

Fiber Coupled Isolator



Parameter	Unit	Max	Min	Notes
Forward transmission	%		90	Power transmitted from fibre into output beam (not divergent satellite beams) excluding fibre loss
Polarisation dependent loss	%	5		Power transmitted into output beam
Isolation	dB		23	100% back reflection
Return loss	dB	-45		The ratio of the power reflected back from the isolator assembly to the power launched into the fibre
Concentricity of output beams	%	5		The separation of the centres of the orthogonally polarised output beams measured with respect to the $1/e^2$ diameter of the input beam
Angular alignment of output beams	%	10		The separation of the centres of the orthogonally polarised beam waists measured with respect to the $1/e^2$ diameter of the waists.
Astigmatism	%	25		Measured as percentage of Rayleigh range
Focal shift	m^{-1}	0.1		Diopters of lensing at rated power
Rated Power	W	30		Average power
Pulse power	kW	30		10ns pulse
Pulse power	kW	10		100ns pulse
Centre wavelength	nm	1070	1060	~ 5nm bandwidth. >95% Transmission up to 1150nm
M^2	-	2		Based on an input M^2 of <1.8
Beam Diameter	mm	1.32	1.08	Measured with defined mode filling ($1.4 < M^2 < 2$). i.e. $1.2 \pm 10\%$ To be measured 30mm from spacer exit.
Ellipticity	%		85	Measured with high order modes stripped out
Full angle divergence	mrad	2.5		Determined by M^2 and beam diameter (worst case: $M^2 = 2$, $\lambda = 1.07\mu m$, $D = 1.08mm$)
Pointing accuracy	mrad	2.0		The angle between the optic axis and the housing mechanical axis
Offset	mm	0.5		The radial distance between the optic axis and the housing mechanical axis measured at the optical output aperture

