



# SILICON VIDEO® 022

SV022C and SV022M cameras feature small size and LVDS differential digital video output. Images with 8 or 10 bits per pixel, 752H by 480V, 60 frames per second are captured by the high performance Aptina MT9V022 image sensor's 10 bit A-D converter and serialized for image transmission. The Low Voltage Differential Signal output of the camera can drive up to 5 meters of cable to the host computer. Five to twelve volt DC power and I2C control signals for the camera are sent over a category 5e cable with RJ45 connectors. A global shutter stops moving targets without rolling shutter image effects.

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The SV022 uses a plastic case that is 2.50 inches long by 1.65 inches high and 0.81 inches deep (63.50 mm L x 41.75 mm H x 20.60mm D). The M12 lens outer end is typically 0.5 inches (12.7mm) from the front of the case when the lens is at infinity. A standard 1/4 - 20 tripod mount is located on the long side of the case.

The SV022 was designed for use with a Xilinx Video Development Kit. Other versions of the SV022 can be made for OEM requirements.

Optical Format: 1/3-inch

Active Image Size: 4.51mm(H) x 2.88mm(V)  
5.35mm Diagonal

Active Pixels: 752H x 480V

Pixel Size: 6.0µm x 6.0µm

Color Filter Array: Monochrome or Color RGB Bayer Pattern

Shutter Type: Double-Buffered Global Shutter

Maximum Data Rate: 324 Megabits per second

Master Clock: 27 MHz

Full Resolution: 752 x 480

Frame Rate: 60 fps (at full resolution)

ADC Resolution: 10-bit

Responsivity: 4.8 Volts/Lux-sec (550nm)

Dynamic Range: >55dB linear;  
>80dB-100dB in HiDy Mode

Supply Voltage: 5 to 12 Volts

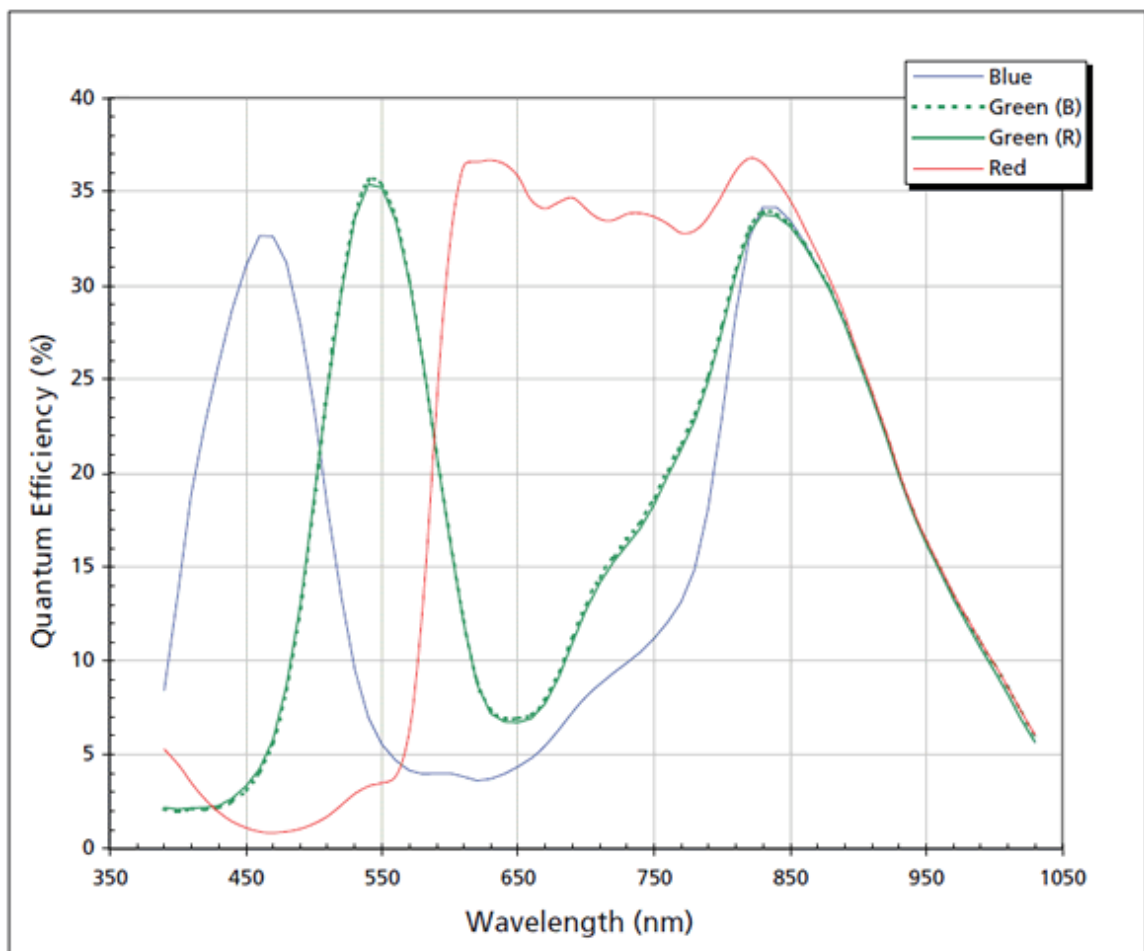
Power Consumption: 320 mW at maximum data rate

Operating Temperature: -40°C to +85°C

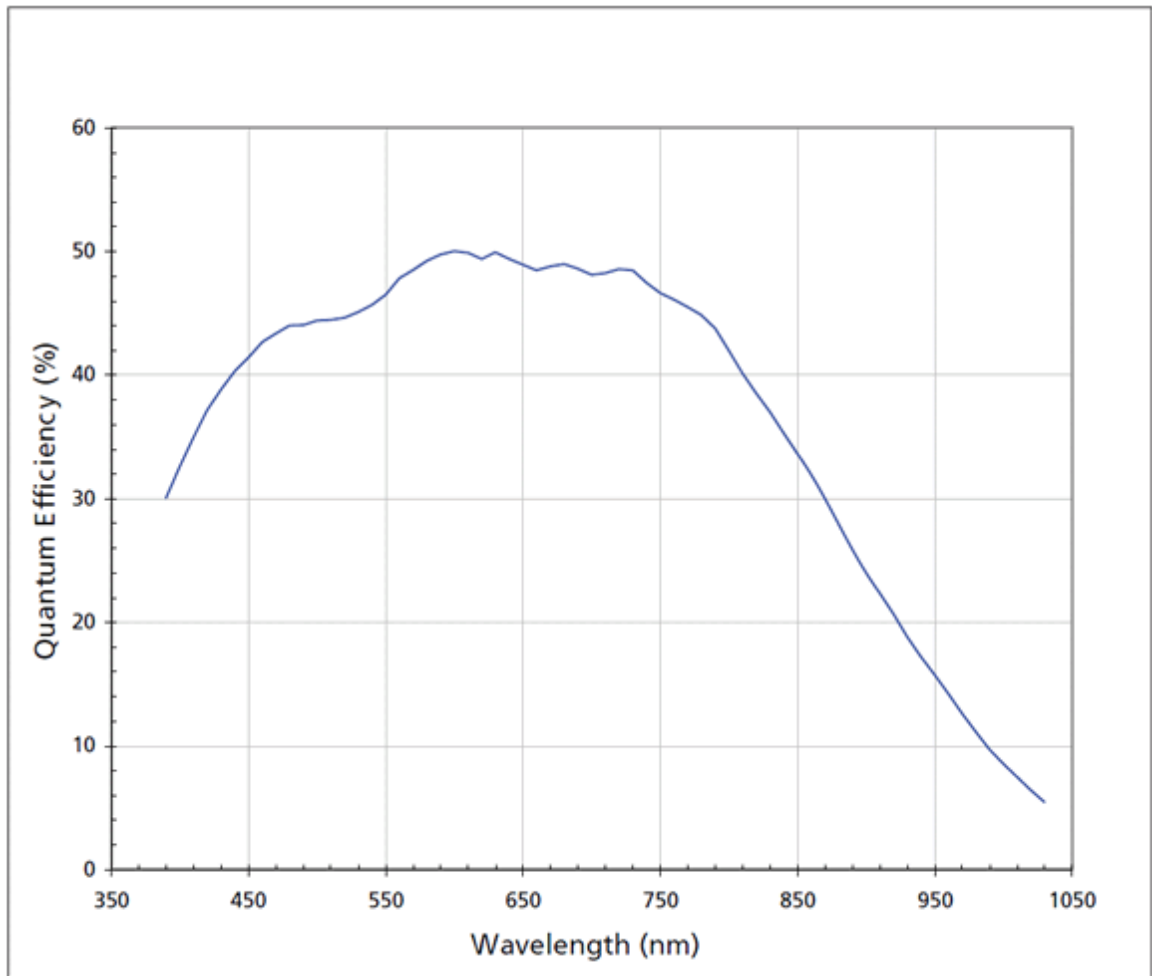
Camera Dimensions: 2.50" L x 1.65" H x 0.81" D  
63.50mm L x 41.75mm H x 20.60mm D

Weight: 1.4 oz / 39 grams

### Typical Quantum Efficiency - Color



### Typical Quantum Efficiency - Monochrome



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### Image Processing Products For Research and Industry

Specifications and prices subject to change without notice.

EPIX® imaging products are made in the USA.

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