

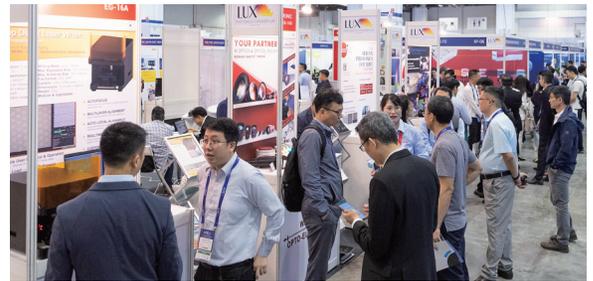
# APPLICATION OF PHOTONICS TECHNOLOGY IN THE **OPTICAL COMMUNICATION** INDUSTRY

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 communication chips, components and modules, optical communication wiring products, optical fiber cables, semiconductor materials, semiconductor equipment, testing and measurement instruments**. It serves as a one-stop platform for professionals in the optical communication industry to seek upstream and downstream products, innovative technologies, engage in trade negotiations, and facilitate procurement.

## Exhibit Profile

**Core Components:** Optical fiber materials, optical fiber cable / fiber sensing, wiring products and cables, semiconductor materials, optical communication chips, optical communication devices/modules.

**Production and Manufacturing:** Semiconductor equipment, optical communication transmission equipment, testing and measurement instrument.

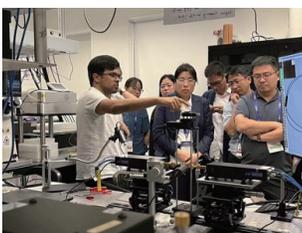


## CONCURRENT ACTIVITIES



### 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

### 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.

2024 Programmes:

- Yole Group Photonics Integration Forum: Transforming Data Communication Applications
- Next-Generation Data Center Optical Interconnect Technology Evolution Forum



BOOTH APPLICATION



APE AT A GLANCE

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

## Optical Chip

### Active Component Chip

- Laser Chip
- VCSEL Chip
- MIM Chip
- EML Chip
- EEL Chip
- Silicon Optical Chip
- Thin-Film Lithium Niobate Modulation Chip

### Detector Chip

- PIN Chip
- APD Chip
- Avalanche Photodiode
- TIA Chip
- TTA Chip
- LD Driver Chip

### Passive Component Chip

- PLC Chip
- WDM Chip
- Optical Switch Chip
- Optical Attenuator Chip

## Optical Subassembly

- Ceramic Ferrule
- Ceramic Insert
- Ceramic Heat Sink
- Micro-Optical Component
- Metallized Optical Fiber Assembly
- Optical Window Cover
- Optical Isolator
- Optoelectronic Hybrid Connector
- Fiber Optic Quick Connector
- Fiber Optic Splitter
- Fiber Optic Adapter
- Pluggable Optical Interconnect Assembly
- Large-Area Photodetector Assembly

## Optical Component

### Active Optical Component

- Light Source/Laser
- VCSEL
- Semiconductor Light-Emitting Diode
- Laser Diode
- Narrow Linewidth Tunable Laser
- Butterfly Laser
- DFB Laser
- EML Laser

### Optical Amplifier

- Semiconductor Optical Amplifier
- Fiber Amplifier

### Optical Detectors

- PIN Photodetector
- APD Photodetector

### Others

- High-Speed LCOS Spatial Light Modulator
- Electro-absorption Modulated Transmitter
- Thin-Film Lithium Niobate Modulator
- TOSA
- ROSA
- BOSA

### Passive Optical Component

- Optical Fiber Connector
- PLC Splitter
- Optical Switch
- Optical Isolator
- Wavelength Division Multiplexer/Demultiplexer (WDM/DWDM)
- Optical Attenuator (FOA/VOA)

## Optical Fiber Material

- Optical Fiber Preform Material
- Optical Fiber Coating Material
- Aligned Aramid Yarn
- Optical Fiber Polishing Fluid
- Optical Fiber Polishing Powder
- Optical Fiber Protective Sleeve
- Heat-Shrinkable Connector
- Heat-Shrinkable Mid-Span Joint
- Heat-Shrinkable Mid-Span Sleeve
- Heat-Shrinkable Cap
- Mini Cap
- Night-core Fiber
- Heat-Shrinkable Tubing

## Optical Fiber/Cable

- Single-Mode Optical Fiber
- Multi-Mode Optical Fiber
- Plastic Optical Fiber
- Glass Optical Fiber
- Quartz Optical Fiber
- Erbium-Doped Optical Fiber
- Multi-Core Doped Optical Fiber
- Photoelectric Composite Cable
- Outdoor Optical Cable
- Figure-8 Optical Cable
- Data Center Optical Cable
- Miniature Distribution Optical Cable
- Multi-Core Bundled Soft Optical Cable
- Underwater Submarine Optical Cable

## Optical Module

- High-Speed Optical Module
- 400G Optical Module
- 800G Optical Module
- 100G Optical Module
- Coherent Optical Module
- Ultra-wide Passband thermal AVG Module
- Full Range of Optical Module
- 10G Series and 25G Series Optical Module
- Pluggable Optical Module
- 50G Front-Haul Optical Module

## Optical Transmission Equipment

- S/P Photonics Aligner
- All-Optical Switch
- PDH Terminal Equipment
- WDM Equipment
- Optical Transmission Equipment
- Optical Connection Equipment
- OLT Access Equipment
- Aggregation and Distribution Equipment
- Optical Pulse Analyzer
- Optical Amplification/Protection Subsystem
- DWDM Open Access System
- High-Integration WDM Transmission System
- Optical Cable Automatic Monitoring and Management System
- High-Performance Optical Power Meter

## Data Center Equipment

- Ethernet Switch
- Layer 3 Network Switch
- Optical Access Terminal
- Data Center Switch
- Network/Server Cabinet
- Core Aggregation Switch
- Integrated Intelligent Cabinet
- Micro-Modular Data Center

## Wire and Cable

- Active Cable
- High-Speed Cable
- Network Cable
- Copper Cable
- Straight Copper Cable
- Coaxial Cable
- Network Patch Cable
- Polyurethane Cable Jacket

## Instrument

- Optical Network Tester
- Communication Testing Instrument
- High-Performance Spectrometer
- High-Performance Bit Error Rate Tester (BERT)
- Ethernet Tester
- Oscilloscope
- Rapid Scanning Test System
- Wavelength Scanning Test System

- Optoelectronic Network Analyzer
- Signal Quality Analyzer
- Fiber Fusion Splicer

## Production & Manufacturing

### Semiconductor Material / Equipment and Manufacturing

- Numerical control quartz tube and rod shaping grinder
- Patch Cord Production Equipment
- Automatic Fiber Double Drum Winder
- Fiber Coil Winding Machine
- Optical Fiber Grinding Equipment
- Wire Winding and Tying Machine
- Fully Automatic Labeling Machine

- Tensile and Compression Testing Machine
- High-Speed Coloring Machine
- Cable Jacket Extrusion Machine
- Copper Wire Twisting Machine
- Wire Cutting Machine
- Fully Automatic Receptacle Assembly Machine
- Fully Automatic Winding and Twisting Hanging Cutting Cable Machine

### Materials

- Indium Phosphide
- Gallium Nitride
- Gallium Arsenide
- Monocrystalline Silicon
- Organic Germanium
- Germanium Water
- Gallium Aluminum Arsenide

### Equipment and Manufacturing

- Epitaxial Wafer
- Photomask
- Lithium Niobate Single-Crystal Thin Film
- Passive Component
- Silicon Photonics
- Adhesives
- Chip Epitaxial Equipment
- Chip Cleaning Machine
- Chip Tester
- Pick-and-Place Machine
- Cleaning Machine
- Slicing Machine
- Semiconductor Packaging and Testing

- LD Automatic Eutectic Bonder
- PD Automatic Eutectic Bonder
- Automatic Wire Bonder
- Optical Wire Bonding Machine
- Centrifugal Debubbling Machine
- Automatic Optical Path Alignment Machine
- Optical Coupling Glue Dispenser

- Wafer Cutter
- Wafer Testing System
- High-Precision Die Bonder
- Coating Equipment
- Vacuum Drying Oven
- Parallel Sealing Machine
- Helium Mass Spectrometer Leak Detector



Scan to download  
APE 2024 POST SHOW REPORT