

## PRESS RELEASE

### **Prysmian Group and Finisar Demonstrate 300-meter 100 Gbps SWDM Transmission over *WideCap-OM4***

Milan, 29<sup>th</sup> September, 2015 – Prysmian Group, world leader in the energy and telecom cable systems industry, demonstrates 100 Gbps shortwave wavelength division multiplexing (SWDM) transmission over 300m of WideBand multimode fiber, *WideCap-OM4*, commercially available since ECOC 2014.

Multimode systems based on OM4 and VCSEL technology provide a low cost and power efficient solution for 100 Gbps data center networks based on parallel multimode fibers. The IEEE recently standardized these systems as 100GBASE-SR4, providing a maximum reach of 100m on four parallel OM4 fibers. There is significant effort in the industry to increase the capacity of multimode fibers (MMFs). One such activity is to develop WideBand MMFs capable of SWDM transmission using high speed VCSELs between 850nm to 950nm.

Prysmian and Finisar demonstrate that extended reach, fiber efficiency, and low power can all be achieved simultaneously by a combination of 4 x 25.8 Gbps SWDM VCSEL technology and *WideCap-OM4*. 100 Gbps SWDM transmission over 300m was achieved utilizing conventional low-power NRZ electronics, SWDM optics and *WideCap-OM4*.

The unique advantages of SWDM technology allow users to leverage their installed duplex MMF at 40 or 100 Gbps, using four VCSELs operating at different wavelengths multiplexed onto a single strand of MMF, thereby requiring only one transmit fiber and one receive fiber. This provides the ability to easily migrate from 10 to 40 or 100 Gbps over the same long reaches of duplex MMF previously used for 10 Gbps.

"*WideCap-OM4* provides OM4 performance within the 850nm to 950nm wavelength range, allowing data center owners to take full advantage of SWDM transceivers based on duplex LC connectivity. *WideCap-OM4* offers 4700MHz.km bandwidth at 850nm for compatibility with IEEE 850nm-VCSEL based applications such as 10GBASE-SR, 40GBASE-SR4 and 100GBASE-SR4 while securing high bandwidth at wavelengths up to 950nm for optimum performance with SWDM optics" indicates Andreas Wassmuth, Director Telecom R&D with Prysmian Group. "*WideCap-OM4* is future-ready and offers the greatest flexibility for data center networks", adds Adrian Amezcua, MMF Product Line Manager with Prysmian Group.

Prysmian Group will be one of the main participants of ECOC 2015, with 7 presentations about innovations in next generation optical fibers including *WideCap-OM4* and SWDM technology, and exciting results on space division multiplexing and few mode fibers in access and long-haul optical networks.

Join Prysmian and Finisar as they present their findings at the ECOC 2015 technical conference in Valencia, Spain, on Tuesday September 29th.

#### **Prysmian Group**

Prysmian Group is world leader in the energy and telecom cable systems industry. With more than 130 years of experience, sales of nearly €7 billion in 2014, some 19,000 employees across 50 countries and 89 plants, the Group is strongly positioned in high-tech markets and offers the widest possible range of products, services, technologies and know-how. It operates in the businesses of underground and submarine cables and systems for power transmission and distribution, of special cables for applications in many different industries and of medium and low voltage cables for the construction and infrastructure sectors. For the telecommunications industry, the Group manufactures cables and accessories for voice, video and data transmission, offering a comprehensive range of optical fibres, optical and copper cables and connectivity systems. Prysmian is a public company, listed on the Italian Stock Exchange in the FTSE MIB index.

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