# **VENµS**

Super-Spectral Remote Sensing Camera



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
- Forest

#### 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
<ul> <li>Focal length (m)</li> </ul>	1.75	B3 470-510
• F/#	7	B4 535-575
<ul> <li>Detector pitch (µm)</li> </ul>	13	B5 600-640
<ul> <li>Number of pixels</li> </ul>	5,200	B6 (Note 1) 600-640
• Max TDI	32	B7 652-682
• Duty cycle (%)	10	B8 690-714
<ul> <li>Peak (imaging) power (W)</li> </ul>	90	B9 734-750
• Mass (kg)	45	B10 777-790
		B11 845-885
		B12 900-920

#### Note:

1. B5=B6 for stereoscopy



