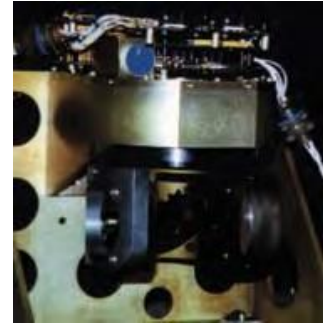


Kratos SRE has developed stabilized gimbaled mirror assemblies for active/passive imaging systems. The mirror assemblies can be used for airborne reconnaissance, missile guidance, LADAR, and other applications.

- The two-axis stabilized mirror shown utilizes rate sensors (gyros) to derive body attitude information and is controlled by digital servo electronics. Optical encoders provide high-resolution position feedback to the controller. Large torque motors are used for scanning the mirrors for line-scan or LADAR applications. The scan and stabilization functions are fully programmable.
- The mirror assemblies shown provide either a two-inch or four-inch clear optical aperture. The mirrors are polished and coated for visible and infrared (dual-mode) reflectivity. Fields-of-regard up to  $\pm 60$  degrees in two-axes is possible with these systems. Controller algorithms can accommodate a three-axis inertial vector, calculating the appropriate coordinate transform to simultaneously point and stabilize the line-of-sight.
- Stabilization information is derived from a three-axis gyro cluster mounted on the mirror frame. The high-bandwidth, low-noise inertial sensors provide stabilization to compensate for aircraft body-rate disturbances.



Two-inch aperture mirror system



Cross-range scanner



Down-range scanner



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