

INTRODUCTION TO OM4 FIBRE

At their meeting in Barcelona, ISO/IEC JTC1 SC25 WG3 proposed the establishment of two new optical fibre types - one multimode and one singlemode.

The multimode variant, currently named OM4, provides more than twice the laser/VCSEL bandwidth than OM3 and is targeted to provide greater useable distance and/or lower system implementation costs for the next generation 40 Gb/s and 100 Gb/s Ethernet solutions that are currently in development.

The singlemode variant, which currently has no designation, provides performance levels somewhere between those of OS1 and OS2.

It is recognised that while OM3, represented a significant development in terms of bandwidth of multimode optical fibre, the performance levels attained today are significantly in excess of that milestone.

Manufacturers have long since been describing their products as OM3+, or enhanced OM3 yet there is no basis for comparison.

We all know that increased bandwidth should offer greater distances of support for current networks. The main hope is that the new performance specification may be of interest of new applications currently in development, such as 40 Gb/s and 100 Gb/s Ethernet.

The benefits may be that the distance of support may be increased or that the number of parallel optical fibres required (currently at least four in each direction) may be reduced.

Nevertheless, history has proved that once a new “Category” of anything is discussed, even at an elementary level, it will become reality.