



## AH510D 1 / 2 / 4 pairs G.SHDSL Router



### Description

AH510D is a high-speed product of G.SHDSL series. Understanding the urgent needs of both bandwidth and routing functions, AH510D is designed to provide the enterprise customer a high performance standalone unit with rich of routing features via single/two/four pairs G.SHDSL line. Strongly committed to friendly configuration, AH510D has the Web-based and GUI-based configuration features for configuring the unit in the easiest way ever.

AH510D is an ideal product for enterprise or mobile base station backhaul for Ethernet and optional E1 access.

### Features

- Easy configuration and management with password control for various application environments
- Efficient IP routing and transparent learning bridge to support
- broadband Internet services
- VPN pass-through for safeguarded connections
- Fully ATM protocol stack implementation over SHDSL
- PPPoE support user authentication with PAP / CHAP
- SNMP management with SNMPv1 / SNMPv2 agent and MIB II
- Getting enhancements and new features via firmware upgrade
- Built-in 4-port 10/100Mbps switch
- Web, Telnet supported
- One pair or Two pairs or four pairs DSL
- WAN Port ping Disable /Enable
- Support IEEE802.1p with 4 – level Queue
- Support VLAN 802.1Q



- Support 4094 VLAN and VLAN ID and VLAN tag and remove features
- Support basic firewall configuration. Support IP / MAC / DNS filter.
- Support SNTP protocol to get network time.
- Support CESoP/SAToP for E1 circuit emulation service (optional)

## Specification

### ■ G.SHDSL Specification

- Downstream and upstream symmetrical data rates up to 60M in EFM with four pairs DSL line
- ITU G.991.2 Annex A, B, F, G
- Line Code: TC-PAM 16/32/128
- EFM bonding and SHDSL M-pair mode for 1/2/4 pairs
- Fixed/ Auto rate negotiation : compliant G.994.1
- STU-C/STU-R mode selectable
- Impedance: 135 ohm
- Performance monitoring: (error seconds, severely error seconds, unavailability seconds)
- SNR /Attenuation Value calculation

### E1 Interface (Optional)

- Support CESoP/SAToP for E1 circuit emulation [RFC 5086, RFC4553]
- Meet ITU G.703, G.704, G.823,G.8261,G.821 and G.826
- Support ACR clock mode

### Physical interfaces

- 4 ports RJ45 for 10/100Mbs Ethernet LAN connection
- 1 RJ45 port for 1-2 E1 option (optional)
- 2 RJ-11 port for G.SHDSL connection
- 1 console port for local configuration and management

### Software

#### ATM Protocol

- ATM adaptation layer type 5 (AAL5)
- VC multiplexing and LLC encapsulation
- Multi-protocol over AAL5 (RFC 1483/2684 bridged and routed PDU)
- 1 PVCs



- UNI 3.1/4.0 PVC
- I.610 OAM F5 loopback

#### PPP Support

- PPP (RFC 1661)
- PPP over Ethernet (RFC 2516)
- User authentication with PAP/CHAP

#### Routing Capability

- Support IP/TCP/UDP/ARP/ICMP protocols
- IP routing with static routing and RIPv1/RIPv2 (RFC1058/2453)
- Network address translation (NAT/PAT) (RFC1631)
- DNS relay and caching (RFC1034/1035)
- DHCP server (RFC2131/2132)
- Support RIPv1 / RIPv2
- Support IP / MAC / DNS Filter
- Support DDNS function

#### Bridging

- IEEE 802.1D transparent learning bridge
- Up to 2K MAC learning addresses

#### Configuration

- Local console (RS232)
- Telnet access
- Web-based GUI (HTTP)

#### Network Management

- Web-based GUI for express setup, configuration and management
- Menu-driven interface for local console and Telnet access
- Password protected management and access control list for administration
- SNMP management with SNMPv1/SNMPv2c
- Software upgrade via TFTP server

#### ■ Hardware

Power Supply DC Jack	External power adapter 12V DC, 1000mA
LAN Port	RJ45 x 4
Reset Button	1
WAN Port	RJ45 x 2 (DSL1/2, DSL3/4)
Console Port	RJ45 x 1
Operating temperature	0° to 45°C



Storage temperature	-10° to 70°C
Housing	plastic case
Dimension	220mm x 150mm x 40mm (L x W x H)

## Ordering

### AH510D

- xP Specify the SHDSL loop.
  - 1P Single pair G.SHDSL only
  - 2P Two pair G.SHDSL
  
  - 4P Four pair G.SHDSL