

APPLICATION OF PHOTONICS TECHNOLOGY IN THE **ADVANCED** **MANUFACTURING** INDUSTRY

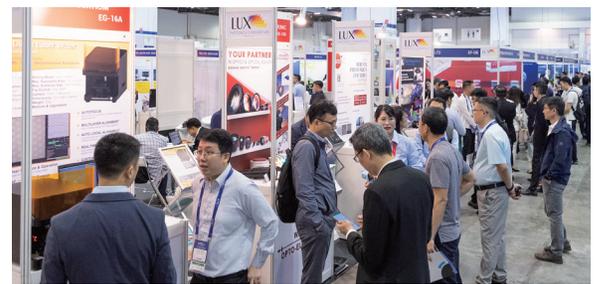
Asia Photonics Expo (APE), a world's leading comprehensive photonics platform, will be held at the Sands Expo and Convention Centre in Singapore from 26 to 28 February 2025. It focuses on cutting-edge technologies and emerging markets in the fields of optical communication, optics, laser, infrared, sensing, and display, including **sensors, industrial cameras, lasers, semiconductor equipment, and laser equipment**, etc. It serves as a one-stop platform for professionals in the advanced manufacturing industry to seek upstream and downstream products, innovative technologies, engage in trade negotiations, and facilitate procurement.

Exhibit Profile

Manufacturing Equipment: Laser processing equipment, semiconductor equipment, automation equipment, optical processing equipment, optical coating equipment, etc.

Detection and Testing Instruments: Spectrometers, detection and measurement instruments, interferometers, microscopes, etc.

Core Components: Sensors, optical lenses and modules, industrial cameras, lasers, mechanical structural components, controllers, etc.

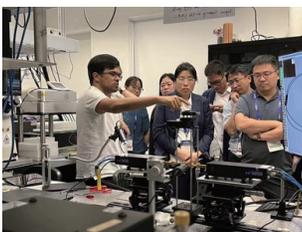


CONCURRENT ACTIVITIES



Gala Dinner

Over 120 top-level executives of our exhibitors and partners attended the gala dinner and took the opportunity to engage in high-level discussions, exchange ideas, and explore potential collaborations.



Site Tour

APE co-organized with Singapore University of Technology and Design and LUX Photonics Consortium to curate a site tour which attracted over 40 companies to join, aiming to link between academia and industry.



Happy Hours

It will be held at VIP lounge to facilitate the networking and collaboration between exhibitors and VIP visitors.

CONCURRENT CONFERENCES

Application Forum

A series of application programmes will be dedicated to showcasing the application fields within manufacturing, medical, consumer electronics, etc.

Industry Forum

Explore the cutting-edge optoelectronic technology and gain in-depth insights into its latest developments across various photonics application fields, thereby driving innovation in upstream and downstream products.



BOOTH APPLICATION



APE AT A GLANCE

*Only part of exhibits, listed in no order.



Core Component

Advanced Manufacturing Equipment

Industrial Robot/Automation Equipment

- Industrial Robot**
 - SMR Mobile Composite Robot
 - Industrial Robot
 - 3C Industrial Robot
 - Robot Grinding and Polishing Machine
- Automation Equipment**
 - Automatic Ultrasonic Pressure Welding Machine
 - High-precision Quantitative Grinding Machine
 - Automatic Sorting Machine

Industrial Robot

- XR Evaluation Bionic Robot
- Robotic Polishing System
- Parallel Six-degree-of-freedom Robot

Automation Equipment

Laser Equipment/3D Printing

- Laser Processing Equipment**
 - Laser Cutting Machine
 - Laser Marking Machine
 - Laser Soldering Machine
- Laser Equipment**
 - Laser Marking Machine
 - Handheld Laser Spot Welding Machine
 - Large Format Glass Laser Cutting Machine
- 3D Printing**
 - Carbon Fiber 3D Printer
 - 1.3 6-inch 3D Printer
 - 3D Printer

3D Printing

Key Material

- Coating Material**
 - Evaporation Coating Material
 - Optical Coating Material
 - Silicon Dioxide Coating Material
- Optical Lens**
 - Spherical Glass Lens
 - WLG Lens
 - High-power Laser Lens
- Optical Filter**
 - Intelligent Manufacturing Application Filter
 - Precision Optical Filter
 - Multispectral Filter

Sensor

- Infrared Thermopile Array Sensor**
 - Pressure Sensor
 - Six-axis Force Sensor
- Position Sensor**
 - 3D Measuring Sensor
 - Fiber Optic Gyroscope Sensor
- CMOS Image Sensor**
 - Displacement Sensor
 - Dust Sensor

Mechanical/CNC Devices

- Mechanical Part**
 - Optomechanical Part
 - Mechanical Bearing Platform
 - Optomechanical System
- Guide Rail**
 - Linear Guideway
 - Annular Guideway
 - Linear Rolling Rail
- Motor**
 - Linear Motor
 - Stepper Motor
 - Ultra-Micro Motor
- Controller**
 - Gas Mass Flow Controller
 - UV LED Point Light Source Controller
- Screw**
 - Panel Screw
 - Three-piece Screw
 - Precision Screw
- Galvanometer**
 - 2D Scanning Galvanometer
 - Laser Galvanometer
 - Laser Galvanometer Processing System

Lens Module/Industrial Camera

- Optical Lens**
 - Industrial Lens
 - Vision Lens
 - Machine Vision Lens
- Optical Module**
 - Binocular Camera Module
 - Wide-angle Camera Lens and Module
 - 3D Structured Light Vision Module
- Industrial Camera**
 - Smart Industrial Camera
 - Depth Camera
 - Industrial Inspection Camera
- AR/VR**
 - XR-ONE All-in-One Machine
 - AR Glasses
 - Head-mounted AR

Optical Equipment/Instrument

- Coating Equipment**
 - Optical Vacuum Coating Machine
 - Atomic Layer Deposition Coating Machine
 - Sputtering Coating Machine
- Spectrometer**
 - Near-infrared Spectrometer
 - High-precision Array Spectrometer
 - Optical Frequency Spectrometer
- Optical Processing Equipment**
 - Ultra-precision Processing of Optical Component
 - Precision Optical Grinding Machine
 - Precision Double-sided Plane Grinding Machine
- Interferometer**
 - High-precision Interferometer
 - Laser Interferometer
 - Plane Interferometer
- Camera Production Equipment**
 - Lens Assembly Machine
 - Unmanned Intelligent Whole-line Assembly Machine
 - AA Workstation
- Measuring Instrument**
 - 3D Optical Profilometer
 - Automated Center Deviation Measuring Instrument
 - Optical Measuring Instrument
- Inspection Equipment**
 - Ultra-high Precision Inspection Solutions
 - AOI Optical Inspection Machine
 - Complete Machine Inspection Solution
- Microscopes**
 - Measuring Microscope
 - 3D Video Microscope
 - Super Depth-of-field Video Microscope

Lasers/Servos/Interferometers

- Lasers**
 - Fiber Lasers
 - Semiconductor Lasers
 - High-power Lasers
- Lasers**
 - Red/Green/Blue Lasers
 - High-energy Femtosecond Lasers
 - Industrial-grade Ultraviolet Lasers
- Servos**
 - Photoelectric Servo Tracking System
 - Vacuum Servo Motor
 - Motor Servo
- Drivers**
 - Micro Servo Driver
 - Stepper Driver
 - Piezoelectric Ceramic Driver

Semiconductor Equipment

- Photolithography Machine**
 - Laser Direct Imaging (LDI) Photolithography System
 - Automatic Double-Sided Photolithography Machine
- Photolithography Machine**
 - Proximity Contact Photolithography Machine
 - High-Resolution Ultraviolet Photolithography Machine
- Manufacturing Equipment**
 - Annealing / Oxidation Furnace
 - Thin Film Deposition Equipment
 - Polishing/Washing Machine
- Testing Equipment**
 - Coupling Machine/Bonder
 - Dicing Machine/Sorter
 - Thinning Machine/Tape Laminator
- Display Equipment**
 - Mass Transfer Equipment
 - Mass Welding Equipment
 - Mass Bonding Equipment



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