

ELOP VENUS

Super-Spectral Remote Sensing Camera



The VENUS camera was developed and manufactured by Elop for a joint effort between the French Centre National d'Etudes Spatiales (CNES) and the Israeli Space Agency (ISA), is lightweight and low in power consumption and can easily be integrated into small/micro, lightweight buses.

Main Advantages and Features

- 12 simultaneous overlapping earth images with relatively high spatial and high spectral resolution
- 12 narrow spectral bands in the visible and near infra-red spectral regions
- For each band - a narrow band interference filter mounted close to the focal plane
- 5.3 meter ground resolution and 27.5 km swath from 720 km altitude

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Applications

The VENUS camera introduces a new level of high spatial resolution earth imaging and mapping for a wide range of commercial and scientific applications, including:

- **Thematic surveys**
- **Environmental monitoring**
 - Air and water pollution
- **Homeland security**
- **Energy and infrastructure**
 - Oil and gas
 - Utilities
 - Mining
 - Road
- **Emergency planning and operations:**
 - Flood management
 - Disaster relief
 - Search and rescue operations
- **Natural and man-made resources:**
 - Vegetation
 - Agriculture
 - Forestr

Technical Data

• GSD (m) @ 720 km	5.3	Spectral bands (µm):	
• Swath (km) @ 720 km	27.5	B1	400-440
• Aperture (m)	0.25	B2	423-463
• Focal length (m)	1.75	B3	470-510
• F/#	7	B4	535-575
• Detector pitch (µm)	13	B5	600-640
• Number of pixels	5,200	B6 (Note 1)	600-640
• Max TDI	32	B7	652-682
• Duty cycle (%)	10	B8	690-714
• Peak (imaging) power (W)	90	B9	734-750
• Mass (kg)	45	B10	777-790
		B11	845-885
		B12	900-920

Note:

1. B5=B6 for stereoscopy



Elbit Systems Ltd.

Advanced Technology Center, P.O.B 539, Haifa 31053, Israel

E-mail: istar@elbitsystems.com www.elbitsystems.com

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