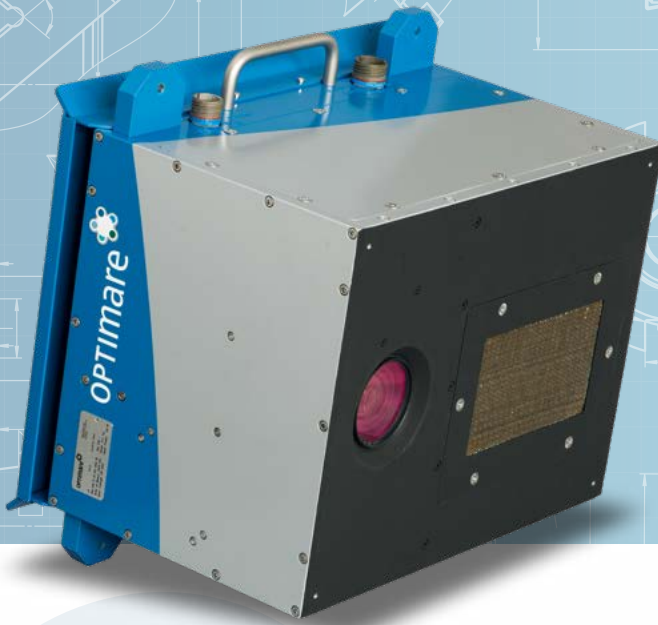


VIS Line Scanner

Visible remote sensing of marine pollution
using the VIS Line Scanner



- Airborne Remote Sensing in the visible wavelength range
- Detection of features on the sea surface such as oil spills, chemical plumes and biogenic slicks
- Acquisition of highly resolved geo-referenced RGB composite images
- Documentation of the oil spill scene

Established Supplementary Tool

The OPTIMARE VIS Line Scanner has been established as a supplementary tool for various airborne remote sensing applications, like for example airborne maritime surveillance.

The VIS Line Scanner is a ruggedized, lightweight remote sensor for earth observation at visible wavelengths. In maritime surveillance, the system is used for acquisition of highly resolved geo-referenced Red/Green/Blue composite images. These images can be used for documentation and for more exact volume estimations based on oil appearance codes.

Like the OPTIMARE IR/UV Line Scanner the sensor has a Field of View of 90 degrees and is therefore also used as a spectral expansion of the IR/UV system.



Technical Data

VIS Line Scanner

MECHANICAL PROPERTIES

Dimensions	388 mm x 381 mm x 270 mm
Mass	14.6 kg
Stand-alone/Module	VIS Line Scanner is connected to a mission computer

OPTICAL DETECTORS

Type	RGB Line Camera
Number of channels	3
Spectral sensitivity	400 nm to 490 nm (blue) 500 nm to 570 nm (green) 580 nm to 660 nm (red)

SCANNING SYSTEMS

Scanning method	Across-track scanning
Line rate	20 Hz
Field of View (FOV)	90 deg
Instantaneous Field of View (IFOV)	max. 0.8 mrad (depending on configuration)
Altitude of operation	Typically 1,000 ft (higher altitude operation possible)

POWER/FUEL SUPPLY

Current	7 A @ 28 VDC
Voltage	28 VDC (nominal), 20 VDC - 32 VDC

COMMUNICATION/INTERFACE

Network Connection	Copper or fiber-optic ethernet
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OPERATING/STORAGE CONDITIONS

Ground survival temperature	-55 °C ... +60 °C
Operating temperature	-40 °C ... +55 °C
Altitude/Pressure	41,000 ft (storage); 15,000 ft (operating)
Vibration	RTCA/DO-160G, Section 8, Category S, Curve L (random)
Humidity	RTCA/DO-160G, Section 6, Category B

STANDARDS

Environmental qualification	In accordance with RTCA/DO-160G
Electromagnetic compatibility	In accordance with RTCA/DO-160G

