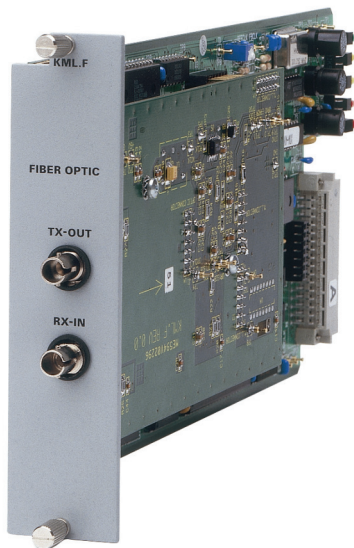


Kilomux-2100

KML.F

Fiber Optic Interface Main Link Module



- Various data rates of up to 1536 kbps
- Numerous types of single or multimode fiber
- Laser diode option
- Range up to 100 km/62 miles

The KML.F fiber optic main link module enables a long-range connection between two Kilomux units, eliminating the need for external conversion equipment. KML.F transmits Kilomux framed information over a fiber optic connection to another KML.F equipped Kilomux on the remote end.

KML.F operates at data rates of 128, 192, 256, 384, 512, 768 and 1536 kbps. The data rate is determined by the main link rate, the protocol and the channel rate, and is not influenced by the KML.F interface itself. Three transmit timing options are supported: LBT (clock is locked on the network), Internal and DCE (external).

The fiber optic interface operates over several grades and sizes of fiber optic cable. The type of fiber optic interface chosen depends on the type of cable available and the operating distances required.

Various optical interfaces are available:

- 850 nm with LED transmitter, for use over multimode fiber with typical distances up to 5 km/3 miles
- 1310 nm with laser diode transmitter, for use over single mode fibers for extended range up to 50 km/31 miles
- 1550 nm with laser diode transmitter, for use over single mode fibers for extended range up to 100 km/62 miles.

Connects between
two Kilomux units over
a fiber optic cable



data communications

The Access Company

KML.F

Fiber Optic Interface Main Link Module

Table 1. Kilomux-2100 Main Link Interface Modules

	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	9.6, 19.2, 32, 48, 56, 64, 128 kbps
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

ELECTRICAL

Data Rates

128 kbps, 192 kbps, 256 kbps, 384 kbps, 512 kbps, 768 kbps and 1536 kbps

Transmit Timing

(For Internal, LBT and DCE) ± 50 ppm

OPTICAL

Specifications and Ranges

See Table 2.

Connectors

ST or FC/PC

GENERAL

Environment

Operating Temperature: 0-50°C/32-122°F
Humidity: Up to 90%, non-condensing

Table 2. Fiber Optic Interface Specifications and Range

Wave-length [nm]	Fiber Type [μ m]	Transmitter Type	Power [dBm]	Receiver Sensitivity [dBm]	Typical Max. Range	
					[km]	[miles]
850	62.5/125 multimode	LED	-18	-38	5	3
1310	9/125 single mode	Laser	-12	-40	5	31
1550	9/125 single mode	Laser	-12	-40	100	62

Notes: Receiver sensitivity above was calculated for $BER=10E^{-9}$.
Ranges above were calculated according to the following typical attenuation rates: 3.5 dB/km for 850 nm multimode, 0.4 dB/km for 1310 nm single mode, 0.25 dB/km for 1550 nm single mode.

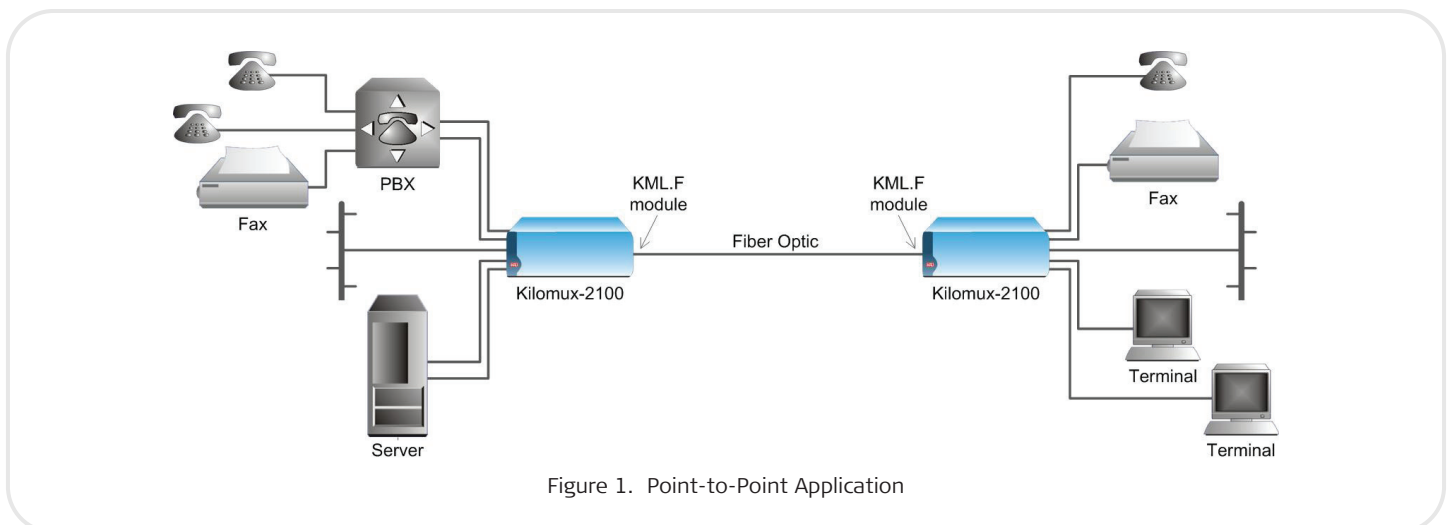


Figure 1. Point-to-Point Application

KML.F

Fiber Optic Interface Main Link Module

Ordering

STANDARD CONFIGURATION

KM-2000M-KML.F/ST/13L

SPECIAL CONFIGURATIONS

KM-2000M-KML.F/*/#

Legend

* Connector:

ST ST type connector

FC FC/PC type connector

Optical wavelength:

85 850 nm, multimode, LED

13L 1310 nm, single mode, laser diode

15L 1550 nm, single mode, laser diode

*Note: 85 optical wavelength can only be ordered with ST connector.***International Headquarters**

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