



XE1 AT-TN308-A 10 Gigabit Ethernet Network Module

Aggregation of GbE Network Traffic

The XE1 module available for use with the iMAP 9000 series is a new advancement in network card flexibility and capacity supporting 10GbE. As network bandwidth continues to grow, Service Providers find increasing bandwidth requirements farther in the local loop. The ability to maintain a single IP infrastructure to address Network Transport bandwidth as well as last mile access bandwidth is pivotal for any network operator. The XE1 module is primarily intended to be used as an aggregation element with the introduction of Allied Telesis' 10G iMAP common control upgrade (CFC56) and the GE8 service module. Combined, these modules provide 10G transport bandwidth as well as aggregation of up to 8 EPSR™ rings providing an extremely flexible, reliable and dense aggregation point from any network location. As network designs continue to blend the line between Access and Transport, the XE1 will become a key component of any Carrier Ethernet and IP Triple Play network design.

The XE1 network module, available for use with the iMAP 9400 and iMAP 9700 chassis groups equipped with the CFC56 controller module, is a new advancement in protected 10 Gigabit aggregation speed and transport. The XE1 provides unmatched flexibility for the aggregation of bandwidth-intensive applications and services including the delivery of IP Triple Play over any media (Fiber, Copper and xDSL) as well as Carrier Ethernet services to residential and business customers. It continues to support the carrier-class capabilities from the Allied Telesis Network Module family (GE3) in addition to increased capacity and the enhanced QoS capabilities.

Metro Ethernet Connectivity

Up to 2 XE1 Network Modules are supported per an iMAP 9400 or 9700 platforms providing unprecedented capabilities for the delivery of user-centric services as well as network traffic aggregation. When used in conjunction with the CFC56, the 10 GE ports can be used as either as network interfaces for subtended remote locations using EPSR protected transport rings with sub 50ms failover; aggregation into Metro routers (Provider Edge) or for point-to-point connectivity between PoPs. This is in addition to allowing the service provider to support at wire-speed non-blocking up to 17 different service modules in the iMAP for delivering value-add next-generation broadband services and applications.

Part of Allied Telesis' IP Broadband Access Family

Whether it is Metro Ethernet, IP Triple Play, Broadband VDSL2/ADSL2+, FTTH or POTS, the iMAP family is the ideal platform for last mile service delivery. Added to the ability to support 100% of the available iMAP service modules, the XE1 network module has also been designed to survive the most rugged environmental conditions. This makes it perfect choice for networks which require high flexibility and carrier capabilities anywhere in the operators' network.

Provisioning, management and diagnostics of subscriber ports can be accomplished from either the iMAP command line interface or via the Allied View NMS. The XE1 also has a fully supported SNMP interface and supports all the major MIBs.

Key Features

- 1 x 10 GbE GbE Wirespeed ports for Uplinks
- XFP Optics
- Support for EPSR™ 50ms Resiliency
- Hardened for OSP designs

QoS

- Eight Queues
- Strict Priority scheduling
- VLAN Stacking

Security

- Upstream Forwarding Only
- Extensive ACL Support

Services Supported

- High Speed Internet
- VoIP
- IPTV
- Business VPN
- Network Element Subtending



Allied Telesis' iMAP family of integrated Multiservice Access Platforms

XEI | AT-TN308-A 10 Gigabit Ethernet Network Module

Interface Specifications

Number of 10 GbE connections: 1
 Backplane capacity: 2 x 10 Gbps
 Physical design: Front Access

Port Specifications

Number of VLANs per port: 4095
 Priority queues: 8
 Dropped packet counter
 Full traffic classifier support
 Full traffic classifier action support

Protocols and Specifications

IEEE 802.1Q VLAN Bridging
 IEEE 802.1p Traffic Class Expediting
 IETF RFC 1112 IP Multicasting/IGMP Snooping v1
 IETF RFC 2236 IP Multicasting/IGMP Snooping v2
 DHCP Relay Agent option 82 (RFC 3046)
 IEEE 802.1d,w Rapid Spanning Tree
 IEEE 802.1q MEV (Double Tagging)
 IETF RFC 3619 EAPS w/ATI Extensions for EPSR
 IETF RFC 2131 DHCP
 IETF RFC 1350 TFTP

Power Requirements

Maximum Power: 53W

Environmental Specifications

Operating Temp: -40C to 65C
 Storage Temp: -40C to 75C
 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

Ordering Information

XEI		
Model	Description	Part #
XEI	1x 10 GbE WAN interface card	AT-TN-308-A

iMAP 9x00 Chassis

Model	Description	Part #
iMAP 9700	17-slot Chassis Group w/o filler plates	AT-TN-250G-B
iMAP 9400	7-slot Chassis Group w/o filler plates	AT-TN-251G

Supported iMAP Line Cards and Accessories

Model	Description	Part #
FE10	10-port, 100Mbps Fast Ethernet Service Module	AT-TN-102-A
FX10FX	10-port, 100Mbps MultiMode Fiber Service Module	AT-TN-104-A
FX10LX	10-port, 100Mbps SingleMode Fiber Service Module	AT-TN-107-A
FX10BX	10-port, 100Mbps SM, single fiber Service Module	AT-TN-109-A
POTS24	24-port, POTS Service Module	AT-TN-113-A
GE8	8-port, Gigabit Ethernet Service Module	AT-TN-117-A
EPON2	2-port, GEAPON Service Module	AT-TN-118-A
CES8	8-port, T1/E1 Circuit Emulation Service Module	AT-TN-119-A
ADSL24A	24-port, ADSL2+ Annex A Service Module	AT-TN-121-A
PAC24	24-port, POTS/ADSL2+ Annex A Combo	AT-TN-123-B
ADSL24B	24-port, ADSL2+ Annex B Service Module	AT-TN-124-B
NTE8	8-port, MLPPP T1/E1 Service Module	AT-TN-125-A
SHDSL24	24-port, SHDSL Service Module	AT-TN-127-A
VDSL24B	24-port, VDSL2 Service Module (AnnexB)	AT-TN-128-A
ADSL24SA	24-port, ADSL2+ with splitters Service Module	AT-TN-129-A
VDSL24A	24-port, VDSL2 Service Module (AnnexA)	AT-TN-130-A
ADSL48A	48-port, ADSL2+ Service Module (AnnexA)	AT-TN-131-A
ADSL48B	48-port, ADSL2+ Service Module (AnnexB)	AT-TN-132-A
POTS24EU	24-port POTS service module, EU harmonized impedance	AT-TN-136-A

Supported iMAP Network Cards

Model	Description	Part #
GE3	3x GbE WAN interface card	AT-TN-301-A

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