iMAP 9700

integrated Multiservice Access Platform

As the service provider network evolves to all IP/Ethernet, the Allied Telesis integrated Multiservice Access Platform (iMAP™) 9700 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.

Overview

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 9700 as the future of access for IOCs, ILECs, IXC, PTTs, ISPs, PUDs, education, federal and highly reliable military solutions. Leveraging the cost benefits of Ethernet, the Allied Telesis iMAP 9700 is the definitive IP access platform that addresses the migration to carrier-grade Ethernet. The iMAP 9700 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 Allied Telesis iMAP 9700 provides scalability to 10Gbps with industry-leading densities unmatched by the competition. For next-generation access networks, the ability to offer xDSL, FTTx, GEPON, Ethernet, Voice over IP (VoIP) POTS and legacy T1/E1 leased lines all in a single integrated platform will define how access networks 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 9700 access solutions support 10Mbps, 100Mbps and Gigabit Ethernet point-to-point services, GEPON point-to-multipoint service as well as copper-based xDSL data, 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 — iMAP 9700 solutions are optimized for video services delivery where QoS capability and security is critical.

Modular Scalability

The 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 FTTH customers. This migration strategy is only implemented as and when a subscriber needs a higher bandwidth service, therefore requiring only a small incremental in capital expenditure and no operational changes. High-density applications will use the iMAP 9700 platform while medium density applications can take advantage of the Allied Telesis eight-slot iMAP 9810 and low-density applications can use the Allied Telesis three-slot MiniMAP™ 9100 without sacrificing any features or subscriber-interface options.

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, the iMAP platform is designed to be a fundamental building block of any carrier-grade IP access or transport network.

Key Features

▶ Carrier-class IP/Ethernet access
▶ Video-optimized for IP Triple Play services
▶ Support for up to 4 x 10Gbps rings
▶ Environmentally hardened
▶ Redundant common control
▶ Resilient network transport
▶ Channel unit hot-swapping
▶ Common family iMAP channel units
▶ Simultaneous fiber and copper access
▶ Lifeline VoIP POTS telephony
▶ Full front access
▶ ETSI and ANSI compliant

iMAP 9700 Chassis Configuration Modular 9RU system
▶ Two control module slots
▶ Two network transport slots
▶ 16 channel unit slots
▶ Optionally 2 x 10 Gigabit slots

iMAP 9700 Service and Access Options
▶ Optionally 4 x 10Gbps slots
▶ Up to 384 active Ethernet FTTx
▶ Up to 160 x 10/100TX Ethernet ports
▶ Up to 384GbE 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 GEPON (32:1 split)
▶ Up to 384 VDSL2

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Network Transport

The iMAP 9700 supports network transport capabilities from one to multiple Gigabit and ten Gigabit EPSRings. The iMAP 9700 can simultaneously support ring, hub and spoke and string topologies. A node outage or a fiber break will cause the automatically self-healing network transport rings to switch to an alternative topology within ~50 milliseconds.

Service Differentiation

QoS schemes for iMAP 9700 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.

Specifications

Physical Characteristics

Dimensions (W x D x H)	44 cm x 30 cm x 40 cm (17.32 in x 11.81 in x 15.75 in)
Weight	14.06 kg (31 lb)
Rack unit	9 RU
Access	Full front access

Power Characteristics

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

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 Listed

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

Ordering Information

iMAP 9700
Channel Unit
17-slot chassis with DC power (without filler plates)
Part number: AT-TN-250G-B

iMAP Common Control
iMAP CFC56
56GbE switch control module
Part number: AT-TN-407

iMAP GE3
3-port GbE WAN interface card
Part number: AT-TN-301

iMAP XE1S
Single-port 10Gbps SFP+ WAN interface card
Part number: AT-TN-310

iMAP XE6
6-port 10Gbps SFP+ WAN interface card
Part number: AT-TN-309

iMAP Channel Units
iMAP ADSL24
24-port ADSL channel unit (annex A, L, M)
Part number: AT-TN-140

iMAP CES8
8-port CES8 T1 channel unit
Part number: AT-TN-119

iMAP FX20BX
20-port 100Mbps single-mode, single fiber channel unit
Part number: AT-TN-139

iMAP FX20BX40
20-port 100Mbps single-mode, single fiber FTTx
Part number: AT-TN-142

iMAP GE8
8-port GbE channel unit
Part number: AT-TN-117

iMAP GE24BX
24-port 1Gbps single-mode, single fiber FTTx
Part number: AT-TN-144

iMAP EPON2
2-port GEPON channel unit
Part number: AT-TN-118

iMAP PAC24
24-port POTS ADSL combo channel unit (annex A)
Part number: AT-TN-145

iMAP POTS24
24-port POTS channel unit
Part number: AT-TN-143

iMAP SHDSL24
24-port SHDSL channel unit
Part number: AT-TN-127

iMAP UDSL 24
24 port ADSL2+/VDSL2 channel unit
Part Number: AT-TN-146

iMAP Filler
Full size filler plate (single)
Part number: AT-TN-M000A

iMAP Filler
Full size filler plate (eight pack)
Part number: AT-TN-M000C

iMAP Power Options
iMAP AC Starter
iMAP 9700/9810 AC starter kit
Part number: AT-TN-R113-xx

iMAP AC Adder
iMAP 9700/9810 AC adder kit
Part number: AT-TN-R114-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

Allied Telesis™

NETWORK SMARTER