



FX20

AT-TN-139, AT-TN-142 20 Port 100BX FTTx Service Modules

AT-TN-139-A

20 port 100BX FTTx services module

AT-TN-139-B

20 port 100BX FTTx services module

AT-TN-142-A

20 port 100BX 40km FTTx services module

Industry Leading Fiber Density

The FX20 provides 20 ports of 100BX Ethernet on a single iMAP service module, doubling the density of the FX10BX. Designed to meet the explosive growth in FTTx subscribers, the FX20 leads the industry in fiber density giving service providers maximum subscriber coverage with minimal equipment footprint. This breakthrough in fiber density is enabled through the use of patented new fiber optic technology. As with the FX10 family of service modules, the FX20 is compatible with all Allied Telesis 100BX iMGs.

High Definition Ethernet

Like all iMAP service modules, the FX20 delivers a full suite of Layer 2+ capabilities that are designed for reliable, secure, and wirespeed Triple Play service delivery. Implemented using an advanced Ethernet switch fabric, the FX20 sets a new standard for implementing fine grained QoS and guaranteed service level agreements. Advances over the FX10BX service module include; more queues per port, support for more VLANs and multicast groups, and precision port rate limiting. In addition, the FX20 hardware is ready to support sophisticated traffic management features such as per queue rate limiting and WRR scheduling.

Part of Allied Telesis' IP Broadband Access Family

Whether it is broadband ADSL2+, FTTH or POTS, the iMAP family is the ideal platform for last mile service delivery. The FX20 line card can be used with any of the iMAP family of carrier grade platforms:

- iMAP 9700 (9RU, 17 service slots)
- iMAP 9810 (3RU, 8 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.

Key Features

- 20 100BX wirespeed ports

QoS

- Eight queues
- Strict priority scheduling
- Hardware capable of supporting WRR
- VLAN stacking

Security

- Upstream forwarding only
- Extensive ACL support

Services

- High-speed Internet
- VoIP
- IPTV
- Business VPN
- T1/E1 circuit emulation



Allied Telesis' iMAP family of integrated Multiservice Access Platforms

FX20 | AT-TN-139, AT-TN-142 20 Port 100BX FTTx Service Module

Specifications:

Interface Specifications

Number of 100BX ports: 20
 Single-mode, single fiber
 Tx 1550nm, Rx 1310nm
 19dB optical budget
 SFF with SC connector
 Backplane capacity: 1Gbps
 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
 ARP filtering
 Egress/ingress port rate limiting: 64kbps increment
 Hardware capable of supporting per queue rate limiting
 Ingress metering: 64kbps increment

Protocols and Specifications

IEEE 802.1d,w Rapid Spanning-Tree
 IEEE 802.1D Bridging
 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
 RFC 3046 DHCP relay agent option 82

Power Requirements

Maximum power: 42W

Environmental Specifications

AT-TN139-A

Operating temp: -5°C to 55°C
 Storage temp: -40°C to 75°C
 Relative humidity: 5% to 95%, non-condensing

AT-TN139-B

Operating temp: -40°C to 65°C
 Storage temp: -40°C to 75°C
 Relative humidity: 5% to 95%, non-condensing

AT-TN-142-A

Operating temp: -5°C to 55°C
 Storage temp: -40°C to 75°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 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

FX20		
Product	Description	Model #
FX20	20 ports, 100BX service module	AT-TN-139-A
FX20	20 ports, 100BX service module	AT-TN-139-B
FX20	20 ports, 100BX 40km service module	AT-TN-142-A

iMAP 9x00 Chassis

Product	Description	Model #
iMAP 9810	8-slot chassis with DC power	AT-TN-253G
iMAP 9700	17-slot chassis with DC power	AT-TN-250G
iMAP 9400	7-slot chassis with DC power	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

Product	Description	Model #
CFC24	24GbE switch controller card	AT-TN-401-E
GE3	3x GbE WAN interface card	AT-TN-301-C
CFC12	12GbE switch controller card	AT-TN-408-C
CFC56	56GbE switch control module	AT-TN-407-C
CFC100	100GbE switch control module	AT-TN-409-A
XE1	10GbE WAN interface card	AT-TN-308-A

Related Allied Telesis Equipment

Product	Description	Model #
FX10BX	10 port, 100Mbps single-mode, single fiber service module	AT-TN-109-A
iMG726MOD PKGI	Base active Ethernet outdoor media gateway, 6 Ethernet ports, 2 FXS ports, single fiber WAN	AT-iMG726MOD-PKG1
iMG746MOD PKGI	Active Ethernet outdoor media gateway, 6 Ethernet ports, 4 FXS ports, single fiber WAN	AT-iMG746MOD-PKG1
iMG726MOD	Base active Ethernet outdoor media gateway, 6 Ethernet ports, 2 FXS ports	AT-iMG726MOD-MN
iMG746MOD	Base active Ethernet outdoor media gateway, 6 Ethernet ports, 4 FXS ports	AT-iMG746MOD-MN
10km WAN	AT-iMG726MOD/746MOD 100BX WAN module	AT-iMG646MOD-W01-001
40km WAN	AT-iMG726MOD/746MOD 100BX 40KM WAN module	AT-iMGMOD-WAN-100M-40-BD

Where xx = 10 for U.S. power cord 30 for U.K. power cord 50 for European power cord
 20 for no power cord 40 for Australian power cord

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