High Power Broadband Free-Space Isolator

KW, 450nm to 2400nm, >100nm broadband

DATASHEET

The OIHF is designed for kilowatt-class laser systems with a single polarization. With Agiltron's proprietary configuration, these isolators feature unique compensation technologies for thermal lensing and wavelength shifts under intense optical radiations as well as efficient internal cooling apparatus. Moreover, It has broadband operations: over 100nm with isolation > 40dB and over 300nm > 30dB. The optical isolators cover a wide wavelength range of 450nm to 2450nm. The standard wavelength is centered at 1550nm. A built-in output tap monitor is an option. Agiltron has a volume isolator production operation for making custom-specific designs with specially-designed testing tools.

Features

- Broadband
- Large Aperture
- Low Loss
- High Reliability
- KW Optical Power Handling
- Polarization Dependent Input

Applications

- Laser System
- Lab Use
- Instruments

Specifications

Parameter	Min	Typical	Max	Unit
Center Wavelength	450		2400	nm
Wavelength Range (± center)	100	150	270	nm
Insertion Loss[1]	0.3	0.5	0.7	dB
Return Loss	50			dB
Isolation	30	40	45	dB
Forward Optical Power (CW) [2]			1	KW
Backward Optical Power(CW) [3]			100	mW
Aperture		10		mm
Operating Temperature	-5		60	℃
Storage Temperature	-40		85	℃
Mounting Adaptor		Available		

[1] For 1550nm, other wavelengths may have a higher loss.
[2] CW
[3] CW

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Mechanical Dimensions (mm)

Optical Performance (typical single stage)

Ordering Information

	1	☐	☐	☐	☐	☐	☐	☐	☐
Prefix	**Type**	**Wavelength**	**Aperture**	**Package**	**Forward Power**	**Backward Power**	**Front Polarizer**	**Back Polarizer**	**Quartz Compensator**
OIHF-		1310nm = 3 1550nm= 5 2000nm = 2 1060nm=1 980nm=9 850nm=8 780nm=7 650nm=6 450nm=4	10cm=1 Special=0	Regular=1 With tap=2 With oil cool=3 Special=0	1KW=1 5KW=2 Special=0	5WW=1 10W=2 50W=3 Special=0	Yes= 1 Non=2	Yes=1 Non=2	Yes=1 Non=2

Red color for special order

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