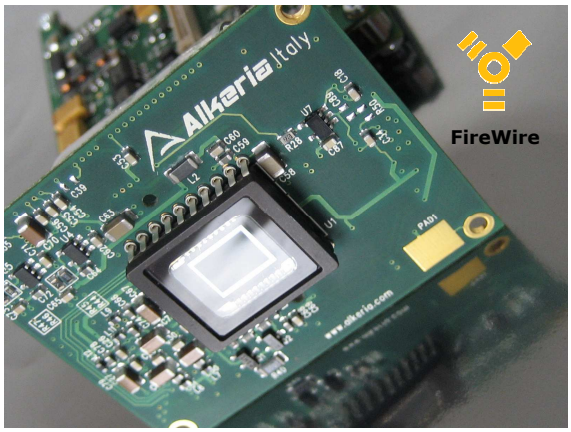
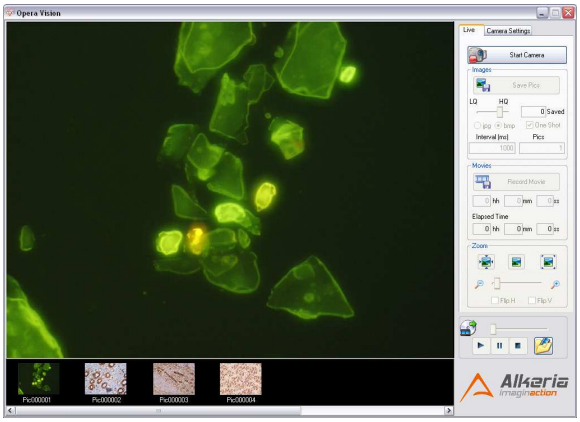
Alkeria
imaginaction

Do you need something special?
If you want to improve your product and your requirements are a step beyond the “off the shelf” product capabilities, Opera modular cameras provide custom features at no additional cost!
Opera OEM cameras feature a wide choice of CCD and CMOS image sensors and a FireWire (IEEE 1394) digital interface combining professional image quality with easy plug-and-play capabilities.
If you are looking for high-resolution imaging capabilities, cutting-edge performance and superb image quality in biomedical and industrial applications, Opera is an excellent choice.



OPERA OEM
IEEE 1394 Modular Cameras

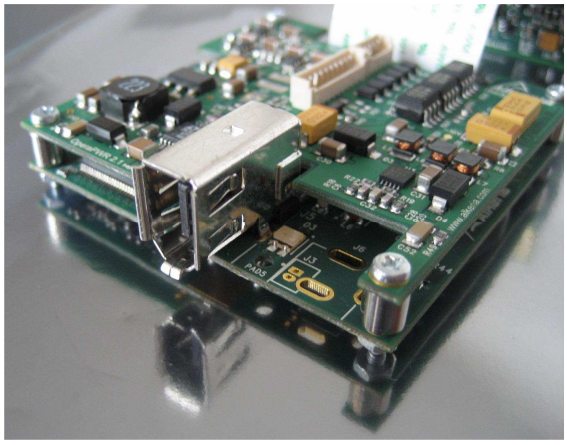


OPERA VISION
Camera Control Software

Would you like a *scientific class* OEM camera?
The new Opera series for OEM offers standard and custom colour digital cameras with superior image quality, high sensitivity and *true colour*.
Opera series uses a proprietary colour processor, specifically designed to address the most demanding imaging applications and accurate colour-matching environments.
The bundled software allows easy camera control and can be quickly customized to meet your specific requirements.
All models offer an optional 64MB frame buffer required to support smart features, pre-triggers and multi-frame high speed image capture.

When one size does not fit all…
Performance without compromise, low noise and dense integration are Opera board cameras key features. And because of its small size, Opera cameras can be flawlessly integrated into any scientific and industrial equipment. Furthermore, Opera camera series can be quickly customized to fit your specific needs.

Alkeria is your reliable partner to develop and supply your new custom digital imaging solution.
Alkeria is committed to innovation and customer service to help you integrate Opera cameras into your products, even for low volumes.
Give us a call!



OPERA CPU BOARD
"XS" Size

OPERA OEM Technical Data

	OPERA 414	OPERA 205	OPERA 285	OPERA 274
Sensor Type	CCD 1/2" 0.33 MegaPIXEL (SONY ICX414AQ)	CCD 1/2" 1.3 MegaPIXEL (SONY ICX205AK)	CCD 2/3" 1.3 MegaPIXEL (SONY ICX285AQ)	CCD 1/1/8" 2 MegaPIXEL (SONY ICX274AQ)
Cell Size	9.9µm x 9.9µm	4.65µm x 4.65µm	6.45µm x 6.45µm	4.4µm x 4.4µm
FWC	27000 e^-	10000 e^-	18000 e^-	9000 e^-
A/D Conversion	14 bits per pixel	14 bits per pixel	14 bits per pixel	14 bits per pixel
Interface	IEEE 1394 FIREWIRE DCAM V1.30	IEEE 1394 FIREWIRE DCAM V1.30	IEEE 1394 FIREWIRE DCAM V1.30	IEEE 1394 FIREWIRE DCAM V1.30
Transfer Rate	400 Mb/s	400 Mb/s	400 Mb/s	400 Mb/s
Data Format	RGB 24 bit YUV 4:2:2	RGB 24 bit YUV 4:2:2	RGB 24 bit YUV 4:2:2	RGB 24 bit YUV 4:2:2 YUV 4:1:1
IR Filter Cutoff	700nm	700nm	700nm	700nm
Color Processing	BAYER CFA on-board processing greatly reduces CPU load and yields unparelled chromatic results	BAYER CFA on-board processing greatly reduces CPU load and yields unparelled chromatic results	BAYER CFA on-board processing greatly reduces CPU load and yields unparelled chromatic results	BAYER CFA on-board processing greatly reduces CPU load and yields unparelled chromatic results
Resolution	Up to 640 x 480	Up to 1360 x 1036	Up to 1360 x 1036	Up to 1600 x 1200
Lens Adapter	C-mount standard	C-mount standard	C-mount standard	C-mount standard
Controls	Brightness, contrast, saturation, hue, white balance (auto/man), shutter (auto/man), gain	Brightness, contrast, saturation, hue, white balance (auto/man), shutter (auto/man), gain	Brightness, contrast, saturation, hue, white balance (auto/man), shutter (auto/man), gain	Brightness, contrast, saturation, hue, white balance (auto/man), shutter (auto/man), gain
Power Supply	8-35V through IEEE 1394 cable or external power supply device. Max power consumption: 3.5W	8-35V through IEEE 1394 cable or external power supply device. Max power consumption: 3.5W	8-35V through IEEE 1394 cable or external power supply device. Max power consumption: 4.5W	8-35V through IEEE 1394 cable or external power supply device. Max power consumption: 4.5W
Look-Up Table	3 x 2048 entries (one LUT per color)	3 x 2048 entries (one LUT per color)	3 x 2048 entries (one LUT per color)	3 x 2048 entries (one LUT per color)
Frame Buffer	64 MBytes (optional)	64 MBytes (optional)	64 MBytes (optional)	64 MBytes (optional)
Video Formats	640 x 480 RGB 30 fps 640 x 480 RAW 70 fps 640 x 480 YUV 50 fps	1280 x 960 RGB 7.5fps 1360 x 1036 RGB 7.5fps 1360 x 1036 RAW 12fps 1360 x 1036 YUV 11.75fps 1280 x 960 YUV 10fps	1280 x 960 RGB 7.5fps 1360 x 1036 RGB 7.5fps 1360 x 1036 RAW 15fps 1360 x 1036 YUV 11.75fps	1600 x 1200 RGB 6fps 1600 x 1200 YUV 8.2 fps
Shutter Control	100µs to 4 sec, 100µ steps	100µs to 4 sec, 100µ steps	100µs to 4 sec, 100µ steps	100µs to 4 sec, 100µ steps
I/O	4 general purpose IN 4 general purpose OUT. Also available as Trigger Inputs or Sync Outputs	4 general purpose IN 4 general purpose OUT. Also available as Trigger Inputs or Sync Outputs	4 general purpose IN 4 general purpose OUT. Also available as Trigger Inputs or Sync Outputs	4 general purpose IN 4 general purpose OUT. Also available as Trigger Inputs or Sync Outputs
Dimensions	55 mm x 55 mm x 32 mm (LxWxH OEM board version, no lens)	55 mm x 55 mm x 32 mm (LxWxH OEM board version, no lens)	55 mm x 55 mm x 32 mm (LxWxH OEM board version, no lens)	55 mm x 55 mm x 32 mm (LxWxH OEM board version, no lens)

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