

G.SHDSL Modules of H3C Series Routers

I. Preface

G.SHDSL is the short of single-pair high-speed digital subscriber line. It is an uplink/downlink symmetric DSL technology and supports 192Kbps-2320Kbps rates. Theoretically the transmission distance at 144Kbps rate can be 7.9km under single-pair mode and 3.8km at 2320Kbps rate. When working under four lines mode, above rate or theoretical transmission distance can be doubled. G.SHDSL interface module developed on medium/low end router can directly connect to DSLAM via one or two user line in 8040, enabling user to access the Internet. It can also enable constructing networks like campus network by working under CO/CPE mode.

II. Introduction

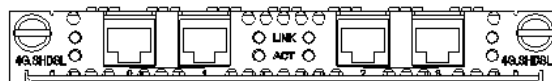
1G.SHDSL/2G.SHDSL/4G.SHDSL is the short of 1/2/4 port Single-Pair High-Speed Digital Subscriber Line interface module. With TCPAM (Trellis Coded Pulse Amplitude Modulation) coding method, G.SHDSL can provide up to 2.3Mbps symmetric rate. Rate can be matched automatically depending on line length and line condition. G.SHDSL is in wide use and its transmission distance is farther than ADSL. It can replace the traditional E1/T1 line for high speed data service access. Unlike ADSL that occupies the same line with POTS or ISDN service for transmission, this modulation method occupies the band beginning from 0Hz.

The specified function characteristics of 1G.SHDSL/2G.SHDSL/4G.SHDSL module in the system are as follows:

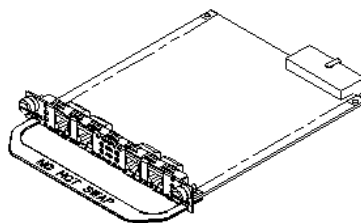
- 1. support manually activate/deactivate G.SHDSL line, providing convenient troubleshooting approaches;
- 2. support G.991.2 interface standard, it also can be configured adaptive mode.

III. Module Appearances

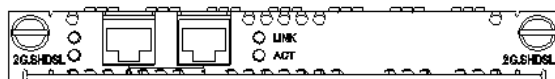
1G.SHDSL/2G.SHDSL/4G.SHDSL module appearances are shown as follows respectively:



1G.SHDSL module appearance diagram



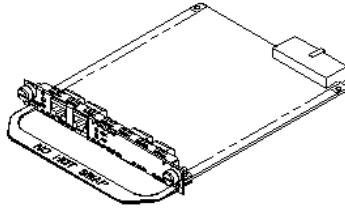
2G.SHDSL module appearance diagram



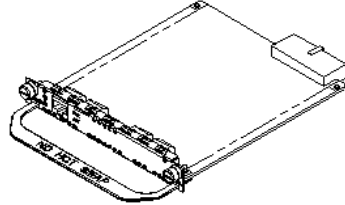
4G.SHDSL module appearance diagram

Module Interface Indicator

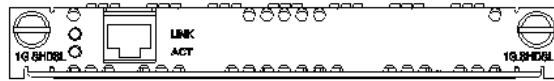
1G.SHDSL module panel is shown as follows:



1G.SHDSL module panel

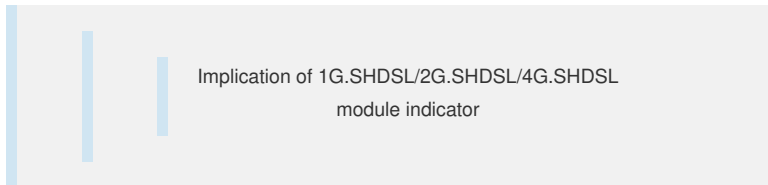


2G.SHDSL module panel



4G.SHDSL module panel

The following table shows the implication of various indicators:



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

IV. Module Interface Attributes

1G.SHDSL/2G.SHDSL/4G.SHDSL module interface attributes

Attributes	1G.SHDSL module	2G.SHDSL module	4G.SHDSL module
Type of connector	RJ11		
Connector number	1	2	4
Interface standard	G.991.2		
Interface rate	Under single-pair mode, the supported range of receiving/sending independent symmetric rate is from 192 Kbps to 2304Kbps, with rate variety step 8Kbps.		
Type of interface cable	The interface cable of G.SHDSL module is a line		
Service	G.SHDSL access through common line		

V. Module Interface Cable

1G.SHDSL/2G.SHDSL/4G.SHDSL module interface cable is a common line.

& Note:

The standard configuration of 1G.SHDSL/2G.SHDSL/4G.SHDSL module includes common lines.

Connection of Module Interface Cable

The connection of G.SHDSL module interface cable is rather simple. You only need to connect one side of a line to RJ11 socket of G.SHDSL module of a router, and the other side to PSTN network.

