

Omega Miniature IR Camera



Date Revised: 17 DEC 03

VENDOR DESCRIPTION

Omega is the smallest, lightest weight, lowest power infrared camera available. Based on a 160 x 120 microbolometer operating in the 8-12 um thermal band, a sensitivity of better than 85mK is specified with standard f/1.6 optics. The median NEDT for production cameras is 55mK. The Omega has an instantaneous scene dynamic range of 180°C and features a histogram-based AGC for maintaining high-quality video without user intervention.

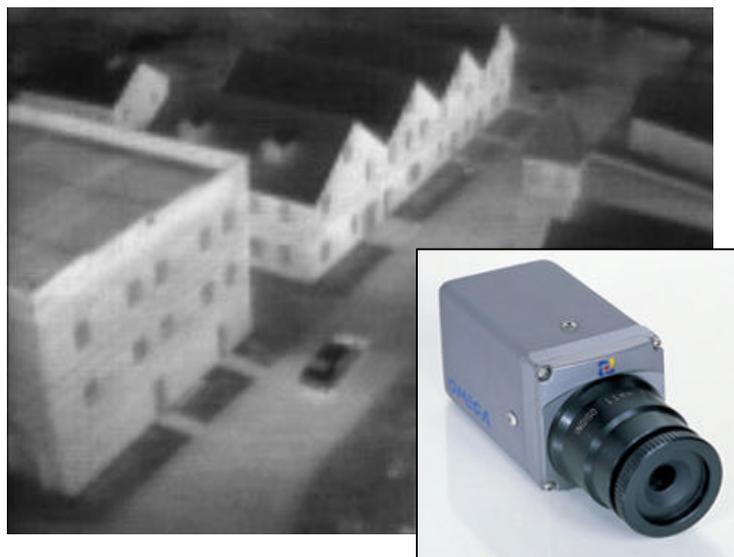
Instant On: Indigo's patented TEC-less operation enables a turn-on time of <2 seconds.

Data output: RS-170A analog video (CCIR option), as well as 14-bit digital data option.

Control: Autonomous operation (power in, video out), or manual control via RS-232.

Optics: Three standard lens options, including 11mm, 18mm, and 30mm focal lengths.

Applications: Unmanned aerial and ground vehicle payloads, unattended ground sensors, weapons sights.



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Business Category: Small Business

PIR

Power Source		Environmental	
Standard Input Voltage:	3.5 to 9.0 VDC 1.5 watts nominal, 2.0 watts max	High Temp	+55°C (extended temperature range option)
Extended Input Voltage:	7.0 to 30.0 VDC 1.5 watts nominal, 2.0 watts max	Low Temp	-40°C (extended temperature range option)
Battery Module:‡	Rechargeable lithium battery provides 2.5 hours of camera power	High Temp	40°C (standard temperature range)
Battery Pack‡ & Charger:	Digital camera battery & adapter cable provides 4+ hours of camera operation in benign environment	Low Temp	0°C (standard temperature range)
		Altitude	5,000 ft (Operating) 50,000 ft (Transit)
		Humidity	95% non-condensing
		Shock/Vibe	Half-sine profile, 20G acceleration, 11 msec pulse width (shock pulses transmitted through mounting surface only)
‡ Not compatible with extended input voltage option			

Sensor	Description	Detection	Size/Weight	Features
Passive Infrared	Vanadium Oxide (VOx) Microbolometer	600m+ (for 2m target)	54mm x 37mm x 34mm Weight: 90 g (camera less lens)	<ul style="list-style-type: none"> ■ Typical thermal resolution <30mK when normalized to f/1 ■ Thermal stabilization not required

Device	Description	Message Type	Size/Weight	Features
Optics	11mm 40° x 30° FOV 18mm 25° x 19° FOV 30mm 15° x 11° FOV	N/A	28mm x 27mm Ø, ~18 g 23mm x 27mm Ø, ~13 g 37mm x 27mm Ø, ~24 g	<ul style="list-style-type: none"> ■ f/1.6 design minimizes size/weight ■ Germanium elements
Environmental Enclosure (option)	Aluminum enclosure w/ hard-carbon coated front window, 25-foot connecting cable	N/A	135mm x 65mm Ø, 340 g (without camera)	<ul style="list-style-type: none"> ■ Designed for harsh environments ■ IP-67 rated, hermetically sealed ■ Tripod-mountable