

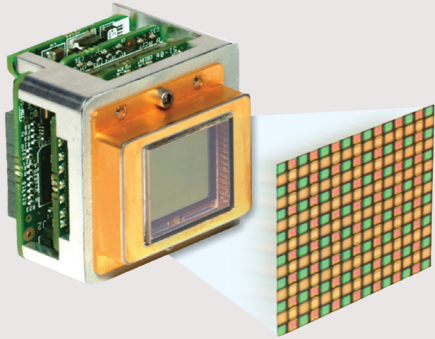
Multispectral Camera



PixelCam

OEM Multispectral Camera

Snapshot Multispectral Imaging



Product Overview:

PixelCam™ multispectral cameras provide live imaging of 3-9 spectral bands, off-the-shelf or custom, at video rates. Simultaneous multi-channel "snapshot" acquisition delivers rich, real-time data without scene change or pixel shift. Custom dichroic filter arrays are integrated into the focal plane array at wafer-level to create robust linear and area sensors that extract high-contrast spectral information at specific visible and infrared wavelengths. This breakthrough technology enables easy integration into handheld, mobile and aerial cameras - all with the same frame rate, size, weight and power consumption as monochrome cameras.

Applications

- Aerial Mapping
- Biomedical Imaging
- Machine Vision
- Product Screening
- Remote Sensing
- Unmanned Systems
- Surveillance and Authentication

Benefits

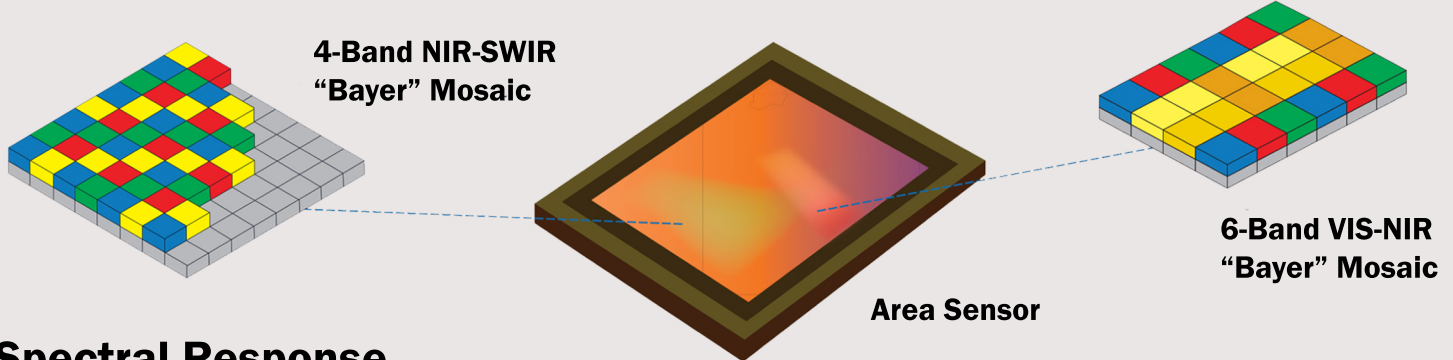
- Custom VIS-NIR-SWIR Spectral Bands
- Portable Size, Weight, and Power Consumption
- Robust, High Reliability, and Scalable Production
- Simultaneous Multi-band Imaging

OEM Customization

- Application-specific Spectral Bands
- Custom Pixel-scale Mosaic Patterning
- Sensor, Camera, and Housing Options
- Mechanical and Environmental Requirements
- Proof-of-concept Prototypes to High-volume Production

	4MP VIS + NIR	56MP VIS + NIR	Commercial / Scientific SWIR	Security & Defense SWIR
Spectral Response	400nm - 1000nm	400 - 1000nm	0.9µm - 1.7µm (900nm - 1700nm)	0.9µm - 1.7µm (900nm - 1700nm)
Resolution	2072 x 2072 pixels	8424 x 6032 pixels	1280 x 1024 pixels	640 x 512 pixels
Sensor	Si Interline CCD 7.4µm Pixel Pitch	Si Area CMOS 4.6µm Pixel Pitch	InGaAs 5µm Pixel Pitch	InGaAs 15µm Pixel Pitch
Filter Resolution	14.8µm Pixel Pitch Binned 2x2	13.8µm Pixel Pitch Binned 3x3	15µm Pixel Pitch Binned 3x3	15µm Pixel Pitch Binned 3x3
Spectral Bands *Custom Spectral Bands Available on Request	4 Band: RGB + NIR 450/100, 550/100, 650/100, 750LP	9 Band 410/15, 450/40, 530/40, 575/20, 610/20, 650/25, 720/40, 790/20, 850/40	4 Band 1120SP (900 - 1120nm), 1220/70, 1380/80, 1530LP	4 Band 1120SP (900 - 1120nm), 1220/70, 1380/80, 1530LP
	6 Band: RGB + 3xNIR 450/100, 550/100, 650/100, 740/60, 840/60, 940/60			
Active Area	15.2mm (H) x 15.2mm (W) 21.4mm Diagonal 4/3" Optical Format	27.75mm (H) x 37.75mm (W)	6.4mm (H) x 5.12mm (W) 8.2mm Diagonal	7.68mm (H) x 9.6mm (W)
Frame Rate (Overclocked)	17 fps at Full Resolution	23.7 fps at Full Resolution	94.4 fps at Full Resolution	120 fps at Full Resolution
Optical Interface	F-Mount	M58 x 0.75	C-Mount	C-Mount
Digital Output	GigE Vision	GigE Vision	GigE Vision	Mini Camera-Link
Dimensions (Without lens or mount)	60mm (H) x 60mm (W) x 70.8mm (D)	70mm (H) x 70mm (W) x 70mm (D)	50mm (H) x 50mm (W) x 42.7 (D)	50mm (H) x 50mm (W) x 69.4mm (D)
Weight	389 grams	380 grams	138 grams	282 grams

Dichroic Filter Array



Spectral Response

