# Terbium Gallium Garnet Based Polarization Independent 850/980/1060 Optical Circulator



(patents pending)



**DATASHEET** 





The OC Series Terbium Gallium Garnet Based 850/980/1060nm Optical Circulators are non-reciprocal devices that redirect light at 850/980/1060 nm from port-to-port in only one direction while minimizing back reflection and back scattering in the reverse directions for any state of polarization. With Agiltron's patent pending magnetic-optics technology and proven advanced micro optics design, the circulator features low insertion loss, high isolation, compact structure, high power handling, and high stability. The excellent characteristics of this product make it an ideal choice for application in fiber amplifier systems, pump laser diodes, and optical fiber sensors. Agiltron also provides customized design to meet special applications.

#### **Features**

- Low Insertion Loss
- High Isolation
- Low PDL
- High Stability
- High Reliability
- Cost Effective

# **Applications**

- Optical Fiber Amplifier
- Pump Laser Source
- Fiber Optic Sensor
- Test and Measurement
- Instrumentation

### **Specifications**

Parameter		Min	Typical	Max	Unit
Operation Wavelength	850	840		860	nm
	980	970		990	
	1060	1050		1070	
Insertion Loss [1]			1.0	1.5	dB
Wavelength Dependent Loss				0.2	dB
Isolation		20	25		dB
Polarization Dependent Loss			0.1	0.2	dB
Cross Talk		45	50		dB
Return Loss		50			dB
Optical Power Handling			500		mW
Storage Temperature		-10		60	°C
Fiber Type		See			

#### Notes

[1]. Excluding connectors

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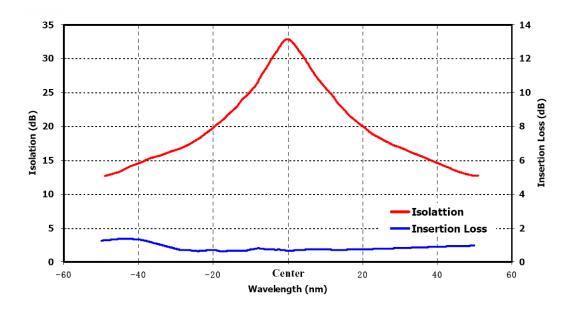


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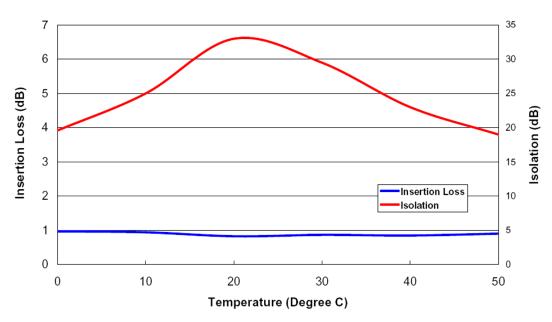


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#### **Optical Performance**



IL/Iso Vs. Temp @ Center Wavelength





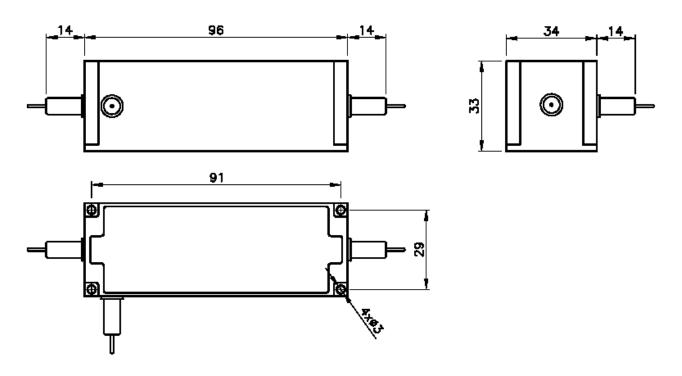
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## **Mechanical Dimensions (mm)**



<sup>\*</sup>Product dimensions may change without notice. This is sometimes required for non-standard specifications.

### **Ordering Information**

Prefix	Туре	Wavelength	Grade	Package	Fiber Type	Fiber Cover	Fiber Length	Connector
OCST-	Polarization Independent = 11 Special = 10	1060 = 1 850 = 8 980 = 9 Special = 0	Standard = 1 Special = 0	Standard = 1 Special = 0	HI1060 = 2 HI1060 Flex = 3 HI780 = 7 HI980 = 9 Special = 0	Bare fiber = 1 900um Loose tube = 3 Special = 0	0.25m = 1 0.5m = 2 1.0m = 3 Special = 0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC/PC = 7 LC/UPC = U Special = 0