

Voice Coil Actuated Fast Steering Mirror (VCA FSM)

FEATURES

- High Optical Quality Continuous Surface
- Customizable Mirror Substrate
- Capable of Receiving Any High Reflectivity Coating
- All Digital Tunable Controller with Ethernet Interface
- Mirror Diameters >25mm
- Microradian Accuracy with Milliradian Stroke

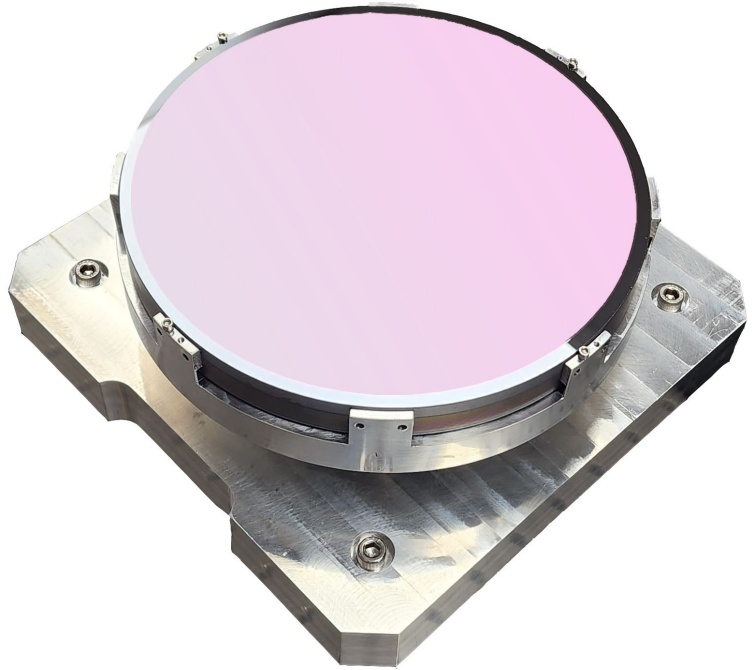
TYPICAL APPLICATIONS

- Atmospheric Tilt Compensation
- Laser Beam Automatic Alignment Systems

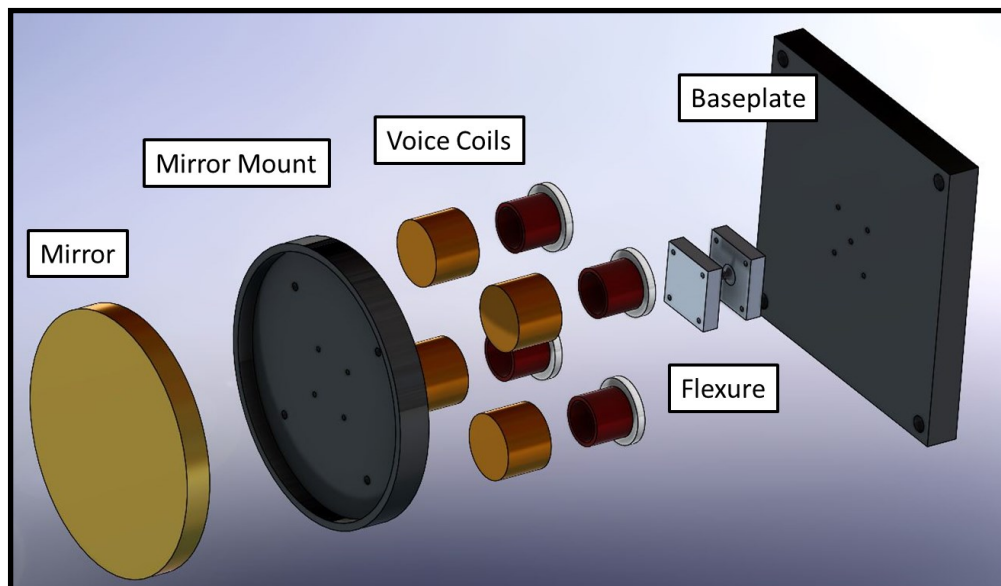
DESCRIPTION

AOS is pleased to bring a customizable voice coil actuated (VCA) fast steering mirror (FSM) technology to market for addressing the laser pointing control market. These FSMs are capable of addressing a wide variety of tilt needs from atmosphere aberration compensation to mechanical jitter rejection. The mirror is scalable from 1"-class sizes to over 7" diameters. Call AOS today to learn more about this exciting new FSM architecture.

1"-7" Diameter FSMs



VCA FSM Architecture



Specifications

Parameter	Value	Notes
Diameter (mm)	25+	
Angular Stroke (μrad)*	5000	
Angular Accuracy (μrad)*	<5	
Bandwidth (Hz)*	50-300	Adjustable through digital Ethernet interface
Angle of Incidence (degrees)	Any (0 to 45 typical)	Typically 10-degrees for High Power Coatings
Laser Power Handling	Coatings tested up to 240kW and 1MW/cm ²	
Environmental Conditions	Call AOS	
Actuator Resistance (Ω)	4-20	
Vacuum Bake	10 μtorr	Low Outgassing Materials
Mirror Substrate Materials	Silicon, Glass (Fused Silica), etc.	

**Note: Specifications scale with aperture diameter and other design specifications.*

