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

SCHOTT
glass made of ideas

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 µm	10 µm
Resolution	up to 100 lp/mm with fused fibers	45 lp/mm
Transmission	80% @400 – 1000 µm (length dependent)	40 – 50% @400 – 1000 µm (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	

Version 03.2011

For more information please contact

Lighting and Imaging
SCHOTT North America, Inc.
122 Charlton Street
Southbridge, MA 01550

Phone: (508) 765 - 9744
Fax: (508) 765 - 1299
lightingimaging@us.schott.com
www.us.schott.com/lightingimaging

All specifications are subject to change without prior notice. This datasheet or any extracts thereof may only be used in other publications with express permission of SCHOTT.

© SCHOTT North America, Inc.

SCHOTT
glass made of ideas