Video 3
System Level Fiber Optic Multiplexer

Description
The Prizm™ Video 3 is the third generation of our industry leading multiplexer product family for remote telemetry applications. Developed for the subsea vehicle industry, the Video 3 system provides high quality video and data links.

Features
• 1.5 Gbps of bandwidth
• Up to 12 video channels, 64 bidirectional data channels
• PC based diagnostic software
• Ethernet, Arcnet, Sonar and Hydrophone interfaces
• Expandable to 6 Gbps bandwidth using state-of-the-art CWDM technology
• Designed for operation in harsh environments (-20° to +70° Celsius)
• Available for link lengths over 100 km
• Custom configurations available

Benefits
• Moog’s multiplexer systems have been the industry standard for over 10 years. Our systems are used the world over by ROV manufacturers. Independent tests by the U.S. Navy rate Moog systems at over 100,000 hours MTBF.
• The Video 3 system is fully configurable with a myriad of broadcast quality video and data channel combinations. A 4-channel CWDM expands the system to meet every need.
• The experience of the Moog engineering team provides customers the ability to design the system they need, including custom configurations and interfaces.

Typical Applications
• Subsea Vehicles
• Sonar
The Video 3 system employs a standard 3U card size with an industry standard VME backplane. The racking structure is designed for expandability from a 3 to 12 slot backplane per standard system. Racks can be supplied with an integral power supply or require an external power supply with both +5 VDC and -5 VDC. The standard integral power supply operates from within 110 or 220 VAC at 50-60 Hz.

The modem card is the heart of the system and each telemetry link requires at least one modem cord at both the remote (subsea) and local (surface) end of the link. The system can be configured with a variety of video, data, sonar or custom interfaces as shown below.

**Modem Cards**
1 slot per card
Optical wavelength at either 1310 nm or 1550 nm
1.5 Gbps bandwidth
25 db optical budget (custom up to 33 dB)
- up to 100 km over singlemode fiber
- up to 4 km over multimode fiber
Software driven diagnostics

**Data Interface Cards**
4 channels per card
Mother board required for VME interface
Daughtercard for expansion, up to 16 channels over a single backplane slot
RS-232 up to 115 kbps
RS-422 up to 2 Mbps
RS-485 up to 230 kbps
Transient protection and optical isolation

**Ethernet**
10Base-T Ethernet interface
4 port hub / bridge

**Video Cards**
4 PAL / NSTC channels per card
1 slot per card
up to 2 Vp-p, 75 ohm

**Video 3 Input Card**
Camera or subsea end
10-bit ADC for high resolution
Analog input, SMB connector

**Video 3 Output Card**
Monitor or surface end
10-bit ADC for high resolution
Analog output, SMB connector

**Arcnet**
Number of channels: one
Data rates supported: 2.5 Mbps, 1.25 Mbps 635 Kbps, 312 Kbps, 165 Kbps

**Interfaces Supported**
Standard Arcnet Tritech SeaKing Arcnet

**Sonar and Hydrophone Options**
Edge Tech, Mesotech, Reson and Tritech options

**Single Fiber Options**

**WDM**
Using a 1310 nm modem at one link end and a 1550 nm modem at the other end with a WDM at both ends allows system operation over a single fiber.
- OPOO26 singlemode WDM
- OPOO48 50 micron multimode WDM
- OPOO66 62.50 micron multimode WDM

**CWDM**
A CWDM with the appropriate optics provides the user either two or four parallel Video 3 systems over a single fiber. CWDM technology also allows high bandwidth devices (USB camera, high resolution sonar, digital camera devices) to be added to the system fiber as a unique wavelength. Please contact the factory for further information.

**Specifications**

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**Environmental**

| Operating Temperature | -20° to +70° Celsius |
| Storage Temperature   | -40° to +85° Celsius |

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24 / 7 Technical Customer Support
Hotline: 610-605-6101

Specifications and information are subject to change without prior notice.

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Dimensions in inches.