

## ASIA PHOTONICS EXPO 26-28 February 2025

Sands Expo and Convention Centre, Singapore

# APPLICATION OF PHOTONICS TECHNOLOGY IN THE OPTICA 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.

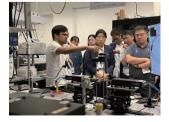


### **CONCURRENT ACTIVITIES**



#### **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



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# Application of Photonics Technology in the Optical Communication Industry

\*Only part of exhibits, listed in no order

26-28 February 2025

Centre (Marina Bay Sands) L1 Sands Expo and Convention

## Optical Chip

## Active Component Chip

•EML Chip DML Chip VCSEL Chip Laser Chip

Detector Chip PIN Chip

APD Chip

•EEL Chip

**Amplifier Chip** 

Niobate Modulation Chip Silicon Optical Chip Thin-Film Lithium

 LD Driver Chip LA Chip •TIA Chip

> •Optical Attenuator Chip Chip Optical Switch WDM Chip PLC Chip

# Optical Subassembly

 Micro-Optical •Ceramic Insert •Ceramic Heat Sink Ceramic Ferrule

Component Chip

and Heat Sink Assembly Metallized Optical Fiber Component Optical Window Cover

Component

Assembly

•EML Laser

Large-Area Photodetector

 Fiber Optic Quick Connector Optoelectronic Hybrid Optical Isolator

Interconnect Assembly Pluggable Optical Fiber Optic Adapter Fiber Optic Splitter Connector

## Optical Component

 Light Source/Laser Active Optical Component

**Emitting Diode** Semiconductor Light-

 Narrow Linewidth Laser Diode Butterfly Laser Tunable Laser

Fiber Amplifier

DFB Laser

Optical Amplifier Semiconductor Optical Amplifier

 APD Photodetector PIN Photodetector Optical Detectors

•TOSA

High-Speed LCOS

Niobate Modulator **Modulated Transmitter** Spatial Light Modulator Thin-Film Lithium Electro-absorption

## Passive Optical Component

 Optical Isolator Optical Switch PLC Splitter Optical Fiber Connector

 Optical Attenuator (FOA/VOA) Multiplexer/Demultiplexer Wavelength Division (WDM/DWDM)

# Optical Fiber Material

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

 Multi-Mode Optical Optical Fiber Single-Mode

 Ytterbium-Doped Optical Fiber Quartz Optical FiberErbium-Doped Glass Optical Fiber

 Plastic Optical Fiber Optical Cable Optical Cable Multi-Core Bundled Soft

Photoelectric Composite

Optical Fiber/Cable

 Miniature Distribution Data Center Optical Cable Figure-8 Optical Cable Outdoor Optical Cable

 Underwater Submarine Optical Cable

Optical Fiber

## Optical Module

 100G Optical Module 800G Optical Module 400G Optical Module High-Speed Optical

> thermal AWG Module Ultra-wide Passband

 Coherent Optical 10G Series and 25G Series Module Full Range of Optical

Optical Module
•Pluggable Optical Module •50G Front-Haul Optical

Module

Optical Pulse Analyzer

Monitoring and Management Optical Cable Automatic Transmission System High-Integration WDM

System High-Performance Optical Power

Optical Transmission Equipment

Data Center Equipment

Equipment Optical Connection Optical Transmission WDM Equipment PDH Terminal Equipment All-Optical Switch Si-Photonics Aligner

Distribution Equipment Equipment OLT Access Equipment Aggregation and

 Communication Testing Instrument Optical Network Tester

Oscilloscope

Ethernet Tester

 Wavelength Scanning Test System Rapid Scanning Test System

> Fiber Fusion Splicer Signal Quality Analyzer Optoelectronic Network Analyzer

 High-Performance Spectrometer High-Performance Bit Error Rate Tester (BERT)

 DWDM Open Access System Optical Amplification/Protection

> Switch Layer 3 Network Ethernet Switch

> > Switch

 Integrated Intelligent Core Aggregation

Cabinet

Network/Server Data Center Switch Optical Access erminal

Center

Micro-Modular Data

# **Production & Manufacturing**

# Cable Production Equipment

Wire and Cable

 Network Cable High-Speed Cable

Straight Copper CableCoaxial Cable Copper Cable

> Polyurethane Cable Jacket Network Patch Cable

Instrument

 Automatic Fiber Double Drum Patch Cord Production Equipment rod shaping grinder Numerical control quartz tube and

 Optical Fiber Grinding Equipment
 Wire Winding and Tying Machine Fiber Coil Winding Machine Winder

Tensile and Compression Testing

 High-Speed Coloring Machine Cable Jacket Extrusion Machine

 Fully Automatic Receptacle Wire Cutting Machine Copper Wire Twisting Machine

 Fully Automatic Winding and Assembly Machine **Twisting Hanging Cutting Cable** 

Fully Automatic Labeling Machine

 Gallium Nitride Indium Phosphide Monocrystalline Gallium Arsenide

Arsenide Gallium Aluminum Germanium Wafer Organic Germanium Silicon

# Semiconductor Material / Equipment and Manufacturing

 Silicon Photonics Passive Component Crystal Thin Film

Photomask Lithium Niobate Single- Photoresist Epitaxial Wafer

 Semiconductor Slicing Machine

Packaging and Testing

Equipment and Manufacturing

 Cleaning Machine Chip Tester

 Pick-and-Place Machine Chip Cleaving Machine Chip Epitaxial Equipment

 Centrifugal Debubbling Machine Optical Wire Bonding Machine Automatic Wire Bonder PD Automatic Eutectic Bonder LD Automatic Eutectic Bonder Automatic Optical Path

> Coating Equipment High-Precision Die Bonder Wafer Testing System

 Optical Coupling Glue Dispenser Alignment Machine

 Helium Mass Spectrometer Parallel Sealing Machine Vacuum Drying Oven

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