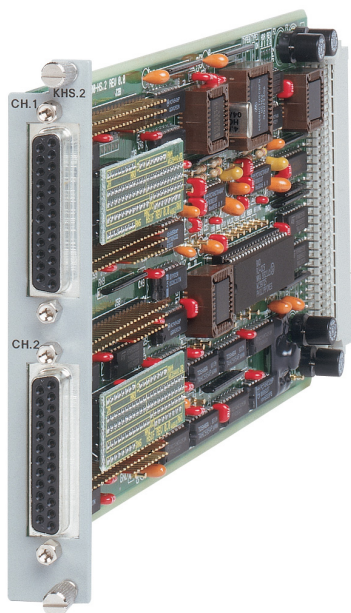


# Kilomux-2100 KHS.2

## 2-Channel Synchronous Data Module



- Selectable data rates in multiples of 2.4, 4.8, 9.6 or 19.2 (depending on the main link rate).
- Separate DB-25 connector for each channel
- Each channel can be configured for V.24/RS-232, V.35, RS-530, V.36/RS-449 or X.21 interface
- Independent parameter selection for each channel
- Local support or end-to-end control signal transfer

KHS.2 is a high-speed data module providing two high-speed synchronous data channels for the Kilomux system. Operating parameters can be programmed independently for each channel.

The data rate on each channel can be selected in the following increments:

- $n \times 2.4$  kbps for main link speeds of up to 192 kbps
- $n \times 4.8$  kbps for main link speeds of 256 kbps or 384 kbps
- $n \times 9.6$  kbps for main link speeds of 512 or 768 kbps
- $n \times 19.2$  kbps for main link speeds of 1024 or 1536 kbps.

This ability to program the module in small increments results in a more effective use of the main link bandwidth.

Each channel can be configured for one of three timing modes (DCE, DTE1 and DTE2).

Built-in elastic buffers enable connection to all types of digital lines. A channel configured for DTE2 clock mode can be used as a reference for the Kilomux transmit clock. The physical interface of KHS.2 emulates a DCE, therefore special cables are provided for connection to another DCE (see *Ordering*).

One control signal per channel can be transmitted end-to-end for handshaking purposes. Typical end-to-end delay is 2.5 msec.

Comprehensive diagnostics reduce downtime to a minimum. These include local loopback, remote loopback, PRBS injection and BER test (PRBS injection and BER test are limited to one channel at a time). Automatic self-test, buffer monitoring and alarm reporting are performed during power-up and normal operation.

Two synchronous data channels



data communications

The Access Company

## KHS.2

## 2-Channel Synchronous Data Module

## Specifications

## Number of Channels

2

## Interface (Electrical)

V.24/RS-232, V.35 or V.11/RS-422, selectable

## Interface (Physical)

V.24/RS-232

RS 530 (convertible to V.35, V.36/RS-449, or X.21 via adapter cables – see *Ordering*)

## Connectors

Two 25-pin D-type, female

## Pin Assignment

Per EIA RS-530 and ITU-T V.24/RS-232

## Channel Data Rates

According to main link rate employed:  
 up to 192 kbps: n x 2.4 kbps (n = 1 to 53)  
 256 kbps: n x 4.8 kbps (n = 1 to 53)  
 384 kbps: n x 4.8 kbps (n = 1 to 64)  
 512 kbps: n x 9.6 kbps (n = 1 to 53)  
 768 kbps: n x 9.6 kbps (n = 1 to 64)  
 1024 or 1536 kbps: n x 19.2 kbps  
 (n = 1 to 32)

## Data Clamp

Mark hold on Out of Sync

## Bandwidth Allocation on Main Link

Automatic, according to the programmed channel data rate

## Control Signals

Local support: RTS-CTS delay, software controlled DSR and DCD

End-to-end, selectable per channel: RTS-DCD, DTR-DSR (V.24 interface only)

## Timing Modes

DCE: Transmit and receive clocks to synchronous DTE

DTE1: Transmit clock from tail-end modem (synchronous DCE) and receive clock to tail-end modem

DTE2: Both transmit and receive clocks from tail-end modem (synchronous DCE)

## Diagnostics

Independent for each channel, software-controlled:

- Local loopback
- Remote loopback
- Built-in PRBS injection
- BER test

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

## Indicators

For selected channel: TX, RX, RTS and DCD on Kilomux front panel  
Kilomux Alarm Indications (KAI) module

## Management

Programmable via terminal interface, Telnet or RADview Network Management System

## Ordering

KM-2000M-KHS.2

## SUPPLIED ACCESSORIES

## CBL-HS2/\*/#

Adapter cable for KHS.2's DB-25 channel connectors. Converts to connector of type specified (separate cable is needed for each connector). Cable must be chosen to match the desired clock mode. Cable length is 2m (6 ft).

## Legend

\* Clock mode interface:

- V1 34-pin V.35, DCE
- V2 34-pin V.35, DTE1
- V3 34-pin V.35, DTE2
- R1 37-pin V.36/RS-449, DCE
- R2 37-pin V.36/RS-449, DTE1
- R3 37-pin V.36/RS-449, DTE2
- X1 15-pin X.21, DCE (30 cm/1 ft long)

# Cable connector type (on user side):

- F for female
- M for male

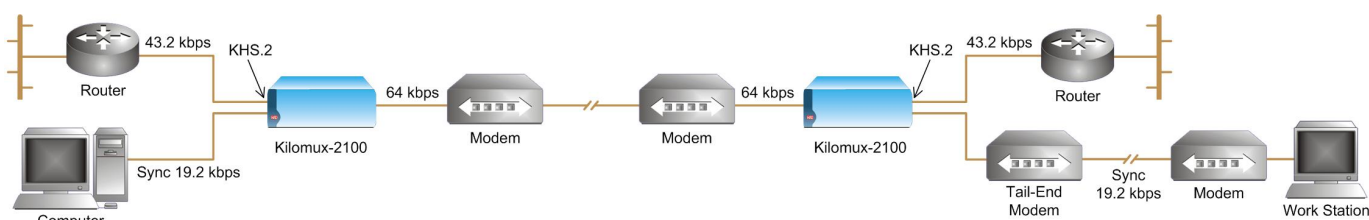


Figure 1. Extending Synchronous Data

## International Headquarters

24 Raoul Wallenberg Street  
 Tel Aviv 69719, Israel  
 Tel. 972-3-6458181  
 Fax 972-3-6498250, 6474436  
 E-mail market@rad.com

## North America Headquarters

900 Corporate Drive  
 Mahwah, NJ 07430, USA  
 Tel. 201-5291100  
 Toll free 1-800-4447234  
 Fax 201-5295777  
 E-mail market@radusa.com

www.rad.com



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