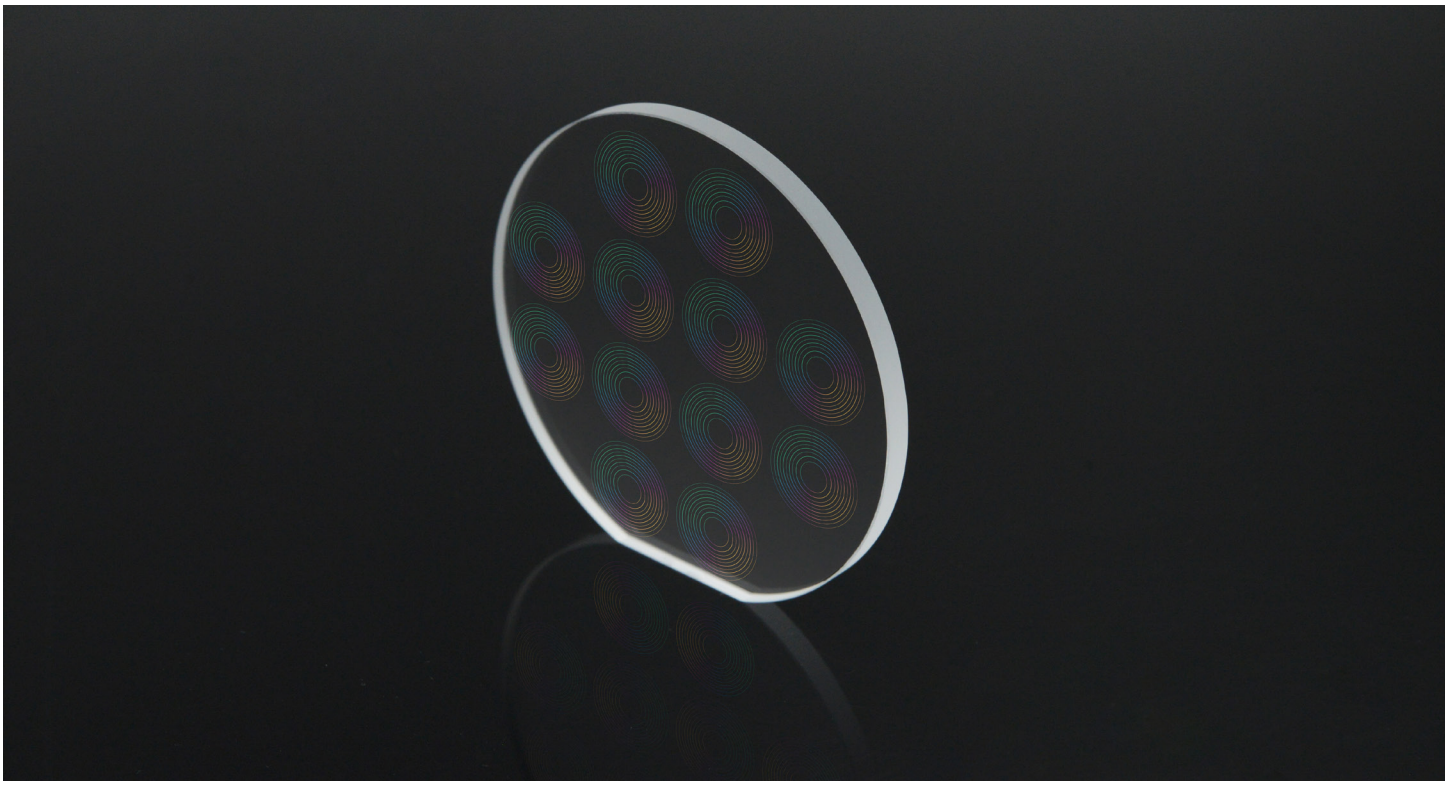
DIFFRACTIVE OPTICAL ELEMENTS (DOEs)

Diffractive optical elements (DOEs) are designed to transform a nearly Gaussian laser beam profile into a custom design size and intensity profile for use in demanding industrial applications (high-power laser welding, PCB drilling, glass cutting, solar cell manufacturing, etc). DOEs are characterized by high efficiency, low stray light, and high laser damage threshold. Several examples are presented: top hat beam shaper, rectangle beam shaper, ring beam shaper, 1D/2D beam splitter, and arbitrary beam splitter.



SPECIFICATIONS

Wavelength range	193 nm~3 µm, and more
DOE steps	2~16 steps, and more
Conversion efficiency (%)	40%~98%
Element size	up to 200 mm
Coating (optional)	AR
Custom design	Almost any symmetry or arbitrary shape
Materials	Fused silica, BK7, or material specified by customers

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