

Multispectral Linescan Cameras

Spectral Devices multispectral line scan cameras incorporate CMOS sensors with high performance multispectral filter array technology. Capture multiple spectral line images simultaneously with each camera exposure. Capture multispectral line video at up to 7000 FPS. Industry leading selection of multispectral camera models optimized for standard and custom imaging applications. Global shutter provides accurate high-speed imaging of fast moving objects. USB3 Vision and GenICam-compliance makes these cameras easy to setup and use. The enclosure is CNC-machined from aluminium for strength and hard anodized for durability. We carry lenses from major manufacturers and can recommend a lens that is optimized for even the most difficult imaging task. The cameras are compatible with a wide selection of software and SDKs for Windows, Linux, LabVIEW, and MATLAB.



FEATURES:

- Linescan and Snapshot Operation
- Capture All Bands Simultaneously
- Standard and Custom Camera Types
- Up to 7000 Frames per Second
- Global Shutter CMOS Sensor
- USB3 Vision & GenICam Compliant
- Small, Lightweight, Rugged
- External Triggering
- Flexible mounting

SPECIFICATIONS:

SENSOR

- Model: CMV2000
- Type: CMOS Global Shutter
- Exposure: 100 μ s (minimum)
- Pixel Size: 5.5 μ m x 5.5 μ m
- Dynamic Range: 60 dB
- Dark Noise: 13 e⁻ (RMS)
- Dark Current: 125 e⁻/s (25 ° C)

ELECTRONICS

- Digitization: 8, 10, 12 bits
- Interface: USB3 Vision
- Power: USB3 (no external power)
- Connector: USB 3.0 Micro-B (screw)
- I/O: 1 Trigger, 2 Strokes (opto-isolated)
- I/O Connector: 12-pin Hirose HR10A

MECHANICAL

- Lens Mount: c-mount
- Size: 56 mm x 50 mm x 52 mm (WxHxD)
- Weight: 200 g
- Finish: Anodized Black, Laser Etched
- Case Material: 6061 Aluminium (CNC)
- Imperial Mounts: 12 x 1/4-20 (5 mm deep)
- Metric Mounts: 12 x M3 (5 mm deep)
- Front Mounts: 4 x 4-40 (30 mm cage compatible)

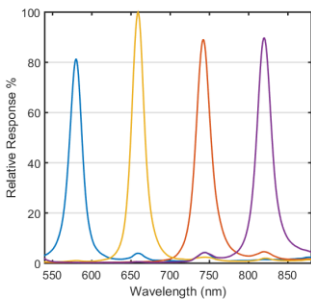
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CAMERA MODELS:

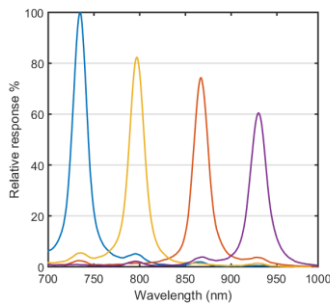
PRODUCT	#BANDS	BANDS (nm)	PIXELS/BAND	PART#
Agriculture	4	580, 660, 735, 820	2048 x 1	MSC-AGRI-1-L
Biomedical	4	735, 800, 865, 930	2048 x 1	MSC-BIO-1-L
Red-Green-Blue-NIR	4	450, 550, 650, 800	2048 x 1	MSC-RGBN-1-L
Red-Green-Blue-4NIR	8	450, 550, 650, 800, 850, 900, 950, dark	1500x1	MSC-RGB4N-1-L
4-Band Custom	4	User-Defined	2048x1	MSC-CUS4-1-L
8-Band Custom	8	User-Defined	2048x1	MSC-CUS8-1-L
16-Band Custom	16	User-Defined	2048x1	MSC-CUS16-1-L

SPECTRAL RESPONSE:

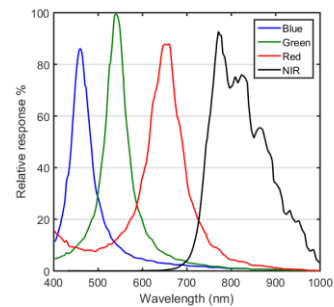
MSC-AGRI-1-L



MSC-BIO-1-L



MSC-RGBN-1-L



EXAMPLES:

LEFT: Color image captured with MSC-RGB4N-1-L multispectral linescan camera. Camera was scanned across color card target.
 RIGHT: Color image captured with MSC-RGB4N-1-L multispectral linescan camera. Camera was scanned across gray card target.

