Kilomux-2100

# KML.1-5/N

Main Link Modules



- Flexible system timing options
- Wide range of supported data rates
- Kilomux-2100 supports installation of two main link interface modules in one chassis
- Dual-link operation, redundancy, and priority bumping main link operating modes are available when installed with an additional KML module

# Connecting Kilomux units by a digital link

The KML.1-5/N modules enable the connection of Kilomux-2100 units by a modem link, a digital multiplexer channel, or any other type of digital link.

In a Kilomux-2100 enclosure, a KML module can be installed either alone or together with another main link interface module. When installed together with a KML module of the same or another type, it is possible to use most of the main link operating modes offered by the Kilomux-2100 system, for example, dual-link operation, redundancy, and priority bumping.

#### TIMING

Kilomux-2100 allows the user to select a preferred timing reference source (main, or master, source), and a fallback mode for use in case the main source failed. If both the main and fallback sources fail, Kilomux-2100 switches to an internal oscillator.



### Main Link Modules

KML.1/N, KML.2/N, KML.3/N and KML.4/N modules feature three main link timing modes: DTE, External DCE, and DCE.

KML.5/N modules feature two main link timing modes: internal (INT) and loopback (LBT).

#### **INDICATORS**

The operator can monitor each main link interface module by indicators that indicate the following:

- Module status
- Activity on the receive and the transmit paths of the main link
- Local and remote system synchronization status

The operator can also monitor the module via a supervision terminal.

#### **DIAGNOSTICS**

The KML modules perform self-test upon power-up. Additional testing and diagnostic functions can be performed by the operator from a supervision terminal.

The testing capabilities include local main link loopback (where the main link transmit signal is looped back to the input of the main link receive path), and the remote main link loopback (toward the remote Kilomux-2100).

In addition, main link modem loopbacks (designated loop 2 and loop 3 by ITU-T Rec. V.54) are available to check the connections between the KML.1/N, KML.2/N or KML.3/N modules and the modem serving the main link.

Table 1. Kilomux-2100 Main Link Interface Modules

Name	Interface	Connector	Data Rates
KML.1/N	V.35	34-pin, female	9.6, 14.4, 19.2, 28.8, 32, 48, 56, 64, 128, 192, 256, 384, 512, 768, 1024, 1536 kbps
KML.2/N	RS-232	DB-25, female	9.6, 19.2, 32, 48, 56, 64, 128 kbps
KML.3/N	RS-530	DB-25, female	9.6, 14.4, 19.2, 28.8, 32, 48, 56, 64, 128, 192, 256, 384, 512, 768 , 1024, 1536 kbps
KML.4/N	X.21	DB-15, female	
KML.5/N	G.703 Codirectional	8-pin, RJ-45	64, 128 kbps
KML.6/N	Compatible with AT&T PUB 62310	8-pin, RJ-45	9.6, 19.2, 56 kbps
KML.7	T1 G.703, G.704, AT&T TR- 62411, ANSI T1.403 (D4-SF, ESF)	8-pin, RJ-45	56, 64, 128, 256, 384, 512, 768, 1024, 1536 kbps
KML.8	E1, G.703, G.704, G.732 (including CRC-4 and E bit)	8-pin, RJ-45, balanced Two BNC coaxial, unbalanced	56, 64, 128, 256, 384, 512, 768, 1024, 1536 kbps
KML.10	ITU-T Rec. I.430, Q.921, Q931	8-pin, RJ-45	64, 128 kbps
KML.11	Ethernet (TDMoIP)	8-pin, RJ-45	56, 64, 128, 192, 256, 384, 512, 768, 1024, 1536 kbps
KML.F	850/1310/1550 nm, single/multimode, LED/Laser	ST or FC/PC	128, 192, 256, 384, 512, 768, 1024, 1536 kbps

# **Specifications**

#### Interface

See *Table 1* 

#### Connector

See *Table 1* 

#### **Data Rates**

See Table 1

#### **Control Signals**

RS-232, V.35: Local support of all control signals

V.36: Local support of all control signals, except RI

#### **Clock Modes**

KML.1/N, KML.2/N, KML.3/N, and KML.4/N:

- DT
- External DCE
- DCE

#### KML.5/N:

- Internal
- Loopback

#### **Alarms**

Local loss of sync Remote loss of sync

#### Diagnostics

Power-up self-test

Continuous self-test during normal operation

Local loopback

Remote loopback

Loop 2 and loop 3 on main link modem as defined in ITU T Rec. V.54

#### **Indicators**

Power - Green

Transmit - Yellow

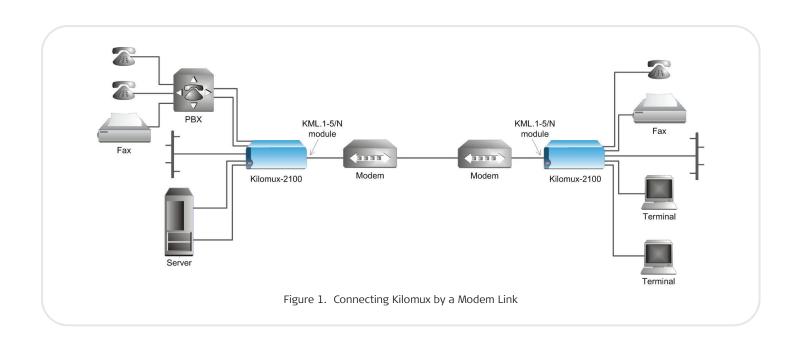
Receive - Yellow

Local sync loss – Red

Remote sync loss - Red

#### Management

Programmable via the Kilomux management system



## **Ordering**

#### STANDARD CONFIGURATIONS

KM-2000M-KML.2/N KM-2000M-KML.5/N

#### **SPECIAL CONFIGURATIONS**

KM-2000M-KML.1/N KM-2000M-KML.3/N KM-2000M-KML.4/N

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