

APPLICATION OF PHOTONICS TECHNOLOGY IN THE **CONSUMER** **ELECTRONICS** 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 lens and camera modules, sensors, 3D visions, display screens, processing and manufacturing equipment**. It serves as a one-stop platform for professionals in the consumer electronics industry to seek upstream and downstream products, innovative technologies, engage in trade negotiations, and facilitate procurement.

Exhibit Profile

Optical Materials and Components: Optical materials, optical components, filters, optical lenses, etc.

Core Components: Lens modules, AR/VR, sensors, lasers, display technology, VCSEL, infrared technology, etc.

Production and Manufacturing: Industrial/flexible robots, optical processing equipment, lens assembly equipment, laser processing equipment, automation equipment, vacuum coating equipment, testing and measurement systems, detection equipment, etc.

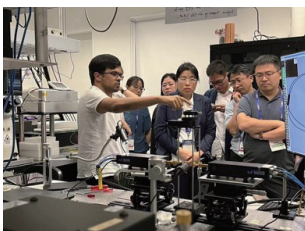


CONCURRENT ACTIVITIES



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.

Optical Material & Component

Optical Material

- Aluminum/Lanthanum/Yttrium Oxide
- Magnesium Fluoride
- Lithium Niobate/Lithium Tantalate
- Grinding & Polishing Material
- Polishing/Grinding Pad
- Target Material
- Ceramic/Aluminum Substrate

Optical Material

- Quartz Material
- Display Material
- TOPM
- Curing Adhesive
- Resin
- Ink
- Insulating/Heat Dissipation Accessories

Optical Component

- Flat Optical Component
- Quartz Glass Optical Component
- Spherical/Aspherical Lens
- Polishing Slice
- Prism
- High Reflection Mirror
- Beamsplitter

Filter

- Optical Coated Filter
- Camera Filter
- Infrared Cut-off Filter
- Colored Filter
- Blue Glass Filter
- Narrow Band Filter
- ND Filter

Optical Lens

- Fresnel Lens
- Camera Lens
- Glass/Plastics Lens
- Optical Waveguide Lens
- AR/VR Curved Lens
- Infrared Optical Lens
- High Definition Anti-reflection Lens

Glass

- Blue Glass
- Glass Rod
- Colored Glass
- Screen Printed Glass
- Water-Level Glass
- Nano-Crystalline Glass
- Ultra-Hard Coated Optical Glass

Sapphire

- Water
- Square Tile
- Crystal Rod
- Sapphire Water
- Crystal Material
- Optical Window
- Light Guide Block

Coating Material

- Evaporation Coating Material
- Optical Coating
- Black Coating
- Absorptive Film
- Optical Grade Nano Anti-Fog Coating

Core Component

Camera Module

- Lens**
 - Biometric Recognition Camera
 - Laptop Camera
 - Ultra-short Focal Optical Lens
 - Video Conference Lens
 - AR/VR Lens
 - Machine Vision Lens
 - Projector Lens
 - TOF Lens
 - Chalcogenide Lens
- Module**
 - 3D Sensing Lens Module
 - Birdpath Optical Solution Module
 - Wide-angle Camera Lens Module
 - USB Camera Module
 - Hybrid Anti-Vibration Module
 - High-pixel Periscope Module
 - 6DOF Binocular Module
 - Sensor Shift

Light Sources/Spectrum Imaging

- Full-spectrum Light Source
- Integrating Sphere Light Source
- Transmissive Light Source
- Light Source for Image Testing

AR/VR

- All-in-One Solution**
 - See-through All-in-One Solution
 - Binocular Split-Type AR Solution
 - High-definition head-mounted 3D display
 - Lightweight Smart Glasses
 - Industrial AR Smart Glasses
 - AR Holographic Smart Goggles
- Core Component**
 - AR/VR Optical Module
 - Waveguide Grating Module
 - Waveguide Near-eye Display Module
 - Monocular Near-eye Display Optical Module
 - VR Pancake Optical Module
 - AR Diffractive Waveguide
 - 1D/2D Gratings Arrayed Waveguide Module

Sensor

- 3D Vision**
 - 3D dToF Sensor
 - 3D Structured Light Vision Module
 - 3D Binocular Stereo Vision Module
 - 3D Imaging Core Component
 - 3D ToF Solution
 - TOF Ranging Sensor
- LIDAR**
 - Robot Vacuum LIDAR Module
 - Mechanical LIDAR
 - Meta-surface LIDAR Module
 - Consumer LIDAR
 - DToF LIDAR
 - UAV Integrated LIDAR
 - Solid-state LIDAR
- Display Technology**
 - Display Screen
 - VR Pancake
 - AR Optical Module Folding Screen
 - OLED/Mini LED/Micro LED Display
 - Laser TV/Projector
 - Glasses-free 3D Screen

MEMS Sensor

- RGB Color Sensor
- Material Sensor
- NDR CO2 Sensor
- 2D Electro-dynamic MEMS Mirror
- Digital Bone Conduction Microphone
- Image Sensor**
 - Time-of-Flight (ToF) CMOS Image Sensor
 - Image sensor for smartphone main camera
 - Contact image Sensors (CIS) and Module

Infrared Technology

- Thermal Imaging Solution
- Pyroelectric Infrared Sensor
- Infrared Temperature Measurement Module

Optical Component / Optical Assembly

- Capacitor
- Ceramic Ferrule
- Fast Connector
- Ceramic Substrate/Housing
- Package Housing

Production & Manufacturing

Industrial/Flexible Robot

- Online Vision Adhesive Screw Locking Robot
- Robot Polishing System
- XR Evaluation Bionic Robot
- KK Module and Linear Module

Optical Processing Equipment

- Mirror Surface Processing of VR Eyeglass Molds
- Fully Automatic Camera Filter Film Attachment Machine
- Optical Waveguide Glue Dispenser
- Nanoprint Machine
- Precision Arc Swing High-Speed Grinding/Polishing Machine

Lens Assembly Equipment

- Lens Assembly Line
- High-definition Wide-angle Lens
- Automotive Assembly Equipment
- AR/VR AA Precision Assembly Machine
- Fully Automatic AA Equipment
- Fully Automatic Assembly Line Equipment

Laser Processing Equipment/Lasers

- Laser Cutting Equipment
- Laser Solder Ball Welding Machine
- 3D Laser Marking Machine
- All-solid-state High-power Femtosecond Laser
- Red/Green/Blue Laser

Automation Equipment

- EFEM Water Detection Platform
- Fully Automatic High-speed Online Dispensing Machine
- High-speed Vertical Forming Machine
- Back-Sealing Machine
- Pad Bending
- Unmanned Intelligent Packaging Production Line

Vacuum Coating Equipment

- Flexible Electronics Roll-to-roll Vacuum Coating Equipment
- Magnetron Sputtering Optical Coating Equipment
- Vacuum Coating Machine

Measuring & Test Instrument

- Zeiss Industrial Microscope Series
- 3D Optical Profiler
- Compact High Precision Optical Transfer Function Measurement Instrument
- Surface Topography Measurement Instrument
- Testing Chamber

Inspection Equipment

- Lens Parameter Detector
- Non-contact Detector
- Industrial Lens MTF Detector
- Lens Thickness Measurement Equipment

Part of APE Visiting Companies from Consumer Electronics Industry

Consumer Electronics

- | | | | |
|---------|--------|-----------|-----------|
| Apple | TCL | OPPO | TINNO |
| Sony | HUAWEI | FLYTEK | BBK |
| Samsung | Xiaomi | Transsion | Panasonic |
| Lenovo | ZTE | KONKA | |

AR/VR

- | | |
|-----------|---------|
| VIVO | LAWAKEN |
| Tencent | Xreal |
| Pico | DPVR |
| Bytebance | Pimax |

Smart Home

- | | |
|----------|-------------|
| SKYWORTH | Meta Bounds |
| Gotech | RAYNEO |
| NARWAL | Guangli |
| DAIKIN | |

Scan to download
APE 2024 POST SHOW REPORT