

Issue 14 | 2013 – 2014

 Allied Telesis™

# Product Catalog



# Our Commitment to Excellence

## Known for **reliability**

Allied Telesis is a world-class leader in delivering IP/Ethernet network solutions and services to the global marketplace. As Ethernet continues to advance and the data center network continues to evolve, enterprises increasingly turn to Allied Telesis for our innovative, standards-based IP networking infrastructure and expertise to meet the growing bandwidth demands of the modern enterprise.

## Chosen for **quality**

Publicly traded in Japan and with major corporate divisions in Europe, Asia, and the Americas, Allied Telesis stands ready to service, support, and supply a globally-connected customer base of diverse enterprises, organizations, and governments. Our partner network includes the world's largest and most trusted distributors, integrators, solution providers, and resellers to assure our customers receive immediate local service and support.

## Recognized for **innovation**

Our solutions are used in a wide variety of mission-critical 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. World-class quality and performance, combined with affordability, drives unparalleled customer value and has made Allied Telesis the default standard for many of today's critical network operations.

Our worldwide research and development centers work relentlessly to bring to market innovative products that drive business outcomes. 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 our customers with solutions comprised of products designed and built to the highest-possible standards and quality. Our manufacturing conforms to 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 more than 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 enabled 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.

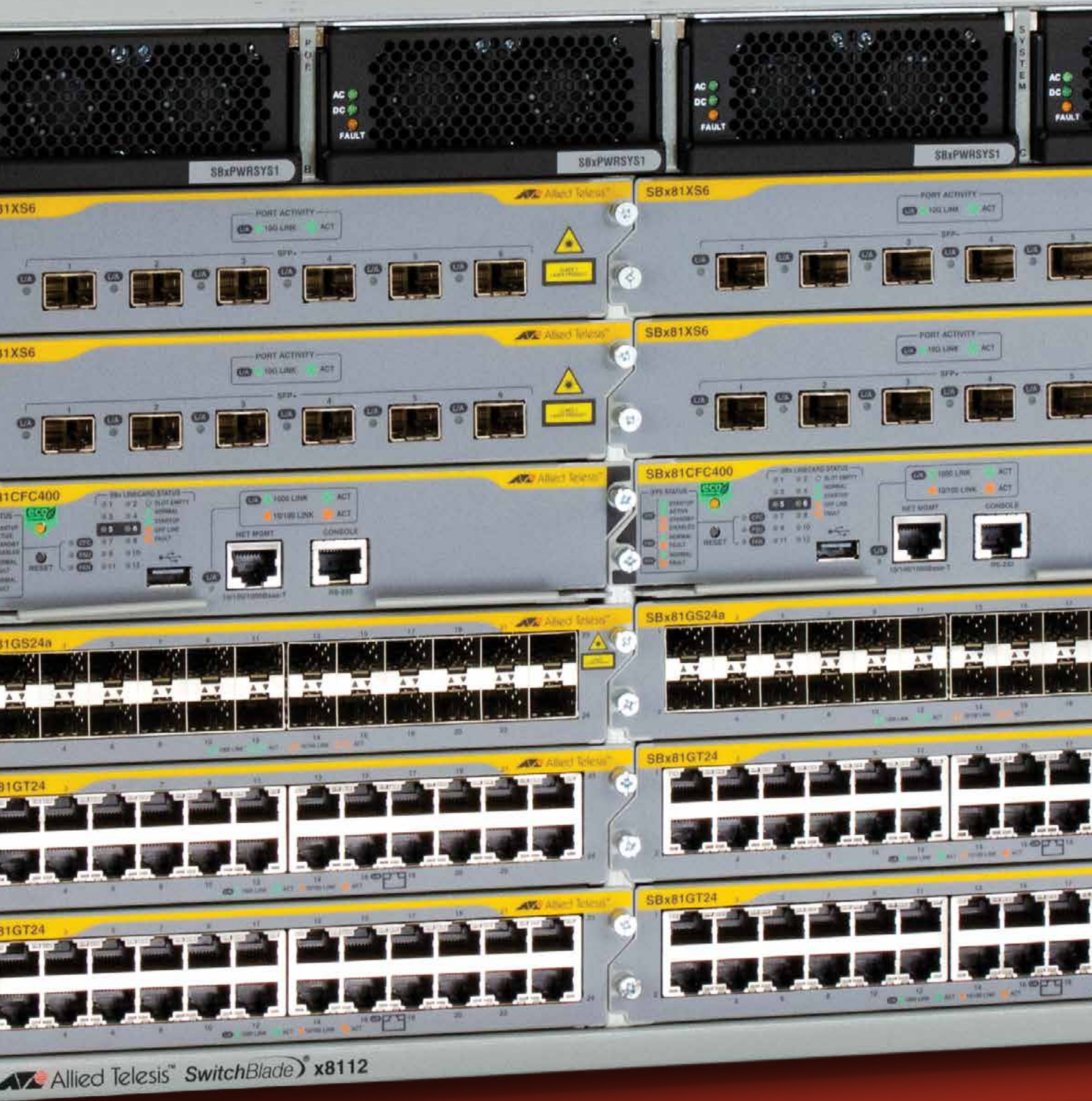
As a leading provider of networking infrastructure, Allied Telesis today enables efficient and reliable delivery of voice, video, and data services to meet the growing demands of the modern enterprise. We are committed to innovating the way in which services and applications are delivered and managed,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



# Allied Telesis Products

[alliedtelesis.com/products](http://alliedtelesis.com/products)

<b>SWITCHES.....</b>	<b>2</b>
SwitchBlade x8112 .....	4
SwitchBlade x908 .....	6
SwitchBlade x3112 .....	8
Aggregation and Distribution.....	10
Advanced Gigabit Edge.....	12
Data Center .....	14
Industrial and Extended Temperature.....	15
Gigabit Edge .....	16
Fast Ethernet Edge / Fiber .....	17
Fast Ethernet Edge / Copper.....	18
WebSmart Switches.....	20
Unmanaged Switches.....	22
<b>IMAPS AND IMGs.....</b>	<b>24</b>
iMAP .....	26
iMG .....	28
<b>MEDIA CONVERTERS .....</b>	<b>30</b>
Standalone Media Converters.....	32
Mounting Hardware.....	34
Converteon .....	35
Chassis-Based Media Converters .....	36
<b>PLUGGABLE OPTICS .....</b>	<b>37</b>
Gigabit Optics .....	38
Fast Ethernet Optics.....	38
Copper Optics .....	38
10 Gigabit Optics.....	39
40 Gigabit Optics.....	39
<b>NETWORK INTERFACE CARDS .....</b>	<b>40</b>
Laptop NICs.....	42
Copper Desktop/Workstation NICs .....	43
Fiber Desktop/Workstation NICs.....	44
Server NICs .....	46
<b>ROUTERS.....</b>	<b>47</b>
Secure Routers .....	48
<b>WIRELESS.....</b>	<b>49</b>
Access Points .....	50
Controllers .....	51
PoE Accessories .....	52
Accessories .....	52
Wireless NICs .....	53
Wireless Antennas .....	54
<b>NETWORK MANAGEMENT SOFTWARE .....</b>	<b>55</b>
AlliedView NMS Enterprise Edition .....	56
AlliedView NMS Service Provider Edition .....	57
<b>PRODUCT INDEX.....</b>	<b>59</b>
<b>ENVIRONMENTAL POLICIES.....</b>	<b>64</b>





# Switches

[alliedtelesis.com/switches](http://alliedtelesis.com/switches)

Allied Telesis engineers high-performance, high-quality, future-proof products to meet requirements for Enterprise, Campus, Branch and Data Center networks of various size. Allied Telesis SwitchBlade® and x-Series switches, with the AlliedWare Plus™ operating system, have provided scalable and versatile switching solutions for today's enterprise and service provider networks from end to core. These switches, featuring Allied Telesis Management Framework (AMF), decrease network operating expenses by automating and simplifying many day-to-day tasks. Allied Telesis also produces top-of-rack switches for the Data Center market, extended temperature products for industry, and unmanaged and WebSmart switches for Small and Medium Business.

## Modular Chassis Switches

SwitchBlade x8112  
SwitchBlade x908  
SwitchBlade x3112

## Aggregation and Distribution Switches

x900 Series  
x610 Series  
x600 Series  
AT-9924SP

## Advanced Edge Switches

SwitchBlade x3112  
x510 Series  
x210 Series

## Data Center Switch

AT-DC2552XS

## Industrial and Extended Temperature Switches

AT-8100L/8POE-E  
AT-x900-12XT/S  
AT-IFS802SP

## Gigabit Edge Switches

9000 Series  
8000GS Series

## Fast Ethernet Edge Switches

8600 Series  
8100S Series  
8100L Series  
AT-8516F  
8000S Series  
AT-8000

## WebSmart Switches

FS750 Series  
GS950 Series

## Unmanaged Switches

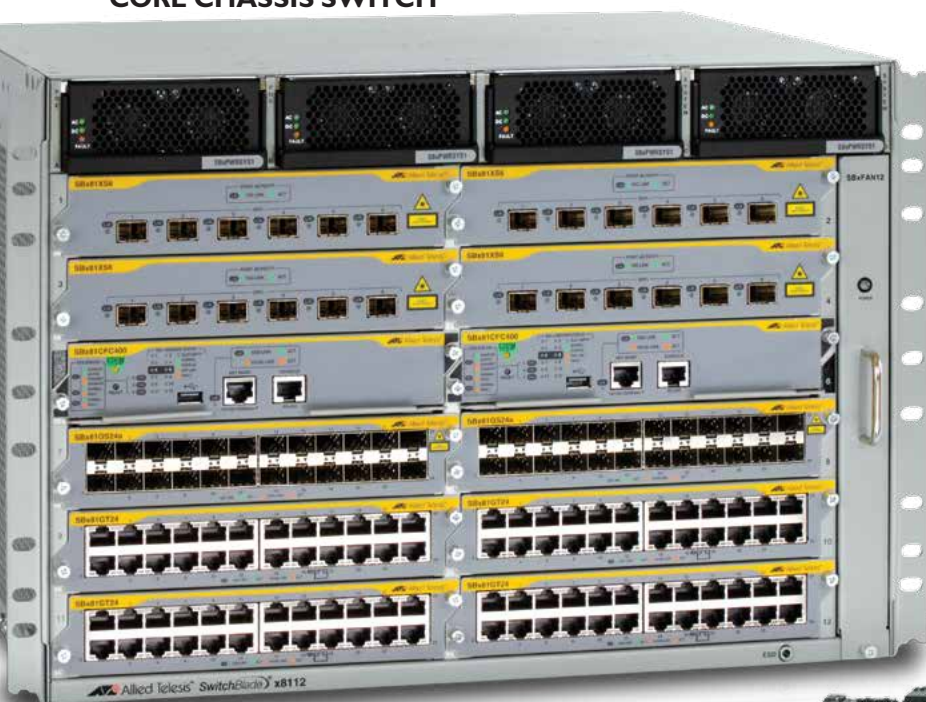
FS700 Series  
GS900 Series



# SwitchBlade x8112

[alliedtelesis.com/switches/sbx8112](http://alliedtelesis.com/switches/sbx8112)

## CORE CHASSIS SWITCH



The SwitchBlade x8112 12-slot core chassis switch is primarily engineered for medium to large enterprise networks — but is equally at home in the enterprise data center.

The switch is designed to deliver high availability, maximum performance, future scalability and high port count in a compact, eco-friendly package.

### Advanced Operating System

The SwitchBlade x8100 Series features the AlliedWare Plus operating system, providing users with advanced Layer 3 functionality and an industry-standard Command Line Interface (CLI).

**AlliedWare Plus™**  
OPERATING SYSTEM

### High Availability Architecture

The SwitchBlade x8100 Series is designed to deliver high availability for mission-critical applications found in data centers, hospitality, government, and financial institutions. Dual redundant control/fabric modules inter-connecting through redundant paths to all the line cards ensure continuous operation even in the event of a fabric failure or a firmware upgrade. Dual redundant power supplies ensure maximum system up-time,

while two PoE power supplies ensure continuous power to the endpoints.

### Small Physical Size

The SwitchBlade x8112 packs up to 400 Gigabit or up to 60 10G Ethernet ports into a single, compact 7RU-high chassis.



### Scalable Architecture

The design of the SwitchBlade x8100 Series allows for future enhancements. A series of new modules will be available soon to increase the range of functionality and performance options. Users receive investment protection via the ability to grow their networks, while re-using the existing blades, chassis, and power supplies.

## New Product Previews



### SwitchBlade x8106

The 6-slot SwitchBlade x8106 chassis is the ultimate choice in compact flexibility. It is designed to provide high-density Gigabit or 10 Gigabit in just 4RU and has the same high availability architecture as the SwitchBlade x8112. The chassis can accommodate any of the SwitchBlade x8100 Series of control cards and line cards and uses the same dual redundant power supplies for maximum reliability.

### AT-SBx81CFC960

The AT-SBx81CFC960 delivers maximum performance and scalability for the SwitchBlade x8100 Series products. With much higher switching capacity and the latest in multi-core CPUs, the AT-SBx81CFC960 has the performance and features to handle the most demanding core networks. Four front-panel 10Gbps SFP+ ports provide additional high-speed links for applications where space is limited. Sophisticated new features are planned for the AT-SBx81CFC960 to make it the ideal choice for the most arduous of networking applications.





## SwitchBlade x8100 Series Components

- » **AT-SBx8112**  
Rackmount 12-slot chassis including fan tray
- » **AT-SBx81CFC400**  
Control/fabric module with 400Gbps of switching performance
- » **AT-SBx81XS6**  
6-port 10GE SFP+ Ethernet line card
- » **AT-SBx81GT24**  
24-port 10/100/1000T Ethernet line card
- » **AT-SBx81GT40**  
40-port 10/100/1000T RJ point five Ethernet line card
- » **AT-SBx81GP24**  
24-port 10/100/1000T PoE+ Ethernet line card
- » **AT-SBx81GS24a**  
24-port SFP Ethernet line card
- » **AT-SBxPWRSYS1**  
1200W AC system power supply
- » **AT-SBxPWRSYS1-80**  
1200W DC system power supply
- » **AT-SBxPWRPOE1**  
1200W AC PoE power supply
- » **AT-FL-SBx81-01**  
Premium feature license. Includes OSPF, PIMv4 (SM, DM, SSM), Q-in-Q, RIPng, OSPFv3, MLDv1 and v2, PIMv6-SM, RADIUS-Full
- » **AT-FL-CF4-AM40**  
AMF Master license for up to 40 nodes

## Allied Telesis Management Framework (AMF)

AMF automates everyday network management tasks to eliminate network errors and simplify today's complex converged security networks. Many vendors today promote the benefits of Software Defined Networking (SDN) as the solution to achieving high efficiency and simplified network management. AMF uses innovative and unique technology to deliver all the benefits of SDN centralized management, but without the complexity and cost. AMF reduces network running costs by automating and simplifying many day-to-day tasks, allowing skilled staff to be better utilized.



## Reduce network running costs

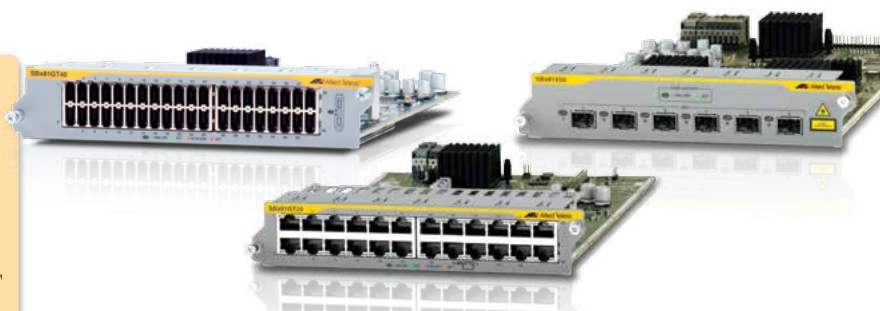
A significant amount of time, and therefore cost, is spent by highly skilled network engineers, performing mundane or repetitive tasks on a daily basis. These tasks include installing new or replacement network devices, upgrading configurations or firmware, and making configuration changes across multiple devices. With AMF, configured devices can be added directly in to the network and device configuration can be managed automatically without requiring significant time from skilled engineers.

## Cut costs and complexity

As networking continues to evolve, complexity and demands on staff increase, as well. As the pressure on people increases, the risk of errors—and resulting outages—also increases. The traditional solution is to hire more expertise to manage the network and introduce more policies and procedures to control changes. This costs more and is less efficient.

## Eliminate the chore of configuration management

Research consistently shows that network configuration management is arduous and error-prone. Significant time and effort is expended on ensuring that the latest configuration changes are kept safely, so if a replacement device is required urgently, the correct configuration can be found and installed quickly. AMF reduces effort and the risk of errors by managing the configurations for all devices in the network automatically.

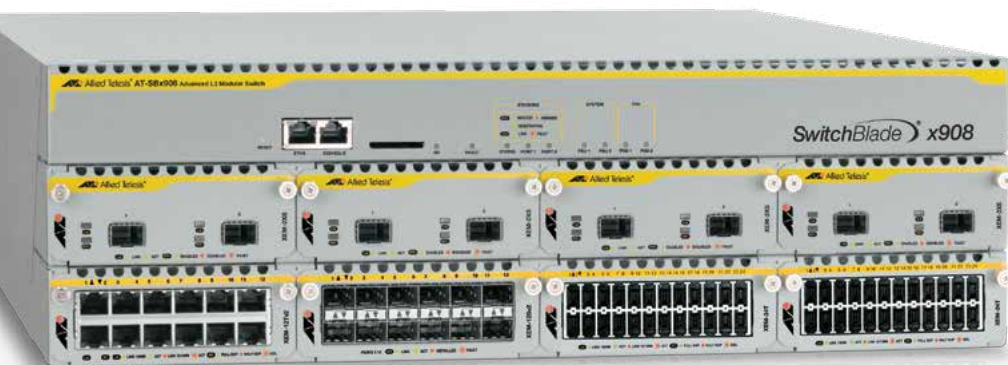


FEATURES		AT-SBx8112
FORM FACTOR		Rackmount
SWITCH FUNCTIONALITY		Advanced Layer 3
CONTROLLER CARD		AT-SBx81CFC400
CHASSIS MODULE SLOTS		12
CARDS/MODULES	10/100/1000T ports	24 x RJ-45 (AT-SBx81GT24) 24 x PoE+ (AT-SBx81GP24) 40 x RJ point five (AT-SBx81GT40)
	100/1000X SFP ports	24 x SFP (AT-SBx81GS24a)
	10G ports	6 x 10G SFP+ (AT-SBx81XS6)
POWER SUPPLY	PSU Type	Dual system hot-swappable internal Dual POE+ hot-swappable internal
	-48VDC PSU option	■
	Additional PSU	AT-SBxPWRSYS1 / AT-SBxPWRPOE1
POWER OVER ETHERNET	IEEE 802.3at (PoE+)	■
	PoE+ enabled ports	240
	Max PoE+ power	2400W
	Max full power ports (boost power)	80
ENVIRONMENTAL	Cooling	Hot-swappable fan tray
	Temperature range	0°C to 40°C
MANAGEMENT	Web GUI	■
	CLI / Telnet / SNMP	■
	IPv6 management	■
	DHCPv4 / v6 server	■
	Allied Telesis Management Framework (AMF)	■
NETWORK RESILIENCE	Spanning tree	■
	Link aggregation (LACP)	■
	EPSRing	■
	VRRPv3	■
QoS	IEEE 802.1p priority queues	8
	IEEE 802.1Q VLANs	4096
SECURITY	RADIUS / TACACS+	■
	SSH / SSL	■
	IEEE 802.1x	■
	DoS protection	■
	DHCP snooping	■
	Static routes v4 / v6	■
ROUTING	RIP / RIPng	■
	OSPFv2 / v3	■
	BGP4 / BGP4+	■
	IGMPv1 / v2 / v3	■
MULTICASTING	MLDv1 / v2	■
	PIMv4 / PIMv6	■
	PIM-SSM	■
DIMENSIONS	W x D x H	48 x 39 x 31 cm 18.9 x 15.4 x 12.2 in (TRU)
	Weight (unpacked)	17.8 kg / 39.1 lb (no PSUs)

# SwitchBlade x908

[alliedtelesis.com/switches/sbx908](http://alliedtelesis.com/switches/sbx908)

## ADVANCED LAYER 3 MODULAR COMPACT SWITCH



The SwitchBlade x908 8-slot industry-leading modular compact switch is the ideal solution for the small to medium modern enterprise network core where reliability, resiliency, and high performance are the key requirements.

### Advanced Operating System

The SwitchBlade x908 features the AlliedWare Plus operating system, which combines superior networking functionality and strong management capabilities with the exceptional performance that today's networks demand. As a standards-based implementation, it also assures full interoperability with other major network equipment, and features enhanced usability for a superior customer experience.



### Virtual Chassis Stacking (VCStack)

VCStack provides excellent resiliency by creating a single "virtual chassis" from two SwitchBlade x908 physical devices, using dedicated high-speed stacking links. VCStack provides a highly available system where network resources are spread out across stacked units, reducing the impact should one of the stacked units fail. Switch ports may be aggregated on different units, for high availability. VCStack delivers a resilient solution at a fraction of the cost of a full chassis-based system, and the stack may be managed as a single network node, greatly simplifying management tasks.



### Active-Active Architecture

The Active-Active architecture allows two SwitchBlade x908 chassis to be inter-connected via a passive 160Gbps rear panel connector, allowing the two switches to communicate. This architecture ensures that edge devices, which are connected to both switches, can continue to operate even in the event of a single SwitchBlade x908 failure. This architecture, unlike some competitive Active-Redundant architectures, ensures users achieve the full 100% utilization of their purchased network components for the maximum time, thus decreasing Total Cost of Ownership (TCO).

### Ethernet Protection Switched Rings (EPSRing)

The use of the SwitchBlade x908, in conjunction with other EPSRing-enabled devices, provides a 10Gbps high-bandwidth resilient ring backbone capable of providing sub 50ms failover. This architecture is perfect for the backbone core of any Enterprise or Service Provider network, as it allows nearly hit-free networking to be accomplished, and is suitable for the delivery of voice, video, and data.



### Allied Telesis Management Framework (AMF)

AMF is a sophisticated suite of management tools that simplifies network management. The SwitchBlade x908 can act as an AMF Master (license required), to control a network of AMF nodes and provide a central point for network management and configuration backups.



### High Availability

The SwitchBlade x908 was designed with reliability in mind. With dual power supplies, fan modules, and a comprehensive range of expansion modules (XEMs) — all hot-swappable — the network can be maintained and reconfigured when necessary without affecting uptime.

### Scalable

The SwitchBlade x908 supports up to eight XEM expansion modules, allowing the user to change the configuration of his network as needed. Each SwitchBlade x908 can support up to 192 Gigabit ports or up to 16 10GbE ports, while stacking two chassis, to build a resilient core that doubles the number of ports.





### SwitchBlade x908 Components

- » **AT-SBx908**  
Rackmount 8-slot chassis including fan module
- » **AT-XEM-2XS**  
2-port 10GE SFP+ expansion module
- » **AT-XEM-2XP**  
2-port 10GE XFP expansion module
- » **AT-XEM-2XT**  
2-port 10GE expansion module
- » **AT-XEM-12S** and **AT-XEM-12Sv2**  
12-port SFP expansion module
- » **AT-XEM-12T** and **AT-XEM-12Tv2**  
12-port 10/100/1000T expansion module
- » **AT-XEM-24T**  
24-port 10/100/1000T RJ point five expansion module
- » **AT-PWR05**  
AC load sharing system power supply
- » **AT-PWR05-80**  
DC load sharing system power supply
- » **AT-HS-STK-CBL**  
650mm high speed stacking cable
- » **AT-FAN03**  
Spare fan module
- » **AT-FL-SBx9-01**  
Advanced Layer 3 feature license
- » **AT-FL-SBx9-02**  
IPv6 feature license
- » **AT-FL-SBx9-AM40**  
AMF Master license for up to 40 nodes



Allied Telesis delivers increased port density with the addition of the very latest Ethernet connectivity technology, RJ point five. These half-size copper Gigabit port connectors allow twice the port density of the current RJ-45 standard connectors, ideal for the aggregation of large numbers of Gigabit links.

### Enterprise Applications

The SwitchBlade x908 is the ideal Enterprise switch for small- to medium-sized network installations, but is also at home in larger distributed campus-type networks, when individual switches are connected using EPSRing technology.

### MEF Certified

The SwitchBlade x908 has been certified by the Metro Ethernet Forum (MEF) Certification program, which tests products for conformance to the strict requirements of Carrier Ethernet. Compliance with this certification makes the deployment of this chassis a much easier option for Network Service Providers.



### Small Physical Size

The SwitchBlade x908 packs a remarkable amount of networking performance into a small, 3RU-high box. Taking up no more rack space than three simple “pizza box” switches, the SwitchBlade x908 provides users with unrivaled reliability and flexibility.

FEATURES		AT-SBx908
FORM FACTOR		Rackmount / stack
SWITCH FUNCTIONALITY		Advanced Layer 3
CHASSIS MODULE SLOTS		8
CARDS/MODULES	10/100/1000T ports	12 x RJ-45 (AT-XEM-12T) 12 x RJ-45 (AT-XEM-12Tv2) 24 x RJ point five (AT-XEM-24T)
	100/1000X SFP ports	12 x 100/1000X SFP (AT-XEM-12S) 12 x 1000X SFP (AT-XEM-12Sv2)
	10G ports	2 x 10G XFP (AT-XEM-2XP) 2 x 10G SFP+ (AT-XEM-2XS) 2 x 10GT RJ-45 (AT-XEM-2XT)
POWER SUPPLY	PSU Type	Dual hot-swappable internal
	-48VDC PSU option	■
SCALABILITY	Additional PSU	AT-PWR05
	MAC address table size	16K / 64K
	Stacking (VCStack)	■ (2)
ENVIRONMENTAL	Stacking bandwidth	160G
	Cooling	Hot-swappable fan modules
	Temperature range	0°C to 40°C
MANAGEMENT	Web GUI	■
	CLI / Telnet / SNMP	■
	IPv6 management	■
	DHCPv4 / v6 server	■
	Allied Telesis Management Framework (AMF)	■
NETWORK RESILIENCE	Spanning tree	■
	Link aggregation (LACP)	■
	EPSRing	■
	VRRPv3	■
QoS	IEEE 802.1p priority queues	8
	IEEE 802.1Q VLANs	4096
	RADIUS / TACACS+	■
	SSH / SSL	■
	IEEE 802.1x	■
	DoS protection	■
	DHCP snooping	■
	Static routes v4 / v6	■
ROUTING	RIP / RIPng	■
	OSPFv2 / v3	■
	BGP4 / BGP4+	■
	Policy-based routing	■
	VRF Lite	■
	IGMPv1 / v2 / v3	■
MULTICASTING	MLDv1 / v2	■
	PIMv4 / PIMv6	■
	PIM-SSM	■
DIMENSIONS	W x D x H	44 x 45.6 x 13.2 cm 17.3 x 18 x 5.2 in (3RU)
	Weight (unpackaged)	14.3 kg / 31.5 lb (no PSUs)

# SwitchBlade x3112

[alliedtelesis.com/switches/sbx3112](http://alliedtelesis.com/switches/sbx3112)

## ACCESS EDGE CHASSIS SWITCH

The SwitchBlade x3112 is a 12-slot access edge chassis switch primarily targeted for service provider fiber access networks, and is equally at home in the enterprise network edge or in the data center. The switch is designed to deliver high-availability, maximum performance with a wirespeed non-blocking backplane 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 EPSRing for link level protection. The AT-SBx3112 is available with AC or DC power options.

As a FTTx platform, the SwitchBlade x3112 can support a maximum of 400 ports per chassis using 40-port 1000Mbps CSFP-based line cards (AT-SBx31GC40). It can also support redundant 10G uplinks using 4-port XFP-based line cards (AT-SBx31XZ4) or 6-port SFP+-based line cards (AT-SBx31XS6). Both line cards support LAG and EPSR on uplinks when used as transport. 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 400G central fabric controllers, FTTx services can operate at wirespeed 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,



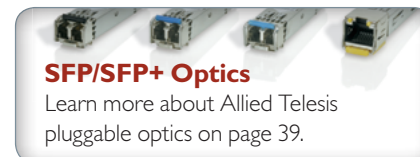
FEATURES		AT-SBx3112	AT-SBx3112-96POE+	AT-SBx3112-8XR	AT-SBx3112-12XS	AT-SBx3112-6XS
PRODUCT		Chassis with fan tray	Chassis bundle	Chassis bundle	Chassis bundle	Chassis bundle
SWITCH FUNCTIONALITY		Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+
ACCESSORIES	Controller Fabric Card (CFC)		1 x AT-SBx31CFC	2 x AT-SBx31CFC	2 x AT-SBx31CFC	1 x AT-SBx31CFC
	24 x 10/100/1000T PoE+		4 x AT-SBx31GP24			
	4 x XFP (10GbE)			2 x AT-SBx31XZ4		
	6 x SFP+ (10GbE)				2 x AT-SBx31XS6	1 x AT-SBx31XS6
	System power supply		1 x AT-SBxPWRSYS1	2 x AT-SBxPWRSYS1	2 x AT-SBxPWRSYS1-80 (DC)	1 x AT-SBxPWRSYS1-80 (DC)
	PoE power supply		1 x AT-SBxPWRPOE1			
POWER SUPPLY	Fan tray		1 x AT-SBx31FAN	1 x AT-SBx31FAN	1 x AT-SBx31FAN	1 x AT-SBx31FAN
	PSU type	Hot-swap internal	Hot-swap internal	Hot-swap internal	Hot-swap internal	Hot-swap internal
POWER OVER ETHERNET	-48VDC PSU option	■	■	■	■	■
	IEEE 802.3at Class 4 and 802.3af Class 3	■	■	■	■	■
	Max number of PoE-enabled ports		96			
	Max number of IEEE 802.3at ports		80			
	Max number of IEEE 802.3af ports		200			
ENVIRONMENTAL	Mode		A			
	Cooling	Fan tray	Fan tray	Fan tray	Fan tray	Fan tray
	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
MANAGEMENT	CLI / Telnet / SNMP	■	■	■	■	■
NETWORK RESILIENCE	Spanning tree	■	■	■	■	■
	Link aggregation (LACP)	■	■	■	■	■
	EPSR	■	■	■	■	■
QoS	IEEE 802.1p priority queues	8	8	8	8	8
SECURITY	IEEE 802.1Q VLANs	4K	4K	4K	4K	4K
	VLAN double tagging (Q-in-Q)	■	■	■	■	■
	RADIUS / TACACS+ / SSH	■	■	■	■	■
DIMENSIONS	(W x D x H)	48.03 x 38.79 x 31.01 cm 18.9 x 12.2 x 4.8 in	48.03 x 38.79 x 31.01 cm 18.9 x 12.2 x 4.8 in	48.03 x 38.79 x 31.01 cm 18.9 x 12.2 x 4.8 in	48.03 x 38.79 x 31.01 cm 18.9 x 12.2 x 4.8 in	48.03 x 38.79 x 31.01 cm 18.9 x 12.2 x 4.8 in
	Weight	17.77 kg / 39.1 lb	30.4 kg / 67.02 lb	28.91 kg / 63.6 lb	28.91 kg / 63.6 lb	28.91 kg / 63.6 lb





		SwitchBlade x3112 Channel Units				
FEATURES		AT-SBx31GP24	AT-SBx31GT24	AT-SBx31GT40	AT-SBx31GS24	AT-SBx31GC40
COPPER	1G PoE+	24				
	10/100/1000T		24			
	10/100/1000T			40		
FIBER	100MB / 1 Gigabit SFP				24	
	1 Gigabit CSFP / SFP					40/20

FEATURES		AT-SBx3112
POWER SUPPLY	AC	AT-SBxPWRSYS1-10
	DC	AT-SBxPWRSYS1-80
	PoE	AT-SBxPWRPOE1-10
CENTRAL FABRIC CONTROL	Primary	AT-SBx31CFC
	Secondary	AT-SBx31CFC
UPLINK AND TRANSPORT	Slots	8
	Model	AT-SBx31X24
	Number of ports	4 - SFP
	Port speed	10Gbps
CHANNEL UNIT SLOTS		8
	FTTx	320
	Ethernet	192
TEMPERATURE RANGE		0°C to 40°C (32°F to 104°F)
DIMENSIONS	(W x D x H)	48.03 x 38.79 x 31.01 cm (18.9 x 15.27 x 12.21 in)



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, financial institutions, and medical institutions.

Dual redundant management/fabric modules inter-connecting through redundant paths to the line cards over a passive backplane, and dual redundant power options, ensure 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 networks.

PoE+ provides greater power for applications such as IP surveillance cameras supporting Pan, Tilt and Zoom, IP video phones, 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 through a dedicated Gigabit port if required.

### 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 the Allied Telesis 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 high-efficiency 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.



# Aggregation and Distribution



## x900 Series

Allied Telesis x900 Series advanced Gigabit Layer 3 switches feature a highly modular design that allows flexible growth in response to network demands. They provide a range of hot-swappable copper and fiber expansion modules (XEMs) and dual, hot-swappable power supplies for ultimate versatility and reliability. Advanced QoS with extensive remarking capabilities and bandwidth metering ensure delivery of critical IPv4 and IPv6 traffic.



FEATURES		AT-x900-12XT/S	AT-x900-24XT	AT-x900-24XS	AT-x610-24Ts	AT-x610-24Ts/X	AT-x610-24Ts-POE+	AT-x610-24Ts/X-POE+	AT-x610-24SPs/X
<b>SWITCH FUNCTIONALITY</b>		Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3
<b>PORTS AND MEDIA SUPPORT</b>	10/100/1000T ports	12 combo	24	24	24	24	24	24	24
	100/1000X SFP ports	12 combo		24					24
	10G SFP+ ports	2 (AT-XEM-2XS)	4 (2 x AT-XEM-2XS)	4 (2 x AT-XEM-2XS)		4		4	4
	10G RJ-45 copper ports	2 (AT-XEM-2XT)	4 (2 x AT-XEM-2XT)	4 (2 x AT-XEM-2XT)					
	Module bays	1	2	2					
<b>POWER SUPPLY</b>	PSU type	Fixed internal	Dual internal hot-swap	Dual internal hot-swap	Fixed internal	Fixed internal	Removable internal	Removable internal	Fixed internal
	-48VDC PSU option		■	■			■	■	
	Redundant power supply				AT-RPS3000	AT-RPS3000	AT-RPS3000	AT-RPS3000	AT-RPS3000
	Additional PSU		AT-PWR01	AT-PWR01	AT-PWR250	AT-PWR250	AT-PWR800 AT-PWR1200	AT-PWR800 AT-PWR1200	AT-PWR250
<b>POWER OVER ETHERNET</b>	IEEE 802.3af (PoE)						■	■	
	IEEE 802.3at (PoE+)						■	■	
	PoE-enabled ports						24	24	
	Max PoE power						720W	720W	
	Max full power ports (boost power)						24	24	
<b>SCALABILITY</b>	MAC address table size	16K	16K	16K	32K	32K	32K	32K	32K
	Stacking (VCSStack)	■ AT-XEM-STK (2)	■ AT-XEM-STK (2)	■ AT-XEM-STK (2)	■ AT-StackXG (8)	■ AT-StackXG (8)	■ AT-StackXG (8)	■ AT-StackXG (8)	■ AT-StackXG (8)
	Long-distance VCSStack				■ AT-x6EM/XS2 (8)	■ AT-x6EM/XS2 (8)	■ AT-x6EM/XS2 (8)	■ AT-x6EM/XS2 (8)	■ AT-x6EM/XS2 (8)
	Stacking bandwidth	60G (AT-XEM-STK)	60G (AT-XEM-STK)	60G (AT-XEM-STK)	48G (AT-StackXG) 40G (AT-x6EM/XS2)	48G (AT-StackXG) 40G (AT-x6EM/XS2)	48G (AT-StackXG) 40G (AT-x6EM/XS2)	48G (AT-StackXG) 40G (AT-x6EM/XS2)	48G (AT-StackXG) 40G (AT-x6EM/XS2)
<b>ENVIRONMENTAL</b>	Cooling	Fan	Fan	Fan	Fan	Fan	Fan	Fan	Fan
	Temperature range	0°C to 50°C	0°C to 40°C	0°C to 40°C	0°C to 45°C	0°C to 45°C	0°C to 45°C	0°C to 45°C	0°C to 45°C
<b>MANAGEMENT</b>	Web GUI	■	■	■	■	■	■	■	■
	CLI / Telnet / SNMP	■	■	■	■	■	■	■	■
	IPv6 management	■	■	■	■	■	■	■	■
	DHCPv4 / v6 server	■	■	■	■	■	■	■	■
	AMF	■	■	■	■	■	■	■	■
<b>NETWORK RESILIENCE</b>	Spanning tree	■	■	■	■	■	■	■	■
	Link aggregation (LACP)	■	■	■	■	■	■	■	■
	EPSRing	■	■	■	■	■	■	■	■
	VRRPv3	■	■	■	■	■	■	■	■
<b>QoS</b>	IEEE 802.1p priority queues	8	8	8	8	8	8	8	8
	IEEE 802.1Q VLANs	4096	4096	4096	4096	4096	4096	4096	4096
<b>SECURITY</b>	RADIUS / TACACS+	■	■	■	■	■	■	■	■
	SSH / SSL	■	■	■	■	■	■	■	■
	IEEE 802.1x	■	■	■	■	■	■	■	■
	DoS protection	■	■	■	■	■	■	■	■
	DHCP snooping	■	■	■	■	■	■	■	■
<b>ROUTING</b>	Static routes v4 / v6	■	■	■	■	■	■	■	■
	RIP / RIPng	■	■	■	■	■	■	■	■
	OSPFv2 / v3	■	■	■	■	■	■	■	■
	Policy-based routing	■	■	■	■	■	■	■	■
	VRF Lite	■	■	■	■	■	■	■	■
<b>MULTICASTING</b>	IGMPv1 / v2 / v3	■	■	■	■	■	■	■	■
	MLDv1 / v2	■	■	■	■	■	■	■	■
	PIMv4 / PIMv6	■	■	■	■	■	■	■	■
	PIM-SSM	■	■	■	■	■	■	■	■
<b>DIMENSIONS</b>	W x D x H	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 42 x 4.4 cm 17.3 x 16.5 x 1.73 in	44 x 42 x 4.4 cm 17.3 x 16.5 x 1.73 in	44 x 42 x 4.4 cm 17.3 x 16.5 x 1.73 in	44 x 42 x 4.4 cm 17.3 x 16.5 x 1.73 in	44 x 42 x 4.4 cm 17.3 x 16.5 x 1.73 in
	Weight (unpacked)	5.3 kg / 11.6 lb	7.3 kg / 16.1 lb with 1 PSU	7.3 kg / 16.1 lb with 1 PSU	6.3 kg / 13.9 lb	5.6 kg / 12.3 lb excluding PSU	6.3 kg / 13.9 lb	5.6 kg / 12.3 lb excluding PSU	5.8 kg / 12.8 lb



Allied Telesis x610 Series switches provide performance, scalability, resiliency, and security and are easy to manage using AlliedWare Plus CLI and Web interfaces. The x610 Series features hardware stacking up to eight units using Allied Telesis Virtual Chassis Stacking (VCStack) with either local or long-distance stacking links of up to 48Gbps dedicated bandwidth. Sophisticated and comprehensive security features protect the network from the edge to the core.



VCStack provides resiliency and reduces complexity by allowing multiple switches to be connected together via high-speed stacking links. This aggregates the switches, which then appear as a single switch, or “virtual chassis.” The virtual chassis can be configured and managed via a single serial console or IP address, which provides greater ease of management in comparison to an arrangement of individually-managed switches, and often eliminates the need to configure protocols like VRRP and spanning tree.



VCStack™

the **solution**: the network

# Advanced Gigabit Edge



## x510 Series

The Allied Telesis x510 Series of stackable Gigabit switches includes a full range of security and resiliency features. With a choice of 24- and 48-port models with 10 Gigabit uplinks, PoE+ and fiber, combined with the power of VCStack, they offer a versatile solution for applications at the network edge.

## EPSRing

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



FEATURES		AT-SBx3112	AT-x510-28GTX	AT-x510-52GTX	AT-x510-28GPX
<b>SWITCH FUNCTIONALITY</b>		Layer 2+	Basic Layer 3 upgradable to advanced Layer 3	Basic Layer 3 upgradable to advanced Layer 3	Basic Layer 3 upgradable to advanced Layer 3
<b>PORTS AND MEDIA SUPPORT</b>	10/100/1000T	192/320	24	48	24
	100/1000X SFP ports	192/320			
	1G/10G SFP+ ports	48 (10G only)	4 (2 if stacked)	4 (2 if stacked)	4 (2 if stacked)
<b>POWER SUPPLY</b>	PSU type	Modular single / dual	Dual fixed internal	Dual fixed internal	Dual fixed internal
	-48VDC PSU option	Modular single / dual			
	Additional PSU	Modular single / dual			
<b>POWER OVER ETHERNET</b>	IEEE 802.3at	30W per port, 40 ports max			■
	PoE+ enabled ports	240			24
	Max PoE+ power	1500W			370W
	Max full power ports (boost power)	40			12
<b>SCALABILITY</b>	MAC address table size	32K	16K	16K	16K
	Stacking (VCStack)		■ (4)	■ (4)	■ (4)
	Long-distance VCStack		■ (4)	■ (4)	■ (4)
	Stacking bandwidth		40G (2 x SFP+)	40G (2 x SFP+)	40G (2 x SFP+)
<b>ENVIRONMENTAL</b>	Cooling	Fan	Fan	Fan	Fan
	Temperature range	0°C to 40°C	0°C to 45°C	0°C to 45°C	0°C to 45°C
<b>MANAGEMENT</b>	Web GUI	■	■	■	■
	CLI / Telnet / SNMP	■	■	■	■
	IPv6 management	■	■	■	■
	DHCPv4 / v6 server	■	■	■	■
	AMF	■	■	■	■
<b>NETWORK RESILIENCE</b>	Spanning tree	■	■	■	■
	Link aggregation (LACP)	■	■	■	■
	EPSRing	■	■	■	■
	VRRPv3	■	■	■	■
<b>QoS</b>	IEEE 802.1p priority queues	8	8	8	8
<b>SECURITY</b>	IEEE 802.1Q VLANs	4096	4096	4096	4096
	RADIUS / TACACS+	■	■	■	■
	SSH / SSL	■	■	■	■
	IEEE 802.1x	■	■	■	■
	DoS protection	■	■	■	■
	DHCP snooping	■	■	■	■
<b>ROUTING</b>	Static routes v4 / v6	■	■	■	■
	RIP / RIPv6	■	■	■	■
	OSPFv2 / v3	■	■	■	■
	Policy-based routing	■	■	■	■
<b>MULTICASTING</b>	IGMPv1 / v2 / v3	■	■	■	■
	MLDv1 / v2	■	■	■	■
	PIMv4 / PIMv6	■	■	■	■
	PIM-SSM	■	■	■	■
<b>DIMENSIONS</b>	W x D x H	48.03 x 38.79 x 31.01 18.91 x 15.27 x 12.21	44 x 32.5 x 4.4 cm 17.3 x 12.8 x 1.73 in	44 x 32.5 x 4.4 cm 17.3 x 12.8 x 1.73 in	44 x 40 x 4.4 cm 17.3 x 15.7 x 1.73 in
	Weight (unpacked)	17.77 kg / 39.1 lb	4.3 kg / 9.5 lb	5.2 kg / 11.5 lb	5.8 kg / 12.8 lb



for applications that have strict loss requirements, such as voice and video traffic, where the speed of recovery is highly significant. Allied Telesis Ethernet Protection Switched Ring (EPSRing) provides high-speed (~50ms) reconfigurations in the event of a failure, ensuring no noticeable loss of service.



## x210 Series

The Allied Telesis x210 Series of enterprise edge switches offers a reliable and value-packed solution for today's networks. Featuring comprehensive edge security features and powerful loop detection and control mechanisms, the x210 Series protects the network from disruption.



AT-x510-52GPX	AT-x510-28GSX	AT-x210-9GT	AT-x210-16GT	AT-x210-24GT
Basic Layer 3 upgradable to advanced Layer 3	Basic Layer 3 upgradable to advanced Layer 3	Layer 2+	Layer 2+	Layer 2+
48	24	8	14 + 2 combo	20 + 4 combo
4 (2 if stacked)	4 (2 if stacked)	1	2 combo	4 combo
Dual fixed internal	Dual fixed internal	Fixed internal	Fixed internal	Fixed internal
■				
48				
370W				
12				
16K	16K	8K	8K	8K
■ (4)	■ (4)			
■ (4)	■ (4)			
40G (2 x SFP+)	40G (2 x SFP+)			
Fan	Fan	Fanless	Fanless	Fanless
0°C to 45°C	0°C to 45°C	0°C to 50°C	0°C to 40°C	0°C to 40°C
■	■	■	■	■
■	■	■	■	■
■	■	■	■	■
■	■	■ (v4 only)	■ (v4 only)	■ (v4 only)
■	■	■	■	■
■	■	■	■	■
■	■	■	■	■
8	8	4	4	4
4096	4096	256	256	256
■	■	■	■	■
■	■	■	■	■
■	■	■	■	■
■	■	■	■	■
■	■	■	■	■
■	■	■	■	■
■	■	■ (Snooping)	■ (Snooping)	■ (Snooping)
■	■	■ (Snooping)	■ (Snooping)	■ (Snooping)
■	■			
44 x 40 x 4.4 cm 17.3 x 15.7 x 1.73 in	44 x 32.5 x 4.4 cm 17.3 x 12.8 x 1.73 in	26 x 18 x 3.8 cm 10.3 x 7.1 x 1.5 in	34 x 21 x 4.4 cm 13.4 x 8.3 x 1.73 in	44 x 21 x 4.4 cm / 17.3 x 8.3 x 1.73 in
6.2 kg / 13.7 lb	4.8 kg / 10.6 lb	1.4 kg / 3.1 lb	2.0 kg / 4.4 lb	2.7 kg / 6.0 lb



## Data Center



## AT-DC2552XS

**HIGH PERFORMANCE, LOW LATENCY TOP-OF-RACK DATA CENTER SWITCH**

Designed for virtualized data centers and Cloud environments, the Allied Telesis AT-DC2552XS switch provides high-density 10GbE and 40GbE connectivity, making it ideal for today's mini and small data centers, which use up to hundreds of server ports.

The AT-DC2552XS 48 x 10GbE (SFP+) port high-bandwidth and high-density switch is designed for data center applications and provides four QSFP+ 40GbE slots for high-bandwidth "fat-pipe" uplinks. Further, this switch delivers 1280Gbps of switching fabric with ultra-low latency.

Airflow has been optimized for front (PSU and fan side)-to-back (ports side) cooling and can accommodate a 1+1 resilient power supply in a very compact 1RU chassis.

In combination with the AT-VNC10S Network Interface Card (C-NIC) for servers, it helps clients to reduce the number of I/O adapters, reducing cost, and complexity.

**AT-DC2552XS Modules**

» **AT-PWR06**  
Hot-swappable AC power supply



» **AT-FAN**  
Hot-swappable fan

**LAN Adapter**

» **AT-VNC10S**  
PCI Express dual port LAN adapter

**AT-DC2552XS Accessories and Optics****QSFP+ and Cables**

- » **AT-QSFP1CU**  
QSFP+ copper cable, 1 m
- » **AT-QSFP3CU**  
QSFP+ copper cable, 3 m
- » **AT-QSFP5SR**  
QSFP+ module

**Optical Cables**

- » **AT-MTP12-1**  
MTP cable for AT-QSFP5SR, 1 m
- » **AT-MTP12-5**  
MTP cable for AT-QSFP5SR, 5 m

**Breakout Cables\***

- » **AT-QSFP-4SFP10G-3CU**  
QSFP to 4 x SFP+ breakout direct attach cable, 3 m
- » **AT-QSFP-4SFP10G-5CU**  
QSFP to 4 x SFP+ breakout direct attach cable, 5 m

**SFP+ Modules**

- » **AT-SP10SR**  
10G-SR
- » **AT-SP10LR**  
10G-LR
- » **AT-SP10TW1**  
10G SFP+ direct attach cable, 1 m
- » **AT-SP10TW3**  
10G SFP+ direct attach cable, 3 m
- » **AT-SP10TW7**  
10G SFP+ direct attach cable, 7 m

**SFP Modules\***

- » **AT-SPLX10**  
1000LX
- » **AT-SPSX**  
1000SX

\* Future support

# Industrial and Extended Temperature

Allied Telesis industrial and extended temperature products provide the capability to extend networks outside of an office environment. Extended temperature switches enable cost-effective solutions to be built without the need to employ higher-cost industrial temperature devices.

Designed for Programmable Logic Controllers (PLCs), robots, industrial pumps, industrial control units, and various outdoor applications such as video surveillance, control level (and higher) in factory automation, roadside control signs, high-speed mobility, and building automation, Allied Telesis industrial and extended temperature switches are flexible and can adapt to unique environments.

## AT-x900-12XT/S

The AT-x900-12XT/S Gigabit switch supports advanced Layer 3 functionality. With 12 combo ports, operating as either 10/100/1000T or SFP (100 and 1000Mbps), the switch provides the ultimate in port flexibility. The switch also supports 1 XEM expansion slot that can be populated with a choice of modules, providing additional Gigabit ports and even 10G ports.



EXTENDED TEMPERATURE

- » Operating temperature: 0°C to 50°C
- » 12 x 10/100/1000T or SFP (100 or 1000Mbps) combo ports
- » Advanced Layer 3 functionality
- » See page 11
- » 1 x XEM expansion port supporting:
  - AT-XEM-12S 12 x 100 / 1000Mbps SFP
  - AT-XEM-12Sv2 12 x 1000Mbps SFP
  - AT-XEM-12Tv2 12 x 10/100/1000T ports
  - AT-XEM-24T 1 x 10G XFP
  - AT-XEM-2XP 2 x 10G XFP
  - AT-XEM-2XS 2 x 10G SFP+
  - AT-XEM-2XT 2 x 10G RJ-45
  - AT-XEM-STK Stacking module allowing 2 x AT-x900-12XT/S to be stacked

## AT-x210-9GT

The AT-x210-9GT is a compact switch for network access applications with an impressive set of features in an affordable package. It is ideal for applications at the network edge in space-constrained environments. Its special design, small size, reduced power consumption, low heat dissipation, and silent, fanless operation make it the best choice for fiber deployments that require extended temperature and quiet operation.



EXTENDED TEMPERATURE

- » Operating temperature: 0°C to 50°C
- » 8 x 10/100/1000T ports
- » 1 SFP port
- » Fanless operation
- » Compact size
- » AlliedWare Plus CLI and Web Interface
- » Tri-Authentication
- » Ethernet Protection Switched Rings (EPSRing)
- » Voice, video and data convergence
- » Find Me device locator

## AT-8100L/8POE-E

The AT-8100L/8POE-E Fast Ethernet switch is ideal for warehouse-type applications where cameras and access points must be installed to provide network and security coverage, but where the temperature range exceeds that of an office environment.



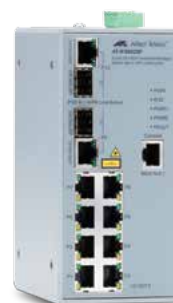
EXTENDED TEMPERATURE

- » Operating temperature: 0°C to 50°C
- » 8 x 10/100TX ports
- » 2 x 10/100/1000T / SFP combo ports
- » PoE+ power on all 10/100TX ports
- » PoE+ budget of 185 W
- » Layer 2–Layer 4 managed switch
- » See page 18
- » Basic Layer 3 functionality

eco friendly PoE  
Not available in USA or Canada.

## AT-IFS802SP

The AT-IFS802SP switch provides managed Layer 2 connectivity for 8 x 10/100TX ports, with two 10/100/1000T / SFP combo uplinks. The switch is designed for standalone or DIN rail mounting, and is powered by either one or two external DC power supplies.



INDUSTRIAL TEMPERATURE

- » Operating temperature: -10°C to 60°C
- » 8 x 10/100TX ports
- » 2 x 10/100/1000T / SFP (100 / 1000Mbps) ports
- » 12-48vDC redundant power supply
- » DIN rail mounted
- » IP30 metal case
- » Managed Layer 2 functionality

# Gigabit Edge

Allied Telesis Gigabit Ethernet switches provide advanced management and security features to the edge while cost-effectively enhancing delivery of converged data, supporting the needs of small- and medium-sized businesses.

## 9000 Series

The Allied Telesis 9000 Series of high-performance Layer 2 28-port and 52-port standalone Gigabit Ethernet switches offers advanced enterprise features at an affordable price. With 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 multiple sites. Features such as IEEE 802.1x port-based authentication, Microsoft Network Access, and Symantec Network Access Control provide security at the network edge.



## 8000GS Series

The Allied Telesis 8000GS Series of Gigabit Ethernet stackable switches provides high-performance Layer 2 switching in an affordable, fixed-configuration platform. The 8000GS offers 24-port 10/100/1000T PoE and non-PoE versions, as well as a 48-port 10/100/1000T model. All models support four 1Gbps SFP combo 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.



### Securing the Network Edge

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

### Ideal and Reliable 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 of today's networks.



FEATURES	AT-9000/28	AT-9000/28SP	AT-9000/52	AT-8000GS/24	AT-8000GS/24POE	AT-8000GS/48
<b>SWITCH FUNCTIONALITY</b>	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2
<b>PORTS AND MEDIA SUPPORT</b>	10/100/1000T 28 SFP	10/100/1000T 28 SFP	10/100/1000T 48 SFP	10/100/1000T 24 SFP	10/100/1000T 24 SFP	10/100/1000T 48 SFP
<b>POWER OVER ETHERNET</b>	Power over Ethernet (PoE) PoE ports IEEE 802.3af Class 3 (15.4W) PoE budget				24 9 140W	
<b>SCALABILITY</b>	MAC address table size Stacking	8K ■ *	8K ■ *	8K ■ (6)	8K ■ (6)	8K ■ (6)
<b>ENVIRONMENTAL</b>	Cooling Eco-friendly Temperature range	Low noise fan ■ 0°C to 40°C	Fan ■ 0°C to 40°C	Fan ■ 0°C to 40°C	Fan ■ 0°C to 40°C	Fan ■ 0°C to 40°C
<b>MANAGEMENT</b>	Web CLI/Telnet/SNMP IPv6	■ ■ ■	■ ■ ■	■ ■ ■	■ ■ ■	■ ■ ■
<b>NETWORK RESILIENCE</b>	Spanning tree Link aggregation (LACP)	■ ■	■ ■	■ ■	■ ■	■ ■
<b>QoS</b>	IEEE 802.1p priority queues	8	8	4	4	4
<b>SECURITY</b>	IEEE 802.1Q VLANs RADIUS/IEEE 802.1x TACACS SSH/SSL	4094 ■ ■ ■	4094 ■ ■ ■	4094 ■ ■ ■	256 ■ ■ ■	256 ■ ■ ■
<b>DIMENSIONS</b>	(W x D x H) Weight	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in 3.61 kg / 7.95 lb	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in 4.01 kg / 8.85 lb	44 x 25.6 x 4.3 cm 17.3 x 10 x 1.7 in 4.06 kg / 8.95 lb	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in 3.15 kg / 6.94 lb	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in 3.50 kg / 7.71 lb
<b>IDEAL ENVIRONMENT</b>	Edge connections / SMB / retail stores / schools	Fiber edge connections / SMB / retail stores / schools / long-distance connections of larger campuses	Edge connections / SMB / retail stores / schools	Edge connections / SMB / retail stores / schools	Edge connections / SMB / retail stores / schools / powering cameras, wireless access points, and IP phones	Edge connections / SMB / retail stores / schools
<b>CUSTOMER'S NEEDS</b>	Gigabit connectivity / security management / security of data	Gigabit connectivity / security management / security of data	Gigabit connectivity / security management / security of data	Gigabit connectivity / stacking / security management / security of data	Gigabit connectivity / stacking / security management / security of data	Gigabit connectivity / stacking / security management / security of data



# Fast Ethernet Edge

Allied Telesis Fast Ethernet fiber switches provide both additional security and network size compared with copper-based networks. The switches offer standalone and stackable solutions targeted for the enterprise edge market, and are traditionally used in defense, government, campus, and security applications.

## Security of Data

Allied Telesis guarantees protection and secure management of administrator's network by providing strong security standards and authentication mechanism for access at the edge of a network. Allied Telesis edge switches allow network controllers to restrict external devices from gaining unauthenticated access to the network.

## Effective Traffic Monitoring

In order to fully understand the performance of the network and ensure the ongoing smooth delivery of critical data, users must be able to measure and analyze the traffic in real time. Allied Telesis edge switches facilitate effective traffic monitoring with sFlow and RMON, which together provide better visibility on the performance and use of the network, helping management to take appropriate decisions crucial for an organization to function and manage efficiently.



		FAST ETHERNET FIBER			
FEATURES		AT-8516F	AT-8100S/16F8-SC*	AT-8100S/16F8-LC*	AT-8100S/24F-LC*
SWITCH FUNCTIONALITY	Layer 2	16 (SC) MMF	16 (SC) MMF	16 (LC) MMF	24 (LC) MMF
	100FX				
	10/100TX		8	8	
	10/100/1000T		2	2	2
	SFP		2 (combo) (100 or 1000Mbps)	2 (combo) (100 or 1000Mbps)	2 (combo) (100 or 1000Mbps)
PORTS AND MEDIA SUPPORT	Modular uplinks	2			
	1 x 1000T	AT-A46			
	1 x GBIC	AT-A47			
	1 x 100FX	AT-A45			
MODULAR UPLINKS	PSU type	Fixed internal	2 fixed internal	2 fixed internal	2 fixed internal
	-48VDC PSU option				
	Redundant PSU option	■	Internal	Internal	Internal
	Redundant PSU chassis (incl 1 PSU)	AT-RPS3004			
POWER SUPPLY	Additional redundant PSU	AT-PWR3004			
	MAC address table size	8K	16K	16K	16K
SCALABILITY	Stacking		■ (8)	■ (8)	■ (8)
	Cooling	Fan	Fan	Fan	Fan
ENVIRONMENTAL	Variable speed fan		■	■	■
	Eco-friendly		■	■	■
	Temperature range	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C
MANAGEMENT	Web	■	■	■	■
	CLI	■	■	■	■
	Telnet	■	■	■	■
	SNMP	■	■	■	■
NETWORK RESILIENCE	Spanning tree	■	■	■	■
	Link aggregation (LACP)	■	■	■	■
QoS	IEEE 802.1p priority queues	4	8	8	8
	IEEE 802.1Q VLANs	256	4096	4096	4096
SECURITY	RADIUS	■	■	■	■
	TACACS	■	■	■	■
	SSH/SSL	■	■	■	■
	IEEE 802.1x	■	■	■	■
	DoS protection	■			
ROUTING			Basic	Basic	Basic
DIMENSIONS	(W x D x H)	43.8 x 18.4 x 4.4 cm 17.24 x 7.24 x 1.73 in	33 x 20.5 x 4.3 cm 13 x 8 x 1.7 in	33 x 20.5 x 4.3 cm 13 x 8 x 1.7 in	33 x 20.5 x 4.3 cm 13 x 8 x 1.7 in
	Weight	3.5 kg / 7.6 lb	4.1 kg / 9.1 lb	4.4 kg / 9.75 lb	4.4 kg / 9.75 lb

\* Not available in USA or Canada

# Fast Ethernet Edge

Allied Telesis Fast Ethernet copper 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 popular Allied Telesis 8000S Series of high performance stackable Fast Ethernet switches provides advanced enterprise features at an affordable investment level to improve the delivery of converged data. The 8000S Series is ideal for branch offices or the wiring closet of larger offices. The state-of-the-art QoS capability of this product ensures reliable delivery of advanced network services, such as voice, while effectively controlling the continually increasing traffic needs found in today's networks.



FAST ETHERNET COPPER								
FEATURES		AT-8100L/8*	AT-8000/8POE	AT-8100L/8POE*	AT-8100L/8POE-E*	AT-8000S/16	AT-8000S/24	AT-8000S/24POE
SWITCH FUNCTIONALITY		Layer 2-4	Layer 2	Layer 2-4	Layer 2-4	Layer 2	Layer 2	Layer 2
PORTS AND MEDIA SUPPORT	10/100TX	8	8	8	8	16	24	24
	10/100/1000T	2	1	2	2	1	2	2
	SFP	2 (combo) 100 or 1000Mbps	1 (combo) 1000Mbps	2 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	1 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps
	Modular uplinks							
MODULAR UPLINKS		1 x 100FX						
POWER SUPPLY	PSU type	Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal
	-48VDC PSU option							
	Redundant PSU option							
	Redundant PSU chassis (incl 1 PSU)							
	Additional redundant PSU							
POWER OVER ETHERNET	Power over Ethernet (PoE)		■	■	■			■
	PoE ports		8	8	8			24
	IEEE 802.3af Class 3 (15.4W)		6	6	6			12
	IEEE 802.3at Class 4 PoE+ (30W)		6	6	6			12
	PoE budget		95W	185W	185W			185W
SCALABILITY	MAC address table size	16K	8K	16K	16K	8K	8K	8K
	Stacking						■	■
ENVIRONMENTAL	Cooling	Fan	Fan	Fan	Fan	Fanless	Fanless	Fan
	Variable-speed fan	■		■	■			
	Eco-friendly	■		■	■			
	Temperature range	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 50°C	0°C to 40°C	0°C to 40°C	0°C to 40°C
MANAGEMENT	Web	■		■	■	■	■	■
	CLI	■	■	■	■	■	■	■
	Telnet	■	■	■	■	■	■	■
	SNMP	■	■	■	■	■	■	■
NETWORK RESILIENCE	Spanning tree	■	■	■	■	■	■	■
	Link aggregation (LACP)	■		■	■	■	■	■
QoS	IEEE 802.1p priority queues	8		8	8	4	4	4
	IEEE 802.1Q VLANs	4096	255	4096	4096	256	256	256
	RADIUS	■	■	■	■	■	■	■
SECURITY	TACACS	■		■	■	■	■	■
	SSH/SSL	■		■	■	■	■	■
	IEEE 802.1x	■	■	■	■	■	■	■
	DoS protection							
ROUTING		Basic		Basic	Basic			
DIMENSIONS	(W x D x H)	33 x 20.5 x 4.3 cm 13 x 8 x 1.7 in	33 x 22.8 x 4.3 cm 13 x 8 x 1.7 in	33 x 20.5 x 4.3 cm 13 x 8 x 1.7 in	33 x 20.5 x 4.3 cm 13 x 8 x 1.7 in	33 x 12 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
	Weight	2.29 Kg / 5.05 lb	2.2 Kg / 4.9 lb	2.29 Kg / 5.05 lb	2.29 Kg / 5.05 lb	1.95 Kg / 4.29 lb	3.15 Kg / 6.94 lb	3.7 Kg / 8.15 lb
IDEAL ENVIRONMENT		Wiring-constrained and smaller environments such as micro branch offices, classrooms, cafes, and small retail stores	Wiring-constrained and smaller environments such as micro branch offices, classrooms, cafes, and small retail stores	Wiring-constrained and smaller environments such as micro branch offices, classrooms, cafes, and small retail stores	Wiring-constrained and smaller environments that require extended temperature such as ATMs and kiosks	Wiring-constrained and smaller environments such as micro branch offices, classrooms, cafes, and smaller retail stores	SMB, offices, schools and retail stores	Edge / SMB, small offices, schools, and retail stores / powering cameras, RFID readers, IP phones, IP cameras, or wireless access points
CUSTOMER'S NEEDS		Fast ethernet connectivity / security management / security of data	Fast ethernet connectivity / security management / security of data / physical security	Fast ethernet connectivity / security management / security of data / poe / physical security	Fast ethernet connectivity / security management / security of data / poe / physical security	Fast ethernet connectivity / stacking / security management / security of data	Fast ethernet connectivity / stacking / security management / security of data	Fast ethernet connectivity / stacking / security management / security of data / physical security



## 8600 Series

The 8600 Series of cost-effective, feature-rich Fast Ethernet Layer 3 edge switches is 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 multiple 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.



### FAST ETHERNET COPPER

AT-8100S/24C*	AT-8100S/24*	AT-8100S/24POE*	AT-8000S/48	AT-8000S/48POE	AT-8100S/48*	AT-8100S/48POE*	AT-8624T/2M-V2	AT-8624POE-V2
Layer 2-4	Layer 2-4	Layer 2-4	Layer 2	Layer 2	Layer 2-4	Layer 2-4	Layer 3	Layer 3
24	24	24	48	48	48	48	24	24
2	2	2	2	2	2	2	2	2
2 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	2 (combo) 1000Mbps	2 (combo) 1000Mbps
2							2	2
Fixed internal	2 Fixed internal	2 Fixed internal	Fixed internal	Fixed internal	2 Fixed internal	2 Fixed internal	AT-A45 Fixed internal	AT-A45 Fixed internal
	■	■			■	■	■	■
							AT-RPS3004 AT-PWR3004	AT-RPS3104 AT-PWR3101
		■		■		■		■
		24		48		48		24
		24		24		12		24
		12		12		12		
		370W		375W		370W		400W
16K	16K	16K	8K	8K	16K	16K	8K	8K
■	■	■	■	■		■		
Fanless	Fanless	Fan	Fan	Fan	Fanless	Fan	Fan	Fan
■	■	■			■	■		
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	0°C to 40°C	0°C to 40°C	0°C to 40°C
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
8	8	8	4	4	8	8	4	4
4096	4096	4096	256	256	4096	4096	256	256
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■
Basic	Basic	Basic			Basic	Basic	■ (Full)	■ (Full)
33 x 20.5 x 4.3 cm 13 x 8 x 1.7 in	44 x 29.5 x 4.3 cm 17.32 x 11.43 x 1.7 in	44 x 29.5 x 4.3 cm 17.32 x 11.43 x 1.7 in	44 x 25.7 x 4.3 cm 17.3 x 13.7 x 1.7 in	44 x 34.7 x 4.3 cm 17.32 x 13.7 x 1.7 in	44 x 29.5 x 4.3 cm 17.32 x 11.43 x 1.7 in	44 x 29.5 x 4.3 cm 17.32 x 11.43 x 1.7 in	43.8 x 22.2 x 4.4 cm 17.24 x 8.7 x 1.73 in	43.8 x 40.6 x 4.4 cm 17.24 x 15.98 x 1.73 in
2.15 kg / 4.75 lb	3.62 kg / 8.1 lb	3.62 kg / 8.1 lb	3.38 Kg / 7.45 lb	5.6 Kg / 12.34 lb	4.03 kg / 8.9 lb	5.42 kg / 11.95 lb	3.3 Kg / 7.27 lb	6 Kg / 13.22 lb
Edge / SMB, small offices, schools, and retail stores / small environments	Edge / SMB, small offices, schools, and retail stores	SMB, small offices, schools, and retail stores / powering cameras, RFID readers, IP phones, IP cameras, or wireless access points	Edge / SMB, small offices, schools, and retail stores	SMB, small offices, schools, and retail stores / powering cameras, RFID readers, IP phones, IP cameras, or wireless access points	Edge / SMB, small offices, schools, and retail stores	SMB, small offices, schools, and retail stores / powering cameras, RFID readers, IP phones, IP cameras, or wireless access points	Edge that requires Layer 3 capabilities / SMB	Edge that requires Layer 3 capabilities / powering cameras, RFID readers, IP phones, IP cameras, or wireless access points
Fast ethernet connectivity / stacking / security management / security of data	Fast ethernet connectivity / stacking / security management / security of data	Fast ethernet connectivity / stacking / security management / security of data	Fast ethernet connectivity / stacking / security management / security of data	Fast ethernet connectivity / stacking / security management / security of data	Fast ethernet connectivity / stacking / security management / security of data	Fast ethernet connectivity / stacking / security management / security of data	Fast ethernet connectivity / security management / security of data	Fast ethernet connectivity / security management / security of data

\* Not available in USA or Canada



# WebSmart

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 security, authentication, and data priority — but at a lower cost point than a fully-managed device.

## Simple Configuration

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

## 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 budget-sensitive companies looking for advanced

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. In this scenario, the backbone network will provide all the client authentication.



		FAST ETHERNET			
FEATURES		AT-FS750/16	AT-FS750/24	AT-FS750/24POE	AT-FS750/48
PORTS AND MEDIA SUPPORT	10/100TX	16	24	24	48
	10/100/1000T	2 (combo)	2 (combo)	2 (combo)	2 (combo)
	SFP	2 (combo)	2 (combo)	2 (combo)	2 (combo)
	100FX SFP support	■	■	■	■
POWER SUPPLY		Internal	Internal	Internal	Internal
POWER OVER ETHERNET	Power over Ethernet (PoE)			■	
	PoE ports			12	
	IEEE 802.3af Class 3 (15.4W)			6	
	IEEE 802.3at Class 4 PoE+ (30W)				
SCALABILITY				100W	
ENVIRONMENTAL	MAC address table size	8K	8K	8K	8K
	Cooling	Fanless	Fanless	Fan	Fan
MANAGEMENT	Eco-friendly			■	■
	Web	■	■	■	■
NETWORK RESILIENCE	SNMPv1 / v2	■	■	■	■
	Spanning tree	■	■	■	■
	Rapid spanning tree	■	■	■	■
	Link aggregation (LACP)	■	■	■	■
	IGMP snooping (v1 / v2)	■	■	■	■
QoS	Port setting (speed, availability, flow control)	■	■	■	■
	IEEE 802.1p priority queues	4	4	4	4
SECURITY	IEEE 802.1Q VLANs	256	256	256	256
	IEEE 802.1x	■	■	■	■
	RADIUS / DHCP client	■	■	■	■
OTHER	Jumbo frames (9K)	■			
	Port mirroring	■	■	■	■
	MAC filtering / ingress / egress rate limiting / broadcast storm control	■	■	■	■
DIMENSIONS	(W x D x H)	35.2 x 25.6 x 4.3 cm 13.85 x 10 x 1.7 in	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in	44.4 x 32.2 x 4.3 cm 17.5 x 12.7 x 1.7 in	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	4.13 kg / 9.11 lb	3.79 kg / 8.35 lb
IDEAL ENVIRONMENT		Classroom / home office / SMB / security at the edge	Classroom / home office / SMB / security at the edge	Classroom / home office / SMB / security at the edge	Classroom / home office / SMB / security at the edge
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



## GS950 Series

Allied Telesis redesigned the popular GS950 series of Gigabit WebSmart switches with PoE, delivering up to 30 Watts per port to support video surveillance and security cameras, wireless access points, IP phones, and other PoE powered devices. The GS950 Series also features IPv6 management and TACACS+ to add an extra layer of security.



### GIGABIT ETHERNET

	AT-GS950/8	AT-GS950/8POE	AT-GS950/10PS	AT-GS950/16	AT-GS950/16PS	AT-GS950/24	AT-GS950/48PS	AT-GS950/48
	8	8	10	16	16	24	48	48
	2 (combo)	2 (combo)	2 (combo)	2 (combo)	2 (combo)	4 (combo)	2 (combo)	4 (combo)
	■	■	■	■	■	■	■	■
	Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal
		8	8		14		24	
		4	4		12		24	
			2		6		12	
		60W	75W		185W		370W	
	8K	8K	8K	8K	8K	8K	8K	8K
	Fanless	Fanless	Fanless	Fanless	Fan	Fanless	Fan	Fan
	■	■	■	■	■	■	■	■
	■ v3	■	■	■ v3	■	■ v3	■	■
	■	■	■	■	■	■	■	■
	■	■	■	■	■	■	■	■
	■	■	■	■	■	■	■	■
	■	■	■	■	■	■	■	■
	4	4	4	4	4	4	4	4
	256	256	256	256	256	256	256	256
	■	■	■	■	■	■	■	■
	■	■	■	■	■	■	■	■
	■	■	■	■	■	■	■	■
	■	■	■	■	■	■	■	■
	■	■	■	■	■	■	■	■
	28 x 17.9 x 4.3 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 1.73 in	33 x 20 x 4.4 cm 13 x 7.9 x 1.73 in	43 x 25 x 4.4 cm 16.9 x 9.8 x 1.73 in	33 x 20 x 4.4 cm 13 x 7.9 x 1.73 in	44 x 43 x 4.4 cm 17.3 x 16.9 x 1.73 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	1.9 Kg / 4.20 lb	2.1 kg / 4.63 lb	3.56 Kg / 7.85 lb	2.3 kg / 5.07 lb	6.62 Kg / 14.60 lb	4.05 kg / 8.92 lb
	Classroom / home office / SMB / security at the edge	Classroom / home office / SMB / security at the edge	POS and retail / classroom / home office / SMB / security cameras / security at the edge	Classroom / home office / SMB / security at the edge	POS and retail / classroom / home office / SMB / security cameras / security at the edge	Classroom / home office / SMB / security at the edge	POS and retail / classroom / home office / SMB / security cameras / security at the edge	Classroom / home office / SMB / security at the edge
	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	Security and video surveillance / 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	Security and video surveillance / 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	Security and video surveillance / 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

# Unmanaged

Unmanaged switches are simple to deploy, as they require no user setup — making them the ideal solution for Small Office / Home Office (SOHO) applications. Their silent, eco-friendly, low-power operation ensures 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 products use a variety of methods to help reduce power consumption, lower energy costs, and protect the environment. All eco-friendly models use highly efficient power supplies, which reduce generated heat. Inactive Ethernet ports 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.



FAST ETHERNET					
FEATURES		AT-FS705LE	AT-FS705L	AT-FS705EFC/SC	AT-FS708LE
PORTS AND MEDIA SUPPORT	10/100TX	5	5	4	8
	100FX			1 x SC, MMF	
	SFP (1000Mbps)				
POWER SUPPLY		External (high efficiency)	Internal	External (high efficiency)	External (high efficiency)
POWER OVER ETHERNET	Power over Ethernet (PoE)				
	PoE ports				
	IEEE 802.3af Class 3 (15.4W)				
	PoE budget				
SCALABILITY	MAC address table size	2K	2K	4K	4K
ENVIRONMENTAL	Cooling	Fanless	Fanless	Fanless	Fanless
	Eco-friendly	■	■	■	■
DIMENSIONS	(W x D x H)	11.6 x 7 x 2.5 cm 4.56 x 2.77 x 1 in	16 x 11.6 x 3.5 cm 6.3 x 4.6 x 1.4 in	17.9 x 9.8 x 1.7 cm 7.04 x 3.85 x .67 in	13 x 7 x 2.5 cm / 5.12 x 2.77 x 1 in
	Weight	.224 kg / .49 lb	.5 kg / 1.10 lb	.36 kg / .79 lb	.266 kg / .6 lb
IDEAL ENVIRONMENT		SOHO / network edge	SOHO / network edge	Edge switch on fiber-based network	SOHO / network edge
CUSTOMER'S NEEDS		Plug & Play / cost-effective / simple to install	Plug & Play / cost-effective / simple to install	Interface to fiber / Backbone network / longer than 100 m cable runs / cost-effective / simple to install	Plug & Play / cost-effective / simple to install





## GIGABIT ETHERNET

FEATURES		AT-GS900/5E	AT-GS900/8E	AT-GS900/8	AT-GS900/8PS	AT-GS900/16	AT-GS900/24
PORTS AND MEDIA	10/100/1000T	5	8	8	8	16	24
	SFP				1		
POWER SUPPLY		External (high efficiency)	External (high efficiency)	Internal	Internal	Internal	Internal
POWER OVER ETHERNET	Power over Ethernet (PoE)				■		
	PoE ports				4		
	IEEE 802.3af Class 3 (15.4W)				4		
	IEEE 802.3at Class 4 PoE+ (30W)				2		
	PoE budget				75W		
SCALABILITY	MAC address table size	4K	4K	8K	8K	8K	16K
ENVIRONMENTAL	Cooling	Fanless	Fanless	Fanless	Fanless	Fanless	Fanless
	Eco-friendly	■	■	■	■	■	■
DIMENSIONS	(W x D x H)	17.1 x 9.8 x 2.8 cm 6.73 x 3.86 x 1.1 in	17.1 x 9.8 x 2.8 cm 6.73 x 3.86 x 1.1 in	18.4 x 12.1 x 4.4 cm 7.24 x 4.76 x 1.6 in	28 x 18 x 4.4 cm 11 x 7.1 x 1.7 in	18.4 x 12.1 x 4.4 cm 7.2 x 4.76 x 1.73 in	28 x 18 x 4.4 cm 11.02 x 7.08 x 1.73 in
	Weight	.37 kg / .81 lb	.389 kg / .857 lb	.75 kg / 1.65 lb	1.52 Kg / 3.35 lb	.95 kg / 2.09 lb	1.79 kg / 3.9 lb
IDEAL ENVIRONMENT		SOHO / network edge	SOHO / network edge	SOHO / network edge	SOHO / network edge	SOHO / network edge	SOHO / network edge
CUSTOMER'S NEEDS		High performance / Plug & Play / low maintenance / cost-effective / simple to install	High performance / Plug & Play / low maintenance / cost-effective / simple to install	High performance / Plug & Play / low maintenance / cost-effective / simple to install	High performance / Plug & Play / low maintenance / cost-effective / simple to install / centralized power	High performance / Plug & Play / low maintenance / cost-effective / simple to install	High performance / Plug & Play / low maintenance / cost-effective / simple to install



## FAST ETHERNET

AT-FS708	AT-FS708/POE	AT-FS709FC	AT-FS716L	AT-FS717FC/SC	AT-FS724L
8	8	8	16	16	24
	1	1 x SC, MMF		1 x SC, MMF	
Internal	Internal	Internal	Internal	Internal	Internal
	■				
	8				
	4				
	65W				
1K	8K	4K	8K	4K	8K
Fanless	Fanless	Fanless	Fanless	Fanless	Fanless
■	■		■		■
24.9 x 11.6 x 3.6 cm 9.8 x 4.56 x 1.4 in	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
.9 kg / 1.98 lb	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
SOHO / Network edge	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
Plug & Play / cost-effective / simple to install	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	Plug & Play / cost-effective / simple to install	Interface to fiber backbone network / longer than 100 m cable runs / cost-effective / simple to install	Plug & Play / cost-effective / simple to install



# iMAPs and iMGs

[alliedtelesis.com/imaping](http://alliedtelesis.com/imaping)

IP is driving new, innovative services and applications. Converged services and real-time communications are changing lifestyles, along with the type of network required 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 and responding competitively to new service needs.

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





As the world's communications systems move to an all IP and Ethernet access network with IP/MPLS core, the Allied Telesis iMAP 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. 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 Units/Multi-Dwelling Units (MTU/MDU).

## Controller Cards



		iMAP CONTROLLER CARDS		
FEATURES		CFC12	CFC56	CFC100
PART NUMBER		AT-TN-408	AT-TN-407	AT-TN-409
CHASSIS COMPATIBLE	iMAP 9100	■		
	iMAP 9400		■	
	iMAP 9700		■	
	iMAP 9810			■
PERFORMANCE	Switching fabric	12Gbps	56Gbps	100Gbps
	EPSR	■	■	■
	VLANs per port	4095	4095	4095
	Per VLAN rate limiting	■	■	■
UPLINKS	SFP (1000Mbps)	4		
	10/100/1000T	2		
SECURITY	Upstream forwarding only	■	■	■
	ACL support	■	■	■
QoS	Priority queues	8	8	8
	Priority scheduling	■	■	■

## Channel Units



		iMAP CHANNEL UNITS						
FEATURES		POTS24C	ADSL24AE	PAC24C	ADSL24B	VDSL24A	VDSL24B	CES8
PART NUMBER		AT-TN-143	AT-TN-140	AT-TN-145	AT-TN-124	AT-TN-130	AT-TN-128	AT-TN-119
COPPER	POTS	24		24				
	ADSL (Annex A)		24	24				
	ADSL (Annex B)				24			
	VDSL2 (Annex A)					24		
	VDSL2 (Annex B)						24	
FIBER	T1/E1 (circuit emulation)							8
	100Mbps BiDi, SMF							
	100/1000Mbps BiDi, SMF							
	SFP (1000Mbps)							
PHYSICAL	GEAPON							
SALES REGION	Single/double width channel unit	Single	Single	Double	Single	Single	Single	Single
		All	All	US only	EU only	All	All	All

## Chassis



iMAP CHASSIS										
FEATURES	iMAP 9100		iMAP 9700				iMAP 9810			
MODEL NUMBER	AT-TN-9101 / 2 / 3		AT-TN-250G				AT-TN-253G			
PHYSICAL HEIGHT	1RU		9RU				3RU			
POWER SUPPLY	Single AC	AT-TN-9102	Requires additional AT-TN-R113				Requires additional AT-TN-R113			
	Dual AC (option)	AT-TN-9103	Requires additional AT-TN-R113 and AT-TN-R114				Requires additional AT-TN-R113 and AT-TN-R114			
	Dual DC	AT-TN-9101	Standard				Standard			
CONTROLLER CARDS	Primary fabric controller	CFC12 (AT-TN-408)	CFC24 (AT-TN-401)	CFC56 (AT-TN-407)	CFC56 (AT-TN-407)	CFC56 (AT-TN-407)	CFC100 (AT-TN-409)	CFC100 (AT-TN-409)	CFC100 (AT-TN-409)	CFC100 (AT-TN-409)
	Optional redundant controller		CFC24 (AT-TN-401)	CFC56 (AT-TN-407)	CFC56 (AT-TN-407)	CFC56 (AT-TN-407)	CFC100 (AT-TN-409)	CFC100 (AT-TN-409)	CFC100 (AT-TN-409)	CFC100 (AT-TN-409)
NETWORK TRANSPORT	Slots	None - transport on CFC12 fabric	2	2	2	2	2	2	2	2
	Model	CFC12 fabric (AT-TN-408)	GE3 (AT-TN-301)	XE1 (AT-TN-308)	XE1S (AT-TN-310)	XE6 (AT-TN-309)	GE3 (AT-TN-301)	XE1 (AT-TN-308)	XE1S (AT-TN-310)	XE6 (AT-TN-309)
	Uplink ports	4 x SFP + 2 x 10/100/1000T	3 x SFP	1 x XFP	1 x SFP+	6 x SFP+	3 x SFP	1 x XFP	1 x SFP+	6 x SFP+
	Uplink speed	Gigabit	Gigabit	10GbE	10GbE	10GbE	Gigabit	10GbE	10GbE	10GbE
BLADE SLOTS		3	17 (16 with dual-fabric cards)				8			
MAX PORTS	xDSL	72		408		360		192		144
	POTS	72		408		360		192		144
	T1/E1	24		136		120		64		48
	Dual fiber (100Mbps)	30		170		150		80		60
	BiDi fiber (100Mbps)	60		340		300		160		120
	BiDi fiber (1000Mbps)	72		408		360		192		144
	10/100TX (copper)	30		170		150		80		60
	Gigabit	24		136		120		64		48
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			
DIMENSIONS	(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 30.5 x 13.3 cm 19 x 12 x 5.25 in			
		(AT-TN-9102/3) AC power 48.3 x 51.3 x 4.45 cm 19 x 20.2 x 1.75 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			



iMAP CHANNEL UNITS				
FX20BX	FX20BX40	GE24BX	GE8	GEPON
AT-TN-139	AT-TN-142	AT-TN-144	AT-TN-117	AT-TN-118
20 (10km)	20 (40 km)	24 (20 km)		
			8	
				2
Single	Single	Single	Single	Single
All	All	All	All	All

### One Access Platform, Any Service

The iMAP product family is designed to support IP Triple Play services using Ethernet technology. With redundant Gigabit Ethernet connections or 10 Gigabits on the iMAP 9810 to each line card from the control modules, there is ample bandwidth and throughput for all current and future services and access technologies. The central fabric control cards enable multiple 10 Gigabit uplink and transport capability, ensuring future capacity and performance needs are addressed without requiring a major hardware upgrade.

### Multiple Services, Diversified and Increased Revenues

In addition to traditional and enhanced ADSL/ADSL2+ and VDSL2, the iMAP provides the capability to offer revenue-generating residential and business services such as FTTx, T1/E1, G.SHDSL, and POTS — all from the same platform. With features like Ethernet Protection Switched Rings, iMAPs can be networked together with full redundancy and sub-50ms switchover times, ensuring carrier-grade 99.999% availability and maximum uptime.

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 satisfied consumer needs, an intelligent home gateway approach becomes essential.

### AlliedView™ NMS

Allied Telesis Network Management Software tools can help visualize and plan for network growth while maintaining the health and performance of the network. See page 57.

Moving from a “dumb pipe” to a service-oriented connection requires having both management and functionality at both the access side and the 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 and fiber applications are designed as extensions of the Allied Telesis access platform, with unified management functionality and features.



		iMGs								
FEATURES		AT-IMG624A	iMG634 Series	iMG634W Series	AT-IMG646BD	AT-IMG1405	AT-IMG1405W	AT-IMG1425	AT-IMG1425W	AT-IMG1425RF
ENVIRONMENTAL	Indoor usage	■	■	■	■	■	■	■	■	■
	Outdoor usage									
UPLINK	ADSL2+ Annex A	AT-IMG624A-R2	AT-IMG634A-R2	AT-IMG634WA-R2						
	ADSL2+ Annex B		AT-IMG634B-R2	AT-IMG634WB-R2						
	Ethernet 100Mbps copper	■	■	■						
	Ethernet 100Mbps fiber (SMF)									
	Ethernet 100Mbps fiber (BiDi)				■					
	Ethernet 100Mbps fiber SFP module									
	Ethernet 100Mbps fiber (BiDi)					V SFP	V SFP	V SFP	V SFP	V SFP
LAN INTERFACE	10/100TX	4	4	4	6	3	3	3	3	3
	10/100/1000T					2	2	2	2	2
	Wireless IEEE 802.11b/g			■						
	Wireless IEEE 802.11b/g/n						■		■	
	HPNAv3.1									
WAN PORT	Copper / fiber	Copper	Copper	Copper	Fiber	Fiber	Fiber	Fiber	Fiber	Fiber
CATV RF OVERLAY	High output power									■
PHONE INTERFACES	FXS		2	2	4			2	2	2
	PSTN lifeline		■	■	■			■	■	■
VoIP PROTOCOLS	SIP / MGCP		■	■	■			■	■	■
CONSOLE INTERFACE	RS232 RJ-45 connector	■	■	■						
	8 position mini DIN connector				■					
	USB					■	■	■	■	■
QoS	IEEE 802.1p priority queues	■	■	■	■	■	■	■	■	■
	IEEE 802.1Q VLANs mgmt	■	■	■	■	■	■	■	■	■
MANAGEMENT	AlliedView NMS	■	■	■	■	■	■	■	■	■
	TR-069					■	■	■	■	■
	SNMPv1, v2 and v3	■	■	■	■	■	■	■	■	■
	Telnet, Web, GUI, CLI	■	■	■	■	■	■	■	■	■
	Remote software upgrade	■	■	■	■	■	■	■	■	■
ACCESSORY AVAILABLE	Fiber outlet kit AT-IMG001				■					
	Battery backup AT-IMG008		■	■	■	■	■	■	■	■
	Outdoor case AT-EN-SFR-ONT									



# intelligent Multiservice Gateways

Fiber-based iMGs offer Gigabit or 100 megabit-to-the-home service and include such features as GR909 testing, TDR wire analysis, and HPNA endpoint analysis. In addition, the iMGs support Layer 3 capabilities, whole home service, and Microsoft Mediaroom.

Allied Telesis iMG ONT products provide a smarter, feature-rich, flexible approach to delivering subscriber services, and are critical to a service provider wanting to deliver reliable, high-quality, high-revenue

services. The iMG family of full-featured 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 fully featured for delivering multimedia services such as broadcast and streaming IP video, Internet data, analog voice, and VoIP from a single subscriber line to multiple devices in the home.

Feature and functionality between the iMAP access family, or the SwitchBlade x3112 and iMG home gateway family are intelligently integrated with Allied Telesis 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 are reduced — leading to lower OPEX and greater customer satisfaction.



iMGs									iBGs
AT-IMG1505	AT-IMG1525	AT-IMG1525RF	AT-IMG2426F	AT-IMG2504	AT-IMG2524	AT-IMG2524F	AT-IMG2524H	AT-IBG915FX	
■	■	■	■	■	■	■	■	■	
			■	■	■	■	■		
									■
						■	■		
■	■	■							
			■ SFP						■
■ (20 km)	■ (20 km)	■ (20 km)	■ SFP	■ (20 km)	■ (20 km)	■ (20 km)	■ (20 km)		
									5
5	5	5	6	4	4	4	4		
							■		
Fiber	Fiber	Fiber	Fiber	Fiber	Fiber	Fiber	Fiber	Copper/fiber	
		■				■			
	2	2	2		2	2	2	8	
	■	■			■	■	■		
	■	■	■		■	■	■	■	
								■	
■	■	■	■	■	■	■	■	■	
■	■	■	■	■	■	■	■	■	
■	■	■	■	■	■	■	■	■	
■	■	■	■	■	■	■	■	■	
■	■	■	■	■	■	■	■	■	
■	■	■	■	■	■	■	■	■	
■	■	■	■	■	■	■	■	■	
■	■	■	■	■	■	■	■	■	
■	■	■	■	■	■	■	■	■	
■	■	■	■	■	■	■	■	■	
■	■	■	■	■	■	■	■	■	



# Media Converters

[alliedtelesis.com/mediaconverters](http://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 customers to keep 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 every need.

Allied Telesis offers three chassis-based systems:

- » The AT-MCRI2 is a 12-slot chassis, which houses up to 12 of the best-selling Allied Telesis media converters.
- » The AT-CV5001 is a managed 18-slot chassis, fitting up to 18 blade-type media converters. This is the 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 (1RU) chassis. The four-port system can have up to 48 conversions in a 3RU-high system. Both models are stackable to add multiple units together as one IP address.





## Standalone



ETHERNET AND FAST ETHERNET STANDALONE MEDIA CONVERTERS											
FEATURES		AT-MC13	AT-MC101XL	AT-MC102XL	AT-MC103XL	AT-MC103LH	AT-MC104XL	AT-MC115XL	AT-MC116XL	AT-MC605	
PORTS	Port 1	10T	100TX	100TX	100TX	100TX	100FX MMF (SC)	10T or 100TX	10T or 100TX	100TX	
	Port 2	10FL (ST)	100FX (ST)	100FX (SC)	100FX (SC)	100FX (SC)	100FX (SC)	10FL (ST) or 100SX (ST)	10FL (SC) or 100SX (SC)	RJ-11	
	Type	MMF	MMF	MMF	SMF	SMF	SMF	MMF	MMF	VDSL	
IEEE STANDARD		10FL	100FX	100FX	100FX	100FX	100FX	100SX	100SX		
Tx WAVELENGTH		850 nm	1310 nm	1310 nm	1310 nm	1310 nm	1310 nm	850 nm	850 nm		
Rx WAVELENGTH		850 nm	1310 nm	1310 nm	1310 nm	1310 nm	1310 nm	850 nm	850 nm		
MAX DISTANCE		2 km	2 km	2 km	15 km	40 km	15 km	2 km	2 km	3 km	
FUNCTIONALITY	Rate and speed										
	MissingLink support		■	■	■	■	■	■	■		
	Smart MissingLink support										
	Max frame size	9KB	9KB	9KB	9KB	9KB	9KB	9KB	9KB		
	Diagnostic LEDs	6	7	7	7	7	7	8	8	6	
POWER OVER ETHERNET	IEEE 802.3af Class 3										
	PoE-enabled ports										
	Max full power ports										
	Mode										
	PoE power										
POWER SUPPLY	PSU type	External	External	External	External	External	External	External	External	External	
	Multi-region	■				■	■	■	■	■	
	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	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	10 x 9.5 x 2.5 cm 3.93 x 3.74 x 1 in	
	Weight	.3 kg / .66 lb	.3 kg / .66 lb	.3 kg / .66 lb	.3 kg / .66 lb	.3 kg / .66 lb	.3 kg / .66 lb	.3 kg / .66 lb	.3 kg / .66 lb	.3 kg / .66 lb	

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 speeds. 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.

## EXTENDED TEMPERATURE



## AT-MC115XL / AT-MC116XL

These media converters provide connectivity at both 10 and 100Mbps, providing conversion from copper 10T to fiber 10FL and copper 100TX to fiber 100SX. Operating at 850 nm wavelength over multi-mode fiber, the media converters can operate at up to 2 km at 10Mbps and 300 m at 100Mbps. The AT-MC115XL supports a fiber ST connector; and the AT-MC116XL supports fiber SC.

- » Operating temperature: 0°C to 50°C
- » 10T to 10FL
- » 100TX to 100SX
- » Multi-mode fiber with ST and SC connector
- » Standalone, rack, or DIN rail mounted

## MissingLink™

The Allied Telesis MissingLink feature enables media converters 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 10/100TX port on an Allied Telesis media converter were to fail, the unit would respond by dropping the link on the 100FX 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 end-node 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 an added link failure alert system. If any of the media converter ports fail, the link LED will begin to flash. 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.

# Media Converters



ETHERNET AND FAST ETHERNET STANDALONE MEDIA CONVERTERS										PCI-BASED MEDIA CONVERTERS	
	AT-MC606	AT-FS201	AT-FS202	AT-PC232/PoE	AT-FS232	AT-FS232/1	AT-FS232/2	AT-FS238A/1	AT-FS238B/1	AT-MC102XL-PCI	AT-MC102XL-PCIe
	100TX	10/100TX	10/100TX	10/100TX	10/100TX	10/100TX	10/100TX	10/100TX	10/100TX	100TX	100TX
	BNC	100FX (ST)	100FX (SC)	100FX (SC)	100FX (SC)	100FX (SC)	100FX (SC)	100FX (SC)	100FX (SC)	100FX (SC)	100FX (SC)
	VDSL	MMF	MMF	MMF	MMF	SMF	SMF	BiDi - SMF	BiDi - SMF	MMF	MMF
		100FX	100FX	100FX	100FX	100FX	100FX	100FX	100FX	100FX	100FX
		1310 nm	1310 nm	1310 nm	1310 nm	1310 nm	1310 nm	1310 nm	1550 nm	1310 nm	1310 nm
		1310 nm	1310 nm	1310 nm	1310 nm	1310 nm	1310 nm	1550 nm	1310 nm	1310 nm	1310 nm
	2 km	2 km	2 km	2 km	2 km	15 km	40 km	15 km	15 km	2 km	2 km
		■	■	■	■	■	■	■	■		
		■	■	■	■	■	■	■	■	■	■
				■	■	■	■	■	■		
		1532 bytes	1532 bytes	1916 bytes	1532 bytes	1532 bytes	1532 bytes	1532 bytes	1532 bytes	9KB	9KB
	6	7	7	13	9	9	9	9	9	2	2
				■							
				1							
				1							
				A							
				15.4W							
	External	External	External	Internal	External	External	External	External	External	PCI	PCIe
	■	■	■		■	■	■	■	■		
	■	■	■		■	■	■	■	■		
	■	■	■		■	■	■	■	■		
	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	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	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	12.5 x 6.4 cm 4.9 x 2.5 in .06 kg / .14 lb	12.5 x 6.4 cm 4.9 x 2.5 in .06 kg / .14 lb



## Universal Power Supply

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

## » AT-MCPWR

Universal, high-efficiency external power adapter



		GIGABIT STANDALONE MEDIA CONVERTERS				
FEATURES		AT-MC1004	AT-MC1008/GB	AT-MC1008/SP	AT-GS2002/SP	AT-PC2002POE
PORTS	Port 1	1000T	1000T	1000T	10/100/1000T	10/100/1000T
	Port 2	1000SX (SC)	GBIC	SFP	SFP 100 or 1000Mbps	SFP 100 or 1000Mbps
	Fiber type	MMF	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 DISTANCE		550 m	Depends on GBIC	Depends on SFP	Depends on SFP	Depends on SFP
FUNCTIONALITY	Rate and speed		■	■	■	■
	MissingLink support	■	■	■	■	■
	Smart MissingLink support	■	■	■	■	■
	Max frame size	9KB	9KB	9KB	1536 bytes	1536 bytes
	Diagnostic LEDs	8	8	8	11	15
POWER OVER ETHERNET	IEEE 802.3af Class 3					■
	PoE-enabled ports					1
	Max no. of full power ports					1
	Mode					Mode-A
	PoE power					15.4W
POWER SUPPLY	PSU type	External	External	External	External	Internal
	Multi-region		■	■	■	
	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	.3 kg / .66 lb	.3 kg / .66 lb	.3 kg / .66 lb	.75 kg / 1.65 lb

\* Dependent on GBIC or SFP

## Mounting Hardware

The majority of unmanaged Allied Telesis AT-MC, AT-GS, and AT-FS Series media converters can be mounted in a number of ways.

### Desktop

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



### Wall

A standalone media converter or switch can be easily mounted on a wall or under a table using this wallmount fixture.

#### » AT-WLMT

Wallmount fixture (supplied in packages of 10)



### DIN Rail

This universal bracket allows a wide range of Allied Telesis media converters and media/rate converters to be mounted onto an industry-standard 35 mm DIN rail.

#### » AT-DINRAIL1-010

Mounting kit (supplied in packages of 10)

### Rack

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



#### » AT-MCR1 chassis

This small chassis can be rack-mounted, and allows a single standalone media converter or 2-port switch to be powered by an internal power supply. It is available with either AC or -48vDC power supply.



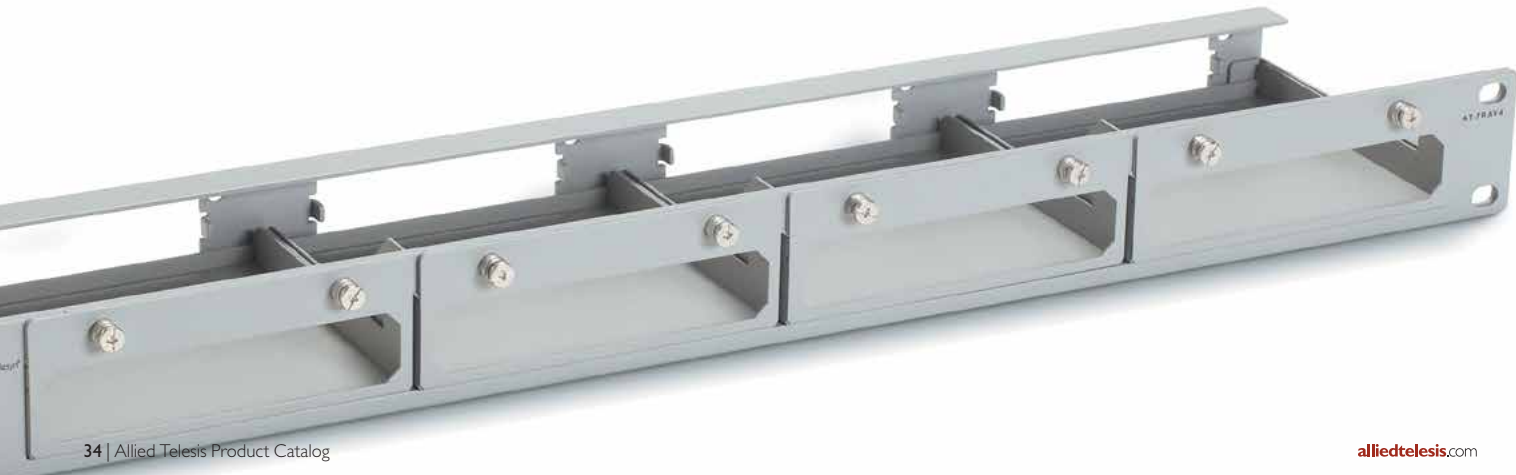
#### » AT-MCR12 chassis

This chassis allows mounting of up to 12 standalone media converters or switches. The chassis supports optional redundant power supplies and can be AC or DC powered.



#### » AT-TRAY1 and AT-TRAY4

These simple trays allow from one to four standalone media converters to be mounted into a rack.







# 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 the enterprise.

### AT-CV1000

1-slot

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



### AT-CV1203

2-slots

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



### AT-CV5001

18-slot rackmount chassis

- » Optional redundant power supply
- » 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)

### SFP and SFP+ Optics

Learn more about Allied Telesis pluggable optics on page 39.



#### CONVERTEON MODULES

FEATURES		AT-CM301	AT-CM302	AT-CM3K0S	AT-CV1KSS
PORTS	Port 1	10/100TX	10/100TX	10/100/1000T	SFP
	Port 2	100FX (ST)	100FX (SC)	100 or 1000Mbps SFP	SFP
	Fiber type	MMF	MMF	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
FUNCTIONALITY	Media type	■	■	■	■
	Rate and speed	■	■	■	
	MissingLink support	■	■	■	■
	Smart MissingLink support	■	■	■	■
	Max frame size	10KB	10KB	10KB	9KB
	Diagnostic LEDs	9	9	9	5
	Rate limiting	■	■	■	■
OAM	Dying gasp support	■	■	■	
	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	2.2 x 7.3 x 13 cm .85 x 2.89 x 5.1 in
	Weight	.27 kg / .06 lb	.27 kg / .06 lb	.27 kg / .06 lb	.27 kg / .06 lb

## Chassis-Based

**AT-MCF2000****Multi-channel manageable media converter**

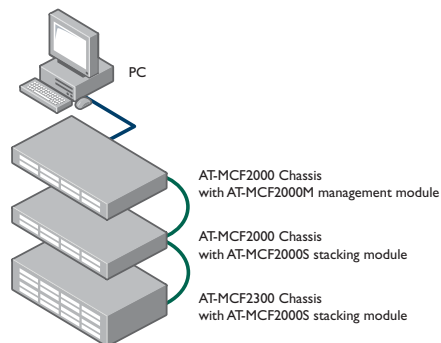
The AT-MCF2000 provides ultra high-density, modular, multi-channel media conversion, with high availability and is ideal for fiber deployments. The units can be used unmanaged, or SNMP managed with the installation of the optional management module.

- » Small, 1RU 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 multi-channel 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.

- » 3RU 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 fitted with a stacking module.



MODULES FOR AT-MCF2x00 CHASSIS

FEATURES		AT-MCF2012LC	AT-MCF2012LC/1	AT-MCF2032SP
PORTS	Port 1	12 x 10/100TX	12 x 10/100TX	12 x 10/100/1000T
	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
FUNCTIONALITY	Media type	■	■	■
	Rate and speed	■	■	■
	MissingLink support	■	■	■
	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

# Pluggable Optics

[alliedtelesis.com/accessories](http://alliedtelesis.com/accessories)

Allied Telesis optics provide fiber and copper connectivity for the full range of Allied Telesis product lines. Pluggable optics allow one product the flexibility to expand by media type (copper or fiber), speed (Fast Ethernet and 1, 10, or 40 Gigabit), and/or distance (220 m to 80 km).

Allied Telesis offers GBIC, SFP, CSFP, XFP, SFP+, and QSFP+ pluggable optics, which comply with industry-standard networking regulations. This compliance allows Allied Telesis pluggable optics to be used on any industry-standard networking equipment.



# Pluggable Optics

## 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 a variety of 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 hot-swappable, fiber and copper interfaces simply plug into a GBIC slot on Allied Telesis GBIC-compatible products. Configurations can be optimized to meet a variety of distance and service requirements.



GIGABIT FIBER OPTICS

FEATURES	AT-SPSX	AT-SPSX/I	AT-SPEX	AT-SPLX10
FORM FACTOR	SFP	SFP	SFP	SFP
FIBER TYPE	MMF	MMF	MMF	SMF
NUMBER OF FIBERS	2 (Rx, Tx)	2 (Rx, Tx)	2 (Rx, Tx)	2 (Rx, Tx)
SPEED	1000Mbps	1000Mbps	1000Mbps	1000Mbps
DIGITAL DIAGNOSTICS MONITORING (DDM)		■		
Rx WAVELENGTH	850 nm	850 nm	1310 nm	1310 nm
Tx WAVELENGTH	850 nm	850 nm	1310 nm	1310 nm
MAX FIBER DISTANCE	220 / 550 m	220 / 550 m	2 km	10 km
CONNECTOR TYPE	LC	LC	LC	LC
TEMPERATURE	0°C to 70°C	-40°C to 85°C	0°C to 70°C	0°C to 70°C



FAST ETHERNET FIBER OPTICS

FEATURES	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	1550 nm	1310 nm	1310 nm
Tx WAVELENGTH	1310 nm	1310 nm	1550 nm	1310 nm
MAX FIBER DISTANCE	2 km	15 km	15 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

FEATURES	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

### EXTENDED TEMPERATURE

Allied Telesis supports a wide range of industrial temperature optical accessories for use in all its extended and industrial temperature products. All optical accessories support operating temperatures of -40°C to 85°C.

- » **AT-SPSX/I**  
1000SX SFP for multi-mode fiber
- » **AT-SPLX10/I**  
1000LX SFP for single-mode fiber (10 km)
- » **AT-SP10SR/I**  
10G SFP+ for multi-mode fiber (300 m)
- » **AT-SP10LR/I**  
10G SFP+ for single-mode fiber (10 km)
- » **AT-SP10LR20/I**  
10G SFP+ for single-mode fiber (20 km)
- » **AT-SP10ER40/I**  
10G SFP+ for single-mode fiber (40 km)
- » **AT-SP10ZR80/I**  
10G SFP+ for single-mode fiber (80 km)



10 GIGABIT FIBER OPTICS (XFP)

FEATURES	AT-XPER40	AT-XPER80
FORM FACTOR	XFP	XFP
FIBER TYPE	SMF	SMF
COPPER TYPE		
NUMBER OF FIBERS	2 (Rx, Tx)	2 (Rx, Tx)
SPEED	10G	10G
DIGITAL DIAGNOSTICS MONITORING (DDM)	■	■
Rx WAVELENGTH	1550 nm	1550 nm
Tx WAVELENGTH	1550 nm	1550 nm
MAX DISTANCE	40 km	80 km
CONNECTOR TYPE	LC	LC
TEMPERATURE	-5°C to 70°C	-5°C to 70°C



## SFP10 Series (SFP+)

The SFP10 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 a variety of distance and service requirements.

## QSFP Series (QSFP+)

The QSFP Series provides 40 Gigabit Ethernet over copper or optical cable. The direct-attach breakout cable is suitable for very short distances and offers a highly cost-effective way to connect within racks and across adjacent racks.

IEEE 802.3 Ethernet specification for networks over multi-mode fiber

Standard	Speed	Max Distance (MMF)
100X	100Mbps	2 km
1000X	1000Mbps	220 m



GIGABIT FIBER OPTICS							COMPACT GIGABIT FIBER OPTICS (CSFP)	
AT-SPLX10/I	AT-G8LX10	AT-SPBD10-13	AT-SPBD10-14	AT-SPLX40	AT-SPZX80	AT-SPBD20DUAL-14	AT-SPBD40DUAL-14	
SFP	GBIC	SFP	SFP	SFP	SFP	CSFP	CSFP	
SMF	SMF	SMF	SMF	SMF	SMF	SMF	SMF	
2 (Rx, Tx)	2 (Rx, Tx)	1 (BiDi)	1 (BiDi)	2 (Rx, Tx)	2 (Rx, Tx)	2 (BiDi)	2 (BiDi)	
1000Mbps	1000Mbps	1000Mbps	1000Mbps	1000Mbps	1000Mbps	1000Mbps	1000Mbps	
■				■	■	■	■	
1310 nm	1310 nm	1490 nm	1310 nm	1310 nm	1550 nm	1310 nm	1310 nm	
1310 nm	1310 nm	1310 nm	1490 nm	1310 nm	1550 nm	1490 nm	1490 nm	
10 km	10 km	10 km	10 km	40 km	80 km	20 km	40 km	
LC	SC	LC - BiDi	LC - BiDi	LC	LC	2 x LC	2 x 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	-5°C to 70°C	-40°C to 85°C	-40°C to 85°C	



### 40 GIGABIT FIBER OPTICS (QSFP+)

FEATURES	AT-QSFPSR
FORM FACTOR	QSFP+
FIBER TYPE	MMF
NUMBER OF FIBERS	2 (Rx, Tx)
SPEED	40G
DIGITAL DIAGNOSTICS MONITORING (DDM)	■
Rx WAVELENGTH	850 nm
Tx WAVELENGTH	850 nm
MAX FIBER DISTANCE	Up to 150 m
TEMPERATURE	0°C to 70°C

### QSFP+ Cables



- » **AT-QSFP1CU**  
QSFP+ 1 m cable
- » **AT-QSFP3CU**  
QSFP+ 3 m cable

### Breakout Cables



- » **AT-QSFP-4SFP10G-3CU**  
QSFP+ port to 4 x 10G ports, 3 m
- » **AT-QSFP-4SFP10G-5CU**  
QSFP+ port to 4 x 10G ports, 5 m



### 10 GIGABIT FIBER OPTICS (SFP+)

AT-SP10SR	AT-SP10SR/I	AT-SP10LR	AT-SP10LR/I	AT-SP10LRM	AT-SP10LR20/I	AT-SP10ER40/I	AT-SP10ZR80/I	AT-SP10TW1	AT-SP10TW3	AT-SP10TW7
SFP+	SFP+	SFP+	SFP+	SFP+	SFP+	SFP+	SFP+	SFP+	SFP+	SFP+
MMF	MMF	SMF	SMF	MMF	SMF	SMF	SMF			
								Twinax	Twinax	Twinax
2	2	2	2	2 (Rx, Tx)	2	2	2 (Rx, Tx)			
10G	10G	10G	10G	10G	10G	10G	10G	10G	10G	10G
■	■	■	■	■	■	■	■			
850 nm	850 nm	1310 nm	1310 nm	1310 nm	1310 nm	1550 nm	1550 nm			
850 nm	850 nm	1310 nm	1310 nm	1310 nm	1310 nm	1550 nm	1550 nm			
300 m	300 m	10 km	10 km	Up to 220 m	20 km	40 km	80 km	1 m	3 m	7 m
LC	LC	LC	LC	LC	LC	LC	LC			
0°C to 70°C	-40°C to 85°C	0°C to 70°C	-40°C to 85°C	0°C to 70°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	0°C to 70°C



# Network Interface Cards

[alliedtelesis.com/nics](http://alliedtelesis.com/nics)

From 100Mbps to 10 Gigabit, Allied Telesis seamlessly connects desktops, laptops, servers, and thin clients with a continually expanding portfolio of high-quality, reliable, and cost-effective Network Interface Cards (NICs).

With the addition of its latest line of multi-port Gigabit and 10 Gigabit server Network Interface Cards (2911 Series and AT-VNC10S), Allied Telesis has optimized 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 set up networks based on specific needs. The comprehensive diagnostics and configuration

software suite (Broadcom Advanced Control Suite) provides system administrators and engineers with a profound tool to analyze interface cards and review 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.

## Laptop



		FAST ETHERNET FIBER	GIGABIT FIBER
FEATURES		AT-2814FX	AT-2874SX
BUS TYPE		ExpressCard/34 (54 compatible)	ExpressCard/34 (54 compatible)
PORTS AND MEDIA SUPPORT	100FX 1000X	SC	SC
QoS	IEEE 802.1p priority queues	■	■
PERFORMANCE	TCP/IP checksum CPU offload	■	■
MANAGEMENT	Managed boot agent (PXE remote boot ROM)	2.1	2.1
	VLAN support	■	■
	Advanced power management (ACPI)	■	■
DRIVER SUPPORT	Windows 7	■	■
	Windows 7 (64-bit)	■	■
	Windows Vista	■	■
	Windows Vista (64-bit)	■	■
	Windows XP	■	■
	Windows 8	■	■
	Windows 8 (64-bit)	■	■
IPv6 SUPPORT	Linux 2.6	■	■
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	1000Mbps fiber connectivity / laptop connectivity

### Preboot Execution Environment (PXE) Support

PXE 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. PXE support included in Allied Telesis NICs allows a workstation or computer to boot from a remote server connected to the network prior to booting from the local hard drive.



# Copper Desktop/Workstation



		COPPER	COPPER AND FIBER				GIGABIT COPPER AND FIBER	
FEATURES		AT-2912T	AT-2701FTXa	AT-2716POE/FX	AT-2911GP/SX	AT-2911GP/LX	AT-2911STX	AT-2911LTX
BUS TYPE		PCIe (x1)	PCI (32-bit)	PCIe (x1)	PCIe (x1)	PCIe (x1)	PCIe (x1)	PCIe (x1)
PORTS AND MEDIA SUPPORT	100TX		■					
	10/100/1000T Class 3 PoE			■	■	■		
	10/100/1000T	■					■	■
	100FX		SC, ST	SC, ST				
	1000X				SC, LC	SC, LC	LC, SC	LC, SC
FIBER TYPE			MMF	MMF	MMF	SMF	MMF	SMF
MAX FIBER DISTANCE			2 km	2 km	220 m	10 km	220 m	10 km
QoS	IEEE 802.1p priority queues	■	■	■	■	■	■	■
	TCP/IP checksum CPU offload	■		■	■	■	■	■
	Jumbo frames	■		■	■	■	■	■
	Link aggregation support			■	■	■	■	■
	Link aggregation failover		■	■	■	■	■	■
MANAGEMENT	Wake-on-LAN	■	■	■				
	Managed boot agent (PXE remote boot ROM)	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	DASH (TruManage)	■						
	VLAN support	■	■	■	■	■	■	■
	Advanced power management (ACPI)	■	■	■	■	■	■	■
	SNMP	■		■	■	■	■	■
SECURITY	DES encryption	■						
	3DES encryption	■						
	AES encryption	■						
DRIVER SUPPORT	Windows 7 (32 and 64-bit)	■	■	■	■	■	■	■
	Windows 2008	■		■	■	■	■	■
	Windows Vista (32 and 64-bit)	■	■	■	■	■	■	■
	Windows XP (64-bit)		■	■	■	■	■	■
	Windows 8	■	■	■	■	■	■	■
	Windows 8 (64-bit)	■	■	■	■	■	■	■
	Windows Server 2008 R2	■		■	■	■	■	■
	Windows Server 2012	■		■	■	■	■	■
	NDIS2	■	■	■	■	■	■	■
IPv6 SUPPORT	Linux 2.6	■	■	■	■	■	■	■
		■	■	■	■	■	■	■
DIAGNOSTICS	LEDs	■	■	■	■	■	■	■
	Virtual cable tester	■						
PHYSICAL	Low profile bracket and full height provided	■	■	■	■	■	■	■
DIMENSIONS	(W x H)	10.7 x 5.7 cm 4.2 x 2.2 in	12.5 x 6.4 cm 4.9 x 2.5 in	14.1 x 5.6 cm 5.6 x 2.2 in	14.1 x 5.6 cm 5.6 x 2.2 in	14.1 x 5.6 cm 5.6 x 2.2 in	8.8 x 6.9 cm 3.5 x 2.7 in	8.8 x 6.9 cm 3.5 x 2.7 in
	Weight	.04 kg / .05 lb	.07 kg / .15 lb	.068 kg / .15 lb	.068 kg / .15 lb	.068 kg / .15 lb	.06 kg / .13 lb	.06 kg / .13 lb
IDEAL ENVIRONMENT		Desktop computers in ultra 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	Desktop computers with fiber interfaces that want to power a PoE phone (or other device) from the secondary port	Desktop computers with fiber interfaces that want to power a PoE phone (or other device) from the secondary port	Desktop computers in secure areas	Desktop computers in secure areas
CUSTOMER'S NEEDS		Data encryption	100Mbps fiber connectivity / choice of fiber or copper interfaces	PoE / VoIP connectivity	PoE	PoE	1000Mbps fiber connectivity / choice of fiber or copper interfaces	1000Mbps fiber connectivity / choice of fiber or copper interfaces

## Fiber Desktop/Workstation

### 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 for sending large packets, especially when 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 NICs, Allied Telesis has extended the size of a fiber network from up to two kilometers over multi-mode fiber; to up to 20 km for Fast Ethernet, and 10 km for Gigabit Ethernet.

### 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.



		GIGABIT FIBER			
FEATURES		AT-2916SX	AT-2916LX10	AT-2931SX	
BUS TYPE		PCI (32-bit)	PCI (32-bit)	PCI-x (32/64-bit)	
PORTS AND MEDIA SUPPORT	100FX				
	1000X				
FIBER TYPE		MMF	SMF	MMF	
MAX FIBER DISTANCE		220 m	10 km	220 m	
QoS	IEEE 802.1p priority queues	■	■	■	
	TCP/IP checksum CPU offload	■	■	■	
	Jumbo frames	■	■	■	
	Link aggregation support	■	■	■	
	Link aggregation failover	■	■	■	
	Teaming	■	■	■	
MANAGEMENT	Wake-on-LAN				
	Managed boot agent (PXE remote boot ROM)	2.1	2.1	2.1	
	VLAN support	■	■	■	
	Advanced power management (ACPI)	■	■	■	
	SNMP	■	■	■	
DRIVER SUPPORT	Windows 7 (32 and 64-bit)	■	■	■	
	Windows 2008 (32 and 64-bit)	■	■	■	
	Windows Vista (32 and 64-bit)	■	■	■	
	Windows XP (32 and 64-bit)	■	■	■	
	Windows 8	■	■	■	
	Windows 8 (64-bit)	■	■	■	
	Windows Server 2008 R2	■	■	■	
	Windows Server 2012	■	■	■	
	NDIS2	■	■	■	
	Linux 2.6	■	■	■	
IPv6 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	
	Weight	.06 kg / .13 lb	.06 kg / .13 lb	.07 kg / .15 lb	
IDEAL ENVIRONMENT		Desktop computers in secure areas	Desktop computers in secure areas	Service requiring Gigabit connectivity	
CUSTOMER'S NEEDS		Performance	Performance / long-distance networking	High performance / load balancing / redundant links	

## Wake-on-LAN (WoL)

WoL 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 networks.



GIGABIT FIBER			FAST ETHERNET FIBER		
AT-2911SX	AT-2911LX	AT-2911SFP	AT-2701FXa	AT-2711FX	AT-2712FX
PCIe (x1)	PCIe (x1)	PCIe (x1)	PCI (32-bit)	PCIe (x1)	PCIe (x1)
			MT, SC, ST	MT, SC, ST	SC
MMF	SMF		MMF	MMF	MMF
220 m	10 km		2 km	2 km	2 km
■	■	■	■	■	■
■	■	■		■	■
■	■	■	■		
■	■	■	■		
■	■	■			
2.1	2.1	2.1	2.1	2.1	2.1
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
8.8 x 6.9 cm 3.5 x 2.7 in	8.9 x 6.9 cm 3.5 x 2.7 in	8.9 x 6.9 cm 3.5 x 2.7 in	16.8 x 6.5 cm 6.6 x 2.56 in	12.1 x 6.9 cm 4.76 x 2.71 in	10.7 x 4.2 cm 5.6 x 2.2 in
.06 kg / .13 lb	.06 kg / .13 lb	.06 kg / .13 lb	.07 kg / .15 lb	.04 kg / .11 lb	.05 kg / .09 lb
Service requiring Gigabit connectivity	Service requiring Gigabit connectivity	Service requiring Gigabit connectivity	Desktop computers in secure areas	Desktop computers in secure areas	Desktop computers in secure areas
High performance / load balancing / virtualization	High performance / load balancing / long-distance networking / virtualization	High performance / load balancing / long-distance networking	100Mbps fiber connectivity / modern PCIe computer	100Mbps fiber connectivity / choice of fiber or copper interfaces	Highly secure environment

## Server

### Network Virtualization

Allied Telesis Server NICs are 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-VNC10S 10 Gigabit interface card improves performance with next-generation technology — VMware, Data Center Bridging, Direct Path, NetQueue — 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 are multicast and broadcast data on a virtualized server.

### Superior Functionality

The AT-VNC10S includes dedicated hardware and processors to process frames at the highest levels for both transmit and receive paths in the operating system — advantageous for virtualization applications.

The AT-VNC10S enables convergence of all networked communications possible in a server, such as data (LAN), storage networks (iSCSI), and clustering.

### SFP/SFP+ Optics

Learn more about Allied Telesis pluggable optics on page 39.



		GIGABIT COPPER				SFP+ 10 GIGABIT
FEATURES		AT-2972SX	AT-2973SX	AT-2973T	AT-2973T/4	AT-VNC10S
BUS TYPE		PCIe (x4)	PCIe (x4)	PCIe (x4)	PCIe (x4)	PCIe (x8)
PORTS AND MEDIA SUPPORT	10/100/1000T					
	1000X	LC	LC (2 ports)			
	SFP+					■ (2 ports)
	Fiber type	MMF	MMF			MMF, SMF
Max fiber distance		220 m	220 m			Depends on SFP
QoS		IEEE 802.1p priority queues	■	■	■	■
PERFORMANCE	TCP/IP checksum CPU offload	■	■	■	■	■
	Jumbo frames	■	■	■	■	■
	Link aggregation support	■	■	■	■	■
	Link aggregation failover	■	■	■	■	■
	TOE		■	■	■	■
MANAGEMENT	iSCSI		■	■	■	■
	Wake-on-LAN			■	■	
	Managed boot agent (PXE remote boot ROM)	2.1	2.1	2.1	2.1	2.1
	VLAN support	■	■	■	■	■
	Advanced power management (ACPI)	■	■	■	■	■
DRIVER SUPPORT	SNMP	■	■	■	■	■
	Windows 7 (32 and 64-bit)	■	■	■	■	
	Windows 2008 (32 and 64-bit)	■	■	■	■	■
	Windows Vista (32 and 64-bit)	■	■	■	■	
	Windows 8	■		■	■	■
	Windows 8 (64-bit)	■		■	■	■
	Windows Server 2008 R2	■		■	■	■
	Windows Server 2012	■		■	■	■
Linux 2.6		■	■	■	■	■
IPv6 SUPPORT			■	■	■	■
DIAGNOSTICS	LEDs	■	■	■	■	■
	Virtual cable tester			■	■	
PHYSICAL		Low profile bracket and full height provided	■	■		■
DIMENSIONS	(W x H)	16.8 x 6.8 cm 6.6 x 2.7 in	14.5 x 5.7 cm 5.7 x 2.2 in	14.5 x 5.7 cm 5.7 x 2.2 in	15.3 x 11.1 cm 6.03 x 4.38 in	16 x 6.89 cm 6.3 x 2.71 in
	Weight	.06 kg / .13 lb	.05 kg / .09 lb	.05 kg / .09 lb	.10 kg / .23 lb	.09 kg / .21 lb
IDEAL ENVIRONMENT		Virtualization servers	Virtualization servers	Virtualization servers	Virtualization servers	Virtualization servers
CUSTOMER'S NEEDS		High performance with low CPU utilization	High performance with low CPU utilization	High performance with low CPU utilization	High performance with low CPU utilization	High performance with low CPU utilization

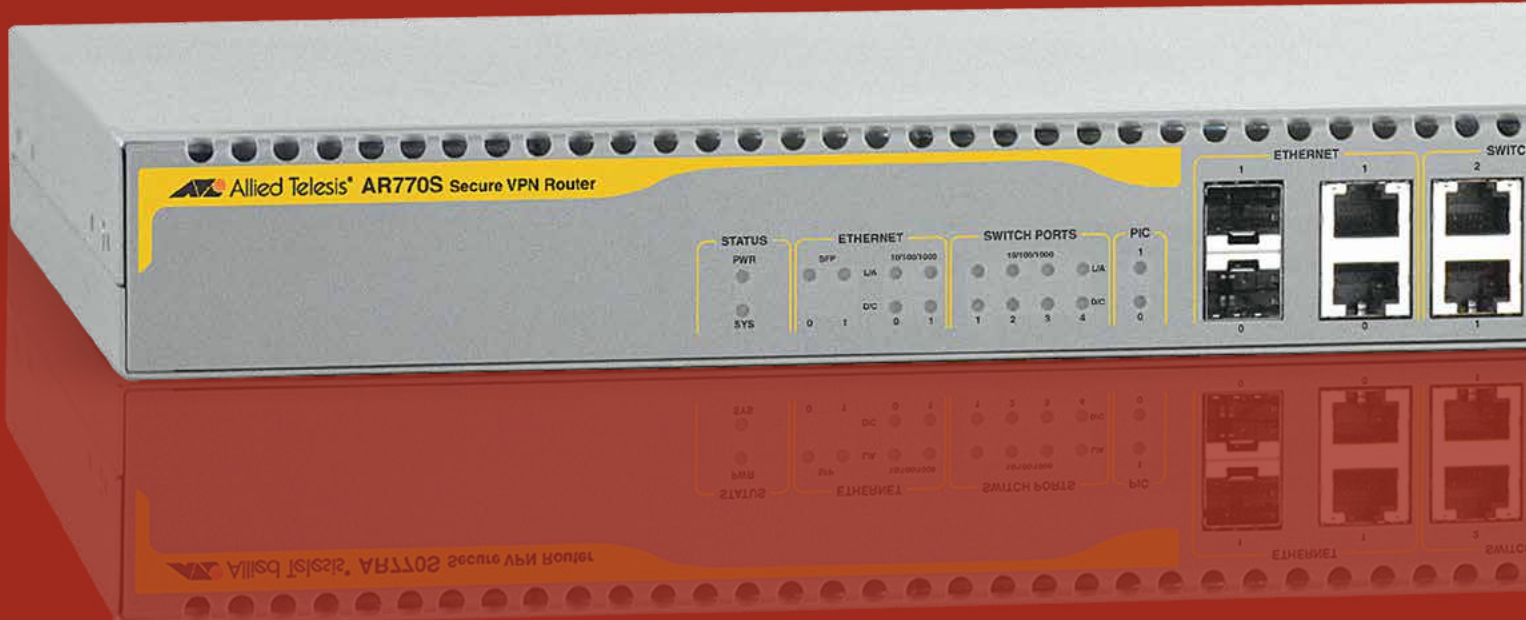


# Routers

[alliedtelesis.com/routers](http://alliedtelesis.com/routers)

Allied Telesis WAN and Internet multiservice access routers include solutions for T1/E1, 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, which includes 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 a trusted networking partner.



## Secure Routers



		SECURE MODULAR VPN ROUTERS		SECURE GIGABIT MODULAR VPN ROUTER	SECURE xDSL ROUTER
FEATURES		AT-AR415S	AT-AR750S	AT-AR770S	AT-AR440S
FORM FACTOR		Desktop / rackmount	Desktop / rackmount	Desktop / rackmount	Desktop / wallmount / rackmount
PORTS AND MEDIA SUPPORT	10/100TX	1 (WAN) + 4 (LAN)	2 (WAN) + 5 (LAN)	2 (WAN) + 4 (LAN)	5 (LAN)
	10/100/1000T				
	SFP			2 (combo) 100 or 1000Mbps	
	xDSL (WAN)				ADSL2/2+ (Annex A)
	Async port	1	1	1	1
OPTIONAL PIC CARDS	PIC bays (unpopulated)	1	2	2	1
	T1/E1 WAN	AT-AR020	AT-AR020	AT-AR020	AT-AR020
	BRI - ISDN (S/T)	AT-AR021S	AT-AR021S	AT-AR021S	AT-AR021S
	2Mbps sync port	AT-AR023	AT-AR023	AT-AR023	AT-AR023
	4 x async	AT-AR024	AT-AR024	AT-AR024	AT-AR024
POWER SUPPLY	2 x FXS VoIP	AT-AR027	AT-AR027	AT-AR027	AT-AR027
		Fixed internal	Fixed internal	Fixed internal	Fixed internal
	In/outdoor usage	Indoor	Indoor	Indoor	Indoor
	Temperature range	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 50°C
	Web	■	■	■	■
MANAGEMENT	CLI access	Async, Telnet	Async, Telnet	Async, Telnet	Async, Telnet
	SNMP	v2 and v3	v2 and v3	v2 and v3	v2 and v3
NETWORK RESILIENCE	VRRP	■	■	■	■
QoS	IEEE 802.1p priority queues	■	■	■	■
	Queueing mechanisms	■	■	■	■
	Priority mechanisms	■	■	■	■
SECURITY	IEEE 802.1Q VLANs	64	64	64	64
	RADIUS	■	■	■	■
	SSL	■	■	■	■
	IEEE 802.1x	■	■	■	■
	DoS protection	■	■	■	■
	Firewall	4000 sessions (AT-FL18B) 8000 sessions (AT-FL18C)	■	■	■
OTHER	DMZ	■	■	■	■
	MAC filter	■	■	■	■
	IP / TCP / UDP filter	■	■	■	■
	URL filter	■	■	■	■
	Peer-to-peer protocols detection	■	■	■	■
	Encryption (DES, 3DES, AES)	■	■	■	■
	UPnP	■	■	■	■
ROUTING	VPN concurrent tunnels	1 - standard 5 - AT-FL19B, 10 - AT-FL19C 25 - AT-FL19D, 50 - AT-FL19E	250	1000	100
	RIPv1 and v2	■	■	■	■
	IPv4	■	■	■	■
	IPv6	AT-AR400-ADVL3UPGRD	AT-AR700-ADVL3UPGRD	AT-AR700-ADVL3UPGRD	AT-AR400-A3VLDUPGRD
	OSPF	■	■	■	■
	NAT / NATPT	■	■	■	■
	NAT VPN pass-through (sessions)	■	■	■	■
	PPPoE / PPTP / L2TP	■	■	■	■
	DHCP client / server / relay	■	■	■	■
	WAN load balancing	AT-FL15 (option)	Included	Included	AT-FL15 (option)
DIMENSIONS	Server load balancing	AT-AR400-ADVL3UPGRD	AT-AR700-ADVL3UPGRD	AT-AR700-ADVL3UPGRD	AT-AR400-ADVL3UPGRD
	BGP-4	AT-AR400-ADVL3UPGRD	AT-AR700-ADVL3UPGRD	AT-AR700-ADVL3UPGRD	AT-AR400-ADVL3UPGRD
IDEAL ENVIRONMENT	(W x D x H)	30.5 x 19 x 4.5 cm 12 x 7.48 x 1.77 in	30.5 x 19 x 4.4 cm 12 x 7.48 x 1.73 in	44 x 23.9 x 4.4 cm 17.3 x 9.4 x 1.73 in	33.5 x 18 x 4.5 cm 13.18 x 7 x 1.77 in
	Weight	1.75 kg / 3.85 lb	1.92 kg / 4.23 lb	2.95 kg / 6.5 lb	1.96 kg / 4.32 lb
CUSTOMER'S NEEDS		Remote access	Remote access	Remote access	Head office connectivity

# Wireless

[alliedtelesis.com/wireless](http://alliedtelesis.com/wireless)

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. 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.

Moreover, the controller-based solution can fully manage OAM functions to easily control and manage delivery of traditional wireless device services as well as securely allow BYOD access to specified areas of the system. Due to the highly mobile nature of the workplace today, the challenge becomes the balancing of active devices across the wireless infrastructure. One benefit of the controller-based solution is its ability to continuously monitor the radio coverage and the devices utilizing it, and adapt the system to balance the load across the access points.

## Small and Medium Business

Allied Telesis designs wireless products for Small Office / Home Office (SOHO) to Small-Medium Business (SMB) network needs.

## Wireless Clients

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

## Accessories

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



## Access Points



		ACCESS POINTS AND ROUTERS		BASE STATION
FEATURES		AT-WR2304N	AT-TQ2450	AT-WR4662n*
FORM FACTOR	Ethernet	Desktop / wallmount	Desktop / wallmount / ceiling mount	Pole mount / wallmount
	Wireless radio	1 x 10/100TX (WAN); 4 x 10/100TX (LAN)	1 x 10/100/1000T	1 x 10/100TX
PORTS AND MEDIA SUPPORT	Ethernet	1 x 10/100TX (WAN); 4 x 10/100TX (LAN)	1 x 10/100/1000T	1 x 10/100TX
	Wireless radio	1 x IEEE 802.11b/g/n (2x2 MIMO : 300Mbps)	1 x IEEE 802.11a/n (2x2 MIMO : 300Mbps) 1 x IEEE 802.11b/g/n (2x2 MIMO : 300Mbps)	2 x IEEE 802.11a/b/g/n (2x2 MIMO : 300Mbps)
POWER SUPPLY		External	External or IEEE 802.3af PoE (PD)	IEEE 802.3af PoE (PD)
ENVIRONMENTAL	Indoor/outdoor usage	Indoor	Indoor	Outdoor (IP67)
	Temperature range	0°C to 45°C	Powered via PoE: 0°C to 50°C Powered via PSU: 0°C to 40°C	-30°C to 65°C
SCALABILITY			Up to 16 members	
MANAGEMENT	Operations management	Standalone	Standalone / controlled mode	Standalone
	Web GUI	HTTP, HTTPS	HTTP, HTTPS	
	CLI access			SSH
	SNMP	v1, v2c	v1, v2c	
	UPnP	■		
NETWORK RESILIENCE				STP, RSTP, VRRP
SECURITY	RADIUS / IEEE 802.1x / SSL	■	■	■
	Encryption	AES	AES	DES, 3DES, AES
	DoS protection	■	■	■
	Firewall	■		
	DMZ	■		
	NAT / NATPT	■		
	ALG	■		
	VPN pass-through	Multiple sessions		
	Filtering	■	■	■
	MAC address	■	■	■
	IP	■		■
	TCP / UDP port	■		■
	URL	■		
BRIDGING	MAC cloning	■		
	PPPoE / PPTP / L2TP	■		
	VLAN		■	■
	VLAN bridging			■
ROUTING	IPv4	■		■
	Supported protocols	Static routing		Static routing, OSPFv2, RIPv1, RIPv2, HSRP
	Multicast support			IGMP snooping
WIRELESS	IEEE 802.11e (QoS)	WMM	WMM	WMM
	IEEE 802.11i (security)	■	■	■
	Mode: infrastructure	Access point, station	Access point	Access point, station
	Wireless Distribution System (WDS)	■	■	■
	Wireless Protected Setup (WPS)	■		
	Captive portal		Controlled mode only	
	Dynamic channel planning	■	■	■
	Multiple SSID	4	32	16
	VLAN to SSID mapping		■	■
	Regulatory domain compliance		■	■
	Rogue AP detection		■	
	Antenna	2 x 2.4GHz (2dBi) omni, detachable	3 x 2.4GHz (2dBi) omni / 3 x 5GHz (2dBi) omni detachable	
	Antenna diversity mode		■	
	Wi-Fi certified	■	■	
DIMENSIONS	(W x D x H)	12.5 x 9.8 x 2.5 cm / 4.9 x 3.8 x 1 in	22.8 x 16 x 4.4 cm / 8.98 x 6.3 x 1.74 in	21.2 x 5.7 x 18.3 cm / 8.4 x 2.2 x 7.2 in
	Weight	.15 kg / .3 lb	1 Kg / 2.2 lb	1.2 kg / 2.7 lb
IDEAL ENVIRONMENT		Small business (SMB)	Enterprise	WISP
CUSTOMER'S NEEDS		User access / indoor wireless bridge	User access (BYOD) / indoor wireless bridge / Hotspot	WLL / outdoor wireless bridge / Hotspot

\* Not available In North America



# Wireless Controllers

		SOFTWARE APPLIANCE	HARDWARE APPLIANCE
FEATURES		AT-UWC-Install + AT-UWC-BaseST	AT-UWC-60-APL
FORM FACTOR		Virtual machine software	Desktop, 1RU
DEPLOYMENT MODE	Data forwarding	Distributed, centralized	
	Grouping / clustering	RF group, mobility group	
	Wireless network topology	Access point, WDS	
SCALABILITY	Clients per AP	200	
	Clients per controller	8000	
	APs per controller	10, upgradable up to 200	10, upgradable up to 60
	Groups	255	
	Controllers per group	64	
	APs per group	2000	
	WLANS	64	
	VLANs	4096	
	AP profiles	16	
	Network profile	64	
PORTS AND MEDIA SUPPORT	Ethernet	1 x vNIC	6 x 1000T
	Serial		1
	USB		2
POWER SUPPLY			AC/DC adapter
ENVIRONMENTAL	Temperature range		5°C to 40°C
	Cooling		Fan
MANAGEMENT	RF coverage hole arrangement		■
	Self-recovery of AP fault		■
	RF interference mitigation		■
	Dynamic Tx power adjustment		■
	Dynamic channel selection		■
	Client load balancing		■
	Plug & Play / discovery mechanism	Layer 2 and Layer 3	
	Client location service		■
HIGH AVAILABILITY	Adaptive AP operations mode		■
	Controller redundancy		N:N
NETWORKING	Bridging		■
	Routing		■
	Mobility	Layer 2 and Layer 3, Fast BSS transition	
NETWORKING	Client load balancing		■
	Wireless Multimedia Media (WMM)		■
	Optimized video streaming		■
	Rate limiting		■
	MAC layer QoS		■
SECURITY	Access Control List (ACL)		■
	Guest access	Captive portal, Web authentication	
	Intrusion detection / prevention system	Wireless IDS (wIDS), rogue AP detection, rogue client	
DIMENSIONS	(W x D x H)	21 x 21 x 4.2 cm / 8.26 x 8.26 x 1.65 in	
	Weight	1.5 kg / 3.3 lb	
IDEAL ENVIRONMENT		Small to mid-sized enterprise	
CUSTOMER'S NEEDS		Cloud-based application	Dedicated server model
		User access (BYOD) / Hotspot / centralized WLAN management	

# PoE Accessories



		PSE PoE		PD PoE
FEATURES		AT-6101G	AT-6101GP	AT-6102G
FORM FACTOR		Desktop	Desktop	Desktop / wallmount
PORTS AND MEDIA		1	1	1
POWER SUPPLY		Fixed internal	Fixed internal	PoE
POWER OVER ETHERNET	IEEE 802.3af	■	■	■
	IEEE 802.3at		■	
	PoE-enabled ports	1	1	1
	Max number of full power ports	1	1	1
	Mode	B	B	A or B
	PoE power	15.4W	30W	10W
				DC out (vDC)
				5 / 7.5 / 9 / 12
ENVIRONMENTAL		Fanless	Fanless	Fanless
MANAGEMENT		Unmanaged	Unmanaged	Unmanaged
DIMENSIONS	(W x D x H)	11.7 x 6 x 3.6 cm 4.6 x 2.4 x 1.4 in	11.7 x 6 x 3.6 cm 4.6 x 2.4 x 1.4 in	8 x 5.6 x 2.6 cm 3.1 x 2.2 x 1.02 in
	Weight	.18 kg / .4 lb	.18 kg / .4 lb	.08 kg / .18 lb
CUSTOMER'S NEEDS		Feeding protected PoE to any Fast and Gigabit Ethernet equipment without having to replace non-PoE switches	Feeding protected PoE to any Fast and Gigabit Ethernet equipment without having to replace non-PoE switches	Makes any non-PoE equipment capable of PoE up to Gigabit Ethernet speed / extract power from a PoE line and supply 5 / 7.5 / 9 or 12VDC to any equipment

## 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 receives 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.

# Accessories



		WALLMOUNT	COAX CABLES			
FEATURES		AT-WR4501	AT-TQ0001	AT-TQ0003	AT-TQ0041	AT-TQ0045
ENVIRONMENTAL		Indoor / outdoor usage	Outdoor	Outdoor	Outdoor	Outdoor
ANTENNA / CABLE TYPE			HDF200	HDF200	HDF400	HDF400
ANTENNA GAIN (dBi)	@ 2.4GHz					
	@ 5GHz					
INSERTION LOSS (dB)	@ 2.4GHz		-0.5	-1.7	-0.3	-1.2
	@ 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
COMPATIBLE EQUIPMENT	AT-WR2304N		■	■		
	AT-TQ2450		■	■		
	AT-WR4662n	■			■	■
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 1 ft 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		Wallmount	Higher gain or directional antenna	Higher gain or directional antenna	External antenna	External antenna

**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 simplifies and speeds roaming between two access points.

**WLL**

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

**FULL HOTSPOT**

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

FEATURES		WIRELESS NICs
		AT-WNP300N
<b>BUS TYPE</b>		PCI 2.2 (full and low-profile bracket)
<b>PORTS AND MEDIA SUPPORT</b>	Wireless radio	IEEE 802.11b/g/n (2x2 MIMO : 150Mbps)
<b>ENVIRONMENTAL</b>	Temperature range	0°C to 45°C
<b>WIRELESS AND SECURITY</b>	IEEE 802.11e (QoS)	WMM
	IEEE 802.11i (security)	■
	IEEE 802.1x supplicant	■
	WEP (bits)	64 / 128
	WPA-EAP, WPA-PSK	■
	WPA2-EAP, WPA2-PSK	■
	Wireless Protected Setup (WPS)	■
	Dynamic data rate scaling	■
<b>DIAGNOSTIC LEDS</b>	Antenna	2 x 2.4GHz (2dBi) omni, detachable
<b>DRIVER SUPPORT</b>	Windows 2000	■
	Windows XP	■
	Windows Vista	■
	Windows 7	Via NDIS wrapper
	WHQL	■
<b>CERTIFICATIONS</b>	Wi-Fi Alliance	■
<b>DIMENSIONS</b>	(W x D x H)	12 x 6.3 cm / 4.72 x 2.48 in
	Weight	52 g / .1 lb

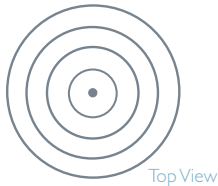


CAT5 CABLES		ANTENNA	RF SPLITTERS		SURGE PROTECTOR
AT-TQ0051	AT-TQ0053	AT-TQ0500	AT-TQ0292	AT-TQ0592	AT-TQ0591
Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
CAT5 UTP	CAT5 UTP	Omni			
		2			
		5			
			-0.6	-0.5	-1.5
				-0.5	-1.5
1 x RJ-45 plug 1 x waterproof RJ-45 plug	1 x RJ-45 plug 1 x waterproof 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 32 ft 9.6 in	30 m 98 ft 5.1 in	2.2 x 2.2 x 19 cm .9 x .9 x 7.5 in	7.7 x 5.5 x 4.2 cm 3 x 2.2 x 1.7 in	8 x 3 x 8 cm 3.1 x 1.2 x 3.1 in	6.5 x 3.4 x 2.5 cm 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 outdoor equipment		Hotspot / AP	Two antennas on one radio I/F	Two antennas on one radio I/F	Equipment lightning protection

# Antennas

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



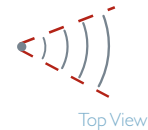
### Panel

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.

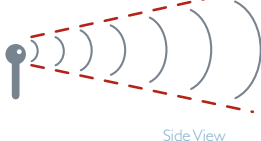
## Polarization

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 between transmitting and receiving antennas may produce up to -30dB of signal attenuation.

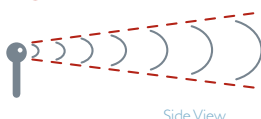
## Loss

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.

### LOW GAIN



### 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, such as wireless coverage for user access. High-gain panel and parabolic antennas

produce a focused beam, and are typically deployed 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.



**alliedtelesis.com/nms**

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



## AlliedView NMS Enterprise Edition

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 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 designed to operate on a Windows-based machine running XP, 7, or Server 2003/8/10. With a tiered approach to licensing, users can deploy AlliedView NMS on even the smallest sized 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 platform allows for multiple network and device views where the user can observe



### 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 v1, 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

the entire network or focus in on an individual network device. In addition, AlliedView 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 allows 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 the network maintain the latest available update.

## AlliedView NMS Service Provider Edition

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.

The scalability of AlliedView NMS 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. 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

### Features

- » Intuitive graphical interface
- » Drill-down functionality
- » MIB browser
- » MIB compiler
- » GUI snapshot utility
- » RMON 4 group support
- » Supports NMS alarms
- » Supports SNMP v1, v2c and v3
- » VLAN management
- » QoS management
- » Multi-platform
- » HP OpenView, Tivoli NetView, Ipswitch
- » WhatsUp and SNMPc interoperability
- » Supports Allied Telesis managed devices

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





# Network Management Software

AlliedView NMS server: Client support is comprised of 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 NMS performs active auto-discovery 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," while 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 networks, VLANs, EPSRings (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 NMS. 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 occurs.

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

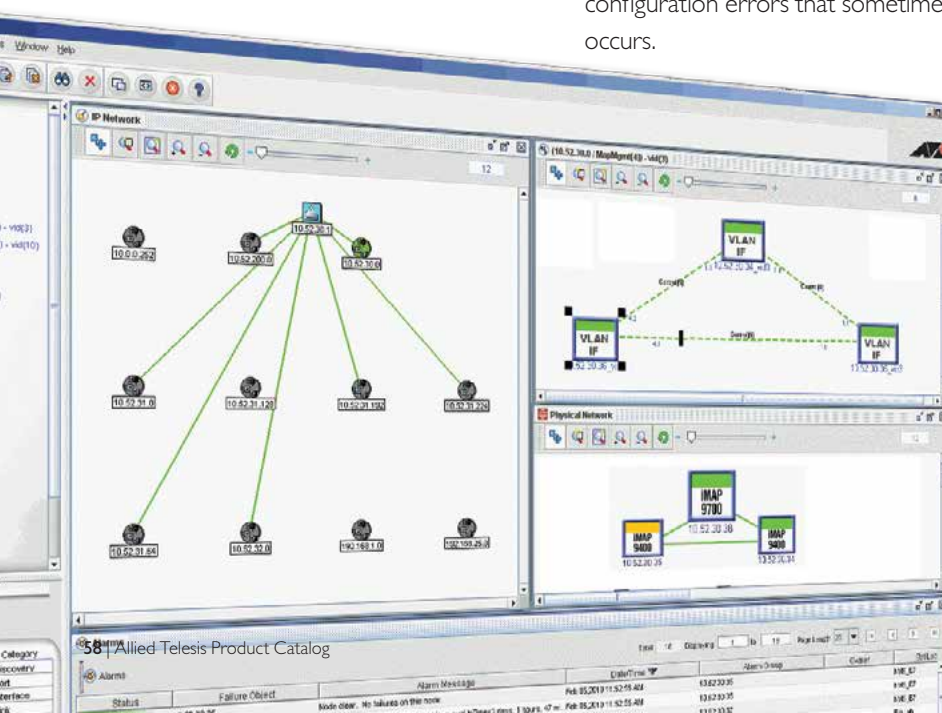
In addition to auto- or bulk-provisioning the service VLANs using a defined service profile, the same procedure could be applied to the uplink or port for applying configuration and QoS parameters. Auto-configuring enables new nodes to be added and turned up quickly, and likewise new line cards or modules 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 network 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.





# Product Index

[alliedtelesis.com/products/index](http://alliedtelesis.com/products/index)

8000GS Series .....	16	AT-8100L/8POE .....	19
8000S Series .....	18	AT-8100L/8POE-E .....	15, 19
8600 Series .....	19	AT-8100S/16F8-LC .....	17
9000 Series .....	16	AT-8100S/16F8-SC .....	17
ADSL24AE .....	26	AT-8100S/24 .....	19
ADSL24B .....	26	AT-8100S/24C .....	19
AlliedView NMS Enterprise Edition .....	56	AT-8100S/24F-LC .....	17
AlliedView NMS Service Provider Edition .....	57	AT-8100S/24POE .....	19
AT-2701FTXa .....	43	AT-8100S/48 .....	19
AT-2701FXa .....	45	AT-8100S/48POE .....	19
AT-2711FX .....	45	AT-8516F .....	17
AT-2712FX .....	45	AT-8624POE-V2 .....	19
AT-2716POE/FX .....	43	AT-8624T/2M-V2 .....	19
AT-2814FX .....	42	AT-9000/28 .....	16
AT-2874SX .....	42	AT-9000/28SP .....	16
AT-2911GP/LX .....	43	AT-9000/52 .....	16
AT-2911GP/SX .....	43	AT-9924SP .....	10
AT-2911LTX .....	43	AT-A45 .....	17, 19
AT-2911LX .....	45	AT-A46 .....	17
AT-2911SFP .....	45	AT-A47 .....	17
AT-2911STX .....	43	AT-AR415S .....	48
AT-2911SX .....	45	AT-AR440S .....	48
AT-2912T .....	43	AT-AR750S .....	48
AT-2916LX10 .....	45	AT-AR770S .....	48
AT-2916SX .....	45	AT-CM3K0S .....	35
AT-2931SX .....	45	AT-CM301 .....	35
AT-2972SX .....	46	AT-CM302 .....	35
AT-2973SX .....	46	AT-CV1KSS .....	35
AT-2973T .....	46	AT-CV5M02 .....	35
AT-2973T/4 .....	46	AT-CV1000 .....	35
AT-6101G .....	52	AT-CV1200PSU .....	35
AT-6101GP .....	52	AT-CV1203 .....	35
AT-6102G .....	52	AT-CV5001 .....	35
AT-8000/8POE .....	19	AT-CV5001AC-60 .....	35
AT-8000GS/24 .....	16	AT-CV5001DC-80 .....	35
AT-8000GS/24POE .....	16	AT-DC2552XS .....	14
AT-8000GS/48 .....	16	AT-DINRAIL .....	34
AT-8000S/16 .....	19	AT-EN-SFR-ONT .....	29
AT-8000S/24 .....	19	AT-FAN .....	14
AT-8000S/24POE .....	19	AT-FAN03 .....	7
AT-8000S/48 .....	19	AT-FL-CF4-AM40 .....	5
AT-8000S/48POE .....	19	AT-FL-SBx9-01 .....	7
AT-8100L/8 .....	19	AT-FL-SBx9-02 .....	7

AT-FL-SBx9-AM40 .....	7	AT-IMG634A-R2 .....	29
AT-FL-SBx81-01 .....	5	AT-IMG634B-R2 .....	29
AT-FS201 .....	32	AT-IMG634WA-R2 .....	29
AT-FS202 .....	32	AT-IMG634WB-R2 .....	29
AT-FS232 .....	32	AT-IMG646BD .....	29
AT-FS232/1 .....	32	AT-IMG1405 .....	29
AT-FS232/2 .....	32	AT-IMG1405W .....	29
AT-FS238A/1 .....	32	AT-IMG1425 .....	29
AT-FS238B/1 .....	32	AT-IMG1425RF .....	29
AT-FS705EFC/SC .....	22	AT-IMG1425W .....	29
AT-FS705L .....	22	AT-IMG1505 .....	29
AT-FS705LE .....	22	AT-IMG1525 .....	29
AT-FS708 .....	22	AT-IMG1525RF .....	29
AT-FS708LE .....	22	AT-IMG2426F .....	29
AT-FS708/POE .....	22	AT-IMG2504 .....	29
AT-FS709FC .....	22	AT-IMG2524 .....	29
AT-FS716L .....	22	AT-IMG2524F .....	29
AT-FS717FC/SC .....	22	AT-IMG2524H .....	29
AT-FS724L .....	22	AT-MC13 .....	32
AT-FS750/16 .....	20	AT-MC101XL .....	32
AT-FS750/24 .....	20	AT-MC102XL .....	32
AT-FS750/24POE .....	20	AT-MC102XL-PCI .....	32
AT-FS750/48 .....	20	AT-MC102XL-PCle .....	32
AT-G8LX10 .....	38	AT-MC103LH .....	32
AT-G8T .....	38	AT-MC103XL .....	32
AT-GS900/5E .....	23	AT-MC104XL .....	32
AT-GS900/8 .....	23	AT-MC115XL .....	32
AT-GS900/8E .....	23	AT-MC116XL .....	32
AT-GS900/8PS .....	23	AT-MC605 .....	32
AT-GS900/16 .....	23	AT-MC606 .....	32
AT-GS900/24 .....	23	AT-MC1004 .....	33
AT-GS950/8 .....	20	AT-MC1008/GB .....	33
AT-GS950/8POE .....	20	AT-MC1008/SP .....	33
AT-GS950/10PS .....	20	AT-MCF2xxx Chassis .....	36
AT-GS950/16 .....	20	AT-MCF2000 .....	36
AT-GS950/16PS .....	20	AT-MCF2012LC .....	36
AT-GS950/24 .....	20	AT-MCF2012LC/1 .....	36
AT-GS950/48 .....	20	AT-MCF2032SP .....	36
AT-GS950/48PS .....	20	AT-MCF2300 .....	36
AT-GS2002/SP .....	33	AT-MCPWR .....	33
AT-HS-STK-CBL .....	7	AT-MCR1 .....	32, 33, 34
AT-IBG915FX .....	29	AT-MCR12 .....	32, 33, 34
AT-IFS802SP .....	15	AT-MTP12-1 .....	14
AT-IMG001 .....	29	AT-MTP12-5 .....	14
AT-IMG008 .....	29	AT-PC232/POE .....	32
AT-IMG624A .....	29	AT-PC2002POE .....	33
AT-IMG624A-R2 .....	29	AT-PWR01 .....	10

AT-PWR05 .....	7	AT-SP10LR20/I .....	38, 39
AT-PWR05-80 .....	7	AT-SP10LR/I .....	38, 39
AT-PWR06 .....	14	AT-SP10LRM .....	39
AT-PWR250 .....	10	AT-SP10SR .....	14, 39
AT-PWR800 .....	10	AT-SP10SR/I .....	38
AT-PWR1200 .....	10	AT-SP10TW1 .....	14, 39
AT-PWR3004 .....	17, 19	AT-SP10TW3 .....	14, 39
AT-PWR3101 .....	10, 19	AT-SP10TW7 .....	14, 39
AT-PWR3202 .....	10	AT-SP10ZR80/I .....	38, 39
AT-QSFP1CU .....	14, 39	AT-SPBD10-13 .....	38
AT-QSFP3CU .....	14, 39	AT-SPBD10-14 .....	38
AT-QSFP-4SFP10G-3CU .....	14, 39	AT-SPBD20DUAL-14 .....	38
AT-QSFP-4SFP10G-5CU .....	14, 39	AT-SPBD40DUAL-14 .....	38
AT-QSFPSR .....	14, 39	AT-SPEX .....	38
AT-RPS3000 .....	10	AT-SPFX/2 .....	38
AT-RPS3004 .....	17, 19	AT-SPFX/15 .....	38
AT-RPS3104 .....	10, 19	AT-SPFXBD-LC-13 .....	38
AT-RPS3204 .....	10	AT-SPFXBD-LC-15 .....	38
AT-SB31GT24 .....	9	AT-SPLX10 .....	14, 38
AT-SBx31CFC .....	8, 9	AT-SPLX10/I .....	38
AT-SBx31FAN .....	8	AT-SPLX40 .....	38
AT-SBx31GC40 .....	8, 9	AT-SPSX .....	14, 38
AT-SBx31GP24 .....	8, 9	AT-SPSX/I .....	38
AT-SBx31GS24 .....	9	AT-SPTX .....	38
AT-SBx31GT40 .....	9	AT-SPZX80 .....	38
AT-SBx31XS6 .....	8, 9	AT-StackXG .....	10
AT-SBx31XZ4 .....	8, 9	AT-TN-117 .....	26
AT-SBx81CFC400 .....	5	AT-TN-118 .....	26
AT-SBx81CFC960 .....	4	AT-TN-119 .....	26
AT-SBx81GP24 .....	5	AT-TN-124 .....	26
AT-SBx81GS24a .....	5	AT-TN-128 .....	26
AT-SBx81GT24 .....	5	AT-TN-130 .....	26
AT-SBx81GT40 .....	5	AT-TN-139 .....	26
AT-SBx81XS6 .....	5	AT-TN-140 .....	26
AT-SBx908 .....	6, 7	AT-TN-142 .....	26
AT-SBx3112 .....	8, 9, 12	AT-TN-143 .....	26
AT-SBx3112-8XR .....	8	AT-TN-144 .....	26
AT-SBx3112-12XS .....	8	AT-TN-145 .....	26
AT-SBx3112-96POE+ .....	8	AT-TN-250G .....	27
AT-SBx8112 .....	4, 5	AT-TN-253G .....	27
AT-SBxPWRPOE1 .....	5, 8	AT-TN-301 .....	27
AT-SBxPWRPoE1-10 .....	9	AT-TN-308 .....	27
AT-SBxPWRSYS1 .....	5, 8	AT-TN-309 .....	27
AT-SBxPWRSYS1-10 .....	9	AT-TN-310 .....	27
AT-SBxPWRSYS1-80 .....	5, 8, 9	AT-TN-401 .....	27
AT-SP10ER40/I .....	38, 39	AT-TN-407 .....	26, 27
AT-SP10LR .....	14, 39	AT-TN-408 .....	26, 27

AT-TN-409 .....	26, 27	AT-WR4662n .....	50
AT-TN-9101 .....	27	AT-x6EM/XS2 .....	10
AT-TN-9101/2/3 .....	27	AT-x210-9GT .....	12, 15
AT-TN-9102 .....	27	AT-x210-16GT .....	12
AT-TN-9102/3 .....	27	AT-x210-24GT .....	12
AT-TN-9103 .....	27	AT-x510-28GPX .....	12
AT-TN-R113 .....	27	AT-x510-28GSX .....	12
AT-TN-R114 .....	27	AT-x510-28GTX .....	12
AT-TQ0001 .....	53	AT-x510-52GPX .....	12
AT-TQ0003 .....	53	AT-x510-52GTX .....	12
AT-TQ0041 .....	53	AT-x600-24Ts .....	10
AT-TQ0045 .....	53	AT-x600-24Ts-POE .....	10
AT-TQ0051 .....	53	AT-x600-24Ts/XP .....	10
AT-TQ0053 .....	53	AT-x600-48Ts .....	10
AT-TQ0201E .....	54	AT-x600-48Ts/XP .....	10
AT-TQ0202E .....	54	AT-x610-24SPs/X .....	10
AT-TQ0221E .....	54	AT-x610-24Ts .....	10
AT-TQ0222E .....	54	AT-x610-24Ts-POE+ .....	10
AT-TQ0223E .....	54	AT-x610-24Ts/X .....	10
AT-TQ0241E .....	54	AT-x610-24Ts/X-POE+ .....	10
AT-TQ0242E .....	54	AT-x610-48Ts .....	10
AT-TQ0243E .....	54	AT-x610-48Ts-POE+ .....	10
AT-TQ0261E .....	54	AT-x610-48Ts/X .....	10
AT-TQ0262E .....	54	AT-x610-48Ts/X-POE+ .....	10
AT-TQ0292 .....	53	AT-x900-12XT/S .....	10, 15
AT-TQ0500 .....	53, 54	AT-x900-24XS .....	10
AT-TQ0501E .....	54	AT-x900-24XT .....	10
AT-TQ0502E .....	54	AT-XEM-2XP .....	7, 15
AT-TQ0521E .....	54	AT-XEM-2XS .....	7, 10, 15
AT-TQ0522E .....	54	AT-XEM-2XT .....	7, 10, 15
AT-TQ0523E .....	54	AT-XEM-12S .....	7, 15
AT-TQ0541E .....	54	AT-XEM-12Sv2 .....	7, 15
AT-TQ0542E .....	54	AT-XEM-12T .....	7
AT-TQ0561E .....	54	AT-XEM-12Tv2 .....	7, 15
AT-TQ0562E .....	54	AT-XEM-24T .....	7, 15
AT-TQ0591 .....	53	AT-XEM-STK .....	10, 15
AT-TQ0592 .....	53	AT-XPER40 .....	39
AT-TQ2450 .....	50	AT-XPER80 .....	39
AT-Tray1 .....	34	CES8 .....	26
AT-UWC-60-APL .....	51	CFC12 .....	26, 27
AT-UWC-BaseST .....	51	CFC24 .....	27
AT-UWC-Install .....	51	CFC56 .....	26, 27
AT-VNC10S .....	14, 46	CFC100 .....	26, 27
AT-WLMT .....	34	Converteon Managed Media Conversion System .....	35
AT-WNP300N .....	53	FX20BX .....	26
AT-WR2304N .....	50	FX20BX40 .....	26
AT-WR4501 .....	53	GE3 .....	27



GE8 .....	26	Switches .....	3
GE24BX .....	26	<i>Advanced Gigabit Edge</i> .....	12
GEPON .....	26	<i>Aggregation and Distribution</i> .....	10
iMAP 9100 .....	27	<i>Chassis-Based Core</i> .....	4, 9
iMAP 9700 .....	27	<i>Data Center</i> .....	14
iMAP 9810 .....	27	<i>Fast Ethernet Edge, Copper</i> .....	18
iMAPs (integrated Multiservice Access Platforms) .....	25	<i>Fast Ethernet Edge, Fiber</i> .....	17
<i>Blades</i> .....	26	<i>Gigabit Edge</i> .....	16
<i>Channel Units</i> .....	26	<i>Industrial and Extended Temperature</i> .....	15
<i>Chassis</i> .....	27	<i>Unmanaged</i> .....	22
<i>Controller Cards</i> .....	26	<i>WebSmart</i> .....	20
iMG634 Series .....	29	VDSL24A .....	26
iMG634W Series .....	29	VDSL24B .....	26
iMGs (intelligent Multiservice Gateways) .....	25, 28, 29	Wireless .....	49
Media Converters .....	31	<i>Accessories</i> .....	52
<i>Chassis-Based</i> .....	36	<i>Access Points</i> .....	50
<i>Converteon</i> .....	35	<i>Access Points and Routers</i> .....	50
<i>Mounting Hardware</i> .....	34	<i>Antennas</i> .....	54
<i>Standalone</i> .....	32	<i>Base Stations</i> .....	50
Network Interface Cards .....	41	<i>Controllers</i> .....	51
<i>Copper Desktop/Workstation</i> .....	43	<i>NICs</i> .....	53
<i>Fiber Desktops/Workstations</i> .....	44	<i>PoE Accessories</i> .....	52
<i>Laptop</i> .....	42	x210 Series .....	13
<i>Servers</i> .....	46	x510 Series .....	12
Network Management Software .....	55	x610 Series .....	11
Optical Modules .....	37	x900 Series .....	10
PAC24C .....	26	XE1 .....	27
POTS24C .....	26	XE1S .....	27
Routers .....	47	XE6 .....	27
SwitchBlade x908 .....	6		
SwitchBlade x3112 .....	8, 9		
SwitchBlade x8106 .....	4		
SwitchBlade x8112 .....	4		

# Environmental Policy

[alliedtelesis.com/eco-friendly](http://alliedtelesis.com/eco-friendly)

As a major industry developer and manufacturer of networking equipment, Allied Telesis is committed to providing our customers with products designed and built to the highest quality, while minimizing the impact to the environment during both manufacturing and product operation.

## Our Philosophy

Allied Telesis Group recognizes the importance of protecting the global environment and promoting conservation of biodiversity. We creatively utilize technology for sustainable social progress and for protecting the environment. Allied Telesis Group is committed to passing down a healthy global environment to the next generation.

## Our Policy

Allied Telesis Group takes a proactive approach to:

- » continual improvement of the local and global environment,
- » prevention of pollution, and
- » environmental management to fulfill corporate social responsibilities.

To achieve these objectives:

- » Allied Telesis executive management has established and provides the resources for an Environmental Management System (EMS).
- » We offer products designed to conserve energy; manufactured to save resources.
- » We seek to reduce the risks to human health and the health of the environment from the use of hazardous chemical substances.
- » We strive to reduce our impact on the environment through reduction, reuse, and recycling of waste materials (we practice 3R).
- » We comply with all applicable environmental regulatory requirements, industry-specific self-regulation and stakeholder's requirements.

## Reduced Operational Power Consumption

Using the latest technology and a range of power saving techniques, Allied Telesis has reduced power consumption by up to 50% over a wide range of its network devices. Reducing power consumption has a direct benefit for the environment. Additionally, further energy savings can also be made where products are installed in controlled temperature environments such as server rooms. Such environments allow the equipment to run cooler, requiring less effort and power from the device, resulting in a decrease in power utility costs and an increase in equipment reliability.

Eco-friendly is the brand name used by Allied Telesis to signify our low power range of networking products. Eco-friendly products will eventually encompass our entire product portfolio, as we continue to introduce new, lower power technology to meet customer demand.

**Reducing Power on Network Ports:** The latest switching silicon can detect the length of cables connected to a port. Using "measure and minimize" technology, Allied Telesis can ensure that maximum power is only injected into cables with the longest lengths, reducing the power

injected into short cable lengths. Advanced products can ensure that selected ports are disabled overnight or on weekends, further reducing power.

**Reducing Indicator Activity:** All networking devices feature a varying array of power-consuming indicator devices (typically LEDs) to aid in installation and diagnostics. On the latest Allied Telesis products, these LEDs can be disabled when not required, saving up to a further 2% of operating power.

**Power Supply Efficiency:** The overall power consumption of a network device is ultimately dictated by the efficiency of the power supply. A power supply delivering only 50% efficiency draws twice the actual required power; with half the power wasted in the form of heat. Allied Telesis uses ultra-efficient power supplies, delivering conversion efficiencies of more than 80%, which produce less heat and reduce power consumption by up to 30%. Allied Telesis is now rating power supplies, informing the user of their efficiency.

## Manufacturing

Allied Telesis prides itself on using state-of-the-art manufacturing equipment. While quality and efficiency are key parameters, Allied Telesis is also focused on reducing the potential damage to the environment caused during the manufacturing process.

**ISO 9001 Standard:** All Allied Telesis manufacturing facilities conform to ISO 9001 standards, allowing production volumes to scale easily without sacrificing product quality. Efficient production techniques, coupled with stringent design parameters ensure that Allied Telesis maintains its position as one of the highest quality networking producers in the industry.

**ISO 14001 Standard:** Allied Telesis has long been a responsible manufacturer, ensuring the minimum damage to the world's environment. All of our facilities adhere to the strict ISO 14001 standard for environment management of our production processes.

Allied Telesis manufacturing facilities also ensure minimal impact on the environment by use of the latest technology and processes. The use of lead-free solder significantly reduces the amount of toxic chemicals, while the use of no-flux solder has reduced the amount of solvent cleaner by more than 10,000 gallons per year. All water used in our manufacturing process is also recycled.

## Logistics

The majority of Allied Telesis network products are manufactured in Asia. Transporting these

products across the world to the consumer markets can therefore have significant impact on the environment. Whenever possible, Allied Telesis attempts to use bulk sea transportation, as this has significantly less environmental impact when compared to air freight.

## Restrictions on Hazardous Substances (RoHS) Compliance

Allied Telesis, Inc. declares that the homogeneous content of the materials and components used in products bearing the CE Mark conform to the requirements established by the European Union RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment) Directive, 2011/65/EU. Maximum Concentration Values of lead (Pb), mercury (Hg), hexavalent chromium (Cr+6), polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE) shall be no more than 1000 ppm and cadmium (Cd) shall be no more than 100 ppm. Allied Telesis ensures RoHS conformance by requiring Declarations of Conformity and Full Materials Declarations from all suppliers; by monitoring incoming materials and by maintaining strict manufacturing process controls.

## REACH Policy

As a manufacturer of Articles that do not release chemical substances into the environment, Allied Telesis is committed to ensuring that there are no SVHCs (Substances of Very High Concern) above allowable threshold (1000 ppm) used in our products. We have procedures and processes in place to ensure continued conformity with REACH regulations.

## WEEE Policy

Allied Telesis distributors and channel partners share a common commitment to recycle waste electronic equipment and safely dispose of what cannot be recycled, in accordance with the WEEE directive.

## Conflict Minerals Policy

Allied Telesis is committed to social and environmental responsibility and we expect the same commitment from our supply chain. This includes compliance with Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, which requires U.S. publicly traded companies to trace the origins of tin, tantalum, tungsten, and gold (3TG) used in their products. The intended purpose of which is to prevent the use of (3TG) mined in the Democratic Republic of Congo (DRC) and adjoining countries in order to eliminate these "conflict minerals" as a source of funding for the ongoing conflict. We have a dedicated team of people working with our suppliers to reasonably assure that the 3TG in our products are "conflict free."

Allied Telesis continuously enhances its products. As a result, this catalog may not correctly represent all products currently available. Products may also vary by geographic region. Product specifications can change without notice, and while Allied Telesis makes every effort to ensure the accuracy of information presented in this catalog, the Company does not accept liability for errors or changes in the stated specifications.

For current product availability by region, full and complete product specifications and warranty information, please contact your regional sales manager or visit [alliedtelesis.com](http://alliedtelesis.com).



Scan with your  
smartphone to download  
a PDF of this catalog.

#### Company Details