

MiniMAP™ 9100

integrated Multiservice Access Platform



The Allied Telesis MiniMAP™ 9100 is a member of the Allied Telesis IP-based integrated Multiservice Access Platform (iMAP) family. 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.

Overview

Built on Allied Telesis carrier-grade Ethernet technology, the MiniMAP 9100 delivers the same 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, GEAPON 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

The Allied Telesis 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 enables 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 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 Allied Telesis 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, features or subscriber-interface options are not sacrificed, 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 Ring (EPSRing™) 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.

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

MiniMAP 9100 Service and Access Options

- ▶ Optionally 1 x 10Gbps slot
- ▶ Up to 72 active Ethernet FTx ports
- ▶ Up to 30 10/100TX Ethernet ports
- ▶ Up to 72GbE 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 192 GEAPON (32:1 split)
- ▶ Up to 72 VDSL2

MiniMAP 9100 Chassis Configuration

- 4-slot modular 1RU system
- ▶ One control and network module slot
- ▶ Three line channel Units

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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. The 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.

Specifications

Physical Characteristics

MiniMAP Dimensions (W x D x H)	
9101,DC Power	44 cm x 30 cm x 4.45 cm (17.4 in x 11.9 in x 1.75 in)
Weight	4 kg (8.8 lb)
9102/3, AC Power	
	44 cm x 51.3 cm x 4.45 cm (17.4 in x 20.2 in x 1.75 in)
Weight	7.5 kg (16.5 lb)
Rack unit	Single rack unit
Access	Full front access

Power Characteristics

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

Environmental

Operating temperature -40°C to 65°C (-40°F to 149°F)
Storage temperature -40°C to 85°C (-40°F to 185°F)
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 61000-4-6:1996
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

Ordering Information

iMAP Chassis

MiniMAP 9101
3-slot mini chassis with DC power
Part number: AT-TN-9101-80

MiniMAP 9102

3-slot mini chassis with AC power
Part number: AT-TN-9102

MiniMAP 9103

3-slot mini chassis with dual AC power
Part number: AT-TN-9103

iMAP Common Control and Network Module

iMAP CFC12
12GbE switch controller card with 4GbE SFP slots and 2 x 1000T ports
Part number: AT-TN-408



NETWORK SMARTER

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