



Loop-H3300 SERIES G.SHDSL STAND ALONE



Features

- Distances vary by line speeds, wire thickness and environmental factors, depending on max n.
- V.35, X.21, EIA530, RS232, Router DTE interfaces, E1 interface, or T1 interface.
- Uses industry standard 16PAM line format.
- A pair of Loop-H3300 can be configured as DTE at one end and E1/T1 at the other in a bridge application.
- Software Download Firmware
- Remote Download Firmware
- Multi-color LED indicators
- Optional front panel keys and 2-line by 16-character display.
- Each unit can be set to be either master or slave
- Standard compliance for G.SHDSL, G.991-2, G.994-1

Description

The Loop-H3300 provides high speed digital transport over twisted copper pairs using 16PAM technology. Versatility of this series comes from a choice of digital interfaces and a choice of data rates, with the lower data rates applicable to longer reaches. Repeaters are available for extending the reach beyond a single span.

This stand-alone version is intended for customer premises installation while the rack version is for central office use.

Either version, installed in pairs, can provide:

- (a) an E1/ T1 link, with E1/ T1 interfaces,
- (b) a high speed data link with DTE interfaces, or
- (c) a data access to E1/ T1 with DTE interface at one end and E1/ T1 at the other, as shown in the application illustrations.

The Loop-H also supports an integral router. This router can be connected directly to a LAN for transport of information out to the network, avoiding the cost and space of an external router.

The Loop-H supports configuration and diagnostics using keypads and LCD display on the front panel, or from a local or remote terminal. This allows execution of in-service diagnostics and fault isolation.

**CERTIFIED
ISO-9001**

Ordering Information

To specify options, choose from list below:

Note: RoHS compliant units are identified by the letter **G** appearing immediately at the end of ordering code.

Model (non RoHS compliant)	Model (RoHS compliant)	Description
Loop-H3300-SC- <i>DTE-SP-PP</i>	Loop-H3300-SC- <i>DTE-SP-PP-G</i>	Stand Alone with LCD & LED display
Loop-H3300-SE- <i>DTE-SP-PP</i>	Loop-H3300-SE- <i>DTE-SP-PP-G</i>	Stand Alone with LED display only
Loop-H3300-SE- <i>DTE-SP-PP-ODL</i>	Not available	Large outdoor box
Accessories		
User's Manual (All User's Manuals are RoHS compliant)		
Loop-H3300-S-UM	Loop-H3300-S-UM	User's Manual (paper, hard copy-optional). A CD version of the manual is already included as standard equipment.
Tray		
61.000015.A00	61.000015.A00- G	19" Tray (One tray for two base units)
81.TRAY23.000	81.TRAY23.000- G	23" Tray (One tray for two base units)
Power Cord (All power cords are RoHS compliant)		
Loop-ACC-PC-USA	Loop-ACC-PC-USA	AC power cord for Taiwan/USA
Loop-ACC-PC-EU	Loop-ACC-PC-EU	AC power cord for Europe
Loop-ACC-PC-UK	Loop-ACC-PC-UK	AC power cord for the UK
Loop-ACC-PC-AUS	Loop-ACC-PC-AUS	AC power cord for Australia
Loop-ACC-PC-CH	Loop-ACC-PC-CH	AC power cord for China

Where

DTE=

	(non RoHS compliant)	(RoHS compliant)	Description
11	Available	Available	V.35 DTE interface with M34 connector
22	Available	Available	V.35 DTE interface with DB25 connector
33	Available	Available	EIA530 DTE interface
44	Available	Available	X.21 DTE interface
55	Available	Available	RS232 DTE Interface
88	Available	Available	T1 interface
E75	Available	Available	75 ohm BNC E1 interface
E120	Available	Available	120 ohm Twisted Pair RJ48C E1 interface
BR	Available	Available	Bridge interface
RT	Available	Available	Router interface

SP=

For E1/ DTE: kk for multi-rate 200K - 2056 Kbps (1-pair)
 mm for multi-rate 200K -1032 Kbps (2-pair)

For T1: tk for multi-rate 200K - 1544 Kbps (1-pair)
 tm for multi-rate 200K - 776 Kbps (2-pair)

PP=

	(non RoHS compliant)	(RoHS compliant)	Description
P1	Available	Available	-48 Vdc (20-60 Vdc)
P2	Available	Available	100-240 Vac (For AC choose an appropriate power cord)
P3	Available	Not available	-48 Vdc with line power source
P4	Available	Not available	DC power from line
P6	Available	Not available	-48 Vdc with sealing current looped
P7	Available	Not available	100-240 Vac with sealing current looped
P9	Available	Available	100-240Vac and -48Vdc (20-60 Vdc)selectable (Choose an appropriate AC power cord)

LOOP-H3300 G.SHDSL PRODUCT SPECIFICATIONS (Stand Alone)

E1 Interface

Line Rate	2.048 Mbps \pm 50 PPM	Framing	ITU G.704
Line Code	HDB3	Connector	BNC/RJ48C
Input Signal	ITU G.703	Output Signal	ITU G.703
Compatible with	E1 ISDN PRI	Electrical	75 Ω Coax/120 Ω twisted pair

T1 Interface

Line Rate	1.544 Mbps \pm 50 bps	Framing	D4 / ESF (selectable)
Line Code	AMI / B8ZS	Connector	RJ48C
Input Signal	DS1 ABAM cable length up to 655 feet	Output Signal	DSX1

DTE Interface

Data Port	Single DTE
Data Rate	n x 64 Kbps (n = 1 to 32 except for RS232)
Connector	DB25 or M34 connector for V.35 interface DB25 connector for EIA530 and RS232 interfaces DB15 connector for X.21 interface

Note: For RS232 DTE Interface

SYNC: 64K, 128K

ASYN (Use for oversampling): Select SYNC 64K for ASYN 1.2K, 2.4K, 4.8K, 9.6K, and 19.2K
Select SYNC 128K for ASYN 1.2K, 2.4K, 4.8K, 9.6K, 19.2K and 38.4K

Router Interface

Number of Ports	1
Physical Interface	10/100 Base-T
Connector	RJ45
Supported Routing Protocol	RIP-I, RIP-II
Data Rate	N x 64 Kbps up to E1 capacity, 15,000 frames per second
Supported Protocols	TCP/IP, PPP, HDLC

Bridge

Data Port:	Single Ethernet
Physical Interface:	802.3 10BaseT, 802.3u 100BaseTX
Connector:	RJ45
Bridge function	
Auto-negotiation	
VLAN frames and extended frame size of 1532 bytes without CRC for Bridge interface are supported	
10/ 100 Mbps half/ full duplex ethernet bridging and 100 Mbps operation on the HDLC port	
ANSI/ IEEE Std. 802.1D MAC Bridging capabilities (without spanning tree algorithm)	
Automatic MAC table learning and aging	
Support VLAN and extended Ethernet frame support	

Performance Monitor (E1/ T1)

Performance Store	The last 24 hours performance in 15-minute intervals and last 7 days in 24-hour summary
Monitor Registers	Network, E1/ T1/ DTE, and remote site
Performance Reports	Errored Second, Unavailable Second, Severe Errored Second
Alarm History	Alarm Type, Loop1, Loop2, E1/ T1(LOS, ES, SES), and DTE Clock Loss
Alarm Queue	Contains 40 alarm records which record the latest alarm type, and date & time

xDSL Line Interface

Full duplex with adaptive echo cancellation 16PAM line coding	
Unconditioned 19-26 AWG twisted pair	
Line Rate available	200, 264, 392, 520, 776, 1032, 1160, 1544, or 2056

Clock xDSL looped, Internal, or E1/ T1/ DTE

Console Port

Connector	DB9S at front panel
Electrical	RS232 interface (DCE)
Protocol	Menu driven VT-100 terminal

System Configuration Parameters (All in non-volatile memory)

Active Configuration Current working configuration
Default Configuration Manufacture default configuration

Diagnostics Test

xDSL Loopback To-DTE, To-LINE
DTE Loopback To-DTE, To-LINE
E1 Loopback To-E1, To-LINE
T1 Loopback To-T1, To-LINE
Slave Loopback DTE-Side, Line-Side (through EOC and V.54)

Front Panel

Keypad 4 keys: left arrow, right arrow, ESC, and ENTER
LCD 2-line by 16-character
LED Indicators

Physical/Electrical

Dimensions 216 x 55 x 285 mm (WxHxD)
Power 7 Watts max without line power or 22 Watts max with line power
DC Voltage -48 Vdc (20-60 Vdc)
AC Voltage 100-240 Vac
Temperature range 0 – 50 °C
Humidity 0 – 95% RH (non-condensing)
Mounting Desk-top stackable, Rack Mount tray available

Compliance

EMI/EMC EN55022 EN50081-1 EN50082-1
Safety EN60950
G.SHDSL G.991-2, G.994-1

OUTDOOR BOX PRODUCT SPECIFICATIONS

Physical

Dimension (Large Box) For H3300 and H3900: 40 x 30 x 20cm (WxHxD)

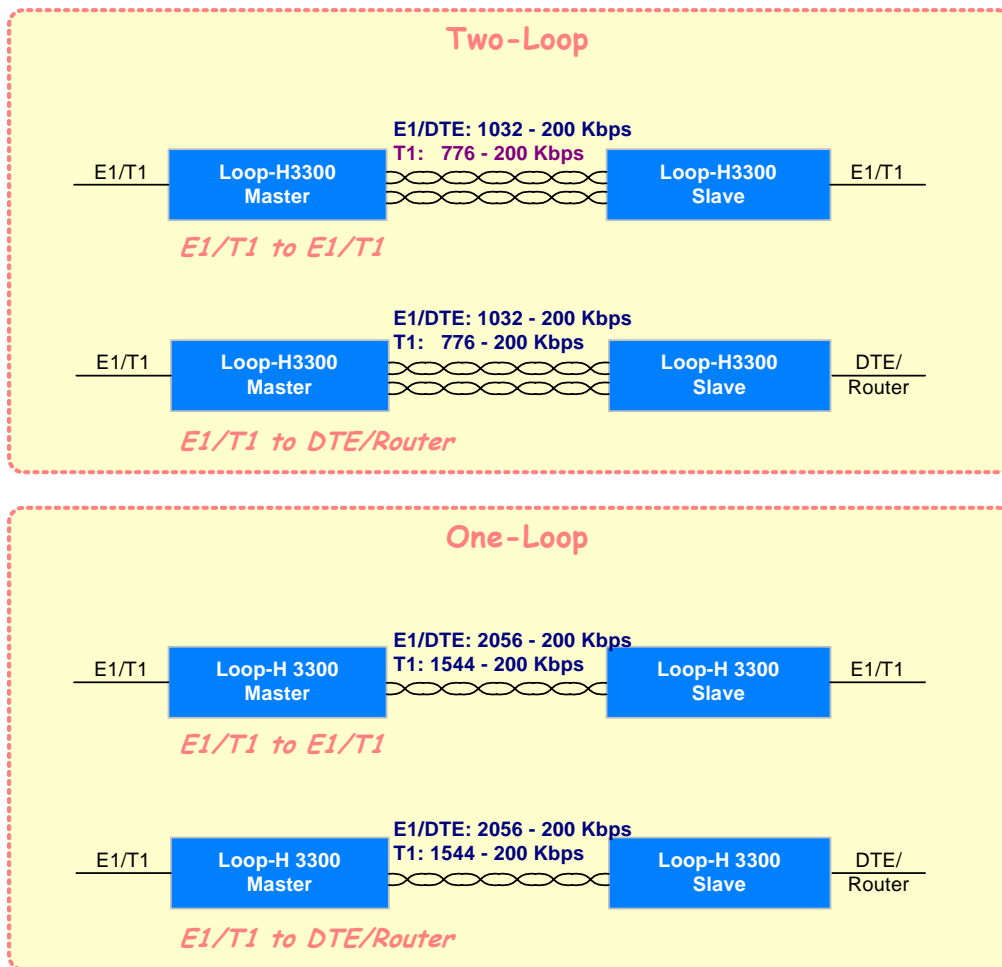
Environment

Temperature range 0 – 50 °C
Humidity 0 – 95% RH (non-condensing)

Compliance

Rating IP-55, IP-67

Application Illustrations



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