

## A BRIEF UPDATE ON OPTICAL STANDARDS

In the standards arena, there are many documents that apply to cable, connectivity and data cabling systems. A section of these standards directly relate to structured cabling.

At the ISO/IEC level, ISO/IEC 11801 is the customer premises cabling standard that defines structured cabling. This standard is maintained by ISO/IEC SC25 WG3 and this committee has now approved a proposal to publish Edition 3. The existing standard will be re-structured into a single family and this work is under way:

ISO/IEC 11801-1 General Requirements

ISO/IEC 11801-2 Commercial Office Environment

ISO/IEC 11801-3 Industrial Environment

ISO/IEC 11801-4 Residential Environment

ISO/IEC 11801-5 Data Centre

ISO/IEC 11801-6 Distributed Building Services

This will be used as the basis to develop ISO/IEC 11801 3rd Edition which is due to be issued as a draft standard early 2015.

### The proposed changes are:

- To withdraw the generic OF classification scheme
- OM1 & OM2 fibre types moved to informative annex
- SMF specs require amendment (high water peak B1.1 fibre type withdrawn as it is not used in practice)
- Class I & Class II channels will be introduced & Cat 8.1 & Cat 8.2 components referenced
- Channels with "less than 2 connectors" to be introduced
- MICE requirements will be introduced
- WAP cabling guidance introduced based on TSB-162A
- DCR unbalance between pairs introduced
- Use of cables that do not comply with IEC 61156 specs (e.g. CCA cable) should be disallowed

ISO/IEC 14763-3 specifies testing of installed optical fibre cabling designed in accordance with ISO/IEC 11801 or equivalent standards. A 2nd edition of this standard is approved and is due to be published later this year.

Focussing on optical cable standards, the IEC committee responsible for their development is ISO/IEC SC86A WG3. Their brief is to prepare international standards for optical cables. This activity covers terminology, generic characteristics, test and measurement methods and specifications for all types of single-mode and multimode optical fibres and all types of optical fibre premises and outdoor cables to ensure reliable system performance and operation. There are a number of new standards in development for cables that may be used in the premises environment including IEC 60794-5 Edition 2 that is the sectional specification for microduct cabling for installation by blowing and IEC 60794-2-51 which is the detailed specification for simplex and duplex cables for use in cords in controlled environments.

IEC 60794-1-2, the optical cable test standards that relates to the type approval testing of optical cables is also being revised and is in the process of being split into smaller more manageable sections. These new standards will be:

- IEC 60794-1-2, Cross reference table
- IEC 60794-1-20, General and definitions
- IEC 60794-1-21, Mechanical tests
- IEC 60794-1-22, Environmental tests
- IEC 60794-1-23, Cable elements tests
- IEC 60794-1-24, Electrical tests

Brand-Rex continues to support the development of national, European and worldwide cabling and system standards by participation on the relevant standards committees.



As one of the leading cable suppliers in the world we understand the production of cable inevitably means high levels of electricity being used in manufacture, that's why we are committed to continually reducing our impact on the environment by utilising sustainable energy sources and material