



## SHDSL24

### AT-TNI27-A 24 Port SHDSL Service Module

#### Address Business Customer needs with the new SHDSL24 Service Module

Allied Telesis has utilized the latest in SHDSL technology to deliver a new 24-port SHDSL service module for the iMAP product family. The SHDSL module is ideal for business customers where symmetric bandwidth is required over long or short distances. SHDSL enables the service provider to utilize existing copper infrastructure for Internet access, TLS or inter-office connectivity.

The requirements of business users are different than those of residential customers. In many cases, a broadband connection is required to maintain data communications between two or more offices with an equal amount of bandwidth demanded for upstream and downstream applications. With the new SHDSL24 module, a service provider can also bond two copper pairs together for a symmetrical 4.6Mbps connection.

The new SHDSL24 module has been designed with the capabilities of SHDSL.bis in mind. This includes processing power and backplane connectivity engineered for the higher speeds associated with SHDSL.bis. As new business applications are envisioned, the iMAP with SHDSL24 is positioned as an ideal solution that can support any network application.

#### Continuing the delivery of Ethernet based services

Adding to the broad portfolio of Ethernet based access technologies offered by Allied Telesis, the recent implementation of SHDSL is designed for data transport over one or two copper pairs. As SHDSL based services continue to grow, service providers can offer cost effective and reliable services with the SHDSL24 using single or multiple copper pairs.

Combined with the growing family of Allied Telesis' iMAP product family, the SHDSL24 is a vital part of any solution aimed at delivering Business Ethernet services. Service providers can rely on Allied Telesis to continue to develop innovative, cost competitive and reliable products focused on access infrastructures - Residential or Business.

#### Part of Allied Telesis' IP Broadband Access Family

Whether it is broadband ADSL2+, VDSL2, SHDSL, FTTH or POTS, the iMAP product family makes the ideal platform for last mile service delivery. The SHDSL24 line cards 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 AlliedView NMS. The SHDSL24 service module supports 2-wire (2.3Mbps) mode or 4-wire (4.6Mbps) mode on a per-port basis.

The SHDSL24 service module 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

- 24 ports of SHDSL
- 2.3Mbps per port
- Port Bonding
- SHDSL.bis\*
- Hardened for OSP designs

#### QoS

- Eight Queues
- Strict Priority Scheduling
- VLAN Stacking

#### Security

- Upstream Forwarding Only
- Extensive ACL Support
- VC-VLAN mapping
- Ethernet based technology

#### Services Supported

- High Speed Internet
- VoIP
- Business VPN

\*Future



Allied Telesis' iMAP family of integrated Multiservice Access Platforms

# SHDSL24 | AT-TN127-A 24 Port SHDSL Service Module

## Interface Specifications

Number of ports: 24  
Connector: RJ-21 (Female)

## SHDSL Standards and Specifications

ITU-T G.991.2 (g.shdsl)  
ATM/1483 Transport of Ethernet  
ITU-T G.994.1 Hand Shake Protocol  
TC PAM line coding

## Protocols and Specifications

IEEE 802.1Q VLAN Bridging  
IEEE 802.1p Prioritization

## 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 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  
GR-57-CORE

## Ordering Information

SHDSL24		
Model	Description	Part #
SHDSL24	24 ports, SHDSL Service Module	AT-TN-127-A

iMAP 9x00 Chassis		
Model	Description	Part #
iMAP 9700	17-slot chassis with DC power without filler plates	AT-TN-250G
iMAP 9400	7-slot chassis with DC power without filler plates	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 and Network		
Model	Description	Part #
CFC24	24GbE switch controller module	AT-TN-401-B
CFC12	12GbE switch controller module	AT-TN-408-A
CFC56	56GbE switch controller module	AT-TN-407-A
GE3	3x GbE WAN interface module	AT-TN-301-A
XE1	10GbE WAN interface module	AT-TN-308-A

Related iMAP Line Cards and Accessories		
Model	Description	Part #
ADSL24A	24-port, ADSL2+ Annex A Service Module	AT-TN-121-A
ADSL24B	24-port, ADSL2+ Annex B Service Module	AT-TN-124-B
VDSL2B	24-port, VDSL2/ADSL2+ Annex B Service Module	AT-TN-128-A
VDSL2A	24-port, VDSL2/ADSL2+ Annex A Service Module	AT-TN-130-A
Filler	Full size service slot filler plate	AT-TN-M000-A

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

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