

Kilomux-2100/2104

KLS.1/N

2-Channel Low Speed Data Module



- Synchronous or asynchronous operation
- Various clocking options
- Independent parameter selection for each channel
- Full support of V.54 loopbacks
- End-to-end control signal transfer

KLS.1/N is a low speed data module providing two RS-232/V.24 data channel interfaces for the Kilomux-2100/2104. KLS.1/N operates synchronously or asynchronously, selectable on each channel.

The two channels can be set to one of three data rate groups. The data rate within each group is independently selected for each channel. Both channels must be set to the same group.

Note: Certain channel rates are not supported by certain main link data rates.

Channel interface is DCE, providing timing signals for direct connection to DTE. Tail-end circuits are connected using buffering and retiming, to ensure data integrity at all times. The channel may also be configured to emulate DTE, with Transmit Clock and Receive Clock as inputs. Clock modes are soft-controlled.

Two control signals per channel may be transmitted end-to-end for handshaking purposes, or alternatively, the control signals may be supported locally. Typical end-to-end delay is 2.5 msec.

Two low speed data channels



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Comprehensive diagnostic capabilities reduce downtime to a minimum.

Diagnostics include V.54 loopbacks (activated via connector pin or upon user command) and built in BER test, initiated upon user command. Automatic self-test is performed during power-up and normal operation.

Three modes of V.54 loopback are provided:

DCE-DCE: KLS.1/N responds to LLB, RLB (Loop 2, Loop 3) by activating Local Loop or Remote Loop on each channel.

DCE-DTE: KLS.1/N transfers LLB, RLB to the far end for activation of loopbacks in the remote modems.

DTE-DTE: KLS.1/N activates LLB, RLB by soft command.

Note: Certain loopback modes are supported only by Kilomux-2000/2004. For further details see KLS.1/N Installation and Operation Manual.

Each channel terminates on a 25-pin D-type female connector. Pin-out assignment is in accordance with ISO-2110/RS-232 specifications.



Figure 1. Point-to-Point Application

Specifications

Number of Channels

2

Interface

CCITT V.24/V.28, EIA RS-232, Sync or Async

Async Parameters

Data bits: 5, 6, 7, 8

Stop bits: 1

Parity: Transparently transferred

Connectors

Two 25-pin D-type, female

Data Rates

Group 1: 300 bps to 38.4 kbps, sync and async

Group 2: 7.2, 14.4, 28.8, 57.6 kbps, sync and async

Group 3: 8, 16, 24, 32, 48, 56, 64 kbps, sync

Certain channel rates are not supported by certain main link data rates - See *Table 1*.

Data Clamp

Mark hold on Out of Sync

Bandwidth Allocation on Main Link

Selectable, according to programmed channel data rate

Control Signals

Local support: RTS-CTS delay, soft controlled, DSR, DCD

End-to-end, user-selectable:

RTS-DCD; DTR-DSR,

2.5 msec typical delay

Clock Options

DCE, DTE1, DTE2

Diagnostics

Independent for each channel

Soft controlled:

Local loopback

Remote loopback

Built in BER test

Remote:

- Local modem loop (V.54 Loop 3)

- Remote modem loop (V.54 Loop 2)

Connector pin control:

Local loopback (V.54 Loop 3)

Remote loopback (V.54 Loop 2)

End-to-end transparency of RLB

LLB and TM pins

Auto self-test upon power-up and during normal operation

Indicators

Selected channel TX, RX, RTS and DCD on Kilomux front panel

Management

Programmable via terminal interface or Network Management Station

Table 1. Unsupported Data Rates

Ch. Rate: [kbps]	Not supported by main link data rate: [kbps]
0.3, 0.6	512, 768
7.2	256, 384
24	28.8
64	1024, 1536







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Ordering

KM-2000M-KLS.1/#/E

Table 1. Kilomux-2100/2104 Data Modules

	 KHS.1	 KHS.2	 KHS.U	 KHS.703	 KLS.2	 KLS.1/N
No. of Channels	2	2	1	2	4	2
Interface	V.35, RS-530, V.36/RS-449 or X.21	V.35, RS-530, V.36/RS-449 or X.21, V.24/RS-232	ISDN "U"	Codirectional, per G.703	V.24/RS-232	V.24/RS-232, Sync or Async
Connector	Two 25-pin D-type, female	Two 25-pin D-type, female	RJ-45	RJ-45	Four RJ-45 connectors	Two 25-pin D-type, female
Data Rates	32, 48, 56, 64, 128, 192, 256 or 384 kbps*	2.4 kbps to 614.4 kbps*	Per B Channel 16, 32 and 64 kbps Per D Channel 16 kbps	64 kbps	300 bps to 19.2 kbps async. (statistically multiplexed)	Group 1: 300 bps to 38.4 kbps, sync and async, Group 2: 7.2, 14.4, 28.8, 57.6 kbps, sync and async, Group 3: 8, 16, 24, 32, 48, 56, 64 kbps, sync

Note: The supported channel data rates specified in Table 1 are dependent on the main link rates employed. To view limitations please refer to Specifications in the relevant module data sheets.

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