

# APPLICATION OF PHOTONICS TECHNOLOGY IN THE LIGHTING/DISPLAYS 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 **materials/components, chips/modules, display panels, display equipment**. It serves as a one-stop platform for professionals in the lighting/displays industry to seek upstream and downstream products, innovative technologies, engage in trade negotiations, and facilitate procurement.

## Exhibit Profile

**Materials:** Glass, Ceramics, Plastics, Crystals, Target Materials, Coating Materials, etc.

**Components:** Diodes, Sensors, Light Source, LED Chips or LED Beads, etc.

**Chips/Modules:** Micro-LED Display Chips, Mini Display Chips, LED Chips, Laser Chips, etc.

**Displays:** Display Panels, Display Screens, etc.

**AR/VR:** All-in-One Devices, Optical Modules, etc.

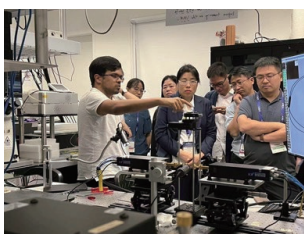
**Display Equipment:** Semiconductor Equipment, Testing and Measurement Equipment, Laser Equipment, Optical Inspection Equipment, etc.

## 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



REGISTER AS A VISITOR

# Application of Photonics Technology in the Lighting/Displays Industry

26-28 February 2025  
Sands Expo and Convention  
Centre (Marina Bay Sands) L1

\*Only part of exhibits, listed in no order.

## Material/Component

- |                  |   |  |  |
|------------------|---|--|--|
| <b>Material</b>  | <ul style="list-style-type: none"> <li>•Glass</li> <li>•Ceramic</li> <li>•Plastic</li> <li>•Crystal</li> <li>•Copper, Tungsten, Aluminum</li> <li>•Neodymium-Iron-Boron Magnet</li> </ul> | <ul style="list-style-type: none"> <li>•Substrate</li> <li>•Target Material</li> <li>•Photoreist</li> <li>•Coating</li> <li>•Encapsulation Material</li> <li>•Heat Dissipation Accessories</li> </ul>                        | <ul style="list-style-type: none"> <li>•Grinding Wheel</li> <li>•Luminescent Material</li> <li>•Coating Material</li> <li>•Dielectric Material</li> <li>•Polishing Material</li> <li>•Thermal Conductive Material</li> </ul> |
| <b>Component</b> | <ul style="list-style-type: none"> <li>•Diode</li> <li>•Semiconductor Laser Diode</li> <li>•Red/Green/Blue Laser Diode</li> <li>•Photodiode</li> <li>•Laser Diode Module</li> </ul>       | <ul style="list-style-type: none"> <li>•Printing Resin</li> <li>•OLED Light-collecting High Refractive Index Film</li> <li>•OLED Display Material</li> <li>•Polyimide (PI) Material</li> <li>•LED Substrate Water</li> </ul> | <ul style="list-style-type: none"> <li>•Sensor</li> <li>•Range Sensor</li> <li>•Micro Spectral Sensor</li> <li>•TO-Can Sensor</li> <li>•Intelligent Electrostatic Sensor</li> </ul>  |
|                  |   | <ul style="list-style-type: none"> <li>•Light Source</li> <li>•Full Spectrum Light Source</li> <li>•LED Light Source</li> <li>•White Laser Series Light Source</li> <li>•Transmissive Light Source</li> </ul>                | <ul style="list-style-type: none"> <li>•LED Bead</li> <li>•UV LED Bead</li> </ul>  |



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## Chip/Module

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>•Micro-LED Display Chip</li> <li>•Mini Display Chip</li> <li>•LED Chip</li> <li>•Laser Chip</li> </ul> | <ul style="list-style-type: none"> <li>•Ground Projection Small Lighting Module</li> <li>•Laser Lighting Module</li> <li>•Projector Lens Module</li> <li>•Semiconductor Laser Module</li> <li>•Laser Engraving Module</li> </ul> |
|---|--|

## Display

- |                         |  |  |   |
|-------------------------|--|--|---|
| <b>Display Terminal</b> | <ul style="list-style-type: none"> <li>•Foldable Phone Screen</li> <li>•LCD Variable Curve Display</li> <li>•Live Streaming Display Terminal</li> <li>•Gaming Laptop Display</li> <li>•Binocular Waveguide AR Glasses</li> </ul> | <ul style="list-style-type: none"> <li>•Move Glasses</li> <li>•Naked-eye 3D Holographic Display</li> <li>•Flexible OLED In-vehicle HMI</li> <li>•Mini LED In-vehicle Display</li> <li>•Surgical Navigation and Positioning System</li> </ul> | <b>Micro Display</b>  |
|                         |  |  | <ul style="list-style-type: none"> <li>•OLED Micro Display</li> <li>•Micro-LED Display</li> <li>•Micro-Led Micro Display</li> </ul>   |
|                         |  |  | <b>Panel</b>  |
|                         |  |  | <ul style="list-style-type: none"> <li>•Micro/Mini-LED Driven Backplane</li> <li>•TFT (AM) Driven Backplane</li> <li>•Passive (PM) Driven Backplane</li> <li>•Mini LED Backlight Copper Clad Board</li> </ul> |

## AR/VR

- |                   |  |  |
|-------------------|--|--|
| <b>All-in-One</b> | <ul style="list-style-type: none"> <li>•Perspective VR All-in-One Solution</li> <li>•Binocular Split AR Solution</li> <li>•HD Head-mounted 3D Display</li> <li>•AR/VR Glasses</li> <li>•Industrial AR Smart Glasses</li> <li>•AR Holographic Smart Swim Goggles</li> </ul> | <b>Optical Module</b>  |
|                   |  | <ul style="list-style-type: none"> <li>•AR/VR Optical Module</li> <li>•Array Waveguide Module</li> <li>•Waveguide Near-eye Display Module</li> <li>•Monocular Near-eye Display Optical Module</li> <li>•VR Pancake Optical Module</li> <li>•AR Diffractive Waveguide</li> <li>•Array Waveguide Modules with One-dimensional / Two-dimensional Grating</li> </ul> |

## Display Equipment

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|--------------------------------|--|--|
| <b>Semiconductor Equipment</b> | <ul style="list-style-type: none"> <li>•Inkjet Printing Complete Verification Equipment</li> <li>•Micro LED Wafer Laser Detachment Equipment</li> <li>•Mini LED Wafer Laser Stealth Cutting Equipment</li> <li>•Mini LED Mass Welding Equipment</li> <li>•Micro LED Mass Bonding Equipment</li> <li>•Rotary Dual-plate Screen Printing Machine</li> <li>•Plasma Coating Machine</li> <li>•In-vehicle Screen Hard-to-Hard Bonding Equipment</li> <li>•High Precision Labeling Machine</li> <li>•Fully Automatic Drawer-type Debubler</li> </ul> | <b>Measuring &amp; Test Instrument</b>   |
|                                |  | <ul style="list-style-type: none"> <li>•X-ray Photoelectron Spectrometer</li> <li>•One-click Graphical Measurement Instrument</li> <li>•Virtual Distance Measurement Instrument</li> <li>•Rapid Ultra-high Resolution Two-photon Microscope</li> <li>•Spectral Brightness and Colorimeter</li> </ul> |
|                                |  | <b>Vacuum Coating Machine</b>  |
|                                |  | <ul style="list-style-type: none"> <li>•Electro-fluid-dynamic Spray Coating Equipment</li> <li>•Vacuum Coating Equipment</li> <li>•Evaporation Coating Machine</li> </ul>  |

## Laser Equipment/Automation

- Mini LED Display Module Laser Repair Special Machine
- Laser Etching/Marking/Welding Machine
- Programmable Logic Controller
- Three-axis Scanning and Control System
- Three-dimensional Five-axis Machining System
- Mechanical Head
- Bened Transform
- Slide Table

## Optical Inspection Equipment

- Flash Measurement Instrument
- Spectrometer
- Phase Difference Tester
- Stress Birefringence Detection Equipment