

WED 3 & THURS 4 NOVEMBER 2010
THE INTERNATIONAL CENTRE
TELFORD · UK



Photonexnews

Over 130 exhibitors representing 500 product ranges

A visit to Photonex leads to greater knowledge

There are many reasons to visit Photonex: you want to know more about a supplier and get to know them better; you want to compare and contrast products and you want to really sort out the details quickly and efficiently. Of course there is no better place to go than Photonex to do this. However the most important reason of all is that knowledge is so powerful and at Photonex you can top up on industry changes, technology developments and solve a technology problem all under one roof. You can learn and be better equipped to do your work in the coming year. This preview provides an insight into what is on show and events going on - please refer to the website for more details.

High integrity laser beam shutter



The LS-20 Safety Shutter is intended to provide a means of preventing accidental exposure to potentially harmful laser beams. It has been designed to form part of a high-integrity safety system and features a gravity-close blade and force-disconnect proving contacts. A 'SIL3' version is available which, when wired to a Lasermet Interlock Control System, can provide a safety interlock and meets Safety Integrity Level 3 to EN 61508.

Lasermet, Stand B05

Photon Counters: Record-breaking dark count rate



We asked our developers for high quantum efficiency and record-breaking dark count rates, and they did not let us down. NEW COUNT photon counters achieve an unrivalled quantum

efficiency of over 70% in the red region. Additionally these photon counters have a significantly higher quantum efficiency in the blue spectral range than other modules currently available on the market.

Laser Components, Stand D15

TECHNOLOGY INVESTMENT FORUM EXHIBITOR

Aberystwyth's rover together with a prototype multispectral panoramic camera will be on show



The department of Computer Science Space and Planetary Robotics groups are co-investigators on the Panoramic Camera (PanCam) instrument under development for the ESA ExoMars rover. In collaboration with the Institute of Maths and Physics they are also leading the development and manufacture of the radiometric calibration target (CalTarg) which will be critical for producing meaningful measurements from the PanCam instrument when it reaches Mars.

Aberystwyth University, Stand I10

Event Preview

more at
www.photonex.org

Event Opening Times

WED 3 NOVEMBER: 10AM - 5PM*
THURS 4 NOVEMBER: 10AM - 4PM

* See extended times for conference & executive discussion

Celebration of 50 years of the laser

2010 is the 50th anniversary of the first working laser. The Nobel Prize for its conception was awarded in 1964 to Professor Charles Townes FRS, Dr Nicolai Basov and Professor Alexander Prokhorov.

Though this was not a UK invention, the UK has been a leader in many improvements of the device and has been ingenious in its exploitation.



Ed Ballik's room in the Clarendon Lab circa 1963-4. On the extreme left hand side of the optical table is Ed's Helium Neon Laser.

Visit the Five Decades of the Laser display with video commentary from pioneers in the world of the laser.

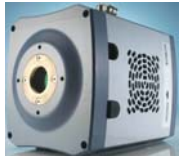
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www.photonex.org

See the latest high performance scientific cameras



Andor Technology will showcase its highly anticipated scientific CMOS technology on stand C11. sCMOS stands alone in its capability to simultaneously deliver on all key performance parameters simultaneously and is capable of outperforming most imaging devices available on the market today. Andor Technology develops and manufactures a range of low light imaging cameras, spectroscopy solutions and confocal systems.

Andor Technology, Stand C11

Arrays intended for scintillator applications



Silicon Photo Multipliers from SensL Technologies are being adopted in many medical imaging, radiation detection and low light applications. SensL's latest module provides 144 9mm² SPMs in a 12x12 array. The compact modules include biasing and preamplification along with digital row-&-column readout. These arrays are designed for tiling on all four sides - facilitating extremely large arrays.

AP Technologies, Stand E13

NEW EXHIBITOR

Digital delay generators on show for the first time



Digital Delay Generators facilitate the synchronizing, gating, delaying and triggering of multiple devices such as cameras, lasers, flash lamps, Q-switches, intensifiers and light sources to a common event. With resolutions from ps to ms and channels that provide both widths and delays, these multi-channel devices, with one or multiple-inputs, are an affordable control and diagnostic tool for many applications.

Berkeley Nucleonics, Stand C21

NEW EXHIBITOR

Showcasing capability in fiber optic assemblies

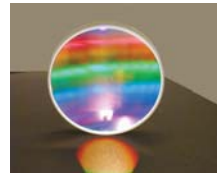


Fiber optic assemblies with application-scientific designs. Custom configurations and fiber mapping. Wide selection of

fiber parameter / properties for spectroscopy and laser power delivery. Capabilities from custom design, engineering and prototyping through volume production.

FiberTech Optica, Stand C24

From UV to IR - Glen Spectra covers the spectrum



Glen Spectra has released new ranges of optical filters specifically designed for the OEM sector. From standard 3nm precision bandpass filters for clinical analysers to laser diode clean-up filters and a range of machine vision filters with high transmission and suitable for cameras with up to 60 degree field of view. Talk to us at Photonex to discuss your requirements.

Glen Spectra, Stand B07

Integrated advanced thin film measurements



Knight Photonics - Avantes demonstrates the new Thin Film Multilayer Optical Workstation for real time thickness measurements up to 5 layers. These find applications in PV, solar and new materials research and product online monitoring.

Knight Photonics, Stand E07

3-in-1 laser for scientific applications



Laser-export will demonstrate its new DTL-399QT, a Q-switched DPSS laser with output at 3 wavelengths. The laser emits simultaneous pulses at 1053nm, 527nm and 351nm. It is a convenient multi-wavelength laser source for numerous scientific applications, including various types of spectroscopy, multiphoton excitation and light detection.

The DTL-399QT delivers about 80 μ J of 1053 nm, 35 μ J of 527 nm and 50 μ J of 351 nm at 1 kHz with pulse width <10 ns. It is available from Laser-export for just 9,999 USD.

Laser-export, Stand B24

free parking
for all visitors

Laser pattern generator



Heidelberg Instruments manufactures extremely economical and easy to use Micro Pattern Generators for direct writing applications and low volume mask making. They are perfectly suitable for rapid prototyping of 2D and 3D microstructures on substrates up to 4 inches square, for features down to the sub-micron level.

Applications include MEMS, BioMEMS, Integrated Optics, Micro Fluidics, μ TAS, or any other application that requires microstructures.

Omniscan, Stand E26

NEW Lion 300 RF ion source is based on the electron cyclotron wave resonance principle



Leybold Optics is one of the world's leading manufacturers of high-performance coating systems in the fields of precision optics applications. At PHOTONEX Leybold Optics introduces its new product, the LION 300 ECWR - Ion Source, to the precision optics market. The new LION 300 RF ion source is based on the Electron Cyclotron Wave Resonance principle (ECWR). The source is completely integrated into LO's control system 'OptiControl', which provides all the benefits of a modern machine control system. It is designed to allow easy maintenance and to have low operating costs in production. The source is specifically for large coating systems the SYRUSpro 1350 and SYRUSpro 1510 enabling the production with high layer quality on a large scale.

Leybold Optics, Stand B14

TECHNOLOGY INVESTMENT FORUM EXHIBITOR

University of Surrey is at the forefront of photonics research

It was here that the strained quantum-well laser, which is used in every optical fibre system and CD/DVD player, was invented. Currently, Surrey is leading a five-year £5m Silicon Photonics Consortium, comprising QinetiQ and Intel, with four other universities. In the field of quantum photonics and spintronics, Surrey was awarded a European Research Council Advanced Investigator Grant to extend its research on dislocation engineering and silicon light emitters towards creating fully integrated silicon photonic systems. Meet us at Photonex, learn more about what we do and what we could do for you.

Surrey University, Photonics Platform, Stand I02

Fast coating/filter design service



Visit Vortex Optical Coatings at Photonex to discuss any of your optical filter and coating requirements. They offer expert help in coating/filter design, an exceptional and competitively priced fast prototyping service and bring a wealth of experience to production volume work.

Vortex Optical Coatings, Stand B23

Demonstration of scientific CMOS camera and thumb-sized mini-spectrometer



Hamamatsu invites you to visit its stand to see a live and exciting demonstration of the new and innovative ORCA-Flash2.8. This first high-sensitivity digital camera is based on a next-generation Scientific CMOS image sensor and the C10988MA mini-spectrometer and C11351 driver board, a unique, ultra-compact mini-spectrometer built using MOEMS technology with a dedicated driver board, which aids initial evaluation with USB 2.0 connectivity.

Hamamatsu Photonics, Stand B01

Low profile piezo motor rotation stage on show



The M-660 PLine® piezo motor rotation stage from PI offers a new dimension in rapid positioning, for applications including microscopy and metrology. The high speed piezo linear motors offer speeds of up to two rotations per second. Direct transmission onto the ceramic friction ring makes the stage compact and self-locking when at rest, allowing loads of up to 1 kg.

PI (Physik Instrumente), Stand C02

Optolock® technology leads fiber optic networks & sensing



Optolock® transceiver is designed for instant termination of bare Plastic Optical Fibre significantly speeding up and simplifying the connection of devices in communication networks. A number of Optolock® transceivers are available to meet specific operating standards; one being the Fast Ethernet FOT operating within the IEEE 802.3u Fast Ethernet data communications standard. Analogue Optolock® transceivers are available typically used for sensor applications.

Laser Components, Stand D15

Basler Ace camera to be demonstrated



Exceptionally small in size with a 29mm x 29mm footprint and priced to compete with analogue camera market. Switching from analogue to digital has never been easier or cheaper!
Series consists of 5 models with resolutions from VGA to 5 megapixels.
MultiPix Imaging, Stand B12

Laser interlock controller for failsafe access control



Suited for use with lasers of any power or type, a single LIC506 system can control up to six lasers and monitor up to four individual entry points, each with security entry keypad and press to exit panel, mechanical door switches and illuminated laser warning signs. Come and meet us to discuss how the LIC506 can be configured to your individual requirements and ensure a safe laser environment.
Photonic Solutions, Stand A06

PC-computer high-precision motion control solutions



Demo highlights will include the new Conex™ compact and simple photonic control devices that connect easily via USB plug-and-play technology and allow simple but highly functional PC-computer high-precision motion control solutions. Also featured is the New Focus™ motorized picomotor actuator, an ideal device for motorizing fine-positioning stages and mounts in your optical or mechanical systems.
Newport Spectra-Physics, Stand A16

TECHNOLOGY INVESTMENT FORUM EXHIBITOR

NEW electronic speckle pattern interferometer for NDT



IEO is presenting its new electronic speckle pattern interferometer for non-destructive testing (NDT) and vibration analysis. Using the minimum number of

optical components (patent pending), it is easy to align and can withstand external mechanical and thermal disturbance. It provides out-of-plane displacement measurement with sub-micrometre sensitivity over the whole field. With its significant cost advantage, it will make optical NDT available to a wide range of industrial users.

Centre for Industrial and Engineering Optics, DIT, Stand I03

NEW EXHIBITOR

Join us at the Photonics21 exhibition booth



Take the chance to get to learn about the European Technology Platform Photonics21, the structure, the Photonics21 objectives and the new Photonics21 Strategic Research Agenda Lighting the way ahead, which was published in January 2010. The photonics community aims to implement the European photonics strategy so that photonics technologies will significantly contribute to the societal challenges in Europe, such as health, the ageing society and energy efficiency. Photonics experts from industry and academia are invited to participate in Photonics21 and to take the opportunity to meet, join, inform and network.
Photonics21, Stand E16

IR laser optics for energy efficient laser systems and CO2 lasers

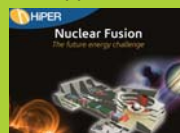


On show will be a wide range of infrared optics for CO2 lasers, specifically designed and optimised for 10.6µm together with high laser damage thresholds, thus enabling the highest efficiencies within laser system designs. ZnSe lenses and windows are produced exclusively with high quality 'laser grade' material that can even be used in the kW range. When coated, these optics have a transmittance of T>99.5% at 10.6µm. We hope you will step onto our stand at Photonex, we would like to tell you about the special coating we use and discuss with you any custom designs you might need for your specific application.
Laser Components, Stand D15

Keynote Address

The Future Energy Challenge THURSDAY

Dr Graeme Hirst,
Head of Laser Applications,
Central Laser Facility, STFC
Rutherford Appleton Laboratory



ALL WELCOME

Digital cameras designed for demanding image processing applications



When it comes to identifying, inspecting, measuring, recording and automated image processing, Baumer cameras are known for their high quality and cost-effectiveness.
The portfolio includes industrial matrix cameras, in colour and monochrome, with resolutions from VGA up to 8 megapixel. Interfaces like Gigabit

Ethernet and FireWire guarantee a wide range of applications.
Lambda Photometrics, Stand C05

Standard and custom non-telecoms fibre optics for OEMs

In today's world of high speed communications dominated by fibre optic networks it can be difficult to find a supplier of fibre optic patch cables and bundles for use in spectroscopic and light measurement systems. Glen Spectra has specialised in supplying standard and custom non-telecoms fibre optics to OEMs.
Glen Spectra, Stand B07

Conference & Industry Programmes

An extensive Technical Programme of in-depth papers and talks from leading scientists & technology experts.

Conference Programme

ATTENDEE FEE

WEDNESDAY

High Power Diode Lasers & Systems

Spectral Imaging Institute of Physics Optical Group

Optical Micro and Nano Fabrication Institute of Physics Optical Group

Innovations in Vacuum Deposited Functional Metal Oxide Coatings Institute of Physics Vacuum Group

THURSDAY

Optical Engineering & Design Institute of Physics Optical Group

Novel Sources & Detectors Institute of Physics Optical Group

Industry Programme

FREE TO ATTEND

WEDNESDAY

Innovation & Investment Business Seminar Programme Institute of Physics Optical Group

Solving Sensing Problems with Photonics Institute of Physics Optical Group

Vision & Imaging Technologies, Aspects of Imaging

Executive Panel Discussion Forum

THURSDAY

Exhibitor Presentations

Photovoltaics Institute of Physics Optical Group

Vision & Imaging Technologies, Aspects of Imaging

Leak Detection & RGA - Essential tools for effective control of vacuum systems Institute of Physics Optical Group



Exhibitors include:

Aberystwyth University
Centre for Advanced Functional
Materials and Devices
Alrad Instruments Ltd
Andor Technology
Anglia Instruments
AP Technologies
Armstrong Optical
Aston University
Automation Magazine
Avantes

Bangor University
Bentham Instruments
Berkeley Nucleonics
Bright Recruits
Brinell Vision

Cambridge Technology
Centre for Industrial and
Engineering Optics, DIT
ClearView Imaging
Coherent (UK)
CVI Melles Griot

Edinburgh Instruments
Edmund Optics
EKSMA
EKSPLA
Electro Optics Magazine
Elliot Scientific
Energetiq Technology Inc
Ervin Scientific Ltd
ES Technology
ESP KTN
ET Enterprises
ExoTec Precision

Fibertech Optica
Flir Commercial Systems
FRAMOS Electronics

Gilden Photonics Ltd
Glen Spectra

Hamamatsu Photonics UK
HHV Ltd
HighFinesse GmbH
HiPER Project
HORIBA Scientific

Imaging & Machine Vision Europe
Magazine
Iridian Spectral Technologies

Job Shop

Key Photonics Ltd
Knight Photonics Ltd
Kurt J Lesker Company

Lambda Photometrics
Laser Components (UK)
Laser-compact / Laser-export
Laser Lines Ltd
Laser Support Services
Lasermet Ltd
Leybold Optics

Materials World
Megatech Limited
MICOS GmbH
Motionlink Ltd
MultiPix Imaging

NDC Optics
Neutrik (UK)
Newport Spectra-Physics
Northrop Grumman Synoptics
(CEO)

Ocean Optics
Olympus Industrial
Omnican
Optics.org
Optima Research Ltd

P & T Consulting Ltd
Pacer International
Photon Lines Ltd
Photonic Solutions Ltd
Photonics21
Photonics Media
Photonics Technologies
Photonik International
Physics World
PI (Physik Instrumente) Ltd
Plasma-Therm
PPMA - UKIVA
Precision Solutions
Pro-Lite Technologies Ltd

RDT Precision Optics
Renishaw plc
Resolve Optics Ltd

Scitec Instruments Ltd
Siltint Thin Film Technologies
SLS Optics Ltd
Spanoptic Ltd
SPIE Europe Ltd
Spiricon
Stemmer Imaging Ltd
Stock Optics
SUPA
Surrey Materials Institute

tec5 UK Ltd
Time-Bandwidth Products
Toptica Photonics AG
Trioptics GmbH
TRW Conekt

UKIVA - PPMA
University of Surrey, Photonics
Platform
UQG (Optics) Ltd

Vortex Optical Coatings

Welsh Opto-Electronics Forum
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Event Features

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Executive Panel Discussion Forum

WEDNESDAY 3 NOVEMBER

5.15PM - 6.15PM

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