

HM-1000

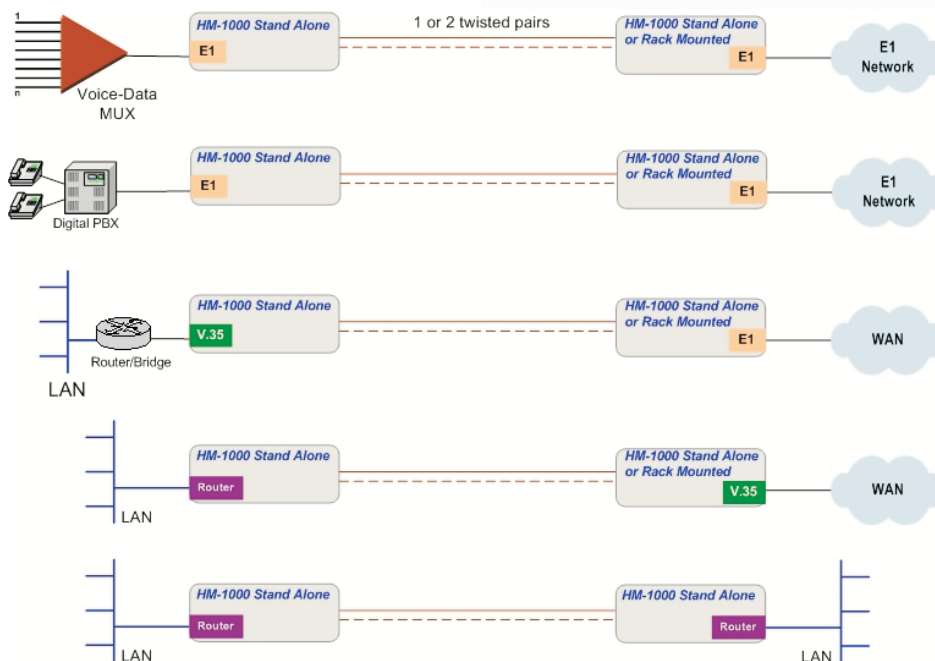
HDSL Modem, NTU

Description

The HM-1000 provides high speed digital transport over twisted copper pairs using 2B1Q 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. The 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 link, with E1 interfaces, (b) a high speed data link with DTE interfaces, or (c) a data access to E1 with DTE interface at one end and E1 at the other.

The HM-1000 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 HM-1000 supports configuration and diagnostics using keypads and LCD display on the front panel, or from a local or remote terminal.

Applications



Features

- ✓ DTE speed of $n \times 64$ Kbps, up to 2048 Kbps
- ✓ Distances vary by line speeds, wire thickness and environmental factors, depending on max n
- ✓ DTE interface (V.35, EIA530, X.21, RS449) or E1 interface
- ✓ Integral Router
- ✓ Uses industry standard 2B1Q line format
- ✓ A pair of HM-1000 can be configured as DTE at one end and E1 at the other in a bridge application
- ✓ 12 LEDs for status, console port for terminal operation
- ✓ 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 E1-HDSL, ETSI RTR/TM-03036 and ETSI TS 101 135 (formerly ETR 152)





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Product Specifications

E1 Interface

Line Rate	2.048 Mbps ± 50 PPM
Line Code	HDB3
Framing	ITU G.704
Input Signal	ITU G.703
Output Signal	ITU G.703
Connector	BNC/RJ48C
Electrical	75 ohm Coax / 120 ohm`twisted pair
Compatible with ISDN PRI NTUs	

DTE Interface

Data Port	Single DTE
Data Rate	n x 64 Kbps
Connector	EIA530, V.35, X.21, RS449 via conversion cable

Router Interface

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

Performance Monitor (E1)

Performance Store	The last 24 hours performance in 15-minute intervals and last 7 days in 24-hour summary
Monitor Registers	Network, E1/DTE, and remote site
Performance Reports	Errored Second, Unavailable Second, Severe Errored Second
Alarm History	Alarm Type, Loop1, Loop2, E1(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

Type	Full duplex with adaptive echo
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Line type	cancellation 2B1Q line coding Unconditioned 19-26 AWG twisted pair
Line Rate	272, 400, 528, 784, 1168, 1552, 2064, or 2320

Clock

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
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

Physical/Electrical

Dimensions	29 x 6 x 22 cm (WxHxD)
Power	7 Watts max without line power or 22 Watts max with line power
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

