JUPITER

Very High Resolution Remote Sensing Camera

Boni Cining

The JUPITER camera is a top-end performance earth observation system for government and commercial applications and missions. JUPITER, our current high-end camera, is integrated in the OPTSAT 3000 satellite manufactured by IAI.

The present JUPITER camera contains panchromatic imaging capabilities with a very high resolution.

As an option to the panchromatic imaging, multi-spectral (MS) imaging can be added, both sharing a common optical assembly. This camera is capable of simultaneous operation and the creation of PAN, MS and PAN-sharpened images.

Main Advantages & Features

JUPITER provides more advanced capabilities than its predecessors:

- Better resolution
- Higher sensitivity
- Wide field of view
- Lightweight and compact



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Applications

The JUPITER camera provides very high spatial resolution, detailed earth imaging and accurate mapping for a wide range of security/military and civilian applications:

Advanced military surveillance and reconnaissance capabilities

- Very detailed high value target investigation
- Higher definition of small and discrete vehicles, objects and structures
- Higher quality Intentions and Warnings (I&W)
- Higher quality situational awareness
- More detailed operational planning
- More enhanced Battle Damage Assessment (BDA)

• Civilian applications:

- Homeland security
- Emergency planning and operations
- Environmental monitoring
- Energy and infrastructure
- Natural and man-made resources

Technical Data

• GSD (m) @ 600 km	0.5
• Swath (km) @ 600 km	15
• Aperture (m)	0.7
\cdot Focal length (m)	15.6
• F/#	22.3
• Spectral range (μm)	0.45-0.9
 Detector pitch (µm) 	13 (Back side technology)
 Number of pixels 	30,000
• Max TDI	96
• Duty cycle (%)	30
• Peak (imaging) power (W)	120
• Mass (kg)	100

Note:

1. Back-side technology



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