, teachers and administrators through virtual online classrooms, remote access to teaching specialists and automated attendance programs. Our high-performance, multi-layer switching

solutions provide intelligent, scalable and reliable connectivity from IOMbps to IOGbps.

Allied Telesis has partnered with highereducation and primary institutions across the

globe to provide secure connectivity, wireless, video surveillance and other network solutions. We understand the need to supply advanced cuttingedge network services to tomorrow's generation, within limited budgets. Allied Telesis has implemented leading-edge educational networks for many years. Our advanced high-value product portfolio provides the security, mobility and high performance you need for your education network, both now and well into the future.

Physical Security

The quickly growing IP video surveillance market is found in a multitude of business and organizational premises worldwide, from airports and shopping malls to corporations and hospitals. Historically, camera-makers, video server management companies, software analytics providers and low-voltage resellers and integrators have partnered together to provide complete solutions. As cameras switch from analog to digital and as traffic is transported via IP protocol, the network

itself is becoming one of the most critical elements of success.

Allied Telesis offers a unique and diverse portfolio of products and solutions, bolstered by a robust set of features, that enhance the ability to securely and reliably transport security video across a network. Our products ensure video

is secure and available, ready to be viewed wherever and whenever needed.

Additionally, other buildingrelated devices, like access control, building automation and even lighting, are becoming Ethernet/IPenabled. Allied Telesis looks

at video surveillance as the entry point into the building facilities groups and will be developing partnerships with other vendors as well as end users to address the growing need for coordination and control of building systems.

Industry and Public Utilities

Industrial networking has its own unique set of requirements, demanding products and solutions that ensure

reliable, fail-safe operation. An industrial environment requires the highest reliability while facing unique challenges: EMI and radio interference, contaminants and long cable runs. Military, manufacturing and

utility organizations often require solutions that can withstand high and low temperatures, vibration and other challenging environmental conditions. Many utilities and municipalities also are investing in technology to deliver backbone services over their fiber

plant to local communities and private businesses.

Allied Telesis has worked with numerous industrial companies and utilities in North America and Europe to help them build-out broadband service provider networks to residential customers. We are increasingly working with those same customers now to connect their substations, to explore Broadband over Power Line (BPL) and to connect them to residences for their smart grid initiatives.

Allied Telesis offers a range of solutions that meet these requirements, based on fiber, copper and wireless technologies. Our IP/Ethernet solutions, which include media converters, managed switches and NICs, can help you — we've designed them to be resilient, easy to install and manage. Our managed switches can be configured to take a recovery action if a connection is lost, as well as alert you to the problem. Our media converters are critical components in a network, carrying data between sites or over long distances. Most of our media converters can

be deployed with hotswappable power supplies to ensure maximum uptime for your network.

The iMAP and iMG product lines, in particular, have been hardened and are temperature-sensitive due to the stringent NEBS

requirements of many of our service provider customers. These products, plus hardened media converters and other switches, are well-suited to the industrial and utility markets.



Data Center

Communications in data centers today are most-often based on networks running the IP protocol suite. Data centers contain a set of routers and switches that transport traffic

between the servers and to the outside world. Redundancy of the Internet connection is often provided by using two or more upstream service providers.

Allied Telesis is uniquely positioned for the mini and small data center. We are the only network manufacturer that provides a solution from Network Interface Cards (NICs) to aggregation products. Through our unique NIC products, we

support virtualization which has become

the most important technology and

trend for the data center.

Our products support a unique mix of copper and fiber interfaces of all speeds from IOMbps to IOGbps. With scalability, the network can grow as the business of our customers grows. Software and hardware features provide highest availability.

Transportation

Transportation network systems from Allied Telesis provide high-bandwidth real-time communication with moving vehicles, broadband access to passengers, video security of public vehicles, facilities and infrastructure, as well as monitoring of environmental conditions and traffic control. Our compatibility with credit card authorization allows implementation of remote ticket machines, in parking facilities as well as train and bus stations.

Allied Telesis solutions also are ideal in facilitating the management of highways, motorways and toll roads. Allied Telesis solutions are well suited to support the implementation of electronic signs, live video feeds, centralized traffic

signal control, vehicle counting systems, ramp monitoring systems and driving conditions. Proper implementation of these traffic control and monitoring systems will result in reduced traffic congestion, lower accident rates, reduced

pollution and faster emergency response times.

By meeting a growing demand from business and residential tenants for bundled voice, video and data services, you can profitably compete with incumbent telephone and cable operators to offer services in your multi-dwelling or multi-tenant units. Our IP/Ethernet solutions help you efficiently consolidate access traffic and offer scalable high-speed services to the residents and companies who share your buildings.

Allied Telesis designed its platforms for IP video and Triple Play from the start. Rather than relying on routers or equipment back in the network to perform multicast and video control, Allied Telesis incorporates IP Triple

Play functionality into the software residing on our Layer 2 and 3 switches, iMAP integrated Multiservice Access Platforms, and iMG intelligent Multiservice Gateways. As a result, Allied Telesis became the first platform commercially deployed for IPTV service, and today has hundreds of service

providers worldwide providing IP Triple Play services to more than a quarter million subscribers. This experience and expertise is applied to delivering the highest-quality IP video security, medical imaging (PACS) and over-the-top streaming video to government, education, healthcare and many other industries around the world.



IP Triple Play

Competitive carriers can differentiate themselves by deploying IP Triple Play services that provide voice, video and data via one access line, together with deployment of fiber optics for the infrastructure. Our residential service gateways provide true end-to-end differentiation for IOCs, versus legacy ATM/TDM solutions. Together, they make a compelling combination.

Support Global Support Services

alliedtelesis.com/support

Allied Telesis offers services and support programs to protect your network infrastructure investment. These services are designed to enhance the coverage offered by Allied Telesis warranties.





Online Support Anytime alliedtelesis.com/support Allied Telesis Net.Cover® is a flexible set of services and support programs that can be tailored to meet the needs of a wide range of customers who wish to take additional precautions to safeguard the integrity of networked data, ensure network up time and maximize enduser productivity while protecting their original investment well into the future. These service programs provide comprehensive coverage for your purchase, including advanced hardware replacement and access to no-charge telephone support.

Net.Cover service programs may include:

- » Online knowledge base
- » Priority queuing and escalation
- » Software updates with proactive change notification
- » Configuration assistance
- » Next business day advanced product replacement

	COVERAGE HOURS	ON-SITE SUPPORT	SOFTWARE UPDATES	RMA SHIPMENT METHOD
STANDARD PRODUCT WARRANTY		No		Replace Upon Receipt
NET.COVER BASIC	Business Hours	No	Yes	Replace Upon Receipt
NET.COVER BASIC PLUS	Business Hours	No	Yes	Same Business Day*
NET.COVER BASIC ADVANCED	Extended Hours	No	Yes	Same Business Day*
NET.COVER SILVER	Business Hours	Yes – Next Business Day	Yes	Spares Located On-site with Engineer
NET.COVER GOLD	Business Hours	Yes – Within 4 Business Hours	Yes	Spares Located On-site with Engineer
NET.COVER PLATINUM	Extended Hours	Yes – Within 4 Hours	Yes	Spares Located On-site with Engineer

Renewable Net.Cover contracts run for one, three or five years. Custom contracts are available upon request.

^{*}Not all contracts and services are available in all countries. Please contact your local sales office for further information.

Training

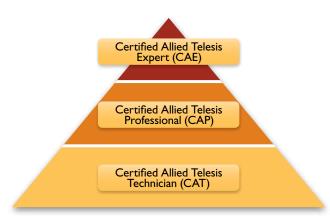
Global Training Program

alliedtelesis.com/training

Allied Telesis offers a comprehensive solutions training program.



Allied Telesis offers a suite of training certification courses at several locations across the United States and Europe. Our curriculum includes basic network and sales training courses along with courses designed to prepare you to become a certified Allied Telesis engineer.





Learn More alliedtelesis.com/training

NORTH AMERICA na training@alliedtelesis.com

training.eu@alliedtelesis.com

Classroom Training

The Allied Telesis suite of classroom training is tailored to the entry-level knowledge of attendees, from the technician up to expert level. Training courses include several labs and hands-on exercises, providing technically-skilled personnel with the knowledge to achieve a smooth project rollout and gain the expertise needed in maintaining Allied Telesis and multi-vendor networks in a professional manner.



Become a Star Partner

Learn about the Allied Telesis Star Partner Program on page 7.

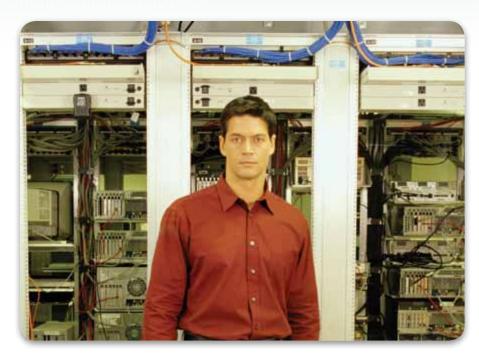
Adventure-based Learning

Experience a new way of learning! One of the special benefits offered to you as an Allied Telesis Star Partner is access to our new innovative training tool. You now have access to obtain sales and pre-sales accreditations online by taking part in our very own virtual world. This innovative tool offers you an interactive hands-on approach that includes virtual role-plays to increase your motivation as well as product and solution knowledge.

Services

1101100101011011101110010100101001 Professional Services

alliedtelesis.com/services



Net.Professional **Services**

In today's world of highly complex voice, video and data networks, finding the best product is only one key to designing the best network. Other key factors include skilled personnel, lab and test equipment, time to deployment and capital expense costs. They add up to a large investment in deploying and maintaining an efficient network.

Allied Telesis has assembled a team of highly trained, experienced network engineers and project managers to help you design, integrate, deploy and manage increasingly complex converged IP networks.

We have a successful track record in managing, integrating and deploying large and small voice, video and data networks across a variety of market segments. From service providers to enterprise applications, campus networks to OEM partners, we understand your need for carrier-grade products, seamless, error-free integration and best-in-class service and support. We provide a flexible suite of options for network design, configuration, interoperability testing, implementation and management and ongoing network training and maintenance.

Allied Telesis Professional Services Solutions provide many benefits for your business. We use proven, tested gate and acceptance processes that ensure a smooth initial deployment, error-free integration and seamless change management.

Advantages

- » Efficient deployment of equipment and resources
 - Increased productivity and performance
 - Quick time to deployment and services turn-up
 - Lower overhead, reduced maintenance and lower cost of ownership
 - Improved ROI
 - Lower support costs
- » Deployment of proven, scalable design
 - Experts in telephony and IP/ Ethernet technology
 - Experienced in complex IP Triple Play deployment projects
 - Experienced with multi-vendor network rollouts
 - Industry best-practice experts
 - Direct access to the manufacturer

Services Offered

- » On-site network support and configuration
- » Turn-key installation and commissioning
- » Network consultation
- » Remote monitoring services
- » Multi-vendor network integration
- » Hardware/software installation and configuration
- » Off-site (remote) network support and configuration
- » Project management
- » Network assessments and reporting
- » Staff augments and operational support
- » Product staging prior to shipment

Partners

Star Partner Prograi

partnerportal.alliedtelesis.com

Success is built on relationships, and relationships are built on trust. The Allied Telesis Star Partner Program provides the ideal communications vehicle to our channel, providing all the ingredients for success in business. By joining the Star Partner Program today, you will be working with a leading networking vendor, enabling you to be more successful in a highly competitive industry.

Why Allied Telesis?

Our approach is different: Allied Telesis works diligently with you, as a team, and we want to understand your business goals and support new solutions for expanding markets. We want all our partners to receive the training, dedicated support and tools that will help you grow and succeed.

Our goal is to support your business objectives and to promote customer satisfaction and loyalty. In support of these goals, the Allied Telesis Star Partner Program provides a clear and direct communication channel that encourages ongoing relationships.

Business benefits come from the competitive differentiation that Allied Telesis' comprehensive networking products and solutions offer.

Allied Telesis is trusted within the networking industry because our highperformance, high-quality products easily accommodate the demands of today's high-bandwidth applications, including voice and video. No other manufacturer matches our combination of cutting-edge technology, exacting quality standards, rich feature sets, competitive pricing and selection.





★★★ Certified Partner

Discover the benefits today

Whether you sell our total-solution offerings or build your own with our high-quality, easily customized, and well-supported products, partnering helps your company extend its market reach. Partnering also enables you to offer customers technology that will scale through every phase of their development. Through the Allied Telesis Star Partner Program, you gain critical benefits in getting solutions to market and positioning them to customers. When you join the Allied Telesis Star Partner Program, we want you to get the most from the partnership. It is quick, easy and free to join and you can immediately start to take advantage of these great benefits:

» Valuable information on Allied Telesis products and solutions enabling you to understand the competition, and to help you bid the correct solution for your users' requirements

- » Customized campaigns and solution programs to fit your business needs, including our business and technical collateral
- » Lead generation that targets an identified market segment for our 3-Star Partner level
- » Project assistance and technical support for your project business via our Deal Registration tool
- » Free online training through Webinars and Adventure-based Learning to keep you up-to-date on new products, strategies and solutions
- » Exclusive access to the Allied Telesis Partner Portal, allowing you 24/7 access to a wealth of information

For more information about our Star Partner Program, please register via our Partner Portal. Register and start winning business today at partnerportal.alliedtelesis.com.





Allied Telesis engineers high-performance, high-quality, future-proof products to meet all of your cutting-edge voice, video and data networking needs, without breaking your budget. From unmanaged and WebSmart switches to Layer 2 and Layer 3 switches, our strength is in producing efficient, streamlined, powerful products that will last for the life of your network and deliver the highest-possible return on your investment.

Fast, Gigabit and 10 Gigabit

Allied Telesis advanced Fast, Gigabit and 10 Gigabit Ethernet Layer 2 and Layer 3 switches are an ideal solution in the aggregation tier of large networks, for server farms, data centers or small and medium businesses. A robust hardware design gives you maximum uptime of critical services and reliability.

Stackable

Allied Telesis stackable switches offer chassis-like availability and resiliency, allowing management of the stack as a single, large virtual switch while providing fast inter-switch connectivity. Stackable switches offer a cost-effective and scalable switching solution for your network.

Power over Ethernet

Traditional switches deliver data to their connected devices. Allied Telesis PoE switches add an extra dimension — they also provide power to wireless access points, IP phones and IP security cameras, and other connected devices. All Allied Telesis PoE switches meet the IEEE 802.3af or 802.3at industry standards, which helps to ensure seamless interoperability with other PoE devices.

IPv6 Management

Allied Telesis switches support IPv6, ensuring that infrastructure installed today



will support the networks for the future. With the number of global IPv4 addresses about to be exhausted, investment today with IPv6-ready equipment is a necessity.

VLAN Double Tagging (Q-in-Q)

VLAN double-tagging can be useful for customers such as Internet Service Providers (ISP), allowing them to use VLANs internally while mixing traffic from clients that is already VLAN tagged. The first VLAN tag is used by the ISP to route traffic across their own network, while the second VLAN tag is that of the end-user customer. The use of this feature allows end-users to have physically distributed networks, which they can manage themselves, carried over an independent infrastructure.

IEEE 802.1x Authentication

This protocol uses an authentication server to store details of each user who has been granted access to the network. The authentication criteria can be a computer MAC address, but can also include IP address, username and password etc. Initially, the switch port will be blocked, but when a computer connects, it will only be connected to the authentication server. If the request to access the network is granted, then the switch will be programmed with the necessary details, such as VLAN membership. This type of security simplifies the task of the network

administrator. They can keep all of their security data on a server and not have to program each switch. This scenario has the added benefit of allowing users to connect to any port on the network.

Voice VLAN

Voice VLAN segregates VoIP traffic from Ethernet traffic and applies it to a higher QoS. This ensures high voice quality for phone conversations, as voice and data traffic share the same switch and Ethernet ports. It protects time-sensitive voice traffic from being flooded by other data traffic, such as multicasts and broadcasts.

sFlow

sFlow is an industry-standard technology for monitoring high-speed switched networks. It gives complete visibility into the use of networks enabling performance optimization, accounting and billing for usage and defense against security threats. Sampled packets sent to a collector ensure it always maintains a real-time view of network traffic.

eco-friendly

Allied Telesis switches featuring the eco-



friendly logo have been designed to operate at significantly lower power than traditional switches. This not only reduces environmental impact, but also reduces the operational running costs of the switch.

NEW FOR 2011

8100L Series

AT-8100L/8 and AT-8100L/8POE switches offer 8 10/100TX ports and two Gigabit combo ports.

8100S Series

AT-8100S/24 and AT-8100S/24POE switches offer 24 10/100TX ports, two Gigabit combo ports, plus two integrated dedicated stacking connectors that deliver a total of 10Gbps stacking bandwidth to each switch.

The AT-8100S/48 and AT-8100S/48POE switches offer 48 10/100TX ports, two Gigabit combo ports, plus two integrated dedicated stacking connectors that deliver a total of 10Gbps stacking bandwidth to each switch.

The AT-8100S/16F8-SC, AT-8100S/24F-LC and AT-8100S/24F-BiDi switches offer fiber connectivity with two Gigabit combo ports, plus two dedicated stacking connectors that deliver a total of 10Gbps stacking bandwidth to each switch.

Power over Ethernet

PoE models provide standards-based IEEE 802.3at (30W) Power over Ethernet. PoE+ provides greater power for applications—such as IP surveillance cameras supporting pan, tilt and zoom, IP video phones, RFID readers or wireless access points—while maintaining backward compatibility with IEEE 802.3af.

Hardware Stacking

The stacking capability integrated into the 8100S Series is configured as a resilient ring topology designed to provide high reliability and simplified management for higher port density applications. Up to eight switches of either 24 or 48 variants can be stacked together using HDMI cables, providing up to 384 ports of Fast Ethernet connectivity, manageable as a single IP entity.

Management Stacking

The 8100 Series supports Enhanced Stacking, providing CLI-based management of up to 24 switches with the same effort as for one switch. The Allied Telesis solution uses open standards Ethernet interfaces as stacking links so that many switches within the same LAN can be managed remotely as a single IP entity across different sites.

The Allied Telesis 8100 Series provides high-performance Layer 2–4 switching in an affordable fixed configuration platform.

Easy Access Networking

Featuring the industry-standard CLI of AlliedWare Plus™ and Allied Telesis' intuitive yet fully featured Web interface, the advanced switch features are accessible to a wide range of system administrators. The well-known CLI and Web interfaces significantly reduce learning time and minimize the cost of deployment.

Gigabit and Fast Ethernet SFP Support

All switches in the Series support both Gigabit and Fast Ethernet Small Form-factor Pluggables (SFPs). This makes the 8100 Series an ideal family for environments where Gigabit fiber switches will be phasedin over time. The 8100 Series allows for connectivity to the legacy 100FX hardware until it is upgraded to Gigabit. Support for both speeds of SFPs allows organizations to stay within budget as they migrate to faster technologies.

Redundant Power Options

The 8100S Series features two internal power supplies as standard, ensuring continuous switch operation of both the switch and the PoE power — even in the event of a power supply failure. 8100L Series switches support one internal power supply. 8100S Series (non-PoE) can be ordered with DC power supplies as variants to the standard product.



		8100L	SERIES	
SUBCATEGORY	FEATURE	AT-8100L/8	AT-8100L/8P0E	
FORM FACTOR	'	» Desktop» Rack mountable» Wall mountable	» Desktop » Rack mountable » Wall mountable	
SWITCH FUNCTIONALITY		Layer 2-4	Layer 2-4	
	10/100TX	8	8	
	10/100/1000T	2	2 (combo)	
	100FX			
MEDIA GOLL GILL	SFP	2	2 (combo)	
	Stacking Ports			
	PSU type	Fixed Internal	Fixed Internal	
POWER SUPPLY	-48vDC PSU option			
ORM FACTOR WITCH FUNCTIONALITY ORTS AND JEDIA SUPPORT OWER SUPPLY OWER OVER ETHERNET CALABILITY NVIRONMENTAL JANAGEMENT ETWORK RESILIENCE OS ECURITY OUTING	Redundant PSU option			
	IEEE 802.3at		•	
POWER OVER ETHERNET SCALABILITY	IEEE 802.3af			
	PoE-enabled ports		8	
	Max number of IEEE 802.3at ports		8	
	Mode		В	
	PoE power		240W	
SCALABILITY ENVIRONMENTAL	MAC address table size	16K	16K	
	Hardware stacking			
	Enhanced stacking	•	•	
POWER SUPPLY POWER SUPPLY POWER OVER ETHERNET SCALABILITY ENVIRONMENTAL MANAGEMENT NETWORK RESILIENCE DOS SECURITY	Cooling	Fanless	Low noise fan	
	Temperature range	0°C to 40°C	0°C to 40°C	
	eco-friendly switch			
****	Web			
MANAGEMENI	CLI/Telnet/SNMP		•	
NETWORK DEAL (ENG.	Spanning Tree	•	•	
NETWORK RESILIENCE	Link Aggregation (LACP)			
QoS	IEEE 802.1p priority queues	8	8	
	IEEE 802.1Q VLANs	256	256	
OF OUR ITY	Guest VLANs	•	•	
SECURITY	RADIUS/SSH/SSL/IEEE 802.1x			
	DoS protection	•	•	
	RIPv1 and v2	•	•	
ROUTING	IPv4	•		
	IPv6	•	•	
DIMENSIONS	(W x D x H)	33 x 22.8 x 4.3 cm 13 x 8 x 1.72 in	33 x 22.8 x 4.3 cm 13 x 8 x 1.72 in	
	Weight	TBD	TBD	

10 | Allied Telesis Product Catalog

eco

eco

LAYER 2-4 FAST ETHERNET SWITCHES

Low Power Consumption

The AT-8100L/8, AT-8100S/24C, AT-8100S/24 and AT-8100S/48 products are designed for silent operation, allowing use in office environments and wiring closets.

IPv6-Aware Switch

The 8100 Series functions as an L2 switch in a pure IPv6 network as well as in a combined IPv4/IPv6 network. The system is capable of bridging Ethernet packets encapsulating IPv6 frames, similar to IPv4 frames. The system follows the transmission of IPv6 packets over Ethernet networks. No user configuration is required — IPv6 packets are bridged regardless of extension headers.













			8100S	SERIES			
AT-8100S/24C	AT-8100S/24	AT-8100S/24P0E	AT-8100S/48	AT-8100S/48P0E	AT-8100S/16F8-SC	AT-8100S/24F-LC	AT-8100S/24F-BiD
» Desktop » Rack mountable » Wall mountable	» Desktop» Rack mountable» Wall mountable	» Desktop » Rack mountable » Wall mountable	» Desktop » Rack mountable » Wall mountable	» Desktop» Rack mountable» Wall mountable			
Layer 2-4	Layer 2-4	Layer 2-4	Layer 2-4				
24	24	24	48	48	8		
2 (combo)	2 (combo)	2 (combo)	2 (combo)				
					16 SC, MMF	24 LC, MMF	24 BiDi, SMF
2 (combo)	2 (combo)	2 (combo)	2 (combo)				
2 x HDMI	2 x HDMI	2 x HDMI	2 x HDMI				
Fixed Internal	Fixed Internal	Fixed Internal	Fixed Internal				
						•	
	Fixed Internal	Fixed Internal	Fixed Internal	Fixed Internal	Fixed Internal	Fixed Internal	Fixed Internal
		•		•			
		24		48			
		16		16			
		В		В			
		480W		480W			
16K	16K	16K	16K	16K	16K	16K	16K
(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
•	•	•	•	•	•	•	•
Fanless	Fanless	Low noise fan	Fanless	Low noise fan	Low noise fan	Low noise fan	Low noise fan
0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C				
•	•	•	•		•		•
				•		•	
•	•	•	•		•		•
	•	•	•	•	•	•	•
•	•	•	•		•		
8	8	8	8	8	8	8	8
256	256	256	256	256	256	256	256
		•		•	•	•	•
•							
						•	
•	•	•	•		•	•	•
		•	•	•	•	•	•
•	•	•	•	•	•	•	•
33 x 22.8 x 4.3 cm 13 x 8 x 1.72 in	44 x 29.1 x 4.3 cm 17.34 x 14.46 x 1.72 in	44 x 29.1 x 4.3 cm 17.34 x 14.46 x 1.72 in	44 x 29.1 x 4.3 cm 17.34 x 14.46 x 1.72 in	44 x 29.1 x 4.3 cm 17.34 x 14.46 x 1.72 in	44 x 29.1 x 4.3 cm 17.34 x 14.46 x 1.72 in	44 x 29.1 x 4.3 cm 17.34 x 14.46 x 1.72 in	44 x 29.1 x 4.3 cm 17.34 x 14.46 x 1.72
2.15 kg/4.75 lb	3.62 kg/8.1 lb	4.96 kg/10.98 lb	4.03 kg/8.9 lb	5.42 kg/11.95 lb	4.12 kg/9.10 lb	4.42 kg/9.75 lb	4.24 kg/9.35 lb

Switches

Unmanaged switches are simple to deploy, as they require no user setup — making them the ideal product for Small Office, Home Office (SOHO) applications. Their silent and eco-friendly low-power operation ensure both minimal running costs and no intrusive noise.

Auto-negotiation and Auto MDI/MDI-X

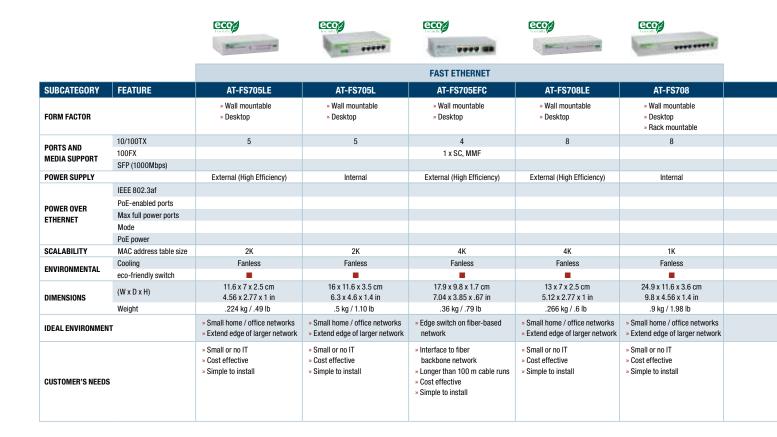
Allied Telesis unmanaged copper switch ports support auto-negotiation and auto MDI/MDI-X, enabling them to interface with legacy Ethernet and Fast Ethernet products without the need for special cables or user configuration.

Fanless Design

All Allied Telesis unmanaged switches feature a fanless design. This quiet operation makes them perfectly suited for use in home and small office installations.

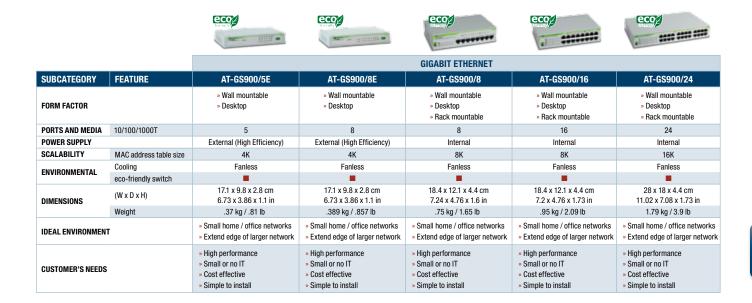
Allied Telesis eco-friendly models use a variety of methods to reduce power, helping protect the environment and reducing energy costs. All our eco-friendly models use highly efficient power supplies, which reduce generated heat. Ethernet ports which are inactive are placed into power-saving mode, and active ports measure the distance of the attached cables to drive the correct amount of power. These improvements result in 50% less power consumption than previous models.





12 | Allied Telesis Product Catalog

Unmanaged Switches



POE		eco		eco		
*********			4: 100m	3 Tel 1000 1000 1000		
		FAST ETHERNET				
AT-FS708/P0E	AT-FS709FC	AT-FS716L	AT-FS717FC/SC	AT-FS724L		
» Wall mountable » Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable	» Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable		
8	8	16	16	24		
	1 x SC, MMF		1 x SC, MMF			
1						
Internal	Internal	Internal	Internal	Internal		
•						
8						
4						
A						
65W						
8K	4K	8K	4K	8K		
Fanless	Fanless	Fanless	Fanless	Fanless		
•						
26.5 x 16.2 x 4.3 cm 10.4 x 6.4 x 1.7 in	22 x 12 x 3.6 cm 8.66 x 4.72 x 1.4 in	18.4 x 12.4 x 4.4 cm 7.24 x 4.88 x 1.73 in	29.5 x 11.5 x 4 cm 11.61 x 4.52 x 1.57 in	28 x 18 x 4.4 cm 11.02 x 7.08 x 1.73 in		
1.9 kg / 4.20 lb	2 kg / 4.4 lb	.8 kg / 1.76 lb	.93 kg / 2.05 lb	1.592 kg / 3.51 lb		
» Small office network with wireless, IP cameras	» Edge switch on fiber-based network	» Small office network	» Edge switch on fiber-based network	» Small office network		
Ability to power wireless access points, cameras, etc. Interface to fiber backbone network Longer than 100 m cable runs Cost effective Simple to install	Interface to fiber backbone network Longer than 100 m cable runs Cost effective Simple to install	» Small or no IT » Cost effective » Simple to install	Interface to fiber backbone network Longer than 100 m cable runs Cost effective Simple to install	» Small or no IT » Cost effective » Simple to install		

Switches

Allied Telesis WebSmart switches perform a dual role in providing connectivity for a variety of computer networks. For small office networks, they provide security and data priority, allowing the deployment of Voice over IP and similar applications. In larger networks, WebSmart switches provide high levels of security, authentication and data priority — but at a lower cost point than a fully managed device.

POE POE

eco



				THE HILL	The trade of	
			mmm	C. COM COM CO. 1. 1. 1. 1.		
			FAST ET	THERNET		
SUBCATEGORY	FEATURE	AT-FS750/16	AT-FS750/24	AT-FS750/24P0E	AT-FS750/48	
FORM FACTOR		» Wall mountable » Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable	
	10/100TX	16	24	24	48	
PORTS AND	10/100/1000T	2 (combo)	2 (combo)	2 (combo)	2	
FORM FACTOR **N	2 (combo)	2 (combo)	2 (combo)	2		
	100FX SFP support	•	•	•	•	
POWER SUPPLY		Internal	Internal	Internal	Internal	
	IEEE 802.3af					
	PoE-enabled ports			12		
POWER OVER ETHERNET	·			6		
CALABILITY				A		
	PoE power			100W		
SCALABILITY		8K	8K	8K	8K	
		Fanless	Fanless	Fan	Fan	
PORTS AND MEDIA SUPPORT POWER SUPPLY POWER OVER ETHERNET SCALABILITY ENVIRONMENTAL MANAGEMENT NETWORK RESILIENCE DOS SECURITY DIMENSIONS DEAL ENVIRONMENT				•		
	Web					
IANAGEMENT ETWORK RESILIENCE	CLI		•			
	SNMPv1 / v2	* Desktop * Desktop * Rack mountable * R	-			
:	Spanning Tree	-	•	•	•	
			•	•		
	· · · · ·		•	•		
TWORK RESILIENCE			•	•		
	Port setting (speed, availability,					
QoS	IEEE 802.1p priority queues	4	4	4	4	
oroupity.	IEEE 802.1Q VLANs	256	256	256	256	
SECURITY	IEEE 802.1x	-	•	•	-	
IEDIA SUPPORT OWER SUPPLY OWER SUPPLY OWER OVER ETHERNET CALABILITY INVIRONMENTAL IANAGEMENT ETWORK RESILIENCE OS ECURITY THER IMENSIONS DEAL ENVIRONMENT	RADIUS / DHCP client		•	•	•	
	Jumbo frames (9K)					
			•	•		
OTHER	MAC filtering / ingress/egress rate limiting /	-	•	•		
DIMENSIONS	(W x D x H)				44.4 x 32.2 x 4.3 cm 17.5 x 12.7 x 1.7 in	
	Weight	2.38 kg / 5.24 lb	3.24 kg / 7.14 lb	4.133 kg / 9.11 lb	3.79 kg / 8.35 lb	
IDEAL ENVIRONMENT		» Classroom » Home office » SMB	» Classroom » Home office » SMB	» Classroom » Home office » SMB	» Classroom » Home office	
CUSTOMER'S NEEDS		Management at the edge Basic, entry level, security Web-based management Copper Ethernet at the edge of the fiber network	Management at the edge Basic, entry level, security Web-based management Copper Ethernet at the edge of the fiber network	» Low-cost Power over Ethernet » Management at the edge » Basic, entry level, security » Web-based management » Copper Ethernet at the edge of the fiber network	Management at the edge Basic, entry level, security Web-based management Copper Ethernet at the edge of the fiber network	

14 | Allied Telesis Product Catalog

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WebSmart Switches

Simple Configuration

eco

Allied Telesis WebSmart switches may be used straight from the box with no configuration needed. Additional features can be enabled using a simple Graphical User Interface (GUI) management system, allowing less technical users to configure the devices.

PoE

Affordable Solutions

Allied Telesis WebSmart switches offer a solution with key "managed switch" features — without the price tag associated with managed switches.

These switches are perfect for budgetsensitive companies looking for advanced

eco

features such as Quality of Service (QoS), port mirroring, Virtual LAN (VLAN) and Power over Ethernet (PoE). In addition, WebSmart switches may be used on the edge of a large managed network while still providing high levels of security — the backbone network will provide all the client authentication.

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	trientis		Irrendic	friendly	Literative
	****		Their and the		
			GIGABIT ETHERNET		
	AT-GS950/8	AT-GS950/8P0E	AT-GS950/16	AT-GS950/24	AT-GS950/48
	» Wall mountable » Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable
	8	8	16	24	48
	2 (combo)	2 (combo)	2 (combo)	4 (combo)	4 (combo)
	•	•	•		•
	Internal	Internal	Internal	Internal	Internal
		•			
		4			
		4			
		В			
		60W			
	8K	8K	8K	8K	8K
	Fanless	Fanless	Fanless	Fanless	Fan
			•		•
	•				•
	•				
	■ v3	•	■ v3	■ v3	•
	•	•		•	•
				•	•
	_	<u> </u>			•
	•	•	•	•	
	•	•	•	•	•
	4	4	4	4	4
	256	256	256	256	256
	•		•		•
		•	•	•	•
	•	•		•	•
		•		•	•
	•			•	•
	28 x 18 x 4.4 cm 11 x 7 x 1.7 in	32 x 23 x 4.3 cm 13 x 9.1 x 1.7 in	33 x 20 x 4.4 cm 13 x 7.9 x 1.7 in	33 x 20 x 4.4 cm 13 x 7.9 x 1.7 in	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in
	1.5 kg / 3.3 lb	2.54 kg / 5.6 lb	2.1 kg / 4.63 lb	2.3 kg / 5.07 lb	4.05 kg / 8.92 lb
х	» Classroom	» Classroom	» Classroom	» Classroom	» Classroom
	» Home office	» Home office	» Home office	» Home office	» Home office
	» SMB	» SMB	» SMB	» SMB	» SMB
х	» Security at the edge	» Security at the edge	» Security at the edge	» Security at the edge	» Security at the edge
x x	» Management at the edge » Basic, entry level, security » Web-based management » Copper Ethernet at the edge of the fiber network	» Low-cost Power over Ethernet » Management at the edge » Basic, entry level, security » Web-based management » Copper Ethernet at the edge of the fiber network	Management at the edge Basic, entry level, security Web-based management Copper Ethernet at the edge of the fiber network	Management at the edge Basic, entry level, security Web-based management Copper Ethernet at the edge of the fiber network	Management at the edge Basic, entry level, security Web-based management Copper Ethernet at the edge of the fiber network

Allied Telesis offers a range of Power over Ethernet (PoE) switches, delivering all the switching functionality needed for the network while providing power to PoE-capable connected devices.

PoE allows a copper Ethernet cable to provide power as well as data connectivity to a remote device — for example, a VoIP phone, a security camera or a wireless access point. Using PoE devices eliminates the need to provide power at the remote end of the data link.

SFP Optical Modules

Learn more about Allied Telesis pluggable optical modules on page 41.

How Much Power?

The IEEE 802.3af PoE standard allows any Power Sourcing Equipment (PSE) to provide up to 15.4 Watts of power to Powered Devices (PD, or the end-point). The IEEE 802.3at PoE+ standard allows for any PSE to provide up to 30 Watts of power.

A port connected to a network node that is not a Powered Device — that is, a device that receives its power from another source — functions as a regular Ethernet port, without PoE. The PoE feature remains enabled on the port, but no power is delivered to the device.

Class	Usage	Max. Power Levels Output at the PSE	Power Ranges Output at the PD
0	Default	15.4W	0.44W to 12.94W
1	Optional	4.0W	0.44W to 3.84W
2	Optional	7.0W	3.84W to 6.49W
3	Optional	15.4W	6.49W to 12.95W
4	Optional	30W	12.95W to 25.50W



		-	C 0000 0000 000 + ave 1			21 mm mm 4
SUBCATEGORY	FEATURE	AT-FS708/P0E	AT-FS750/24P0E	AT-GS950/8P0E	AT-8000/8P0E	AT-8000S/24P0E
FORM FACTOR		» Wall mountable» Desktop» Rack mountable	» Wall mountable » Desktop » Rack mountable	» Wall mountable» Desktop» Rack mountable	» Wall mountable» Desktop» Rack mountable	» Wall mountable» Desktop» Rack mountable
SWITCH FUNCTIONALITY		Unmanaged	WebSmart	WebSmart	Layer 2	Layer 2
	10/100TX	8	24		8	24
	10/100/1000T		2	8	1 (combo)	2
	SFP	1 1000Mbps	2 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	1 1000Mbps	2 (combo) 100 or 1000Mbps
DRM FACTOR WITCH FUNCTIONALITY DRTS AND EDIA SUPPORT ODULAR UPLINKS DWER SUPPLY DWER OVER ETHERNET CALABILITY NVIRONMENTAL ANAGEMENT ETWORK RESILIENCE DS ECURITY	Modular uplinks					
MODULAR UPLINKS	1 x 100FX					
	PSU type	Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal
SUBCATEGORY FORM FACTOR SWITCH FUNCTIONALITY PORTS AND MEDIA SUPPORT MODULAR UPLINKS POWER SUPPLY POWER OVER ETHERNET SCALABILITY ENVIRONMENTAL MANAGEMENT NETWORK RESILIENCE QoS SECURITY ROUTING DIMENSIONS	Redundant PSU option					
	Redundant PSU chassis (inc 1 PSU)					
	Additional redundant PSU					
	IEEE 802.3af					
POWER OVER ETHERNET	IEEE 802.3at					
	PoE-enabled ports	8	12	4	8	24
	Max number of full power ports	4	6	4	6	12
	Mode	А	Α	В	В	В
	PoE power	65W	100W	60W	95W	180W
SCALABILITY ENVIRONMENTAL	MAC address table size	8K	8K	8K	8K	8K
	Stacking					(6)
	Cooling	Fanless	Fan	Fanless	Fan	Fan
POWER SUPPLY POWER OVER ETHERNET SCALABILITY ENVIRONMENTAL MANAGEMENT NETWORK RESILIENCE QoS	eco-friendly switch					
	Web			•		
	CLI					
IANAGEMENT	Telnet				•	
ENVIRONMENTAL MANAGEMENT	SNMP			•		
	Spanning Tree				_	
FORM FACTOR SWITCH FUNCTIONALITY PORTS AND MEDIA SUPPORT MODULAR UPLINKS POWER SUPPLY POWER OVER ETHERNET SCALABILITY ENVIRONMENTAL MANAGEMENT NETWORK RESILIENCE TOS SECURITY	Link aggregation (LACP)				_	
oS	IEEE 802.1p priority queues		4	4		4
	IEEE 802.1Q VLANs		256	256	256	256
	RADIUS				200	
FCURITY	TACACS		_	_		
	SSH/SSL					_
	IEEE 802.1x			•		
SECURITY	DoS protection		_	_		_
OUTING	200 p. atouton					
		26.5 x 16.2 x 4.3 cm	44 x 25.7 x 4.3 cm	32 x 23 x 4.3 cm	33 x 22.8 x 4.3 cm	44 x 25.7 x 4.3 cm
	(W x D x H)	10.4 x 6.4 x 1.7 in	17.3 x 10.1 x 1.7 in	13 x 9.1 x 1.7 in	13 x 8 x 1.7 in	17.3 x 10.1 x 1.7 in
DIMENSIONS	Weight	1.9 kg / 4.2 lb	4.133 kg / 9.11 lb	2.54 kg / 5.6 lb	2.2 kg / 4.9 lb	3.7 kg / 8.15 lb

16 | Allied Telesis Product Catalog

Power over Ethernet Switches

Power Budget

Users should ensure that the maximum power drawn by all the PDs does not exceed the maximum power that can be delivered by the PSE. If this occurs, the switch will use a predetermined algorithm to determine which ports will receive power. See user manuals for details on each switch.

Cable Types

PoE is designed to run over existing standard Ethernet cables. However, for Fast Ethernet, there are two modes of operation:

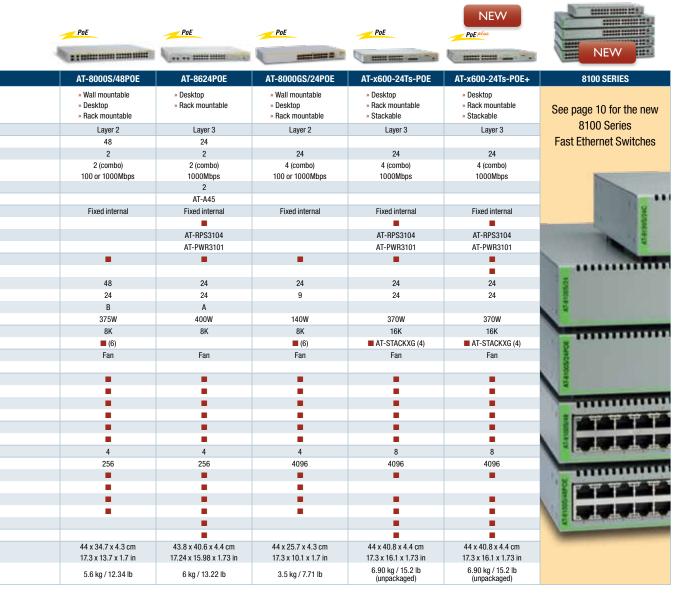
- » Mode A Injects power onto the data wires
- » Mode B Uses "spare pairs" to transmit the power

Gigabit copper connections use all four pairs to connect.

Power Injectors

Allied Telesis also offers a power injector and power splitter which can be used to inject or extract power over a single unshielded twisted pair (UTP) connection:

- » AT-610IG Power injector
- » AT-6102G Power splitter



Switches

Allied Telesis Fast Ethernet switches provide performance and flexibility at an affordable price. The switches offer standalone and stackable solutions targeted for the enterprise edge market. Power over Ethernet models provide connectivity for IP cameras, IP phones and wireless access points.



8000S Series

The Allied Telesis 8000S Series of stackable switches provides high performance Layer 2 switching in an affordable, fixed-configuration platform. The 8000S Series offers 24 or 48 IO/IOOTX non-PoE ports, with SFP uplink slots, plus two integrated stacking connectors.

					PoE		PoE	
		20074		250000000	22 2000 1000 1	-		
SUBCATEGORY	FEATURE	AT-8000/8P0E	AT-8000S/16	AT-8000S/24	AT-8000S/24P0E	AT-8000S/48	AT-8000S/48P0E	
FORM FACTOR		» Wall mountable» Desktop» Rack mountable	» Desktop » Rack mountable	» Desktop» Rack mountable» Stackable	» Desktop» Rack mountable» Stackable	» Desktop» Rack mountable» Stackable	» Desktop » Rack mountable » Stackable	
SWITCH FUNCTION	IALITY	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2	
	10/100TX	8	16	24	24	48	48	
	10/100/1000T	1 (combo)	1 (combo)	2 (combo)	2 (combo)	2 (combo)	2 (combo)	
PORTS AND	100FX							
MEDIA SUPPORT	SFP	1 1000Mbps	1 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	
	Modular uplinks							
	1 x 1000T							
MODULAR	1 x GBIC							
UPLINKS	1 x 100FX							
	PSU type	Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal	
	-48vDC PSU option							
	Redundant PSU option							
POWER SUPPLY	Redundant PSU chassis (inc 1 PSU)							
	Additional redundant PSU							
	IEEE 802.3af							
POWER OVER	PoE-enabled ports	8			24		48	
ETHERNET	Max number of full power ports	6			12		24	
Linemer	Mode	В			В		В	
	PoE power	95W			180W		375W	
SCALABILITY	MAC address table size	8K	8K	8K	8K	8K	8K	
SUALABILITY	Stacking			(6)	(6)	(6)	(6)	
ENVIRONMENTAL	Cooling	Fan	Fanless	Fanless	Fan	Fan	Fan	
	Temperature range	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	
MANAGEMENT	Web			•	•		•	
WANAGEWENT	CLI / Telnet / SNMP	•		•				
NETWORK	Spanning Tree				•		•	
NETWORK RESILIENCE	Link aggregation (LACP)		•	•				
NESILIENGE	EPSR							
QoS	IEEE 802.1p priority queues	4	4	4	4	4	4	
	IEEE 802.1Q VLANs	256	256	256	256	256	256	
SECURITY	Guest VLANs							
	RADIUS / SSH/SSL / IEEE 802.1x			•	•			
	DoS protection							
	RIPv1 and v2							
ROUTING	IPv4							
nuulinu	IPv6							
	OSPFv2 / VRRP							
DIMENSIONS	(W x D x H)	33 x 22.8 x 4.3 cm 13 x 8 x 1.7 in	33 x 23 x 4.3 cm 13 x 9.1 x 1.7 in	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in	44 x 34.7 x 4.3 cm 17.3 x 13.7 x 1.7 in	
DIMENSIONS	Weight	2.2 kg / 4.9 lb	1.95 kg / 4.29 lb	3.15 kg / 6.94 lb	3.7 kg / 8.15 lb	3.38 kg / 7.45 lb	5.6 kg / 12.34 lb	

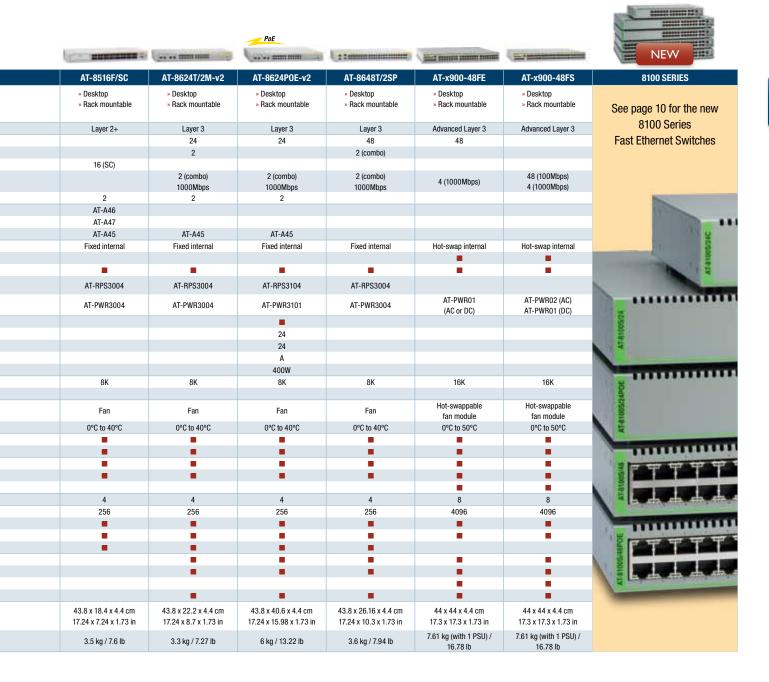
18 | Allied Telesis Product Catalog

Fast Ethernet Switches



8600 Series

The Allied Telesis 8600 Series are cost-effective, feature-rich Fast Ethernet Layer 3 edge switches. They are designed to provide desktop connectivity for enterprise workgroups, mid-sized networks and high school and campus networks. The 8600 Series provides management stacking up to nine switches that can be remotely managed as a single IP across different sites. This solution uses open standard interfaces as stacking links so that switches can be stacked across different sites. It offers advanced switching features such as RIP, OSPF, VRRP, Multicast Routing, wirespeed Layer 2/3/4 traffic classifiers, bandwidth limiting, Diffserv and Access control lists for service providers, Telco, multi-tenant or multi-business unit applications.



Switches

Allied Telesis Gigabit Ethernet switches provide advanced enterprise features to improve delivery of converged data.



9000 Series

The Allied Telesis 9000 Series of high-performance Layer 2 28-port and 52-port Gigabit Ethernet switches offers advanced enterprise features at an affordable price. Featuring an industry-standard AlliedWare Plus CLI and Web interface, the eco-friendly switch helps reduce power consumption and minimizes noise. The 9000 Series provides enhanced stacking of up to 24 units that can be remotely managed as a single IP across different sites. Features such as IEEE 802.1x port-based authentication, Microsoft Network Access and Symantec Network Access Control provide security at the network edge.

SUBCATEGORY FEATURE			loronis —	records	CO	
Desktop			######################################		***************************************	
Pack mountable Pack	SUBCATEGORY	FEATURE	AT-9000/28	AT-9000/28SP	AT-9000/52	
PORTS AND MEDIA SUPPORT SFP	FORM FACTOR		T T			
NETHODA SUPPORT SFP	SWITCH FUNCTIONALITY		Layer 2	Layer 2	Layer 2	
	PORTS AND	10/100/1000T	28	4 (combo)	48	
POWER OVER ETHENET POE-enabled ports Common of full power	MEDIA SUPPORT	SFP	4 (combo) 100 or 1000Mbps	28 100 or 1000Mbps	4 100 or 1000Mbps	
POWER OVER THENNET Max no. of full power ports Max no. of full power ports and power powe		IEEE 802.3af				
Max no. of full power ports PoE power PoE poWer	DOWED OVER ETHERNET	PoE-enabled ports				
MC address table size	PUWER OVER ETHERNET	Max no. of full power ports				
Stacking Stacking		PoE power				
Stacking Fan	CALABILITY	MAC address table size	8K	8K	8K	
ENVIRONMENTAL Ecc-friendly switch		Stacking	■ *	■ *	■ *	
Temperature range		Cooling	Fanless	Fan	Fan	
MANAGEMENT CL1/Telnet/SNMP	ENVIRONMENTAL	eco-friendly switch	•	•	•	
NETWORK RESILIENCE		Temperature range	0°C to 40°C	0°C to 40°C	0°C to 40°C	
IPv6		Web	•	•	•	
NETWORK RESILIENCE	MANAGEMENT	CLI / Telnet / SNMP	•	•	•	
NET WORK Link aggregation (LACP) Image: Company of the		IPv6	•	•	•	
QoS IEEE 802.1p priority queues 8 8 8 SECURITY IEEE 802.10 VLANs 4096 4096 4096 4096 4096 TACACS Image: Company of the company of	NETWORK	Spanning Tree			•	
SECURITY IEEE 802.10 VLANS 4096	RESILIENCE	Link aggregation (LACP)	•	•	•	
SECURITY RADIUS / IEEE 802.1x Image: Control of the control of th	QoS	IEEE 802.1p priority queues	8	8	8	
TACACS SSH/SSL Wx D x H) TACACS Wx D x H) TACACS Wx D x H) 44 x 25.7 x 4.3 cm 44 x 25.7 x 4.3 cm 44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in 17.3 x 10.1 x 1.7 in 17.3 x 10.1 x 1.7 in		IEEE 802.1Q VLANs	4096	4096	4096	
SSH/SSL ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	SECURITY	RADIUS / IEEE 802.1x	•	•	•	
(W x D x H) 44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in 44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in 44 x 25.6 x 4.3 cm 17.3 x 10.1 x 1.7 in		TACACS	•	•	•	
DIMENSIONS 17.3 x 10.1 x 1.7 in 17.3 x 10.1 x 1.7 in 17.3 x 10.1 x 1.7 in		SSH/SSL	•	•	•	
	DIMENSIONS	(W x D x H)				
		Weight	3.61 kg / 7.95 lb	4.01 kg / 8.85 lb	4.06 kg / 8.95 lb	

Gigabit Edge Switches



8000GS Series

The Allied Telesis 8000GS Series of high-performance Gigabit Ethernet stackable switches provides high performance Layer 2 switching in an affordable, fixed-configuration platform. This Series offers 24 10/100/1000T, PoE and non-PoE versions, as well as a 48-port 10/100/1000T model. All models support four combo IGbps SFP slots and two integrated stacking connectors that deliver a total of 20Gbps stacking bandwidth. The stacking capability integrated into this platform is configured as a resilient ring topology designed to provide high reliability and simplified management for higher port density applications. Support for jumbo Ethernet frames enables higher throughput of time-sensitive data.

	PoE	

AT-8000GS/24	AT-8000GS/24P0E	AT-8000GS/48
» Desktop » Rack mountable » Stackable	» Desktop » Rack mountable » Stackable	» Desktop » Rack mountable » Stackable
Layer 2	Layer 2	Layer 2
24	24	48
4 (combo) 100 or 1000Mbps	4 (combo) 100 or 1000Mbps	4 (combo) 100 or 1000Mbps
	•	
	24	
	9	
	140W	
8K	8K	8K
(6)	(6)	(6)
Fan	Fan	Fan
0°C to 40°C	0°C to 40°C	0°C to 40°C
•	•	•
•		
	•	
•	•	•
	•	
4	4	4
4096	4096	4096
•	•	
•	•	
44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in
3.15 kg / 6.94 lb	3.50 kg / 7.71 lb	3.38 kg / 7.45 lb

* Enhanced Stacking up to 24 units

Securing the Network Edge

Protocols such as IEEE 802.1x port-based authentication guarantee that only known users are connected to the network, ensuring the protection of your data. Unknown users who physically connect can be isolated to a predetermined part of your network, offering guests such benefits as Internet access while ensuring the integrity of your private network data.

Secure Management

Only authorized administrators can access the management interface of the 9000 and 8000GS Series. Security protocols such as SSL, SSH and SNMPv3 facilitate this protection of your network for both local or remote connections.

Access Control Lists (ACLs)

Access Control Lists enable inspection of incoming frames and classify them based on various criteria. Specific actions can then be applied to these frames in order to more effectively manage the network traffic. Typically ACLs are used as a security mechanism, either permitting or denying entry for frames in a group, but can also be applied to QoS.

Ideal Branch Office and Wiring Closet Connectivity

Powerful line rate performance makes this switch ideal for branch offices or the wiring closet of larger offices. The state-of-the-art QoS capability of these products ensures reliable delivery of advanced network services such as voice and video, while effectively controlling the continually increasing traffic needs found in today's networks.

Switches

Allied Telesis aggregation and core switches provide the backbone to any large network — reliable and resilient, with the capacity and throughput to handle today's networks. Redundant power supplies ensure high availability, while VCStack™ and link aggregation provide resilience, ensuring access switches continue to achieve connectivity even in the event of a major failure.

NEW



x600 Series

Allied Telesis x600 Series advanced Layer 3 switches offer an impressive range of features for the aggregation edge. They provide scalability, resiliency, security, high-performance and are easy to manage using AlliedWare Plus CLI and Web interfaces. The x600 Series provides hardware stacking up to four units using VCStack Virtual Chassis Stacking with a dedicated stacking bandwidth of 48Gbps. Features such as NAC, IEEE 802.1x port-based authentication, dynamic VLAN, Guest VLAN, MAC authentication, RADIUS client, RADIUS server, BPDU Guard, STP Root Guard, Denial of Service (DOS) attacking and ACLs provides advanced security to protect the network from the edge to the core.

				PoE plus				
		-			CHARLES SHOW MALE			
SUBCATEGORY	FEATURE	AT-x600-24Ts	AT-x600-24Ts-P0E	AT-x600-24Ts-P0E+	AT-x600-24Ts/XP	AT-x600-48Ts	AT-x600-48Ts/XP	
FORM FACTOR		» Desktop» Rack mountable» Stackable	» Desktop » Rack mountable » Stackable					
SWITCH FUNCTIONA	LITY	Advanced Layer 3	Advanced Layer 3					
	10/100/1000T	24	24	24	24	44	44	
PORTS AND	SFP	4 (combo) 1000Mbps	4 (combo) 1000Mbps	4 (combo) 1000Mbps	4 (combo) 1000Mbps	4 1000Mbps	4 1000Mbps	
FORM FACTOR SWITCH FUNCTIONALITY PORTS AND MEDIA SUPPORT MODULAR UPLINKS POWER SUPPLY POWER OVER ETHERNET SCALABILITY ENVIRONMENTAL MANAGEMENT NETWORK RESILIENCE QOS SECURITY ROUTING	Modular uplinks							
SWITCH FUNCTIONALIT PORTS AND MEDIA SUPPORT MODULAR UPLINKS POWER SUPPLY POWER OVER ETHERNET SCALABILITY ENVIRONMENTAL MANAGEMENT NETWORK RESILIENCE QoS SECURITY ROUTING	Fixed XFP (10GbE)				2		2	
	12 x 10/100/1000T							
MODULAR	12 x SFP (100 or 1000Mbps)							
UPLINKS	1 x XFP							
FORM FACTOR SWITCH FUNCTIONALITY PORTS AND MEDIA SUPPORT MODULAR UPLINKS POWER SUPPLY POWER OVER ETHERNET SCALABILITY ENVIRONMENTAL MANAGEMENT NETWORK RESILIENCE QOS SECURITY ROUTING	2 x XFP							
	PSU type	Fixed internal	Fixed internal					
	-48vDC PSU option							
POWER SUPPLY	Redundant PSU option							
OWER SUPPLY	Redundant PSU chassis (inc 1 PSU)	AT-RPS3204	AT-RPS3104	AT-RPS3104	AT-RPS3204	AT-RPS3204	AT-RPS3204	
	Additional redundant PSU	AT-PWR3202	AT-PWR3101	AT-PWR3101	AT-PWR3202	AT-PWR3202	AT-PWR3202	
	IEEE 802.3af		•	•				
POWER OVER	IEEE 802.3at			•				
ETHERNET	PoE-enabled ports		24	24				
	Max no. of full power ports		24	24				
	PoE power		370W	370W				
SCALABILITY	MAC address table size	16K	16K	16K	16K	16K	16K	
	Stacking	AT-STACKXG (4)	■ AT-STACKXG (4)	■ AT-STACKXG (4)	■ AT-STACKXG (4)	■ AT-STACKXG (4)	■ AT-STACKXG (4)	
ENVIRONMENTAL	Cooling	Fan	Fan	Fan	Fan	Fan	Fan	
	Temperature range	0°C to 40°C	0°C to 40°C					
	Web				-	_	•	
MANAGEMENT	CLI / Telnet / SNMP		-	•		•	•	
	IPv6		_	_	_	<u> </u>	_	
NETWORK	Spanning Tree							
RESILIENCE	Link aggregation (LACP) EPSR		-			-	-	
0-0	-	8	8	8	8	8	8	
ŲUS	IEEE 802.1p priority queues IEEE 802.1Q VLANs	4096	4096	4096	4096	4096	4096	
	RADIUS / IEEE 802.1x	4090	4090	4090	4090	4090	4090	
SECURITY	TACACS		_	-		_	_	
	SSH/SSL					•		
	DoS protection	- 1				_	-	
	·		-	-		-	_	
	RIPv1 and v2 / IPv4 IPv6					-	-	
ROUTING	OSPFv2 / VRRP	- :						
						-		
	ECMP		_	_		_	_	
DIMENSIONS	(W x D x H)	44 x 30.5 x 4.4 cm 17.3 x 12 x 1.73 in	44 x 40.8 x 4.4 cm 17.3 x 16.1 x 1.73 in	44 x 40.8 x 4.4 cm 17.3 x 16.1 x 1.73 in	44 x 30.5 x 4.4 cm 17.3 x 12 x 1.73 in	44 x 30.5 x 4.4 cm 17.3 x 12 x 1.73 in	44 x 30.5 x 4.4 cm 17.3 x 12 x 1.73 in	
	Weight	4.5 kg / 9.9 lb (unpackaged)	6.9 kg / 15.2 lb (unpackaged)	6.9 kg / 15.2 lb (unpackaged)	4.6 kg / 10.1 lb (unpackaged)	4.9 kg / 10.8 lb (unpackaged)	4.9 kg / 10.8 lb (unpackaged)	

Gigabit Aggregation/Core Switches



x900 Series

Allied Telesis x900 Series advanced Layer 3 switches utilize a highly modular design that allows growth in response to network demands. They provide a range of hot-swappable copper and fiber expansion modules (XEMs), from 10/100/1000Mbps to 10 Gigabit Ethernet. Dual redundant power supply units are hot-swappable. The AlliedWare Plus CLI and Web interfaces make management easy, and features such as policy-based QoS, extensive remarking capabilities, control plane traffic prioritization and bandwidth metering ensure wire-speed delivery of critical IPv4 and IPv6 traffic.

==		- Commune	T. M. Politz ment, man		_===	NEW
AT-9924T	AT-9924SP	AT-x900-12XT/S	AT-x900-24XT	AT-x900-24XS	SwitchBlade x908	SwitchBlade x3112
» Desktop » Rack mountable	» Desktop » Rack mountable	» Desktop » Rack mountable » Stackable	» Desktop» Rack mountable» Stackable	» Desktop» Rack mountable» Stackable	» Rack mountable» Stackable	See page 26
Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	for the new
24		12	24			SwitchBlade® x3112
4 (combo) 1000Mbps	24 100 or 1000Mbps	12 (combo) 100 or 1000Mbps 1	2	24 100 or 1000Mbps 2	8	Access Edge Chassis Switch
		AT-XEM-12T	AT-XEM-12T	AT-XEM-12T	AT-XEM-12T	
		AT-XEM-12S	AT-XEM-12S	AT-XEM-12S	AT-XEM-12S	
		AT-XEM-1XP	AT-XEM-1XP	AT-XEM-1XP	AT-XEM-1XP	
		AT-XEM-2XP	AT-XEM-2XP	AT-XEM-2XP	AT-XEM-2XP	TO AN ADDRESS OF THE PARTY OF T
Hot-swap internal	Hot-swap internal	Fixed internal	Hot-swap internal	Hot-swap internal	Hot-swap internal	0 AMMALY
-	_					E-8000000
	•		•	•	•	San
						S 0 1
AT-PWR01	AT-PWR01		AT-PWR01	AT-PWR01	AT-PWR05	222:
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						THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN CO
						2000
						○ <u>李子子</u>
						50 H Harry
16K	16K	16K	16K	16K	16K	300 Jan 19 19 19 19 19 19 19 19 19 19 19 19 19
		AT-XEM-STK (2)	■ AT-XEM-STK (2)	■ AT-XEM-STK (2)	Rear stacking (2)	100 to 10
Hot-swappable fan module	Hot-swappable fan module	Fan	Hot-swappable fan module	Hot-swappable fan module	Hot-swappable fan module	- BURGES
0°C to 50°C	0°C to 50°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	en let nite hit
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4096	4096	4096	4096	4096	4096	AND AREA STORY
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-	•	•	•	•	•	0
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•				•		
•		•	•		•	
	•			•	•	
44.5 x 44 x 4.4 cm 17.5 x 17.3 x 1.73 in	44.5 x 44 x 4.4 cm 17.5 x 17.3 x 1.73 in	44 x 35 x 4.4 cm 17.3 x 13.8 x 1.73 in	44 x 44 x 4.4 cm 17.3 x 17.3 x 1.73 in	44 x 44 x 4.4 cm 17.3 x 17.3 x 1.73 in	44 x 45.6 x 13.2 cm 17.3 x 18 x 5.2 in	
6.8 kg / 15 lb	6.8 kg / 15 lb	5.3 kg / 11.6 lb	7.3 kg / 16.09 lb (with 1 PSU)	7.3 kg / 16.09 lb (with 1 PSU)	14.32 kg / 31.57 lb (no PSU)	

Switches

Allied Telesis offers versatile, highly resilient 10 Gigabit connections for the most advanced and demanding of enterprise, service provider and municipal networks. Capabilities include carrier-grade modular and chassis-based switching and access solutions that provide Ethernet Protected Switched Rings with sub 50ms failover for mission-critical services.

Ethernet Protected Switched Rings (EPSR)

Putting a ring of Ethernet switches at the core of a network is a simple way to increase the network's resilience — such a network is no longer susceptible to a single point of failure. Traditionally, Spanning Tree-based technologies are used to protect rings, but they are relatively slow to recover from link failure. This can create problems for applications that have strict loss requirements, such as voice and video traffic, where the speed of recovery is highly significant. EPSR provides high-speed (<50ms) reconfigurations in the event of a failure, ensuring no noticeable loss of service in these types of installations.

Dual Core Networking

Traditional core switches provide resilience by having one chassis actively running, while a second sits in standby. Users therefore pay for two chassis, but only achieve the throughput and performance of a single chassis. Allied Telesis switches with VCStack Virtual Chassis Stacking allow both core switches to pass traffic actively, with one also being the backup in the event of a failure. Thus for the majority of the time, users benefit from twice the performance of a traditional core network.

			ammunin mu bee!	A Lamine	La homenum mm	C. Samuel
SUBCATEGORY	FEATURE	AT-x600-24Ts/XP	AT-x600-48Ts/XP	AT-x900-12XT/S	AT-x900-24XT	AT-x900-24XS
FORM FACTOR		» Desktop» Rack mountable» Stackable	» Desktop » Rack mountable » Stackable	» Desktop » Rack mountable » Stackable	» Desktop» Rack mountable» Stackable	» Desktop » Rack mountable » Stackable
SWITCH FUNCTIONALITY	•	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3
	10/100/1000T	24	44	12	24	
PORTS AND	SFP	4 (combo) 1000Mbps	4 1000Mbps	12 (combo) 100 or 1000Mbps		24 100 or 1000Mbps
MEDIA SUPPORT	Modular uplinks			1	2	2
	Fixed XFP (10GbE)	2	2			
	12 x 10/100/1000T			AT-XEM-12T	AT-XEM-12T	AT-XEM-12T
	12 x SFP			AT-XEM-12S	AT-XEM-12S	AT-XEM-12S
MODULAR UPLINKS	1 x XFP			AT-XEM-1XP	AT-XEM-1XP	AT-XEM-1XP
	2 x XFP			AT-XEM-2XP	AT-XEM-2XP	AT-XEM-2XP
	PSU type	Fixed internal	Fixed internal	Fixed internal	Hot-swap internal	Hot-swap internal
POWER SUPPLY	-48vDC PSU option				•	
	Redundant PSU support		•		•	
	Redundant PSU chassis (inc 1 PSU)	AT-RPS3204	AT-RPS3204			
	Additional redundant PSU	AT-PWR3202	AT-PWR3202		AT-PWR01	AT-PWR01
SCALABILITY	MAC address table size	16K	16K	16K	16K	16K
	Stacking	■ AT-STACKXG (4)	■ AT-STACKXG (4)	■ AT-XEM-STK (2)	■ AT-XEM-STK (2)	AT-XEM-STK (2)
ENVIRONMENTAL	Cooling	Fan	Fan	Fan	Hot-swappable fan module	Hot-swappable fan module
	Web	•	•	•		•
MANAGEMENT	CLI / Telnet / SNMP					
	Spanning Tree	•	•	•	•	
NETWORK RESILIENCE	Link aggregation (LACP)					
	EPSR					-
QoS	IEEE 802.1p priority queues	8	8	8	8	8
	IEEE 802.1Q VLANs	4096	4096	4096	4096	4096
	RADIUS	•	•	•	.	•
SECURITY	SSH/SSL		•			-
	IEEE 802.1x	•				-
	DoS protection		•			
	RIPv1 and v2					-
	IPv4					
	IPv6					
ROUTING	OSPFv2	-	_	•	•	
	VRRP					
	ECMP	_	_	•	•	
DIMENSIONS	(W x D x H)	44 x 30.5 x 4.4 cm 17.3 x 12 x 1.73 in	44 x 30.5 x 4.4 cm 17.3 x 12 x 1.73 in	44 x 35 x 4.4 cm 17.3 x 13.8 x 1.73 in	44 x 44 x 4.4 cm 17.5 x 17.3 x 1.73 in	44 x 44 x 4.4 cm 17.5 x 17.3 x 1.73 in
IMENSIONS	Weight	4.6 kg / 10.1 lb (unpackaged)	4.9 kg / 10.8 lb (unpackaged)	5.3 kg / 11.6 lb	7.3 kg / 16.09 lb (with 1 PSU)	7.3 kg / 16.09 lb (with 1 PSU)

10 Gigabit Switches

Switch Blade ×908



The SwitchBlade x908 industry-leading modular switch incorporates eight high-speed 60Gbps expansion bays, delivering a new generation of high performance switches. The SwitchBlade x908 provides scalable and versatile switching solutions for today's enterprise networks. The highly configurable SwitchBlade x908 3RU modular switch combines an advanced IPv4 Layer 3 feature set and comprehensive IPv6 routing features, with wirespeed IPv6 hardware capability, future proofing the network. Featuring dual hot-swap PSUs, an advanced QoS feature set, multicasting

support, and LAN resiliency support, the SwitchBlade x908 also provides service provider capabilities such as a large Layer 3 route table and EPSR support. Stacking between

two units is supported via fixed stacking connectors on the rear of the chassis, providing 160Gbps of stacking bandwidth. The SwitchBlade x908 incorporates the AlliedWare Plus operating system, using an industry-standard CLI, facilitating effortless manageability.



Swite	chBlade x908	SwitchBlade x3112
» Stack	mountable table anced Layer 3	See page 26 for the new SwitchBlade x3112 Access Edge Chassis Switch
A A	T-XEM-12T T-XEM-12S T-XEM-1XP T-XEM-2XP -swap internal	
	•	- 444
	AT-PWR05	0 227
	16K	Taken To
■ Re	ear stacking (2)	1 222
	ppable fan module	· 1999
	•	- A-100 -
		00 00 00
	•	Taxable 1110
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	4096	Tourse.
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	-	100 miles
		17 00 17
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		A last la
		-
	45.6 x 13.2 cm	
	3 x 18 x 5.2 in	
14.32 Kg	/ 31.57 lb (no PSU)	

Implementing the Standard

The IEEE standard allows multiple implementations for use over different types of fiber optic cables. In the IOGBASE-X media types, an 'S' stands for the 850 nanometer (nm) wavelength of fiber optic operation, an 'L' stands for I310 nm, and an 'E' stands for I550 nm. Allied Telesis XFPs are as follows:

SFP	Standard	Wavelength	Cable Type
AT-XPSR	10GBase-SR	850nm	Multi-mode fiber (MMF)
AT-XPLR	10GBase-LR	1310nm	Single-mode fiber (SMF)
AT-XPER40	10GBase-ER	1550nm	Single-mode fiber (SMF)
AT-XPER80	10GBase-ER	1550nm	Single-mode fiber (SMF)

Allied Telesis XEM Modules

All of these modules provide non-blocking performance and are compatible with the $\times 900$ Series and the SwitchBlade $\times 908$.



» AT-XEM-STK High Speed Stacking Module



» AT-XEM-12S 12 x SFP-based Uplink Module

AlliedWare P



» AT-XEM-2XP 2 x 10Gbps XFP-based Uplink Module



» AT-XEM-12T 12 x 10/100/1000Tbased Uplink Module



» AT-XEM-IXP I x 10Gbps XFP-based Uplink Module

NEW FOR 2011

The SwitchBlade x3112 is a 12-Slot Access Edge Chassis Switch primarily targeted for service provider fiber access networks, and equally at home at the enterprise network edge and the data center. The switch was designed to deliver high availability, maximum performance with wirespeed non-blocking backplane performance, and high port count.

FTTx Service Provider Applications

The SwitchBlade x3112 is a versatile carrier-class FTTx platform for delivering Gigabit services to residential, Multi-Dwelling Unit (MDU) and business customers in the last mile. It features redundant power supplies, controllers and WAN ports to ensure reliability standards in carrier networks are met, along with powerful sub-50 millisecond failover protection using EPSR ring for link level protection. The AT-SBx3112 is available with either AC or DC power options.

As a FTTx platform, the SwitchBlade x3112 can support a maximum of 240 ports per chassis using 24-port 100/1000Mbps SFP-based line cards (AT-SBx31GS24). It can also support redundant 10G uplinks using 4-port XFP based line cards with EPSR (AT-SBx31XZ4). The SwitchBlade x3112 can act as an aggregation hub for last mile FTTx applications using 10G line cards. It features 40 Gigabit non-blocking throughput to each slot, thus providing a maximum level of performance for FTTx services, both 1G and 10G. Coupled with ultra-fast 200G switch controllers, FTTx services can operate at wire speed connectivity.

An evolution of the Allied Telesis tried and tested iMAP carrier-grade platform, the SwitchBlade x3112 delivers true IP Triple Play services such as IPTV, VoIP. Tiered High Speed Internet Access (HSIA) and other cloud-based services such as Over-the-Top Video, remote storage and backup, and cloud computing.

Raw performance combined with high availability also allows it to be deployed as both end-of-row and aggregation in data center applications, and in campus applications as the ultimate in network edge connectivity.

High-Availability Architecture

The SwitchBlade x3112 is designed to deliver 99.999% reliability, while offering high availability with sub-millisecond hitless failover for mission-critical applications where uptime is essential such as data centers, hospitality, government, and financial institutions.

Dual Redundant Management/Fabric Modules inter-connecting through redundant paths to the line cards over a passive backplane, and Dual Redundant Power Options, ensures maximum system up-time. Power is delivered via up to two System Power Supplies, and two Power-over-Ethernet Supplies to ensure continual operation.

Power over Ethernet Plus (PoE+)

The SwitchBlade x3112 supports IEEE 802.3at PoE+ (30W) to enable customers to future-proof their network. PoE+ provides greater power for applications such as IP surveillance cameras supporting pan, tilt and zoom, IP videophones, RFID readers, point-of sale or wireless access points.

Secure Management

Only authorized administrators can access the management interface of the SwitchBlade x3112. Protocols such as SSH provide an encrypted interface for both local and remote connections, with out-of-band management achieved though a dedicated gigabit port if required.

SUBCATEGORY	FEATURE	AT-SBx3112	AT-SBx3112-96P0E+	AT-SBx3112-8XR
PRODUCT		Chassis with Fan Tray	Chassis Bundle	Chassis Bundle
SWITCH FUNCTIONALITY		Layer 2+	Layer 2+	Layer 2+
	Controller Fabric Card (CFC)		1 x AT-SBx31CFC	2 x AT-SBx31CFC
	24 x 10/100/1000T PoE+		4 x AT-SBx31GP24	
ACCESSORIES	4 x XFP			2 x AT-SBx31XZ4
ACCESSURIES	System Power Supply		1 x AT-SBx3161	2 x AT-SBx3161
	PoE Power Supply		1 x AT-SBx3165	
	Fan Tray		1 x AT-SBx31FAN	1 x AT-SBx31FAN
POWER SUPPLY	PSU type	Hot-swap internal	Hot-swap internal	Hot-swap internal
	-48vDC PSU option	Available second half 2011	Available second half 2011	Available second half 2011
	IEEE 802.3at			•
POWER OVER ETHERNET	Max number of PoE-enabled ports		96	
	Max number of IEEE 802.3at ports		80	
	Mode		A	
	Cooling	Fan Tray	Fan Tray	Fan Tray
ENVIRONMENTAL	Temperature range	0°C to 40°C	0°C to 40°C	0°C to 40°C
MANAGEMENT	CLI / Telnet / SNMP			•
	Spanning Tree			
NETWORK RESILIENCE	Link aggregation (LACP)		=	•
	EPSR		•	
QoS	IEEE 802.1p priority queues	8	8	8
	IEEE 802.1Q VLANs	4K	4K	4K
SECURITY	VLAN Double Tagging (Q-in-Q)		-	
	RADIUS/TACACS+/SSH		•	
	(My Dy II)	48.03 x 38.79 x 31.01 cm	48.03 x 38.79 x 31.01 cm	48.03 x 38.79 x 31.01 cm
DIMENSIONS	(W x D x H)	18.9 x 12.2 x 4.8 in	18.9 x 12.2 x 4.8 in	18.9 x 12.2 x 4.8 in
	Weight	17.77 kg / 39.10 lb	30.4 kg / 67.02 lb	28.91 kg / 63.6 lb

Securing the Network Edge

To ensure the protection of the data, it is important to control access to the network. Protocols such as IEEE 802.1x authentication guarantee that only known users are connected to the network. Unknown users who physically connect can be isolated to a predetermined part of the network, offering guests such benefits as Internet access while ensuring the integrity of private network data.

Secure Differentiation

QoS schemes for SwitchBlade x3112 access solutions are designed to ensure that application performance and availability are not impacted with network growth. Features such as IEEE 802.1p/Q enable tiered data services for residential, business and enterprise users to prioritize real-time applications such as IP phones and IP cameras.

Environmentally Friendly

In keeping with our commitment to environmentally friendly processes and products, the SwitchBlade x3112 is designed to reduce power consumption and minimize hazardous waste. Features include the use of highefficiency power supplies and low-power chip sets. The switches also include an eco-friendly button on the front panel allowing conservation of additional power by turning off all diagnostic LED indicators when they are not required.

SwitchBlade x3112 Modules

AT-SBx3112

Rackmount 12-slot Chassis with Fan Tray

AT-SBx31CFC

Controller Fabric Card

AT-SBx31GP24 POE plus

24 port 10/100/1000T PoE Ethernet Line Card

AT-SBx31XZ4

4 port 10GE XFP Ethernet Line Card

AT-SBx31GS24

24 port SFP Ethernet Line Card

AT-SBx3161

1200W AC System Power Supply

AT-SBx3165

1200W AC PoE Power Supply

AT-SBx31FAN

Contains 4 Fans, Temperature Sensors and Controller Board

Accessories

Small Form Pluggat	ole Optics	Supported Platforms
AT-XPSR	XFP, MMF, 10Gbps, 300 m, 850 nm, LC	AT-SBx31XZ4
AT-XPLR	XFP, SMF, 10Gbps, 10 km, 1310 nm, LC	AT-SBx31XZ4
AT-XPER40	XFP, SMF, 10Gbps, 40 km, 1550 nm, LC	AT-SBx31XZ4
AT-XPER80	XFP, SMF, 10Gbps, 80 km, 1550 nm, LC	AT-SBx31XZ4
AT-SPSX	SFP, MMF, 1000Mbps, 220 / 500 m, 850 nm, LC	AT-SBx31GS24
AT-SPEX	SFP, MMF, 1000Mbps, 2 km, 1310 nm, LC	AT-SBx31GS24
AT-SPLX10	SFP, SMF, 1000Mbps, 10 km, 1310 nm, LC	AT-SBx31GS24
AT-SPLX40	SFP, SMF, 1000Mbps, 40 km, 1310 nm, LC	AT-SBx31GS24
AT-SPZX80	SFP, SMF, 1000Mbps, 80 km, 1550 nm, LC	AT-SBx31GS24
AT-SPBD10-13	SFP, SMF, 1000Mbps, 10 km, 1310/1490 nm, LC-BiDi	AT-SBx31GS24
AT-SPBD10-14	SFP, SMF, 1000Mbps, 10 km, 1490/1310 nm, LC-BiDi	AT-SBx31GS24
AT-SPFX/2	SFP, MMF, 100Mbps, 2 km, 1310 nm, LC	AT-SBx31GS24
AT-SPFXBD-LC-13	SFP, SMF, 100Mbps, 10 km, 1310/1510 nm, LC-BiDi	AT-SBx31GS24
AT-SPFXBD-LC-15	SFP, SMF, 100Mbps, 10 km, 1510/1310 nm, LC-BiDi	AT-SBx31GS24
AT-SPFX/15	SFP, SMF, 100Mbps, 15 km, 1310 nm, LC	AT-SBx31GS24

Optical Modules

Learn more about Allied Telesis pluggable optical modules on page 41.





iMAP and iMG

alliedtelesis.com/imapimg

IP is driving new services and innovating new applications. Converged services and real-time communications are changing lifestyles, along with the type of network to deliver them. Service providers face the challenge of re-architecting the access network to meet today's IP-driven broadband service such as IP Triple Play, and at the same time try to anticipate the requirements for the "next new service." Selecting the best platform and technology becomes critical to protecting investments as well as being able to respond competitively to new service needs.

The Allied Telesis iMAP integrated Multiservice Access Platform and iMG intelligent Multiservice Gateway families are the benchmark of true next-generation IP access solutions, delivering all of today's critical broadband service needs and designed to evolve as new service demands change.









		imap Chassis									
SUBCATEGORY FEATURE		MiniMAP 9100	MAP 9100 iMAP 9700			iMAP 9810					
MODEL NUMBER		AT-TN-9101 / 2 / 3		AT-TN-250G		AT-TN-253G					
PHYSICAL HEIGHT		1RU		9RU			3RU				
Single AC		AT-TN-9102	Requ	ires additional AT-TN-	R113	Requ	uires additional AT-TN-	R113			
POWER SUPPLY	Dual AC (option)	AT-TN-9103	Requires additional AT-TN-R113 and AT-TN-R114			Requires add	itional AT-TN-R113 an	d AT-TN-R114			
Dual DC		AT-TN-9101	Standard								
CONTROLLER Primary fabric controller CARDS Optional redundant controller		CFC12 (AT-TN-408)	CFC24 (AT-TN-401)	CFC24 (AT-TN-401) CFC56 (AT-TN-407)		CFC100 (AT-TN-409)	CFC100 (AT-TN-409)	CFC100 (AT-TN-409)			
			CFC24 (AT-TN-401)	CFC56 (AT-TN-407)	CFC56 (AT-TN-407)	CFC100 (AT-TN-409)	CFC100 (AT-TN-409)	CFC100 (AT-TN-409)			
	Slots	None - transport on CFC12 fabric	2	2	2	2	2	2			
NETWORK	Model	CFC12 fabric (AT-TN-408)	GE3 (AT-TN-301)	XE1 (AT-TN-308)	XE6 (AT-TN-309)	GE3 (AT-TN-301)	XE1 (AT-TN-308)	XE6 (AT-TN-309)			
TRANSPORT	Uplink ports	4 x SFP + 2 x 10/100/1000T	3 x SFP	1 x XFP	6 x SFP+	3 x SFP	1 x XFP	6 x SFP+			
	Uplink speed	Gigabit	Gigabit	10GbE	10GbE	Gigabit	10GbE	10GbE			
BLADE SLOTS		3	17 (16 with dual-fabric cards)		15 (when dual XE6 installed, 14 with dual-fabric cards)	8		6 (when dual XE6 installed)			
	xDSL	72	41	408		192		144			
	POTS	72	41	08	360	192		144			
	T1/E1	24	1:	36 120		64		48			
	Dual fiber (100Mbps)	30	11	70	150	80		60			
MAX PORTS	BiDi fiber (100Mbps)	60	3-	40	300	160		120			
	BiDi fiber (1000Mbps)	72	41	408		192		144			
	10/100TX (copper)	30	1	170		80		60			
	Gigabit	24	1:	36	120	6	64	48			
	GEPON	192	10	188	960	512		384			
TEMPERATURE RANGE		-40°C to 65°C (AT-TN-9102/3 AC version: 0°C to 55°C)	-40°C to 65°C			-40°C to 65°C					
	(W x D x H)	(AT-TN-9101) DC power 48.3 x 30 x 4.45 cm 19 x 11.8 x 1.75 in	48.3 x 30 x 40 cm 19 x 11.8 x 15.75 in		48.3 x 30 x 40 cm		48.3 x 30.5 x 13.3 cm				
DIMENSIONS	(0.00.11)	(AT-TN-9102/3) AC power 48.3 x 51.3 x 4.45 cm 19 x 20.2 x 1.75 in					19 x 12 x 5.25 in				
	Weight	4 kg / 8.8 lb (DC chassis) 6.7 kg / 14.75 lb (AC chassis)	15 kg / 33 lb			7 kg / 15.4 lb					



		IIMAP BLADES											
SUBCATEGORY	FEATURE	FE10	POTS24	POTS24C	ADSL24A	ADSL24AE	PAC24	PAC24EU	PAC24C	ADSL24SA	ADSL48A	ADSL24B	
PART NUMBER		AT-TN-102	AT-TN-113	AT-TN-143	AT-TN-121	AT-TN-140	AT-TN-123	AT-TN-136	AT-TN-145	AT-TN-129	AT-TN-131	AT-TN-124	
	10/100TX	10											
	POTS		24	24			24	24					
	ADSL splitter								24	24			
	ADSL (Annex A)				24	24	24	24	24	24	48		
COPPER	ADSL (Annex B)											24	
OOI I LII	G.SHDSL												
	VDSL2 (Annex A)												
	VDSL2 (Annex B)												
	T1/E1 (circuit emulation)												
	T1/E1 (data transport)												
	100Mbps (2 fiber), SMF												
	100Mbps BiDi, SMF												
FIBER	100/1000Mbps BiDi, SMF												
	SFP (1000Mbps)												
	GEPON												
PHYSICAL	Single/double width blade	Single	Single	Single	Single	Single	Double	Double	Double	Double	Double	Single	
SALES REGION			US only				US only	EU only	US only	US only		EU only	

INTEGRATED MULTISERVICE ACCESS PLATFORM

As the world's communications systems move to an all IP and Ethernet access network with IP/MPLS core, Allied Telesis' iMAP integrated Multiservice Access Platform represents the first and only true IP access platform designed for this purpose. Its unique carrier-grade IP/ Ethernet capabilities are suitable for any provider building an IP access network now. Industry-leading capabilities position the iMAP as the access network for alternative and emerging carriers, Independent Operating Companies (IOCs), PTTs, ILECs, ISPs, public utilities and private organizations such as hospitals, hotels and Multi-Tenant/Multi-Dwelling Units (MTU/ MDU).

One Access Platform, Any Service

The iMAP product family is designed to support IP Triple Play and video services using Ethernet technology. With redundant Gigabit Ethernet connections to each line card from the control modules, there is ample bandwidth and throughput for all current and future services and access technologies. A common control and fabric enables IOGbE backplane connectivity, ensuring future capacity and performance needs are addressed without ever requiring a forklift upgrade.

Multiple Services, Diversified and Increased Revenues

In addition to the traditional and enhanced ADSL/ ADSL2+ and VDSL2, the iMAP provides the capability to offer revenue-generating residential and business services such as FTTx, TI/EI, G.SHDSL and POTS—all from the same platform. With features like Ethernet Protection Switched Rings (EPSR), iMAPs can be networked together with full redundancy and sub-50ms switchover times, ensuring carrier-grade 99.999% availability and maximum service uptime.









			imap controller cards							
SUBCATEGORY	FEATURE	CFC12	CFC24	CFC56	CFC100					
PART NUMBER		AT-TN-408	AT-TN-401	AT-TN-407	AT-TN-409					
	MiniMAP 9100									
CHASSIS	iMAP 9400									
COMPATIBLE	iMAP 9700		•	•						
	iMAP 9810									
	Switching fabric	12Gbps	24Gbps	56Gbps	100Gbps					
PERFORMANCE	EPSR									
PERFURIMANUE	VLANs per port	4095	4095	4095	4095					
	Per VLAN rate limiting	•								
UPLINKS	SFP (1000Mbps)	4								
UPLINKS	10/100/1000T	2								
SECURITY	Upstream forwarding only									
SECURITY	ACL support									
QoS	Priority queues	8	8	8	8					
Ųυδ	Priority scheduling	•								



iMAP and iMG

RS232 RJ-45 connector

SNMPv1, v2 and v3

Telnet, Web, GUI, CLI Remote software upgrade Fiber outlet kit AT-iMG001

Battery backup AT-iMG008G Outdoor case AT-EN646MOD

8 position mini DIN connector IEEE 802.1p priority queues

IEEE 802.1Q VLANs management

CONSOLE INTERFACE

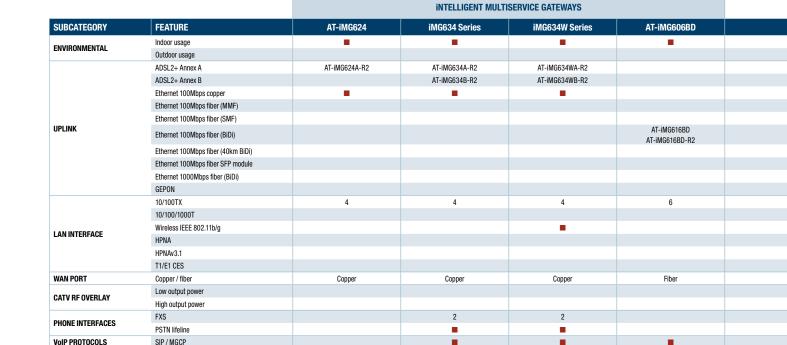
MANAGEMENT

ACCESSORY AVAILABLE

Oos

The rapid changes from broadcast to on-demand video and from surfing the Web to content sharing have not only increased demands for bandwidth, but created greater needs to manage converged IP services. If a service provider is to capitalize on the revenue opportunities derived from multimedia services and satisfy consumer needs, an intelligent home gateway approach becomes essential. Moving from a "dumb pipe" to a service-oriented connection requires having both management and functionality at both the access side and terminal side. Whether a single-family home or MDU, with the home gateway located outdoors or within the residence, service providers need management, control and provisioning capabilities. Allied Telesis iMG products for DSL, Ethernet and fiber applications are designed as extensions of our access platform, with unified management, functionality and features.

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32 | Allied Telesis Product Catalog alliedtelesis.com

Allied Telesis intelligent Multiservice
Gateway (iMG) CPE products provide a
smarter, more feature-rich and flexible
approach to delivering subscriber services,
and are critical to a service provider
wanting to deliver reliable and high-quality
revenue services. The iMG family of fullfeatured indoor and outdoor gateways
support xDSL and fiber (FTTH) options,
all designed with the features, management
and IP functionality needed to deliver the
"connected home." As the name implies,
intelligent Multiservice Gateway products
are full-featured products for delivering

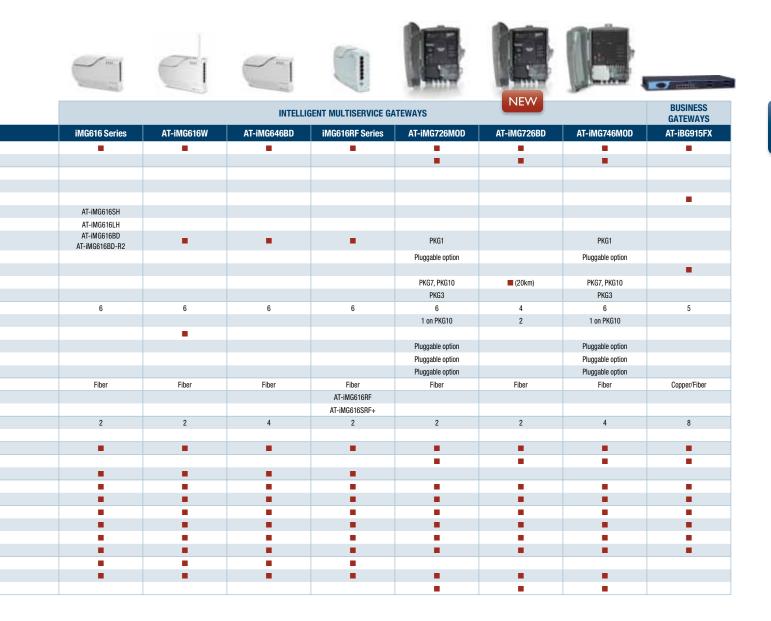
multimedia services such as broadcast and streaming IP video, Internet data and VoIP from a single subscriber line to multiple appliances in the home.

Feature and functionality between the iMAP access family and iMG home gateway family are intelligently integrated, along with AlliedView™ NMS for end-to-end management and diagnostics. This ensures every service is manageable all the way to the subscriber, eliminating the "holes" often caused by using "dumb" devices that merely terminate subscriber

lines. Consequently, less time is spent on provisioning, and unnecessary truck rolls during service life are reduced — leading to lower OPEX and greater customer satisfaction.

AlliedView NMS

Allied Telesis network management software tools can help you visualize and plan for network growth while maintaining the health and performance of your network. See page 61.



Media Converters

alliedtelesis.com/mediaconverters

Allied Telesis media converters extend network distances by adding fiber and VDSL (via coax and telephone-grade twisted pair) only where it is needed. This enables the addition of new devices without replacing costly cable, keeping pace with changing technology and integrating high-bandwidth devices into the network without changing the entire network infrastructure. From standalone units to chassis-based blades, Allied Telesis media converters are highly configurable to meet your needs.

Allied Telesis offers three chassis-based systems:

- » The AT-MCR12 is a 12-slot chassis, which houses up to 12 of our best-selling media converters.
- » The AT-CV5001 is a managed 18-slot chassis fitting up to 18 blade-type media converters. This is our most configurable solution.
- » The AT-MCF2x00 is a two- or four-port managed chassis system. The two-port system can be configured to have up to 24 conversions in a 1 rack unit (RU) chassis. The four-port system can have up to 48 conversions in a 3 RU high system. Both models are stackable to add multiple units together as one IP address.

With so many products and configurations, it's easy to see why Allied Telesis is a worldwide leader in fiber to copper Ethernet media conversion.



Media Converters



Allied Telesis media converters enable the connection of disparate cabling types in networks where many cabling types exist. Network segments may also operate at different speeds and media converters can be used to convert between one speed and another. Typically, media converters are used to connect copper and fiber-optic cabling that coexist in a network. Converters exist in a variety of standalone, multi-port and modular forms. These different physical forms address the need for different applications and conversion densities.

MissingLink™

The Allied Telesis MissingLink feature enables a media converter to pass the link status of their connections and thereby trigger corrective action when a problem on a link is detected.

For example, if the twisted pair cable to the I0/I00TX port on an Allied Telesis media converter were to fail, the unit would respond by dropping the link on the I00FX fiber optic port.

Most managed devices, such as switches and routers, can be configured to take a specific recovery action in the event of the loss of connection on a port. In some cases, the unit can be configured to seek a redundant path to a disconnected endnode or send out a trap to a network management station, and so alert the network administrator of the problem.

Smart MissingLink™

The Allied Telesis Smart MissingLink feature has identical operation to MissingLink, with the added functionality that the media converter will also flash the Link LED of the port with the link failure. This aids with diagnostics, allowing network administrators to more quickly locate, and rectify the fault.

Redundancy

In many cases, Allied Telesis media converters are critical components in a network carrying data between sites over long distances. It is imperative that all efforts are taken to ensure reliability of the network, and thus a network design with redundancy is mandatory. The components most likely to fail are the power supplies. The majority of Allied Telesis media converters can be deployed with hot-swappable, hot-removable power supplies to ensure maximum uptime.

Standalone Media Converters

THE PERSON NAMED OF THE PE NEW NEW ETHERNET AND FAST ETHERNET STANDALONE MEDIA CONVERTERS AT-MC605 AT-MC606 AT-FS201 AT-PC232/POE AT-FS232/1 AT-FS232/2 AT-FS238A/1 AT-FS238B/1 AT-FS202 AT-FS232 100TX 100TX 10/100TX 10/100TX 10/100TX 10/100TX 10/100TX 10/100TX 10/100TX 10/100TX RJ-11 BNC 100FX (ST) 100FX (SC) VDSL VDSL MME MMF MMF MMF SMF SMF BiDi - SMF RiDi - SMF 100FX 100FX 100FX 100FX 100FX 100FX 100FX 100FX 1550 nm 1310 nm 1550 nm 1310 nm 1310 nm 1310 nm 1310 nm 2.1 km 3 km 2 km 2 km 2 km 2 km 15 km 40 km 15 km 15 km П 1532 bytes 1532 bytes 1916 bytes 1532 bytes 1532 bytes 1532 bytes 1532 bytes 1532 bytes 7 13 1 1 15.4W External External Internal External External External External External

15.5 x 13.1 x 4 cm

6.1 x 5.16 x 1.58 in

.75 kg / 1.65 lb

10 x 9.5 x 2.5 cm

3.93 x 3.74 x 1 in

.3 kg / .66 lb

10 x 9.5 x 2.5 cm

3.93 x 3.74 x 1 in

.3 kg / .66 lb

10 x 9.5 x 2.5 cm

3.93 x 3.74 x 1 in

.3 kg / .66 lb

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3.93 x 3.74 x 1 in

.3 kg / .66 lb

10 x 9.5 x 2.5 cm

3.93 x 3.74 x 1 in

.3 kg / .66 lb

		MW as W.	The Park	A THE PERSON NAMED IN		DE WAR
			GIGABIT S	STANDALONE MEDIA CO	NVERTERS	
SUBCATEGORY	FEATURE	AT-MC1004	AT-MC1008/GB	AT-MC1008/SP	AT-GS2002/SP	AT-PC2002P0E
	Port 1	1000T	1000T	1000T	10/100/1000T	10/100/1000T
PORTS	Port 2	1000SX	GBIC	SFP	SFP	SFP 100 or 1000Mbps
	Fiber type	SC	SC*	LC*	LC*	LC*
IEEE STANDARD		1000SX	1000SX and LX	1000SX and LX	1000SX and LX	100FX and 1000X
Tx WAVELENGTH		850 nm	Depends on GBIC	Depends on SFP	Depends on SFP	Depends on SFP
Rx WAVELENGTH		850 nm	Depends on GBIC	Depends on SFP	Depends on SFP	Depends on SFP
MAX FIBER DISTANC	E	550 m	Depends on GBIC	Depends on SFP	Depends on SFP	Depends on SFP
	Rate and speed		•			
	MissingLink support	•	•			
FUNCTIONALITY	Smart MissingLink support			•		
	Max frame size	9KB	9KB	9KB	1536 bytes	1536 bytes
	Diagnostic LEDs	8	8	8	11	15
	IEEE 802.3af					•
POWER OVER	PoE-enabled ports					1
ETHERNET	Max no. of full power ports					1
	PoE power					15.4W
	PSU type	External	External	External	External	Internal
POWER SUPPLY	Multi-region			•		
FUWEN SUFFLI	Compatible with AT-MCR12 12-slot chassis					
	Compatible with AT-MCR1 1-slot chassis		•		•	
DIMENSIONS	(W x D x H)	10 x 9.5 x 2.5 cm 3.93 x 3.74 x 1 in	10 x 9.5 x 2.5 cm 3.93 x 3.74 x 1 in	10 x 9.5 x 2.5 cm 3.93 x 3.74 x 1 in	10 x 9.5 x 2.5 cm 3.93 x 3.74 x 1 in	15.5 x 13.1 x 4 cm 6.1 x 5.16 x 1.58 in
	Weight	.3 kg / .66 lb	.75 kg / 1.65 lb			

* Dependent on GBIC or SFP

Media Converters

Converteon

MANAGED MEDIA CONVERSION SYSTEM



The Converteon[™] family provides the next generation of managed media conversion. Expandable from a single unit to a modular 18-slot chassis, Converteon primarily provides Fast Ethernet and Gigabit rate media conversion. Support for IEEE 802.3ah Ethernet in the First Mile (EFM) makes Converteon ideal for both service providers and enterprise.

AT-CVI000

1-slot

Features

- » External power adapter
- » Silent, fanless design
- » Standalone or wallmount

AT-CV1203

2-slots

Features

- » External power adapters (one as standard)
- » Resilient power adapters (AT-CV1200PSU)
- » Supports dying gasp
- » Standalone or wallmount

AT-CV5001

18-slot Rack-mount Chassis

Features

- » Redundant power supply option
- » Optional Telnet and SNMP management (AT-CV5M02)
- » Optional redundant management with the addition of a second management module (AT-CV5M02)
- » Hot-swappable blades
- » Field serviceable power supplies and fans
- » Hot-swappable power supply modules (AT-CV5001AC-60 and AT-CV5001DC-80)
- » Resilient power supply modules (maximum of two)













			CONVERTEON MODULES							
SUBCATEGORY	FEATURE	AT-CM301	AT-CM302	AT-CM3K0S	AT-CM70S	AT-CV1KSS				
PORTS	Port 1	10/100TX	10/100TX	10/100/1000T	4 x T1/E1 1 x 10/100TX	SFP				
	Port 2	100FX (ST)	100FX (SC)	100 or 1000Mbps SFP	100Mbps SFP	SFP				
	Fiber type	SMF	MMF	Depends on SFP	Depends on SFP	Depends on SFP				
IEEE STANDARD		100FX	100FX	1000X		1000X				
Tx WAVELENGTH		1310 nm	1310 nm			1310 nm				
Rx WAVELENGTH		1310 nm	1310 nm			1310 nm				
MAX FIBER DISTANCE		2 km	2 km	Depends on SFP	Depends on SFP	Depends on SFP				
	Media type	•		•		-				
	Rate and speed	•	•							
	MissingLink support			•						
FUNCTIONALITY	Smart MissingLink support	•	•			•				
	Max frame size	10KB	10KB	10KB	1535 bytes	9KB				
	Diagnostic LEDs	9	9	9	23	7				
	Rate limiting			•						
OAM	Dying gasp support	•	•							
UAIVI	Management			•						
ECO-FRIENDLY		•	•	•						
DIMENSIONS	(W x D x H)	2.2 x 7.3 x 13 cm .85 x 2.89 x 5.1 in	2.2 x 7.3 x 13 cm .85 x 2.89 x 5.1 in	2.2 x 7.3 x 13 cm .85 x 2.89 x 5.1 in	4.4 x 7.3 x 13 cm 1.71 x 2.89 x 5.1 in	2.2 x 7.3 x 13 cm .85 x 2.89 x 5.1 in				
J2.10.01.0	Weight	.27 kg / .06 lb	.27 kg / .06 lb	.27 kg / .06 lb	.54 kg / 1.2 lb	.27 kg / .06 lb				

Chassis-Based Media Converters



AT-MCF2000

Multi-channel Manageable Media Converter

The AT-MCF2000 provides ultra highdensity, modular, multi-channel media conversion, with high availability and is ideal for fiber deployments. The units can be used unmanaged, or SNMP managed with the installation of the optional management module.

- » Small, I RU chassis
- » High-density conversion, with up to 24 Fast Ethernet channels
- » Hot-swappable media blades (maximum of two)
- » Hot-swappable management module (AT-MCF2000M)
- » Stack multiple chassis using stacking modules (AT-MCF2000S)
- » Hot-swappable power supply modules (AT-MCF2000AC)
- » Resilient power supply modules
- » Operates in unmanaged and managed modes

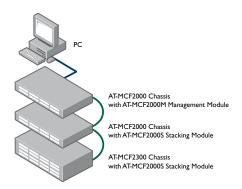


AT-MCF2300

4-slot Chassis

The AT-MCF2300 is an end-to-end managed media conversion system. The 3RU chassis can hold one to four multichannel blades, providing a maximum of 48 independent channels. An optional management module provides control of the chassis, while dual hot-swappable power modules ensure maximum system uptime.

- » 3 RU chassis
- » High-density conversion, with up to 48 Fast Ethernet channels
- » Hot-swappable media blades (maximum of four)
- » Hot-swappable management module (AT-MCF2000M)
- » Stack multiple chassis using stacking modules (AT-MCF2000S)
- Hot-swappable power supply modules (AT-MCF2300AC)
- Resilient power supply modules
- » Operates in unmanaged and managed modes



Stacking AT-MCF2xxx Chassis

The AT-MCF2000 and AT-MCF2300 can be stacked together to provide a single management entity for the complete stack of up to eight chassis or a maximum of 16 media blades. One chassis has a SNMP management module installed, and this interconnects with the other chassis that are all fitted with a stacking module.







		AT-MCF2x00 CHASSIS			
SUBCATEGORY	FEATURE	AT-MCF2012LC	AT-MCF2012LC/1	AT-MCF2032SP	
	Port 1	12 x 10/100TX	12 x 10/100TX	12 x 10/100/1000T	
PORTS	Port 2	12 x 100FX (LC)	12 x 100FX (LC)	12 x SFP	
	Fiber type	MMF	SMF	Depends on SFP	
IEEE STANDARD		100FX	100FX	100 or 1000X	
Tx WAVELENGTH		1310 nm	1310 nm	Depends on SFP	
Rx WAVELENGTH		1310 nm	1310 nm	Depends on SFP	
MAX FIBER DISTANCE		2 km	15 km	Depends on SFP	
	Media type			•	
	Rate and speed	•	•	•	
FUNCTIONALITY	MissingLink support			•	
FUNCTIONALITY	Smart MissingLink support	•	•	•	
	Max frame size	1632 bytes	1632 bytes	10KB	
	Diagnostic LEDs	-	•	•	
DIMENSIONS	(W x D x H) AT-MCF2000	46 x 44 x 4.4 cm 18 x 17.3 x 1.73 in	46 x 44 x 4.4 cm 18 x 17.3 x 1.73 in	46 x 44 x 4.4 cm 18 x 17.3 x 1.73 in	
	Weight	8.5 kg / 18.74 lb	8.5 kg / 18.74 lb	8.5 kg / 18.74 lb	

Media Converters

Mounting Hardware

Mounting Options

The majority of unmanaged AT-MC, AT-GS and AT-FS Series media converters can be mounted in a number of ways to suit the installation.

Desktop

All Allied Telesis media converters have the option to be fitted with rubber feet. These allow the product to be desktop mounted.

Wall

A standalone media converter or switch can be easily mounted on a wall, or under a table using the AT-WLMT.

» AT-WLMT Wall-mount fixture (supplied in packs of 10)



DIN Rail

The AT-DINRAILI is a universal bracket that allows a wide range of Allied Telesis media converters and media/rate converters to be mounted onto an industry-standard 35mm DIN Rail.

» AT-DINRAILI-010 Mounting kit (supplied in packs of 10)



Rack

All the larger multi-channel and modular media converters ship with 19" rack-mount kits. Smaller media converters may also be rack-mounted in a number of ways:

- » AT-MCRI Chassis This small chassis can be rack-mounted, and allows a single standalone media
 - converter, or two-port switch, to be powered by an internal power supply. It is available with either AC or -48vDC power supply.
- » AT-MCR12 Chassis
 This chassis allows up to 12
 standalone media converters
 or switches to be mounted in
 a chassis. The chassis supports
 optional redundant power supplies and can be AC or DC powered.
- » AT-TRAYI and AT-TRAY4 These simple trays allow from one to four standalone media converters to be mounted into a rack.

Universal Power Supply

For customers already using Allied Telesis media converters, replacement power adapters are available.

» AT-MCPWR Universal, high-efficiency external power adapter



Optical Modules Calliedtelesis.com/accessories

Allied Telesis pluggable optical modules provide fiber and copper connectivity for our full range of product lines. Optical modules allow one product the flexibility to expand by media type (copper or fiber), speed (Fast Ethernet, Gigabit or 10 Gigabit), and/or distance (220 m to 80 km). Allied Telesis offers GBIC, SFP, XFP and SFP+ pluggable modules which comply with industry-standard networking regulations. This compliance allows Allied Telesis modules to be used on any industry-standard networking equipment.



Optical Modules

SFP Series (SP)

The SP Series offers the latest industry standard in flexible, full-duplex Ethernet connectivity. These hot-swappable, fiber interfaces simply plug into an SFP slot on Allied Telesis products that are SFP compatible. Configurations can be optimized to meet varied distance and service requirements.

XFP Series (XP)

The XP Series offers the latest industry-standard 10 Gigabit Ethernet connectivity in a flexible, small form-factor. These hot-swappable optical interfaces simply plug into an XFP slot in any compatible Allied Telesis product for simple migration to 10 Gigabit data rates.

GBIC Series (G8)

The G8 Series offers the latest industry standard in flexible, full-duplex Gigabit Ethernet connectivity. These hotswappable, fiber and copper interfaces simply plug into a GBIC slot on Allied Telesis GBIC-compatible products. Configurations can be optimized to meet varied distance and service requirements.











			GIGABIT FIBER OPTICS			
SUBCATEGORY	AT-SPSX	AT-SPSX/I	AT-G8SX	AT-SPEX	AT-SPLX10	
FORM FACTOR	SFP	SFP	GBIC	SFP	SFP	
FIBER TYPE	MMF	MMF	MMF	MMF	SMF	
NUMBER OF FIBERS	2 (Rx, Tx)	2 (Rx, Tx)	2 (Rx, Tx)	2 (Rx, Tx)	2 (Rx, Tx)	
SPEED	1000Mbps	1000Mbps	1000Mbps	1000Mbps	1000Mbps	
Rx WAVELENGTH	850 nm	850 nm	850 nm	1310 nm	1310 nm	
Tx WAVELENGTH	850 nm	850 nm	850 nm	1310 nm	1310 nm	
MAX FIBER DISTANCE	220 / 550 m	220 / 550 m	220 / 550 m	2 km	10 km	
CONNECTOR TYPE	LC	LC	SC	LC	LC	
TEMPERATURE	0°C to 70°C	-40°C to 85°C	0°C to 70°C	0°C to 70°C	0°C to 70°C	









	FAST ETHERNET FIBER OPTICS					
SUBCATEGORY	AT-SPFX/2	AT-SPFXBD-LC-13	AT-SPFXBD-LC-15	AT-SPFX/15		
FORM FACTOR	SFP	SFP	SFP	SFP		
FIBER TYPE	MMF	SMF	SMF	SMF		
NUMBER OF FIBERS	2 (Rx, Tx)	1 (BiDi)	1 (BiDi)	2 (Rx, Tx)		
SPEED	100Mbps	100Mbps	100Mbps	100Mbps		
Rx WAVELENGTH	1310 nm	1510 nm	1310 nm	1310 nm		
Tx WAVELENGTH	1310 nm	1310 nm	1510 nm	1310 nm		
MAX FIBER DISTANCE	2 km	10 km	10 km	15 km		
CONNECTOR TYPE	LC	LC - BiDi	LC - BiDi	LC		
TEMPERATURE	0°C to 70°C	0°C to 70°C	0°C to 70°C	0°C to 70°C		





	COPPER				
SUBCATEGORY	AT-SPTX	AT-G8T			
FORM FACTOR	SFP	GBIC			
SPEED	10/100/1000T	10/100/1000T			
MAX COPPER DISTANCE	100 m	100 m			
CONNECTOR TYPE	RJ-45	RJ-45			
TEMPERATURE	0°C to 70°C	0°C to 70°C			

SPI0 Series (SFP+)

The SPI0 Series offers customers a wide variety of 10 Gigabit Ethernet connectivity options for data center, enterprise, and service provider transport applications. These hot-swappable devices plug into an Ethernet SFP+ port and have the smallest 10G form factor in the industry. Configurations can be optimized to meet varied distance and service requirements.

Pluggable Optical Modules

Fiber Distances

Customers moving to Gigabit (1000Mbps) may find that existing multi-mode fiber may not be suitable for their network, as the distance required is over 220 m. Allied Telesis recommends using the AT-SPEX optical transceiver, which uses non-standard optics, but supports the 2 km distance.

IEEE 802.3 Ethernet specification for networks over multi-mode fiber

Standard	Speed	Max Distance (MMF)
10FL	10Mbps	2 km
100FX	100Mbps	2 km
1000SX	1000Mbps	220 m













GIGABIT FIBER OPTICS								
AT-SPLX10/I	AT-G8LX10	AT-SPBD10-13	AT-SPBD10-14	AT-SPLX40	AT-SPZX80			
SFP	GBIC	SFP	SFP	SFP	SFP			
SMF	SMF	SMF	SMF	SMF	SMF			
2 (Rx, Tx)	2 (Rx, Tx)	1 (BiDi)	1 (BiDi)	2 (Rx, Tx)	2 (Rx, Tx)			
1000Mbps	1000Mbps	1000Mbps	1000Mbps	1000Mbps	1000Mbps			
1310 nm	1310 nm	1490 nm	1310 nm	1310 nm	1550 nm			
1310 nm	1310 nm	1310 nm	1490 nm	1310 nm	1550 nm			
10 km	10 km	10 km	10 km	40 km	80 km			
LC	SC	LC - BiDi	LC - BiDi	LC	LC			
-40°C to 85°C	0°C to 70°C	0°C to 70°C	0°C to 70°C	0°C to 70°C	0°C to 70°C			









	10 GIGABIT FIBER OPTICS (XFP)					
SUBCATEGORY	AT-XPSR	AT-XPLR	AT-XPER40	AT-XPER80		
FORM FACTOR	XFP	XFP	XFP	XFP		
FIBER TYPE	MMF	SMF	SMF	SMF		
NUMBER OF FIBERS	2 (Rx, Tx)	2 (Rx, Tx)	2 (Rx, Tx)	2 (Rx, Tx)		
SPEED	10G	10G	10G	10G		
Rx WAVELENGTH	850 nm	1310 nm	1550 nm	1550 nm		
Tx WAVELENGTH	850 nm	1310 nm	1550 nm	1550 nm		
MAX FIBER DISTANCE	300 m	10 km	40 km	80 km		
CONNECTOR TYPE	LC	LC	LC	LC		
TEMPERATURE	0°C to 70°C	0°C to 70°C	-5°C to 70°C	-5°C to 70°C		

















		10 GIGABIT FIBER OPTICS (SFP+)			NEVV	NEVV	INEVV	
SUBCATEGORY	AT-SP10SR	AT-SP10LR	AT-SP10LR/I	AT-SP10LR20/I	AT-SP10ER40/I	AT-SP10TW1	AT-SP10TW3	AT-SP10TW7
FORM FACTOR	SFP+	SFP+	SFP+	SFP+	SFP+	SFP+	SFP+	SFP+
FIBER TYPE	MMF	SMF	SMF	SMF	SMF			
COPPER TYPE						Twinax	Twinax	Twinax
NUMBER OF FIBERS	2	2	2	2	2			
SPEED	10G	10G	10G	10G	10G	10G	10G	10G
Rx WAVELENGTH	850 nm	1310 nm	1310 nm	1310 nm	1310 nm			
Tx WAVELENGTH	850 nm	1310 nm	1310 nm	1310 nm	1310 nm			
MAX DISTANCE	300 m	10 km	10 km	20 km	40 km	1 m	3 m	7 m
CONNECTOR TYPE	LC	LC	LC	LC	LC			
TEMPERATURE	0°C to 70°C	0°C to 70°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	0°C to 70°C	0°C to 70°C	0°C to 70°C

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Network Interface Cards

alliedtelesis.com/nics

Allied Telesis continues to expand our Network Interface Card portfolio. From 10 Megabit to 10 Gigabit, the aim of Allied Telesis is to seamlessly connect your desktops, laptops and servers. Our NICs are highquality, reliable and cost-effective.

With the addition of our latest line of multi-port Gigabit and 10 Gigabit server Network Interface Cards (2973 Series and AT-VNCIOS), Allied Telesis has optimized our NICs for virtualization. Using multi-port cards in virtualized environments is critical to applications in order to provide redundancy and data connectivity for these workloads. The priority queuing offered by Allied Telesis server NICs can help you set-up your network based on your own needs. The comprehensive diagnostics and configuration software suite (Broadcom

Advanced Control Suite) provides system administrators and engineers with a profound tool to analyze the interface card to check specific data.

As the worldwide leader in fiber Network Interface Cards Allied Telesis continues to offer the highest-quality cards at competitive prices. All Allied Telesis server NICs are Citrix, VMware and Microsoft Hyper-V qualified.

Network Interface Cards

Laptop NICs

		FIBER 100FX	FIBER 1000SX
SUBCATEGORY	FEATURE	AT-2812FX	AT-2872SX
BUS TYPE	'	ExpressCard/34 (54 compatible)	ExpressCard/34 (54 compatible)
PORTS AND	100FX	SC	
MEDIA SUPPORT	1000SX		SC
QoS	IEEE 802.1p priority queues		-
PERFORMANCE	TCP/IP checksum CPU offload		
	Managed boot agent (PXE remote boot ROM)	2.1	2.1
	DASH (TruManage)	•	
MANAGEMENT	VLAN support	•	
	Advanced power management (ACPI)	•	
	SNMP	•	
	DES encryption		
SECURITY	3DES encryption	•	
	AES encryption	•	
	Windows 7		•
	Windows 7 (64-bit)	•	
	Vista	•	
	Vista 64-bit	•	
DRIVER SUPPORT	Windows XP	•	
	NDIS2	•	
	Linux 2.4		
	Linux 2.6	•	•
Pv6 SUPPORT			•
DIAGNOSTICS	LEDs		
DIMENSIONS	(W x H)	12.9 x 3.4 cm 5.1 x 1.2 in	12.9 x 3.4 cm 5.1 x 1.2 in
	Weight	.036 kg / .08 lb	.036 kg / .08 lb
IDEAL ENVIRONMENT		» Laptop computers in secure areas	» Laptop computers with fiber connectivity
CUSTOMER'S NEEDS		» 100Mbps fiber connectivity » Laptop connectivity	» 100Mbps fiber connectivity » Laptop connectivity

Managed Boot Agent (MBA) Support

MBA support on Allied Telesis NICs allows network administrators to perform preboot procedures on a system, such as installing an operating system, running a virus checker or downloading a predefined system configuration. This feature, coupled with the Wake-on-LAN (WoL) function, allows computers to be remotely poweredon during non-work hours to perform configuration and maintenance tasks. Preboot Execution Environment (PXE) support is included in Allied Telesis NICs. It allows a workstation or computer to boot from a remote server connected to the network prior to booting from the local hard drive.

Network Security

Although fiber optic networking provides a much higher level of network security than copper, security can be further enhanced by encrypting the data being transmitted. Allied Telesis security cards perform high levels of encryption/decryption, freeing the host CPU of this performance-intensive task.

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Copper Desktop/Workstation NICs









		2000				
		COPPER		COPPER AND FIBER		
SUBCATEGORY	FEATURE	AT-2912T	AT-2451FTX	AT-2701FTX	AT-2716FX/TP	
BUS TYPE		PCIe (x1)	PCI (32-bit)	PCI (32-bit)	PCle (x1)	
	10/100TX					
ORTS AND	10/100TX PoE Class 3					
IEDIA SUPPORT	10/100/1000T					
ILDIA SUFFUNI	10FL		SC, ST			
	100FX			MT, SC, ST	SC	
IBER TYPE			MMF	MMF	MMF	
MAX FIBER DISTANCE			2km	2km	2km	
oS	IEEE 802.1p priority queues		•			
	TCP/IP checksum CPU offload					
FDFODMANOF	Jumbo frames					
ERFORMANCE	Link aggregation support		.			
	Link aggregation failover					
	Wake-on-LAN					
	Managed boot agent	0.1	0.4	0.4	0.4	
	(PXE remote boot ROM)	2.1	2.1	2.1	2.1	
IANAGEMENT	DASH (TruManage)					
	VLAN support	-	•			
	Advanced power management (ACPI)	-	.			
	SNMP					
	DES encryption	-				
ECURITY	3DES encryption	•				
	AES encryption					
	Windows 7 (32 and 64-bit)					
	Windows 2008					
	Vista (32 and 64-bit)					
	Windows XP	•	•			
	Windows XP 64-bit					
	Windows 2003					
RIVER SUPPORT	Windows 2003 64-bit	•				
	Windows 2000	_				
	NDIS2					
	NetWare 6.x	_				
	Linux 2.4					
	Linux 2.6					
Pv6 SUPPORT	Elliux 2.0				•	
	LEDs					
IAGNOSTICS	Virtual cable tester		_	_	_	
PHYSICAL	Low profile bracket and	-	•		_	
IIIOIOAL	full height provided	_	_	_	_	
DIMENSIONS	(W x H)	10.7 x 5.7 cm 4.2 x 2.2 in	16.8 x 6.5 cm 6.6 x 2.56 in	16.8 x 6.5 cm 6.6 x 2.56 in	15.5 x 6.1 cm 6.6 x 2.2 in	
	Weight	.04 kg / .05 lb	.07 kg / .15 lb	.07 kg / .15 lb	.068 kg / .15 lb	
DEAL ENVIRONMENT		» Desktop computers in ultra secure areas	» Desktop computers in secure areas	» Desktop computers in secure areas	» Desktop computers with fiber interfaces that want to power a PoE phone (or other device) from the secondary port	
CUSTOMER'S NEEDS		» Data encryption	 » 10Mbps fiber connectivity » Choice of fiber or copper interfaces 	 None of the connectivity Choice of fiber or copper interfaces 	» PoE	

Network Interface Cards

Jumbo Frames Support

Normal Ethernet packets are limited to a maximum size of 1548 bytes. Received packets larger than this are normally rejected by the interface card as errors. Jumbo frames support is beneficial to sending large packets, especially where the data contained in these packets either has a time-critical element, or is so large that the time taken to send multiple smaller packets is too great. Jumbo frame packets are normally up to 9000 bytes long.

Long Distance Fiber

With the introduction of single-mode fiber Network Interface Cards, Allied Telesis has now extended the size of a fiber network from up to two kilometers over multimode fiber, to up to 20 kilometers for Fast Ethernet, and 10 km for Gigabit Ethernet.











		FIBER GIGABIT						
SUBCATEGORY	FEATURE	AT-2916SX	AT-2916LX10	AT-2931SX	AT-2972SX	AT-2972LX10		
BUS TYPE		PCI (32-bit)	PCI (32-bit)	PCI-x (32/64-bit)	PCIe (x1)	PCle (x1)		
	10FL			(, , , ,		, ,		
PORTS AND	100FX							
MEDIA SUPPORT	1000SX	LC, SC	LC	LC, SC	LC	LC		
FIBER TYPE		MMF	SMF	MMF	MMF	SMF		
MAX FIBER DISTANCE		220 m	10 km	220 m	220 m	10 km		
QoS	IEEE 802.1p priority queues				•			
	TCP/IP checksum CPU offload							
	Jumbo frames							
PERFORMANCE	Link aggregation support							
	Link aggregation failover							
	Teaming							
	Wake-on-LAN							
	Managed boot agent (PXE remote boot ROM)	2.1	2.1	2.1	2.1	2.1		
MANAGEMENT	DASH (TruManage)							
	VLAN support							
	Advanced power management (ACPI)							
	SNMP							
	DES encryption							
SECURITY	3DES encryption							
	AES encryption							
	Windows 7 (32 and 64-bit)							
	Windows 2008 (32 and 64-bit)							
	Vista (32 and 64-bit)							
	Windows XP (32 and 64-bit)							
	Windows 2003 (32 and 64-bit)							
DRIVER SUPPORT	Windows 2000							
	NDIS2							
	NetWare 6.x							
	Linux 2.4							
	Linux 2.6							
Pv6 SUPPORT								
DIAGNOSTICS	LEDs				•			
PHYSICAL	Low profile bracket and full height provided							
DIMENSIONS	(W x H)	11.9 x 6.4 cm 4.68 x 2.5 in	11.9 x 6.4 cm 4.68 x 2.5 in	16.8 x 6.4 cm 6.6 x 2.5 in	16.8 x 6.8 cm 6.6 x 2.67 in	16.8 x 6.8 cm 6.6 x 2.67 in		
	Weight	.06 kg / .13 lb	.06 kg / .13 lb	.07 kg / .15 lb	.06 kg / .13 lb	.06 kg / .13 lb		
IDEAL ENVIRONMENT		» Desktop computers in secure areas	» Desktop computers in secure areas	» Service requiring Gigabit connectivity	» Service requiring Gigabit connectivity	» Service requiring Gigabit connectivity		
CUSTOMER'S NEEDS		» Performance	» Performance » Long distance networking	» High performance » Load balancing » Redundant links	» High performance » Load balancing » Redundant links	» High performance » Load balancing » Redundant links » Long distance networking		

Fiber Desktop/Workstation NICs

Advanced Power Management (ACPI)

ACPI is part of the environmental control initiative for computers. Allied Telesis NICs support ACPI, which places the system in a low power state when it is not receiving or transmitting data.

Wake-on-LAN (WoL)

Wake-on-LAN is a feature of interface cards that allows a computer fitted with a card to be remotely powered-on. The computer receives a special data packet via the network port that will cause the computer to boot. This, coupled with PXE support, allows network administrators to gain complete access to all computers on their network.













		FIBER FAST	ETHERNET		
AT-2701FX	AT-2701LX20	AT-2711FX	AT-2712FX	AT-2712LX20	AT-2746FX
PCI (32-bit)	PCI (32-bit)	PCIe (x1)	PCIe (x1)	PCle (x1)	PCI (32-bit)
					SC, ST
MT, SC, ST	SC	MT, SC, ST	SC	SC	SC, ST
MMF	SMF	MMF	MMF	SMF	MMF
2 km	20 km	2 km	2 km	20 km	2 km
		<u> </u>	<u> </u>	<u> </u>	
•	•				•
					-
<u> </u>	<u>-</u>				-
•	•	•	•	•	•
2.1	2.1	2.1	2.1	2.1	2.1
•	•	•	•	•	•
•	•	•			-
				•	
_	-	_	_	_	_
					•
	-		-	-	-
-		-	-	-	-
		-	-	-	
-			•	•	-
-		-	-	-	
•	•	•	•	•	•
					•
•	•	•	-	-	•
•	•	•	•	•	•
16.8 x 6.5 cm	16.8 x 6.5 cm	12.1 x 6.9 cm	10.7 x 4.2 cm	10.7 x 4.2 cm	17.7 x 8.3 cm
6.6 x 2.56 in	6.6 x 2.56 in	4.76 x 2.71 in	5.6 x 2.2 in	5.6 x 2.2 in	7 x 3.25 in
.07 kg / .15 lb	.07 kg / .15 lb	.04 kg / .11 lb	.05 kg / .09 lb	.05 kg / .09 lb	.09 kg / .19 lb
» Desktop computers in secure areas	» Desktop computers in secure areas	» Desktop computers in secure areas	» Desktop computers in secure areas	» Desktop computers in secure areas	» Desktop computers in secure areas
» 100Mbps fiber connectivity » Modern PCIe computer	» 100Mbps fiber connectivity » Modern PCle computer » Long distance networking	» 100Mbps fiber connectivity » Choice of fiber or copper interfaces	» Highly secure environment	» Highly secure environment » Long distance networking	» 10Mbps fiber connectivity » 100Mbps fiber connectivity

Server NICs

Network Virtualization

The 2973 Series of network interface cards has been specifically designed for use in a virtualized environment. The cards interact directly with the virtualization hypervisor software, offloading many of the interface tasks from the main CPU, thus increasing the overall performance of the virtual machine.

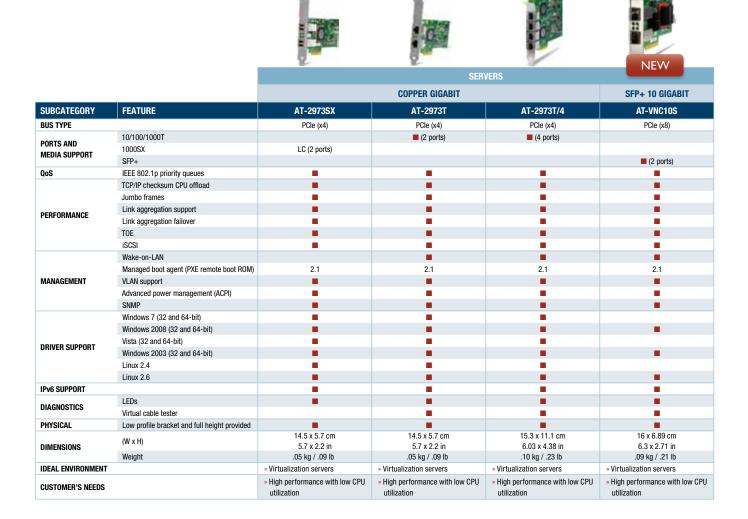
The AT-VNCIOS IO Gigabit interface card provides improved performance with the next generation technology — VMware Direct Path, NetQueue, SR-IOV — that includes features such as loopback (inter-VM communication), priority-weighted bandwidth management and doubling the number of data queues per port from four to eight. Also supported is multicast and broadcast data on a virtualized server.

Superior Functionality

The AT-VNCIOS includes dedicated hardware and processors to process frames at the highest levels in the operating system for both transmit and receive paths — advantageous for virtualization applications.

The AT-VNCIOS enables convergence of all the networked communications possible in a server, such as data (LAN), storage networks (iSCSI) and clustering.





50 | Allied Telesis Product Catalog



Allied Telesis WAN and Internet Multiservice Access Routers include solutions for TI/EI, ISDN, xDSL and leased-line connections.

The comprehensive, high-performance Allied Telesis AR Series features hardware and software functions such as advanced routing, QoS, IPv6 and advanced security including stateful inspection firewall and VPN services. AR Series routers are able to deliver the breadth of functionality that small and medium-sized businesses require at a price point they can afford, and with a confirmed reliability that makes Allied Telesis your most trusted networking partner.



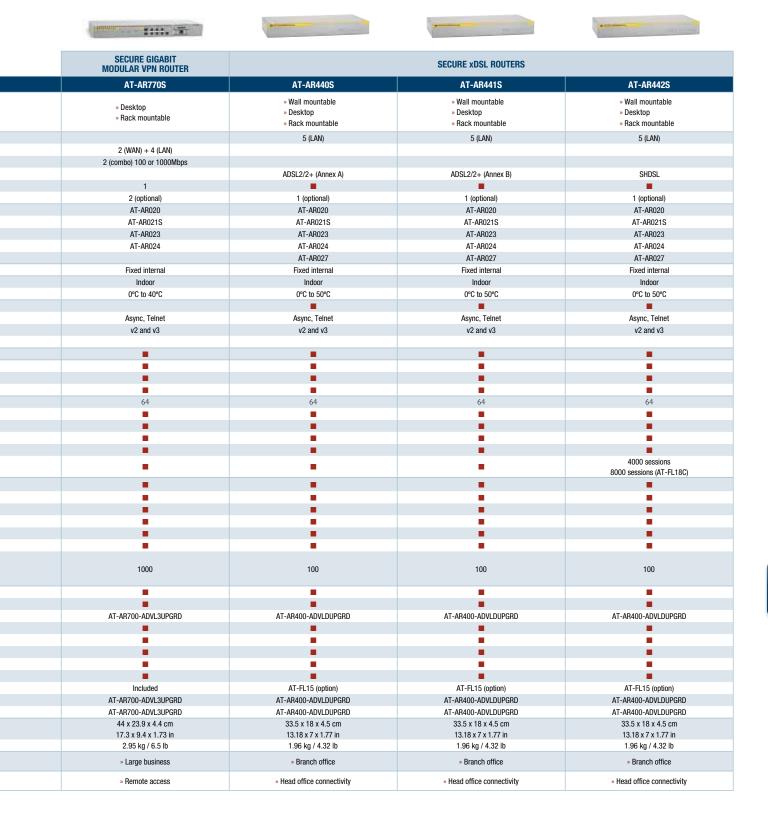




		SECURE MODULAR	R VPN ROUTERS
SUBCATEGORY	FEATURE	AT-AR415S	AT-AR750S
	·		
FORM FACTOR		» Desktop » Rack mountable	» Desktop » Rack mountable
	10/100TX	1 (WAN) + 4 (LAN)	2 (WAN) + 5 (LAN)
	10/100/1000T		
ORTS AND	SFP		
IEDIA SUPPORT	xDSL (WAN)		
	Async port	1	1
	PIC bays	1 (optional)	2 (optional)
	E1/T1 WAN	AT-AR020	AT-AR020
	BRI - ISDN (S/T)	AT-AR021S	AT-AR021S
IC BAYS	2Mbps sync port	AT-AR023	AT-AR023
	4 x async	AT-AR024	AT-AR024
	2 x FXS VoIP	AT-AR027	
OWER SUPPLY	22 1011	Fixed internal	Fixed internal
vv L1	In/outdoor usage	Indoor	Indoor
NVIRONMENTAL	Temperature range	0°C to 40°C	0°C to 40°C
	Web	0-0 10 40-0	0-0 to 40-0
		_	_
IANAGEMENT	CLI access	Async, Telnet	Async, Telnet
	SNMP	v2 and v3	v2 and v3
	UPnP	•	
IETWORK RESILIENCE	VRRP	•	•
	IEEE 802.1p priority queues	•	•
loS	Queueing mechanisms		•
	Priority mechanisms		=
	IEEE 802.1Q VLANs	64	64
	RADIUS	•	•
PEGUDITY	SSL		
ECURITY	IEEE 802.1x	•	
	DoS protection	-	-
		4000 sessions (AT-FL18B)	_
	Firewall	8000 sessions (AT-FL18C)	•
	DMZ	•	•
	MAC filter	.	■
	IP / TCP / UDP filter	•	
	URL filter	•	
THER	Peer-to-peer protocols detection		-
	Encryption (DES, 3DES, AES)		
	VPN concurrent tunnels	1 - standard 5 - AT-FL19B, 10 - AT-FL19C 25 - AT-FL19D, 50 - AT-FL19E	250
	RIPv1 and v2	20 711 12102,00 711 12102	•
	IPv4	-	-
	IPv6	AT-AR400-ADVLDUPGRD	AT-AR700-ADVL3UPGRD
	OSPF	A1-A11400-ADVEDOF GILD	AT-AIT/00-ADVESOR GITD
	NAT / NAPT		-
OUTING			
UUTINU	NAT VPN pass-through (sessions)		
	PPPoE / PPTP / L2TP	•	•
	DHCP client / server / relay	AT FIAT (III)	
	WAN load balancing	AT-FL15 (option)	Included
	Server load balancing	AT-AR400-ADVLDUPGRD	AT-AR700-ADVL3UPGRD
	BGP-4	AT-AR400-ADVLDUPGRD	AT-AR700-ADVL3UPGRD
	(W x D x H)	30.5 x 19 x 4.5 cm	30.5 x 19 x 4.4 cm
IMENSIONS		12 x 7.48 x 1.77 in	12 x 7.48 x 1.73 in
	Weight	1.75 kg / 3.85 lb	1.92 kg / 4.23 lb
DEAL ENVIRONMENT		» Medium business	» Medium business
		» Remote access	» Remote access

52 | Allied Telesis Product Catalog

Routers





54 | Allied Telesis Product Catalog



MEMBES



Allied Telesis wireless products provide customers with the highest performance and compliance to today's standards, for unmatched investment protection in the wireless marketplace. All Allied Telesis wireless solutions offer "best-of-breed" performance, especially when security features and authentication protocols are required for network robustness. Advanced software features and a broad range of accessories provide high-end functionality from SOHO to enterprise-class networks.

Enterprise

Allied Telesis wireless access points and switches for Enterprise networks feature enhanced security and Quality of Service as well as multiple and extended operating modes.

Small and Medium Business

Allied Telesis designs wireless products for home office (SOHO) to smallmedium business (SMB) network needs.

Wireless Clients

Allied Telesis wireless clients provide laptop and desktop PC users a flexible and nomadic access to high-speed wireless networks.

Accessories

Allied Telesis offers a variety of accessories to complete our wireless product offering, including antennas, power supplies, service modules, splitters, mounting hardware and cabling.







				-5	
		ACCESS POINT	TS AND ROUTERS	BASE STATION	
SUBCATEGORY	FEATURE	AT-WR2304N	AT-TQ2403	AT-WR4562	
FORM FACTOR		» Wall mountable » Desktop	» Wall mountable » Desktop	» Wall mountable » Pole mountable	
	Ethernet	1 x 10/100TX (WAN); 4 x 10/100TX (LAN)	1 x 10/100TX	1 x 10/100TX	
PORTS AND	Serial		1		
MEDIA SUPPORT	USB				
	Wireless radio	1 x IEEE 802.11b/g/n (2T2R MIM0 : 300Mbps)	2 x IEEE 802.11a/b/g/h	1 x IEEE 802.11a/b/g/h	
POWER SUPPLY		External	External or IEEE 802.3af PoE (PD)	IEEE 802.3af PoE (PD)	
	Indoor/Outdoor Usage	Indoor	Indoor	Outdoor (IP67)	
ENVIRONMENTAL	Temperature range	0°C to 45°C	0°C to 40°C	-30°C to 65°C	
SCALABILITY	Clustering		15 without wireless VLAN, 8 with 4 wireless VLANs		
	Web GUI	HTTP, HTTPS	HTTP, HTTPS	HTTP, HTTPS	
	CLI access	, -	Telnet, SSH	MAC Telnet, Telnet, SSH	
MANAGEMENT	SNMP	v1, v2c	v1, v2c	v1, v2c, v3	
	UPnP	11,120	11,120	11, 125, 15	
NETWORK RESILIENCE				STP, RSTP, LACP, VRRP	
QoS			•	on, non, bor, viiii	
100	RADIUS / IEEE 802.1x / SSL	•	-	-	
	Encryption	AES	AES	DES, 3DES, AES	
	DoS protection	AES	MEO	DES, SDES, AES	
	Firewall				
SECURITY	DMZ				
		-			
	NAT / NAPT			_	
	ALG	-			
	VPN pass-through	Multiple sessions	_	•	
	Filtering				
	MAC address		•	•	
	IP				
	TCP / UDP port	•		•	
	URL	•		•	
	Peer-to-peer protocol			•	
	MAC cloning	•			
BRIDGING	PPPoE / PPTP / L2TP	•		•	
	VLAN		•	•	
	VLAN bridging			•	
	IPv4	•		•	
ROUTING	IPv6			•	
	Supported protocols	Static routing		Static routing, OSPFv2, RIPv1, RIPv2	
	Multicast support			PIM, IGMP	
	IEEE 802.11e (QoS)	WMM only	WMM only	•	
	IEEE 802.11i (security)	•	•	•	
	Mode: ad-hoc	•	•	•	
	Mode: infrastructure	AP, STA	AP, STA	AP, STA	
	Wireless Distribution System (WDS)	•	•	•	
	Wireless Protected Setup (WPS)	•			
	Wireless Virtual LAN		•	•	
VIRELESS	Captive portal		•	•	
	Dynamic channel planning	■	•		
	Multiple SSID	4	32	128	
	Regulatory domain compliance		•	•	
	Rogue AP detection		•	■ ·	
	Antenna	2 x 2.4GHz (2dBi) omni, detachable	2 x 2.4GHz (1.8dBi) / 5GHz (2.8dBi) omni, detachable		
	Antenna diversity mode		•		
	Wi-Fi certified	•			
	(W x D x H)	12.5 x 9.8 x 2.5 cm / 4.9 x 3.8 x 1 in	17.85 x 10.8 x 3 cm / 7 x 4.3 x 1.2 in	21.2 x 5.7 x 18.3 cm / 8.4 x 2.2 x 7.2 in	
DIMENSIONS	Weight	.15 kg / .3 lb	.23 kg / .5 lb	1.2 kg / 2.7 lb	
DEAL ENVIRONMENT	<u> </u>	» Small business (SMB)	» Enterprise	» WISP, enterprise	
		» Intranet / Internet access	» Intranet access » Indoor wireless bridge	» WLL » Hotspot	

Wireless









- A	- A	1	
CPE AND) BRIDGES	HIGH-SPEE	D MOBILITY
AT-WR4541a	AT-WR4541g	AT-WR4652	AT-WR4662
» Wall mountable » Pole mountable	» Wall mountable » Pole mountable	» Desktop » Portable	» Wall mountable » Pole mountable
1 x 10/100TX	1 x 10/100TX	1 x 10/100TX	1 x 10/100TX
1 X 10/1001X	T X TO/TOO!X	1	1 X 10/1001X
		2 x USB 2.0	
1 x IEEE 802.11a/b/g	1 x IEEE 802.11a/b/g	2 x IEEE 802.11a/b/g	2 x IEEE 802.11a/b/g
18vDC passive PoE	18vDC passive PoE	7v ~ 20vDC	IEEE 802.3af PoE (PD)
Outdoor (IP67)	Outdoor (IP67)	Indoor	Outdoor (IP67)
-30°C to 65°C	-30°C to 65°C	-30°C to 65°C	-30°C to 65°C
HTTP, HTTPS	HTTP, HTTPS		
		SSH	SSH
MAC Telnet, Telnet, SSH	MAC Telnet, Telnet, SSH		
v1, v2c, v3	v1, v2c, v3	v1, v2c	v1, v2c
	-		
STP, RSTP, LACP, VRRP	STP, RSTP, LACP, VRRP	VRRP	VRRP
•	•	*	■ *
•	•	•	
DES, 3DES, AES	DES, 3DES, AES	DES, 3DES, AES	DES, 3DES, AES
•	•	•	•
•	•		
	•		
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-	-	-	-
•	-	•	•
Ctatic routing OCDEv2 DIDv4 DIDv2	Ctatio varities OCDEVA DIDUA DIDUA	Ctatic routing OCDEVA DIDUT DIDUA HCMID	Ctatic varities OCDEVA DIDVA DIDVA HOME
Static routing, OSPFv2, RIPv1, RIPv2	Static routing, OSPFv2, RIPv1, RIPv2	Static routing, OSPFv2, RIPv1, RIPv2, HSMIP	Static routing, OSPFv2, RIPv1, RIPv2, HSMIP
PIM, IGMP	PIM, IGMP	PIM, IGMP	PIM, IGMP
_	•	•	•
•	•	•	•
12 024			
AP, STA	AP, STA	AP, STA	AP, STA
•	•		
	•	■ *	*
•		■ *	*
128	128	16	16
	•		
•	•	•	•
1 x 5GHz (15dBi) sector, embedded	1 x 2.4GHz (11dBi) sector, embedded		
•	•		
13.3 x 8.6 x 16 cm / 5.2 x 3.4 x 6.3 in	13.3 x 8.6 x 16 cm / 5.2 x 3.4 x 6.3 in	11.3 x 16.3 x 3 cm / 4.5 x 6.4 x 1.2 in	21.2 x 5.7 x 18.3 cm / 8.4 x 2.2 x 7.2 in
.5 kg / 1 lb	.5 kg / 1 lb	.5 kg / 1 lb	1.2 kg / 2.7 lb
» WISP, enterprise	» WISP, enterprise	» ITS	» WISP, ITS
	» WISP, enterprise » WLL » Outdoor wireless bridge	» ITS » Vehicle-to-infrastructure communication	» WISP, ITS » WLL » Hotspot » Outdoor wireless bridge

^{*} Feature available on next release



Wireless PoE Accessories





PoE MODE

A: feeding and receiving power on data pairs. B: feeding and receiving power on spare pairs.

PSE

Power Sourcing Equipment. Feeding power to a Powered Device.

PD

Powered Device. Receiving power from Power Sourcing Equipment.

WMM

Wireless Multimedia is a Wi-Fi Alliance interoperability certification that provides basic Quality of Service (QoS) to applications running over Wi-Fi.

WISP

Wireless Internet Service Provider.

		PSE PoE	PD PoE	
SUBCATEGORY	FEATURE	AT-6101G	AT-6102G	
FORM FACTOR		» Desktop	» Wall mountable » Desktop	
PORTS AND MEDIA	10/100/1000T	1	1	
POWER SUPPLY	PSU type	Fixed internal	PoE	
	IEEE 802.3af	•	-	
	PoE-enabled ports	1	1	
DOWED OVED ETHERNET	Max number of full power ports	1	1	
POWER OVER ETHERNET	Mode	В	A or B	
	PoE power (W)	15.4	10	
	DC out (V)		5/7.5/9/12	
ENVIRONMENTAL	Cooling	Fanless	Fanless	
MANAGEMENT		Unmanaged	Unmanaged	
	(W x D x H)	11.7 x 6 x 3.6 cm	8 x 5.6 x 2.6 cm	
DIMENSIONS	(WXDXH)	4.6 x 2.4 x 1.4 in	3.1 x 2.2 x 1 in	
	Weight	.18 kg / .4 lb	.08 kg / .18 lb	
CUSTOMER'S NEEDS		» Feeding protected Power over Ethernet to any Fast and Gigabit Ethernet equipment without having to replace non PoE switches	» Makes any non PoE equipment up to Gigabit Ethernet speed PoE capable » Extract power from a PoE line and supply 5/7.5/9 or 12vDC to any equipment	











		WALL-MOUNT		COAX CABLES			
SUBCATEGORY	FEATURE	AT-WR4501	AT-TQ0001	AT-TQ0003	AT-TQ0041	AT-TQ0045	
ENVIRONMENTAL	In/outdoor usage	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	
ANTENNA / CABLE TYPE			HDF200	HDF200	HDF400	HDF400	
ANTENNA CAIN (4D:)	@ 2.4GHz						
ANTENNA GAIN (dBi)	@ 5GHz						
INCEPTION LOCG (4D)	@ 2.4GHz		-0.5	-1.7	-0.3	-1.2	
INSERTION LOSS (dB)	@ 5GHz		-0.7	-2.7	-0.5	-2.1	
CONNECTOR			1 x N plug 1 x RP-SMA plug	1 x N plug 1 x RP-SMA plug	2 x N plug	2 x N plug	
AT-WR4541a / AT-WR4541g							
COMPATIBLE EQUIPMENT	AT-WR4652						
	AT-WR4562 / AT-WR4662						
DIMENSIONS	(W x D x H) / Length	18.9 x 8.9 x 3.7 cm 7.4 x 3.5 x 1.5 in	.5 m 1ft 7.7 in	3 m 9 ft 10 in	.5 m 1 ft 7.7 in	5 m 16 ft 4.9 in	
	Weight	.48 kg / 1.06 lb	.10 kg / .22 lb	.20 kg / .44 lb	.12 kg / .26 lb	.6 kg / 1.32 lb	
IDEAL ENVIRONMENT		» WISP, enterprise	» WISP, enterprise	» WISP, enterprise	» WISP, enterprise	» WISP, enterprise	
CUSTOMER'S NEEDS		» Wall-mount	» Higher gain or directional	» Higher gain or directional	» External antenna	» External antenna	

58 | Allied Telesis Product Catalog

1



WINBOX

An application that can be run on Microsoft Windows, Mac OSX and Linux and provides a GUI for configuring and monitoring every aspect of the WR4500 Series wireless router.

CLIENT (STA) MODE

The equipment's wireless interface can be configured to operate as a wireless client connecting to any other access points.

IEEE 802.11f (IAPP)

Inter Access Point Protocol. A protocol for simplifying and speeding up roaming between two access points.

WII

Wireless Local Loop. Defines the wireless access of customer's premises to the Telco operator network.

TDMA

Time Division Multiple Access. Is a QoS mechanism at the physical layer that allows the static assignment of predefined time slots to every station in a wireless access network.

FULL HOTSPOT

The equipment is able to implement a full-featured hotspot system including wireless access, Web pages management, multiple virtual hotspots on a single radio interface, RADIUS server and customer's profile management application.

		WIRELES	S NICS
SUBCATEGORY	FEATURE	AT-WNP300N	AT-WNU300N
BUS TYPE	·	PCI 2.2 (full and low-profile bracket)	USB 2.0
PORTS AND MEDIA SUPPORT	Wireless radio	IEEE 802.11b/g/n (1T2R MIMO : 150Mbps)	IEEE 802.11b/g/n (2T2R MIMO : 300Mbps)
ENVIRONMENTAL	Temperature range	0°C to 45°C	0°C to 45°C
	IEEE 802.11e (QoS)	WMM only	WMM only
	IEEE 802.11i (security)	•	
	IEEE 802.1x supplicant	•	
WIRELESS AND	WEP (bits)	64 / 128	64 / 128
SECURITY	WPA-EAP, WPA-PSK	•	
	WPA2-EAP, WPA2-PSK	•	
	Wireless Protected Setup (WPS)	•	
	Dynamic data rate scaling	•	
	Antenna	2 x 2.4GHz (2dBi) omni, detachable	Embedded
DIAGNOSTIC LEDS			
	Windows 2000	•	
DRIVER SUPPORT	Windows XP	•	
DRIVER SUFFURI	Windows Vista	•	
	Windows 7	Via NDIS wrapper	Via NDIS wrapper
CERTIFICATIONS	WHQL	•	
OLITICATIONS	Wi-Fi Alliance	.	
DIMENSIONS	(W x D x H)	12 x 6.3 cm 4.72 x 2.48 in	7.75 x 2.15 x 1.08 cm 3.05 x .85 x .43 in
J2.10.0.10	Weight	52 q / .1 lb	12 g / .026 lb

Wireless Accessories













CAT5 C	ABLES	ANTENNA	RF SPL	ITTERS	SURGE PROTECTOR	
AT-TQ0051	AT-TQ0053	AT-TQ0500	AT-TQ0292	AT-TQ0592	AT-TQ0591	
Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	
CAT5 UTP	CAT5 UTP	Omni				
		2				
		5				
			-0.6	-0.5	-1.5	
				-0.5	-1.5	
1 x RJ-45 plug 1 x waterproof RJ-45 plug	1 x RJ-45 plug 1 x waterproof RJ-45 plug	1 x N plug	3 x N socket	3 x N socket	1 x N plug 1 x N socket	
•		•	•	•		
		•	•	•		
•			•	•		
10 m	30 m	2.2 x 2.2 x 19 cm	7.7 x 5.5 x 4.2 cm	8 x 3 x 8 cm	6.5 x 3.4 x 2.5 cm	
32 ft 9.6 in	98 ft 5.1 in	.9 x .9 x 7.5 in	3 x 2.2 x 1.7 in	3.1 x 1.2 x 3.1 in	2.6 x 1.3 x 1 in	
.5 kg / 1.10 lb	1.5 kg / 3.31 lb	.07 kg / .15 lb	.33 kg / .72 lb	.33 kg / .72 lb	.14 kg / .31 lb	
» WISP, enterprise	» WISP, enterprise	» WISP, enterprise	» WISP, enterprise	» WISP, enterprise	» WISP, enterprise	
» Achieve IP67 protection level	for WR4500 Series equipment	» Hotspot » AP	» Two antennas on one radio I/F	» Two antennas on one radio I/F	» Equipment lightning protection	

Wireless Antennas

ANTENNA Type	GAIN (dBi)	ALLIED TELESIS TenQ ANTENNA MODEL		LOBE WIDTH (°)		POLARIZATION	
ITPE		2.4GHz	5GHz	Horizontal	Vertical		
	2	AT-TQ0500		360	45	Vertical	
OMNI	5		AT-TQ0500	360	30	Vertical	
UIVINI	8	AT-TQ0201E	AT-TQ0501E	360	17	Vertical	
	12	AT-TQ0202E	AT-TQ0502E	360	5	Vertical	
	8	AT-TQ0221E	AT-TQ0521E	75	50	Vertical / Horizontal	
PANEL	15	AT-TQ0222E	AT-TQ0522E	30	30	Vertical / Horizontal	
	20	AT-TQ0223E	AT-TQ0523E	15	15	Vertical / Horizontal	
	12	AT-TQ0241E	AT-TQ0541E	120	15	Vertical	
SECTOR	14	AT-TQ0242E	AT-TQ0542E	60	15	Vertical	
	18	AT-TQ0243E		30	15	Vertical	
	19	AT-TQ0261E		15	15	Vertical	
PARABOLIC	23		AT-TQ0561E	7.5	7.5	Vertical	
FANABULIU	24	AT-TQ0262E		8	8	Vertical	
	27.5		AT-TQ0562E	5.2	5.2	Vertical	

Antenna Types



Omni

Omnidirectional antennas radiate power uniformly in every direction on the horizontal plane. Most access points and client devices have omnidirectional antennas.



Panel

A flat antenna with a radiation lobe similar to a cone. It is directional and is normally used for point-to-point links or at the end-points of a point-to-multipoint network.



Sector

A flat antenna with a radiation lobe similar to a cone with an elliptical footprint. It is directional and is normally used in the central site of a point-to-multipoint network.



Parabolic

A dish-shaped, directional antenna with a radiation lobe similar to that of a panel antenna. It is usually larger than a panel and has a higher gain. Parabolic antennas are suitable for long distance point-to-point links.

Gain

Gain expresses how much an antenna enhances its transmitted and received signals relative to a simple dipole. Gain is expressed in dB and is logarithmic.

Polarization

Defines the position in space of electrical and magnetic fields. The best signal transfer happens when both transmitting and receiving antennas have the same polarization. A 90° difference in polarization between transmitting and receiving antennas may produce up to -30dB of signal attenuation.

Loss

Loss is the attenuation, or reduction in power, of a system, expressed in dB. All cables and connector devices have a loss variable and must be considered when designing a wireless system, especially when directional antennas are used.



HIGH GAIN



An omnidirectional antenna concentrates the signal in a 360° belt around it. The higher the gain, the thinner the belt, resulting in a better signal far from the antenna — but a narrower communication area.

Panel and parabolic antennas have a nearly circular footprint. Low gain panels can be used for both short distance point-to-point and point-to-multipoint links as well as straight roads coverage. High-gain panel and parabolic antennas

produce such a small spot that they should be deployed only in medium- to long-distance point-to-point links.

A sector antenna footprint is a horizontal ellipse with a width of 30°, 60°, 90° or 120°. High gain sector antennas have a vertically thinner footprint while keeping the same horizontal width, suited for the central site of a point-to-multipoint link or coverage of a certain "sector" in mobile networks.

Network Management Software

alliedtelesis.com/nms

It's a complex job to administer a network — it often seems you need to be in two places at once. Rapid trouble resolution and the ability to monitor network performance is critical for your business. One size does not fit all when it comes to network management. Everything depends on your network and your needs. Our network management software tools can help you visualize and plan for network growth while maintaining the health and performance of your network.

AlliedView NMS Enterprise Edition

NETWORK DEVICE MANAGEMENT SOFTWARE

AlliedView NMS Enterprise Edition is a comprehensive management platform designed to offer enterprise customers powerful tools for the management of their Allied Telesis products as well as third-party switches. AlliedView NMS maximizes the operational efficiency by providing proactive management and diagnostics, reducing operational expense and shortening tasks involved with network administration.

Low-cost Deployment

AlliedView NMS Enterprise Edition is based on the Service Provider version, and designed to operate on a Windowsbased machine running XP or Server 2003/8/10. With a tiered approach to licensing, users can deploy AlliedView on even the smallest size networks in a cost-effective manner and scale to thousands of network elements.

Network Inventory

AlliedView NMS Enterprise Edition provides automatic topology and device discovery of networks. The NMS allows for multiple network and device views where the user can observe the entire network or focus in on an individual network device. In addition, the NMS contains an inventory of different device types and enables views of VLANs, network interfaces, ports and physical links.



Flexible Configuration

The extensive management capabilities of AlliedView NMS Enterprise Edition allow the user to manage thousands of Allied Telesis network elements, all configured from a central location. Products can be easily configured for both Layer 2 and Layer 3 functionality, VLANs, and resilient EPSR and LACP trunks.

Network Upgrades

AlliedView NMS performs scheduled or on-demand network-wide firmware and software upgrades to Allied Telesis and third-party network elements.

AlliedView NMS maintains control of software releases to ensure all elements in your network maintain the latest available software.

Features

- » Intuitive graphical interface
- » Network-wide management
- » Network backup/restore
- » Network software management
- » MIB browser
- » GUI snapshot utility
- » RMON 4 group support
- » NMS alarms with e-mail notifications
- » SNMP vI, v2c and v3
- » Secure SSH management
- » Network VLAN management
- » QoS management
- » Windows OS server support
- » Remote Java and Web clients
- » Manages Allied Telesis and third party elements

Network Management

AlliedView NMS Service Provider Edition

NETWORK MANAGEMENT SOFTWARE

AlliedView NMS provides a unified management platform for network, element and service management for every type of service provider and enterprise network. AlliedView NMS supports more than 200 different Allied Telesis products, including switches, routers, multiservice access and fiber-or copper-based gateways.

AlliedView NMS incorporates user interfaces that are efficient as well as operator friendly to take the complexity out of performing routine tasks. The Command Line Interface (CLI) used for provisioning and element management is based on a format widely used and recognized in the industry. It is combined with an intuitive GUI for diagnostics, network mapping and alarm reporting among other features which offer the operator an easy-to-understand means of displaying and reviewing information.

Features

- » Intuitive graphical interface
- » Drill-down functionality
- » MIB browser
- » MIB compiler
- » GUI snapshot utility
- » RMON 4 group support
- » Supports NMS alarms
- » Supports SNMP vI, v2c and v3
- » VLAN management
- » QoS management
- » Multi-platform
- » HP OpenView, Tivoli NetView, lpswitch
- » WhatsUp and SNMPc interoperability
- » Supports Allied Telesis managed devices

The scalability of AlliedView offers a wide range of use from medium-sized networks all the way to large service provider networks with thousands of devices and multiple services in the network. This includes support and administrative security for centralized or distributed client-side operations based on its software architecture. The enhanced tools incorporated into AlliedView NMS address the critical need to reduce time and labor to manage the network, and at the same time offer higher levels of customer service through rapid responsiveness.

Scalable Architecture

AlliedView NMS is a Java-based application suite that supports both Java and HTML clients. The core services include a relational database and may be deployed on a dedicated Sun or Windows server or in a virtual server environment. The server supports core functions such as discovery of managed objects, receiving and processing alarm information and notifications, data collection, report generation, status polling and northbound interfaces. All updates relative to the database are processed through the server.

The server software also supports distributed user clients, and provides scalability in terms of the number of clients that can be concurrently supported. The distributed clients act as the user interfaces between the end-users or administrators and the AlliedView NMS server: Client support comprises the following functions:

- » Interfaces with the clients and channels all of their transactions to the server applications
- » Generates the user view of the network through database operations
- » Generates alarms and autonomous messaging from the server database to the clients

Auto-Discovery Features

AlliedView performs active autodiscovery of every network element whenever a new element or device is added to the network. Auto-discovery features go beyond merely capturing hardware inventory populated in the network, to providing detailed network topology and configuration information.

If a new network element, iMG or port is added to the network, auto-discovery provides the operator automated information and updates for inventory and configuration management. This allows the network to be maintained at a "current state," also eliminating any



need to manually enter information when changes occur.

Network Mapping

AlliedView NMS provides the ability to create and maintain a logical network map, including sites and locations where each piece of equipment resides, and to actually create an overlay of the network on a geographic network map.

Network Topology

Auto-Discovery allows the operator to create and view the actual topology of the network, including Layer 2 and 3 network, VLANs, EPSR rings (domains), physical nodes, physical cards (network interfaces and ports), terminal devices (iMGs) and physical links.

Zero Touch Service Provisioning

Allied Telesis has streamlined the provisioning process through its "one-touch provisioning" feature in AlliedView. Each type of service, as well as port or link, can be assigned its own profile using configuration data that matches the requirement. Once done, the profile can be applied to each subscriber line, port or link in a single keystroke rather than having to re-enter the same

data over and over again. In a large service network with large numbers of subscribers, the time savings are tremendous, as is the reduction in configuration errors that sometimes occur.

The other key benefit in a service network where revenue generation is critical is in rapid service deployment and turn up. New subscribers can be added quickly and activated, thereby increasing revenues as well as providing a higher level of customer service.

In addition to auto- or bulk-provisioning the service VLANs using a defined service profile, the same procedure could be applied to the uplink or port for applying configuration and QoS parameters. Auto-configuring enables new nodes to be added and turned up quickly, and likewise new line cards or modules added to existing nodes. At the same time, it ensures conformity in the provisioning of the network configuration — eliminating the problems that sometimes occur when a new piece of equipment is added to the networks and configured incorrectly.

Network Upgrades

AlliedView NMS allows software and firmware upgrades to be made network-wide on either a scheduled or unscheduled basis, as the network operator requires. Since AlliedView NMS maintains an up-to-date inventory of all the equipment in the network as well as release level of the software and firmware, it becomes the tool to manage periodic upgrades.

Northbound Interface

AlliedView NMS can be integrated with existing Operation Support Systems (OSS) and Business Support Systems (BSS) through a web services-based northbound interface. This enables the automation of service activations, changes and deactivations to be done on the higher level OSS/BSS systems and flow through to the Allied Telesis network elements.

ADSL24A	30	AT-AR442S	53	AT-MC103LH	36
ADSL24AE		AT-AR750S			36
ADSL24B		AT-AR770S			36
ADSL24SA		AT-CM3K0S			36
ADSL48A		AT-CM70S			36
ADSL48B					37
		AT-CM301			
AlliedView NMS Enterprise Edition		AT-CM302			37
AlliedView NMS Service Provider Editi		AT-CV1KSS			37
AT-2451FTX		AT-CV5M02			37
AT-2701FTX		AT-CV1000	38		37
AT-2701FX	49	AT-CV1200PSU		AT-MCF2000	39
AT-2701LX20	49	AT-CV1203	38		39
AT-2711FX	49	AT-CV5001	38	AT-MCF2012LC/1	39
AT-2712FX	49	AT-CV5001AC-60	38	AT-MCF2032SP	39
AT-2712LX20		AT-CV5001DC-80	38	AT-MCF2300	39
AT-2716FX/TP		AT-DINRAIL1			40
AT-2746FX		AT-FS201			40
AT-2812FX		AT-FS207			40
AT-2872SX					37
		AT-FS232			
AT-2912T		AT-FS232/1			37
AT-2916LX10		AT-FS232/2			27
AT-2916SX		AT-FS238A/1			27
AT-2931SX		AT-FS238B/1			27
AT-2972LX10	48	AT-FS705EFC	12		27
AT-2972SX	48	AT-FS705L	12	AT-SBx31XZ4	27
AT-2973SX	50	AT-FS705LE	12	AT-SBx908	23, 25
AT-2973T	50	AT-FS708			26, 27
AT-2973T/4		AT-FS708LE	12		26
AT-6101G		AT-FS708/POE			26
AT-6102G		AT-FS709FC	-, -		27
AT-8000/8P0E		AT-FS716L			27
AT-8000GS/24	·	AT-FS710L			43
					43
AT-8000GS/24P0E	,	AT-FS724L			
AT-8000GS/48		AT-FS750/16			43
AT-8000S/16		AT-FS750/24			43
AT-8000S/24		AT-FS750/24P0E			43
AT-8000S/24P0E	·	AT-FS750/48			43
AT-8000S/48		AT-G8LX10			43
AT-8000S/48P0E	, -	AT-G8SX	42		43
AT-8100L/8		AT-G8T	42		27, 43
AT-8100L/8P0E	10	AT-GS900/5E	13	AT-SPBD10-14	27, 43
AT-8100S/16F8-SC	11	AT-GS900/8	13	AT-SPEX	27, 42
AT-8100S/24	11	AT-GS900/8E	13	AT-SPFX/2	27, 42
AT-8100S/24C	11	AT-GS900/16			27, 42
AT-8100S/24F-Bidi		AT-GS900/24			27, 42
AT-8100S/24F-LC		AT-GS950/8			27, 42
AT-8100S/24P0E		AT-GS950/8P0E			27, 42
AT-8100S/48		AT-GS950/01 0L	,		43
					27, 43
AT-8100S/48P0E		AT-GS950/24			
AT-8516F/SC		AT-GS950/48			27, 42
AT-8624P0E	,	AT-GS2002/SP			42
AT-8624T/2M		AT-iBG915FX			42
AT-8648T/2SP		AT-iMG606BD			27, 43
AT-9000/28		AT-iMG616W	33		30
AT-9000/28SP	20	AT-iMG646BD	33		31
AT-9000/52	20	AT-iMG726BD	33		31
AT-9924SP	23	AT-iMG726MOD	33		30
AT-9924T		AT-iMG746MOD	33		31
AT-AR415S		AT-MC13			31
AT-AR440S		AT-MC101XL			31
AT-AR441S	53		36	AT-TN-121	30

AT-TN-12330
AT-TN-12430
AT-TN-12531
AT-TN-12731
AT-TN-12831
AT-TN-129
AT-TN-130
AT-TN-131
AT-TN-132
AT-TN-136
AT-TN-139
AT-TN-14030
AT-TN-14231
AT-TN-14330
AT-TN-14431
AT-TN-14530
AT-TN-250G30
AT-TN-253G30
AT-TN-40131
AT-TN-407
AT-TN-408
AT-TN-409
AT-TN-9101/2/330
AT-TQ000158
AT-TQ000358
AT-TQ004158
AT-TQ004558
AT-TQ005159
AT-TQ005359
AT-TQ0201E60
AT-TQ0202E60
AT-TQ0221E60
AT-TQ0222E60
AT-TQ0223E60
AT-TQ0241E
AT-TQ0242E
AT-TQ0243E
AT-TQ0261E
AT-T00262E
AT-TQ0292
AT-TQ050059, 60
AT-TQ0501E60
AT-TQ0502E60
AT-TQ0521E60
AT-TQ0522E60
AT-TQ0523E60
AT-TQ0541E60
AT-TQ0542E60
AT-TQ0561E
AT-TQ0562E
AT-TQ0502E
AT-TQ0591
AT-TQ2403
AT-TRAY1
AT-TRAY4
AT-VNC10S50
AT-WLMT40
AT-WNP300N59
AT-WNU300N59
AT-WR2304N56
AT-WR450158

AT-WR4541a	57
AT-WR4541g	57
AT-WR4562	
AT-WR4652	57
AT-WR4662	57
AT-x600-24Ts	
AT-x600-24Ts-P0E17,	22
AT-x600-24Ts-P0E+17,	22
AT-x600-24Ts/XP22,	
AT-x600-48Ts	22
AT-x600-48Ts/XP22,	24
AT-x900-12XT/S23,	24
AT-x900-24XS23,	24
AT-x900-24XT23,	
AT-x900-48FE	19
AT-x900-48FS	19
AT-XEM-1XP	25
AT-XEM-2XP	25
AT-XEM-12S	25
AT-XEM-12T	25
AT-XEM-STK	25
AT-XPER4025, 27,	43
AT-XPER8025, 27,	43
AT-XPLR25, 27,	
AT-XPSR25, 27,	43
CES8	
CFC12	
CFC24	
CFC56	
CFC100	
Converteon	
FE10	
FX10BX	31
FX10LX	
FX20BX	
FX20BX40	
GE8	
GE24BX	
GEPON	
iMAP 9700	
iMAP 9810	
iMAP Blades	
iMAP Chassis	
iMAP Controller Cards	
iMG	
iMG616	33

iMG616RF	
iMG624	32
iMG634	32
iMG634W	32
Media Converters, Chassis-Based	
Media Converters, Mounting Hardware	40
Media Converters, Standalone	
MiniMAP 9100	30
Network Management Software	61
NICs, Copper Desktop/Workstation	47
NICs, Fiber Desktop/Workstation	48
NICs, Laptop	
NICs, Server	
NTE8	31
Optical Modules	42
PAC24	30
PAC24C	30
PAC24EU	30
POTS24	30
POTS24C	30
Professional Services	6
Routers	52
SHDSL24	31
Star Partner Program	7
Support	
SwitchBlade x90823,	25
SwitchBlade x3112	26
Switches, 10 Gigabit	24
Switches, Fast Ethernet	18
Switches, Gigabit Aggregation/Core	22
Switches, Gigabit Edge	
Switches, Power over Ethernet	16
Switches, Unmanaged	
Switches, WebSmart	
Training	
VDSL24A	31
VDSL24B	
Wireless Accessories	59
Wireless Access Points and Routers	
Wireless Antennas	
Wireless Base Stations	
Wireless CPE and Bridges	
Wireless High-Speed Mobility	
Wireless NICs	
Wireless PoE Accessories	58

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