FX10FX

AT-TN104-A 10 Port 100Mbps FX FTTx Service Module

Fiber to the Business over Multi-mode Dual Fiber

The 10 x 100FX is one of three Allied Telesis FTTH/B service modules for the iMAP product family. This card provides 10 ports at 100Mbps (full-duplex) over two fibers (Multi-mode). Also available are Single-mode single fiber and dual fiber variations. The Gigabit feed into the iMAP backplane allows the FX10 modules to operate completely at wirespeed.

The additional Layer 2+ switching allows Service Providers to meet the demands of multi-cast IP video, Video on Demand, voice and data services. With the FX10 modules, you can be assured future bandwidth needs of HDTV will be addressed as consumer demand increases.

Allied Telesis' OAM solution allows for individual full configuration and monitoring of each port. The FX10 modules provide configuration tools to:

- Control or limit subscriber access
- Enforce port security rules
- Limit services to a port
- Manage QoS across the card
- Support network double-tagging
- Control ingress or egress service rates

A multitude of applications can be supported with the fiber-based 100Mbps access interfaces including:

- FTTH for Voice, Video and Data Services
- FTTB for IP PBX, Ethernet and VPN services
- Campus LAN network uplinks

Whether it is derived voice or HDTV IP Video, the FX10 will satisfy all bandwidth and mission critical services with ease.

Part of Allied Telesis' IP Broadband Access Family

Whether it is broadband ADSL2+, FTTH, POTS or T1/E1 circuits, the iMAP family is the ideal platform for last mile service delivery. The FX10FX line card can be used with any of the iMAP family of carrier grade, IP Multiservice Access platforms:

- iMAP 9700 (9RU, 17 service slots)
- iMAP 9400 (3RU, 7 service slots)
- MiniMAP 9100 (1RU, 3 service slots)

Provisioning, management, and diagnostics of subscriber ports can be accomplished from either the iMAP command line interface or the NMS.

The FX10FX has been designed to survive the most rugged environmental conditions. It can be confidently deployed in either a central office or in outdoor enclosures withstanding extremes of heat, cold, and light exposure.

Allied Telesis provides a large portfolio of FTTx, Ethernet and xDSL transport and access equipment. In addition, Allied Telesis provides a complete set of xDSL and FTTx CPE solutions in the form of Multiservice Gateways, Layer 2/ Layer 3 switches, routers or media converters to terminate the broadband link.

Key Features

Port-based
- VLANs
- VLAN translation
- Double-tagging (HVLAN)
- Filtering
- Ingress metering
- Egress port rate limiting
- Countings
- Classification and remarking
- RMON

QoS
- Four queues
- Priority Scheduling

Security
- MAC limiting (up to 64)
- MAC flooding – VLAN-based

Services
- STP and RSTP
- Video-optimized
- Upstream forwarding only

Support for
- Business Services
- Dual fiber, Multi-mode

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Interface Specifications

Number of ports: 10
AT-TN104: Multi-mode, Dual Fiber
TxRx 1310nm
8dB Optical Budget
SFF with LC Connector
Backplane capacity: 1Gbps
Physical design: Front Access

Protocols and Specifications

IEEE 802.1d,w Rapid Spanning Tree
IEEE 802.1D Bridging
IEEE 802.1Q VLAN Bridging
IEEE 802.1p Prioritization
IEEE 802.3ah EFM OAM
IEEE 802.3ad Link Aggregation
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 37W

Environmental Conditions

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 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

Allied Telesis' iMAP family of integrated Multiservice Access Platforms

Ordering Information

FX10FX

Model	Description	Part #
FX10FX	10 ports, 100Mbps FX Multi-mode Dual fiber	AT-TN-104-A

iMAP 9x00 Chassis

Model	Description	Part #
iMAP 9700	17-slot chassis with DC power with faceplates	AT-TN-250GF
iMAP 9700	17-slot chassis with DC power without faceplates	AT-TN-250G
iMAP 9400	7-slot chassis with DC power with faceplates	AT-TN-251GF
iMAP 9400	7-slot chassis with DC power without faceplates	AT-TN-251G
MiniMAP 9101	3-slot mini chassis with DC power	AT-TN-9101-A-80
MiniMAP 9102	3-slot mini chassis with AC power	AT-TN-9102-A-XX*

iMAP Common Control

Model	Description	Part #
CFC24	24GbE switch controller card	AT-TN-401-B
GE3	3x GbE WAN interface card	AT-TN-301-A
CFC56	56 GbE switch controller card	AT-TN-407-A
XE1	10GbE WAN interface card	AT-TN-308-A
CFC12	12GbE switch controller card	AT-TN-408-A

Related iMAP FTTX Line Cards

Model	Description	Part #
FTTX (SM, Dual Fiber)	10-port 100Mbps singlemode fiber line card	AT-TN-107-A
FTTX (SM, Single Fiber)	10-port 100Mbps singlemode, single fiber line card	AT-TN-109-A
GE8	8-port GbE line card	AT-TN-117-A
GEPON2	2-port GEPON line card	AT-TN-118-A
Filler	Full size service slot filler plate	AT-TN-M000-A

Related FTTX CPE

Model	Description	Part #
RG613SH	intelligent Multiservice Gateway, 3x LAN, 2x FXS, Multimode Dual fiber WAN interface	AT-RG613SH-10

*Where XX = 10 for U.S. power cord
= 20 for no power cord
= 30 for U.K. power cord
= 40 for Australia power cord
= 50 for Europe power cord

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