

G5 785 MWIR

Long Range Zoom Thermal Camera

PRODUCT HIGHLIGHTS

The G5 785 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	785 HD	785 SD
Overview		
Part Number	52Z785xHD	45Z785xSD
Warranty	2 years	
Sensor Specifications		
Detector Type	Cooled XBn	
Spectral Band	3-5µm	
Resolution	1280x1024	640x512
Pixel Pitch	10µm	15µm
Frame Rate	30Hz	
NETD	Temporal: <30mK at 20C Spatial: <20mk	
Cooler MTBF	20,000 Hour Standard 50,000 Hour Optional	
Lens Specifications		
Focal Length	52mm - 785mm	45mm - 785mm
Lens Type	Long Range HD 15x	Long Range 18x
F-number	f/4	
Focus	Auto and Manual Focus Adjust	
FOV (Horizontal)	NFOV 0.9° WFOV 14°	NFOV 0.7° WFOV 12.5°
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	25.4 in (64.5cm)	
Weight	<29.7lbs (13.5kg)	
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	N/A
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	

