

DBS-7/6 7/6 Diffractive Beam Splitter

PRODUCT FEATURES

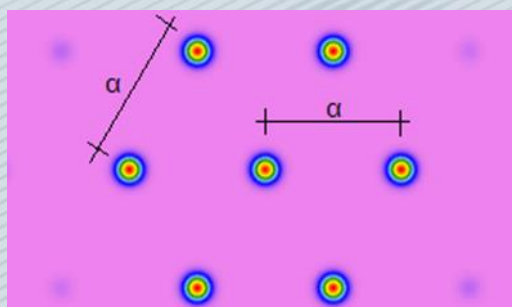
- ▲ Separation of the input beam into seven beams
- ▲ Thin single optical element

APPLICATIONS

- ▲ Parallel laser material processing
- ▲ Parallel laser scanning
- ▲ Laser perforation
- ▲ Optical measurement

RELATED PRODUCT

- ▲ Rotation mount HSF03 for rotation /alignment of the spot array



7/6 beam splitters diffract the input beam into seven beams. Positions of 6 beams are in the edges of a hexagon. The 7th beam is centered to the 6 other beams. Each beam has > 10.5 % of total input power. The uniformity error $(I_{max} - I_{min}) / (I_{max} + I_{min})$ is < 5 %. Besides, the power in the highest unwanted diffraction order is < 1 % (of input power).

SPECIFICATIONS

Efficiency	> 75 %
Uniformity error	< 5 %
Strongest unwanted beam	< 1 %
Dimensions ¹⁾	dia. 25.4 mm / thickness 3 mm
Active area ¹⁾	dia. 23 mm
Material ¹⁾	fused silica
Damage threshold	10 J/cm ² @ 1064 nm, 10 ns 5 J/cm ² @ 532 nm, 10 ns 3 J/cm ² @ 355 nm, 10 ns

Incl. AR/AR coating

¹⁾ Others on request

AVAILABLE SEPARATION ANGLE α

1064 nm	1030 nm	532 nm	515 nm	355 nm	343 nm
0.573 °	0.555 °	0.286 °	0.277 °	0.191 °	0.185 °
0.229 °	0.222 °	0.115 °	0.111 °	0.077 °	0.074 °
0.115 °	0.111 °	0.057 °	0.056 °	0.038 °	0.037 °
0.057 °	0.056 °	0.029 °	0.028 °	0.0191°	0.0185°
0.029 °	0.028 °	0.014 °	0.014 °	0.0096°	0.0092°

Model No.: DBS-7/6-wavelength-separation angle

Other angles or wavelengths on request.