



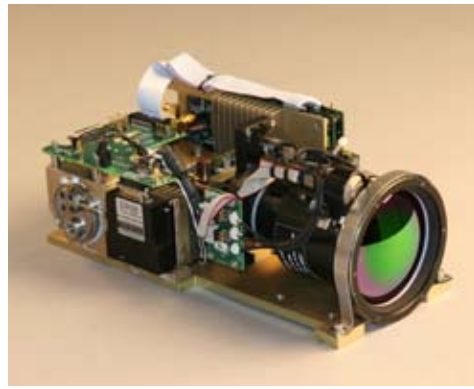
Santa Barbara **Focalplane**

LOCKHEED MARTIN 
We never forget who we're working for®

NovaZM
High-Speed MWIR Continuous-Zoom Camera 15-300mm

640 x 512, 120Hz





PD079-229



PD079-230

NovaZM

The NovaZM 640x512 MWIR camera system offers versatility with its 15 to 300mm continuous-zoom lens, eye-watering image and superior digital focal plane array (FPA) performance. Santa Barbara Focalplane's (SBF) unique digital FPA technology provides sharp integration time, high speed (up to 120Hz), ultra-low noise and extremely low cross-talk. The NovaZM meets the challenge of high-performance thermal imaging R&D, surveillance, and range tracking and target signature applications.

SBF is a merchant vendor of the very latest in infrared components, imaging systems, cameras and technology. SBF specializes in designing and manufacturing the highest sensitivity indium antimonide (InSb) FPAs in many configurations, from linear to large staring formats. Product groups include FPAs, integrated Detector/Dewar Cooler Assemblies, digital camera heads and complete imaging systems.

Specifications

FPA	
Detector	InSb
Array Format	640 x 512, windowable
Spectral Response / Waveband	<1 μm to 5.2 μm
Detector pitch	20 μm
NETD	<20mK
Operability	>99.5 (>99.9+ typical)
Camera	
Standard spectral response (cold filter)	CO ₂ Notch (3.3 - 4.2 μm and 4.5 - 4.9 μm)
Frame rate	Cam Link: <1 Hz to >120 Hz (faster for small window sizes) NTSC: 29.974 Hz
Power	24-32Vdc
Serial Control	Separate RS232 (or Camera Link® control)
Digital video/data	14-bit Camera Link®
Analog video out	RS170/NTSC (monochrome and color)
Frame synchronization out	TTL
AGC	Dynamic Histogram/Plateau based automatic gain and level
Sharpness Control	selectable over 20 levels (de-blurring filter)
Non Uniformity Correction Tables	Many (limited by compact flash size)
Typical Performance	
Cooler	Linear, Split Sterling
Power, steady state typical (25°C)	30 Watts
Power, max during cooldown	50 Watts
Cooldown time (typical)	< 6 minutes
Lens	
Focal Length	15 mm to 300 mm (Continuous Zoom)
Spectrum	MWIR
Zoom/Focus Control	Motorized
Aperture	f/4 (fixed)
Physical Characteristics	
Dimensions (length x height x width)	15.2" x 5.6" x 7.0"
Weight	15.5 lbs
Operating orientation	No restriction in orientation

Features

- 15mm to 300mm continuous zoom
- High-speed all-digital output SBF-191 FPA
- Fast 120 frames/sec through 14 bit Camera Link® digital output
- Simultaneous 30Hz analog video and Camera Link® digital outputs
- 640 x 512 SBF-191 MWIR InSb FPA
- 20 μm pixel pitch
- <20mK sensitivity
- Manual and remote control of focus and zoom
- Interfaces with turnkey WinIR™ data acquisition and analysis software

Applications

- Laboratory R&D
- Phenomenology
- Range Tracking
- Long and Short Range Surveillance
- Target Signature

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Front top: PD079-134; Front bottom: PD079-228