

# APPLICATION OF PHOTONICS TECHNOLOGY IN THE MEDICAL 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 **optical lenses and modules, optical materials and components, lasers, etc.** It serves as a one-stop platform for professionals in the medical industry to seek upstream and downstream products, innovative technologies, engage in trade negotiations, and facilitate procurement.

## Exhibit Profile

**Core Materials and Components:** Optical lenses and modules, lasers, lenses, filters, optical materials, etc.

**Medical Instruments and Equipment:** Microscopes, optoelectronic devices, detection/treatment instruments, infrared thermal imaging, etc.

**Production and Processing Equipment:** Laser equipment, automation equipment, semiconductor equipment, optical coating equipment, etc.

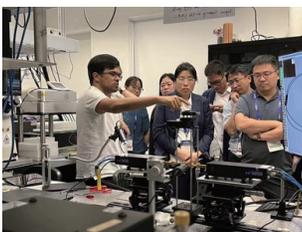


## CONCURRENT ACTIVITIES



### 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.

**Production & Manufacturing**

**Laser Equipment**

- Laser Cutting Equipment
- Laser Solder Ball Jet Solder Machine
- Dual-Station Laser Soldering Machine
- Intelligent Laser Welding System

**Robot**

- SMR Mobile Composite Robot
- Intelligent Robot Polishing System
- Industrial Robot

**Automation/Semiconductor Equipment**

- Fully Automatic High Precision Etrectric Machine
- Semiconductor Cutting Equipment
- Fully Automatic Multifunctional Moulder
- Automatic Dispensing Moulder

**Filter**

- Beauty Machine Filter
- Long-wave Pass Filter
- Fluorescence Biochemical Analysis Filter
- Imaging Lens
- Raman Filter
- Biomedical Engineering Filter
- Trap Filter

**Lens Assembly Equipment**

- Mini LED Display Module Laser Repair Special Machine
- UV Laser Marking Machine
- Laser Etching Machine
- Picosecond Light Guide Arm

**Endoscope/Module**

- Ultra-Thin Endoscope
- Medical Endoscope
- Rigid Medical Endoscope
- Endoscope

- Micro Medical Endoscope Module
- Endoscope Fluorescence Imaging Light Source Module
- 4K Endoscope Optical Module
- Binocular Near-Eye Display Optical Engine Module

**Optical Lens**

- Endoscope Lens
- Medical Lens
- Infrared Thermal Imaging Lens
- Sensor Water

- Ultraviolet Lens
- Water Lens
- Small-sized Lens

**Lens**

- Micro Lens
- Endoscopic Lens
- Infrared Lens
- Imaging Lens
- Fresnel Lens - LED Lens

**Light Source**

- UV LED Surface Light Source
- Ultra-Wide Band Light Source
- White Laser Series Light Source
- Line Laser Light Source
- Multi-Channel High-Brightness LED Light Source

- Point Light Source
- High-Power White Light Source
- Infrared Light Source
- Full Spectrum Light Source
- Collimated LED Light Source

**Optical Material & Component**

- Light-Guiding Crystal
- Sapphire Crystal Rod
- Medical Laser Fiber
- Medical Health Product
- Ultra-Precision Optical Component

- Laser Beauty Instrument
- Sapphire Light Guide Block
- Quartz Glass Beauty Instrument Accessory Filter Tube
- Medical Liquid Flow Path and Optical Window

**UV**

- UV Chip
- UV-C Sterilization LED Bead
- Deep Ultraviolet LED Chip
- Deep Ultraviolet LED Bead
- Ultraviolet Light-Emitting Diode

**Medical Fiber**

- Ho:YAG laser fiber
- Disposable Intraocular Laser Fiber
- In Vitro Diagnostic Instrument Fiber
- Detection Fiber

**Laser Technology**

**Lasers**

- Medical Lasers
- Dental Soft Tissue CO2 Lasers
- Energy-Adjustable Microchip Lasers
- Fiber-Coupled Lasers
- Diode

- Yellow Lasers
- Multi-Wavelength Medical Lasers
- Micron Lasers
- Picosecond Infrared Lasers

**Laser Chip**

- High-Power Semiconductor Laser Chip
- VCSEL Laser Chip
- High-Power Semiconductor Laser Bar

**Laser Module**

- Free-space RRB Laser Module
- Medical Semiconductor Fiber Laser Coupling Module
- Mid to Far-Infrared Laser Module

**Sensor**

- UV Sensor
- Endoscope CMOS Image Sensor
- Medical Force (Contact Force) Sensor
- 600-Megapixel Image Sensor
- Ultra-Low Power Fusion Vision Sensor

**3D Vision**

- 17 of 3D Camera
- Passive Snapshot Monocular 3D Camera
- High-Precision RGBD Camera
- 3D Binocular Stereoscopic Vision Module

**Infrared Technology**

- Human Body Temperature Sensing Far Infrared Lens
- Single-point Integrated Infrared Sensor Chip
- Thermal Imaging Far Infrared Lens Module
- Near-Infrared II Fluorescence Imager
- Laser-Pumped Terahertz Detection System

**Display Technology**

- 65" 8K Printed OLED Display
- Micro-LED Micro Display
- Micro Silicon-Based Display
- Silicon-Based OLED Mini Display

**Medical Instrument/Equipment**

**Medical Monitoring/Detection**

- Health Check Robot
- Facial Skin Detector
- Light Safety Detection Laser Detection Equipment

**Optoelectronic Equipment**

- Dot Matrix Laser Treatment System
- Multi-Frequency Anti-Aging System
- Photodynamic Therapy Machine
- LED Phototherapy Device

**Microscope/Spectral Imaging**

**Microscopic Instrument**

- Microscope
- Fluorescence Imaging System
- Hyperspectral Imaging Spectrometer
- Chip-Level Spectrometer
- Infrared Spectrum Imaging Instrument

**Vacuum Coating Equipment**

- Vacuum Coating Machine
- High Precision Electron Beam Evaporation Optical Coating Machine
- IBS Coating Machine
- Vacuum Coating Solution

**Lens Assembly Equipment**

- Optical Lens Full-Function High Precision Automatic Assembly Machine
- AA Precision Assembly Machine
- High-Definition Wide-Angle Lens Automatic Assembly Equipment
- Lens Compound Assembly Machine

**Measuring & Test Instrument**

- Smart AI 3D Facial Skin Detector
- Multifunctional Skin Polarized Laser Detection Equipment
- Electrical Safety and Light Safety Detection for Medical Product Endoscope-Specific Optical Transfer Function Measurement Instrument

- 3D Optical Profilometer
- Medical Endoscope Testing System
- Freiform Surface Measurement System
- 3D Optical Surface Shape Measurement System

**Endoscopes/Medical Equipment/Medical Beauty Equipment/Medical Robot**



Scan to download  
APE 2024 POST SHOW REPORT