Overview

The VILINK VK170 is an extremely reliable Fiber Optic Gigabit Ethernet Link Module plugs in to the 170 Traffic Controller. It is designed to link multiple remote 170 Controllers (slave units) from various Traffic Intersections to the main 170 controller (master unit) at the Traffic Operation Center via one or two single mode fiber optic cables.

The VK170 can operate in harsh environment with wide range temperature and compliant to the intelligent traffic system standard NEMA specifications. Combining with its fiber optic interface ports, the VK170 provides excellent Gigabit Ethernet Redundant Ring and Self-Healing Data (ODT/R) transmission to all of the 170 traffic controllers in ring.

The 10/100/1000M TX Ethernet port provides network connection for CCTV video system, HD-IP cameras, smart cameras and Violation detector IP cameras or to another Gigabit Ethernet switch.

The RS-232 internal data port connected to the 170 controller is capable of transmitting broadcast data through the network with data speed from 75 Bps up to 38.4 Kbps. In addition, the VK170 provides a second data port with RS-232 or RS-422 interface switch selectable for controlling PTZ cameras.

Fiber optic ports support one or two fibers ring in Daisy-Chain or Redundant Ring configurations, multimode or single mode with SC connectors, distances up to 50 Km between intersections.

Features

- Fiber Optic Gigabit Redundant Ring
- 170 Controller Internal Module
- Self Healing Internal RS-232 Data
- 1 x 10/100/1000M TX Ethernet Port
- Asynchronous Data Speed Up To 38.4 Kbps
- Additional Bi-Directional Data Port
- Broadcasting Transmission
- Up to 50 Km between Traffic Intersections
- One of Two Fibers system

Applications

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

Order Information

<table>
<thead>
<tr>
<th>Model</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>VK170S03</td>
<td>Internal Module 170 Controller, Remote Unit with Two Fibers SM SC, 1310nm, 50Km</td>
</tr>
<tr>
<td>VK170M03</td>
<td>Internal Module 170 Controller, Master Unit with Two Fibers SM SC, 1310nm, 50Km</td>
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</tbody>
</table>

*Consult Factory for Additional Module Numbers*
Specifications

System:
- Error Rate: 1 in 10¹² or Better
- Ports:
  - Copper: (1) 10/100/1000M TX
  - Fiber: (2) 100/1000M SX
  - Data: (1) RS-232/422 External
  - (1) RS-232 Internal Modem
- Switch Processing: Store and Forward
- MAC Address: 4K Entries, Auto-learning/Ageing
- Queue Buffer: 256K Shared Buffer
- Packet Control: Runt and CRC Filtering
- Network Standards: IEEE 802.3, IEEE 802.1w
  IEEE 802.3u, IEEE 802.3x
  IEEE 802.ab

Environment:
- Operating: -34°C to +74°C
- Storage: -40°C to + 95°C
- Humidity: 98% Non-Condensing

Physical:
- Dimension: 9.5" x 6.5" x 1"
- Power: Internal +5 VDC @1 Amp

Optical Ports:
- Ports: 2
- TX Power: -3 dBm min @ single mode
- RX Sensitivity: -28 dBm PIN-TIA
- Wavelength: 1310nm SM (Nominal)
  850nm MM (short Distance)
  1550nm SM (Long Distance)

Connectors: SC

Internal Data & PTZ Ports:
- Interface: EIA-RS-232
- Data Rate: 75 bps to 38.4 Kbps
- Default Set Up: 9.6 Kbps
- Mode: Slave, Master, Sub-Master
- Redundant: Self-Healing

IP Video Ethernet Port:
- Standards: IEEE 802.3, TIA/EIA 785
- Data: 10/100/1000 Mbps
- UTP Crossover: Straight, Crossed
- UTP: Auto Negotiation
- Mode: Half/Full Duplex
- Connector: RJ45

Application

Traffic Operation Center

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