

## **The Consortium for On-Board Optics (COBO) Announces Specification for Embedded Optical Modules**

*On-Board Optical Module Specification Released for the Data Center and Coherent Markets as Organization Celebrates Third Anniversary*

**San Diego, CA - OFC - March 13, 2018** — The [Consortium for On-Board Optics \(COBO\)](#) today published release 1.0 of its on-board optical module specification capable of supporting up to 800Gbps. The specification gives switch and networking systems manufacturers the industry's first standardized option for on-board optical modules targeting high-performance data center networks.

The announcement comes on the third anniversary of the founding of the consortium and in conjunction with the Optical Fiber Communication Conference and Exhibition (OFC).

Release 1.0 of the COBO specification defines the characteristics of eight-lane and sixteen-lane on-board optical modules. Three size classes are defined for each with a common host connector to support on-board optics (OBOs) with the best bandwidth capacity depending upon choice of technology.

The specification defines requirements for electrical, mechanical, optical, and thermal parameters. The specification supports optical interfaces recently published in IEEE Std. 802.3bs™-2017. The specification is also capable of supporting multiple optical interfaces to help reduce the cost of packaging.

COBO has defined a primary reference application based on a shared generic design that can be applied to data center and to coherent network applications. The reference application was defined as a 1RU 12.8Tbps data center switch utilizing front-to-back or back-to-front airflow. Variations on this reference application were used to determine COBO's requirements. The OBOs defined by the specification provide flexibility in placement, simplify the interconnect and improve system density and thermal efficiencies.

"The COBO specification is an industry breakthrough for the power dissipation, placement and routing benefits it offers for 400Gbps and greater networks," said Brad Booth, COBO President and Principal Engineer at Microsoft. "These features solve a number of operation challenges associated with today's pluggable standards while offering much more performance headroom for scaling next-generation networks to 1.6Tbps as organizations like OIF and IEEE 802.3 work to standardize 100G serial interfaces."

A copy of the specification can be downloaded from: <http://onboardoptics.org/>

COBO expects to develop a future generation of its specification to support the Optical Internetworking Forum's (OIF) Common Electrical Interface for 112Gbps PAM4 very short reach (CEI-112G-VSR-PAM4) and the IEEE 802.3 100G Electrical Lane interface study group.

### **Specification Panel at OFC**

Also at OFC, COBO members will participate as part of a panel entitled "COBO Specification Overview and Next Steps," that will take place on Wed., March 14 at 10:15 am in Theater II, Hall E. It will feature COBO members Bernard HL Lee, Regional Technology Director, SENKO Advanced Components; Karen Liu, Senior Director of Product Marketing, Kaiam Corp.; Arlon Martin, Senior Director, Marketing, Mellanox Technologies; Hugues Tournier, Power and Signal Integrity Senior Manager, Ciena and Nathan Tracy, Technologist and Manager of Industry Standards, TE Connectivity. The panel will be moderated by Brad Booth.

OFC 2018 will take place March 13-15, 2018 at the San Diego Convention Center in San Diego, CA, where COBO will be located in booth 5440. The conference is the largest global conference and exhibition for optical communications and networking professionals.

### **About COBO**

Founded three years ago, COBO is working to overcome limitations of current networking infrastructure by developing industry specifications to advance bandwidth growth beyond 400G, enabling optical modules to be placed closer to the ASICs they support. Since its inception, membership has grown to more than 70 active member companies. As part of its third anniversary, COBO released a white paper examining the work of COBO and its impact on the future of networking. The white paper is available at COBO's booth at OFC and online.

For more information about COBO, visit <http://onboardoptics.org/>

### **Press Contact:**

David Rodewald  
The David James Agency for COBO  
[david@davidjamesagency.com](mailto:david@davidjamesagency.com)  
+1.805.494.9508