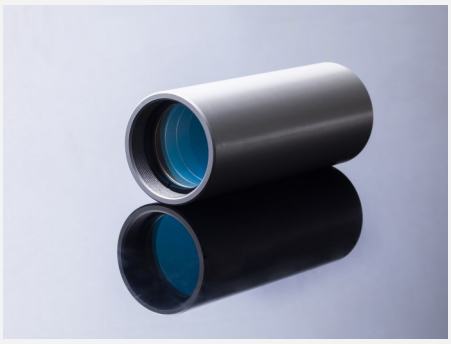
Compact Beam Shaper

IOS000336 - TopHat of 2.0 x 2.0 mm²



Features and Advantages

This compact beam shaper is designed for a fiber coupled diode laser to generate a homogeneous field of 2 x 2 mm² in a working distance of approximately 100 mm.

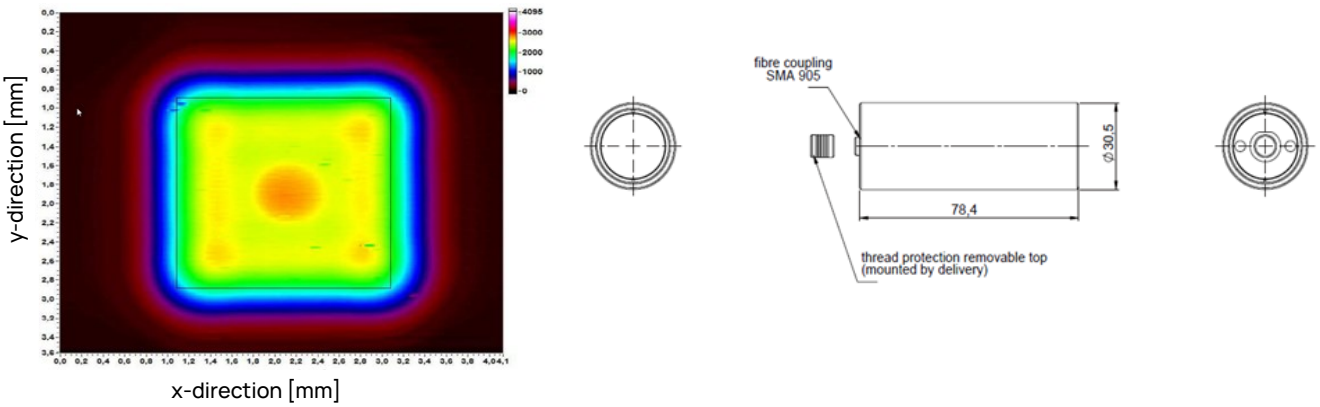
Product Specifications

Specification Data of the Laser Source (input)	Unit	Value
Wavelength	nm	790-990
Power	W	≤ 120
Fiber core diameter	µm	400
NA		0.22
Fiber connector		SMA905

Specification Data of the Beam Shaper Module (1)	Unit	Value
Transmission	%	› 95
Efficiency ($I_{field,hom}$ / $I_{field,total}$) (2)	%	› 60
Generated field size	mm²	2 x 2 ± 0.5 (top hat region)
Inhomogeneity (Imax-Imin)/(Imax+Imin) (3)	%	≤ 7.5 (integrated over the other axis)
Working distance WD (4)	mm	95 ± 5
Housing material		anodized aluminium
Dimensions of the housing	mm	see drawing

(1) Example for customization — customized field sizes and coatings on request
(2) $I_{field,hom}$ / $I_{field,total}$ denotes the ratio of the integrated power in the homogeneous field versus the total power at the field plane
(3) Imax and Imin denote the maximum and minimum intensity in the uniform field, respectively.
(4) Between last mechanical surface and focus

Typical Measured Field and Product Drawing (mm)



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