

# SCHOTT® Image Assembler Systems for a Wide Field of View

Multi-leg fiber optics combine images for segmented or tiled viewing capability

Overlapping fields of view or individual discrete images are possible. SCHOTT is also able to provide custom total imaging systems including lenses, housings, and camera packages.



## Performance Characteristics

Versatile imaging system transmits two or more views to one common sensor

Flexible wound fiber bundle or rigid image conduit versions available

Wide range of lenses available for one overlapping field of view, or individual discrete images

Eliminates need for multiple cameras, power supplies, cables, multiplexers, pan / tilt heads, etc.

Assembly can be bonded directly to a CCD / CMOS sensor, or use relay lens for quick disconnect and interchangeability

Complete systems designs including lenses, housings, and camera packaging

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A UAV would be an example application for the image assembler technology from SCHOTT



Photograph courtesy of the US Air Force

Fiber optic image assemblers provide highly customized imaging solutions and situational awareness for demanding applications. Available in both rigid image conduit and flexible wound fiber bundle versions, these systems can be readily bent and shaped to conform to a prescribed light path.

## Sample Applications

Surveillance for defense including unmanned aerial vehicles, ground vehicles, and military installations

360 degree imaging systems for active or passive periscope applications

Stereoscopic imaging with single camera solution

Remote monitoring of critical aircraft / vehicle compartments, systems, and components

Situational awareness for high crime areas, banks, convenience stores, and home security

Process monitoring and production control

Can be used to collect, detect, or measure light output from various sources including muzzle flash and rocket plume tests

## Product Specifications

	Rigid Image Conduit Version	Flexible Wound Fiber Bundle Version
Single fiber size	2.5, 4, 6, 12, 24, 50, and 100 $\mu\text{m}$	10 $\mu\text{m}$
Resolution	up to 100 lp/mm with fused fibers	45 lp/mm
Transmission	80% @400 – 1000 $\mu\text{m}$ (length dependent)	40 – 50% @400 – 1000 $\mu\text{m}$ (length dependent)
Length	Up to 2 m (longer custom applications available)	2 – 10 m
Field of view	Dependent on lens selection and position – many lens choices available	
Camera / housing	Can be designed to work with any camera – custom housing designs available	

### For more information please contact

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