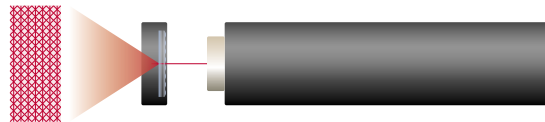


DIFFRACTIVE OPTICAL ELEMENTS (DOE)

Accessories for Laser Modules



By using a diffractive optical element (DOE) a simple dot laser beam can be turned into a large variety of patterns and beam shapes for example cross-hair beams.

The DOE can be integrated to our standard Flexpoint modules, HD series and ILM12F / ILM12IP.

HD series and ILM12F / ILM12IP are available with a green (520nm) and red (635nm) beam and therefore this data sheet concentrated on these two wavelengths. Other wavelengths and additional DOEs are available on request.

HD series and ILM12F / ILM12IP come with integrated DOE. To evaluate the right DOE for your application and working distance our standard FP-D modules with 11.5mm diameter are available with a removable black plastic cap which can be plugged to the front of the module and removed to try different variations. In case you would like to apply a removable DOE to the ILM12F / ILM12IP please contact us, the HD series with 19mm diameter is only available with integrated DOE.

On the next page you find an overview of available standard cross-hair DOEs. Please pay attention to the design wavelength and optimal wavelength.



APPLICATIONS

- / Integration into a laser module (cannot be exchanged)
- / Cross-beam: Patient positioning
- / Cross-beam: Positioning of label
- / Cross-beam: Starting point for CNC program

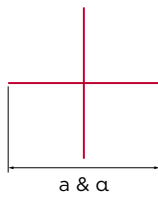
ACCESSORIES FOR LASER MODULES

Diffraction Optical Elements (DOE)



SPECIFICATIONS

Crosshair



Item #	Description	Design Wavelength [nm]	Optimum Wavelength Range [nm]	Pattern Size ¹ a [mm]	Pattern Angles ² α [°]	Image
DOE-205	Cross - 5@635	635	580 - 660	9	5	
DOE-212	Cross - 25@520	520	500 - 640	45.1	25	
DOE-214	Cross - 2@635	635	600 - 645	3.5	2	
DOE-218	Cross - 15@635	635	500 - 640	26	15	
DOE-239	Cross - 5@520	520	488 - 600	10.5	5	
DOE-247	Cross - 25@635	635	600 - 800	44	25	
DOE-249	Cross - 45@635	635	620 - 700	83	45	
DOE-270	Cross - 30@635	635	590 - 660	53.6	30	
DOE-280	Cross - 60@635	635	580 - 690	116	60	
DOE-289	Cross - 15@520	520	480 - 550	26.4	15	
DOE-342	Cross - 52@520	520	440 - 700	97.6	52	

1 @ 100mm Distance (@ Design Wavelength)

2 @ Design Wavelength

/ Germany and Other Countries LASER COMPONENTS Germany GmbH Tel +49 8142 2864 - 0 info@lasercomponents.com www.lasercomponents.com
 / France LASER COMPONENTS S.A.S. Tel +33 1 39 59 52 25 info@lasercomponents.fr www.lasercomponents.fr
 / United Kingdom LASER COMPONENTS (UK) Ltd. Tel +44 1245 491 499 info@lasercomponents.co.uk www.lasercomponents.co.uk
 / Nordic Countries LASER COMPONENTS Nordic AB Tel +46 31 703 71 73 info@lasercomponents.se www.lasercomponents.se
 / USA LASER COMPONENTS USA, Inc. Tel +1 603 821 - 7040 info@laser-components.com www.laser-components.com