/\/\ Allied Telesis™

MiniMAP 9100
integrated Multiservice Access Platform

The MiniMAP 9100 is a member of Allied Telesis' iMAP family of IP-based integrated Multiservice Access Platforms. At 1RU, the MiniMAP 9100 is the industry's smallest modular Ethernet and IP access platform and a perfect solution for service providers deploying converged IP voice, video and data services.

Built around Allied Telesis' carrier-grade Ethernet technology, the MiniMAP 9100 delivers the same carrier-grade reliability and media flexibility offered by larger platforms in the iMAP family.

Any Service, Any Access, One Platform
iMAP access solutions support fiber Gigabit Ethernet point-to-point services, GEPON point-to-multipoint service, as well as 10Mbps and 100Mbps Ethernet in addition to, copper based xDSL data, Voice-over-IP (VoIP) POTS telephony, and legacy T1/E1 private circuits.

High Bandwidth
MiniMAP 9100 has been optimized for the deployment of high bandwidth Fiber-To-The-Node (FTTN) applications and also supports xDSL to exploit the existing copper local loop. Once FTTN is deployed the inherent high bandwidth capability of the MiniMAP 9100 enable service providers to selectively migrate copper based xDSL broadband subscribers from the same installed node to become high bandwidth Fiber-To-The-Home (FTTH) customers. This migration strategy to FTTH is only implemented as and when a subscriber needs a higher bandwidth service, it therefore only requires a small incremental in capital expenditure and no operational changes.

Video Optimization
By leveraging bandwidth-efficient IP multicast and IGMP, and with advanced features including IP filtering, DHCP relay and Layer 4 IP flow metering, all iMAP solutions are optimized for video services delivery where QoS capability and security is critical.

Modular Scalability
The MiniMAP access solution ensures that the total iMAP solution maintains modular network scalability in an operationally-efficient manner. The MiniMAP is designed for high bandwidth Fiber-To-The-Node (FTTN) applications that typically require the implementations of many small low-density nodes. With MiniMAP 9100s included in the solution you do not sacrifice features or subscriber-interface options and simultaneously in the network the iMAP 9400/9700 platforms can be used for higher-density applications.

Network Resiliency
iMAP access solutions are built around a fault-tolerant switch core designed to operate with 99.999% network availability. Combined with Allied Telesis' Ethernet Protection Switched Rings (EPSR) transport technology, iMAP is designed to be a fundamental building block of any carrier-grade IP access or transport network.

Service Differentiation
QoS schemes for iMAP access solutions are designed to ensure that application performance and availability are not impacted with network growth. Features such as IP DiffServ and IEEE 802.1p/Q enable tiered data services for both residential and business/enterprise users.

Manageability
iMAP access solutions are designed to be managed and provisioned remotely using Allied Telesis' AlliedView™ Network Management System (NMS), a comprehensive network management platform designed to increase network uptime and throughput while reducing operating expense. NMS provides a XML/SOAP Web services based Northbound Interface (NBI) for easy interfacing to other Operational Support Systems (OSS) and Business Support Systems (BSS) to further reduce operational expenditure.

MiniMAP 9100 Chassis Configuration
4 slot modular 1RU system
- 1 control and network module slot
- 3 line card slots

MiniMAP 9100 Service and Access Options
- Optionally 1 x 10Gbps slot
- Up to 60 active Ethernet FTTx ports
- Up to 30 10/100TX Ethernet ports
- Up to 24GbE circuits
- Up to 72 POTS
- Up to 72 ADSL2+
- Up to 48 POTS with 24 ADSL2+ combo
- Up to 24 T1/E1 circuit emulation service
- Up to 72 G.SHDSL
- Up to 192 GEPON (32:1 split)
- Up to 72 VDSL2

MiniMAP 9100 Key Features
- Carrier-class IP/Ethernet access
- Video-optimized for IP Triple Play services
- 10Gbps support
- Environmentally-hardened
- Resilient network transport
- Line card hot swapping
- Common family of iMAP line cards
- Simultaneous fiber and copper access
- Life-line VoIP POTS telephony
- Full front access
- AC and DC chassis/power options
- ETSI and ANSI compliant

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Specifications:

Physical Characteristics

Dimensions: MiniMAP 9101: 44cm x 30cm x 4.45cm
(W x D x H) (DC Power) 17.4" x 11.9" x 1.75"
Weight: 4kg, 8.8lbs

MiniMAP 9102/3: 44cm x 51.3cm x 4.45cm
(AC Power) 17.4" x 20.2" x 1.75"
Weight: 7.5kg, 16.5lbs

Rack unit: Single rack unit
Access: Full frontal access

Power Characteristics

Dual -48vDC, -36vDC to -57.7vDC
100-220V AC and 50-60Hz
AC available in simplex or redundant

Environmental Specifications

Operating temp: -40°C to 65°C
Storage temp: -40°C to 85°C
Relative humidity: 5% to 95%, non-condensing

Regulatory Approvals

FCC Part 15 Class A/ANSI C63.4
EN 300 386 V1.3.1:2001-09/EN 55022:1998, Class A
VCCI Class A; ITE/ CISPR 22:1997 Class A
EN 300 386 V1.3.1:2001-09/EN 55022:1998, Class A
EN 300 386 V1.3.1:2001-09/EN 61000-4-3:1998
EN 300 386 V1.3.1:2001-09/EN 6100-4-6:1996
EN 300 386 V1.3.1:2001-09/EN 61000-4-4:1995
EN 300 386 V1.3.1:2001-09/EN 61000-4-5:1995
EN 300 386 V1.3.1:2001-09/EN 61000-4-2:1999
UL/cUL 60950: IEC60950
NEBS Level 3, GR-1089 Issue 3, GR63 Issue 2
USDA RUS

Standards and Compliance

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 (EFM)
IETF RFC 1112   IP multicasting/IGMP snooping v1
IETF RFC 2236   IP multicasting/IGMP snooping v2
IETF RFC 3619   EAPS w/ATI extensions for EPSR
IETF RFC 2131   DHCP
IETF RFC 1350   TFTP

Allied Telesis' iMAP family of integrated
Multiservice Access Platforms

MiniMAP 9100 Ordering Information

iMAP Chassis

Model	Description	Part #
MiniMAP 9101	3 slot mini chassis with DC power	AT-TN-9101-80
MiniMAP 9102	3 slot mini chassis with AC power	AT-TN-9102-xx
MiniMAP 9103	3 slot mini chassis with dual AC power	AT-TN-9103-xx

iMAP Common Control and Network Module

Model	Description	Part #
CFC12	12GbE switch controller card with 4GbE SFP slots and 2 x 1000T ports	AT-TN-408

iMAP Line Cards

Model	Description	Part #
ADSL24A	24 port ADSL line card (annex A)	AT-TN-121
ADSL24B	24 port ADSL line card (annex B)	AT-TN-124
CES8	8 port CES8 T1 line card	AT-TN-119
FE10	10 port 10/100TX line card	AT-TN-102
FTTX (SM, dual fiber)	10 port 100Mbps single-mode fiber line card	AT-TN-107
FTTX (SM, single fiber)	10 port 100Mbps single-mode, single fiber line card	AT-TN-109
FX20	20 port 100Mbps single-mode, single fiber line card	AT-TN-139
GE8	8 port GbE line card	AT-TN-117
GEPON2	2 port GEPON line card	AT-TN-118
NTE8	8 port NxT1 MLPPP line card	AT-TN-125
PAC24	24 port POTS ADSL combo line card (NA only)	AT-TN-123
PAC24EU	24 port POTS ADSL combo line card (EU only)	AT-TN-136
POTS24	24 port POTS line card	AT-TN-113
SHDSL24	24 port SHDSL line card	AT-TN-127
VDSL24B	24 port VDSL2 annex B line card	AT-TN-128
VDSL24A	24 port VDSL2 annex A line card	AT-TN-130
Filler	Full size service slot filler plate	AT-TN-M000

iMAP Power Options

Model	Description	Part #
AC power	AC power unit	AT-TNE010-xx

Where xx =	
	10 for U.S. power cord
	20 for no power cord
	30 for U.K. power cord
	40 for Australian power cord
	50 for European power cord