

# Optical

# Breakout Growth to Continue in Data Centers



## Service Provider Networks Metro/Long Haul



Routers



Transport, DCI



## Cloud Service Provider

## Enterprise

## Data Centers



DC Switches & Routers



Optical Modules



Note: CSP: Cloud Service Providers  
Networking equipment models shown are for illustrative purposes, however we do have design wins in some of these.

# APM Completes Protocol Agnostic "Switch to Fiber" Data Center Portfolio



Switch

25G, 100G NRZ

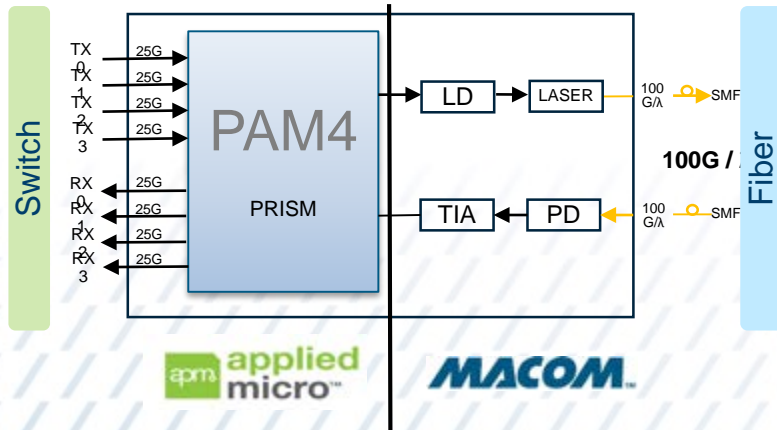


Fiber Cable

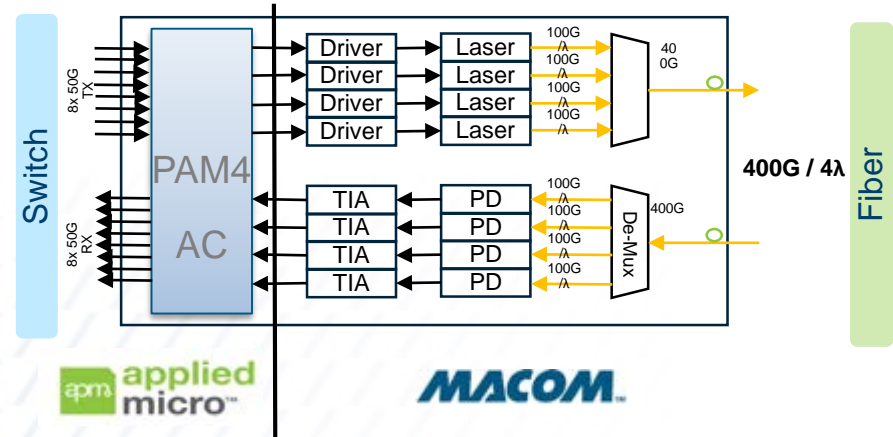
Single Lambda  
100G, 400G PAM4



## 100G PAM4 Module



## 400G PAM4 CWDM Module



IEEE standards body recommended the adoption of single lambda PAM4 to be an industry standard enabling 100G and 400G transceivers

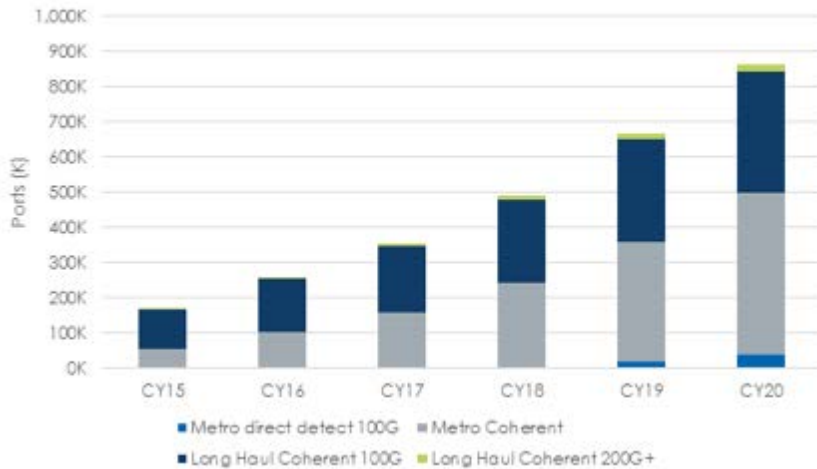
# Optical Networking Drives MACOM Growth



## Metro Long Haul

100G+ Port Market Size and Forecast

100G+ Market Size and Forecast



Well positioned to take advantage of the 100G metro build out

Source: MACOM estimates based on internal and external (Infonetics) sources.

## APPLICATIONS

### Cloud Connected Apps Economy



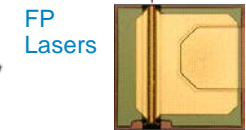
## PRODUCTS & TECHNOLOGY



100G GPPO Modules



Integrated TIAs and CDRs



FP Lasers



Multi-Channel Client side EML Drivers



DFB Lasers



Low Power Drivers for Metro

## KEY CUSTOMERS



# Long-haul and Metro 100G Optical Market

## Components

**MACOM**  
Partners from RF to Light

NeoPhotonics

**Inphi**  
Think fast.

**SEMTECH**

**QORVO**

## Transceivers

**LUMENTUM**

**FUJITSU**

*Finisar*

OCLARO

**ACACIA**  
COMMUNICATIONS, INC.

## Systems

**FUJITSU**

**CISCO**

**HUAWEI**

**ciena**

Alcatel-Lucent

**ZTE**

**infinera**

**Coriant**

## Carriers

**BT**

**verizon**

中国移动通信  
CHINA MOBILE

**at&t**

**NTT**

**Comcast**

**Deutsche Telekom**



# Preeminent Supplier of 100G to 400G Optical Components

- > Leader in long haul line drivers for 100G
- > Only company providing both laser + PMD ICs
- > We deliver all high speed photonic and optoelectronic semiconductor content in 100G/400G transceivers
- > We have filled a gap in the merchant supply of photonic chips, especially lasers
- > Serves system companies that are integrating optical modules at the component/chip level
- > Optimized chips provide highly differentiated performance, power, size and cost solutions for next generation Data Center links
- > We are the #1 supplier for FTTH

➤➤➤ **Broad line supplier for 100G transceiver components**

## 100G TRANSCEIVER

