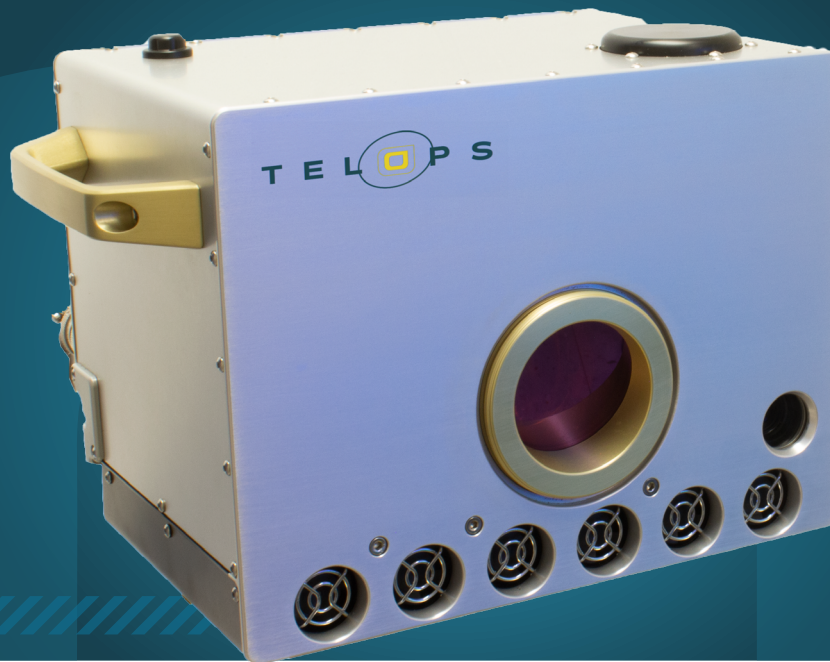**TELOPS**
EXOSENS GROUP

HS-IR Family

THE HYPER-CAM MINI

KEY FEATURES

HIGH SPATIAL RESOLUTION AND IMAGING QUALITY

HIGH SPECTRAL RESOLUTION

HIGH TEMPORAL RESOLUTION

HIGH SENSITIVITY AND ACCURACY

The Hyper-Cam is an advanced infrared hyperspectral imaging system. This remote sensing instrument combines high spatial, spectral and temporal resolution providing unmatched performances. It is a versatile tool for remote detection, identification and quantification.

HOW DOES IT WORK?

The unique spectral features of gases and solids are obtained upon modulation of the incoming infrared radiation from the scene by a Michelson interferometer. A high resolution spectrum is then recorded at each pixel of a focal plane array (FPA) detector.

By comparing a measured spectrum with reference spectral signatures of known gases and solids, the constituents of a target can be easily identified.
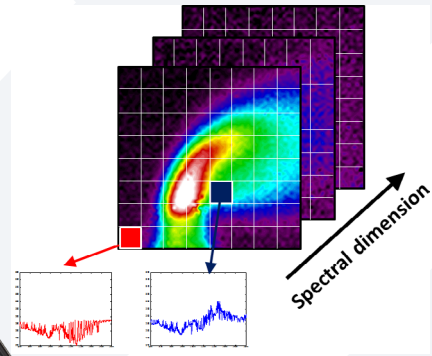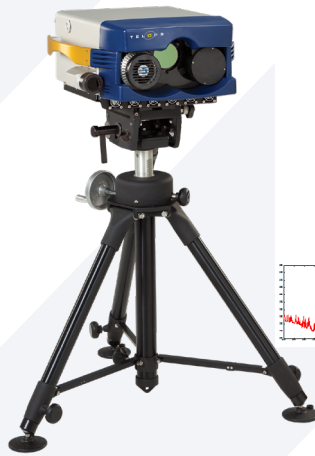
The Hyper-Cam identifies a spectrum for each pixel

POWERFULL SOFTWARE TO SUIT YOUR APPLICATION

REVEAL PRO

Reveal Pro is a powerful research software for data acquisition with a maximum flexibility for advanced users.

REVEAL D&I

Reveal D&I is a real-time detection and identification software for experiments involving gas releases and leaks. Detection algorithms allow the chemical imaging of multiple gases simultaneously on an interactive interface.
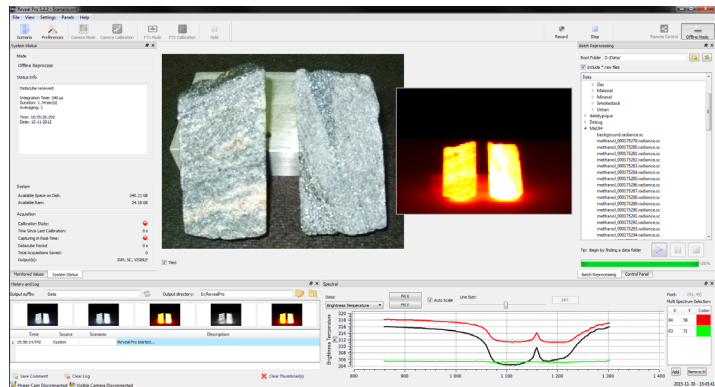
All hyperspectral data is readily compatible with Matlab and ENVI softwares

MIDWAVE SERIES

SPECIFICATIONS	HYPER-CAM iMW	HYPER-CAM iMWE	HYPER-CAM iMW FAST	HYPER-CAM iMWE FAST
Detector Type	Cooled InSb	Cooled InSb	Cooled InSb	Cooled InSb
Detector Format	320 x 256 pixels	320 x 256 pixels	320 x 256 pixels	320 x 256 pixels
Spectral Range	3.0 – 5.4 µm	1.5 – 5.4 µm	3.0 – 5.4 µm	1.5 – 5.4 µm
Spectral Resolution	Up to 0.25 cm^{-1}	Up to 0.25 cm^{-1}	Up to 0.25 cm^{-1}	Up to 0.25 cm^{-1}
Field of View	6.4° x 5.1°	6.4° x 5.1°	6.4° x 5.1°	6.4° x 5.1°
Typical NESR	10 nW/cm^2.sr.cm^{-1}	9.5 nW/cm^2.sr.cm^{-1}	10 nW/cm^2.sr.cm^{-1}	9.5 nW/cm^2.sr.cm^{-1}
Radiometric Accuracy	< 2.0 K	< 2.0 K	< 2.0 K	< 2.0 K

EXAMPLES OF TYPICAL USES
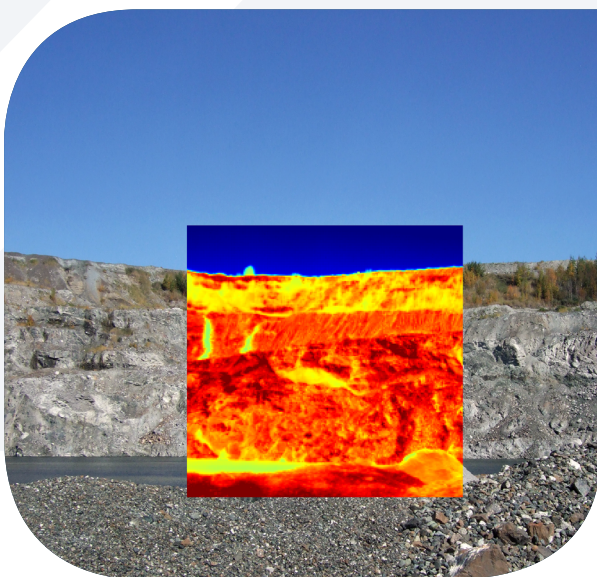
Hyperspectral imaging of minerals from an open-pit mine

Hyperspectral imaging of methane emissions from a shallow lake scene

MINI SERIES

SPECIFICATIONS	HYPER-CAM AIRBORNE MINI	HYPER-CAM MINI xLW	HYPER-CAM MINI MWf
Detector Type	Cooled SLS	Cooled SLS	Cooled SLS
Detector Format	320 x 256 pixels	320 x 256 pixels	320 x 256 pixels
Spectral Range	7.4 – 11.8 µm	7.4 – 12.5 µm	2.9 – 5.2 µm
Spectral Resolution	Up to 0.5 cm^{-1}	Up to 4 cm^{-1}	Up to 4 cm^{-1}
Field of View	13.5° x 10.9°	14° x 11°	14° x 11°
Typical NESR	< 35 nW/cm^2.sr.cm^{-1}	< 30 nW/cm^2.sr.cm^{-1}	< 10 nW/cm^2.sr.cm^{-1}
Radiometric Accuracy	< 5 K	< 3 K	< 2 K

ABOUT US

Telops is a leading supplier of high-performance scientific infrared cameras for the defence, academic, industrial, and environmental research industries. Telops also offers R&D services for optical systems technology development.

Since its beginning in 2000, Telops has distinguished itself with the quality of its technical personnel and its innovative approach to many technological challenges in the optics field.

Today, Telops is part of the Exosens Group, expanding even more our technologies, innovation and capabilities.
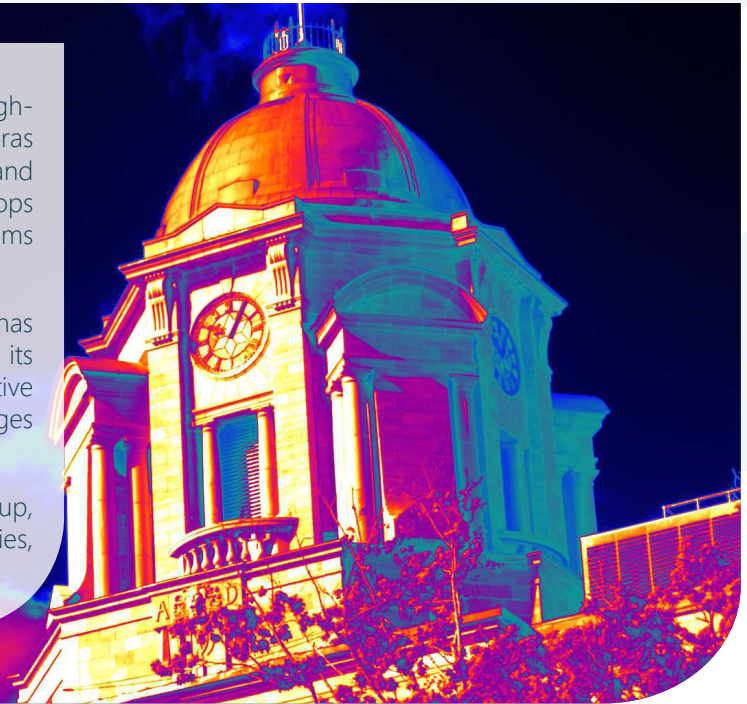
CUSTOMIZATION OPTIONS

ACCESSORIES AND OPTIONS INCLUDE:

- Telescopes:
  - 0.25 ×: FOV of 25.2 × 20.3 °
  - 0.5 ×: FOV of 12.7 × 10.2 °
  - 3.5 ×: FOV of 1.8 × 1.5 °
  - and more...
- Global Positioning System (GPS)
- Motorized polarizer
- Long-range fiber optic data transfer
- Filter holder

sales@telops.com   telops.com   **EXOSENS**
REVEAL THE INVISIBLE