



## FAQs – Open Eye MSA

### **1. What is the purpose of the MSA?**

The purpose of the MSA is enable lower cost 50 Gb/s, 100 Gb/s, 200 Gb/s and 400 Gb/s modules for Data Centers and other interconnect applications. This is achieved by making the compliance testing less complex while allowing for different types of technologies. This enables greater flexibility in technology choice to optimize cost, power and complexity.

### **2. Is the MSA integrated with the IEEE?**

The MSA is separate from the IEEE.

### **3. How do the MSA specifications relate to IEEE specifications?**

The MSA leverages the same link budgets and also keeps the same transmitter and receiver optical power requirements and the same electrical host interface. The key difference is how optical transmitter quality is specified and assessed.

### **4. Will MSA modules interoperate with existing modules?**

Existing modules that have transmitters that are properly equalized are expected to be interoperable with Open Eye MSA defined modules.



### **5. What is the benefit of the Open Eye MSA approach?**

Allows greater flexibility in optical and electronics component selection for lower module cost, lower power and lower latency architectures.

### **6. What is the benefit of the MSA approach?**

The key benefit of the Open Eye MSA approach is to enable a wider selection of technologies and architectures so module cost, power and complexity can be optimized. Both light equalization and heavy equalization approaches can be used at the transmitter and receiver to achieve Open Eye compliance giving flexibility in technology choice and module implementation.

### **7. What is the benefit of CDR architectures?**

CDR architectures allow low power and low cost modules to be developed due to lower component costs and lower module complexity. Having lower complexity CDR type modules leads to faster design cycles and lower software development requirements.

### **8. Does the MSA approach preclude the need for a DSP?**

The Open Eye approach enables modules to be designed either with a DSP or with an analog CDR. Module vendors now have a choice of both architectures to select one most optimal for their application.



## **9. When will the MSA define a Spec?**

On September 3<sup>rd</sup>, 2019 the MSA announced the availability of its 53 Gbps single-mode specification to its members, which defines the requirements for fully analog PAM-4 solutions for 50G SFP, 100G DSFP, 100G SFP-DD, 200G QSFP, and 400G QSFP-DD and OSFP single-mode modules. Further, the Open Eye MSA has already begun work on defining the multi-mode specification which is targeted for release in Spring 2020.

## **10. Who are the participants of the MSA?**

Currently, Promoters members include Applied Optoelectronics Inc., Cambridge Industries Group (CIG), Juniper Networks, Luxshare-ICT, MACOM, Mellanox, Molex, and Semtech Corporation.

Contributors include Anritsu, Accelink, Cloud Light Technology, ColorChip, Dust Photonics, Fujitsu Optical Components, HG, InnoLight, Inopticals, Keysight Technologies, Marvell, Maxim Integrated, MultiLane, O-Net, Optomind, SAMTEC, Source Photonics, Sumitomo Electric and Tektronix.

## **11. How can I join the MSA?**

Companies interested in joining the Open Eye MSA can contact [admin@openeye-msa.org](mailto:admin@openeye-msa.org). More information about the consortium is available at [www.openeye-msa.org](http://www.openeye-msa.org).

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