

G5 1000 MWIR

Long Range Zoom Thermal Camera

PRODUCT HIGHLIGHTS

The G5 1000 MWIR family pairs a continuous optical zoom lens with a cooled 3-5 μ m detector to deliver exceptional long-range performance in demanding environments. Proprietary bandpass filtering enhances contrast and signal quality, producing cleaner, more usable pixels for today's AI-driven algorithms and machine vision.

Fast $f/4$ optics with continuous autofocus maintain sharp, high-contrast imagery across the full field of view, while advanced image processing ensures clear, actionable video in dynamic conditions. Rugged, IP67-sealed construction and flexible system interfaces make it a reliable solution for mission-critical surveillance and security applications.

WHAT SETS G5 APART

- Custom filtered detector architecture
- Spectrally matched optics and coatings
- 100% cold shield efficiency
- ROI-aware AGC and deep protocol control

MISSION FIT

- CUAS and other continuous duty autonomous systems
- Coastal and maritime surveillance
- Border and perimeter protection
- Critical infrastructure security
- Airfield, port, and remote site coverage

G5 ADVANTAGE

- Long-life cooler 50,000 hr MTBF
- Custom band-pass filter detector architecture
- Spectrally matched optics and coatings
- 100% cold shield efficiency
- Adaptive ROI driven AGC and deep protocol control
- ATCOM/Orin supported on HD models



Unprocessed ATCOM

Processed ATCOM Turbulence and LACE

Specifications

Model	1000HD
Overview	
Part Number	70Z1000HD
Warranty	2 years
Sensor Specifications	
Detector Type	Cooled XBn
Spectral Band	3-5µm
Resolution	1280x1024
Pixel Pitch	10µm
Frame Rate	30Hz
NETD	Temporal: <30mK at 20C Spatial: <20mk
Cooler MTBF	20,000 Hour Standard 50,000 Hour Optional
Lens Specifications	
Focal Length	70mm - 1000mm
Lens Type	XTRA Long Range HD 15x
F-number	f/4
Focus	Auto and Manual Focus Adjust
FOV (Horizontal)	NFOV 0.7° WFOV 10.5°
Connections & Communications	
Communication	RS232/422 IP
Outputs	PAL/NTSC/Digital Video optional
Electrical & Mechanical	
Input Voltage	6-32 VDC/20 Watts Typical @25C
Mount	1/4-20 or 3/8-16 Tripod interface
Length	29in (74cm)
Weight	<34lbs (15.5kg)
Environmental & Approvals	
Sealing	Unit sealed and nitrogen backfilled at factory
Operating Temperature Range	-32°C to +65°C
Storage Temperature Range	-40°C to +65°C
Defroster	Front Element
Environmental Rating	IP67 MIL STD 810F
Image Processing	
ATCOM	Turbulence Mitigation Stabilization Super Resolution Local Area Contrast Enhancement
AGC Modes	AGC Normal Linear Off; Manual Gain and level bias controls; edge enhancement and adaptive temporal noise reduction
ROI-Driven AGC	7 User selectable ROI regions for AGC and ATCOM workflows
G5 Blade	Bounding-Limited Adaptive Display Engine (BLADE) confines AGC to mission-relevant regions—eliminating background washout and preserving contrast where it matters

