

# LOOP-H3310

G.SHDSL TDM Standalone



The Loop-H3310 provides high-speed digital transport over a single copper pair using standard 16 TCPAM/32 TCPAM technology in TDM mode. Versatility of this series comes from a choice of digital interfaces and a choice of line rates, with the lower line rates applicable to longer reaches.

This standalone version is intended for customer premises installation only. The H3310 provides a high-speed data link with DTE interfaces: E1, V.35, X.21, E1 plus 2 Ethernets (Bridge or Router mode), 2 Ethernets (Bridge or Router mode).

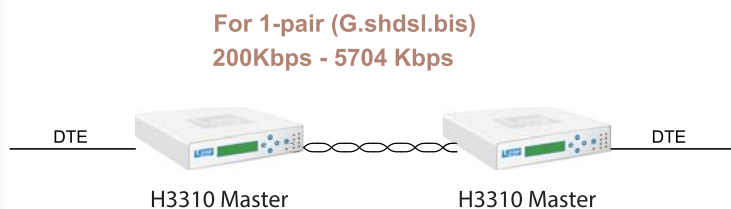
## FEATURES

- Point to point application
- WAN port
  - 1-pair/2-pair/1+1 G.SHDSL mode selectable
  - 1 pair G.SHDSL.bis
  - 1-pair/2-pair G.SHDSL.bis with hardware bridge option only
  - STU-C (master) or STU-R (slave) mode selectable
- Tributary port
  - Support up to 2-pair G.SHDSL & Support up to 1-pair G.SHDSL.bis
    - One E1 port
    - One V.35 DTE port
    - One X.21 DTE port
    - One E1 and two Ethernet ports (Router/SNMP Mode)
    - One E1 and two Ethernet ports (Bridge/SNMP Mode)
    - Two Ethernet ports (Bridge/SNMP Mode)
    - Two Ethernet ports (Router/SNMP Mode)
- Supports up to 2-pair G.SHDSL.bis
  - One E1 and two Ethernet ports (hardware Bridge/SNMP Mode) with QoS function
  - Two Ethernet ports (hardware Bridge/SNMP Mode) with QoS function
- Local and remote firmware download
- Local configuration upload/download
- Local/remote management through console port, LAN, or WAN
- Management port and interface
  - LCD and keypad (optional)
  - Console port with VT-100 menu
  - SNMP
    - Embedded SNMP
    - Telnet
- Standards compliance
  - ITU-T G.991.2 (G.SHDSL Annex A, B) and G.994.1
  - ITU-T G.991.2 (G.SHDSL.bis Annex F) and G.994.1

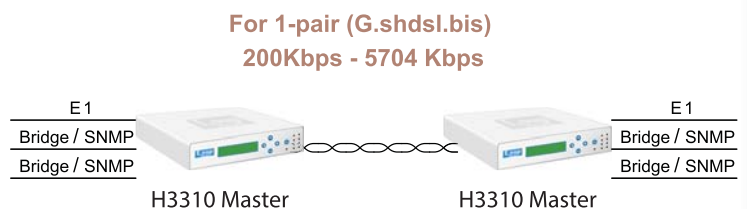
## APPLICATION DIAGRAM

### G.SHDSL.bis Solution

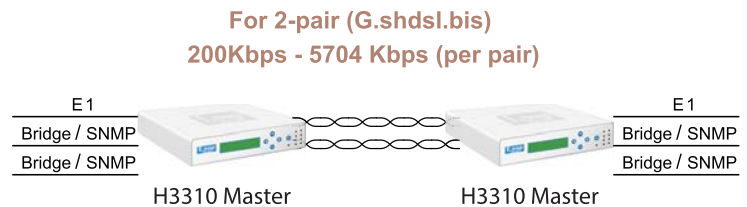
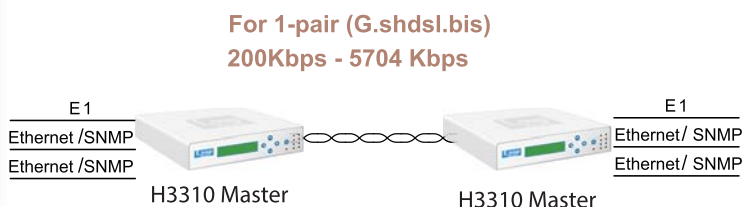
#### Single DTE (V.35 or X.21) Option



#### Ethernet Hardware Bridge Option



#### Ethernet Option



## SPECIFICATIONS

### WAN – G.SHDSL Line Interface

Number of pairs	G.SHDSL: 1 or 2 pair G.SHDSL.bis: 1 pair, 2 pair (only for ERJ2BRH and 2BRH)
Line rate (per pair)	8K+N x 64 Kbps, N =3 to 36 for 1 pair or 2 pair G.SHDSL 8K+N x 64 Kbps, N =3 to 89 for 1 pair or 2 pair (only for ERJ2BRH and 2BRH) G.SHDSL.bis
Line code	16-TCPAM/32-TCPAM, full duplex with adaptive echo cancellation over unconditioned 19-26 AWG twisted pair
Sealing Current	Max. 20ma sink current
Clock Mode	Plesiochronous, Synchronous, Hybrid (downstream: synchronous, upstream: plesiochronous)
PSD Mask	Symmetric, Asymmetric
PBO Mode	Automatic, 0 ~ 31 dB
Standard	ITU-T G.991.2 (G.SHDSL Annex A, B) and G.994.1 ITU-T G.991.2 (G.SHDSL.bis Annex F) and G.994.1
Connector	RJ48C

### E1 Interface

Line Rate	2.048 Mbps $\pm$ 50 ppm
Line Code	HDB3/AMI
Input Signal	ITU G.703
Framing	ITU G.704
Connector	BNC (75ohm)/RJ48C (120ohm)
Output Signal	ITU G.703
Electrical	75 $\Omega$ Coax/120 $\Omega$ twisted pair (jumper selectable for ordering code: dte= E75 or E120)

### Standard Compliance

ITU-T G.991.2 (G.SHDSL Annex A, B) and G.994.1  
ITU-T G.991.2 (G.SHDSL.bis Annex F) and G.994.1  
IEEE 802.1q, 802.1ad, 802.1w

### V.35 DTE Interface

Data Port	Single DTE
Data Rate	N x 64K bps, N =1 to 36 (2.304M bps) for 1-pair G.SHDSL N x 64K bps, N =1 to 72 (4.608Mbps) for 2-pair G.SHDSL N x 64K bps, N =1 to 89 (5.696Mbps) for 1-pair G.SHDSL.bis
Connector	M34 connector for V.35 interface

### X.21 DTE Interface

Data Port	Single DTE
Data Rate	N x 64K bps, N =1 to 36 (2.304M bps) for 1-pair G.SHDSL N x 64K bps, N =1 to 72 (4.608M bps) for 2-pair G.SHDSL N x 64K bps, N =1 to 89 (5.696M bps) for 1-pair G.SHDSL.bis
Connector	RS232/V.24: DB25S

### Ethernet Interface

Number of Ports	2 ports
Connector	RJ45
Physical Interface	10/100 Base-T, Ethernet Switch inside
Data Rate	N x 64K bps, N =1 to 36 (2.304M bps) for 1-pair G.SHDSL N x 64K bps, N =1 to 72 (4.608M bps) for 2-pair G.SHDSL N x 64K bps, N =1 to 89 (5.696M bps) for 1-pair G.SHDSL.bis
Througthput (1518bytes)	2.4 Mbps for for 1-pair G.SHDSL 4 Mbps for 2-pair G.SHDSL 5.4 -Mbps for 1-pair G.SHDSL.bis

### Physical/Electrical

Power	AC: 100-240 Vac, 50/60 Hz AC or DC: 100 to 240 Vac, 50/60 Hz; -48Vdc (-42 to -72 Vdc) DC: 100 to 240 Vac, 50/60 Hz; -48Vdc (-42 to -72 Vdc)
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## CONTACT

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