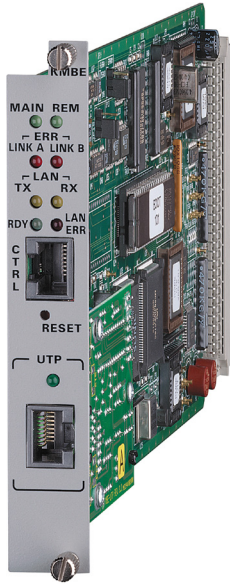




Ethernet Router/Bridge Module



FEATURES

- Provides Ethernet LAN connectivity via Kilomux main links
- Programmable data rates from 9.6 to 1280 kbps
- LAN interfaces: AUI, BNC and UTP (10BaseT)
- Two operation modes:
 - Bridge mode, transparent to all Level-3 protocols
 - Router mode for IP and IPX routing over PPP, Frame Relay
- Enables connectivity with two remote sites
- Solid Firewall (session-based) protection
- Single IP address translation
- Integrated SNMP agent
- Flash memory for software downloading

DESCRIPTION

- The KMBE Ethernet Router/Bridge module connects remote Ethernet LANs to a central Ethernet network via Kilomux main links. The LAN interface conforms to IEEE 802.3, and can be ordered for:
 - Ethernet (10Base5 – AUI)
 - Thin Ethernet (10Base2 – BNC)
 - UTP Ethernet (10BaseT).
- Communication between the KMBE modules is over the Kilomux main link. Data rate used by KMBE can be selected from 9.6 to 1280 kbps.
- Connection between the LANs is established by operating KMBE modules opposite each other, one connected to the main (central) LAN and the other connected to the remote LAN (see *Figure 1*). KMBE can also operate simultaneously opposite both links in dual-link applications, enabling Ethernet connectivity with two remote sites (see *Figure 2*).

BRIDGING MODE

- KMBE operates as a MAC level remote bridge, performing filtering and forwarding of only those packets that are addressed to the remote stations. Up to 80 remote and central LAN stations are supported.
- KMBE supports the physical and data link layers of the OSI model. Bridging is completely transparent to higher-level protocols, such as TCP/IP, DECNET, XNS, ISO, as well as to operating systems such as NetWare and VINES.
- Filters based on user-defined masks improve WAN utilization by ensuring that only necessary packets are transmitted over the WAN.

ROUTING MODE

- IP and IPX can be routed over PPP. Router links can operate opposite any PPP-compliant device, including third party routers, or any standalone MBE device.
- IPX can also be routed over Frame Relay. KMBE supports Frame Relay protocol with up to 30 DLCIs.
- The Single IP address translation feature allows a small or medium office LAN to connect to the Internet using a single, dynamically or statically allocated IP address from the central access router.
- An integral Solid Firewall protects an office LAN from undesired entry from the Internet, using session-based firewalling.

CONTROL

- KMBE operation is fully automatic, and includes serial link start-up and recovery, as well as insertion and removal of remote workstations.
- Quick setup, configuration and monitoring can be performed from an ASCII terminal connected directly to the KMBE control port, or via Telnet over LAN or WAN.
- An SNMP agent provides inband or out-of-band management by RADview or any other standard SNMP management station.
- Software downloading via the control port is available using XMODEM, and via LAN or WAN using TFTP. Product configurations and software are saved in Flash memory.

KMBE

Ethernet Router/Bridge Module

SPECIFICATIONS

LAN INTERFACE

- **Standard**
IEEE 802.3
- **Type**
 - 10Base5 (AUI) with 15-pin D-type, female connector
 - 10Base2 (Thin Ethernet) with BNC coax, female connector
 - 10BaseT (UTP) with RJ-45 connector

CONTROL PORT

- **Interface**
RS-232/V.24
- **Connector**
RJ-45
- **Data Rates**
1.2 to 9.6 kbps
- **Data Format**
8 bit, no parity

GENERAL

- **Bandwidth Allocated on Kilomux Main Link**
9.6 to 1280 kbps
- **Data Buffer Size**
256 kbytes
- **Protocol**
HDLC-based
- **Power Consumption**

Voltage [V]	Current [mA]	Power [W]
+5	500	2.50
+12	80	0.96
+12	-	-
Total	580	3.46

- **Panel Control**
Reset pushbutton
- **Indicators**

MAIN (green) – lights when KMBE is configured for connection to main LAN

REM (green) – lights when KMBE is configured for connection to remote LAN

LINK ERR (red) per link – flashes when the relevant main link between the local and remote KMBE is disconnected; lights momentarily when an error is detected on a packet received from the relevant link.

LAN TX (yellow) – lights momentarily when packets are transmitted toward the LAN

LAN RX (yellow) – lights momentarily when packets are received from the LAN

RDY (green) – lights when KMBE is ready to forward packets; flashes when KMBEs are synchronized but no workstation has requested insertion

LAN ERR (red) – lights momentarily when an error is detected on the LAN interface

UTP (green; on modules with UTP interface only) – lights when 10BaseT interface is connected to the LAN

ORDERING

KM-2100M-KMBE/*
Enhanced Ethernet Router/Bridge Module for KM-2100/2104

- * Specify LAN interface:
AUI for 10Base5
BNC for 10Base2
UTP for 10BaseT

APPLICATIONS

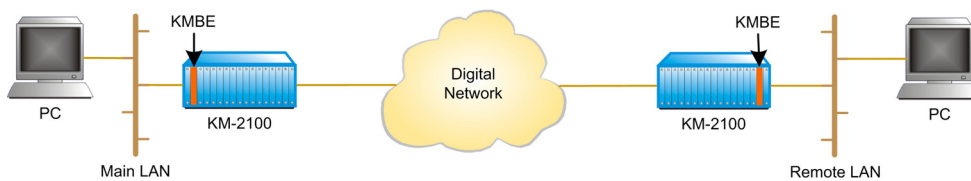


Figure 1. Point-to-Point Bridging

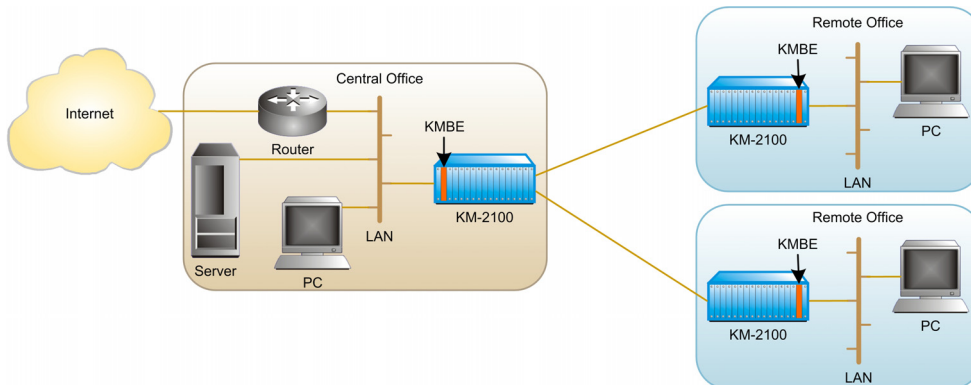


Figure 2. Dual Link Routing Application Connecting Two Remote Sites



data communications

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