

## Overview

Vilink ITS equipment: The VK23 is an extremely reliable low cost point to point one channel fiber optic modem. It is designed to link a remote terminal to the host computer via one or two single mode optical fibers. Users may plug the VK23 modem directly into any selectable EIA-RS232 or EIA-RS422/485 interface. Application options provide the flexibility to meet many requirements, supporting single mode fiber and all major connection types.

The VK23 multiplexer can transfer asynchronous data up to 112 Kbps with RS-232 or RS-422/485 interfaces. It provides a DCD signal when the receiver has received a data signal from the far end while the RTS and DTR control signals are internally loop backed for handshaking applications. Transmission distances can be used up to 40 Km with one single mode fiber optic cable.

The VK23 is designed for any general purpose application between data communication equipment. Typical applications include remote terminal to host computer connections, tail circuits to multiplexers, monitoring equipment to a central control system, and situations requiring extended distances. It may also be used in harsh environments because fiber optic cable is virtually impossible to tap without detection.

The VK23 rack module series may be further maintained with the optional VILINK Plus+ (NMS) Network Management & (GUI) Interface Software Package in the universal VK2300 chassis. This permits any users the ability of monitoring the entire system for status alarms, such as loss of signal or optical signal, on any one of the system channels.

Applications for the VK23 Series include campus fiber Traffic Control System, Metro Operation System, SCADA systems, Campus Networks and military applications.



## Features

- Selectable RS-232 or RS-422/RS-485 Interfaces
- Asynchronous Data Speed Up To 112 Kbps
- One or Two Fibers
- Distances Up To 40 Km
- AGC Receivers
- Extend Temperature NEMA Range
- Rack card with NMS Option

## Applications

- ITS Traffic Applications
- SCADA Networks
- Metro Networks
- Gas & Oil Fields Monitoring Applications
- Railroad Networks
- Military Applications
- Data Acquisition Applications

## Order Information

| Model     | Descriptions  |
|-----------|---|
| VK23ST03  | Fiber Optic Data Transceiver (ODT/R), 1310nm SM ST 50Km, +12 VDC              |
| VK23RST03 | Fiber Optic Data Transceiver (ODT/R) Rack Card Master Unit, 1310nm SM ST 50Km |

### Specifications

#### System:

|              |                                 |
|--------------|---------------------------------|
| Error Rate   | 1 in 10 <sup>12</sup> or Better |
| Protocol     | Asynchronous Data               |
| Indicators   | PWR, TXD, RXD                   |
| NMS (Option) | VK2300 Chassis                  |

#### Environment:

|           |   |
|-----------|---|
| Operating | -34 <sup>o</sup> C to +74 <sup>o</sup> C  |
| Storage   | -40 <sup>o</sup> C to + 95 <sup>o</sup> C |
| Humidity  | 98% Non-Condensing                        |

#### Physical:

|            |                 |
|------------|-----------------|
| Standalone | 6" x 4" x 1.25" |
| Rack Card  | 1" x 4.5" x 10" |

#### Power:

|                |                     |
|----------------|---------------------|
| Standalone     | +12 VDC @100mA      |
| VK2300 Chassis | 90~240 VAC 47~63 Hz |

#### Optical Ports:

|              |   |
|--------------|---|
| Transmitter  | Lasers  |
| Output Power | -3 dBm min @single mode   |
| Receiver     | PIN-TIA   |
| Sensitivity  | -32 dBm with AGC  |
| Wavelength   | 1310nm SM (Nominal)<br>850nm MM (short Distance)<br>1550nm SM (Long Distance) |
| Connectors   | ST, FC and SC   |

#### Data Port:

|                     |                       |
|---------------------|-----------------------|
| Channel             | 1                     |
| Interface           | RS-232 or RS-422      |
| Data Format         | Asynchronous          |
| Data Rate           | DC to 112Kbps         |
| Interface selection | RS-232/422 Switchable |
| Connector           | Female DB-25          |

### Application

