



## Product Focus

### Connectivity for Faster Speeds in the data centre ... 40G, 100G, 400G

Although Base-12 connectivity will continue to have its place in the data centre, forward looking data centres will increasingly adopt Base-8 technology as they move to faster core networking speeds.

#### Today's Base-12 connectivity

The use of Base-12 MTP connectorised multi-fibre trunks and MTP-LC modules for connection to equipment provides a structured cabling system that meets TIA 942-A and ISO/IEC 50173-5. This has become the defacto standard providing for high-density connectivity within the data centre.

#### The emergence of Base-8 connectivity – a new option

The pressure to embrace 40G, 100G and beyond to 400G is driven by numerous factors, including the increasing adoption of virtualisation technologies. The types of transceivers that switch, server and storage vendors are using and the transceiver roadmap guiding the industry from 10G Ethernet to 40G, 100G, and 400G is moving the industry towards Base-8 connectivity.

#### Base-8 versus Base-12: How to choose your connectivity model?

Both Base-8 and Base-12 connectivity will be used in the data centre for many years to come. Both have their benefits (see chart below), and both will have their place in the data centre with the usage of 40G and 100G transmission being a key deciding factor. For instance, 100G Gen 2 SR4 uses 8 fibre parallel optics with 4x25G in each direction, while the current discussions on 400G speeds within the IEEE are based around several options for new generations of transceiver design. All based on parallel optics using 32, 16 or 8 fibre over OM3/4 cable – Base-8.

<b>Benefits of Base-8 Connectivity</b>	<b>Benefits of Base-12 Connectivity</b>
<ul style="list-style-type: none"><li>• Optimised for both two-fibre and eight-fibre transceiver technologies</li><li>• Enables 100% fibre utilisation for eight-fibre transceiver systems without the additional cost and insertion loss of Base-12 to Base-8 conversion devices</li><li>• Cable harnesses can easily route to all common port counts on switch line cards</li><li>• Only requires unpinned MTP patch cords for any connections within the link</li><li>• Most flexible solution for 40G, 100G and 400G transmission networks</li></ul>	<ul style="list-style-type: none"><li>• Higher fibre per connector density than Base-8.</li><li>• Compatible with the large installed base of existing Base-12 MTP deployments</li><li>• Where proprietary vendor specific 40G duplex 2-fibre transceiver technologies are deployed, existing Base-12 data centre infrastructures offer higher fibre density per connector. (Note, the vendor specific technologies are incompatible with each other, and with parallel optics, which may add a level of management complexity in a multi-vendor environment).</li></ul>

If you are using Base-12 connectivity in your data centre today and you are happy with it, then it is perfectly fine to continue using Base-12. Base-12 connectivity does provide the benefit of higher connector fibre density compared to Base-8, and thus a larger number of fibres can be installed more quickly when using Base-12 connectivity.

### Can Base-8 and Base-12 be Used Together?

- You cannot mix the components of a Base-8 and Base-12 cabling systems within the data centre, such as plugging a Base-8 trunk into a 12-fibre module.
- You can manage separate Base-8 and Base-12 cabling systems within the data centre, but care is required when managing the infrastructure.

### The Bottom Line

Base-8 connectivity is an additional option in the network designer's tool kit to ensure that data centres have the most cost effective, future proof network available, with a migration path that easily scales out to 400G transmission.

As greater numbers of 40G and 100G circuits are deployed that utilise eight-fibre transceivers, then the benefits of matching the fibre count in the MTP backbone connectivity with the fibre count of the transceiver starts to outweigh the density benefit of Base-12 connectivity.

## Product Updates

### Data Centre Product and Content News:

### Corning Plug and Play™ High Fibre Count cabling solution named Data Centre Cabling Product of the Year



Corning Optical Communications triumphed at the DCS Awards 2015 winning the Data Centre Cabling Product of the Year. The gala event was held in London in front of a packed audience of data centre professionals and fellow industry peers.



The category shortlist included leading technology companies in the global cabling market, with the winner selected by a wide ranging reader vote among DCS print and online publications from around Europe.

**We would like to thank all of our customers and partners for their support in voting for us.** This is the third year running that Corning has taken home a DCS Award and underlines the clear added-value of Corning's structured cabling solution in the evolving data centre market.

Corning's Plug & Play™ high-fibre-count MTP connector-based trunk cables address many of the challenges data centres face, such as limited space, heat from densely packed components, and expenses caused by migration to faster networks. Corning's Plug & Play cables are available with 288, 432, 576, and 864 fibre counts for a significant reduction in physical cable bulk that increases space savings and optimises airflow for cooling energy savings. Plus, the Plug & Play solution is pre-terminated, reducing installation time and cost – and streamlining network moves, adds, and changes for easy scalability.

To find out more, download our [high-fibre-count trunk cable features sheet](#).

## LAN Product and Content News:

### FastShip Fibre Optic Cable

- Do you need to choose a fibre optic cable from a broad portfolio of cable designs?
- Do you need to complete small installations or project extensions faster than ever before?



**Corning**  
Fibre Optic Cables

**FASTSHIP**

Do you need to choose a fibre optic cable from a broad portfolio of cable designs? Do you need only small amounts to complete a smaller installation or extension to an already running application? With our assorted FREEDM™ and MIC® fibre optic cables (shown next to their part numbers), we are providing expedited shipping on your day-to-day product needs, within 72 hours ready to ship from our fast production lines and in-stock product assortment.

**FREEDM™ Gel-Free Central Tube Indoor/Outdoor Cable U-BQ(ZN)BH**

- Completely dry, gel-free tube and laminated swelling glass yarn
- Minimal cleaning for easy cable preparation and installation with improved solvent and water protection
- Waterblocking technology and flame-retardant universal LSZH (FRNC) jacket suitable for indoor and outdoor applications
- Small diameter and Corning® ClearCurve™ bend-insensitive multimode fibres
- Easy installation in space-constrained areas with tight bend radius of or below 7.5 mm for less signal loss than traditional fibres

**FREEDM™ Tight Buffer Indoor/Outdoor Cable U-MQ(ZN)BH**

- Waterblocking technology and flame-retardant universal LSZH/FRNC jacket suitable for indoor and outdoor applications
- 900 µm tight buffers with T83 construction
- Easy and consistent stripping over 20 cm and no need for fan-out kits for field termination with UniCam™
- Small diameter and Corning ClearCurve connections bend-insensitive multimode fibres
- Easy installation in space-constrained areas with tight bend radius of or below 7.5 mm for less signal loss than traditional fibres

**MIC™ Tight Buffer Indoor Cable I-V(ZN)H**

- 900 µm tight buffers with T83 construction
- Easy and consistent stripping over 20 cm and no need for fan-out kits for field termination with UniCam™
- Small diameter and Corning ClearCurve connections bend-insensitive multimode fibres
- Easy installation in space-constrained areas with tight bend radius of or below 7.5 mm for less signal loss than traditional fibres

**Central and Loose Tube Dielectric Armour Indoor/Outdoor Cable U-DQ(ZN)BH**

- All-dielectric cable construction
- Requires no grounding or bonding
- Waterblocking technology and flame-retardant universal LSZH/FRNC jacket suitable for indoor and outdoor applications
- Small diameter and Corning ClearCurve bend-insensitive multimode fibres
- Easy installation in space-constrained areas with tight bend radius of or below 7.5 mm for less signal loss than traditional fibres

CORNING

In a world with increasing speed and demand, having the best product **delivered and installed quickly to meet tight delivery timeframes** is a must.

With our assorted FREEDM™ and MIC® fibre optic cables, we are providing expedited shipping on your day-to-day product needs **within 72 hours ready to ship**, from our fast production lines and in-stock product assortment.

Corning is making it faster for you to receive assorted Fibre Optic Cables suitable for indoor and outdoor applications, that provide easy installation in space-constrained areas, as well as various product features that enable faster installation.

For further details on FastShip Fibre Optic Cables please download our flyer [here](#).

### The FutureCom™ xs500 Mid-Range Cat.6A Copper Jack

The xs500 is a fully shielded, standards-compliant and 3rd party certified Cat.6A copper jack that offers **deployment flexibility and quick installation** for high-performance copper cabling projects.



- [Watch the video](#) and **see how simple and fast installation** is. There are no special tools required for the connection of the cables and outlet installation.
- Its compact housing includes an integrated dust cover that can be closed when the port is not being used. [Replacement dust covers](#) are available in multiple colours enabling colour coding for different networks.
- The low profile, keystone footprint is ideal for a variety of installation scenarios, and the unit provides compatibility with a wide range of hardware from outlets to panels.

Further information on the xs500 can be found below:

Visit the [online catalogue](#)

Download [xs500/S500 line card for UK style outlets](#)

Download [xs500/S500 line card for French style outlets](#)

## 6-Port Consolidation Point Housings Copper (Keystone/LANscape)



Consolidation point housings are universally applicable for ceiling, wall, under the floor or desk mounting for user-specific configurations in buildings, offices and industrial applications.

The new 6-port consolidation point housing compliments the existing 19" and 10" housings:

- Available in LANscape + Keystone footprint
- Suitable for all Corning copper jack types

[Click here](#) for more information.

## Construction Products Regulation (CPR) and communication cables – keep informed

The new EU CPR regulation applies to all construction products that are produced for, or used within buildings and includes communication cables. CPR aims to ensure that fibre optic and copper cables are qualified to meet new health and safety requirements in a manner that allows easy trade regardless of manufacturer or country of origin.

[Click here](#) to read our short brief.