

## Off-Axis Parabolic Mirrors

Off-Axis Parabolic (OAP) Mirrors are mirrors whose reflective surfaces are segments of a parent paraboloid. They achromatically focus a collimated beam or collimate a divergent source, and their off-axis design separates the focal point from the rest of the beam path. The reflective design eliminates phase delays and absorption losses introduced by transmissive optics.

- Material: Aluminum 6061-T6
- Dimensions  
SZLASER provide the standard OAP with 1 inch(25.4mm), 2 inches(50.8mm), 3 inches(76.2mm), 4 inches(101.6). Large sizes can be up to 600mm
- Reflective Focal Length  
The RFL of standard OAP is 1 inch, 2 inches, 4 inches and 6 inches.
- Off-axis angle  
Standard off-axis angle is 90°, others can be customized.
- Coating  
Protected Aluminum(400-2000nm)  
Ravg >85% @ 400 – 700nm Ravg >90% @ 400 – 2000nm  
Protected Silver(450nm – 2000nm)  
Ravg >98% @ 450 – 2000nm Ravg >98% @ 2000 – 10,000nm  
Protected Gold(700nm – 2000nm)  
Ravg >96% @ 700 – 2000nm Ravg >96% @ 2000 – 10,000nm  
Bare Gold, UV Enhanced Aluminum is also available.
- Alignment Through Holes  
Standard OAP's through holes diameter is 3mm. Through Hole orientation can be designed for parallel to focused beam or parallel to collimated beam.
- Surface roughness: <150 Å (RMS), customizable up to <20 Å (RMS)

Material	Aluminum		
Size &Tolerance	W(+0/-0.2)*H(+0/-0.2)*L( $\pm 0.1$ )mm		
Surface quality	60/40~40/20	Flatness	$\lambda/4@633\text{nm}$
Surface Roughness	$\leq 10\text{nm}$	Non-optical surface	Black Anodized
Coatings	1--- UV Enhanced Aluminum 2--- Protected Silver 3---Protected Gold		

### Standard Products:

P/N	Diameter (mm)	Parent Focal Lenth (mm)	Reflected Focal Length(mm)	Coating
OAP1277.515	$\Phi 12.7$	7.5	15.0	1/2/3
OAP12712.725.4	$\Phi 12.7$	12.7	25.4	1/2/3
OAP12716.533	$\Phi 12.7$	16.5	33.0	1/2/3
OAP12725.450.8	$\Phi 12.7$	25.4	50.8	1/2/3
OAP12738.176.2	$\Phi 12.7$	38.1	76.2	1/2/3
OAP25412.725.4	$\Phi 25.4$	12.7	25.4	1/2/3
OAP25425.450.8	$\Phi 25.4$	25.4	50.8	1/2/3
OAP12725.450.8	$\Phi 25.4$	38.1	76.2	1/2/3
OAP25450.8101.6	$\Phi 25.4$	50.8	101.6	1/2/3
OAP25476.2152.4	$\Phi 25.4$	76.2	152.4	1/2/3
OAP254101.6203.2	$\Phi 25.4$	101.6	203.2	1/2/3

OAP50825.450.8	Φ 50.8	25.4	50.8	1/2/3
OAP50838.176.2	Φ 50.8	38.1	76.2	1/2/3
OAP50850.8101.6	Φ 50.8	50.8	101.6	1/2/3
OAP50863.5127	Φ 50.8	63.5	127.0	1/2/3
OAP50876.2152.4	Φ 50.8	76.2	152.4	1/2/3
OAPH50850.8101.6	Φ 50.8	50.8	101.6 with hole	1/2/3
OAPH508576.2152.4	Φ 50.8	76.2	152.4with hole	1/2/3