

iMAP 9700

integrated Multiservice Access Platform



As the service provider network is evolving to all IP/Ethernet, the iMAP is leading the field with the world's first true carrier-grade IP access platform. Its unique carrier-class IP/Ethernet capabilities are suitable for any service provider building an IP access network for current and future services. Founded on the premise that IP/Ethernet solutions are the basis of any viable next-generation network, Allied Telesis provides industry leading capabilities that position the iMAP as the future of access for IOCs, ILECs, IXCs, PTTs, ISPs, PUDs, education, federal and highly reliable military solutions. Leveraging the cost benefits of Ethernet, the Allied Telesis iMAP is the definitive IP access platform that addresses the migration to carrier-grade Ethernet. The iMAP is equivalent to an IP DSLAM, IP BLC, IP transport and IP FTTH in one integrated platform that provides services from POTS to 10Gbps Ethernet.

The iMAP 9700 flagship provides scalability to 10Gbps with industry-leading densities unmatched by the competition. For next-generation access networks, the ability to offer xDSL, FTTH, GEAPON, Ethernet, VoIP POTS and legacy T1/E1 leased lines all in a single integrated platform will define how access network are integrated with the IP/MPLS data core. Future unified communication services will be seamlessly supported with the access infrastructure available from Allied Telesis today.

Any Service, Any Access, One Platform

iMAP access solutions support 10Mbps, 100Mbps and Gigabit Ethernet point-to-point services, GEAPON point-to-multipoint service as well as copper based xDSL data, Voice-over-IP (VoIP) POTS telephony, and legacy T1/E1 private circuits.

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

iMAP 9700 has been optimized for the deployment of high bandwidth Fiber-To-The-Node (FTTN) applications and with the support of xDSL also exploits the existing copper local loop. Once FTTN is deployed the inherent high bandwidth capability of the iMAP 9700 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 in capital expenditure and no operational changes. High-density applications will use the iMAP 9700 platforms while medium density applications can take advantage of the iMAP 9400 and low-density applications can use the MiniMAP 9100 without sacrificing any features or subscriber-interface options. Other advantages include utilizing the same common control modules across both iMAP 9400 and 9700 and same resilient network transport for all the iMAP based systems.

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 Software (NMS), a comprehensive network management platform designed to increase network uptime and throughput while reducing operating expense.

Network Transport

iMAP supports network transport capabilities from 1 to multiple Gigabit and 10Gigabit Ethernet Protected Switched Rings (EPSR). The iMAP can simultaneously support ring, hub and spoke and string topologies. A node outage or a fiber break will cause the network transport rings which are automatically self healing to switch to an alternative topology within ~50 milliseconds.

iMAP 9700 Chassis Configuration

Modular 9RU system

- 2 control module slot
- 2 network transport slots
- 16 line card slots
- Optionally 2 -10 Gigabit slots

iMAP 9700 Service and Access Options

- Optionally 4 x 10Gbps slots
- Up to 160 active Ethernet FTTH
- Up to 160 10/100TX Ethernet ports
- Up to 128GbE circuits
- Up to 384 POTS
- Up to 384 ADSL2+
- Up to 192 POTS with 192 ADSL2+ combo
- Up to 128 T1/E1 circuit emulation service
- Up to 384 G.SHDSL
- Up to 1024 GEAPON (32:1 split)
- Up to 384 VDSL2

iMAP 9700 Key Features

- Carrier-class IP/Ethernet access
- Video-optimized for IP Triple Play services
- Support for up to 4 10Gbps rings
- Environmentally-hardened
- Redundant common control
- Resilient network transport
- Line card hot swapping
- Common family iMAP line cards
- Simultaneous fiber and copper access
- Life-line VoIP POTS telephony
- Full front access
- ETSI and ANSI compliant

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Specifications:

Physical Characteristics

Dimensions: 44cm x 30cm x 40cm
(W x D x H) 17.4" x 11.9" x 15.75"
Weight: 31 lbs
Rack unit: 9RU
Access: Full frontal access

Power Characteristics

Dual -48vDC, -36vDC to -57.7vDC
AC power kits available

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/Allied Telesis extensions for EPSR
IETF RFC 2131 DHCP
IETF RFC 1350 TFTP



Allied Telesis' iMAP family of integrated Multiservice Access Platforms

iMAP 9700 Ordering Information

iMAP Chassis

Model	Description	Part #
iMAP 9700	17 slot chassis with DC power without filler plates	AT-TN-250G

iMAP Common Control

Model	Description	Part #
CFC24	24GbE switch controller card	AT-TN-401
GE3	3 x GbE WAN interface card	AT-TN-301
CFC56	56GbE switch controller card	AT-TN-407
XEI	10GbE WAN interface card	AT-TN-308

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 TI line card	AT-TN-119
FE10	10 port 10/100TX line card	AT-TN-102
FTTX (MM)	10 port 100Mbps multi-mode fiber line card	AT-TN-104
FTTX (SM, dual fiber)	10 port 100Mbps single-mode fiber line card	AT-TN-107
FTTX (SM, dingle fiber)	10 port 100Mbps single-mode, single fiber line card	AT-TN-109
FTTX (SM, single fiber)	20 port 100Mbps single-mode single fiber line card	AT-TN-139
GE8	8 port GbE line card	AT-TN-117
GEPON2	2 port GEAPON line card	AT-TN-118
NTE8	8 port N x T1 MLPPP line card	AT-TN-125
PAC24	24 port POTS ADSL combo line card (annex A)	AT-TN-123
POTS24	24 port POTS line card	AT-TN-113
SHDSL24	24 port SHDSL line card	AT-TN-127
VDSL24A	24 port VDSL2 line card (annex A)	AT-TN-130
VDSL24B	24 port VDSL2 line card (annex B)	AT-TN-128
ADSL48A	48 port ADSL2+ annex A line card	AT-TN-131
ADSL48B	48 port ADSL2+ annex B line card	AT-TN-132
Filler	Full size service slot filler plate	AT-TN-M000

iMAP Power Options

Model	Description	Part #
AC starter	iMAP 9700 AC starter kit	AT-TN-RI 13-xx*
AC adder	iMAP 9700 AC adder kit	AT-TN-RI 14-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

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