



Oscar F-510

Description

High-end 5 Megapixel 1394 camera for still imaging

The Oscar F-510C is an excellent camera for sophisticated still imaging. It includes a frame readout Sony CCD sensor.

- ICX282
- B/W signal out of luma interpolation ($Y = 0.3R + 0.6G + 0.1B$)
- B/W signal out of R, G or B channel information

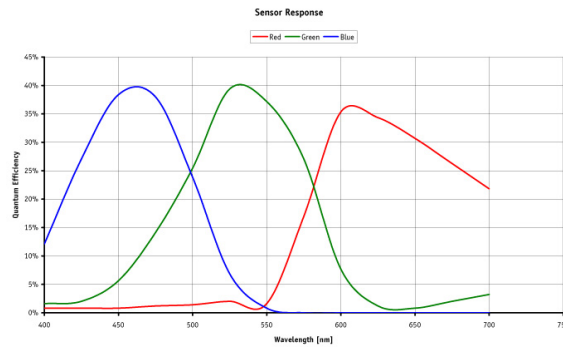
Benefits of the b/w output interpolation modes:

- In some applications, such as ophthalmology with contrast input, only one color is needed for evaluation.
- For applications with monochromatic lighting, noise can be reduced by using only the respective color channel instead of the fully interpolated luma signal.
- The Oscar can use the three primary colors (R, G and B) separately and output them in a reduced data monochrome mode.

Specifications

Oscar		F-510	
Interface	IEEE 1394a - 400 Mb/s, 1 port		
Resolution	2588 x 1958		
Sensor	Sony ICX282		
Type	CCD Progressive		
Sensor Size	Type 2/3		
Cell size	3.4 μm		
Lens mount	C		
Max frame rate at full resolution	3 fps		
A/D	12 bit		
On-board FIFO	32 MB		
Output			
Bit depth	12 bit		
Mono modes	Mono8		
Color modes YUV	YUV411, YUV422, Y8-green, Y8-red, Y8-blue		
Color modes RGB	RGB8		
Raw modes	Raw8, Raw16		
General purpose inputs/outputs (GPIOs)			
TTL I/Os	0		
Opto-coupled I/Os	2 inputs, 2 outputs		
RS-232	1		
Power/Mass/Dimensions/Regulations			
Power requirements (DC)	8 V - 36 V		
Power consumption (12 V)	<4 W		
Mass	<170 g		
Body Dimensions (L x W x H in mm)	72.5 x 44 x 44 mm including connectors, w/o tripod and lens		
Regulations	CE, FCC Class B, RoHS		

[Download Oscar technical drawing \(click here\)](#)



Smart features

Oscar cameras include several image pre-processing functions (all real-time). The below mentioned functions are performed by the camera's FPGA - with no additional load on the CPU.

- Auto/one push white balance
- Auto gain
- Auto shutter
- LUT, gamma
- Color correction
- Hue, saturation
- Sharpness
- Shading correction
- High SNR mode (up to 24 dB better signal to noise ratio)
- Image mirror
- Binning (2 x)
- Sub-sampling

Applications

The Oscar F-510C comes with outstanding benefits for microscopy and ophthalmology applications. Besides that, it is particularly suited for applications that require a very detailed image and excellent color reproduction, even in low light situations. Its fast preview mode makes optimal object positioning and illumination easy.

- Microscopy
- Ophthalmology
- Science and Research
- Life Science
- Still imaging with high demands for excellent color reproduction
- Imaging applications which require separate R, G or B output (full pane)