

ADSL-I Modules of H3C Series Routers

I. Preface

With the rapid development and deep into the people's heart of IT and network technologies, the requirement on network bandwidth is increasingly higher. Network construction and transformation w ave are also stepping into peak period. At the same time, reducing network operation cost and introd ucing competition system will lead to a significant reduction of network construction investment. The building of new network and the alteration of existing network also have the same important characte ristics, i.e. high performance and high bandwidth.

Previously, medium/low-end router can provide interfaces such as ISDN to meet the small and mediu m businesses requirements on Internet. Today, with the maturity and development of DSL technology , ADSL gradually becomes the main approach of SMB to access the Internet for its high bandwidth. ADSL, also called as asymmetrical digital subscriber loop, is an asymmetrical version of xDSL. In gen eral, ADSL can provide users with 32Kbps ~ 8Mbps of downlink rate and 32K~1Mbps of uplink rate while not interfering the general communication services like voice or ISDN on the same line.

Enabling ADSL interface on medium/low end router can provide a new solution for various SMBs or s ome large branches and offices with requirements on high bandwidth. With digital code modulation te chnology, ADSL uses common line as transport media to directly connect to the operator's DSLAM ( Digital Subscriber's Loop Access Multiplexer) and then to ATM/IP backbone via DSLAM, meeting requirements such as high speed data communication and video on demand.

II. 1ADSL-I/2ADSL-I Module

1 Introduction

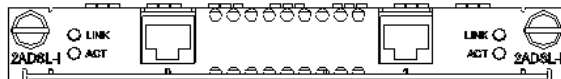
1ADSL-I/2ADSL-I is the short of 1/2 port ADSL over ISDN interface module, where ADSL and ISDN a re the abbreviation of Asymmetric Digital Subscriber's Loop and Integrated Services Digital Network r espectively. RJ11 interface provided by ADSL-I module is equal to WAN interface. LAN users are allo wed to directly connect to operator's DSLAM (Digital Subscriber's Loop Access Multiplexer) through c ommon analog user line, and then connect to ATM/IP backbone or Internet through DSLAM, meeting requirements such as high speed data communication and video on demand. ADSL-I occupies bands higher than 138 KHz to provide data transmission service, guaranteeing no adverse effects on ISDN service. Usually 32Kbps ~ 8Mbps of downlink rate and 32Kbps~1Mbps of uplink rate are provided to users.

The detailed features of ADSL-I module in system are as follows:

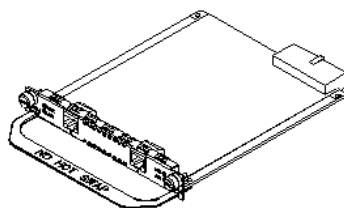
1. Support manually activate/deactivate ADSL line and provide convenient troubleshooting metho ds;
2. Support G.992.1 interface standard and can be configured as adaptive;
3. Support grid coding function of ADSL interface, enhancing the stability of ADSL connection.

2 Module Appearance

The appearance of 1ADSL-I/2ADSL-I module is shown as follows respectively:



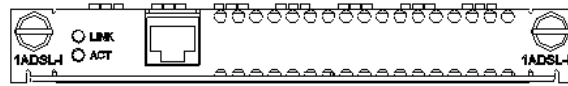
1ADSL-I module appearance diagram



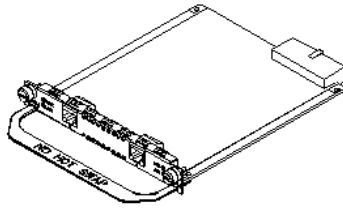
2ADSL-I module appearance diagram

## Module Interface Indicator

1ADSL-I/2 ADSL-I module panel is shown as follows:



1 ADSL-I module panel



2ADSL-I module panel

The following table shows implication of various indicators:

Implication of 1ADSL-I/2ADSL-I module indicator

LINK	Extinguished represents the link is not connected; lighting represents the link is connected.
ACT	Extinguished represents no data has been received/sent; flashing represents some data has been received/sent.

## 3 Module Interface Cable

1ADSL-I/2ADSL-I module interface cable is common line.

& Note:

The standard configuration of 1ADSL/2ADSL module includes common line. User can independently purchase external splitter depending on requirements.

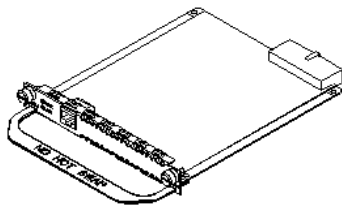
Connection of Module Interface Cable

To cabling ADSL-I module interface, installing a splitter is needed. Please cabling according to the following steps:

Step 1: one side of line is attached to RJ11 socket of ADSL-1 module of a router, the other is attached to the internal ADSL-I interface of a splitter;

Step 2: use the second line to attach ISDN NT1 to the splitter;

Step 3: use the third line to attach the foreign ADSL-I interface of the splitter to ISDN network.



ADSL-I module connection diagram

## 4 Module Interface Attributes

1ADSL-I/2ADSL-I module interface attributes

Attributes	1ADSL-I module	2ADSL-I module
Type of connector	RJ11	
Interface number	1	2
Interface standard	G. 992.1	
Interface rate	Downlink rate is 8Mbps, uplink rate is 1024Kbps	
Type of interface cable	ADSL-I module interface cable is common line	
Service	Access to ADSL over ISDN	

## 5 Networking Application

Like ADSL module.