



Connecting The  World

Global Overview and Success

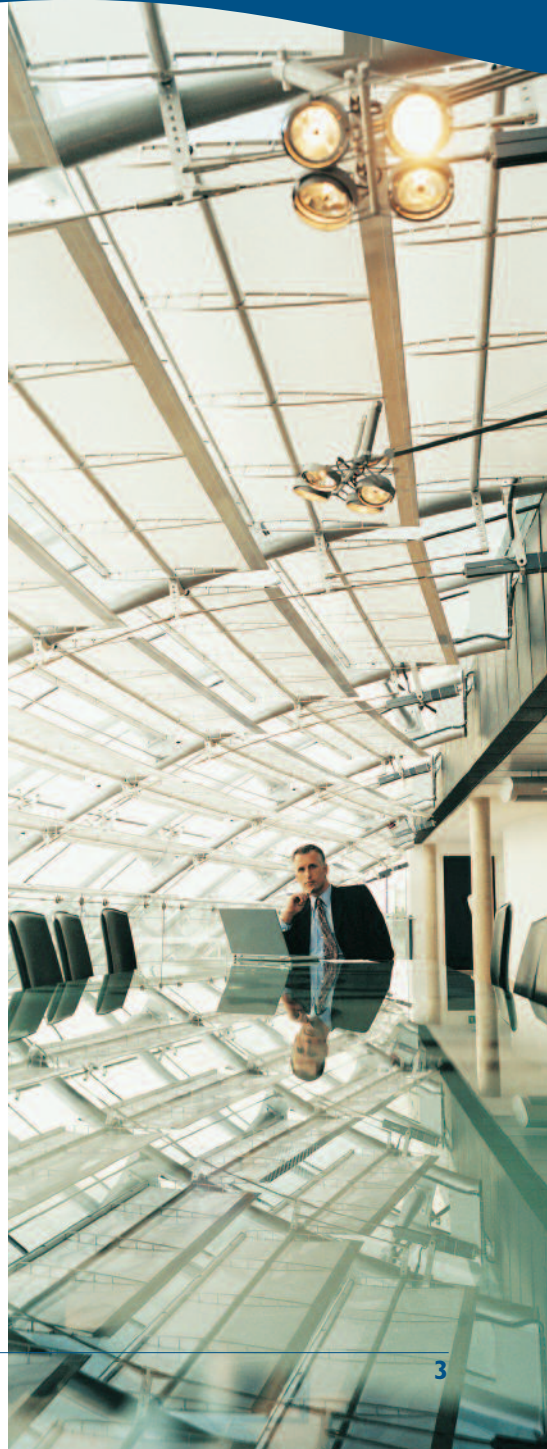


Allied Telesyn is one of the world's leading enterprise networking organisations. It is the well established and trusted brand of the Allied Telesis Group, an organisation with a worldwide turnover in excess of \$600 million and over 1,000,000 customers worldwide. Historically, Allied Telesyn has specialised in providing Ethernet networking and connectivity systems. This expertise has now been expanded to offer the widest range of access, aggregation, backbone and core transport technologies to provide cost-effective Ethernet/IP based solutions for organisations of all sizes.

Allied Telesyn provides the industries widest range of products, allowing enterprise users and channel organisations to build complete end-to-end networking solutions through one single vendor. The products range from industry leading media gateways which allow Triple Play services (voice, video and data) to be delivered to the home and business, through to high-end chassis-based platforms for use within core LAN backbones and for DSL/FTTx aggregation.

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Layer 3 Modular Switches

The SwitchBlade SB4100 series, with its versatile modular chassis, is ideal for multiple tenant unit and central point aggregation for Metro Area Networks (MAN) and campus networks, and as an enterprise mid-tier aggregation device.

Thanks to very sophisticated multicast and Quality of Service features the SB4100 series also fits perfectly into education and government networks requiring separation of multicast traffic. In addition it provides the perfect solution for utility companies

that need to control and monitor their infrastructure, but also wish to offer multimedia services like Voice, Data, Video and Web-Browsing using the same network structure.

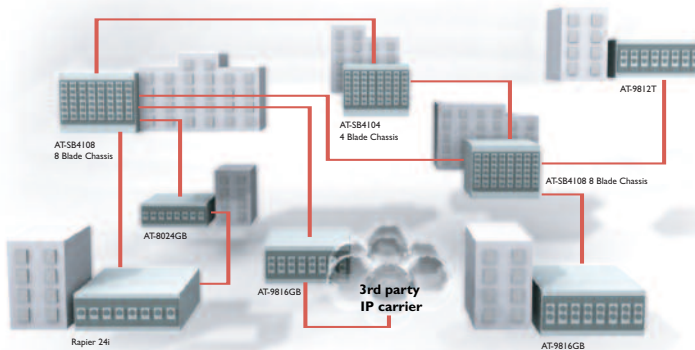
The SB4100 series combines hardware-based, wire-speed, non-blocking switching and IP/IPX routing with advanced, flexible Policy-Based Quality of Service, rich multicast support, and a comprehensive set of configuration and control features designed to simplify administration and maintenance tasks. The SB4100 series delivers hardware-based switching for Layer 2, Layer 3, and Layer 4+ with no performance penalty in a wide variety of interface types and feature options.

Example:

SB4100 Series in a MAN or Campus Network Setting

In the scenario shown, a Metropolitan Ethernet Provider (MEP) is provisioning an Ethernet service to a number of Multi-Tenant Unit (MTU) complexes. Each complex owner is providing tenants with voice and data services and requires 1000Mbps feeds to each building and rate limited Ethernet service to each tenant. An Allied Telesyn SB4100 series chassis-based switch forms the network backbone in each of the larger MTU complexes, with smaller standalone Layer 3 Gigabit Ethernet switches providing the aggregation from smaller complex buildings.

Also part of the solution, are Allied Telesyn IEEE 802.11b wireless solutions for network access, media converters for riser and cross-building connectivity and Layer 2 switches for LAN aggregation.





The race for high-speed and large capacity starts here

Allied Telesyn offers a complete range of Layer 3 Switch solutions that add performance, security and intelligence to core networks.

For speed, endurance and the dedication to succeed - choose Allied Telesyn chassis Switches.



AT-SB4108

SwitchBlade Layer 3 Modular Switches

COMPETITIVE PRODUCTS

Cisco Catalyst 4507R
Extreme Alpine 3800
3com Switch 7700R

Features and Benefits

Power

Up to 128Gbps of full wirespeed, non-blocking Layer 3, Layer 4+, Filtering and QoS at wirespeed.

Control

Industry leading QoS features with independent bandwidth and latency control allow multi-faceted tuning of network traffic.

Flexibility

SB4100 series modular design delivers both reliability and scalability. Line cards offering Fast Ethernet and Gigabit Ethernet (with copper and fibre interface options) can be added or removed to meet growing or changing network requirements.

Multi-protocol

Wirespeed IP, Multicast IP and IPX are complimented with advanced IPv6 and AppleTalk for full multi-protocol capability. Standards-based enhanced VRRP, IEEE 802.1w, QoS, and Multicast support ensure interoperation with any similar standards-based products.

Port density

- Up to 256 x 100FX port
- Up to 384 x 10/100TX port
- Up to 64 x 1000X port
- Up to 192 x 10/100/1000T port *

Redundancy

Uninterrupted performance is ensured through a wide range of redundancy mechanisms and hotswap capability on all cards and modules.

Easy to configure

The intuitive and customer friendly GUI interface allows even the most complex of configurations to be achieved easily.

Management facilities

A broad range of SNMP-based management options, allows the user to efficiently and securely access the SB4100 series powerful networking capabilities.

Wide support

Part of a huge family of compatible networking products complimenting all Allied Telesyn network products, providing unbeatable performance and connectivity backed by worldwide technical support network.

Security

Functions of SSL and SSH are provided. Stateful Inspection Firewall, SMTP Proxy and HTTP Proxy are optional.

Power Supply

- Power load sharing
- IEC inlets in rear
- 110-240V AC auto-ranging
- Chassis can be converted in the field from AC to DC
- -48vDC

* Check with your sales representative for availability

Model	Dimensions	Weight
AT-SB4108	62cm x 44cm x 34cm	63.6kg
AT-SB4104	40cm x 44cm x 34cm	36.1kg



Hardware Features/Ordering Information

8 SLOT OR 4 SLOT CHASSIS CONFIGURATION

	Height	PSU	Switch Controller	10/100TX Max Port	100FX Max Port	1000 Max Port	1000X Max SFP Port	10Gig	10/100/1000T
8 slot AT-SB4108	15U	2+1 RPS	Switch Controller only	384 RJ45	256 MT-RJ	64 (SX/LX) SC/MT-RJ	192 SFP	8 XFP	192 RJ45
4 slot AT-SB4104	9U	1+1 RPS	Switch Controller Bandwidth Expander	192 RJ45	128 MT-RJ	32 (SX/LX) SC/MT-RJ	96 SFP	4 XFP	96 RJ45



SwitchBlade Layer 3 Modular Switches



Features

Standard features include all the features typically required by Enterprise, Education or Government environments

Layer 2

- IEEE 802.1Q, 802.1p, 4096 VLANs
- Port security (MAC inspection)
- Link Aggregation
- GVRP
- IEEE 802.1d and 802.1w (Rapid Spanning Tree)
- IGMP snooping
- Protocol-based VLAN
- MAC address VLAN
- SubNet-based VLAN

Layer 3

- Generic Attribute Registration Protocol (GARP)
- General packet classifier
- Quality of Service
- Point-to-Point Protocol (PPP)
- Internet Protocol (IP)
- IP multicasting
- Open Shortest Path First (OSPF)
- Compression services
- Test facility
- Network Time Protocol (NTP)
- Generic Routing Encapsulation (GRE)
- Trigger facility
- IGMP processing
- ISAKMP
- Logging facility
- Scripting
- Dynamic Host Configuration Protocol (DHCP)
- Layer 2 Tunnelling Protocol (L2TP)
- Simple Network Management Protocol (SNMP)
- Link compression
- IP Security (IPSec) - (future)
- Secure sockets layer
- SSH
- HTTP server
- HTTP client
- TFTP client

Advanced Software Bundle

The advanced software bundle offers the following features

Full Layer 3 option

- AppleTalk
- RSVP
- DVMRP
- PIM-DM
- PIM-SM

Advanced Layer 3

- IPv6
- BGP4
- OSI (IS-IS)
- Loadbalancing

Security pack

- Stateful Inspection Firewall
- SMTP proxy
- HTTP proxy

Switch Controller

AT-SB4211

Switch Controller

- Hotswap switch controllers
- 128Gbps (full-duplex) Layer 2, 3, 4 wirespeed forwarding/routing engine with 2 switch controllers
- The default Layer 3 address table is 104,000 entries, option available increases default to 232,000 entries
- Management ports: 10/100TX RJ45 and 1 x Async config with RS232 DB9 connector
- CPU core system: A high-end PowerPC RISC CPU 512KB of non volatile SRAM (NVRAM)

Bandwidth Expander

AT-SB4215

The Bandwidth Expander option for the AT-SB4104 chassis can be installed when a low cost solution is mandatory and non-blocking performance is required, but CPU redundancy is not necessary. The Expander fits into the second switch controller slot in the AT-SB4104 chassis.

- Only for use with 4 slot chassis AT-SB4104
- 1 x BW Expander max when used with 1 Switch Controller

Memory Card

- **AT-SB4261-00** Switch CAM Memory (AT-SB4211A only)
- **AT-SB4262-00** Line CAM Memory (AT-SB44xxA only)

Line Cards

- Hotswap capable
- 8 per chassis in AT-SB4108 or 4 per chassis in AT-SB4104
- 16MB packet buffer for traffic bursting absorption

- **AT-SB4311V2** 10/100TX × 48 ports
- **AT-SB4352** 100FX (MT-RJ) × 32 ports
- **AT-SB4411A** 10/100/1000T (RJ45) × 8 ports
- **AT-SB4412** 10/100/1000T (RJ45) × 24 ports
- **AT-SB4441A** 1000 GBIC × 8 slots
- **AT-SB4442V2** 1000X SFP × 24 ports
- **AT-SB4451A** 1000SX (SC) × 8 ports
- **AT-SB4461A** 1000LX (SC) × 8 slots
- **AT-SB4541A** 10GBASE-R × 1 port

Power Supplies

- **AT-SB4162-30** AC PSU for UK
- **AT-SB4162-40** AC PSU for Australia/NZ
- **AT-SB4162-50** AC PSU for EU
- **AT-SB4162-80** DC PSE -48V

AlliedWare™

The SwitchBlade series ships with Basic Layer 3 software. Full Layer 3, Advanced Layer 3 and Security pack option available. Please see technical specification details and ordering p/n on page 90.



AT-SB4211A

Switch Controller

- Status LEDs
- Ethernet port
- Terminal console port



AT-SB4411A

Gigabit Ethernet Line Card

- 8 x 10/100/1000T ports
- Optional CAM memory AT-SB4261



AT-SB4441A

GBIC Line Card

- 8 x 1000 GBIC ports
- RJ45 connectors with LEDs
- Optional CAM memory AT-SB4262



AT-SB4311V2

Fast Ethernet Line Card

- 48 x 10/100TX ports
- RJ45 connectors with LEDs



AT-SB4215

Bandwidth Expander

- For use in slot B of the AT-SB4104 chassis (CH4) only
- Increases the full-duplex bandwidth available to each line card bay from 4Gbps to 8Gbps



AT-SB4451A

Gigabit Ethernet Line Card

- 8 x 1000SX ports
- SC connectors with LEDs
- Optional CAM memory AT-SB4262



AT-SB4442 V2 NEW

Gigabit Ethernet Line Card

- 24 x 1000X SFP ports

AT-SB4412

Gigabit Ethernet Line Card

- 24 x 10/100/1000T ports
RJ45 connectors with LEDs



AT-SB4461A

Gigabit Ethernet Line Card

- 8 x 1000LX ports
SC connectors with LEDs
- Optional CAM memory AT-SB4262



AT-SB4352

Fast Ethernet Line Card

- 32 x 100FX ports
MT-RJ fibre connectors with LEDs



AT-SB4452A

Gigabit Ethernet Line Card

- 8 x 1000SX ports
MT-RJ connectors with LEDs
- Optional CAM memory AT-SB4262



AT-SB451A

10 Gigabit Ethernet Line Card

- 1 x 10GBASE-R port
- Compatible with a hot-swappable XFP module
- Status LEDs with XFP status



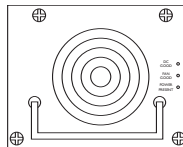
AT-SB4261

Switch CAM Memory
(AT-SB4211A only)



AT-SB4262

Line CAM Memory
(AT-SB424xx only)



AT-SB4162

Power Supply Unit

- Status LEDs

2 | Switches

The Allied Telesyn family of Switches delivers versatile, highly resilient Gigabit to Fast Ethernet switching with advanced multi-layer capabilities for demanding network core configurations and aggregation of edge switches. Our current switches address today's heterogeneous networks - from the smallest small business network to large enterprise LANS - and facilitate their growth by offering numerous options.

Layer 2 Ethernet

Allied Telesyn's full range of standalone and stackable Layer 2 switches go from 10Mbps to 1Gbps, offering scalable network bandwidth to manage data, voice, and video traffic across the network. Copper and fibre models in unmanaged or intelligent versions can be used to build dependable networks.

Layer 3-7 Networking Technology

Allied Telesyn's standalone and chassis-based Layer 3 switch/router solutions are designed to provide high performance, multi-layer switching platforms for desktop, workgroup and core connectivity at speeds up to 1Gbps. The Rapier 24i switch is the only Layer 3 switch on the market that can aggregate E1 and E3 circuits into Ethernet with rate limiting capability.

Switch Selector

Layer 3 switches			
Gigabit >>	AT-9924T	10/100/1000T x 24 copper ports, 1000X SFP combo ports x 4	15
	AT-9924SP	1000X x 24 SFP ports	15
	AT-9924T/4SP	10/100/1000T x 24 ports, 1000X SFP combo ports x 4, IPv6 acc card +256M	15
	AT-9924Ts	10/100/1000T x 24 ports, 20Gbps expansion bays x 2	17
	AT-9812T	10/100/1000T x 12 ports, GBIC bays x 4	18
	AT-9816GB	GBIC bays x 16	18
Gigabit stackable >>>	AT-9724TS	10/100/1000T x 24 ports, SFP combo x 4	20
	AT-9748TS	10/100/1000T x 48 ports, SFP combo x 4, XFP x 2, 10GbE ports	20
Fast Ethernet >>>	AT-8948A	10/100TX x 48 ports, 1000X SFP uplink bays x 4	21
	AT-8948P	10/100TX x 48 ports, 1000X SFP uplink bays x 4, IPv6 acc card +256M	21
	AT-8824	10/100TX x 24 ports Fast Ethernet, GBIC bays x 2	23
	AT-8848	10/100TX x 48 ports Fast Ethernet, GBIC bays x 2	23

Gigabit Ethernet

As high-speed Gigabit Ethernet continues to spread from the LAN into the data centre and out to the network service provider, Ethernet will become even more pervasive, with accelerated adoption expected in almost every market. Allied Telesyn's Gigabit Ethernet capabilities are considerable and fast growing, offering exceptionally high performance, reliability and price/performance.

Stackability

Allied Telesyn's stacking implementation gives customers a high performing, easy to manage, low cost of ownership solution that is easily integrated into an installed base of networking solutions. Allied Telesyn's stacking implementation enables network managers to manage up to nine geographically dispersed switches with the same effort as the management of one. Our stacking implementation provides Web and CLI-based management of the switches through a single IP address. Using open standards Ethernet interfaces as stacking links, the Allied Telesyn stacking implementation avoids the use of expensive specialised hardware with limited topologies. This stacking functionality is available on the Rapier™, 8600, 8700, 8800, 8948 and 9900 series switches.

	Rapier 16fi Rapier 24i AT-8624T/2M AT-8624POE AT-8648T/2SP	100FX x 16 ports (SC or MT-RJ), Expansion bays x 2, Supports Network Service Module (NSM) 10/100TX x 24 ports, Expansion bays x 2, Supports Network Service Module (NSM) 10/100TX x 24 ports, Uplink module bays x 2 10/100TX x 24 ports with POE, Uplink module bays x 2 10/100TX x 48 ports, SFP x 2 ports	25 25 27 27 27
Layer 2+ standalone switches			
Gigabit >>	AT-9424T/GB AT-9424T/SP AT-9408LC	10/100/1000T x 22 ports, GBIC bays x 2, 10/100/1000T x 2 ports (standby) 10/100/1000T x 22 ports, SFP bays x 2 (active/unpopulated), 10/100/1000T x 2 ports (standby) 1000SX/LC x 8 ports, SFP bays x 4	29 29 29
Fast Ethernet >>>	AT-8516F/SC AT-8516F/MT AT-8524M AT-8524POE AT-8550/GB AT-8550/SP	100FX (SC) x 16 ports, Expansion bays x 2 100FX (MT-RJ) x 16 ports, Expansion bays x 2 10/100TX x 24 ports, Expansion bays x 2 10/100TX x 24 ports, Expansion bays x 2 10/100TX x 48 ports, GBIC bays x 2 (unpopulated), 10/100/1000T x 2 ports 10/100TX x 48 ports, SFP bays x 2 (unpopulated), 10/100/1000T x 2 ports	30 30 30 30 30 30
Layer 2 stackable switches			
Fast Ethernet (Enhanced Stacking™) >>	AT-8400 AT-8012M AT-8012M-QS AT-8016F/MT AT-8016F/SC AT-8024 AT-8024GB AT-8024M AT-8026FC AT-8026T AT-8088/SC AT-8088/MT	10/100TX up to 96 ports, 100FX up to 48 ports, 10FL up to 48 ports, 1000T up to 12 ports, 1000FX up to 12 ports 10/100TX x 12 ports, Expansion bay x 1 10/100TX x 12 ports, Expansion bay x 1 100FX (MT-RJ) x 16 ports, Expansion bays x 2 100FX (SC) x 16 ports, Expansion bays x 2 10/100TX x 24 ports 10/100TX x 24 ports, GBIC bays x 2 10/100TX x 24 ports, Expansion bays x 2 10/100TX x 24 ports, 100FX (SC) x 2 ports 10/100TX x 24 ports, 10/100/1000T x 2 ports 10/100TX x 8 ports, 100FX (SC) x 8 ports, Expansion bays x 2 10/100TX x 8 ports, 100FX (MT-RJ) x 8 ports, Expansion bays x 2	32 33 33 33 33 33 33 33 33 33 33 33
Fast Ethernet (Stackable) >>	AT-8326GB AT-8350GB	10/100TX x 24 ports, 10/100/1000T x 2 ports, GBIC bays x 2 10/100TX x 48 ports, 10/100/1000T x 2 ports, GBIC bays x 2, Expansion bay x 1	35 35
Layer 2 unmanaged switches			
Gigabit >>	AT-GS900/8 AT-GS900/8E AT-GS900/16 AT-GS900/24 AT-GS908GB AT-GS916GB AT-GS924GB	10/100/1000TX x 8 ports 10/100/1000TX x 8 ports, external power supply 10/100/1000TX x 16 ports 10/100/1000TX x 24 ports 10/100/1000TX x 8 ports, GBIC bays x 2 10/100/1000T x 16 ports, GBIC bays x 2 10/100/1000T x 24 ports, GBIC bays x 2	36 36 36 36 36 36 36
Gigabit smart switches >>	AT-GS950/8 AT-GS950/16 AT-GS950/24	10/100/1000TX x 8 ports, SFP combo ports x 2 10/100/1000TX x 16 ports, SFP combo ports x 2 10/100/1000TX x 24 ports, SFP combo ports x 2	37 37 37
Fast Ethernet >>>	AT-FS705L AT-FS705LE AT-FS705EFC AT-FS708 AT-FS708L AT-FS708LE AT-FS709FC AT-FS716L AT-FS716LE AT-FS717FC AT-FS724L	10/100TX x 5 ports 10/100TX x 5 ports, external power supply 10/100TX x 4 ports, 100FX (SC) x 1 port, external power supply 10/100TX x 8 ports, rackmountable 10/100TX x 8 ports, desktop only 10/100TX x 8 ports, external power supply 10/100TX x 8 ports, 100FX (SC) x 1 port 10/100TX x 16 ports 10/100TX x 16 ports, external power supply 10/100TX x 16 ports, 100FX (SC) x 1 port 10/100TX x 24 ports	38 38 38 38 38 38 38 38 38 38 38
Fast Ethernet smart switches >>>	AT-FS750/16 AT-FS750/24	10/100TX x 16 ports, SFP combo ports x 2 10/100TX x 24 ports, SFP combo ports x 2	39 39

Switches



All our Gigabit switches come with added security

With Allied Telesyn's unrivalled portfolio of enterprise switching solutions you too can say goodbye to slow and tired networks.

Allied Telesyn's solutions boast advanced security features to detect DoS attacks and make networks less vulnerable. Add to this the support and value-for-money delivery that creates real

business advantage, whilst reducing the costs for enterprise customers throughout the lifetime of the capital investment. With Allied Telesyn's 18 year history of supplying reliable end-to-end switching solutions, isn't it time you make the switch and enjoy the future.

A versatile and highly-featured Gigabit Ethernet Layer 3 switch family, ideal as a core solution for small to medium networks, in the aggregation tier of large networks, or for server farm and data centre aggregation.

The robust hardware design with dual PSU options guarantee maximum reliability and uptime of critical services. Other advanced features include sophisticated QoS capability, VLAN double tagging (Q-in-Q), and 9KB Jumbo frames. There are a selection of models to match your needs, including a high-speed IPv6 routing option,



COMPETITIVE PRODUCTS

- Cisco Catalyst C3750G-24T
- Dell PowerConnect 6024
- Enterasys Matrix C2G124-24

and all models feature SFP interfaces to cater for any combination of copper and short-haul or long-haul fibre links.

9924 Series NEW Layer 3 IPv4 and IPv6 Gigabit Switches



AT-9924T

10/100/1000T x 24 copper ports
1000X SFP combo ports x 4



AT-9924T/4SP-A

10/100/1000T x 24 copper ports
1000X SFP combo ports x 4



AT-9924SP

1000X x 24 SFP ports

AT-9924T/4SP-P

- AT-9924T/4SP with an IPv6 accelerator card installed and 256MB of SDRAM

Reliability

Dual internal hot-swappable load-sharing power supplies provide ultimate space-saving reliability and redundancy for maximum service uptime. Both 110/240V AC and -48VDC PSU versions are available. There is no requirement for an external RPS, and combined with front-to-back cooling and a 1RU height, the 9924 series is perfect for the high-density rack environment where conditions are demanding and space is at a premium.

Model	Dimensions	Weight
AT-9924T	44.5cm x 44cm x 4.4cm	7.7kg
AT-9924SP	44.5cm x 44cm x 4.4cm	7.7kg
AT-9924T/4SP-A	44.5cm x 44cm x 4.4cm	8.9kg
AT-9924T/4SP-P	44.5cm x 44cm x 4.4cm	9.3kg

Switches

Layer 3 | Gigabit

Common features of the 9924 series

- IRU form factor
- Front to back cooling for optimum rack/cabinet airflow
- Extended operating temperature range up to 50°C (122°F)
- Internal dual hot-swappable AC or DC power supplies
- Gigabit SFP ports
- Wirespeed Layer 3 IPv4 routing
- 48Gbps switch fabric yielding 35.7Mpps throughput
- Up to 256K IPv4 route table entries
- Advanced routing protocols OSPFv2, BGP-4, RIP and RIPv2, DVMRP, PIM-SM, PIM-DM, VRRP
- Supports full 4096 VLANs with VLAN double tagging
- Private VLANs
- 9KB Jumbo frames
- Full environmental monitoring, with SNMP traps
- Wirespeed traffic classification and ACLs
- Policy-based per-flow QoS
- Two rate three colour bandwidth metering
- Min/max bandwidth limit resolution down to 1 kbps
- Eight egress/priority queues per port
- Weighted Round Robin (WRR) and Strict Priority (SP) scheduling
- SNMPv3, SNMP MIBs for QoS counters on all ports
- Equal Cost Multi-Path (ECMP) routing in hardware
- Multiple Spanning Tree Protocol (MSTP) (IEEE 802.1s)
- Management Stacking with open standards-based interfaces
- Port trunking with IEEE 802.3ad LACP
- IEEE 802.1x including VLAN assignment and MAC-based authentication
- RADIUS and TACACS+
- Compact flash slot on the front panel

AlliedWare™

The 9924 series ship with Basic Layer 3 software. Full Layer 3, Advanced Layer 3 and Security pack option available. Please see technical specification details and ordering p/n on page 90.



SFP (Small Form Pluggable) modules

AT-SPTX, 10/100/1000T Copper SFP port, 100m

AT-SPSX, Multi-mode fibre, GbE SFP, 850nm

AT-SPLX10, Single-mode fibre, GbE SFP, 10km, 1310nm

AT-SPLX40, Single-mode fibre, GbE SFP, 40km, 1310nm

AT-SPLX40/1550, Single-mode fibre, GbE SFP, 40km, 1550nm

AT-SPZX80, Single-mode fibre, GbE SFP, 80km, 1550nm

AT-SPZX80/xxxx, Single-mode fibre, CWDM, GbE SFP, 80km

xxxx = CWDM Wavelengths:

1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610



AT-9924T power supply modules

AT-PWR01-80 -48vDC power supply module

AT-PWR02-xx AC power supply module

xx = power cord

10 for US power cord

20 for no power cord

30 for UK power cord

40 for Asia/Pacific power cord

50 for European power cord

AT-9924T/4SP IPv6 Accelerator card

AT-ACC01 HW IPv6 high-speed

The AT-9924Ts has two high-speed 20Gbps expansion bays providing a high level of port flexibility and application versatility unmatched by any other 1RU Gigabit Ethernet switch on the market. 1 port 10GbE and 12 port GbE expansion modules (SFP or RJ45)

can be used in a variety of configurations to provide a tailored solution to meet wide-ranging physical networking requirements. Start with an AT-9924Ts base, add expansion modules to suit your network needs, and change configurations as your network evolves and extends.

AT-9924Ts

Layer 3 Gigabit Switch with 10Gig and 1 Gig Expansion Options

NEW



AT-9924Ts

10/100/1000T x 24 copper ports
20Gbps expansion bays x 2

10GbE XFP modules

* (for use with AT-A60)

AT-XPSR - 10GBASE-SR

(850nm Short-haul, 300m with MMF)

AT-XPLRM - 10GBASE-LRM

(1310nm Short-haul, 300m with MMF)

AT-XPLR - 10GBASE-LR

(1310nm Medium-haul, 10km with SMF)

AT-XPER40 - 10GBASE-ER

(1550nm Long-haul, 40km with SMF)

SD memory card

AT-SM128A-001 SD Card 128MB

AT-SM256A-001 SD Card 256MB

AT-SM512A-001 SD Card 512MB

* Check with your sales representative for availability

Model	Dimensions	Weight
AT-9924Ts	44.5cm x 44cm x 4.4cm	N/A

Features

- Two 20Gbps expansion bays supporting a choice of modules
- Out of band 10/100/1000 Ethernet management port 1RU form factor
- Front to back cooling for optimum rack/cabinet airflow
- Internal dual hot-swappable AC or DC load-sharing power supplies
- Wirespeed Layer 3 IPv4 routing
- 128Gbps switch fabric yielding 71.4 Mpps throughput
- Advanced routing protocols OSPFv2, BGP-4, RIP and RIPv2, DVMRP, PIM-SM, PIM-DM
- Supports full 4096 VLANs with VLAN double tagging
- Private VLANs
- 9kbyte jumbo frames
- Multiple Spanning Tree Protocol (MSTP) (IEEE 802.1s)
- Port trunking with IEEE 802.3ad LACP
- Port mirroring
- Wirespeed traffic classification and ACLs
- Wirespeed multicasting
- Policy-based per-flow QoS
- Two rate three colour bandwidth metering
- Min/max bandwidth limit resolution down to 1kbps
- Egress rate limiting per port, and per egress queue
- Eight egress/priority queues per port
- Weighted Round Robin (WRR) and Strict Priority (SP) scheduling
- Full environmental monitoring, with SNMP traps
- SNMP MIBs for QoS counters on all ports
- SNMPv3
- SSH for secure management
- Management Stacking with open standards-based interfaces
- IEEE 802.1x including VLAN Assignment and MAC-based Authentication
- RADIUS and TACACS+
- SD memory card slot on the front panel

Switches

Layer 3 | Gigabit

The 9800 series offer reliable wirespeed Gigabit switching performance with a choice of interface combinations (copper and fibre). Combined with advanced multiprotocol support (IP, IPX, IPv6, AppleTalk), the 9800 series is suited to more demanding networks in roles such as aggregation and medium sized network cores.



COMPETITIVE PRODUCTS

Cisco Catalyst C3550-12T
Extreme Summit 5i
3Com SuperStack 3 Switch 4924

9800 Series

Flexible Gigabit Layer 3 Switches



AT-9812T

10/100/1000T x 12 ports
GBIC bays x 4



AT-9816GB

GBIC bays x 16

Traffic management

Industry leading QoS features with independent bandwidth and latency control allow multi-faceted tuning of network traffic. Minimum and maximum bandwidth limiting in 64kbps increments and low latency for voice applications operating at wirespeed.

Common features of the 9800 series

- 32Gbps non-blocking switch fabric
- Wirespeed IP and IPX routing (Layer 3 and 4)
- Wirespeed forwarding at Layer 2
- IPv6 support
- AppleTalk routing
- CoS (Class of Service)
- Wirespeed multicasting services
- Up to 232,000 Layer 2 or Layer 3 address entries
- Bandwidth limiting (64KB increments)
- DiffServ
- IEEE 802.1p prioritisation
- Port trunking
- IEEE 802.1x
- 4096 VLANs
- Wirespeed QoS
- Loadbalancing (optional)
- Compact Flash Socket for operational cost reduction
- 1.5 U chassis height
- Stateful Inspection Firewall
- Auto-ranging 100-240V AC
- -48vDC power supply option * (factory installed)
- Graphical User Interface
- Redundant power supply option

* Check with your sales representative for availability

Multiprotocol service

Wirespeed IPv4 and IPX are complimented with advanced IPv6 and AppleTalk for full multiprotocol capability. Many routing protocols RIPv1/v2, OSPFv2, BGP4, IS-IS, VRRP, IGMP, DVMRP, PIM-DM/SM ensuring operation within almost any architecture.

9800 series expansion modules

- AT-RPS9000** Chassis for up to four redundant power supplies, including one power supply
- AT-PWR9000** Additional redundant power supply with cable



Allied Telesyn standards-based Gigabit Interface Converter (GBIC) modules

- AT-G8T** 1000T × 1 port 100m
- AT-G8SX** 1000SX × 1 port 550m
- AT-G8LX10** 1000LX × 1 port 10km
- AT-G8LX25** 1000LX × 1 port 25km
- AT-G8LX40** 1000LX × 1 port 40km
- AT-G8LX70** 1000LX × 1 port 70km
- AT-G8ZX70/CWDM**

CWDM = 1310, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610

AlliedWare™

The 9800 series ship with Basic Layer 3 software. Full Layer 3, Advanced Layer 3 and Security pack option available. Please see technical specification details and ordering p/n on page 90.

Model	Dimensions	Weight
AT-9812T	44cm × 36cm × 6.6cm	6.6kg
AT-9816GB	44cm × 36cm × 6.6cm	6.6kg



Switches

Layer 3 Stackable | Gigabit

The 9700 series are advanced Layer 3 functionality switches designed to meet the requirements of multimedia applications and bring traffic control and high-performance to the edge of the network. With IP routing capabilities for investment protection and flexible management tools, the 9700 series is designed to be a cost effective solution for todays market with the ability to expand as network demands grow - at no extra cost.

The 9700 series switches can be stacked to provide up to 288 ports of Gigabit Ethernet, providing enough performance for medium enterprises, multi-

COMPETITIVE PRODUCTS

Nortel 5510-48T
Extreme Summit 400-48T
Enterasys C2G124-48

unit buildings, hospitality, schools, and universities. Utilising a powerful switch fabric, the 9700 series can pass traffic reliably and efficiently with wirespeed performance and non-blocking architecture. When stacked with the integrated stacking modules, the switches can pass data packets at an impressive stacked backplane speed of 40Gbps.

NEW

9700 Series

Layer 3 Stackable Gigabit Ethernet Switch



AT-9724TS

10/100/1000T x 24 ports, SFP combo x 4

AT-9748TS/XP

10/100/1000T x 48 ports, SFP combo x 4
XFP x 2, 10GbE ports

Features

Stack up to 288 ports

- 40Gbps dedicated stack ports (2 x 10Gbps ports)

88Gbps switching fabric, 65.5Mpps

- Wirespeed
- 4 SFP bays for fibre media
- Supports up to 4096 VLANs

Eight Priority queues per port

- GVRP support
- Full QoS for multimedia applications
- Wirespeed Layer 2 to 3 filtering
- Wirespeed Layer 2 switching
- Wirespeed Layer 3 IP routing

Jumbo Frame up to 9000bytes

- IP RIPv1/v2
- VRRP support
- Rapid Spanning Tree protocol

IEEE 802.1s Multiple Spanning Tree support

- SSH for management
- SSL
- IGMPv1 and IGMPv2
- Web-based management
- SNMP support
- RMON support

IEEE 802.1x authentication

- Port security
- Port mirroring
- 1 RU form factor
- Redundant power supply option

The AT-8948 offers performance, flexibility, and reliability. Packaged in a compact 1RU chassis, the AT-8948 is a highly featured 10/100 access solution with high Gigabit uplink capacity, incorporating a new generation switching core for wirespeed Layer 3 IPv4 and IPv6 routing, exceptional Quality of Service (QoS) features, and a robust hardware design with dual hot-swappable power supplies.



COMPETITIVE PRODUCTS

Cisco Catalyst C3750 Metro
 Extreme Summit48si
 Foundry NetIron 4802

AT-8948

Layer 3 IPv4 and IPv6 Gigabit Switches



AT-8948A

10/100TX x 48 ports
 1000X SFP uplink bays x 4

AT-8948P

■ *The AT-8948 with an IPv6 accelerator card installed and 256MB of SDRAM*

Policy-based Quality of Service

Comprehensive, low latency QoS features operating at wirespeed provide flow-based traffic management with full classification, prioritisation, traffic shaping and min/max bandwidth profiles. The AT-8948 QoS features are ideal for service providers wanting to ensure maximum availability of premium voice, video and data services. For enterprise customers, the AT-8948 QoS features protect productivity by guaranteeing performance of business-critical applications including VoIP services.

IPv6 capability

The AT-8948 is one of the few switches on the market today that can provide high performance wirespeed IPv6 unicast and multicast routing, and IPv6 QoS features. The AT-8948 delivers advanced IPv6 capabilities allowing IPv6 early adopters to get a head start in the migration to next generation IPv6 networks.

Model	Dimensions	Weight
AT-8948A	44cm x 44cm x 4.4cm	8.5kg
AT-8948P	44cm x 44cm x 4.4cm	8.9kg
AT-9724TS	44cm x 21 cm x 4.4cm	3.2kg
AT-9748TS/XP	44cm x 43.1 cm x 4.4cm	6.4kg

Switches

Layer 3 Stackable | Gigabit

Features of the AT-8948

- IRU form factor
- Front to back cooling for optimum rack/cabinet airflow
- Extended operating temperature range up to 50°C (122°F)
- Internal dual hot-swappable AC or DC load-sharing power supplies
- Four Gigabit SFP uplink ports
- Wirespeed Layer 3 IPv4 and IPv6 routing
- 37.6Gbps switch fabric yielding 13.1Mpps throughput
- Up to 256K IPv4 route table entries
- Advanced routing protocols OSPFv2, BGP-4, IS-IS, RIP and RIPv2, DVMRP, PIM-SM, PIM-DM
- Supports full 4096 VLANs with VLAN double tagging
- Private VLANs
- Full environmental monitoring with SNMP traps
- Wirespeed traffic classification and ACLs
- Policy-based per-flow QoS
- Two rate three colour bandwidth metering
- Min/Max bandwidth limit resolution down to 1kbps
- Eight egress/priority queues per port
- Weighted Round Robin (WRR) and Strict Priority (SP) scheduling
- SNMPv3, SNMP MIBs for QoS counters on all ports
- VRRP
- Equal Cost Multi Path (ECMP) routing in hardware
- Multiple Spanning Tree Protocol (MSTP) (IEEE 802.1s)
- Management Stacking with Open Standards-based Interfaces
- Port trunking with IEEE 802.3ad LACP
- Wirespeed multicasting
- SSH for secure management
- Statefull Inspection Firewall
- IEEE 802.1x including VLAN assignment and MAC-based authentication
- RADIUS and TACACS+
- Encryption card (AT-AR061) option for hardware accelerated IPsec and 3DES encryption
- Compact flash slot on the front panel



SFP (Small Form Pluggable) modules

AT-SPTX, 10/100/1000T Copper SFP, 100m

AT-SPSX, Multi-mode fibre, GbE SFP, 850nm

AT-SPLX10, Single-mode fibre, GbE SFP, 10km, 1310nm

AT-SPLX40, Single-mode fibre, GbE SFP, 40km, 1310nm

AT-SPLX40/1550, Single-mode fibre, GbE SFP, 40km, 1550nm

AT-SPZX80, Single-mode fibre, GbE SFP, 80km, 1550nm

AT-SPZX80/xxxx, Single-mode fibre, CWDM, GbE SFP, 80km

xxxx = CWDM Wavelengths:

1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610

AT-8948 IPv6 Accelerator card

AT-ACC01 HW IPv6 high-speed

AT-8948 Port Accelerator Card (PAC)

AT-AR061 Encryption DES, 3DES and HMAC + compression high-performance card

AlliedWare™

The AT-8948 ships with Basic Layer 3 software. Full Layer 3, Advanced Layer 3 and Security pack option available. Please see technical specification details and ordering p/n on page 90.

The 8800 series Intelligent Workgroup Switches deliver high performance switching in a compact 1RU form factor. Available with either 24 or 48 10/100 Fast Ethernet ports, both models offer full wirespeed switching and IP routing across all layers, with two optional Gigabit Ethernet uplink ports and redundant power supply.

The 8800 series are ideal for environments like enterprise and educational institutions demanding reliable, high bandwidth Ethernet for services such as voice and video. With Quality of Service (QoS)



COMPETITIVE PRODUCTS

Cisco Catalyst C3550 EMI
 Extreme Summit 200-24
 3Com SuperStack 3 Switch 400

support, bandwidth limiting and wirespeed packet classifiers combined with Stateful Inspection Firewall, your network will perform reliably at peak times and remain safe and secure.

8800 Series Intelligent Workgroup Layer 3 Fast Ethernet Switches



AT-8824

10/100TX x 24 ports Fast Ethernet
 GBIC bays x 2



AT-8848

10/100TX x 48 ports Fast Ethernet
 GBIC bays x 2

AlliedWare™

The 8800 series ship with Basic Layer 3 software. Full Layer 3, Advanced Layer 3 and Security pack option available. Please see technical specification details and ordering p/n on page 90.

Common features of the 8800 series

- Half/full-duplex
- Auto-negotiation
- Auto MDI/MDI-X
- Wirespeed IP (Layer 3)
- Wirespeed forwarding at Layer 2
- 1RU
- Bandwidth limiting
- Broadcast and multicast traffic control
- 2K Layer 3 addresses
- 8K Layer 2 MAC
- 255 VLANs
- IEEE 802.1Q VLAN tagging
- IEEE 802.1p QoS (4 priority queues)
- IEEE 802.1x
- TACACS+
- L2TP
- IP RIPv1/v2 and RIPv2
- OSPFv2
- VRRP
- IEEE 802.1s
- Private VLAN
- VLAN relay

Model	Dimensions	Weight
8800 series	44cm x 33cm x 4.5cm	5kg

Switches

Layer 3 | Fast Ethernet

- Stateful Inspection Firewall option
- IPsec VPN Optional
- BGP4 option
- IPv6 option
- Loadbalancing option
- Redundant power supply option
- 128KB Non-volatile Storage (battery backed SRAM)
- Up to 256MB of SDRAM memory on DIMM
- 32MB of FLASH memory (expandable to 32MB for future upgrades)
- Console Port



Allied Telesyn standards-based Gigabit Interface Converter (GBIC) modules

AT-G8T	1000T x 1 port	100m
AT-G8SX	1000SX x 1 port	550m
AT-G8LX10	1000LX x 1 port	10km
AT-G8LX25	1000LX x 1 port	25km
AT-G8LX40	1000LX x 1 port	40km
AT-G8LX70	1000LX x 1 port	70km
AT-G8ZX70/CWDM		

CWDM = 1310, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610



8800 series redundant power modules

- AT-RPS8000** 4 slot redundant power supply chassis including one power supply
- AT-PWR8000** Additional redundant power supply with cable

8800 series license options

- AT-AR-3DES** Triple DES/SW - requires encryption card

8800 series Port Accelerator Card (PAC)

- AT-AR061** Encryption DES, 3DES and HMAC + compression high performance card

The Rapier 'i' series of Fast Ethernet (10/100) switches deliver an unprecedented level of integration, feature richness and switching performance at affordable prices.

With Wide Area Network (WAN) connectivity for E1, T1, PRI ISDN, BRI ISDN, Asynchronous and Synchronous communications, Frame Relay and X.25, the Rapier 16fi and 24i have the ability to not only act as a managed Layer 3 switch, but also as a fully specified router with four WAN interfaces.



COMPETITIVE PRODUCTS
Cisco Catalyst C3550-24 EMI
Extreme Summit 200-24
Foundry Edgelron 2402CF

RAPIER 'i' Series WAN Capable Layer 3 Fast Ethernet Switches



Rapier 24i

10/100TX x 24 ports
Expansion bays x 2
Supports Network Service Module (NSM)
(Part # AT-RP24i)



Rapier 16fi

100FX x 16 ports (SC)
Expansion bays x 2
Supports Network Service Module (NSM)
(SC Part # AT-RP16FISC)
(MTRJ Part # AT-RP16FIMT)

AlliedWare™

The Rapier i series ship with Basic Layer 3 software. Full Layer 3, Advanced Layer 3 and Security pack option available. Please see technical specification details and ordering p/n on page 90.

Common features of the Rapier 'i' series

- Wirespeed IP Layer 3 routing performance
- 9.6Gbps or 19.2Gbps switch fabric
- Slide-in Network Service Module (NSM)
- E1, T1, BRI, Sync, Async and WAN media options
- L2TP, IPSEC VPNs
- Bandwidth limiting
- 255 VLANs
- VoIP access (Rapier 24i)
- Expansion bays x 2
- High-performance 200MHz RISC-based processor
- Non-blocking Layer 2 switching performance
- 8K Layer 2 addresses
- 2K Layer 3 addresses
- IEEE 802.1Q VLAN tagging
- IEEE 802.1p QoS (4 priority queues)

Model	Dimensions	Weight
Rapier 'i' series	44cm x 36cm x 6.6cm	5.5kg

Switches

Layer 3 | Fast Ethernet

- IP RIPv1/v2, OSPFv2
- IEEE 802.1x
- VRRP (Virtual Router Redundancy Protocol)
- Console, Telnet, Web-browser, SSH, SNMP and RMON
- Universal 100-240VAC, 50/60Hz power supply
- Stateful Inspection Firewall option
- -48vDC power supply option (factory installed)
- Redundant power supply option
- 1.5 U, 19" rackmount chassis
- VPN IPSEC/ISAKMP option (Rapier 24i)

Rapier 'i' series license options

AT-AR-3DES Triple DES/SW - requires encryption card

Rapier 'i' series Port Accelerator Card (PAC)

AT-AR06I Encryption DES, 3DES & HMAC and compression high-performance card

Rapier 'i' series Network Service Module (NSM)

AT-AR040 NSM for 4 PICs (only 2 x EI/T1 supported)

Rapier 'i' series expansion modules

- AT-A35SX** 1000SX x 1 port (SC)
- AT-A35LX** 1000LX x 1 port (SC)
- AT-A39T** 10/100/1000T x 1 port
- AT-A40** 100FX multi-mode x 1 port (SC or MT-RJ)
- AT-A41** 100FX single-mode x 1 port (SC)
- AT-A42** GBIC bay x 1 port *

* Uses Allied Telesyn standards-based GBIC modules

Allied Telesyn standards-based Gigabit Interface Converter (GBIC) modules **

AT-G8T	1000T x 1 port	100m
AT-G8SX	1000SX x 1 port	550m
AT-G8LX10	1000LX x 1 port	10km
AT-G8LX25	1000LX x 1 port	25km
AT-G8LX40	1000LX x 1 port	40km
AT-G8LX70	1000LX x 1 port	70km
AT-G8ZX70/CWDM		

CWDM = 1310, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610

** ATA42 required

Rapier 'i' series Port Interface Cards (PICs)

- AT-AR020** EI/T1 PRI with integral CSU/DSU x 1 port
- AT-AR021** BRI x 1 port (U & S/T)
- AT-AR023** Sync x 1 port (EI, T1)
- AT-AR024** Async (RS232) x 4 ports (4 x 115kbps)
- AT-AR027** VoIP (FXS)



Rapier 'i' series redundant power modules

- AT-RPS8000** 4 slot redundant power supply chassis including one power supply
- AT-PWR8000** Additional redundant power supply with cable



NSM AT-AR040



AT-AR020
1 x PRI port



AT-AR021
1 x BRI port



AT-AR023
1 x Sync port



AT-AR024
4 x Async ports

The 8600 series switches offer a high level of security and traffic control at the edge of your network with Quality of Service (QoS) features such as wirespeed Layer 2/3/4+ traffic classifiers and bandwidth limiting.

With IP routing capabilities for Investment Protection and flexible management tools, the 8600 series is designed as a cost effective solution for today, with the ability to expand as network demands grow - at no extra cost. The 8600 series switches are edge/access switches designed to

COMPETITIVE PRODUCTS

Cisco Catalyst C550-24 SMI
 Extreme Summit 200-24
 3Com SuperStack 3 Switch 3226

provide desktop connectivity for enterprise workgroups, mid-sized networks, and high school and campus networks.

8600 Series Affordable Layer 3 Fast Ethernet Switches



AT-8624T/2M

10/100TX x 24 ports
 Uplink module bays x 2

AT-8624POE *

NEW

10/100TX x 24 ports with Power over Ethernet
 Uplink module bays x 2

AT-8648T/2SP *

10/100TX x 48 ports
 SFP x 2 ports

Quality of Service features

- IEEE 802.1p
- Support for IEEE 802.1p override at ingress
- Weighted Round Robin queueing algorithm
- 4 priority queues per port
- DiffServ
- IP Type of Service

- Classification, policing/metering, and marking functions on a per-port basis at ingress and queuing/scheduling function at egress
- QoS classification of incoming packets for QoS

LAN features

- Port-based VLAN
- IEEE 802.1Q tagged VLAN
- VLAN Pass-through support
- Overlapping VLAN
- Private VLAN
- VLAN Relay

Classification

- Source IP address
- Source MAC address
- Destination MAC address
- 16-bit Ethertype classification

Multicast

- IGMP
- IGMP snooping
- IGMP proxy

Model	Dimensions	Weight
AT-8624POE	43.8cm x 40.6cm x 4.4cm	6.0kg
AT-8624T/2M	43.8cm x 18.4cm x 4.4cm	3.3kg
AT-8648T/2SP	43.8cm x 26.1cm x 4.4cm	3.6kg

Switches

Layer 3 | Fast Ethernet

Bandwidth Limiting

- Down to 64kpbs ingress
- Down to 1Mbps egress

Common features of the 8600 series

- Full QoS for multimedia applications
- Wirespeed Layer 2/3/4+ filtering
- Wirespeed Layer 2 switching
- Wirespeed Layer 3 IP routing
- Port trunking with Link aggregation (IEEE 802.3ad static*) (LACP*)
- Stacking with open standards-based interfaces
- Support up to 255 VLANs
- Private VLANs*
- Bandwidth limiting
- IP RIPv1 and v2
- OSPFv2 support
- VRRP support
- Rapid Spanning Tree Protocol
- MSTP (IEEE 802.1s)
- SSH for management
- SSL
- TACACS+
- IEEE 802.1x
- SNMPv3
- Redundant power supply option
- 2 expansion bays

*Check with your sales representative for availability

8600 series expansion modules

AT-A45/SC	100FX × 1 port (SC)
AT-A45/MT	100FX × 1 port (MT-RJ)
AT-A45/SC-SM15	100FX × 1 port (MT-RJ)
AT-A46	10/100/1000T × 1 port
AT-A47	GBIC bay × 1 port

8600 series redundant power modules

- AT-RPS3004** Chassis for up to four redundant power supplies, including one power supply
- AT-PWR3004** Additional redundant power supply with cable



Gigabit Interface Converters (GBIC) modules**

AT-G8T	1000T × 1 port	100m
AT-G8SX-01	1000SX × 1 port	550m
AT-G8LX10	1000LX × 1 port	10km
AT-G8LX25	1000LX × 1 port	25km
AT-G8LX40	1000LX × 1 port	40km
AT-G8LX70	1000LX × 1 port	70km

AT-G8ZX70/CWDM

CWDM = 1310, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610

** for use with the ATA47



SFP (Small Form Pluggable) modules

- AT-SPTX**, 10/100/1000T Copper SFP, 100m
- AT-SPSX**, Multi-mode fibre, GbE SFP, 850nm
- AT-SPLX10**, Single-mode fibre, GbE SFP, 10km, 1310nm
- AT-SPLX40**, Single-mode fibre, GbE SFP, 40km, 1310nm
- AT-SPLX40/1550**, Single-mode fibre, GbE SFP, 40km, 1550nm
- AT-SPZX80**, Single-mode fibre, GbE SFP, 80km, 1550nm
- AT-SPZX80/xxxx**, Single-mode fibre, CWDM, GbE SFP, 80km

xxxx = CWDM Wavelengths:

1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610

The 9400 series is the latest addition to the comprehensive switching solutions from Allied Telesyn. This family of switches is targeted towards the new growing market segment, namely: the Layer 2+ market.

With the LAN aggregation and core layers successful migration to Gigabit Ethernet, many network administrators demand easy to manage,

cost effective and more intelligent switches at the LAN edge. Layer 2+ switches are purposefully designed to address such requirements. Layer 2+ switches offer the best compromise between features, performance and value. This family of switches has more intelligence than the simple Layer 2 switches and yet are more cost-effective than the Layer 3 switches.

AT-9424T Layer 2+ Managed Gigabit Ethernet Switch

AT-9424T/GB

10/100/1000T x 22 ports
GBIC bays x 2 (active/unpopulated)
10/100/1000T x 2 ports (standby)



AT-9424T/SP

10/100/1000T x 22 ports
SFP bays x 2 (active/unpopulated)
10/100/1000T x 2 ports (standby)

AT-9408LC NEW Layer 2 Managed Gigabit Ethernet Switch

AT-9408LC

1000SX/LC x 8 ports
SFP bays x 4

Model	Dimensions	Weight
AT-9408LC	N/A	N/A
AT-9424T	44cm x 43.8cm x 18.4cm	3.6kg

Features of the AT-9424T

Layer 2 - 4 Intelligence

- Packet look-up at MAC, IP/TCP/UDP layers
- For QoS, ACL, Mirroring, Rate Limiting

Advanced Security

- DoS Attack Protection
- Radius/TACACS+
- Port security
- Secure Telnet
- IEEE 802.1x
- Layer 2 - 4 ACL

Advanced Services

- Rate Limiting (Ingress and Egress)
- Eight levels of services
- IEEE 802.1p for MAC-based QoS
- DiffServ for IP-based QoS

L2 Redundancy

- IEEE 802.1s Multiple STP (compatible with PVST+)
- IEEE 802.3ad Link Aggregation (static)
- IEEE 802.1D Spanning Tree
- IEEE 802.1w Rapid STP

AT-9424T redundant power modules

- AT-RPS3204** Chassis for up to four redundant power supplies, including one power supply
- AT-PWR3201** Additional redundant power supply with cable

Switches

Layer 2 Standalone | Gigabit

Allied Telesyn standards-based Gigabit Interface Converter (GBIC) modules

AT-G8T	1000T x 1 port	100m
AT-G8SX	1000SX x 1 port	550m
AT-G8LX10	1000LX x 1 port	10km
AT-G8LX25	1000LX x 1 port	25km
AT-G8LX40	1000LX x 1 port	40km
AT-G8LX70	1000LX x 1 port	70km
AT-G8ZX70/CWDM		
CWDM = 1310, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610		

SFP (Small Form Pluggable) modules

AT-SPTX	10/100/1000T Copper SFP, 100m
AT-SPSX	Multi-mode fibre, GbE SFP, 850nm
AT-SPLX10	Single-mode fibre, GbE SFP, 10km, 1310nm
AT-SPLX40	Single-mode fibre, GbE SFP, 40km, 1310nm
AT-SPLX40/1550	Single-mode fibre, GbE SFP, 40km, 1550nm
AT-SPZX80	Single-mode fibre, GbE SFP, 80km, 1550nm
AT-SPZX80/xxxx	Single-mode fibre, CWDM, GbE SFP, 80km
xxxx = CWDM Wavelengths: 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610	

Layer 2 Standalone | Fast Ethernet

The 8500 series is the latest addition to the comprehensive switching solutions from Allied Telesyn. This family of switches is targeted towards the new growing market segment, namely: the Layer 2+ market. With the LAN aggregation and core layers successful migration to Gigabit Ethernet, many network

administrators demand at the LAN edge. Layer 2+ switches are purposefully designed to address such requirements. Layer 2+ switches offer the best compromise between features, performance and value. This family of switches has more intelligence than the simple Layer 2 switches and yet are more cost-effective than the Layer 3 switches.

8500 Series

Layer 2+ Managed Fast Ethernet Switches

AT-8516F/SC

100FX (SC) x 16 ports
Expansion bays x 2

AT-8516F/MT

100FX (MT-RJ) x 16 ports
Expansion bays x 2

AT-8524M

10/100TX x 24 ports
Expansion bays x 2

NEW AT-8524POE

10/100TX x 24 ports Power-over-Ethernet
Expansion bays x 2

AT-8550/GB

10/100TX x 48 ports
GBIC bays x 2 (unpopulated)
10/100/1000T x 2 ports

AT-8550/SP

10/100TX x 48 ports
SFP bays x 2 (unpopulated)
10/100/1000T x 2 ports

Layer 2 Standalone | Fast Ethernet



Common features of the 8500 series

Layer 2 - 4 Intelligence

- Packet look-up at MAC, IP, TCP/UDP layers
- For QoS, ACL, Mirroring, Rate Limiting

Advanced Security

- DoS Attack Protection
- Radius/ TACACS+
- Port security
- Secure Telnet
- IEEE 802.1x
- Layer 2 - 4 ACL

Advanced Services

- Rate Limiting (Ingress and Egress)
- Four levels of services
- IEEE 802.1p for MAC-based QoS
- DiffServ for IP-based QoS

Layer 2 Redundancy

- IEEE 802.1s Multiple STP (compatible with PVST+)
- IEEE 802.3ad Link Aggregation (static)
- IEEE 802.1D Spanning Tree
- IEEE 802.1w Rapid STP

8500 series expansion modules

AT-A45/SC	100FX x 1 port (SC)
AT-A45/MT	100FX x 1 port (MT-RJ)
AT-A45/SC-SM15	100FX x 1 port (MT-RJ)
AT-A46	10/100/1000T x 1 port
AT-A47	GBIC bay x 1 port
AT-STACKM	Two high-speed stacking modules with one 1.5 stacking cable

8500 series redundant power modules

AT-RPS3004	Chassis for up to four redundant power supplies, including one power supply
AT-PWR3004	Additional redundant power supply with cable

AT-8524POE redundant power modules

AT-RPS3101	Chassis for up to four redundant power supplies, including one power supply
AT-PWR3104	Additional redundant power supply with cable

Model	Dimensions	Weight
AT-8516F/SC & MT	43.8cm x 18.4cm x 4.4cm	3.5kg
AT-8524M	43.8cm x 18.4cm x 4.4cm	3.3kg
AT-8524POE	43.8cm x 40.6cm x 4.4cm	6.0kg
AT-8550GB & SP	43.8cm x 26.16cm x 4.4cm	3.6kg

Switches

Layer 2 Stackable (ENHANCED STACKING™) | Fast Ethernet

Enhance your network ... ENHANCED STACKING™

This new technology gives network managers a flexible tool that enables them to manage multiple switches (24), placed in multiple locations, with a single IP address.

In traditional stacking technology each switch in a stack requires to be located close to each other. These stacks are generally limited to four or six switches and stacking modules are often needed. When reconfiguring is required, traditional stacking often requires a time-consuming effort.

ENHANCED STACKING™ technology has no requirement for the switches to be located near to each other and it can support up to 24 switches within a single broadcast domain. The stacking functionality is housed in the software and it makes reconfigurations fast and simple. Using the familiar Telnet interface, network managers can quickly designate virtual stacks of switches with redundant master switches.

AT-8400 Layer 2 Managed Stackable Fast Ethernet Switch



AT-8400

13 slot mini chassis
10/100TX up to 96 ports
100FX up to 48 ports
10FL up to 48 ports
1000T up to 12 ports
1000FX up to 12 ports

* Check with your sales representative for availability

System Configuration

- 13 slot modular chassis
- 12 line blade slots
- 1 Switch Fabric/Management slot
- 2 redundant power supply slots (AC)
- 2 Replaceable Fan Trays
- Fully hotswappable
- 2 Redundant DC power supply (requires 8400 - DC chassis)

Features

- Wirespeed Switching on all Ethernet ports
- 24Gbps non-blocking Crossbar switch fabric
- 17.8Mpps total Throughput
- Wirespeed Local Switching
- Head-of-Line blocking prevention
- Low latency
 - <40 microsec at 10Mbps
 - <20 microsec at 100Mbps
 - <10 microsec at 1000Mbps
- 255 VLANs
- 8K MAC addresses
- Enhanced Stacking™
- Web, CLI, Telnet, Serial
- SNMP v1 and v2
- IEEE 802.1p Class of Service
- IEEE 802.1x port-based Network Access Control
- TACACS+
- RADIUS

Layer 2 Stackable (ENHANCED STACKING™) | Fast Ethernet

Line Card options

AT-8401	Switch fabric/Management card
AT-8411	10/100TX × 8 ports
AT-8413	10/100/1000T or 1000X × 1 port
AT-8412/SC	100FX × 4 ports (SC)
AT-8412/MT	100FX × 4 ports (MT-RJ)
AT-8414	10FL × 4 ports (SC) *

8400 series redundant power modules

AT-RPS3004	Chassis for up to four redundant power supplies, including one power supply
AT-PWR3004	Additional redundant power supply with cable

Model	Dimensions	Weight
AT-8400	30.5cm × 43.5cm × 15.6cm	13kg

8000 Series Layer 2 Managed Stackable Fast Ethernet Switches



AT-8012M

10/100TX × 12 ports, Expansion bay × 1



AT-8012M-QS

10/100TX × 12 ports, Expansion bay × 1

■ Fan-less operation



AT-8016F/MT

100FX (MT-RJ) × 16 ports, Expansion bays × 2



AT-8016F/SC

100FX (SC) × 16 ports, Expansion bays × 2



AT-8024

10/100TX × 24 ports



AT-8024GB

10/100TX × 24 ports, GBIC bays × 2

AT-8024M

10/100TX × 24 ports, Expansion bays × 2

AT-8026FC

10/100TX × 24 ports, 100FX (SC) × 2 ports

AT-8026T

10/100TX × 24 ports, 10/100/1000T × 2 ports

AT-8088/SC

10/100TX × 8 ports, 100FX (SC) × 8 ports
Expansion bays × 2

AT-8088/MT

10/100TX × 8 ports, 100FX (MT-RJ) × 8 ports
Expansion bays × 2

Switches

Layer 2 Stackable (ENHANCED STACKING™) | Fast Ethernet

Common features of the 8000 series

- 9.6Gbps switch fabric
- 32 VLAN support
- Non-blocking
- Wirespeed forwarding
- Enhanced Stacking™ up to 624 ports
- Port security
- IGMP snooping
- Features Web-based management and SNMP
- IEEE 802.1Q VLAN tagging
- IEEE 802.1p Class of Service
- -48vDC power supply option (AT-8024M and AT-8016F)
- Redundant power supply option (AT-8024M and AT-8016F)

Model	Dimensions	Weight
8000 series	44cm x 19cm x 4.5cm	2.7kg
AT-8012M	44cm x 21cm x 4.4cm	2.2kg
AT-8012M-QS	28cm x 25cm x 4.4cm	2.2kg
AT-8088	44cm x 19cm x 4.4cm	3.5kg

AT-8024M and AT-8016F expansion modules

AT-A45/SC	100FX x 1 port (SC)
AT-A45/MT	100FX x 1 port (MT-RJ)
AT-A46	10/100/1000T x 1 port
AT-A47	GBIC bay x 1 port *

* Uses Allied Telesyn standards-based GBIC modules
Use with AT-G8SX-01

8000 series redundant power modules

AT-RPS3004	Chassis for up to four redundant power supplies, including one power supply (AT-8024M and AT-8016F)
AT-PWR3004	Additional redundant power supply with cable

8300 Series Layer 2 Managed Stackable Fast Ethernet Switches



AT-8326GB

10/100TX × 24 ports
10/100/1000T × 2 ports
GBIC bays × 2



AT-8350GB

10/100TX × 48 ports
10/100/1000T × 2 ports
GBIC bays × 2
Expansion bay × 1

Features

- Stack up to 144 ports
- Up to 256 VLANs

Common features of the 8300 series

- Non-blocking
- Wirespeed forwarding
- IEEE 802.1Q VLAN tagging
- IEEE 802.3ad Link Aggregation
- IEEE 802.1p Prioritisation
- Enhanced Stacking™ not supported
- Redundant power supply option (AT-8350GB only)

AT-8350GB expansion modules

AT-A48/SC 100FX × 2 ports (SC)
AT-A48/MT 100FX × 2 ports (MT-RJ)
AT-A49 10/100/1000T × 2 ports

AT-8350GB redundant power modules

AT-RPS2001 Single redundant power supply for AT-8350GB
AT-RPS2004 Redundant power supply for four AT-8350GB



Allied Telesyn standards-based

Gigabit Interface Converters (GBIC) modules

AT-G8T	1000T × 1 port	100m
AT-G8SX-01	1000SX × 1 port	550m
AT-G8LX10	1000LX × 1 port	10km
AT-G8LX25	1000LX × 1 port	25km
AT-G8LX40	1000LX × 1 port	40km
AT-G8LX70	1000LX × 1 port	70km
AT-G8ZX70/CWDM		

CWDM = 1310, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610

8300 series redundant power modules

AT-RPS2001 Chassis for up to four redundant power supplies, including one power supply
AT-PWR2004 Additional redundant power supply with cable

Model	Dimensions	Weight
8300 series	44cm × 36cm × 6.6cm	5.5kg

Switches

Layer 2 Unmanaged | Gigabit

GS900 Series Layer 2 Unmanaged Gigabit Switches



AT-GS900/8
10/100/1000TX × 8 ports

AT-GS900/8E
10/100/1000TX × 8 ports
External power supply

AT-GS900/16
10/100/1000T × 16 ports

AT-GS900/24
10/100/1000T × 24 ports

AT-GS908GB
10/100/1000TX × 8 ports
GBIC bays × 2

AT-GS916GB
10/100/1000T × 16 ports
GBIC bays × 2

AT-GS924GB
10/100/1000T × 24 ports
GBIC bays × 2

Common features of the GS900 series

- Wirespeed performance
- Non-blocking architecture
- Auto-negotiation Gigabit ports
- Auto MDI/MDI-X on TX ports
- Transparent to VLAN packets
- Full-duplex flow control
- 2 bays for optional GBIC modules
(AT-GS908GB, AT-GS916GB and AT-GS924GB models only)



Allied Telesyn standards-based Gigabit Interface Converters (GBIC) modules

AT-G8T	1000T × 1 port	100m
AT-G8SX-01	1000SX × 1 port	550m
AT-G8LX10	1000LX × 1 port	10km
AT-G8LX25	1000LX × 1 port	25km
AT-G8LX40	1000LX × 1 port	40km
AT-G8LX70	1000LX × 1 port	70km
AT-G8ZX70/CWDM		

CWDM = 1310, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610

GS950 Series Gigabit Smart Switches with SFP's

AT-GS950/8

10/100/1000TX × 8 ports
SFP combo × 2

AT-GS950/16

10/100/1000TX × 16 ports
SFP combo × 2

AT-GS950/24

10/100/1000TX × 24 ports
SFP combo × 2



SFP (Small Form Pluggable) modules

AT-SPTX, 10/100/1000T Copper SFP, 100m

AT-SPSX, Multi-mode fibre, GbE SFP, 850nm

AT-SPLX10, Single-mode fibre, GbE SFP, 10km, 1310nm

AT-SPLX40, Single-mode fibre, GbE SFP, 40km, 1310nm

AT-SPLX40/1550, Single-mode fibre, GbE SFP, 40km, 1550nm

AT-SPZX80, Single-mode fibre, GbE SFP, 80km, 1550nm

AT-SPZX80/xxxx, Single-mode fibre, CWDM, GbE SFP, 80km

xxxx = CWDM Wavelengths:

1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610

Common features of the GS950 series

- Auto MDI/MDI-X
- Web-based management
- Supports the following software features:
 - Port mirroring
 - Port-based VLANs and 802.1Q
 - Quality of Service (QoS)
 - Port trunking
 - Port Configuration

Model	Dimensions	Weight
AT-GS900/8	26.6cm × 16.2cm × 4.4cm	1.4kg
AT-GS900/8E	N/A	N/A
AT-GS900/16	33cm × 23.1cm × 4.4cm	2.38kg
AT-GS900/24	44cm × 35.6cm × 4.4cm	2.99kg
AT-GS908GB	29.4cm × 20.9cm × 4.4cm	2.2kg
AT-GS916GB	33cm × 20.4cm × 4.4cm	2.2kg
AT-GS924GB	43.2cm × 25cm × 4.4cm	5.25kg
GS950 series	N/A	N/A

Switches

Layer 2 Unmanaged | Fast Ethernet

FS700 Series

Layer 2 Unmanaged Fast Ethernet Switches



AT-FS705L

10/100TX × 5 ports

AT-FS705LE

10/100TX × 5 ports,
External power supply

AT-FS708

10/100TX × 8 ports
Rackmountable

AT-FS708L

10/100TX × 8 ports
Desktop only

AT-FS708LE

10/100TX × 8 ports
External power supply

AT-FS716L

10/100TX × 16 ports

AT-FS716LE

10/100TX × 16 ports
External power supply

AT-FS724L

10/100TX × 24 ports

FS700FC Series

Layer 2 Unmanaged Fast Ethernet Switches with 100FX Uplinks



AT-FS705EFC

10/100TX × 4 ports, 100FX (SC) × 1 port
External power supply (Europe only)

AT-FS709FC

10/100TX × 8 ports, 100FX (SC) × 1 port

AT-FS717FC

10/100TX × 16 ports, 100FX (SC) × 1 port

MTRJ, VF-45 and ST connector options are also available as fibre uplink

Common features of the FS700 series

- Non-blocking
- Wirespeed
- IEEE 802.1x flow control
- Auto MDI/MDI-X
- Classification class B for all (except AT-FS708L, class A only)
- 99.9 - 100% throughput
- Plug & Play



SFP (Small Form Pluggable) modules

AT-SPTX, 10/100/1000T Copper SFP, 100m

AT-SPSX, Multi-mode fibre, GbE SFP, 850nm

AT-SPLX10, Single-mode fibre, GbE SFP, 10km, 1310nm

AT-SPLX40, Single-mode fibre, GbE SFP, 40km, 1310nm

AT-SPLX40/1550, Single-mode fibre, GbE SFP, 40km, 1550nm

AT-SPZX80, Single-mode fibre, GbE SFP, 80km, 1550nm

AT-SPZX80/xxxx, Single-mode fibre, CWDM, GbE SFP, 80km

xxxx = CWDM Wavelengths:

1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610

FS750 Series Fast Ethernet Smart Switches with SFP's

AT-FS750/16

10/100TX x 16 ports, SFP combo x 2

AT-FS750/24

10/100TX x 24 ports, SFP combo x 2

Common features of the FS750 series

- Auto MDI/MDI-X
- Web-based management
- Supports the following software features:
 - Port mirroring
 - Port-based VLANs and IEEE 802.1Q
 - Quality of Service (QoS)
 - Port trunking
 - Port Configuration

Model	Dimensions	Weight
AT-FS705L	19.6cm x 11.6cm x 3.6cm	.61kg
AT-FS705LE	10cm x 7.9cm x 2.6cm	.3kg
AT-FS708	24.9 x 11.6cm x 3.6cm	.9kg
AT-FS708L	16cm x 10.1cm x 3cm	.55kg
AT-FS708LE	15cm x 7.8cm x 2.6cm	.5kg
AT-FS705EFC	17.9cm x 9.8cm x 1.7cm	.36kg
AT-FS709FC	24.75cm x 11.4cm x 3.8cm	2kg
AT-FS716L	24.9cm x 11.6cm x 3.6cm	.9kg
AT-FS716LE	33cm x 20.3cm x 3.8cm	2kg
AT-FS717FC	29.5cm x 11.5cm x 4cm	.93kg
AT-FS724L	43cm x 17.4cm x 4.3cm	2.5kg
FS750 series	N/A	N/A



Optical Networking

Allied Telesyn's optical portfolio provides diverse solutions for efficient aggregation, multiprotocol transport, and distance extension. Both active and passive optical options are available to build the most cost-efficient network to balance the needs of today with the ability to expand tomorrow. Allied Telesyn also offers a full range of optical accessories in multiple form factors such as, GBIC, SFP, and XFP.

Efficient Aggregation for Enterprise and Carrier

The optical portfolio has been designed to optimise based on varied network bandwidth demands and growth requirements. In the enterprise, where Gigabit Ethernet (GbE) is now commonplace, Allied Telesyn offers products which take advantage of the cost benefits of a mature GbE market and leverages Coarse Wave Division Multiplexing (CWDM) ease-of-use to provide full-speed, non-blocking, secure aggregation over the existing infrastructure. If requirements call for multi-rate and multiprotocol aggregation, Allied Telesyn offers modular products which can adapt to varied rates and provide a pay as you grow approach.

Amortise Fibre Costs over Multiple Services

For networks which rely on leased fibre to connect remote locations, Allied Telesyn offers solutions to help amortise the costs of leased fibre over multiple services as well as to take full advantage of the bandwidth on the fibre. Allied Telesyn's optical products leverage fibre's ability to transport multiple wavelengths of light on the same fibre span. This allows network operators to add services to the fibre already leased today. Services are added as needed and the dependency on leased fibre, and its associated expense, is reduced.



Intelligent Infrastructure for optical networks

Allied Telesyn's range of intelligent infrastructure devices such as our Course Wave Division Multiplexers (CWDM) link fibre networks and consolidate Gigabit Ethernet links over a limited amount of fibre, creating a private WAN that can stretch across town, city and country lines.

All of these products come with high-availability, security, high-performance features which when managed lower total cost of ownership.

Make Allied Telesyn your choice for optical networking today.

Optical transport technology



AT-LX3800

AT-WD1008 Gigabit Ethernet CWDM



AT-WD1008

2 bi-directional line ports
GBIC bays x 8

Features

- 8 CWDM wavelength system
- Aggregates up to 8 Gigabit Ethernet links
- 2 bi-directional line ports
- Transport up to 70km
- Optional management module
- Optional redundant AC or DC power supplies
- SC connectors for line ports
- Embedded MissingLink function

AT-WD1008 expansion modules

AT-WDRPS Redundant power supply module
AT-WDM02 Management module
AT-WDFAN01 Fan module for AT-WD1008

The AT-WD1008 is a product designed for Gigabit Ethernet environments in both the enterprise and carrier markets.

At only 2RU in height, up to 8 GBIC interfaces can be multiplexed together for transport up to 70km*. The GBIC slots allow for varied optical GBIC modules from Allied Telesyn to be inserted to meet specific interface requirements. The AT-WD1008 also performs a full regeneration, retiming, and reshaping of each of the 8 GbE ports to maintain signal integrity across the fibre span. Allied Telesyn has designed the AT-WD1008 for ease-of-use by integrating the multiplexing functionality into the chassis which reduces turn-up time and eliminates the need to manually configure the WDM filters. SNMP, Telnet, and serial management are all offered on the optional management module. Redundant AC or DC power supplies are available along with a field replaceable fan module for added protection.

* Assumes .35dB/km loss on normal 9 micron single-mode fibre

Model	Dimensions	Weight
AT-WD1008	44cm x 30.5cm x 8.5cm	8.4kg

LX3800 Series LightExplorer Optical Transport Platform



AT-LX3800U

8 slot Multi-service chassis

AT-LX3811

Multi-rate line-card

Features

- Multi-rate, multiprotocol transport
- Support for services ranging from 100Mbps to 2.7Gbps
- Multiplex all eight services across a single fibre pair
- Transport distances above 70km
- Hotswappable power supplies
- Integrated management (SNMP/Telnet/Serial)
- Comprehensive alarm and event log
- Combined maximum bandwidth of over 21 Gbps per fibre strand

The AT-LX3800U utilises Coarse Wave Division Multiplexing (CWDM) technology in a modular, 1RU, line-card format to enable multi-service aggregation and transport across a single fibre pair.

Each line-card is capable of speeds from 100Mbps through 2.7Gbps and may use either a speed specific SFP or a multi-rate SFP from Allied Telesyn's AT-SP series portfolio. By integrating cost-effective CWDM technology in the chassis, installation, turn-up, and configuration time is reduced.

Multiple services and protocols can be combined natively over a single fibre pair. Allied Telesyn has also focused on ease-of-use to keep network design considerations simplified while maximising the available bandwidth on the fibre. Whether transporting multiple services across a long distance or deployment in growth environments, the AT-LX3800U can provide an effective solution.

Model	Dimensions	Weight
AT-LX3800U	44cm x 46.6cm x 4.4cm	8.1kg
AT-LX3811	N/A	N/A

WaveGlider Series

WaveGlider Passive CWDM Platform



AT-WG1003

3 slot, 1RU, 19" rackmount tray

AT-WG2300

Single Channel, CWDM OADM

AT-WG2310

Single Channel, CWDM OADM (-40°C to 85°C)

AT-WG3300 (Band 1, Band 2)

4 Channel, CWDM Band Multiplexer

AT-WG3310 (Band 1, Band 2)

4 Channel, CWDM Band Multiplexer (-40°C to 85°C)

AT-WG4300 WiBand 1, WiBand 2)

CWDM Wide Band Multiplexer

AT-WG4310 (Band 1, Band 2)

CWDM Wide Band Multiplexer (-40°C to 85°C)

Features

- Increase network fibre capacity
- Efficient fibre relief
- Secure optical transport
- Protocol agnostic
- Supports up to 2.5Gbps per channel
- Small footprint
- Rackmountable

Designed to meet the unique and diverse demands of multi-service networks, the wall- or rackmountable WG1000 series passive CWDM platform can aggregate up to 9 CWDM wavelengths from multiple sources.

All wavelengths can either be transported to a single location or dropped at multiple locations using the standalone add/drop multiplexers. Also, wavelength re-use is possible by dropping the wavelength at one location and re-using it elsewhere. This saves network administrators sparing costs for both the CWDM optics as well as the passive WG1000 series.

Due the modular nature of the 1RU WG1000 series, entry costs are lowered and a pay-as-you-grow approach can be taken. In addition, network planning for the future can be considered by optimising the network for future growth without total capital equipment commitment. The result is a network that is cost-effective to deploy and new services can be added with minimum disruption to existing traffic.



Allied Telesyn standards-based Gigabit Interface Converters (GBIC) modules

AT-G8SX-01	1000SX x 1 port	550m
AT-G8LX10	1000LX x 1 port	10km
AT-G8LX25	1000LX x 1 port	25km
AT-G8LX40	1000LX x 1 port	40km
AT-G8LX70	1000LX x 1 port	70km
AT-G8ZX70/CWDM		

CWDM = 1310, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610

Model	Dimensions	Weight
AT-WG1003	44cm x 13.8cm x 3.9cm	.6kg
WG2/3/4000 series	12.5cm x 14.1cm x 4.1cm	.6kg



AT-SP Series SFP (Small Form Pluggable) modules

AT-SPSX	500m based on 50 micron mm fibre 300m based on 62.5 micron mm fibre
AT-SPLX10	10km based on 9 micron sm fibre
AT-SPLX40	40km based on 9 micron sm fibre
AT-SPZX80	80km based on 9 micron sm fibre
AT-SP2670/SR	155Mbps - 2.67Gbps 2km
AT-SP2670/IR	155Mbps - 2.67Gbps 15km
AT-SPBD10-13	GbE bi-directional 10km
AT-SPBD10-14	GbE bi-directional 10km

AT-XP Series XFP 10Gbps (Small Form Pluggable) modules

AT-XPSR	10Gbps x 1 port	200m*
AT-XPLR	10Gbps x 1 port	10km

* Utilising high-bandwidth multi-mode fibre

Carrier Class Ethernet Solutions

Allied Telesyn's line of Carrier Class Ethernet Solutions include IP Multi-service Access Platforms (iMAP) for Triple Play service delivery to residential and business subscribers. Utilising copper and fibre native Ethernet interfaces, as well

as various xDSL interfaces, the TN products and solutions enable leading carriers worldwide to deploy advanced revenue generating services in xDSL, FTTx, VoIP and Metro Ethernet networks.

TN 9x00 Series IP Multi-service Access Platform



AT-TN9700

Service module slots x 17
Control module slots x 2 CFC24, CFC6, CFC56* (future)
Redundant network modules x 2



AT-TN9400

Service module slots x 7
Control module slot x 1 CFC24, CFC6, CFC56*
Redundant network modules x 2

Common features of the AT-TN9700 and AT-TN9400

Regulatory Approvals

- NEBS Level 3 Compliant: GR-1089, GR-63
- Safety: UL 1950
- EMC: FCC Part 15 Class A
- CE, VCCI compliant

QoS

- Wirespeed QoS per Port
- 4 to 8 Class of Service
- Input metering
- Input rate limiting, Output rate shaping
- Classification by TOS
- Support for 4,000 VLAN

Subscriber Security

- Subscriber Filtering to eliminate 'Denial of Service' attacks
- RFC 3046, DHCP Relay for IP management and law enforcement

OAM&P

- All cards Hot Pluggable
- Auto-provisioning
- Management via CLI, SNMP and AlliedWare™ NMS
- Hitless software upgrades

Standards

- IEEE 802.1d,w Rapid Spanning Tree
- IEEE 802.1Q, MEV (double tagging)
- IEEE 802.1p Traffic Class Expediting
- IEEE 802.3ad Link Aggregation
- IEEE 802.3ah Ethernet First Mile
- IETF RFC 1112 IP Multicasting / IGMP Snooping

The TN 9x00 IP Multi-service Access Platform leverages widely accepted Ethernet switching technology to bring an unparalleled price-to-performance ratio to the service provider's Access or Metroedge™ networks. Whether your road to profitability is through a Fibre To The Home (FTTH), xDSL residential market strategy, or Metro Ethernet business market strategy, the TN 9x00 is the perfect platform for your networking needs. This feature-rich, IP-based Multi-service Access Platform enables service providers to offer advanced, simultaneous 'Triple Play' services, such as high-quality VoIP, tiered IP/Ethernet data services, and broadcast quality IP video.

With the TN 9x00, a provider can deliver carrier-class broadband services to end-users of any kind - residential or enterprise.

The TN 9x00 interconnects geographically distributed multi-site corporations with ease and simplicity.

The Ethernet Protection Switched Ring (EPSR) feature enables the TN 9x00 series platforms to provide resiliency on the network side, allowing a large number of iMAP nodes to be deployed in a ring fashion with a failure switch-over time of less than 50msec.

The iMAP now has optional AC power kits that enable hospitality, MDU/MTU and Enterprise deployments. These kits can be ordered with a host of international power cord options and sized to accommodate single or multi-chassis deployments.

Model	Dimensions	Weight
TN 9400	44cm x 30cm x 13cm	7kg
TN 9700	44cm x 30cm x 40cm	15kg

TN 9100 Series Multi-service Access Platform



NEW TN 9100

Single rack unit
Service module slots x 3
Control module slot x 1 (12Gbps)
Network uplink, Gigabit Ethernet (SFP) port x 4,
100/1000Mbps Ethernet ports x 2



TN 7100

Single rack unit
ADSL x 24 or 48 ports
Network uplink, Gigabit Ethernet (SFP) port x 2,
100/1000Mbps Ethernet ports x 2

Common features of the AT-TN9100 and AT-TN7100

Regulatory Approvals

- NEBS Level 3 Compliant: GR-1089, GR-63
- Safety: UL 1950
- EMC: FCC Part 15 Class A
- CE, VCCI compliant

QoS

- Wirespeed QoS per Port
- 4 to 8 Class of Service
- Input metering
- Input rate limiting, Output rate shaping
- Classification by TOS
- Support for 4,000 VLAN

Subscriber Security

- Subscriber Filtering to eliminate 'Denial of Service' attacks
- RFC 3046, DHCP Relay for IP management and law enforcement

OAM&P

- All cards Hot Pluggable
- Auto-provisioning
- Management via CLI, SNMP and AlliedWare™ NMS

Standards

- IEEE 802.1d,w Rapid Spanning Tree
- IEEE 802.1Q, MEV (double tagging)
- IEEE 802.1p Traffic Class Expediting
- IEEE 802.3ad Link Aggregation
- IEEE 802.3ah Ethernet First Mile
- IETF RFC 1112 IP Multicasting / IGMP Snooping

Broadband Access & Aggregation

The TN 9100 system leverages all features common to the TN 9x00 iMAP product family in a IRU, modular platform. The TN 9100 system ensures common feature base, common subscriber modules and sparing is used for the entire range of iMAP products. The added benefit of subscriber interface modularity is a truly unique feature to 'pizza box' platforms in the market today.

The TN 9100 iMAP family can be equipped with any combination of subscriber modules available with the TN 9x00 series systems. This includes ADSL2+, G.SHDSL, FTTx and FE modules. The numerous combination of subscriber options make this system optimal for lowest cost of entry for any network deployment.

As subscriber density increases, the TN 9100 systems can be stacked and networked together using carrier-class Ethernet Protection Switch Ring (EPSR) technology that ensures network convergence of 50ms in the event of a system or common control outage. As service deployments grow, Service Providers can choose to deploy the higher scale TN 9x00 system without losing features or functionality.

The TN 9100 iMAP has optional AC power kits that enable hospitality, MDU/MTU and enterprise deployments. These kits can be ordered with a host of international power cord options and equipped for either simplex or redundant operation.

Model	Dimensions	Weight
TN 7100	44cm x 30cm x 4.4cm	4kg
TN 9100	44cm x 30cm x 40cm	27.2kg

Broadband Access & Aggregation

Ordering Information

AT-TN250G	x700 Chassis Group with PEM, FAN, MAC
AT-TN250GF	x700 Chassis Group with PEM, FAN, MAC and filler plates (15)
AT-TN251G	x400 Chassis Group with PEM, FAN, MAC
AT-TN251GF	x400 Chassis Group with PEM, FAN, MAC and filler plates (6)
AT-TN100-A	ADSL16 Service Module x 16 ports
AT-TN101-A	ADSL8s Service Module x 8 ports with Integrated Splitters
AT-TN108-A	ADSL16 Service Module x 16 ports for Annex B support
AT-TN102-A	FE10 Service Module, 10/100T x 10 ports
AT-TN104-A	FX10FX Service Module, 1310nm, multi-mode, 7.5dB Optical Budget
AT-TN107-A	FX10LX Service Module, 1310nm, single-mode, 16dB Optical Budget
AT-TN109-A	FX10BX Service Module, single-mode, 19dB Optical Budget, Single Fibre, Transmit 1550, Receive 1310
AT-TN121-A	ADSL24A Service Module, 24 ports, Annex A
AT-TN116-A	G.SHDSL16 Service Module, 16 ports
AT-TN117-A	GE8 Service/Network Module, Gigabit Ethernet x 8 ports (SFP-based)
AT-TN119-A	CE58 Service Module, Circuit Emulation Service T1/E1 x 8 ports
AT-TN127-A	G.SHDSL24 Service Module, 24 ports
AT-TN124-A	ADSL24B Service Module, 24 ports, Annex B
AT-TN300-A	GE1 WAN Interface card, Gigabit Ethernet x 1 port (SFP-based)
AT-TN301-A	GE3 WAN Interface card, Gigabit Ethernet x 3 ports (SFP-based)
AT-TN400-B	CFC6, 6Gbps Control Module
AT-TN401-B	CFC24, 24Gbps Control Module

AT-TN-R111-A-x	AC Power kit for single x400 system (up to 3 x400 systems from this kit with R112 adders)
AT-TN-R112-A-x	AC Power kit for additional x400 system
AT-TN-R113-A-x	AC Power kit for single x700 system (up to 3 x700 systems from this kit with R114 adders) x=10 (US), 30 (UK), 40 (AUS), 50 (EU)

TN 9100 modular IRU chassis platforms

AT-TN9101-A	IRU Chassis Group with 3 slots, filler plates (2) and PEM
AT-TN9102-A-x	IRU Chassis Group with 3 slots, filler plates (2) and Simplex AC power
AT-TN9103-A-x	IRU Chassis Group with 3 slots, filler plates (2) and duplex AC power
AT-TN408-A	CFC12, 12Gbps Control Module
AT-TNE010-A	Spare AC PSU x=10 (US), 30 (UK), 40 (AUS), 50 (EU)

TN 7100 fixed IRU chassis platforms

AT-TN7101	ADSL x 48 ports (without splitters)*
AT-TN7102	ADSL x 24 ports (with splitters)
AT-TN7103	ADSL x 16 ports (without splitters)*
AT-TN7104	ADSL x 8 ports (with splitters)
AT-TN7105	ADSL x 48 ports, Annex B (without splitter)

* Check with your sales representative for availability

Today's IP Infrastructure Tomorrow's Broadband City



IPTV VoIP POTS
ADSL/2+ FTTx

Deliver IP Voice, Video and Data over Your Existing Infrastructure

Your customers want the latest high-quality, cutting-edge video, voice and data services. You want to deploy a flexible infrastructure that will meet those spiking demands for bandwidth without breaking your bottom line. Why not use the technology you already know is the most cost-effective and offers the most scalability?

Allied Telesyn's true IP/Ethernet Triple Play solution is the ideal way to consolidate existing Voice, Video and Data infrastructures—simplifying both installation and maintenance by deploying IP/Ethernet in the last mile.

Our powerful, modular Integrated Multiservice Access Platforms (iMAPs) and high-quality Multiservice Gateways/Routers are your best solution for delivering carrier-grade managed services to your customers and opening new revenue sources with a minimum of up-front investment and a lower Total Cost of Ownership.

Visit us online at www.alliedtelesyn.com



Allied Telesyn's AR-series of secure routers include solutions for T1/E1, xDSL, Ethernet, ISDN, Frame Relay as well as PSTN and leased-line connections. Allied Telesyn's range of secure routers is ideally suited to a variety of organisations and businesses.

From home offices (SoHo) to medium and large enterprise offices, Allied Telesyn can provide routing solutions to meet each customer's needs. With extensive security and advanced QoS features, Allied Telesyn's routers provide industry leading software features, including IPv6, Multicast, BGP, VRRP, OSPF, and GRE.

Security

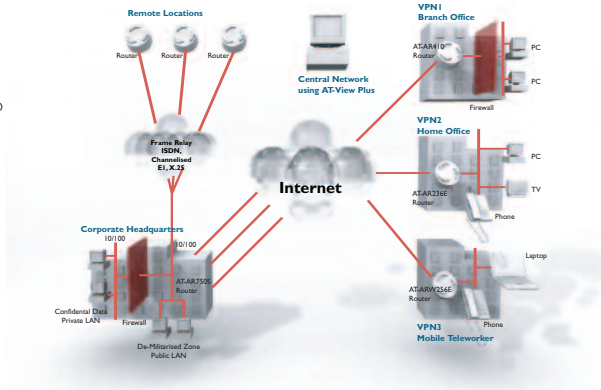
Allied Telesyn's range of secure routers enable customers to enhance their network security with advanced features like hardware accelerated VPN and encryption, IP filtering, Stateful Inspection Firewall, NAT-T, IEEE 802.1x, RADIUS and TACACS, PAP, and CHAP authentication. These features provide customers with the peace of mind they need to ensure their network remains free from attack.

Quality of Service (QoS)

The advanced software QoS implementation enables Allied Telesyn AR400 and AR700 series routers to dynamically identify high-priority voice, video and application traffic, so that appropriate service levels can be maintained in congested networks. This advanced QoS implementation allows voice, video and data traffic to have QoS applied within individual IPsec tunnels, over GRE and for IPv6 to IPv4 tunnels.

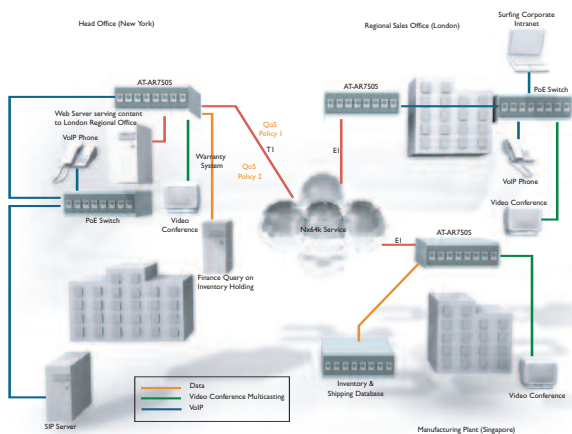
VPN Enterprise Application:

An AT-AR750S router sited at the corporate Head Office (HO) concentrates a range of Wide Area Networking (WAN) services including Basic and Primary Rate ISDN, Frame Relay, X.25, E1/T1 and leased-line, as well as providing asynchronous dial-up connections. Different sites can simultaneously access the network through legacy technologies or the latest VPN technologies. One of the departmental LANs has the security of a firewall while still enjoying all the benefits of WAN access. Another LAN interface is used as a De-Militarised Zone (DMZ) for the data that the corporate HO makes publicly available. The AT-AR750S is also acting as a terminal server to enable the remote management of other devices. Staff working at branch offices, from home and on the road can access data at the Head Office with an Allied Telesyn solution designed for their needs. Mobile workers are able to use VPN client software to connect to the HO from hotels or any other location without needing a router. Allied Telesyn's Network Management System AT-View Plus, enables the easy management of the entire network from a remote location.



Advanced QoS for Triple Play Applications:

The advanced QoS on the AT-AR750S enables multiple office sites to securely communicate using a range of voice, video, and data applications. For example, with an AT-AR750S located at the head office in New York, a regional sales office in London, and a manufacturing plant in Singapore, all three sites can securely communicate with each other. The advanced QoS on the AT-AR750S prioritises voice, video, and data packets for uninterrupted video conferencing, VoIP calls, and data exchange.



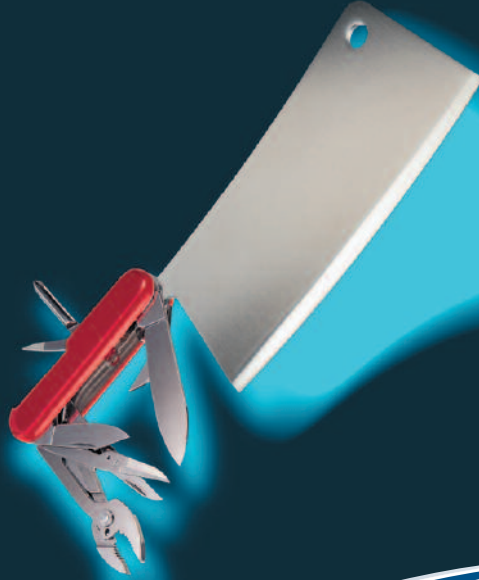
Routers

Small Medium Enterprise					
		BASE PORTS	PORT OPTIONS	SECURITY	P/N
SME >>	AT-AR750S	10/100TX x 2 ports WAN 10/100TX x 5 ports LAN PIC card x 2 Async console/modem x 1 port	Ethernet T1/E1/PRI Sync Async BRI	Yes	57
	AT-AR745	10/100TX x 2 ports Async x 2 ports (RJ45) PIC card x 2 Supports Network Service Module (NSM) Support up to 512MB SDRAM Support up to 192MB Compact Flash	T1/E1/PRI Ethernet Sync Async BRI VoIP	Optional	59
	AT-AR725	10/100TX x 2 ports Async x 2 ports (RJ45) PIC card x 2 Support up to 512MB SDRAM Support up to 192MB Compact Flash	T1/E1/PRI Ethernet Sync Async BRI VoIP	Optional	58
Small Medium Business					
SMB >>	AT-AR450S	10/100TX x 5 ports LAN 10/100TX x 1 port WAN 10/100TX x 1 port DMZ Async x 2 ports	Fixed	Yes	60
	AT-AR442S	10/100TX x 5 ports/DMZ 2/4 wire G.SHDSL x 1 port PIC card x 1 Async x 1 port	T1/E1/PRI Ethernet Sync Async BRI VoIP	Yes	62
	AT-AR441S	ADSL (Annex B) x 1 port 10/100TX x 5 ports/DMZ PIC card x 1 Async x 1 port	T1/E1/PRI Ethernet Sync Async BRI VoIP	Yes	62
	AT-AR440S	ADSL (Annex A) x 1 port 10/100TX x 5 ports/DMZ PIC card x 1 Async x 1 port	T1/E1/PRI Ethernet Sync Async BRI VoIP	Yes	62
	AT-AR410S	10/100TX x 4 ports LAN 10/100TX x 1 port WAN Async/console x 1 port PIC card x 1 IPSec Accelerator	T1/E1/PRI Ethernet Sync Async BRI VoIP	Yes	64

		BASE PORTS	PORT OPTIONS	SECURITY	P/N
	AT-AR410	10/100TX x 5 ports Async/console x 1 port PIC card x 1	T1/E1/PRI Ethernet Sync Async BRI VoIP	Optional	64
Small Office Home Office					
SOHO >	AT-AR350	Sync x 1 port 10T x 1 port Async x 2 ports	Fixed	Optional	67
	AT-AR320S	10T x 2 ports Async x 2 ports IPSec Accelerator	Fixed	Yes	66
	AT-AR320	10T x 2 ports Async x 2 ports	Fixed	Optional	66
	AT-ARW256E	ADSL (Annex A) ADSL2/2+ ready x 1 port IEEE 802.11b/g Wireless LAN 10/100TX x 4 ports LAN USB 1.1 x 1 port	Fixed	Yes *	67
	AT-AR256E	ADSL (Annex A) ADSL2/2+ ready x 1 port 10/100TX x 4 ports LAN	Fixed	Yes *	68
	AT-AR255E	ADSL (Annex B) x 1 port 10/100TX x 4 ports LAN	Fixed	Yes *	68
	AT-AR250E	ADSL (Annex A) x 1 port 10/100TX x 4 ports LAN	Fixed	Yes *	68
	AT-AR240E	ADSL (Annex A) x 1 port 10T x 1 port LAN USB x 1 port	Fixed		69
	AT-AR236E	ADSL (Annex A) x 1 port USB x 1 port	Fixed	Yes *	70
	AT-AR221E	10/100TX x 1 port WAN 10/100TX x 4 ports LAN	Fixed		71
	AT-AR220E	10T x 1 port WAN 10/100TX x 4 ports LAN	Fixed		71
	AT-AR210	ADSL (Annex A) x 1 port USB x 1 port	Fixed		70
	AT-AR206	ADSL x 1 port USB x 1 port	Fixed		70

Yes * = Stateful Inspection Firewall and VPN Pass-through

Routers



Get more than you expect from Allied Telesyn

Providing your customers with routing solutions is a difficult task! Not only do you have to understand their complex requirements, you need to match those requirements against a wide range of products from a long list of vendors.

At Allied Telesyn, we pride ourselves on offering the widest range of router products with a complete offering of vital software features such as QoS and Secure VPN Tunnelling. These routers provide ADSL as standard, offering connectivity to other technologies such as ISDN and Leased Line.

All of this comes at an affordable price point offering solutions which are price competitive, yet providing you and your customers with the peace of mind that Allied Telesyn's extensive Net.Cover® program offers.

So, the complete router, with the complete support package at a price that offers you complete margin protection! All from a vendor who has been trusted to deliver similar solutions for the last 18 years!

AR700 Series - Modular Enterprise Routers

Cost-effective, multi-service router platform specifically designed for mid-size businesses or branch offices that demand flexibility, manageability and upgradability in access edge routers.



COMPETITIVE PRODUCTS

Cisco 2811
Cisco 1841
Bintec X4300

AT-AR750S Secure VPN Router



AT-AR750S

NEW

10/100TX x 2 ports WAN
10/100TX x 5 ports LAN
PIC cards x 2
Async console/modem x 1 port

Secure VPN Router

The AT-AR750S Secure VPN Router is a powerful, high-value one-box security router with built-in redundancy. Ideal for small- to medium-sized enterprises, this router is a one-stop solution to combine VPN, Quality of Service, Routing, Remote Connectivity, advanced Security and Encryption, all in one compact, high-density 1RU model.

Features

Hardware

- 2 x 10/100 WAN interfaces
- 2 x Port Interface Cards (PIC)
- 5 x 10/100TX switched LAN ports
- 1 x Asynchronous port
- DMZ port: configurable on any of the WAN/LAN ports

Security

- IP Filtering
- Stateful Inspection Firewall
- IEEE 802.1x
- NAT-T
- Authentication: RADIUS, TACACS, MD5, PAP, CHAP

VPN/Encryption

- AES, DES, 3DES encryption
- 5,000 configured IPSec VPN tunnels (250 active tunnels)
- HW accelerated IPSec VPN >40Mbps @ 72byte packets (with AES 256 bit encryption)
- Secure VPN capability with IPSec, support industry standard VPN clients (Microsoft XP and Safenet)

Manageability

- Web-based GUI
- CLI management
- SNMPv3
- IP QoS

Extensive routing support

- RIPv1 and v2
- GRE
- OSPFv1 and v2
- BGP 4 – optional
- VRRP
- IPX
- AppleTalk
- DECNet
- IPv6 – optional

Model	Dimensions	Weight
AT-AR750S	19cm x 30.5cm x 4.4cm	1.92kg

Routers

Multicast routing protocols

- PIM-SM/DM
- DVMRP
- IGMPv2
- IGMP Snooping
- IPv6 Multicast – optional, PIM6 and MLD

Support for traditional network protocols

- X.25
- Frame-relay

AlliedWare™

The AT-AR750S ships with Basic Layer 3, Full Layer 3 and Security pack. Advanced Layer 3 option available. Please see technical specification details and ordering p/n on page 90.

AR700 series Port Interface Cards (PICs)

- AT-AR020** E1/T1 PRI with integral CSU/DSU x 1 port
- AT-AR021** BRI x 1 port (U and S/T)
- AT-AR023** Sync x 1 port (E1,T1)
- AT-AR024** Async (RS232) x 4 ports (4 x 115kbps)

AR700 series license options

- AT-AR-3DES** Triple DES encryption (software option)
- AT-AR-AES** AES encryption (software option)
- AT-AES/3DES** AES and 3DES encryption (bundled software option)

* Check with your sales representative for availability

AR7x5 Series Modular Enterprise Routers



AT-AR725

10/100TX x 2 port
Async x 2 ports (RJ45)
PIC card x 2
128MB RAM
Support up to 512MB SDRAM
16MB Flash on Board
Support up to 192MB Compact Flash

Features

- High performance RISC processor
- Flexible configuration with slide-in PICs



COMPETITIVE PRODUCTS

AT-AR725
Cisco 1721
3Com 5012

AT-AR745
Cisco 1760
ADTRAN NetVanta 3305

- Security services
- Hardware encryption and compression option
- Cost-effective upgrade as network requirements change
- Multiprotocol routing including: RIPv1/v2 and OSPFv2
- IPv6 optional
- Stateful Inspection Firewall option
- IPSEC/ISAKMP VPN option
- DHCP
- DNS
- IEEE 802.1x
- GRE
- Secure VPN capability with IPsec, support industry standard VPN clients (Microsoft XP and Safenet)



AT-AR745

10/100TX x 2 ports
 Async x 2 ports (RJ45)
 PIC card x 2
 Supports Network Service Module (NSM)
 128MB RAM
 Support up to 512MB SDRAM
 16MB Flash on Board
 Support up to 192MB Compact Flash

Features

- High-performance RISC processor
- PCI-bus slide-in Network Service Module (NSM)
- Supports up to 6 Port Interface Cards (PICs) with NSM module
- Wide range WAN and LAN interfaces
- Hardware encryption and compression option
- -48vDC version for Telco applications
- Ultra compact 19", 1U rackmount design
- IPv6 optional
- DHCP
- DNS
- IEEE 802.1x
- GRE
- Secure VPN capability with IPSec, support industry standard VPN clients (Microsoft XP and Safenet)

AlliedWare™

The AR700 series ship with Basic Layer 3 and Full Layer 3 software. Advanced Layer 3 and Security pack option available. Please see technical specification details and ordering p/n on page 90.

Redundant Power Supply option

AT-AR740RPS External redundant power supply

Memory Upgrade option

AT-CF128A 128MB Compact Flash
AT-SD256A 256MB SDRAM

AT-AR745 Network Service Module (NSM)

AT-AR040 NSM for 4 PICs *
AT-AR041 NSM with 8 BRI ports (S/T)
AT-AR042 NSM with 4 BRI ports (S/T)

* Only 2 x AT-AR020 (E1/T1) supported in AT-AR040

AR700 series software and internal hardware-enabled encryption and compression cards
 See Hardware Enabled Encryption and Compression Cards on page 88.

AR700 series Port Accelerator Card (PAC)

AT-AR061 PAC Provides hardware-based DES and 3DES encryption and compression.

AR700 series Port Interface Cards (PICs)

AT-AR020 E1/T1 PRI with integral CSU/DSU x 1 port
AT-AR021 BRI x 1 port (U and S/T)
AT-AR023 Sync x 1 port (E1, T1)
AT-AR024 Async (RS232) x 4 ports (4 x 115kbps)
AT-AR027 FXS VoIP x 2 ports

Sync Cabling available for the AR700 series

AT-X.21-DTE Cable **AT-RS232-DCE Cable**
AT-X.21-DCE Cable **AT-V.35-DTE Cable**
AT-RS232-DTE Cable **AT-V.35-DCE Cable**

AR700 series license options

AT-AR-3DES Triple DES encryption (software option)

AT-AR700SSECPK

Provides Firewall, SMTP proxy, HTTP proxy

AT-AR700-ADVL3UPGRD

AR700 series advanced Layer 3 upgrade, includes IPv6, BGP-4, IS-IS and load balancer

Model	Dimensions	Weight
AT-AR725	44cm x 33cm x 4.4cm	4.5kg
AT-AR745	44cm x 33cm x 4.4cm	4.8kg

Routers

AR400 Series

The AR400 family of business class secure routers, offers affordable, one-box solution that combines the powerful functionality of a security appliance with the advanced QoS and routing protocol support of a business class router.



COMPETITIVE PRODUCTS

Cisco 1841
ADTRAN NetVanta 2300
Netopia 4622-XL

AT-AR450S Secure Ethernet Router



AT-AR450S

Secure VPN + Firewall Router for SME

10/100TX x 5 ports LAN

10/100TX x 1 port WAN

10/100TX x 1 port DMZ

Async x 2 ports

Medium/Large Enterprise

A powerful small enterprise secure router; ideal for branch offices seeking high performance Virtual Private Networking.

High Security Router

The Allied Telesyn AT-AR450S is an enterprise-class secure router offering versatility, integration, performance and security for medium business and enterprise networks. With on board hardware encryption the AT-AR450S offers DES-3DES and AES (Advanced Encryption Standard) hardware encryption delivering up to 65Mbps of 3DES VPN + NAT and Firewall throughput and 40Mbps of AES-256 VPN + NAT and Firewall throughput.

IPSEC Authentication

- SHA-1
- MD5
- PKI

Routing Protocols

- OSPF
- BGP4 *optional*
- RIPv1 and RIPv2
- IPv6 *optional*
- VRRP (*optional*)

Multicast Protocol

- DVMRP

Advanced Traffic Capabilities

- GRE
- Loadbalancing *optional*
- IP Multihoming

AlliedWare™

The AT-AR450S ships with Basic Layer 3, Full Layer 3 and Security pack. Advanced Layer 3 option available. Please see technical specification details and ordering p/n on page 90.

Features

- *Stateful Inspection Firewall*
- *511 IPSEC/ISAKMP VPN*
- *Hardware-based AES 3DES DES encryption*
- *Intrusion Detection and Attack Alert System*
- *Support Windows XP, 2000 VPN clients using pre-shared keys and X509 certificates*
- *L2TP*
- *PPP over Ethernet (PPPoE)*
- *Protects against 'Denial of Service' attacks*
- *PAP/CHAP user authentication*
- *RADIUS/TACAS+ look-up*
- *SMTP and HTTP Proxy*
- *SSH SSL*
- *IEEE 802.1Q tagged VLAN support*
- *4 priority QoS traffic classes*
- *64 VLANs*
- *GRE*
- *IEEE 802.1x*
- *DHCP*
- *DNS*
- *Secure VPN capability with IPsec, support industry standard VPN clients (Microsoft XP and Safenet)*

Performance

Concurrent Sessions (Firewall NAT)	18,000
# Policies	1024
Firewall/NAT PPPoE throughput	up to 100Mbps
VPN IPsec (3DES) + Firewall	up to 65Mbps
VPN IPsec (AES) + Firewall	up to 65Mbps

Memory upgrade option

AT-SD256A 256MB SDRAM

AR400 series license options

AT-AR400-ADVL3UPGRD

AR400 series advanced Layer 3 upgrade, includes IPv6, BGP-4, IS-IS and load balancer

AT-AR-3DES Triple DES encryption (software option)

AT-AR-AES AES encryption (software option)

AT-AES/3DES AES and 3DES encryption (bundled software option)



Model	Dimensions	Weight
AT-AR450S	26cm x 18cm x 3.8cm	1.92kg

Routers

Secure ADSL Routers

Ideal for small- and medium-sized businesses, the AR44xS series feature built-in xDSL, one Async/console, five 10/100 LAN ports and an optional PIC card for T1/EI PRI, ISDN, Sync, Async, Ethernet or VoIP interfaces. Supports up to 256 VPN tunnels, providing flexibility and secure communications to SMB branch offices and remote users at a highly competitive price point.



COMPETITIVE PRODUCTS

AT-AR440S

Cisco 1841 + ADSL WIC
3Com 3030
Efficient 5930

AT-AR441S

Cisco 1841 + ADSL WIC
Efficient 5935
SpeedTouch 610i

AT-AR442S

Cisco 1841 + G.SHDSL WIC
SpeedTouch 610s
Netopia 4553

AR44xS Series Secure ADSL Routers



AT-AR440S

10/100TX x 5 ports/DMZ
ADSL (Annex A) x 1 port
Async x 1 port
PIC card x 1



AT-AR441S

10/100TX x 5 ports/DMZ
ADSL (Annex B) x 1 port
Async x 1 port
PIC card x 1

AT-AR442S *

10/100TX x 5 ports/DMZ
2/4 wire G.SHDSL x 1 port
Async x 1 port
PIC card x 1

Common features of the AR44xS series

- AT-AR440S, 1 x Annex A ADSL port
- AT-AR441S, 1 x Annex B ADSL port
- AT-AR442S, 1 x 4W G.SHDSL
- Modular router – 1 PIC slot that supports a range of LAN/WAN interfaces
- Integrated encryption engine supporting DES, 3DES and AES
- 5 x 10/100Mbps Ethernet switched LAN ports, any port can also be reconfigured as a DMZ
- Secure VPN capability with IPSec, support industry standard VPN clients (Microsoft XP and Safenet)
- Automatic WAN back-up
- Business class value-add software features available
 - Stateful Inspection Firewall
 - Multi-layer QoS
 - PPP, IP routing and GRE
 - VRRP, RIPv1 v2 and OSPF
 - IPSEC/ISAKMP VPN option
 - Supports DES, 3DES and AES encryption
 - IEEE 802.1x
 - IEEE 802.1Q Tagged VLAN
 - Frame Relay
 - DHCP
 - Industry leading multicast support (optional)
 - IPv6 option

- *SNMP and CLI management*
- *Web GUI*
- *Dying gasp*
- *AT-AR441S Conforms to U-R2*

* Check with your sales representative for availability

AR44xS series Port Interface Cards (PICs)

- AT-AR020** E1/T1 PRI with integral CSU/DSU × 1 port
- AT-AR021** BRI × 1 port (U and S/T)
- AT-AR023** Sync × 1 port (E1, T1)
- AT-AR024** Async (RS232) × 4 ports (4 × 115kbps)
- AT-AR027** FXS VoIP × 2 ports

AR400 series license options

AT-AR400-ADVL3UPGRD

AR400 series advanced Layer 3 upgrade, includes IPv6, BGP-4, IS-IS and load balancer

AT-AR-3DES Triple DES encryption (software option)

AT-AR-AES AES encryption (software option)

AlliedWare™

The AR44xS series ship with Basic Layer 3, Full Layer 3 and Security pack. Advanced Layer 3 option available. Please see technical specification details and ordering p/n on page 90.

Model	Dimensions	Weight
AR44xS series	33.5cm × 18cm × 4.5cm	1.96kg

Routers

Small Medium Business/Branch Office Routers

Ideal for mid-range branch offices and small and medium-sized businesses, needing secure and flexible access to business applications and network resources across a range of network interface types.



COMPETITIVE PRODUCTS

Cisco 1841
ADTRAN NetVanta 3205

AR410 Series SMB/Branch Office



AT-AR410

10/100TX x 5 ports
Async/console x 1 port
PIC card x 1

AT-AR410S

Security Appliance
10/100TX x 4 ports LAN
10/100TX x 1 port WAN
Async/console x 1 port
PIC card x 1
IPSec Accelerator

Common features of the AR410 series

- E1, T1, PRI, BRI, Sync, Frame Relay, leased-line, VoIP, Async option
- Multiprotocol routing including: RIPv1/v2 and OSPFv2
- DHCP, SMTP, IGMP, IGMPv2 and RSVP support included
- Up to 256 VPN tunnels
- Branch office access to corporate network or WAN
- VLAN support
- IPv6 optional
- Small to medium office Internet access
- Protects against 'Denial of Service' attacks
- Security services
- DES encryption support
- Stateful Inspection Firewall optional
- Optional SSH
- Optional hardware VPN
- Optional 3DES encryption support
- Chip & PIN support
- BGP-4 (optional)
- IEEE 802.1x
- GRE
- SNMPv1
- SNMPv2
- SNMPv3
- Secure VPN capability with IPSec, support industry standard VPN clients (Microsoft XP and Safenet)

The AT-AR410 software and internal hardware-enabled encryption and compression cards

See Hardware Enabled Encryption and Compression Cards on page 88.

AT-AR011 ECMAC

Provides hardware-based DES and 3DES encryption and compression (AT-AR410 only).

AR410 series Port Interface Cards (PICs)

AT-AR020	E1/T1 PRI with integral CSU/DSU x 1 port
AT-AR021	BRI x 1 port (U and S/T)
AT-AR023	Sync x 1 port (E1,T1)
AT-AR024	Async (RS232) x 4 ports (4 x 115kbps)
AT-AR027	FXS VoIP x 2 ports

AR400 series license options

AT-AR-3DES Triple DES encryption (software option)

AT-AR400SSECPK
(AT-AR410 only as these features are included in the standard AlliedWare™ of the AT-AR410S)
 Provides Firewall, SMTP proxy, HTTP proxy

AT-AR400-ADVL3UPGRD
 AR400 series advanced Layer 3 upgrade, includes IPv6, BGP-4, IS-IS and load balancer

Sync Cabling available for the AR410 series

- AT-X.21-DTE** Cable
- AT-X.21-DCE** Cable
- AT-RS232-DTE** Cable
- AT-RS232-DCE** Cable
- AT-V.35-DTE** Cable
- AT-V.35-DCE** Cable

AlliedWare™

The AR410 series ship with Basic Layer 3 and Full Layer 3 software. Advanced Layer 3 and Security pack option available. Please see technical specification details and ordering p/n on page 90.

Model	Dimensions	Weight
AR410 series	30cm x 19cm x 4.5cm	1.8kg

Routers

Teleworker/SoHo

Ideal for small branch offices, small and medium-sized businesses that need secure access to business applications, network resources, and Internet services.

Equipped with Allied Telesyn's leading edge Stateful Inspection Firewall for the most effective protection for a private network. Hardware-based DES encryption ensures traffic security.

COMPETITIVE PRODUCTS

Cisco 831
3Com 3012

AR320 Series Dual Ethernet Security Appliances



AT-AR320

10T x 2 ports
Async x 2 ports

AT-AR320S

10T x 2 ports
Async x 2 ports
IPSec accelerator

Features

- 60 VPN (IPSEC/ISAKMP) (AT-AR320S only)
- Hardware-based DES and 3DES encryption (AT-AR320S only)

Common features of the AR320 series

- Stateful Inspection Firewall
- Attack Alert System
- Supports Windows XP, 2000 VPN clients using pre-shared keys and X509 certificates
- L2TP
- PPP over Ethernet (PPPoE)
- Protects against 'Denial of Service' attacks
- PAP/CHAP user authentication
- RADIUS/TACAS look-up
- SMTP and HTTP Proxy
- AlliedWare™ OS (see pg 90 AT-AR450S ICSA LAB Certified*)

Model	Dimensions	Weight
AR320 series	26cm x 18cm x 3.8cm	1.7kg
AT-AR350	27cm x 20cm x 5cm	1.7kg

AT-AR350 Leased Line Router



AT-AR350

10T x 1 port
Sync x 1 port
Async x 2 ports

Features

- Flexible options for sharing Internet connections over digital leased lines and ISDN
- RIP, OSPF protocol support
- PAP/CHAP, RADIUS/TACACS authentication
- Stateful Inspection Firewall
- Optional DES, 3DES encryption
- Dual modem ports
- SNMP and CLI management

AT-ARW256E Wireless ADSL Router



AT-ARW256E *

NEW

ADSL Router (Annex A)
ADSL2/2+ ready x 1 port
IEEE 802.11b/g Wireless LAN
10/100TX x 4 ports LAN
USB1.1 x 1 port

Features

- IEEE 802.11, 802.11b and 802.11g compliant
- Conforms to WECA and WiFi standards
- Supports IEEE 802.11b and 802.11g simultaneously
- Supports seamless WAN roaming
- Supports DSSS technology
- ADSL2/2+ ready
- High-speed ADSL connectivity with integral 4 port switch
- Supports both G.DMT and G.Lite ADSL standards, Annex A
- Up to 8Mbps downstream and up to 1Mbps upstream
- Network Address Translation (NAT)
- Integral Stateful Inspection Firewall
- Integral Intrusion Detection System
- Dynamic port opening for gaming applications
- Browser-based GUI
- PAP/CHAP/MS-CHAP authentication
- Dynamic IP address assignment
- Static IP address assignment
- Dynamic Host Configuration Protocol (DHCP) server/relay/client
- SNMP v1 and v2
- Compact form factor
- Flash upgradable

Model	Dimensions	Weight
AT-ARW256E	N/A	N/A

* Check with your sales representative for availability

AR250 Series ADSL with Multi-port Ethernet LAN



NEW **AT-AR256E**

ADSL Router (Annex A)
ADSL2/2+ ready x 1 port
10/100TX x 4 ports LAN

Features

- ADSL2/2+ ready
- High-speed ADSL connectivity with integral 4 port switch
- Supports both G.DMT and G.Lite ADSL standards, Annex A
- Up to 8Mbps downstream and up to 1Mbps upstream
- Network Address Translation (NAT)
- Integral Stateful Inspection Firewall
- Integral Intrusion Detection System
- Dynamic port opening for gaming applications
- Browser-based GUI
- PAP/CHAP/MS-CHAP authentication
- Dynamic IP address assignment
- Static IP address assignment
- Dynamic Host Configuration Protocol (DHCP) server/relay/client
- SNMP v1 and v2
- Compact form factor
- Flash upgradable



AT-AR250E

ADSL Router (Annex A)
ADSL x 1 port (RJ-11)
10/100TX x 4 ports (RJ45)

Features

- Supports Annex A - ADSL
- Integral 4-port 10/100TX switch

AT-AR255E

ADSL Router (Annex B)
ADSL x 1 port (RJ-11)
10/100TX x 4 ports (RJ45)

Features

- Supports Annex B - ADSL over EURO-ISDN
- Integral 4port 10/100TX switch

Model	Dimensions	Weight
AT-AR250E	17cm x 3.5cm x 11.5cm	.3kg
AT-AR255E	17cm x 3.5cm x 11.5cm	.3kg
AT-AR256E	N/A	N/A

Common features of the AR250E series

- Full rate ADSL G.DMT, up to 8Mbps downstream and 1Mbps upstream
- Supports G.Lite ADSL up to 1.5Mbps downstream and 512kbps upstream
- Single IPSec, PPTP, L2TP
- VPN pass-through
- Built-in Stateful Inspection Firewall
- Intrusion Detection System protects against 'Denial of Service' attacks
- Dynamic Port Opening for gaming and audio/video applications
- Global IP Address pool supported on WAN port
- Network Address Translation (NAT), no-NAT also supported

- DHCP Server/Relay
- DNS Proxy
- Simultaneous USB and Ethernet operation (routed)
- PPP over Ethernet (PPPoE), PPP over ATM (PPPoA)
- Bridged Ethernet over ATM (RFC1483)
- Classical IP, IP over ATM
- Browser-based GUI with on-line 'Help'
- Flash upgrade
- Default Switch

* Check with your sales representative for availability

AR200 Series ADSL with USB



AT-AR240E

ADSL Router (Annex A)
ADSL x 1 port (RJ-11)
10T x 1 port (RJ45)
USB x 1 port

Features

- Supports Annex A - ADSL
- Full rate ADSL G.DMT, up to 8Mbps downstream and 1Mbps upstream
- Supports G.Lite ADSL up to 1.5Mbps downstream and 512kbps upstream
- Single IPSec, PPTP, L2TP
- VPN passthrough
- Built-in Stateful Inspection Firewall
- Intrusion Detection System protects against 'Denial of Service' attacks
- Dynamic Port Opening for gaming and audio/video applications
- Global IP Address pool supported on WAN port
- Network Address Translation (NAT), no-NAT also supported
- DHCP Server/Relay
- DNS Proxy
- Simultaneous USB and Ethernet operation (routed)
- PPP over Ethernet (PPPoE), PPP over ATM (PPPoA)
- Bridged Ethernet over ATM (RFC1483)
- Classical IP, IP over ATM
- Browser-based GUI with on-line 'Help'
- Flash upgrade
- Default Switch

Model	Dimensions	Weight
AT-AR240E	17cm x 3.5cm x 11.5cm	.3kg

Routers



NEW **AT-AR236E**

ADSL Router (Annex A)
 ADSL x 1 port
 Ethernet x 1 port
 USB x 1 port

Features

- ADSL2/2+ ready
- Supports both G.DMT and G.Lite ADSL standards
- Up to 8Mbps downstream and up to 1Mbps upstream
- Stateful Inspection Firewall
- SNMP
- Telnet
- Network Address Translation (NAT)
- IPSec/L2TP/PPTP pass-through
- Browser-based GUI
- PAP/CHAP/MS-CHAP authentication
- Dynamic IP address assignment
- Static IP address assignment
- Dynamic Host Configuration Protocol (DHCP) server/relay/client
- SNMP v1 and v2
- Compact form factor
- Flash upgradable



AT-AR210

USB ADSL Modem (Annex A)
 ADSL x 1 port (RJ-11)
 USB x 1 port

Features

- Supports Annex A - ADSL
- Convenient and affordable
- Up to 8Mbps downstream over existing telephone lines
- Simple installation: USB Plug & Play
- No external power supply required (USB powered)
- All major PC operating systems supported
- Auto-install with automatic PC outside intruder detection
- Supports Full-rate G.DMT as well as G.Lite
- PPP over ATM (PPPoA)
- PPP over Ethernet (PPPoE)
- Bridged Ethernet over ATM (RFC 1483)
- Routed IP over ATM (RFC 1483)

NEW **AT-AR206**

ADSL Router
 ADSL x 1 port
 USB x 1 port



Features

- Convenient and affordable
- USB powered
- Up to 8Mbps downstream and up to 1Mbps upstream
- High-speed access to the Internet or corporate LAN
- Support for multimedia applications
- Ideal for small office / home office applications

Model	Dimensions	Weight
AT-AR206	N/A	N/A
AT-AR210	12cm x 8.4cm x 2.4cm	.15kg
AT-AR236E	N/A	N/A

AR220E Series Broadband Cable/DSL Router



AT-AR220E *

10T × 1 port (RJ45)
10/100TX × 4 ports (RJ45)

Features

- Supports up to 253 LAN users
- External MDI/MDI-X switch
- Supports PPP over Ethernet (PPPoE)
- Virtual server support
- Integral 4 port 10/100TX switch
- DNS Proxy support
- Network Address Translation (NAT)
- DHCP for simple IP address assignment
- DMZ support
- Support PPTP protocol
- External power connector

* Check with your sales representative for availability

AT-AR221E *

10/100TX × 1 port (RJ45)
10/100TX × 4 ports (RJ45)

Features

- Allows multiple users to access the Internet at the same time via a single public IP Address using NAT
- Built-in Stateful Inspection Firewall to protect PCs from outside intruders
- Supports PPPoE and PPTP allowing users to seamlessly connect to ISPs with the user familiar 'dial-up' type connection interface
- Supports DHCP client to receive both a dynamic IP address and a fixed IP address from ISP
- Built-in DHCP server to automatically assign and manage LAN IP addresses
- Allows external Internet users to access information from an integral target host using the Virtual server option
- Provides unrestricted two-way communication between one PC on the LAN and certain Internet services like conferencing, video and gaming applications
- Supports UPnP
- Supports SNMP Management

Model	Dimensions	Weight
AT-AR220E	17cm × 10cm × 3.1cm	.5kg
AT-AR221E	14.1cm × 11.2cm × 2.6cm	.5kg



The Integrated Multi-service Gateway

The increase in availability of high-bandwidth Broadband data services from telecommunication providers has presented an opportunity for the delivery of high-quality VoIP, video and data services over existing infrastructure.

For a consumer to be able to take advantage of these converged 'Triple Play' services, a device more sophisticated than a data-optimised modem must be used to terminate the high bandwidth connection at the home or business and enable delivery of next-generation revenue generating services. This new multi-service gateway device should

- support high-quality convergence of voice, video and data traffic over copper or fibre deployments
- be easy to support and to reconfigure remotely when new subscription services are taken up
- be cost effective, minimising CAPEX for service providers rolling this solution out
- be able to connect to a number of devices in the home or office, operating on diverse protocol platforms.

This device is the AT-Residential Gateway; an integrated voice, video and data device. Where Triple Play services are offered, the AT-RG enables access to high-quality multiple services through one gateway device. The AT-RG can be connected to PC's for Internet access, analogue or ISDN telephones for VoIP and to 'set top boxes' for video services.

The Zero Touch Configurator (ZTC) software platform from Allied Telesyn eliminates the need for truck-rolls and on-site technical resource. Once deployed in the operations centre, the scalable and fully-resilient ZTC platform remotely enables the easy configuration, provisioning and deployment of Residential Gateways scaling from hundreds to millions of users.

ZTC Zero Touch Configurator

AT-ZTC500

Zero Touch Configurator up to 500 endpoints

AT-ZTC5000

NEW

Zero Touch Configurator up to 5000 endpoints

AT-ZTCUPGRADE

Zero Touch Configurator software and license for unlimited endpoints

AT-ZTCUNLIMITED

Zero Touch Configurator unlimited users version

Fibre application

SH (single-mode) version

LH (multi-mode) version

Copper application

TX version

Common features of the ZTC software series

- Support for RG200 and RG600 series device
- Multiprotocol (TFTP, HTTP, HTTPS)
- Support for High Availability and Fault Tolerance
- Horizontal and vertical scalability
- Flexibility
- Security and user profiling
- Creation of views on configuration data
- Minimum server
 - Processor speed of 2GHz (dependent on number of managed devices)
 - 1GB RAM recommended
 - 20GB hard disk
 - OS - Linux Red Hat Enterprise AS and ES
- 256MB RAM (512MB recommended)
- 20GB Hard disk
- OS - Linux Red Hat 7.2 or Suse 8.1

Residential Gateway Products and Components

Passive Part

AT-RG001 Fibre Outlet (10 pieces)
for dual fibre models

AT-RG002 Fibre Outlet (10 pieces)
for single fibre models

Splice Fibre Outlet Kit

AT-RG010 Single-mode Fusion Splice

AT-RG011 Multi-mode Fusion Splice

AT-RG020 Single-mode Mechanical Splice

AT-RG021 Multi-mode Mechanical Splice

Accessories

AT-RG005 Battery Back-up

AT-RG005G Grounded Battery Back-up
(NA 3 prong AC connector)

AT-RG007 Battery Back-up Cable

AT-RGCONSOLECABLE

Residential Gateway

RG600 Series Residential Gateway



AT-RG613

10/100TX or SH/LH/BD x 1 WAN port
10/100TX x 3 Eth. ports
FXS x 2 ports

AT-RG623

10/100TX or SH/LH x 1 WAN port
10/100TX x 3 Eth. ports
ISDN BRI x 1 port

AT-RG623BD

10/100BX x 1 WAN port
10/100TX x 3 Eth. ports
ISDN BRI x 1 port

MG600 Series Residential Gateway

NEW **AT-MG646BD/SH**

100FX x 1 SM BiDi/SH WAN port
10/100TX x 6 Eth. ports
FXS x 4 ports



AT-RG624A/634A

ADSL2+ x 1 port (RJ-11) Annex A
10/100TX x 4 Eth. port
FXS x 2 ports (AT-RG634 only)

AT-RG624B/634B

ADSL2+ x 1 port (RJ45) Annex B
10/100TX x 4 Eth. ports (RJ45)
FXS x 2 ports (RJ-11)

AT-RG644A

ADSL x 1 WAN port Annex A
10/100TX x 4 Eth. ports (RJ45)
ISDN LTS BRI x 1 port

AT-RG644B

ADSL x 1 WAN port Annex B
10/100TX x 4 Eth. ports (RJ45)
ISDN LTS BRI x 1 port

AT-RG656BD/SH

100FX x 1 SM BiDi WAN port
10/100TX x 6 Eth. ports (RJ45)
FXS x 3 ports

Common features of the RG600 & MG600 series

- Tag-based IEEE 802.1Q VLAN support
- Layer 2 - 3 QoS
- IGMP snooping and proxying
- PPPoE protocol support
- DHCP client, server and relay support
- UpnP IGD profile support and NAT traversal
- Network Address Translation (NAT)
- Stateful Inspection Firewall
- H.323, SIP, MGCP protocol support
- G.711, G.726, G.729 and G.723 (optional)
- T.38 fax operation
- External power supply
- External Battery Backup support (optional)

Model	Dimensions	Weight
AT-MG646BD/SH	N/A	N/A
RG120 series	19.8cm × 14.9cm × 4.6cm	.45kg
AT-RG213	19.8cm × 14.9cm × 4.6cm	.45kg
AT-RG613SH/LH/BD	23.5cm × 5cm × 14.4cm	.45kg
AT-RG623SH/LH	23.5cm × 5cm × 14.4cm	.45kg
AT-RG613/623TX	19.8cm × 14.9cm × 4.6cm	.45kg
AT-RG624A/B	19.8cm × 14.9cm × 4.6cm	.45kg
AT-RG634A/B	19.8cm × 14.9cm × 4.6cm	.45kg
AT-RG644A/B	19.8cm × 14.9cm × 4.6cm	.45kg
AT-RG656BD	19cm × 6cm × 29.4cm	2.14kg

RG200 Series Residential Gateway

AT-RG213

10/100TX or FX × 1 WAN port
 10/100TX × 3 Eth. ports
 FXS × 2 ports
 PSTN × 1 line port

Features

- IGMP v1/v2 Multicast support
- Tag-based IEEE 802.1Q VLAN support
- Codec include G.711, G.723 and G.729 (optional)
- L2TP access concentrator
- H.323, SIP, MGCP/INCS protocol support

RG120 Series Residential Gateway

AT-RG121/124LH

10/100FX × 1 WAN port (single-mode)
 10/100TX × 1 Eth. port (AT-RG121LH)
 10/100TX × 4 Eth. ports (AT-RG124LH)

AT-RG121/124SH

10/100FX × 1 WAN port (multi-mode)
 10/100TX × 1 Eth. port (AT-RG121SH)
 10/100TX × 4 Eth. ports (AT-RG124SH)

Common features of the RG120 series

- Wirespeed technology
- Auto-negotiation ports
- Auto MDI/MDI-X ports
- Transparent to VLAN packets
- Single and multi-mode fibre options
- External power supply
- Locking power connector



VoIPtalk™

IP telephony

VoIPtalk™ is Allied Telesyn's Voice over IP networking solution for the enterprise, scaling from the smallest remote office to the busiest central site. VoIPtalk™ components include telephone/IP gateways, PSTN/IP gateways and the management software required to control the operation of these networks.

VoIPtalk™ is designed to dramatically reduce telecommunications costs, since calls are re-routed through data networks instead of standard telephone networks. Outlay is minimal as VoIPtalk™ fully utilises existing telecommunications equipment and IP data networks. VoIPtalk™ products interwork seamlessly with Allied Telesyn's comprehensive range of Wide Area Network routers.

AT-VP500 SIP Server Software

The AT-VP500SIPSERVER is a SIP redirect server designed to provide connectivity between IP Telephony endpoints in networks composed of VoIPtalk™ units. It uses the SIP (Session Initiation Protocol) protocol, which is a simple signalling protocol for Internet conferencing and telephony.

AT-VP500SIPSERVER allows a Network Manager to administer a VoIP network running VoIPtalk™ units from one central location. It supports the following Class 5 services :

- Call display
- Call waiting
- Visual call waiting
- Call forwarding
 - Busy
 - No answer
 - Preferred
- Speed dialing
- Call transfer

AT-VP500SIPSERVER020

Software license for 20 users

AT-VP500SIPSERVER040

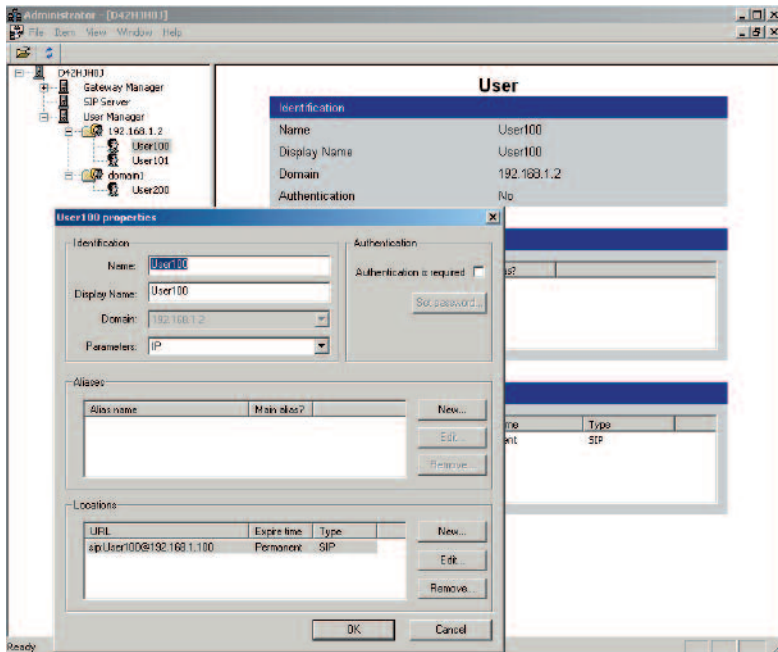
Software license for 40 users

AT-VP500SIPSERVER120

Software license for 120 users

AT-VP500SIPSERVERMX

Software license for unlimited users



AT-VP500 Unit Network Manager

The Unit Network Manager for the VP600 series is a user friendly element management system designed to facilitate the deployment, configuration and provisioning of Allied Telesyn VoIP access device and gateways.

AT-VP500UNM020

To manage up to 20 devices

AT-VP500UNM040

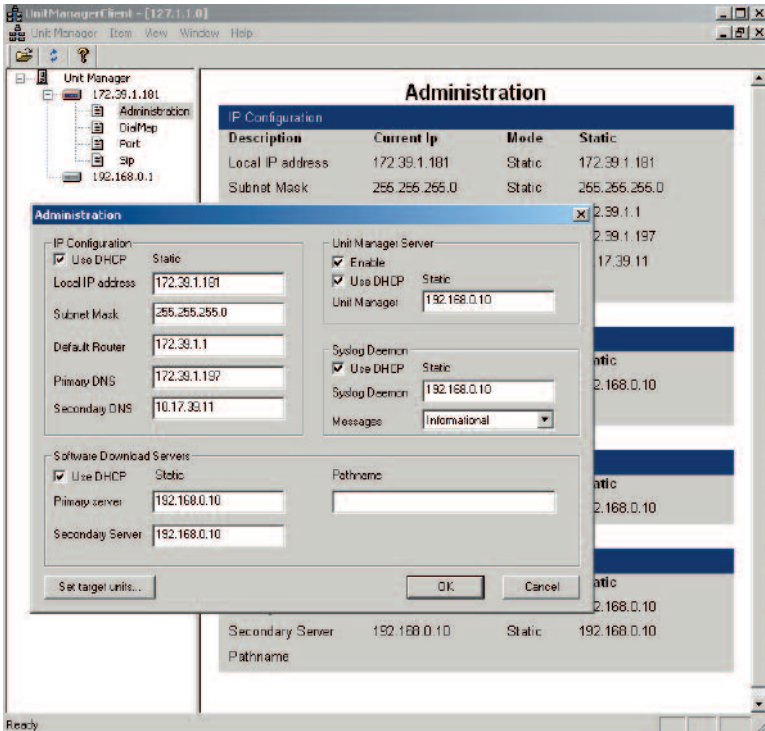
To manage up to 40 devices

AT-VP500UNM120

To manage up to 120 devices

AT-VP500UNMMX

To manage up to 1000 devices



VP600 Series IP Telephony/Voice over IP



AT-VP604E FXS

10/100TX x 1 port (RJ45)
FXS x 4 ports (RJ-11)
PSTN bypass x 1 port (RJ-11)

Features

- Supports up to four attached analogue devices i.e. phone, G3 fax, modem
- Supports standard vocoders G.711 (A-law, μ -law), G.723.1, G.729 a,b,e
- PSTN bypass in event of power failure
- Country-specific dial and busy tones

AT-VP604E FXO

10/100TX x 1 port (RJ45)
FXO x 4 ports (RJ-11)

Features

- Supports up to four analogue PSTN lines
- Supports standard vocoders G.711 (A-law, μ -law), G.723.1 (5.3kbps and 6.4kbps)
- Real-time Transport Protocol (RTP) for voice streaming
- Differentiated Services Code Point (DSCP) for Quality of Service
- IEEE 802.1Q VLAN tagging
- Loop Start and Ground Start supported

Common features of the VP604E series

- Compliant with SIP, H.323 and MGCP
- DHCP for simple IP address assignment
- Supports user-specific profiles
- Status LEDs
- QoS: IEEE 802.1Q, DiffServ support
- Management: SNMPv2, TFTP support

AT-VP624E FXS

10/100TX x 1 port (RJ45)
Analogue devices (FXS) x 24 ports (RJ21 Telco)
Bypass PSTN x 1 port (RJ-11)

Features

- Compliant SIP, MGCP/INCS
- Supports up to four attached analogue devices i.e. phone, G3 fax, modem
- Supports standard vocoders G.711 (A-law, μ -law), G.723.1, G.729 a,b
- PSTN bypass in event of power failure
- Country-specific dial and busy tones
- QoS: IEEE 802.1Q, DiffServ support
- Management: SNMPv2, TFTP support

Model	Dimensions	Weight
AT-VP604E FXS	26cm x 18cm x 5.5cm	.6kg
AT-VP604E FXO	26cm x 18cm x 5.5cm	.6kg
AT-VP624E FXS	43cm x 21cm x 4.4cm	1.7kg

VP700 Series VoIP Gateway



AT-VP708-20

8-channel BRI VoIP Gateway
4 ISDN BRI/So (S/T) RJ45
Up to 8 simultaneous calls

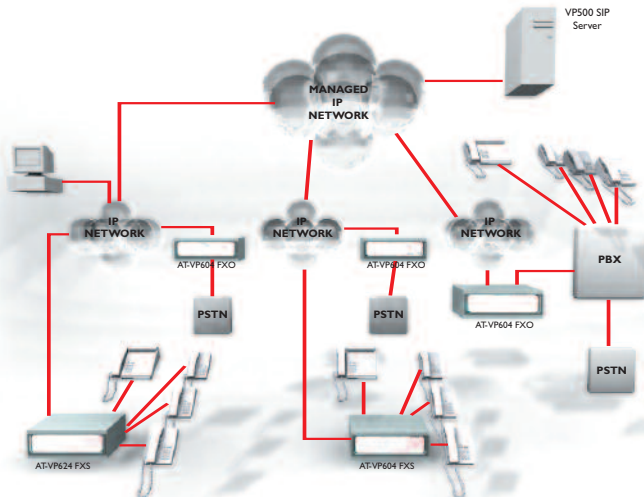
AT-VP730-20

30-channel E1/PRI VoIP Gateway
4 ISDN PRI (S/T) RJ45
1 ISDN BRI/PRI (NT or TE)
Up to 60 simultaneous calls

Features

- Transparent ISDN/QSIG tunnelling
- User programmable call handling
- Deployable in SIP or H.323 VoIP networks
- CLI, SNMP, Telnet and TFTP for configuration and management
- RS232 console port for configuration
- Fax over IP support, including T.38
- Multiple codec support (G.711, G.723.1, G.726, G.729ab)
- Multiple LEDs for status indication at a glance
- Universal 100–240VAC power supply

Model	Dimensions	Weight
AT-VP708	22cm x 16cm x 4cm	.6kg
AT-VP730	44cm x 26.5cm x 4cm	1.73kg



Business-class Multi-line IP Speaker Phone

The AT-VH480i is a business class multi-line IP speaker phone offering versatility, integration and exceptional value.

The AT-VH480i is constructed with the highest quality material providing long lasting durability and reliability. This sleek, ergonomically pleasing telephone has the expected weight and characteristics of a business class device.

AT-VH480i IP Telephone

NEW



AT-VH480i-xxxx

10/100TX x 2 Ethernet ports

xxxx = SIP for generic SIP firmware
 MGCP for Allied Telesyn Spherical
 MGCP firmware

Features

- Web configuration
- Multiprotocol support
- Access to display-based interactive services
- Enhanced BLF (Busy Lamp Field)
- Call Display, Visual Call Waiting, and Visual Call Waiting Options
- Hands free Speakerphone with Mute
- 100-name and number Callers List
- 200-name and number Directory List
- 10-number Redial List
- Large eight-line backlit display with six display keys
- Dedicated Headset port for use with PC type headset with microphone
- Flash (Link, Switch or Answer) for getting Call Waiting calls
- Multi-function indicator light (Incoming Call, Extension-in-use, Message Waiting, and Hold)
- Copy key for saving Callers List information into the Directory
- Options key - nine programmable features
- On-hook dialling

- Goodbye key
- Current date and time display
- Contrast control for the Display Screen
- Ringer, Speaker and Receiver (Handset) volume controls
- Desk or wall mountable
- English/French/Spanish language choices
- Hearing aid compatible
- ADA compliant

Enhanced productivity

Maximise your productivity while minimising training time with the AT-VH480i easy-to-follow visual prompts. Instantly know whether someone is available to answer a call with the screen-based Busy Line Field icons. Juggle up to four calls with call appearance lights. Gain access to advanced telephone features at the touch of your fingertips, and manage your calls with confidence.

User friendly screen menus

The large backlit display and six soft keys guide you effortlessly through the powerful features of the Allied Telesyn IP-PBX Spherical system. No codes to memorise, no need to constantly refer back to manuals, simply follow the screen menu visual prompts using the six soft keys.

High performance and flexibility

Two switched Ethernet ports are included, providing connections for one LAN facing IEEE 802.11af power over Ethernet port and one PC facing 10/100TX RJ45 Ethernet port. This configuration allows for a local PC to share a single LAN connection with the AT-VH480i.

The AT-VH480i works in any Ethernet/IP environment and supports SIP and MGCP VoIP standards.

Model	Dimensions	Weight
AT-VH480i	11cm x 18cm x 11cm	.91kg



Network Management & Software

Allied Telesyn's software offerings allow effective monitoring and proactive management of both small and large networks. GUI-based, point-and-click interfaces make report generation a snap. Reduce network downtime costs by identifying problems quickly.

TN NMS 5.0 Network Management Software

For today's complex networks, TN NMS allows users to manage all network components from one screen in a user-friendly format.

A product for everyone's needs.

The TN NMS meets today's business requirements for the control and operation of Allied Telesyn's family of Internet routers and switches. Via a user-friendly interface, TN NMS will substantially decrease the time required for deployments and provisioning of large networks, spanning into more efficient operations of existing networks with numerous benefits such as:

Rapid Deployment — via features such as template downloads (future) and flow-through provisioning (future), upgrading equipment or turning up new services becomes a snap with the TN NMS.

Improved Network Management — using the extensive fault management and provisioning features of TN NMS the operators can easily monitor and maintain the Allied Telesyn systems and interfaces.

Security Management — manages individual users and user groups and applies security policies to each: read-only, read-write and admin. Also creates security audit trails for tracking purposes.

Network Management & Software

Main features

- Network Discovery and Topology
- One Touch Installation (future)
- Security Management
- Fault Management
- Configuration Management
- Performance Monitoring
- Inventory Management
- Distributed Server Configuration
- Alarm Support
- Backup and Restore
- VLAN Provisioning and Monitoring
- File Export
- E-mail notification Service
- HP OpenView Integration
- Database Support – MySQL (Oracle future)
- Network Service Provisioning
- Northbound Management (future)

Supported Devices

AT-RP24i
AT-9812T
AT-9816GB
AT-SB4104
AT-SB4108
TELESYN 7000
TELESYN 9000

Ordering Information

AT-TN-605-0S NMS R5.0 Single Server product
AT-TN-605-0M NMS R5.0 Distributed Server product

The Platinum software is intended for Service Providers and includes

- Network-wide VLANs
- Port Management
- Card Management

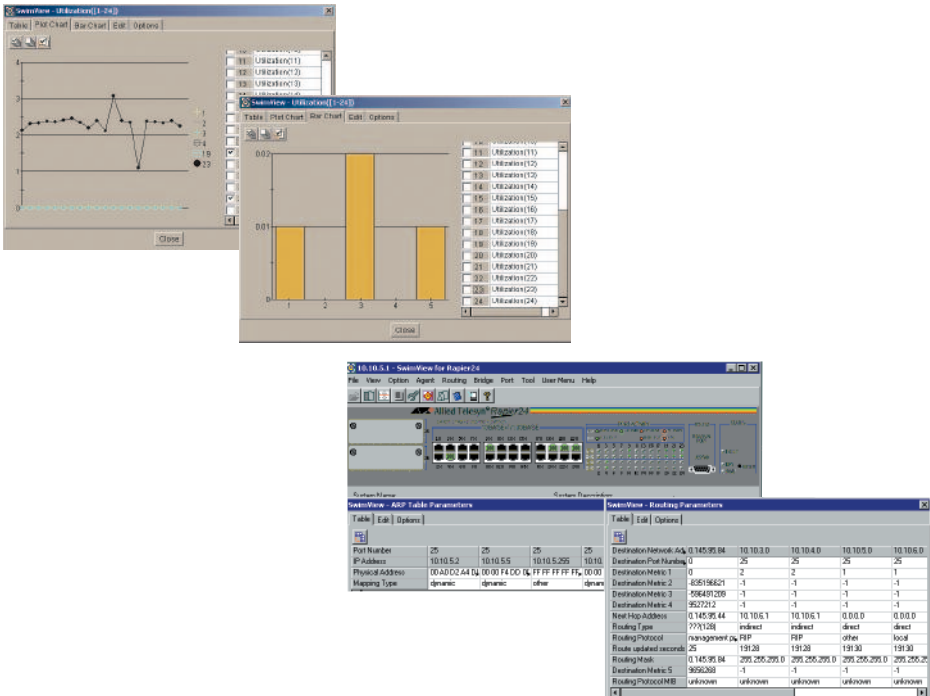


AT-View Plus 3.2 Network Device Management Software

AT-View Plus is the new, Java-based network device management solution from Allied Telesyn. Whether managing a large network distributed across multiple sites with HP OpenView or small networks with only a handful of nodes, AT-View Plus provides the tools needed to effectively monitor and proactively manage Allied Telesyn's intelligent networking products.

Features

- GUI interface
- Detailed agent viewer
- Real-time device/port status
- Configuration tools
- Drill-down functionality
- MIB Browser
- Supports four main RMON groups
- Reporting and graphical tools
- Supports NMS alarms
- Programming interfaces
- Java-based, multi-platform
- Works with HP OpenView
- Castle Rock SNMPc support



Supported Devices

These are updated frequently, so contact your Allied Telesyn sales representative or visit www.alliedtelesyn.com to get all the latest updates.

HUBS

AT-FH1812u
AT-S48 v2.04
AT-FH1824u
AT-S48 v2.04

ROUTERS

AT-AR240E
AT-AR250E
AT-AR255E
AT-AR300
AT-AR300L
AT-AR320
AT-AR350
AT-AR370S
AT-AR370U
AT-AR410
AT-AR440S (new)
AT-AR441S (new)
AT-AR450S
AT-AR720
AT-AR725
AT-AR725-DC
AT-AR740
AT-AR740-DC
AT-AR745
AT-AR745-DC
AT-AR750S (new)

LAYER 2 SWITCHES

AT-8012M
AT-8012M-QS (new)
AT-8016F/MT
AT-8016F/SC
AT-8016F/ST
AT-8024
AT-8024GB
AT-8024M
AT-8026FC
AT-8026T
AT-8088/MT
AT-8088/SC
AT-8124
AT-8124XL (V2)
AT-8216FXL/SC
AT-8224XL
AT-8324
AT-8324SX
AT-8326GB
AT-8350GB
AT-8400
AT-8403
AT-8411
AT-8412
AT-8412
AT-8413
AT-8414
AT-8414
AT-9006T
AT-9410GB

LAYER 2+ SWITCHES

AT-8524M (new)
AT-8550GB (new)
AT-8550SP (new)
AT-8724XL
AT-8724XL-DC
AT-8748XL
AT-8748XL-DC
AT-9424T/GB (new)
AT-9424T/SP (new)

LAYER 3 SWITCHES

AT-8624T/2M (new)
AT-8824
AT-8848
AT-8948
AT-9724TS (new)
AT-9748TS/XP (new)
AT-9812T
AT-9812T-DC
AT-9812TF
AT-9816GB
AT-9816GB-DC
AT-9816GF
AT-9924SP (new)
AT-9924T (new)
AT-9924T/4SP (new)
Rapier 16F/MT
Rapier 16F/SC
Rapier 24
Rapier 24i
Rapier 48
Rapier 48i
Rapier G6
Rapier G6FLX/SC
Rapier G6FSX/MT
Rapier G6FSX/SC
AT-SB4004 AC
AT-SB4004 DC
AT-SB4008 AC
AT-SB4008 DC
AT-SB4151
AT-SB4152
AT-SB4211
AT-SB4215
AT-SB4311
AT-SB4352
AT-SB4411
AT-SB4412
AT-SB4441
AT-SB4451
AT-SB4452
AT-SB4461
AT-SB4462

MEDIA CONVERTERS

AT-MCF06
AT-MCF12
AT-MCF106
AT-MCF112
AT-MPB3000 MPB
AT-MCM100-01SC
AT-MCM100-01ST
AT-MCM100-01SMR
AT-MCM100-01SMRF15
AT-MCM100-02SC
AT-MCM100-02ST
AT-MCM100-02SMR
AT-MCM100-02SMRF15
AT-MCM100-01SC
AT-MCM100-01ST
AT-MCM100-01SMR
AT-MCM100-01SMRF15
AT-MCM100-02SC
AT-MCM100-02ST
AT-MCM100-02SMR
AT-MCM100-02SMRF15
AT-MCM1000S-LX1
AT-MCM1000S-LXF15
AT-MCM1000T-LX1
AT-MCM1000T-LXF15
AT-MPB100TF/2
AT-MPB100TF/15
AT-MPB100TFS/15
AT-MPB1000SL/10
AT-MPB1000SL/10
AT-MPB1010TL/10
AT-MPB1010TL/10
AT-PBC18
AT-PB13
AT-PB14
AT-PB15
AT-PB101
AT-PB102
AT-PB103/1
AT-PB103/2
AT-PB201
AT-PB202
AT-PB202/1
AT-PB202/3
AT-PB202/4
AT-PB301
AT-PB1001/1
AT-PB1001/3
AT-PB1005G

RESIDENTIAL GATEWAYS

AT-RG213FX
AT-RG213TX
AT-RG613SH
AT-RG613TX
AT-RG634A
AT-RG656BD

ACCESSORIES

Gigabit Interface Converters (GBICs)
AT-G8

Optional Gigabit Expansion modules

ATA14
ATA15SX
ATA15LX
AT-A35LX/SC
AT-A35SX/SC
AT-A39T
AT-A42/GBIC
AT-A46
AT-A47
AT-B15/LX
AT-B15/SX

Port Interface Cards (PICs)

AT-AR020
AT-AR021 (S)
AT-AR021 (L)
AT-AR022
AT-AR023
AT-AR024
AT-AR026
AT-AR027

Network Service Modules (NSMs)

AT-AR040
AT-AR041
AT-AR042

Optional Fast Ethernet Expansion modules

AT-A16
AT-A17
AT-A18
AT-A19
AT-A40/SC
AT-A40/MT
AT-A41/SC
AT-A41/MT
AT-A45/MT
AT-A45/SC
AT-A45/SC-SM15 (new)
AT-B17

Power Accessories

AT-BRPS8000
AT-FPS5033A
AT-FPS5033D
AT-PBPVWRAC
AT-PVWR10
AT-PVWR11
AT-PVWR8000
ATR-G005
AT-RPS740
AT-RPS8000
AT-RPS9000

Management modules

AT-8401
AT-BMGMT
AT-MCM02
AT-MMM-01
AT-PBM02
AT-SB4211

Stacking modules

AT-BSTACK1
AT-STACK8
AT-STACKM

Castle Rock SNMPc 7.0 Network Management Software

Scalable, distributed management suite for managing small to large sized networks. Supports AT-View Plus.

SNMPc Enterprise

Up to 25,000 nodes

Windows XP/2000/NT Recommended

E-mail/pager event notification, advanced event actions, sophisticated trend reporting, full RMON-1 application and more make SNMPc Enterprise edition a powerful tool for managing large, distributed networks.

SNMPc WorkGroup

Up to 1,000 nodes

Windows XP/2000/NT/ME/98

Leverage many of the same features as the Enterprise edition in this affordable version of SNMPc, designed for a single user managing a small to medium sized network.

Ordering Information

AT-VPSNMPcWKGP-SSI

Bundle Package Object Network management system:

- AT-View Plus 3.0 + SNMPc Workgroup 7.0.
- Includes Silver Software Support Program 1 year for AT-VIEW PLUS product only

AT-VPSNMPcCENT-SSI

Bundle Package Object Network management system:

- AT-View Plus 3.0 + SNMPc Enterprise 7.0.
- Includes Silver Software Support Program 1 year for AT-VIEW PLUS product only

AT-VIEWPLUSV3

Java Based Object Manager Network management system v3.0 - Full version Includes Silver Software Support Program 1 year

AT-VIEWPLUSUPG-SSI

Upgrade from ATVP 1.4 to ATVP 3.0.
Active software support required

AT-SNMPcWKGPV7

Castle Rock SNMPc Workgroup Edition, Ver. 7.0 - Windows support

AT-SNMPc-WKGRP UPG

Castle Rock SNMPc Workgroup Edition, Ver. 7.0
UPGRADE ONLY Purchase proof SNMPc required

AT-SNMPcCENTV7WKGPUPGD

CastleRock SNMPc Workgroup to Enterprise upgrade

AT-SNMPcCENTV7

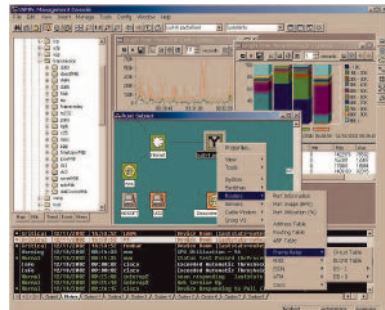
Castle Rock SNMPc Enterprise Edition Ver. 7.0, including Remote Console and Remote Poller

AT-SNMPcCENTV7RAX

Castle Rock SNMPc Remote Access Console (Java + unlimited logins)

AT-SNMPcCENTXTSW

CastleRock SNMPc Enterprise upgrade to Enterprise Ver. 7.0.



AT-Upgrade Manager Network Device Management Software

AT-Upgrade Manager is a new, Java-based application that allows for fast and efficient distribution of software upgrades and patches for Allied Telesyn devices. It automates the process of loading and activating software releases - both major and interim - and patches over multiple devices. It does this by allowing associated devices to be grouped together and after being supplied with the necessary license keys generated from WebGen, automatically applies the license keys to the grouped devices.

Features

- *Audit trail*
- *Operation rollback*
- *Operation scheduling*
- *Serial number and model information retrieval*
- *Intuitive Graphical User Interface*
- *Software release upgrades over multiple devices*
- *Patch application over multiple devices*
- *Interim release upgrades over multiple devices*
- *Configuration file update over multiple devices*
- *GUI resource file update over multiple devices*
- *System help file update over multiple devices*
- *Enabling of features on multiple devices*
- *Serial number export ability*
- *Multiple-device reboot*
- *Support for Allied Telesyn devices*

AT-SWUPGRDMGR

AT-Upgrade Manager version 1.3

Supported Devices

ROUTERS

AT-AR300	AT-AR395
AT-AR300L	AT-AR410
AT-AR320	AT-AR440S
AT-AR330	AT-AR450S
AT-AR350	AT-AR720
AT-AR370(S)	AT-AR725
AT-AR370(L)	AT-AR740
AT-AR390	AT-AR745

LAYER 2 SWITCHES

AT-8012M	AT-8026T
AT-8012M-QS	AT-8026FC
AT-8016F/MT	AT-8088/MT
AT-8016F/SC	AT-8088/SC
AT-8016F/ST	AT-8326GB
AT-8024	AT-8350GB
AT-8024GB	AT-8400
AT-8024M	

LAYER 2+

AT-8516F/SC	AT-8724XL
AT-8524M	AT-8748XL
AT-8550GB	AT-9424T/GB
AT-8550SP	AT-9424T/SP

LAYER 3 SWITCHES

AT-8824	Rapier 24i
AT-8848	Rapier 48
Rapier 16f/MT	Rapier 48i
Rapier 16f/SC	Rapier 66
Rapier 16fi/MT	Rapier G6FLX/SC
Rapier 16fi/SC	Rapier G6FSX/MT
Rapier 24	Rapier G6FSX/SC

LAYER 3+ SWITCHES

AT-8948

LAYER 3/4+ SWITCHES

AT-9812T AT-9816GB

LAYER 4+ SWITCHES

AT-SB4004 AT-SB4008

AT-AR01x & AT-AR06x

Hardware Enabled Encryption and Compression Cards

AT-AR01i

Encryption DES, 3DES and HMAC
+ Compression card

AT-AR06I

Encryption DES, 3DES and HMAC
+ Compression high performance card

Encryption features

- Dedicated processor based 56-bit key DES (Data Encryption Standard) Cipher Block Chaining Mode algorithm
- Unaffected by the U.S. State Department 'Key Recovery System' which requires key encryption details to be lodged with a third party organisation
- Encryption keys created by cryptographically secure hardware generator
- Key management and distribution:
 - Network key
 - 160 master key table
 - Session key

Authentication

- 128-bit key MD5

Compression features

- STACKER LZS adaptive loss-less data compression
- Compatible with Network iQ software compression
- Up to 8:1 data compression for high-speed file transfer
- FIPS PUB46
- ISO DEA-1
- ANSI X3.92

Accelerator Card compatibility:

	AT-AR01i-ECMAC	AT-AR06I-ECPAC
AT-AR3xx	●	
AT-AR410	●	
AT-AR720	●	
AT-AR725		●
AT-AR740	●	●
AT-AR745		●
Rapier 24/24i		●
Rapier 16f/16fi		●
AT-8948		●

All Allied Telesyn encryption products are subject to Export Approval restrictions and should not be re-exported without the approval of the appropriate national government authority. Allied Telesyn encryption products are available via accredited security partners.

Type of encryption and hashing mode supported by accelerator cards:

		AT-AR01 i-ECMAC	AT-AR06 I-ECPAC
Compression	LZS	Hw	Hw
Encryption	DES CBC	Hw	Hw
	3DES2Key	Hw	Hw
	3DESInner	Hw	Hw
	3DESOuter	Hw	Hw
HMAC Hashing	HMAC-DESMAC	Hw	Hw
	HMAC-MD5	Hw	Hw
	HMAC-SHA-1	Hw	Hw

Encrypted Channel supported by EMAC and PAC accelerator card:

	AT-AR01 i	AT-AR06 I
AT-AR3xx	511	
AT-AR410/AR410S	1024	
AT-AR725/AR745	1024	1024
Rapier 16/24i		2048
AT-8948		2048

Features of Basic AlliedWare™

FEATURE	AR300	AR400	AR450S	AR700	AR750S	8600	8800	8948	9800	9924	RAPIER	SWITCHBLADE
Generic Attribution Registration Protocol (GARP)	●	●	●	●	●	●	●	●	●	●	●	●
General Packet Classifier			●		●	●	●	●	●	●	●	●
Quality of Service		●		●	●	●	●	●	●	●	●	●
Point-to-Point Protocol (PPP)	●	●	●	●	●		●	●	●	●	●	●
PPPoE	●		●	●	●		●	●	●	●	●	●
Frame Relay	●			●	●				●		●	●
Integrated Services Digital Network (ISDN)	●	●			●							
X.25	●	●		●	●				●		●	●
Synchronous Tunneling	●	●		●	●						●	
Internet Protocol (IP)	●	●	●	●	●	●	●	●	●	●	●	●
IP Multicasting	●	●	●	●	●			●	●	●	●	●
Novell IPX	●	●	●	●	●		●	●	●		●	●
DECnet	●	●	●	●	●							
Terminal Server	●	●	●	●	●	●	●	●	●	●	●	●
Printer Server	●	●		●						●	●	●
RIP	●	●	●	●	●	●	●	●	●	●	●	●
Open Shortest Path First (OSPF)	●	●	●	●	●		●		●	●	●	●
Bridging	●	●	●	●	●	●	●	●	●	●	●	●
Test Facility	●	●	●	●	●			●	●	●	●	●
Network Time Protocol (NTP)	●	●	●	●	●	●	●	●	●	●	●	●
Asynchronous Call Control (ACC)	●	●	●	●			●				●	
Generic Routing Encapsulation	●	●	●	●	●		●	●	●		●	●
Trigger Facility	●	●	●	●	●		●	●	●	●	●	●
AppleTalk	●	●	●	●	●		●	●	●		●	●
Time Division Multiplexing (TDM)	●	●	●	●	●						●	
Logging Facility	●	●	●	●	●	●	●	●	●	●	●	●
Scripting	●	●	●	●	●		●	●	●	●	●	●
Telephony Services	●	●		●							●	
HTTP Server	●	●	●	●	●	●	●	●	●	●	●	●
HTTP Client	●	●	●	●	●	●	●	●	●	●	●	●
TFTP Client	●	●	●	●	●	●	●	●	●	●	●	●
TCP	●	●	●	●	●	●	●	●	●	●	●	●
Command Line Interface (CLI)	●	●	●	●	●	●	●	●	●	●	●	●
Graphical User Interface (GUI)		●	●	●	●	●	●		●		●	●
VLAN		●	●	●	●	●	●	●	●	●	●	●
STP		●	●	●	●	●	●	●	●	●	●	●
RSTP		●	●		●	●	●	●	●	●	●	●
Dynamic Host Configuration Protocol (DHCP)	●	●	●	●	●	●	●	●	●	●	●	●
Layer 2 Tunneling Protocol (L2TP)	●	●	●	●	●	●	●	●	●	●	●	●
Simple Network Management Protocol (SNMP)	●	●	●	●	●	●	●	●	●	●	●	●
Transaction Packet Assembler Disassembler (TPAD)	●	●	●	●	●						●	
Resource Reservation Protocol (RSVP)	●	●	●	●	●		●			●		●
Encryption Service	●	●	●	●	●	●	●	●	●	●	●	●

Layer 3 Fully Featured Operating System

FEATURE	AR300	AR400	AR450S	AR700	AR750S	8600	8800	8948	9800	9924	RAPIERi	SWITCHBLADE
Compression Service	•	•	•	•	•	•	•	•	•	•	•	•
IP Security (IPSec)	•	•	•	•	•		•				•	
Virtual Router Redundancy Protocol (VRRP)	•	•	•	•	•	•	•	•	•	•	•	•
Open Systems Interconnection (OSI)	•	•	•	•	•			•	•			•
Secure Sockets Layer (SSL)	•	•	•	•	•	•	•	•	•	•	•	•
Internet Group Management Protocol (IGMP)	•	•	•	•	•	•	•	•	•	•	•	•
IGMP PROXY	•	•	•	•	•	•	•				•	
PIM-SM	•	•	•	•	•		•	•	•	•		•
PIM-DM	•	•	•	•	•		•	•	•	•		•
DVMRP	•	•	•	•	•		•	•	•	•	•	•
ISAKMP	•	•	•	•	•		•	•		•	•	•
Compact Flash				•				•	•	•		
Secure Shell (SSH)	•	•	•	•	•	•	•	•	•	•	•	•

AlliedWare[™] is Allied Telesyn's operating system, which supports the range of routing and switching products. AlliedWare[™] consists of a core set of features with the added flexibility of having the ability to upgrade through purchasing upgrade bundles as outlined in this catalogue on page 94.

Features option description

Novell IPX	Connectionless datagram protocol based as the transport mechanism.
AppleTalk	From within the Macintosh desktop environment,AppleTalk provides internetworking for Macintosh computers and other peripheral devices using LocalTalk media.
RSVP	Signalling protocol designed to provide guaranteed QoS (Quality of Service) for network traffic.To allow hosts and applications that do not support RSVP to take advantage of RSVP services, AlliedWare™ implements a RSVP proxy agent.
DVMRP	Internet routing protocol that provides an efficient mechanism for connectionless datagram delivery to a group of hosts across an internetwork. It is a distributed protocol that dynamically generates IP Multicast delivery trees using a technique called Reverse Path Multicasting (RPM).
PIM-DM	PIM Dense Mode is similar to DVMRP in that it employs the RPM algorithm. However; the differences between PIM-DM and DVMRP are: PIM-DM relies on the presence of an existing unicast routing protocol to provide routing table information to build up information for the multicast forwarding database, but it is independent of the mechanisms of the specific unicast routing protocol. In contrast, DVMRP contains an integrated routing protocol that makes use of its own RIP-like exchanges to compute the required unicast information. Unlike DVMRP,PIM-DM simply forwards multicast traffic on all downstream interfaces until explicit prune (un-join) messages are received.PIM-DM accepts the overhead of broadcast-and-prune in the interests of simplicity and flexibility and of eliminating routing protocol dependencies.
PIM-SM	PIM Sparse Mode provides efficient communication between members of sparsely distributed groups – the type of groups that are most – common in wide-area internetworks.PIM-SM is designed to limit – multicast traffic so that only those network devices interested in – receiving traffic for a particular group receive the traffic.

Layer 3 Fully Featured Operating System

IGMP	Protocol used between hosts and multicast routers and switches on a single physical network to establish hosts' membership in particular multicast groups. Multicast routers use this information, in conjunction with a multicast routing protocol, to support IP multicast forwarding across the Internet.
IPv6	<p>The next generation of the Internet protocol (IP). It has primarily been developed to solve the problem of the eventual exhaustion of the IPv4 address space, but also offers other enhancements:</p> <ul style="list-style-type: none">– Addresses are 16 bytes long in contrast to IPv4's 4 byte addresses.– Globally unique addresses with more levels of addressing hierarchy, to reduce the size of routing tables.– Auto-configuration of addresses by hosts.– Improved scalability of multicast routing, by adding a 'scope' field to multicast addresses.– A new type of address, the 'anycast address,' which is used to send a packet to any one of a group of devices.
BGP-4	External gateway protocol which allows two routers in different routing domains, known as Autonomous Systems (AS), to exchange routing information, thereby facilitating the forwarding of data across the border of the routing domains. BGP allows routers to learn multiple paths, choose the best path for routing information and install that path in the IP routing table.
IS-IS	Intermediate-to-Intermediate System is an OSI routing protocol for dynamic routing between intermediate and end network devices.
Firewall	Security device designed to allow safe access to the Internet by enforcing a set of access rules between various interfaces. A firewall typically has two interfaces, one that is attached to the public network (Internet) and one that is attached to an internal private network (intranet). The firewall prevents unrestricted access to the private network and protects the computer systems behind the firewall from attack.

Features option availability

	AT-AR300	AT-AR410	AT-AR410S	AT-AR440S	AT-AR750S	AT-AR725 AT-AR441S AT-AR450S	AT-AR745	AT-8600	Rapier i	AT-8800
Full L3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IPX routing AppleTalk RSVP PIM DM PIM SM DMRP/RRP	IPX routing AppleTalk RSVP PIM DM PIM SM DMRP/RRP
Advanced L3	N/A	N/A	N/A	IPv6 BGP4 IS-IS Load balancing	IPv6 BGP4 IS-IS Load balancing	IPv6 BGP4 IS-IS	N/A	IPv6 BGP4 IS-IS Load balancing	IPv6 BGP4 IS-IS Load balancing	
Security	Firewall SMTP Proxy HTTP Proxy	Firewall SMTP Proxy HTTP Proxy	Included in standard AlliedWare	Included in standard AlliedWare	Included in standard AlliedWare	Firewall SMTP Proxy HTTP Proxy	N/A	Firewall SMTP Proxy HTTP Proxy	Firewall SMTP Proxy HTTP Proxy	
AES	N/A	N/A	N/A	AES	AES	N/A	N/A	N/A	N/A	
3DES	3DES	3DES	3DES	3DES	3DES	3DES*	N/A	3DES*	3DES*	
AES & 3DES bundled	N/A	N/A	N/A	AES 3DES	AES 3DES	N/A	N/A	N/A	N/A	
VLANDTAG	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Note: Basic AlliedWare ships with this product.

* Requires AT-AR061 EPAC encryption / compression card

Layer 3 Fully Featured Operating System

Advanced features order option

	AT-8948	AT-9800	AT-9924	AT-SB4000
	IPX routing AppleTalk RSVP PIM DM PIM SM DMRPVRRP	IPX routing AppleTalk RSVP PIM DM PIM SM DMRPVRRP	RSVP PIM DM PIM SM DMRPVRRP	IPX routing AppleTalk RSVP PIM DM PIM SM DMRPVRRP
	IPv6 BGP4 IS-IS Load balancing	IPv6 BGP4 IS-IS Load balancing	IPv6 BGP4	IPv6 BGP4 IS-IS Load balancing
	Firewall SMTP Proxy HTTP Proxy	Firewall SMTP Proxy HTTP Proxy	N/A	Firewall SMTP Proxy HTTP Proxy
	N/A	N/A	N/A	N/A
	3DES	N/A	3DES	N/A
	N/A	N/A	N/A	N/A
	VLAN double tagging	N/A	VLAN double tagging	N/A

AT-RPFL3UPGRD	Rapier™ & 8800 series Full Layer 3 Upgrade
AT-9900FL3UPGRD	9900 series Full Layer 3 Upgrade
AT-9800FL3UPGRD	9800 series Full Layer 3 Upgrade
AT-8900FL3UPGRD	8900 series Full Layer 3 Upgrade
AT-AR400-ADVL3UPGRD	AR400 series Advanced Layer 3 Upgrade
AT-AR700-ADVL3UPGRD	AR700 series Advanced Layer 3 Upgrade
AT-RPADVL3UPGRD	Rapier™ & 8800 series Advanced Layer 3 Upgrade
AT-9900ADVL3UPGRD	9900 series Advanced Layer 3 Upgrade
AT-9800ADVL3UPGRD	9800 series Advanced Layer 3 Upgrade
AT-8900ADVL3UPGRD	8900 series Advanced Layer 3 Upgrade
AT-AR300v2SecPk-00	AR300 series Security Pack Upgrade*
AT-AR400sSecPk-00	AR400 series Security Pack Upgrade
AT-AR700sSecPk-00	AR700 series Security Pack Upgrade
AT-RPsecPk-00	Rapier™ & 8800 series Layer 3 Switch Security Pack Upgrade
AT-9800SecPk-00	9800 series Layer 3 Switch Security Pack Upgrade
AT-8900SecPk-00	8900 series Layer 3 Switch Security Pack Upgrade
AT-AR-VLANDTAG	8900 series Layer 3 Switch Security Pack Upgrade

* only the AR300 V2 can support this option, please check with your sales representative in advance



Wireless Solutions

Allied Telesyn's Wireless products provide the customer with the highest performance and highest compliancy to standards today, for unmatched investment protection in the wireless marketplace.

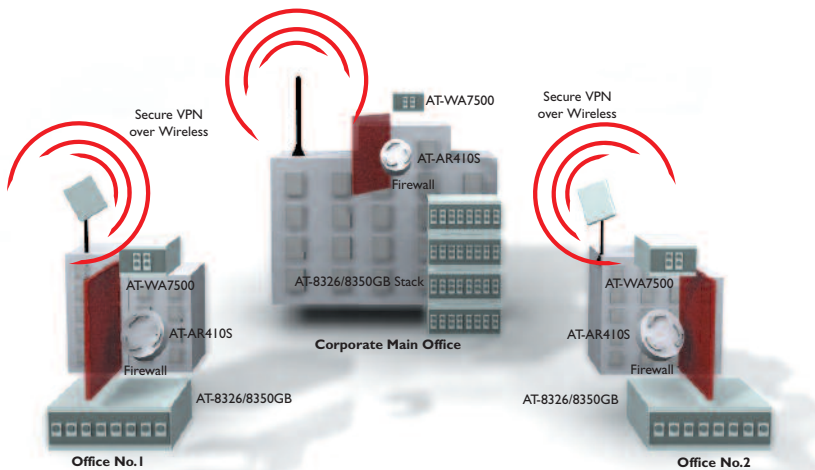
All of Allied Telesyn's wireless solutions have best of breed performance, especially where security features and authentication protocols are required for network robustness. Advanced software features and a broad range of accessories provide high-end functionality from SoHo to enterprise class networks.

Example:

'Wire-free' Network Interconnections

A corporation has several large offices in the city centre within proximity of each other and needs to find the most cost-effective method of interconnecting them. Leased line services are expensive and dial-up services don't support bandwidth requirement. Further investigations confirmed that line-of-sight between offices is achievable and that access to roof-tops for mounting antennae is available. Going wireless between these sites was the obvious choice as it offered high-bandwidth, only involved a one-off set-up cost with no recurring fees and didn't require any licensing.

AT-WA7500 WiFi access points with different antennae options are deployed in Point-to-Multipoint topology to provide the connections over radio waves. Depending on specific environments, multiples of E1-like performance can be achieved on such links. To secure the connections from eavesdropping, IPSec 3DES encryption is implemented over the wireless connection by deploying AT-AR410 routers, configured with the VPN option, behind each Access Point.



Wireless Series Wireless LAN Solutions



AT-WA1004G

SOHO wireless access point
10/100TX x 4 ports

Features

- 128-bit WEP encryption
- IEEE 802.11b/g compliant
- WPA (Wireless Protected Area) support and upgradable via firmware
- 'Open System' and 'Shared Key' WEP encryption supported
- WiFi certified
- VPN support - PPTP, L2TP and IPSec pass-through

Model	Dimensions	Weight
AT-WA1004G	14.1cm x 10cm x 2.7cm	.3kg
AT-WA7500	25cm x 15.9cm x 3.8cm	.625kg
AT-WA7501	35.5cm x 9.5cm x 2.36cm	2.63kg



AT-WA7500

Enterprise wireless a,b,g access point (indoor)

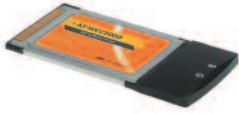


AT-WA7501

Enterprise wireless a,b,g access point with IP54 enclosure (outdoor)
10/100TX x 1 port

Features

- Secure information transmission with 40-128 bit
- Wired Equivalent Privacy (WEP) data encryption
- In excess of 153 metres transmission distances
- IP tunnelling
- Wireless bridging
- Telnet and SNMP web GUI management
- Long range antennas available
- Dual speed access point
- Dual radio slot
- IEEE 802.11a, 802.11b, 802.11g and 802.11i standard support
- IP54 enclosure (AT-WA7501 only)
- WiFi and WPA certified
- Power over Ethernet capable
- Multiple SSID and Virtual LAN (VLAN) on each radio
- Secure Fast Roaming on patented Wireless Spanning Tree Technology



AT-WCC200G

Wireless card bus adapter

Features

- 64-bit, 128-bit and 256-bit WEP encryption
- Dynamic channel selection
- Automatic datarate switching
- Dynamic datarate scaling
- Compatible with IEEE 802.11g high-rate standard with speeds up to 54Mbps
- Backward compatible with IEEE 802.11b standard
- WiFi certified
- Power saving feature and low power consumptions for mobile powered applications



AT-WCP200G

Wireless PCI adapter

Features

- 64-bit, 128-bit and 256-bit WEP encryption
- Dynamic channel selection
- Maximum reliability, throughput and connectivity with automatic datarate switching
- Dynamic datarate scaling
- Compatible with IEEE 802.11g high-rate standard with speeds up to 54Mbps
- Backward compatible with IEEE 802.11b standard
- Simple user setup and diagnostics utilities
- Available for both standards and low-profile applications
- WiFi certified

Model	Dimensions	Weight
AT-WCC200G	11.8cm x .7cm x 5.4cm	.625kg
AT-WCP200G	13.3cm x 21.6cm x 12.1cm	.05kg

Wireless Solutions



AT-WCU200G

USB adapter wireless client

Features

- 64-bit or 128-bit WEP encryption
- IEEE 802.1x and RC4 authentication
- Supports all popular operating systems
- Auto-configures for use in multiple countries
- USB adapter
- WiFi certified



AT-WL2411

Enterprise wireless access point

Features

- Secure information transmission with 40-128 bit Wired Equivalent Privacy (WEP) data encryption
- Standards based IEEE 802.11b connectivity
- In excess of 153 metres transmission distances
- Lightweight and compact size
- IP tunnelling
- Wireless bridging
- Telnet and SNMP web GUI management
- Long range antennas available
- WiFi certified

Model	Dimensions	Weight
AT-WCU200G	8cm x 3cm x 1.3cm	.025kg
AT-WL2411	15cm x 9.3cm x 3.5cm	.25kg

Wireless ETSI compliant Antennas

AT-INT71489

Diversity Antenna 2.4GHz with Radial connector; Azimuth plane 360° - Vertical plane 50°

AT-INT70141

Antenna 2.4GHz, 3dBi, Mini Flat, Azimuth plane 360° - Vertical plane 180°

AT-INT63363

Antenna 2.4GHz, 5dBi, Omni, Azimuth plane 360° - Vertical plane 30°

AT-INT065349

Antenna 2.4GHz, 9dBi, Omni, Azimuth plane 360° - Vertical plane 14°

Wireless FCC compliant Antennas

AT-INT71121

Diversity Antenna 2.4GHz, 3dBi, drop ceiling installation

AT-INT67262

Antenna 2.4GHz, 5dBi, Dual Flat, Azimuth plane 60° - Vertical plane 30°

AT-INT67263

Antenna 2.4GHz, 5dBi, Flat panel, Azimuth plane 60° - Vertical plane 80°

AT-INT71122

Antenna 2.4GHz, 9dBi, Corner Reflector; Azimuth plane 65° - Vertical plane 75°

AT-INT63366

Antenna 2.4GHz, 14dBi, Flat panel, Azimuth plane 30° - Vertical plane 30°

AT-INT063365

Antenna 2.4GHz, 15dBi, Yagi directive, Azimuth plane 34° - Vertical plane 30°

Wireless Antenna accessories

AT-INT069887

Cable assembly from access point to N receptacle

AT-INT70403

Cable assembly from access point to N plug

AT-INT064616

Coax cable assembly N to N connector; 75cm

AT-INT063245

Coax cable assembly N to N connector; 150cm

AT-INT063246

Coax cable assembly N to N connector; 600cm

AT-INT71179

Coax cable assembly N to N connector; 900cm

AT-INT69893

AP Power Supply holder kit

AT-INT069888

Bracket for Dual Mounting Antenna

AT-INT63198

Antenna cable splitter 2.4GHz

AT-INT586610

Lightning suppressor spare/replacement capsule

AT-INT61868

Lightning suppressor

Power over Ethernet system

AT-INT071620

1 port Mobile LAN Power bridge

AT-INT071578

6 port Mobile LAN Power bridge

AT-INT071579

12 port Mobile LAN Power bridge

AT-INT071581

Power over Ethernet splitter



Media Conversion

Allied Telesyn media converters make it possible to mix media and speed on a network to optimise price/performance, whether you are extending legacy networks or connecting inexpensive low bandwidth desktops to a state-of-the-art fibre backbone.

Example:

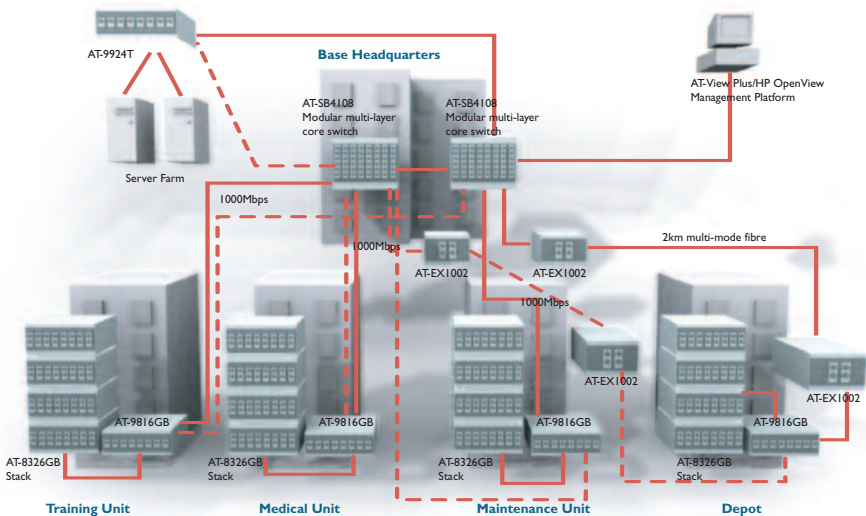
Mission-critical Network in a Military Base

Fibre technology is the ubiquitous backbone cabling system in military environments primarily for high security and increased bandwidth support at long ranges. Gigabit Ethernet is chosen for this backbone to support the large number of network users. Because network availability is of prime concern due to the nature of the environment, a fully meshed architecture is deployed.

In the core, two dual-homed AT-SB4108 switches provide full redundancy as well as overall load distribution. The AT-SB4108 core switch is a modular chassis-based Layer 3/4 Gigabit Ethernet switch supporting redundant switching fabric and power supplies, hotswappable I/O cards as well as VRRP for Layer 3 redundancy.

From each building, two fully resilient connections to the core switches are provided by a Rapier™ Gigabit Ethernet Layer 3 switch. These switches provide switch aggregation functionality as they bring together desktop switches and feed their traffic into the core using Gigabit Ethernet over fibre. At the desktop layer, AT-8326GB stackable Fast Ethernet switches are deployed to provide switched 10/100 Ethernet or Fast Ethernet connectivity to computers and network peripherals.

In addition, to support Gigabit Ethernet over the entire fibre optic backbone, Allied Telesyn's Gigabit Ethernet network extenders AT-EX1002 were installed. These devices revolutionise Gigabit Ethernet deployment beyond allowed boundaries as they overcome multi-mode fibre distance limitations.



Media Converter Selector

Converteon™

Gigabit Ethernet speed/media converting blades				
10/100/1000Mbps copper to SFP with IEEE 802.3ah OAM >>	AT-CM2K0S	10/100/1000TX to 1000Base SFP	Dependent on SFP	108
Gigabit Ethernet media conversion blades				
10/100/1000Mbps fibre SFP to SFP >>	AT-CV1KSS	1000Base SFP to 1000Base SFP	Dependent on SFP	108
Fast Ethernet speed/media conversion switching blades				
10/100Mbps copper to 100Mbps fibre multi-mode with IEEE 802.3ah OAM >>	AT-CM202	10/100TX to 100FX (SC multi-mode)	2km	108
Fast Ethernet media conversion blades				
100Mbps copper to fibre multi-mode >>	AT-CV102	100TX to 100FX (SC multi-mode)	2km	108
100Mbps copper to fibre single-mode >>	AT-CV102/1	100TX to 100FX (SC single-mode)	15km	108
100Mbps copper to fibre single-mode >>	AT-CV102/2	100TX to 100FX (SC single-mode)	40m	108

NOTE - The media conversion blades listed above are designed to be used with/in the AT-CV1000, 1200 and 5000, manageable rackmount chassis. 108

PowerBlade

Gigabit Ethernet media conversion blades				
1000Mbps fibre multi-mode to single-mode >>	AT-PB1001/1	1000SX (SC multi-mode) to 1000LX (SC single-mode)	10km	109
	AT-PB1001/2	1000SX (SC multi-mode) to 1000LX (SC single-mode)	20km	109
	AT-PB1001/3	1000SX (SC multi-mode) to 1000LX (SC single-mode)	50km	109
	AT-PB1001/4	1000SX (SC multi-mode) to 1000LX (SC single-mode)	70km	109
1000Mbps copper to fibre GBIC >>	AT-PB1005G	1000T to 1000SX/LX GBIC	220m - 70km	109
Fast Ethernet media conversion blades				
100Mbps copper to fibre multi-mode >>	AT-PB101	100TX to 100FX (ST multi-mode)	2km	109
	AT-PB102	100TX to 100FX (SC multi-mode)	2km	109
	AT-PB301	100TX to 100FX (VF-45 multi-mode)	2km	109
	AT-PB302	100TX to 100FX (MT-RJ multi-mode)	2km	109
	100Mbps copper to fibre single-mode >>	AT-PB103/1	100TX to 100FX (SC single-mode)	15km
AT-PB103/2		100TX to 100FX (SC single-mode longhaul)	40km	109
AT-PB103/3		100TX to 100FX (SC single-mode longhaul)	75km	109
AT-PB103/4		100TX to 100FX (SC single-mode longhaul)	100km	109
Ethernet media conversion blades				
10Mbps copper to fibre multi-mode >>	AT-PB13	10T to 10FL (ST multi-mode)	2km	110
	AT-PB14	10T to 10FL (SC multi-mode)	2km	110
10Mbps copper to copper >>	AT-PB15	10T to BNC	185m	110

Fast Ethernet speed/media conversion switching blades				
10/100Mbps copper to 100Mbps fibre multi-mode >>	AT-PB201	10/100TX to 100FX (ST multi-mode)	2km	109
	AT-PB202	10/100TX to 100FX (SC multi-mode)	2km	109
	AT-PB204	10/100TX to 100FX (MT-RJ multi-mode)	2km	109
	AT-PB205	10/100TX to 100FX (VJ-45 multi-mode)	2km	109
10/100Mbps copper to 100Mbps fibre single-mode >>	AT-PB202/1	10/100TX to 100FX (SC single-mode)	15km	109
	AT-PB202/2	10/100TX to 100FX (SC single-mode)	40km	109
	AT-PB202/3	10/100TX to 100FX (SC single-mode)	70km	109
	AT-PB202/4	10/100TX to 100FX (SC single-mode)	90km	109

NOTE - The media conversion blades listed above are designed to be used with/in the AT-PBC18, manageable rackmount chassis. 109

Standalone/Rackmountable & Wall-mounted Media Converters

Gigabit Ethernet standalone/rackmountable media converters				
1000Mbps fibre multi-mode extender >>	AT-EX1002	1000SX/SC x 1 port multi-mode Ext. SC x 1 port	2km	112
1000Mbps fibre multi-mode to single-mode >>	AT-MCI001	1000SX (SC multi-mode) to 1000LX (SC single-mode)	10km	111
	AT-MCI001SC/GS2	1000SX (SC multi-mode) to 1000LX (SC single-mode)	20km	111
	AT-MCI001SC/GS3	1000SX (SC multi-mode) to 1000LX (SC single-mode)	50km	111
	AT-MCI001SC/GS4	1000SX (SC multi-mode) to 1000LX (SC single-mode)	70km	111
1000Mbps copper to fibre multi-mode >> 1000Mbps copper to fibre single-mode >>	AT-MCI004	1000T to 1000SX (SC multi-mode)	220-550m	111
	AT-MCI005/1	1000T to 1000LX (SC single-mode)	10km	111
	AT-MCI005/2	1000T to 1000LX (SC single-mode)	20km	111
	AT-MCI005/3	1000T to 1000LX (SC single-mode)	50km	111
1000Mbps copper to pluggable optics >>	AT-MCI005/4	1000T to 1000LX (SC single-mode)	70km	111
	AT-MCI008/GB	1000T to GBIC pluggable	Dependent on GBIC	111
	AT-MCI008/SP	1000T to 1000Base SFP pluggable	Dependent on SFP	111
Fast Ethernet standalone/rackmountable media converters				
100Mbps fibre multi-mode to single-mode >>	AT-MCI04XL	100FX (SC multi-mode) to 100FX (SC single-mode)	15km	111
	AT-MCI04LH	100FX (SC multi-mode) to 100FX (SC single-mode longhaul)	40km	111
	AT-MCI04SC/FS3	100FX (SC multi-mode) to 100FX (SC single-mode longhaul)	75km	111
	AT-MCI04SC/FS4	100FX (SC multi-mode) to 100FX (SC single-mode longhaul)	100km	111
100Mbps copper to fibre multi-mode >>	AT-MCI115XL	10/100TX to 10FL/100SX (ST multi-mode 850nm)	300m	111
	AT-MCI116XL	10/100TX to 10FL/100SX (SC multi-mode 850nm)	300m	111
	AT-MCI101XL	100TX to 100FX (ST multi-mode)	2km	111
100Mbps copper to fibre single-mode >>	AT-MCI02XL	100TX to 100FX (SC multi-mode)	2km	111
	AT-MCI03XL	100TX to 100FX (SC single-mode)	15km	111
	AT-MCI03LH	100TX to 100FX (SC single-mode longhaul)	40km	111
	AT-MCI03SC/FS3	100TX to 100FX (SC single-mode longhaul)	75km	111
	AT-MCI03SC/FS4	100TX to 100FX (SC single-mode longhaul)	100km	111

Media Conversion

Ethernet standalone/rackmountable media converters

10Mbps copper to fibre multi-mode >>	AT-MC13	10T to 10FL (ST multi-mode)	2km	112
	AT-MC14	10T to 10FL (SC multi-mode)	2km	112
10Mbps copper to copper >>	AT-MC15	10T to BNC	185m	112

Standalone/Rackmountable & Wall-mounted Media Converters

Gigabit Ethernet speed/media converting switches

113

10/100/1000Mbps copper to fibre multi-mode >	AT-GS2002	10/100/1000TX to 1000FX (SC multi-mode)	220-550m	
10/100/1000Mbps copper to fibre SFP >>	AT-GS2002/SP	10/100/1000TX to 1000 Base SFP	Dependent on SFP	
10/100/1000Mbps copper to fibre multi-mode >	AT-GS2004CP	10/100/1000TX to 1000SX (SC multi-mode), 10/100/1000TX mirroring port	220-550m	
10/100/1000Mbps copper to fibre single-mode >	AT-GS2004CP/2	10/100/1000TX to 1000LX (SC single-mode), 10/100/1000TX mirroring port	20km	
10/100/1000Mbps copper to fibre >>	AT-GS2004CP/GB	10/100/1000TX to GBIC, 10/100/1000TX mirroring port	Dependent on GBIC	
10/100/1000Mbps copper to fibre >>	AT-GS2004FP/GB	10/100/1000TX to GBIC, GBIC mirroring port	Dependent on GBIC	

Fast Ethernet speed/media converting switches

10/100Mbps copper to fibre multi-mode >>	AT-FS201	10/100TX to 100FX (ST multi-mode)	2km	113
	AT-FS202	10/100TX to 100FX (SC multi-mode)	2km	113
10/100Mbps copper to fibre single-mode >>	AT-FS202SC/FS1	10/100TX to 100FX (SC single-mode)	15km	113
	AT-FS202SC/FS2	10/100TX to 100FX (SC single-mode)	40km	113
	AT-FS202SC/FS3	10/100TX to 100FX (SC single-mode)	75km	113
	AT-FS202SC/FS4	10/100TX to 100FX (SC single-mode)	100km	113
10/100Mbps copper to copper >>	AT-FS203	10/100TX to 10/100TX	–	113
10/100Mbps copper to fibre single-mode >>	AT-FS232/1	10/100TX to 100FX (SC)	15km	113
	AT-FS232/2	10/100TX to 100FX (SC)	40km	113
	AT-FS232/3	10/100TX to 100FX (SC)	75km	113
	AT-FS232/4	10/100TX to 100FX (SC)	100km	113
10/100Mbps copper to single fibre, single-mode >>	AT-FS237S13/1	10/100TX to 100FX (single-mode)	15km	113
	AT-FS238A/1 B/1	10/100TX to 100FX (single-mode)	15km	113
	AT-FS238A/2 B/2	10/100TX to 100FX (single-mode)	40km	113
				110

NOTE - All media converters listed above (excluding AT-EX1002) can be used in the AT-MCR12, 12 slot rackmount chassis.

Fast Ethernet wall-mounted speed/media converting switches

10/100Mbps copper to fibre multi-mode >>	AT-FS211	10/100TX to 100FX (ST multi-mode)	2km	115
	AT-FS212	10/100TX to 100FX (SC multi-mode)	2km	115
10/100Mbps copper to fibre single-mode >>	AT-FS212/1	10/100TX to 100FX (SC single-mode)	15km	115
	AT-FS212/2	10/100TX to 100FX (SC single-mode longhaul)	40km	115
	AT-FS212/3	10/100TX to 100FX (SC single-mode longhaul)	70km	115
	AT-FS212/4	10/100TX to 100FX (SC single-mode longhaul)	90km	115
10/100Mbps copper to 100Mbps fibre multi-mode >>	AT-FS214	10/100TX to 100FX (MT-RJ multi-mode)	2km	115

Multi-channel Media Converters

Fast Ethernet multi-channel media converters				
6 port 100Mbps copper to fibre multi-mode >>	AT-MCF106/ST	100TX x 6 ports to 100FX x 6 ports (ST multi-mode)	2km	115
	AT-MCF106/SC	100TX x 6 ports to 100FX x 6 ports (SC multi-mode)	2km	115
	AT-MCF106/VF	100TX x 6 ports to 100FX x 6 ports (VF-45 multi-mode)	2km	115
6 port 100Mbps copper to fibre single-mode >>	AT-MCF106/SM	100TX x 6 ports to 100FX x 6 ports (SC single-mode)	15km	115
	AT-MCF106/LH	100TX x 6 ports to 100FX x 6 ports (SC single-mode longhaul)	40km	115
12 port 100Mbps copper to fibre multi-mode >>	AT-MCF112/ST	100TX x 12 ports to 100FX x 12 ports (ST multi-mode)	2km	115
	AT-MCF112/SC	100TX x 12 ports to 100FX x 12 ports (SC multi-mode)	2km	115
	AT-MCF112/VF	100TX x 12 ports to 100FX x 12 ports (VF-45 multi-mode)	2km	115
12 port 100Mbps copper to fibre single-mode >>	AT-MCF112/SM	100TX x 12 ports to 100FX x 12 ports (SC single-mode)	15km	115
	AT-MCF112/LH	100TX x 12 ports to 100FX x 12 ports (SC single-mode longhaul)	40km	115
Ethernet multi-channel media converters				
6 port 10Mbps copper to fibre multi-mode >>	AT-MCF06/ST	10T x 6 ports to 10FL x 6 ports (ST multi-mode)	2km	116
	AT-MCF06/SC	10T x 6 ports to 10FL x 6 ports (SC multi-mode)	2km	116
12 port 10Mbps copper to fibre multi-mode >>	AT-MCF12/ST	10T x 12 ports to 10FL x 12 ports (ST multi-mode)	2km	116
	AT-MCF12/SC	10T x 12 ports to 10FL x 12 ports (SC multi-mode)	2km	116

Network Extender

Single port VDSL network extenders			
10/100Mbps copper to VDSL >>	AT-MC601	10/100TX to VDSL subscriber	116
	AT-MC602	10/100TX to VDSL provider	116
	AT-MC603/4	10/100TX Ethernet-over-VDSL	116

Media Conversion

Converteon™ Manageable Media Conversion System

NEW



AT-CV5000

18 slot rackmount chassis

Features

- Intermixable redundant AC-DC chassis
- Optional Telnet and SNMP management
- Hotswappable blades
- Field servicable power supplies and fans



AT-CV1000

1 slot standalone chassis

Features

- External AC power adapter

AT-CV1200

2 slot standalone chassis

Features

- External AC power adapter

Gigabit Ethernet Speed/Media Conversion Switching Blade

AT-CM2K0S 10/100/1000T to 1000SX/LX SFP with IEEE 802.3ah OAM, dependent on SFP

Gigabit Ethernet Media Conversion Blade

AT-CV1KSS 1000SX/LX SFP to 1000SX/LX SFP, dependent on SFP

Fast Ethernet Speed/Media Conversion Switching Blade

AT-CM202 10/100TX to 100FX (SC multi-mode) with IEEE 802.3ah OAM, 2km

Fast Ethernet Media Conversion Blades

AT-CV102 100TX to 100FX (SC multi-mode), 2km

AT-CV102/1 100TX to 100FX (SC single-mode), 15km

AT-CV102/2 100TX to 100FX (SC single-mode), 40km

Telnet and SNMP management module and redundant power module for the Converteon™ AT-CV5000

AT-CV5M01 RS232 × 1 port, 10T × 1 port

AT-CVFAN Fan tray

AT-PWR14 Redundant AC power supply option

AT-PWR15 -48VDC power supply option

Model	Dimensions	Weight
AT-CV5000	N/A	N/A
AT-CV1000	N/A	N/A
AT-CV1200	N/A	N/A
Blades	N/A	N/A

PowerBlade Manageable Media Conversion System



AT-PBC18

18 slot rackmount chassis

Features

- *Designed to NEBS Compliance*
- *Optional Telnet and SNMP management*



Gigabit Ethernet Media Conversion Blade

AT-PB1001/1 1000SX (SC multi-mode) to 1000LX (SC single-mode), 10km

AT-PB1001/2 1000SX (SC multi-mode) to 1000LX (SC single-mode), 20km

AT-PB1001/3 1000SX (SC multi-mode) to 1000LX (SC single-mode), 50km

AT-PB1001/4 1000SX (SC multi-mode) to 1000LX (SC single-mode), 70km

AT-PB1005G 1000T to 1000SX/LX GBIC
220m - 70km

Fast Ethernet Media Conversion Blades

AT-PB101 100TX to 100FX (ST multi-mode), 2km

AT-PB102 100TX to 100FX (SC multi-mode), 2km

AT-PB103/1 100TX to 100FX (SC single-mode), 15km

AT-PB103/2 100TX to 100FX (SC single-mode longhaul), 40km

AT-PB103/3 100TX to 100FX (SC single-mode longhaul), 75km

AT-PB103/4 100TX to 100FX (SC single-mode longhaul), 100km

AT-PB301 100TX to 100FX (VF-45 multi-mode), 2km

AT-PB302 100TX to 100FX (MT-RJ multi-mode), 2km

Fast Ethernet Speed/Media Conversion Switching Blades

AT-PB201 10/100TX to 100FX (ST multi-mode), 2km

AT-PB202 10/100TX to 100FX (SC multi-mode), 2km

AT-PB202/1 10/100TX to 100FX (SC single-mode), 15km

AT-PB202/2 10/100TX to 100FX (SC single-mode), 40km

AT-PB202/3 10/100TX to 100FX (SC single-mode), 70km

AT-PB202/4 10/100TX to 100FX (SC single-mode), 90km

AT-PB204 10/100TX to 100FX (MT-RJ multi-mode), 2km

AT-PB205 10/100TX to 100FX (VJ-45 multi-mode), 2km

Model	Dimensions	Weight
AT-PBC18 chassis	44cm x 47cm x 11cm	9.1kg
Blades	20cm x 10cm x 2.3cm	.14kg

Media Conversion

Ethernet Media Conversion Blades

- AT-PB13 10T to 10FL (ST multi-mode), 2km
- AT-PB14 10T to 10FL (SC multi-mode), 2km
- AT-PB15 10T to BNC, 185m



Allied Telesyn standards-based

Gigabit Interface Converters (GBIC) modules

AT-G8T	1000T x 1 port	100m
AT-G8SX-01	1000SX x 1 port	550m
AT-G8LX10	1000LX x 1 port	10km
AT-G8LX25	1000LX x 1 port	25km
AT-G8LX40	1000LX x 1 port	40km
AT-G8LX70	1000LX x 1 port	70km
AT-G8ZX70/CWDM		

CWDM = 1310, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610

Telnet and SNMP management module and redundant power module for PowerBlade™

AT-PBM02	RS232 x 1 port, 10T x 1 port
AT-PBPWRAC	Redundant AC power supply option
AT-PBPWRDC	-48vDC power supply option

Model	Dimensions	Weight
AT-MCR12	44cm x 22cm x 13cm	9.5kg
Blades	20cm x 10cm x 2.3cm	.14kg

AT-MCR12

12 Slot Media Conversion Rackmount Chassis



AT-MCR12

12 slot rackmount chassis

Features

- Holds up to 12 Allied Telesyn media or 10/100Mbps converters
- 10Mbps, 100Mbps and 1000Mbps media converters, as well as two-port switches, can be mounted in any combination
- Optional redundant hot-swappable power supply
- Fits into a standard 19-inch network rack

Redundant power module for the AT-MCR12

AT-PWR4	Redundant power supply option
AT-PWR9	-48vDC power supply option

MCI000 Series Gigabit Ethernet Media Converters



- AT-MC1001** 1000SX (SC multi-mode) to 1000LX (SC single-mode), 10km
- AT-MC1001SC/GS2** 1000SX (SC multi-mode) to 1000LX (SC single-mode), 20km
- AT-MC1001SC/GS3** 1000SX (SC multi-mode) to 1000LX (SC single-mode), 50km
- AT-MC1001SC/GS4** 1000SX (SC multi-mode) to 1000LX (SC single-mode), 70km
- AT-MC1004** 1000T to 1000SX (SC multi-mode), 220-550m
- AT-MC1005/1** 1000T to 1000LX (SC single-mode), 10km
- AT-MC1005/2** 1000T to 1000LX (SC single-mode), 20km
- AT-MC1005/3** 1000T to 1000LX (SC single-mode), 50km
- AT-MC1005/4** 1000T to 1000LX (SC single-mode), 70km
- AT-MC1008/GB** 1000T to GBIC pluggable, **NEW** dependent on GBIC
- AT-MC1008/SP** 1000T to 1000Base SFP pluggable, dependent on SFP **NEW**

Common features of the MCI000 series

- Support for multi-mode and single-mode fibre full-duplex
- Fits the AT-MCR12 rackmount chassis

Model	Dimensions	Weight
MCI00 series	10cm x 9.5cm x 2.5cm	.3kg
MCI000 series	10cm x 9.5cm x 2.5cm	.3kg

MCI00 Series Fast Ethernet Media Converters



- AT-MC101XL** 100TX to 100FX (ST multi-mode), 2km
- AT-MC102XL** 100TX to 100FX (SC multi-mode), 2km
- AT-MC103XL** 100TX to 100FX (SC single-mode), 15km
- AT-MC103LH** 100TX to 100FX (SC single-mode longhaul), 40km
- AT-MC103SC/FS3** 100TX to 100FX (SC single-mode longhaul), 75km
- AT-MC103SC/FS4** 100TX to 100FX (SC single-mode longhaul), 100km
- AT-MC104XL** 100FX (SC multi-mode) to 100FX (SC single-mode), 15km
- AT-MC104LH** 100FX (SC multi-mode) to 100FX (SC single-mode longhaul), 40km
- AT-MC104SC/FS3** 100FX (SC multi-mode) to 100FX (SC single-mode longhaul), 75km
- AT-MC104SC/FS4** 100FX (SC multi-mode) to 100FX (SC single-mode longhaul), 100km
- AT-MC115XL** 10/100TX to 10FL/100SX (ST multi-mode 850nm), 300m
- AT-MC116XL** 10/100TX to 10FL/100SX (SC multi-mode 850nm), 300m

Media Conversion

Common features of the MC100 series

- Half and full-duplex operation
- Transparent to IEEE 802.1Q packets
- Fits the AT-MCR12 rackmount chassis
- Auto-negotiation
(AT-MC115XL and AT-MC116XL only)

MC10 Series Ethernet Media Converters



- AT-MC13 10T to 10FL (ST multi-mode), 2km
- AT-MC14 10T to 10FL (SC multi-mode), 2km
- AT-MC15 10T to BNC, 185m

Common features of the MC10 series

- Half and full-duplex operation
- Transparent to IEEE 802.1Q packets
- Fits the AT-MCR12 rackmount chassis

AT-EX1002 Gigabit Ethernet Media Converters



AT-EX1002

1000SX/SC x 1 port
multi-mode Extend (SC) x 1 port 2km

Features

- Compact, standalone chassis
- Extends Gigabit Ethernet to 2km on multi-mode fibre
- Significant cost saving using multi-mode vs single-mode fibre cabling
- Gigabit deployment over legacy FDDI multi-mode fibre cabling
- Must be connected in pairs (one device on each end of the extended multi-mode fibre)

Model	Dimensions	Weight
AT-EX1002	20cm x 16cm x 3.8cm	1.3kg
MC10 series	10cm x 9.5cm x 2.5cm	.3kg
MC100 series	10cm x 9.5cm x 2.5cm	.3kg

GS2000 Series Gigabit Ethernet Speed/Media Converting Switches

NEW

AT-GS2002 10/100/1000TX to 1000FX
(SC multi-mode), 220-550m

AT-GS2002/SP 10/100/1000TX to 1000Base SFP,
dependent on SFP



AT-GS2004CP 10/100/1000TX to 1000SX
(SC multi-mode), 10/100/1000TX mirroring port,
220-550m

AT-GS2004CP/2 10/100/1000TX to 1000LX (SC
single-mode), 10/100/1000TX mirroring port, 20km

AT-GS2004CP/GB 10/100/1000TX to GBIC,
10/100/1000TX mirroring port, dependent on GBIC

AT-GS2004CP/2 10/100/1000TX to GBIC, GBIC
mirroring port, dependent on GBIC

Common features of the GS2000 series

- Convert speed as well as media type
- Compact physical size (AT-GS2002)
- Auto MDI/MDI-X crossover
- Store-and-Forward switching mode
- Transparent to IEEE 802.1Q packets
- Standalone or rackmountable
- Fits the AT-MCR12 rackmount chassis (AT-GS2002)
- MissingLink and Smart MissingLink

Model	Dimensions	Weight
FS200 series	10cm x 9.5cm x 2.5cm	.3kg
FS230 series	10.5cm x 9.5cm x 2.5cm	.3kg
GS2002 series	10.5cm x 9.5cm x 2.5cm	.3kg
GS2004 series	20cm x 12cm x 3.5cm	.75kg

FS200 & FS230 Series Fast Ethernet Speed/Media Converting Switches



AT-FS201 10/100TX to 100FX (ST multi-mode), 2km

AT-FS202 10/100TX to 100FX (SC multi-mode), 2km

AT-FS202SC/FS1 10/100TX to 100FX
(SC single-mode), 15km

AT-FS202SC/FS2 10/100TX to 100FX
(SC single-mode), 40km

AT-FS202SC/FS3 10/100TX to 100FX
(SC single-mode), 75km

AT-FS202SC/FS4 10/100TX to 100FX
(SC single-mode), 100km

AT-FS203 10/100TX to 10/100TX

AT-FS232/1 10/100TX to 100FX (SC), 15km

AT-FS232/2 10/100TX to 100FX (SC), 40km

AT-FS232/3 10/100TX to 100FX (SC), 75km

AT-FS232/4 10/100TX to 100FX (SC), 100km

AT-FS237/FS1 10/100TX to 100FX
(single-mode), 15km
(1310 nm TX/RX)

Media Conversion

AT-FS238A/I 10/100TX to 100FX (single-mode), 15km
(1310 nm TX, 1550 nm RX)

AT-FS238B/I 10/100TX to 100FX (single-mode), 15km
(1550 nm TX, 1310 nm RX)

AT-FS238A/2 10/100TX to 100FX (single-mode), 40km
(1310 nm TX, 1550 nm RX)

AT-FS238B/2 10/100TX to 100FX (single-mode), 40km
(1550 nm TX, 1310 nm RX)

Common features of the FS200 and FS230 series

- Convert speed as well as media type
- Compact physical size
- Auto MDI/MDI-X crossover (AT-FS201/2 only)
- Supports full and half-duplex operation
- 2,000 MAC address tables
- Store-and-Forward switching mode
- Transparent to IEEE 802.1Q packets
- Standalone or rackmountable
- Fits the AT-MCRI 2 rackmount chassis
- MissingLink and Smart MissingLink (AT-FS232 only)



Model	Dimensions	Weight
FS200 series	10cm x 9.5cm x 2.5cm	.3kg
FS210 series	9cm x 7cm x 2.2cm	.3kg
FS230 series	10.5cm x 9.5cm x 2.5cm	.3kg

FS210 Series

Wall-mounted Fast Ethernet Speed/Media Converting Switches

AT-FS211
10/100TX to 100FX (ST multi-mode), 2km

AT-FS212
10/100TX to 100FX (SC multi-mode), 2km

AT-FS212/1
10/100TX to 100FX (SC single-mode), 15km

AT-FS212/2
10/100TX to 100FX (SC single-mode longhaul), 40km

AT-FS212/3
10/100TX to 100FX (SC single-mode longhaul), 70km

AT-FS212/4
10/100TX to 100FX (SC single-mode longhaul), 90km

AT-FS214
10/100TX to 100FX (MT-RJ multi-mode), 2km

Common features of the FS210 series

- Convert speed as well as media type
- Compact physical size
- Auto MDI/MDI-X crossover
- Supports full and half-duplex operation
- 4,000 MAC address tables
- Transparent to IEEE 802.1Q packets
- Support for multi-mode and single-mode fibre

MCF100 Series Multi-channel Fast Ethernet Media Converters



AT-MCF106/ST

100TX x 6 ports to 100FX x 6 ports
(ST multi-mode), 2km

AT-MCF106/SC

100TX x 6 ports to 100FX x 6 ports
(SC multi-mode), 2km

AT-MCF106/VF

100TX x 6 ports to 100FX x 6 ports
(VF-45 multi-mode), 2km

AT-MCF106/SM

100TX x 6 ports to 100FX x 6 ports
(SC single-mode), 15km

AT-MCF106/LH

100TX x 6 ports to 100FX x 6 ports
(SC single-mode longhaul), 40km

AT-MCF112/ST

100TX x 12 ports to 100FX x 12 ports
(ST multi-mode), 2km

AT-MCF112/SC

100TX x 12 ports to 100FX x 12 ports
(SC multi-mode), 2km

AT-MCF112/VF

100TX x 12 ports to 100FX x 12 ports
(VF-45 multi-mode), 2km

AT-MCF112/SM

100TX x 12 ports to 100FX x 12 ports
(SC single-mode), 15km

AT-MCF112/LH

100TX x 12 ports to 100FX x 12 ports
(SC single-mode longhaul), 40km

Common features of the MCF100 series

- Fibre test switch
- Plug & Play installation
- MissingLink integrity monitoring
- Optional Telnet and SNMP management

Telnet and SNMP management module and redundant power module for the MCF100 series

- AT-MCM02 RS232 x 1 port, 10T x 1 port
- AT-PWR5 Redundant power supply option
- AT-PWR7 -48VDC power supply option

Model	Dimensions	Weight
MCF100 series	44cm x 24cm x 4.4cm	3.5kg

MCF Series Multi-channel Ethernet Media Converters



AT-MCF06/ST

10T x 6 ports to 10FL x 6 ports
(ST multi-mode), 2km

AT-MCF06/SC

10T x 6 ports to 10FL x 6 ports
(SC multi-mode), 2km

AT-MCF12/ST

10T x 12 ports to 10FL x 12 ports
(ST multi-mode), 2km

AT-MCF12/SC

10T x 12 ports to 10FL x 12 ports
(SC multi-mode), 2km

Common features of the MCF10 series

- Fibre test switch
- Plug & Play installation
- MissingLink integrity monitoring
- Optional Telnet and SNMP management

Telnet and SNMP management module and redundant power module for the MCF100 & MCF10 series

AT-MCM02	RS232 x 1 port, 10T x 1 port
AT-PWR5	Redundant power supply option
AT-PWR7	-48vDC power supply option

MC600 Series Single Port VDSL Network Extenders

AT-MC601	VDSL subscriber
AT-MC602	VDSL provider
AT-MC603/4	Ethernet-over-VDSL

Common features of the MC600 series

- Supports selectable datarates up to 11Mbps full-duplex symmetrical operation
- Supports distances up to 1.4Km over a single pair of copper
- Up to 25Mbps downstream asymmetrical operation
- Operates over Cat 1, 2, 3 or 5 quality cabling
- Integral POTS splitter
- GUI configuration tool
- Standalone, rackmountable (fits AT-MCR12), wall-mountable
- Software upgrade

Interfaces

- VDSL interface RJ-11 x 1 port
- 10/100TX x 1 port RJ45
- POTS management x 1 port RJ-11

Model	Dimensions	Weight
MC600 series	10cm x 9.5cm x 2.5cm	.3kg
MCF series	44cm x 24cm x 4.4cm	3.5kg



**We've sold so many Media Converters;
they could circle the Earth 257 times.**

We challenge anyone else to match it!

Yes, it's true! This is the networking distance Allied Telesyn could cover with all the Media Converters we've sold in the last seven years. Imagine how far these would go if you considered back to when Allied Telesyn was formed in 1987.

Our leadership in this area of the market has helped to make us into one of the most recognised and trusted networking brands in the marketplace.

Our extensive range of Media solutions enable a network to be extended by mixing media and speeds; to suit legacy networks or connecting inexpensive low bandwidth desktops to a state-of-the art fibre backbone.

Why take a chance with your customers' networks? Ensure you go the extra distance for them and make Allied Telesyn your partner of choice.

Allied Telesyn's diverse product range reaches far beyond Media Conversion. For the very latest in Allied Telesyn's technologies visit: www.alliedtelesyn.com

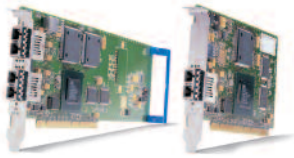


Network Adapters

Allied Telesyn offers a complete range of Ethernet, Fast Ethernet and Gigabit Ethernet adapter cards to support the leading network technologies, architectures, and operating systems.

As well as continuing to drive down the cost of desktop copper adapters, Allied Telesyn has firmly established itself as the market leader worldwide for Ethernet and Fast Ethernet fibre adapters.

2900 Series Gigabit Ethernet PCI Adapters



AT-2971SX/SC

1000SX × 1 port (SC)

AT-2971T

1000T × 1 port (RJ45)

Common features of the 2971 series

- Traffic and troubleshooting LEDs
- Support for all popular operating systems
- 32/64-bit bus
- 33/66MHz operation
- Fully IEEE 802.3z compliant
- PXE 2.0 support
- VLAN
- Port aggregation
- Support up to 9KB jumbo frames
- Virtual Cable Tester (VCT)
- Redundant switch failover
- Parity monitoring on all data paths



AT-2930SX V2

1000SX × 1 port (SC)

AT-2930TV2

1000T × 1 port (RJ45)

Common features of the 2930 series

- PXE support
- VLAN support
- Advanced diagnostics
- Advanced installation utility
- PCI 2.2 compatible
- Traffic and troubleshooting LEDs
- Support for all popular operating systems
- 32/64-bit bus
- 33/66MHz operation
- Fully IEEE 802.3z compliant
- 10/100/1000T auto-negotiation (AT-2930T only)
- Wake On LAN (WOL) support



AT-2916T

10/100/1000T × 1 port (RJ45)

Features

- Supports up to 9KB Jumbo frames
- TCP, UDP and IP checksum generation and check
- Support for all popular operating systems including Sun Solaris
- Cable monitoring and auto-correct
- Virtual Cable Tester (VCT)
- Advanced Power Management (ACPI)
- Parity monitoring on all data paths

Model	Dimensions	Weight
AT-2916T	12.7cm × 12.1cm	.32kg
2930V2 series	17cm × 9.5cm	.27kg
AT-2971SX/SC	12.7cm × 12.1cm	.32kg
AT-2971T	12.7cm × 12.1cm	.32kg

LAN Adapter Cards

AT-280 I FX Fast Ethernet PCMCIA Fibre Adapter



AT-280 I FX

100FX

Features

- 100Mbps fibre port with SC or ST connection
- 32-bit PC card with 68 pin connector
- Advanced Power Management (ACPI)
- VLAN tagging support
- Wake On LAN (WOL) support function and Remote wake-up
- PCI 2.2 compliant
- Transmit priority queue for IEEE 802.1p-based QoS

Model	Dimensions	Weight
2701 series	17.5cm x 6.5cm	.12kg
AT-2746FX	17.7cm x 8.3cm	.12kg
AT-280I	12cm x 5.4cm	.04kg

2700 Series Fast Ethernet PCI Adapters

- AT-2701FX/SC 100FX (SC)
- AT-2701FX/MT 100FX (MT-RJ)
- AT-2701FX/ST 100FX (ST)
- AT-2701FX/VF 100FX (VF-45)



AT-2701FX &
AT-2701FTX
models available in
**NEW LOW
PROFILE** design

- AT-2701FTX/ST 100FX (ST) & 10/100TX
- AT-2701FTX/SC 100FX (SC) & 10/100TX
- AT-2701FTX/MT 100FX (MT-RJ) & 10/100TX
- AT-2701FTX/VF 100FX (VF-45) & 10/100TX

- AT-2746FX/ST/ST 10FL (ST)
- 100FX (ST)

- AT-2746FX/SC/SC 10FL (SC)
- 100FX (SC)

- AT-2746FX/ST/SC 10FL (ST)
- 100FX (SC)

Common features of the 2700 series

- PXE support
- VLAN support
- Load balancing
- Advanced diagnostics
- Advanced installation utility

- PCI 2.2 compatible
- PXE remote booting available
- Traffic and troubleshooting LEDs
- Support for all popular operating systems
- Fault tolerant driver support
- ACPI/Wake On LAN (WOL) support
- Traffic prioritisation
- TCP/IP check-sum off-loading
- Copper and fibre ports for flexibility (AT-270 IFTX models only)

Model	Dimensions	Weight
AT-245 IFTX	18cm x 6.5cm	.12kg
AT-250 ITX	13cm x 12cm	.18kg

AT-250 ITX & AT-245 IFTX

Fast Ethernet PCI Adapters

AT-250 ITX



10/100TX

AT-250 ITX & AT-245 IFTX models available in **NEW LOW PROFILE** design

Features

- Advanced diagnostics
- Advanced installation utility
- PCI 2.2 compatible
- PXE remote booting available
- Traffic and troubleshooting LEDs
- Support for all popular operating systems
- ACPI/Wake On LAN (WOL) support

AT-245 IFTX/ST

10FL (ST) & 10/100TX

AT-245 IFTX/SC

10FL (SC) & 10/100TX

Features

- Advanced diagnostics
- Advanced installation utility
- PCI 2.2 compatible
- PXE support
- VLAN support
- Load balancing
- Traffic prioritisation
- TCP/IP check-sum off-loading
- Traffic and troubleshooting LEDs
- Support for all popular operating systems
- Fault tolerant driver support
- ACPI/Wake On LAN (WOL) support
- Copper and fibre ports for flexibility

Accessories for the AT-250 ITX

AT-BP2501 PXE remote booting ROM for AT-250 ITX.



Net.Cover[®] and Warranty

At Allied Telesyn we realise many of our customers want to take additional precautions to safeguard the integrity of networked data, ensure network up time, maximise end-user productivity while protecting their original investment well into the future.

All Allied Telesyn products carry a standard warranty coverage. Please refer to regional websites for the definition of warranty coverage in your area.

Net.Cover[®] is an enhanced flexible set of services and support programs that can be tailored to meet the needs of a wide range of customers.

Selected products contain a bundled Net.Cover[®] contract which upgrades the standard warranty coverage for the duration of the bundled contract (regional price lists will identify products which have the bundled Net.Cover[®] contract).

After the Net.Cover[®] contract coverage has expired, the product will return to the standard warranty conditions.

Technical Support

Telephone support is available Monday through Friday between 0900 and 1730 local time (excluding national holidays).

Training and Certification

The Allied Telesyn training program is designed for you and your job. Technicians, engineers, resellers or network administrators, regardless of the position, Allied Telesyn have a program suited just for your needs. Anyone who must deal with the responsibilities of installing, troubleshooting, post sales support or maintaining the hardware within your network will find these certifications valuable.

The goals are to teach you about Allied Telesyn's products and the technologies that manage them. These courses incorporate hands-on on lab practice with instructor led training in an environment that simulates a real network.

Contact Details

To access technical support and find out more about our service and training offerings within your local area please find details posted at the following addresses:

Asia Pacific:

<http://www.alliedtelesyn.sg/en-sg/support>

Europe:

<http://www.alliedtelesyn.co.uk/en-gb/support>

USA:

<http://www.alliedtelesyn.com/support>

Research & Development Centres



Allied Telesyn Engineering

- Established in October 1987
- Located in San Jose, California and Bothell, Washington, USA
- 105 employees
- Development effort focussed on:
 - Media Converters
 - Fibre Cards and Switches
 - Layer 2-4 Switches
 - Optical Networking



Allied Telesyn Research

- Established in 1985
- Located in Christchurch, New Zealand
- 245 hardware and software engineers
- Development effort focussed on:
 - Layer 3 technology
 - Chassis Switching
 - Gigabit/10 Gigabit Switching
 - Routers



Allied Telesyn Networks

- Established in October 2001
- Located in Raleigh, NC, USA
- 110 employees - 95% design engineers
- Carrier grade, high-quality access products
- Development effort focussed on:
 - Integrated Multi-service Platforms
 - Solutions for Metro Ethernet and FTTx

Research & Development Centres



Allied Telesyn Multimedia

- Established in 2000
- Located in Milan, Italy
- Over 30 development engineers
- Centre of excellence for Broadband Networks termination equipments and VoIP
- Development effort focussed on:
 - VoIP Solutions
 - Media Solutions
 - Broadband Termination Equipment

Contact details

North America

Bothell

Allied Telesyn Inc.
19800 North Creek Parkway, Suite 200
Bothell, WA 98011
Tel: +1 425 487 8880
Fax: +1 425 489 9191

San Jose

Allied Telesyn Inc.
3200 North First Street
San Jose, CA 95134
Tel: +1 408 519 8700
Fax: +1 408 736 0100

Raleigh

Allied Telesyn Inc.
920 Main Campus Drive, Suite 203
Raleigh, NC 27606
Tel: +1 919 645 4800

Europe

Milan, Italy

Allied Telesyn International Services
Piazza Tirana n. 24/4 B
20147 Milano
Tel: +39 02 414112.1
Fax: +39 02 414112.61

Asia Pacific

Christchurch, New Zealand

Allied Telesyn Research Limited
27 Nazareth Avenue
PO Box 3011
Riccarton
Tel: +64 3 339 3000
Fax: +64 3 339 3001

Japan

Allied Telesyn KK
5/6th Floor, TOC Building
7-22-17 Nishi-Gotanda
Shinagawa-ku, Tokyo 141-8635
Tel: +81 3 5437 6000
Fax: +81 3 5437 6060

Philippines

Allied Telesyn Philippines, Inc.
3/F Net One Center
3rd Avenue Cor. 26th Street
Bonifacio Global City
1634 Taguig, Metro Manila
Tel: +63 2 815 3130
Fax: +63 2 815 3170

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Worldwide Headquarters

European & Latin America Headquarters

Allied Telesyn International SA
Via Motta 24
6830 Chiasso
Switzerland
Tel: +41 91 69769.00
Fax: +41 91 69769.11

European Sales & Marketing Operation

Allied Telesyn International Services
Piazza Tirana n. 24/4 B
20147 Milano
Italy
Tel: +39 02 414112.1
Fax: +39 02 414112.61

Japan – Headquarters

Allied Telesyn KK
4th Floor; TOC Building
7-22-17 Nishi-Gotanda
Shinagawa-ku, Tokyo 141-8635

Hardware:

Tel: +81 3 5436 3350
Fax: +81 3 5436 3351

Software:

Tel: +81 3 5436 3360
Fax: +81 3 5436 3361

United States – Headquarters

Allied Telesyn Inc.
19800 North Creek Parkway, Suite 200
Bothell, WA 98011
Tel: +1 425 487-8880
Fax: +1 425 489-9191

Worldwide Locations

Australia

Allied Telesyn International (Aust) Pty Ltd
Suite 3, Level 2, 706 Mowbray Road
Lane Cove, NSW 2066
Tel: +61 2-9438-5111
Fax: +61 2-9420-4944

Austria & Eastern Europe

Allied Telesyn Vertriebsgesellschaft m.b.H.
Lainzer Strasse 16/5-6
1130, Vienna
Tel: +43 1 876 24 41
Fax: +43 1 876 25 72

Belgium

Allied Telesyn International
Kranenberg 6
B-1731 Zellik
Tel: +32 2 481 60 68
Fax: +32 3 458 47 90

Canada

Allied Telesyn International Canada Inc.
1595 – 16th Avenue
Suite 301
Richmond Hill, ON. L4B 3N9
Tel: +1 905 709-7444
Fax: +1 905 709-7400

China

Allied Telesyn (China) Ltd.
Rm1006-1009, China Life Tower16
Chaos Yang Men Way Street
Chaos Yang District
Beijing, 100020, PRC
Tel: +86 10-85252299
Fax: +86 10-85252298

Czech Republic

Tel: +420 606 619 182

Denmark

Allied Telesyn International
Jyllinge ErhvervsCenter
Mollehaven 8
DK-4040 Jyllinge
Tel: +45 46734835
Fax: +45 46734837

Finland

Allied Telesyn International Ltd.
Metsäniemendonkuja 10
02130 ESPOO
Tel: +358 9 7255 5290
Fax: +358 9 7255 5299

France

Allied Telesyn International SAS
12, avenue de Scandinavie
Parc Victoria, Immeuble "Le Toronto"
91953 Courtaboeuf Cédex - Les Ulis
Tel: +33 1 60 92 15 25
Fax: +33 1 69 28 37 49

Germany

Allied Telesyn International GmbH
Zeppelinstr. 1
85399 Hallbergmoos
Tel: +49-811-999 37-0
Fax: +49-811-999 37-22

Greece

Allied Telesyn International S.r.l.
Kiriazi 14-16
145 62 Kifisia
Tel: +30 210 6234 200
Tel & Fax: +30 210 6234 209

Hong Kong

Allied Telesyn Ltd
Unit 1812-1816, 18/F, BEA Tower
Millennium city #5
418 Kwun Tong Rd.
Kwun Tong, Kowloon
Tel: +852 2263 6566
Fax: +852 2318 0720 / 2756 8130

Hungary

Allied Telesyn Vertriebsgesellschaft m.b.H.
Ady Endre Srt. 31
H-1221 Budapest
Tel: +36 1 241 9693
Fax: +36 1 226 6794

Iceland

Tel: +47 22 70 04 70

India

Allied Telesyn International Pte Ltd
192, Manu Apartments
6 Mayur Vihar I
Delhi 110091
Tel: +91 11 225 6691
Fax: +91 11 249 2453

Indonesia

Allied Telesyn International (Asia) Pte Ltd
Wisma 46 Kota BNI, Level 34-08
Jl. Jendral Sudirman Kav. 1
Jakarta 10220
Tel: +62 21 574 9831
Fax: +62 21 574 9832

Ireland

Allied Telesyn International Ltd.
Unit 5 Keypoint
North West Business Park
Ballycoolin, Dublin 11
Tel: +353 87 9878715
Fax: +353 1 8829778

Italy – North

Allied Telesyn International S.r.l.
Piazza Tirana n. 24/4 B
20147 Milano
Tel: +39 02 41304.1
Fax: +39 02 41304.200

Italy – East

Tel: +39 348 1522583
Tel & Fax: +39 049 8868175

Italy – South

Allied Telesyn International S.r.l.
Via Troilo il Grande 3
00131 Roma
Tel: +39 06 41294507
Fax: +39 06 41404801

Latin America – Support Office

Allied Telesyn International
19800 North Creek Parkway, Suite 200
Bothell, WA 98011 USA
Tel: +1 425 481 3852
Fax: +1 425 489 9191
Toll Free (Mexico & Puerto Rico):
(95-800) 424 5012 ext. 3852

Latin America – Argentina

Allied Telesyn International
Sarmiento 539 2o Piso
C1041AAK Buenos Aires
Tel: +54 11 52172000
Fax: +54 11 52172000

Latin America – Brazil

Allied Telesyn International
R. Dr. Costa Junior, 215
05002-000 - Sao Paulo - SP
Cel: +55 11 9966-6161
Tel: +55 11 3873-2792
Fax: +55 11 3873-9090

Latin America – Mexico

Allied Telesyn International
AV. Insurgentes Sur No. 800, 8o piso
Col. Del Valle, C.P. 03100
Tel: +52 (55) 5448 4989
Fax: +52 (55) 5448 4910

Malaysia

Allied Telesyn International (Asia) Pte Ltd
C-6-4, Wisma Goshen, Plaza Pantai
5, Jalan 4/83a, Off Jalan Pantai Baru
Kuala Lumpur 59200
Tel: +60 3 2287 2110
Fax: +60 3 2287 0771

The Netherlands

Allied Telesyn International BV
Hoeksteen 26
2132 MS Hoofddorp
Tel: +31 20 6540 246
Fax: +31 20 6540 249

New Zealand

Allied Telesyn
29 Kings Crescent
PO Box 30601
Lower Hutt, Wellington
Tel: +64 4 566 4438
Fax: +64 4 566 4465

Norway

Allied Telesyn International
Ole Deviksvei 4
0666 Oslo
Tel: +47 22 70 04 70
Fax: +47 22 70 04 01

Poland

Allied Telesyn Vertriebsgesellschaft m.b.H.
Sp. z o.o. Oddział w Polsce
ul. Elektoralna 13
00-137 Warszawa
Tel: +48 22 620 82 96
Fax: +48 22 654 48 56

Portugal

Allied Telesyn International
Centro de Escritórios das Laranjeiras
Praça Nuno Rodrigues dos Santos, N° 7
Sala 211
1600-171 Lisbon
Tel: +351 21 721 74 00
Fax: +351 21 727 91 26

Romania

Allied Telesyn Vertriebsgesellschaft m.b.H.
Justitiei nr 62
Sector 4, Bucharest
Tel: +40-21-211-1817/8245
Fax: +40-21-210-5610

Russia

Allied Telesyn International
Ul. Korovij Vall
Dom 7 Str. I Office 190
119049 Moscow
Tel: +7095 9358585
Fax: +7095 9358586

Serbia & Montenegro

Allied Telesyn Vertriebsgesellschaft m.b.H.
Krunska 6
11000 Belgrade
Tel & Fax: +381-11-3033-208/209
+381-11-3235-639

Singapore

Allied Telesyn International (Asia) Pte Ltd
11 Tai Seng Link
Singapore 534182
Tel: +65 6383-3832
Fax: +65 6383-3830

Spain

Allied Telesyn International S.L.U
Plaza de España, 18
1st Floor Office, 28008 Madrid
Tel: +34 91 559 1055
Fax: +34 91 559 2644

Switzerland

Allied Telesyn International GmbH
Leutschenbachstrasse 95
CH-8050 Zürich
Tel: +41 308 3920
Fax: +41 308 3500

Sweden

Allied Telesyn Ltd
Arenavägen 41, plan 12
121 77 Stockholm-Globen
Tel: +46 8-13 14 14
Fax: +46 8-750 60 04

Taiwan

Allied Telesyn
7F, No. 10, Lane 345, YangGuang St.
NeiHu Chiu, Taipei 114
Tel: +886 2-8751-9162
Fax: +886 2-8751-9163

Thailand

Allied Telesyn International (Asia) Pte Ltd
719 A3 Floor, Zone D2, KPN Tower
Rama 9 Road, Bangkapi
Huaykwang, Bangkok 10320
Tel: +66 2 717 0242
Fax: +66 2 717 0243

Turkey

Allied Telesyn International
6. Cadde 61/2 Öveçler
06460 Ankara
Tel: +90 312 472 1054/55
Fax: +90 312 472 1056

United Kingdom

Allied Telesyn International Ltd.
100 Longwater Avenue
GreenPark
Reading, RG2 6GP
Tel: +44 118 920 9800
Fax: +44 118 975 2456

United Kingdom - Services

Allied Telesyn International Services Ltd
European Service Logistics Centre
Unit 24, Westmead Industrial Estate
Swindon, SN5 7YT
Tel: +44 1793 501401
Fax: +44 1793 431099

United States - Sales only

Allied Telesyn Inc.
20000 Governors Drive, Suite 203
Olympia Fields, IL 60461
Tel: +1 708 679 5300



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USA Headquarters | 19800 North Creek Parkway | Suite 200 | Bothell | WA 98011 | USA | T: +1 800 424 4284 | F: +1 425 481 3895

European Headquarters | Via Motta 24 | 6830 Chiasso | Switzerland | T: +41 91 69769.00 | F: +41 91 69769.11


Asia-Pacific Headquarters | 11 Tai Seng Link | Singapore | 534182 | T: +65 6383 3832 | F: +65 6383 3830

www.alliedtelesyn.com

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