

# Model 912 Datasheet

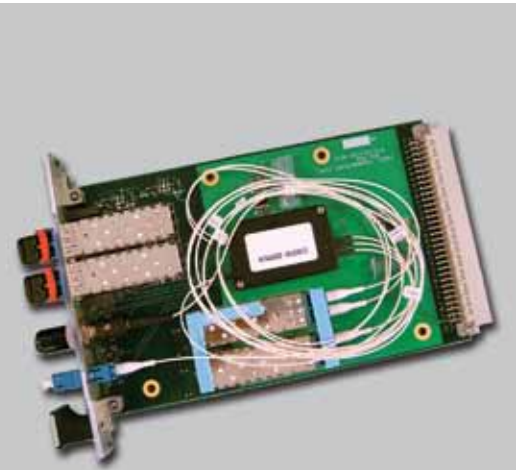
## 912-OEO-4R

### 4-Channel OEO Wavelength Converter with Re-clocking

#### Description

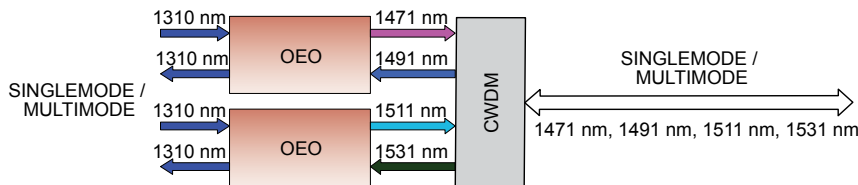
The model 912-OEO-4R is an Optical-Electrical-Optical (OEO) signal converter that provides several functions, including optical wavelength conversion, optical signal boosting, optical multiplexing, and re-clocking of optical outputs to reduce jitter. Although many configurations are possible, the standard card combines optical signals from four separate fibers into a single fiber, often with increased optical power budget to significantly extend the range of the original signals or pass the signals through higher loss cabling systems. The signals are converted back to their original wavelengths at the other end of the fiber link, thus providing a transparent, bidirectional system.

The form-factor and proven reliability of Moog products make the Model 912-OEO-4R ideal for applications such as FPSO (Floating Production, Storage and Offloading) units, optical data and telemetry networks, specialized industrial machines, advanced work class ROVs, tactical and industrial security networks, and armored vehicle platforms.



#### Typical Applications

- Industrial process control
- Rotating test stations
- FPSO data systems
- Telemetry extenders



#### Wavelength Conversion With Optical Multiplexing

#### Features

- Built-in clock recovery and regeneration
- Modular design (3U Eurocard)
- Wide range of supported data formats including 10/100/1000 Base-T(X) Ethernet, ATM, SONET, Fibre Channel, SDI/HD-SDI
- Basic link diagnostics via front panel LEDs
- 20 year MTBF

#### Benefits

- Easy extension of the maximum operating distance of standard optical telemetry equipment
- Reduced number of fibers required in cables and rotary joints
- Increased optical power budgets and robustness of optical links
- Modular format allows future upgrades or augmentation in card-cage systems
- Reduces signal jitter

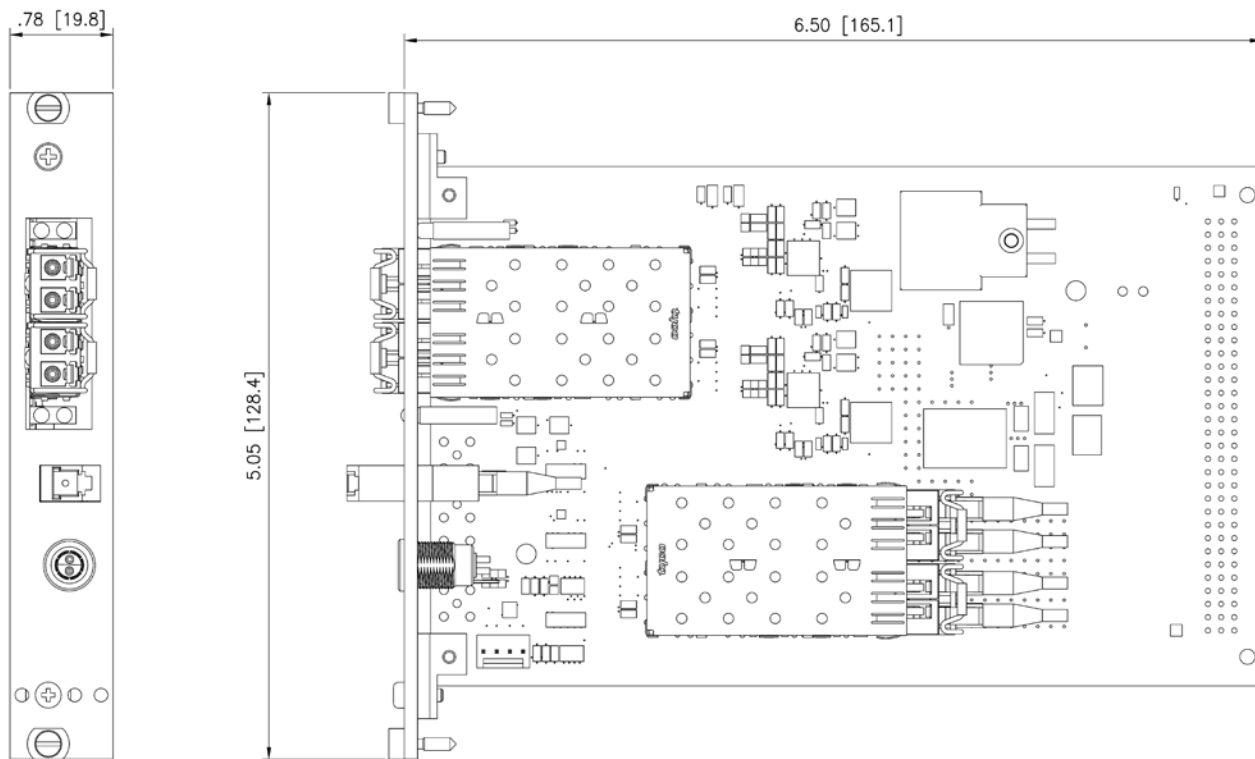
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Data	
<b>No. Channels</b>	4 wavelengths (i.e. 2 bidirectional channels) with signal re-clocking
<b>Baud Rate</b>	125 – 3125 Mbaud
<b>Format</b>	10/100/1000 Optical Ethernet, 8b/10b, or other encoding formats
<b>Latency</b>	<10 ns
Optical	
<b>Optical Fiber</b>	Singlemode (9/125 μm) Multimode (optional)
<b>Wavelength</b>	Input: 850, 1310/1550 nm standard Output: CWDM, 1471 – 1611 nm standard
<b>Connectors</b>	LC standard, other types optional
Electrical	
<b>Power Voltage</b>	+5.0 VDC ±10%, regulated Other voltages optional
<b>Power Used</b>	5 W typical (10 W max.)

Mechanical	
<b>Dimensions</b>	Eurocard Format: 100 mm x 160 mm 4 HP Wide
<b>Enclosures</b>	Custom card cages and enclosures available, including explosion-proof enclosures for use in Class 1 hazardous locations
Environmental	
<b>Temperature</b>	0°C to +50°C (operational) -18°C to +70°C (extended operational) -40°C to +85°C (storage)
<b>Humidity</b>	85% RH, non-condensing
<b>Vibration</b>	5 g, 25 1000 Hz, 3 axes
<b>Shock</b>	30 g, 11 ms half sine, 3 axes
<b>Options</b>	Stress screening
Reliability	
<b>MTBF</b>	200,000 hours minimum

Model 912

## 912-OEO-4R Dimensions



Dimensions in inches [millimeters]

**Note:** These are standard commercial products that are available with many options or configurations not explicitly shown.