

OMPlax Alternative to Fibre Recabling

The *OMPlax* technology offers an effective alternative to fibre recabling. These passive, retrofit plug-n-play modules are connected to the ends of existing multimode fibre links, allowing for single-mode transceivers to be used across the multimode fibre. The *OMPlax* devices are WDM-compatible (800-1550 nm), handle up to 100 mW power and work with all transceivers. This allows for the multimode fibre to be operated at capacities commensurate with a single-mode fibre link. The technology relies on exclusively exciting a single mode in the multimode fibre. The following are several key case studies of the successful deployment of the *OMPlax* technology in local areas.

School Sector: The *OMPlax* technology was used for **40G transmission** over a few **100s metres of OM1 fibre** to service an internal IT link supporting interactive learning via > 1000 student iPads at an Australian School. This technology has provided a reliable increase in data rates for the local school since January 2018, with no service interruptions.



Data Centre Sector: The *OMPlax* technology was also used for **40G transmission** over 2 cable hops, from the server rack to the distribution rack and back over **130 m of OM4 fibre** allowing for **20x increase in capacity**. This demonstration was undertaken on Friday 13th October, 2017, in one of the largest data centres in the southern hemisphere.



Sports Complexes: Modular Photonics' *OMPlax* technology was also recently tested on a fibre link connecting the Quaycentre and the Hockey Centre at the Sydney Olympic Park on the 14th February 2018. This link is limited to a data rate of 100 Mbit/s. Using Modular Photonics' technology, a **100x increase in data rate to 10 Gbit/s** was successfully demonstrated over **1 km of the OM1 fibre**.



Modular Photonics' *OMPlax* technology can enable up to a 1000x increase in the data capacity across existing fibre infrastructure at a fraction of the cost of replacing the legacy multimode optical fibre. It supports up to **100 Gbps across 2000 m of duplex OM1, OM2, OM3 or OM4 fibre** using latest generation single-mode transceivers. It is compatible with coarse wavelength division multiplexing (CWDM) as well as dense wavelength division multiplexing (DWDM) and can be used with transceivers operating in the 1310 nm wavelength band and the 1550 nm wavelength band.

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