

## MAKE IT EASY SHEET

### **NEXT GENERATION FIBRE OPTIC**

**Not more new standards?** The forthcoming ISO11801 standard will redefine the terms used to specify the performance capability of current fibre cables and also feature some new specifications, which are being commonly referred to as 'next generation'.

**So what does it mean?** Basically it's all about the ability of particular cable types to support emerging protocols over specific distances. The introduction of these new terms will make the design of fibre networks and the choice of cables used far easier. It will be a case of defining the type of protocol to be run on the system, such as 10 Gigabit Ethernet and the distance over which you want this to work, say 300 metres and you will get to the required cable standard, such as OM3.

**Hold on! 10 Gigabit Ethernet?** Time waits for no man, especially in this market! The standard for 10 Gigabit Ethernet transmission will be ratified imminently. Products are already shipping from the major switch vendors and wide spread adoption is expected, initially from service providers, followed by corporate end users.

**I've only just started selling Gigabit switches!** Users want faster networks and are sending bigger files. As more networks implement Gigabit Ethernet to the desk, a potential bottleneck problem is lurking in the backbone. Server and backbone links will have to cope with increasing workloads and they will need to do it quickly. The networks of the near future will be built with 10 Gig backbone or 'core' devices and 1 Gig user or 'edge' switches.

**But why?** Also think about the way we use our networks today, they are not just there for word processing, daily use of the internet, large graphic files and video streaming all place increased demands on the network infrastructure.

**OK, I understand. So what does this OM3 fibre do?** Basically it allows multi Gigabit applications to operate over sensible lengths of installed multimode fibre. These are key points. Firstly, it is a multimode 50/125 cable, exactly the same as you may have used before, same installation and termination practices, just a vastly improved bandwidth. This enables lower cost electronics to be used in the active kit when compared to other cable types such as Singlemode. Secondly lengths of up to 300 metres can be installed that will support 10 Gigabit Ethernet. Compare this to the current 62.5/125 grade fibre – which will be named OM1 – offering this support at well below 100 metres and you can see why users will start to demand Next Generation fibre cables.

**Sounds expensive to me!** Sure it costs more than standard grade fibre, you would expect that, and so will users. This premium will be eroded over time, but even today when compared to the alternative options the use of these cables is the most economical solution for users planning to implement multi Gigabit networks.

**And I can start using this now?** Yes, OM3 fibre is available as both conventional cable and for blown fibre systems such as Blolite.