iMAP™ EPON2 (AT-TN-118)

Dual Port EPON Channel Unit

As broadband deployments continue the inevitable migration to Fiber To The Home (FTTH), Allied Telesis is well positioned to support any FTTH infrastructure with the Allied Telesis integrated Multiservice Access Platform (iMAP™) EPON2 channel unit.

FTTH Over Any Last-Mile Infrastructure

As customer demand for IP-enabled services increases, Service Providers must weigh the benefits of point-to-point versus point-to-multipoint deployments. The Allied Telesis integrated iMAP is the only IP access platform that offers solutions for both scenarios—eliminating the uncertainty of which last-mile infrastructure to deploy.

Using the same approach to last-mile design, the iMAP EPON2 channel unit is made with hardened components offering Service Providers of all kinds the added flexibility of CO or remote deployments. With standards-based 1000BASE-PX20 U/D pluggable SFP optics, the iMAP EPON2 channel unit provides optical reach of up to 20 km while supporting up to 32 subscribers per PON port. Supporting key features such as QoS, security and IP Video, the iMAP EPON2 channel unit is a key component to any IP Triple Play deployment relying on PON last-mile infrastructures.

As IPTV services continue to reach out to residential communities, Service Providers using the Allied Telesis iMAP and iMAP EPON2 solution can accommodate the most advanced communications services available today. Supporting 16:1 or 32:1 splits, the iMAP EPON2 channel unit can support PON bandwidth up to 1Gbps bidirectional. With powerful Quality of Service (QoS) traffic management, the iMAP EPON2 provides maximum bandwidth guarantees and minimum bandiwth limits on a per-subscriber, per-service basis.

Continuing the IP Convergence over PON

In choosing EPON IEEE 802.3ah standards-based technology, Allied

Telesis has enabled Service Providers to offer native IP-based services over either existing or new-build PON infrastructures. One of the inherent benefits of EPON versus other PON alternatives is the ability to transport all traffic in its native IP/Ethernet format. This protocol efficiency is vital to the IP convergence of all traffic — Voice, Video and Data.

Specifications

Interface Specifications

Number of PON ports	Two
Number of subscribers per PON	32
Backplane capacity	2Gbps
Physical design	Front access SFP optics

Port Specifications

Priority queues per port	Eight
RMON counters	
Traffic classifier support	
Traffic classifier action support	
User-configurable per-VLAN SLA	

EPON Standards

IEEE 802.3ah	EFM TM-2004
IEEE 802.3ah	EFM PON clause 64
IEEE 802.3ah	OAM clause 57
IEEE 802.3ah	Optics clause 60

Protocols and Specifications

IEEE 802.1Q VLAN bridging
IEEE 802.1p Prioritization
IETF RFC 1112 IP multicasting/IGMP snooping v1
IETF RFC 2236 IP multicasting/IGMP snooping v2
DHCP relay agent option 82 (RFC 3046)
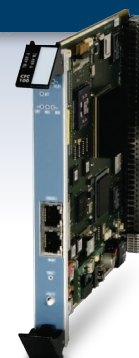
Power Requirements

Maximum power	25W

Environmental Specifications

Operating temp	-5°C to 55°C (23°F to 131°F)
Storage temp	-40°C to 75°C (-40°F to 167°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 6100-4-6:1996
EN 300 386 V1.3.1:2001-09/EN 61000-4-4:1995

Key Features

- Dual PON ports
- Support for 32 subscribers per PON
- IEEE 802.3ah OAM
- SFP optics — 20 km support
- 192 VLANs per PON
- Extensive ACL support

Quality of Service
- Eight queues
- Per VLAN/Service SLA
- Per subscriber SLA
- Min/max downstream/upstream BW guarantees
- Strict priority scheduling

Security
- MAC flooding — VLAN-based
- DHCP option 82 relay/snooping
- Upstream forwarding only for all subscribers

Supported Services
- High-speed Internet
- VoIP
- IPTV
- Gaming
- Business VPN

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

Ordering Inormation

iMAP EPON2
Dual port EPON channel unit
Part number: AT-TN-118

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