NTE8

AT-TN125-A 8 Port T1/E1 MLPPP Service Module

Bonded T1/E1 Ports using MLPPP for Network Backhaul

Remote locations have often been ignored by Service Providers due to the lack fiber infrastructure between COs and remote terminals/locations. As the rest of the last mile network converges on IP/Ethernet delivery technologies, these locations need a means to leverage IP/Ethernet while also offering legacy POTS and last mile broadband services.

The Network Terminating Equipment (NTE8) 8 port subscriber module is ideal for delivery of converged POTS and DSL services to remote locations. Using MLPPP as a bonding technology, one to 8 ports can be bonded together to deliver up to 16Mbps of bandwidth to remote locations fed by traditional T1/E1 circuits. Since the NTE8 uses MLPPP as the bonding protocol for the 8 individual T1/E1 ports, all ports will carry converged POTS, VoIP and Data traffic - either collectively or individually. If port or network outages disable individual T1/E1 ports on the NTE8 module, the remaining MLPPP bundled circuits will continue to carry network traffic.

The NTE8 service module is intended to be used in any of the iMAP product chassis. In addition, individual NTE8 modules at a central location can be used to aggregate traffic from multiple remote locations. All traffic is mapped to service carrying VLANs for proper traffic segmentation and classification.

Provide Business Router Connectivity

The secondary application that is supported by the NTE8 service module is providing last mile access to small and medium sized businesses utilizing T1/E1 PPP uplinks. As last mile access continues to evolve, Service Providers can leverage the same last mile access infrastructure used to deliver residential services to delivery T1/E1 services.

Business routers employing PPP over T1/E1 WAN uplinks can use the NTE8 to terminate data circuits and transport traffic over standard VLAN circuits throughout the last mile network. Using iMAP elements at a central location, VLANs can be switched to the appropriate IP Data network. Leveraging standards based IP/Ethernet technologies, the iMAP and NTE8 service modules truly converge all traffic - residential and business.

Part of a 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 NTE8 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 AT-TN125 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.

Key Features

- 8 T1/E1 ports
- Support for MLPPP Encapsulation
- Network WAN Connectivity Between iMAPs
- Business CPE Support
- Support for Multiple Remote Locations
- Flexible control of traffic priorities for voice, data and Business applications
- QoS
- Four Queues
- Priority scheduling

Allied Telesis' iMAP family of integrated Multiservice Access Platforms

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Interface Specifications

Number of ports: 8
Connector: RJ-21 (Female)

T1 Specifications

Line rate: 1.544Mbps
Line code: AMI or B8ZS
Framing: ESF, SF

E1 Specifications

Line rate: 2.0484Mbps
Line code: AMI or HDB3
Framing: G.704, CFC4 or no-CRC4

Other Specifications

Timing Source: Loop timed, Card timed
Holdover Accuracy: Stratum 4 local oscillator
RFC1661 – Point-to-Point Protocol (PPP)
RFC1990 – PPP Multilink Protocol (MP)
RFC1570 – PPP LCP Extensions
RFC3518 – Point-to-Point Protocol (PPP) Bridging Control Protocol (BCP)

Power Requirements

Maximum power: 17W

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

Ordering Information

NTE8

Model	Description	Part #
NTE8	8 ports, T1/E1 MLPPP Service Module	AT-TN-125-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 Line Cards and Accessories

Model	Description	Part #
POTS24	24-port, POTS Service Module	AT-TN-113-A
CES8	8-port, T1/E1 Circuit Emulation Service Module	AT-TN-119-A
PAC24	24-port, POTS/ADSL2+ Combo w/Splitters, Annex A	AT-TN-123-A
SHDSL24	24-port, G.SHDSL Service Module	AT-TN-127-A
VDSL24	24-port, VDSL2 Service Module, Annex B	AT-TN-128-A
ADSL24SA	24-port, ADSL2+ w/Splitters, Annex A	AT-TN-129-A
NTE8 Cable	NTE8 RJ21 to Unterminated	AT-TN-C021-A-YY**
Filler	Full size service slot filler plate	AT-TN-M000-A

*Where XX = 10 for U.S. power cord
= 30 for U.K. power cord
= 40 for Australia power cord
= 50 for Europe power cord

**Where YY = 005 for 5 ft
= 010 for 10 ft
= 015 for 15 ft
= 020 for 20 ft
= 030 for 30 ft
= 040 for 40 ft
= 050 for 50 ft
= 060 for 60 ft
= 070 for 70 ft
= 080 for 80 ft
= 090 for 90 ft

USA Headquarters | 19800 North Creek Parkway | Suite 200 | Bothell | WA 98011 | USA | T: +1 800 424 4284 | F: +1 425 481 3895
European Headquarters | Via Motta 24 | 6830 Chiasso | Switzerland | T: +41 91 69769.00 | F: +41 91 69769.11
Asia-Pacific Headquarters | 11 Tai Seng Link | Singapore | 534182 | T: +65 6383 3832 | F: +65 6383 3830
www.alliedtelesis.com

 617-000108 Rev. C