

ALRAD INSTRUMENTS

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Looking for new products - Make sure to visit Alrad Instruments at Stand C10 Photonex 2011 RICOH ARENA, COVENTRY 18-19th OCTOBER 2011



The **Raptor Photonics FALCON** a digital **EMCCD camera** combines speed with both high sensitivity and resolution. It uses a peltier cooled Texas Instruments' 1MegaPixel Frame Transfer Impactron device which provides QE up to 65%. It uses a 16 bit A/D converter and offers a standard CameraLink output.

The Falcon camera offers outstanding performance for low light applications such as fluorescence imaging, astronomy, electrophoresis, X-ray and hyper spectral imaging.

TPL VISION develops and manufactures High **Power LED lighting solutions for machine vision applications.**



Quality, know-how and availability are the company's key principles. TPL Vision is a pioneer especially in the miniaturization of power LED lights. The company's products are designed to meet the most demanding industry standards. Lighting solutions span the spectrum from Infrared to Ultraviolet with low power consumption, long lifetime and easy system integration.



The **e2v DiViiNA- LM1 GigE Vision line scan camera** incorporates the proven quality of 1024, 2048 and 4096 pixel line scan CCD sensors. It is designed specifically to deliver the optimum solution to machine vision system integrators looking for a cost effective and reliable line scan camera, whilst seeking to maintain high end CCD performance. The new GigE Vision interface does not require a grabber card, giving further cost reduction opportunities at the machine vision

system level, as well as multi-cast capabilities and enhanced ease of use.

Typical applications for the DiViiNA-LM1 are web inspection for example in wood, paper or metallurgy applications, parts inspection and sorting for example in textile or food industries and general machine inspection applications.

The **SENTECH HD Digital Output cased and board-level cameras** are ideal for applications requiring direct-connect monitor viewing with High Definition resolution. This CCD based camera outputs a true HD 720p, 16x9 images at 60fps. It also features the capability to program 28 individual DSP profiles and has a programmable on-camera push-button for manual control.



ARTRAY is offering the very latest in **thermal imaging camera** design in its Models 320 (QVGA) and 640 (VGA) cameras. The cameras use a Microbolometer sensor with a wavelength response of 8-14 microns. The output from the camera is streamed directly to the USB2.0 input on a computer so no interface card is required, which means the



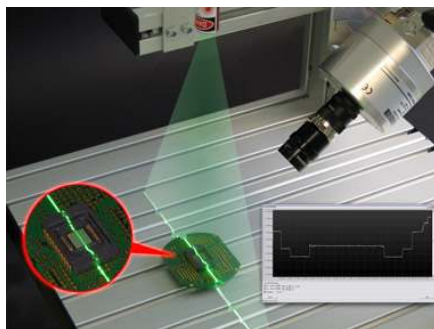
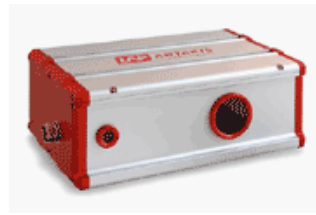
cameras can be used with laptop computers and make the whole package very easy to use. The camera operates at 30 frames per second with a 14 bit output. It has an inbuilt Peltier cooler allowing a choice of dynamic ranges. Low range is between -40°C - 150°C and high range is 0°C - 540°C. The 320 (QVGA) model is also available with an optional LAN (Ethernet output). Applications include quality control, diagnostics, surveillance, building inspection, image processing and research and development.

LAP non contact displacement laser sensors measure dimensions without touching the object's surface. Production processes can be monitored continuously, ensuring quality and reducing rejects. LAP measurement systems are flexible and easy to integrate, with very capable software.

Having no contact with the object to be measured lets the user work with soft, sticky, hot or other sensitive surfaces. There will be no wear and tear at the sensor. Keeping the sensors' windows clean can be done by air purging.

All systems incorporate **laser triangulation sensors**. Measurements of displacement, thickness, width and height, etc can be made. Depending on the type of system purchased, measurement ranges from 0.2mm to 4000mm are possible and accuracies down to ±0.1 micron can be achieved.

Based on a Digital Signal Processor (DSP) the intelligent sensor controls the exposure of the CCD and the output power of the laser source. Because of this, LAP laser sensors measure extremely precisely and quickly, even if surface characteristics like colour or reflectivity are changing. Parameters such as measurement speed or filters are handled directly in the sensor's DSP.



At PHOTONEX we will have a demonstration of **2D imaging measurement system** (width and thickness) of objects on a turntable using a 635nm line laser and CCD camera. Applications include quality checking of parts in production, height measurement of mechanical components, control of glue application, quality checking of welds, examination of SMD components, soldering paste cover in assembling machinery and improving traditional 2D image analysis by providing additional thickness measurement.

The ELMED HELIO-STROB micro is an amazing small strobing light unit which can be used in processes requiring easy optical control or to visualize rapid production sequences, as well as contact-free revolution and vibration measurement. The combination of micro-processor control and innovative LED technology in a handy vest pocket size provides a variety of functions and gives long product life, maintenance-free product quality and no heat is generation.



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