

Hummingbird USB 3.0 camera



Sumix introduces the **Hummingbird Camera Series** - ultra compact, lightweight and robust USB 3.0 industrial cameras.

The first two models of the **Hummingbird Series** are already available for purchase: SMX-15M5M (monochrome) and SMX-15M5C (color), based on 5-Megapixel image sensors from Aptina.

Advantages of Hummingbird Cameras

Ultra compact: one of the smallest USB 3.0 cameras in the world - less than one cubic inch volume, cylinder-shaped.

Fits into places where no other camera can fit
Can be installed with the optics in a tube

Lightweight: weighs only 20 grams (0.71 oz)*.

Perfect for autonomous systems like robots, aerospace applications, etc.

Extremely fast: USB 3.0 interface allows data rate up to 400 MB per second (10 times faster than USB 2.0)

Especially well-suited to use in multi-camera systems and 3D applications, as well as for fast process capturing

Robust: Unibody aircraft-grade aluminum housing with a screw lock for USB cable, as well as shockproof electronic design allows the camera to survive 32 g of sinusoidal vibration and 6000 g shock tests**

Highly reliable even in harsh, demanding environments

* CS-mount, without accessories

** Maximum tested values - consult with Sumix prior to using the camera under high g-force

Specification

Output Video and Camera Control

Maximum resolutions of output window:	2592 × 1944, full resolution mode
Frame rate at resolution (96 MHz):	8, 12-bits: 14 fps at 2592 × 1944 63 fps at 1024 × 768 124 fps at 640 × 480
Output bits per pixel:	Selectable, 8 bits or 12 bits
Lookup table:	Programmable for user selected 8 bits mode: converts 12 bits of imaging chip's ADC to 8 bits of output
Pixel rates:	6 - 96 MHz
Exposure range (at maximum resolution), ms:	min: 0.029 (at 96 MHz); max: 1000 (at 6 MHz)*
Gamma, brightness and contrast control:	Programmable with lookup table

Imaging Chip

Type:	Color or monochrome 5 megapixel CMOS sensor with an optical format of 1/2.5 inch manufactured by Aptina Imaging Corp.
Pixel size:	2.2 μm × 2.2 μm
Image array size:	7.13 mm diagonal
Shutter:	Rolling, Global Start Shutter
Scanning mode:	Progressive
ADC resolution:	12 bits
Sensitivity:	1.4 V/lux-sec (550nm)
Dynamic Range:	70.1 dB

Camera Electrical

Supply voltage:	5 V supplied by USB 3.0 interface
Power consumption:	less than 1 W (depends on operating modes)

