



CORNING

2016 Enterprise Networks EMEA

# CORE PRODUCTS

for Data Centre Networks

# Data Centres

Data Centre Products

Quality

Innovation



As a leader in data centre technology and innovation, we understand the unique requirements of the data centre and have compiled this guide to provide you with that valuable information at your fingertips. The guide includes product details, including information on newly released products, and a list of resources that can save you both time and money. We work hard to make sure these products are on the shelves of our distributors, ready for purchase when you need them.



# Get to know us!

## Corning Optical Communications

We are a leading manufacturer of fibre optic and shielded copper communications system solutions for voice, data, and video network applications worldwide. We offer the broadest range of end-to-end fibre optic and copper product solutions for our customers' telecommunications networks.

Our pioneering production standards have long been the backbone of our innovation in fibre technology. All Corning optical fibre is manufactured by Corning, at Corning facilities, to unique specifications and designs. Production processes are managed and controlled in-house, to the highest possible quality.







# Corning's FastShip Programme

## Providing your data centre solution in just days

In stock and ready to ship in 72 hours!

With our FastShip and FastConnect programmes, Corning makes it faster than ever to receive your pre-terminated fibre optic and copper solutions for data centres and storage area networks. The FastShip programme provides expedited shipping, ready to ship within 72 hours, on your day-to-day product needs with our fast assembly lines and in-stock product assortment. Due to our relationships with leading distributors, we have a large inventory of fibre connectivity products available across the EMEA region for immediate use.\*

For more information, contact Corning Customer Care at [00800 2676 4641](tel:0080026764641) or [cc.emea@corning.com](mailto:cc.emea@corning.com).



This flag next to a product number denotes it is available under the FastShip/FastConnect programme.

\*Terms and conditions apply. Please visit <http://opcomm.corning.com/fast> for further details.





# Corning's FastConnect Programme

## Meeting custom requirements in just weeks

Select made-to-order products in two weeks!

Can't find what you need in stock? Our enterprise core products for data centres and SANs are available for quick shipment through our FastConnect programme. This "made-to-order" programme provides shipping within two weeks upon receipt of your purchase order at Corning. When you select items from our FastConnect programme product list, we can produce and ship your items faster than ever!\*

For more information, contact Corning Customer Care at 00800 2676 4641 or [cc.emea@corning.com](mailto:cc.emea@corning.com).



This flag next to a product number denotes it is available under the FastShip/FastConnect programme.

\*Terms and conditions apply. Please visit <http://opcomm.corning.com/fast> for further details.





# Redefine Innovation

The best just got better!



## EDGE8™ Solutions

Next-generation high-density MTP® pre-terminated data centre products

## EDGE™ Solutions

High-density MTP pre-terminated data centre products

## Plug & Play™ Systems

Standard MTP pre-terminated data centre products

## FutureCom™ EA Plug & Play Systems

Copper pre-terminated data centre products

# 1G to 400G Migration

Choose a cabling infrastructure that will support current and future requirements.

1G to 400G Migration Path for Data Centre Infrastructures								
Data Rate	Trunk Cable	1G	10G	40G (BiDi or WDM)	40G Parallel	40G Extended Reach	100G (SR4)	400G
Number of Fibres		2	2	2	8	8	8	32/16/8
EDGE8™ (Base-8)		■	■	■	■	■	■	■
EDGE™ (Base-12)		■	■	■	■	■	■	■
Plug & Play™ (Base-12)		■	■	■	■	■	■	■
Connectivity Interface		LC	LC	LC	MTP*	MTP	MTP	MTP

- Requires no cabling upgrade
- 67% fibre utilisation or requires use of conversion modules



# To Bend or Not to Bend?

## Not Much of a Question

### Fibre Optic Cables

Did you know? Corning® ClearCurve® bend-insensitive OM3/OM4 multimode fibres offer outstanding transmission performance in fibre optic cabling systems. Corning ClearCurve fibres are the world's first laser-optimised multimode fibres to withstand tight bends at or below 7.5 mm radius with substantially less signal loss than traditional multimode fibres, while being fully standards compliant and backward compatible.

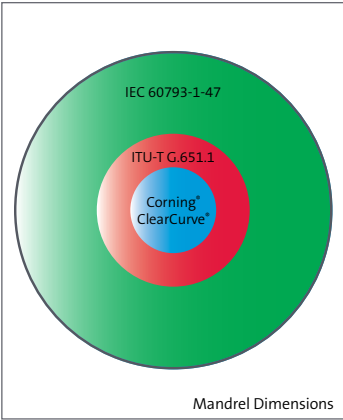
ClearCurve optical fibre is a key element to ensure operational reliability when designing custom-engineered components, thanks to the significant reduction in macrobend loss even in the most challenging bend scenarios. This allows us to provide significantly greater density across the range, combined with simple design and integration for LAN and SAN areas within the data centre, while the pre-terminated components allow for reduced installation time and faster moves, adds, and changes (MACs).

Corning SMF-28® Ultra optical fibre is an ITU-T recommendation G.652.D compliant optical fibre. Utilising our enhanced low-loss and bend fibre technologies, this full-spectrum fibre has bend performance that exceeds the ITU-T recommendation G.657.A1 standard. SMF-28 Ultra fibre offers industry-leading specifications for attenuation, macrobend loss and polarisation mode dispersion values, which provide a solid foundation for new network deployments as well as upgrades to existing networks.

Since bringing the first fibre to the market more than 40 years ago, our leadership in single-mode fibre innovation has been unparalleled.



# Recommended Standards for Multimode Fibre According to ITU or IEC



The IEC 60793-1-47 Standard			
Mandrel Radius	Number of Turns	Maximum Attenuation at 850 nm	Maximum Attenuation at 1300 nm
37.5 mm	100	< 0.5 dB	< 0.5 dB













The ITU-T G.651.1 Standard			
Mandrel Radius	Number of Turns	Maximum Attenuation at 850 nm	Maximum Attenuation at 1300 nm
15 mm	2	< 1.0 dB	< 1.0 dB

Corning® ClearCurve® Multimode Standard			
Mandrel Radius	Number of Turns	Maximum Attenuation at 850 nm	Maximum Attenuation at 1300 nm
37.5 mm	100	< 0.15 dB	< 0.15 dB
15 mm	2	< 0.1 dB	< 0.3 dB
7.5 mm	2	< 0.2 dB	< 0.5 dB

*\*There is no specification for multimode fibres with bending radii up to 7.5 mm*



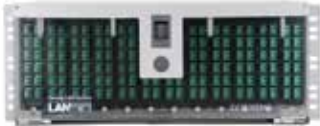









# Parallel Optic Systems

Build your solution for parallel optic solutions on MTP® Base-8 or Base-12 fibre systems (1/10/40/100G multimode or 1/10/40/100G single-mode) by following the simple steps outlined below.

	EDGE8™ Solutions	EDGE™ Solutions	Plug & Play™ Systems
1  Housing	 <p>4U up to 288 MTP Ports (Base-8) with 2,304 fibres</p>	 <p>4U up to 288 MTP Ports (Base-12) with 3,456 fibres</p>	 <p>4U up to 144 MTP Ports (Base-12) with 1,728 fibres</p>
2  Trunks	 <p>8,16,24,32,48,72,96, and 144 Fibres</p>	 <p>12, 24, 48, 72, 96, and 144 Fibres</p>	 <p>12, 24, 48, 72, 96, and 144 Fibres</p>
3  Adapter Panels	 <p>8, 16, 24, and 32 Fibre Adapter Panel</p>	 <p>12, 24, and 72 Fibre Adapter Panel</p>	 <p>72, 96, and 144 Fibre Adapter Panel</p>
4  Patch Cables	 <p>MTP without Pin – MTP without Pin</p>	 <p>MTP without Pin – MTP without Pin MTP with Pin – MTP without Pin MTP with Pin – MTP with Pin</p>	 <p>MTP without Pin – MTP without Pin MTP with Pin – MTP without Pin MTP with Pin – MTP with Pin</p>

# Duplex Optic Systems



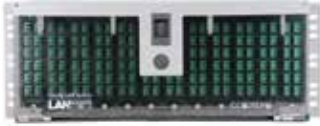








Build your solution for duplex systems (1/10/40G multimode or 1/10/40/100G single-mode) by following the simple steps outlined below.

	EDGE8™ Solutions	EDGE™ Solutions	Plug & Play™ Systems
1  Housing	 4U Breaks Out 288 MTP® Ports (Base-8) with 2,304 fibres up to 1,152 LC duplex connections	 4U Breaks Out 288 MTP Ports (Base-12) with 3,456 fibres up to 1,728 LC duplex connections	 4U Breaks Out 144 MTP Ports (Base-12) with 1,728 fibres up to 864 LC duplex connections
2  Trunks	 8,16,24,32,48,72,96, and 144 Fibres	 12, 24, 48, 72, 96, and 144 Fibres	 12, 24, 48, 72, 96, and 144 Fibres
3  Adapter Panels	 EDGE8 Adapter Panel	 EDGE Adapter Panel	 Plug & Play Adapter Panel
4  Harness Cables	 EDGE8 Harness, 8 fibres	 EDGE Harness, 12 fibres	OR  Plug & Play Harness, 12 fibres



# Duplex Optic Systems

Build your solution for duplex systems (1/10/40G multimode or 1/10/40/100G single-mode) by following the simple steps outlined below.

	EDGE8™ Solutions	EDGE™ Solutions	Plug & Play™ Systems
1 Housing	 4U up to 288 LC Duplex Ports with 576 fibres	 4U up to 288 LC Duplex Ports with 576 fibres	 4U up to 144 LC Duplex Ports with 288 fibres
2 Trunks	 8,16,24,32,48,72,96, and 144 Fibres	 12, 24, 48, 72, 96, and 144 Fibres	 12, 24, 48, 72, 96, and 144 Fibres
3 MTP® to LC Duplex Modules	 Module 8 Fibres	 Module 12 Fibres	 Module 24 Fibres
4 Patch Cables	 LC Duplex – LC Duplex Uniboot		OR  SC Duplex – LC Duplex Uniboot



# Catalogue Contents

EDGE8™ Solutions . . . . .	14
EDGE™ Solutions . . . . .	26
Plug & Play™ Systems . . . . .	37
Transmission Performance and Insertion Loss . . . . .	49
Fibre Channel and Ethernet Derating Tables . . . . .	50
FutureCom™ EA Plug & Play Systems . . . . .	51
Resources. . . . .	60



# EDGE8™ Solutions Contents

EDGE8™ Housings . . . . .	16
EDGE8 Trunks . . . . .	17
EDGE8 MTP® Adapter Panels . . . . .	18
EDGE8 MTP Patch Cables . . . . .	19
EDGE8 Harnesses . . . . .	20
EDGE8 Universal Modules . . . . .	21
EDGE8 Port Breakout Modules . . . . .	22
Standard Duplex Patch Cables . . . . .	24
EDGE8 Accessories . . . . .	25

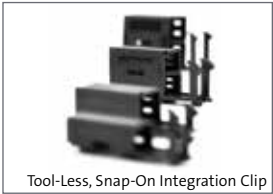


# EDGE8™ Solutions

This is an overview of EDGE8™ solutions, but not all products are listed in this core catalogue. To learn more, please refer to the EDGE8 family spec sheet.



Rotatable Strain-Relief Plate



Tool-Less, Snap-On Integration Clip



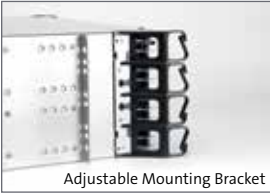
EDGE8 FSS Download



Base-8 Pinned Trunk



Identifying "8" on MTP® Slider



Adjustable Mounting Bracket



Patch Cables Routing Guides



Top and Bottom Parking Locations



EDGE8 Harness



Reverse Polarity Uni boots



Grey Colour and Imprinted "8"



Port Breakout Module



4-port MTP-MTP Panel with shuttered adapters





8-Fibre MTP to MTP Patch Cable

EDGE8™ Housings

EDGE8™ HD housings mount in 19-in racks or cabinets and provide industry-leading ultra-high-density connectivity when combined with EDGE8 modules, panels, harnesses, trunks, and patch cables. The unique design of EDGE8 housings includes sliding drawers enabling module or panel installation from the front or rear of the housing. Each sliding drawer contains integrated cable routing elements to support effective patch cable management while providing unprecedented finger access without the need for tools or other accessories. The mounting and removal of trunks is a simple, quick, and tool-less operation enabling rapid deployment of high-fibre-count trunks for faster moves, adds, and changes (MACs).



EDGE8 Housings			
Description	Maximum Capacity EDGE8 Module	Maximum Capacity MTP® Panel (Base-8)	Catalogue Number
19-in 4U EDGE8 Housing with 12 separate sliding trays	288 x LC duplex ports (576 fibre)	288 x MTP ports (2,304 fibre)	EDGE8-04U 
19-in 1U EDGE8 Housing with 3 separate sliding trays	72 x LC duplex ports (144 fibre)	72 x MTP ports (576 fibre)	EDGE8-01U-SP 

## EDGE8™ Trunks

EDGE8™ MTP® trunks are pre-terminated cables with ultra-low-loss 8-fibre MTP connectors with pins on both ends. Pinning the trunks allows for a single, pinless patch cable deployment for all installations, reducing stocking and deployment complexity. The trunks build up the major skeleton of the passive network infrastructure and, thanks to the superior design containing Corning® ClearCurve® fibre, they enable rapid deployment for your campus LAN or data centre facility. All trunks are shipped with strain-relief clips that allow for tool-less installation in all EDGE™ solutions (EDGE and EDGE8) and Plug & Play™ systems housings.



### Ordering Example:

GE5E524QLZDDU023M

*24 fibre MTP-MTP OM4 EDGE8 trunk with universal polarity, 840 mm legs on both ends. 23 metres long, pulling grip on End A outside the drum, and protective grip on End B inside the drum.*

EDGE8 Trunks			
Fibre Type	OM3	OM4	OS2
Cable Colour	Aqua	Aqua	Yellow
Fibre Count	Catalogue Number	Catalogue Number	Catalogue Number
8	GE5E508TLZDDUxxx.xM	GE5E508QLZDDUxxx.xM	GE7E708GLZDDUxxx.xM
16	GE5E516TLZDDUxxx.xM	GE5E516QLZDDUxxx.xM	GE7E716GLZDDUxxx.xM
24	GE5E524TLZDDUxxx.xM	GE5E524QLZDDUxxx.xM	GE7E724GLZDDUxxx.xM
32	GE5E532TLZDDUxxx.xM	GE5E532QLZDDUxxx.xM	GE7E732GLZDDUxxx.xM
48	GE5E548TLZDDUxxx.xM	GE5E548QLZDDUxxx.xM	GE7E748GLZDDUxxx.xM
72	GE5E572TLZDDUxxx.xM	GE5E572QLZDDUxxx.xM	GE7E772GLZDDUxxx.xM
96	GE5E596TLZDDUxxx.xM	GE5E596QLZDDUxxx.xM	GE7E796GLZDDUxxx.xM
144	GE5E5E4TLZDDUxxx.xM	GE5E5E4QLZDDUxxx.xM	GE7E7E4GLZDDUxxx.xM

*\*Select the trunk length (plug-to-plug): replace xxx.x with 002-300.5; M = metre  
Trunks can be ordered in 0.5 m increments  
The first letter of the part code denotes the pulling grip type: G = grip on first end,  
D = grip on both ends, Z = no grip*



### EDGE8™ MTP® Adapter Panels

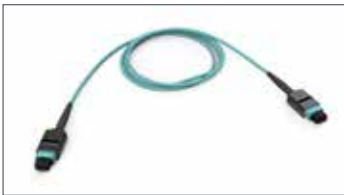
EDGE8™ adapter panels are a pass-through panel with a single row of MTP® adapters available in 1-,2-,3-, or 4-port variants. The backbone trunks connect at the rear of the adapters, providing various options at the front from end-to-end links with patch cables or harness solutions or as a cross-connect in the MDA. The MTP adapter panel is the easiest way to implement a parallel optic application in your data centre whilst retaining the existing hardware. All EDGE8 adapter panels can be installed from the front or the rear of any EDGE8 hardware using a simple release mechanism negating the need for any special tools.



EDGE8 MTP Adapter Panels		
Fibre Type	OM4	OS2
MTP Adapters	Catalogue Number	Catalogue Number
1	EDGE8-CP08-V3	EDGE8-CP08-V1
2	EDGE8-CP16-V3	EDGE8-CP16-V1
3	EDGE8-CP24-V3	EDGE8-CP24-V1
4	EDGE8-CP32-V3	EDGE8-CP32-V1


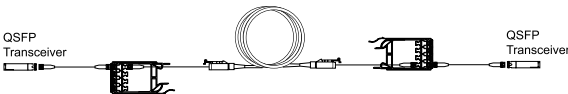
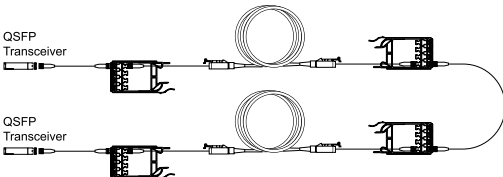
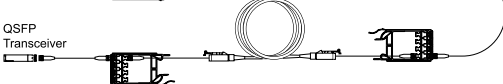
EDGE8™ MTP® Patch Cables

The EDGE8™ MTP® patch cables allow for a seamless migration to higher data rates in the data centre when used in conjunction with the EDGE8 pinned trunks. By pinning the trunks, we have removed the need to potentially stock three different patch cable variants for direct, interconnect, and cross-connect scenarios, meaning a pinless-to-pinless patch cable will support all installation requirements. These patch cables are wired to TIA-568 Type-B polarity as standard; however, other polarity and pin methods are available on request.



EDGE8 MTP Patch Cables			
Fibre Type	OM3	OM4	OS2
Cable Colour	Aqua	Aqua	Yellow
Catalogue Number	JE6E608TEZ-NBxxxM	JE6E608QEZ-NBxxxM	JE8E808GEZ-NBxxxM

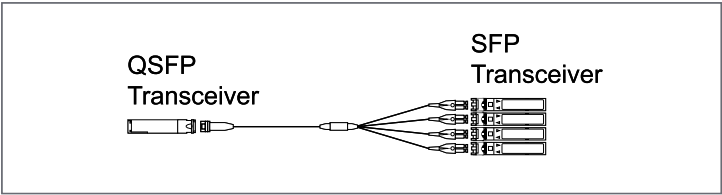
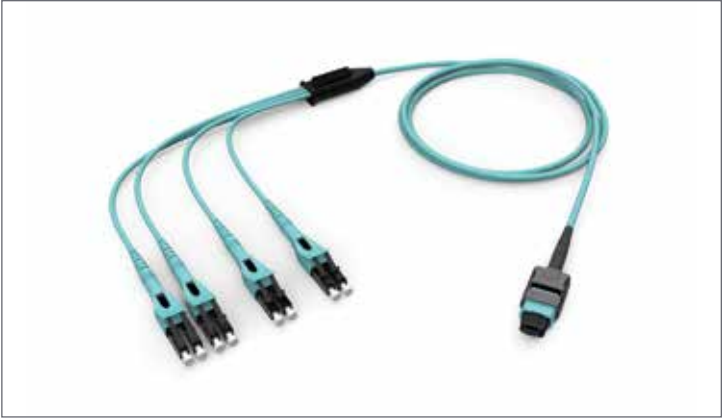
*\*Select the patch cable length (tip-to-tip): replace xxx.x with 000.5-020.5; M = metre  
Patch cable can be ordered in 0.5 m increments*











Base-8 (Pinned Trunks)			
Direct-Connect		➡	Pinless – Pinless
Interconnect		➡	Pinless – Pinless
Cross-Connect		➡	Pinless – Pinless + Pinless – Pinless
			
			1 patch cable configuration

### EDGE8™ Harnesses

The EDGE8™ QSFP to SFP+ harness is an MTP® to four LC duplex assembly designed to disaggregate 1 x 40G port into four LC duplex ports to benefit from the potential cost savings associated with 40G electronics. Similar to the port breakout module, an EDGE8 harness can be deployed in an equipment distribution area (EDA) to direct connect active electronics to the cabling infrastructure. Disaggregating 1 x 40G port into four 10G ports can only be achieved through parallel optics. EDGE8 harnesses are available in both staggered and non-staggered options.

For polarity guidance, please refer to AEN 156.  
For stagger selection, please refer to AEN 157.





EDGE8 Harnesses				
Fibre Type	OM4		OS2	
Stagger Type	Catalogue Number		Catalogue Number	
1	HE67908QLZ-1Bxxx.xM		HE87808GLZ-1Bxxx.xM	
2	HE67908QLZ-2Bxxx.xM		HE87808GLZ-2Bxxx.xM	
3	HE67908QLZ-3Bxxx.xM		HE87808GLZ-3Bxxx.xM	
4	HE67908QLZ-4Bxxx.xM		HE87808GLZ-4Bxxx.xM	
5	HE67908QLZ-5Bxxx.xM		HE87808GLZ-5Bxxx.xM	

*\*Select the harness length (tip-to-tip): replace xxx.x with 000.5-006.5; M = metre  
Harnesses can be ordered in 0.5 m increments*

# EDGE8™ Universal Modules

EDGE8™ modules provide the interface between the MTP® connector on the EDGE8 trunk and the LC duplex patch cables that will connect directly to the electronics or as a cross-connect in the main distribution area (MDA). The internal wiring follows the universal wiring scheme to ensure the correct fibre polarity is maintained throughout the system independent of how many modules are utilised within the link. Ultra-low-loss performance of the module allows for multiple connections without compromising the tight loss budgets associated with higher-speed applications, permitting longer links than specified by the standards. Specially designed shutters ensure the end face of the connectors are never touched and replace the standard dust caps that typically removed are never replaced. In addition, the shutters are visual fault locator (VFL) compatible to allow easy port identification whilst diffusing the VFL light to ensure adequate eye safety.

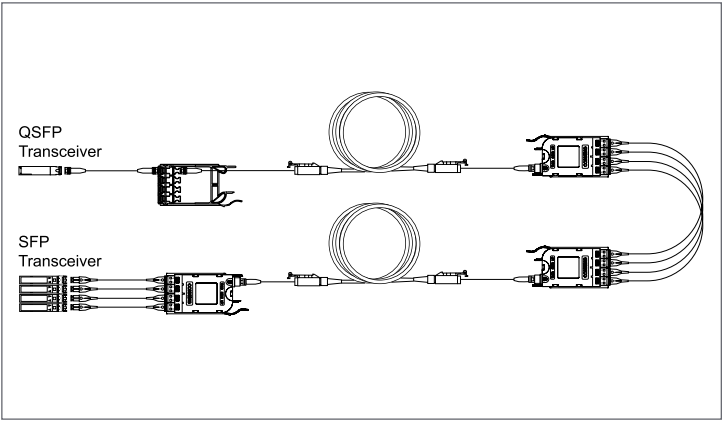
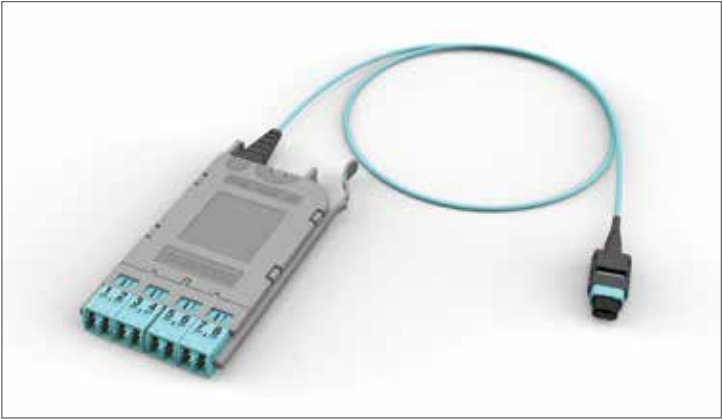


EDGE8 Universal Modules			
Fibre Type	OM4	OS2	Fibre Type
Connector Type	Catalogue Number	Catalogue Number	Adapter Colour Front
PC	ECM8-UM08-05-E6Q-ULL 	–	Aqua
UPC	–	ECM8-UM08-04-E8G-ULL 	Blue



### EDGE8™ Port Breakout Modules

EDGE8™ port breakout modules are designed to provide additional flexibility to the system whilst utilising the cost saving benefits of disaggregating a single 40G QSFP port into four 10G SFP+ ports. Port breakout modules deployed in the MDA can significantly reduce the number of line cards in the device for additional savings in both density and power requirements.



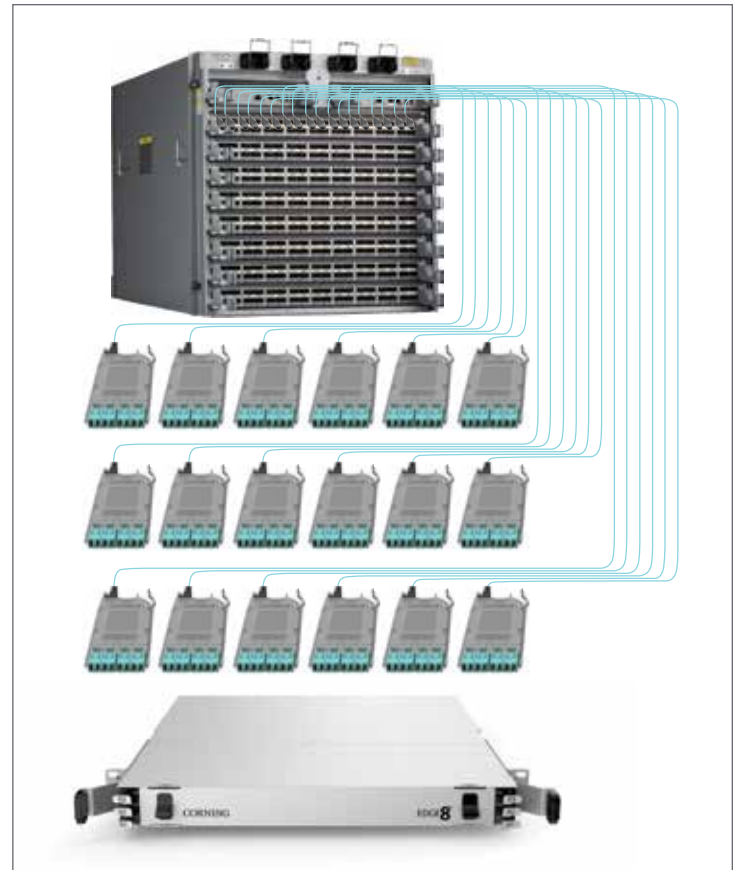
EDGE8 Port Breakout Modules			
Fibre Type	OM4	OS2	Fibre Type
Connector Type	Catalogue Number	Catalogue Number	Adapter Colour Front
PC	ECM8-05E6-QEZB-XXX.XM	–	Aqua
UPC	–	ECM8-04E7-GEZB-XXX.XM	Blue

*\*Select the module length (tip-to-tip): replace xxx.x with 000.5-025.5; M = metre  
Modules can be ordered in 0.5 m increments*

## EDGE8™ Port Breakout Module *continued*

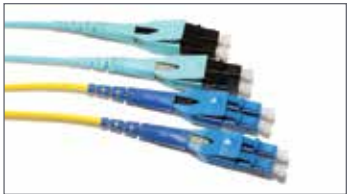
Significant space saving and hardware costs can be appreciated by disaggregating 40G QSFP ports into four SFP+ 10G ports using the EDGE8™ port breakout modules in the MDA. Deploying 40G QSFP ports can reduce the number of chassis and line cards by two-thirds when compared to 10G SFP+ ports.

In this example, each row of QSFP ports (18) can be replicated by a single 1U EDGE8-SP housing.



## Standard Duplex Patch Cables

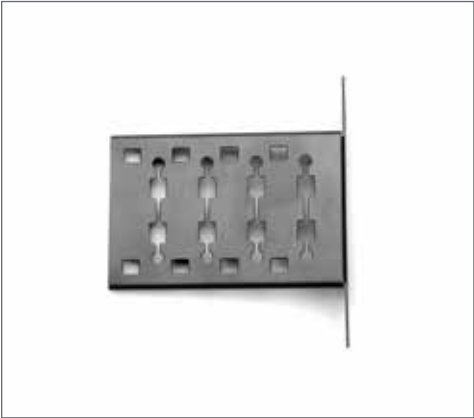
The reverse polarity uniboot duplex patch cables allow for the quick and easy conversion from a TIA-568 A-B polarity to a TIA-568 A-A polarity without exposing the fibres or needing any tools. This patch cable comes with a straight-through polarity from the factory, but you can convert it to a flipped cable with no tools. This uniboot design allows one cable to carry both fibres, reducing the cable bulk when routing.



LSZH™ LC Duplex to LC Duplex Uniboot Patch Cable With Reverse Fibre Polarity Option				
Polarity		Application		Connector
Pairwise flipped		All		LC Duplex Uniboot
Fibre Type	OM3	OM4	OS2	Fibre Type
Cable Colour	Aqua	Aqua	Yellow	Cable Colour
Connector Type	Catalogue Number	Catalogue Number	Catalogue Number	Connector Colour
PC	E797902TNZ20xxxM	E797902QNZ20xxxM		Aqua
UPC			E787802GNZ20xxxM	Blue
LSZH SC Duplex to LC Duplex Uniboot Patch Cable With Reverse Fibre Polarity Option				
Pairwise Flipped		All		SC Duplex
Fibre Type	OM3	OM4	OS2	Fibre Type
Cable Colour	Aqua	Aqua	Yellow	Cable Colour
Connector Type	Catalogue Number	Catalogue Number	Catalogue Number	Connector Colour
PC	577902TNZ20xxxM	577902QNZ20xxxM		Aqua
UPC			727802GNZ20xxxM	Blue

*\*Select the patch cable length (tip-to-tip): replace NZ20xxxM to NZ20001M for 1 m up to NZ20020M for 20 m  
Patch cables can be ordered in 0.5 m increments*

EDGE8™ Accessories



Description	Description	Description
EDGE™ Solutions Strain-Relief Bracket, CDF, accommodating four EDGE solutions clips	Single-Fibre Port Cleaner for LC, keyed LC, and MU connector end faces for both UPC and APC polishes	Fibre Optic Cleaning Tool for MTP® connectors
Catalogue Number	Catalogue Number	Catalogue Number
EDGE-CDF-RJ04-BKT	CLEANER-PORT-LC	2104466-01
Units per Delivery	Units per Delivery	Units per Delivery
1/1	1/1	1/1



# EDGE™ Solutions Contents

EDGE™ Housings . . . . .	28
EDGE Trunks . . . . .	29
EDGE Universal Modules . . . . .	30
Standard Duplex Patch Cables . . . . .	31
EDGE MTP® Adapter Panels . . . . .	32
EDGE Trunk Harness MTP® (with pins) to 6x LC Duplex . . . . .	33
MTP Patch Cable for Parallel Optic Applications . . . . .	34
EDGE Accessories . . . . .	36

# EDGE™ Solutions

This is an overview of the complete EDGE™ solutions, but not all products are listed in this core catalogue. To learn more, please refer to the EDGE family spec sheet or click the QR code on this page to upload to your mobile device.



EDGE Universal Modules



LC Duplex Patch Cables



EDGE FSS Download



MTP® Connector Patch Cables



EDGE HD Housings



EDGE AO Modules



EDGE FX Housings



EDGE Tap Modules



Subfloor Distribution Solution



EDGE SE Splice Cassettes



EDGE Harness Types



Hybrid MTP to LC Duplex Trunks



MTP to MTP HD Trunks





Overhead Distribution on Cable Trays

## EDGE™ Housings

EDGE™ HD housings mount in 19-in racks or cabinets and provide industry-leading ultra-high-density connectivity when combined with EDGE modules, panels, harnesses, trunks, and patch cables. The unique design of EDGE HD housings include sliding drawers to enable module or panel installation from the front or rear of the housing. Each sliding drawer contains integrated cable routing elements to make real structured patch cable management possible whilst providing unprecedented finger access without the need for tools or any other accessories. The mounting and removal of trunks is a simple, quick, and tool-less operation enabling rapid deployment of high-fibre-count trunks for faster moves, adds, and changes (MACs).



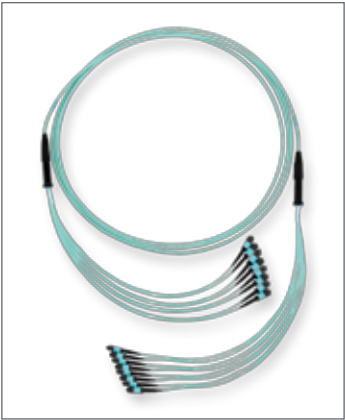
EDGE Housings			
Description	Maximum Capacity EDGE Module	Maximum Capacity MTP® Panel (Base-12)	Catalogue Number
19-in 4U EDGE Housing with 12 separate sliding trays	288 x LC duplex ports (576 fibre)	288 x MTP ports (3,456 fibre)	EDGE-04U 
19-in 1U EDGE Housing with 3 separate sliding trays	72 x LC duplex ports (144 fibre)	72 x MTP ports (864 fibre)	EDGE-01U-SP 
















EDGE™ Trunks

EDGE™ MTP® trunks are pre-terminated cables with 12-fibre MTP connectors on either side. The trunks build up the major skeleton of the passive network infrastructure, and thanks to the superior design including Corning® ClearCurve® fibres, they enable rapid deployment for your campus LAN or data centre facility. All trunks are shipped with strain-relief clips that allow tool-less installation in both EDGE solutions and Plug & Play™ systems housings.

Ordering Example:

G757524TLZ88U023M  
24 fibre MTP-MTP OM3 EDGE trunk with universal polarity, 840 mm legs on both ends. 23 metres long, pulling grip on End A outside the drum and protective grip on End B inside the drum.



EDGE Trunks						
Fibre Type	OM3		OM4		OS2	
Cable Colour	Aqua		Aqua		Yellow	
Fibre Count	Catalogue Number		Catalogue Number		Catalogue Number	
12	G757512TLZ88UxxxM		G757512QLZ88UxxxM		G909012GLZ88UxxxM	
24	G757524TLZ88UxxxM		G757524QLZ88UxxxM		G909024GLZ88UxxxM	
48	G757548TLZ88UxxxM		G757548QLZ88UxxxM		On request	
72	G757572TLZ88UxxxM		G757572QLZ88UxxxM		On request	
96	G757596TLZ88UxxxM		G757596QLZ88UxxxM		On request	
144	G7575E4TLZ88UxxxM		G7575E4QLZ88UxxxM		G9090E4GLZ88UxxxM	

\*Select the trunk length (plug-to-plug): replace xxx with 001 to 999; M = metre  
The first letter of the part code denotes the pulling grip type: G = grip on first end, D = grip on both ends, Z = no grip



EDGE™ Universal Modules

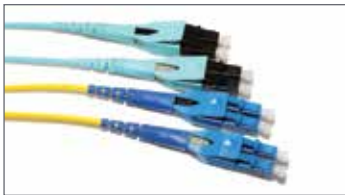
EDGE™ modules provide the interface between the MTP® connector on the trunk and the LC duplex patch cables that connect directly into the electronics or as a cross-connect in the main distribution area (MDA). The internal wiring based on universal polarity ensures the correct fibre polarity throughout the entire system independent of how many modules are implemented within the link. Specially designed indents in the shutters ensure that the end faces of the connectors are never touched. In addition, the shutters are visual fault locator (VFL) compatible allowing easy port identification whilst defusing the VFL light to provide adequate eye safety.



EDGE Universal Modules				
Fibre Type	OM3	OM4	OS2	Fibre Type
Connector Type	Catalogue Number	Catalogue Number	Catalogue Number	Adapter Colour Front
PC	ECM-UM12-05-93T	ECM-UM12-05-93Q	–	Aqua
UPC	–	–	ECM-UM12-04-89G	Blue

## Standard Duplex Patch Cables

The reverse polarity uniboot duplex patch cables allow for the quick and easy conversion from a TIA-568 A-B polarity to a TIA-568 A-A polarity without exposing the fibres or needing any tools. This patch cable comes with a straight-through polarity from the factory, but you can convert it to a flipped cable with no tools. This uniboot design allows one cable to carry both fibres, reducing the cable bulk when routing.



LSZH™ LC Duplex to LC Duplex Uniboot Patch Cable With Reverse Fibre Polarity Option				
Polarity		Application	Connector	Connector
Pairwise Flipped		All	LC Duplex Uniboot	LC Duplex Uniboot
Fibre Type	OM3	OM4	OS2	Fibre Type
Cable Colour	Aqua	Aqua	Yellow	Cable Colour
Connector Type	Catalogue Number	Catalogue Number	Catalogue Number	Connector Colour
PC	E797902TNZ20xxxM	E797902QNZ20xxxM		Aqua
UPC			E787802GNZ20xxxM	Blue
LSZH SC Duplex to LC Duplex Uniboot Patch Cable With Reverse Fibre Polarity Option				
Pairwise Flipped		All	SC Duplex	LC Duplex Uniboot
Fibre Type	OM3	OM4	OS2	Fibre Type
Cable Colour	Aqua	Aqua	Yellow	Cable Colour
Connector Type	Catalogue Number	Catalogue Number	Catalogue Number	Connector Colour
PC	577902TNZ20xxxM	577902QNZ20xxxM		Aqua
UPC			727802GNZ20xxxM	Blue

*\*Select the patch cable length (tip-to-tip): replace NZ20xxxM to NZ20001M for 1 m up to NZ20020M for 20 m  
Patch cables can be ordered in 0.5 m increments*

## EDGE™ MTP® Adapter Panels

EDGE™ adapter panels are a pass-through patch panel with a single row of MTP® adapters. The backbone trunks connect at the rear of the adapters, with various options possible at the front, from end-to-end links with patch cable or harness solutions, or as a cross-connect used in MDA. The MTP adapter panel is the easiest way to implement parallel optic applications in your data centre whilst retaining the existing hardware. All EDGE adapter panels can be installed from the front or the rear of any EDGE hardware using a simple release mechanism negating the need for any specialised tools.

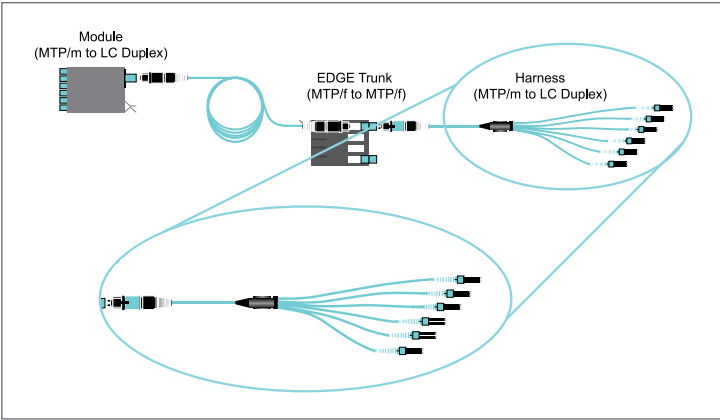


EDGE MTP Adapter Panels			
Fibre Type	OM3		OS2
MTP Adapters	Catalogue Number	Catalogue Number	Catalogue Number
2	EDGE-CP24-E3	EDGE-CP24-E3	EDGE-CP24-90
4	EDGE-CP48-E3	EDGE-CP48-E3	EDGE-CP48-90
6	EDGE-CP72-U3	EDGE-CP72-U3	EDGE-CP72-U1

# EDGE™ Trunk Harness MTP® (with pins) to 6x LC Duplex

The EDGE™ trunk harness is designed to facilitate an interconnect point when the electronics are located in a separate area from the cross-connect or patching field. The harness comes with duplex LC connectors to interface with the electronics and a pinned MTP® connector to connect into a trunk. This can be used in an equipment distribution area (EDA).

For polarity guidance, please refer to AEN 156.  
For stagger selection, please refer to AEN 157.

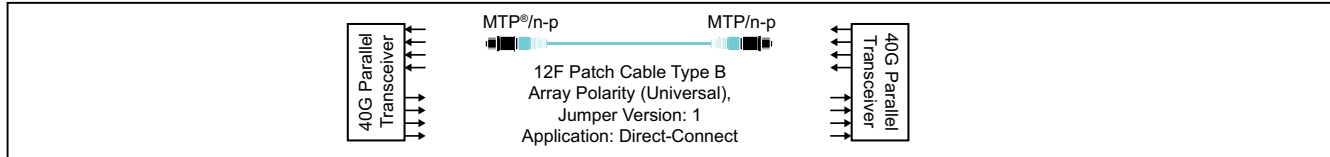


EDGE Trunk Harness MTP (with pins) to 6x LC Duplex			
Fibre Type	OM3	OM4	OS2
Cable Colour	Aqua	Aqua	Yellow
Stagger Type	Catalogue Number	Catalogue Number	Catalogue Number
1	H937912TLZ-1Axxx.xM	H937912QLZ-1Axxx.xM	H937912GLZ-1Axxx.xM
2	H937912TLZ-2Axxx.xM	H937912QLZ-2Axxx.xM	H937912GLZ-2Axxx.xM
3	H937912TLZ-3Axxx.xM	H937912QLZ-3Axxx.xM	H937912GLZ-3Axxx.xM
4	H937912TLZ-4Axxx.xM	H937912QLZ-4Axxx.xM	H937912GLZ-4Axxx.xM
5	H937912TLZ-5Axxx.xM	H937912QLZ-5Axxx.xM	H937912GLZ-5Axxx.xM

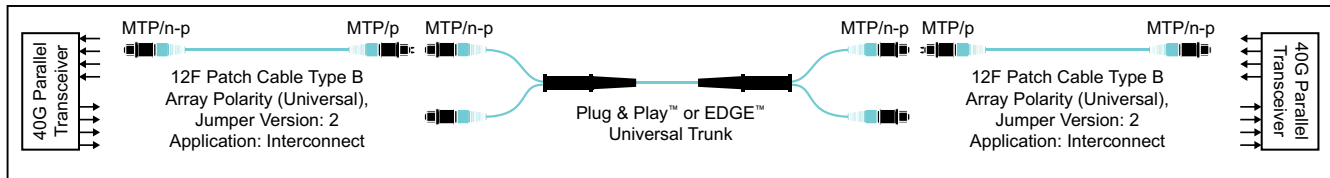
*\*Select the harness length (tip-to-tip): replace xxx.x with 000.5-025.5; M = metre  
Harnesses can be ordered in 0.5 m increments*

## MTP® Patch Cable for Parallel Optic Applications

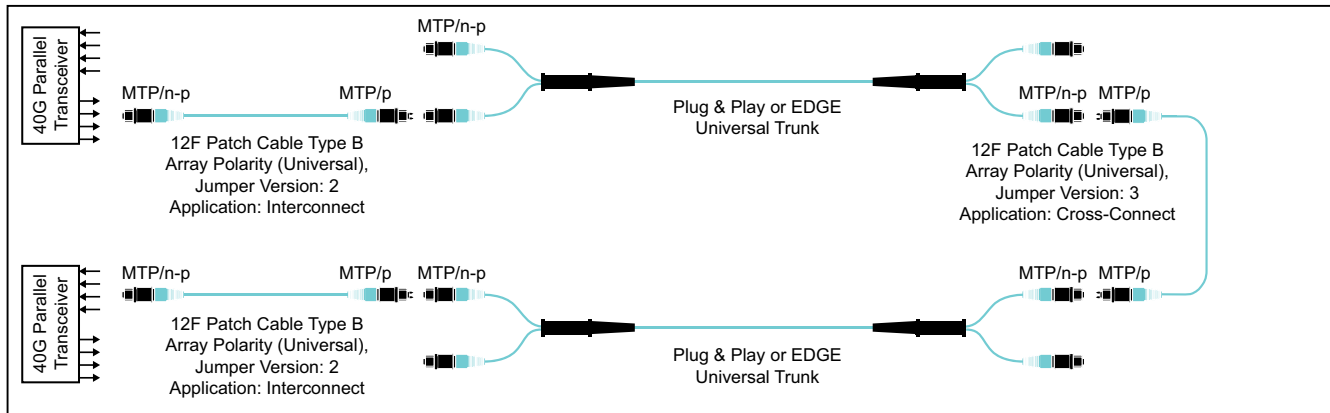
### Application: Direct-Connect



### Application: Interconnect



### Application: Interconnect and Cross-Connect



### MTP® Patch Cable for Parallel Optic Applications

EDGE™ multimode patch cables allow for the seamless migration to higher data rates in the data centre when used in conjunction with our universal trunks. This patch cable is based around pinned or non-pinned 12-fibre MTP® connectors. Pictured here are the most common applications for this type of patch cable to make ordering easier. All listed patch cables have a TIA-568 Type-B polarity.

#### Which polarity and configuration MTP patch cable do I need for my 40 Gigabit network?

- When deploying MTP patch cable, the following applications and scenarios should be considered:
- Direct-connect: Connection between active parallel optic devices
  - Interconnect: Connection from device to patch panel
  - Cross-connect: Connection from patch panel to patch panel



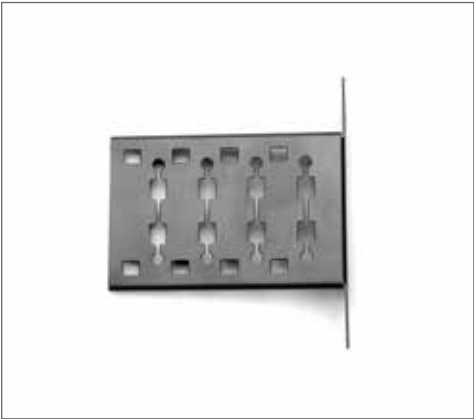
Patch Cable Type	Application	Pin Option	To be Used with Trunk	Patch Cable Polarity
1	Direct-connect	Without pins – without pins	Type B (Universal)	
2	Interconnect	With pins – without pins	Type B (Universal)	Type B (Universal)
3	Cross-connect	With pins – with pins	Type B (Universal)	Type B (Universal)

Fibre Type	OM3	OM4	OS2	Fibre Type
Cable Colour	Aqua	Aqua	Yellow	Cable Colour
Patch Cable Type	Catalogue Number	Catalogue Number	Catalogue Number	Length
1	J757512TEZ-NBxxxM	J757512QEZ-NBxxxM	J909012GEZ-NBxxxM	1 up to 20 m
2	J759312TEZ-NBxxxM	J759312QEZ-NBxxxM	J899012GEZ-NBxxxM	1 up to 20 m
3	J939312TEZ-NBxxxM	J939312QEZ-NBxxxM	J898912GEZ-NBxxxM	1 up to 20 m

*\*Select the patch cable length (tip-to-tip): replace NBxxxM to NB001M for 1 m up to NB020M for 20 m  
Patch cables can be ordered in 0.5 m increments*



EDGE™ Accessories



Description	Description	Description
EDGE™ Solutions Strain-Relief Bracket, CDF, accommodating four EDGE solutions clip	Single-Fibre Port Cleaner for LC, keyed LC and MU connector end faces for both UPC and APC polishes	Fibre Optic Cleaning Tool for MTP® connectors
Catalogue Number	Catalogue Number	Catalogue Number
EDGE-CDF-RJ04-BKT	CLEANER-PORT-LC	2104466-01
Units Per Delivery	Units Per Delivery	Units Per Delivery
1/1	1/1	1/1



# Plug & Play™ Systems Contents

PCH Plug & Play™ Housings. . . . .	39
Plug & Play Trunks. . . . .	40
Plug & Play Universal Modules . . . . .	41
Duplex Patch Cables . . . . .	42
Plug & Play Adapter Panels. . . . .	43
Plug & Play Trunk Harness MTP® (with pins) to 6x LC Duplex . . . . .	44
Plug & Play MTP Patch Cable for Parallel Optic Applications. . . . .	45
Standard Plug & Play Accessories . . . . .	47

## Plug & Play™ Systems

This is an overview of the Plug & Play™ systems, but not all products are listed in the core catalogue. If you want to know more, please refer to the Plug & Play family spec sheet.



Plug & Play to  
EDGE™ Adapter Bracket



Plug & Play Fibre Zone Box



Plug & Play FSS Download



Systems Accessory Bracket



U-Clip Strain-Relief Bracket



Hybrid Connector Trunks



Plug & Play Modules



MTP® Trunks



Plug & Play Adapter Panel



MTP High-Fibre-Count Trunks



LC Connector Patch Cables



Plug & Play Harness



MTP Connector Patch Cables





Integrated Trunk Modules

## PCH Plug & Play™ Housings

PCH Plug & Play™ housings mount in 19-in racks or cabinets and provide industry-leading density when combined with Plug & Play modules, panels, harnesses, trunks, and patch cables. The housings enable quick deployment of the module or panel in the housing. The PCH-M3-01U contains a sliding drawer with integrated patch cable protection and a labelling element on the rear side of the front door. The PCH-04U housing contains an integral hinged patch cable manager on the front which can be locked in the “up” position for an additional 1U of horizontal patch cable management or left in the default “down” position to provide additional capacity for patch cable routing along the top of the housing. Mounting and removal of trunks in both housings is a simple, quick, and tool-less operation enabling rapid deployment. Additional mounting brackets for trunks are shown on the accessory page.



PCH Plug & Play Housings				
Description	Maximum Capacity Plug & Play Module	Maximum Capacity MTP* Panel (Base-12)	Catalogue Number	
19-in 4U Plug & Play Housing for up to 12 Plug & Play modules or CCHE adapter panels	144 x LC Duplex Ports (288 fibre)	144 x MTP Ports (1,728 fibre)	PCH-04U	
19-in 1U Plug & Play Housing for up to 3 Plug & Play modules or CCHE adapter panels	36 x LC Duplex Ports (72 fibre)	36 x MTP Ports (432 fibre)	PCH-M3-01U	

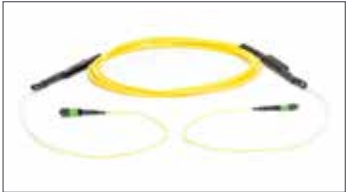
### Plug & Play™ Trunks

Plug & Play™ MTP® trunks are pre-terminated cables with 12-fibre MTP connectors on either side. The trunks build up the major skeleton of the passive network infrastructure, and thanks to the superior design including Corning® ClearCurve® fibres, they enable rapid deployment for your campus LAN or data centre facility. All trunks are shipped with strain-relief clips that allow for the tool-less installation in PCH Plug & Play systems housings.

#### Ordering Example:

A696924TDZAA023M

*24-fibre MTP-MTP OM3 Plug & Play trunk with universal polarity, 600 mm legs on both ends. 23 m long, pulling grip on End A outside the drum, and protective grip on End B.*



Plug & Play Trunks			
Fibre Type	OM3	OM4	OS2
Cable Colour	Aqua	Aqua	Yellow
Fibre Count	Catalogue Number	Catalogue Number	Catalogue Number
12	A696912TDZAAUYYM	A696912QDZAAUYYM	A909012RDZAAUYYM
24	A696924TDZAAUYYM	A696924QDZAAUYYM	A909024RDZAAUYYM
48	A696948TUZAAUYYM	A696948QUZAAUYYM	On request
72	A696972TUZAAUYYM	A696972QUZAAUYYM	On request
96	A696996TUZAAUYYM	A696996QUZAAUYYM	On request
144	A6969E4TUZAAUYYM	A6969E4QUZAAUYYM	A9090E4RDZAAUYYM

*\*Select the trunk's length (plug-to-plug): replace YYY with 001 to 999; M = metre  
The first letter of the part code denotes the pulling grip type: A = grip on first end, B = grip on both ends, N = no grip*

## Plug & Play™ Universal Modules

Plug & Play™ modules provide the interface between the MTP® connector on the trunk and the LC duplex patch cables that connect directly into the electronics or as a cross-connect in the main distribution area (MDA). The internal wiring based on universal polarity ensures the correct fibre polarity throughout the entire system independent of how many modules are implemented within the link. Specially designed indents in the shutters ensure that the end faces of the connectors are never touched. In addition, the shutters are visual fault locator (VFL) compatible allowing easy port identification whilst defusing the VFL light to provide adequate eye safety.

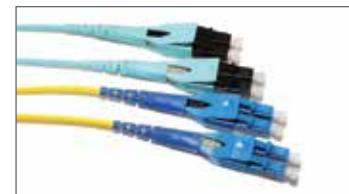


Plug & Play Universal Modules				
Fibre Type	OM3	OM4	OM2	Fibre Type
Connector Type	Catalogue Number	Catalogue Number	Catalogue Number	Adapter Colour Front
PC	CCH-UM24-05-93T	CCH-UM24-05-93Q	–	Aqua
UPC	–	–	CCH-UM24-04-89R	Blue



## Duplex Patch Cables

Reverse polarity uniboot duplex patch cables allow for the quick and easy conversion from a TIA-568 A-B polarity to a TIA-568 A-A polarity without exposing the fibres or needing any tools. This patch cable comes with a straight-through polarity from the factory, but you can convert it to a flipped cable with no tools. This uniboot design allows one cable to carry both fibres, reducing the cable bulk when routing.

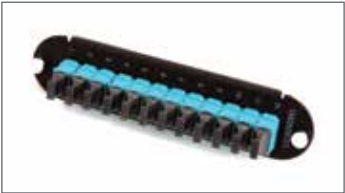


LSZH™ LC Duplex to LC Duplex Uniboot Patch Cable with Reverse Fibre Polarity Option				
	Polarity	Application	Connector	Connector
	Pairwise Flipped	All	LC Duplex Uniboot	LC Duplex Uniboot
Fibre Type	OM3	OM4	OS2	Fibre Type
Cable Colour	Aqua	Aqua	Yellow	Cable Colour
Connector Type	Catalogue Number	Catalogue Number	Catalogue Number	Connector Colour
PC	E797902TNZ20xxxM	E797902QNZ20xxxM		Aqua
UPC			E787802GNZ20xxxM	Blue
LSZH SC Duplex to LC Duplex Uniboot Patch Cable with Reverse Fibre Polarity Option				
	Pairwise Flipped	All	SC Duplex	LC Duplex Uniboot
Fibre Type	OM3	OM4	OS2	Fibre Type
Cable Colour	Aqua	Aqua	Yellow	Cable Colour
Connector Type	Catalogue Number	Catalogue Number	Catalogue Number	Connector Colour
PC	577902TNZ20xxxM	577902QNZ20xxxM		Aqua
UPC			727802GNZ20xxxM	Blue

*\*Select the patch cable length (tip-to-tip): replace NZ20xxxM to NZ20001M for 1 m up to NZ20020M for 20 m  
Patch cables can be ordered in 0.5 m increments*

## Plug & Play™ Adapter Panels

Plug & Play™ adapter panels are a pass-through patch panel with a single row of MTP® adapters. The backbone trunks connect at the rear of the adapters, and then various options are possible at the front, from end-to-end links with patch cable or harness solutions, or as a cross-connect used in MDA. The MTP adapter panel is a simple way to implement parallel optic applications in your data centre whilst retaining the existing hardware. All Plug & Play adapter panels can be installed from the front or the rear of any Plug & Play hardware using a simple release mechanism, negating the need for any specialised tools.

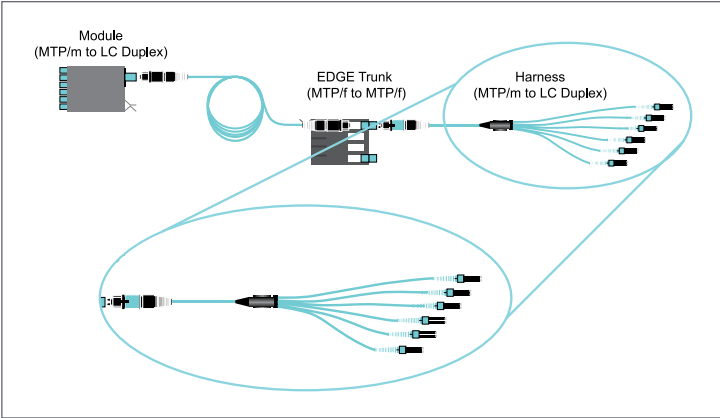


Plug & Play Adapter Panels			
Fibre Type	OM3	OM4	OM2
Connector Type	Catalogue Number	Catalogue Number	Catalogue Number
6x MTP	CCHE-CP72-E3	CCHE-CP72-E3	CCHE-CP72-89
8x MTP	CCHE-CP96-E3	CCHE-CP96-E3	CCHE-CP96-89
12x MTP	CCHE-CPE4-E3	CCHE-CPE4-E3	CCHE-CPE4-89
12 LC Duplex	CCHE-CP24-E4	CCHE-CP24-E4	CCHE-CP24-04

Plug & Play™ Trunk Harness MTP® (with pins)  
to 6x LC Duplex

The Plug & Play™ trunk harness is designed to facilitate an interconnect point when the electronics are located in a separate area from the cross-connect or patching field. The harness comes with duplex LC connectors to interface with the electronics and a pinned MTP® connector to connect into a trunk. This can be used in an equipment distribution area (EDA).

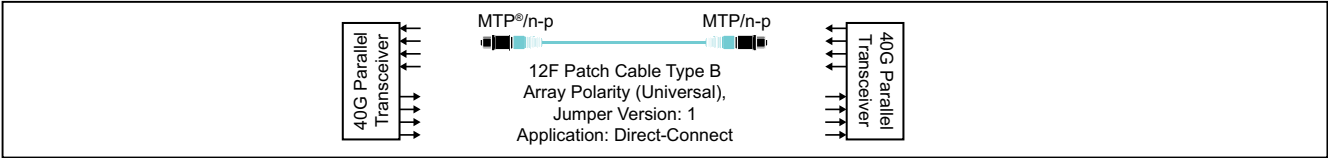
For polarity guidance, please refer to AEN 156.  
For stagger selection, please refer to AEN 157.



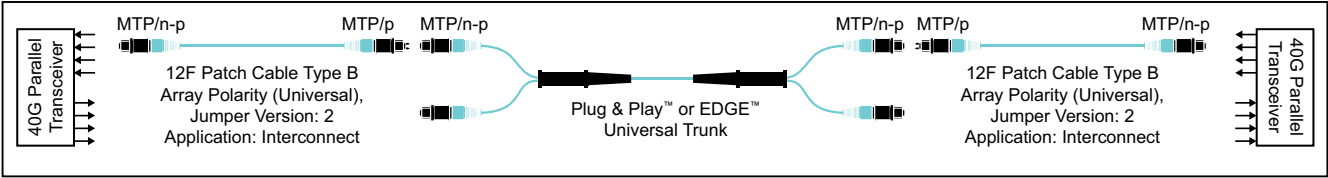
Fibre Type	OM3	OM4	OS2
Cable Colour	Aqua	Aqua	Yellow
Stagger Type	Catalogue Number	Catalogue Number	Catalogue Number
1	H937912TLZ-1Axxx.xM	H937912QLZ-1Axxx.xM	H937912GLZ-1Axxx.xM
2	H937912TLZ-2Axxx.xM	H937912QLZ-2Axxx.xM	H937912GLZ-2Axxx.xM
3	H937912TLZ-3Axxx.xM	H937912QLZ-3Axxx.xM	H937912GLZ-3Axxx.xM
4	H937912TLZ-4Axxx.xM	H937912QLZ-4Axxx.xM	H937912GLZ-4Axxx.xM
5	H937912TLZ-5Axxx.xM	H937912QLZ-5Axxx.xM	H937912GLZ-5Axxx.xM

\*Select the harness length (tip-to-tip): replace xxx.x with 000.5-025.5; M = metre  
Harnesses can be ordered in 0.5 m increments

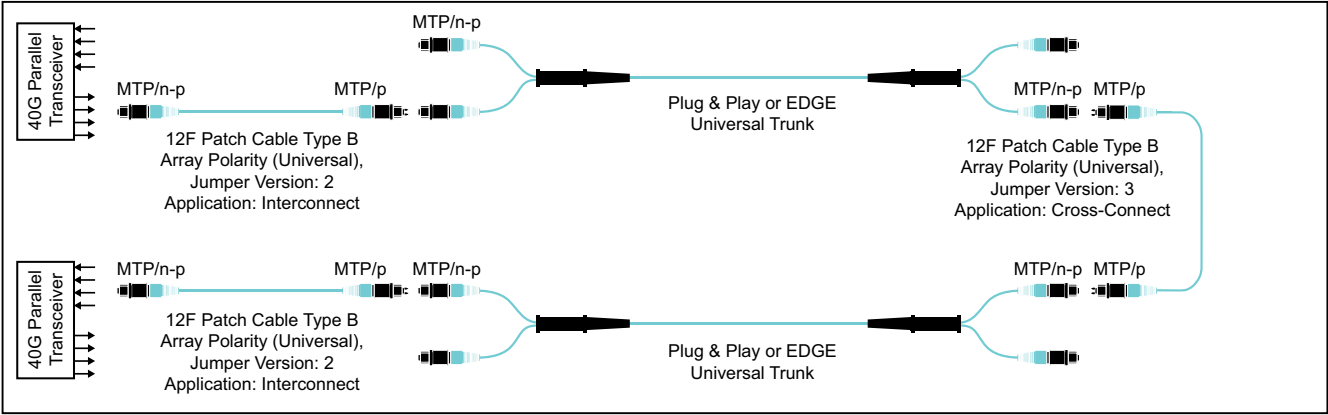
Application: Direct-Connect



Application: Interconnect



Application: Interconnect and Cross-Connect



## MTP® Patch Cable for Parallel Optic Applications

Multimode patch cables allow for the seamless migration to higher data rates in the data centre when used in conjunction with our universal trunks. This patch cable is based around pinned or non-pinned 12-fibre MTP® connectors. Pictured here are the most common applications for this type of patch cable to make ordering easier. All listed patch cables have a TIA-568 Type-B polarity.

### Which polarity and configuration MTP patch cable do I need for my 40 Gigabit network?

When deploying an MTP patch cable, the following applications and scenarios should be considered:

- Direct-connect: Connection between active parallel optic devices
- Interconnect: Connection from device to patch panel
- Cross-connect: Connection from patch panel to patch panel



Patch Cable Type	Application	Pin Option	To be Used with Trunk	Patch Cable Polarity
1	Direct-connect	Without pins – without pins	Type B (Universal)	
2	Interconnect	With pins – without pins	Type B (Universal)	Type B (Universal)
3	Cross-connect	With pins – with pins	Type B (Universal)	Type B (Universal)

Fibre Type	OM3	OM4	OS2	Fibre Type
Cable Colour	Aqua	Aqua	Yellow	Cable Colour
Patch Cable Type	Catalogue Number	Catalogue Number	Catalogue Number	Length
1	J757512TEZ-NBxxxM	J757512QEZ-NBxxxM	J909012GEZ-NBxxxM	1 up to 20 m
2	J759312TEZ-NBxxxM	J759312QEZ-NBxxxM	J899012GEZ-NBxxxM	1 up to 20 m
3	J939312TEZ-NBxxxM	J939312QEZ-NBxxxM	J898912GEZ-NBxxxM	1 up to 20 m

*\*Select the patch cable length (tip-to-tip): replace NBxxxM to NB001M for 1 m up to NB020M for 20 m  
Patch cables can be ordered in 0.5 m increments*

# Standard Plug & Play™ Accessories



Description	Description	Description
Plug & Play™ Solutions Bracket for side installation, accommodating up to two CCH-modules or CCHÉ-panels	Single-Fibre Port Cleaner for LC, keyed LC, and MU connector end faces for both UPC and APC polishes	Fibre Optic Cleaning Tool for MTP® connectors
Catalogue Number	Catalogue Number	Catalogue Number
RBC-02P	CLEANER-PORT-LC	2104466-01
Units Per Delivery	Units Per Delivery	Units Per Delivery
1/1	1/1	1/1



Description	Description	Description
Plug & Play Solutions Strain-Relief Bracket for PCH-4U housings, accommodating up to three Plug & Play solutions clips	Plug & Play Solutions Strain-Relief Bracket, accommodating up to six Plug & Play solutions clips	Plug & Play Solutions Strain-Relief Bracket, accommodating one Plug & Play solutions clip
Catalogue Number	Catalogue Number	Catalogue Number
PC4-RJ04-STR	CDF-RJ06-BKT	CDF-RJ-BKT
Units Per Delivery	Units Per Delivery	Units Per Delivery
1/1	1/1	1/1



# EDGE™ Solutions and Plug & Play™ Systems Online Test Results

To view test reports for your Plug & Play™ universal systems and EDGE™ solutions equipment, please visit:  
<https://customer3.corning.com/ftoedge/default.aspx>  
Simply follow the instructions as shown on the screen shot below.

CORNING

## Fibre Test and Orientation Reporting

To view test reports of Plug & Play™ universal systems and EDGE™ solutions modules, trunks, harnesses, and uniboot jumpers:

- 1. Locate the serial number on the product. To see where this is located, click [here](#).
- 2. Type the serial number in the search bar and click Search. Your report will be provided in PDF format.
- 3. Having problems finding your results? Try these [troubleshooting tips](#).

Serial Number:

Search

Reset

# Transmission Performance/Insertion Loss

	OM3/OM4	OS2
Optical Fibre Type (µm)	50 Multimode	Single-mode
Wavelength (nm)	850	1310/1550
Maximum Attenuation (dB/km)	2.8	0.4/0.3
Minimum Effective Modal Bandwidth (EMB) (MHz•km)	2000/4700	–/–

Maximum Insertion Loss (dB) for Connector Pairs	LC	MTP®
OM3/OM4 EDGE™ and Plug & Play™	0.15	0.35
OM3/OM4 EDGE8™ and EDGE ULL	0.10	0.25
OS2 EDGE and Plug & Play	0.50	0.75
OS2 EDGE8 and EDGE ULL	0.25	0.35

Ethernet Data Rate	Nomenclature	Fibre Type	Maximum Channel Insertion Loss (dB)	Maximum Link Length (m)
1G	1000BASE-SX	OM3	4.5	1000
10G	10GBASE-SR	OM3/OM4	2.6/2.34	300/550
40G	40GBASE-SR4	OM3/OM4	1.9/1.5	100/150
100G	100GBASE-SR10	OM3/OM4	1.9/1.5	100/150

Fibre Channel Data Rate	Nomenclature	Fibre Type	Maximum Channel Insertion Loss (dB)	Maximum Link Length (m)
4 Gb/s	400-M5E-SN-1	OM3	2.88	380
	400-M5F-SN-1	OM4	3.02	420
8 Gb/s	800-M5E-SN-1	OM3	2.19	150
	800-M5F-SN-1	OM4	2.22	190
16 Gb/s	1600-M5E-SN-1	OM3	1.95	100
	1600-M5F-SN-1	OM4	1.97	125

# Fibre Channel and Ethernet Derating Tables

4G, 8G, 10G, and 16G Fibre Channel Distance Capability and Channel Insertion Loss 12 Fibre MTP* Connectivity						
Corning Fibre Solutions	Data Rate Gb/s	Number of MTP* Connections Distance (m)/Channel Insertion Loss (dB)				
		2	3	4	5	6
Laser-Optimised 50/125 µm OM3	4	500/2.26	480/2.45	460/2.47	440/2.62	420/2.78
	8	215/1.40	205/1.62	195/1.71	185/1.86	175/2.03
	10*	320/3.45	320/3.45	320/3.45	320/3.01	320/3.01
	16	140/1.17	135/1.35	120/1.54	115/1.65	110/1.81
	32	85/1.33	85/1.33	85/1.33	85/1.33	80/1.57
Laser-Optimised 50/125 µm OM4	4	600/2.64	580/2.78	560/2.76	540/2.88	520/3.00
	8	270/1.59	265/1.73	245/1.85	235/2.00	225/2.14
	10*	485/2.45	485/2.45	475/2.52	470/2.89	470/2.89
	16	190/1.31	180/1.49	165/1.62	155/1.78	145/1.93
	32	135/1.00	130/1.18	125/1.37	120/1.54	120/1.54

1G, 10G, 40G, and 100G Ethernet Distance Capability and Channel Insertion Loss 12 Fibre MTP Connectivity						
Corning Fibre Solutions	Data Rate Gb/s	Number of MTP Connections Distance (m)/Channel Insertion Loss (dB)				
		2	3	4	5	6
Laser-Optimised 50/125 µm OM3	1	1100/4.14	1000/4.68	1000/4.68	1000/4.68	950/4.89
	10*	320/3.45	320/3.45	320/3.45	320/3.01	320/3.01
	40/100†	145/1.00	140/1.16	130/1.38	125/1.51	125/1.51
	100‡	85/1.48	85/1.45	85/1.40	85/1.38	80/1.64
Laser-Optimised 50/125 µm OM4	1	1100/4.51	1100/4.51	1050/4.76	1050/4.76	1000/4.97
	10*	485/2.45	485/2.45	475/2.52	470/2.89	470/2.89
	40/100†	195/1.07	185/1.29	170/1.50	150/1.54	145/1.62
	100‡	135/1.09	130/1.29	125/1.46	125/1.46	120/1.61

\*Assume 10GBASE-SR SFP+ compliant transceivers

†802.3ba 100G 10G/lane

‡802.3bm 100G 25G/lane

# FutureCom™ EA Plug & Play™ Systems



For quick access to the products that can transform  
your data centre, download a complete list of  
our data centre core products.

<http://www.corning.com/emea/dcproducts>





# FutureCom™ EA Plug & Play™ Systems Contents

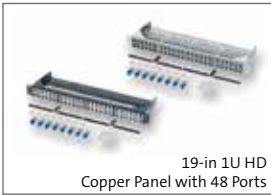
FutureCom™ EA Panels . . . . .	54
FutureCom EA Plug & Play™ Systems . . . . .	55
FutureCom EA Modules. . . . .	56
FutureCom EA Cables . . . . .	57
FutureCom EA Patch Cables . . . . .	58
Copper Cable Management, Tools, and Consumables . . . . .	59

# FutureCom™ EA Plug & Play™ Systems

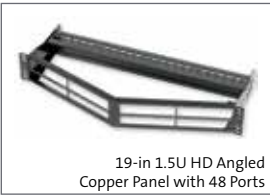
This is an overview of the FutureCom™ EA Plug & Play™ systems, but not all products are listed in the core catalogue. To learn more, please refer to the FutureCom Plug & Play website.



19-in 1U Copper Panel with 24 Ports



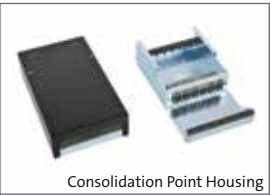
19-in 1U HD Copper Panel with 48 Ports



19-in 1.5U HD Angled Copper Panel with 48 Ports



Accessories for HD Angled Copper Panel



Consolidation Point Housing



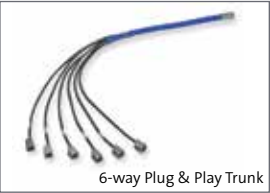
Shielded Copper Modules



Shielded Patch Cables



Shielded Copper Cables



6-way Plug & Play Trunk



CP Patch Cables



12-way Multiport Clamp



12-way Switch Port Cables with Clamp



16-way Multiport Clamp

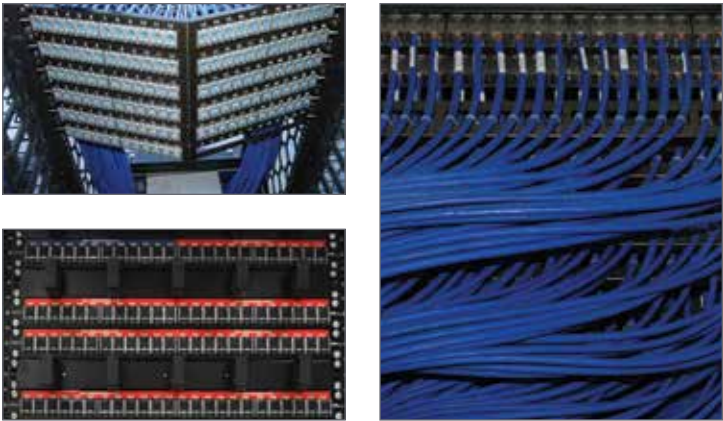


6-way CP Patch Cables



## FutureCom™ EA Panels

FutureCom™ EA patch panels are universal for all 19-in cabinet installations. They are available in black or stainless steel and are intended for flush-mounting installations. This concept allows a high-density solution for the application of choice in your data centre. Installation of the module in the panel is quick and easy and simply clicks into place.



Data Centre Hardware				
Description	Colour	Maximum Capacity	Rack Units	Catalogue Number
19-in LANscape® Solutions Panel, empty	Silver	24 x slots	1U	WAXWSV-02400-C001
19-in LANscape Solutions Panel, empty	Black	24 x slots	1U	WAXWSV-02408-C001
19-in Angled LANscape Solutions Panel, empty	Silver	24 x slots	1U	WAXWOV-02400-C001
19-in Angled LANscape Solutions Panel, empty	Black	24 x slots	1U	WAXWOV-02408-C001
19-in High-density LANscape Solutions Panel, empty	Silver	48 x slots	1U	CAXASV-04800-C001
19-in High-density LANscape Solutions Panel, empty	Black	48 x slots	1U	CAXASV-04808-C001
19-in High-density Angled LANscape Solutions Panel, empty	Silver	48 x slots	1,5U	WAXWOV-04800-C001
19-in High-density Angled LANscape Solutions Panel, empty	Black	48 x slots	1,5U	WAXWOV-04808-C001



## FutureCom™ EA Plug & Play™ Systems

The FutureCom™ EA Plug & Play™ cabling systems are terminated with modules or connectors and is specified for applications up to 500 MHz. The combination of high-end copper cable with pre-terminated connectivity provides high-system margins for the complete cable link according to Class EA. The advantages of a preassembled system cable include reduced assembly costs, reduced installation time, the elimination of assembly mistakes, and consistent high quality.







FutureCom EA 6-Way Plug & Play Trunks							
Solution	Links	Catalogue Number	Description	Core Characteristics	Side A	Side B	Category
EA Trunk	6	CCAADA-F2673-AXXX-C0	FutureCom EA Plug & Play Solution, Cat. 6 <sub>A</sub>	FRNC	S500	S500	6 <sub>A</sub>
Example	6	CCAADA-F2673-A150-C0	FutureCom EA, 6-way, Cat. 6 <sub>A</sub> , Plug & Play, trunk. 6 x 4 pair with overall LSZH™ sheath, both ends terminated with S500 Cat. 6 <sub>A</sub> modules, 15 m long	Highest flexibility Smallest diameter Lowest fire rate			
EA Trunk	6	CCAADB-F2673-AXXX-EN	FutureCom EA Plug & Play Solution, Cat. 6 <sub>A</sub>	FRNC	S500	S500	6 <sub>A</sub>
Example	6	CCAADB-F2673-A150-EN	FutureCom EA, 6-way, S/FTP, Cat. 6 <sub>A</sub> , Plug & Play trunk. 6 x 4 pair S/FTP individual cables bound with overall nylon yarn, both ends terminated with S500 Cat. 6 <sub>A</sub> modules, 15 m long	Good flexibility Small diameter Low fire rate			

FutureCom EA Simplex Plug & Play Trunks							
Solution	Links	Catalogue Number	Description	Core Characteristics	Side A	Side B	Category
EA Trunk	1	CCAADB-F2073-AXXX-C0	FutureCom EA Plug & Play Solution, Cat. 6 <sub>A</sub>	FRNC	S500	S500	6 <sub>A</sub>
Example	1	CCAADB-F2073-A150-C0	FutureCom EA, simplex, S/FTP, Cat. 6 <sub>A</sub> , Plug & Play trunk. Single S/FTP, both ends terminated with S500 Cat. 6 <sub>A</sub> modules, 15 m long	Good flexibility Low fire rate			
EA Trunk	1	CCAAGB-F1072-AXXX-C0	FutureCom EA Plug & Play Solution, Cat. 6 <sub>A</sub>	FRNC	S500	S500	6 <sub>A</sub>
Example	1	CCAAGB-F1072-A050-C0	FutureCom EA, simplex, flex S/FTP, Cat. 6 <sub>A</sub> , Plug & Play trunk. Single flex S/FTP cable (high-flexibility patch cable), one end terminated with an S500 Cat. 6 <sub>A</sub> module and the other with an RJ45 jack	High flexibility Low fire rate			

FutureCom™ EA Modules

The FutureCom™ EA cabling solution is based on the S500 module offering high-system margins for the transmission of digital data signals, compliant with Class EA and is fully supported by power-over-Ethernet Plus (PoE+). The integrated, flexible dust cover may be easily removed, if desired, and serves as protection for unused ports. Different cable routing for various installation challenges is possible with the variable cable entry for 0 degrees and 90 degrees.






Copper Termination Modules					
Solution	Type	Description	Category	Catalogue Number	
FutureCom EA	S500	Corning FutureCom EA S500 Cat. 6 <sub>A</sub> Module, 1 x RJ45 Cat. 6 <sub>A</sub> , shielded, with dust cover, LANscape® solutions footprint	6 <sub>A</sub>	CAXASM-00104-C001	
FutureCom EA	S500	Corning FutureCom EA S500 Cat. 6 <sub>A</sub> Flex Module, 1 x RJ45 Cat. 6 <sub>A</sub> , shielded, with dust cover, for flex cable, LANscape solutions footprint	6 <sub>A</sub>	CAXASM-00104-C002	
FutureCom EA	S500	Corning FutureCom EA S500 Cat. 6 <sub>A</sub> Keystone Module, 1 x RJ45 Cat. 6 <sub>A</sub> , shielded, with dust cover, Keystone footprint	6 <sub>A</sub>	CAXBSM-00104-C001	
FutureCom EA	S500	Corning FutureCom EA S500 Cat. 6 <sub>A</sub> Keystone Flex Module, 1 x RJ45 Cat. 6 <sub>A</sub> , shielded, with dust cover, for flex cable, Keystone footprint	6 <sub>A</sub>	CAXBSM-00104-C002	

## FutureCom™ EA Cables

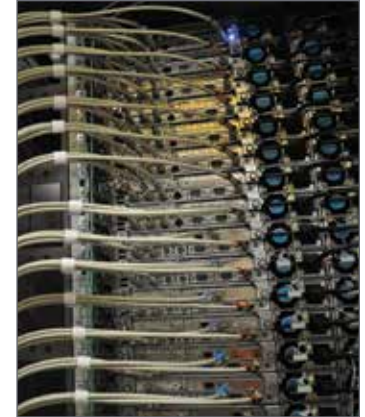
FutureCom™ EA cables are low-skew products, i.e. the difference in propagation delay between the individual pairs is very low. This is increasingly being requested for 1/10 Gigabit Ethernet. The suitability of the cable for high-bit-rate transmission systems ensures a high degree of future readiness. Additional features are the slim design and low weight of the cables. Each pair is individually shielded with foil (foil twisted pair – FTP).



Data Centre Cable					
Solution	Type	Description	Reel Length	Category	Catalogue Number
FutureCom EA	S/FTP	FutureCom EA, S/FTP 550/23, LSOH-3 cable: 550 MHz, AWG 23, 4 pairs, blue, FRNC	1000 m	6 <sub>A</sub>	CCXEDR-D0047-C003-L7 
FutureCom F	S/FTP	FutureCom F, S/FTP 800/23, LSOH-3 cable: 800 MHz, AWG 23, 4 pairs, blue, FRNC	1000 m	7	CCXEDB-F0047-C001-L7 
FutureCom FA	S/FTP	FutureCom FA, S/FTP 1200/22, LSOH-3 cable: 1200 MHz, AWG 22, 4 pairs, blue, FRNC	1000 m	8	CCXFCB-L0047-C001-L7 

## FutureCom™ EA Patch Cables

The FutureCom™ EA S/FTP flex/26 patch cable is terminated with IEC 60603-7-51 standards-compliant RJ45 connectors. The patch cables are designed for the transmission of digital data signals, including future applications in 10GbE systems compliant with Class EA (ISO/IEC 11801 AMD: 1 2008 & AMD: 2 2010), Cat. 6<sub>A</sub> (ANSI/TIA/EIA 568B.2-10) and IEEE 802.3an standards. The patch cables support power-over-Ethernet (PoE) applications in compliance with IEEE 802.3af (2003) and power-over-Ethernet plus (PoE+).

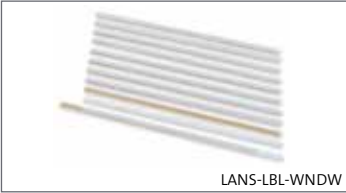


Data Centre Copper Patch Cables: Cat. 6<sub>A</sub>

Performance		Colours		Lengths						Description	Catalogue Number
Class E	Class EA	Grey	Blue	1 m	2 m	3 m	4 m	5 m	10 m		
				✓						1 m Cat. 6 <sub>A</sub> Shielded Copper Patch Cable (RJ45-RJ45), grey	CCAAGB-G1002-A010-C0
					✓					2 m Cat. 6 <sub>A</sub> Shielded Copper Patch Cable (RJ45-RJ45), grey	CCAAGB-G1002-A020-C0
						✓				3 m Cat. 6 <sub>A</sub> Shielded Copper Patch Cable (RJ45-RJ45), grey	CCAAGB-G1002-A030-C0
							✓			4 m Cat. 6 <sub>A</sub> Shielded Copper Patch Cable (RJ45-RJ45), grey	CCAAGB-G1002-A040-C0
								✓		5 m Cat. 6 <sub>A</sub> Shielded Copper Patch Cable (RJ45-RJ45), grey	CCAAGB-G1002-A050-C0
									✓	10 m Cat. 6 <sub>A</sub> Shielded Copper Patch Cable (RJ45-RJ45), grey	CCAAGB-G1002-A100-C0
			✓	✓						1 m Cat. 6 <sub>A</sub> Shielded Copper Patch Cable (RJ45-RJ45), blue	CCAAGB-G2002-A010-C0
					✓					2 m Cat. 6 <sub>A</sub> Shielded Copper Patch Cable (RJ45-RJ45), blue	CCAAGB-G2002-A020-C0
						✓				3 m Cat. 6 <sub>A</sub> Shielded Copper Patch Cable (RJ45-RJ45), blue	CCAAGB-G2002-A030-C0
							✓			4 m Cat. 6 <sub>A</sub> Shielded Copper Patch Cable (RJ45-RJ45), blue	CCAAGB-G2002-A040-C0
								✓		5 m Cat. 6 <sub>A</sub> Shielded Copper Patch Cable (RJ45-RJ45), blue	CCAAGB-G2002-A050-C0
									✓	10 m Cat. 6 <sub>A</sub> Shielded Copper Patch Cable (RJ45-RJ45), blue	CCAAGB-G2002-A100-C0

\*Additional colours and lengths available upon request

# Copper Cable Management, Tools, and Consumables



Copper Cable Management		
Description	Catalogue Number	
1U Patch Cable Management Panel, black	WAXWSW-00008-C007	✓
1U Patch Cable Guides (left and right), black	WAXWSW-00008-C006	
1.5U Patch Cable Guides (left and right), black	WAXWSW-00008-C010	
1U Patch Cable Management Panel, silver	WAXWSW-00000-C007	✓
1U Patch Cable Guides (left and right), silver	WAXWSW-00000-C006	
1.5U Patch Cable Guides (left and right), silver	WAXWSW-00000-C010	
Self-Adhesive Labeling Windows, including paper strips (pack of 10)	LANS-LBL-WNDW	✓

Copper Tools and Consumables		
Description	Catalogue Number	
Assembly Tool for all FutureCom™ copper jacks	CAXCSN-00000-C010	✓
Copper Conducting Tape (needed for S10TENE/S500 jacks)	CAXCSN-00000-C011	✓
Release Tool For FutureCom modules	CAXCSN-00000-C012	✓
Cable Sheath Cutting Tool	CAXFSN-00000-C001	✓



# Resources



[Seminars](#)

[Training](#)

[Support](#)

[Videos](#)





# Tools and Resources

UniCam® Connector Technology Field  
Installation/Termination Methods  
[www.corning.com/unicam](http://www.corning.com/unicam)

On-Demand Installation Videos  
[www.corning.com/opcomm/videos](http://www.corning.com/opcomm/videos)  
[www.corning.com/opcomm/youtube](http://www.corning.com/opcomm/youtube)

Request to be Contacted by Sales Development  
or Customer Care  
Telephone: 00800 2676 4641  
Email: [cc.emea@corning.com](mailto:cc.emea@corning.com)

Online Resource Library  
[www.corning.com/opcomm/resourcelibrary](http://www.corning.com/opcomm/resourcelibrary)

Events  
[www.corning.com/opcomm/emea](http://www.corning.com/opcomm/emea)

Installers and Distributors  
[www.corning.com/opcomm/emea/npi/](http://www.corning.com/opcomm/emea/npi/)  
[www.corning.com/opcomm/auth/emea/en](http://www.corning.com/opcomm/auth/emea/en)

LANscape® Training  
[www.corning.com/opcomm/landscape/emea/en/](http://www.corning.com/opcomm/landscape/emea/en/)



Are you interested in our catalogue for Local Area Networks Core Products or additional printed copies of this book? Please order here:  
[http://opcomm.corning.com/3Corecatalogueform\\_eng.html](http://opcomm.corning.com/3Corecatalogueform_eng.html)

Would you like to download the PDF of this book?  
[http://csmedia.corning.com/opcomm/Resource\\_Documents/additional\\_information\\_rl/LAN-1459-BEN.pdf](http://csmedia.corning.com/opcomm/Resource_Documents/additional_information_rl/LAN-1459-BEN.pdf)

Telephone: 00800 2676 4641  
Email: [cc.emea@corning.com](mailto:cc.emea@corning.com)  
[www.corning.com/opcomm/emea](http://www.corning.com/opcomm/emea)

Corning Optical Communications GmbH & Co. KG • Leipziger Strasse 121 • 10117 Berlin, GERMANY  
+00 800 2676 4641 • FAX: +49 30 5303 2335 • [www.corning.com/opcomm/emea](http://www.corning.com/opcomm/emea)

Corning Optical Communications reserves the right to improve, enhance, and modify the features and specifications of Corning Optical Communications products without prior notification. A complete listing of the trademarks of Corning Optical Communications is available at [www.corning.com/opcomm/trademarks](http://www.corning.com/opcomm/trademarks). All other trademarks are the properties of their respective owners. Corning Optical Communications is ISO 9001 certified. © 2012, 2016 Corning Optical Communications. All rights reserved. LAN-1459-BEN / January 2016