KEY BENEFITS

- Small form factor and low power consumption.
- On-board image processing.
- High operating temperature.
- High sensitivity and excellent image quality.

VEM-SWIR
Vision Enhancer Module
Short Wave Infrared
OVERVIEW

The VEM-SWIR* is based on a 640 X 512, 15 µm InGaAs detector operating from 1 µm to 1.7 µm, along with an athermalized focus-free lens providing 41 degrees field-of-view at F/1.4 aperture.

VEM-SWIR can be used with various Thales MOTS system devices (displays/controllers) to enable viewing in the SWIR band - important for superior threat detection/identification, obstacle avoidance, or other critical mission tasks. This sensor incorporates an internal responsive user-selectable multi-filter wheel to enhance scene contrast, de-camouflage, laser targeting illumination profiles, covert communication or any precisely defined bandwidth exploitation. Operating band-pass filters configurable upon request.

Sensor’s characteristics include:

- PAL/NTSC or Digital LVDS video outputs.
- Optional 14 bit Cameralink video output.
- 7 Selectable/configurable band-pass filters.
- Wide temperature -40°C to +70°C operation.
- MIL-SPEC design for shock, vibration and EMI.
- Three sensitivity modes (low/med/high).
- Auto gain, level and integration time modes.
- Non-Linear gain and level for high dynamic range scenes.
- Optimized detector management for ultra-low noise performance.

*Other camera module configurations available upon request (FOV, VIS-SWIR 0.5 µm to 1.7 µm).

SPECIFICATION

- Driver’s Vision (driving/surveillance/passive imaging)
- Advanced De-Camouflage
- Beacon Tracking
- Friend or Foe identification
- Chemical gas cloud detection
- Laser targeting detection
- Enhanced covert operations
- Improved visibility (haze, fog, smog, smoke)
- Long-range human activity detection (lights)
- Laser-gated imaging
- Sniper/gun spotting and locating (plume detection)